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The logo for Air University Review features a large, stylized letter 'R' on the left. To its right, the words 'AIR UNIVERSITY' are written in a clean, sans-serif font. Below 'AIR UNIVERSITY', the word 'review' is written in a much larger, bold, black, lowercase sans-serif font.

AIR UNIVERSITY **review**

from the editor's aerie

It is a mark of a professional journal not only to inform in the factual sense but also to serve as a forum of emerging ideas that stretch understanding in new directions or challenge existing concepts. In our lead article, Francis Hoerber undertakes to puncture some of the myths associated with the defense budget. Regarding the competition within the federal budget for defense or social services, he points out that "There is a tendency to forget that the most important social service that a government can do for its people is to keep them alive and free." In a symbolic representation of these ideas, our cover, by Art Editor William DePaola, depicts myths being assaulted by truth.

Donald Clark, a frequent contributor to our pages, introduces an argument counter to the conventional wisdom that nuclear proliferation must be held to a minimum. On the contrary, he indicates in his article "Could We Be Wrong?" that nuclear proliferation may actually improve international stability and the prospects for peace.

In a somewhat related vein, Colonel David Cade suggests that Russian military strategy places decreasing reliance on the use of strategic nuclear forces, which serve as an uncrossable threshold, while at the same time striving for clear superiority in general purpose forces.

"Men are not only determining the goals women should accept but they also determine how women will and should feel and how women will react in various situations" writes Major Patricia Murphy in "What's a Nice Girl Like You Doing in a Place Like This?" Despite her assertion that women have not reached their full potential in a traditionally masculine Air Force, Major Murphy appears to compete quite successfully in this environment. Congratulations are due for her forthcoming promotion to lieutenant colonel—below the zone!

"The old order changeth," and after three years as Editor of the *Review*, Colonel Glenn Wasson has been posted to the western ramparts as Fifth Air Force Director of Information, with offices at Yokota Air Base and Tokyo. We shall continue to draw on his expertise as one of our Advisers, just as we shall rely on the continuing support of old and new contributors to keep the *Review* both viable and vital.



articles

- 2 Myths about the Defense Budget Francis P. Hoerber
- 18 Russian Military Strategy—
A Fresh Look Col. David J. Cade, USAF
- 28 Could We Be Wrong? Donald L. Clark
- 38 Professionalism in Transition:
The Officer Corps in the Age
of Deterrence Lt. Col. Thomas A.
Fabyanic, USAF
- 46 Family Policy in the Armed
Forces: An Assessment Dr. Hamilton I. McCubbin
Ms. Martha A. Marsden
Dr. Kathleen P. Durning
Dr. Edna J. Hunter

departments

AIR FORCE REVIEW

- 58 The Day of the E-3A
Tactical Test Col. Dwayne P. Wright, USAF

IN MY OPINION

- 74 What's a Nice Girl Like
You Doing in a
Place Like This? Maj. Patricia M. Murphy, USAF
- 81 RMS 1977—Encouraging
Management Growth
and Productivity Maj. Barry D. Guyse, USAF

BOOKS AND IDEAS

- 86 A Response to
Human World Order Chaplain, Capt., Russell
L. Osmond, USAF

92 Potpourri

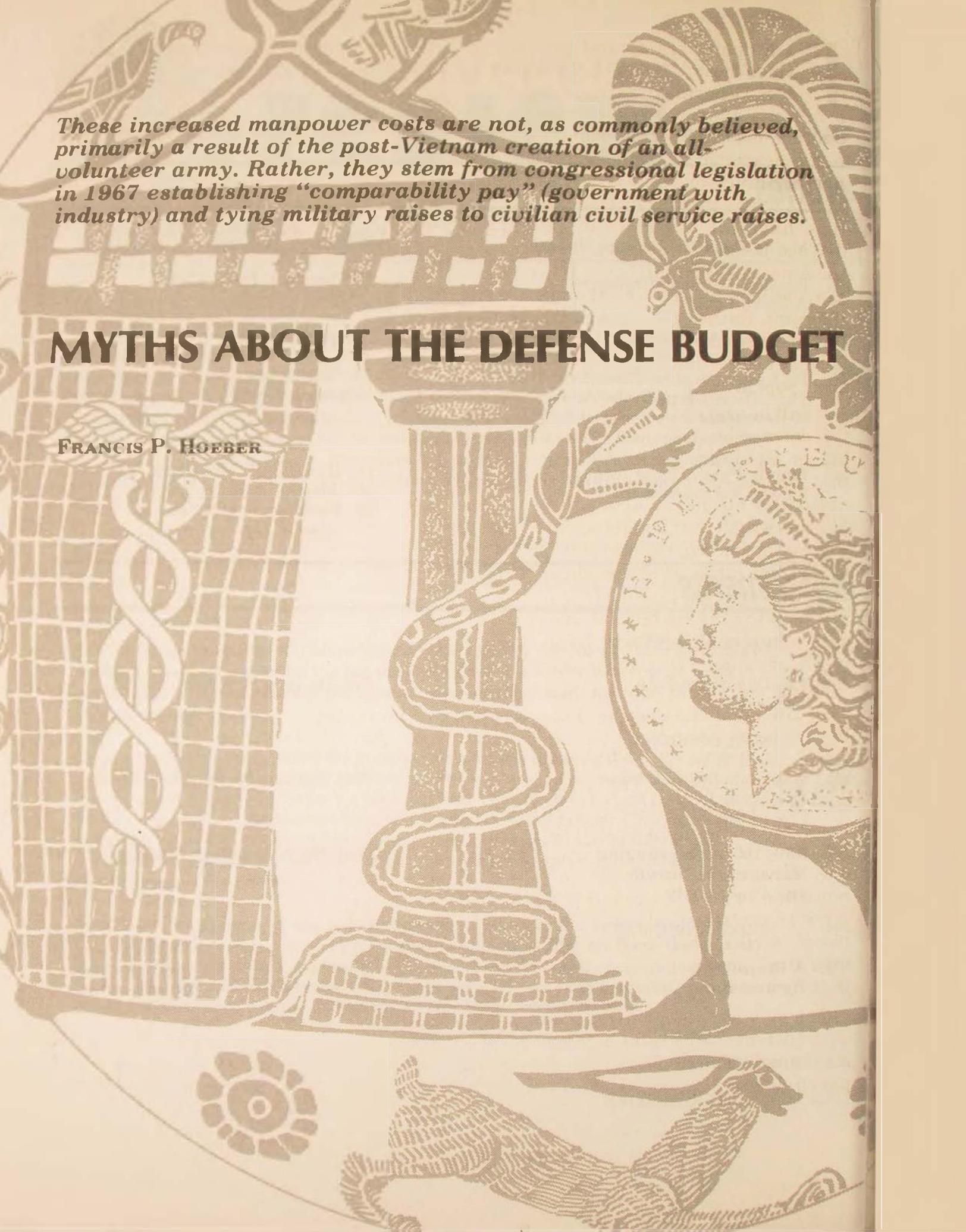
97 Books Received

103 THE CONTRIBUTORS

These increased manpower costs are not, as commonly believed, primarily a result of the post-Vietnam creation of an all-volunteer army. Rather, they stem from congressional legislation in 1967 establishing "comparability pay" (government with industry) and tying military raises to civilian civil service raises.

MYTHS ABOUT THE DEFENSE BUDGET

FRANCIS P. HOEBER



FOR many years, and particularly since the late 1960s, the budget of the U.S. Department of Defense has been a favorite whipping boy of many public opinion leaders in this country—columnists, academics, members of Congress, liberal politicians, and so on. It is the belief of this writer that for little or none of this time have the advocates of cutting the defense budget represented a majority of the American public. It is not, however, the purpose here to debate or attempt to prove the point. Rather, the intent is to examine the premises behind the attacks on the defense budget and some of the reasons for their popularity.

It will be argued that the case for cutting the defense budget—and often for reducing or eliminating specific items within that budget—is based largely on myths about the budget or about the national defense which that budget underwrites. It will be further argued that it is important to expose and analyze these myths because, as in so many areas of human activity, the myths tend to divert public and congressional debate from relevant issues of rational decision-making.

Myths, of course, do not just happen. They are created by people. They start as arguments, assertions, or simply as stories, and it is through repetition that they become myths. The original statements may or may not have been true, but the term “myths” implies that they are not true now. (If they were once true, the facts may have changed during the period of repetition or justification of the evolving myth.) Once statements have become full-blown myths, their easy repetition and uncritical acceptance can become misleading and dangerous.

One may well ask, Why so many myths about defense? Why is the defense budget a scapegoat? The reasons are historical, psychological, political, and complex.

Their explication is beyond the scope of this article; we will content ourselves with a brief listing of some of the contributing factors.

Historically, this nation has been largely isolationist—and blessed with a physical remoteness that permitted it that luxury. Its roots also gave Americans an abhorrence of standing armies and of the strong central power they symbolize.

The aftermath of World War I—virtually a national hangover—and the suffering of the citizens’ army brought a resurgence of isolationist sentiment and the Senate defeat of U.S. membership in the League of Nations, albeit by a “small band of willful men” who prevailed over an ailing president.

The 1920s saw the birth of a genre of antiwar literature (e.g., *All Quiet on the Western Front*, *Good-bye to All That*, *A Farewell to Arms*, etc.) and a theory of the “Merchants of Death”—arms cartels “selling” wars. The 1930s brought economic isolationism, ushered in by the Smoot-Hawley Tariff Act and politicized by disillusion with the Versailles Treaty, tolerance of Hitler, grateful acceptance of “Peace in our time,” and finally America Firsters and opposition to aid to a beleaguered Great Britain.

The shock of Pearl Harbor and the political wizardry of FDR turned World War II into a “popular war,” and at its end the United Nations was hosted and enthusiastically joined, in atonement for the League debacle.

But there was also an initially unpopular president’s use of the atomic bomb, which spawned a generation of guilt-ridden scientists, whose *Bulletin of the Atomic Scientists* and *Federation of American Scientists* have lent an aura of intellectual prestige to the antinuclear arms movement. Two unpopular wars, McCarthyism, and the century-overdue

civil rights progress have added to the ranks of the post-World War II guilt-ridden. The unprecedented necessity for maintaining large standing U.S. forces since Korea has provided a target for the vocal but still minority anti-arms groups. Inflation has fed their arguments and their ranks.

The synthesis of these and other factors into an adequate theory of public opinion on defense is a monumental task that the writer leaves to others. For present purposes, we only note that we can see many motivations for the myth-makers and at the same time that public opinion polls have long and consistently shown large majorities, however diffuse and unvocal, supporting national defense and the necessary spending to provide for it. We examine, therefore, some of the major myths currently prominent in defense budget debates.

*Myth number one:
Defense is nonproductive.*

That defense is nonproductive is the oldest and most basic myth with which we must deal here. In Isaiah's mountain of the Lord's house, nations "shall beat their swords into plowshares, and their spears into pruninghooks." To many of his host of readers, Isaiah seems to imply that swords and spears are nonproductive, but plowshares and pruninghooks are. But Isaiah specifically referred to days to come, when "nation shall not lift up sword against nation, nor shall they learn war anymore." Those days have not come, however, and nation still does lift up sword against nation.

It is a curious and arbitrary distinction that says that defense against the swords of others is not productive, but defense against the elements is. Were the rude cabins of our forefathers productive, but their stockades not? If we must make such

a value judgment, would it not be better to say that Martin Luther's "wine, woman, and song,"¹ or today's "whatever turns you on," are productive, and all the other things that one does—necessary defense against the obstacles that nature *and man* place in the way of one's enjoyment of his discretionary income—are either non-productive or only indirectly productive?

But the point is not whether one or another latter-day interpreter of Isaiah or Martin Luther is semantically correct, but rather that the belief that defense is nonproductive prejudices choices both between defense and nondefense and among alternative defense expenditures or alternative weapon systems. Indeed, if one believes that defense is nonproductive, then one cannot logically invoke cost-effectiveness comparisons in opposing a particular weapon system. The problem is at most that of establishing priorities as to which weapon system to oppose first. To cite a recent example, some of those who opposed the B-1 bomber during the debate of the past two years, invoking the arguments that cruise missiles offered a cheaper, more effective alternative, are now opposing the cruise missile on various grounds, such as that it represents a new step in the arms race, that it raises verification difficulties that jeopardize arms control negotiations, and even that it may be less cost-effective than earlier claimed.²

To deny that arms are nonproductive is not to assert that all arms are productive. There should indeed be rational choices made on the merits of each case. Some arms may not be productive at all in a given environment that includes the weapons and doctrines of potential enemy forces as well as the other weapons and doctrine of the United States. Other weapons may be productive, but less so than some alternatives.

Reciprocally, the theology that non-defense goods and activities, or some subset thereof, are always productive is similarly indefensible, though not necessarily absent in national debate. If one's theology holds that all dams are productive, one may be reluctant to make comparisons among them and may be tempted to vote for every dam that is proposed—and it has been suggested that there is a dam constituency that does just that. The examples are legion. It is a widespread belief that hospitals are good, but the history of the Hill-Burton Act has shown that the building of hospitals can continue to the point where some of the hospitals are nonproductive. Indeed, because competition among hospitals is highly imperfect, empty beds lead to higher per-day charges, and excessive beds are counterproductive. In short, categorical judgments about productivity are not productive of good decision-making.

Myth number one was succinctly rejected by a high British officer of World War II in these words:

It is customary in democratic countries to deplore expenditure on armament as conflicting with the requirements of the social services. There is a tendency to forget that the most important social service that a government can do for its people is to keep them alive and free.¹

*Myth number two:
We must shift our priorities.*

Closely related to the myth of the non-productivity of defense is the slogan of the 1960s: "We must shift our priorities." It has a much more moderate and reasonable sound. It does not deny that defense may have utility but simply asserts that we have been spending too much on defense as compared with some other activities. The slogan gained popularity during the Vietnam War, with, it must be added, considerable justification in the eyes of most people today—though not so in the early years of that war. But the slogan also became the call to arms of those opposed to arms, not just the Vietnam War. It is still heard today—although the priorities have long since been dramatically shifted.

Table I shows that the implicit priority of defense has declined in less than two decades to about half that assigned to it in the 1950s. This is true when defense is measured in terms of share of the GNP, of the total federal budget, of all government expenditures, or of the total labor force. Yet, the cry is still heard that "we must shift our priorities."

When the myth was still a statement with elements of validity, the United States had unquestioned strategic nuclear superiority that provided a deterrent to large-scale war and, in particular, to

Table I. Department of Defense budget, as a share of selected national measures

	1957	FY 1964	FY 1968	FY 1977	FY 1978	FY 1979
Department of Defense budget as a share of:						
federal budget (outlays)	55.5%	41.8%	43.3%	23.8%	22.8%	23.0%
gross national product	10.0	8.0	9.3	5.2	5.2	5.1
labor force	NA	8.3	9.9	4.9	4.9	4.9
net public spending	38.3	27.9	29.5	15.6	15.2	15.2

Source: FY 1964 to 1979 from Department of Defense press release, 23 January 1978. 1957 calculated from *Economic Report of the President*, 1977.

violent conflict between the superpowers. Risks of defense budget cutting could therefore be accepted. In contrast, today the U.S. strategic nuclear superiority is gone, and by the 1980s superiority will have swung to the Soviet Union. The author argues elsewhere that this new reality carries grave risks for the security of the United States against coercive diplomacy by the Soviet Union as well as against actual war; he calls for a shifting of priorities back toward defense, where greater expenditures are needed to make up for serious deficiencies accumulated over the last decade-and-a-half.⁴ It is appropriate to add here that the shift in priorities has had much to do with permitting the Soviets to pass the United States in strategic nuclear power.

In the early 1930s, Norman Thomas was fond of pointing out that "the cost of one battleship would pay for five hospitals," reflecting his own priorities. From 1931 to 1933 (if the author recalls the dates correctly), not one hospital was completed in the United States, not because battleships were built but because of a lack of demand during the Depression. Battleships and hospitals were entirely unrelated, except by rhetoric. Even today, the choices are seldom direct. With unemployment hovering between 6 and 7 percent and plant utilization in the neighborhood of 85 percent, an increase in the defense budget would not have to come out of one's favorite social service. An increment of over \$40 billion, if required, could be supported by a cut in unemployment of less than two percentage points.

Myth number three:

The arms race—usually meaning the strategic nuclear arms race—drives the defense budget.

It was noted earlier that national defense is not nonproductive if it serves to provide

national security against external threats. The obvious fact that this statement may appear true to other nations quite naturally gives rise to the view that military preparations are a competition among nations, or at least among the major nations of the world, which today means primarily the two superpowers. The popular metaphor for this competition is that of a race. "Arms race" theory goes back in a formal sense to Lewis Richardson.⁵ The arms race concept has been popular in this country for almost three decades because of several factors.

After World Wars I and II, the United States essentially demobilized. In the first case, the country did not remobilize until after the outbreak of World War II and not in a serious way until after the attack on Pearl Harbor. In contrast, the post-World War II demobilization lasted less than five years.

Demobilization was the most popular activity in our war-weary country in 1946, when the national theme was "bring the boys home," and the GIs still overseas spent this time counting the days they were short. But the Soviet troops were not demobilized then and only gradually in the late 1940s. A chaotic Soviet homeland, needing time to reorganize in order to rebuild and assure jobs, did not need the potential further disruption of several million young men, tired and hungry, returning to who knew what mischief if they did not have jobs and food. Moreover, the continued presence of these armed men in Eastern Europe provided the highly visible power with which to gain and consolidate Soviet hegemony over the Soviet sphere of influence, the satellite buffer states. In Churchill's vivid metaphor, they rang down the Iron Curtain. In 1947, the extension of Soviet hegemony southward was only prevented by the U.S. takeover of the support of Greece and Turkey from the exhausted British under

the Truman Doctrine, with the \$400 million emergency appropriation that preceded the Marshall Plan. In February 1948, the fall of the democratic Benes-Mazaryk regime in Czechoslovakia completed the conquest of the Soviet satellites. Meanwhile, though we did not know it yet, the Soviets were carrying out their own "Manhattan Project" to develop the atom bomb.

Still, in the spring of 1950 we were debating a \$13 billion defense budget. It was not until after the June attack on South Korea that Congress passed the \$100 billion plus defense authorizations that initiated the partial remobilization of the Korean period.

It may be argued that remobilization would have taken place to some degree in any event, as a consequence of the Cold War, the formation of NATO in 1949, and the Soviet acquisition of the atomic and hydrogen bombs in 1949 and 1953, respectively. However that may be, after the Korean War the United States continued to maintain, for the first time in its history,

large peacetime military forces.

For obvious reasons, public concern and debate over these large military forces and expenditures have been dominated by the strategic-nuclear end of the spectrum of potential conflict. The overriding danger in the second half of the twentieth century, in the minds of most people, is the risk of nuclear war. It is widely held that such a war would inevitably be a holocaust, or even the end of civilization. Indeed, nuclear weapons are generally believed to make large-scale conventional war highly unlikely (at least as long as the United States maintains essential equivalence, or parity). The emphasis on Strategic Arms Limitation Talks (SALT) during the past decade has further focused American attention on strategic arms.

This strategic nuclear emphasis has prevailed even though the strategic forces have never represented more than 27 percent of the total Department of Defense budget (1961) and currently are less than 8 percent.⁶ (See Table II.) The defense budget is actually dominated by so-called

Table II. Department of Defense budget by major program, FY 1977-79

Military Program	Total Obligational Authority constant FY 1979 dollars (in billions)			
	Proposed			Distribution
	FY 1977	FY 1978	FY 1979	FY 1979
strategic forces	\$ 10.6	\$ 9.8	\$ 9.8	7.8%
general purpose forces	43.1	45.1	46.9	37.3
intelligence and communications	8.4	8.3	8.3	6.6
airlift and sealift	1.7	1.7	1.8	1.4
Guard and Reserve forces	6.7	7.0	6.7	5.3
research and development	11.2	10.9	11.0	8.7
central supply and maintenance	12.6	12.7	12.8	10.2
training, medical, other				
general personnel activity	25.7	25.5	26.0	20.6
administrative and associated activities	2.3	2.4	2.4	1.9
support of other nations (excludes MAP)	.2	.3	.3	.2
Total	\$122.6	\$123.7	\$126.0	100.0%

general purpose forces (conventional and tactical nuclear forces), currently exceeding 37 percent of the budget, or almost five times as much as the strategic forces. Conventional forces are costlier than nuclear forces because they must be far more numerous; people tend to forget that nuclear bombs were invented because they would be cheap!

Nevertheless, in the era of U.S. nuclear force monopoly and then superiority, the strategic nuclear weapons properly dominated national security debates. The United States could afford conventional inferiority in Europe after World War II because its atomic monopoly deterred the Soviets (even when, as we now know, there were no atomic bombs in the stockpile—a unique, successful U.S. bluff). The Soviets regarded their conventional forces as at least partially redressing the correlation of forces while they developed and deployed their own nuclear forces. (It was more than three decades before Brezhnev declared that the correlation of forces had shifted to favor the Soviet Union.)

This nuclear preoccupation was reinforced by the “massive retaliation” doctrine of John Foster Dulles, subsequent concepts of nuclear deterrence, and the generalized fear of a nuclear World War III (not as dissimilar from the 1930s fear of a conventional World War II as the present generation is wont to think). The nuclear emphasis and the concept of an arms race were further strengthened by the priority assigned by the Soviets to overtaking the United States in the acquisition of nuclear technology and weapons stockpiles.

Moreover, the arms race metaphor fitted the obvious fact of U.S.-Soviet competition in the postwar world. It derived added credibility from former Defense Secretary Robert McNamara’s “action-reaction” theory in the 1960s. This theory held, in essence, that whatever one side did, the

other side would take measures to offset. When he decided against deployment of the first American antiballistic missile (ABM) system in 1961, McNamara announced publicly that the reason was that the Soviets *would* simply build decoy ballistic reentry vehicles to overwhelm it. (He did not even ask a quid pro quo for the unilateral cancellation. An early opportunity for strategic arms limitation may have been missed.) When the start of the Soviet deployment of an ABM system around Moscow was announced, McNamara said we would offset it by building a multiple independently targetable reentry vehicle (MIRV) capability into our Poseidon submarine-launched ballistic missiles (SLBMs) and Minuteman III intercontinental ballistic missiles (ICBMs). There were in fact multiple causes of the development and deployment of U.S. MIRVs.⁷

Considerable experience and theory have shown that many factors, including technological, bureaucratic, and political imperatives, enter into both U.S. and Soviet defense spending decisions. Nevertheless, because some cases appear to be largely action-reaction phenomena, reference to the spiraling arms race seemed credible. (Note that the term “spiraling” is always used to imply upward, not downward, motion.)

The concept of the arms race or the spiraling arms race has not provided a valid model for the postwar U.S./Soviet competition. If there has been a race, it has been more on Aesop’s model of the tortoise and the hare.⁸ The trends of U.S. and Soviet military expenditures and deployments have certainly not been parallel. The Soviet Union did not demobilize after World War II, as the United States did, nor did it match the U.S. Korean War build-up (whether because it did not think it could afford to or because it did not think it

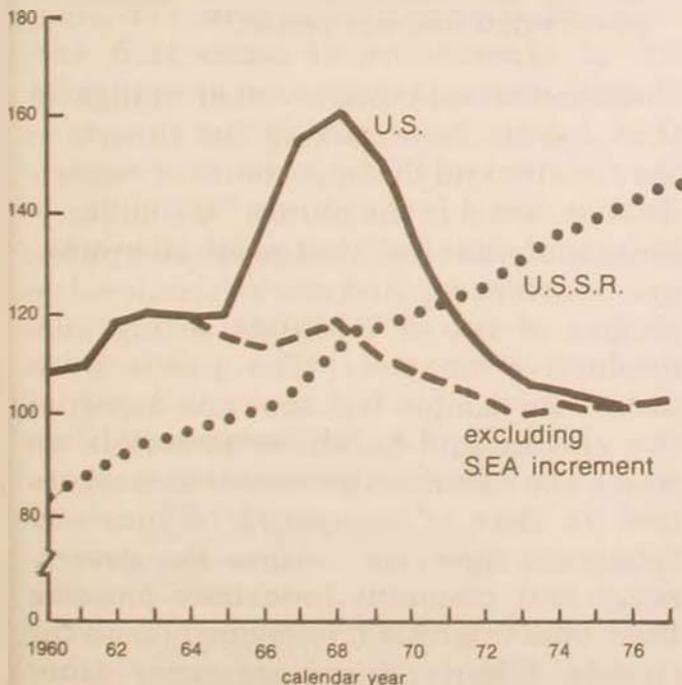
needed to, with North Korea and the People's Republic of China acting as Soviet proxies, or for both reasons). Nor did the Soviets parallel the U.S. rise in military expenditures in the Vietnam War (perhaps for similar reasons) or cut back after the Vietnam denouement. Rather, the level of Soviet military forces held remarkably steady in the first ten to fifteen years after World War II, and their military expenditures have been growing by a fairly steady annual percentage in the 1960s and 1970s, as shown in Figure 1.

This chart reflects the latest official data available. Several qualifications need to be made. First, it does not extend back to World War II because, while there is general agreement on the relatively steady

Soviet trends discussed above, detailed estimates are not available. Second, the rate of growth of the Soviet budget is probably underestimated.⁹ But even at the conservative estimate of about 3 percent a year, it will stay well ahead of the announced U.S. goal (agreed with NATO) of an annual 3 percent increase.¹⁰

THE comparison of strategic force expenditures is even more unfavorable to the United States. Soviet expenditures for strategic forces rose from double those of the United States in 1967 to triple in 1977, reflecting the above-noted build-up toward Soviet strategic superiority.¹¹ The Soviet expenditures include more for strategic offensive forces (largely for ICBMs and SLBMs—but their lower expenditures on bombers do not include the Backfire bombers assigned to other missions but usable strategically against the United States). The figures also include the medium and intermediate-range strategic weapons for “peripheral attack” (vs. Western Europe and China)—the SS-4, SS-5, SS-20, and some Backfires. While outspending us on offensive forces, the Soviets also spend heavily on strategic defensive forces. They maintain and steadily modernize vast air defenses, including more than 10,000 surface-to-air missiles and 2600 interceptors, while U.S. expenditures are nominal—only for maintaining since 1974 some 150 old F-106 interceptors. The Soviets also maintain the Moscow ABM, while we dismantled our one treaty-permitted site at Grand Forks over two years ago. Not included in the comparison but bearing on the strategic balance is civil defense, on which the Soviets have been estimated to be spending over \$1 billion a year in the 1970s as compared with less than \$100 million by the United States.

Figure 1. Comparison of U.S. defense outlays and estimated dollar cost of Soviet defense programs



Notes: 1) To improve comparability, U.S. data include non-DOD defense programs (e.g., Department of Energy, Coast Guard)

2) Retirement costs have been excluded

Source: Department of Defense Annual Report FY 1979

The CIA/DOD comparisons cited here have often been criticized because they are computed in dollars, at U.S. prices. There is some merit to the criticism; as every student of index number theory knows, comparison in rubles would make the U.S. expenditures show up more favorably. However, we are interested here in comparing expenditures for the observed forces, as seen by the United States. Moreover, we cannot compare ruble expenditures directly, because there is no real or market-established exchange rate between the dollar and the ruble, and we cannot compare the costs of given forces in rubles because we do not have ruble prices for Soviet weapon systems. But the trends of the Soviet defense expenditures in rubles are consistent with the trends shown here.¹²

If one is interested in comparing the *burdens* imposed by defense expenditures in the respective countries, then one calculates the figures for each country in its own currency. We have already seen that U.S. expenditures are only about five percent of the GNP. CIA estimates for the Soviet Union are 11-13 percent, and many students believe this to be on the low side. For strategic forces, the Soviet figure is of the order of three percent of GNP, compared to less than one-half of one percent for U.S. strategic forces.

That there are neither parallel trends nor a spiral arms race in strategic weapon deployments in the 1960s and 1970s has been authoritatively documented in terms of numbers of weapons as well as expenditures by Albert Wohlstetter et al.¹³

However, the myth persists. Whatever validity it may have had in other particular cases—in earlier periods, e.g., the British-German naval competition before World War I, and in local regional areas, e.g., the Israeli-Egyptian/Arab competition—it is not valid for the superpowers

today. Nevertheless, it continues to obscure rational analysis of what the United States may need to do for its contemporary security in the face of observed Soviet strategic and general purpose force build-ups and reflected in Soviet budget trends.¹⁴

*Myth number four:
The \$100-plus billion defense budget
goes mostly for weapons.*

Strategic systems get the headlines, but other weapons that come in large units, such as ships, fighter aircraft, and tanks, also get a great deal of attention. "Arms" has more frightening connotations than "forces." The post-World War I image of sinister arms merchants foisting their wares on an unsuspecting people was reinforced by the famous passage in President Eisenhower's farewell address:

In the councils of government we must guard against the acquisition of unwarranted influence, whether sought or unsought by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.¹⁵

Eisenhower said many other things in that speech, emphasizing the threats to the country and the importance of resolute defense, but it is the phrase "the military-industrial complex" that caught the public eye, or rather ear, and stuck. It conjured up images of fat-cat lobbyists selling non-productive weapons. The public overlooked the simple fact that one aspect of the checks-and-balances principle on which the American government is organized is that of competing claims—by "claimant agencies" within the government and claimant industries pressing their own interests ("lobbying") from the outside. Clearly, there are many other claimant "complexes"—a health-industrial complex, an agriculture-farmer complex, a housing-urban-local-govern-

ment-industrial complex, and so on. As we saw in discussing the shift in priorities over the past two decades, the military-industrial complex has in this period been one of the less successful competitors.

Let's look at the facts. Arms appear in the defense budget under the heading, "Procurement," which includes all sorts of nonweapon supplies that the services buy. But even with these inclusions, this category is only 25 percent of the FY 1979 budget. If we consider research and development (RDT&E—research, development, test and evaluation) as an important stage in the budgeting for arms, and, even more than procurement, dominated by weapons, we can add another 10 percent. Thus, the hardware and new technology that constitute the cutting edge of defense account for at most 35 percent, or just over one-third of the total budget. (See Table III.)

In 1964, procurement and R&D amounted to 44 percent, a 25 percent larger share of the budget. Why has the share going to create military muscle declined? The first cause is an increase in the allocation to manpower costs, up from 47

percent in FY 1964 to 52 percent in FY 1979 (after peaking at 62 percent in FY 1973). This startling increase has occurred despite a 22 percent decline in the size of the armed forces, from 2.7 million men in 1964 to 2.1 million currently (with a peak of 3.5 million during the Vietnam War). Manpower costs include the pay and allowances of military personnel, the pay of civilian employees, and military retirement pay.

These increased manpower costs are not, as commonly believed, primarily a result of the post-Vietnam creation of an all-volunteer army. Rather, they stem from congressional legislation in 1967 establishing "comparability pay" (government with industry) and tying military raises to civilian civil service raises.

The problem was further compounded by the rapid growth of retirement pay, from one percent of the defense budget in 1962 to over 8 percent currently. This growth, which is expected to continue, stems from the combined effects of two factors. First, the retired military population has been growing rapidly, as the generation of young officers who stayed in

Table III. Department of Defense budget by appropriation category, FY 1977-79

Appropriation Title	Total Obligational Authority constant FY 1979 dollars (in billions)			
	Proposed			Distribution
	FY 1977	FY 1978	FY 1979	FY 1979
military personnel	\$ 29.3	\$ 28.9	\$ 28.7	22.8%
retired pay	9.5	9.8	10.2	8.1
operation and maintenance	36.4	37.1	38.1	30.2
procurement	30.8	32.0	32.0	25.4
RDT&E	12.0	12.1	12.5	9.9
military construction	2.7	2.0	2.7	2.1
family housing	1.5	1.5	1.6	1.3
civil defense	.1	.1	.1	.1
revolving and management funds	.2	.2	.1	.1
Total	\$122.6	\$123.7	\$126.0	100.0%

Source: Department of Defense FY 1979 budget press release, 23 January 1978

after World War II has reached retirement age. Second, the above-mentioned pay raises and cost-of-living escalator clauses in the pension system compound the rising trend.

