AIR UNIVERSITY review

NOVEMBER-DECEMBER 1981

a matter of survival

Instinct is defined as an unlearned, adaptive response. Necessarily, the most basic, inherent characteristic of any species is the presence of the *survival* instinct. This impulse to adapt must be present for any life form to evolve. Now, eons up the evolutionary scale from the Creation, we still find survival to be life's motivating force.

As we have evolved into intricate organisms, so have the measures needed to ensure our continued existence become enormously complex. We no longer defend only against natural enemies; indeed, there are those of our own species who, if we lacked the strength to resist, would overwhelm us. An adequate defense has become a matter of survival.

The philosophy of defense has not changed since human emergence: the strongest will prevail. However, the relative strength of adversaries can no longer be judged strictly in accordance with size or numbers. Instead, the triad of personnel and equipment, strategy, and national will equates to strength. Defense has grown from an individual endeavor into the most important industry on earth with world-ending stockpiles of weapons.

The mere presence of our weapons, isolated from potential aggressors, does little to fortify our deterrent status. We must be able to counter an enemy first strike quickly. To do this we must rely on manned and unmanned airborne firepower.

Since man developed into a thinking entity, he has emulated living things capable of flight. Perhaps because flight seemed so effortless, it represented a way to escape from danger. Flying has evolved from that dream, through reality, into a necessity. In fact, air power has developed to a point where, soon, performance limits will be reached: the very air that gives us life becomes a barrier at the speeds now attainable.

Another type of powered flight, unencumbered by air resistance, is in its nascency . . . outside our atmosphere, in space. There human existence relies on vehicles and living units internally duplicating the environment of earth.

The technology for human existence in space is in the embryonic stage, but the success of the Space Shuttle portends our soon having the capability for launching payloads from orbiting space platforms. The commercial and military implications of this capability are limited only by the imagination.

We Americans enjoy more democracy and a higher standard of living than any other people on earth. For our descendants to be able to live and prosper in a free society depends on our continued ability to respond immediately and effectively to an enemy attack. Air power and space power represent the means. This peacekeeping capability demands the dedication of people trained in everything from food preparation to astronomy.

The fact that we exist is a miracle of tenacity; the explanation for why we exist is for philosophers and theologians to argue; disciples of both agree that life must have purpose to be meaningful. Each individual's concept of what that purpose is largely determines his preparation for and subsequently his participation in life.

The United States Air Force needs people of all kinds to ensure the perpetuation of life as we know it. Unlike our sister service, we need a *lot* of good men (and women), people capable of meeting head-on today's and tomorrow's challenges; people who are dedicated to the proposition that our society must survive. What pursuit could be more noble or fulfilling?

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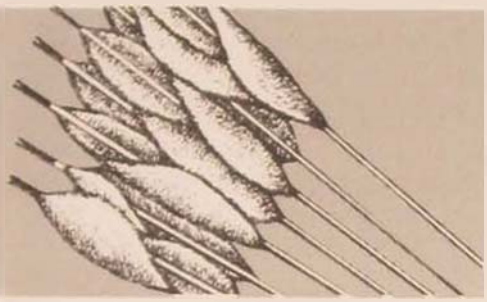

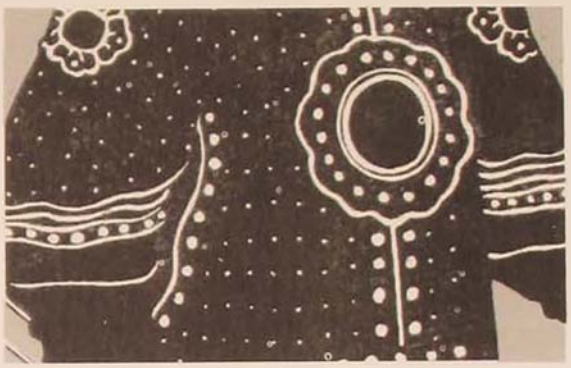

CHINA'S DEFENSE MODERNIZATION

of tortoise shells and tigers' tails

DR. PAUL H. B. GODWIN

To the outside observer, the U.S.S.R.'s highly mobile tank and mechanized units present a lethal threat to China's obsolescent ground forces. Yet the Chinese have disparagingly described these units as Soviet "tortoise shells," arguing that the Russians have become overly dependent on what amounts to a logistic nightmare on the battlefield. Similarly, the Soviet link with Vietnam was thought to deter China from taking any military action against Vietnam, but the Chinese invaded while the U.S.S.R. looked on. In its own words, China touched the tiger's tail. This gap between China's own view of its defense and national security policies and that of those who looked on prompted this present analysis.

P.H.B.G.

THE BASIC issues facing the Chinese leadership as it plans its defense modernization have been so frequently analyzed in academic, governmental, and press circles that it is difficult to conceive of a new conceptualization that will cast any different light on the issues involved.[1] Furthermore, official Chinese commentaries in the press and radio broadcasts have become practically redundant in their recitation of the litany of problems the People's Liberation Army (PLA) must face as it seeks to modernize.

Two critical decisions were made in the past couple of years that set the basic parameters for the modernization of the Chinese armed forces. The first was that modernization of the defense industries would depend on the overall modernization of the national economy; therefore, the defense establishment must not anticipate any special funding that would alter the trend of allocations set in 1972. The second decision was that, to the extent its current force structure permits, the basic doctrine and strategy of the PLA would be revised to accommodate the anticipated slow but steady increase in the armed forces' war-fighting capabilities. In effect, the military establishment was told that its priorities, as they were expressed in the defense debate of 1976-78, would not dominate the programs associated with the "Four Modernizations" of agriculture, industry, science and technology, and national defense.

The Context of Defense Modernization

The concept of modernization when it is applied to the Chinese armed forces is multilayered. At one level it refers simply to the process of updating weapons from models based on Soviet designs of the 1950s to technologies developed in the 1970s. This rather simplistic approach is still often used in press reports analyzing China's most recent "browsing"[2] through the products of Western arms manufacturers. Knowledgeable and sophisticated analysts have long recognized, however, the far more complex facets of modernization faced by the Chinese military hierarchy. It is recognized that beyond weapons technology, China's problems are located in command, control, and communications (C^3) equipment; target acquisition and fire control systems; strategic and tactical reconnaissance systems; anti-atomic, biological, chemical (anti-ABC) warfare systems; logistic support and mobility; and the entire range of modern battlefield support systems. Beyond acquiring such weapons and equipment, training the armed forces in the use and maintenance of technologically advanced weapon systems and equipment is a problem of major proportions in a technologically unsophisticated society. Equally, if not more important, basic issues of present and future "threat" environments have to be resolved, and appropriate decisions on doctrine and strategy made, in order to establish priorities that will structure the defense modernization process. This is not to say that these problems cannot be overcome, but that they are complex, time-consuming, and riddled with potential for intense internal disputes.

Defense Modernization and the Economy

Defense modernization on the scale sought by the Chinese military hierarchy is not only a complex and multifaceted process that involves far more than simply updating weapons and equipment, it is rendered even more difficult by the current requirement to integrate the needs of the defense establishment into the overall objectives of the economic programs covered by the Four Modernizations rubric—a difficulty increased by the belt-tightening policies that emerged from the Third Plenum of the Chinese Communist Party (CCP) in December 1978. Since that agonizing reappraisal, along with a basic shift in resource allocation, the defense sector of the economy has been called on to contribute more to civil production while many planned purchases of foreign technol-

ogy have been either suspended or canceled. This belt tightening will evidently extend beyond the scheduled 1979-81 readjustment program originally announced as the current leadership attempts to create a more viable foundation for the long-term outline program for the Four Modernizations.[3] As part of the readjustment policy, the modernization of national defense has been given the lowest priority in resource allocation,[4] although the continued importation of high technology precision machinery from the West and Japan will undoubtedly play a significant role in the defense sector of the economy. Defense expenditure trends established in 1972, which have permitted an average annual growth rate of 1 to 2 percent, will continue to set a critical limitation on what defense equipment can be imported, while basic weaknesses in the economy will have to be corrected before any extensive reallocation of resources to defense will occur.[5]

This decision has a significant impact on China's continuing search for a modernization strategy that will ultimately provide Beijing* with a viable, self-sustaining (self-reliant) defense economy. The abrupt break with the U.S.S.R. in 1960 and the resultant chaos in the defense industries warned the Chinese against creating a replica of their initial reliance on the Soviet Union. Simply accepting production facilities without integrating the technologies related to weapon system and equipment design into the infrastructure of research, development, test and evaluation (RDT&E) that must underlie viable defense industries is not acceptable to the current leadership. The goal established for defense industries fits with policies set in the 1950s, but the lack of success in creating a viable defense industrial base and its RDT&E infrastructure after the break with the U.S.S.R. has led to vast gaps between China and its current and potential adversaries. The cost involved in the time and resources necessary to close these gaps is formidable, and the relative priority given to defense modernization pushes the modernization of the PLA even farther into the distance. In one sense, the delay created by the present priority structure may serve the Chinese armed forces well. Decisions made now are critical, and if the direct modernization of the defense industries has been slowed down for a few years, then the evaluation of available foreign technologies can occur without the pressure created by the need to make early decisions. Similarly, given greater time in which to develop a set of priorities, then the increasing pool of technologically and scientifically trained personnel to be created by the new educational policies will provide the defense establishment with a stronger human resource base to draw on.

This stringing out of defense modernization is feasible, however, only if the Chinese perceive that they can rely on their current force structure to supply the necessary military support for their national security policies.

The Chinese Threat Environment

Since the early 1970s, Chinese analyses of the international system and global politics have laid the major threat to Chinese security at the door of the Soviet Union. Since that time, Beijing has followed a basic policy of aligning China with the Western powers and Japan in an attempt to counter both the military and diplomatic strategies of Moscow—as these strategies are understood in Beijing. With this basic policy of realignment, perhaps as early as 1972, Chinese fear of the Soviet threat to its security has evidently been reduced. With the exception of worst-possible-case scenarios that came from the military-industrial complex during the defense modernization debate of 1976-78, the Soviet threat has been analyzed publicly as a long-term problem, and the degree of threat to China has been viewed as as much a function of the willingness of the Western alliance and Japan to counter Soviet military strategy as it is

*Throughout this analysis, Chinese will be transliterated using the official *pinyin* romanization system. Peking thus becomes Beijing.

a function of any particular efforts by Beijing to improve China's military capabilities. As Jonathan Pollack has suggested,[6] the fact that Chinese defense expenditures grew only very slowly between 1972 and 1977, even though industrial capacity increased by more than one-half, would indicate a far less foreboding perception of the Soviet military threat than Beijing's pronouncements of the dangers of Soviet hegemonism would lead the casual observer to conclude. Even the recent test of China's intercontinental ballistic missile (ICBM) launchers cannot be viewed as an indicator of any heightened threat perception, for the ICBM program has been under way since the late 1960s, and it is quite unlikely that China can begin a rapid production and deployment of these systems in the near future.

Not only do Chinese public analyses view the Soviet threat as a long-term problem rather than an immediate threat, there is also the question of what kind of threat the Chinese anticipate. Again, in spite of the arguments presented in the latter stages of the defense debate, there is no evidence in the public analyses presented in the last two years that a Russian blitzkrieg across the Sino-Soviet and Mongolian borders is of major concern to Beijing. Certainly the degree of concern was insufficient to deter a three-week incursion by the PLA into the Socialist Republic of Vietnam (SRV), a Soviet client. Rather, by 1978 and continuing today, public analyses focus on the alleged attempt by the U.S.S.R. to outflank the West, cut off supplies of energy and raw materials to Western Europe, the United States, and Japan, and strategically isolate the Western alliance.

Referring to the grand design underlying Soviet political-military strategy, a recent *Renmin Ribao (People's Daily)* analysis argues that while 75 percent of all Soviet forces are deployed to threaten Europe, since the middle 1970s "the Soviets have been carrying out frenzied expansion at an extremely rapid pace on the fringe of Europe, Africa, and the Middle East."[7] The analysis concludes that if this Soviet strategy should succeed and the U.S.S.R. gain control of the Middle East, Persian Gulf, Southeast Asia, and the Malacca Strait, then the global political-military strategy of the U.S.S.R. would be essentially completed. Xinhua (New China News Agency), a few days earlier, had presented the same analysis, concluding that if the U.S.S.R. is successful in gaining control of the Persian Gulf oil resources, it would reduce "Western Europe, Japan, and even the United States to a state more dead than alive."[8] What is usually unspoken, however, is that this same strategy, if successful, would in effect also isolate China and render impotent Beijing's new strategic alignment with the West and Japan. Constant urging by Beijing that the Western alliance and the Third World assume their responsibilities and actively resist the U.S.S.R. clearly serves China's interests as much as it does those China is urging on to stronger action. It may well be that China's belated invasion of Vietnam was designed not only to "teach Hanoi a lesson" but also to demonstrate that China was willing, wherever possible, to play its part in the tit-for-tat struggle Beijing is urging on the rest of the world.

According to the Chinese the primary Soviet threat is directed at Europe, with Asia providing only the second long-term priority in Soviet objectives. But, they insist, the military situation in both Europe and Asia is "stalemated," thus the U.S.S.R. is now seeking to "clear the strategic passageway from Central Asia southward to the Indian Ocean so as to encircle Europe from the west, threaten East Asia in the east and gradually complete the strategic deployment for seeking world hegemony."[9] The movement southward into the Persian Gulf/Indian Ocean area is seen as linking the outflanking of Western Europe with Soviet moves into the "heart of Asia and the Pacific." Beijing argues that Soviet emphasis on its European strategy remains, but the "geopolitical concept of Europe" now includes not only Europe but also North Africa, the Middle East, and the Persian Gulf.[10]

Clearly, these essays and many others written after the April 1978 coup in Afghanistan were designed to express Chinese concern over Soviet intentions beyond the immediate events in Kabul. They also expressed Chinese convictions that while the U.S.S.R. must be opposed, there was little militarily that Beijing could do. It is this latter factor, the inability of the Chinese military establishment to inhibit Soviet global military strategy, that obviously leads the Chinese leadership and their mass media to insist that the danger from the U.S.S.R. is far greater for Europe, the United States, and Japan than it is for China.[11]

In January of 1980 *Renmin Ribao* specifically reviewed Soviet military doctrine and strategy and declared that the U.S.S.R. was on the offensive and capable of projecting conventional military force on a global scale. Soviet basic military doctrine was said to be based on preemptive warfare while its strategic concerns were said to focus on developing a military capability to fight a war simultaneously on two fronts, Europe and Asia.[12] The expansion of Soviet military capabilities in Asia was carefully noted, especially the increasing size and war-fighting capability of the Russian Pacific Fleet, the deployment of SS-20s, and Soviet access to air and naval facilities in Cam Ranh Bay, Da Nang, Ho Chi Minh City, and Haiphong. Reference was also made to a new Soviet "command organ" in the "Far East war theater," but no specific reference was made to Soviet deployments along the Sino-Soviet border and in the Mongolian People's Republic (MPR). In keeping with standard Chinese practice, the increasing military capabilities of the U.S.S.R.'s Asian deployments were seen as being directed primarily at Japan and the United States. The essay draws two conclusions: that the tactical situations in Europe and Asia are stalemated, which led to a major Soviet strategic thrust south from Central Asia designed to link Soviet military capabilities in Europe with its forces in Asia, but that even though Russian military capabilities in both Asia and Europe were increasing, it would be a mistake to overestimate Soviet military strength.[13]

It is this latter conclusion that merits further analysis, given the rather gloomy description of Soviet military strategy and force deployments that occupy much of Beijing's commentaries on Moscow's plans for the future. Reviewing the U.S.S.R.'s "southward push" in 1978, Xinhua viewed the coup in Kabul, the Soviet Union's search for military bases at the mouth of the Red Sea, the inclusion of the SRV in the Council for Mutual Economic Assistance (CMEA), the Russo-Vietnamese treaty of November 1978, the use of SRV military facilities by Soviet forces, and the expansion of the Soviet Pacific Fleet as momentary gains obtained "at a high price." The Xinhua report argued that Soviet behavior served only to highlight its aggression and to warn the world of its ultimate strategic objectives.[14] *Renmin Ribao,* in its 1978 review of Soviet strategy in Asia, concluded that the U.S.S.R. did not have the capacity to achieve its objectives, arguing that Vietnam's admission to CMEA, pressure on Warsaw Pact members to increase their military spending and provide Vietnam with greater assistance, and the use of Warsaw Pact military personnel in Africa are all indicators "of the fact that its [the U.S.S.R.'s] capacity falls far short of its ambitions."[15] In November 1979, *Hongqi (Red Flag)* argued in the same vein that even though the factors leading to war were increasing, a third world war could still be deferred. There was a growing awareness of the worldwide threat presented by the U.S.S.R., and internal economic and political problems still plagued the Soviet Union. The fact that Moscow was forced to rely increasingly on non-Russian forces and facilities indicated that the Soviets did not have the military and economic capability to realize its ambitions: "In short, their strategic deployments for starting a war have not been completed and difficulties are increasing."[16] Analyzing the 1979 expansion of the Soviet fleet in the Pacific, Beijing domestic radio concluded that the result of

this expansion was basically favorable to China. Summarizing the activities of the U.S.S.R., the United States, Japan, Australia, and New Zealand, the broadcast argued that "The development of the situation in the past year shows that Soviet military expansion in the Pacific region has not only aggravated the U.S.-Soviet confrontation but also activated the antihegemonist forces in the Asian and Pacific region."[17]

Beijing's public response to the Soviet invasion of Afghanistan was initially somewhat more alarmist than its end-of-the-year analyses had been a week or so before the incursion. Commentators stressed the danger of the southward strategy of the U.S.S.R., defining Soviet actions as "a major change in the world situation."[18] China's public response, nonetheless, also pointed to the political cost paid by the U.S.S.R. for its intrusion into Kabul's factional politics. Xinhua called for unity in opposition to the U.S.S.R. and argued that "The vehement worldwide reaction against it [the U.S.S.R.] in the past five weeks is actually a manifestation of this unity. Such reaction and unity have surprised the Soviets who are made to pay for their miscalculations."[19] By the summer of 1980, Chinese radio and press analyses had essentially returned to the more hopeful note sounded in the end-of-the-year reports of 1978 and 1979. The Soviet movement into Afghanistan was viewed as almost a positive event because it had, in Beijing's public view, alerted the world to the real danger presented by the U.S.S.R. and verified in the clearest possible manner Chinese interpretations of Soviet global objectives. *Renmin Ribao* stated that the "100,000-strong Soviet occupation army is being beaten everywhere and taxed to exhaustion." In Kampuchea the Vietnamese forces were facing a similar fate, and "Having shown clearly their features as hegemonists, the Soviet Union and the Vietnamese authorities have met with powerful international condemnation and are almost completely isolated. Domestically they are faced with great difficulties and have aroused opposition from their people."[20] Warning was given, however, not to be fooled by a "peace offensive" and "false détente." If Soviet and Vietnamese achievements are accepted as a fait accompli, then "the Soviet Union will complete its global strategic deployment and the Western countries will then be in an awkward predicament."[21]

Very clearly, the Chinese seek publicly to minimize the particular threat the U.S.S.R. presents to China, choosing to emphasize the threat Soviet strategy presents to Western Europe, the United States, and Japan. Even in its analyses of Soviet military strategy in Asia, Beijing underplays the potential threat to China and stresses instead the threat the U.S.S.R. is now presenting to the forward deployed forces of the United States and to Japan's sea lanes and territorial integrity. Noting that the strategic geography of the West Pacific is not favorable to the Soviet fleet because it is subject to blockade in Japan's Tsushima, Tsugaru, and Soya Straits, Chinese commentators have stressed that the northern islands of Japan claimed and occupied by the U.S.S.R. are being turned into military bases and that the Soviets have linked these bases to Vladivostok "to form a huge military base network in the Far East."[22] China publicly argues:

> Some people point out that this [Soviet global strategy] is intended to encircle China. Of course, the Kremlin has China in mind in pushing expansionism in Asia. But its more important objective is to expand its sphere of influence and rid the continent of the United States, its chief opponent, thereby threatening [the] peace and security of Japan and other Asian nations in particular. It is indeed short-sighted and dangerous to overlook this.[23]

Chinese sensitivity to charges that their analyses are primarily self-serving and do not reflect the leadership's perception of the Soviet threat are demonstrated by this comment, but it does not answer the basic question: To what extent do Chinese pronouncements, whether through the mass media, in public speeches, or through interviews given by members of the Chinese leadership to foreign press representatives,

reflect actual threat perception? A partial answer, or at least an indicator, may be found in reviewing Chinese statements that reflect issues of military doctrine and strategy.

Military Doctrine and Strategy

Military force structures of the size and complexity developed by the People's Republic of China (PRC) are not created accidentally. Force structures emerge based on the interaction of a number of variables. Three critical variables are: the perceived threat(s) to be countered and the military objectives sought; the resources and industrial capabilities available and allocated to national defense; and the doctrine and strategy developed to counter the threat(s) with the current and anticipated force structure. At any given time no single one of these factors may be dominant. The force structure that emerges is a result of the interplay of all three factors.

The force structure in existence at the time of the 1976-78 defense debate was largely a function of Lin Biao's attempt to build a modern defense establishment, but one built within doctrinal, strategic, economic, and industrial constraints that had severely restricted the substance of the force. It should be recalled, for example, that between 1959 and 1971, the primary threat to China shifted from the United States to the U.S.S.R. Such a shift radically changed the kind of threats faced by the PRC and, therefore, the kind of force structure necessary to meet the threat. Similarly, while Chinese weapon systems and equipment changed little from designs of the 1940s and 1950s, the weapons and equipment of their primary adversaries not only changed but the battlefield environment changed as a function of modern military technology. The debate of 1976-78 demonstrated how sensitive the Chinese military-industrial establishment is to these changes and their implications for the PLA's war-fighting capabilities.

The general purpose forces inherited and developed by Lin Biao enabled China to adopt a dual strategy of local force projection and a classic Maoist people's war to underpin China's basic military doctrine of deterrence. Two "traditions" were brought into play. On the one hand there was the successful conduct of Mao's people's war strategy in the 1930s and 1940s and the shift to conventional warfare in 1948; on the other there was the bitter experience of the Korean War. In Korea, Chinese forces experienced for the first time modern warfare as it is fought by rich and technologically advanced societies. The dual concepts of mobility and lethality in a force structure were impressed on the Chinese by the failure of Peng Dehuai's forces to destroy the United States 8th Army in January-March 1951 and the number of dead and wounded this failure cost them.

The lessons learned during and from the Korean War battlefields were undoubtedly critical in the decisions that led to the intensive modernization of the PLA and the development of China's defense industries in the years following the war. The economic cost of a doctrine, strategy, and force structure modeled on the Soviet armed forces, and Mao's objection to the strategies pursued to employ this force structure, led to the first major defense modernization debates of 1955 and 1959. Of the two traditions—people's war and the Korean War—Peng Dehuai and those who supported him chose to emphasize the latter. When Lin Biao took command, he was charged with creating a strategy and force structure more compatible with the views of Mao Zedong and with modernizing this force structure within a limited, but not niggardly, budget. In this he was remarkably successful.

By the late 1960s, however, the weaknesses of China's R&D base and defense industries were having their effect. China's adversaries were rapidly developing their military technology, and it was clearly questionable whether size could continue to substitute for mobility

and lethality. With the death of Mao, a debate over the modernization of China's armed forces burst into the open once more, although there were indications in the spring and summer of 1971, and with the purge of Deng Xiaoping in 1976, that a conflict over the resources to be allocated to the defense establishment remained an issue. With Mao's death, however, basic issues of doctrine, strategy, and resource allocation could be debated without being totally restrained by the theology of a people's war.

In terms of weapon platforms, weapon systems, and equipment at both the conventional and nuclear level, the military establishment, including the R&D and industrial facilities, made itself clear. In their view, the equipment and weapons of the PLA were woefully inadequate. Capping the demand for hardware modernization were demands that the PLA had also to modernize its methods of war fighting —those methods which had served it so well in the 1930s and 1940s were no longer effective against its contemporary adversaries. So, too, had China changed, and whereas it was once feasible to disregard the cities and gain the strategic and tactical flexibility of operating in China's vast hinterland, it became important to defend cities as centers of politics and industrial production. The new clarion cry was to be able to fight a "people's war under modern conditions," and the new PLA was to be a "tiger with wings."

The external impact of the internal debate was bolstered by Chinese officials visiting the factories of West European arms manufacturers, air shows, and exhibitions of weapons and equipment designed to show the world the latest in commercially available military technology. To the outside world, China often seemed on the verge of another massive program of defense technology imports, similar to the period 1953-60. Nothing like this occurred. The Hot, Milan, Crotale, and other precision-guided munitions (PGMs) remained in the manufacturers' inventories along with their production technology. The Harrier V/STOL, the Mirage 2000, the Leopard tank, and many other weapon platforms viewed by the Chinese have yet to be purchased, and their expensive production technologies remain unlicensed to China. It is against this somewhat confusing background that an analysis of China's current view of its doctrine, strategy, and force structure has to take place. The interests and desires of the Chinese defense establishment were overtly stated from 1976 through 1978, but little of this desire was satisfied from 1978 through 1980. Why? Cost—the defense burden assumed by the Chinese economy—is obviously very important, but cost alone does not provide a very complete answer. Doctrine and strategy in the face of severe economic constraints and in the context of a particular perception of China's security needs can provide a more complete response.

It is quite evident that the current Chinese leadership has publicly adopted the view that there is no immediate or short-term threat of major proportions to the territorial integrity of the PRC. It views its overall national security policy, based upon Beijing's realignment of its strategic relationship to the West and Japan, as offsetting the military superiority of the U.S.S.R. Such an evaluation of China's national security environment was reflected in a major review of China's defense modernization program published in 1979. This review to China's defense policy by the minister of national defense, Xu Xiangqian, had to constitute the dominant view of the Chinese leadership, although not necessarily that of all the senior members of the defense establishment. It was a carefully constructed analysis, describing a wide range of defense modernization issues and the response the leadership was making to these issues.[24] Asserting that defense modernization "is a task of major strategic significance,"[25] Xu then proceeded to place defense modernization in precisely the same context that Beijing's public analyses of China's national security established by stating that it "will greatly add to the forces combating hegemonism and

defending world peace . . ."[26] China's defense modernization was placed in a *collective* context, emphasizing its contribution to resisting the U.S.S.R. rather than any unique aspects the Chinese contribution might have. Xu's next major point was to place the modernization of national defense into the current structure of economic priorities, reasserting China's policy that defense modernization has to be preceded by the overall development of the national economy, adding that "blindly pursuing large-scale high speed development in building national defense will invariably and seriously hinder the development of the national economy and harm the base of the defense industry."[27]

Accordingly, the modernization of national defense has to occur within a particular defense strategy, and the modernization of weapons and equipment will be ineffective unless the PLA leadership creates an officer corps and manpower base capable of developing and applying strategy and tactics relevant to modern warfare. Xu was quite open about the PLA's many weaknesses, restating the positions voiced in many end-of-the-year training reports from the military regions (MRs) that the PLA must plan to fight with the weapons and equipment currently in its inventory. Xu observes

> If we treat and command a modern war in the way we commanded war during the 1930s and 1940s, we are bound to meet with a big rebuff and suffer serious defeat. We have seen many incidents in the history of war in which an army was defeated, not because its weapons were poor, but because its commander had backward military thinking and directed operations in the wrong way.[28]

Xu argued that in the modernization of the armed forces, education and training are the "central task," for "the target of the attack, the scale of war and even the method of fighting are new to us."[29] The PLA, according to Xu and perhaps reflecting the recent campaign in Vietnam, "cannot meet the demands of modern war. There are many questions concerning the use of modern weapons, the organization of joint operations and bringing the various armed forces in full play."[30] Perhaps to compensate for the strong indications that the PLA will not be receiving any modern military technology for quite a while, Xu chose to emphasize the weakness of the PLA in conducting a campaign on the modern battlefield rather than the weaknesses of weapons and equipment. This should not be underemphasized, though, for modern military technology is complex, often difficult to maintain, and requires extensive training and preparation before it can be used to its fullest extent. The Chinese armed forces are in no way prepared to deploy these modern technologies, and the issues of educational levels, familiarity with the technologies, and fighting and conducting a campaign on a modern battlefield are major issues to be addressed.

The issue of weaponry and equipment assumes an almost secondary position in Xu's analysis, but he states that the weapons to be acquired will be selected to complement China's basic military doctrine of deterrence and the strategies adopted to support the doctrine.[31] Perhaps to warn the military establishment against demanding too much, Xu states that the weapons developed by the U.S.S.R. were to support the Soviet policy of a "strategic offensive," whereas Chinese weapons were to support a defensive strategy. Because the strategy of the Chinese is different from that of the U.S.S.R., so its weapons will be different. In the balance between conventional and nuclear weapons, conventional weapons will be emphasized. When contemplating investment in "existing" and "new-type" weapons, China will first "improve existing weaponry and increase its battle efficiency," while at the same time it will "strive to develop scientific research in national defense so this research can anticipate the defense industry."[32] In spite of statements indicating support for reequipping the PLA "in a considerable short period, Xu's emphasis is placed on future developments in the defense industry and on China's need both

to design and manufacture its own weapons. This statement, which is repeated, seems to be a signal to the defense establishment not to anticipate major advances in its weapons and equipment through a massive technology transfer from Western defense industries in a manner similar to the importation of Soviet military technology between 1953 and 1960.

The emphasis on the need both to design and manufacture weapons reflects an awareness that without indigenous design capabilities, China's future weapons, if they rely solely on the importation of foreign production technology, may stagnate around designs and technologies of the 1970s as they have around designs and technologies of the 1950s. In the long run, developing the capability to design weapons as well as their production technology is far more critical than simply the ability to run foreign production lines. Given China's experience with reverse-engineering Soviet weapons and equipment, it is quite likely that this lesson was learned the hard way. No doubt there are many in the defense establishment who, although appreciative of the basic strength involved in adopting the policy presented by Xu, question whether the PLA has the time to devote to this long-run approach to weapons acquisition.

Xu was not specific about the kinds of weapons the Chinese would develop, beyond observing that these weapons must be developed "in a planned way"[33] and must fit two major characteristics of China's defense problems. The threat to China's security comes from adversaries widely separated by China's distant borders. These adversaries vary in their capabilities, and the potential combat areas vary in their geography and climate—no doubt referring to the Soviet and Vietnamese border areas. Thus, Xu concludes: "The armed forces in different areas have different combat tasks and different targets of attack. We must design and manufacture weapons useful in different conditions."[34] National defense strategy must, Xu argues, take into account the varying combat tasks faced by the forces deployed against two distinctly different battlefield environments.[35] Weapons, equipment, force structure, and training in preparation for combat against the highly mechanized tank and artillery-heavy Soviet forces on the plains, deserts, and mountains of northern China will be quite different from fighting in the mountainous jungles of northern Vietnam and southwest China. Air force requirements will also differ, given the capabilities of Soviet Frontal Aviation in the north and the more limited, but still competent, air forces of the SRV. There seems to be a distinct warning from the minister of national defense that there can be no monolithic plan for the modernization of the PLA and that the nature of the Soviet military threat should not dominate force structure and training requirements—a warning no doubt recalled after the ambiguous military results of the PLA's campaign in Vietnam.

Inevitably, the particular war-fighting strategy in which the transition to a more modernized PLA was to occur was described by Xu as a people's war. Nonetheless, it must be noted that since winning the civil war, all combat operations undertaken by the PLA in support of China's security policies have taken place outside the commonly accepted political borders of the PRC. Granted, force projection has been carefully limited and controlled, but, given a choice, the strategy chosen has involved deploying Chinese forces outside the political boundaries of the PRC, in Korea, India, and Vietnam. The PLA, although trained and indoctrinated in the principles of Maoist people's war, has in fact not fought such a war since 1947-48. This is not to say that a people's war has not been the foundation of China's basic military doctrine of deterrence but rather to suggest that any basic military doctrine will involve a number of deployment and war-fighting strategies that will vary according to the nature of the perceived military threat and the capabilities of one's own forces. To deter a superpower adversary from seriously contemplating the choice of seizing and holding large

segments of Chinese territory, the capability to fight a people's war constitutes a major deterrent. But as the force structure of the PLA became a more flexible military instrument, so a number of strategies designed to meet a variety of threats and to support a greater number of policy options became plausible. Thus intensive PLA activity in the northern part of Vietnam and southwest China between 1964 and 1966 as China prepared and improved air defense, logistic, and support facilities was in sharp contrast to the lack of preparation prior to Chinese forces' crossing the Yalu River in 1950. In the years 1964-66, the Chinese were building roads, strengthening bridges, constructing support facilities, and making preparations for a coordinated air defense system with the Democratic Republic of Vietnam (DRV). Such efforts obviously enabled the Chinese to give more effective support to the DRV, but these same preparations would have served Chinese units equally well if the decision had been made to deploy extensive combat forces into the U.S.-Vietnamese conflict.[36] Of course, such preparations were not possible in 1950, but if Beijing was contemplating heavy PLA involvement in the Indochina War, then it was prepared to deploy those forces with a competent air defense and logistic support system. It is quite possible that the actions taken in 1964-66 reflect the lessons learned from the Korean experience.

In this context, Xu's comments on a people's war take on a more realistic note. He talks of the necessity to study foreign wars and the evolution of military thinking and "seriously sum up our army's experience . . . In particular, we must seriously and actively study the enemy, take the actual condition of the enemy and ourselves into consideration and find out the laws for directing a people's war under present-day conditions."[37] Given the content of the military modernization debate of 1976-78 and the claimed rejection of a people's war as it was fought in the 1930s and 1940s, the conceptualization of a people's war under modern conditions requires a review of what such a war-fighting strategy may mean to the current Chinese military leadership, most of whom fought in the wars with the Kuomintang (KMT) and the Japanese. First, as noted above, as a fall-back position the principles of a people's war are clearly applicable today. The real dilemma for Chinese military planners, however, is that neither the Soviets nor the Vietnamese either collectively or individually, contemplate conquering and occupying China. Soviet forces deployed in Central Asia and the Far East do not have the capability to occupy and hold vast tracts of Chinese territory—a military fact the Chinese themselves refer to constantly. Put simply, what happens if the Chinese hold a people's war and nobody comes?

The most immediate and serious threat to China remains the Soviet deployment along the border, especially across from north China and around Manchuria. The current Chinese force deployment indicates that if the U.S.S.R. were to resort to a punitive attack with no intention of moving as far south as Shenyang, then Chinese forces do not have the capability to prevent a Soviet occupation, probably temporary, of northern Manchuria down to Harbin, for example. Resorting to strategic warfare would be disastrous. Thus it would be advantageous to the Chinese to present a deterrent capability based on conventional forces to prevent a limited Soviet incursion. Xu's analysis does not enter into any specifics of future Chinese strategy, but there are commentaries by other Chinese military officials that do offer some clues to the Chinese border defense strategy.

Wu Xiuquan, a deputy chief of staff, in conversations with a French military delegation led by General André Marty, observed that in the event of a Soviet attack the Chinese would not attempt to defend the entire border. "We have chosen to defend a certain number of key points along the border and inside the country. We would use our mobile warfare to draw enemy forces onto battlefields of our own choos-

ing."[38] In another conversation, this time with Japanese journalists in Beijing, Wu commented that China would not start the war, implying that this was because the PLA's arms and equipment were ten years behind those of the Soviet forces. He did, however, offer the opinion that the main threat to China came from Soviet ground and air forces; therefore, the modernization of the PLA's ground and air forces would be emphasized rather than strategic weapons.[39] In both conversations, though, Wu Xiuquan emphasized that a people's war would constitute China's primary strategy in opposing the U.S.S.R. These and other conversations with senior Chinese military officials lead to the conclusion that current Chinese military planning is directed at creating an appropriate "mix" between a strategy of people's war and more conventional war-fighting strategies where the objective is to destroy the adversary's capability to continue the war.

People's War under Modern Conditions

It must be recalled that the PLA does not claim to be a modern force and that the "new" strategy being discussed is not, in fact, new. It is a continuation of an approach to war fighting that was adopted by Lin Biao when he was charged with redesigning the PLA after the conflict with those in the military establishment who, after the Korean War, were seeking to model the PLA on the Soviet armed forces. What the PLA lacked then and lacks now to a far greater degree are the weapons and equipment necessary to conduct successful military operations on a modern battlefield. Peng Dehuai's solution had been to model the PLA on the Soviet armed forces. Lin's approach was to adapt the PLA's past war-fighting strategies to an anticipated but slow modernization of the force structure. The question then, as now, was how to fight with the current inventory and at the same time plan for the extensive deployment of modern weapons throughout the service arms and branches of the PLA. Lin chose to reemphasize the traditional force structure of the PLA with its division into the main forces, local forces, and the Primary Armed Militia—which we shall refer to as the militia. Main force units consisted of the bulk of the PLA's "heavy" ground force divisions and most of the air and naval forces. These forces formed the strategic maneuvering elements of the PLA and were to bear the brunt of containing and then destroying invading enemy forces. If the enemy forces could not be contained, then the main force units would move away until conditions favorable for a counterattack were created.

The second component of the armed forces, the regional or "local" forces, were composed of relatively "light," independent ground force divisions and regiments. Their primary combat role was to stay in the local area and conduct irregular and guerrilla warfare designed to attrit the adversary and weaken his ability to conduct combat operations. In this role they were assisted by the Primary Armed Militia. This relationship between the regional forces and the militia was formalized by making the regional forces responsible for the training of the militia in peacetime. An additional role of the regional forces and the militia was to replenish the main forces and regional forces when either battlefield attrition or the need to expand combat operations made replacement or enhancement necessary.

This basic design, discussed here in a rather oversimplified fashion, has been the primary organizational principle of the PLA since the late 1930s. Lin adjusted the principle to apply to a more modernized PLA, but its principles remained fixed, for they could support a variety of strategies, including local force projection. The Chinese insist that the same organizational concept can be used with great effectiveness today in a defensive war against the Soviet Union. Since the decision has been made to reequip the PLA only slowly, the development of

battlefield tactics to support a modern people's war becomes very important, and the application of the three-layered force structure to the overall strategy needs to be reviewed. One of the earliest detailed discussions of the "new" approach to people's war was presented by Nie Rongzhen in his speech to the National Militia Conference in August 1978.[10] The speech is of special interest because Nie has been closely associated with military R&D and was for many years the director of the National Defense Scientific and Technological Commission (NDSTC), therefore placing him squarely in the "modernizers" camp. Perhaps equally important, the militia are symbolic of Mao's mass mobilization concepts, which are at the core of the principles of people's war. By outlining the role of the militia in a people's war under modern conditions, Nie has to look at the entire strategy and structure of the people's war. Finally, the outline presented by Nie has remained intact over the last two years, indicating that by the time he presented his views the war-fighting strategy of the PLA had been established.

Nie makes no bones about the source of the threat to China. He states that the U.S.S.R. "is bent on subjugating China. . . . It is our most dangerous enemy."[11] He realistically describes Soviet strategy as being based on a sudden attack armed with both technologically advanced conventional and nuclear weapons. Using their tactics of combined arms warfare, the U.S.S.R. will "attack and penetrate deeply," using large numbers of tanks and mechanized forces in coordination with air attacks, airborne assaults, and naval forces. The scale and attrition associated with such an assault will be much greater than any China has faced in the past,[12] and when such a war begins, China's forces will have to be deployed quickly to blunt the attack and disrupt or crush it. The cost will be high, and a major function of the militia will be to replenish the regular forces of the PLA,[13] presumably both the main and regional forces. Nie's description was grim but hardly understated.