Pensions should not, in fact, be included in the military budget at all. They represent not a cost of maintaining the armed forces but a social-policy decision about the transfer payments that should be made to a given class of citizens. This was implied in the pioneering Moot Report in 1972¹⁶ and is beginning to be recognized in proposals by the Defense Department and in Congress to lump military pensions with other government pensions, in a separate budget category (which should include Social Security pensions and perhaps some other transfer payments, if the disastrous tax scheme for Social Security could be reformed—but that is another story beyond the scope of this article). A second step, generally mentioned in the same breath, is possible reform of the escalatory provisions in the retirement laws, early retirement policy, and peculiar vesting arrangements that give zero pension before twenty years, thus encouraging an inefficient service pattern—get out early, after up to eight years or so, or after twenty years and retire with a pension.

Moving retirement costs out of the defense budget would increase the clarity and accuracy with which the federal budget reflects both national defense policies and national transfer-payment policies.

A less important but still significant item that increases the defense budget without enhancing national defense has been the inclusion of Military Assistance Program (MAP) funds. Currently running at \$1 billion a year, MAP represents less than one percent of the budget, but as recently as five years ago it was about two

percent. The FY 1979 budget finally recognizes that, while military assistance to other nations may involve national security considerations, it is not properly part of the defense budget. The new federal budget proposes that MAP funds be transferred to the international affairs budget.

Budgetary reforms may in time give a clearer picture of the share of weapon procurement in the total budget. This share may also rise somewhat, after more than a decade of disinvestment in the stock of arms. There is increasing recognition of the need to redress the strategic balance in the 1980s and the current conventional balance in NATO, as President Carter agreed with NATO allies in July 1977 and Secretary Brown recognized in the presentation of the FY 1979 budget. Nevertheless, weapons are unlikely at any time in the foreseeable future to dominate the defense budget. We have already seen in Figure 1 that the magnitude of the Soviet defense effort exceeds that of the United States by a steadily widening margin, currently estimated at about 45 percent. The same CIA report¹⁷ estimates that Soviet procurement is about 75 percent above that of the United States, and the dollar value of Soviet RDT&E is "substantially larger" than that of the United States and growing.

*Myth number five:
Ten-foot Russians
are a perennial DOD budget-time trick.*

Soviet military budgets are not a reason for matching U.S. defense budgets. However, the very real Soviet threats that their expenditures reflect must be taken into account in U.S. planning. Moreover, because the development of modern sophisticated weapons involves several years of R&D lead time, and their acquisi-

tion several years of production and deployment lead time, current defense budgets must be based on estimates of threats 5 to 10 years in the future.

It was noted in the discussions of the arms race myth that, far from exaggerating the size of the Soviet threat, throughout the 1960s and the early 1970s, the official predictions of the Soviet strategic forces were below the numbers that turned out to be actually deployed. This was true in part because of bureaucratic reaction to a considerable hue and cry about the politically generated allegations of a "bomber gap" in the 1950s and a "missile gap" in 1960 (candidate Kennedy, not DOD, coined the "missile gap" in his debates with Nixon).¹⁸

It is important to remember that there was a revolution in intelligence technology in the early 1960s. For observation of the Soviet deployments, and most especially of ICBMs, we had to rely in the 1950s on overflight by the high-altitude U-2 aircraft. Aerial photography is inherently a slow process, in the sense that coverage from an 11- or 12-mile altitude is limited, and it is not possible to photograph in any realistic length of time an area so vast as that of the Soviet Union. One must assign priorities to areas to be photographed, by educated guesses based on very few clues. With the advent of satellites carrying cameras and other sensors at altitudes of one to several hundred miles, coverage could be vastly multiplied. It was then that we could get accurate counts of Soviet silos as well as many indicators of other Soviet military deployments. One such deployment, it might be noted, was the several hundred Soviet medium- and intermediate-range ballistic missiles (M/IRBMs) in Western Russia, targeted on Western Europe. Although the public was told there had been no missile gap, a more accurate

statement would have been that there had been no ICBM gap. The Soviets, who always put a strategic priority on Europe, had started their ballistic missile program with the simpler and cheaper medium/intermediate-range missiles and deployed them to hold Western Europe hostage before they started their ICBM deployment against the United States.

We must pause here to note an anomaly. It is precisely this revolution in the technology of intelligence that is credited with having made feasible the SALT I agreements of 1972. Those agreements included the Antiballistic Missile (ABM) Treaty and the Interim Agreement on Strategic Offensive Arms. (The latter expired on 3 October 1977 but at time of writing is being kept in effect by mutual agreement, pending further negotiations on a SALT II treaty.) Both agreements specifically provided that verification would be based on "national technical means," meaning primarily satellite-borne cameras and other sensors. It further provided that neither side would interfere with these national technical means of verification. Since 1972, it has become increasingly apparent that these satellites do not guarantee verification as fully as had been thought or alleged. This is true for three principal reasons:

1. Soviet development and initial deployments of mobile missiles (the SS-16 ICBM, and the SS-20 IRBM that consists of the two first stages of the SS-16 and can be readily converted to an intercontinental SS-16 by the addition of the third stage) make the counting of missile launchers highly uncertain.

2. The Defense Department reports of some nine Soviet antisatellite tests in the last two years and the decision to increase R&D programs to catch up with the Soviet technology in antisatellite capabilities indicate that the Soviets are acquiring a

capability to interfere with U.S. verification as well as potential wartime reconnaissance and control on very short notice in time of crisis or actual conflict.

3. SALT I and SALT II proposals to date limit numbers of launchers but not numbers of missiles. It has been alleged by retired Major General George Keegan, former Chief of Air Force Intelligence, and others that the Soviets already have several standby missiles for every launcher (silo) permitted in SALT I Interim Agreement. Such missiles can be kept concealed until time to use them. Much had been made of the Soviet capability for relatively rapid reload of silos because of the cold-launch techniques for the SS-17 and SS-18.¹⁹ But back-up missiles could be launched from "soft" launchers, which could be mobile or concealed in various ways. It would even be possible to launch missiles from inside warehouses or factories, with rapidly removable or opening roofs.

All of these possibilities of avoiding or evading our intelligence are reasons why the United States may underestimate, not overestimate, Soviet strength, with or without SALT agreements. There are no further revolutionary developments in intelligence presently foreseeable to overcome these possibilities.

Finally, the CIA stated in 1976 that they had underestimated the Soviet defense expenditures in 1970-75 by 50 percent,²⁰ and there is considerable evidence that they may be underestimating the rate of growth since that time, so that further Soviet budget estimates will be on the low side.²¹

In short, the Defense Department has not been exaggerating the Soviet threat in order to justify appropriations.²² That they are alleged to do so at budget time simply reflects the fact that it is at budget time that the Congress and, therefore, the press

pay attention to the statements about the threat, and indeed, the principal DOD official statement, the *Annual Report* or "Posture Statement," is deliberately and properly a part of the budget-planning cycle.

The Russians are not yet ten-feet tall, but in their strategic forces they are as tall as we are and still growing, which we are not. In general purpose forces, they have long been known to have larger ground forces than we, and both President Carter and Secretary Brown have recognized in their 1979 budget that the Soviets have been modernizing these forces to the point where we must increase our R&D and procurement efforts in order to catch up. In naval forces, they are generally believed to be of about our size and, again, to be still growing, while we are not. Indeed, the FY 1979 budget cuts back severely on naval programs to resume growth. The U.S. Navy has fewer ships than the Soviet navy, although still greater tonnage. The numbers of ships in both navies are declining, but the Soviet tonnage is growing and U.S. tonnage is declining. Many of the smaller Soviet ships are faster and more heavily armed, and in particular they have a several-year lead over the United States in the deployment of ship-launched antiship-guided missiles with both conventional and nuclear warhead. In tactical aircraft the United States has long been considered superior, but the Soviets have been rapidly modernizing their tactical aircraft and are producing them at approximately double the U.S. rate.²³

The Russians are not ten-feet tall. But they may well be six-foot-six, and that is enough stature to command the respect of most of us average-sized mortals. But old myths die hard. The author cannot resist citing a curious and rather grudging recognition of the slow but overdue demise

of this myth in a review of the book on the FY 1978 defense budget that he coedited:

This second annual U.S. defense budget survey by the National Strategy Information Center is a straight-forward hard-line approach to the military balance. Its conclusion—the U.S. needs to increase its dangerously inadequate investment in defense—is not new, but *acquires more plausibility with each year of the Soviet military buildup.*²⁴

*Myth number six:
We cannot afford more for defense.*

Ever since the first large U.S. peacetime defense budget following the Korean War, there have been allegations that the limits on the defense budget are economic, rather than being dictated by the requirements of providing for the common defense. President Eisenhower even suggested at one point that a billion-dollar increase in the defense budget would be tantamount to letting the Soviets tempt us to “spend ourselves into bankruptcy.” As former Secretary of Defense James R. Schlesinger has said, “Each of us is entitled to his own opinion, but not to his own facts.”²⁵ One may feel that the priorities should be different or that the defense budget is adequate at some given level, but nothing in the history of the 1950s, 1960s, or 1970s validates the judgment that we are pressing economic limits. As we saw in Table I, the defense budget has been declining ever since the 1950s, by all relevant relative measures, i.e., in proportion to GNP, the federal and total governmental budgets, and in share of the national labor force. Even the temporary peak for Vietnam did not return us to the relative shares of the Eisenhower years. Meanwhile, the rate of unemployment (averaging out the peaks and valleys of the short-term business cycle) has been steadily upward since the Eisenhower years.

Despite all of these statistics, many people assert that the myth is validated by the bottom line: that defense has caused inflation. But here, too, the alleged correlations are inverse. The inflation argument was refuted in 1972 (before inflation became really severe!) in the Moot Report, as follows:

Inflation in the U.S. has been most severe since 1968, a period when Defense programs were being massively cut back. [President Johnson’s failure to propose timely tax increase for the requirements of the Vietnam War may properly be assigned some of the blame for accelerated inflation in this period, but this is not the same thing as ascribing the inflation directly to the defense budget.]

The aircraft industry—20 times more dependent on Defense than U.S. industry in general—shows productivity increases nearly double the average and has the best balance of trade record in the U.S. economy.

Inflation has been the most severe in those industry sectors where the Defense input is the smallest, and conversely. For example, the greatest inflation by far (76.4%, 1964-71) is in construction, where defense accounts for less than 1% of the business. Five sectors have had above-average inflation, and defense accounts for less than 1% of the business in four of them, and 2.7% in the fifth. According to Department of Commerce figures, inflation on state and local government purchases has been much greater than on defense purchases.²⁶

Inflation has, of course, accelerated since those words were written—while the defense budget has continued to decline in real, constant-dollar terms as well as relatively. The major causes are well known, although not all of them are yet well understood: the monopoly (more properly, oligopoly) prices of the OPEC oil suppliers’ cartel following the 1973 oil embargo; the worldwide increase in food prices, triggered, though only partially caused, by low world grain crops in the early 1970s and the Soviet wheat purchases; raw material scarcities; “in-

dexing" or contractual tying of wage rates to cost of living indexes in union contracts and federal pay scales; economic events in other countries; the overvaluation of the dollar, in the late 1950s and the 1960s, under the fixed exchange rates of the only partially implemented Bretton Woods Agreement of 1944; and so on.

Several techniques are used to reinforce the myth that we are spending all we can and to support the argument by maximizing the apparent costs of defense. High on the list of these techniques is one that was mandated by Congress in 1972: the requirement that future costs (e.g., for a weapon procurement program that will take several years) be presented to Congress in "then-year" (current) dollars instead of constant or real dollars at today's prices. This practice is supposed to help Congress "know what it is committing itself to," but in fact it is highly deceptive, even pernicious. Inflation rates cannot be accurately predicted and should not be projected for this purpose. We can only understand costs in terms of today's dollars. If prices go up, so will government revenues, as will personal incomes. Future costs should be *discounted*, that is, less highly valued than costs that must be paid today, both because the future is uncertain and because we can earn interest on money that does not have to be spent until later. In short, future costs are *less* onerous than present costs. "Then-year" costing is equivalent to using a negative discount rate that makes such costs look *more* onerous.²⁷

Opponents of a particular weapon program are also fond of putting it in the worst light by cumulating costs over its

lifetime—for some systems, such as ships and aircraft, for as long as 30 years. If this is combined with projecting inflation, adding maintenance, modernization and operating costs, and sometimes even "loading" on other costs for items that would be bought anyway (new ammunition, replacement tankers for aircraft, etc.), the costs can be made to sound horrendous, as was done in the organized campaign against the "24-billion-dollar" B-1 bomber. What really matters, of course, is what we must spend each year in relation to what we earn. If a \$6000 automobile were advertised as costing \$35,000 over the next ten years, including repairs, tire replacement, gas, insurance, three new CBs, etc., all at projected inflation rates, how many of us would buy it? If we were told it would cost \$1200-\$1500 a year in today's prices, or X percent of our current salary, we could decide rationally whether we could afford to trade in the old jalopy, which is currently costing us, say, \$600 a year and "won't last forever."²⁸

BUT IF BY what we can afford is meant what we can expect the Executive to propose and the Congress to approve and fund, then what we are talking about is not economic limits but the limits of political leadership and political will. In view of what has been said and cited here about the growing Soviet military threats, the declining U.S. preparedness, and the potential use of the Soviet forces for political purposes,²⁹ I would strongly urge that how much national defense the United States can afford is how much it needs and has the political will to provide.

Arlington, Virginia

Notes

1. No offense to my feminine readers intended. One is constrained to quote accurately; perhaps today Luther would have referred to "wine, person, and song."

2. The cost-effectiveness limitations of a "stand-off" cruise missile force and the importance of a *mixed* force of penetrating bombers and cruise missiles are discussed at length in *Slow To Take Offense*:

Bombers, Cruise Missiles, and Prudent Deterrence by Francis P. Hoerber (Washington, D.C.: Georgetown University Center for Strategic and International Studies, 1977).

3. Attributed to Air Chief Marshal Slessor in *The Economics of Defense Spending: A Look at the Realities*, Department of Defense (Comptroller), July 1972, p. 189. (This was the so-called "Moot Report" and is hereafter so referenced.)

4. See *Arms, Men, and Military Budgets: Issues for Fiscal Year 1979*, Francis P. Hoerber, David B. Kassing, and William Schneider, Jr. (New York: Crane, Russak and Co., 1978).

5. Lewis F. Richardson, *General Theory of Arms Races* (London: British Psychological Society, 1939). A more complete and more readily available work was published posthumously: *Arms and Insecurity: A Mathematical Study of the Causes and Origins of War* (Chicago: Quadrangle Books and Pittsburgh: Boxwood Press, 1960).

6. It is often argued that a figure of about 13-14 percent is more accurate than 8 percent, when one allows for proper allocation of the costs of other programs, including research and development, surveillance, and support. This dubious accounting change would not alter the argument in the text.

7. See Herbert F. York, "Multiple-Warhead Missiles," *Scientific American*, November 1973.

8. As belatedly recognized in the Department of Defense *Annual Report, FY 1979*, p. 11.

9. See William T. Lee in *Arms, Men, and Military Budgets: Issues for Fiscal Year 1977*, William Schneider, Jr., and Francis P. Hoerber, editors (New York: Crane, Russak and Co., 1976).

10. The FY 1979 budget turned out to involve a constant-dollar increase of less than two percent. The Office of Budget and Management rationalized—inconsistently with earlier official statements—that the three-percent figure referred only to the budget for NATO expenditures (which cannot be separately identified). General purpose forces were favored, at the expense of strategic forces and naval forces (Clearly, losing strategic equivalence will require stronger general purpose forces.) Overall, there is zero increase in procurement over FY 1978 and only three percent in RDT&E (or R&D, as it is more generally known). The two percent total budget increase has also been defended on the grounds that expenditures will rise over three percent, but this reflects previous years' budgets, not the FY 1979 one.

11. CIA, "A Dollar Cost Comparison of Soviet and U.S. Defense Activities, 1967-77," SR 78-10002, January 1978. Hereafter referred to as CIA, SR 78-10002.

12. See Lee, *op. cit.*

13. See "Legends of the Strategic Arms Race," United States Strategic Institute, *U.S.S.I. Report 75-1* by Albert Wohlstetter, Fred Hoffman, David McGarvey, and Amoretta Hoerber. A number of national intelligence estimates (NIEs) on Soviet strategic offensive forces—the 11-8 NIE series—were declassified for this study.

14. The Soviet build-up is well documented in John M. Collins,

American and Soviet Armed Services, Strengths Compared, 1970-76, Congressional Research Service, in *Congressional Record*, 5 August 1977, pp. S14064-14104, and in Hoerber, Kassing, and Schneider, *op. cit.*

15. Dwight D. Eisenhower, *Public Papers of the President, 1960-61*, p. 1037.

16. See "Moot Report."

17. CIA, SR 78-10002.

18. See the chapter by William T. Lee, "Intelligence, Some Issues of Performance," in *Arms, Men, and Military Budgets: Issues for Fiscal Year 1978*, Francis P. Hoerber and William Schneider, Jr., editors (New York: Crane, Russak and Co., 1977).

19. "Cold-launch" refers to "popping up" the missile from the silo by use of a gas generator before igniting the rocket motors, thus doing less damage to the silo (as well as permitting a larger missile and a larger throw-weight from a given silo).

20. *Estimated Soviet Defense Spending in Rubles, 1970-1975*, S.R. 1976-10121U, May 1976.

21. See William T. Lee in Schneider and Hoerber, *op. cit.*

22. As recently as 8 February 1978, Secretary of Defense Harold Brown told the House Armed Services Committee: "The key to this matter (is that) Soviet build-up has been faster than anticipated." George C. Wilson, *Washington Post*, February 9, 1978, p. 2.

23. See Robert P. Berman, *Soviet Airpower in Transition* (Washington, D.C.: Brookings Institution, January 1978); and Hoerber and Schneider.

24. Review of Hoerber and Schneider's *Arms, Men, and Military Budgets: Issues for Fiscal Year 1978* in *Foreign Affairs*, January 1978, p. 445. Emphasis added.

25. *Pacem in Terris*, Center for the Study of Democratic Institutions, December 1975.

26. Moot Report, inside of back cover.

27. Secretary of Defense Brown has projected a defense budget of \$172.7 billion for FY 1983. But that is in 1983 dollars. In 1979 dollars, it would be only \$140.3 billion. That is much less startling in relation to the coming year's \$126 billion; it represents only 2.7 percent real annual growth.

28. For a more extended discussion of then-year costing and related techniques of exaggerating weapon program costs, see Francis P. Hoerber, *Slow To Take Offense*, pp. 64-69.

29. See the findings of the "Team B" reviews of the CIA-led interdepartmental National Intelligence Estimates Team in the Fall of 1976 (David Binder, *New York Times*, December 1976), and article by Richard Pipes, head of Team B, in *Commentary*, July 1977, "Why the Soviet Union Thinks It Could Fight and Win a Nuclear War."

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RUSSIAN MILITARY STRATEGY

a fresh look

COLONEL DAVID J. CADE



HERE is a lively debate both inside and outside the federal government today as to the nature and extent of what is commonly referred to as the "Soviet threat." Some would have us believe that the "Russians are coming," and to support this contention cite impressive evidence of a massive military buildup aimed primarily at the United States and its Western European allies. Others—just as scholarly and experienced—take the opposite approach, claiming flatly that there is *no* Soviet military threat to the West. This school generally contends that the new military hardware and occasional saber rattling are merely normal characteristics of the Russian mind-set. A popular corollary is that the Soviet Union is so weak economically that it could not mount an effective sustained threat against the West, which will be able to hamstring it in a technological and

...military power has always been regarded as the main guarantor of Russian (and Soviet) security.

economic sense for the foreseeable future.

What are we to believe when we read and hear such disparate arguments from legitimate experts? As is usually the case, the answer is probably somewhere in between the two extreme points of view just described.

In this article, it is hoped that a careful review of Russian military strategy will sharpen perceptions and help each reader make up his own mind as to the nature and extent of the Soviet threat. "What are the Soviet motives and the underlying historical legacies behind them? Are there explanations for the recent military buildup other than preparation for an attack on the U.S. or its NATO allies?"

These and other questions must be addressed with an eye toward objectivity in attempting to calibrate the Russian military posture, encompassing both capabilities and intentions.

Threads from the Past

A brief look at the Imperial Russian politico-military heritage and some of the pre-1945 lessons learned by the modern Soviet regime will provide a useful background for understanding present-day Soviet military posture.¹

Three major invasions of Russia (the Mongols in the thirteenth century, Napoleon in 1812, and Hitler in 1941) have had a far-reaching effect on the Russian mind and military thinking. The invasion by the Mongol Golden Hordes, who held European Russia in virtual bondage for nearly 200 years, was particularly catastrophic. Because of the occupation, Russia was virtually cut off from Western Europe for those two centuries, a time lag from which the Russians never recovered. The brutality and terror of the Mongols stunned the Russians, who nevertheless successfully learned from their conquerors how to employ the weapon of fear. More important, however, the Russian psyche was forever ingrained with an invasion complex and a sense of insecurity and inferiority, which was reinforced by the two subsequent invasions with resultant ramifications to the present time.

This invasion complex has given rise to what is described as a "garrison-state" mentality, characterized by a need to create buffer zones on the Russian periphery to reduce the vulnerability of the homeland to attack and keep foreign influence and power as far away as possible from its borders. Closely tied to this notion is the internal use of coercive force in the form of secret police to keep the

Russian populace under control and stifle perceived subversive threats to the cohesion of the empire.

Another significant czarist trait was an inclination toward opportunistic territorial expansionism for a variety of reasons over the centuries: trade, pan-slavism, a missionary style, religious and ideological thrust, and simply the desire to accumulate power for power's sake. This drive traditionally relied on the use of the military instrument in an offensive mode, an interesting dichotomy when compared with the defensive orientation of the "fortress mentality" described earlier. These seemingly contradictory facets of the Russian politico-military heritage have been the twin driving forces behind Russian (and Soviet) military strategy down to the present day.²

Two other important military legacies to modern Russia were a strategy of aggressiveness and a continental outlook. In order to protect the homeland and extend its borders, it was necessary to wage war on the enemy's territory and destroy his forces.³ As a land-locked country for most of its history (lack of warm water ports), Russia has had a military outlook that was basically continental in scope, with military interests largely restricted to the empire's periphery. In this regard, Russian military power was never successfully projected beyond the Eurasian continent until relatively recently.

Military setbacks have also had a lasting impact on the Russian (and Soviet) military mentality. During the reign of Peter the Great, the limits of Russian expansionism became apparent for the first time, resulting in direct confrontations with the great powers and losses on the battlefield. These and subsequent military defeats suffered by the Imperial Army—particularly the 1905 debacle against Japan—added to the Russian

inferiority complex, as did those absorbed by Soviet armies in the 1918-20 civil war and the 1940 invasion of Finland. Such setbacks often forced Russia to accept coexistence as a substitute for further

Ultimate domination of all of Europe is a clear Soviet goal.

expansion or aggression, but also served to make Russian collective will more determined. In a related vein, the deep-rooted invasion fear—particularly the World War II or Great Patriotic War experience—has taught the Soviets to maintain an effective, well-prepared military instrument that will never again be caught off guard by a surprise attack or allow the homeland to be invaded.

Even today, the day-to-day impact of World War II on the Soviet way of life must be seen to be fully comprehended by a Westerner. The horrors of the war and Russia's 20 million dead are kept vividly alive by the regime; new monuments to war heroes and hero cities are still being dedicated, and the militarization of society has glamorized paramilitary training for young people—all of which bears witness to a paranoia over defense of the motherland. To the Russians, the 22 June syndrome (the date Hitler invaded Russia) has a far greater significance as a never-to-be-forgotten watchword than does 7 December for Americans. In this regard, the watchful eye of "Father" Lenin exhorting his countrymen to "be prepared and be vigilant" can be seen on banners and billboards everywhere.

From a broad historical perspective, military power has always been regarded as the main guarantor of Russian (and Soviet) security. This has bred a tendency to depend on numerical and physical preponderance—both in terms of troops

and weapon system—to solve any military problem.⁴ As in other elements of Soviet society, the penchant for bigger and better comes through loud and clear.

The Revolution in Military Affairs

The explosion of a hydrogen bomb by the Soviets in the summer of 1953 was destined to have far-reaching effects on Soviet military strategy and thinking. Perhaps most important, the possession of thermonuclear weapons released the Soviet leadership from an unadmitted but long-standing inferiority vis-à-vis the West, particularly the United States. Thus the Soviet armed forces had a new orientation, a new arm to strengthen the military instrument in the pursuit of national objectives.⁵

In the immediate postwar period, despite a large, well-equipped, and widely deployed army, the Soviets were incapable of offering any real match to the United States as a world power. By the mid-1950s, although the Soviets realized their politico-military vulnerability to the U.S. strategic nuclear bomber force, the availability of the hydrogen bomb, coupled with a modest delivery system in the form of a growing intercontinental bomber fleet of their own, gave the Soviet leaders a fresh outlook, which became known in the Soviet military lexicon as the "Revolution in Military Affairs." This outlook was strengthened by the development and testing of intercontinental ballistic missile (ICBM) delivery systems in the late 1950s.

By 1960, the strategic military implications of the growing arsenal of Soviet nuclear-tipped ICBMs led Khrushchev to adopt a new total war defense policy, which postulated that in any future armed conflict with the West, an initial exchange of nuclear strikes deep into the adversary's

territory would be the decisive factor. The new strategy placed heavy reliance on strategic forces and intimated that conventional or general purpose forces were largely outmoded or downgraded since future wars would no longer be fought on the frontiers. This posture was institutionalized by creation of the Strategic Rocket Forces, which soon had eclipsed the Soviet army as the most essential element of the Russian armed forces. Concurrently, combat-ready conventional forces—notably naval aviation, tactical air forces, and army divisions—were reduced in considerable numbers. Strong opposition to Khrushchev's policies, particularly the de-emphasis and reduction of conventional forces, rapidly developed in both party and military circles. By 1961, Defense Minister Malinovsky had become perhaps the most articulate critic of the new strategy theories—although probably with Khrushchev's tacit approval since the premier was already beginning to lose support on a broad front in the Soviet power structure. Malinovsky acknowledged the primacy of nuclear missiles, but advocated their distribution to all branches of the armed forces based on range and usage, and asserted that conventional forces were still needed to complement and supplement strategic forces. As a result of the internal pressure, Khrushchev was forced to

...for the Soviets, strategic parity with the U.S. is essential, and, indeed, there is a perception in some quarters that they may be striving to achieve strategic superiority (or what they would term a "useful margin of strength").

modify his new defense policy and suspend the reduction of conventional forces.

Malinovsky's views subsequently were reflected in an important collective work entitled *Military Strategy*, first published in 1962 under the leadership of Marshal V. D. Sokolovsky. The book, updated in 1963 and 1968, recognizes three categories of war: wars of national liberation, limited war, and general war. According to the authors, the Soviets are committed to support wars of national liberation, ostensibly by application of conventional military forces; while limited wars are admitted to exist on a hypothetical basis, such wars between superpowers are regarded as impossible since any conflict between them would inevitably escalate to total nuclear war.⁷ The essence of the work relates to general war, which is regarded as the culmination of the historical struggle between opposing socioeconomic systems, each pursuing decisive political goals. The main thrust is that general war will begin with a surprise attack on the Soviet Union, and, although nuclear-tipped missiles will be the decisive factor, victory can only be assured by the combined use of all types of forces.

The book also documented for the first time a broad shift in Soviet strategic outlook from primary preoccupation with continental land warfare and peripheral military interests to a focus on strategic warfare on a global scale. This, of course, meant that Soviet military strategy must give more attention to combating a non-European adversary.

Before the nuclear missile era, Soviet military strategy regarded an enemy's armed forces as the principal strategic objective of general war. With the advent of intercontinental delivery systems, the principal strategic objective of total war became destruction of all aspects of an adversary's national strength—including

military, political, and economic power centers throughout his entire territory. (In a tactical sense, however, the Soviets remained committed to annihilation of enemy forces on the battlefield.) From 1963 to the present, Soviet strategic military thinking has remained essentially as presented in the Sokolovsky book. Moreover, there is every reason to believe that this thinking enjoys a general consensus not only with the military but within the party hierarchy as well. Brezhnev, who succeeded Khrushchev in power in 1964, proved to be a proponent of the combined arms concept and continued to push for an upgrading of conventional as well as strategic forces. In fact, his apparent belief that an armed conflict between the superpowers would not *necessarily* escalate to total war provided a measure of doctrinal justification for the combined arms policy.

As early as the mid-1960s and on to the present, Soviet military writings stressed that the study of history shows that victory in war can only be achieved through offensive actions—assuring complete defeat of the enemy.⁸ In the nuclear age, this rationale has been expanded to incorporate the thought that decisiveness is the most important characteristic of offense in a thermonuclear war, advocating surprise nuclear strikes to defeat the enemy. While the official Soviet position is that the Soviet armed forces only fight wars imposed by the enemy, Russian military authors clearly emphasize the necessity of being able to thwart an anticipated enemy attack by having a capability to fight, win, and survive a nuclear war.⁹ According to this line of reasoning, only by having a war-winning capability can Soviet strategic forces serve as a viable deterrent to the West. Based on their World War II experience, total war, although catastrophic, is indeed thinkable

to the Soviets in the context of Western miscalculations, misunderstandings, or irrationality.¹⁰ Even Marxist-Leninist ideology now embraces the notion that the West, in the death-throes of capitalism, may launch a last-gasp thermonuclear attack.

Soviet Grand Strategy

Since the end of World War II, Soviet long-range national objectives have remained remarkably constant despite periodic changes in tone and style and evolving strategic nuances. Key objectives include a constant strengthening of the Russian defense perimeter, domination over all of Europe, and increased Soviet influence and prestige worldwide—particularly in regions which are important to the economies of Western industrial countries.

...there is increasing evidence of a trend toward dual purpose forces and weapons that can operate effectively in a nuclear or conventional environment.

Bolstering the defense perimeter entails several aspects: an Eastern Europe that remains under tight Soviet political, economic, and military control—a vital geographical and ideological buffer whose frontiers and political systems are unchallenged by the West despite a Soviet willingness to tolerate a certain level of expanded East-West cultural and economic ties; continuing military and political containment or even isolation of China and a series of bilateral treaties or other sponsorship relationships with third world countries on the periphery of the

Eurasian landmass to provide for development of a viable infrastructure for pro-Soviet or socialist forces.¹¹

In political and military terms the Soviets regard Europe as a single geographic entity over which they feel a historical mission to exercise hegemony if not suzerainty. Ultimate domination of all of Europe is a clear Soviet goal. For Western Europe, this would mean the harnessing of economic and technological strength for support of Soviet progress, *not* an occupation—which is the last thing the Soviets would want (their Eastern Europe satellites already give them enough headaches). This grand design for Western Europe probably entails a series of bilateral agreements to facilitate Soviet influence on foreign and domestic policy formulation, leading to a reduction of defense expenditures and force levels and elimination of the defense link with the United States.¹²

In this regard, a good case can be made that Soviet decisions concerning force levels in Europe are influenced by a belief that Western European perception of Soviet superiority will eventually lead to policies favorable to the Russians concerning technology transfer and trade if not outright political sympathy.¹³

Finally, the Soviets hope to limit Western options in important areas such as the Middle East and Africa and to take advantage of weak points or vacuums in Western or third world areas of influence.¹⁴ This aspect of Soviet grand strategy includes many-sided efforts to gain some measure of control over the sources and supply lines of the West's strategic raw materials. By undermining the influence, prestige, and power of the U.S. and its allies, the Soviets hope to substitute their own—thereby "proving" the continuing viability and relevance of Marxist-Leninist ideology.

Present Soviet Military Strategy

Under Brezhnev, Soviet military strategy has become more and more refined. In his fourteen-year tenure, Brezhnev has shown a clear appreciation for the risks of nuclear war as well as for the application and use of force short of war—including extensive military and naval exercises, large-scale provision of arms and other military assistance to selected countries, various forms of intimidation, and publicizing scientific and technical achievements with military overtones. Of course, land-based and submarine-launched strategic nuclear missiles have become the protective umbrella under which all Soviet

...although the Soviets may be satisfied with strategic parity, they probably will maintain their drive toward clear superiority in the area of general purpose forces to override perceived U.S. advantages in other areas, primarily economic and technological.

politico-military actions are taken.¹⁵ In this respect, for the Soviets, strategic parity with the U.S. is essential, and, indeed, there is a perception in some quarters that they may be striving to achieve strategic superiority (or what they would term a “useful margin of strength”). By the mid-seventies the Soviets had developed and deployed an entire new generation of ICBMs and SLBMs. Moreover, they are continuing to put emphasis on high-yield warheads while mounting a concerted effort to improve accuracy and

other qualitative missile performance factors.

In Soviet eyes this strategic force modernization effort must be just subtle and low-keyed enough to preclude full mobilization or unleashing of the U.S. technological and industrial base in a strategic trumping effort, which the Soviets deeply fear. Moreover, it must be remembered that even strategic parity cancels the overwhelming strategic predominance the U.S. has enjoyed since World War II.

Perhaps even more important, however, since the nuclear deterrent has reached a rough equivalence on each side, the Soviets in the 1970s have given every indication that they are seeking clear superiority in the area of conventional forces. A tremendous buildup in the level and quality of conventional weapon systems has been coupled with an effective projection of military and naval forces beyond the Eurasian continent for the first time in Russian history. Soviet blue water naval operations have increased worldwide, particularly in the Mediterranean Sea and the Indian Ocean. Moreover, the level of Soviet forces in Eastern Europe provides an offensive capability apparently well beyond that required to keep the satellites in check. While there are many who see this as a prelude to a Warsaw Pact attack against NATO, a strong argument can be made that this overkill of forces stems from the deep-rooted insecurity and weakness that the Soviets have always tried to mask from the outside world. Given the 22 June syndrome, the massive Soviet military buildup opposite NATO can at least be partially explained as a knee-jerk reaction to a perceived invasion threat across the Central European plain—the route used by both Napoleon and Hitler. Moreover, the Soviets perceive that the principal U.S.

military strategy since World War II has been to encircle the U.S.S.R. with bases, maintain a capability to project force anywhere in the world, and follow a propensity to engage in military actions on foreign soil—a posture which the Russians regard as a serious threat to their national security.

Within the past several years, numerous developments involving conventional forces have indeed resulted in a strengthening of the Russian defense perimeter to counter both U.S. and Chinese presence, political influence, and military power. Specifically, these developments include an increase in Soviet naval efforts to confront U.S. nuclear deployments on the Russian periphery; the extensive buildup of Soviet military capability opposite NATO and along the Chinese border; and the expansion of worldwide force projection capabilities such as airlift, sealift, and sea control. The use of Russian military cadre and Cuban surrogates in peripheral areas such as Africa—while widely regarded as an opportunistic ploy to gain power and influence at the expense of the West—can also be thought of in terms of an extension of the Russian defense perimeter. It is interesting to note that despite the expanded Soviet view of the world and their role in it, the heritage of a continental military tradition—with emphasis on peripheral matters—continues to run strongly through Soviet strategic thinking.

As we have already seen, modern Soviet military strategy holds that coordinated use of all types of military power is necessary to achieve Soviet politico-military objectives.¹⁶ This goal requires a flexible military establishment affording selective reliance on a whole range of weapon systems. In this vein, there is increasing evidence of a trend toward dual purpose forces and weapons that can

operate effectively in a nuclear or conventional environment. It must be noted, however, that the Soviets traditionally have experienced a long lag time in fielding a military capability to match the particular international politico-military situation for which it was developed. This has often led to weapon systems and force employment concepts that are out of tune with the existing environment.

Pervasive in modern Soviet military literature is a clear concept of victory at all levels of conflict. Over the past decade, there have been increasing indications of a shift in the Soviet view toward the possibility of a limited war between the superpowers—particularly in the context of a European conflict. Present force preparation developments and military writings reflect a growing interest in other force options short of an all-out nuclear exchange, i.e., tactical nuclear options and conventional options.¹⁷

The Brezhnev leadership clearly recognizes both the limits and potentialities of military power and is prepared to manipulate or bargain to improve the Soviet position. In this light, the Soviets are not averse to negotiating for strategic arms control or disarmament measures that would reduce the danger of a nuclear holocaust while preserving Soviet strategic parity with the West at the very minimum. Indeed, peace is precisely the modern form of warfare the Soviets have chosen.¹⁸ At this juncture, probably only two sets of circumstances could alter this decision in a strategic nuclear context: a direct threat to their national survival or a severe infringement of their superpower status, which is extremely important to the Soviet psyche as “ideological proof” that they finally have become a dominant actor on the world scene.

This brings up the subject of *détente* in the context of Soviet military strategy. First of all, it must be remembered that

détente is not a new concept. Lenin, Stalin, and Khrushchev each used the political expedient of peaceful coexistence with the West when such a policy was in the best interest of the Soviet Union, specifically to gain time or advantage for a particular purpose. In the most modern sense, détente to the Soviets embraces the need to avoid or reduce the likelihood of strategic nuclear war. What the Soviets hope to get out of détente is to neutralize threatened or actual use of nuclear weapons by the West and cancel U.S. strategic options while upgrading Russian nuclear capabilities and conventional military strength. Despite widespread notions to the contrary in the West, détente to the Soviets does not mean suspension or abandonment of the ideological struggle against the capitalist system. Hence, Russian support of wars of national liberation, use of surrogates, as well as threatened or actual use of conventional military forces are all fair game to the Soviets under the framework of détente. From a political standpoint, détente in the Soviet view has moved them closer to their key national strategic objectives. In Soviet eyes, then, détente is a tactical expedient that serves to accelerate the continuing shift of world correlation of forces in their favor.

The Near-Term Future

A good case can be made that the military instrument is now the only instrument of Soviet national power that is generally effective on the world scene. Although the Soviets will take advantage of any perceived opportunity or weakness to achieve strategic superiority, at least rough strategic nuclear parity between the two superpowers can be expected to prevail for the foreseeable future. As indicated previously, the Soviets probably will studiously avoid giving the impression of

trying to achieve strategic superiority.

In this light, while the upgrading of strategic forces will continue to receive top priority by the Soviets, nuclear weapons probably will become less and less of a usable instrument in superpower "power politics." Henry Kissinger goes one step further by asserting that nuclear weapons are becoming a less plausible factor in

...while the upgrading of strategic forces will continue to receive top priority by the Soviets, nuclear weapons probably will become less and less of a usable instrument in superpower "power politics."

regional politico-military affairs as well.¹⁹ Hence, it is reasonable to assume that the Soviets will continue their buildup of conventional forces to more effectively project Russian power and influence on a global basis. Thus, although the Soviets may be satisfied with *strategic* parity, they probably will maintain their drive toward clear *superiority* in the area of general purpose forces to override perceived U.S. advantages in other areas, primarily economic and technological. The Soviet navy is likely to be employed more assertively as an instrument of international political influence and to protect expanding Soviet overseas interests.²⁰ This intensified conventional force projection probably will be coupled with more support of client states and use of surrogate military forces to test the relevance of deterrence in lesser conflicts around the world.

As Henry Kissinger so aptly put it, the Soviets have no preconceived master plan

for military strategy and the use of the military instrument of power; rather they seem to be accumulating as much power as they can to avoid a repeat of the circumstances surrounding the Great Patriotic War and will employ such power and influence whenever and wherever the opportunity presents itself.²¹ Ultimately, peripheral areas of the world—peripheral to the Eurasian landmass and the North

American continent—will be the key to which side will prevail.

As they pursue their self-perceived manifest destiny, the Soviets are convinced that time is on their side, so they feel no immediate compulsion to supplant the United States as the world's foremost political, economic, and military power. When it is in their best interest, the Russians can indeed be patient.

Iraklion, Crete

Notes

1. For a good overview of modern Russia's politico-military legacy from the past, see Adam B. Ulam's *Expansion and Coexistence* (Washington: Praeger, 1974), pp. 3-12.

2. Throughout this article, use of the term "military strategy" specifically refers to the definition contained in JCS Pub. 1, *Dictionary of Military and Associated Terms*: "The art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force, or the threat of force." This definition is narrower than the usual Western definition of "national strategy" or "grand strategy," which involves the use of all resources of a nation in achieving national objectives. (JCS Pub. 1 defines "national strategy" as: "the art and science of developing and using the political, economic, and psychological powers of a nation, together with its armed forces, during peace and war, to secure national objectives.") Note that the above definition of military strategy is quite different from (and hence is not interchangeable with) the Soviet version of "military strategy," as contained in *Dictionary of Basic Military Terms*, 1965, Soviet Military Thought Series (vol. 9) published under auspices of USAF:

The highest level in the field of military art, constituting a system of scientific knowledge concerning the phenomena and laws of armed conflict.

On the basis of the tenets of military doctrine, the experience of past wars, and analysis of the political, economic and military conditions of the current situation, military strategy investigates and elaborates on problems pertaining to the training of the armed forces as a whole and the individual Services, and their strategic use in war, the forms and methods of conducting and directing war; and also problems pertaining to comprehensive strategic support of the combat operations of the armed forces.

At the same time, military strategy is a field of practical activity for the higher military command in training the armed forces for war and providing leadership in armed conflict. Military strategy exerts an influence on the preparation of a country for war in such a way as to ensure victory.

For additional discussion on the Soviet concept of military strategy, see Marshal of the Soviet Union Andrei Grechko, *State of the Forces of the Soviet Union* (Moscow: Voenizdat, 1975), pp. 16-17; and V. D. Sokolovsky, *Military Strategy* (New York: Praeger, 1968), pp. 15-17. In Soviet military writings, the concept of "military doctrine" is closely related to (and in fact encompasses) military strategy. The *Dictionary of Basic Military Terms* provides the following definition:

A nation's officially accepted system of scientifically founded views on the nature of modern wars and the use of armed forces in them, and also on the requirements arising from these views regarding the country and its armed forces being made ready for war.

Military doctrine has two aspects: political and military-technical. The basic tenets of a military doctrine are determined by a nation's political and military leadership according to the socio-political order, the country's level of economic, scientific and

technological development, and the armed forces' combat materiel, with due regard to the conclusions of military science and the views of the probable enemy.

Moreover, there is no comparable Western usage of the term "military doctrine." Note that the above definition is not compatible with the usual Western definition of military strategy or "grand" ("national") strategy. For a more detailed discussion on the nature of Soviet military doctrine, see Sokolovsky, pp. 42-43 and Grechko, pp. 10-16.

3. Michel Garder, *A History of the Soviet Army* (New York: Praeger, 1966), p. 17.

4. Malcolm Macintosh, "Soviet Military Policy," *Soviet Naval Developments: Capability and Context* (New York: Praeger, 1973), p. 58.

5. War and Army, 1972, Soviet Military Thought Series (vol. 2) published under auspices of USAF, pp. 250-60; see also Garder, p. 140.

6. The current Soviet view of "deterrence" is somewhat different from that held in the West: to the Soviets, deterrence is meaningless without a viable capability to defend the homeland should war avoidance fail. See John Erickson, "The Soviet Military, Soviet Policy and Soviet Politics," *Strategic Review*, Fall 1973, pp. 24-25.

7. Sokolovsky, p. 200.

8. *Ibid.*, pp. 292, 297-98.

9. Macintosh, p. 61; see also Leon Gouré, Foy D. Kohler, Mose L. Harvey, *The Role of Nuclear Forces in Current Soviet Strategy* (Miami: Center for Advanced International Studies, 1975), pp. 8-9.

10. Sokolovsky, p. 288.

11. Avidgor Haselkorn, "The Soviet Collective Security System," *Orbis*, Spring 1975.

12. John Erickson, "European Security: Soviet Preferences and Priorities," *Strategic Review*, Winter 1976, pp. 40-41.

13. John Erickson, "Soviet Military Capabilities in Europe," *Journal of the Royal United States Institute for Defence Studies*, March 1975.

14. Macintosh, p. 67.

15. *Ibid.*, p. 65.

16. Sokolovsky, p. 16.

17. General Lt. Z. G. Zuyvalov, "The New Weapon and Military Art," *Selected Soviet Military Writings 1970-75*, Soviet Military Thought Series (vol. 11), published under auspices of USAF, pp. 210-11; see also Grechko, p. 6; see also *The Revolution in Military Affairs* vol. 3 (Moscow: Soviet Military Thought Series, 1973), p. 137.

18. Garder, p. 209.

19. Henry Kissinger, lecture to students and faculty of National Defense University, 26 May 1977 (Permission to use granted by Dr. Kissinger on 14 October 1977).

20. Robert G. Weinland et al., "Admiral Gorshkov's 'Navies in War and Peace,'" *Survival*, March-April 1975, pp. 54-65; see also Grechko, p. 3; see also Admiral of the Navy S. G. Gorshkov, "The Experience of History and the Situation Today," *Soviet Press Selected Translations* no. 765, May 1976, p. 21.

21. Kissinger, *op. cit.*

COULD WE BE WRONG?

DONALD L. CLARK

*“no nation that
possesses nuclear
weapons has ever
had its borders
seriously
attacked by
another nation”*



The spread of nuclear capability threatens U.S. security and increases the chance of nuclear holocaust. The NPT and the IAEA are the major international instruments for controlling the spread of nuclear weapons.

U.S. Department of State,
Bureau of Public Affairs, August 1977

From the moment the atomic bomb was dropped on Hiroshima, the main question before the world has been whether the human race is intelligent enough to survive.... At least seven nations are manufacturing nuclear bombs and a dozen more know how to make them.

"Arms and Madness," [Norman Cousins]
Saturday Review, July 26, 1975

Although I don't exactly love the H-bomb, it comes close to my idea of what a bomb should be.... In the more than 25 years since it became popular, it has never been used against anybody. A person could get fond of a bomb like that.

Russell Baker, *New York Times Magazine*,
July 31, 1977

MANY now argue that the most dangerous issue facing the world is that of nuclear proliferation, and that contention is widely reflected in the great amount of recent press and international discussion.¹ President Carter apparently shares this belief and is even willing to sacrifice more potential efficiency in the battle for energy in an effort to stop, dampen, or slow proliferation.² Additionally, this is the one subject on which both U.S. political parties, the most renowned scientists, the military, the public, our allies, and enemies all seem to agree. Though the means to ensure nonproliferation may not be agreed on, nearly unanimously, the leaders proclaim proliferation to be bad, and nonproliferation, indeed an extension of the Nuclear Non-Proliferation Treaty (NPT), to be good.

However, a growing number of reasonable and responsible people are ques-

tioning that near unanimous opinion.³ The purpose of this article is not to advocate proliferation but to expose the reader to the logic and thought on that other side of the question. Nonproliferation seems so logical on the face of it, so moral and proper, that perhaps most of us have tended to approve of it with little or only cursory consideration. Reading this article may make the decision tougher—indeed, it might even raise the issue to the level of some other international dilemmas where the right or best answer is not quite so clear. Above all, it is designed to force the reader to go beyond gut reaction and think the issue through. Readers may—I am tempted to say probably will—continue to support NPT initiatives, but I suspect they will do so with slightly less assurance, while feeling more confident that they have considered the issue in depth. They may also conclude that nonproliferation could be counterproduc-

tive to the very conditions it seeks to promote.

the question

The Nuclear Non-Proliferation Treaty was signed in 1968 amid great fanfare proclaiming that the world now had a means to avoid nuclear holocaust. It has since been signed or ratified by more than one hundred nations. These ratifications seem to be a giant step forward, yet nuclear weapons have proliferated in both total numbers and number of possessors and may be on the verge of even more rapid growth and expansion. In fact, the NPT, to date, simply has not achieved its avowed goal. Tonga, Zambia, and similar third world nations have rushed to the signing table, but most of the nations that have the technology or technological potential and the financial ability to produce nuclear weapons have not been so eager to sign; and two possessors, France and the People's Republic of China, have not signed. The list of nonsigners is impressive. The Federal Republic of Germany and Japan are the only nonpossessor nations with true nuclear potential that have signed and ratified, and they ratified only some six years later after pressures were applied by the U.S. and the U.S.S.R.⁴ Significant nonsigners or ratifiers include Brazil, Israel,* South Africa,** India, Pakistan, Bangladesh, and Egypt among the nonpossessors;⁵ France, the People's Republic of China (PRC), and India are among nuclear weapon possessors. The question we have to ask is Why? *If nonproliferation is so clearly in the best interests of the world, why are such key countries not responding to this call for what we see as sanity?*

*Some now are convinced that Israel has added nuclear weapons to her war stocks.

**The U.S. and U.S.S.R. recently joined forces in an attempt to pressure South Africa to turn away from nuclear development. The verdict is not yet in.

the answer

Nuclear weapon possession is, after all, most valuable. Why else would the U.S. and U.S.S.R. possess thousands of warheads when the weapon has only been used twice more than thirty years ago? Why else would the United Kingdom, France, the People's Republic of China, and India, at increasing degrees of sacrifice, devote the enormous amounts of investment (manpower, money, and resources) necessary to enter the nuclear club, even while the latter three were being pressured, sniped at, and criticized by the superpowers for so doing? Could it be just for the right of membership in the exclusive nuclear club? Could it be just for a seat of power on the Security Council of the United Nations? No. (Note that the People's Republic of China was denied her seat until she acquired nuclear weapons.) As important as it may be to join the nuclear club and enter the ever less effective and weakened Security Council, those reasons alone would not appear to justify the expenditure of the six "haves." Nuclear weapon possession must be perceived to offer something more. I suggest that that something more is quite evident and that it becomes more evident as proliferation increases. It is, in a word, "security." There is one self-evident and undisputed fact associated with nuclear power possession: *no nation that possesses nuclear weapons has ever had its borders seriously attacked by another nation.* True, nuclear possession may not be the sole reason for this, but, if we consider the evidence of history, it appears to be significant.

In the early days of the nuclear era, soon after World War II, many proffered the conclusion that atomic weapons made war unthinkable. That early premise failed to come true. Since 1945, wars have occurred around the world—in the Middle East,

Korea, Southeast Asia, Latin America, and elsewhere. These wars have involved possessors of nuclear power, either directly, by proxy, or in the weapon supplier role, but they have *never* involved the sovereign territory of a nuclear nation.⁶ Thus, although *all* wars have not been prevented, one could posit that nuclear war has been *prevented* and, further, that superpower or nuclear possessor wars have been prevented. This leads to the consideration that nuclear weapons may provide what nations have long sought: *perfect territorial security*. If even the possibility of that utopia comes from nuclear possession, it could readily explain why nations want them, in spite of the expense and why nations decline to sign a solemn treaty of self-denial. Surely, a nation that is able to attain a weapon system which has even some possibility of guaranteeing security should not forego that option, for is that not the first and primary goal of every government? Would the U.S. sign the Nuclear Non-Proliferation Treaty if we were a nonpossessor?

Considering the history of the nuclear era, I would additionally suggest another possible conclusion: that the *proliferation* of nuclear weapons has actually made them a more effective deterrent while simultaneously diminishing the likelihood of their use, a most incongruous and unique occurrence. Remember that when only *one* nation had nuclear weapons, it used them in spite of what, at least in retrospect, seems to have been questionable cause.⁷ But since that near-single use and the acquisition of similar weapons by other states, all have foregone their use in spite of provocation and opportunity. Thus, it can be argued that weapon possession by a single state is most unstabilizing, at least for all the others, but as more acquire the weapon the less likely it will be used, except in the

theoretical last ditch effort to ensure survival.

discussion

If this is true, nuclear weapon holders, in the current state of weapon technology, have both the ultimate defense and, at the same time because of nuclear proliferation, an almost useless offensive weapon.⁸ On the surface, this combination could tend to achieve what the early prophets of nuclear weapons foretold, a nuclear guarantee against war. Further, if the foregoing is true, it follows that the proliferation of nuclear weapons, instead of threatening war, actually increases the probability of preventing war. This conclusion suggests the following hypothesis: If no nuclear possessor need fear attack, then the only place there can be wars is where nuclear weapons are not possessed, and if such places are diminished through nuclear proliferation, then war potential is also diminished. Thus, nonproliferation, our sacred cow, may be counterproductive to the very purpose for which we have established it, or, in other words, proliferation may be more likely to eliminate war than nonproliferation. A key point is that "proliferation" has changed this powerful offensive weapon into one that can be used only in a last-ditch defensive role.

Let us turn for a moment from the realm of pure speculation to the facts of recent history. The U.S. and U.S.S.R., in spite of numerous crises, have avoided war with one another, and at least one significant reason for that could be because they both recognize the exponentially increased risks to them as a result of nuclear weapons. In fact, a study of their relations can detect that as their nuclear arsenals have become more equal, they have become more and more prudent and

cautious in their relations with one another; while when one side had a clear advantage, they were even more at odds.

But specific wars have occurred, even involving the superpowers—the U.S. in Korea and Vietnam and the U.S.S.R. in its invasions of Hungary and Czechoslovakia. Additionally, the U.S. and U.S.S.R., by proxy and supply line, have been involved in three Middle Eastern wars and other even smaller ones in Angola, Yemen, Dominican Republic, Ethiopia, Zaire, etc. In fact, it is the contention of many concerned voices in the world that these indirect superpower confrontations in nonsuperpower wars present the greatest danger of leading to superpower nuclear war as the result of escalation, miscalculations, etc. On the evidence available, one has to conclude, then, that nuclear weapons, if they are preventing wars between the possessors, clearly are not also preventing wars among nonpossessors and further conclude that this is dangerous. However, we seldom ask, could those small wars also have been prevented had the lesser powers possessed nuclear weapons?

The 1968 Soviet invasion of Czechoslovakia presents an interesting example. The Soviets are noted for a strong conservative bent in international affairs, especially as to involving Soviet forces outside the U.S.S.R." In 1968, Soviet generals were able to assure the party leadership that (1) organized Czech military resistance was unlikely and, (2) even if it occurred, it would be squashed reasonably rapidly and with, say, at worst, 10,000 to 40,000 Soviet military casualties, a relatively undramatic loss possibility of professional soldiers in a country with millions. But what if those Soviet generals faced a proliferated world and knew that Czechoslovakia possessed, say, just 10 to 20 Minuteman missiles or their like? Now,

their worst-case analysis would have to indicate that an invasion of Czechoslovakia could mean the loss of several million at-home Russian civilians in an overnight holocaust. The "pucker" factor goes way up, and the conservative decision-maker is forced to re-evaluate the gains versus losses of his decision to strike or not.

The same applies to the Israel/Egypt/Syria triangle and similar African, Latin American, and other rivalries. Thus, is it not reasonable to ask if proliferation might not mean less chance of war—rather than an increased likelihood?

the fanatics

By now you are surely saying, but what about all those wild-eyed fanatics around the world? Surely nonproliferation is valid if it means preventing Idi Amins, Black Septembers, el-Qaddafi, and the like from acquiring nuclear weapons. This is a strong argument and on the surface makes sense to most of us (if we are not Ugandans, Palestinians, and Libyans). But, like so many of the apparent truisms of nonproliferation, examination of the issue reduces the definiteness of the initial conclusion. Wild-eyed fanatics have, in fact, had nuclear weapons and for some reason (possibly the fact of proliferation) chosen not to use them. The world may be shocked by the actions of Amin and el-Qaddafi, and even of the Black Septembers and other Palestinian terrorists, *but* their actions pale when compared with the murders, death camps, and unbelievable horrors of Joseph Stalin. Still, even Stalin resisted the temptation to use nuclear weapons once acquired. Mao Tse-tung's record cannot match Stalin's—at least is less well documented—but many have thought him mad, unrestrained, and callous toward life; yet he, too, proved quite modest in the nuclear arena. Both these

men saw the value of nuclear weapons, killed or caused the death of innumerable lives just by diverting resources to acquire the weapons,¹⁰ yet both showed restraint after nuclear weapon acquisition.

The point is that no matter how badly a nation might want to use its nuclear weapons for evil gains, since proliferation all they can realistically do with them is point to them with pride and say, "don't tread on me." They cannot (at least have not) use them because once a nation acquires such weapons no other nation can afford to push so drastically that he might have to use his nukes. But, simultaneously, without being attacked and in ultimate danger of survival, the nation is inhibited in the use of its weapons against even a nonpossessor because it fears retaliation from some other of the ever growing number of possessors. Idi Amin and such types may appear mad, but it is a controlled madness. These powerful men are willing to murder, harass, and torture those *under their control* and too weak to defend. They are even ready to tweak the nose of superior powers up to the point that it is not really serious enough to invite a strong response. However, they do not foolishly attack or push too far those capable of squashing them. Few, if any, who have risen to such absolute power have ever attacked a foe when it was clear that the foe or his allies would easily be able to annihilate them. An Amin with ten nuclear missiles under his control would not be a very attractive alternative to the world, but realistically, neither does he add much to the threat of nuclear war. The world feels helpless now to stop his internal machinations (partly due to nuclear proliferation), and if he had nuclear weapons, the rest would be even more deterred from interference. But, conversely, Amin might then perceive himself as less threatened and, therefore,

determine it unnecessary to strike out against his "imagined" threateners. My point is that, bad as it might be even if an Amin were a nuclear possessor, the only likely change is that there would then be less chance that any other nation would decide to remove Amin—"nukes" *protect* the good and the bad equally, but due to proliferation they offer only an unusable offensive threat. Amin types are disgusting aberrations, but no more so than the world has faced before; and the previous aberrations, once they acquired nuclear weapons and faced the fact of proliferation, actually demonstrated restraint about their use and protection. It is a hard fact to accept, but to much of the world it was the U.S. *alone* that used such weapons, and U.S. irrationality alone, as recently demonstrated by "Nixonian-like" paranoia over national security, they most fear. The wild-eyed, fanatic fear may be exaggerated—I hope.

inevitability

I say "I hope" because there is another argument against support of the NPT concept. Many of the world's most renowned experts in weapons, international affairs, politics, and nuclear science are now concluding that the battle is lost; proliferation is inevitable if only because science cannot be withheld, and the science of nuclear weaponry is available.¹¹ I might add that it is inevitable also because many see these weapons as useful. But the point they make is, why fight the inevitable? It is worth fighting even for a lost cause if the cause is noble and correct, but it is not worth the candle if the cause is not clearly in the best interests of mankind; and the points related thus far at least raise the question that proliferation *might* well be better for mankind than nonproliferation so the candle's value is questionable. However, unmanaged pro-

liferation is more dangerous than other alternatives—one of which I will describe later.

U.S. image

Another concept of the nonproliferation policy that may in fact not be what we think it is, is the image its support by the U.S. creates. In the U.S., we instinctively consider nonproliferation to be good and support of the NPT to be respected and proper. The failure of the NPT should have warned us that they may not be universally true, *but it did not*. The truth may be, however, that other nations, especially those verging on nuclear capability and properly desirous of its advantages, consider the U.S. NPT policy to be hypocritical and arrogant. They may well interpret our platitudes about the evils of nuclear weapons as merely propagandistic cover for our participation and perpetuation in superpower world domination rather than a sincere desire to avoid a nuclear Armageddon.

Think of it for a moment from their viewpoint. What the U.S. may be perceived as saying, in concert with the U.S.S.R. and the world's former pre-eminent colonialist, the United Kingdom, is: *We and our powerful friends have accumulated these super destructive weapons in numbers that can threaten the world. We need them, but of course you do not. In fact, in your hands they could be most dangerous. For us they guarantee freedom from attack by any and all and near ultimate security, but for you such a guarantee is not necessary. Sign the NPT and if anything goes wrong, we might decide to protect or punish you, depending on how we interpret the circumstances. You should forswear such weapons and even some of the energy related benefits some aspects of nuclear production capability might afford you, since they can lead to weaponry. We, on*

the other hand, will keep ours, even constantly increasing the numbers and/or the capability of them to destroy efficiently. Now if that is the way many of the nuclear have-nots judge our nuclear stance (this ignores the specialized economic gripes the Germans, Japanese, and Brazilians have made in recent months),¹² it is rather easy to see why they not only do not sign on but, in fact, might harbor rather strong resentment over the policy.

I would posit that our NPT policy—plus SALT, détente, and related activities that have brought the U.S. and U.S.S.R. into close and frequent contact—could cloud the view of much of the world concerning the basic differences between the U.S. and U.S.S.R. Partly because of this NPT attitude, they might judge us as two superpowers striving to achieve even greater power and wealth while telling others that it is bad for them to follow our path.

However, I do not mean even remotely to suggest that détente is the wrong approach, for I feel quite strongly the other way. Yet as other nations observe summit meetings with our President and the Soviet General Secretary arm-in-arm, toasting in champagne and concurring in joint policies like the NPT, it could cause the third world and even some of our developed allies to wonder if the superpowers are not becoming more and more alike and conspiring to hold onto special wealth, might, and status at everyone else's expense.

I suggest that instead the U.S. should highlight the differences between our system and the Soviet's whenever possible. Agreements to reduce or limit nuclear weapons and to exchange cultural programs, etc., can easily be judged by the world as progressive steps for all if they diminish ever so slightly the superpower threat of war, and they should continue.

But the NPT policy may be viewed through others' eyes as discriminating—an act of inequality and even immorality favoring the greats while depriving the weak. This image is not consistent with the founding of the U.S.; our founders called for no entangling alliances, all people and nations equal, and no plan for the U.S. to try to dominate others. Thus, in spite of our belief of its goodness, the NPT policy might in the eyes of many be viewed as a new kind of imperialism, one sponsored by Communist and democrat alike. Is there then an alternative, a middle ground that turns us away from the lost cause while simultaneously taking advantage of some of the pros for proliferation? I suggest there may be. It is an approach I call "controlled proliferation," which is designed to lessen the risks of war, reduce the costs of acquiring nuclear weapons and nuclear energy, improve the U.S. image as a *leader* and seeker of an equitable as well as peaceful world, while simultaneously avoiding for as long as possible—perhaps indefinitely—proliferation to those most unstable, undesirable states.

controlled proliferation

Under controlled proliferation (CP), the U.S. would publicly withdraw from the NPT for reasons of its failure, the clear inevitability of proliferation, and the possibility that proliferation may better achieve the goal of lessening the danger of war. We would then make it clear to the world that, *under certain circumstances*, we would be willing either to assist or even grant nuclear weapon acquisition or energy capability to certain have-nots. The circumstances are, of course, the key, and they would have to be carefully determined,¹³ but as a starting basis I suggest the U.S. might grant limited nuclear weaponry:

- Where a government has a long

history of stability and friendly relations with the U.S. (Canada, Switzerland, The Netherlands, as examples).