As Nie analyzes the role of the militia in this future war, it becomes evident that it will function in the future pretty much as it has in the past. The militia will conduct guerrilla operations behind Russian lines, where it will use its intimate knowledge of the local terrain to assist it in attacking and harassing communications centers, military installations, logistic support lines, etc. Its primary strategic function will be to assist the regional forces in the creation of conditions favorable for the main forces to "annihilate the enemy as they advance."[14] The major point of weakness for the Soviet forces, Nie maintains, is their dependence on tanks and mechanized units for their rapid advance into China. He refers to the tank and mechanized units of the Soviet forces as their "tortoise shells," and "without their 'tortoise shells' they cannot do much. Our enemies feel reassured by their modernization and mechanization. In fact, as men must eat, machines must 'eat' too."[15] Nie argues that as they advance into China's territory, it will become increasingly difficult for the Soviets to keep their armored and mechanized forces supplied with parts, fuel, and ammunition against carefully organized and aggressive guerrilla warfare. It is this action that will weaken the Soviet attack in preparation for its final destruction by the main forces.

There is much in Nie's speech that could simply be regarded as making the best out of a bad situation, but training reports from the military regions suggest that the PLA is following through on the basic concepts described by Nie and the weaknesses of the PLA analyzed by Xu Xiangqian in 1979. The main and regional forces, according to these reports, are conducting exercises designed to correct the PLA's weaknesses in combined arms operations, logistic support functions, battlefield communications, and staff headquarters training. A report from the Lanzhou Military Region described what has to be a common problem when it said that all of its officers had prior combat experience, "But how to command a battle under

modern conditions was a new subject for them to study."[46] All of the exercises reported contained the common theme of the need to improve the battlefield effectiveness of current weapons and equipment by developing battlefield tactics that will offset the advantages of the adversary. This same theme was repeated almost as often for the air and naval forces as it was for ground units. All of this may make the PLA a more competent battlefield force, but it does not make it a modern force. The selection of a people's war, even under so-called modern conditions, is a strategy of weakness rather than a strategy of strength. To this extent the role of the militia as defined by Nie Rongzhen is of interest.

The history of the militia since 1950 has been spotty at best,[47] but since 1978 increasing attention has been paid to its organization, weapons, and equipment, and its strategic and tactical role in people's war. The Primary Armed Militia is reportedly in the process of being armed, equipped, and to some extent organized as a replica of the regional forces, especially in the north and in China's larger cities. Urban militia units are increasingly reported as being armed and trained with antiaircraft artillery (AAA)[48] and a wide range of infantry weapons as well as being structured into communications, reconnaissance, anti-atomic, biological, and chemical warfare units, and antitank units. Such an upgrading of the militia would make it a more competent force and thus more capable of fleshing out regional force units. With the militia, as with the regular armed forces, the overall objective is to make it a more competent war-fighting force without a massive transfusion of technologically advanced equipment.

If a people's war under modern conditions is what it appears to be and is not a radical change from the military strategy adopted by Lin Biao, then China's basic doctrine and strategy for deterring the U.S.S.R., and for defending against a Soviet attack should deterrence fail have not changed.

China's Deterrence Strategy

To deter means to reduce the incentive to attack. The Chinese have included an estimate of the entire strategic environment of the U.S.S.R. in establishing their strategy of deterrence and have concluded that the United States and its allies have currently stalemated any major military actions the Soviet Union may seek to make in the European or Asian theaters. The Middle East and Southwest Asia may yet remain a question in Beijing, but the basic strategic balance does not appear immediately threatening to China. The second major facet of a deterrence strategy, in addition to reducing the incentive to attack, is to affect the adversary's perception of the risks involved in not attacking.[49] If the risk involved in not attacking is high, then the incentive to attack is correspondingly higher. Since China does not have the capability in its missile force to launch a disarming first strike on the U.S.S.R.'s strategic weapons, and Beijing's conventional forces do not have the capability for a successful assault on the Soviet Union, then Soviet perceptions of the risk involved in not striking cannot be high. Possibly the small deployment of Chinese multiple-stage intermediate-range ballistic missiles (IRBMs), which give China a limited capability to strike the western U.S.S.R., raises Soviet concern, but the deployment remains small, and ICBM deployment has yet to begin.

At this juncture it is possible for a destabilizing interaction to occur between future Chinese nuclear weapons deployment and Soviet concern—that is, Soviet perception of the risk involved in not striking could increase. China's public statements, which constantly reiterate "no first use" pledges and emphasize that future strategic weapons deployments will remain small, may well be designed in part to lower Russian fears. Similarly, the official strategy of a people's war under modern conditions and a policy of only slowly increasing the mobility and lethality of the Chinese armed forces

are clear indicators that the basic military strategy of the Chinese armed forces is defensive.

The problem for Chinese planners in analyzing their strategic relationship with the U.S.S.R. is to determine what level or threshold they can achieve without creating an incentive for the U.S.S.R. to consider seriously a preemptive attack at the conventional or nuclear level. I cannot state with any high level of confidence what the Chinese believe this level to be, nor can one know what this threshold is for Soviet planners. Indeed, whether the U.S.S.R. launches a conventional, nuclear, or mixed assault on China may have less to do with any perceived military balance than with other long-term Soviet objectives—one of which may be to avoid a strategic nuclear exchange or conventional conflict with China for as long as possible.[50]

Against this background, a people's war under modern conditions continues to provide a rational basis for conventional deterrence of the U.S.S.R. It is a suitable strategy for the weapons and equipment currently deployed by the PLA, and it "fits" with the PLA's past experience in defensive warfare against an adversary in China. The U.S.S.R.'s present problems in Afghanistan are almost certainly being seen in China as proof of the viability of their military logic. The primary and obvious weakness of the people's war concept is that it does not provide China with the capability to conduct modern, highly intensive combat operations within a limited geographical area. This weakness leaves the Chinese border with the U.S.S.R. and Mongolia exposed to limited Soviet incursion designed not to conquer China but to influence its behavior. This weakness may well become a serious dilemma for the Chinese leadership.

In February 1979, China decided that a limited incursion into Vietnam would not result in a major Soviet strike into China. While military operations in Vietnam were under way, Deng Xiaoping was interviewed by the Japanese press and asked why he did not expect a Soviet attack on China in retaliation. Deng replied that China had made preparations for a possible Soviet attack and was willing to take a reasonable risk. He emphasized that Chinese actions were known to be limited and that the fighting would not last long, therefore, he believed the risk of Soviet intervention was minimal.[51] A little more than a year later, Deng admitted in another interview that the act of "touching the tiger's arse" did cause considerable apprehension among the Chinese leadership.[52] In these interviews Deng demonstrates that the Chinese are extremely sensitive to the border and the use of military force in coercive diplomacy. Currently, a major factor in the credibility of China's public commitment to Thailand rests on Beijing's willingness to attack Vietnam in the face of Soviet deployments along China's northern border. A second attack on Vietnam, however, may well push Soviet tolerance of Beijing's coercion of Hanoi to its outer limits. No doubt those in China who determine China's deterrent strategy against the SRV see Beijing's official statements of support and warning as but part of the political pressures involved in coercive diplomacy, but Chinese defense planners have to prepare for combat operations in support of China's regional security policies. If the Chinese leadership believes, as they evidently do, that the PLA's military operations in Vietnam had not gone too well, even though the short-term political results were favorable,[53] then military operations against Soviet forces would almost certainly fare worse. Thus, in using military force as an instrument of coercive diplomacy, weapons and equipment capable of conducting a successful strategy of people's war do not grant the capability required for successful military operations of limited scope and high intensity.

EARLIER it was suggested that force structures emerge as the result of the interaction of three major variables: the perceived threats to be countered and the military

objectives sought; the resources available and allocated to defense; and the doctrine and strategy developed to employ the existing and anticipated force structure. Chinese analyses of their threat environment suggested that Beijing did not view the U.S.S.R. as a major short-term threat to China. A review of recent defense policy statements indicated that here, too, even though there was a perceived threat to China, it did not require a massive and expensive transfer of defense technology from the West to beef-up the PLA's capability to defend against a major Soviet intrusion into Chinese territory. More to the point, senior Chinese military officials agreed publicly that the PLA as well as the economy would be better served by a gradual and systematic integration of advanced military technology when and as the defense industries were capable of absorbing it and the armed forces were capable of deploying and maintaining this technology. A people's war under modern conditions utilizing modified battlefield tactics and incorporating more advanced military technologies as they were introduced would provide a transitional defense strategy capable of contributing to the deterrence of the U.S.S.R., especially when this strategy was compatible with a minimal nuclear deterrent.

The dilemma for Chinese defense planning, however, comes not with devising a deterrence strategy and war-fighting capability designed to raise the cost to the U.S.S.R. of seizing and holding large areas of Chinese territory but with developing a force structure capable of deterring or defeating a far more limited incursion into China and of being used to support policies of coercive diplomacy. The Chinese have made coercive diplomacy a component of their national security policy, using it with varying degrees of success in Korea in 1950, against India in 1962, against the United States in 1964-66 through military preparations in Vietnam and southwest China, and against Vietnam in 1979. Now, for the first time, China is facing a situation where its regional interests are being actively opposed by a client of the U.S.S.R. Thus, any military action taken by Beijing in support of a strategy of coercive diplomacy runs the risk of direct Soviet intervention.

Under these conditions it appears that China's regional policies as they are now being developed are coming into potential conflict with the policy for a long-term process of military modernization. This conflict is essentially one of short-term military requirements versus long-term planning for a self-sustaining defense industry. China's current defense dilemma is remarkably similar to India's after the disastrous border war with China in the fall of 1962.[54] India, as did China after the Korean War, initially sought the ability to design and manufacture its own weapons rather than rely on foreign sources. Following the border war with China, New Delhi separated the long-term goal of developing an indigenous design and manufacturing capability from the short-term objective of upgrading the lethality of its armed forces. By 1964, five-year defense plans were paralleling and coordinated with the five-year plans for the civil sector of the economy while India sought to balance its long-term defense needs with the more immediate issues of the Chinese to the north and Pakistan to the west and east. India continues to import defense technologies under license, and its armed forces, although much smaller than China's, deploy more advanced weapon systems and equipment. With the exception of nuclear weapons and delivery systems, India's defense industries are producing military equipment currently beyond China's capabilities.

The parallel with India must not be overdrawn, for whereas the Western powers and especially the U.S.S.R. were willing to cooperate with India in its defense programs, China has yet to find a replacement for the Soviet Union as a source of military technology, although the United States government has lifted the embargo on munitions items to the People's Republic of China and will consider,

on a case by case basis, sale of arms to China. The European governments appear to be constrained by Soviet pressure. Thus, even if China should choose to modify its current policies and seek a limited reequipment of its forces with selected weaponry, there may well be external political factors as well as financial problems that would make such a policy difficult to implement. Nonetheless, the option to mix long- and short-term modernization strategies exists, and the Indian example of an apparently successful application of a mixed strategy offers some evidence of its viability. Similarly, the three-tiered organizational structure of the PLA would permit reequipping selected main force units without necessarily implying a total refit of the armed forces. Thus, the current policy of defense modernization should not be viewed as necessarily unchangeable due to the severe economic restraints under which it must take place. Rather, careful observations must be made of Chinese analyses of the regional threats to its security, recognizing that Beijing does have the option to mix its force modernization strategies.

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Notes

1. Among the many recent publications are: Paul H. B. Godwin, "China's Defense Dilemma: The Modernization Crisis of 1976-1977," *Contemporary China*, Fall 1978, pp. 63-86; Jonathan D. Pollack, *Defense Modernization in the People's Republic of China*, Rand Note No. N-121-1-AF (Santa Monica: The Rand Corporation, October 1979); Francis J. Romance, "The Modernization of China's Armed Forces," *Asian Survey*, March 1980, pp. 298-310; David L. Shambaugh, "Military Modernization and the Politics of Technology Transfer," *Contemporary China*, Fall 1979, pp. 3-13.
2. Romance, p. 304.
3. National Foreign Assessment Center, *China: The Continuing Search for a Modernization Strategy* (CIA ER 80-10248, April 1980), p. 5.
4. Interview with an unidentified PLA official at the Ministry of National Defense, reported in *Yomiuri Shimbun*, 29 March 1980, p. 7.
5. Ronald G. Mitchell and Edward P. Parris, "Chinese Defense Spending, 1965-1978," Joint Economic Committee, *Allocation of Resources in the Soviet Union and China—1979* (Washington: Government Printing Office, 1979), p. 71.
6. Pollack, "The Implications of Sino-American Normalization," *International Security*, Spring 1979, p. 40.
7. Observer's article, "Critical Choice," *Renmin Ribao (People's Daily)*, 19 June 1980, p. 6, in Foreign Broadcast Information Service, *People's Republic of China*, 20 June 1980, p. C1. Hereafter referred to as FBIS-PRC.
8. Peng Di: "Equidistant Diplomacy," Xinhua (New China News Agency), 11 June 1980, FBIS-PRC, 12 June 1980, p. B1.
9. "Talk from the Forum on International Events Program," Beijing Domestic Service, 1 February 1980, FBIS-PRC, 5 February 1980, p. C2.
10. Ibid., p. C4.
11. See, for example, Deng Xiaoping's interview on West German television, 13 May 1980, reported in FBIS-PRC, 14 May 1980, p. A3.
12. Special Commentator: "The Military Strategy of the Soviet Union for World Domination," *Renmin Ribao*, 11 January 1980, p. 7, FBIS-PRC, 15 January 1980, p. C4.
13. Ibid., p. C6.
14. Commentary: "Kremlin Pushes Southward in 1978," Beijing, Xinhua, 29 December 1978, FBIS-PRC, 2 January 1979, p. A13.
15. Commentator article: "The Social-Imperialist Strategy in Asia," *Renmin Ribao*, 30 December 1978, FBIS-PRC, 2 January 1979, p. A13.
16. Commentator: "The Current Danger of War and the Defense of World Peace," *Hongqi (Red Flag)*, 2 November 1979, pp. 53-58, FBIS-PRC, 27 November 1979, p. A6.
17. Talk on Current Events: "The Soviet Union Steps up Military Expansion in the Pacific Region," Beijing Domestic Service, 3 December 1979, FBIS-PRC, vol. 1, no. 237, pp. C1-C2.
18. Talk from Forum on International Events Program, p. C3.
19. "Broader Front with Same Tilt," Beijing, Xinhua, 3 February 1980, FBIS-PRC, 5 February 1980, p. C5.
20. "Critical Choice," p. C1.
21. Ibid.
22. "The Soviet Union Steps up Military Expansion in the Pacific Region," p. C1.
23. "The Social-Imperialist Strategy in Asia," p. A13.
24. Xu Xiangqian: "Strive to Achieve Modernization in National Defense—in Celebration of the 30th Anniversary of the Founding of the People's Republic of China," *Hongqi*, No. 10, 12 October 1979, pp. 28-33, FBIS-PRC, 18 October 1979, pp. L12-L18.
25. Ibid., p. L12.
26. Ibid.
27. Ibid., p. L13.
28. Ibid., p. L15.
29. Ibid.
30. Ibid.
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33. Ibid.
34. Ibid., p. L14.
35. Ibid.
36. Alan S. Whiting, *The Chinese Calculus of Deterrence* (Ann Arbor: The University of Michigan Press, 1975), pp. 170-95.
37. Xu Xiangqian, p. L16.
38. Interview with General André Marty by Georges Biannic, *Agence France Presse* (AFP), Hong Kong, 3 May 1979, FBIS-PRC, vol. 1, no. 088, 4 May 1979, p. G1.
39. *Mainichi Shimbun*, 15 July 1979, p. 2.

40. Nieh Jung-chen's (Nie Rongzhen) 4 August speech at the National Militia Conference, Peking (Beijing), NCNA (Xinhua) Domestic Service, 7 August 1978, FBIS-PRC, 9 August 1978, pp. E1-E10.

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42. Ibid., pp. E5-E6.

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45. Ibid., p. E7.

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47. June T. Dreyer, "The Chinese People's Militia: Transformation and Strategic Role," a paper presented to the 32d Annual Meeting of the Association of Asian Studies, Washington, D.C., 21 March 1980.

48. For example, "Shanghai Garrison Command Holds Militia Antiaircraft Artillery Work Conference," *Jiefang Ribao (Liberation Daily)*, 24 September 1979, p. 1, FBIS-PRC, 11 October 1979, pp. 8-9.

49. Richard Rosecrance, *Strategic Deterrence Reconsidered*, Adelphi Paper No. 116 (London: The International Institute for Strategic Studies, 1975), p. 23.

50. For a discussion of the parameters of deterrence beyond the military balance, see Michael Brown, "Deterrence Failures and Deterrence Strategies," The Rand Paper Series (Santa Monica: The Rand Corporation, March 1977).

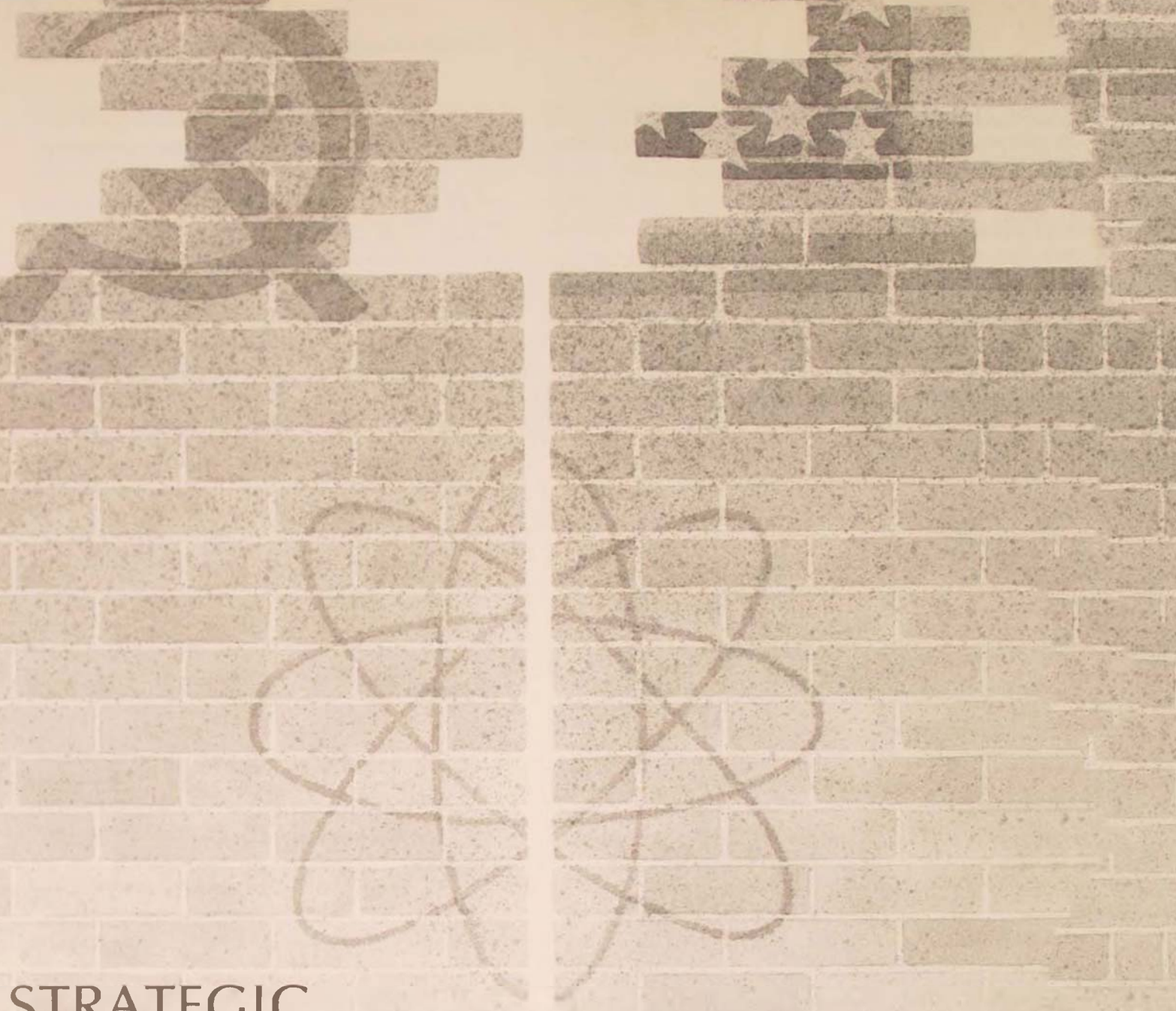
51. *Mainichi Shimbun*, 27 February 1979, p. 4.

52. *Yomiuri Shimbun*, 30 March 1980, p. 3.

53. London, Reuters, 20 March 1979, FBIS-PRC, 20 March 1979, p. L1.

54. The following discussion is drawn from Onkar Marwah, "India's Military Power and Policy," in Onkar Marwah and Jonathan D. Pollack, editors, *Military Power and Policy in Asian States* (Boulder, Colorado, 1980), pp. 101-46.

The United States Military Academy will sponsor a history symposium entitled "The Theory and Practice of American National Security, 1945-1960" at West Point, New York, 21-23 April 1982. Historians and political scientists will present papers on political, strategic, economic, and other aspects of American national security policy during the Truman and Eisenhower administrations. For further information contact: Colonel Paul L. Miles, Jr., Department of History, USMA, West Point, New York 10996.



STRATEGIC EQUIVALENCE

What is it? How do we get it?

DR. RICHARD K. BETTS

FOR MOST of the postwar period, American defense policy rested on some form of strategic nuclear superiority over the Soviet Union. There was disagreement at times over how such superiority should be designed or measured, but there was a rough consensus until the mid-1960s that the United States should have more and better forces than the U.S.S.R. in all three legs of the strategic triad. There was also disagreement in this period about how impressive a margin of U.S. nuclear superiority should be preserved. The most ambitious formulation was the "no cities" counterforce doctrine articulated by Secretary of Defense

Robert S. McNamara in 1962, but this very soon gave way to emphasis on "assured destruction," as the growth in Soviet forces began to make the U.S. requirements for very effective damage limitation prohibitively expensive.

It was not until plans for the Strategic Arms Limitation Talks (SALT) got under way that consensus settled on the acceptability of strategic parity. As Soviet forces continued to grow and as détente deteriorated in the 1970s, debate within the U.S. defense and arms control communities grew sharper about whether and for how long parity would endure. Then, with the 1980 presidential campaign, advocacy of U.S. nuclear superiority became respectable again.

No sooner had President Reagan been elected, though, than it became evident that fiscal pressures will make it impossible to launch the sort of strategic crash program that would be necessary to regain a meaningful edge of U.S. nuclear superiority, especially given the requirements for refurbishing conventional forces, as well as the prospects for a Soviet counterbuildup if SALT restraints disappear. Whether they like it or not, the leaders of the current administration may have all they can do to preserve rough strategic equivalence.

ambiguous concepts

A large part of the problem in the strategic debate of recent years has been lack of communication between opposing factions. Despite the volume and detail of contending analyses produced, there has been remarkably little progress in broadening agreement on the *standards* for measuring and judging the strategic balance. Articulation of the norms of "essential equivalence" and "countervailing strategy" by Secretaries of Defense James R. Schlesinger and Harold Brown were a contribution, but much room remains for clarification of how such principles should be translated into force structure and arms control negotiating goals.

One of the many reasons the Carter administration had trouble defending the SALT II treaty against charges that it was an unequal agreement was that there has never been an explicit statement of the criteria for equivalence that represented a consensus of strategic analysts. Nor was there such a consensus between the administration and Moscow. SALT negotiations focused on inputs, striking bargains over tradeoffs in elements between asymmetrical U.S. and Soviet force structures, without definitely specifying what the output should be in terms of overall operational capability. Thus, equality in the treaty was manifestly defined in terms of numbers of launchers, but only implicitly, at best, in terms of "stability," hard-target kill capabilities, assured destruction, or other indices of what the asymmetrically configured weapon inventories could actually do to the opponent in a war. Allowing the ambiguity to remain was not inadvertent; indeed, it was necessary because both sides have different security requirements, priorities, and concepts of threat that may preclude mutually acceptable clarity in the emergent balance.

Similarly, the conceptual dissension within the American defense community may block agreement on the desirable operational implications of an equal nuclear balance. For a political realist more than a technical scholastic, precision is the enemy of negotiation whether internal or external. Dean Rusk argued, "Once you involve yourself in a lot of detail, you are dead."[1] To the extent this is true, equivalence in the nuclear balance will always remain elusive because it exists in the eyes of different beholders.

prevalent definitions and statistical combat

There are numerous concepts of strategic parity, several of which I will discuss in ascending order of complexity. Judgment of the simpler formulations depends on one's theological position in traditional debates about counterforce or countervalue targeting policy. Evaluation

of the more recondite variants is complicated by uncertainties in data used for calculation of probable wartime force interactions. Taking the debate beyond matters of faith is desirable but difficult because apparently refined quantitative assessments sometimes mask reliance on unverified assumptions or unclear interrelationships.

The minimalist definition of strategic parity, advanced by Khrushchev in the late 1950s and accepted by some Western observers, identifies it with possession of second-strike capabilities by both sides, irrespective of differences in relative levels of destructive power—in short, mutual assured destruction, even at unequal levels, constitutes parity. According to McGeorge Bundy, President Kennedy believed such parity existed, despite continuing U.S. numerical superiority in weapons.[2] This definition may represent mutual deterrence, but not equivalence; rather it serves to discredit the importance of equality in forces.

Another definition that is trickier, but still places fewer analytic demands on the concept than definitions based on exchange calculations, is the Madison Avenue view. This emphasizes *perceived* parity (or superiority) and more specifically the simple images of untutored elites. Such perceptions, in this argument, depend largely on a few gross indices of striking power that are easily observable—numbers, size, and apparent modernity of delivery vehicles—which may not necessarily reflect the net capabilities that would be apparent to analysts who appreciate more arcane indices such as guidance accuracy. Edward N. Luttwak concludes that the Soviet Union has won the battle of perceptions by deploying larger numbers of intercontinental ballistic missiles (ICBMs) and visibly bigger ones, whose advantage is not perceptually mitigated by the U.S. advantage in bombers because the untutored believe bombers are "old-fashioned."[3] This standard suggests that the United States should emphasize heavy ICBMs in its force structure, a change that might not be entirely desirable in terms of some informed analysts' conceptions of strategic stability because—as long as ICBMs are vulnerable—they raise the incentives for preemption. More dovish analysts might make use of the Madison Avenue approach by emphasizing the American advantage in number of warheads (since the Soviet edge in yield per warhead is less easily appreciated), although that will be harder to do if Soviet proliferation of reentry vehicles narrows the gap in this decade, as official projections indicate.

There are at least two problems with a Madison Avenue approach to equivalence. First, the subjectivity of the standard is so compounded that it is probably impossible to translate it into procurement decisions that do not seem surreal to some large groups of observers and hence defeat the purpose of confidence building. The translation depends on American perceptions of foreign perceptions; the flimsiness of data on the latter would almost certainly make the former an exercise in wishful thinking that projects the American perceiver's own instincts or preferences into his judgment of what foreigners believe. Debate and dissent among American strategists would be aggravated rather than assuaged. Second, the notion is intellectually interesting, but it is practically fanciful and strategically irresponsible. The politics of strategic planning precludes astronomically expensive investments that are rationalized by public relations criteria that diverge from military logic. It is fine to have a strategic force that appears impressive to Third World or European leaders who lack a serious understanding of nuclear strategy, but only if it is consistent with what impresses the most important group of perceivers who are *not* untutored: the Soviet General Staff and Politburo. Military and deterrent effectiveness have to be the prime criteria even if they do not always coincide with the heftiest image that can be presented to nonspecialists. And it is probable anyway that a balance which could be enshrined in a formal treaty between the superpowers, what-

ever its component characteristics, would appear equivalent to ignorant observers by virtue of the agreement itself, which would carry more symbolic weight than pictorial differences between SS-18s and Minuteman IIIs.

The clearest elements of operational criteria for superiority or equivalence are static indices of destructive capacity: numbers of strategic launchers or delivery vehicles, payload or throw-weight, numbers of warheads, circular error probable (CEP)—a measure of accuracy—and equivalent megatonnage (EMT). Given modern technical intelligence, these can be counted and charted with some degree of confidence, and, although future projections are debatable, there is negligible dispute about present figures (CEP is an exception in both respects). The problem with static indices is that their significance is uncertain when opposing force structures are asymmetrical.[4] The distribution of offsetting advantages that constitute net equivalence depends on which particular indices seem most salient, and that depends on assumptions about their compound interaction.

This brings us to the most refined but also the trickiest level of assessment: dynamic calculations of actual nuclear exchanges in wartime. This requires stipulation of what weapons are directed against which targets, which side strikes first, and uncertain variables such as the amount of strategic warning (and consequent alert rates), weapon system reliability, height of burst, effectiveness of active and passive defenses, scope and timing of attacks, performance of command and communications systems, and, depending on the level of analytic sophistication, factors such as atmospheric conditions. Unlike static force structure, these variables are not observable and can only flow from extrapolation and simulation. This leaves ample room for judgment, which can make strategic theories almost self-validating: within a substantial range almost any assessment of equivalence or imbalance can be proved by varying several premises of the model for force interaction, or tilting the estimates of system capabilities toward one end of the range of uncertainty. This does not necessarily imply intellectual dishonesty; it simply means that the impact of strategic preferences (and different views about how pessimistically uncertain variables should be treated) on appreciation of the strategic balance cannot be overcome by increasing the rigor of empirical analysis. Statistics thus become manipulable weapons in the strategic debate. Given the complexity of the variables involved in a force interaction that has never happened and cannot be tested, any model is Procrustean. A few examples of analyses that have figured prominently in recent debate illustrate the problem.

In 1974 Secretary of Defense James Schlesinger presented Congress with calculations of the effects of limited Soviet counterforce attacks. The studies were meant to show that fairly effective attacks could be mounted without inflicting massive collateral damage—800,000 fatalities (1.6 million total casualties) in a strike against ICBMs, and 300,000 dead (750,000 casualties) in a strike against bomber bases. Therefore, Schlesinger warned, imbalance in capacity for discriminating counterforce strikes could leave the United States vulnerable to "self-deterrence" from retaliation.

The Arms Control and Disarmament Agency (ACDA), however, challenged the realism of several assumptions in the Defense Department model (such as height of burst, wind conditions, fission content of weapons, and population protection) and presented calculations that estimated casualties at up to 50 million.[5] The Office of Technology Assessment (OTA) conducted another study which concluded that fatalities could range up to about 18 million.[6] A later OTA assessment concluded, "The effects of a nuclear war that cannot be calculated are at least as important as those for which calculations are attempted."[7]

Another influential collection of calculations has been presented by Paul H. Nitze in several articles and papers since the mid-1970s. These

figures project a marked imbalance in forces following a counterforce exchange, giving the Soviet Union escalation dominance by virtue of a more intimidating countervalue reserve than the United States. The inference then is that in a crisis, faced with this prospect, Moscow would have more bargaining power since Washington would see only much greater losses as the alternative to accommodation.[8] Jan Lodal rebutted this argument by changing the terms of reference, shifting the focus to from post-*exchange* to post*attack* ratios and the impressive U.S. assured destruction capabilities available after absorption of a Soviet first strike;[9] he challenged the relevance of Nitze's calculations, but not the figures themselves.

Other analysts, however, have challenged the data. Gary D. Brewer and Bruce G. Blair charge that Nitze used discrepant assumptions and calculations in two of his articles; they note that Department of Defense FY79 calculations presented projections through 1987 more favorable to the United States. They also argue: (1) Nitze apparently assumes, using T.K. Jones's data, that all U.S. bomber payload is expended against Backfire bases—a lower priority target even if the Backfires, as is unlikely, were caught on the ground—even though official executive testimony has acknowledged that B-52s would be used against ICBM silos as well as other targets; (2) assuming that defenses prevent bombers from attacking silos, Nitze ignores the possibility of corridor-cutting; (3) Nitze's model, contradicting the Department of Defense FY79 Annual Report, assumes minimal effectiveness of air-launched cruise missiles (ALCMs) against silos; and (4) since the Soviets normally deploy only four fleet ballistic missile submarines (SSBNs) in firing positions near U.S. coasts, the transit of more submarines surged to increase the threat to bomber bases from submarine-launched ballistic missiles (SLBMs) with short flight times would give Washington time to surge bomber alert levels and disperse them to additional inland bases, yet Nitze's model assumes that all bombers not on day-to-day alert (as well as 30 percent of those on alert) are destroyed.[10] In another widely circulated paper, Nitze's calculations yield alarming projections, but he assumes ALCM CEPs are 300 feet and also assumes that U.S. MIRVed ICBMs have *identical* CEPs in 1977 and 1985 while comparable Soviet CEPs are cut in half during this period.[11] The figure for ALCMs is two to three times higher than some other estimates prevalent in open literature, and it is hard to rationalize the lack of change in the U.S. ICBM CEP from 1977 to 1985 given intervening deployment of the new NS-20 guidance system (although on this score it should be noted that Nitze's figure for the present—600 feet—is generous, since other prevalent estimates run closer to 700).

Nitze's basic *conclusions* may yet not be wildly incorrect. Indeed, estimates of the accuracy and capability of Soviet SS-18s and SS-19s, revised since Nitze wrote, make the prospects look a bit grimmer than they did at the time of DOD's FY79 projections. But they rest on combinations of assumptions about weapon-to-target allocations and uncertainties in system performance, which are much more problematic than the apparent sophistication and clarity of his graphs would suggest.

A final example of statistical warfare is an entry from the other side of the spectrum of opinion. In 1978 the Arms Control and Disarmament Agency released a computerized study that supposedly demonstrated a much more even balance of strategic capabilities than suggested by analyses such as Nitze's. To produce this conclusion, ACDA assumed that differences in Soviet and American target systems were not significant and evaluated the effectiveness of both nations' forces against a hypothetical common set of 1500 hard targets and 5000 soft targets. To show the persistence of equivalence into the mid-1980s, the analysis also relied on the tradeoffs necessary to reach an equal damage point (EDP) of destruction against hard and soft targets.[12] The problem is that neither abstraction is relevant to the case

of greatest concern: a Soviet first strike.

The U.S.S.R. has a much larger number of hard targets than the United States, so the ACDA calculations exaggerate relative U.S. counterforce capabilities. And if the Soviets are preempting rather than retaliating, there is no reason to believe they would seek to destroy as many soft countervalue targets as hard military ones. Maximizing the butchery of civilians might conceivably make sense for a second-strike but offers no military payoff for the initiator of a nuclear war. (If desired, it could be accomplished in follow-up attacks with reloaded or recycled systems over subsequent days.) To stipulate the EDP as a goal, especially when the hypothetical base of soft targets is over three times greater than that for the hard, is to understate Soviet counterforce capabilities by draining them away, in the calculations, for other missions. Also, the ACDA model apparently assumes that U.S. forces are fully generated and that the soft target base consists of point rather than area targets, which overrates the U.S. advantage in number of warheads and underrates the Soviet advantage in yield.[13]

All of these analyses, thus, can use similar inputs in regard to the number and physical capabilities of U.S. and Soviet weapons yet produce very dissimilar conclusions about the balance (or its implications) because the studies are scenario-dependent, and vast uncertainties about targeting, alert levels, or unpredictable circumstances of engagement govern the scenarios. Empirical analysis can highlight important considerations, but it cannot transcend fundamental faiths about strategy. By the beginning of the 1980s, the definition of equivalence remained even more elusive within the U.S. defense community than between U.S. and Soviet negotiators.

preferred definitions

The best simple operational norm for strategic nuclear equivalence would be a distribution of forces that embodies no net advantage in either postattack counterforce capabilities or postexchange countervalue reserves. But as long as discernible proportions of American and Soviet weapons remain vulnerable, there is no definition of equivalent force structures that can satisfy everyone completely. Because partial counterforce vulnerability creates a "first-strike bonus," hawks can argue that for the Soviets "parity plus initiative is superiority."[14] To overcome this problem would require (1) dismantling of vulnerable forces by both sides; or (2) preattack superiority in counterforce capabilities by the nation striking second; or (3) a preattack imbalance in forces capable of destroying hard targets that still did not give the favored side a meaningful advantage for a first strike.

The first solution is analytically ideal but politically fanciful, at least for the 1980s. Massive investment in ICBMs makes it hard for the Soviets to divest, especially when the disparity in antisubmarine warfare (ASW) capabilities favoring the United States makes the sea-based elements seem less inherently secure to them than to us. Were such a solution to free Washington from the huge financial costs of deploying a survivable MX missile system, permitting funds to be rechanneled to air-breathing elements of the triad where near-term U.S. potential is more pronounced than the Russians'—or, in the longer term, to the Trident II D-5 missile which could give the U.S. SSBN force some invulnerable fast counterforce capability—it could hardly seem equivalent to Moscow.

The second solution would be obviously unequal by any "fair" standard, one meant to stand up under the possibility that *either* side could strike first. It might seem fair to Americans who "know" we would never start a nuclear war, but it would have to be achieved by unilateral effort in an expensive competition with Soviet deployments unconstrained by formal arms limitation based on equality defined in terms of capabilities rather than intentions.

The third solution may not be more practi-

cal but is worth exploring. It would involve a tradeoff between ICBMs with *time-urgent* countermilitary potential (CMP) appropriate for preemption and *slow* counterforce systems (bombers and cruise missiles), which are not credibly threatening in terms of first-strike options. The Soviets would be allowed the edge in the first, the United States in the second. Both sides would then be able to capitalize on the different force elements in which they have a technical advantage. This would, however, require agreement on limiting terminal defenses of Soviet ICBM silos. (Some defenders of Nitze's analysis debunk the significance of a second-strike against Soviet silos with ALCMs by arguing that their slow flight time precludes catching the missiles still in the holes. But if the Soviets have decided to strike first, why should one assume they would not be just as prepared to launch their reserves on short warning of incoming retaliatory ballistic missiles as they would be on longer warning of the approach of ALCMs? The only logical rationale behind counterforce targeting for second-strike retaliation must be the desire to preclude reloading of silos and to deny the attacker the option to withhold reserves. Both goals may just as well be served by slow counterforce as by time-urgent capabilities.) Moreover, if the U.S. reduced its ICBMs to expand its air-breathing forces, it would also reduce Soviet CMP by trimming the target base against which ICBMs are uniquely useful (massive Soviet throw-weight becomes simple overkill if it can only be used effectively against countervalue targets).[15] In so doing, total CMP would be balanced yet technical instability would theoretically be reduced since U.S. forces would be proportionally less vulnerable to a fast-counterforce first strike, and American slow counterforce capabilities should logically pose only a retaliatory threat, rather than a preemptive one, to the U.S.S.R.

The disadvantage of this course for the United States would lie in movement toward a dyad, raising the potential risks from a technological breakthrough in ASW, air defense, or SLBM capabilities against bomber bases. Also, many U.S. observers have come to more modest conclusions about how effective cruise missiles will actually be in a counterforce role. The problem from the Soviets' point of view is an apparent lack of agreement that air-breathing systems constitute no first-strike threat. Even if they admitted this about ALCMs, they view ground-launched cruise missiles (GLCMs) scheduled to be deployed in Western Europe as more threatening, especially in synergistic combination with Pershing II missiles.

This brings up the dimension of dispute about equivalence that rarely figures in American analyses but is central in discussions with Moscow: the role of U.S. long-range theater nuclear forces (LRTNF)—"forward-based systems" to the Soviets—in the strategic balance. The Russians assessed the December 1979 NATO decision to modernize LRTNF with GLCMs and Pershing IIs capable of striking the Soviet interior as an attempt to circumvent SALT constraints and reestablish U.S. superiority. The U.S. position that LRTNF are balanced by Soviet intermediate range SS-20s and Backfires is rejected because those weapons cannot reach U.S. territory; "equal security" of the two superpowers in terms of homeland vulnerability, rather than "essential equivalence" in force levels, is the Soviet criterion for parity.