- Where possession of nuclear weapons or energy by the state in question would make the region more stable by lessening the likelihood of war (Taiwan, Israel, Egypt, Greece, Turkey).

- Where human rights are at an acceptable level or have drastically improved and are still improving (Canada, Switzerland, Norway, Sweden).

- Where the recipient will sign a treaty not to use such weapons except in defense of his sovereign national territory that has been invaded or attacked.

- Where the recipient will agree not to add to the number of weapons supplied by the U.S. or to transfer them.

In essence, the U.S. would consider supplying a small number—10 to 50 nuclear weapons—to those nations in which we determine it to be in our interest and the world's to do so, *yet* limit the number given or developed and their range so the recipients and the world can recognize that they basically have only a defensive force; a force that would make an attack against them too great a risk to consider, yet a force too small to enable them to initiate an attack capable of totally destroying another. (Expert opinion considers 200 to 300 warheads sufficient to destroy any modern state.)¹⁴

Think how this might be used to assist U.S. foreign policy. What influence might we gain over an Israel or Egypt to settle their problems, if, instead of promissory guarantees over which they have no control, we could trade 10 Minuteman missiles for a reasonable compromise allowing a Palestinian state on the West Bank. Israel and Egypt would remain independent and now have control themselves over assuring the settlement. Yet, the agreement would likely stand because

the risk factor potential would then exceed the desire for change. We could also make a U.S. force withdrawal from South Korea result in increased South Korean security rather than lessened.

What would the reaction to controlled proliferation be? Obviously, the U.S.S.R. would protest. Not because the U.S. policy would be wrong but because without U.S. participation in the NPT their chance to dominate the world is lessened. Unfortunately for the U.S.S.R., they trust no one not under their control sufficiently to give them nuclear weapons, and their natural fear and insecurity plus their imposed alliances are too fragile for them to follow our lead within their bloc. Proliferation in Soviet eyes is a far greater threat than it is to the U.S.

Those who sought such weapons but could not or would not meet the U.S. standards might also be unhappy. But, so what? They are not very likely to be cooperative with us now, and they just might decide that meeting U.S. standards of human rights and foreign affairs conduct would be worth the effort if it gained them genuine security—something the offer of our friendship or money alone does not assure thus provides little leverage to the U.S.

HOWEVER, two serious concerns remain. One, I have not refuted the idea that proliferation, via the numbers game alone, increases the chance of nuclear weapons use. I accept that possibility, but with this qualification—How much danger is added? There are already at least six nuclear nations and 40,000-plus warheads in the world. Would 10 or 20 nations and another small fractional increase in the total number of weapons change that likelihood significantly (say, at the peak, another 2000 weapons)? There

is a risk, but it might not outweigh the gain.

The second concern is related to the first. It deals with guarantees and their flimsiness. How can the U.S. be sure a nation that passes some carefully developed criteria of friendship, stability, etc., will remain that way? The answer is simple: We cannot, but, frankly, that is also true today. We have no such guarantees that the current possessors, the U.S.S.R., the People's Republic of China, India, or France, will not decide to attack tomorrow. They are all more atomically powerful and in some cases more likely opponents than any logical recipients of CP would be—and perhaps in the case of France, the U.S.S.R., and the People's Republic of China, they are even less stable—e.g., How many governments in France since World War II? What succession lines exist in the U.S.S.R. and the People's Republic of China? In other words, in the danger area, nothing new is added, but in the stability area, perhaps there could be an improvement. Under CP the U.S. would probably not give missiles to a Uganda under an Amin or a Libya under el-Qaddafi, but we might to Belgium and The Netherlands; Egypt and Israel; Hungary, Czechoslovakia, and even Romania; Canada and Iceland. Would the world be more explosive or less so? I contend there is a legitimate possibility it might prove more stable, and in such a proliferated world the U.S. would have to lead by example rather than power alone—a worthy challenge in a more equal world. It would be a dangerous gamble, but one that could enhance peace and nudge the United States back into the more traditional leadership role of its past—leading by leadership rather than power quotient.

HAVE we been wrong? Has nuclear weapons' greatest use to the world been

frittered away by a shortsighted policy decision designed not to save the world but to ensure a dominant position in it for the current possessors for as long as possible—an inequitable policy hidden, as so often in the past, by the cover of security? If so, it will fail, and unfortunately the

evidence shows it to be failing. Proliferation is occurring. The controlled proliferation alternative proffers a chance to achieve the long sought grail—a world of peace. Should we not consider it on its merits without blind allegiance to nonproliferation on instincts alone?

Bozeman, Montana

Notes

1. In recent months *The Atlantic*, *Atlas*, *Saturday Review*, *Washington Post*, *Foreign Affairs*, *Foreign Policy*, and *The Illustrated London News*, to mention a few, have featured articles on the question of nuclear proliferation. Additionally, the U.S. State Department and U.S. officials have spoken out publicly and in print citing the need for nonproliferation and the connection between proliferation of nuclear weapons and nuclear energy development.

2. President Carter has delayed development of the fast breeder reactor in the U.S. and tried to persuade the United Kingdom, the Federal Republic of Germany, and Canada to stop nuclear energy agreements with other nations for fear they encourage the possibility of proliferation. Mike McCormack, "How Not to End Nuclear Proliferation," *Washington Post*, April 24, 1977, p. 5.

3. R. Robert Sandoval in "Consider the Porcupine: Another View of Nuclear Proliferation," *Bulletin of the Atomic Scientists*, May 1976, p. 17, suggests nuclear weapon proliferation might have some advantages. Another article raising the question is: "Undue Alarm over Nuclear Spread," *Wall Street Journal*, October 15, 1976 by Ernest W. Lefever, p. 12.

4. The West Germans were very slow to ratify the NPT and finally did so by a slim margin only when the U.S. and Russia insisted that German ratification was needed before the Berlin agreement would be signed. Japan was equally slow, only ratifying in 1976. The issue is frequently debated in Japan with an increasing number of supporters opposing Japan's allegiance to the NPT.

5. For a more thorough study of the possibilities and needs of nuclear power development potentials, see Major Wayne Morawitz, "Nuclear Proliferation and U.S. Security," *Air University Review*, January-February 1977, pp. 19-28.

6. There have, of course, been the Sino-Soviet clashes over disputed territories on their 5000-mile border.

7. In retrospect, we have learned that the Japanese would probably

have surrendered without invasion or the use of atomic weapons.

8. Drew Middleton in "Thinking about the Unthinkable, Politics and the Arms Race," *The Atlantic*, August 1976, pp. 54-57, is only one of many international observers who argues that nuclear parity rules out the use of nuclear weapons except in extreme emergencies.

9. Note that even now, when some experts claim the Soviets have acquired nuclear and overall superiority, the Soviets choose to use "proxies" (the Cubans) for their African adventures. In a 1970 article in the *Air University Review* (January-February), I predicted direct Soviet intervention in Africa by the mid-70s.

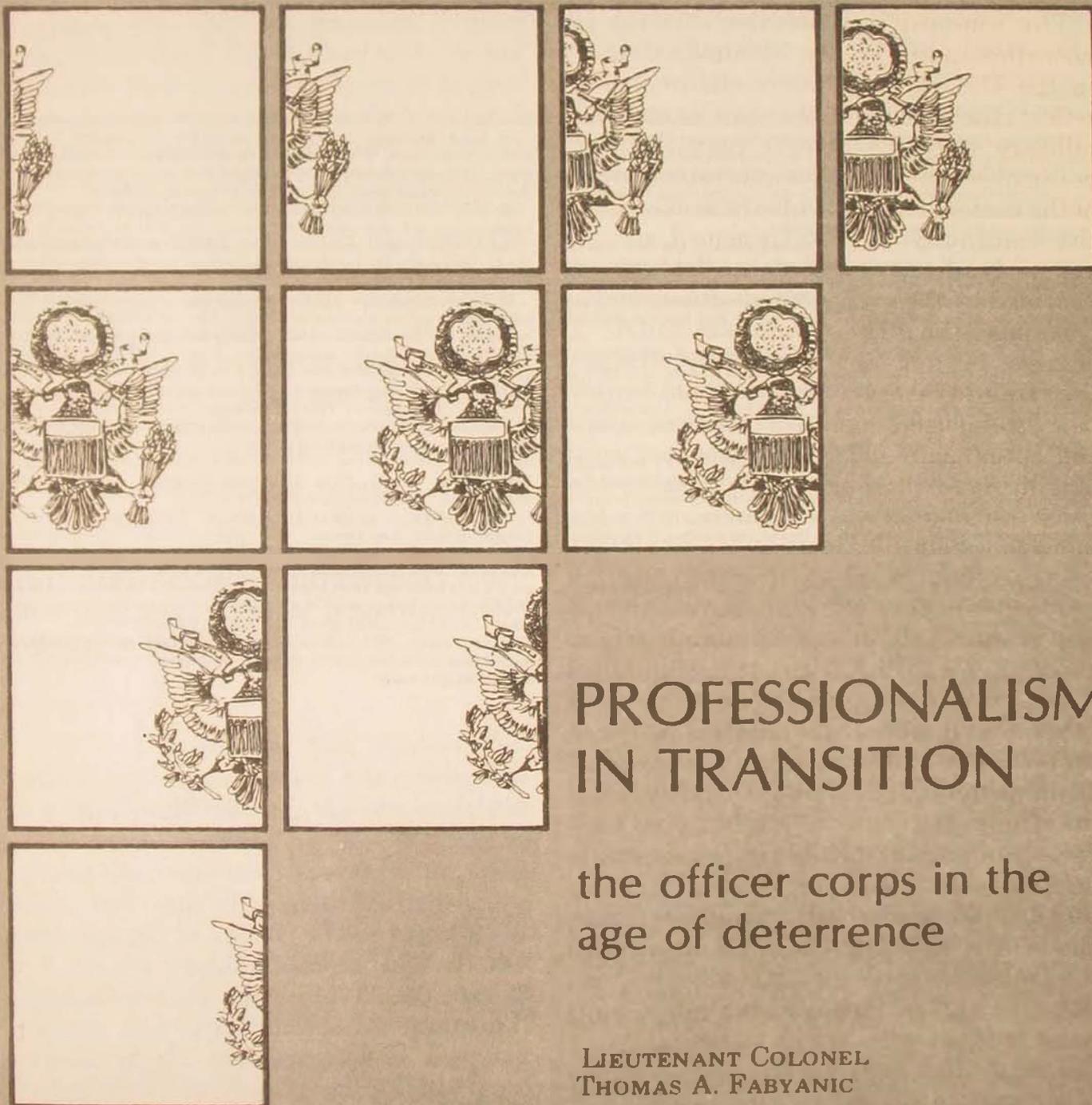
10. The best chroniclers of Stalin's madness and his obsession with acquiring nukes are Aleksander I. Solzhenitsyn in several of his books, including *The First Circle* and *The Gulag Archipelago, 1918-1956: An Experiment in Literary Investigation*, Parts I and II; and Robert Conquest in *The Great Terror: Stalin's Purge of the Thirties*.

11. *Nuclear Energy*, Report of the Fiftieth American Assembly, April 22-25, 1976, Arden House. This distinguished group joined many others that believe, try as the world might, nuclear weapons will proliferate, and that the knowledge to build is common knowledge and the cost ever decreasing.

12. Daniel Yergin, "The Terrifying Prospect: Atomic Bombs Everywhere," *The Atlantic*, April 1977, p. 60.

13. Daniel Yergin in his excellent article, "The Terrifying Prospect: Atomic Bombs Everywhere," *The Atlantic*, April 1977, suggests policies whereby the U.S. would use incentives to accomplish nonproliferation. The similarity between the other goals (nonnuclear) we list is interesting. The Committee for Economic Development in an 88-page report issued in 1976 also urged a close connection between other U.S. foreign policy goals and nuclear nonproliferation.

14. In a study, *1970 without Arms Control*, the National Planning Association indicated no more than 200 warheads are needed to destroy a large nation/state.



PROFESSIONALISM IN TRANSITION

the officer corps in the
age of deterrence

LIEUTENANT COLONEL
THOMAS A. FABYANIC

OBSERVATION and analysis of continuity and change provide an excellent means to assess the strength and resilience of any institution, and the Armed Forces of the United States are no exception. The past several years seem to indicate that the dominant trend is change, and little evidence exists to suggest that this trend will be altered significantly in the future.

The amount and degree of change notwithstanding, much continuity exists in the U.S. Armed Forces. In part this reflects the bureaucratic nature of the U.S. military and the role it plays in the political, social, and economic interactions of the nation, but it can also be argued that the continuity of the armed forces is primarily the product of the leadership provided by the professional officer corps. Obviously the officer corps is undergoing change, but one could question whether the rate and thrust of its new orientation is clearly focused outward toward a re-conceptualization of the role and problems of military force employment in a sophisticated and complex international environment or whether its predominant view is introspective, based on the assumption that straight-line extrapolations of existing strategies and force structures are adequate for the decade of the 1980s.

But before attempting to determine the extent and direction of change within the professional officer corps, one must first examine the salient variables that identify the officer corps as a profession, such as its corporate nature, its fundamental beliefs as expressed in its professional theory, and its professional ethic, which regulates the behavior of the corps. After defining the profession in terms of its variables, one can then suggest the thesis that the officer corps is faced with a serious professional dilemma when tasked to pursue a strategy of deterrence or war-fighting, given the

existing international and domestic environment. Moreover, because of emerging fundamental alterations in the international system and some modifications in the domestic environment as well, the officer corps may find it essential to reassess the variables that constitute its professionalism. More significant, the nature of the changed international system may require the professional officer corps to conceptualize alternative military strategies that could differ considerably from the more traditional strategic constructs of the past.

Professionalism Defined

Perhaps the most obvious variable that identifies the officer corps as a profession is its cohesiveness or corporateness. Like the more traditional professions of law and medicine, the officer corps reflects a corporate character due to its requirement for prolonged and specialized training and education, reliance on an ethical code of behavior, and an extremely strong sense of group solidarity.¹

Certainly a more important variable is the professional theory that exists within the officer corps. The theory consists of fundamental assumptions and principles pertaining to the organization of military forces and how they are employed in peace or war. In an ideal sense, the theory results from an analysis of past operational experience and measured judgments about technological influences. This professional theory serves as a wellspring for the military doctrine, strategy, and tactics that form the basis for all military activity. It is in this area that the military finds itself challenged during the nuclear age by those nonmilitary intellectuals who argue that the exponential increase in the destructiveness of nuclear weapons and the basic lack of empirical evidence

pertaining to their use relegate military judgment to mere speculation. Indeed, the doctrinal and strategic literature of the nuclear age is almost exclusively the product of civilian theorists, with military thought originating in the officer corps conspicuously absent.² But perhaps more significant is the fact that the officer corps has yet to realize that the implications of the existing strategy of deterrence, which stems primarily from the civilian intellectual community, pose enormous challenges to military professionalism—a proposition that forms the basis for this article.

The third and final variable, the professional ethic, appears to be of crucial importance, for it reflects the values and norms that regulate the internal relationships of the officer corps as a group and govern the relationship of the professional officer corps toward its clients, the institutionalized state and the society within the state. As a group, the officer corps stresses the pessimistic nature of man and accepts a cyclical view of history. Military force employment is justified by serving the political aims of the state, which is in continuous competition with other states. This condition requires the officer corps to be eternally vigilant and well prepared for war. Threat perceptions, therefore, are vital to the profession, for they strongly influence strategy, tactics, and weapon system preferences. More important, threat perceptions are a crucial element of the communication process between the profession and its clients.

These values and norms are institutionalized through training, professional military education, and socialization, which is a continuous function in a professional officer's career. And like professional theory, the professional ethic presents the officer corps with a challenge of major proportions when examined in

the context of an emergent military strategy that may go beyond deterrence.

The degree to which the professional officer corps will alter its perceptions of these variables is a matter of conjecture. That they must consider modification is obvious, for certain emerging trends leave the officer corps little choice.

Professionalism and Deterrence

Perhaps the most complex strategy ever followed by the U.S. military is the strategy of deterrence. It remains, since World War II, as the dominant concept of military force utility and continues to serve as the foundation of U.S. national security policy. That notwithstanding, its implementation creates a conceptual challenge for the professional officer corps and requires it to consider some fundamental adjustment in its thinking. For example, military planners traditionally assess a potential adversary on the basis of his capabilities, not his intentions. Yet, "...deterrence is about intentions—not just *estimating* enemy intentions but *influencing* them."³ Despite its tradition, the professional officer corps accepts this salient fact that is stated clearly in the official doctrine of the United States Air Force.

Deterrence is a state of mind brought about by the existence of a credible threat of unacceptable counteraction to an enemy's hostile actions. The intent is to deter an adversary—to prevent an act by fear of the consequences—or to impel him to take some action acceptable to the United States.⁴

But in an analytic sense, this theoretical construct poses some difficulty for the professional officer because it raises fundamental questions about his status as a professional. The problem stems not from the theory, which professional officers accept as valid and promulgate as

doctrine, but from the operational uncertainty of the doctrine. By definition, the professional is required to combine his theoretical beliefs with practical applications in order to assess the true value of his professional expertise.⁵ But an empirically precise assessment about the efficacy of deterrence is made with great difficulty, if at all, and the void that results effectively denies the officer corps an element of assurance so vital to its well-being.

The deterrence strategy further complicates the issue of professionalism since deterrence is based on perceptions that are inherently vague and implicit. One deters by having the intention to deter and by persuading one's adversary that credible military force exists and will be used effectively if deterrence fails.⁶ This presents some difficulty to the professional officer corps because the deterrence theory suggests that *perceptions* of force capability can become more important than actual force capability. Thus, it is possible that force structure and readiness standards necessary to maintain the proper level of perceptions could be less than that required for actual war-fighting. Under such circumstances, the professional officer can be expected to respond in a traditional manner, that is, he will seek to apply those preparedness standards that provide him a perceived degree of certainty at the prudent risk level. Unfortunately, when a presumed state of mutual deterrence exists, the clients of the professional officer corps could oppose such action, since it could be misperceived by the adversary as a move to gain a military advantage. Thus, what the officer corps sees as necessary to assure force credibility can be viewed by his clients as undesirable because of its potential destabilizing influence. Like the previously discussed operational uncer-

tainty of the deterrence doctrine, this dimension of deterrence effectively prevents the professional officer from combining theoretical knowledge with practical application and thus further questions his professionalism.

By contrast, and at a lower level of significance, it appears that the strategy of deterrence serves to reinforce the attitude of the professional officer corps toward war. As noted by Samuel P. Huntington, the professional officer "...is afraid of war. He wants to prepare for war. But he is never ready to fight a war."⁷ Nevertheless, the deterrence strategy does force the officer corps to modify the perceptions of victory that continue to command great influence and respect in the training and education of the professional officer. The traditionalist notion is that

...winning requires not only the means but also the ardent will to win, and the combat officer has been instilled with this will. The kind of military history he has read has stressed those heroic episodes, especially among historic captains of his own nation, where the will to win has conquered over considerable odds.⁸

One committed to a strategy of deterrence, by contrast, merely would define victory as the absence of war.

Professionalism and War-fighting

It should be recognized, however, that the demands for change placed on the professional officer corps would not disappear if the U.S. adopted a more traditional strategy of war-fighting in lieu of deterrence, largely because there currently exist powerful domestic constraints on the levels of military force and their use. Moreover, the prevailing and anticipated lowered perceptions of international threat add another dimension to the changing attitudes of the clients

toward the need for military force. Collectively, the constraints impede the fulfillment of the professional ethic.

By definition, the professional ethic includes the values, norms, and responsibilities with which the officer corps governs its interaction with the civil government, the society, and the internal relationships among the officer corps.⁹ The values that constitute part of the ethic are of crucial importance, since they form the basis for self-image and, moreover, enable both the state and society to evaluate the viability of the profession. It appears obvious that such a value system would include, at a minimum, patriotism, ideology, and nationalism. The existence of these values permits the officer corps to establish an appropriate normative structure within the armed forces. The normative structure, its hierarchy of values, and the corporateness of the officer corps tend to provide group cohesion and enable the officer corps to perpetuate the professional ethic. Yet, more important, they allow the officer corps to gain almost universal acceptance of a war-fighting strategy within the armed forces. But the effect is limited to internalization, because externally the normative structure of the professional officer corps has little impact. Indeed, the value system of the clients might differ appreciably, particularly when the interaction between the military and its clients is low, which it traditionally is in the United States.¹⁰ Under such circumstances, and particularly in the absence of actual military employment over a sustained period, the professional officer corps might find it necessary to emphasize threat assessments in order to convey professional judgments to its clients. Threat perceptions are vital in such a situation, for they provide the armed forces with a method of highlighting the risk and uncertainty asso-

ciated with decisions made by the clients.

But one must question the extent to which the professional officer corps can adhere to its ethical values necessary for a war-fighting strategy, given the trend of the views expressed by the elite and attentive public within American society. One analyst suggests that "...Americans in general, and elites in particular, see international affairs as less threatening than they once did,... [and that] the cold war view of threat no longer is a part of most Americans' political consciousness." Moreover, the evidence seems to suggest that the shift is a major one and likely to remain for some years.¹¹

In similar fashion, civil-military relations appear to be undergoing change. Indeed, Huntington currently suggests that the immediate future will be characterized by "...less congruence and possibly less interaction between the military establishment and other social institutions."¹²

Under such circumstances it appears unlikely that the professional officer corps would convey high-level threat perceptions to its clients on a sustained basis, and, therefore, one must question the extent to which professional officers could rely on threat perceptions as a value in its ethic. It is this condition that leads Professor Huntington to conclude that "the tension between the demands of military security and the values of American liberalism can, in the long run, be relieved only by the weakening of the security threat or the weakening of liberalism."¹³

Thus, it appears that both a deterrent strategy and a war-fighting strategy present serious dilemmas to the professional officer corps; the former by preventing the professional officer from combining his theoretical knowledge with practical application and the latter by the

apparent divergence between client threat perceptions and those that the professional officer must institutionalize to satisfy his professional ethic. Independently, both strategies place a strain on professionalism. But when it is realized that existing American strategy is based on the notion of deterrence *and* war-fighting if deterrence fails, then the full impact of the professional dilemma becomes abundantly clear. Put differently, the clients of the American military require its professionals to maintain a strategy which demands that the professionals' expertise remain unproved; simultaneously, the clients ask the professionals to remain prepared to implement a strategy that requires the institutionalization of an ethic fundamentally at odds with that of the clients.

Perhaps the basic question is one of strategic direction. Does there exist a strategy that would provide for the security of the state while simultaneously permitting the professional officer corps, with its attendant theory, ethics, and corporateness, to maintain a positive and intellectually respected interaction with its clients? Or, alternatively, is it necessary for the professional officer corps to reconceptualize its theory and ethic, with proper emphasis on both continuity and change, in order to ensure a continuation of the profession of arms?

Professionalism and the Diffusion of Power

Perhaps the greatest challenge for the professional officer corps in the last decades of the twentieth century is to conceptualize alternative military strategies that reflect existing concerns about the utility and the role of military force in international politics. A prerequisite to that effort is serious introspection leading to an objective analysis of how the

profession wishes to define the variables that constitute its professionalism. Obviously such efforts might lead to considerable change but not to the exclusion of tradition and continuity.

The first task for the professional officer corps might be to re-evaluate its dependence on both professional theory and practical application. In the existing technological era, the latter chiefly functions as means of providing a measure of certainty and offers a sense of accomplishment. Practical application does not appear essential for mature professionals and, moreover, may not have validity due to rapidly changing technology and the constant flux of politico-military situations. This is to suggest, of course, that theory and doctrine—and the resulting strategy as well—can be accepted as valid without empirical data to substantiate their validity.¹⁴ The professional officer corps can base its theory, doctrine, and strategy on a continuing analysis of its own capabilities and its professional assessment of the threat.

With regard to its ethic, the professional officer corps can give thoughtful examination to its values and norms and ask if they maintain relevance for the existing environment. It appears that the divergence between the professional officers' perceptions of their fundamental values—nationalism and threat assessment—and those of the state and society may unduly and unnecessarily strain the linkages between the two. Perhaps the professional officer corps should recognize that its normative influence, external as well as internal, has less impact in today's relatively sophisticated and pluralistic environment. Clearly, internal socialization has its limits, and the professional officer corps should be aware that excessive commitment to the war-fighting values of the military institution is a

dangerous movement toward a distinct military ethos.

The strategic implications of a reconceptualization of professionalism could be a major significance. Deterrence can be accepted in a total intellectual sense, since the demands of the profession will not require practical applications of theoretical constructs to ascertain their validity.

Likewise, a war-fighting strategy takes on new dimensions since it would not rest on a professional ethic that places primary emphasis on nationalism and threat assessment. Instead the ethic could stress the return to the notion of territorial defense and coercive diplomacy, concepts which should be more congruent with the clients of the professional officer corps. This modification of the ethic makes it possible to alter the war-fighting strategy so that its orientation is directed more at escalation control of conflict. The profession of arms then takes on the image of what is referred to as a constabulary force,

...continuously prepared to act, committed to the minimum use of force and seeks viable international relations rather than victory, because it has incorporated a protective military posture.¹⁵

Although not in the tradition of classic military force employment, the professional officer corps may have no choice but to accept this changed orientation, if for no other reason than the continuing and fundamental alteration of the international system. The emergence of a large number of new states, with their attendant nationalism, and the surfacing of determined sociopolitical aspirations are accompanied by a diffusion of military and politico-economic power. Given the magnitude of the diffusion—particularly the military dispersion that includes the availability of conventional weapons of unprecedented accuracy and the likelihood of nuclear proliferation—the threat

to international order and security appears ominous.¹⁶

For the professional officer corps, the changing international system requires an assessment of the role of force in such an environment and an adequate strategic concept. In a professional sense, application of the deterrence strategy at levels below strategic nuclear exchange and classical conventional warfare in a NATO-type scenario might have serious limitations because of the enormous difficulty in determining adequate force structure requirements for a multitude of potential adversaries. Likewise, a traditional war-fighting strategy may offer little promise in such an international system simply because the magnitude of the threat conceivably could exceed the resources that realistically could be made available for a continuous war-fighting strategy. Indeed, the challenges are formidable.

A review of the implications of this changing international environment leads one American scholar to conclude that

the paradox of the emerging international system is that the need for more effective structures and mechanisms to reduce the likelihood of conflict will be greater than in any previous era. But at the same time the potential for exploitation of a variety of conflicts for unilateral advantage will be greater than ever. The broad interest of the United States lies, of course, in helping to shape a global system in which the prospects for conflict will be diminished. For this purpose American military power will remain an indispensable ingredient.¹⁷

IT APPEARS, therefore, that the response of the professional officer corps must be a strategy that offers military force structures of sufficient capability and flexibility to apply coercive diplomacy in the international system, while the political

processes work toward the establishment of a new world order in which "...the prospects of conflict will be diminished."¹⁸

The manner in which the professional officer corps responds is crucial; that it must respond is an ethical imperative.

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Notes

1. The definitions offered are drawn from the following sources: Bengt Abrahamsson, *Military Professionalization and Political Power* (Beverly Hills: Sage, 1972); Samuel P. Huntington, *The Soldier and the State* (Cambridge: Harvard University Press, Belknap Press, 1957); and Morris Janowitz, *The Professional Soldier* (New York: Free Press, 1960); reprinted with a new Prologue in 1971.
2. A notable exception is Maxwell D. Taylor's *The Uncertain Trumpet* (New York: Harper, 1960). By contrast, there is a plethora of scholarly Soviet materials written on doctrine, strategy, and tactics by military officers of the U.S.S.R. Much of the writing is available in the "Soviet Military Thought" series, translated and published under the auspices of the USAF.
3. Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), p. 35.
4. AFM 1-1, *Aerospace Doctrine United States Air Force Basic Doctrine* Department of the Air Force, 15 January 1975, p. 1-1.
5. Abrahamsson, p. 61.
6. Schelling, p. 36.
7. Huntington, p. 69.
8. Bernard Brodie, *War and Politics* (New York: Macmillan, 1973), p. 490.
9. Abrahamsson, pp. 63-64; Huntington, pp. 9-10, 76-79.
10. Andrew J. Goodpaster and Samuel P. Huntington, *Civil-Military*

Relations (Washington: American Enterprise Institute for Public Policy Research, 1977), pp. 22-26.

11. Bruce Russett, "The Americans' Retreat from World Power," *Political Science Quarterly*, Spring 1975, pp. 8, 17.
12. Goodpaster and Huntington, p. 26.
13. Huntington, p. 456.
14. A precedent for such acceptance exists in the history of the U.S. Army Air Corps during the 1930s. During that time, and on the basis of meager evidence, it developed and taught the doctrine and strategy of daylight, high-altitude precision bombardment.
15. Janowitz, p. 418.
16. Robert L. Pfaltzgraff, Jr., "Emerging Major Power Relationships: Implications for the American Military in the Late Twentieth Century," *Air University Review*, March-April 1977, pp. 7-11.
17. *Ibid.*, pp. 14-15.
18. *Ibid.*

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FAMILY POLICY IN THE ARMED FORCES

an assessment

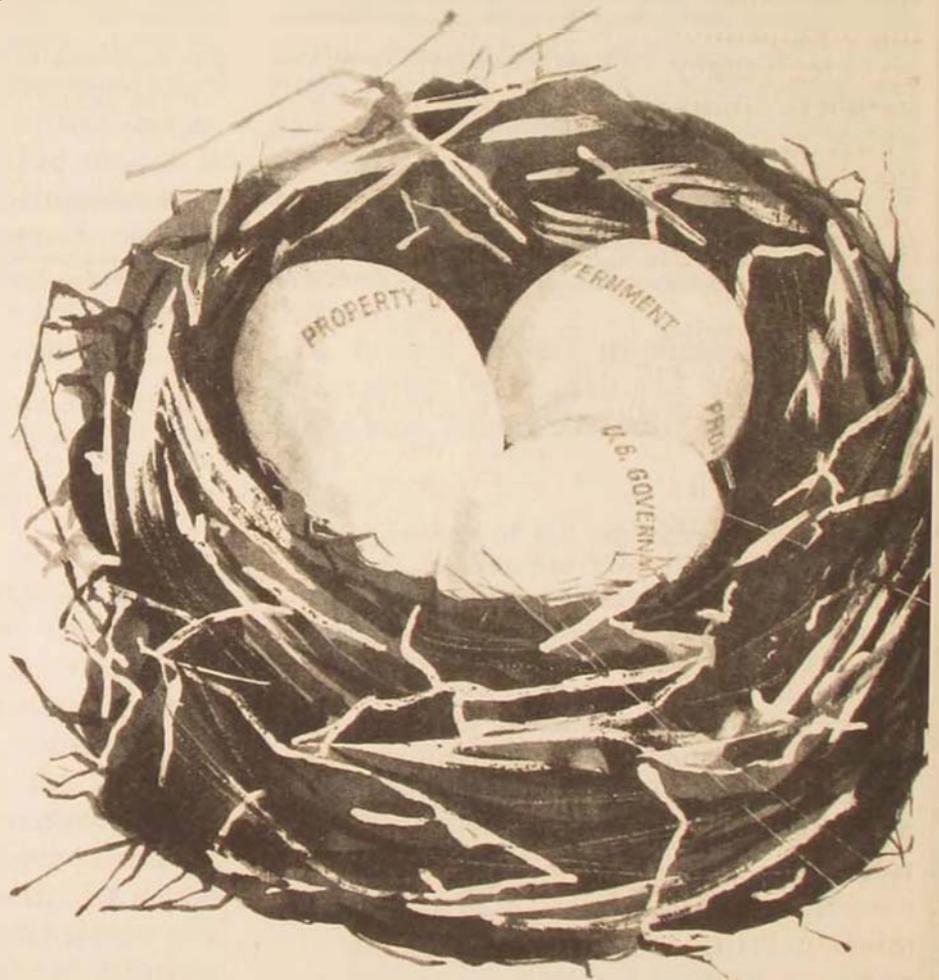
DR. HAMILTON I. McCUBBIN

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DR. EDNA J. HUNTER

DR. CHARLES C. MOSKOS, JR., in his application of developmental analysis to the military establishment in the United States today, concluded that "the overriding and clearly dominant trend in contemporary military organization is the decline of the institutional format and the corresponding ascendancy of the occupational model."¹ Such a conceptual shift implies not only organizational consequences such as trade unionism and increased use of civilian technicians but also a gradual yet distinct change in the role of the military family from that of a passive appendage to that of an active component of the military profession. Essentially, this shift departs from traditional military values and norms



underscoring a "calling," which overrides individual and family interest in favor of the higher goal of national defense. Historically, members of the military and their families have been guided by prin-

principles of sacrifice and dedication to the organization; their efforts, in turn, have been partially repaid by an array of social and financial supports signifying the military's intent to "take care of its own."²

The emerging occupational model of military service, by contrast, is derived from a marketplace that provides monetary rewards for equivalent skills.³ Within this model, military personnel exert influence in the determination of salaries, working conditions, and benefits; first priority is clearly given to self and family interest rather than to that of the employing organization. The occupational model gives legitimacy and weight to the service members' individual and family needs, which are commonly suppressed within the institutional model. Implicitly, the occupational model stimulates the creation of programs and benefits more responsive to family needs and more equitable in view of the unique demands placed on the family by the employing military organization. Within this model, such presently unquestioned realities of military service as forced family relocations, separations, financial hardships, and fluctuating benefits may well become negotiable contractual issues between employee service members and the employer organization.