The logical ground on which Washington can counter this position is to define "equal security" in terms of the two collective alliances, rather than the superpowers alone, so that Soviet weapons targeted on Western Europe must be compensated for by weapons of comparable capability—defined in terms of range rather than the countries in which they would land. By this logic Moscow would be allowed to counter the Chinese threat by deployment of intermediate-range systems in Soviet far eastern territory, where they could reach neither NATO nor American targets, and negotiations on theater nuclear arms control would balance Soviet medium and intermediate-range weapons

capable of reaching Western Europe against U.S. LRTNF and British and French strategic forces. (Shorter-range Soviet weapons that could reach NATO from, say, East Germany would be counted against shorter-range U.S. tactical nuclear systems.) The mobility of the SS-20 raises problems for such a formula but might be countered by the U.S. option to transfer medium-range nuclear-capable aircraft from CONUS to Europe. Another related problem with this formula is that it is difficult to determine how dual-capable aircraft (such as F-4s) should be counted; the United States has steadfastly resisted incorporating such systems in negotiations. Moreover, NATO allies prefer not to seek full equivalence in LRTNF—which is why the 1979 decision was to deploy fewer than 600 GLCMs and Pershing IIs—for fear of decoupling U.S. central strategic forces from European defense. Finally, the proposed standard of fairness would legitimize deployment of forward-based systems by the Soviets in Cuba—something Americans would furiously reject out of hand.

There are many other nuances or drawbacks to all these potential formulas and many other potential schemes for defining equivalence. This article is not the place for a full technical analysis. But it is evident that definitional clarification, while needed for conceptual progress in the quest for nuclear equivalence, may complicate the problem in practice as much as it solves it. Perhaps equivalence must always remain elusive because the closer we come to achieving it, the more the approach dredges up political and psychological contradictions that underlie U.S. policy, alliance solidarity, and superpower conceptions of their respective security requirements. And the whole problem is further compounded by the growth of sensitivity to dimensions of strategic balance beyond the distribution of weapons themselves. This growth has been due to the swing of the pendulum of strategic opinion, since the mid-1970s, toward concern with flexibility and endurance in employment of nuclear forces for a long war, embodied officially at the end of the Carter administration in the countervailing strategy and PDs-53, -58, and -59. As Richard Burt suggests,

> it may become necessary to distinguish between two separate military balances: a *symbolic* balance based on static hardware counts and an *operational* balance reflecting the real capabilities of the two sides to engage in sustained nuclear conflict. . . . a policy of reinvigorating American long-range nuclear forces would not be designed to once again attain "strategic superiority." . . . As traditionally defined, such a capability is beyond the reach of either superpower for the foreseeable future. However, it is not outlandish to think that the United States could achieve a new form of nuclear advantage based not so much on static indices of nuclear capability or qualitative advantage in such areas as missile accuracy, but on the relative capacity to manage a nuclear conflict. . . . "escalation agility" through preeminence in C^3 offers the United States the best opportunity to offset the Soviet Union's crude preference for "escalation dominance."[16]

Considerations such as survivability of command, control, communications (C^3) are indeed far more important than evening up marginal differences in the balance of force structure; redressing the Minuteman vulnerability problem is irrelevant if a decapitating attack could still paralyze the release of strategic retaliation, allowing time for the Soviets to reload and pare down surviving forces in subsequent waves of follow-up attacks. It is difficult, however, to conceive a definable or negotiable notion of equivalence in organizational and intelligence capabilities for nuclear war. U.S. domestic debate, as well as arms control negotiations, have already been overloaded and stalled by the difficulties of assessing the balance of weaponry alone. Progress in conceiving and approaching equivalence in the latter dimension bilaterally, though a limited approach, would facilitate unilateral adaptations in the other dimensions.

Is equivalence obtainable?

The preceding discussion necessarily oversimplified a very complex set of questions and

potential solutions. Beyond the issue of whether my speculative suggestions make solid intellectual sense is the issue of whether it is feasible to implement them—either through the bureaucratic battles and compromises that produce a U.S. policy position or in the rough-and-tumble arms control bargaining with the Soviets, who are unlikely to embrace American concepts.

If we subordinate strategic idealism to political realism, it may be necessary to admit that continued ambiguity is the only way to grease the wheels of change in policy and diplomacy. Perhaps Dean Rusk was right in stating that analytical precision will preclude progress in stabilizing the strategic balance, and perhaps the roughness in rough parity is what facilitates agreement. If so, however, the prospects for significant progress in improving U.S. strategic security may be grim. The closer we came to parity in the past decade, the farther we got from consensus on what sort of force balance is satisfactory. In the absence of reassuring treaty restraints on quantitative and qualitative improvements in Soviet forces, and without a blank check for the expansion of American forces, continued conceptual ambiguity is only likely to aggravate the strategic debate and nervousness within the United States. Given tightening constraints, it is hard to see how a bit more clarity (about what we want out of the strategic balance) could hurt.

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Notes

This article is excerpted from a chapter in a forthcoming book edited by Samuel P. Huntington.

1. Quoted in John Newhouse, *Cold Dawn: The Story of SALT* (New York, 1973), p. 45.

2. McGeorge Bundy, "The Future of Strategic Deterrence," *Survival*, November-December 1979, pp. 269-70.

3. Edward N. Luttwak, "Perceptions of Military Force and US Defence Policy," *Survival*, January-February 1977, pp. 2, 4-7. Luttwak recommends the injection of "perceptual impact analyses" into U.S. force planning, p. 8.

4. See Thomas A. Brown, "Number Mysticism, Rationality and the Strategic Balance," *Orbis*, Fall 1977, pp. 479-98.

5. U.S., Congress, Senate, Committee on Foreign Relations, *Hearing, Briefing on Counterforce Attacks*, 93rd Cong., 2d sess., 1975, pp. 13-15, 25-26, 30-33.

6. Sidney D. Drell and Frank von Hippel, "Limited Nuclear War," *Scientific American*, November 1976, p. 35.

7. *The Effects of Nuclear War* (Washington: Office of Technology Assessment, [1979]), p. 3.

8. Paul Nitze, "Assuring Strategic Stability in an Era of Détente," *Foreign Affairs*, January 1976, and "Deterring Our Deterrent," *Foreign Policy*, Winter 1976-1977.

9. Jan Lodal, "Assuring Strategic Stability: An Alternate View," *Foreign Affairs*, April 1976. See Nitze's surrebuttal in "Comment and Correspondence," *Foreign Affairs*, July 1976.

10. Gary D. Brewer and Bruce G. Blair, "War Games and National Security with a Grain of SALT," *Bulletin of the Atomic Scientists*, June 1979, pp. 20-22. For another critique, see Joseph M. Grieco, *Paul H. Nitze and Strategic Stability: A Critical Analysis*, Occasional Paper No. 9 (Ithaca: Cornell University Peace Studies Program, November 1976).

11. Paul H. Nitze, "Current SALT II Negotiating Posture," unpublished paper, 15 January 1979, p. 25.

12. "U.S. and Soviet Strategic Capability through the Mid-1980s," *Department of State Bulletin*, October 1978, pp. 24-25.

13. Some of these points are made in "An Evaluation of 'U.S. and Soviet Strategic Capability through the Mid-1980s: A Comparative Analysis'," Press Release (Washington: Committee on the Present Danger, September 1978), pp. 3-4.

14. Lieutenant General Daniel Graham, USA (Ret), quoted in "Documentation," *International Security*, Fall 1977, p. 178.

15. Even Colin Gray admits this, though he sees other considerations far outweighing the value of the solution. *The Future of Land-Based Missile Forces*, Adelphi Paper No. 140 (London: International Institute for Strategic Studies, Winter 1977), p. 9.

16. Richard Burt, "Reassessing the Strategic Balance," *International Security*, Summer 1980, pp. 39, 51.

THE UTILITY OF MILITARY FORCES

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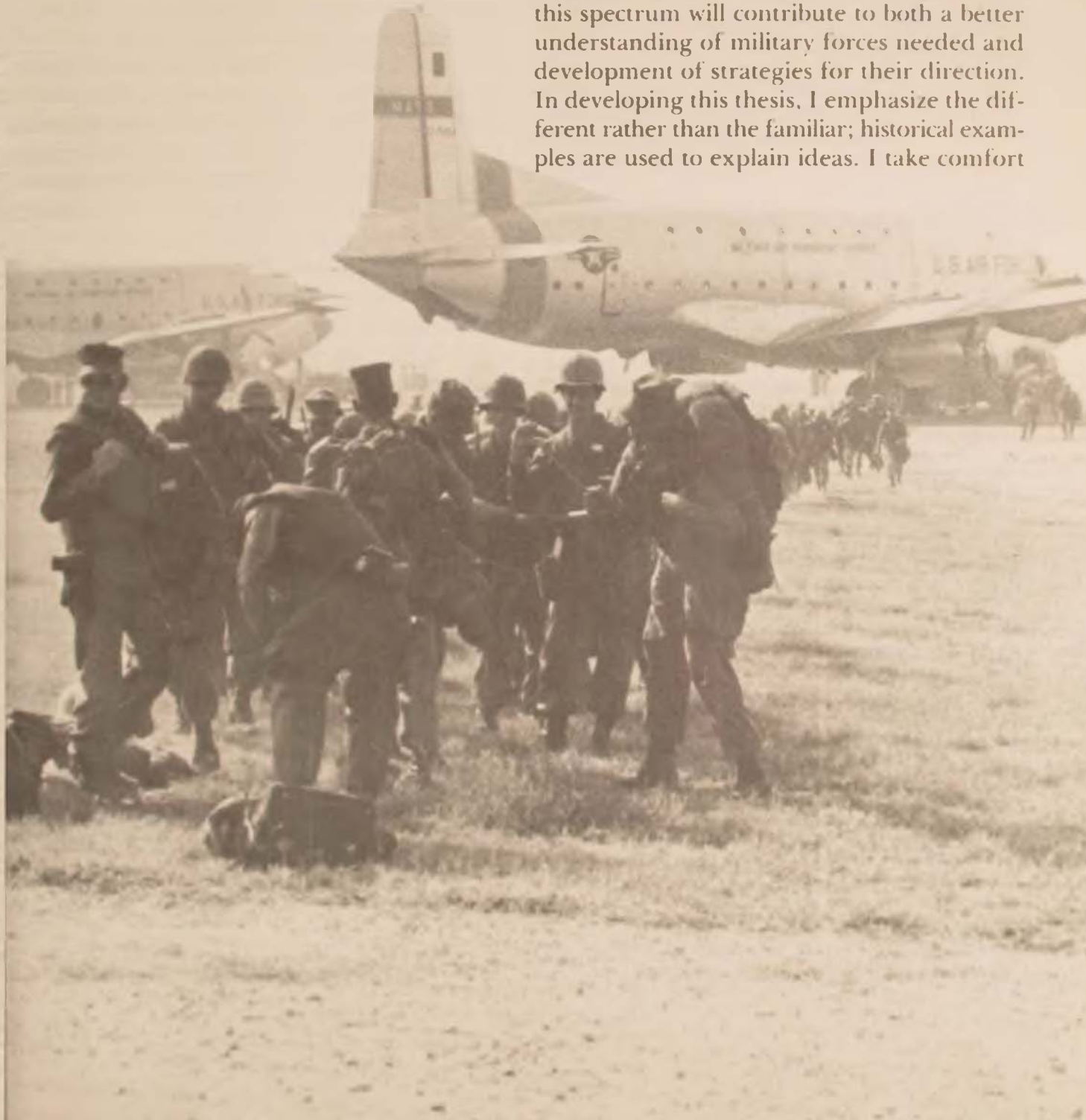
THE utility of military forces is often seen as limited to the tasks that provide the principal bases for force structure and budget, e.g., deterrence of strategic nuclear war and meeting NATO responsibilities. Essential as these tasks are, they incompletely identify the spectrum of utility of military forces in supporting national objectives. Recognition of this spectrum will contribute to both a better understanding of military forces needed and development of strategies for their direction. In developing this thesis, I emphasize the different rather than the familiar; historical examples are used to explain ideas. I take comfort



in Clausewitz's view that "Historical truth is not even essential . . ."[1] for such use.

The purpose of military forces is self-evident: to support their nation's policies and objectives. However, the utility of these forces in accomplishing this purpose is not self-evident. Thomas Schelling and Clausewitz offer commonly held views on the utility of military forces. Schelling maintains that,

> In addition to seizing and holding, disarming and confining, penetrating and obstructing, and all that, military force can be used to hurt. . . . The power to hurt can be counted among the most impressive attributes of military force.[2]

Clausewitz held that:

> Force—that is, physical force, . . . is thus the means of war; to impose our will on the enemy is its object. To secure that object we must render the enemy powerless; and that, in theory, is the true aim of warfare.[3]

I do not suggest that these authors are incorrect or that their views are atypical. I do suggest that there are alternate ways to describe how military forces support national objectives and policies and that these forces have a broader spectrum of utility than is implied by these quotations.

The process through which a nation supports its policies and objectives clarifies the role of military forces in this process. I believe that the behavioral scientists have a contribution to make in understanding this process. Relationships between nations, hostile and pacific, share characteristics with relationships between individuals: a need to effect change or work together to meet objectives. In this context the process nations use to support their policies and objectives is similar to that used by individuals—the process of influencing human behavior and, more precisely, the behavior of specific individuals. If this is the process of the nation-state, military forces must be able to contribute to it. My central point is that the utility of military forces is not described by its application to a large impersonal structure, force or nation. The utility is described by its contribution to the process of the nation-state influencing the behavior of specific individuals or groups of individuals.

In a nation-state context, France was once influenced by influencing Charles de Gaulle. President Kennedy, during the Cuban missile crisis, sought to influence the behavior of an individual, Premier Khrushchev. Obviously, if we wish to influence individuals, we must know who they are, who or what influences them, their values, interests, and objectives. "The personalities of statesmen and soldiers are such important factors that in war, above all, it is vital not to underrate them."[4]

The process used to support a nation's policies and objectives is that of influencing the behavior of discrete, frequently identifiable, individuals. These individuals, limited in number, bring values and interest to the matter at issue. Nations seek to identify means that will bear on these values and interests in a way that will effect the desired behavior.

For example, in 1935 Italy under Mussolini invaded Ethiopia. The League of Nations wished to take action to cause a change in this behavior. The means selected—an oil embargo—has as its proximate objective the domestic economy in Italy. However, the real objective was to influence the values of an individual, Mussolini. The League sought to place at risk an interest—domestic economy—thought to be of relatively greater value to him than territorial conquest in Ethiopia. If successful, the League's action would have resulted in change in Mussolini's values and priorities with a resultant change in behavior.

The utility of, as well as the need for, military forces is described by their contribution to the process of effecting a change in behavior which supports their nation's policies and objectives.

Military forces have the potential to influence behavior in two different ways: first, presence, the existence and perceived capabilities of military forces influence the way people and nations behave; second, the use of military forces can influence behavior.

Presence

A nation can seek to support its policies and objectives through the presence of military forces. Our forces in Berlin have this effect. A nation can, through presence alone, express concern. During the Arab-Israeli War in 1973, it appeared that the Soviets might deploy forces to Egypt. As a way of expressing our concern about such a deployment, U.S. Armed Forces, including strategic offensive forces, were placed on increased alert.

Through the presence of military forces, and even their mere existence, nations can advance political objectives. As an example, the Soviets speak of the change in the correlation of forces. In their descriptions of these changes, they cite specifically the role that has been played by their armed forces in effecting this change. In negotiations, the presence of military forces affects attitudes and incentives on both sides.

The presence and capabilities of forces can serve as a deterrent to war. Nations seek to structure forces so that adversaries understand that the cost of their employment would exceed the value of challenging them.

The classical military strategists specifically recognize the utility of presence even in war. Sun Tzu wrote, "To subdue the enemy without fighting is the acme of skill."[5] Clausewitz recognized, in an atypical statement, ". . . that engagements do not always aim at the destruction of opposing forces, that their objectives can often be attained without any fighting at all. . . ."[6] In context he seems to recognize this possibility only "when one force is a great deal stronger than the other. . . ."[7] Liddell Hart sees the true aim of strategy as ". . . not so much to seek battle as to seek a strategic situation so advantageous that if it does not of itself produce the decision, its continuation by a battle is sure to achieve this."[8]

limitations of presence

Although presence affords a range of options, at the same time it presents a series of limitations—limitations that must be recognized by nations which hold deterrence through presence as a fundamental objective of their national security policy.

The first limitation of presence is that its power depends on perceptions. A nation cannot unilaterally establish its effectiveness; it is only as good as some other party permits it to be. For example, in the 1850s, Commodore Matthew Perry sailed into Tokyo Bay and, through this action, brought the Japanese to open their ports to U.S. trade. Implicit in Perry's presence was, perhaps, a threat that his ships might be employed. The Japanese elected to yield—induced to do so by their perception of the meaning of the presence of Perry and his ships. Perry did not establish his capability; the Japanese accorded it to him.

A second limitation is that the effectiveness accorded will vary widely, based on the importance of the issue involved. While Perry had success in opening Japanese ports, it is difficult to believe that he would have been as successful in, for example, obtaining the displacement of the emperor.

A third limitation is that there is no necessary correlation between what we wish to say through military presence and how that message is heard by others. The Soviets may say that their presence in Angola serves only to support national independence. What we hear can be quite different, e.g., a Soviet attempt to gain political influence in Africa south of the Sahara. Military presence can be ambiguous. This ambiguity can be a source of both strength and weakness. We must recognize the potential for misunderstanding.

Finally, the crucial component in relying on presence to influence behavior is that the presence must be credible. During the last war between India and Pakistan, we deployed a large naval force into the Indian Ocean. India ignored it. She seemed not to believe that we would ever bring it to bear. Credibility is bounded by the perception and the reality of the national will to bring forces to bear. Obvi-

ously, in many of these cases it was not mere presence that influenced behavior but rather the implicit or explicit option for the effective employment of these forces.

Use of Military Forces

The potential represented by the use of military forces dominates the literature. There is a spectrum of uses for military forces.

Forces can be moved or positioned as a way of influencing behavior. The movement of ships through the Formosa Strait and the positioning of tactical aircraft on Formosa once sought to influence both the People's Republic of China and the Republic of China. Changes in location of United States forces during the Cuban missile crisis sought to influence Premier Khrushchev.

Military forces can be employed over a wide range of contingencies, e.g., from the rescue of hostages through general nuclear war.

results of military forces

Military forces, through either presence or use, can yield a spectrum of results.

- Military forces can *permit or encourage* things to occur. Military forces are not inherently hostile in nature, but rather can serve a broader purpose, one which contributes to a stability within which both our friends and our nation can prosper. For example, the presence of U.S. military forces in Japan has made a contribution to their stability. The Japanese do not face an overt threat; our contribution is not so much that of deterrence as of assistance in developing a feeling of confidence and security that has better permitted and fostered development.
- Military forces can *cause* things to occur, as Commodore Perry caused things to occur in Japan.
- Military forces can *prevent* something from happening, e.g., the functions of deterrence and defense.
- Military forces can *compel* something to occur: e.g., we compelled the Japanese to surrender; the Germans compelled the French to sue for peace.

There is a spectrum of "hows" to attain these results.

Make an action desirable or possible. Through NATO we have made it possible for the Western Europeans to have an increased sense of security and confidence.

Send a message. We sought to send a message by deploying the fleet at the time of the Indian-Pakistani War.

Make an action hazardous. The increased alert of our armed forces during the 1973 Arab-Israeli War sought to make greater Soviet involvement in the war hazardous.

Make the enemy's task difficult or expensive. This is the classic strategy of attrition, it is ". . . usually employed by a strategist whose means are not great enough to permit pursuit of the direct overthrow of the enemy and who therefore resorts to an indirect approach."[9] A fundamental characteristic of this alternative is that its effectiveness cannot be established by those who select it. This judgment is made by those subjected to this strategy. Only they can judge when the task is too difficult or too expensive.

Make something impossible. A subset of this potential is the classic concept of annihilation. It is Russell Weigley's view that the American way of war is annihilation,[10] the destruction of the enemy's armed forces—an option available only to strategists relatively rich in manpower and resources. However, there are other ways to make an enemy's task impossible. For example, in World War II, if the U.S. Navy had had adequate numbers of submarines and fewer limitations on torpedo performance, they might have made it impossible for the Japanese to maintain their overseas bases. The use of air power against Germany in World War II came very close to making it impossible for the Germans to maintain and support their forces.

The really unique characteristic of this concept is that its realization lies in the hands of its advocate. Unlike making something difficult, the adversary does not get a vote. If you are successful in making the adversary's task impossible, then, by definition, he has no effective counter. The decision lies in your hands, not his. No other concept provides this assurance. As the World War II examples suggest, this can be a feasible objective.

As a further example, a successful Soviet civil defense program could make impossible the execution of a mutual assured destruction strategy. Similarly, if the Soviets believed they had an effective civil defense program, whether they did or not, this could make impossible a deterrent strategy based on mutual assured destruction.

I HAVE argued that the process through which nations support their policies and objectives is that of influencing the behavior of a limited number of people. The utility of military forces is described by their contribution to this process. Military forces offer two potentials, presence and use, as their contribution. There is a spectrum of results available from these potentials: permit, cause, deter, and compel. There is also a spectrum of ways to achieve these results by sending a message, by making something desirable, hazardous, difficult, or impossible. The examples below use this framework to illustrate the contribution of military forces to national policies and objectives.

In the 1930s, the Germans used military force to occupy the Rhineland. The result sought was to compel the French and the British to acknowledge German presence and domain over this piece of real estate. They did this by sending a message to the French and the British that the Germans were determined to assert sovereignty over the Rhineland and at the same time to convey that it would be hazardous for the French and the British to resist.

In the 1960s, the United States used force in response to an internal crisis in the Dominican Republic; the result sought was to prevent an overthrow of the existing government. Through the use of force, we made it difficult, if not impossible, for the rebel forces to succeed in their objective.

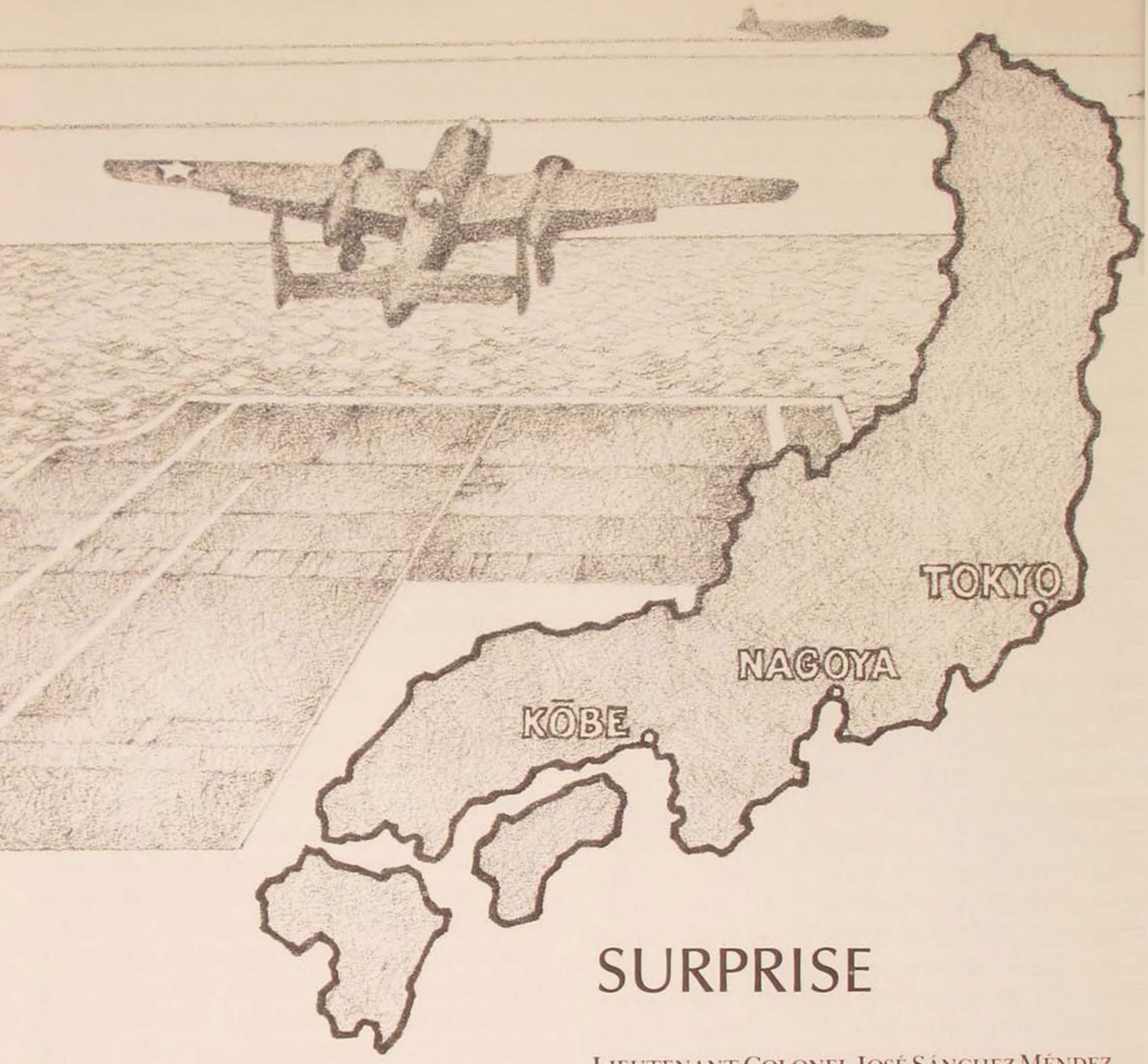
In 1948, the Soviets sought through the presence of their forces in Germany to compel a change in existing status of allied forces in the city of Berlin. They sought to make it impossible for the allies to sustain their forces in this isolated city.

IN describing the utility of military forces, I accept that the concepts advanced are not unique to these forces. They are similarly applicable to other means available to meet a nation's policies and objectives. It could hardly be otherwise. All means are applied in a common process, that of influencing behavior. This commonality of process compels a commonality of concept in application of the unique attributes of the various means. My purpose has been to seek a better understanding of scope of the utility of military forces to provide a broader basis for the development of both their capabilities and strategies for their direction.

Montgomery, Alabama

Notes

1. Carl von Clausewitz, *On War* (Princeton, New Jersey, 1976), p. 171.
2. Thomas C. Schelling, *Arms and Influence* (New Haven and London, 1966), p. 2.
3. Clausewitz, p. 75.
4. Ibid., p. 94.
5. Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (New York, 1963), p. 77.
6. Clausewitz, p. 96.
7. Ibid.
8. Basil H. Liddell Hart, *Strategy* (New York, 1967), p. 339.
9. Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (New York, 1974), p. xxii.
10. Ibid.

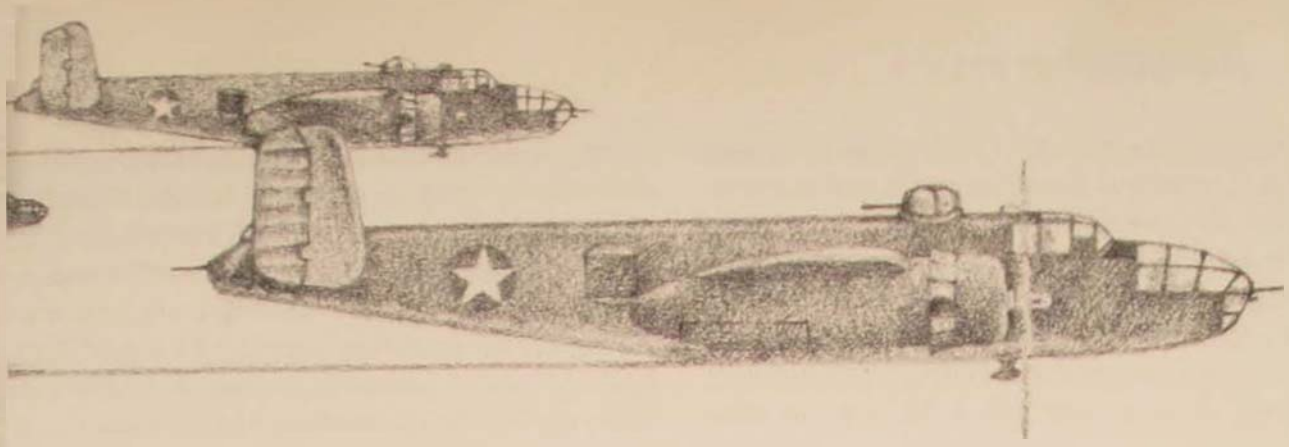


SURPRISE

LIEUTENANT COLONEL JOSÉ SÁNCHEZ MÉNDEZ,
SPANISH AIR FORCE

Surprise is the most essential factor of victory . . . nothing makes a leader greater than the capacity to guess the designs of the enemy . . . to recognize, to grasp the situation and take advantage of it as it arises . . . new and sudden things catch armies by surprise.

Niccolo Machiavelli,
The Art of War, 1520



THE military art turns on certain basic principles that set the pattern for the preparation and prosecution of war. These principles vary from nation to nation, having been established and defined in light of their respective national military histories and applied in accordance with the capabilities of their armed forces. But of all these basic principles, one has always been and continues to be universally accepted by all military doctrines—Surprise.

Military schools have devoted little study to Surprise, even though history abounds with examples showing, as Clausewitz states, "that Surprise very frequently has ended a war with a single stroke."

In light of present military thought, current strategies, and the development of new tactics and weapon systems, the purpose of this article is to establish an analytical foundation for the study of *surprise*.

First, however, we must define the word itself. The *Shorter Oxford English Dictionary* gives this military definition of surprise: "the act of assailing or attacking unexpectedly or without warning, or of taking by this means"; and also "the act of coming upon one unexpectedly, or of taking unawares; a sudden attack." These definitions give an active meaning; another, "to astonish by unexpectedness," is a passive meaning. The word *surprising* is defined as "that which surprises or takes unawares" and also as "causing surprise or wonder by its unexpectedness." The English language, then, distinguishes between the action and effect of surprising and the state or situation of being surprised or allowing oneself to be surprised.

In his *Dictionary of the Language*, Émile Littré, a member of the French Academy, defines surprise as the *"action par laquelle on prend ou l'on est pris a l'improviste"* (the action whereby one takes or is taken unawares) and also as *"action inattendue par laquelle on induit en erreur ou en faute"* (an unexpected action whereby one leads to error or fault). He presents the following acceptations of the verb *surprendre* (to surprise): *"déconcerter, prendre par surprise"* and *"induire en erreur, tromper,"* and *"surprendre le secret de quelqu'un, découvrir son secret par adresse ou par hasard"* (to disconcert, to take by surprise; to lead to error, to deceive; to detect someone's secret, to discover his secret by craft or by chance).

The Spanish Royal Academy's *Dictionary of the Spanish Language* defines the noun *surprise* as *"la acción y efecto de sorprender o sorprenderse"* and *"cosa que da motivo para que alguien se sorprenda"* (the action and effect of surprising or being surprised; something that causes surprise). But the verb *to surprise* is defined as *"coger desprevenido"* and *"conmover, suspender o maravillar con algo imprevisto, raro o incomprensible"* (catching unawares; to move, startle, or astonish with something unexpected, strange, or incomprehensible); and also *"descubrir lo que otro ocultaba o disimulaba"* (to discover what someone was hiding or dissimulating).

In the three most widely spoken languages of the Western world—English, French, and Spanish—the word *surprise* has, therefore, a

similar connotation; this connotation includes a clear distinction between the act of surprising on the one hand and the state of being surprised and induced to plan, act, or anticipate erroneously on the other.

Our analysis of surprise gives only half the picture from the practical military perspective. The other half is intelligence. If surprise is the disease, intelligence is—at least potentially—the cure. The many military authors, thinkers, and historians who have stressed the importance of surprise have considered it in close connection with knowledge of the enemy. This perception is central to Spanish military doctrine. To be able to attack the enemy at the moment and place where he least expects it or to cause him to plan his strategic actions and tactical operations erroneously, it is crucial to know him beforehand.

Near the end of the fourth century, one of the most important military authors of all time, Vegetius, wrote a treatise commonly called *De re Militari (On Military Affairs*, commonly known as *The Military Institutions of the Romans)*, which encapsulated Roman military thought from Cato and Augustus to Hadrian. Vegetius emphasized that "an understanding of the enemy is basic and crucial to achieve a surprise . . . to know beforehand the enemy forces, their tactics, leaders, weapons, the battleground."

The Byzantine Emperor Maurice, toward the end of the sixth century, wrote *Strategikon*, a manual for the command of large units, which included an annex titled "Reports," a realistic plan of intelligence for those times. It dealt with the nature, customs, resources, and combat procedures of the various people surrounding the empire, all of them potential enemies: the Franks and Lombards to the west, Avars and Slavs in the Danube, Persians and Turks to the east. *Strategikon* was revised in the tenth century by Constantine VII, who turned "Reports" into a separate book, renaming it *Treatise on Tactics.*

The need of knowing the enemy as a determining factor in attaining surprise was emphasized by the military writers of the Middle Ages, particularly in the twelfth and thirteenth centuries, both in Latin and in French. Among them were William of Tyre, Ambrose, Jean de Joinville, and especially Jean de Meung, whose book *The Art of Chivalry* presented many concepts about the application of surprise in the art of war by feudal armies.

The anonymous author of the *Rosebush of War,* written in 1523 to advise the king of France on military matters, stated that "half the victory consists of having known the enemy before the battle."

Niccolo Machiavelli, a leading military thinker of the Renaissance, considered "surprise . . . the most essential component of victory," and in his book *The Art of War*, written in 1520, he affirms that "there is no better project or enterprise than that which the enemy ignores until you have carried it out." This concern with the element of surprise shows that Machiavelli had not only studied Hannibal, Scipio, and all the great captains but had also read Vegetius and other classic military writers such as Onosander, Cato, and Frontinus.

In 1709 Jean Charles de Folard, said that "the faults and weaknesses of a leader can serve his adversary; therefore, it behooves the able general to take full advantage of all such traits." In the eighteenth century, the Comte de Guibert observed in his *Essay on General Tactics* that in order to "effect surprise an intelligent general first studies his opponent, luring him onto the battleground of his choice."

In 1928 one of the great military thinkers of the twentieth century, B. H. Liddell Hart, rejecting theories formulated during World War I, said it clearly and fully: "the secret lies in surprise, the surprise of thought, leadership, and time; it lies in the surprise of attack and the execution of maneuvers."

The surprise of attacking an enemy when he is off guard, and at a time and place he did not choose, yields enormous military and psychological benefit. But as a military principle,

such a move requires secrecy and security in all offensive and defensive activities of the entire nation, not only in strictly military matters but in the entire arena of national defense. The element of surprise prevents, negates, or hinders the enemy's intelligence of one's military potential, an obvious advantage at any point in the conduct of a war. Hence, the first aspect of surprise: the action and effect of surprising the enemy to catch him off guard. This aspect we shall call the *effect of surprise*.

The second aspect, the condition or state of being surprised or being forced to plan, act, or anticipate erroneously, has been the cause of many defeats. This inability, negligence, or carelessness that allows the enemy to choose the moment, place, and means of attack, and in such a way that it cannot be known or foreseen, is what we shall call a *state of surprise*. But one does not necessarily have to be caught unawares to be defeated; often all it takes is the inability to react appropriately and in time.

Let us take a closer look at those two perspectives of surprise, which are often confused and even ignored, to enable us better to understand our potential enemies and ensure that our minds, spirit, and national power are prepared to respond to any kind of aggression.

Effect of Surprise

Clausewitz defined those actions that could put the enemy in an inferior position and render him vulnerable to surprise as "the soul of the fortune of arms." This kind of surprise can be achieved in well-differentiated forms and categorized as four types of surprise.

intellectual surprise

When one tradition of military thought is superior to another, intellectual surprise may be the result; that is, when two opposed military doctrines lie at different intellectual levels or planes and function at different tempos.

All human activity—and war is certainly that—is regulated by systems of principles or dogmas, but these are not absolutely rigid or static. Mao Tse-tung stated in his *Theory of Revolutionary War* (1935) that "the laws of war change with respect to its conditions: the time, place, and nature of the war," and he added that "on studying the laws that regulate it, one must guard against any mechanical approach to the problem; since nothing is immutable, all things are evolving continuously and constantly." Aware of its history, current circumstances, and capabilities, each nation has enunciated its principles of war, not all of which necessarily coincide. Human and national factors and other such causes, oftentimes unpredictable, have been the source of defeats or the origin of victories. Indeed, according to Napoleon, no principles of war exist. In 1803 he wrote that "the art of war cannot be shown, because it has yet to be created; but if someday the principles of war could be stated, people would marvel at their simplicity."

Armed forces and military commands are not inclined to embrace untried doctrines or principles, since their organization is founded on "the strength of armies," discipline. Accordingly, military thought has been painfully slow in responding to the ideological, philosophical, scientific, political, psychological, technological, and social evolution taking place in today's world in an increasingly rapid and profound manner. The military methods used by the Israelis in the Six Day War of 1967 no longer applied seven years later in the Yom Kippur War. Military doctrine must be evolutionary, flexible, and adaptable to new circumstances, to intellectual progress, to progress in science, technology, and society: military doctrine must be alive, dynamic. General Charles de Gaulle pointed out in his book *Vers l'Armée de Métier (On the Professional Army)*, 1934, that "an army ought not cling to conformity, tradition, and rigidity" and that "the true leader should act on his own instead of following the textbooks; he should be intuitive and prescient." In 1804 Baron Henri Jomini ridiculed

"the mistaken theories founded on the assumption that war is a positive science and all military operations can be reduced to infallible calculations."

One of the clearest examples of intellectual surprise was that achieved by Germany against France in the spring of 1940. The French War College at Paris had become a center of fresh ideas in the aftermath of World War I, a laboratory of French military thought; but then, under the influence of generals M. E. Debeney, Joseph J. C. Joffre, M. E. Fayolle, Franchet D'Esperey, and others like Henri Philippe Pétain and Maurice G. Gamelin turned inward and became narrowly constricted in doctrinal thought. It was assumed that since the ideas and methods employed in 1918 had brought victory, then it was logical to preserve them. This proved to be a serious error, as Liddell Hart pointed out in 1940 in his prologue to Rommel's *Notes:* "the defeat of 1940 resulted from the inability of French and British military thought to evolve at a new pace in keeping with the times." French and British doctrine had disallowed the theories of J. F. C. Fuller, Sir Gifford Martel, Liddell Hart, and de Gaulle regarding the use of tanks and armored vehicles. These theories, however, were carefully studied by Colonel Heinz Guderian, a German officer who put them into practice. His book *Achtung Panzer* shows that he had studied the British theorists in particular in great detail and depth. Likewise, other German officers, Rommel among them, ruminated on and perfected the doctrines set forth by those theorists, who they subsequently identified as their precursors.

A similar development took place with respect to air doctrine. Despite the widely debated theses of Benjamin Foulois, Giulio Douhet, William Mitchell, Sir Hugh Trenchard, and Alexander de Seversky, the Allies were late in comprehending that control of the air and destruction of the enemy air force while still on the ground or including its economic potential were indispensable for victory, and that this could be achieved only through the development and employment of their own air power. As the British influence had been perceived by Guderian, so the principles of Douhet were embraced by Albert Kesselring, Adolf Galland, and other German airmen who took advantage of the destructive capacity of aerial bombardment, the ease of penetrating enemy defenses, and the flexibility and mobility of tactical air power to impose the will of Germany on European armies during the early stages of World War II.

strategic surprise

Soviet Marshal Sokolovski in his book *Military Strategy,* the foundation of Soviet military thought, states that "modern war is an ideological, political, economic, and armed struggle on a global scale between imperialism and socialism, a fight to the death between capitalism and communism." He further explains that the struggle would "permeate all sectors of society, engaging all the spiritual and material forces of each nation, with the outcome depending mainly on the initial moves and strategic surprise."

Strategic surprise consists of the effect achieved in forcing the enemy to plan, direct, and execute his strategic actions erroneously. Through cunning and deception, by distorting the truth, by blinding and befuddling enemy intelligence, by confounding it continually, one can induce the enemy to develop a false appreciation of reality. History has shown repeatedly that shrewd planning and sophisticated propaganda can produce utter confusion in the mind of an opponent.

Hitler's diplomatic and military successes in the 1930s provide an excellent case study of the uses of strategic surprise. In 1933 Germany embarked on a policy based on the imperious desire to expand its *Lebensraum,* its "vital space"; implementation was to begin with the annexation of all German-speaking regions: Austria, Danzig, and the Sudetenland. To that end,

Germany used subversion, an intense and refined ideological and racist propaganda, blackmail, threat, and intimidation. Perhaps because Hitler's objectives seemed so incredible, the nations opposing found it hard, at first, to take them seriously—and paid the price. During the period of annexation and until 1939, German foreign policy, pursuing its objectives through a series of faits accomplis, was able to divide and neutralize enemies, reject diplomatic protests, and generally succeed in undermining and annihilating the weak Western unity. In this way, Hitler gradually eroded the political and diplomatic stability of Europe, thus paving the way for the invasion of Czechoslovakia in March 1939. But Hitler's planners did not learn from their successes and were surprised in their turn. After the invasion of Africa and in all subsequent operations of World War II, Germany was continually startled by the strategic moves of the Allies. Hitler's information and intelligence services, "his eyes and ears," were obfuscated by British and American intelligence. Germany's confusion was total, and the Third Reich became incapable of timely reaction.

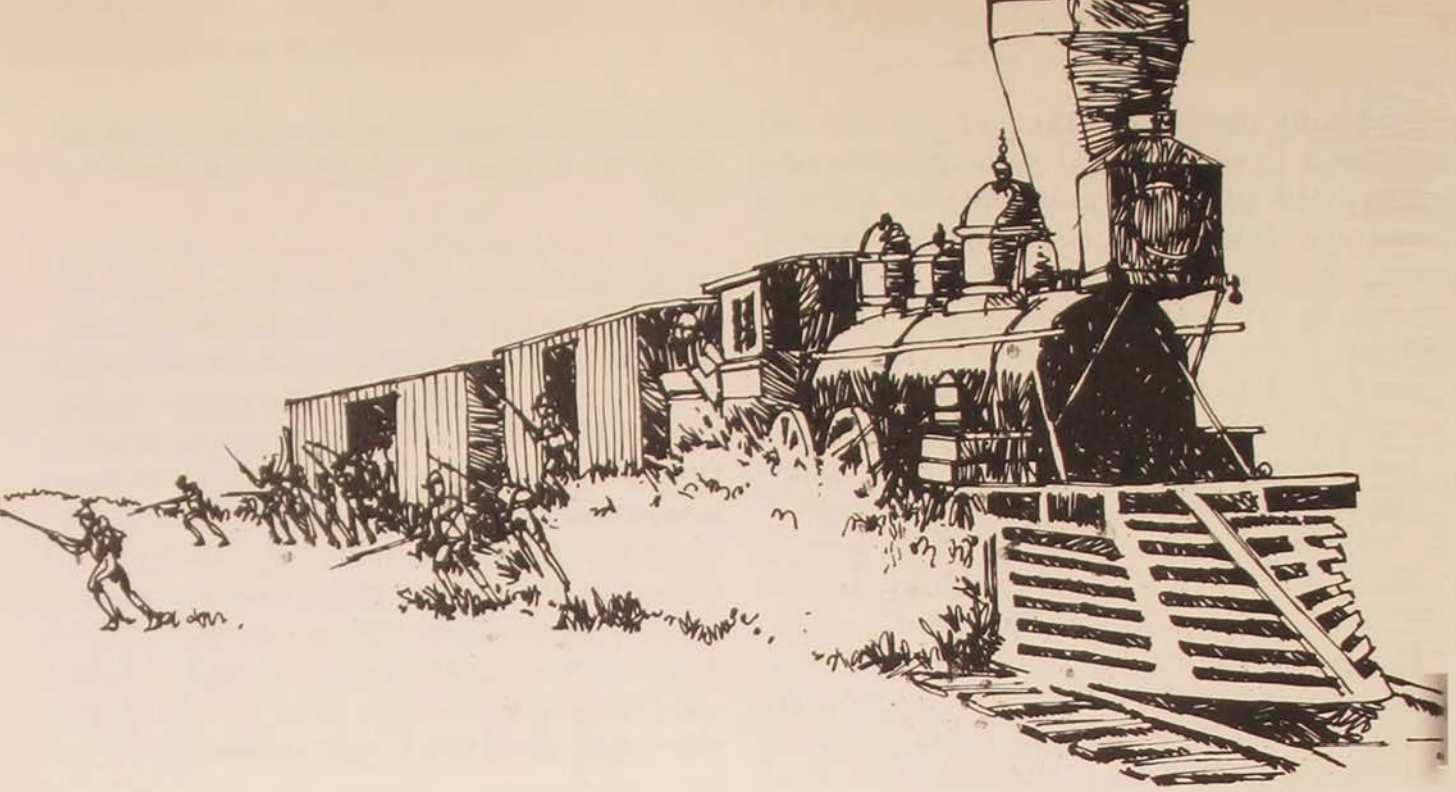
The Soviet Union, by planning wisely and using cold war as an effective weapon, has been remarkably successful in achieving her objectives in the postwar era. Heating or cooling situations, conveniently advancing or retreating, verging on but never crossing the nuclear threshold, threatening but not risking World War III, the Soviet Union has consolidated her conquests. The Soviets' control of Eastern Europe; their shrewdly timed penetration into Africa and the Middle East; their invasion of Afghanistan in order to flank Europe from the south and threaten her sea routes to vital raw materials and petroleum sources; their deployment of powerful naval and air forces in areas and nations under their influence; their support of pro-Soviet regimes, whether Communist or not, around China; their subversive penetrations into Latin America; their planting of the Castro regime in the middle of the Caribbean—all these moves have enabled them to maintain a clear advantage over the West.

Mao Tse-tung advised that laws of war be studied in their totality, rather than as isolated topics, if one wished to surprise the enemy strategically. In this perception, he was correct. The notion that a strategic victory is the sum of various tactical successes is erroneous because it fails to come to grips with the fact that victory or defeat implies a comprehension of the whole situation, the events of each phase of the conflict assuming their importance within the context established by the previous phase. The man who was to become the leader of the new China warned that in war ". . . as in chess, one wrong move can lose the whole game."

tactical surprise

Military history provides many examples of superior forces' being defeated through the skillful employment of available resources and the exploitation of geographic considerations in new, bold, and unexpected manners. The bold and determined maneuver on the field of battle, the wise utilization of meteorological, geographical, and space conditions, the intelligent use of available resources, and the application of new tactics constitute excellent means of achieving surprise.

Our first example is from the summer of 1861. General Irvin McDowell, in the first major Union offensive of the American Civil War, rushed his troops west on 16 July to engage the Confederates near Manassas, Virginia, followed by a large number of spectators from Washington, D.C., 20 miles away. The Confederate commander, General Pierre G. T. Beauregard, countered the next day by marching north toward Bull Run to cover the railroad center at Manassas. During the early hours of 25 July, both sides fought hard and evenly, but later in the day fresh troops arrived unexpectedly from the Shenandoah Valley to reinforce the Confederates. General Joseph



E. Johnston, covering 35 miles in two days, had transported his troops by railroad, surprising the western flank of the Union forces, who then fled in confusion. The first battle of Bull Run was thus decided by tactical surprise: the first use of the railroad in warfare. Johnston's use of railroad mobility had made possible "the rapid concentration at a given point of a large number of troops, creating new strategic points and new lines of operations." The quoted passage is from the 4 August records of General George B. McClellan, McDowell's successor, who quickly learned—some would say overlearned—the lesson of Bull Run, becoming almost obsessively dependent on secure rail lines of communication to his rear.

Our second example is from the spring of 1940. The main German thrust westward through the Ardennes was to be covered to the north by a secondary drive by panzer forces through the Maastricht corridor toward Brussels. The way was blocked by the water barrier of the Albert Canal. To succeed, the Germans had to seize the bridges across the canal at Cannae, Vroenhoven, and Veldwezelt before the Belgians could blow them up, yet the canal and the bridges were dominated by the large fortress of Eben Emael. Deemed impregnable by experts, Eben Emael was one of the most modern fortifications in the world.

In the early morning hours of 10 May 1940, a small detachment of German paratroops was lifted from airfields near Cologne in eleven small D.F.S. 230 gliders towed by as many Junkers Ju 52 transports. After a series of misadventures, nine of the eleven gliders landed directly atop Eben Emael and neutralized the fort in a lightning move that required only ten minutes; the Germans blew in the roofs and turret lids of the Belgian gun positions with specially prepared shaped charges that paralyzed the fort's garrison of 1200 men. This maneuver enabled the opening of the Vroenhoven and Veldwezelt bridges, assuring the rapid movement of German armored forces across the Albert Canal and the security of the northern flank of the main German penetration.

The bold move against Eben Emael had been planned and studied with utmost care and secrecy. The assault detachment that landed atop the fort had trained with meticulous attention to detail since November 1939, using a

detailed scale model of the Belgian fort. The precisely executed operation cost the Germans only 44 dead and 100 wounded. Boldness, ingenuity, and imagination had triumphed over strength.

THE Western soldier today has become so dependent on sophisticated support weapons that he seems to many to be incapable of engaging in combat without them. Civilization and modern education appear to have deadened his reflexes. Does this mean that our forces are vulnerable to tactical surprise? The French in Algiers and the Americans in Vietnam were confounded by the Fellaghas and the Vietcong, primitive fighters who had been toughened by a hard and underdeveloped existence. They were spartan, capable of forced marches with little rest, resistant to fatigue, experts in camouflage, masters of deception and dispersion, always surprising their enemy. They relied on guerrilla tactics—Spain's contribution to the art of war—which Mao Tse-tung had described in 1928 in a cryptic formula of only 16 Chinese characters: "when the enemy advances, we retreat; when he camps, we harass him; if he tires, we attack; when he retreats, we pursue." The lesson for Western armies is clear: sophisticated technology is not enough; it may even make us more vulnerable to surprise. Only with the most thorough physical and psychological preparation, adapted to all the conditions of war, can a soldier confront combat that arises ih all warfare, primitive or technologically advanced.

technological surprise

The advent of new weapons and military equipment can have a decisive influence on the field of battle. The replacement of stone axes by metal weapons, the Trojan horse, and the employment of gunpowder in the Middle Ages are good examples of tactical surprise induced by technological novelty. As Machiavelli said: "new and sudden things catch armies by surprise." The impact of Big Bertha, the machine gun, and the submarine in World War I; the V-1 and V-2 rockets and radar in World War II; Soviet surface-to-air missiles in Vietnam, and, particularly, the Yom Kippur War are all good examples of technological surprise. Technology is one area in which the possibility of surprise has been generally recognized. Virtually all modern military establishments possess technological intelligence services, established to investigate, study, and evaluate technological progress of others to avoid being technologically surprised.

The spectacular and revolutionary development of scientific and technological means of intelligence gathering in recent years has made it increasingly difficult to effect technological surprise on a modern nation with a powerful, well-organized, and efficient intelligence service. But as man's progress continues apace and his spirit of conquest remains unabated, he will reach new frontiers—nuclear science, electronics, medicine, space technology—and make novel discoveries with equally novel military applications. The neutron bomb, laser weapons, cruise missiles, remote sensors to control the battlefield, standoff munitions, precision-guided bombs, and antitank missiles are also examples of man's continuing and intense efforts to gain technological surprise.

But technological surprise need not involve elaborate and highly visible research and development programs. Small nations and political groups can also achieve technological surprise by simply purchasing or otherwise acquiring sophisticated equipment and weapon systems. Most nations lack the scientific and industrial development to equip their own armed forces; they must therefore obtain their arms from other nations; when this is done covertly, they too can achieve surprise. Such was the surprise Egypt and Syria dealt Israel with SA-6 antiaircraft missiles and the ZSU-23-4 Shilka antiaircraft gun in the Yom Kippur War, severely

punishing the hitherto invincible and seemingly invulnerable Israeli Air Force.

State of Surprise

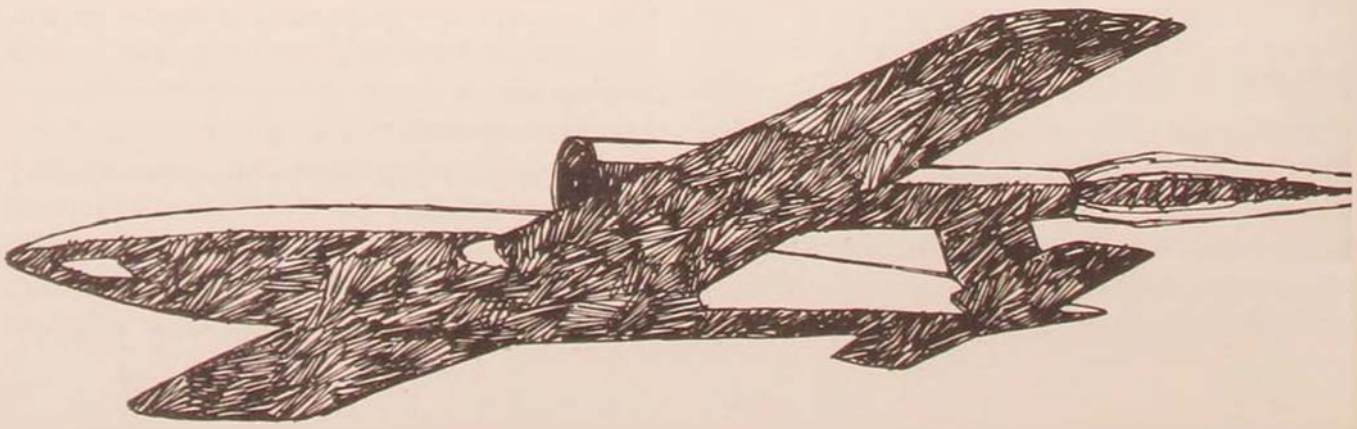
In the early hours of 5 June 1967, Israeli fighter-bombers, striking without warning, attacked Egyptian air bases in the Sinai and on the west bank of the Suez Canal. At the same time they hit the main air bases of Jordan, Iraq, and Syria. By the end of the day, some 400 Arab aircraft had been destroyed. What would go down in history as the Six Day War began with decisive surprise and ended in total victory for Israel. The war had been conducted by the Israelis with classic use of surprise, mobility, and speed, especially in the employment of their air force. For the first time in military history, air power alone had effectively decided the outcome of a war. The planning and execution had been so perfect that many Arabs concluded that American and British aircraft had participated in the strike: they had not expected an attack from the west; they had not anticipated total commitment of the Israeli Air Force in a maximum effort strike, and it had not occurred to them that the Israelis would use advanced recovery bases in the desert. The Arab nations had been unable to imagine and foresee the attack; their inability had allowed their enemy to select not only the moment and place of attack but the means as well. Such a failure to obtain and interpret information and anticipate results is what is meant by *state of surprise.*

The word *state,* in this context, refers to one's situation and especially to one's state of mind with respect to changing conditions. The word *state,* as applied in this sense to social groups, to nations and their inhabitants, and to armed forces and their leadership, may constitute a condition either of surprise or alert insofar as it influences behavior.

A state of surprise is extremely dangerous, even in the presence of a well-organized national defense, for defenses are useless if not geared to deal with possible threats. The Arab nations had reorganized and strengthened their armed forces following the 1956 war; however, they failed to evaluate, analyze, and comprehend the real threat, and, therefore, were unable to make adequate plans to deal with it. It should be mentioned that at least some of the Arab states learned the lessons of 1967 very well; it was Israel, not the Arab states, that was surprised in 1973.

Even more serious is the situation where the collective will of a nation or a society has deteriorated to such a degree that a lack of urgency and a sense of resignation and defeat prevail, and the armed forces lack effective organization and leadership, rendering them incapable of facing either direct or indirect aggression. In such cases, intelligence services are nullified and rendered incapable of gathering a coherent and meaningful body of information that would allow them to detect and evaluate threats.

The armed forces of any nation, entrusted as they are with the national defense, have the



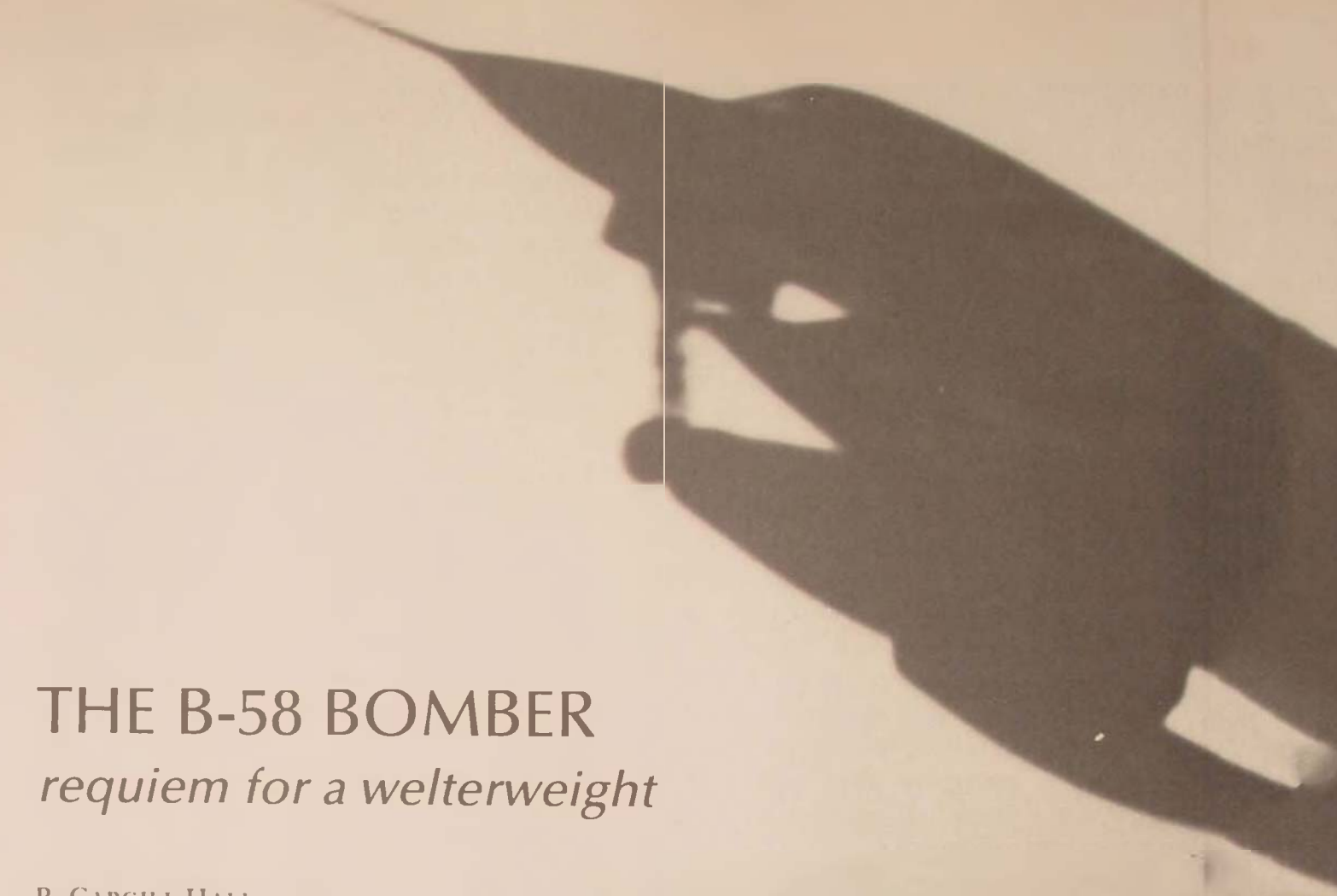
responsibility of preventing aggression in all of its forms. Their intelligence services must be able to obtain, analyze, and disseminate information necessary to support an appropriate response to each threat. For that reason, relevant and timely intelligence is a necessary precondition for the effective organization and training of armed forces. Military commanders and staffs must be sufficiently imaginative to foresee how possible conflicts might develop. Through sound factual knowledge, research, applied logic, and mathematical, analytical techniques, intelligence systems can predict future events with reasonable accuracy. This is not a theoretical goal that is out of reach in the real world. As Sun Tzu reminded us more than 2500 years ago: "that which allows the wise man, the sovereign, and the good general to attack, conquer, and get that which lies beyond the reach of common mortals, is precognition"; by precognition, Sun Tzu meant the ability to recognize what *might* happen and prevent it from happening to avoid lapsing into a state of surprise.

Western intelligence was unable to evaluate and predict effectively the events and conditions that led to the overthrow of the Shah of Iran. This was not a failure of insufficient effort but of inappropriate analysis. Very little took place in Iran that was not known to American intelligence; no soldier, aircraft, ship, or land vehicle could move without the Shah's knowledge. But what the Americans did not realize and could not foresee was that the Shah's sophisticated and powerful armed forces would not support him in case of a religiously inspired revolution. The West was simply unaware of the extent of the influence an old ayatollah exerted on the nation from exile in France. His inflammatory messages circulated freely on tape cassettes recorded in Farsi, a language unknown to all too many analysts and American agents. The lesson is clear. To be able to monitor a nation closely with satellites, reconnaissance planes, sensors, and other such ultramodern devices but to be unable to interpret that information and therefore ignore what is really taking place is to be in a state of surprise.

Efficient intelligence systems are indispensable for national defense, but they cannot work if they neglect the human mind and rely exclusively on technology. A good intelligence system is one that truly knows the enemy and has the influence to prevent society, the nation, its armed forces, and its political leaders from lapsing into a state of surprise: it must be able to make all sectors aware of the threat and also discourage any laxity or sense of resignation that would compromise the national security. Surprise, then, can only be countered by effective intelligence and intelligence gathering; and analysis must encompass much more than mere numbers and technology.

I conclude with these words by Sun Tzu: "He who knows his enemy and also himself is assured of victory; he who knows himself but ignores his enemy has but one chance out of two to gain a victory; he who ignores himself and also his enemy is condemned to defeat."

Madrid, Spain



THE B-58 BOMBER

requiem for a welterweight

R. CARGILL HALL

AT the end of World War II, Theodore von Kármán advised General Henry H. Arnold that future aircraft "will move with speeds far beyond the velocity of sound." Before the war, when supersonic motion was a characteristic most often associated with artillery shells, such a declarative forecast might easily have been dismissed. But in 1945 this renowned physicist-aerodynamicist possessed impeccable credentials; he shared General Arnold's confidence as chief scientific counselor of the Army Air Forces, and he spoke with commensurate authority. To be sure, many aeronautical engineers believed that an impenetrable stone wall separated the subsonic and supersonic regimes of flight, but von Kármán assured Arnold that this stone wall had now "disappeared, at least in our planning, and will disappear in actual practice if efforts are continued."

On the strength of von Kármán's recommendations, and those of other members of General Arnold's Scientific Advisory Group, the Air Force launched a vigorous and diverse

program of aeronautical research and development into high speed flight. Part of that program culminated on 14 October 1947 at Muroc Dry Lake, now Edwards AFB, California, when the Bell X-1 rocket airplane with Charles Yeager at the controls shattered both the sound barrier and speculation that aerodynamic forces became infinite at Mach 1. Across the country at Wright Field in Dayton, Ohio, studies of a supersonic bomber began in earnest. This ambitious effort neatly combined the aspirations of Air Force officers who wanted a bomber second to none and the engineers' love of a technical challenge. But a single-place, air-launched rocket projectile like the X-1 was one thing; a multiplace aircraft capable of sustained speeds approaching the muzzle velocity of a 30 caliber bullet and of functioning effectively as a strategic bomber was something else again.

WHEN the design competition for the B-58 began in early 1952, the state of

At the Convair Fort Worth plant in 1953, the original B-58 mockup, with bomb and fuel pod lowered, revealed an inherent problem: the nosewheel could not be extended for landing until the pod had been dropped.

the art hardly invited the generous enthusiasm of its proponents. Digital computers had yet to displace their analog forebears. Vacuum tubes remained the electronics order of the day. At Bell Laboratories, the transistor had only just been invented. Solid state electronics was still years away. Large airframes that would not pucker up at supersonic velocities had yet to be built and flight-tested. The area rule that would permit sustained transonic flight, not to mention a useful variable sweep wing, was unknown. But engineers did appreciate that swept wings of a low aspect ratio* delayed the onset of compressibility and shock stall. They perceived correctly that improved turbojet engines could provide the power for a supersonic bomber. In October 1952, a General Dynamics proposal that combined a pencil-slim fuselage with a 60-degree sweep delta wing and four large turbojet engines won the Air Force design competition for the first supersonic bomber.

Bearing scant semblance to any other bomber, the proposed Hustler promised to deliver a 10,000-pound weapon over an unrefueled radius of 2500 nautical miles (nm) and to propel a three-man crew at dash speeds of Mach 2.1 for 200 nm at a combat altitude of 55,000 feet. Besides the delta wing and propulsion system, the unconventional proposal depended on a compact, high-density airframe devoid of an internal bomb bay to achieve the specified performance. The weapon itself was to be carried in a novel, jettisonable bomb and fuel pod that comprised the lower half of the fuselage. With fuel expended, both bomb and integral tankage were to be dropped on the target, lightening the aircraft much like staging a rocket for the return flight to a recovery base.

The winning proposal, however, was soon found to have two serious design flaws. First,

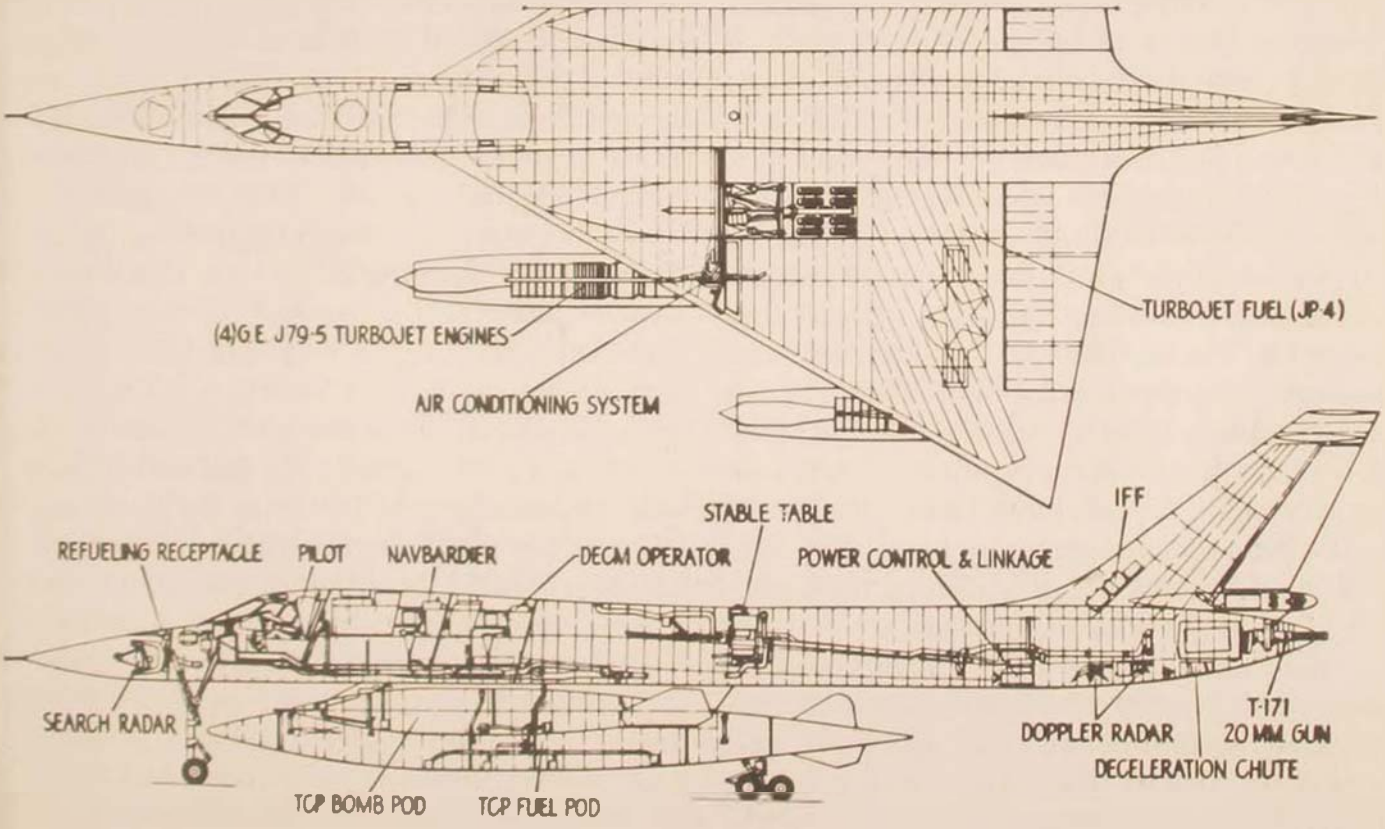
*A wing's aspect ratio is computed by dividing the span by the chord; high aspect ratio wings are long and slender, and those with low aspect ratios are short and stubby.

the aircraft had to employ tricycle landing gear and the bomb pod extended the full length of the fuselage; this meant that two nose wheels were necessary—one for the pod, to be jettisoned after takeoff to save weight, and one in the fuselage nose for landing. To put it charitably, this arrangement posed serious operational difficulties. The bomb pod had to be dropped in order to land! The expected repercussions from that kind of dropped object report doubtless inflamed the imaginations of senior commanders and public affairs officers alike. Second, and even more devastating, when the National Advisory Committee for Aeronautics subjected a scale model of the B-58 to free flight rocket tests at Wallops Island, Virginia, the design proved to be subsonic.

For these and other technical reasons, the B-58 progressed through a succession of revisions in design during 1953 and 1954. The final design that emerged in late 1954 featured four turbojet engines individually suspended under the wings. The bomber remained small, only 97 feet long, with a wing span of 57 feet. The leading edge of the wing was cambered and twisted to minimize loss of efficiency at the tips. The fuselage showed the influence of heavy area ruling,* and the bomb pod had been shortened and slung beneath the fuselage, permitting an integral nose wheel. Though it did not meet all the original performance

A cross-sectional drawing of the B-58 final configuration gives meaning to the term high density airframe. *Every cubic foot was used for something, and many structural members did double duty. Compare this nosewheel arrangement with the one facing.*

*The area rule, for which no theoretical explanation existed at the time, dictated that transonic speeds could not be easily exceeded unless an aircraft's total cross-sectional area changed smoothly from nose to tail. In the B-58's case, this meant that the fuselage had to be "pinched" where the cross-sectional area of the wing was greatest.



requirements, this design was very fast indeed. In the late 1950s, an operational B-58 achieved sustained speeds of Mach 2.1, faster than most interceptors of the day. Many of the technical innovations that made this possible would be adopted in the design and construction of subsequent supersonic aircraft.

TO cope with the pressures acting on the airframe at supersonic velocities, the internal structure of the B-58 was framed much like that of a ship. Transverse Duralumin spars, corrugated for strength and spaced only 11 to 15 inches apart, ran from one wing margin through the fuselage to the opposite wing. The aircraft had no chordwise ribs, only members or bulkheads to serve as attachments for the elevons, engine nacelles, and landing gear. For the outer shell, General Dynamics's engineers developed the bonded sandwich skin panel. An outgrowth of the "metal bond" skin used extensively on the B-36, this sandwich panel consisted of two very thin sheets of Duralumin or stainless steel bonded to a cellular honeycomb core composed of fiber glass or metal. These panels served as a "beam in any direction." Those with curved surfaces were set up in a jig before bonding and, after curing, could not be bent or deformed. Fastened with titanium screws, such panels covered about 90 percent of the wings and about 80 percent of the total airframe. The "metal bond" skin helped to insulate the fuel and internal components against external skin temperatures which reached 250 degrees Fahrenheit at Mach 2. It was at the same time rigid, strong, smooth, and very light. Indeed, the dry structural weight of the B-58 amounted to only 14 percent of its fully loaded gross weight, a record for bombers that has never been equaled.

This remarkably low weight fraction was the designers' primary means of allowing the B-58 to carry the fuel needed for high speed and long range; JP-4 fuel ultimately comprised more than 55 percent of the total gross weight. Bulkheads divided almost the entire airframe into separate tanks, and fuel filled the wings and most of the fuselage aft of the crew compartment. Even the bomb pod consisted largely of fuel. But if the low weight fraction permitted a large amount of fuel, it also imposed constraints: The bomber could not take off fully loaded. Restricted to a maximum weight of 163,000 pounds because by landing gear limitations, the Hustler had to be refueled in flight to reach maximum gross weight of 177,000 pounds. A computer controlled the pumping of fuel into and out of a balance tank located in the aft section of the fuselage to adjust the center of gravity for stable flight. The sealing of the fuel tanks despite airframe expansion and contraction over a wide range of temperatures and engineering the plumbing that connected the many tanks to each other and the engines were unquestioned engineering accomplishments of the first order.

The four General Electric J79-5 turbojet engines, so vital to the B-58's development, consumed fuel in prodigious quantities, particularly at supersonic velocities. Each of them produced 10,000 pounds of military thrust and 15,600 pounds of thrust with maximum afterburner at standard sea level static conditions, revolutionary figures for the mid-'50s. Each J79 featured a hydraulically actuated inlet spike that extended or retracted to match airflow velocity, keeping the conical shock wave outside the engine inlet during supersonic flight. Internally, the engine had variable position stator vanes in the first six stages of the compressor, which adjusted in pitch automatically as a function of engine speed and compressor inlet temperature, to minimize the possibility of compressor stall. An adjustable exhaust nozzle incorporated slatted vanes that opened and closed, depending on throttle, to give the most efficient thrust and specific fuel consumption.

The fuel and propulsion systems left little room for the three-man crew and avionics. Components for most avionics subsystems were located in the nose, directly in and beneath the

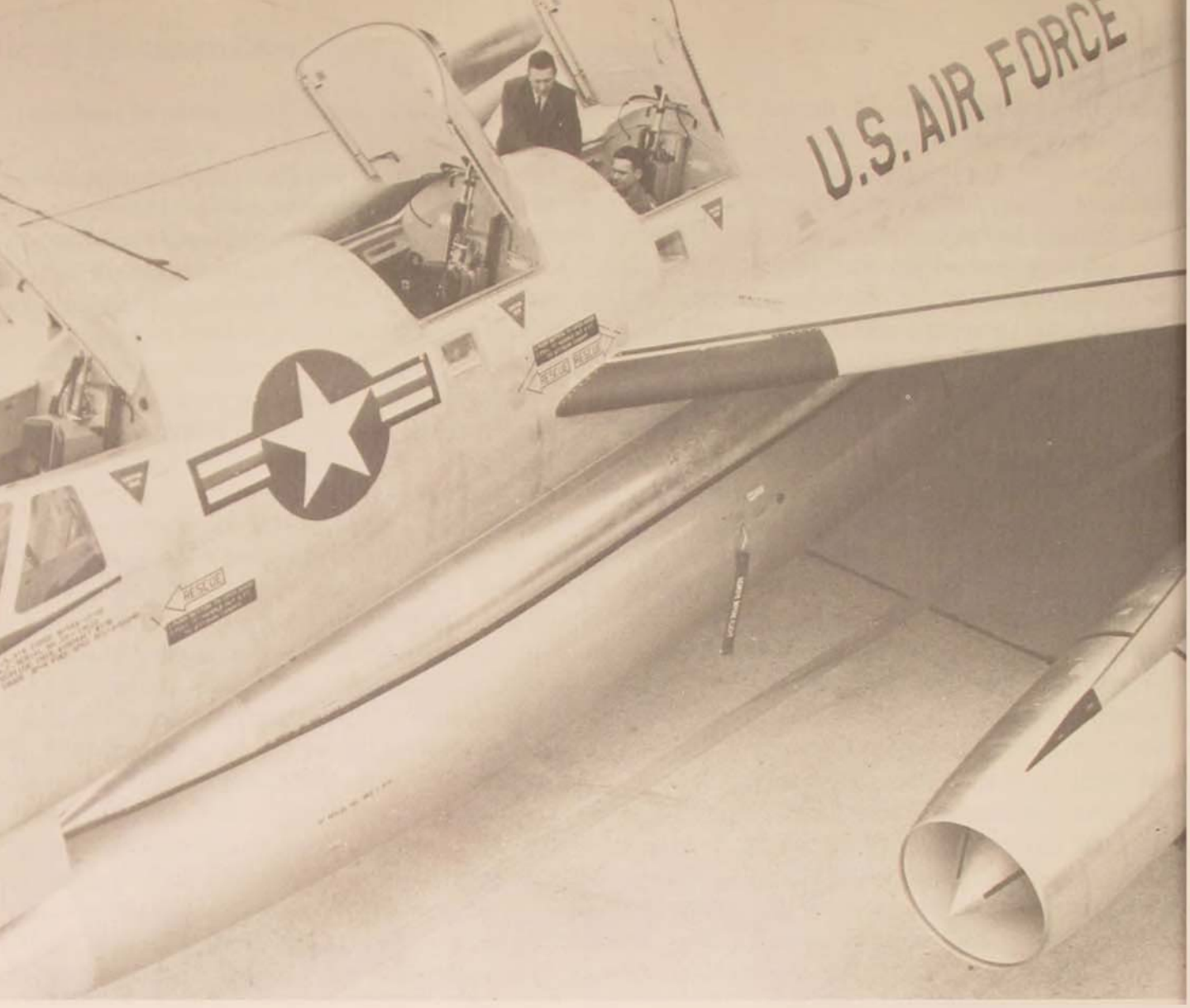
crew compartments, and in the tail. The pilot's position resembled that of a fighter, with a control stick in place of the yoke common to bombers. The flight control system, built by the Bendix Corporation, employed a hydraulic boost system which was advanced for its time. Redundant and essentially automatic, the flight control system featured a gyro-stabilized attitude reference which could be engaged at will and moduled and constrained aircraft maneuvers in roll, yaw, and pitch. A variable "changer" continuously varied maximum of elevon deflection, preventing the pilot from commanding excessive G-forces at supersonic speeds. With its many novel features, this electro-mechanical system was complex and difficult to maintain: the redundant hydraulic systems, pressurized at 3000 psi to save weight, were prone to leaks, and the flight control system came to be termed in SAC maintenance circles, not altogether affectionately, "the bicycle shop."