By viewing the changing military system in terms of this emerging occupational model, we can better understand and respond to the increasingly activist role of the military family and appreciate even more the family's role in the military mission. Within this context, military and national leaders face an important and difficult challenge: to make the family a primary and integral component of military policy. To meet this challenge effectively, policy-makers need to: (1) examine carefully and modify traditional assumptions regarding the military fam-

ily, (2) understand the dynamics of both the changing roles of women and the family within the military, (3) evaluate the impact of existing military policies on the health and stability of the family unit, and (4) assess the impact of projected policies on the family.

Assumptions Underlying Family Policy in the Military

Not since Reuben Hill's classic study of military families' experiencing war-induced separations and reunions, in which he appealed for a "national policy which deals with American families as a precious national resource," has any serious examination of social policy and the military family been attempted.⁴ No systematic, comprehensive effort has been made to study the host of assumptions, issues, and policies of the military system that impinges on the lives of families of career-motivated service members, including both officer and enlisted personnel from all branches of the armed forces, collectively referred to in this article as "the military family." It appears now that such an effort should be made in view of increasing evidence that the family *does* influence the well-being, performance, and retention of the service member and thus affects the overall functioning of the military system. The following assumptions appear to be rooted in the historical development of the military system. These assumptions, although slightly modified over time, remain basically unchanged, influential in determining policy, and perhaps not totally appropriate in the emerging occupational model of the military organization.

- The primary mission of the military is the defense of the United States; family concerns and needs are subordinate to this mission.



- The military profession is far more than a job; it is a way of life in which both service members and their families are expected to accept willingly such inherent stresses as extended family separations and frequent relocations.

- The traditional, supportive but subordinate role of the military wife, which has been strictly and comprehensively defined by the system, must be maintained.

- The tradition of the military to “care for its own” means that programs and benefits for family members are a reflection of the military’s interest in them, but these benefits should not be considered guaranteed rights.

- Relative to civilian standards, military pay scales, allowances, and benefits are fair, generous, and conducive

to a comfortable standard of living for the family. The unique financial demands of military life, such as losses due to forced relocations, do not need to be calculated in the salary and benefits formula for service members.

- Except in extreme cases, family influences are not significant factors in the recruitment, health, performance, and retention of military career personnel.

- Because of immense logistical problems, family concerns cannot be considered in job assignments, career planning, relocations, and separations—except in rare hardship cases.

- Family problems are outside the domain of military policy. If they occur, they can and should be handled within the family unit, using limited help from existing military and community resources when necessary. Difficulties within a family, particularly deviant behavior of the spouse or children, reflect negatively on the service member.

- It is improper for the family to challenge the military system on policy issues.

- Any data needed to formulate and evaluate policies affecting the service member or the military family are readily available to policy-makers and are taken into account when making or changing policy.

A REVIEW of relevant research casts considerable doubt on the soundness of the preceding assumptions and suggests that policies based on them may be undesirably costly to the system.⁵ Although costs such as the impaired functioning of military wives, children, and families may defy exact computation, they are nonetheless real and are documented in the research literature.⁶ Additional

evidence for the need to re-examine family-related policies in the military may be gained from a consideration of (1) the changing and increasingly important role of women in society, the military, and the family; (2) the changing role of the military family itself; and (3) the impact of certain military policies on family life.

*changing role of women
in society and the military*

Within the past few years, the women's liberation movement has provided the impetus for a re-evaluation of sex role definitions, policies, and attitudes that had previously limited the options available to women in our society.⁷ With varying degrees of speed and success, many of the economic, legal, educational, and occupational barriers commonly encountered by women are beginning to crumble. The institutions of marriage and the family, based on their traditional, strictly defined sex roles, are being critically examined by growing numbers of women and men alike. The women's movement may be viewed as a strong social force that legitimizes women's interests outside the home and, by extension, legitimizes men's interests inside the home.⁸ Stereotyped, traditional, and inflexible sex roles are gradually becoming modified, and the effects of these changes within both the family unit and the entire society are quite likely to be substantial.

In an effort to keep pace with the move toward equal opportunity for both sexes, the military establishment has recently begun to recruit more women and develop more diverse career options for them within the military services.⁹ However, the integration and full utilization of women in the armed forces continue to be limited by both legal restriction and societal resistance.¹⁰ Nevertheless, it may be

hypothesized that as women *do* become incorporated more fully into the military system, sex role stereotypes will tend to erode as men and women relate to one another in a variety of superior/equal/subordinate job relationships. It may also be hypothesized that service members will begin to relate to their spouses and children in a less sex-stereotyped manner. Double standards of sexual behavior will fade, and the military system itself will gradually cease to be a "cult of masculinity."

The changing roles of women in society, in the military, and in the family will probably soon have profound effects on the quality of military life. For policy-makers, a host of family-related issues come to mind and need to be addressed. What is the expected role of the "dependent" husband whose wife is a service member? Or that of the "dependent" military wife who has a career of her own? How will these changing situations affect military job assignments, family moves, and extended separations? Will members of military families become less dependent on the system, more assertive of their personal and family needs, and less willing to subordinate their lives to the orders of the military establishment? Are family problems and divorces in the military community likely to increase? How difficult will it be to recruit, socialize, and retain high-quality military personnel in light of these current and projected social changes?

changing role of the military family

Slowly and often painfully, many of today's military family members, especially wives, are breaking away from the bonds of military traditions and stereotyped sex roles to develop themselves more according to their own wishes and abilities. As they re-evaluate their educational,

occupational, and other life goals, a growing number of military wives are beginning to question the complete subordination of themselves to the needs of their husbands' military careers.

The contemporary egalitarian family pattern contrasts dramatically with the traditional companionate pattern in which the military community molded family life to the requirements of the profession.¹¹ Until fairly recently, the young serviceman often postponed marriage because of his low salary. When he did marry, the ceremony was often conducted with full military ritual, and the new bride was dramatically introduced into the closed community that was to be her entire life. Apparently, the strains of military life were less disruptive in earlier times because the family was enveloped in a strictly defined, internally consistent lifestyle.

The contemporary military family does not really fit into this traditional framework. Today, a service member often marries and begins his career simultaneously, and his spouse is far less likely to be actively socialized into the military community. The contemporary military family may also be a single-parent family, with either a serviceman or a service-woman at its head. Pregnancy is now legally classified as a temporary disability, and the servicewoman may choose to remain on active duty. In other military families, both spouses are service members, or perhaps the wife is the service member and the husband the military dependent.

During the Vietnam War, the strength and changing role of the military family were dramatically underscored by the emergence of the National League of Families of American Prisoners of War and Missing in Action in Southeast Asia.¹² Composed of parents, wives, and other

relatives of American servicemen declared prisoners of war or missing in action, this highly visible and vocal group demanded that the government (1) provide families with a full accounting of their missing husbands and sons, (2) end the war as quickly as possible, and (3) pressure enemy governments to do the same and provide humane treatment to prisoners of war, as guaranteed under the Geneva Conventions. Backed by extensive publicity from the media, members of the National League of Families voiced their concerns and demands to the Secretary of Defense, members of Congress, and the President himself—as well as to representatives of the governments of North Vietnam, Cambodia, and Laos. It is obvious that the efforts of the National League of Families had a significant impact on the military establishment and the federal government. Family services and benefits were developed; legal support and tax benefits were provided; and, perhaps most important, military families were represented, heard, and respected.¹³

Within the context of an emerging occupational model of military service, increasingly composed of married service members, several current and projected policies appear to have especially undesirable consequences for family life and, thus, for the morale, recruitment, and retention of high-quality personnel. For example, cutbacks in programs providing subsidized commissaries, low-cost housing, family health care at military facilities, and supplementary services through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) are certain to affect negatively those family-oriented persons considering military service as a career.

Clearly, the conflict between the two institutions—the military and the family—over the same resource, the service

member, produces strains and dilemmas for all parties.¹⁴ The considerable power of the family in this conflict has been underscored in the retention studies of enlisted personnel and military academy graduates, which reveal that family influences, especially wives' attitudes toward the military, are crucial factors in determining whether service members remain in the military.¹⁵

impact of existing policies on family life

The military community of the future will probably be characterized by all volunteer personnel, increasing options for women (both as service members and military wives), diversity of family forms and lifestyles, less commitment to the traditional military way of life, and increased assertiveness of families regarding their needs and concerns. Since these trends are already observable, policy-makers would be wise to examine carefully the impact of certain existing policies on the lives of today's military families.

Service members and their families are routinely ordered to make a major change of residence approximately every two years. For all but the lowest grades of enlisted personnel, an allowance is provided for moving family members and household furnishings to the new location. Usually, however, this allowance is quite inadequate, and the family is forced to absorb the extra costs—along with totally nonreimbursable expenses such as losses incurred through buying and selling a home on short notice, temporary family lodging costs, extraordinary transportation outlays (e.g., automobile repairs), and replacement purchases of household furnishings at the new location.¹⁶ The financial stresses associated with forced relocation are serious and continual, especially for families of enlisted personnel; service members frequently try to

work on a second job to supplement their family income.

Besides the high financial costs of frequent relocations, military families must also pay the psychosocial costs associated with a nomadic lifestyle.¹⁷ Isolated from the traditional supports of extended family, close friends, and a stable community, members of military families, especially the wives and children, often experience emotional and interpersonal difficulties that seem to be related to their rootlessness. For military children, problems in school, with friends, and at home have been noted.¹⁸ For the military wives, frequent relocations make serious educational or career ambitions practically impossible.¹⁹ Although military families may certainly enjoy such benefits as travel, exposure to diverse lifestyles, and close camaraderie with other military families, the financial and sociopsychological difficulties involved in frequent, forced family relocations are surely serious enough to warrant closer policy analysis.²⁰

Family isolation. Because of national and international defense commitments, military families are sometimes relocated in foreign countries or in relatively remote areas within the United States. In such situations, families frequently live close together in enclaves of military quarters and may become isolated from the larger, nonmilitary society. Such "ghetto-ization," in turn, may foster a lack of family privacy, an extreme dependence on the military system, a parochial view of the world, and a distorted environment for children.²¹ Although some families may actually prefer these living arrangements because of safety, convenience, and economy, policy-makers would benefit from a thorough review of family adjustments and problems associated with this social-cultural isolation.²²

With American military personnel assigned to duty in many parts of the world, it is not surprising that a number of their spouses are foreign-born. In most military communities, a notable proportion of servicemen's wives are European, Japanese, Korean, or Vietnamese. Moreover, because Filipinos serve in the United States Navy, entire families may find themselves placed in a culture quite different from the one in which they were born. For these foreign-born spouses and families, the "double culture shock" of adjusting to military life as well as to American life is indeed difficult.²³

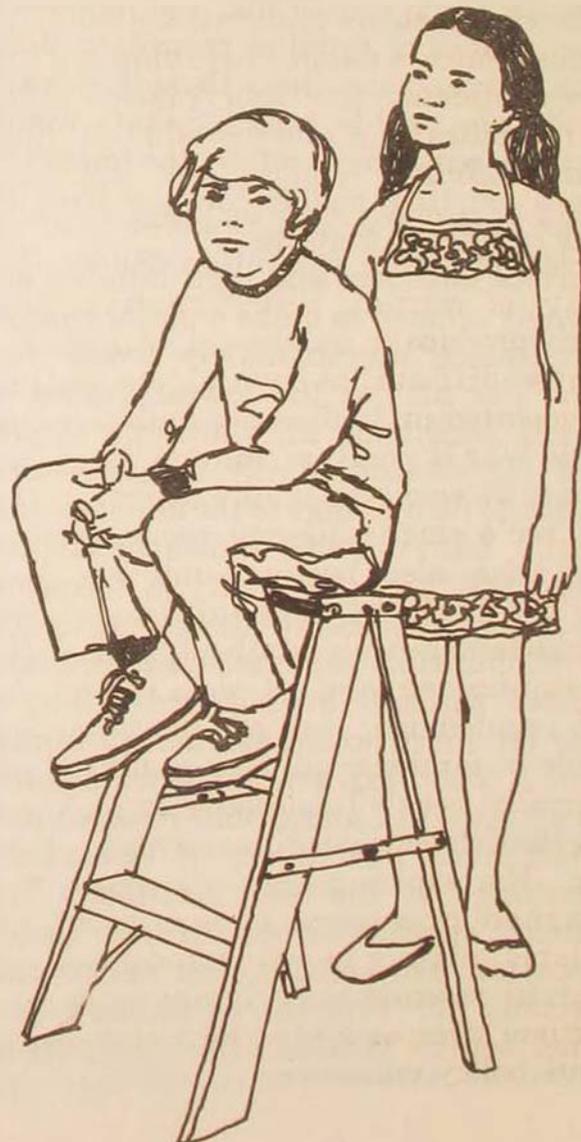
Although very little is actually known about these mixed-cultural families, it appears that they are often socially isolated from other military families, unsure of their English and reluctant to seek help for problems. Furthermore, it seems likely that their children may experience special difficulties because of their dual heritage and differing treatment by parents, teachers, and peers. If these somewhat isolated and vulnerable mixed-cultural families are to become fully integrated into the military community, policy-makers must initiate research documenting their specific needs so that appropriate services can be developed.

family separation and reunion

Another major stress experienced by military families is the periodic family separation required by the system's need for a number of its service members to serve aboard ships at sea, in hardship duty abroad, on special assignments, or in actual combat. Although the nature, frequency, and length are variable, family separations share many similarities in the dramatic role shifts and conflicts found in the husband-wife and parent-child relationships during the actual separation and the subsequent reunion.²⁴

The impact of father absence on children's adjustment is highly complex and related to a host of intervening variables, such as nature of separation (wartime or peacetime, short or long), age and sex of child, attitude of mother toward the separation, quality of mother-father-child relationships, family's prior separations, and availability of father surrogates during the separation.²⁵ Despite differences in circumstances and coping responses, however, it appears that the stresses brought about by forced family separations are considerable for military children.

Although today's military families may



display remarkable resourcefulness and resilience in adapting to the strains of separation and reunion, the longitudinal effects of family functioning under these stresses have only recently begun to be studied.²⁶ How do family separations and associated problems affect the health and performance of service members? How might family members be better prepared for required separations? What is the feasibility of making changes in the nature of separations—e.g., shorter duration, more opportunity for rest and recuperation leave with families, improved planning of separations in careers, and more meaningful family support services during separation? Should the military system actively encourage wives to develop their own interests, skills, and independence so that they may become more confident and effective co-leaders of their families? If so, how would this affect family stability?

War and family life. Coupled with the stresses of family separation, the fear and reality of wartime injury, captivity, and death produce a number of marital and family difficulties, which have been documented in studies of families during World War II and the Vietnam War.²⁷ The impact of war and family separation on children's emotional and social development has also been examined during World War II, the Vietnam War, and the recent Israeli-Arab conflicts.²⁸ While the substantial stresses of war, separation, and reunion may disturb even the most stable of families, military families have generally been discouraged from admitting the existence of problems and seeking help. The experiences of the families of returned prisoners of war and men declared missing in action underscore the need to research key issues related to wartime stresses and to formulate appropriate policy responses.

Legitimacy of Family Policy in the Military

Although the nature and intensity of these family stresses may vary, the authors contend that they are substantial, that they detract from the performance of service members, and that they should be examined much more carefully by military policy-makers. This review of research findings lends legitimacy to the next logical and more complex issue: should family considerations receive higher priority than they now receive, and should they become an integral part of the military's policy-making process?

The traditional viewpoint has been that increased efforts by the military system to help meet its families' psychosocial and financial needs are inappropriate, impractical, and unnecessary considering the existence of federal, state, and local assistance programs. Only in cases of extreme family hardship, it has been argued, should the military system intervene; even then, its programs and services should be strictly limited.

In contrast, the authors maintain that military families, while certainly sharing some problems with their civilian counterparts, are subjected to unique stresses and problems that are not always amenable to help from existing federal, state, and local programs and that responsibility for developing sound policies to minimize and alleviate these stresses lies clearly within the military system itself. If the goal of a high-quality all-volunteer force is to be realized, the system cannot ignore the potent influence of the family on the recruitment, performance, and retention of military personnel.

Within both the larger American society and the military system within it, there is ample evidence documenting the need to incorporate the significant role of the

family into public policy review and development. Major efforts have recently been directed in Congress, toward the improvement of family health and stability.²⁹ Family policy specialists are being trained to analyze the impact of projected public and private policies on families and to assist in developing innovative and sound family-related policies.³⁰ Within the military, the limited but increasing body of research about the military family and women service members heralds a positive trend toward clarifying the close relationships among legislation, military policy, and the family.³¹

Re-evaluation of Assumptions

Given the needs of the present military system and those of its families, how much weight can be given realistically to family considerations in the policy-making process? Because the family is playing an increasingly important role in the emerging occupational model of the armed services, the authors contend that family issues must be given high priority in the development of both short- and long-term military policies.

Clearly the traditional assumptions of military policy-makers, and the policies resulting from these assumptions, have not reflected fully the important roles and needs of the contemporary military family. In contrast to those traditional but no longer appropriate assumptions, the authors offer the following assumptions for consideration by policy-makers:

- The health and stability of service members and their families are vital to the accomplishment of the primary military mission of national defense.

- The implementation of military policies and the realization of desired

goals are greatly facilitated if family needs and the projected impact of specific policies on families become integral parts of the decision-making process.

- To attain and maintain a high level of personnel effectiveness, military policies regarding the recruitment, health, performance, and retention of service members must reflect a positive emphasis on the supportive role of the family.

- Policies regarding pay scales, allowances, and benefits must take into account the financial and psychosocial hardships of military life and their impact on family members.

- Military-sponsored medical, financial, and social service programs and benefits must be considered guaranteed rights of the service member's family in partial compensation for the stresses inherent in military life.

- To the greatest possible extent, family considerations should be incorporated into personnel policies regarding duty assignment, relocation, separation, and career planning.

- Family problems are not outside the domain of military policy; coordinated services within the military system and effective linkages to civilian resources must be mobilized to offer appropriate preventive and treatment programs for family problems.

- Family members have the right and responsibility to challenge, seek clarification of, and attempt to change policies that they feel undermine family stability.

- Systematic investigations of the functioning, problems, and needs of the military family are the responsibility of policy-makers; knowledge derived from such studies is an essential component of policy-making and policy-review processes.

These revised assumptions are based on

the premise that it is time for the military system to recognize the family as a key factor in the formulation and assessment of military policy. Because precise or coherent policy is far better than ambiguous or fragmented policy, the authors propose the establishment of a family impact commission or task force within the military's policy-making organization.³² This concept of a commission is an adaptation of existing national and international programs, which review policy and develop impact statements reflecting the present and projected consequences to the family of existing and proposed public policies. Nations such as Austria and Sweden, for example, have explicit family commissions that emphasize the analysis and improvement of governmental actions related to family life.³³

The proposed military-sponsored commission would focus on policy analysis

and the formulation of family impact statements comparable to the existing environmental impact statements mandated in the U.S. 1971 Environmental Policy Act.³⁴ Simply stated, the ultimate goal of the commission would be the improvement of military family life through policy-making and review. Following Sheila Kamerman's guidelines for the development of a family impact statement, the commission would adopt these immediate goals: (1) analysis and clarification of the consequences of military policies for families, (2) direct communication of knowledge and research findings to policy-makers, and (3) assistance in modifying existing policies and developing new ones that would contribute to family health and stability.³⁵

TRADITIONAL military assumptions and policies concerning the families of service members must be revised in light of evidence which underscores: (1) the significant influence of families on per-



sonnel performance, job satisfaction, and retention; (2) the considerable stresses inherent in military family life; and (3) the changing and increasingly assertive roles of women and families within the military system.

Through the creation of a family impact commission within the military, systematic policy analyses and recommendations could be carried out most effectively. The authors contend that sound policies concerning the military family would improve the service member's performance, provide effective recruit-

ment and retention incentives, promote necessary family stability, and facilitate the overall mission accomplishment of the military system. Through the development of such policies, the family and the military system might reach a more mutually satisfying future, as envisioned by Reuben Hill: "...Two institutions [which] co-exist to achieve a level of collaboration that is more rewarding than what is seen by some as the present state of antagonistic cooperation."³⁶

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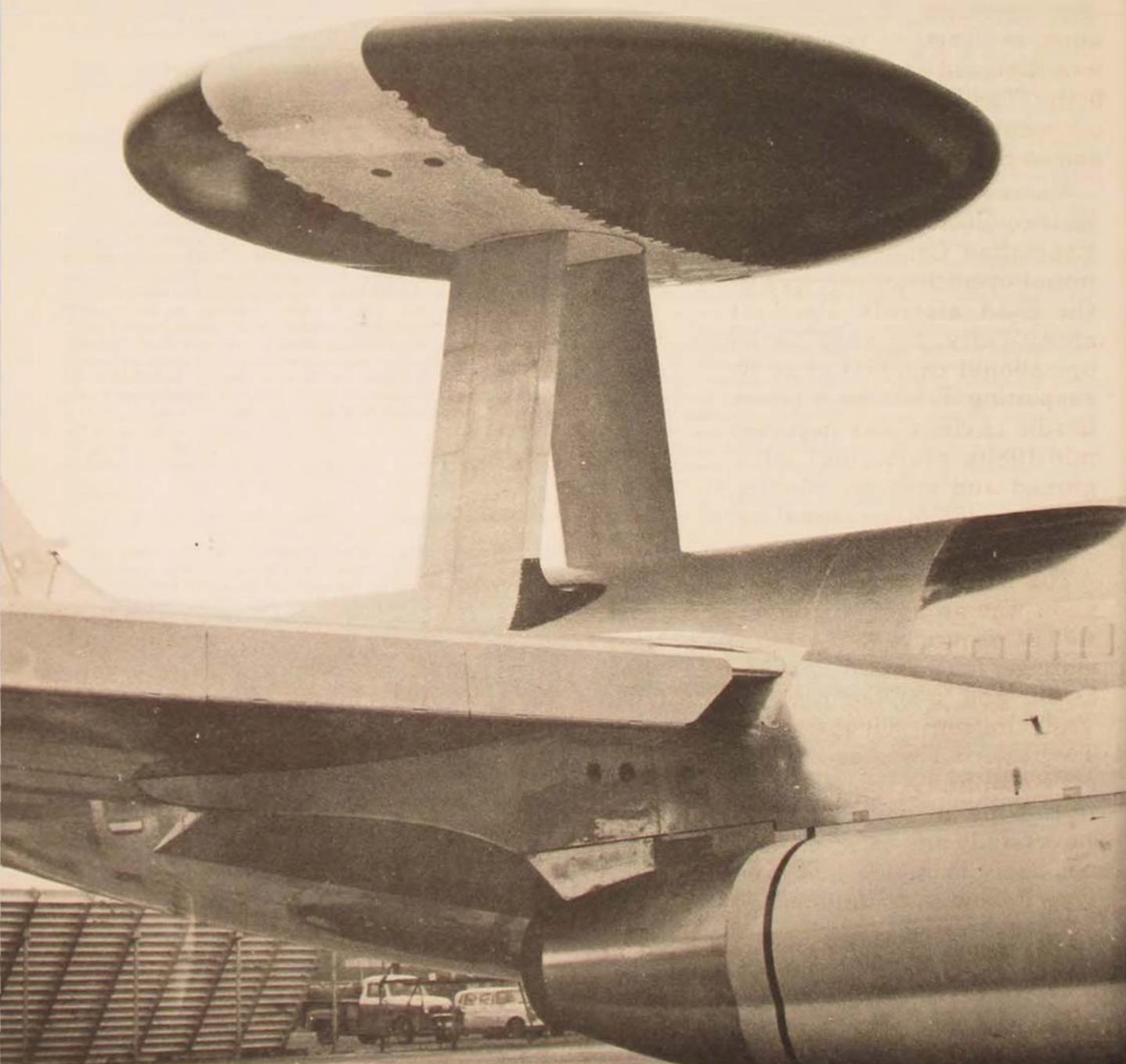
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This article is an integration of two papers: "The Military Family and Social Policy" (McCubbin, Marsden, Durning, and Hunter) presented at the American Sociological Association Annual Meeting, New York, August 1976, and "The Military Family and the Changing Military Profession" (McCubbin and Marsden) presented at the Regional Meeting of the Inter-University Seminar on Armed Forces and Society, Air Command and Staff College, Maxwell Air Force Base, Alabama, October 1976. The article was supported by the Department of the Navy, Bureau of Medicine and Surgery, and by the Office of the Surgeon General, Department of the Army. No endorsement by the Navy or the Army has been given or should be inferred.

THE
DAY OF THE
E-3A TACTICAL TEST

R air
force
review

COLONEL DWAYNE P. WRIGHT



ON 10 November 1976, Tactical Air Command participated in the largest, most complex and time-compressed peacetime air operation ever conducted in the United States. In just 90 minutes an armada of more than 400 aircraft from two services, six Air Force commands, twenty-one bases, and nine states, flying specific routes with precision timing, flew through the Nellis and Edwards Air Force Base range areas in southern Nevada and California. By comparison, the largest Linebacker II raid over North Vietnam on 18 December 1972, consisted of only 266 sorties—64 percent of the sorties in the later operation. This massive air operation, or “Tactical Test” as it was called, was designed to evaluate the E-3A Airborne Warning and Control System, more commonly known as AWACS (recently named Sentry).

Tactical Test was one of three separate tests conducted by the Air Force Test and Evaluation Center (AFTEC), during the initial operational test and evaluation of the E-3A aircraft. Tactical Test was specifically designed to measure the operational capabilities of two mutually supporting E-3As in a dense, simulated hostile environment (representative of a mid-1980s projection) with extensive ground and airborne electronic countermeasures (ECM) employed against the E-3A radar.

The initial operational test and evaluation was an AFTEC responsibility, but AFTEC requested that TAC, as the single manager for the E-3A, provide the tactical assets and manage force employment. TAC, in turn, identified Headquarters Twelfth Air Force as executive agent to plan, coordinate, and conduct this tactical test. Nine months later the test was successfully and safely completed, but it is not likely to be the last operation of its type. Follow-on operations and large-scale

exercises will be needed in the future to maximize headquarters staff and E-3A mission crew training. Properly adapted to readiness requirements, it also has the potential to raise significantly the level and quality of readiness training and the combat capability of tactical forces. This article, then, will identify major considerations involved and problems encountered in conducting an operation of this magnitude and complexity, and it will discuss some key lessons useful to planners, operations staff, and commanders. Some background information will also be provided to place events in proper perspective.

THE E-3A Airborne Warning and Control System represents a man-machine interface capable of conducting surveillance of unprecedented quality deep into enemy territory or of controlling forces in both defensive and offensive roles. The aircraft is a modified Boeing 707 airframe equipped with an aerodynamic 30-foot rotodome housing a highly sophisticated advanced radar. In addition to detecting and tracking aircraft at high altitudes over both land and water, the radar has the unique capability of being able to “look down” and distinguish airborne targets from the ground clutter, which confuses and saturates present-day radar systems. Nine multipurpose consoles (MPC) provide the mission crew with all control features and visual displays required for surveillance, weapons direction, and battle management functions. The on-board computer provides a data bank on friendly and hostile forces and a fully automated console control capability. In short, the AWACS is an airborne surveillance platform capable of providing service commanders and the National Command Authorities with a real-time

E-3A Tactical Test activities were directed from the Tactical Air Control Center (TACC) at Nellis AFB, Nevada (below). . . . The test director monitored these exercises on the TACC flow schedule data boards (bottom).

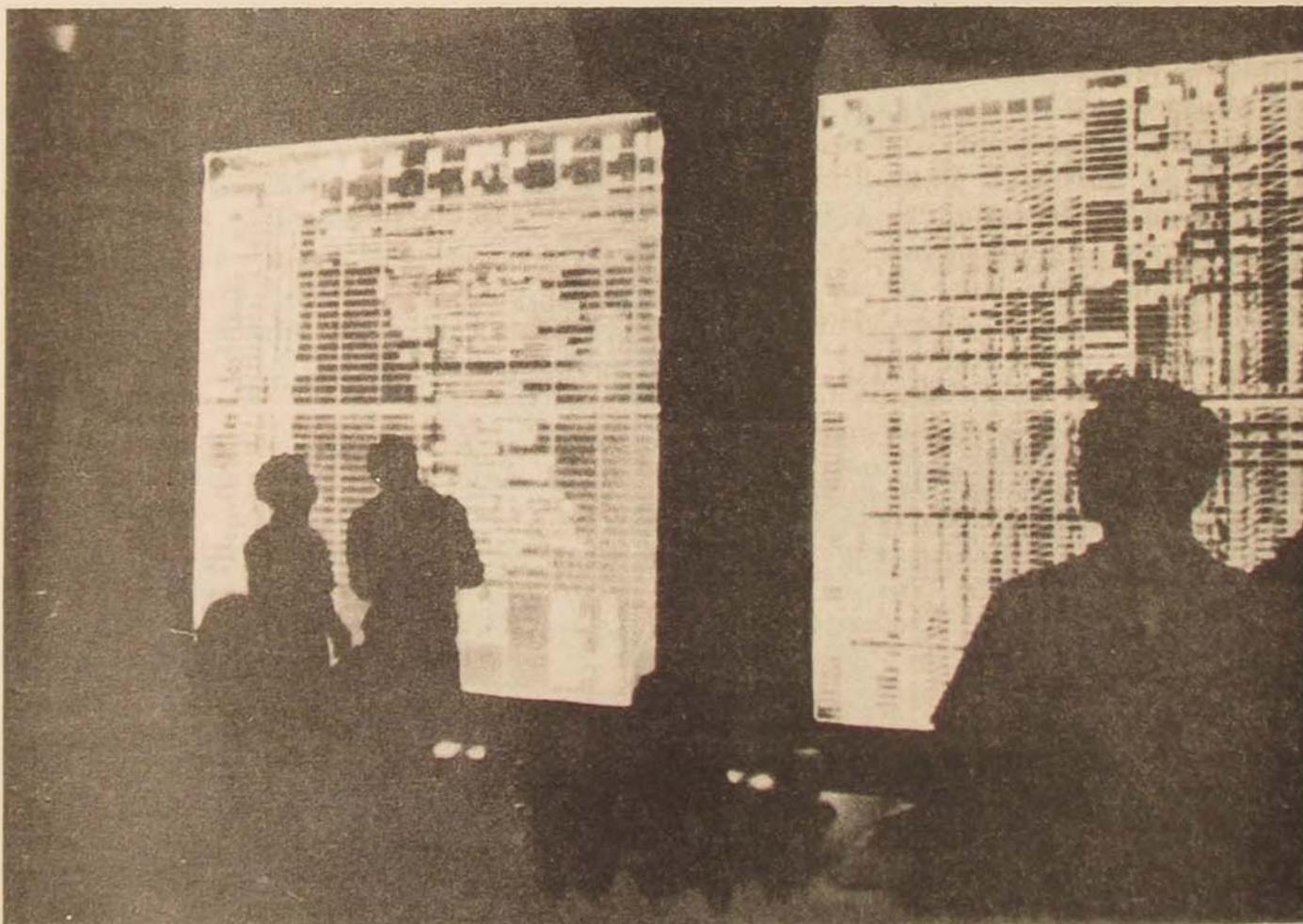


intelligence assessment of the air, land, and sea situation and an up-to-date data base on which to make effective coordinated force employment decisions.