Directly behind the pilot in the second station, the navigator sat before the controls and indicators of a Sperry AN/ASQ-42 bombing-navigation system. The heart of this subsystem consisted of a 1200-pound analog computer which filled the front of the station. When operating properly, the bomb-nav system, acting through the autopilot, directed the B-58 by a dead reckoning process over a great circle course to any selected destination. Other major components tied to the computer included a Doppler radar in the tail that measured true ground speed, a pressure altimeter calibrated by a radio altimeter, an astrotracker that furnished heading reference, a stable inertial platform, a high resolution search radar in the nose that pioneered the Ku band continuous wave, and an in-flight printer that provided data on time, speed, position, altitude, and the like, on punched paper tape. In the words of William Dietz of General Dynamics, the Hustler bomb-nav system comprised "one of the largest collections of vacuum tubes and mechanical analog machinery ever conceived and fabricated by man." It remains so to this day.

From the third station the defensive systems operator advised the pilot on fuel consumption (when and how much fuel was to be transferred into which tanks) and controlled the passive and active countermeasures equipment. The active electronic countermeasures equipment, built by Sylvania, radiated signals to noise-jam enemy radars. It also included the first production track-breaking jammer, one programmed to "steal" the range gate of a hostile tracking radar and lead it away from the bomber. The active defense system also included a six-barrel 20-millimeter M-61 Gatling gun in the tail, with associated radar and fire control equipment produced by Emerson Electric of Saint Louis. This system detected and tracked on radar aircraft attacking from the rear, calculated the target position, determined the intercept path, aimed the cannon, and told the defense systems operator when to fire.

These major aircraft subsystems drew their electrical power from a single bus, supplied by three engine-driven alternators. Two redundant power packs converted the AC alternator output to DC, and provided four basic voltages for all the subsystems. While this approach unquestionably saved weight and space, it could also make for trouble—an electrical failure in one area could trigger multiple malfunctions in other subsystems. All of the B-58 avionic subsystems, according to an enthusiastic Air Force public relations brochure in 1961, contained "more than 5000 electronic tubes and transistors" and had to be considered the very latest in the state of the art. In point of fact, that declaration pronounced much of the Hustler's avionics suite obsolete. As these bombers entered the inventory in 1961-62, the United States stood on the edge of a revolution in solid state electronics.

Needless to say, the B-58's massive assemblage of electronic tubes and transistors produced a good deal of heat. To cool the electronic components and compensate for the



The close—some would say claustrophobic—confines of the Hustler's crew stations are suggested by this 1961 photograph. Note that ejection seats are used here, not the later protective capsules.

thermal energy conducted into the airframe during flight, the B-58 had two Hamilton Standard air-conditioning systems, one serving as a backup for the other. Each had a refrigeration capacity of 18 tons. In addition to cooling, the air-conditioning system provided for dehumidification and windscreen rain removal, and for just about everything else that depended on convected air to function properly. Despite its impressive capacity, the air-conditioning system could be overtaxed in certain flight regimes, at which point the cooling plant would automatically switch to restricted mode, providing refrigeration only for the aircraft avionics. Under these circumstances, the crew had to literally "sweat out" the sortie.

Two other innovations introduced on the B-58 merit attention; both involved in-flight emergencies. The first was the pilot's station: besides borrowing yellow and red warning lights

on the pilot's master caution panel from fighter aircraft. Hustler had an audio warning system. In an impending emergency, the pilot would hear in his headphones one of 20 prerecorded messages in a gentle, feminine voice, softly uttering such words as "hydraulic system failure" or "nose too high." In an all-male environment it was a real attention getter—all the more so because her messages, freely translated, said: "Jack, if you fail to act immediately, you're in deep Kimshi." The second innovation was the escape capsule. Rocket sled tests at Holloman Air Force Base in the early 1950s suggested that ejection seat bailout could be accomplished at supersonic velocity without the loss of life; however, of those who attempted supersonic bailout during B-58 category testing, none survived. Therefore, General Dynamics contracted in the late 1950s with Stanley Aviation of Denver, Colorado, to

The Hustler's high fuel consumption, particularly at supersonic speeds, made air refueling essential. By the B-58's operational debut, the Air Force had standardized on the flying boom refueling system for strategic bombers. . . . The dramatic posttouchdown shot (below) shows the Hustler's sleek thoroughbred lines—and the nose-high landing attitude characteristic of high performance delta wings that were so unforgiving of a pilot's carelessness or inattention.

develop an encapsulated seat, a contract which eventually produced a rocket-propelled escape capsule. Retrofitted on all B-58 bombers beginning in late 1962, the capsule featured quick-closing, clam-shell doors that protected the crew member against wind blast and temperature extremes. Once sealed and pressurized, the capsule ejected, stabilized, and descended by parachute with its passenger in a "shirt sleeve environment." Survival gear included a radio and rations, and a flotation system that deployed automatically on landing on water. Used within the prescribed escape limits, the capsule proved completely dependable. It did, however, make the very small crew compartments even smaller, restricting the size of the occupant. Failure to fit the capsule was understandably cause for the rejection of prospective crew members; however, it was said that if one did not exactly fit the capsule on qualifying for the program, he most surely would after the doors snapped shut.

ALL of these subsystems were designed, built, and integrated to make the B-58 a functioning supersonic bomber. But how well did the machine actually operate, and how was it maintained? Those who applied to fly the B-58 already possessed extensive experience in military jet aircraft and had clearly demonstrated what Tom Wolfe calls "the right stuff." The cockpit, certainly, was no place for the pilot who suffered from claustrophobia, or for one accustomed to a copilot at his elbow. Still, there was no lack of highly qualified applicants: better than 80 percent of the original SAC selectees surrendered spot promotions for the opportunity to occupy that station. Of those accepted, the command rigorously trained each candidate before he became a full-fledged member of the Mach 2 Club. All Hustler crew members shared a high esprit, rather like that of the Marines, which sometimes proved offensive to other military aviators. Indeed, the B-58 fraternity still meets periodically to tip a cup and reminisce. The crews *had* to be good, for the Hustler was hot even on the ground—with maximum afterburner for takeoff, it accelerated from zero to 185 knots in less than 30 seconds. Although the control "feel" was heavy, the airplane was responsive to all control movements and handled as positively in the traffic pattern as when flying at Mach 2. The B-58 was so stable and behaved so solidly in flight that one had almost intentionally to move it off heading. With the great structural integrity of the delta wing, the Hustler in turbulent weather had none of the "air springs" roll and pitch effect of flexible wing aircraft. By all accounts, the ease in handling a B-58 was unquestionably superior to that of any other contemporary SAC bomber.

Consider a typical high altitude mission: Power . . . maximum A/B; Tower, Jack Three Zero, rolling; instruments checked; 100 knots . . . airspeed checked; S1 ready now . . . looking good; 170 knots . . . rotation; 185 knots . . . airborne. Before reaching 200 feet, the brakes are applied to stop wheel rotation and the landing gear handle is moved to the "up" position. The Hustler is throttled back and climbs out at 425 knots indicated airspeed. Above 30,000 feet the flight control dampers and the center of gravity are checked, and the controls for the engine inlet spikes are placed in "automatic." Power is advanced to minimum afterburner. With all burners lit, the pilot selects maximum afterburner and advances the throttles into "overspeed." He pulls the nose up in a shallow climb. The aircraft is allowed to accelerate until the Mach meter reads 2.0 and, at about 50,000 feet, he levels off and immediately reduces power to maintain engine inlet air temperature within limits. Supersonic flight might continue for 2 hours, the time limit for afterburner operation at that altitude, but fuel capacity normally limits sustained flight at this speed to about 45 minutes. Suffice it to say that our Hustler crew can log more time at Mach 2 on one mission than the average fighter pilot

will know in an entire career. Outside, one can see the zone of increased air density that marks the standing shock wave undulating before the pitot boom and engine spikes. All sound is left behind except the "white noise" of the air flowing past the crew compartment. Inside, the windshield is hot to the touch. Moving at 20 miles per minute in a cloudless sky, 10 miles above the midwest, the sensation of speed is fantastic; the one-mile section lines below go by like the slats of a picket fence. This is an experience long-remembered by the professional aviator.

The B-58 *was* fast; in its day, it broke 12 world speed records and won almost every major aviation award in existence: The Bendix, Harmon, Thompson, and Bleriot trophies, and on two occasions the McKay Trophy. The B-58 also crashed spectacularly, twice before horrified spectators at the Paris Air Show in 1961 and 1965. General Dynamics and the Air Force lost eight aircraft in category tests alone. Of the 116 B-58s built, in fact, 20 percent were eventually destroyed in accidents. Seeming to belie the affidavits of easy handling, this high accident rate was caused for the most part by flight characteristics peculiar to delta wing planforms. In order to maintain level flight with a 60-degree leading edge sweepback, the Hustler required a much higher angle of attack* than a conventional airplane, as much as 9.4 degrees at Mach 0.5 at sea level. Nor did it stall in the conventional fashion: with the nose elevated, the bomber maintained forward motion without pitching downward. Unless the pilot applied large amounts of power, the sink rate increased rapidly. At an angle of attack greater than 17 degrees, the B-58 could pitch up sharply and enter a spin. Recovery was all but impossible if the pilot applied elevon against the spin, if the center of gravity was improperly positioned, or if the spin occurred below 15,000 feet altitude.

The B-58 pilot trainee soon understood why the low aspect wing best able to overcome high-speed compressibility effects possessed these and other undesirable low-speed characteristics. The delta wing sported no flaps, slats, or spoilers. To land the bomber, the elevons were not lowered, but raised. With the nose pitched up for landing at 12.5 degrees, and power increased to check the high sink rate, the entire wing impinging on the airstream acted as a huge flap. Below 200 feet the pilot could no longer see the runway and had only his instruments and peripheral vision to guide him. The airplane also landed hot, coming in over the fence weighing 75,000 pounds at 190 knots and touching down at 3 miles a minute. Whatever the weather conditions, little time was available to compensate for a landing too short, too long, or off to either side of the runway. Small wonder this airplane came to be termed "the flying manhole cover" and "the lead sled." In capable, skilled hands the B-58 performed admirably. Slighted or taken for granted, the bomber could be grievously unforgiving.

If the Hustler realized a jet pilot's dream of high speed flight in the air, it was a maintenance man's nightmare on the ground. The high density airframe afforded personnel little room in which to move and work, and much of the aircraft equipment was buried. For example, a frequently removed part of the nose radar could be reached only after hoisting the ejection capsule out of the cockpit; to apply power to check the radar, the capsule had to be reinstalled. If a problem surfaced, the entire sequence had to be repeated. Adding to the difficulties, the B-58 airframe was stressed, and mechanics had to jig the aircraft to remove a panel from the fuselage or wing. The bomber could not be moved again until the panel had been replaced. The complex avionics subsystems also called for numerous, specialized test equipments. Some 40 pieces of equipment were

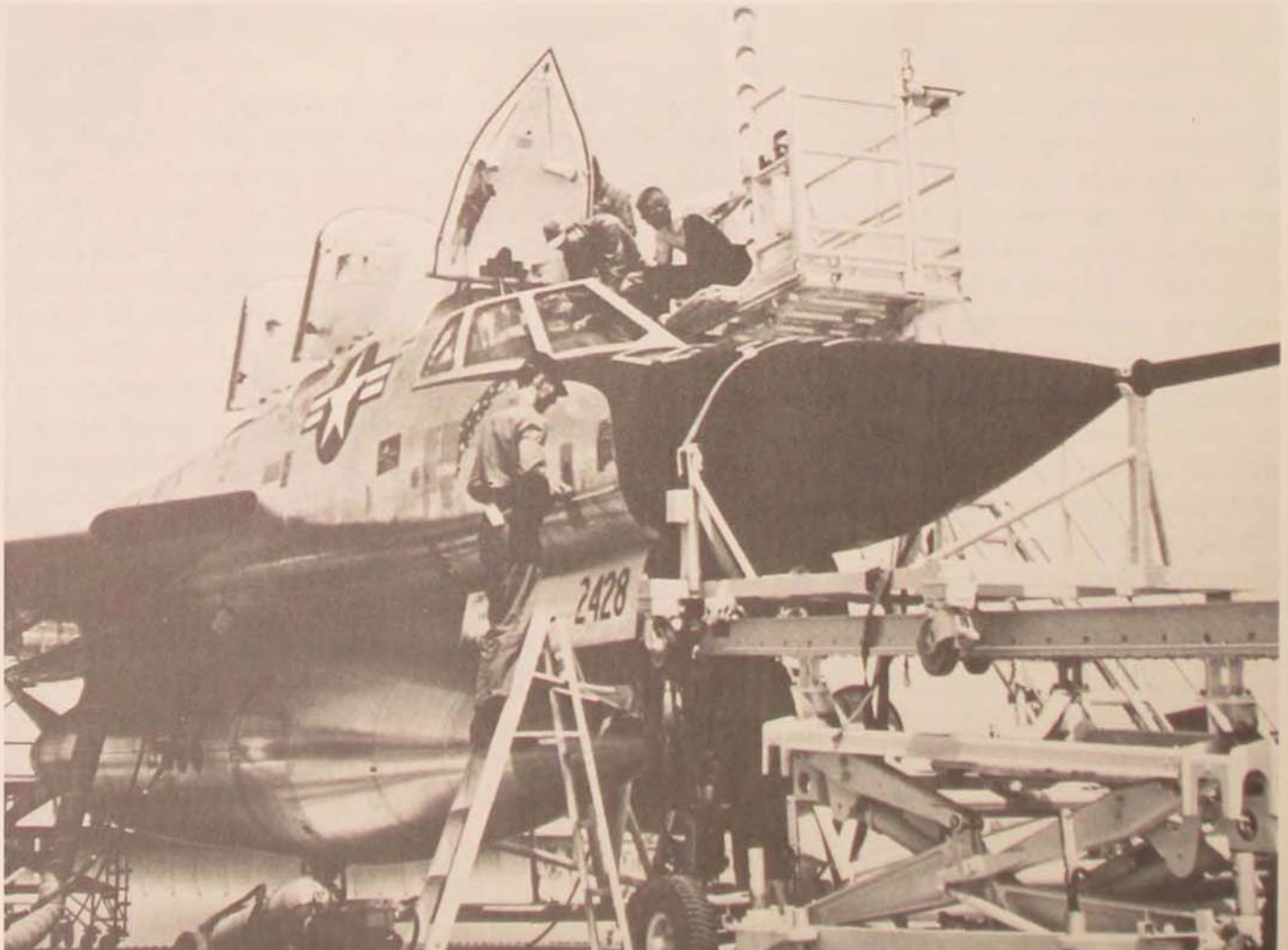
*The angle of attack is the angular difference, usually measured in degrees, between the centerline of the airfoil and the direction of the airflow. A positive angle of attack expresses the number of degrees of upward tilt with which the wing passes through the air.

employed just to tune the bomb-nav system. Finally, the bomb pod beneath the fuselage served as a fuel tank. That meant one had to defuel the aircraft in order to load the weapon. Once the bomber was emptied of fuel, maintenance personnel suspended an 8000-pound weight from the nose before they dropped the pod. If this unusual weapon loading procedure was overlooked, the airplane would tip back on its tail. Such novel requirements hardly endeared the Hustler to SAC maintenance officials or operations officers.

THE B-58 exists today as a museum piece, an exotic engineering response to a set of operational requirements specified in the early 1950s. It was designed and built expressly as an engine of delivery for nuclear weapons and to penetrate enemy territory and strike from high altitudes at high subsonic and supersonic dash speeds. The technical innovations that made this possible also made for specialized and highly integrated subsystems, and a bomber with little versatility. Without a bomb bay and with a very dense airframe of limited volume, the B-58 could not be used effectively in Southeast Asia, or in any other limited war for that matter. Worse for SAC, other advances in technology radically altered the antiair defenses that the B-58 was expected to challenge. In the early 1960s, nuclear-tipped air-to-air and surface-to-air missiles appeared to preclude penetration of enemy airspace at high altitude, and the Hustler was conscripted to fly a low level, subsonic mission in wartime.

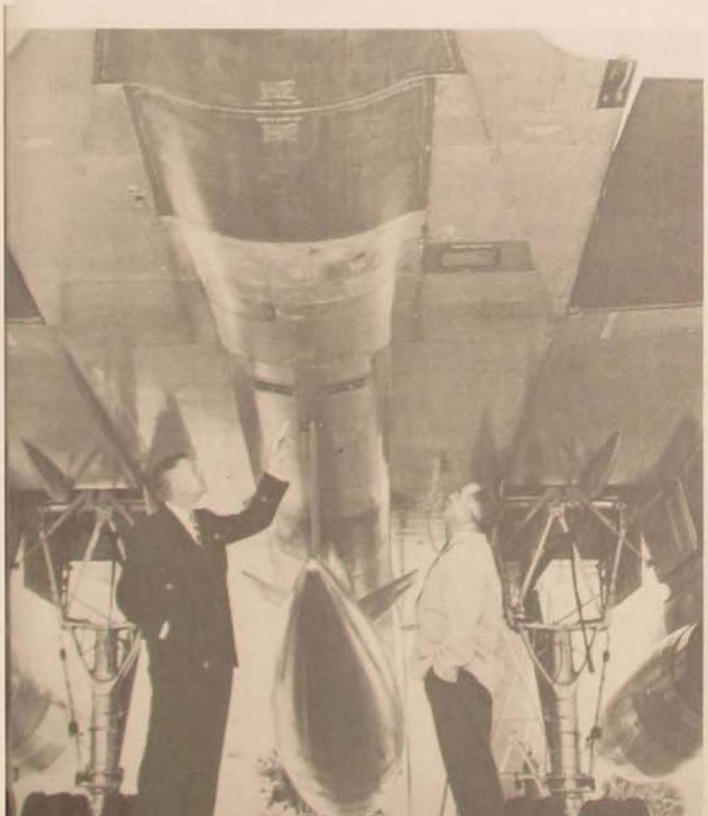
The new mission profile harnessed Pegasus to a plow. At an assigned altitude of 500 feet, the B-58 had to be flown at subsonic velocities or risk elevon reversal and loss of control. When the bomber was operated at sea level

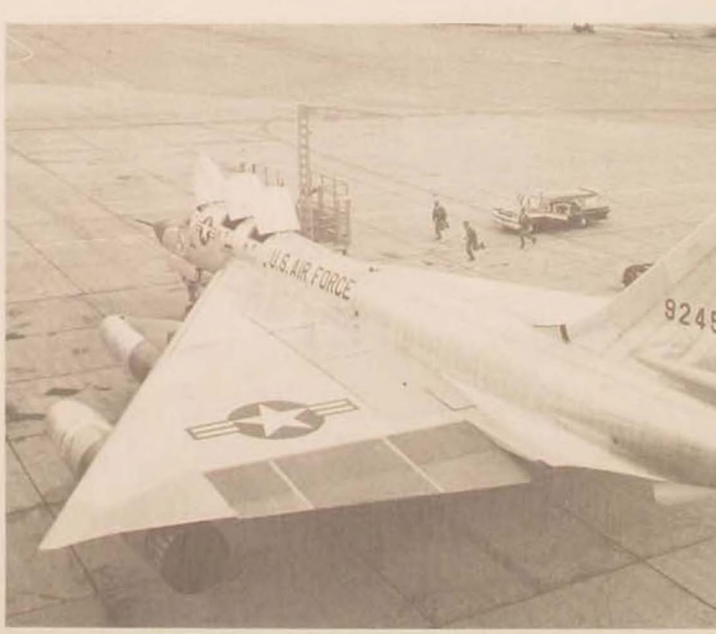
Some forty items of specialized equipment—the crane and jigs here among them—were needed for access to the B-58's nose radar and electronics compartment.



Because of its unusual center of gravity, the B-58 had to be defueled before the weapons pod could be removed for maintenance. Similarly, the aircraft could not be refueled until the pod was reinstalled. Here is what happened when someone forgot this idiosyncrasy!

The General Dynamics Fort Worth factory manager (below, left) points out a nonmagnetic radome of the defensive electronic countermeasures system to a Sylvania field engineer; the stalky, structurally delicate main landing gear struts are clearly visible behind them. . . . The desired end result of the B-58 program is symbolized (below, right) by a SAC crew scrambling; clearly visible are the B-58 Hustler's 20 mm tail stinger and its fire control radar.





cruise speeds of .85 to .91 Mach, airframe fatigue increased dramatically. Moreover, the Hustler contained no terrain following or terrain avoidance equipment, and its altimeter did not function accurately below 750 feet. Thus, pilots had to fly visual reference to the ground with flash curtains open. Clear weather largely governed such tactics. Though the Air Force considered extensive modifications to permit effective low level penetration, the costs were judged to be prohibitive. For all intents and purposes, the Hustler was obsolete when the last one rolled off the assembly line in 1962.

Costs affected the B-58 adversely, from the cradle to the grave. Not only did the projected costs of modifications preclude improvements in low level performance, the original cost to procure this bomber was much greater than that of its predecessors. The program unit cost of the B-58 was $33.5 million in constant 1967 dollars, compared to $9 million for the B-52 and $3 million for the B-47. Once the aircraft entered the inventory, SAC found the cost of maintaining and operating two B-58 wings equaled that of six wings of B-52s. High costs and a flawed operational potential made the B-58 expendable. When the Strategic Air Command faced a choice of inactivating six wings of subsonic B-52s or two wings of supersonic B-58s in the late 1960s, there was really no choice at all. Consigned to the boneyard, the last B-58 landed in the Arizona desert at Davis-Monthan Air Force Base on 16 January 1970. Placed at first in protective storage, the sleek supersonic bombers were soon ordered stripped of their engines and other usable parts. A few years later, as the Air Force intensified efforts to acquire the B-1 supersonic bomber, the B-58s were sold at auction and broken up for scrap.

In terms of accelerating a large mass to supersonic velocities, the Hustler clearly pioneered aeronautical technology. The bonded honeycomb sandwich panel represented the first major departure from monocoque riveted metal construction techniques of the 1930s, and led eventually to investigations of nonmetalic composite structural methods. The adjustable inlet spike and variable stators of the B-58's J79 engines are features still found in most supersonic turbojet engine installations. But the unconventional bomb pod, the high-density airframe, and other innovative compromises needed to achieve the original point design, ensured serious maintenance and operational difficulties for the Hustler. These same aeronautical innovations prefigured early retirement of the B-58 from the strategic weapons inventory.

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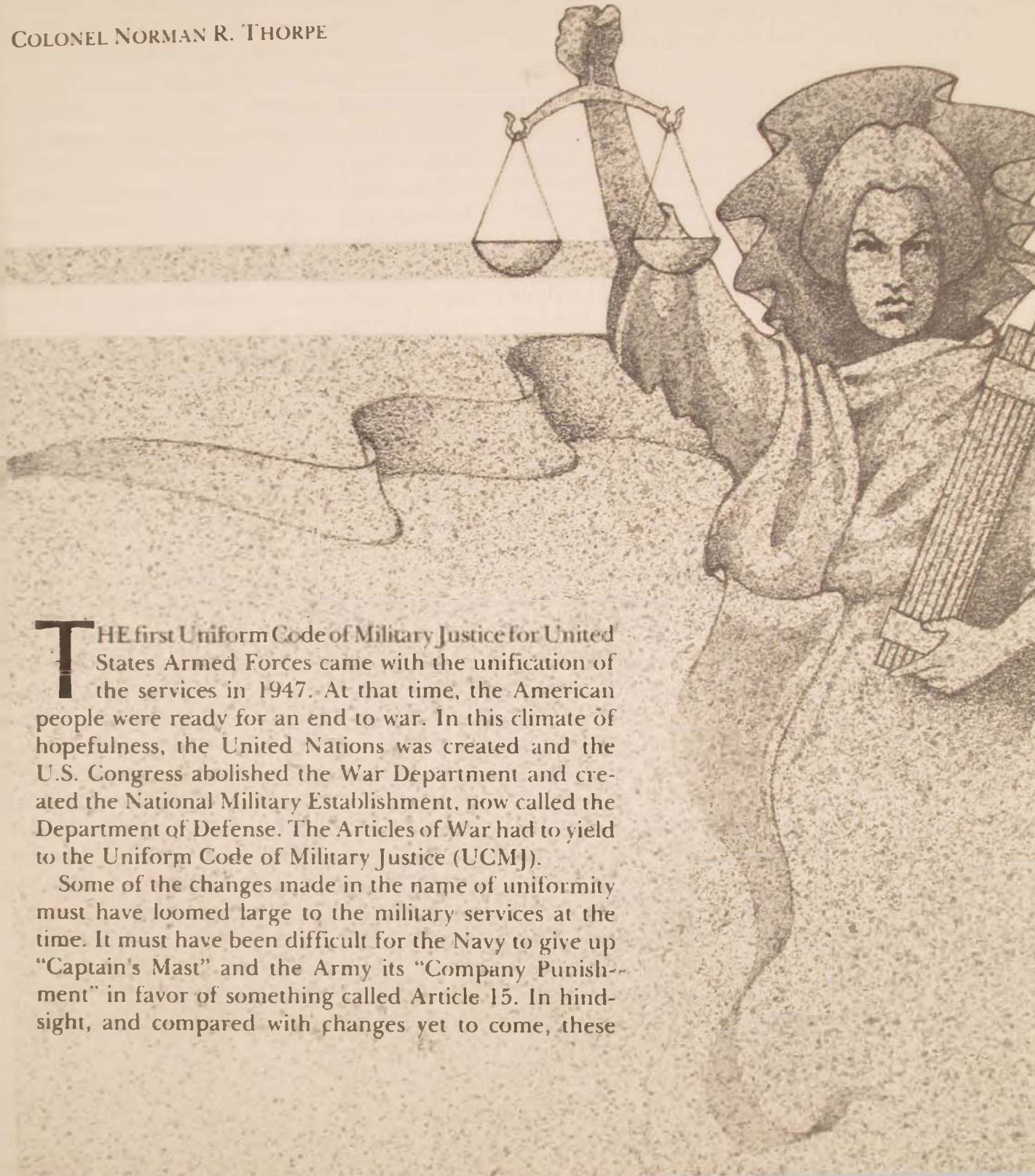
DISCIPLINE AND JUSTICE IN THE ARMED FORCES

COLONEL NORMAN R. THORPE



THE first Uniform Code of Military Justice for United States Armed Forces came with the unification of the services in 1947. At that time, the American people were ready for an end to war. In this climate of hopefulness, the United Nations was created and the U.S. Congress abolished the War Department and created the National Military Establishment, now called the Department of Defense. The Articles of War had to yield to the Uniform Code of Military Justice (UCMJ).

Some of the changes made in the name of uniformity must have loomed large to the military services at the time. It must have been difficult for the Navy to give up "Captain's Mast" and the Army its "Company Punishment" in favor of something called Article 15. In hindsight, and compared with changes yet to come, these

initial changes were less significant than they seemed. Mainly, they were structural rather than substantive.

At the same time, the International Law of War was developing, as it always does after a major war. The Geneva Conventions of 1949 espoused the innovative concept that neither a Declaration of War nor a formal recognition of a State of War is required to activate the international law protecting the victims of war. The law of "war" had become the law of "armed conflict."

In spite of hopeful feelings, the United States has been unable to disarm. At an interservice legal meeting in 1977, an Air Force judge advocate complained that the U.S. Marines in Okinawa were greatly increasing his work because of their constant misbehavior in the local community. The Marine Corps spokesman rose to reply and said he understood the Air Force did not approve of Marines' fighting in bars, but he reminded the Air Force that *someone* has to know how to do that. So, it seems *someone* must study war.

When the Articles of War were being sanitized in 1949, one reference to war was retained or perhaps overlooked: the oath administered to court members. That oath called on members faithfully and impartially to try according to the evidence, their conscience, and the laws and regulations provided for trial by court-martial, the case of the accused now before the court, and that "if any doubt should arise not explained by the laws and regulations, then according to the best of your understanding and *the custom of war in like cases.*" As a young judge advocate, I was most taken with that phrase, "the custom of war in like cases." It was a link to history and tradition, to a military common law, to be found in the accumulated experience of centuries of warfare. It was not a dark and apocalyptic vision of the law. "The custom of war in like cases" was a polestar, a reference point outside the context of any current hostilities—a stable and continuing view of man's better side, visible even in the worst of circumstances—enduring and certain to survive.

In my expectation of survivability for this glorious concept, I had overlooked the possibility of revision from within; I had failed to recognize how many of my military colleagues were pining to reinvent the civilian criminal justice system. They were embarrassed by charges that military justice was second-rate. When they heard that "military justice is to justice as military music is to music" they did not accept that as a statement of fact, a recognition of the necessary differences between the two systems. Rather, they sought to change military justice to meet the criticisms of people who saw no reason to have a separate system. There were also those of us who wanted to be called "Judge." That has a good ring to it. We military lawyers wanted to don those robes and breathe that air. And, in our zeal to civilianize the Uniform Code of Military Justice, we changed the oath of the court members. The authors of the 1969 manual attached so little significance to "the custom of war in like cases" that it was abolished. Now, the manual merely requires court members to take an oath to perform their duties faithfully. No one forced these changes on us. "We have met the enemy and they are us."

In the early '60s not everyone was pursuing the goal of civilianization in the military justice system. Indeed, it was largely a military phenomenon. As a practical matter, only a small cognoscenti know or care anything about military justice in peacetime. Attention such as was given by the civilian community grew from the new practice during peacetime of stationing large forces abroad. *Reid* v. *Covert*, and the line of cases following after, terminated military jurisdiction over civilians. It is a basic premise of that line of cases that military courts are and ought to be fundamentally different from Article III courts. Consequently, military courts should not try civilians.

In 1962, Chief Justice Earl Warren, presenting the James Madison lecture at New York

University Law Center, addressed himself to "The Bill of Rights and the Military." His remarks were published in the *New York University Law Review*. Although nearly twenty years old, they are less dated than the later opinion of Associate Justice William O. Douglas in the *O'Callahan* case. Chief Justice Warren recognized the need for a separate and different system of military discipline, operating under the Congressional Article of the Constitution, not subject to the legal limitations constitutionally required of judicial bodies established by Article III. He noted that the authors of the Bill of Rights were also authors of the constitutional authority for Congress to raise an Army and to make rules for its governance, and the authority of the Chief Executive to act as the Commander in Chief of the Army. Chief Justice Warren saw no essential conflict between the Bill of Rights and the court-martial system as it existed in 1962. He spoke favorably of the Court of Military Appeals as a specialized appellate court having the *necessary expertise in the area of military discipline* to deal routinely with questions that would be unfamiliar and therefore difficult for civilian courts.

I believe that the military forces require a distinctly different system of criminal justice. Therefore, there are limits we should not exceed in "civilianizing" military law. Before examining why a different system is required, let us look for a moment at how Americans normally go about revising their military criminal law.

Obviously, the civilian community has an interest in any effort to revise military criminal law. Unfortunately, the different perspectives of military and civilian lawyers engaged in revision efforts often lead to misunderstanding or noncommunication. Typically, the civilian view is that the military justice system should be proceeding on a path toward total congruence with the civilian system. Failure to reach the final goal of civilianization may be tolerated as a temporary measure. On the other hand, there are always some judge advocates who feel that any change in the existing law will bring fearful consequences. This is the "burning bush" view of the Uniform Code. There is also institutional inertia. Some of us are like the lady from Boston who asked, "Why should I travel? I'm already here."

When the '49 Code was being examined in the Senate, the Chairman of the Committee that drafted the code, Dr. Edmund M. Morgan, Jr., of the Harvard Law School, testified that the new uniform code

> is the result of an intensive *study* of the *present systems* and practices of the several departments or branches of the military forces, of the *complaints* that have been made against both the structure and operation of the existing military tribunals, of the explanations and *answers of the services* to those complaints . . . and of the arguments of representatives of the services *as to the practicability* of each proposal. (Emphasis added.)

That seems to be the standard way to go about it. Specific complaints are identified, solutions are proposed, and the military declares them impractical. Here comes the Harvard Law School, and there go the JAGs into a defensive crouch.

A popular pastime of military forces between wars is to determine how to win the last one. Military lawyers do this, too. Since the end of the Vietnam War, there has been much introspection and concern—many attempts to come to grips with the criticisms we incurred during the war. In each recent Congress, there have been one or more major proposals for revision of the Uniform Code of Military Justice, usually aimed at making changes just to increase conformity with civilian practice. Many of these proposals are already dated because they relate to a political context that no longer exists.

Besides this phenomenon of reacting to old news, there are other common threads in revision attempts that we can identify. In fact, we can create a small list of *how not to do it*. A common defect of all reform is overkill. Closely related to that is our tendency to solve the same problem many times. If it is discovered that small cars have defective gasoline tanks, it

seems to be doctrine in the consumer business these days that small cars should be recalled and modified or repaired. Not so in the military justice business. If we discover the military justice equivalent of a dangerous gas tank, we recall all the automobiles in the world and take off their gas tanks before returning them to their owners.

For example, cases of abuse of prisoners arise from time to time in any system of justice. We are all shocked to hear of people being brought into a courtroom in a cage, or in irons, or in dirty clothes. There are procedures for redress in both military and civilian jurisdictions. The military, though, has gone beyond solving particular cases of abusive treatment and virtually eliminated pretrial confinement. The Court of Military Appeals (COMA) now requires objective, documentable evidence that the accused intends to flee jurisdiction and that lesser forms of restriction have been tried and found wanting. The statutory criteria, "as circumstances require," have been considerably narrowed. In the fishbowl atmosphere of the military installation, it is difficult for the law-abiding majority to understand why apparently dangerous people must be released into the community to await trial. More important, the unique responsibilities of the military commander were not taken into account in the construction of the civilian rules concerning pretrial release.

About 50 miles north of New York City, there is a closed Air Force base, now called Stewart Airport. Twenty years ago, when the base was in operation, there was a road around the end of the runway to the back gate. There were no obstructions to visibility and no side roads or buildings, and the speed limit was 45 mph. A young lieutenant in a new red sports car ran down that road at speeds estimated at 75 mph. He ran off the road, turned over, and was killed: the next day the speed limit was lowered from 45 to 25 mph. No doubt the students of logic have a cubbyhole for that kind of logical error, for it is extremely common, especially in institutional decision-making.

Consider the sentencing procedure we use in the court-martial. Since the members of the court adjudge the sentence, evidence in extenuation and mitigation is presented in the second-half of the trial. As a result of the *Williams* case, the defense has a right to call witnesses from anywhere to give mitigation testimony, and the government is obliged to pay for their travel. Often the "most essential" defense mitigation witnesses, who will testify as to their shock and chagrin that the accused has been found guilty of a crime, are located at the farthest points of the earth. I am convinced that the Air Force Military Personnel Center should review the computer program used to make assignments, for all potential mitigation witnesses are mysteriously being assigned to Korea!

In addition to this wasteful but eminently fair procedure, we have also solved the same problem by carefully restricting what the prosecutor may say in argument. Moreover, the documentary evidence of prior misconduct that may be admitted to rebut the former roommate from Korea is shrinking out of sight. We have in the Air Force truly independent defense counsel. Thus, the second-half of the bifurcated military trial provides the accused every reasonable opportunity to present his best case in mitigation of the offense of which he has been found guilty. Nonetheless, in the *Hill* case, COMA determined that if the commander or his representative interviews the accused after the trial to obtain further information on which to base a *reduction* in sentence by way of executive clemency, the interview must be regarded as an adversary procedure, and the defense counsel must be allowed to be present. Then the whole thing must be reduced to writing and included in the Staff Judge Advocate's review, which the defense counsel is again entitled to address in his response to the review, required by *U.S.* v. *Goode.*

A senior enlisted adviser to the Commander in Chief of Military Airlift Command has stated

that the second most frequent complaint he hears from the younger MAC airmen is that discipline is inadequate or nonexistent in the Air Force. Like the little car with no gas tank, our system of discipline has become so encumbered that it can move forward only when it gets a big push. Often, it just is not worth it.

Another problem I see in the methodology of military law revision is the practice of smuggling extraneous policy into the system. In the Congress, the addition of nongermane amendments is a well-known phenomenon. It is said there are two things you never want to see made: a law and sausage! The military justice code carries its share of this kind of baggage, and I am not sure these policies have to be carried out, *in micro*, in the criminal law system of the armed forces.

For example, consider service unification. Assuming the validity of the unified Department of Defense, why did we have to have a Uniform Code of Justice in the first place? Is the disciplinary requirement of the captain of a naval vessel at sea in fact the same as that of the commander of a large Air Force training base in Texas or a U.S. Army in the field?

My first assignment in the Air Force was to a general court-martial-level legal office in the Arctic area. We dealt with disciplinary problems entirely different from those at stateside bases. Conditions at the small radar stations were grim, indeed. A group of approximately 95 men lived together for one year under conditions so severe that it was often impossible to go outside. At Saglek Air Station in Labrador one could not survive unprotected even one hour. The small buildings on the station were tied to the frozen rock cliff with cables, against the force of winds so great they could not be measured: they blew away the instruments every winter. When the wind rose outside, the drafts in the corridors connecting the buildings increased dangerously. When these interior drafts exceeded 20 knots, special fire control measures were initiated: a senior noncommissioned officer was detailed to walk the halls and a giant D-9 caterpillar was positioned with its engine running 24 hours a day. The tractor would be used to break the connecting corridors and push a burning segment of building off the cliff to save the remainder of the structure. In this environment, regulations prohibiting smoking in bed take on new meaning! I once prosecuted a man for arson—for deliberately setting fire to Saglek Air Station.

But another case that I reviewed from Saglek suggests more about the peculiar qualities of military life at remote stations. A sergeant with a previously outstanding record barged into the commander's office, walked to his desk, dumped a butt can in the middle, saluted smartly, and retreated. To handle incidents of this kind, the commander must be judicious and flexible, and his decision, *whatever it is*, must almost always be upheld, or he must be relieved.

These are not isolated examples. The crew of a nuclear submarine, sailing submerged for months, has no contact with the outside world and far too much contact with fellow crew members stacked five-high in bunks. The balancing of the *need* for privacy and the *need* not to be bothered by misbehavior of others is a delicate process which goes on 24 hours a day. My emphasis is on "need" for privacy not the "right" to it, for I am describing the commander's dilemma, not the lawyer's. There are some things too important to be left to lawyers. It is a wonder to me that the military justice system works as well as it does under a variety of conditions. We must take care to leave sufficient flexibility to accommodate the necessary differences among the different commands.

HOW about civilian control? A major principle of the National Security Act of 1947, and, more basically of U.S. Constitutional practice, is the principle of civilian control over the military. James Madison described it in the *Fourth Federalist Paper*. No one doubts it is a good thing, but must it be carried out *in micro*

in the criminal law system of the armed forces? We must have an appellate court made up of civilians; the qualification is only that they be civilians. How far do we need to go inserting "civilians" into the system to be true to our Constitutional principles?

The General Accounting Office (GAO) has suggested that regional military courts, manned by civil servants, hear cases from all military departments in a particular part of the country. Why not refer more cases to existing civilian courts, including appellate courts, as has also been suggested? There is disagreement as to whether these moves would conserve manpower, but that is not the real issue. The issue is whether such changes would further Constitutional goals by improving civilian control, or whether they would harm the constitutionally protected responsibility of the Congress and the President to govern the military. The essential difference between the military criminal law system and the civilian system that it complements is the need of the commander to command and the derived need for the commander to play a role in the military justice system. This fact must be heeded when looking at proposals to insert more civilians into the justice system.

What exactly is to be achieved by the requirement for a civilian Court of Military Appeals? Are they supposed to bring Article III with them? I think not. A State Department official has suggested that perhaps the U.S. Commander in Chief, Pacific, should be a foreign service officer rather than a military officer because he writes so many messages to diplomatic posts in the Far East. I could recommend a Court of Military Appeals consisting of military officers, perhaps the Judge Advocate Generals sitting en banc. All such proposals miss the mark. We need appellate judges to be their own men, not responsible to nor beholden to anyone in the management of the Department of Defense. But it stops there. We do not need another Article III court unable or unwilling to understand the needs of the military discipline they are supposed to be preserving.

It is a more subtle problem than the question of using civilians, but we also may invite difficulty when we borrow legal conclusions uncritically from civilian jurisprudence. Federal appellate decisions are authoritative, and when they provide answers to constitutional questions, we in the military pay attention. The difficult thing is to determine whether we have a military question to relate to the numerous civilian answers that are released by the courts. Consider, for example, the various exclusionary rules. For years, we had a statutory rule of strict exclusion of statements taken without the cautionary advice prescribed by Article 31. The fact that the military procedure was disadvantageous to the military police—substantially more so than civilian police rules at the time—was not considered significant. The Congress in the Uniform Code of Military Justice, the President in the Manual, and the Article I Military Appellate Courts in their implementing decisions had determined that there was a particular risk of involuntariness in the military service because of the workings of the system of rank and command.

Although I do not agree with the logic of every decision made in this area, I regard Article 31 and the decisions interpreting it as a good example of the evolutionary growth of military criminal law, carried on with close attention to the peculiar character of the military environment. The importation of Fourth Amendment "answers" into military law has sometimes been less well considered, less carefully tailored to the military situation. Chief Judge Fletcher has said, and I agree, that the court must rely on the briefs presented in particular cases. If counsel reach for the federal reporters, count up circuits, and argue mainly federal constitutional law issues as they are perceived in the civilian community, then, for sure, we cannot expect the Court of Military Appeals to take into account any peculiar military circumstances.

Thus, in the first *Jordan* case, the Air Force

assumed too much and COMA's first decision threatened considerable damage to status of forces agreements. On reconsideration, information about the peculiarities of the military context was added to the briefs, and the second *Jordan* decision is more precise. Like the federal courts in New York, in the series of narcotics cases including *Tasconnino*, *Tujan*, and *Lyra*, COMA saw that it is no part of our business to attempt to regulate the police of other countries. It will be sufficient to keep a close watch on our own.

In my opinion, the most successful revisions of military law are those that proceed from the premise that the system should be fine tuned, even changed, but always within the framework of a distinctly different legal system. Affirmative action is perhaps the best recent example wherein direct concern about the working of the military justice system was brought to bear and created changes in the system that appear to be useful and appropriate.

In 1971, concern over the apparently disproportionate number of disciplinary actions being taken against minority members in the U.S. Armed Forces brought about the creation of the DOD task force on military justice. The task force included the Judge Advocates General and prominent members of the civilian community, not all of them convinced of the need for a separate system of military justice. The task force traveled to many bases in the United States and overseas and prepared a comprehensive report, which dealt not only with justice but with the perception of justice by minority members in the armed forces. Specific recommendations were made by the task force, most of which were immediately carried out in the Air Force. Subsequently, Congress changed the code to require implementation of certain changes in all services. With the help of the DOD task force, we have today in the Air Force an independent defense counsel corps, an independent judiciary, and a statistical analysis system, the Automated Military Justice Analysis and Management System, which permits identification of bases and units that may be experiencing problems with minority cases. The detailed figures also enable us to refute inaccurate perceptions or rumors that may arise among our minority members.

All these changes augment existing military procedures that make the lot of the military accused so much better than that of his civilian counterpart. Have you heard that catalog lately? Maybe we should review that briefly.

IN THE military, Article 31 warnings preceded the evolution of the *Miranda* doctrine concerning the right to counsel in the civilian jurisdictions, and we continue to strengthen those requirements.

In the military, counsel is provided free of charge at all stages. Of particular significance is the separation of defense counsel from command in the Air Force. Not only is he independent, but he is a part of a very large worldwide organization with capability for investigative services, computer research, extensive library facilities, regular advisory services, and senior partners on call at the other end of the telephone.

The Article 32 investigation is clearly more favorable to the defense than is the civilian grand jury. In this military pretrial procedure, we allow nearly complete discovery of the government's evidence prior to trial and permit full defense participation. We also allow the accused to be present at the investigation with counsel to confront and cross-examine government witnesses and even to present the defense evidence and arguments in mitigation for the investigator, who may be persuaded to recommend abatement of the prosecution at that stage.

Recent decisions of the Court of Military Appeals have greatly strengthened the right of the defendant to bring witnesses at government expense, even mitigation witnesses to give insubstantial testimony about prior good

conduct of the accused. The court in other cases has greatly limited pretrial confinement in the military. The court has also imposed strict time limits on pretrial confinement and on posttrial review, thereby making already speedier justice in the military much speedier than in civilian jurisdictions. We have adopted the American Law Institute (ALI) insanity test. In the Air Force, plea bargains are used to a very limited degree, and the accused must initiate negotiations. The courts' inquiry into the providence of guilty pleas and plea bargains is more exhaustive than even the federal practice under Rule 11 of the Federal Rules of Criminal Procedure.

The military member has a free record of trial, verbatim, in serious cases. His case is appealed automatically. Under Article 69 he may appeal to TJAG those minor punishments that are not automatically appealed. Sentencing procedure in the military court today gives the accused two bites at the apple of mitigation. In the second part of the trial, the sentencing hearing, the accused presents evidence and argument in extenuation and mitigation to the members of the court. Following the trial, he may reiterate this evidence to the convening authority requesting clemency. Conditions of military confinement are excellent and are characterized by elaborate and expensive rehabilitation programs having a very positive effect.

So where do we go from here? I doubt that we have finished changing the code. It will continue to evolve and modernize, but one hopes it will not shrink away to nothing. At all times and places, communication is a problem. Understanding what someone else is trying to do is extremely important if you are going to tell him how to do it. A former Judge Advocate General of the Army remarked a couple of years ago that unlike the Vietnam War period, we now actually have some judge advocates in the Army who have seen a soldier. He thought that was great. I believe there is also a need for spokesmen of the civilian bar making proposals about the military justice system to have some understanding of the context in which their suggestions will have to take root and hold. If the proposals do not relate to things as they are in the military today, they are unlikely to be of any use to us. The Court of Military Appeals regularly refers to American Bar Association (ABA) standards to resolve issues coming before the court. I think they should be aware of the ABA standards and consider them when they are applicable. But it is important to remember that the ABA standards were written for civilian criminal justice systems. The federal government has also published useful studies prepared by the National Advisory Commission on Criminal Justice Standards and Goals. The states have their own advisory commissions because we allow state criminal systems to be *distinctive* and *responsive* to their own conditions. The Department of Defense deserves no less.

It is very important to try to foresee the context in which military justice will function. It is a point of doctrine in the military that we practice in peacetime as we will fight. It is said the next war will be a "come as you are party." There will not be time to invent weapons, tactics, *or discipline.* We are often guilty of overconcentration on the lessons learned from the last war. Concern about military justice during the Vietnam War was peculiar to the political context in which that war was fought. The *Levy* trial, for example, was litigated more extensively than any military criminal case in U.S. history. (See Appendix 1.) Professor Joe Bishop says it is the *Jarndyce* v. *Jarndyce* of U.S. military law. He also notes that Captain Levy was nearly overwhelmed by volunteer lawyers, so many that they got in each others' way—his petition for a writ was signed by eight of them!

Many lawyers and members of the judiciary lost some of their respect for the manner in which the war was conducted by the government. They no longer hesitated to challenge military actions and orders. Individual soldiers sought and obtained court orders forbidding

their reassignment to the war zone. On appeal, these cases percolated on up to the Supreme Court, and a few were upheld. The perception of national interest and urgency that guided the Supreme Court to approve the excesses of the government in the Japanese relocation cases during World War II, had become a perception during the later years of the Vietnam War that government was most likely wrong, generally overreacting, that national interest had been overstated or had changed, and that the military was incapable of noticing or reacting to these changes without judicial assistance.

The Supreme Court spared the military the embarrassment of a conclusive defeat when it reviewed the issue of the alleged vagueness of Articles 133 and 134 in the *Levy* case. But in this political context, the Supreme Court lashed out at the military in *O'Callahan* v. *Parker*, not only striking down conventional wisdom about the scope of military jurisdiction but invalidating 200 years of congressional enactments, releasing a rapist from jail, and castigating military lawyers and the horses they rode in on. The *O'Callahan* case got our attention. (See Appendix 2.)

The *O'Callahan* decision was and is extremely disruptive. Clearly, it was intended to be. But even those who are not particularly offended by its basic rule of priority for civil jury trials could have desired greater clarity and a less disruptive manner of effecting basic change. I am reminded of the instance in 1956 when the Illinois state legislature passed a one-line statute abolishing the rule in *Shelly's* case. The enactment was a model of simplicity, but property rights in Illinois were greatly confused for years. Similarly, *O'Callahan* brought about basic change without direction.

The Court's message to the military was simply "What you are doing is no good—you must stop it." Justice William O. Douglas's extended dictum is polemic. It is an indictment, a lofty pronouncement of mismanagement. Its effect seems to have been very great on those military and civilian lawyers who already wished for a military justice system more like the Article III courts. The message they received was: "We must intensify our efforts to model the military justice system on the Article III courts. We will not only do everything they do we will try to stay ahead of them. At the same time, we will retain all of the extraordinary protections built up over 200 years to protect the military accused from unfairness in proceedings managed by his commander." We are left with a court-martial system in which it is devilishly hard to determine who we can try and who we cannot; in which some people who clearly should be tried are not; and in which technicalities have grown unreasonably. We must be concerned whether, over a period of time, these changes will have an adverse effect on the discipline of American military forces and their readiness to defend the United States.

These are heavy charges. Consider the situation of the officer who is guilty of conduct unbecoming an officer in violation of Article 133, and who is able, through one means or another, to terminate civilian prosecution. Suppose an officer rapes an enlisted person; suppose an officer gets so drunk that he frightens people he does not even know and nearly destroys their house in the nighttime. In both cases the typical reluctance of the civilian courts to take cases involving military members may combine with aggressive efforts to compensate or threaten the aggrieved parties, with the result that the civilian prosecutions abate. Under *O'Callahan*, the abatement of civilian prosecution is often the end of such cases. However, I believe the maintenance of discipline in the Armed Forces requires that we take action in such cases as nonconsensual sodomy perpetrated by an officer on an enlisted man. To be sure, we can discharge the officer administratively, but that may be an inappropriate outcome for a number of reasons, some of which involve the rights of the accused. Therefore, we must continue in cases of this sort to attempt to assert traditional military jurisdiction under Articles 133 and 134, to deal with serious

breaches of discipline. The most recent decisions of the Court of Military Appeals are encouraging.

A case I reviewed recently confirms that airmen are well aware of the limitations imposed by COMA to *supplement* those mandated by the Supreme Court in *O'Callahan* and *Relford* v. *Commandant.* (See Appendix 2.) Two airmen at Dover AFB, Delaware, contacted each other by telephone at their duty stations and arranged a sale of drugs to be concluded that evening at an off-base location, the Blue Hen Mall. When asked why they went to the Blue Hen Mall, the answer was: to get out of Office of Special Investigation jurisdiction! The GI can be depended on to know how far he can go; the commander is entitled to no less.

Another example of *O'Callahan* gone wrong occurred when the Court of Military Appeals decided the *Lazarro* case. Most observers of Justice Douglas and *O'Callahan* felt what the Justice meant was a preference for U.S. Article III courts over U.S. military courts. Therefore, the decision should have little or no application outside the United States because most crimes committed by Americans outside the United States cannot be tried in American civil courts. However, in *Lazarro*, the Court of Military Appeals held that since the offense in that particular case was one proscribed by Title 18 and it theoretically could be tried in the United States, the military court had no jurisdiction.

This raises extreme practical problems. If the only American court having jurisdiction is a U.S. civilian court, how will the accused be brought before that court? Will he be transported there by the military without benefit of extradition procedures? What would be the constitutional basis for such a procedure? I believe there is none. What about the host government whose law has been broken. They generally agree that U.S. military courts may try certain concurrent jurisdiction cases in-country. But as one who has negotiated these agreements with a number of countries, I can assure you there will be little enthusiasm abroad for the departure of unpunished American military lawbreakers for the United States. Would a U.S. district court even be willing to take the case? Would the U.S. attorney welcome a long distance call from a judge advocate overseas telling him that the defendant is on the way, that he should be charged with stealing government property under Title 18 and, by the way, all the witnesses are in Japan! Can the U.S. attorney in fact enforce military standards of discipline? That is the basic issue.

After the questionable exportation of *O'Callahan* in the *Lazarro* case, COMA has now reimported the dubious philosophy of nonprosecution into New Mexico in a case called *U.S.* v. *Randy B. Carr.* In a summary disposition, the court dismissed a specification for using marijuana in Alamagordo, New Mexico. There is no opinion published, but Judge Cook, in dissent, tells us in the *Daily Journal* of 28 August 1978 that neither federal criminal law nor the law of the state prohibits the use of marijuana in Alamagordo, New Mexico. The only legal prohibition against the use of the drug is in military law. He is, therefore, convinced that *O'Callahan* does not require a preference for civil jurisdiction. And so we watched for the fall of the other shoe. Was it to be the rule that any offense which could have been but was not proscribed by state law may not be tried by court-martial? Fortunately, subsequent decisions have confirmed the military commander's jurisdiction over off-base drug offenses having an impact on base. This was a close call.

Carr was a pot-smoking case. Not everyone likes the strong position taken by the Department of Defense against drug use in the Armed Forces. It is, I believe, well known that the policy differs from the enforcement policy of federal civilian law enforcement agencies and the enforcement policies followed in many communities where military forces are stationed. But it is important to remember that decisions taken in marijuana cases pass into the jurisprudence and become part of U.S. military law for all cases.

Marijuana cases seem to provide a share of new law disproportionate to their significance. I believe it is beyond question that the Congress, the Commander in Chief, and the military commanders have the constitutional responsibility and power to determine that the maintenance of discipline and effectiveness in the armed forces requires a different policy with regard to prosecution of those who break the laws against selling and using marijuana. If that be so, who shall judge the need for the policy actually adopted and pursued in the Armed Forces?

CHANGES to military law, however they are brought about, should not only be consistent with standards of basic fairness to the accused, but they should recognize the separate nature of the military justice system and the reasons for it: the need of commanders to command, the requirements of the International Law of Armed Conflict, the need of individual service members for a structured and ordered environment in which to carry out the difficult and risky business of fighting wars. Take politics out and away from this deliberation altogether. The purpose of the military justice system is to preserve military discipline, not to break it down. If the war is unpopular, write to your congressman, or the President, or the general. Don't pick on the GI! Don't take away the reference points he needs to fight.

The Law of Armed Conflict is often underrecognized as a decision factor in this area. It is, in my opinion, the principal factor requiring a separate system of military justice.

Let us look for a moment with 20-20 hindsight at the *Calley* case. Some thoughtful things have been said about My Lai. While I was on leave in Hong Kong in 1971, I happened to overhear a two-hour British Broadcasting Corporation (BBC) documentary on the *Calley* case. After examining every aspect of the case, as only the BBC can do, the announcer formally concluded that the *Calley* case occurred because, in the rapid increase of U.S. forces during Vietnam, it had been necessary to take untrained young men who had not been to the military academies and make them officers. Clearly, the announcer said, if Calley had been a graduate of the U.S. Military Academy, he would have done no such thing. I listened in wonderment. I was unaware of the curriculum at Sandhurst, but I knew the United States service schools at that time taught the law of armed conflict mainly in the context of prisoner of war issues. Again, at the American Bar Association meeting in Montreal, in 1973, I heard serious discussion of the *Calley* case. Major General George Prugh, Judge Advocate General of the Army, discussed the need for improved training in the law of armed conflict. But General Prugh also noted that if a man does not know that you do not bomb hospitals by the time he is 18 years old, there may be very little the Army can do to teach him. We, therefore, cannot rely entirely on training and logic. We must rely on discipline.

Obviously, anything as big as the *Calley* case has many moving parts. The primary need in the Armed Forces today is not for a criminal law system to react after the fact to crimes, derelictions, or atrocities.

Rather, we in the military need a system of military law perceived by the soldier and the American public as essentially fair and designed to contribute to a sense of discipline sufficient that United States forces are ready to fight when they are needed, and to fight effectively and in a disciplined manner, fully subject to the limitations of the law and the directions of command.

It has not been shown that any armed force can function without an effective system of military discipline. Rather than try to prove it is possible to do so, let us continue our long and thus far successful effort to prove that we can protect the fundamental rights of American military personnel within a distinctly dif-

ferent and effective legal and constitutional framework.

Hq USAFE

Editor's note: Colonel Thorpe presented these ideas to the Military Law Committees of the Association of the Bar of New York City and the New York County Lawyers Association to assist those committees to understand the impact of proposals for major revisions in the Uniform Code of Military Justice which they were sponsoring.

Appendix 1. *Parker* v. *Levy*, 417 US 733,___S. Ct ___41 L. Ed. 2d 439 (1974)

In *Parker* v. *Levy*, 417 US 733,___S. Ct ___41 L. Ed. 2d 439 (1974), the United States Supreme Court upheld the court-martial conviction of Captain Howard B. Levy, United States Army, for the specific offense of willfully disobeying the order of a superior officer and violating two "General Articles" of the Uniform Code of Military Justice (i.e., Art. 133, conduct unbecoming an officer and a gentleman, and Art. 134, conduct prejudicial to good order and discipline).

The charges against Levy, a physician, arose from his actions while stationed at the Fort Jackson, South Carolina, hospital. Part of his duties as Chief of the Dermatological Service included dermatology training of Special Forces medics. Levy refused to perform this duty even after a direct order from his commander. The charges of violating Articles 133 and 134 arose from his public utterances to enlisted men in which he accused Special Forces personnel of being "... liars and thieves and killers of peasants and murders of women and children," and in which he stated that if he were a black soldier, he "would refuse to go to Vietnam," and if sent "would refuse to fight."

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Appendix 2. *O'Callahan* v. *Parker*, 395 US 258, 895 S. Ct 1683 ___L. Ed. 2d___(1969)

Sergeant James F. O'Callahan was stationed at Fort Shafter, Oahu, Hawaii, in 1956. While on pass to Honolulu and dressed in civilian clothes, he broke into the room of a young girl and attempted to rape her. He was apprehended by civilian authorities and turned over to the military police; he confessed and was tried and convicted by court-martial.

In a habeas corpus proceeding years later, during the Vietnam War, O'Callahan claimed that the U.S. District Court for the Territory of Hawaii should have had sole jurisdiction to prosecute him because there was no link between the Army and his offense other than his status as a soldier. The Supreme Court, per Justice Douglas, agreed. The Court reasoned that while a person's status, military or nonmilitary, was a key issue in the question of jurisdiction, it was not solely dispositive. Justice Douglas found that the only crimes to be under the jurisdiction of the military were those which were "service-connected." The Court distinguished the Constitutional powers of Congress to make regulations governing "the land and naval forces" arising under one section of the Constitution from the judiciary powers arising under another. The authority for court-martial arises under the former; the civilian courts from the latter. The authority of Congress to set the jurisdiction of the military courts was given a very narrow scope by the Court's interpretation and conclusion that O'Callahan was entitled to a trial by the civilian courts. Hence, implicit in the Court's decision is the availability of a U.S. civilian court to try the case.

In *Relford* v. *Commandant*, 401 USS 355, 91 S. Ct 649, 28 L. Ed. 2d 102 (1970), the Supreme Court greatly broadened military jurisdiction by setting out twelve criteria to use in determining whether an offense is "service-connected." *Relford* is now considered the primary case authority on military jurisdiction in this area.

For a general indictment of the *O'Callahan* decision and a discussion of *Relford*, see Homer E. Moyer, Jr., *Justice and the Military*, Section 1. pp. 400-20 (1972).

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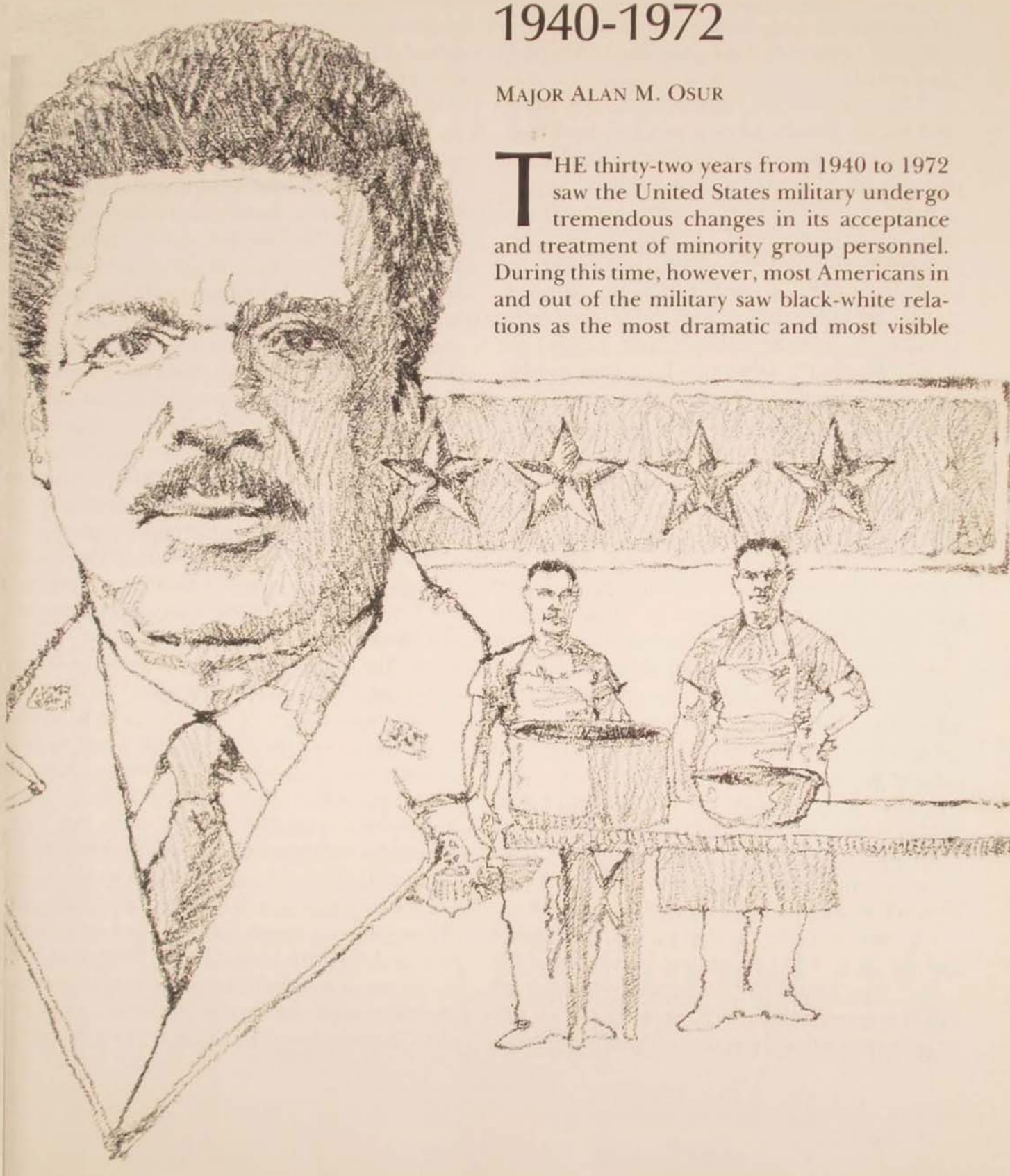
BLACK-WHITE RELATIONS IN THE U.S. MILITARY 1940-1972

MAJOR ALAN M. OSUR

THE thirty-two years from 1940 to 1972 saw the United States military undergo tremendous changes in its acceptance and treatment of minority group personnel. During this time, however, most Americans in and out of the military saw black-white relations as the most dramatic and most visible



aspect of the total race relations problem. Also, the military tended to treat other minority groups somewhat better than it did blacks, and many of the gains that they did make would favorably affect others. Therefore, this essay will address white-black issues and examine how the military—first the Navy and War Departments and then the Department of Defense—reacted to the presence of blacks in its ranks.[1]

There are many watersheds in U.S. history, but for the history of race relations and especially black-white relations, World War II must be considered as very important.[2] The war started a trend, an awareness, a movement that has never stopped. Other dates also come to mind—1954, 1955, 1963, 1967—but the path from 1940 is unbroken, beset with only minor backsliding. Nowhere is this trend more evident than in the military itself. Gains were made, starting in 1940, that have continued to the present and have carried into related areas such as the debate over whether women should be committed to a combat role.

Yet in looking at the military in 1940, one would hardly have any idea of what was to transpire in even a few short years. Within the War Department, the Army and Army Air Forces (AAF) severely restricted or excluded blacks. The Army, pushed by the Congress, had permitted four black regiments to serve in the active force. The 9th and 10th Cavalry and the 24th and 25th Infantry were established by 1866 and 1869 legislation. In 1939 this token force amounted to 3640 men of a total Army strength of 189,839.[3] Only five black officers were on duty in the regular army: three were chaplains, and two were father and son, then Colonel Benjamin O. Davis, Sr., and Lieutenant Benjamin O. Davis, Jr.[4] The AAF's record was even worse. Simply stated, blacks were not permitted in that service. The policy of the Marine Corps was similar to that of the AAF. The Navy's 2807 black enlisted men served in the messman's branch; none of the 19,477 commissioned and warrant officers in the Navy was black. Dorie Miller, one of the heroes of Pearl Harbor, earned the Navy Cross while serving as a messman. He was still a messman when he died at sea in 1944.[5]

The rationale for those policies had been consistent throughout U.S. military history and would remain so into the 1950s. Basically, racial prejudice and the military's concept of efficiency mixed. This point was succinctly stated by Army Chief of Staff General George C. Marshall in 1940 in a letter to Senator Henry Cabot Lodge, Jr. Marshall believed that societal conditions made it necessary for the War Department to follow a policy of segregation, and the military should uphold the status quo without offering blacks any concessions beyond those they had in civilian life. Any change would have a destructive effect on military efficiency as the military was not the proper vehicle for critical social experiments. Segregation had been successful for a long time, and this success was interpreted from the perspective of white soldiers, who, he believed, performed better under this system. The following year he again maintained that "experiments within the Army in the solution of social problems are fraught with danger to efficiency, discipline, or morale."[6]

But at least two forces were unleashed with the coming of the war—the military power of the United States and the organized protest of the black community and their white liberal allies. Black pressure translated into a political potential that caused President Franklin D. Roosevelt, Secretary of War Henry L. Stimson, and Secretary of the Navy Frank Knox, to put pressure on their services to initiate change. The preelection 1940 gains for blacks and Executive Order 8802 establishing the Fair Employment Practices Commission (June 1941) as a result of a threatened march on Washington are but two examples. That pressure continued throughout the war, helped by Eleanor Roosevelt in the White House, white liberals in the Congress, a number of racial disturbances in the military initiated by blacks protesting against discrimination, and by a conscription law that

forced the services to accept blacks.[7]

By the end of the war in 1945, dramatic difference had emerged in the racial structure of the services. Nowhere was change more dramatic than in the Air Force: 131,936 blacks served in the AAF in September 1945. Most of them were organized into segregated service units under white officers, but a number of black flying units were in operation. The 99th Squadron fought in the Mediterranean Theater and performed in a creditable manner as did the 332d Group, which added three new squadrons to the theater and absorbed the 99th. They flew pursuit planes while another group trained in medium bombers (B-25s) back in the States. Segregation still severely limited opportunities for blacks; however, important gains had been made in their employment, and a few of them went through the integrated officers training school.[8] The Navy slowly extended its use of blacks as the racial segregation of manpower along traditional lines had proved "incredibly inefficient," and it even experimented with all-black and integrated ships.[9] Fifty-eight black men and two black women became Naval officers, and some of the training facilities were integrated. Still, at the end of the war 45 percent of the 165,000 blacks in the Navy belonged to the messman or steward branch.[10]

The Army, because of its size and reliance on the draft, received the most blacks and generally assigned them to segregated units. Yet gains were made as blacks also served in two combat divisions fighting in the Pacific and in Italy. There was some integrated training, specifically at the officers training schools, and an experiment with integrated platoons after the Battle of the Bulge.[11] Aside from these, U.S. Army leaders were still reluctant to increase opportunities for blacks, and most remained in a service capacity. The Marine Corps slowly and reluctantly opened its service to blacks, with most serving in depot and ammunition companies.[12] In late 1944 they made up only 15,131 of the 475,000 men and women in the Marine Corps. The first black Marine officer was not commissioned until November 1945—after the war.[13]

Would these changes be permanent or would they, as in past wars, disappear with the peace? Both the military and the black community were concerned with those questions and set out to ensure that their answers would win the peace. Complicating the matter, although giving more support to blacks, was the fact that the Cold War determined that the military establishment would not diminish greatly. Both sides in the dispute recognized that gains had been made and should continue. The main issue was how far to go. The military was willing to accept an increased use of blacks but generally wanted to employ them within a segregated framework. Even the Navy's plan offered, at best, only token integration. The black community pushed for their full utilization through total integration.

As the Navy experimented, the War Department remained uncertain of its direction and muddled through some surveys on the role of blacks in the postwar Army before deciding on a Board of Officers to offer direction. The Gillem Board saw better possibilities for blacks but still under a "separate but equal" system. Blacks appearing before the board stressed that they had the right to participate fully in the military establishment, but many white officers took the opposite view, claiming that the military was not ready, as with the nation, for integration. In the end, although the Gillem Board did recommend increased opportunities and limited integration and although the results were published in a War Department Circular, the Army demonstrated little progress toward implementing this policy.[14]

While the military debated and made decisions (or did *not* make decisions) about the future of blacks, the black community did not stand idly by. Numerous opportunities existed in 1947 and 1948 to assert pressure on what was now a consolidated target: the Department

of Defense (DOD). In 1947 Grant Reynolds and A. Philip Randolph organized the Committee against Jim Crow in Military Service and Training with the primary purpose of ending segregation in the military. They focused attention on the military draft bill in Congress and indicated that they were prepared to recommend mass civil disobedience by encouraging blacks to refuse to register for the draft. This pressure, as well as the other comments from the black community, was directed not only against the Congress but also against President Harry S. Truman.[15]

President Truman, meanwhile, had been moving on his own in the area of civil rights. Concerned about some incidents against black soldiers in the South during the immediate postwar period, in December 1946, he appointed the President's Committee on Civil Rights. Its report, issued on 29 October 1947, condemned segregation and recommended legislative and administrative action "to end immediately all discrimination and segregation based on race, color, creed, or national origin, in . . . all branches of the Armed Services." Truman's conviction that some federal action on civil rights in the military was needed as well as the necessity of winning a presidential election were fused.[16] Realistically, he would not be able to get any civil rights bill through the Congress, but he could act as Commander in Chief of the Armed Forces. On 26 July 1948 he issued Executive Order 9981 stating that:

> It is hereby declared to be the policy of the President that there shall be equality of treatment and opportunity for all persons in the armed services without regard to race, color, religion, or national origin. This policy shall be put into effect as rapidly as possible, having due regard to the time required to effectuate any necessary changes without impairing efficiency or morale.[17]

Significantly, instead of simply permitting the military services to proceed on their own, Truman created the President's Committee on Equality of Treatment and Opportunity in the Armed Forces, commonly called the Fahy Committee after its chairman, Charles Fahy. The Fahy Committee started meeting in January 1949 and submitted its report, "Freedom to Serve," in May 1950. The report took so long to issue because the committee was an action committee, forcing the services constantly to change and modify their plans and policies to meet the goal of full desegregation. The committee also took time because the Army continually resisted efforts to push it along. A study of the committee provides an opportunity to see how the three services compare in their utilization of blacks.[18]

The Air Force under Secretary Stuart Symington had already committed itself to desegregation before the committee met and by 1949 had 1301 integrated and only 59 segregated units. That year it also broke up the all-black 332d Wing because the service was finding it more and more difficult to maintain two segregated air forces. In addition to other personnel problems, segregation held up the progress of Colonel Benjamin O. Davis, Jr., whom Air Force officers recognized as an excellent commander.[19] The Navy, under Secretary of the Navy (later Secretary of Defense) James V. Forrestal and Secretary of the Navy John L. Sullivan, planned for full integration, but much of their progress was on paper only. In 1949, 57.4 percent of the blacks were still in the messman's branch, only four in 1949 and 19 in 1950 were officers, and promotions for blacks were slow. But significantly, where there was integration, there was no racial friction.[20]

Blacks made up 6.2 percent of the Air Force and 4.7 percent of the Navy, but the Army had by far the highest number and percentage, a black enlistment rate of 8.2 percent in 1950. It was to the Army that the nation looked, and it was the Army that was most intransigent. That service resisted the efforts of the committee, and senior officers were supported by their Secretary, Kenneth Royall. A few examples might suffice to demonstrate this. At one point during the negotiations, it appeared that the

Army tried to slip something over on the committee by submitting a plan that was simply a rehash of the Gillem Board recommendations and still included segregation. Next, on 1 October 1949, the Army sent out an order calling for a certain degree of integration but then on 27 October sent out another message telling all commands to disregard the first one. The Fahy Committee was only informed of the first order, although someone sent them a copy of the second. As a result, only token integration took place—blacks were permitted in the headquarters units but only as cooks, duty soldiers, and drivers—and 198 of the Army's 490 job specialties remained closed to blacks.[21]

The Fahy Committee was not totally successful in integrating the Army, but the Korean War was, as integration was achieved on the battlefield. First, as the Army quickly built up, commanders at training camps such as Fort Ord, California, and Fort Jackson, South Carolina, did not have the time, money, or facilities to provide for segregation so they quietly integrated. The same situation prevailed in Korea as a neat segregated pattern was not possible. In 1951 the Army hired a civilian contractor to study the desegregation process in Korea and in the United States, and their report, "Project Clear," showed the doubting Army that it was working successfully and encouraged the military to continue with integration. Specifically, "Project Clear" showed that integration was the result of: commanders' simply practicing it on the battlefield because no one was there to check on them; battle losses, which caused an increasing demand for replacements, and blacks were available and in excess of those required as replacements in all-black units; and black replacements' being accidently assigned to white units.

Ultimately, blacks fought better in integrated units, and white performance was not adversely affected. Similar success was noted in the United States, although the desegregation process was slower in Europe.[22] Obviously, Europe was not experiencing the same buildup as the United States and Korea, and thus was not affected by the same pressures. Still, by October 1953, 95 percent of the black soldiers in the Army were in integrated units, and on 30 October 1954, the Department of Defense announced that there were no more all-black units.[23] Although only desegregation and not full integration had been achieved, one would have to agree with Richard M. Dalfiume, who concluded that: "A quiet racial revolution had occurred with practically no violence, bloodshed, or conflict."[24]

During the rest of the 1950s, the racial situation in the military appeared calm because for many, white and black alike, the military had solved its racial problems through desegregation. True, difficulties did exist, but they were mainly in the off-base environment, and the military had no control over that situation. The concept of institutional racism was not well understood, and blacks were often forced to accept personal racist affronts. But many blacks perceived that, whatever the difficulties, they were better off than those out in civilian life.[25] Civilians perceived the same, so there was little pressure from within or without for change. Yet, the problems cannot be ignored. A friend of mine, a black pilot, was stationed at Charleston Air Force Base, South Carolina, during this period. He indicated that restrictions placed on him because of his color included an informal policy that he could never be the aircraft commander of a transport, regardless of his flying experience. There were accounts of similar problems on and off bases throughout the nation.[26]

Circumstances were very different in the 1960s, during the Kennedy and Johnson years. More important, during the Robert S. McNamara years as Secretary of Defense, a major revolution took place in the concept of race relations in the military. With only a minimum of pressure exerted on it, the Department of Defense set out to move the military ahead of society. From 1962 to 1967, the DOD worked toward that goal, although not always with

success. Later, from 1967 to 1972, great pressure from the enlisted ranks pushed the Defense Department even further.

There were some political motivations behind the Kennedy and McNamara measures, such as the civil rights debt from the close victory in the 1960 election, but there were also humanitarian impulses, as represented by the McNamara comment: "Five more years as Secretary of Defense and I could have integrated the nation."[27] He believed that the military should be used to attack social problems and injustices, especially in civilian communities where black troops were "singularly defenseless against this bigotry."[28] And there was a concern for military efficiency as racial discrimination created serious morale problems and thus was a detriment to performance.[29] As with Truman, the administration recognized that it would be difficult to confront key Southern congressmen by sending a bill through Congress. Thus, in 1962, they reactivated the President's Committee on Equal Opportunity in the Armed Forces, this time called the Gesell Committee after its chairman, Attorney Gerhard A. Gesell.

The committee met and issued its report in 1963. The Initial Report (13 June 1963) noted the following weaknesses in the military:

- Not enough black officers
- Not enough effort to recruit blacks
- Discrimination in duty and career field assignments
- Discrimination against blacks in promotions
- Nonresponsive chain of command reaction to on-base problems and no satisfactory way of handling complaints; e.g., defacto segregation existed in service and noncommissioned officer clubs as well as in transportation and school buses
- Off-base discrimination in housing, schools, transportation, and churches, which was ignored by base commanders.

The committee's recommendations were as extensive and far-reaching as the analysis the members asked for:

- Directives from DOD as guidance to base commanders
- Monitoring, rating, and support for the commanders' performance
- Regular programs and manuals
- Biracial community committees
- Use of military sanctions as necessary for off-base problems, especially in housing and recreational facilities
- Offices within each service to monitor the program.[30]

The final committee report of November 1964 pointed to similar problems overseas and in the National Guard.

As a result of the Gesell Committee report, Secretary McNamara decided to act, and on 26 July 1963 (the anniversary of Executive Order 9981), he issued a directive stating that the military would no longer follow civilian society but take the lead; furthermore, the military would protect its members. His program was designed to combat discrimination against black servicemen in civilian communities adjacent to military installations. Commanders would be responsible for the program, and annual reports were required.[31]

WHAT happened then? As McNamara stated: "In the Pentagon we turned our minds to other problems." The Pentagon assumed that a simple directive would solve a long-seated problem, and then went on to other things.[32] In reality, very little happened—especially in the South.

In 1968 David Sutton conducted an investigation based on a field trip to seven military installations. He discovered that the 1963 directive generally had been ignored and that very little change came about as result of the military's action: some schools were integrated because of military funding, and some restrictions were placed on segregated groups meeting on base. Overall, Sutton noted three important deficiencies.[33]

First, personal prejudices of local military commanders could work against full implementation of the program as they were sometimes not willing to take a stand or were even hostile toward integration. The commander of a naval station in Louisiana reported that "The Command has had no reports of off-base discrimination and therefore no action has been taken." And a base in Georgia reported 100 percent open housing, but the housing officer did not know of any blacks moving into white areas.

Second, Sutton noted the "capture" of the base commander by the local population. Pressure from local civilians included the ability of getting the commander promoted, and many commanders stayed in the local area after retirement to take advantage of job opportunities. This type of pressure could result in a military-civilian council meeting such as one reported at a South Carolina base in 1968: The coordinator of the council officially opened the meeting, and the base chaplain gave the invocation. The coordinator called on the base commander, who welcomed those present, expressed his appreciation for council activities, and introduced the new military members of the council. The coordinator called on the mayor for a response, and he expressed his pleasure at the colonel's remarks on the value of the council, thanked the commander for the warm welcome, and noted how civilian members look forward to attending council meetings. An excellent dinner was served, and a tribute was passed to the Officers' Open Mess. The coordinator then called for committee reports from the four functional committees: Police-Health-Safety, Religion-Welfare, Recreation-Education, and Housing-Commercial Services-Public Relations. Each committee chairman responded, "No report." There being no other business before the council, the coordinator adjourned the meeting.