The Honorable Thomas C. Reed, former Secretary of the Air Force, commented on the importance of this system to the Air Force in an appearance before the Armed Services Committee, U.S. House of Representatives, in January 1976. Secretary Reed stated:

The E-3A is our top priority general purpose forces program. It is designed to provide the improved surveillance and command, control and communications that are vital for credible deterrence in peacetime and for battle management in the event of conflict.¹

Initially, congressional committee members were apprehensive of the AWACS

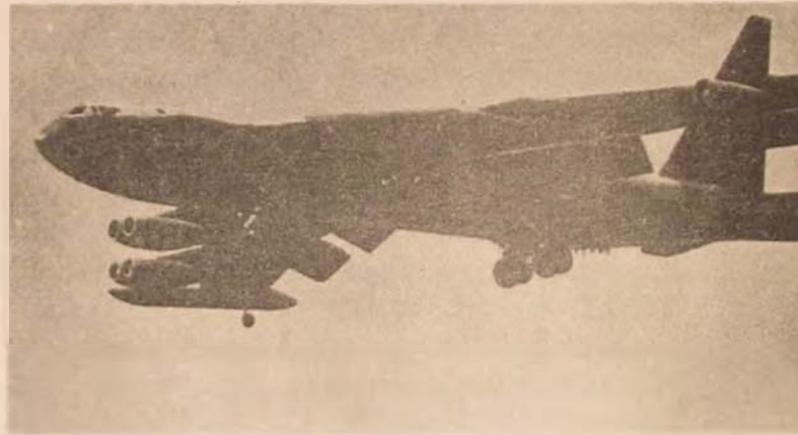




capability to meet design requirements and survive in a hostile environment. For that reason, Tactical Test was specifically planned to confirm AWACS efficiency and survivability for critics by placing the system in the most realistic simulated combat situation practicable in terms of "enemy" forces and scenario.

Planning the Test

Two guidewords—realism and validity—pervaded the planning cycle. Test decisions and plans were continually evaluated and revised to ensure that test conditions were realistic and the planning factors valid. Only safety and peacetime operational constraints limited test realism. A vital step in planning the test, because of its size and complexity, was the development of fail-safe procedures. These procedures allowed rapid adjustments to compensate for various emergencies, including loss of command and control communications. For example, had total communications been lost from



An A-7 Red Force aggressor aircraft (top) takes off from Davis-Monthan AFB, Arizona. ... A B-52 aggressor (above) dropped chaff and directed jamming against the E-3A radar to mask the Red Force raid.

ground-based command elements or the AWACS, established fail-safe procedures would immediately have defuzed the battle and permitted the safe, orderly recovery of aircraft to predetermined locations.

concept of operations

Combat stress for the AWACS was achieved through a battle scenario pro-

viding a high-density wartime environment. Test planners purposely matched a numerically superior aggressor (Red Force) against a technologically superior friendly (Blue) force representative of potential contingency situations. The Red Force totaled approximately 300 hostile aircraft to be identified and targeted by the AWACS. Most of these aircraft flew mission profiles into blue airspace at low, intermediate, and high altitudes to simulate realistic aggressor forces. In addition, a number of Red interceptors were targeted against the E-3A itself.

The Red Force attacked in three consecutive, time-compressed waves. Evaluation of the E-3A radar capability in an intense electronic countermeasure environment was provided by Red Force employment of chaff and standoff jamming against E-3A radars.

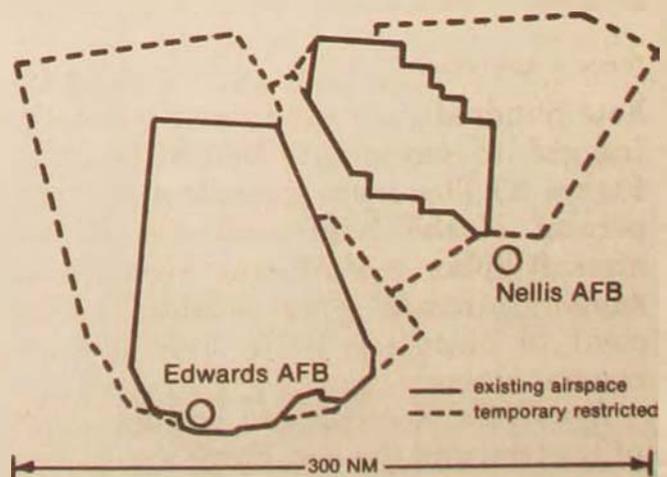
The concept of operations provided for a significantly smaller Blue Force (less than one-half the size of the Red Force), including interceptors, a small interdiction force, RC-135 signal intelligence (SIGINT) aircraft, and ECM support. All were under the AWACS management.

test airspace

Airspace over a land area with mountainous terrain was needed to evaluate the unique low-altitude E-3A system capabilities. A large geographic area was essential to accommodate realistic Red Force flight profiles and to maneuver Blue Force interceptors. The area also had to be large enough for E-3A maneuvering to evaluate its capability to survive in a hostile environment. The only area in the United States that met these basic criteria and provided necessary geographic and vertical airspace was in southern Nevada and California. It included the Nellis and Edwards range areas and additional surrounding airspace.

Coordination for the airspace around the range areas was complex and time consuming. Nellis and Edwards range complexes needed to be expanded to encompass an area approximately 300 by 180 nautical miles (NM). (See Figure 1.) Since the air route traffic control centers (ARTCCs) operate autonomously, coordination was required with six participating centers and two radar approach controls (RAPCONs) to obtain agreement to reroute general aviation traffic and interface test traffic. Following tentative agreement with the centers and western region of the Federal Aviation Administration (FAA), the airspace proposal was published in the *Federal Register*. This procedure is used to notify interested agencies and provide an opportunity for them to submit comments or objections to proposed use of airspace. Subsequently, the Sierra Club, National Park Service, and the U.S. Forest Service each submitted a strong protest to FAA. All three opposed use of the airspace for Tactical Test because of its environmental impacts: increased noise levels with adverse effect on certain endangered wildlife species and

Figure 1. Test airspace



	Red		Blue		White		
CRC/CRP*	2	SR-71	1	CRC*	1	UH-1	3
Angels Peak GCI*	1	F-4	62	E-3A	2	HC-130	1
AFSC GCI*	1	F-105	12	EA-6B	2	HH-3	2
Ground-based jammers*	5	F-5	20	KC-135	8	C-130	
EA-6B	4	A-7	58	RC-135	1	ABCCC	2
EB-57	3	F-100	4	F-15	24	WX	
B-52	2	RF-4	36	F-4	70	recce	2
KC-135	15	F-111	80	F-105	10		
KC-97	3			A-7	16		
aircraft total			300		133		10

*Ground-based support

total aircraft 443

Figure 2. Summary of forces

disruption of the quietude of national parks and designated wilderness areas. The National Park Service and U.S. Forest Service declined to negotiate objections at the national level, indicating it was a regional problem. Eventually, sensitive issues were resolved and objections withdrawn after Twelfth Air Force personnel briefed and discussed issues with regional officers.

Although late in the planning cycle, the airspace proposal was finally approved by FAA two months prior to the test. Had the environmental issues not been expeditiously resolved, the test could have been delayed or canceled.

force employment

Four hundred and forty-three aircraft were fraggged to participate in the test. (See Figure 2.) The 300 aggressor aircraft (68 percent of the total) and 133 friendly aircraft (plus ten neutral White Force support aircraft) were considered sufficient to place the E-3A under realistic combat stress.

Red Force. Realism was a critical aspect of the test, and the Red Force was tailored as closely as possible to present a realistic

threat for the AWACS. The force included 273 assigned target aircraft flying penetration missions into blue airspace. Red Force interdiction and reconnaissance aircraft were at low altitude, escort aircraft at intermediate altitudes, and interceptor aircraft at intermediate and high altitudes.

The Red Force attacked from east to west in three waves, compressed in space and time to within 90 minutes. (See Figure 3.) The first wave, a shallow penetration into Blue airspace, was targeted against simulated friendly missile and gun sites to open corridors for subsequent attacks. The second and third waves were deeper penetrations against simulated Blue Force command control facilities and air bases. Each wave included a representative number of interdiction, reconnaissance, escort, and interceptor aircraft.

ECM was an essential element in the test to evaluate E-3A radar capability in an intense jamming environment. Red Force aircraft employed jammers against the E-3A from standoff orbits. This included B-52s, EB-57s, and U.S. Navy EA-6Bs with coordinated jamming efforts. The B-52s and EB-57s also dropped chaff

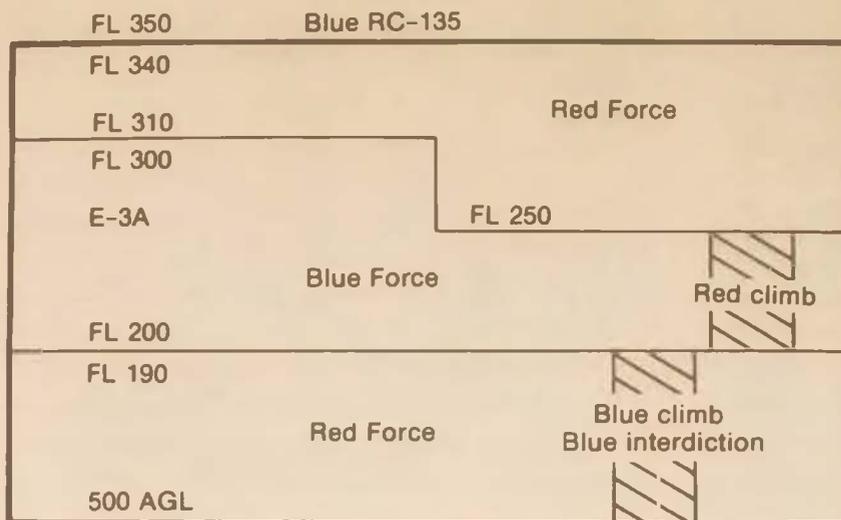


Figure 3. Force management

in an attempt to mask the Red Force attack. Ground-based units also directed jamming efforts toward the E-3A. Fifteen KC-135s and three KC-97s provided pre- and poststrike air refueling support for tactical aircraft operating from distant bases. Two heavy radars and two ground-controlled intercept (GCI) radars participated to monitor force employment and provide radar control for Red Force interceptors targeted against the E-3A and Blue Force interdiction aircraft.

Blue Force. The 133 Blue Force aircraft, totaling only 45 percent of the Red Force, was considered a typical ratio of what might be expected in real-world contingencies. Two E-3As were employed, one to conduct battle management operations and one to control air-to-air refueling for Blue Force interceptors. Eighty interceptors (F-15/F-4 teams) were employed under AWACS control, and 26 F-105/A-7 interdiction aircraft also participated to evaluate AWACS low-altitude control capability while concurrently directing the air-to-air battle. Support assets included an RC-135 to provide signal intelligence on the Red Force, U.S. Navy

EA-6Bs to jam the Red Force GCI and interceptor radars, and eight KC-135 tankers. A single heavy radar located at Edwards AFB interfaced with FAA and provided back-up radar surveillance for safety.

White Force. Additional support aircraft for the test were assigned to the White Force. This included two C-130 airborne battlefield command and control center (ABCCC) aircraft to assist ground-based radars in providing procedural control of test aircraft and to perform pretest weather reconnaissance/communications checks, search and rescue (SAR) assets, UH-1 helicopters for administrative use, and two fighters for pretest weather checks.

Funding limitations required that most forces operate from home base. Consequently, aircraft launched from 21 operating bases, some as distant as Offutt AFB, Nebraska; Bergstrom AFB, Texas; and Boeing Field, Washington. (See Figure 4.) In addition, F-15s, A-7s, EB-57s, KC-135s, and EA-6Bs deployed to local operating bases to attain required force totals.

force deconfliction

Although realism was a primary consideration, the test had to be constrained in some cases to accommodate peacetime safety factors. Four hundred plus aircraft, operating in or transiting test airspace in a short space of time, demanded skillful and detailed planning to provide for separation of Red and Blue Forces and to deconflict internal Red and Blue Force operations. The separation process commenced by establishing the forward edge of the battle area (FEBA) from Tonopah to Nellis AFB, with Red airspace on the east and Blue on the west, as indicated in Figure 3.

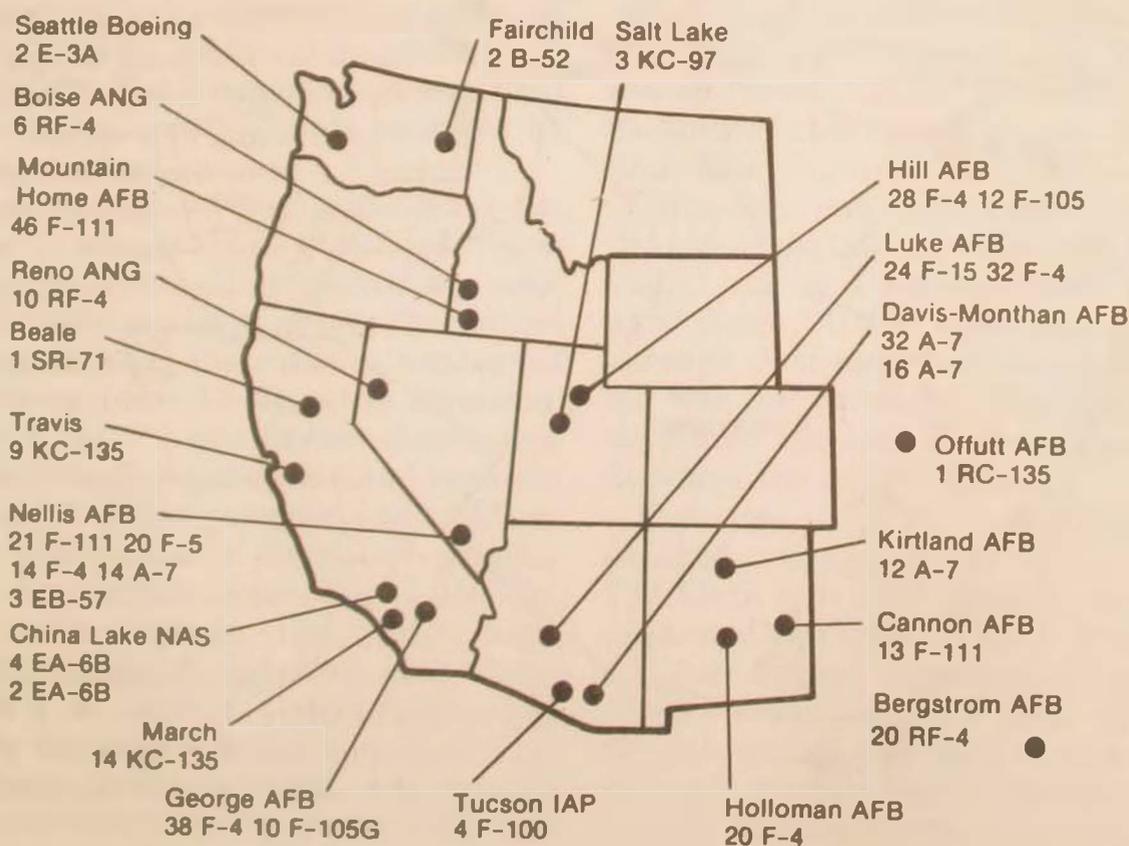
Vertical separation was achieved by assigning altitude blocks to Red and Blue

Forces. (See Figure 5.) Climb, descent, and transit corridors were also developed to accommodate individual requirements.

Internal deconfliction was achieved within Red and Blue assigned airspace. Red Force flights were separated in time or space by assigning altitudes, tracks, and time-phased points. To confirm deconfliction, each route was manually checked using time and altitude graphs. Subsequently, a computer model was developed and deconfliction confirmed on AFTEC's computer.

Separation of Blue Force interdiction operations posed a unique problem. Since Blue interdiction aircraft had to conduct strikes at low altitude in Red Force territory, an interdiction area located

Figure 4. Force beddown



northwest of Nellis AFB (noted in Figure 3) was assigned to the Blue Force. Entry and exit into the area were provided by special climb and descent corridors.

Ensuring separation between Blue Force interceptor flights was more difficult since they were to operate under AWACS management, and controllers could not provide positive separation without degrading battle management capability. The safety problem was also solved by vertical separation—each flight was assigned a separate hard altitude.

Flight timing was extremely critical for internal deconfliction and to provide the capability for ARTCCs to handle test force traffic in a saturated environment. Spe-

cific timing criteria were therefore established, and flights that deviated from schedule by more than one minute would be required to return home without entering test airspace.

Organizational Structure and Command and Control Planning

Planning for test employment was accomplished primarily by three major groups: the White or Joint Control Staff, the Red Force staff, and the Blue Force staff. This was necessary to enhance test validity by providing complete integrity of Red and Blue Force planning. This separation ensured that the Blue Force

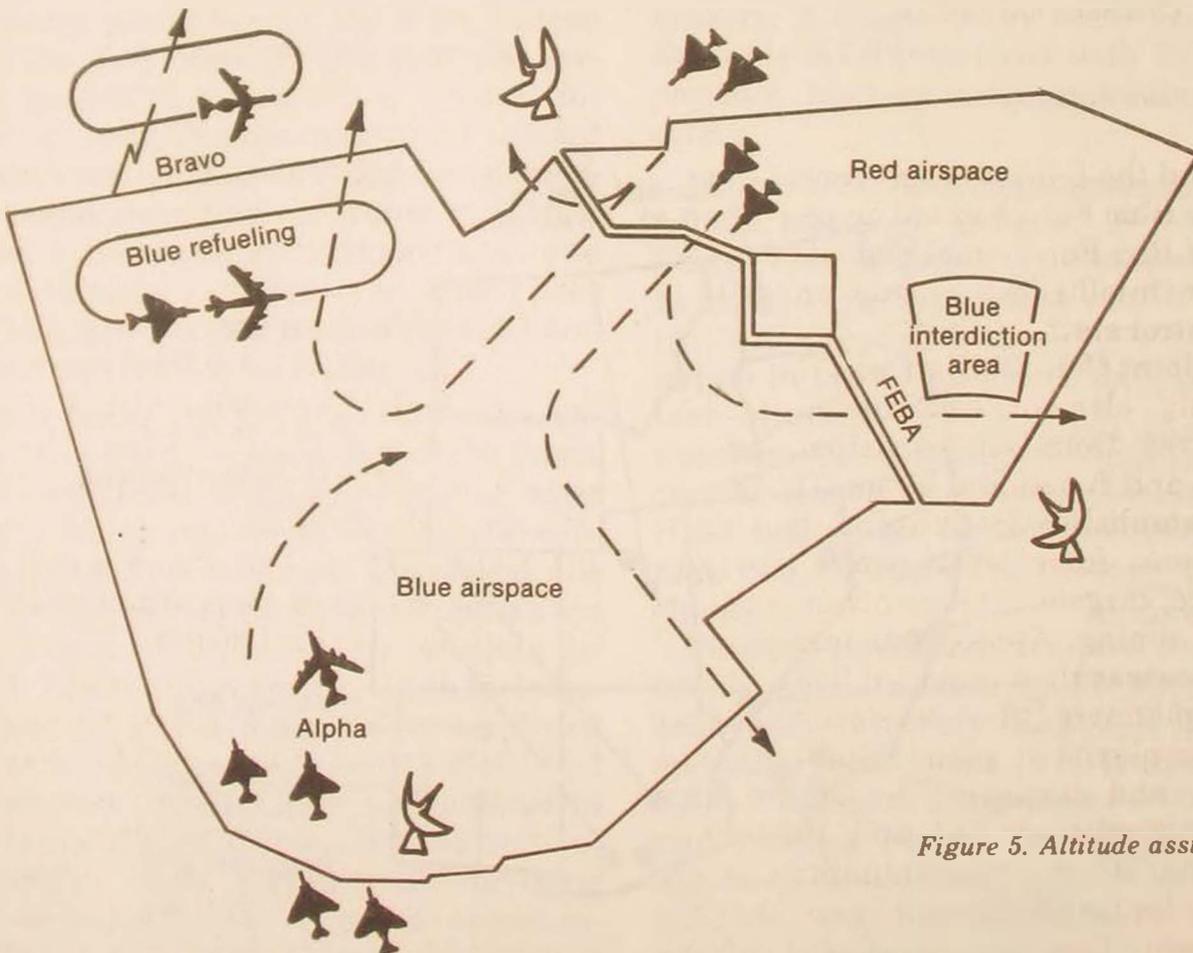


Figure 5. Altitude assignments

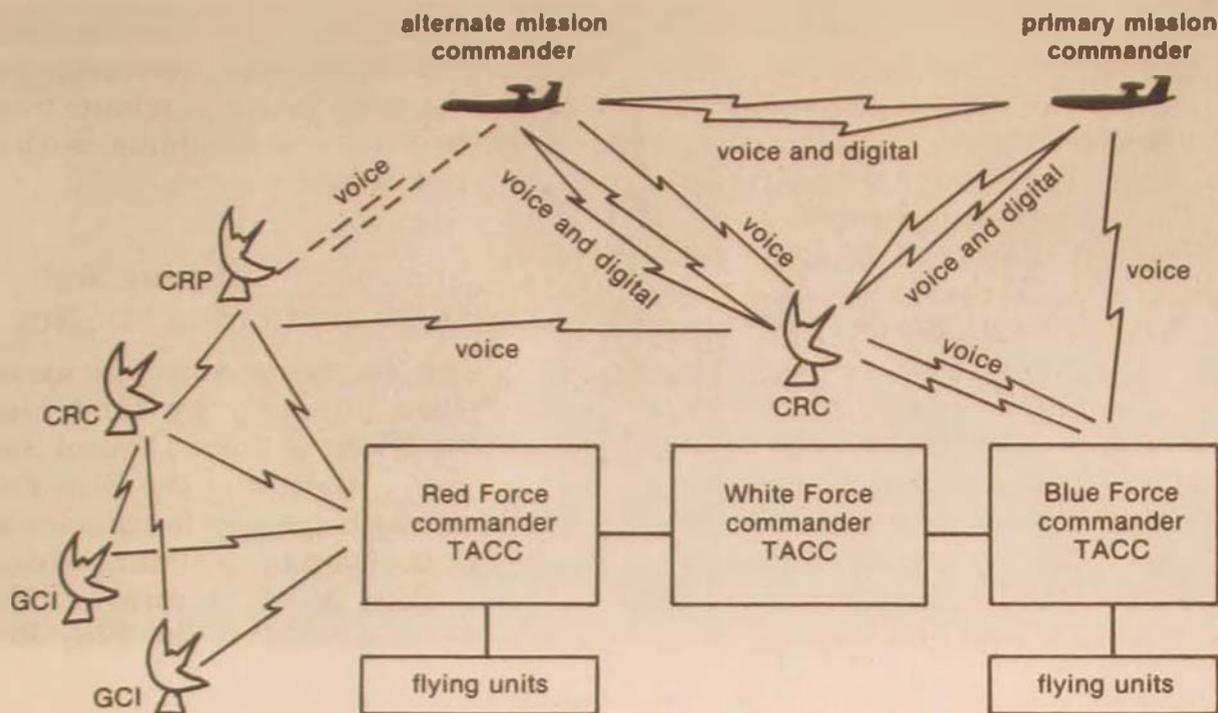


Figure 6. Command and control

staff and the E-3A mission crew could not employ Blue Forces based on prior knowledge of Red Force employment plans but only on intelligence reports provided by the control staff.

The Joint Control Staff was the key test planning element and included representatives from all participating commands and functional areas. The control staff established test criteria, concept of operations, force levels, wave structure, airspace, targets, intelligence inputs, and control timing. Appropriate and separate guidance was then provided Red and Blue Force planners who developed detailed force employment plans (flight profiles, timing, and tactics). The control staff closely monitored Red and Blue Force planning to ensure compatibility and provide for interface where necessary.

Tactical Test command and control communications structure was developed

using three tactical air control centers (TACCs), three control and reporting centers/posts (CRC/CRP), two ground-controlled interceptor sites, and the two E-3As. (See Figure 6.) The three TACCs (White, Red, and Blue) were collocated in the same building at Nellis AFB, but each TACC was in a separate room. The Red and Blue TACCs were responsible to manage their respective forces, and cross tell was not permitted. The White TACC supported the task force commander in directing the total operation.

Real-time activity displays were planned and used in the White and Blue TACCs to provide the means for positive command and control. In the White TACC a "wide screen" displayed actual radar returns using assigned mode III identification friend or foe (IFF) codes from all aircraft within surveillance of three remote FAA radar stations. In addition,



The impartial KC-135 tanker (above) provided air-to-air refueling support for both the Red Force aggressors and Blue Force interceptors. . . . F-15 aircrew members (right) attended early-morning briefings at Luke AFB, Arizona.



the White and Blue TACC received "big picture," a real time, TV down link picture of radarscope aboard the second E-3A.

Three ground-based control radars were employed. A CRC and CRP assigned to the Red Force were located at Mormon Mesa and Tonopah, Nevada (Figure 3). The CRC assigned to the Blue Force, located at Edwards AFB, interfaced with the AWACS and was responsible to forward tell battle management information to the Blue Force commander in the TACC at Nellis AFB. To permit timing control, radar hand-offs from FAA to these Air Force radars were not required. However, the radars, positioned to provide coverage of test airspace, monitored all test traffic and relayed position reports to keep TACCs informed. Also they were prepared to provide emergency assistance.

The two GCIs were assigned to the Red Force to control the interceptors. Although the majority of Red Force aircraft were assigned specific time-controlled profiles, some interceptors were targeted against

Blue Force interdiction aircraft. A GCI site located at Angel Peak controlled these interceptors. The second GCI, located in the Nellis AFB range area, provided radar control for Red Force ECM aircraft and interceptors targeted against the E-3A.

The primary AWACS, under guidance from the Blue Force commander, was responsible for battle management of all Blue Force aircraft.

Many checks and procedures were established to enhance safety, success, and command and control. This included preparation of time-phased sequence of events checklists, emergency action checklists for potential problems (tanker abort, lost communications, E-3A abort, FAA saturation), and decision criteria/aids.

Weather minimums (35,000-foot ceiling and five-mile visibility) and aircrew qualifications (highest qualified basis) were established. Pretest flight profiles were flown and command post exercises were conducted to confirm completeness of planning actions. Finally, a miniature



A Blue Force F-105 (right) is readied for battle. . . . Two other F-105 Wild Weasel aircraft (above) depart from George AFB, California, to suppress the Red Force surface-to-air missile (SAM) threat.



scale test (33 percent of full scale) was conducted on 8 November 1976, which confirmed that the overall employment plan was workable.

With that planning background on the employment plan, the Tactical Test and results will be discussed.

Test and Test Results

The test was completed on 10 November 1976, essentially as scheduled. Activity commenced just before midnight when a C-130 airborne battlefield command and control center aircraft conducted an area weather and communications check. The check confirmed that existing weather met test requirements of 35,000-foot ceiling and five-mile visibility. At 0230 (mountain standard time/MST) a status report indicated all aircraft, radars, and communications were operational. Weather forecast for launch bases was also above test minimums. After confirmation that the two E-3As were in commission, a "go"

decision was made and passed to all participating units. Just before test aircraft were scheduled to begin launch, a final airborne area weather and communications check was made, which verified operational weather in the test area.

The test force began to launch at 0535 when the RC-135 departed Offutt AFB, Nebraska. Within minutes the E-3A departed the Boeing plant at Seattle, Washington. It arrived on station at 0730 and began "Deep Look" surveillance operations into Red Territory. Initially, there was no Red Force activity, but hostile aircraft were soon detected launching, refueling, and marshaling for what appeared to be a large-scale incursion. The initial Red Force penetration of Blue Force territory occurred at 0910. At that time the AWACS was cleared to coordinate offensive action against the intruders, and Blue Force interdiction missions into Red Territory were authorized. Hostilities continued until the last Red aircraft exited

Blue airspace—ninety minutes later. In the meantime, approximately 400 aircraft had transited test airspace. During one period some 230 aircraft were within confined test airspace.

When all aircraft recovered, the tally boards indicated that 413 of 443 scheduled sorties had flown—significant considering that only one aborted because of an aircraft problem. Other aborts were charged to poor launch base weather or administrative reasons. Of significant note, there were no accidents or serious incidents involved. Such success can be attributed only to meticulous planning, aircrew discipline, and outstanding maintenance and other ground support. Post-test reports indicated the operation was a complete success. General Robert J. Dixon, TAC Commander, called it “a magnificent professional performance by all participants.”² Major General Howard Leaf, AFTEC Commander, stated:

...the teamwork of participating aircrews and ground support personnel directly contributed to the safety and success of the test.³

In summary, test employment was virtually flawless. The total system and component interface worked as advertised—everyone did his job, radars performed well, aircrew navigation and timing were precise (the first Red Force aircraft crossed the FEBA within 15 seconds of the scheduled time), FAA support was superb, and airspace management was accomplished without incident. The test clearly demonstrated that a new and powerful dimension now exists in command and control. As designed, the AWACS is a force multiplier and provides a synergistic effect by combining inherent capabilities of separate weapon systems that produce an integrated combat team capable of operating far more effectively than separate entities operating indepen-

dently. The system operated effectively in the intense jamming environment, identifying hostile targets and controlling Blue Force interceptors. The friendly interceptors reported 97 (36 percent of the total) Red Force aircraft intercepted and claimed as destroyed. Further, the AWACS demonstrated its capability to survive by successfully evading 14 Red Force interceptors (specifically targeted against the E-3A) in the confined airspace. Finally, Tactical Test supported the position that the AWACS is capable of performing its intended mission.

lessons learned

Large, complex operations similar to Tactical Test are needed to fully develop and maintain the total potential of the AWACS. Future operations will take advantage of lessons learned from Tactical Test. Some of the more significant lessons are presented below.

Test validity. Congressional committees were apprehensive of E-3A capability to meet battle management requirements. Consequently, Tactical Test was planned and designed to validate E-3A capability. Planning should ensure that criteria will withstand close scrutiny.