Finally, commanders did not believe they would receive support from higher headquarters, and thus there was reluctance to use the off-limits sanctions at all levels. Officers often follow the example of a more senior officer. They would naturally receive a negative message when the general in charge of a new DOD program to open up housing put down a deposit on a segregated apartment. Also, from 1963 to 1967, only two requests were sent by commanders to their civilian service chiefs for sanctions, and both were either ignored or denied.

By 1967 the Department of Defense recognized that its program had failed and sent a team to a dozen bases to look at every aspect of race relations. As a result, McNamara noted: "One fact became painfully clear: The voluntary program had failed, and failed miserably. This failure we found intolerable." And he admitted that the program lacked sanctions and leadership, starting with him at the top.[34] Thus, the lesson learned from Sutton and McNamara was that commitment and sanctions were needed to overcome racism and blindness. An example of this blindness is apparent in a comment by new Secretary of Defense Clark M. Clifford, who on 25 July 1968 said: "By 1955 all formal racial discrimination had been eliminated, although vestiges lingered into the early 1960's." This statement does not stand up to the facts, as McNamara had attested to the previous year.[35]

Secretary McNamara issued a new directive calling for a nationwide census of off-base facilities and the mobilization of effective community support. The department started first in the Washington, D.C., area, where high officials met with realtors and landlords. Within 120 days, the number of nondiscriminatory units moved from 15,000 to 53,000. Then the military went to other parts of the United States and required monthly reports from commanders. In 1967, only 31 percent of the housing near bases could be certified in writing by the owner or base commander as open to all races; in 1968, 91 percent of the housing was open.[36]

By 1968, however, events in the military were moving much beyond the careful control of the Secretary's office. While the military

was attempting to take the institution beyond society, blacks in the military were reflecting that society.[37] Rioting by blacks demonstrated their frustration with institutional racism, powerlessness, and the war in Vietnam. Rioting became almost a trademark of many American cities during the 1960s. Institutional racism and powerlessness existed in the military but personal racism also existed in daily contacts between whites and blacks. As a result, racial incidents occurred at Longbinh outside Saigon (1968) and at Camranh Bay (1969) in Vietnam, and at Fort Bragg, North Carolina (1968), Camp Lejeune, North Carolina (1969), and Camp Pendleton, California (1970).[38]

Disturbances would continue further into the 1970s, such as at Anjong-Ni, Korea (1972), and at Fort Ord, California, and Fort McClellan, Alabama (1972). The Department of Defense believed that more action had to be taken and appointed Air Force Colonel, now Major General (Retired), Lucius Theus to head a study committee to determine the causes of racial unrest in the Armed Forces. The result was "The Report of the Inter-Service Task Force on Education in Race Relations," (31 July 1970), which recommended an education program in race relations for all military personnel and a Race Relations Education Board to determine policy and approve curricula for the program.[39]

As a direct result of the Theus Committee report, the Defense Race Relations Institute (DRRI) was established at Patrick Air Force Base, Florida, in June 1971. Although I have no direct proof, I believe that a final push was needed to bring DRRI into active being. During a visit to the Rosslyn, Virginia, temporary office of DRRI in early June 1971, I sensed that the organization was in a "holding pattern," even though planning had been going on since late 1970. The Rosslyn office was plainly waiting for a final go-ahead with no positive assurance as to when—or if—it might come. That approval finally came later in the month—on 24 June. It is my belief that the race riot at Travis Air Force Base, California, in May 1971 was the final push that once and for all gave DOD the indication that something had to be done. The timing seemed too perfect.[40]

The Travis riot started over the playing of loud music and continued from 22 to 24 May 1971. In the end, 135 military personnel were arrested, including 25 whites and 110 blacks, of whom 89 were first-termers.[41] Interesting from a historical perspective was the military's failure to recognize at that time the causes of the disturbance. A letter from Vice Chief of Staff General John C. Meyer noted that "No reports received prior to 24 May 1971 indicating that possible racial unrest at Travis AFB." Actually, numerous indicators were available, but at Travis as well as many other places they were ignored. Letters and memoranda throughout the Air Force warned commanders of a potential for racial difficulties and suggested communication, dialogue, and discussion. At Travis, conditions resembled the ghetto environment described in the Kerner Commission Report, and there had been complaints by blacks of racial problems on and off base. Also apparent was the impersonality, insensitivity, and indifference of commanders at various levels of the chain of command.[42]

The Travis riot was the final catalyst that triggered DOD's resolve to use education, via DRRI, to make all military personnel aware of racial difficulties. But education alone would not be enough, as commitment to change, strong leadership at all levels, sensitivity to problems, and the resolve to take action when necessary were also needed.

So by 1972 the Defense Department had been roused and moved along a course that to a great extent has carried the military ahead of society in removing, in the words of former Secretary of Defense Melvin R. Laird, "every vestige of discrimination" from the Armed Forces.[43] Top department officials were motivated by humanitarian impulses, pressure from inside and out, and a concern for mission effectiveness. Quite simply, planes could not

fly from Travis AFB if a race riot were going on, and the U.S.S. *Kitty Hawk* and U.S.S. *Constellation* could not perform their missions if they were facing similar difficulty. Occasionally, the department was forced to react, and this cause and effect is reflected in an incident at Laredo Air Force Base, Texas, on 19 September 1972. A takeover of the dining hall led to a further demonstration that resulted in the firing of the wing commander, not for being a racist but for being blind to what was happening at his base. As a result, one month later the Chief of Staff of the Air Force, General John D. Ryan, sent a letter to all commands clearly stating: "I desire that you, your commanders and supervisors support the USAF Equal Opportunity and Race Relations Education program with the same vigor and enthusiasm as that given the flying mission."[44] This statement is another indication that by 1972 the Department of Defense had made great strides since the early 1940s when few commanders were even willing to accept blacks into their organizations.

SINCE the early seventies, the military has continued to build on the foundation established in the post-World War II years and has moved ahead in the overall goal of enhancing military efficiency by providing for equality of treatment while fighting personal and institutional discrimination. How much real progress has been made is the subject of debate among many in and out of the military; statistics, of course, are available, but they do not always tell the full story. Still, the Department of Defense made several important efforts during the 1970s, and these, seen from the perspective of 1981, are proof that in the area of human relations the military is at least keeping pace with society and is most likely ahead of it. The Task Force on Military Justice initiated many needed reforms, while Affirmative Action Plans ensure workable goals and the means to monitor them. The DRRI has changed its name (Defense Equal Opportunity Management Institute) and its direction to place more emphasis on organizational management and provide leaders with the tools to carry out their mission effectively; and more and more women are entering the service. Finally, the visible evidence of black faces throughout the chain of command bears witness to continued changes within the United States military.

Ramstein AB, Germany

Notes

1. Key secondary sources on this topic are: Richard M. Dalfiume, *Desegregation of the United States Armed Forces: Fighting on Two Fronts, 1939-1953* (Columbia, Missouri, 1969); Jack Foner, *Blacks and the Military in American History: A New Perspective* (New York, 1974); Alan L. Gropman, *The Air Force Integrates, 1945-1964* (Washington: Office of Air Force History, 1978); Ulysses Lee, *The Employment of Negro Troops* (Washington: Office of the Chief of Military History, 1966); Morris J. MacGregor, *Integration of the Armed Forces, 1940-1965* (Washington: Center of Military History, 1981); Dennis D. Nelson, *The Integration of the Negro into the United States Navy* (Washington: Navy Department, 1948); Lee Nichols, *Breakthrough on the Color Front* (New York, 1954); Alan M. Osur, *Blacks in the Army Air Forces during World War II: The Problem of Race Relations* (Washington: Office of Air Force History, 1977).

2. Richard M. Dalfiume, "The 'Forgotten Years' of the Negro Revolution," *Journal of American History*, June 1968; Harvard Sitkoff, "Racial Militancy and Interracial Violence in the Second World War," *Journal of American History*, December 1971.

3. Lee, p. 88; Russell F. Weigley, *History of the United States Army* (New York, 1967), p. 569. Nearly ten percent of the total force or 14,486 were officers.

4. Foner, p. 131.

5. Ibid., pp. 131-32, 172-73.

6. Letters from General Marshall to Senator Lodge and Judge Hastie, 27 September 1940 and 1 December 1941, Albert F. Simpson Historical Research Center, Maxwell AFB, Alabama.

7. Osur.

8. Ibid.

9. Morris MacGregor, "Armed Forces Integration—Forced or Free?" in David MacIsaac, editor, *The Military and Society* (Washington: Office of Air Force History, 1975), p. 132.

10. Frederick S. Harrod, "Integration of the Navy (1941-1978)," United States Naval Institute *Proceedings*, October 1979, p. 45.

11. Lee, p. 134. As early as 31 December 1942, 467,883 blacks were in the Army—of 4,532,117.

12. The Marine Corps Commandant in early 1942 stated that it would be "absolutely tragic" if they had black enlistments. MacGregor, p. 131.

13. Henry I. Shaw, Jr., and Ralph W. Donnelly, *The Blacks in the Marine Corps* (Washington: U.S. Marine Corps, 1975), pp. 47, 95.

14. Dalfiume, pp. 148-53; Gropman, pp. 47-62.

15. Gropman, pp. 104-5; Dalfiume, pp. 155, 163-68.

16. Dalfiume, pp. 144-45, 155.

17. "Freedom to Serve: Equality of Treatment and Opportunity

in the Armed Services," Fahy Committee (Washington: Government Printing Office, 1950).

18. Nichols, pp. 89-97.

19. Ibid., pp. 73-81; Dalfiume, p. 195; Gropman, pp. 75-76; MacGregor, p. 133. Davis would later retire as a lieutenant general.

20. Nelson, pp. 183-205; "Freedom to Serve," p. 24.

21. Nichols, pp. 92-95, 107-8; Dalfiume, p. 202; Gropman, p. 221; Foner, p. 186.

22. Leo Bogart, editor, *Social Research and the Desegregation of the U.S. Army Project Clear* (Chicago, 1969), pp. 49-50, 319-21; Nichols, pp. 127-33.

23. Bogart, p. 321.

24. Dalfiume, pp. 218-19.

25. Charles C. Moskos, Jr., "Racial Integration in the Armed Forces," *The American Journal of Sociology*, September 1966, pp. 140-41, 145-46.

26. Gropman, pp. 153-68.

27. MacGregor, pp. 131, 135.

28. Robert S. McNamara, *The Essence of Security: Reflections in Office* (New York, 1968), p. 124.

29. MacGregor, p. 135.

30. "Equality of Treatment and Opportunity for Negro Military Personnel Stationed within the United States," Gesell Committee, 13 June 1963.

31. Adam Yarmolinsky, *The Military Establishment: Its Impact on American Society* (New York, 1970), p. 351.

32. McNamara, p. 124.

33. David Sutton, "The Military Mission against Off-Base Discrimination," in Charles C. Moskos, Jr., editor, *Public Opinion and the Military Establishment* (Beverly Hills, California, 1971), pp. 149-79.

34. McNamara, pp. 124-25.

35. Yarmolinsky, p. 341.

36. McNamara, pp. 126-27; Yarmolinsky, p. 352.

37. Moskos, pp. 146-47.

38. Foner, pp. 201-16; Yarmolinsky, pp. 344-45.

39. "The Report of the Inter-Service Task Force on Education in Race Relations," Theus Report, 31 July 1970; U.S. Army "Equal Opportunity Letters," 1972.

40. Gropman, p. 343, footnote 100.

41. *Air Force Times Family Magazine*, 18 August 1971, pp. 4-7, 19.

42. Letter from General John C. Meyer to AFSC, 25 May 1971; letter from DPX to all commands, 15 December 1970; "Findings and Analysis of the Travis Incident," 19 July 1971.

43. Address by Donald L. Miller to the Annual Psychology in the Air Force Symposium, March 1972.

44. Letter from General John D. Ryan to all commands, 18 October 1972.

THE GATSBY EFFECT IN U.S. STRATEGIC AFFAIRS

COLONEL ALTON L. ELLIOTT

If one believes in the original immorality of the Russian strategic school and in the high moral pathos of nuclear retaliation, then one is a true follower of the new faith. But if one questions this indisputable proposition, then one is worse than a heretic or apostate, not worthy of ascending even to the porch of the Holy Temple of Strategic Analysis, where the initiated perform rites of passage—from the humility of deterrence to the pugnacity of counterforce capability.[1]

HENRY TROFIMENKO

THIS metaphor by Henry Trofimenko characterizes one facet of United States strategic thought. Indeed, U.S. strategists often appear to have arrived at "indisputable propositions" concerning the U.S.-Soviet strategic relationship, and a form of orthodoxy seems to pervade our current assumptions about strategic deterrence and strategic competition. However, Trofimenko is in error when he defines the theological condition as the primary way to understand U.S. military strategy. The nature of U.S. strategic thought often appears less governed by factors of religious faith, which can be said to exist on the basis of legitimate, intuitive expectations than by factors of a creative imagination that have little to do with faith or religion. Consequently, an additional metaphor is required to round out Trofimenko's view. We may add, for example, that U.S. strategic thought can also be understood, in part, as the results of a "Gatsby Effect," which, as suggested by novelist F. Scott Fitzgerald, promotes an inordinate claim on reality and provides its own certification.[2] It is far from accurate to suggest that a literary metaphor is a reliable guide to all U.S. strategic perceptions. Trofimenko commits the exaggeration of describing "Western nuclear strategy" as a religious cult. Western nuclear strategy would be more easily understood, and perhaps more reasonable, if it were simply a religion, but it is not. Neither is it simply or wholly based on a self-certifying and illusionary reality. Yet, important segments of it may be.

This article examines one area where "indisputable propositions" have been arrived at through a Jay Gatsby form of imagination—a form that precludes other equally reasonable propositions about strategic affairs—rather than by faith or analysis.

It can be offered as a possible, if not indisputable, proposition that the views which a significant number of military strategists hold concerning Soviet concepts of war have symptoms of the Gatsby effect. Many military strategists have shown great consistency, over time, in constructing an incomplete reality of the U.S.-Soviet strategic relationship. Rather than subject the declared reality to a wider range of reviews, the tendency has been to certify what has been said by what has been said. Yet even a cursory examination, as given here, uncovers some gaps in a reality that has become a primary factor in U.S. military assessments of the U.S.-Soviet strategic relationship. This incomplete reality about Soviet strategic thinking appears to have originated in the Cold War period and seems destined to perpetuate the feelings if not the faith of that bygone era. As Daniel Yergin speculates in *Shattered Peace:*

> So the Cold War is still very much with us, as are the ever-perplexing questions about the Soviet Union's role in international politics and about the means, meaning, and measure of American security.[3]

In the writings of George Kennan, John Lewis Gaddis, and Daniel Yergin, one can uncover perhaps the most thorough documentation of the rise and demise of the Cold War and with it the illusions that formed so much of American foreign policy in the post-World War II period. These chroniclers, and those who have debated and revised their findings, show that there is nothing simple about the way American defense policies are created. If there is agreement on the origins of our policies, it is based on a belief in multiple causes and complicated interactions. However, among the many causes and interactions, it is possible to note that some are more prevalent than others.

One possible conclusion which can be drawn from a study of post-World War II policy is that American policymakers prefer a single, simple short-term approach to foreign policy and strategic affairs. As indicated in George F. Kennan's *Memoirs* and the hundreds of Cold War debates since his "X" article, it appears that much of American defense policy can be explained by the urge and search for a single, uncomplicated solution for the problems of national security policy. American policy apparently comprehends only one doctrine at a

time, one jingle or slogan, and one level of analysis and consensus as a means to define strategic relationships. The Truman, Eisenhower, and Nixon doctrines of "Containment," "Flexible Response," and "Realistic Deterrence" have provided *an* emphasis, *a* theory, and *a* certified short-term role for American defense behavior in the past. And these approaches have been based for the most part on narrowly focused substrategic objectives and were composed of less than durable assumptions about the nature of international competition.

These are not necessarily contradictory factors if one considers the role of national security policy in a democratic society. Our pragmatic philosophy and the style of our electoral politics cannot, by any expectation, be held accountable for long-term strategies and consistent approaches to international relations. Unlike our Russian counterparts, who have the final doctrine (Soviet Marxism) and continuity of policy execution (Brezhnev for 16 years), we Americans are only able to declare the merits of a four- to eight-year theme without feeling responsible for its ultimate fulfillment or consequences. Such is the nature of American politics.

Consequently, many American military strategists have found that Soviet behavior often fails to conform to the demands of our short-term themes, slogans, and military solutions. As a result, military planners have frequently perceived periods of "maximum danger," "weapons gaps," and "critical windows," which, in accordance with supporting arguments for more military power, could be overcome in spite of the "irrational" designs of Soviet Russia.

That improvements in U.S. military power never seem to affect the Soviets as planned is a fact often lost from one "strategic" period to the next. However, no one should argue that the warnings and proposed solutions are not sincere, perhaps very often helpful, and given by men who have only the purist intentions regarding American security and world peace. Even so, the most reliable strategists, like Trofimenko's theologians and Fitzgerald's Gatsby, when guided by a single illusion rather than comprehensive assessments, are likely to produce confusion and possibly disaster. And if one examines the preferences of many military strategists today, it appears that much of what is called strategic thought has most often been derived from one-sided assessments of our military adversaries.

Whether or not we grant ourselves great progress and analytical improvement since the one-sided assessments of the Cold War period, it is nevertheless interesting to recall some of the characteristics of Cold War military strategy. George Kennan provided perhaps the most disturbing charges when he noted that in the Cold War mode military planners were often responsible for exaggerating Soviet behavior and continually conjuring false images of Soviet irrationality. These images, according to Kennan, can become the daily companion of those who cultivate them so that any attempt to deny their reality appears as an act of treason or frivolity.[4] "Thus the planner's dummy of the Soviet political personality took the place of the real thing as the image on which a great deal of American policy, and of American military effort, came to be based."[5] Kennan saw in these tendencies and in the associated belief in a Soviet design for military world conquest the beginnings of the attitudes associated with the term *cold war*. Such attitudes, Kennan states, were the property of a small minority that included military budgeteers and nuclear strategists.[6]

As is noted by Daniel Yergin, these attitudes were the property of military men whose image of Russian aggressiveness led them to warn General Carl A. Spaatz in 1947 that the "USSR has moved so far along the aggression road that she must continue to move along the same way."[7] A year later, James Webb, Director of the Bureau of the Budget, accused Air Force leaders of using scare tactics in public speeches to promote larger budget appropriations. For example, Air Force Secretary W. Stuart Sym-

ington and other Air Force officials had, according to Webb, disclosed intelligence reports about Soviet aircraft developments that suggested the Russians had overtaken America in such areas as jet fighters.[8] These tactics, according to George Kennan, reflected Cold War attitudes.

By 1950, the Cold War attitudes of individual defense leaders became institutionalized in the defense policy assessment known as NSC-68. This document reached the following conclusions about the Soviet view of war:

- The Kremlin is inescapably militant.
- The Soviets are possessed by a worldwide revolutionary movement which seeks to bring the free world under its domination.
- The Soviet Union's "fundamental design" necessitates the destruction of the United States.[9]

NSC-68 offered other interesting conclusions about the Soviet Union's "far larger share" of its gross national product for military spending and of the need for larger U.S. military budgets. Most important, these noted conclusions of NSC-68 went virtually unchallenged. The only significant disagreement came from two experts on the Soviet Union, George Kennan and Charles E. Bohlen, neither of whom at this point believed the Soviets had a world design. Both thought that caution guided Kremlin calculations and that the Soviets were sometimes only responding to Western actions.[10]

Our NSC-68 legacy remains operative today. Far too many military reports and briefings appear afflicted by those same attitudes that were a part of the first Cold War. Although Soviet and American military relations have not remained static since 1950, by most measures they appear no more dangerous than previously. Yet the Cold War images remain. Whether in the analysis of Presidential review memoranda, Department of Defense guidance, or budget issues, many military assessments continue to be driven by adherence to an old concept of a Soviet grand design based on the worst one can asume of an adversary. Today this is called "prudent planning."

In recent years, as regards perceptions of the Soviet view of war, the nature of Soviet civil defense measures, Soviet designs on Western Europe, U.S. vulnerabilities, the utility of strategic arms talks, and Soviet participation in the politics of the Third World, an increasing number of U.S. military strategists, particularly those in uniform, have most often adopted a thoroughly pessimistic view. That view often includes the following propositions:

- The Soviets desire nuclear war with the United States and are waiting for the time when they can be sure to win.
- Soviet civil defense measures are so comprehensive and effective as to constitute a major strategic factor in the U.S.-Soviet relationship.
- The Soviets desire to attack and prevail, militarily and politically, over the whole of Western Europe.
- The Soviet military buildup, particularly in strategic forces, has been designed to render U.S. strategic forces vulnerable to a Soviet first strike. (The period of maximum danger is the mid to late 1980s.)
- Soviet military surrogates are operating throughout Africa and the Middle East, with great success, to undermine U.S. policy and provoke a variety of conflicts whose resolutions are beyond the scope of current U.S. military capabilities.

To the extent that these propositions, which are reflected in most orthodox military literature, form the rationale for major U.S. weapon acquisitions or policy initiatives, current U.S. defense policy maintains its connection with the 1950s view of the Soviet threat. More important, an increasingly narrow set of assumptions, given recent DOD pronouncements on the Soviet threat, appears to be forming the United States strategic outlook for the 1980s.

Therefore, the central problem of U.S. military strategy since 1950 remains. American strategists appear unable or unwilling to entertain more than one assessment at a time to defense policy problems, much less a progressive

net assessment of an adversary, alternative military postures to support a given strategy, or more than one possible solution. In this sense, the main trends of our time remain consistent with ou r national security heritage of the post-World War II era and continue to produce less than a rewarding strategic relationship with the Soviets.

Today there remains a willingness to accept the first, and usually the most pessimistic military perception of the Soviets and allow that first view to become the prime determinant of military strategy developments in any given period. Hence, the various hawkers of gaps, vulnerabilities, new strategic factors (such as civil defense), and even strategic optimism can rightly or wrongly generate several years of action and reaction without regard to long-term consequences. Moreover, it seems increasingly less important to obtain balance, moderation, and confluence in the factors which we in the military service allow to govern the development of our strategic views than to have an orthodox view whatever its origin. Whether we are satisfied with the bureaucratic or historical explanations of why this may be so, it is no happy prospect that such a condition could ever characterize the way military planners arrive at strategies.

What may be most important at this point is that we seek to know which medieval humors govern what parts of our strategy development activities. If, as a part of the process by which U.S. military strategy is developed, one could incorporate the means to interrogate and understand the origins, the completeness, and the alternative utilities of strategic perceptions systematically, there would be less danger of the traditional tendency toward short-lived extremes in the military input to U.S. strategic affairs. In the sections that follow, the importance of obtaining alternative views is shown in an illustration of how two sides of a strategy input (namely the assessment of the Soviet view of war) have developed in the minds of Western strategists.

American Views of Soviet Views

One of the favorite preoccupations of Western military and civilian strategists has been the production of "authoritative" accounts on the Soviet views of war. That these accounts have become critical elements in military threat assessments and strategy debates is no mystery. After all, one's concept of warfare is theoretically linked to one's strategy, military force structure, and, to some extent, intentions. By analyzing the admixture of our opponent's concepts and capabilities, we are supposedly able to adjust the course of our own concepts and capabilities to support specific security goals.

However, if we misinterpret the connections between adversary concepts and capabilities, we can wander far afield in the proper maintenance of our security objectives. If we, like Jay Gatsby, "invent" conceptions to which we *must* remain faithful, we forfeit control of our destiny to potential misunderstandings and fatal accidents. To the extent that U.S. military strategists rely on a less-than-complete rendering of the Soviet concept of war, we likewise face the danger of promoting strategic developments inappropriate to strategic reality. A case in point is the way Western strategists often render the Soviet view of war.

One recent, although incomplete, reflection on the Soviet view of war is contained in the FY79 defense report to Congress. The report concludes that:

- the main thrust of the Soviet Union is toward expanding its political influence and establishing itself as a global power;
- Soviet strategic nuclear forces (if dedicated to "pure" deterrence) appear excessive in quantity and mismatched in characteristics to the purposes of deterrence or assured destruction;
- Soviet forces oriented toward Western Europe (if "purely" defensive) have strong offensive capabilities and are governed by a doctrine which emphasizes deception, tactical surprise, speed, etc.[11]

The argument is then offered that since these propositions can be raised, the Soviets are therefore less well-intentioned than we would wish them to be; a fact we must consider in our defense planning. Put another way, the strategic concepts and capabilities of the Soviet Union, as we account for them, will always form the primary basis for U.S. defense planning. We must, of course, have a certain amount of faith in our accounts of Soviet views.

It is apparent from the tone of the defense report that U.S. defense planners have their own notions of what constitutes "pure" deterrence and defense, the quantitative bounds of strategic deterrence and conventional "offensive" and "defensive" postures, and the range of intentions that various postures reflect. And it is equally clear that the Soviets do not measure up to U.S. ideals of "pure" deterrence and defense. However, the details as to how these notions are calculated are not available.

One could reach disturbing conclusions about these assessments of Soviet views. The way we state Soviet views may have nothing to do with realistic Soviet intentions or their relationship to U.S. norms for pure deterrence or defense. Rather, the fact that we have reached familiar conclusions about the Soviets may simply indicate great gaps in our understanding of Soviet strategic concepts. Otherwise, it will continue to be a profound source of distress that the basis for U.S. strategic planning is drawn from what we do not yet understand about Soviet postures, tactics, and intentions, rather than what we know with some degree of confidence.

The consequences of this difficulty are moderated in the FY79 defense report by a recognition that Soviet strategic nuclear attack is the least likely military contingency we face. And in the FY80 defense report, one finds an even calmer assessment of Soviet military power.Our civilian leadership recognizes that neither Russian nor American leaders are in a position to use nuclear weapons for political ends. Mutual strategic deterrence and essential equivalence are in effect.

However, aside from a general recognition that a state of deterrence currently exists, many U.S. military strategists and planners remained locked in a debate over the true nature of Soviet strategic views. In a sense, the Team A–Team B debates of 1976 have continued, particularly in military circles. In the current debate, U.S. military views usually associated with those of Team B, and the DOD civilian views, if not similar to Team A, are at least different from Team B. As it stands, the current state of the U.S. consensus on the Soviet view of war seems contradictory and incomplete. Deterrence is said to be operative in the same breath that suggests Soviet nuclear forces have feasible political and military utility beyond deterrence. And there is a casual mixing of Soviet substrategic characteristics (the tactical capabilities of ground forces) with strategic inferences concerning Western Europe.

There are other views about the Soviets that are equally difficult to understand. For example, in his article, "Why the Soviet Union Thinks It Could Fight and Win a Nuclear War," Professor Richard Pipes offers the view, popular among U.S. military planners, that American and Soviet nuclear doctrines are "starkly at odds." Professor Pipes effectively represents those who believe that:

- The Soviet view of strategic deterrence is fundamentally different from the U.S. view; nuclear war is unthinkable and unwinnable in the U.S. view, but in the Soviet view it is thinkable, feasible, and winnable.
- The Soviet military controls strategic military affairs in the Soviet Union; in the U.S., the military is totally subservient to pacifist civilian authority.
- The Soviet ruling elites regard conflict, including nuclear war, as a normal condition in the current stage of historical development.
- U.S. and Western strategists do not recognize, as the Soviets do, the reality of violence in human relations.[12]

The difficulty with the Pipes analysis, and other versions of it, is its assumption that Soviet military thought is the center of gravity in all Soviet strategic affairs. Likewise, there is an assumption that U.S. military men have few thoughts about nuclear war fighting and little influence on U.S. defense policy.

Somewhere between the extreme pessimism of Professor Pipes and the more prudent assumptions reflected in the defense report lies a conceptual path largely unexplored. It is this alternative path which, like the dissenting views of Kennan and Bohlen in 1950, should receive greater attention in our military planning and strategic assessments.

Alternative Views

On rare occasions alternative views are developed, but not often heard, which admit that the Soviet strategic culture is not unique or monolithic. In addition to orthodox Soviet military viewpoints, some have detected the existence of a countervailing strategic subculture composed of Soviet government officials, researchers, and journalists.[13] The countervailing views, which indicate doubt of the possibility of a meaningful victory in a nuclear war, are not analyzed with the same enthusiasm that is applied to the more "offensive" statements of the Soviet military elite.

Few suggest other explanations for apparent Soviet aggressiveness. Benjamin Lambeth notes, however, that,

> The confident Soviet military assertions regarding the winnability of nuclear war and the probability of Soviet victory may reflect far more an effort to instill a spirit of confidence and optimism in the Soviet armed forces than any expectation or belief on the part of the Soviet military leadership.[14]

This suggestion is certainly too soft to be admissible as useful evidence. But so are the methods used to gather much of the evidence that is currently acceptable. For example, when Soviet military literature speaks of the virtues of peace or defense, it is often labeled propaganda. If it speaks of winning war, it is labeled as truth with certainty. And, on the basis of this rather selective methodology, some "strategists" proceed to attribute awesome military effectiveness to the Soviets and dangerous conditions for U.S. forces. These pessimistic assessments are almost exclusively drawn from Soviet military literature as if political views carried no weight in the Soviet Union. Soviet military writings, however, no more necessarily represent the strategic perceptions and expectations of Soviet civilian leaders than formal U.S. military contingency plans indicate the way United States national command authorities would actually cope with nuclear crises.[15]

Among those who have helped clarify the consequences of looking beyond Soviet military literature, Dennis Ross has done a most admirable job. His article "Rethinking Soviet Strategic Policy: Inputs and Implications" gets to the heart of the apparent differences in Soviet-American strategic views. Ross notes that the Soviet rejection of American strategic concepts is not based on a unique Russian way of thinking about the problem; rather, it is because our concepts do not suit Russian goals. He then analyzes the Soviet style, as it has evolved, to show that even Russians can and do adhere to a principle of deterrence that is not necessarily hostile or offensive in design.[16]

Similarly, Bernard Brodie has shown that the Soviets, like the Americans, have a requirement for deterrence.[17] He did so by debunking the Richard Pipes article. Brodie asks who in the Soviet Union thinks Russia can fight and win a nuclear war. The Pipes article tells us that some Soviet generals think so, but not a single political leader is mentioned. "One could at this point dismiss the issue by remarking that there are also plenty of US generals who think that the United States could fight and win a nuclear war and are even willing to give a definition for the word win, though few of us would be comfortable with that definition."[18] The Soviet leadership alleged this tendency

among American generals as far back as 1948 and characterized military men who commanded American strategic forces as being proponents of "adventuristic positions" and of "preparing for global thermonuclear war."[19] The point is that both American and Russian military men tend to think that war-winning forces are the best forces to support deterrent policy. But few military men and fewer political leaders have advocated using those forces in a preemptive nuclear war. To suggest that the military view on either side is the prime indicator of political intentions and objectives is to present only partial reality. There are other sources of Soviet intentions and goals.

As a balance to the orthodox arguments about the complete militarization of Soviet society, we would do well to remember that Soviet society, in the wake of the 1917 revolution, was politicized and socialized while the new Red Army was still deciding what uniforms to wear and how many czarist officers should be retained. In this connection, the premilitarized Soviet concepts of war contained two cautions that remain ideologically operative today. The first is that war should be the most expedient instrument for obtaining an objective. "To indulge in war when peaceful negotiation or threat or bribery or even substantial concession might attain the same end at less overall cost would be, in Marxist eyes, the height of political irresponsibility."[20] The second essential prerequisite is that once war is expedient, victory must be assured. Otherwise, objectives cannot be obtained. Therefore, the Soviet's view of war, if it is to be used at all, must be aimed at attainable, significant objectives. War must have a purpose which cannot be achieved otherwise.

Peter H. Vigor, in his excellent book *The Soviet View of War, Peace and Neutrality*, goes so far as to say of nuclear war that ". . . one can be quite certain that it will be the policy of the Soviet leaders *not* to engage in nuclear war, if they can possibly avoid it; nor to engage in a war of conventional weapons that is likely to escalate further."[21] This assessment places quite a different emphasis and finds a different reality regarding the Soviet view of war from those who think the Soviets believe superiority in firepower is the only prerequisite for war. However, Vigor does note the conditions under which the Soviets would view war with the United States as feasible or necessary. For example, the Soviets would probably go to war if the U.S.S.R. or one of its satellites were attacked. The Soviets might also, under an extremely narrow set of conditions, contemplate war if America's second-strike capability could be completely neutralized. However, insofar as Soviet leaders today perceive no offensive threat from NATO and are otherwise convinced that America's second-strike capability is credible, war is not feasible. As Vigor emphasizes, ". . . they will never willingly engage in a war which, *by their own theories, they must lose.*"[22]

Many Western military planners have ignored this important point. It is easy to understand why. It is the military planner's duty to focus on what an opponent can do militarily. Although, quite often in stating what an opponent can do, we are usually overgenerous in allowing them perfect plans, organizations, equipment, and flawless execution in operations. There is also a tendency to dwell on the offensive tactics rather than on the defensive ones, and to attribute "tactical offensiveness" to the political leadership and even to the entire population. Hence, the Russians are often made to appear as entirely warlike, offensive, and aggressive people.

We would probably do better to treat the defensive and the offensive characteristics of Soviet military and political postures with equal analytical enthusiasm. When assessments are offered, there should be objective presentations of Soviet strengths, weaknesses, and vulnerabilities in comparison with those of the United States. An assessment of comparative conditions of how both countries relate to conflict would indicate some of the following:

— Why is conflict likely or not likely?
— Who would start it?

— For what purpose?

— How would the conflict ensure the goal or purpose?

— By whose criteria could military victory be obtained and how?

— What are the long-term consequences of such conflict?

Otherwise, any assessments which settle on simple numerical imbalances will continue to assume Soviet offensive designs and may thereby generate inappropriate responses to unreal conditions.

There are, of course, reasonable cautions to observe in giving the Soviets the benefit of the doubt. While we should have a more balanced look at Soviet capabilities, we must not assume that Soviet behavior is static. And we must do more than focus on the narrow band of conditions under which the Soviets would or would not do us harm as if the narrow condition were the ever-present, most likely condition. As Vigor notes, there are conditions in which war could become the instrument of Soviet policy. Of primary concern to us is the condition where our second-strike capability would become neutralized either by technological breakthroughs in defensive systems or by a Soviet first-strike force capable of destroying all our offensive weapons.

If we can show that the climate is being created in which, in the Soviet view, nuclear war is feasible—that our second-strike capability no longer exists and that Soviet goals can be achieved most efficiently by nuclear war—then we have no alternative but to make drastic fixes to our strategic forces. However, if those conditions are only inventions of our strategic imagination, we are likely to generate drastic problems in the wake of our prudent plans.

FEW military studies treat both the conditions of Soviet political and military objectives and capabilities in comparison with the strategic goals and capabilities of the United States. The strict requirements of military deterrence and long-range political objectives must be viewed together. Otherwise those assessments will be of little lasting value. Incomplete assessments may lead us to conclude that it is desirable to go beyond "pure" military deterrence and seek the political utilities which theoretically come with the presence of, if not the use of, preemptive capable forces. The Soviets have nearly achieved "preemptive status" in Europe, according to Western assessments. But it is not yet clear that they have gained extra political benefits. Nor is it clear that U.S. security would be improved by matching the Soviet forces in Europe, Africa, or elsewhere.

The Soviets may also be following a path toward a preemptive posture in the strategic arena. If the United States desires to take an essentially equivalent path militarily and politically as the Soviets have, our goals should be at least as clear to us as Soviet goals are to Soviet leaders. At a minimum, we should recognize that the differences between Soviet and U.S. strategic goals may be more important than the statistical characteristics of their comparative nuclear arsenals. Moreover, if the United States desires an equivalent political and military status with the Soviets on the basis of military deployments, our objectives must be derived from no less than a comprehensive understanding of what it means to compete with the Soviets over the long-term.

If, after our goals become clear to us, it is politically necessary to grow militarily, we should do so without hesitation. But that step should not be suggested primarily on the basis of an Americanization of Soviet concepts of war or a statistical review of comparative warheads and throw-weights. These are only two of the inputs for strategy development. The staff process by which military strategy inputs are developed should, of course, provide more than pieces of answers to major strategy questions.

During 1975 the military departments in the Pentagon began the first steps to provide more comprehensive strategy inputs by estab-

lishing "net assessment" branches in their headquarters staffs. With the encouragement of the OSD Director of Net Assessment, the Air Force launched a Soviet assessment in 1975, a Korean assessment in 1976, and a European assessment in 1977-78. However, the "net" part of these assessments remains incomplete. Comparative, balanced assessments of two components in terms of strength, weakness, and vulnerabilities have not been possible.

Whether net assessment staffs are maintained in the future, the Air Force could benefit from a counterpoint staff that would be allowed to create comprehensive assessments and freely question the orthodox assessments which have now become the basis for our strategy inputs. Indeed, such a staff could examine every facet of our strategic assessments to include the evidence and sources of evidence used to compare U.S. and Soviet stances:

— broad political goals (both domestic and international);

— concepts of international relations and conflict;

— military concepts and capabilities (from both military and political perspectives);

— major strengths, weaknesses, and vulnerabilities;

— long-range trends in strategic competition;

— programmatic initiatives.

It would be the responsibility of the staff to find among the many reasons why the Air Force should pursue this or that program as well as the other reasons why the programs are not in the best interest of the Air Force or the country. This role, too often played by people outside the DOD, usually after a commitment has been made to a program, may be the most important of the adversary roles.

Specifically, counterpoint staffers should be assigned to decision groups, such as the Air Force Systems Acquisition Review Council, Program Objective Memorandum Review Group, etc., to examine Air Force program decisions in terms of the

- number and quality of alternatives evaluated,
- level and sources of outside "expert" advice, and
- analysis of long-term consequences (strategic impact) of various decisions.

These may appear to be simple functions, and no doubt some may argue that these functions are presently performed. However, currently there are no bureaucratic arrangements for an independent group, specifically appointed to improve objectivity, to check for symptoms of *Groupthink*,[23] and to otherwise test the strategic utility of our decisions.

Who would serve on the staff? Those graduates of the Air Staff tour, from all disciplines, who have broad experiences in the Air Force would be candidates. There are many talented officers who could serve. They would only need the guarantee that the rewards of offering constructive alternatives, or even the dissenting view, would be equal to those of the loyal advocates of the orthodox view.

The Air Force could extend its vision significantly if we would create an internal mechanism that provides alternative assessments of our concepts, plans, and programs. A counterpoint staff could be the beginning of that mechanism. It appears that we can ill afford to go on without those "other views." If we fail to test the realities we believe in, we could create an Air Force that is irrelevant to the future needs of strategic deterrence. Like Jay Gatsby, we could continue to evolve in the direction of the Platonic conception we hold of ourselves and the incomplete images we hold of others. "Gatsby believed in the green light, the orgiastic future that year by year recedes before us . . . So we beat on, boats against the current, borne back ceaselessly into the past."[24]

Berlin, Germany

Notes

1. Henry Trofimenko, "The 'Theology' of Strategy," *Orbis*, Fall 1977, pp. 497-515. Henry Trofimenko heads the Foreign Policy Department of the Institute of the U.S.A. and Canada, Academy of Science of the U.S.S.R.

2. Quentin Anderson, "Property and Vision in 19th-Century America," *The Virginia Quarterly Review*, Summer 1978, p. 385. The definition of the Gatsby effect came from Quentin Anderson's article. The Gatsby effect, as Anderson explains, was based on the ability to create an all-enclosing imaginative construction, a dream to live in. See F. Scott Fitzgerald, *The Great Gatsby* (New York, 1953).