Airspace availability. Airspace to conduct large-scale tests or other military air operations, already scarce, is becoming more difficult to locate. Existing areas are being restricted by general aviation and environmental groups. Direct routing through and adjacent to military restricted areas is desired and planned by commercial and general aviation interests to reduce flying time and attendant costs. Also, environmental groups are attempting to limit operations in some areas. Currently, the Nellis/Edwards area and Eglin range (overwater) complexes and adjacent airspace are the only areas in continental United States large enough to

conduct an exercise or test on the scale of the E-3A Tactical Test. Only through skillful negotiation was airspace obtained for this test. To help ensure airspace availability for future military use, we must state our case well. It is essential that we maintain close liaison and understand the concerns of FAA, property owners, and environmental groups. Finally, we must demonstrate our ability to use and manage airspace properly and effectively when we have it.

Coordination with environmental groups. It is evident that environmental groups are taking an increasingly active interest in our operations. The Forest Service, National Park Service, and Sierra Clubs all submitted formal objections to our airspace proposal for Tactical Test. They objected on the basis that the test would cause greatly increased noise levels and adversely impact on certain endangered wildlife species as well as disrupt the quietude of national parks and

Ground-support forces and equipment assembled from as far away as Alabama to set up command and control communication facilities in the Nevada test area.



designated wilderness areas. Air Force legal advisors indicate that existing documents relating to the Endangered Species Act, Environmental Protection Act, and the act that created the National Parks Service contain sufficient justification to involve lengthy litigation should we be less than candid and expert in presenting our case. This could delay and possibly prevent future operations. In this instance, a positive, direct approach was pursued and, fortunately, was successful. Only after face-to-face briefings and discussions which provided assurances that environmental impacts had been minimized were the objections withdrawn. In the future, early consultation with interested groups is recommended to avoid or at least minimize objections on environmental grounds.

Automation for command and control. Two systems provided real-time command and control information in this test. The White and Blue TACC received the "big picture," down link (picture of the E-3A radarscope) from the E-3A. In addition, the "wide screen" computerized display identifying mode III air traffic was also available in the White TACC. This radar information allowed commanders to see the air battle in real time, to identify current and developing aggressor actions that might not otherwise have been apparent, and thus take immediate, positive action to manage and control the force to best advantage. In such a large air operation, real-time information for command and control is considered essential and should be available in the TACC from either the E-3A or from ground-based radars.

Face-to-face briefings. Direct coordination and face-to-face briefings were planned for *all* test participants (aircrews, TACC/GCI/radar/communications personnel), to ensure complete knowledge of

the test and understanding of procedures. For the most part, that was accomplished; however, in some instances face-to-face briefings were not practical, and problems did, in fact, occur. In addition, late in the planning cycle, subordinate unit initiatives came to light that had to be suppressed. These problems again confirmed the necessity for direct, face-to-face briefings. Ideally, these briefings would be presented by the key planner or force commander, who can answer all questions, suppress all misdirected initiatives, and ensure total continuity.

Reliable and redundant communications. A reliable and redundant communications system is necessary to provide command and control during large air operations. The key to reliability in this test was multiple pretest communication checks. Airborne checks of all equipment were conducted daily. This helped identify problems early enough to be corrected. Early and late-night final checks of all equipment and frequencies were accomplished the day prior to the test. These two checks confirmed operational capability before the go-no-go decision. Comprehensive, multiple airborne communication checks are an absolute necessity.

Fail-safe system. Development of a fail-safe management system is key to a safe and smooth operation. This can be achieved by developing procedures that will be carried out automatically in the event of emergencies or lost communications. In the event of lost communications, aircrews knew precisely what course of action to take. Deconfliction, safety, and recovery of all aircraft were thus assured and could have been accomplished without central control. Such procedures significantly enhance safety and achievement of objectives in these operations.

Prepare for emergencies. Prior to flight

operations, a comprehensive set of emergency action checklists was developed for all possible contingencies and emergencies. These checklists evolved from in-depth brainstorming sessions. The best course of action, level of responsibility for the action, and pretest decisions were identified for virtually every potential event or emergency. This preparation measurably accelerated problem solving and significantly decreased the impact of emergencies that occurred during Tactical Test.

WITH the advent of the AWACS and an increased capability to conduct and manage large-scale air operations, there evolves a requirement for increased training in real time and under realistic conditions. Current simulator technology can provide impressive training results in both flight and control systems that closely approach the real thing. Current simulation, however, is not capable of providing the necessary degree

of personal involvement and interface for commanders, staffs, and aircrews to be prepared for real world contingencies.

The E-3A Tactical Test proved that large-scale, time-compressed air operations are feasible and can be safely accomplished, even under peacetime constraints. These operations have significant potential to enhance training for commanders, planning staffs, and tactical aircrews. With some changes, operations such as Tactical Test can be organized to include strike packages with weapon deliveries and supporting forces—a super Red Flag operation combined with the Blue Flag concepts. Success in future combat operations will depend on command, staff, and force realistic training to carry out these operations.

We can expect technology to advance at an accelerated rate. Full exploitation of this advancing technology demands imagination and innovation to keep training and combat capability at optimum levels. We must commit ourselves to that effort.

Bergstrom AFB, Texas

Notes

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R in
my
opinion

WHAT'S A NICE
GIRL LIKE YOU
DOING IN A
PLACE LIKE THIS?



MAJOR PATRICIA M. MURPHY

"Look here, you, why didn't you tell me you were a girl?" The tower man stared at the woman who had just landed an airplane in the densest fog. The plane had broken out at about five hundred feet, made a smooth turn to the end of the runway and stopped in front of operations. It couldn't have been done better in English weather.¹

SOUND familiar? Many of us in today's military would accept this scenario as an everyday occurrence. The event could take place today. Actually, the story was reported in *Flying* magazine in January 1944. It was written to illustrate the flying abilities displayed by members of the Women's Airforce Service Pilots (WASP). The article also described the contributions and successes of that group of women flyers. The group was disbanded in December 1944 without ever receiving official recognition as part of the regular Army. These women, after petitioning Congress for years to recognize their World War II contributions, were finally granted veteran benefits (for some of the former WASPs who need the help) in the fall of 1977.

Why, then, would anyone in today's military make comparisons with the above incident? Haven't women today received equal pay, equal promotion, and equal status with their male counterparts? Who are these women who choose to enter the historically male province of the military? What more could these women possibly wish in terms of success and security? They have been accepted as an integral, albeit small, portion of the armed forces.

General Lewis Hershey, as director of the Selective Service from 1941 to 1970, made this comment regarding the role of women in the military environment:

"There is no question but that women could do a lot of things in the military services. So could men in wheelchairs. But you couldn't expect the services to want a whole company of people in wheelchairs."²

This article will attempt to illustrate that women are not being used successfully in the services and that sentiments such as General Hershey's do in fact still exist. I will challenge the inference that we must explain why "nice girls" would be in a place like the military. There will be no attempt to quote pages of statistical data to support the position that the military has yet to use the full potential of women as human resources. I hope to prove the point by analysis of the make-up of the male environment of the military and the complexities faced by women who choose to enter this traditionally masculine sphere.

Interest in the role of women in the military has been brought about by two separate phenomena. The first, and probably most powerful influence affecting women, consists of the social and political forces impacting on the services. The women's movement, heightened interest in women's rights, and political debate over the Equal Rights Amendment have focused attention on the roles women have and may have within the military structure. There have been dramatic, although slow, changes in the status of

military women within the last ten years. Although the number of women in the armed forces today is approximately half of those serving in 1945, it must be noted that the proportion has doubled.³ In 1970, when the greatest changes began to take place in the military status of women, statistical data indicate that over 43 percent of adult women were working outside the home.⁴ It would appear then that the military had recognized this previously untapped resource and had begun actively to seek expanded roles for women.

Unfortunately, all too often the armed forces did not enthusiastically seek to change its own restrictive policies or petition Congress to repeal laws that adversely affected women. This may be attributed to the male view of the military as the last remaining bastion of strength and virility. As stated by two former military leaders in *Militarism, USA*, "The risks and dangers of military service are many and multiform. They tend to bind the veterans together with bonds of experiences not shared by women and civilians."⁵ This, I believe, becomes the crux of the problem women face in trying to succeed in the military as well as their male counterparts. The military system is of men, by men, and for men. Behavior is measured and standards are set in terms of that behavior. Sex role stereotypes, which are culturally determined, usually dictate what is acceptable behavior for men and women. Stereotyping becomes more pronounced in the military environment since work performed has been traditionally characterized as essentially masculine.

WHEN women entered the military during World War II, to be military meant to be masculine, including short hair, masculine uniforms, traits, and

mannerisms. Women were there to release men for more important and vital jobs. The view that became prominent was that women, in terms of military requirements, were defective men. It was indeed nice to have women around, but they certainly did not have the right to take men's jobs and men's promotions. Standards will be set by men in the military structure, and if women wish to succeed, they must succeed within the male standards. I question the validity of that logic. As Harriet Stuart Mills said, "We deny the right of any portion of the species to decide for another portion, or any individual for another individual, what is and is not their proper sphere. The proper sphere for all human beings is the largest and highest which they are able to attain."⁶

Women have not yet found their proper sphere in the military, and I submit that there has been no cogent reason for denying them this right. The long-term effectiveness of the armed forces is dependent on developing an adequate supply of individuals competent to perform anticipated duties required to fulfill its mission.⁷ Inasmuch as women have traditionally faced obstacles and difficulties in pursuing military careers, the military must analyze and very often enhance the organizational climate and work to heighten perceptions of both women and men in the structure. It is incumbent on the military to develop women's potential in order to successfully exist and perform its mission in the future. With or without the passage of the Equal Rights Amendment, more women will be seeking meaningful work in a variety of nontraditional professions. The services must come to grips with the new feminism and the new masculinism that young people will bring to the military environment. Caroline Bird, a prominent sociologist, observed, "...the new mascu-

linism—it is all right for a woman to do her thing as long as it does not impose upon the male and his role/status.”⁸ We must ensure that standards in the military challenge the individual’s ability to perform, not his/her role as dictated by backgrounds.

Too often we equate success in terms of femininity and masculinity. The military system expects male members to be strong, aggressive, and dominant. Female members are expected to exhibit these traits in basic training, yet this type of behavior is questioned in the work environment. Women being aggressive and assertive are paradoxical or contrary to the stereotype men have about women.⁹ The armed forces must encourage crosscultural discussion at the beginning of the military training program in order that military members will be able to recognize their own cultural biases and deal with them in the atmosphere of free expression and analysis. I believe it is important to note that women need this opportunity for analysis as well as men. As discussed in the *Harvard Business Review*, it is not always the male attitudes that impose barriers prohibiting women from taking responsible positions; women have often been held back by their own preconceived ideas of what their roles should be.¹⁰ Many women want to succeed, but there seems to be a cultural attitude prevailing that says it is more feminine to fail. This attitude can be overcome only by a free environment that allows every individual to succeed or fail in the pursuit of individual and organizational goals.

There are other hindrances to the acceptability of women in the armed forces. In Maureen Mylander’s book *The Generals*, she discusses at great length “the good old boy” syndrome and the fact that the military hierarchy perpetuates itself to the detriment of many men as well as women. In March 1977, Maryland

Congresswoman Barbara Mikulski discussed the Carter administration’s approach to women in government. She described how “the good old boy” network operates: “Pete Preppy looks through his yearbook, calls up Mike Macho, and says, ‘Got anyone good for State?’ ‘Sure,’ answers Mike, ‘Try Tom Terrifico.’”¹¹ I submit the military has just begun to recognize that there are, in fact, networks such as these which have, intentionally or not, restricted the complete acceptance of women in the military.

I recall an instance in Vietnam that illustrates the view that many men hold of women in uniform. I was advisor to a wing commander in matters concerning enlisted Air Force women. He called me to his office to discuss women’s matters since it was evident we would be leaving Vietnam. He proposed that we move all women—officers, enlisted, and civilians—to an old, unused open bay wing of the hospital. His rationale was “the girls” would be more comfortable together, in spite of the fact that the quarters would be uncommonly crowded and disturbances would occur because of the shift work of many of the military women. When objections were raised to applying a strange set of standards to the women, the commander commented that it was his intention to ensure that all enlisted women would be sent from Vietnam on the first available aircraft as a “safety measure.” It took some time to convince this senior officer that these women were performing duties that were essential and that their release must be based on the completion of their jobs—the same as their male counterparts.

I believe this is a prime example of overprotection of women and the paternalistic view that is quite evident, especially when dealing with young enlisted women. If women are not given responsibilities commensurate with their grade, they will

sense their less than complete acceptance and act accordingly. In the article, "Women's Language: A New Bend in the Double Bind," Lieutenant Katie Cutler stated: "Communication is paired with behavior, one reinforcing the other."¹²

The military services must make a concentrated, deliberate effort to remove the mystique of a woman in the military. The comments of Michael Korda, author of *Male Chauvinism: How It Works*, are indeed appropriate: "Men do not live in fear of women on any conscious level, but they recognize that women are different, that behind their personae as executives—lurk other deeper, more mysterious roles."¹³ If the government truly intends to support its stated policy of equal opportunity, it must begin with a renewed effort to ensure that talented women can find a place within the military structure where they will be judged on individual merit, not culturally stereotyped images.

The second most influential factor that has brought attention to women in the military has been the concept of the all-volunteer force. In 1972, the Pike Subcommittee stated:

We are concerned that the Department of Defense and each of the military services are guilty of "tokenism" in the recruitment and utilization of women in the Armed Forces. We are convinced that in the atmosphere of a zero draft environment or an all-volunteer military force, women could and should play a more important role. We strongly urged the Secretary of Defense and the Service Secretaries to develop a program which will permit women to take their rightful place in serving in our Armed Forces.¹⁴

Six years later, the armed forces are still planning and discussing the role of women in the military.

I am reminded of President Nixon's recognition of the increasingly vital roles women play in our national economy. In 1974, he created the first Advisory Committee on the Economic Role of Women,

headed by Dr. Herbert L. Stern.¹⁵ It is absolutely implausible that the President could not find qualified women to advise him about women. Unfortunately, I believe this is the same problem that has hindered the military in adequately addressing the extent to which women could be used in the armed forces. Men are not only determining the goals women should accept but they also determine how women will and should feel and how women will react in various situations. I submit that management of human resources will decide the success of our military today and in the future.

Notwithstanding the question of women's roles in the combat situation, women still constitute less than 6 percent of the armed forces. Yet, even by its own study, the Department of Defense, service by service, indicates the following percentages of jobs can be classified as combat: Army, 30 percent; Navy, 38 percent; Marine Corps, 32 percent; and Air Force, 12 percent.¹⁶ These figures would indicate that if restriction from combat positions is the reason for fewer numbers of women in the military then the Department of Defense is not actively working to solve shortfalls within the active and reserve forces. In 1976 the Defense Manpower Commission reported that the participation of women in the military had increased, but the commission also detected a continuing lack of acceptance of them. A key point in their report was to make certain that institutional discrimination does not continue in career patterns and assignments; the leadership from the Secretary of Defense downward must take a personal interest in equal opportunities for women and members of racial minority groups. In particular, more women and minority officers must be attracted and then encouraged to advance through the ranks.¹⁷

I believe it would be agreed that many women have been hampered in their choice of occupation, not by the level but the type of education they received. Many of our high schools still train young women for traditionally "women's jobs" that concentrate on shorthand, typing, and home economics. Our society is still geared to a woman's working only temporarily—until she gets married and has a family. In this vein, myths continue to perpetuate themselves: women work because they want to, not because they have to; women are absent more than men; women do not make good supervisors; and the all-encompassing, all-knowing pronouncement that women cannot do the types of work that men do because they do not possess the needed aptitudes and abilities.

SINCE 1922, the Human Engineering Laboratory of Johnson O'Connor Research Foundation has been engaged in aptitude assessment of men and women. The laboratory is involved in the measurement of inherent aptitudes and the measurement and teaching of acquired knowledge. Of the twenty-two aptitudes and knowledge areas measured, there is no sex difference in fourteen; men excel in two areas and women excel in six areas. I believe the point is obvious—there is no field that is the exclusive domain of either sex. Sex does not predetermine abilities or aptitudes. Training and education will assist individuals to succeed in a given environment.

I am not suggesting that we ask our society to train girls to grow up to be military members any more than we train boys for that role in life. I am suggesting that the military services concentrate more on training their personnel to do the needed jobs, regardless of sex. The

traditionally male role of the military should be de-emphasized in order to allow more successful assimilation of women within the military environment. Through this approach, masculinity and femininity will not be criteria for judging how well an individual performs his or her duties. Women, then, will be a key factor in the success of the all-volunteer force. If we continue to view as our only resource the 18- to 21-year-old male, we will be forced to revert to a type of draft system in this country. Instead, I believe we should view women as a much needed resource who will bring new attitudes and cultural views that will enhance the make-up of the military environment. It is also my firm belief that unless greater numbers of qualified women are accepted in the military, there will be continued limited success of those presently serving. As Cynthia Epstein noted in *Woman's Place: Options and Limits in Professional Careers*, "The more nearly a profession is made up entirely of members of one sex, the less likely it is that it will change its sex composition in the future and the more affected will be the performance of those who are not of that sex."¹⁸

I recall as a second lieutenant meeting a young male airman in a crosswalk on the base. We were both in uniform, and as he passed me he stared but did not even attempt a salute. I stopped him and began a discussion of the salute as a military greeting and that we all must observe military customs. As I was one of two women officers on the base with more than 5000 military personnel, I could truly understand his incredulous look as I was speaking. His discomfort became more pronounced as he noticed traffic had stopped on both sides of us. Finally, his confusion was not masked by his words as he said, "You want me to salute you here—right in the middle of the street?" I am

certain he thought it outrageous enough to salute any second lieutenant—but a woman second lieutenant! What had this man's world come to?

I do believe we have passed those times, but there is so much more to be achieved. Women in the military need for the system to recognize their abilities, need to be able to perform and succeed, need to know they are as good or as bad as their male counterparts (based on what they do on the job), and the need to be respected for their job performance. I do not believe we can accomplish this only by professing our faith in equal rights. Leadership in the armed forces must, in fact, be truly committed to the right of all to succeed and fail. Women must feel totally committed to their chosen profession through acceptance within the organizational climate. The observation made of the Navy applies to all the services: "The Navy has always been proud of its women, but at the same time, they have long been viewed in the

context of a wartime phenomenon rather than a permanent component."¹⁹

FOR THE MILITARY services to succeed in the future, women will and must play a vital role within the established structure. Massive changes in the structure are not necessary, but massive changes in attitudes are. There is no one answer other than total dedication by everyone within the military environment to recognize that successful contributions are not limited by the sex of the contributors. It is essential that people and resources be properly used by the military to keep it an active and responsible institution. Such professional farsightedness is required to attract and retain bright women and men who will choose the military as a profession. The message is clear—women must play a vital role in ensuring that the armed forces fulfill their role in national security and the defense of our nation.

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RMS 1977—ENCOURAGING MANAGEMENT GROWTH AND PRODUCTIVITY

MAJOR BARRY D. GUYSE

The goal oriented individual is most likely to reach his potential under management or supervision concerned basically with objectives, permitting him to make his own decisions about risks. The task oriented individual is more comfortable with an organization which practices management by controls, seeking to manipulate his behaviour including his personal motivation and judgment.¹

AIR FORCE publications repeatedly proclaim a requirement for goal-oriented as opposed to task-oriented people. Recent articles encourage implementation of management by objectives (MBO), while Frederick Herzberg develops orthodox-job-enrichment at Hill Air Force Base, Utah, and commanders talk about increasing productivity through motivation. In this frenzy to improve job satisfaction and productivity through numerous behavioral science techniques, the basis for any enrichment program is being overlooked. On one hand the Air Force says that base level managers are responsible for resource consumption, but on the other hand managers are denied the decision authority to distribute resources for obtaining the goods and services necessary to do the job.

The manager must control the allocation of resources within his area of responsibility before he can be motivated by job enrichment or management by

objectives. The fundamental principle of any job enrichment program is the trust of higher authority in the manager. This trust tells the manager that he controls his resource input and must make decisions involving risks.

Since the implementation of Project PRIME (Priority Improvement Management Effort), we have moved through the base accounting system for operations and entered into resource management at base level. But lower level managers are still starving for authority to make decisions concerning resource allocation. Now this decision authority is limited to the control of resources for TDY, supplies, and equipment, while really important decisions are centralized. Although we talk about resource management at the lowest level, resource allocation for specific requirements is slowly, but continually, elevated to higher levels. We seem to be at the crossroads of our resource management travels. Should we continue to

centralize or reverse the trend and decentralize resource allocation decisions in the spirit that popularized the resource management system (RMS)?

We can go either way, but much will be sacrificed if the trend toward centralization continues. First, people in the Air Force want freedom to do their jobs; they do not want to be overly controlled. This freedom must start with the authority to determine resource allocation for specific purposes and could be the basis for job satisfaction. Second, Air Force efforts to improve worker motivation and create an enriched job environment would be blunted. How can you establish MBO if the manager does not control the resource input to achieve his goals? The USAF Leadership and Management Development Center teams are aggressively trying to increase productivity by improving communication and worker satisfaction; however, managers are not trusted with decisions concerning the basic input to performance, resource allocation. Finally, an evaluation of a manager's performance based on effective use of resources will not be meaningful. Even now this basis for evaluation is questionable because base level Air Force managers are limited to TDY and supply management, while other decisions are centralized. Considering this limited scope of responsibility, we must stop the rhetoric about measuring a manager's worth based on his judicious use of scarce resources.

Centralization is not all bad. When resource allocation is controlled at a high level, redistribution processing is easier and quicker. For example, most major commands manage purchases of equipment costing \$1000 or more. Base level managers submit justifications to purchase equipment items, and major commands evaluate the relative importance of the requests from all bases. Authority to

purchase is distributed to each base for specific equipment. This procedure enables the major commands to monitor all equipment purchases at each base and quickly redistribute funds if required. If one base identifies a sudden important requirement, the major command can either provide money from reserve funds or withdraw funds from another base.

Centralization appears to be efficient because immediate, far-reaching decisions can be made and implemented in a very short period of time. However, the principal limitation of centralization is the perception of base level managers. They feel that everything is programmed, and higher level authorities do not trust them to make decisions. As a result, the manager loses interest, feels manipulated, and resists superficial job enrichment approaches. Decentralization tolerates a slower decision and response process, but the manager is given maximum authority to determine resource allocation for his needs. It provides the manager with a complete "piece of the action." He can program inputs, monitor progress, and evaluate the outcome. This control factor encourages him to use feedback for improving his work environment.

In addition to centralization, resource managers' responsibilities and authority are being transferred to a proliferation of councils and committees at base level. These include the Utility Conservation Board, Work Order Review Panel, Facility Review Board, Vehicle Utilization Council, Communications-Electronics-Meteorological Board, etc. Committee meetings consume valuable time and usually do not effectively achieve the purpose.

There is little relationship between management of specific resources and consumption of dollars by the manager. For example, the Utility Conservation Board meets monthly at most Air Force

bases. During the meetings, many issues are discussed, and utility consumption for the previous month is thoroughly reviewed. If meaningful conservation measures are recommended by the committee, very few are effective because there is nothing to bind individual managers. It seems that only mandatory decrees by the commander reduce utility consumption. So the time wasted by 10 to 15 people at Utility Conservation Board meetings does not change a thing.

These time wasters can be prevented by simply tying resources to dollar consumption by each manager. Then there would be only two principal meetings on base, the Financial Management Board and Budget Working Group. These committees would determine the allocation and distribution of scarce dollar resources. Then each manager would be required to prioritize his needs and purchase until his funds are exhausted. By tying all consumption to the dollar, managers would start making the decisions now imposed by committee, and the dynamics of the marketplace would regulate consumption.

There is still another important factor in the "responsibility for resource allocation picture." This factor could be called the "free issues" to base level Air Force managers. It is the base level manager's support in goods and services that is subsidized by the "big pot" of unlimited resources at a higher level. The manager may see this as a relief valve because he does not spend his resources to obtain the benefit. He can abuse priority systems, waste valuable assets, or overorder because he is not accountable for the costs. This factor also complicates an evaluation system for a manager based on his use of resources. He may manage the resources he buys, but those free issues are not translated in terms of dollars and are rarely managed at the consumption level.

Would government vehicle abuse be reduced if managers and squadron commanders had to pay for repairs from their resources? Would telephones be moved each time there was a small organization change if the manager had to pay? Would managers evaluate their personnel resources more closely if they were accountable for the military pay costs of manning assistance? The conclusion is the same for each question. If managers were required to pay for everything, waste would be reduced.

There seems to be a twofold problem. On one hand managers feel that they are not trusted with important decisions. They do not have the authority to allocate resources required to perform their tasks because many decisions are made at a higher level or by committees. On the other hand managers abuse free issues because these resources are regarded as unlimited; the consumption is not considered in terms of dollars from their budgets.

How can these problems be solved? Let's start by giving base level managers more authority over resource consumption. In Frederick Herzberg terminology, the job should be enriched to provide real satisfaction. Relate the use of any resource in the work environment to consumption of limited dollars, and ask the manager to make the choices. This is the only environment for real management because nothing is free, and the manager must determine relative importance through the function of supply, demand, and the ability to pay. So now let's look at some environmental changes necessary to facilitate this process.

Air Force managers receive "free" data automation support, so there is no reason to feel that this is a scarce resource. Customers are careless and frequently ask for support they do not need. Listings are prepared in too many copies, programs are

rerun because of overlooked input errors, and unused products are prepared because customers have not changed requirements. Managers must become aware of this high-cost service and realize that it should be conserved. This goal can be achieved by selling data automation support to the customers.

Data processing installations could easily fit a buyer/seller relationship. Remote terminal time and costs would be accumulated by the computer and provided to customers on a daily basis. Daily, monthly, and quarterly processing costs would be accumulated by standard rates based on the computer time required. At the end of each month, customers receive computerized bills for expenses incurred during the period. Ideally, the data automation installation at base level would become an industrial fund activity with invoices processed through the accounting and finance office. This procedure places data automation on a self-supporting basis and encourages managers to conserve because it costs money from the operations and maintenance budget.

Administrative reproduction is another free issue. Everyone gets administrative support at no cost, and little attention is devoted to preventing abuses. Managers are encouraged to get more copies than required, and unnecessarily urgent priorities are established. This resource would also be conserved if managers had to pay for it. For example, rates should be established for each type of work order with an increasing sliding scale for higher priorities. Priority one may cost an additional \$10.00, while priority four would not have any added expense. This procedure encourages managers to review their resources and requirements thoroughly before ordering reproduction services. They would also be interested in

planning ahead to avoid the expense of using high priorities; however, the priority system would be available for those really urgent jobs.

Managers already pay for TDY per diem and travel costs. But what about the use of government vehicles assigned to organizations? These are free issues, and vehicle abuse is a major problem. Wouldn't it be much more sensible if the manager paid for vehicles as rental items and vehicle abuse resulted in additional costs? Besides placing resource consumption in the proper management area, dollars would become the input for management decisions. The vehicle operations and maintenance areas of transportation also seem like naturals for industrial funding. The equipment would be capitalized and the services sold to base managers. This procedure adds to the manager's responsibility and encourages him to conserve because the dollar savings could be used in other areas.

Resource managers also need to get more involved in the civil engineering (CE) support they receive. Now, the priority for CE work orders seems to depend on a combination of panel actions and the discretion of civil engineering plans and programs. The manager who wants work orders completed has very little control over the process. He can attend the Work Order Review Panel meetings and advocate his requirements; however, he is not managing this resource. Someone else is doing it for him by establishing priorities and distributing the civil engineering minor construction effort through the in-service work plan.

If the principles of RMS are applied, managers of significant resource centers should also be responsible for the consumption of the civil engineering resources that support their organizations. The manager judiciously reviews civil

engineering work orders and weighs them against other priorities. If he has the funds and believes that the work is needed more than other things (opportunity costs), he submits the work order and pays for the services from his budget. The controlling factor is scarcity of funds, not an arbitrary determination of the Work Order Review Panel.

Besides giving the manager more control over the factors that affect his work center, the preceding examples of environmental changes save personnel costs associated with conducting committees and panels to make the decisions that should be part of the manager's job. They could be implemented through the RMS expense distribution to cost centers concept or by capitalizing the functions and establishing industrial funds. The industrial fund concept seems optimal because there would be a recognized buyer/seller relationship between customer and provider. As industrial funded activities, the seller would possess the capability to accomplish the work, while

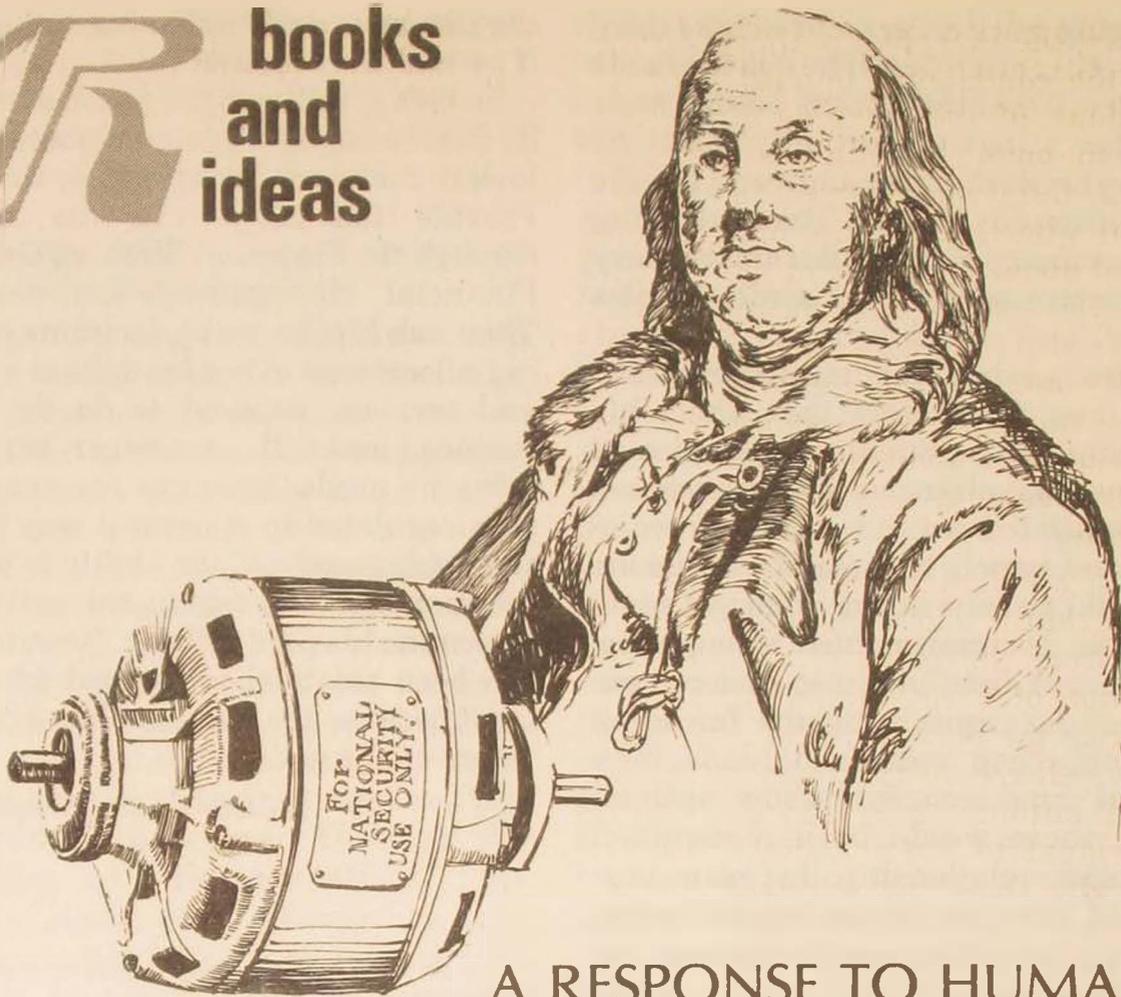
the manager could only obtain the service if he had the required funds.

So let's give the manager this authority by first reducing all input resources to the lowest common denominator, the dollar. Provide the money to the manager through the Financial Working Group and Financial Management Board process. Then ask him to make decisions concerning allocations of scarce dollars on goods and services required to do the job. In essence, make the manager buy everything he needs. Resource consumption is then regulated in a natural way through supply demand and the ability to pay, and the manager will regain the authority to determine his productivity. Now, the basis has been established for real job enrichment because the manager has a complete "piece of the action."

Hq 40th Tactical Group (USAFE)

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A RESPONSE TO HUMAN WORLD ORDER

CHAPLAIN (CAPTAIN) RUSSELL L. OSMOND

We must all hang together, or, most assuredly, we shall all hang separately.

THUS spoke Benjamin Franklin to John Hancock as they signed the Declaration of Independence on July 4, 1776. And so spoke Gerald and Patricia Mische in 1977 in their book, *Toward a*

Human World Order.† The most fascinating impact of this rather interesting and somewhat polemical piece is that it addresses the same issue that concerned Franklin and addresses it in much the

†Gerald and Patricia Mische, *Toward a Human World Order: Beyond the National Security Strait-jacket* (New York: Paulist Press, 1977, \$2.95, paper, \$9.95, hardback), 399 pages.

same way; the exception is that both the size of the community implied and the implications of the hanging are much larger in the book. Franklin was concerned about 13 fledgling colonies in a very uncertain wild frontier; the Misches are concerned about the future of individuals in over 150 established nation-states, which are also facing a rather uncertain and wildly unknown frontier of shortages and increasingly faulty assumptions. The shared issue is survival and how to assure it for individuals through, and in spite of, nation-states.

Toward a Human World Order is unique in that it addresses international survival from the point of view of the preservation of basic human rights and does it from the perspective of Abraham Maslow's well-known hierarchy of human needs. The authors assert that the right of the individual to self-actualization is a higher right than the survival of the nation-state. Unfortunately, they maintain, the drive to preserve the nation-state devours all the energy and resources of the state so that there is nothing left for the benefit of individual self-actualization and personal development. This occurs because the nation-state itself suffers from never having outgrown the security or survival level of the Maslow needs hierarchy; thus, nation-state leaders have never seen the vision of the self-actualization potential of the state. Security and individual state survival drive all the decisions of the state leaders and all state behavior. The nation (as if it had a personality) can thus never develop beyond a very low level of security consciousness.

The solution to this dilemma, say the Misches, is to focus on world order rather than on individual state survival. They assume and attempt to argue, however furtively, that the individual states will

survive only when they stop struggling with each other to preserve their own personal security and turn their efforts instead to international cooperation with the goal of preservation of the rights of the individual. The protection and development of individual human potential will occur only when states recognize their unique interdependencies and stop competing with one another. They take over 300 pages to agree with Henry Steele Commager that:

What is called for is a revival of the wisdom and resourcefulness that presided over the birth of our Republic and gave us those institutions which still serve us so well and have been so widely copied throughout the rest of the civilized world. We must invoke that creativity to reconcile nationalism—with its assumption that nations can live by and to themselves—with the reality that, in almost everything that counts, the world is interdependent. We must invoke it to summon up an inventiveness in the realms of politics and economics comparable to that which we display in science and technology.¹

The Misches argue that the common denominator which states should share is the concern for maximizing human potential and not the concern for individual self-preservation. Apart from the fact that this proposition flies in the face of both the traditional international relations theory of realism and any educated sense of history, it is an inviting idea and idealism. The development of maximum human potential for self-actualization, like motherhood, is something that everyone supports. Unfortunately, their justifications for that position and their alternative suggestions leave much to be desired. Their book, to a great extent, is like cotton candy—inviting because it suggests fulfillment, but disappointingly hollow and without substance or lasting satisfaction.

It is necessary to consider the argument structure of the book itself. It opens with a plaintive description of the powerlessness of the individual and the nation-state in the face of what Alvin Toffler has called "future shock." After giving a relatively good collection of examples of why we are all powerless and perceive ourselves as such, the Misches make a case for the assertion that our sense of powerlessness derives from the fact that the state itself is powerless. They discuss national interest in some detail and then use this for a springboard into a disguised defense of world federalism arguments. They conclude with an appeal to universal religious values as a solution to all ills and as the invitation to proper perspective for the human development movement. I will treat each of these main arguments in turn from my perspective.

It is particularly difficult to argue against any assertion that individuals and nations are powerless or at least perceive themselves as such. Émile Durkheim called this perception "anomie" in the nineteenth century, and few have since disagreed with him. The authors are clearly and articulately, if a bit polemically, in touch with a very real sense of the hopelessness that is abroad in the land. The book review section of any major newspaper or the content of any clustering of Sunday sermons will give evidence of that. Their argument is that it is more intense and much nearer a crisis now than it has ever been. But whether such perceived intensity is a function of more articulate communication capabilities or real despair remains a moot point.

There is clearly a sense of frustration among both individuals and groups around the world, but the unusual suggestion of this book is that the frustration is due to the structural lag of institutional development behind the growth of indi-

viduals. The authors maintain that this hopelessness exists because the prevailing institution (the nation-state) devotes all its energies to self-preservation at the expense of any human goals. Thus, powerlessness is the result of a national interest that focuses on the basic level of Maslow's need structure. It follows that because the nation never escapes the basic security level, the powerlessness perceived by the individual is never alleviated. The problem with this argument is that the state cannot be assumed to function like a person.

The second argument is that the obsession with security "in the national interest" literally eats up all the energies of the state and leaves no resources for the development of human potential and thus human rights. The authors introduce a rather novel, though simplistic, description of what they call the "national security motors" to demonstrate their point. They argue that, unlike the demobilization in previous wars, since World War II the United States has been involved in constant mobilization for the preservation of its national security:

Military security became a motor that needed to be constantly turned on and operative.... But military preparedness was not the only national security motor that was to dominate life in the second half of the twentieth century. The postwar world witnessed a gradual but steady escalation of economic and resource interdependencies and a corresponding competition that would eventually pose even graver threats to national security... Thus, there are now three national security motors: *balance-of-weapons competition*, *balance-of-payments competition* and *competition over scarce resources*. (pp. 46-47)

This is perhaps the most interesting part of the book because it clearly articulates the economies of setting priorities for national security while, at the same time,

showing three intricate interdependencies of both the national and international economies. It maintains that these complexities literally are driven by national security concerns at the expense of concern for human individual needs. Unfortunately, this argument ignores the enormous budget for cabinet level departments in the U.S. government such as the Department of Health, Education, and Welfare, Department of Housing and Urban Development, and the Department of Transportation. These departments clearly demonstrate a high government priority for response to human needs and thereby counteract the authors' arguments.

Once the authors have demonstrated the projection that governments are literally unable to respond to human needs because of their complexity and national security motors, they turn to what they perceive as a meaningful alternative to national interest and national sovereignty. They call this a grassroots movement to generate world order while, at the same time, they refuse to call it a proposal for world federalism. Their argument is not only unrealistically idealistic and extremely weak but also reveals their hidden agenda in writing the book. Although their argument is always couched in the famous Benjamin Franklin terms (and it is very hard to argue against the proposition that we should work together for common human goals, or we will all somehow fall apart or be the less for the lack of effort), it is clear that they are calling for support of their own "World Order Models Project," which has already been under way for some time. It somewhat disturbs me that they never really admit this advocacy position outright; instead they veil their support of this organization in their introduction of all of its programs and utilization of examples from the project's experience. They spend nearly 100 pages

of the book discussing a New World Order and outlining strategies for achieving it *as they have outlined it*. They totally ignore the almost universal history of failure of such attempts in the past to be anything but a haven for intellectuals and never have any real impact on the common citizen. And they neglect to address the entire international relations field of the burgeoning growth of nongovernmental international organizations (NGOs) that exist apart from their propositions. These NGOs already are meeting the Mises' prescribed solution to the national interest problem:

What is being asked, then, is not to abandon present problem-solving efforts for some far distant future utopia. Recommended, rather, is a pragmatism which recognizes that such problem-solving efforts will not bear much fruit without commensurate effort put into structural adaptation at the global level. (p. 329)

The concluding argument of the book appeals to what the authors imply is the universal religious value of "wholeness." They see religious values as the only shared core of perceptions that can bind the individuals of the world together in a grassroots movement to enhance and guarantee the rights of individuals and emphasize the human growth toward self-actualization. They describe traditional religion as impotent because it responds usually by drawing its "moral skirts" around its few followers and claiming immunity from the problems of the world.

With a vision of themselves as members of God's faithful remnant who will enjoy eternal bliss when this world passes away, they scrutinize their personal lives to make sure they are ready for the end. And thereby they contribute to the resulting destruction by failing to take any positive initiative on behalf of the world and humankind. (pp. 231-32)

Instead, the authors appeal to what they call "authentic religion":

In both the Western and Eastern meanings of the word, authentic religion is concerned with a vision and celebration of the essential relatedness and oneness of all existence. It points toward a potential and destiny that transcend the immediate evidence of brokenness and incompleteness. Authentic religion is developed in the humble awareness of participation in reality and meaning greater than self and beyond measurable physical, social, political or economic relationships. (p. 333)

This definition of authentic religion leaves ample room for emphasis on humanistic values and the development of human rights and human goals. Consequently, they argue that basically the only human thing to do is to respond to our basic human religiosity that derives from our concern for our fellow man and eagerly lend our support to their proposed grassroots movements for "a more human world order." This movement toward a more human world order is, therefore, basically a human, religious movement.

WHAT then are we to do? If we do not leap on their bandwagon for human world order, are we to be considered irreligious? I think not. But I do feel we should respond to the book for what it is—an invitation to examine the balance between human values and state values. The point of the book is that human rights have been given no attention because of the national security motor. This is hardly true in a nation where an entire recent decade saw the evolution of the civil rights of one particular segment of its population defined and clarified regardless of the national security motors. Neither is it true in a nation that recently fought its longest war in defense of the human right of freedom for a country that had experienced less human development oppor-

tunity than its own. The book is neither good political science nor necessarily good theology (or religion?), but it does invite from us a response to good humanism. And it does suggest some provocative dilemmas generated by the national motors that are driven by our growing interdependencies. Most of all, however, it suggests that we examine our values lest we find ourselves "hanging separately."

I feel that this volume suggests a very real challenge in terms of our responsibility to respond to our interdependence with one another, our responsibility to "hang together." Its goal of generating a system for international focus on human priorities is a good goal; its methodology is just a bit too unrealistic. Perhaps the best invitation of the book is for us to examine how our own personal human potential by definition requires interdependence. Iranaeus wrote that "The glory of God is man come fully alive." We cannot disagree with that goal nor would the Misches. But the emphasis suggested by them is that coming alive cannot be achieved without relationship that recognizes interdependence. Human development is, in the context of the ideas presented here, community development. By definition then the human development movement is a community development, the development of a community that ministers to its own needs and the needs of its individual members. Coming fully alive is a ministering within a community; ministering *is* community, literally "a way of living."

As Air Force members we are thus challenged to a more human order within our own community. We are constantly reminded of this need and given checklists and suggestions on how to make it happen. But, do we succeed? Do we want to succeed? And, if we want to succeed, where do we start? And how?

Rather than answer those questions with a long prescription, let me share with

you a significant paragraph from C. S. Lewis that puts my own interdependencies into proper perspective.

It is a serious thing to live in a society of possible Gods or Goddesses, to remember that the dullest and most uninteresting person you talk to may one day be a creature which... you would be strongly tempted to worship, or else a horror and a corruption such as you meet now, if at all, only in a nightmare. All day long we are in some degree of helping each other to be one or another of these destinations. It is in the light of these overwhelming possibilities, it is with awe and circumspection proper to them, that we should conduct all our dealings with one another. All friendships,

all loves, all play, all politics. There are no ordinary people. You have never talked to a mere mortal. Nations, cultures, arts, civilizations—these are mortal, and their life to ours as the life of a gnat. But it is immortals whom we joke with, marry, snub and exploit—immortal horrors or everlasting splendor.

C. S. Lewis
The Weight of Glory

The next move is yours!

Griffiss AFB, New York

Note

1. Henry Steele Commager, "200 Plus 1," *Parade*, July 3, 1977, p. 6.

POTPOURRI

History of the Art of War within the Framework of Political History, Volume I: Antiquity, by Hans Delbruck. Translated by Colonel Walter J. Renfroe, Jr., Contributions in Military History, No. 9. Westport, Connecticut: Greenwood, 1975, 604 pages, \$25.00.

Military students, researchers, teachers, and historians in general will be indebted to Walter J. Renfroe, Jr., for translating this first of four volumes on *History of the Art of War* by German military historian Hans Delbruck. This is the first appearance in English of a work which has proved to be one of the finest teacher's guides in the discipline. It is a must-read historiographic study of major military subjects in the classical period—from the Persian wars through the campaigns and army of Julius Caesar.

Delbruck, one of the early practitioners of the objective, scientific approach in historical research, has not given us the free-flow character-centered studies prevalent since Carlyle. Instead, he has produced a collection of profound studies of battles, campaigns, wars, appropriate military topics, and certain individuals whose acts transcended individual engagements. What Sir Edward Creasy did so well in terms of battles, Delbruck has done in all military categories.

His painstaking reconstruction of significant military matters cuts through the welter of exaggeration of period reporting, and he retells the victors' tales with considerable effect, eliminating the gross errors induced by national pride and inaccurate recording of events. Those who have stood on the mound at Marathon may not wish to reject the fanciful story of Herodotus that depicts a small Athenian army on the run for 1500 meters (8 stadia), pushing the large Persian army into the sea. Delbruck notes that the charge described by the Greek historian was physically impossible, not only for trained troops but especially for the levies that constituted the major portion of the Athenian army. Also, the Persian forces were not significantly stronger

than those of the Greeks; and the Persians who were overwhelmed by the Greek rush of perhaps 100 to 150 meters were lightly armored archers who were relatively defenseless in close-in fighting. The remainder retreated two miles to their waiting ships and re-embarked. Miltiades, the Greek leader, did pursue after having regrouped following the initial rush and engagement, but he was able to seize only seven ships of a much larger force. A lack of reference in early accounts of spoils of war indicated to Delbruck a fairly successful retreat and extraction of the Persian advance guard from the shore. In fact, the Athenians suffered about 1000 casualties, killed and wounded, from a force that numbered 4000 to 6000—a tribute to the hard fighting on both sides and a measure of the victory won despite what could have been crippling losses.

To Delbruck, Marathon was a significant victory for the Greeks. It did not need the panegyric language of Herodotus and others to make it so. In each of his chapters Delbruck strikes the same chord. Unadulterated facts should speak for themselves; they need no embellishment by overgenerous historians prone to amplify and distort in subjective and selective popularization of what never was but might have been. Words to Delbruck should be as carefully chosen in exposition of the facts of an event as the facts themselves. As he put it, "There is no true objective analysis without a philologically accurate base of source material." This severe constraint may deaden the style of his storytelling, but it does not destroy the central logic in each of his studies.

A keen appreciation of objective truth explicit in Delbruck's retelling of events promoted in the author a hard taskmaster for all of us, especially any who choose to retell history. Most of his chapters are followed by an excursus, which is an exegesis of the salient controversial points in the foregoing chapter. Additional notes alluding to source materials or other necessary explanations of pertinent material generally follow each excursus. (Theodore Ropp of recent military historians comes closest to Delbruck's satisfying technique in his ambitious accompanying notes and bibliography.) Thus, we learn as we proceed of the refutation of many long-held beliefs, which some of us have passed on to countless unsuspecting students over the years. One must swallow very hard to read that Greek, Macedonian, and Roman armies were gen-

erally larger than the armies they faced; that Spartan discipline was more pedagogical than military and consequently severely limited the ability of field commanders to prosecute their aims; and that Roman levies were never made according to classes of wealth.

A. J. P. Taylor is not more provocative. Delbruck has the redeeming feature of carefully sifting available evidence before concluding that the ancients may have overstated their cases. For this alone he deserves a fair reading. Only F. E. Adcock and Michael Grant of the currently read military historians of the period of antiquity come to mind as purveyors of Delbruck's analytical technique; and, of the two, Adcock's works are essentially summations wherein we are not privy to the research. One can only hope that this volume serves as a model for the remainder in the series.

Colonel Wilmer F. Cline, USAF
CENTO

Remaking Foreign Policy: The Organizational Connection by Graham T. Allison and Peter L. Szantow. New York: Basic Books, Inc., 1976, 227 pages, \$10.95.

Remaking Foreign Policy is representative of a growing concern about the adequacy of national decision-making machinery in a world of increasing interdependency and political complexity. The authors assert that the problem not only reflects human incompetency but also organizational deficiency. They pursue the questionable course of tracing organizational sources of foreign policy failure, a difficult task since one can never be sure where responsibility for failure shifts from individual to organization.

Coming as it did near the beginning of a new administration, this book was certainly timely. It differs from the usual quadrennial opinion of how to reform the National Security Council by suggesting that this august body should be abolished altogether. In its place the authors propose an enhanced utilization of the Cabinet and a greater role for the Department of State. Their discussion embraces all the major contributors to foreign policy formulation and recommends improvements for each.

What gives this book such temporary and

limited appeal is that it never progresses beyond mere opinion into real substance. Although the authors' proposals are digestible, the superficial analyses they offer to support them are not. There are gross generalizations and several outright errors of fact.

Remaking Foreign Policy is a by-product of the authors' research for a congressional study titled *Commission on the Organization of the Government for the Conduct of Foreign Policy*. This study represents better scholarship, and the reader will benefit more by reading it than the authors' attempt to expand it.

Major Richard E. Porter, USAF
Eglin AFB, Florida

A Military History of Germany: From the Eighteenth Century to the Present Day by Martin Kitchen. Bloomington: Indiana University Press, 1975, 384 pages, index + bibliography, \$12.50.

Martin Kitchen's purpose in *A Military History of Germany* is to explore the nature and history of German militarism. The book is magnificently accomplished in this work. Kitchen does not follow the operational and strategic campaigns; rather he presents the social, economic, and ideological nature of the Prussian and German government and its intimate connection with the military establishment. Kitchen illustrates the basic roots of the German's military identification with the ruling elite. The author convincingly demonstrates that at crucial points in German history the alliance between a ruling feudalistic elite and the military leadership negated real social and political progress in Germany. Kitchen skillfully explores examples such as the negation of the reforms of Scharnhorst and Gneisenau, the fear of a mass army officered by "unreliable leaders" before 1914, the corruption of the Weimar Republic through the preponderance of General Seeckt and a ruling class bent on preserving its power, and the willingness of the military to serve a nihilistic dictator. Hence, Kitchen's thesis is absolutely essential to understanding the basic totalitarian forces unleashed by the dictatorship of General Ludendorff in the First World War.

Further, he squarely addresses the complexity of the German military in making Hitler's Third Reich possible. The shibboleth of the German officer corps, that they did not support Hitler and indeed actively opposed him, is laid to rest. Kitchen tests this view by exposing the stance of the military leadership in January 1933, Hitler's advent to power, the night of the "Long Knives" in June 1934, the killing of the S. A. leadership, the oath of loyalty, the Blomberg-Fritsch affair, and the wholehearted support in planning, preparing, and executing the major military campaigns—all without question. Of course, Kitchen does not forget the active and courageous opposition to Hitler by various elements of the German military leadership. Yet he does point out that this opposition was indeed self-serving; it was meant to preserve the German social order and the privileged position of the military caste. In these chapters particularly, Kitchen's work is skillful, well researched, and provocative.

Perhaps the last chapter on rearmament in Germany demonstrates the only weakness in Kitchen's work. Here the author insists that the same forces that brought the German military into a position of prominence still exist and are actively encouraged. This stance is unsupported by the evidence.

This last chapter should not detract from the overall value of Kitchen's work, however. The monograph will not only serve the student of European military and German history but it is also of high interest and value to the general reader.

Major Michael D. Krause, USA
Fort Ord, California

Political Terrorism: The Threat and the Response by Francis M. Watson. Washington: Robert B. Luce Co. Inc., 1976, 248 pages + index, appendix, \$10.00.

Francis Watson's book defines modern terrorism, describes its operation, its users, its supporters, and concludes with its results and a proposal for dealing with terrorism. The author also includes a chronology of political terrorism from 1968 through 1975 and a list of 97 terrorist organizations.

The strongest facet of the book is its straightforward approach and organization. Watson proceeds in a systematic, investigative

manner that appears to cover all aspects of modern terrorism. He defines it as coercive propaganda and then examines several case histories. Watson identifies the oracle of this violent art as Carlos Marighella and cites his *Minimanual of the Urban Guerrilla* as the bible. His prime examples are the Tupamaro movement and the Symbionese Liberation Army in the United States. The author explains that political terrorism is an unpredictable weapon, one that is likely to lead in unintended directions, but a phenomenon that can possibly result in diminishing the liberties of the many and restricting democratic, liberal government.

Watson proposes a logical counterstrategy: a multidirectional approach that deals with each of the aspects of political terrorism. He explains that the solution to terrorism involves an accurate recognition of what it is. A response that deals only with the violent aspect of terrorism misses the mark. The psychological facets of terrorism must be addressed. Watson also says there is little hope of eliminating the terrorist unless effective programs are instituted to deal with problems that the terrorist points to as justification for his violence. He also indicates the need to involve a large spectrum of society in countering the terrorist. Thus his solution is not a quick fix but an organized, many-faceted program for dealing with a complex problem.

Although events in the Middle East, Ireland, and the U.N. currently appear to be dealing with some aspects of political terrorism, Francis Watson's book is a welcome treatment of a phenomenon that gives every indication of plaguing the world for some time to come.

Lieutenant Colonel Rod Paschall, USA
Fort Bragg, North Carolina

Ghana's First Republic, 1960-1966: The Pursuit of the Political Kingdom by Trevor Jones. London: Methuen and Co., 1976, 360 pages, \$18.50.

Ghana has played a role disproportionate to its size, wealth, and population since becoming independent in 1957. It traveled the road to independence before all other constituents of modern colonial Africa. It found a savior in Nkrumah and fashioned a one-party, Marxist political system widely copied elsewhere on the continent. The party in turn perverted many

institutions inherited from Britain and waxed corrupt in doing so. In this line as well, much of Africa saw fit to emulate Ghana.

Such notoriety as Ghana achieved under Nkrumah before his overthrow in 1966 contributed little to the outside world's understanding of the country, its people, and its politics. Nkrumah hagiography seemed to supply the deficiency, and his departure left the Ghana bookshelf embarrassingly bare. Two specialized studies (William B. Harvey's *Law and Social Change in Ghana* and W. Scott Thompson's *Ghana's Foreign Policy*) have served well, but more is needed. Trevor Jones's *Ghana's First Republic, 1960-1966: The Pursuit of the Political Kingdom* is, therefore, a welcome addition to the *Studies of African History* edited by A. H. M. Kirk-Greene of Oxford University.

The spare prose of this volume conveys a great deal of information. Readers may find most interesting the recurring evidence that Nkrumah's authority was frequently circumscribed by the party he created ostensibly to implement his policies; his claims as dictator were undermined by his disciples' corruption, incompetence, and lassitude. Nkrumah vented his frustrations by immersing himself in a ridiculously ambitious foreign policy, a policy which in turn blinded him to the weakness of his position at home. The 1966 coup was peaceful, almost polite; Nkrumah was abroad busily mediating the Indo-Chinese conflict. Nonetheless, Trevor Jones closes with a melancholy message: Ghana without Nkrumah faces the same reality of impoverishment and despair that has so easily undermined democracy elsewhere on the continent.

Ghana's First Republic is based in large measure on the papers of the National Assembly and on reports in Ghana's precariously independent press. The author reserves his personal criticism of Nkrumah for the copious, sometimes unwieldy, footnotes.

Edward P. Brynn, Foreign Service Officer
Department of History, USAF Academy

Racism is a fact of life. It takes many forms, of course, but *Racism in American Education* is concerned with those forms of racism that are obviously central to education and educators. The lesson here is that its evils must be confronted.

Sedlacek and Brooks offer a pragmatic program for community and school change with a model that should come close to eliminating racism in our educational process. Their model of change is aimed primarily at whites or white institutions, since whites control most of our schools. The authors feel that a systematic approach is needed in an area where well-intentioned but unsystematic efforts have often met with failure.

To work through the racist problems in our educational system, the authors provide a step by step, six-stage program that is based on both research and practical experience. The six stages—by their very grounding in the definition of learning as evolving, growing, changing—are progressive. Stage one thoroughly immerses the participants in cultural and racial differences, how these differences should be approached, and how they are expressed both inside and outside of school. Stage two explains racism and prejudice in operational terms, defining individual and institutional racism and giving examples of biased standards in higher education in various kinds of colleges and universities. Stage three examines at an even deeper level the attitudes that are central to race and how these attitudes influence behavior. Stage four looks at the sources of bias and the development of stereotypes. Stage five provides directions for changing behavior, and then it establishes goals and strategies that will firm up change and continuing understanding. Stage six concentrates on techniques that will ultimately achieve goals of mature behavior in personal and community relationships.

A number of major principles are incorporated in the authors' approach to racism, one of which is seen in the structure of the plan itself. It is outcome-oriented, that is, "behavioral." Their emphasis is on results of actions rather than on the actions themselves. They even define racism in terms of outcomes: what happens when certain behaviors take place?

Another principle articulated in the text is that shock may make change more difficult. Apparently, change nearly always incorpo-

Racism in American Education: A Model for Change by William E. Sedlacek and Glenwood C. Brooks, Jr. Chicago: Nelson-Hall, Inc., 1976, xii + 227 pages, index, \$12.50.

rates discomfort and doubt, so most people categorically resist change of almost any kind. One intermediate criterion, therefore, for measuring the success of this model is whether people are thinking new thoughts and expressing doubts about their present behavior. Most of us develop an elaborate and comfortable set of rationalizations around denial of problems or even the existence of a condition like racism. Discussing strategies for solving such a situation is useless, then, when people have no existential feeling of its reality. If the earlier stages of disseminating information on humanistic growth are ignored, participants will always go back to a stage where they were more secure.

One trap which Sedlacek and Brooks point out in the activation of change occurs when people become overly concerned with method instead of with well-defined goals. Too often it seems we become involved with *how* to effect change without knowing exactly *what* to accomplish. Teachers, students, and educational leaders everywhere need this redemptive and profound understanding of one of the longest lasting problems in our society. Prejudice is learned, but it can be unlearned with positive, well-structured, sequential training programs that open up feelings of concern, care, and community.

The routines, dialogues, and role-playing experiences, plus such instruments as the Dove

Counterbalance Intelligence Test and the Situational Attitude Scales offered in this text—all mark an extensive, probing guide to better relationships among our people, particularly those in the academic setting.

Above all, the model has unity. It hangs together. The reason? Perhaps, because one of the authors is white and the other black. They are able to present both majority and minority viewpoints to form a practical solution to a difficult problem. Their material provides the soundest basis I have seen for moving individuals, through group theory and goal structure, toward a useful awareness of situations resulting from feelings and actions that are the product of crippling prejudice.

The challenge is clear. It relates integrally to the national priority of maintaining a vital, well-informed citizenry by ensuring the greatest possible educational opportunity for all. This priority and its impact on institutions is a continuing major issue in public, military, and higher education.

Racism in American Education is an action-oriented book which, if widely read, understood, and applied, could help reduce conflicts that have been counterproductive in the ongoing development of our principal enculturating institution—the American school.

Dr. Porter J. Crow
Montgomery, Alabama

BOOKS RECEIVED

The books listed herein are those received since the last list was published in our January-February 1978 issue. Most of them have already been sent to reviewers, and their reports will be printed later.

I. AIR POWER: DOCTRINE, STRATEGY, AND TACTICS

- Berman, R. P. *Soviet Air Power in Transition*. Washington, D.C.: Brookings Institution, 1977. \$2.95.
- Birdsall, Steve. *Flying Buccaneers: The Illustrated Story of Kenney's Fifth Air Force*. New York: Doubleday, 1977. \$15.00.
- Collier, Richard. *Bridge across the Sky: The Berlin Blockade and Airlift, 1948-1949*. New York: McGraw-Hill, 1978. \$12.95.
- Gray, Colin S. *The Geopolitics of the Nuclear Era: Heartlands, Rimlands and the Technological Revolution*. New York: Crane, Russak, 1977. \$2.95.
- Higham, Robin, and Jacob W. Kipp. *Soviet Aviation and Air Power: A Historical View*. Boulder, Colorado: Westview, 1978. \$25.00.
- Mandelbaum, Michael, et al. *Nuclear Weapons and World Politics*. New York: McGraw-Hill, 1977. \$9.94.
- Weizmann, Ezer. *On Eagles' Wings: The Personal Story of the Leading Commander of the Israeli Air Force*. New York: Macmillan, 1976. \$8.95.
- Yanarella, Ernest J. *The Missile Defense Controversy: Strategy, Technology, and Politics, 1955-1972*. Lexington: University of Kentucky Press, 1977. \$17.25.
- Zijlstra, Gerrit. *Diary of an Air War*. New York: Vantage, 1977. \$12.50.
- ### II. AVIATION AND SPACE FLIGHT: TALES, TECHNIQUES, AND TECHNOLOGY
- Abrams, Richard. *F4U Corsair at War*. New York: Scribner's, 1978. \$12.50.
- Anderson, John D. *Introduction to Flight: Its Engineering and History*. New York: McGraw-Hill, 1978. \$19.50.
- Blaine, James Cyril Dickson. *The End of an Era in Space Exploration: From International Rivalry to International Cooperation*. San Diego, California: American Astronautical Society, 1976. \$25.00.
- Clark, Ronald W. *The Role of the Bomber*. New York: Crowell, 1978. \$14.95.
- Emme, Eugene M., editor. *Two Hundred Years of Flight in America: A Bicentennial Survey*. San Diego, California: American Astronautical Society, 1977. \$25.00.
- Fiest, U., N. E. Harms, and M. Dario. *The Fighting 109*. New York: Doubleday, 1978. \$10.50.
- Godson, John. *Clipper 806: The Anatomy of an Air Disaster*. Chicago: Contemporary Books, 1978. \$7.95.
- Hacker, Barton C., and James M. Grimwood. *On the Shoulders of Titans: A History of Project Gemini*. Washington: NASA, 1977.
- Hall, R. Cargill. *Lunar Impact: A History of Project Ranger*. Washington: NASA, 1977.
- Mayer, S. L., and Masami Tokoi, editors. *Der Adler—The Official Nazi Luftwaffe Magazine*. New York: Crowell, 1978. \$12.95.
- McClement, Fred. *Jet Roulette: Flying Is a Game of Chance*. New York: Doubleday, 1978. \$7.95.
- McCollough, John M. *We Flew with One Wing*. Ardmore, Pennsylvania: Dorrance, 1978. \$4.00.
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The Air University Review Awards Committee has selected "The Central Europe Battlefield: Doctrinal Implications for Counterair-Interdiction" by Colonel Robert D. Rasmussen, USAF, as the outstanding article in the July-August 1978 issue of *Air University Review*.



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