3. Daniel Yergin, *Shattered Peace: The Origins of the Cold War and the National Security State* (Boston, 1977), p. 410. See also John Lewis Gaddis, *The United States and the Origins of the Cold War, 1941-1947* (New York, 1972).

4. George F. Kennan, "The United States and the Soviet Union, 1917-1976," *Foreign Affairs*, July 1976, p. 682.

5. Ibid.

6. Ibid.

7. Yergin, p. 337.

8. Ibid.

9. Ibid., p. 402.

10. Ibid.

11. *Department of Defense, Annual Report, Fiscal Year 1979* (Washington, 2 February 1978), p. 34.

12. Richard Pipes, "Why the Soviet Union Thinks It Could Fight and Win a Nuclear War," *Commentary*, July 1977.

13. Jack L. Snyder, *The Soviet Strategic Culture: Implications for Limited Nuclear Operations* (Santa Monica, California: Rand Project Air Force Report, R-2154-AF, September 1977), p. 32. See also Benjamin S. Lambeth, *Selective Nuclear Options in American and Soviet Strategic Policy* (Santa Monica, California: Rand, DDRE Report R-2034, December 1976), p. 44.

14. Lambeth, p. 44.

15. Ibid., p. 46.

16. Dennis Ross, "Rethinking Soviet Strategic Policy: Inputs and Implications," *The Journal of Strategic Studies*, May 1978, p. 3.

17. Bernard Brodie, "The Development of Nuclear Strategy," *International Security*, Spring 1978, p. 72.

18. Ibid.

19. A. Ye. Yefremov, *Europe and Nuclear Weapons (Yevropa i Yadernoye Oruzhye* (Moscow, 1972), translated by Joint Publications Research Service, Arlington, Virginia, 1973, p. 10.

20. Peter Vigor, *The Soviet View of War, Peace and Neutrality* (London, 1975), p. 6.

21. Ibid., p. 136.

22. Ibid., p. 140.

23. Irving Janis, *Victims of Groupthink* (Boston, 1972), p. 16. Janis notes several characteristics of decision-making bodies under the influence of *Groupthink*. Such groups are usually *optimistic* about the decisions they have made. They *rationalize* away the dissenting views. They believe in the *inherent morality* of their decisions. And they promote stereotyped views of their adversaries.

24. Fitzgerald, p. 59.

in my opinion

THE JUNIOR OFFICER OF THE 1980s

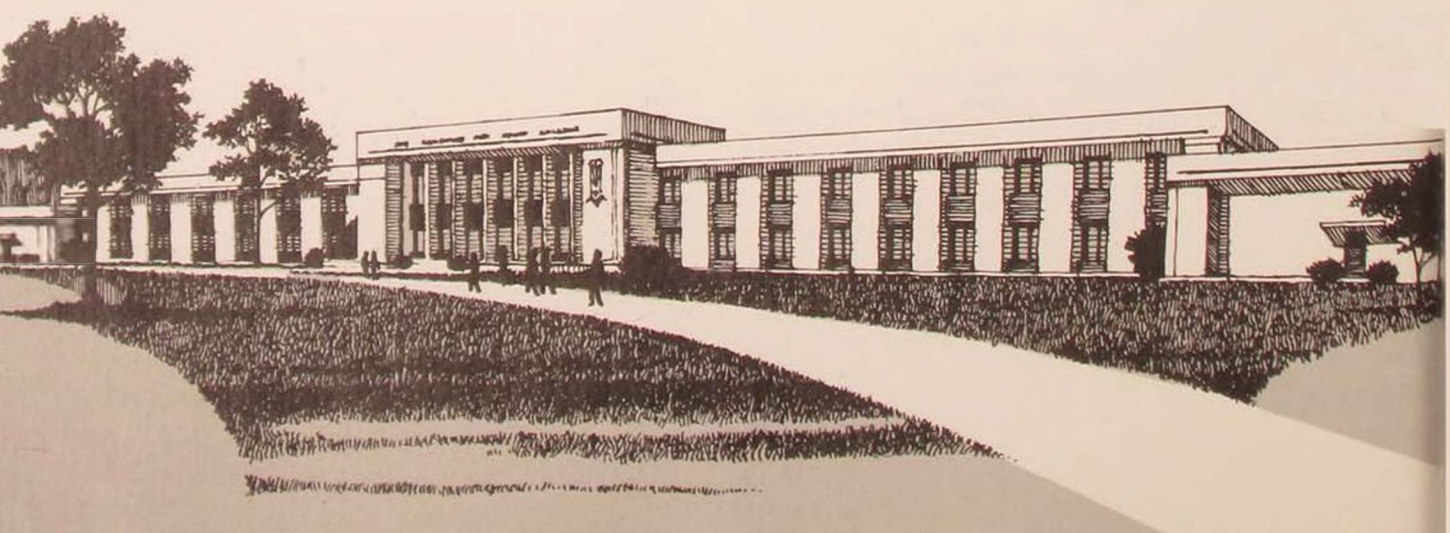
the situational professional

CAPTAIN JAMES H. SLAGLE

AFTER three years as a Squadron Officer School (SOS) section commander and chief of training, I have discussed professionalism with more than 200 students. In October 1980, I conducted a survey of 613 officers, attending SOS Class 81-A.[1] The purpose of the survey was to measure the company grade officers' attitude toward the subject of professionalism. The survey results were consistent with the attitudes and feelings displayed in these conversations. Professionalism is an important subject among company grade officers. They all have their own ideas of professional qualities, what they are, and what the Air Force requires.

Officers entering the Air Force in the 1980s are not entering as occupationalists or professionals. They are a generation shaped by the nuclear age, Korea, Vietnam, the civil rights movement, space exploration, Watergate, and, of course, television. "What the changing of the guard promises America in the 1980s is not a pat solution to all its problems, but a long-overdue fresh look at these concerns."[2]

The decade of the '80s is also witness to a change in the military. Emphasis on management as well as leadership, increased technology, and greater destructive weapons has slowly introduced a change in the dialogue between military professionals and civilian leaders. This emphasis has also introduced new rules into the military establishment. There are some who feel that these changes are forcing a new definition of the military professional. "Under these circumstances, many of the supports that shore up traditional military professional attitudes have been knocked out, and military officers tend to be as much bureaucrats as professionals . . ."[3]



I do not defend occupational characteristics displayed by some officers; my concern is with understanding the climate and the factors that shape and determine the desired professional characteristics that senior leaders are demanding. I am more concerned with helping senior leaders understand the junior officer and the junior officer's view of professionalism. To aid in this understanding, a composite picture of the junior officer, in the form of a monologue, was developed. The monologue was developed by analyzing the statistical data and constructing a mythical officer who incorporates a majority view of SOS Class 81-A.

Who am I and how do I feel about professionalism?

As a captain with a regular commission and five years in the service, I find it hard to understand why there is so much concern and emphasis as to whether I am a professional or not. If you asked me whether I feel I am a professional military officer right now, I would probably say yes. However, I am not sure that my definition is consistent with that of the Air Force leadership.

I understand the concern of our senior leaders that the occupational needs of people should not be the major motivators in the military career. I agree with what I read and with my commanders that professionalism is extremely important in the military today. But I also feel that how I view professionalism does not match my commander's views. To tell the truth, I am not sure there is an agreement on what professionalism is and what its qualities are. I know I do not really agree with Huntington's view of a very traditional, institutionally oriented, and conservative military professional. Although I have not had combat experience, I know there might be a need someday to go into combat. But this is also an era of ever-changing world conditions. I need to have a firm knowledge of world politics and an understanding of major world events. Because of my current job in the squadron, I feel I am a specialist, and as a specialist, managerial and technical skills are important. Also, I know operational requirements are important, but so are my personal interests and desires. I do not deny the traditional values of "duty, honor, and country"; however, in my job they just do not seem to be a major issue. From day-to-day, I do my job. Duty, honor, and country have never been explicit parts of the workplace.

What then are my motivators?

My job and the satisfaction I get from doing it are my principal motivators. When you ask me what I do for a living, I most closely identify with the people in my career field. I know I am an Air Force officer, but since I have come into the service, I have had only one or two jobs. I have come closely to associate with these jobs and the skills I have learned. I guess this does make me a "specialist," but I do not think it makes me any less a "professional." Another major motivator is base pay. As a married officer with one child, I am naturally concerned about things like pay and the retirement system. Although I think there is a need for improvement in our benefits, I would not want to see them substituted for an advertised dollar value. My spouse works, and the income my spouse brings in has been important in our efforts to maintain an acceptable standard of living. Understandably, because of the importance of that salary, my partner provides a great deal of input into my career decisions. I want to know my family is secure and provided for.

I guess the big question that I ask myself from time to time is whether I will make a career in the Air Force. Right now, I plan to, although about 36 percent of my classmates are either undecided or say they will get out. One reason is that, so far, I have not had to worry about career progression. Also, I feel that job security is important, and I am satisfied with the current promotion system. Al-

though 36 percent of my classmates have never been pressured to compromise their integrity, I have. Promotion should be a reward for good performance, yet I know that I am still rated on my potential as well. How do you measure potential unless it is by observation of actual behavior? I guess I need more guidance to help me understand what my senior leaders are looking for.

But this is today, and tomorrow my feelings may change. I am relatively new to the Air Force and, at 28 years of age, relatively young. I do not consider my views radical in nature. I do not, for example, want to see military unions bargaining for pay and benefits. I accept that there will be assignments that will not always be my first choice. Squadron Officer School is my first introduction to professional military education, and it is my first chance to find out about the rest of the Air Force. One thing I have learned is that we all have different views and attitudes about the military. At any one time, my motivation may be oriented toward the concept Dr. Charles Moskos calls "occupationalism" or job orientation. On the other hand, I sometimes find that I am at the other end of the spectrum, having a deep patriotic feeling or "calling." Whatever my decision, I have come from a different background than my senior leaders, and I bring to the Air Force a different set of needs and values. I believe professionalism is extremely important, and all the theories and concepts of professionalism are important. Some traditional values are essential—but I question the utility of others. My senior leaders are going to have to accept that my views as an officer in the 1980s are different from theirs. I view myself as a "professional," but frequently I get the impression that senior officers do not view me as such. Until they can give me some *specifics*, I will continue to feel that they do not know what they really want.

THE era of the situational professional calls for a new insight and understanding of what is influencing and motivating the junior officer. The junior officer of today is walking on a thinner tightrope than the junior officer of yesterday. Historically, the military and its role in society have never been popular. Public support of the military, economic problems, etc., will continue as major influences on the career decision-making processes of our junior officers. Studies support the premise that Moskos's concepts of occupationalism and institutionalism are not zero sum concepts.[4] Rather, these two classifications should be viewed as independent dimensions. In a University of Maryland study on the Army, presented at the 1979 Southeast Regional Conference of the Inter-University Seminar on Armed Forces and Society, the authors concluded:

> What our analysis seems to suggest is that the Army may not have to choose between institutional and corporate models. Rather, it may be able to make good use of both . . . There may be no harm in making service in the Army a job, as long as it is not *just* a job.[5]

In the article, "An Empirical Examination of the Moskos Institution-Occupation Model," the author states: "that there is room for 'pragmatic professionalism' among military members . . . it can exist with traditional values and norms associated with the military."[6] The University of Maryland study indicates that career intent and job satisfaction positively correlate to institutional values. The junior officers responded to career intent in the following way:

I Plan to Stay in the Air Force at Least 20 Years

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
26%	39%	29%	5%	2%

When the SOS officers were asked to rank in order the factors influencing them to stay in the Air Force (covered later), job satisfaction was, by far, the number one reason. The University of Maryland study concludes: "In the military, instead of simply talking about institutional and occupational orientations we per-

haps need to talk about different balances of these two orientations as appropriate for different levels of and perhaps for different types of service units."[7] We can expect that junior officers will support either of these concepts at any one time and that this should not be considered negatively. Most junior officers desire a fulfilling career in the USAF, but the commitment involves many influencing factors.

Sir John Hackett, in *The Profession of Arms*, points out that military professionals are expected to "get out there and get killed if that's what it takes." But as Arthur J. Dyck states in his article, "Ethical Bases of the Military Profession," much of the expertise that officers require and many of the tasks of the military are not directly related to anything we could call the management of violence.[8] When the SOS Class 81-A was asked, Do you have combat experience? 84 percent had no experience, 10 percent had been stationed in a combat area but had no direct combat experience, and only 6 percent were directly involved in combat. While the surveyed officers saw their actual behavior as being professional, this was/and is an "untested" junior officer force. Senior leaders, speaking from the frame of reference of combat experience, may find it hard to relate to today's company grade officer.

An area that has received criticism from senior leaders is that junior officers are technicians and are "too specialized."[9] As noted, in every Air Force specialty code (AFSC) group the majority of officers felt they were specialists. Seventy-six percent of the operations group felt they were specialists. Because of the increased technological needs of the Air Force, a climate has been created that emphasizes specialization. This study showed that the junior officers surveyed identify with the people in their career field and the people they work with more than they identify with the officer corps. These officers are rated on their job performance and are influenced and motivated by job satisfaction. A great deal of emphasis is placed on the company grade officer in the area of job performance. For example, in the operations group, evaluation of individual and crew performance is critical in maintaining weapon system proficiency. The career progression of operations officers is directly related to how well the officers perform.

As technology drives the Air Force, so it creates more and more specialist functions. "The specialist must resist the temptation to become an advocate of only the requirements of his specialty. . . ."[10] The need for highly trained specialists in the specialized areas can create a unique allegiance to the local command and to the functional area.[11] This may explain why junior officers have a low relationship to the officer corps and identify more closely with the people in their career field and in their workplace.

As noted, specialization tends to give one a narrow view of one's role. However, 90 percent of the officers surveyed felt that being a specialist did not detract from their being professional military officers. The majority of officers surveyed had had only one or two assignments and five years of active duty service. A generalist officer is one who probably has technical knowledge in more than one area and command and staff experience as well. One can make a strong argument, then, for maintaining the "broadening experience" of professional military education. Attending a school like Squadron Officer School or Air Command and Staff College removes officers from their specialized roles and enables them to broaden their perspectives, increase their knowledge of the officer corps, and prepare for responsibilities beyond the scope of narrow career specialties.

Surprisingly, the analysis of the Operations career group (see Chart 1) revealed that these officers had a significantly lower sense of duty, corporate identification, and institutional alignment than officers in the Support group. Although it might have been speculated that the Operations group would have a higher sense of duty and a greater corporate feeling

because of their closeness to the overall mission of the Air Force, this did not prove to be true. This finding counters the hypothesis that by being closer to combat organizations, sharing unique hardships, and wearing the unique patches and scarves of the operation units, the institutionalism, corporateness, and sense of duty would be greater than that of the support areas.[12] It should be noted that while actual combat experience can produce higher duty, corps, and institutional values, just being a member of an operations unit does not have the same effect. Again the cross-tabulations showed the high percentage of officers who feel they are specialists.

Although I cannot present conclusive reasons, my many discussions with operational officers have provided insights that may affect these findings. Operational officers felt that their job skills were important, but a highly proficient performance was the expected norm and, therefore, received little recognition. If an officer did poorly on a checkride or other evaluation, that officer would receive a perceived open and unjust amount of criticism. The officers also felt that due to budget restrictions, maintenance problems, parts availability problems, etc., there was little opportunity to perform in a combat-simulated environment. There was a perceived lack of interaction with their senior leaders in the form of USAF career counseling or job performance feedback. More one-to-one interaction between senior and junior officers might alleviate areas of perceived inequities and reduce differences in attitudes and values. Another possible explanation for the lower sense of duty, etc., displayed by the Operations group relates to the very nature of operations. For example, the operators are at the cutting edge of the USAF mission and may not be conscious of the vast supporting elements behind them. The support officers, on the other hand, may be more conscious of their inherently supportive role in the ultimate mission of the operators.

Samuel P. Huntington states that "an officer corps is professional only to the extent to which its loyalty is to the military ideal."[13] In other words, individual officers within the corps must understand the standards that compose the military ideal required of professionals. The problem, however, is that no one is quite sure what the "military ideal" actually is. As this research has shown, almost all who were surveyed consider themselves to be professional—exemplifying the military ideal—yet they also exhibit numerous behavior traits that relate to occupationalism.

I Consider Myself a "Professional" Military Officer

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
44%	51%	4%	1%	0%

If professional military education is the solution, it would appear that the study of professionalism could become a double-edged sword. Since no consensus on the meaning of the word exists, there is danger in making the lack of definition obvious through class discussion, thereby weakening the "aura" surrounding the concepts of professionalism. Like "integrity," we all claim to have it until specific challenges are thrust upon us. *Professionalism* is a term that will set heads nodding in agreement. It is a term that is frequently used in juxtaposition to the "moral decay" of occupationalism.

For those senior leaders concerned with the perceived decline in the "level of USAF professionalism," it might be well to relay to their audiences, in specific terms, exactly what they mean when they decry the "lack of professionalism" in the junior officer corps. Individuals cannot effectively relate to professionalism unless the discussion is directed to the types of factors identified in this survey. For example, when a general officer (or *any* officer) exhorts his audience to "maintain our high standards of professionalism" or claims that junior officers are less professional than they should be, he has failed to communicate for two reasons: He does not share a common definition of professionalism with his audience, and he has

not identified the specific issues that support the statement(s).

To communicate effectively, the speaker or writer must identify the specific issues; e.g., a working spouse normally exerts pressures on an officer that run counter to traditional professionalism: willingness to go where the personnel people send you, willingness to work long hours and weekends, etc. If children are involved, there will be times when the officer must "take up the slack" in child rearing, necessitating absences from the office to take children to doctor's appointments, etc. The responses of the junior officers support the conclusion that meaningful communication in this area has not yet taken place.

Some suggest that we may be facing a generation of officers whose metamorphosis into the professional officer role is unlike that of the generations before them. Morris Massey has stated:

> The focus should not be so much on how to change other people to conform to our standards, our values. Rather, we must learn how to accept and understand other people in their own right, acknowledging the validity of their values, their behaviors.[14]

Senior leaders may have to reevaluate the Huntington term "managers of violence" associated with traditional values of the military officer. Instead, a substitute term, "the situational professionalism," might better describe the junior officers of today's Air Force.

FOUR groupings of Air Force specialty codes were analyzed to provide a more specific picture of the attitudes of officers in different career fields. The four groups determined significant for this analysis are categorized as Operations, Professional, Scientific, and Support. The Operations area includes officers who are primarily pilots, navigators, and missile officers. These officers represent a group that is closest to the weapon systems, weapon system training, and the combat mission. The Professional group consists of officers whose career fields most closely match those of the civilian professions, such as law and medicine, and fields, such as chemistry, physics, and engineering; it should be noted that the Professional and Scientific groups were small, with 18 and 28 officers respectively. (The validity of their responses when compared to those of the other groups is questionable.)

Chart I. Air Force specialty code groupings

	Sense of Duty			
	Low	Neutral	High	Total
Operations	14%	47%	40%	101%
Professional	11%	33%	56%	100%
Scientific	11%	50%	40%	101%
Support	10%	32%	59%	101%

	Institution vs Occupation			
	Occupation	Neutral	Institution	Total
Operations	10%	61%	30%	101%
Professional	6%	44%	50%	100%
Scientific	8%	54%	39%	101%
Support	5%	47%	49%	101%

	Corporateness			
	Low	Neutral	High	Total
Operations	42%	42%	17%	101%
Professional	28%	39%	33%	100%
Scientific	25%	54%	21%	100%
Support	28%	44%	27%	99%

	Specialist vs Generalist			
	Generalist	Neutral	Specialist	Total
Operations	1%	23%	76%	100%
Professional	0%	50%	50%	100%
Scientific	4%	36%	61%	101%
Support	2%	35%	63%	100%

The Support group is made up of the remaining AFSCs. Chart I data show the results when the AFSC groups were cross-tabulated against the four categories.

Ramstein Air Base, Germany

Notes

1. Joseph R. Daskevich and Paul A. Nafziger, Majors, USAF, "The Pulse of Professionalism," Air Command and Staff Report No. 0520-80 (Maxwell AFB, Alabama, 1980).

2. David S. Broder, *Changing of the Guard: Power and Leadership in America* (New York, 1980), p. 22.

3. Adam Yarmolinsky, "What Future for the Professional in American Society?" *Daedalus*, Winter 1978, p. 167.

4. Michael J. Stahl, "An Empirical Examination of the Moskos Institution-Occupation Model," *Armed Forces and Society*, Winter 1980, pp. 257-69.
5. David R. Segal et al., "Institutional and Occupational Values in the US Military," Unpublished paper presented at the 1979 Southeast Regional Conference of the Inter-University Seminar on Armed Forces and Society, Air University, Maxwell AFB, Alabama, 3-5 June 1979, p. 28.
6. Stahl, p. 269.
7. Segal, p. 27.
8. Arthur J. Dyck, "Ethical Bases of the Military Profession," *Parameters*, March 1980, pp. 39-46.
9. Major Thomas S. Allman, USAF, "External Evaluation for Curriculum Development at Squadron Officer School," Air Command and Staff Report No. 0055-80 (Maxwell AFB, Alabama, 1980), p. 16.
10. Franklin D. Margiotta, *The Changing World of the American Military* (Boulder, Colorado, 1978), p. 269.
11. Ibid., p. 283.
12. Ibid., pp. 432-33.
13. Samuel P. Huntington, *The Soldier and the State* (Cambridge, Massachusetts, 1957), p. 74.
14. Morris Massey, *The People Puzzle* (Reston, Virginia, 1979), p. 21.

GENERAL AVIATION ASSETS ARE OVERLOOKED IN POSTNUCLEAR ATTACK PLANNING

DR. CLINTON H. WHITEHURST, JR.
MICHAEL W. BROADWAY

AMERICAN military strategists have long been aware that their Soviet counterparts do not rule out the possibility of a nuclear exchange between the two countries nor the fact that the Soviets view a nuclear war as being winnable.

While it is impossible to predict precisely how the "winner" in a global nuclear war will be determined, certainly one important criterion is how well the United States (or Soviet) economy can function and ultimately recover in the postattack period. In this context, it behooves the nation's leaders to assess candidly the country's likely strengths and weaknesses *after* a nuclear exchange and, in particular, identify and maintain in peacetime those assets identified as being essential to economic recovery. We believe the value and utility of one particular asset—the nation's general aviation resources—have been neglected.

A general survey of the literature on postnuclear attack planning found that in the early 1970s some directives were issued and plans formulated on how general aviation assets would be used in an economic recovery effort. In 1970, for example, the Department of Defense issued a federal civil defense guide. Among the missions envisioned for general aviation was "air support to satisfy essential priority commercial, corporate, industrial, health and welfare, and agricultural requirements in military and civil defense survival and recovery operations.[1] However, missions and directives became dated, and by the late 1970s any contribution general aviation might make in the postattack period was, for all practical purposes, forgotten.

A large part of the problem, however, was not that general aviation had been overlooked but that the importance of ensuring a functioning economy following a nuclear attack had not received the attention it deserved. In this respect, in 1977 the U.S. General Accounting Office concluded that "current programs emphasize preparedness to meet attack and do not adequately consider (perhaps because of funding constraints) preparedness for recovery following attack."[2]

In 1980 there were more than 202,000 general aviation aircraft in operation. The Federal

Aviation Administration (FAA) estimates that this fleet will increase to 297,000 aircraft by the year 1990. Equipment in this total includes everything from single engine piston to turbojet to rotorcraft aircraft.

There are more than 14,500 airports in the United States including seaplane bases, heliports, public, private, and paved and unpaved fields. Of the 3159 airports included in the National Airport System Plan (NASP), 2224 are general aviation airports. Airports included in the NASP are deemed essential to the U.S. transport system and are eligible for development funds under the Airport Development Aid Plan (ADAP). However, although more than $2 billion has been dispensed for grants-in-aid to airports since 1970, a total of only $314.1 million went to 930 general aviation airports. In 1979 the FAA had aid requests from 490 general aviation airports totaling $255.7 million. However, only $65 million was funded. Airports not included in the NASP are ineligible for ADAP funds and must rely on state and local support for maintenance and operation.

The third component of our general aviation resources is the general aviation pilot. In 1980 there were more than 361,000 private pilots, and that total is expected to exceed 492,000 by 1990. While comprehensive personal data are not available (i.e., nonflying skills and occupations), a study conducted in the mid-'70s found that as a group general aviation pilots come from every walk of life and that the occupation of the aircraft owner was either professionally or technically related.

Before considering the arguments supporting general aviation as a valuable but neglected asset in the postattack period, it is necessary to recap briefly the Soviet targeting doctrine. Essentially, it is a counterforce strategy. In order of priority, the Soviet objectives against U.S. forces in a nuclear war are as follows: the destruction of enemy nuclear attack capability, destruction or disruption of the enemy troop basing system, destruction of enemy military-industrial support facilities, destruction or disruption of enemy control of state and other military activities, and the destruction and disruption of enemy services and transport.[5]

Two arguments are put forward for reevaluating the role of general aviation in a post-nuclear attack period. First, general aviation assets in some areas of the continental United States would be vital to any meaningful recovery effort. In multitargeted, high-population-density areas where target locations are in close proximity, counting on surface transportation systems for even minimal operations in the first three to four weeks following a nuclear attack is unrealistic. In terms of fallout radiation intensity alone, the absolute advantage of aircraft over surface transportation is significant. At 1000 feet above ground, fallout radiation intensity is only one-thirtieth of that found at the five-foot level. This ratio generally would hold throughout the contamination period.

Are any transportation options open for what will probably be the hardest hit parts of the country? Using the eastern FAA district composed of New York, Pennsylvania, New Jersey, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia as an example, one could piece together an immediately operative system from the estimated 22,000 general aviation aircraft, 1900 landing facilities, and the 49,000 private pilots and flight instructors located in the district. While these assets would suffer losses, it is still likely that a viable system could be put together. First, all of the components making up the system are *geographically dispersed*, and, second, where airports were destroyed, makeshift strips could be fashioned using highway construction equipment. Moreover, a number of alternatives to runways for small planes exist—highways, pastures, parking lots, and it is probable that even major airports in targeted areas might still have runways or taxiways capable of handling light planes. By and large, general aviation assets in total are more likely to survive a nuclear attack than air carrier

*Table I. Geographic location of general aviation resources in the continental United States, 1977**

Area	Active General Aviation Aircraft	Private Pilots & Flight Instructors	Landing Facilities
New England	6,635	15,154	542
Eastern	21,914	49,205	1,906
Great Lakes	33,335	73,323	2,832
Central	13,664	27,562	1,274
Southern	26,470	51,574	1,666
Southwest	25,876	43,888	2,123
Rocky Mountains	11,115	19,354	961
Western	28,535	65,230	1,140
Northwest	11,359	21,888	841
Total	178,903	367,178	13,283

**General Aviation Statistical Data: 1979 Edition* (Washington, D.C.: General Aviation Manufacturers Association, 1980), pp. 5, 15, 17.

assets located in large metropolitan areas and surface transportation systems feeding into hub cities, e.g., railroads into Chicago. The key, as stated above, is that general aviation resources are geographically dispersed. Table I indicates the extent of dispersion of general aviation resources in the continental United States.

Table I also indicates that some geographic imbalance exists between general aviation resources and areas likely to be hardest hit in a nuclear attack. For example, the eastern United States will be the more heavily targeted but has fewer planes and pilots than does the South. Where imbalance does exist, however, the compensating factor is the *mobility* of the assets.

South Carolina is probably typical of most states in having disaster and contingency plans and a state agency responsible for implementing them, but there is no comprehensive plan operative to use the state's probable surviving general aviation assets effectively in the postattack recovery period.[4]

In 1980 the state had a total of 90 airports plus 35 air strips. Forty-eight airports were included in the NASP. Airports in 19 of the 46 counties had runways of 5000 or more feet. The latest South Carolina Aeronautics Commission data indicate that 1883 nonair carrier aircraft were registered in the state as well as more than 6700 licensed pilots, 2500 of whom were classified as private pilots.

Under present Soviet targeting priorities, the following areas (cities) in South Carolina could expect attack with nuclear weapons: Charleston (port and base); Columbia (capital city, base); Myrtle Beach (base); Aiken (nuclear storage site); Sumter (base); possibly Greenville-Spartanburg (interdict north-south mainline rail and highway system); and Beaufort (base).

Figure 1 indicates targeted areas and the extent of blast damage, assuming that major destruction will occur up to 10-15 miles outward from ground zero. Also shown is the location of airports that would probably be operable in the postattack period and the number of surviving aircraft in each county. A conservative estimate is that 46 airports, 931 aircraft, and 3000 pilots would survive a nuclear attack on the state. The question is: Could they be efficiently utilized? In our opinion, at present, they could not.

Also, in our opinion, general aviation assets could play a significant role in the postnuclear attack period *in every state* as an in-place, howsoever organized, transportation system. But funds to enhance this capability must come from somewhere, either as an addition to the federal budget or by reductions in other programs.

In this context, consider fiscal year 1980 federal ADAP funding for airport construc-

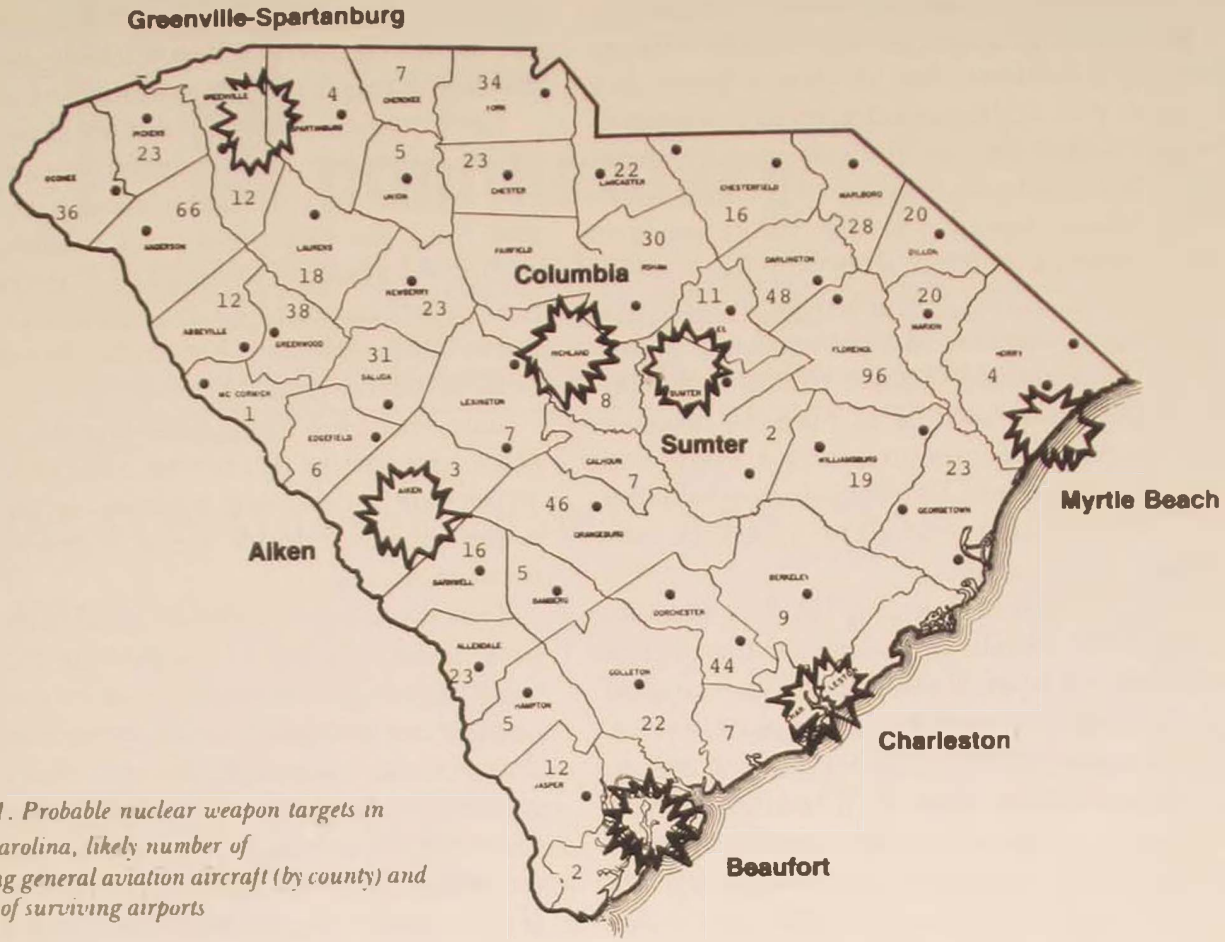


Figure 1. Probable nuclear weapon targets in South Carolina, likely number of surviving general aviation aircraft (by county) and location of surviving airports

tion/maintenance. Of $640 million authorized, $98 million was allocated to general aviation airports. Keep in mind also that the FAA estimates for the period 1980-89 that $520 million will be needed just to maintain NASP general aviation airports, another $750 million to bring these airports up to standard, and an additional $1.95 billion to expand the system.[5]

If we consider general aviation airport funding for a single year and assume that an additional $50 million is a fair estimate of what could have been effectively utilized for general aviation airport improvements in FY80, then where could the money come from? The funds might have been obtained by cutting Amtrak's subsidy approximately 7 percent, by making do with 5 percent less information about our energy policies, or by reducing our contribution to multilateral development banks by 5 percent. Possibilities are almost infinite. The point, however, is that if a strong case emerges for additional funding of a particular budget item, then all items in the budget must be reexamined in terms of their costs and benefits. In our opinion, the argument for increased funding of general aviation assets and airports in particular, could withstand the closest scrutiny. Parenthetically, it might be noted that making such adjustments (more for defense, less for other programs) is precisely the exercise President Reagan's economic advisers are running in 1981 as they shape the federal budget to reflect the priorities of the new administration.

In our opinion, federal, state, and local con-

tingency planners should specifically update and reevaluate the role general aviation might play in a postnuclear attack period. Should such an evaluation indicate that general aviation is a considerably undervalued asset in this regard, budget authorities at all levels should reconsider their budgets, paying particular attention to where marginal savings can be made in other programs. Even some relatively small additions to general aviation funding could significantly increase our recovery capability.

The FAA should require that critical nonflying skills possessed by all pilots be listed on their licenses, e.g., doctors, nurses, engineers, scientific personnel. This inventory would then be made available to state and local disaster contingency planners.

State authorities, building on data supplied by the FAA, should compile a detailed inventory (data bank) of all pilots in the state, including pilot qualifications, business and home addresses, telephone numbers as well as critical nonflying skills. Equally, if not more important, state and local governments should compile a data bank on nonpilot individuals who possess critical skills and reside within less than 25 miles of general aviation airports, particularly those airports identified as being most likely to survive a nuclear attack.

State authorities should develop plans for the rapid installation of amateur radio stations at all general aviation airports. At a minimum, antennas should be in place. Airport managers should be instructed in wash-down procedures with respect to decontaminating aircraft.

Furthermore, state authorities should designate a number of strategically located general aviation airports as aviation fuel depots and fund the acquisition and holding of an additional gasoline inventory. A major location criterion would be the likelihood of the depot airport's being able to distribute fuel to other airports over a surviving highway system.

State and local authorities should have in-place agreements or understandings between airport authorities and highway departments regarding the priority use of highway equipment *at airports*.

This is not an exhaustive list of recommendations even as these thoughts are but a first cut at focusing attention on a relatively neglected asset in our postattack recovery planning. Be that as it may, it is indeed ironic that we have given so little thought to a potential asset that the Soviet Union does not possess and under its present form of government could never allow to develop. In this respect, it is hard to imagine the Kremlin's encouraging the creation of a pool of over 350,000 private pilots with access to over 200,000 aircraft.

Clemson, South Carolina and
Marietta, Georgia

Notes

Authors' Note: The Department of Industrial Management at Clemson University plans a detailed study of how general aviation assets located within South Carolina can be effectively marshaled to support the state's recovery efforts effectively should a nuclear attack come to pass. Some areas or questions to be addressed include developing an effective command and control system, designing a computer-supported information system/data bank for all general aviation data, and identifying strategically located general aviation airports in the state and cataloging their needs to function efficiently in the postnuclear attack period.

1. *Civil Non-Air-Carrier Aircraft Support for Civil Defense Emergency Operations* (Washington: Department of Defense, 1970), Part E, Chapter 14, Appendix 2 with Annexes 1, 2.

2. Comptroller General of the U.S., *Civil Defense: Are Federal, State and Local Governments Prepared for Nuclear Attack?* (Washington: U.S. General Accounting Office, 1977), p. iii.

3. Lewis Allen Frank, *Soviet Nuclear Planning: A Point of View on SALT* (Washington: American Enterprise Institute, 1977), pp. 12-13.

4. General G. R. Wise, Director, Emergency Preparedness Division of the South Carolina Adjutant General's Office, indicated that "no real plans exist for utilizing general aviation assets in the post nuclear attack recovery period."

5. *National Airport System Plan, Revised Statistics, 1980-89* (Washington: U.S. Department of Transportation, Federal Aviation Administration, 1980), p. v.

commentary

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

TRANSITION AT THE ACADEMIES—A RESPONSE

DR. JOHN P. LOVELL

IN the preface to my book *Neither Athens Nor Sparta? The American Service Academies in Transition*, I observed that the "seemingly inexhaustible nuances" of the subject had made me aware that many of my published conclusions must be regarded as tentative. In that spirit, I welcome a critique of the book by Captain Phillip S. Meilinger.* Reply to that critique is warranted not merely as a means of providing the reader with a clearer picture of the book's purposes than is available there but more important as a means of redirecting discussion from arguments erroneously attributed to me to points that I believe merit serious attention and debate.

The central analytical objectives and themes of *Neither Athens Nor Sparta?* which are scarcely mentioned in the review, are described at pages 10-15 and developed especially in Part III. Captain Meilinger chooses to focus primarily on the concluding chapter of the book and on the case study of the formative years of the United States Air Force Academy.

He attributes to me, fallaciously, the argument that since 1968, "the schools have sunk into a period of reaction and retrenchment from which they have not yet emerged, except for a recent major alteration forced upon them from without: the admission of women." To the contrary, in the first chapter I identify a number of impressive reforms that have taken place at the academies over the past decade. Meilinger distorts the argument when he attributes to me the views that "the reins of leadership [were] dropped over a decade ago," and "the schools have failed to keep pace with the changes in society."

I do argue that the service academies "have entered a new era of adaptive challenge"; but the challenge is "subtle and complex," for reasons I spell out at pages 273-74. It is not simply a matter of "keeping pace with society" and surely not a matter of emulating civilian colleges. The academies have a dual mission—the challenge is to reconcile the "spartan" and "athenian" elements of the mission, in response to and in anticipation of ever-changing internal and external demands and requirements.

Astoundingly, the reviewer accuses me of

*Captain Phillip S. Meilinger, "Since 1802: Transition at the Academies," *Air University Review*, May-June 1981, pp. 110-14.

"skirting a central issue" and failing to address the question, "What is the mission of a military academy?" I cannot imagine any reader's failure to recognize that the entire book deals with that question. To be sure, I chose not to answer the question with platitudes such as that offered by the reviewer: "The real mission of military academies would seem to be of the spirit." Rather, I tried to show how the dynamics of organizational change at the academies are explicable largely in terms of the struggle to develop programs and practices that provide the most effective answer to that question. It is a question about which intelligent, dedicated individuals have disagreed—sometimes intensely, as in the formative years of the Air Force Academy.

My view is that there will continue to be disagreement about the question—which is to say about priorities and emphases at the academies. Such disagreement is—or at least can be—healthy, to the extent that participants to the disagreement recognize not only the importance of the issues at stake but also the elusiveness of durable solutions to complex organizational problems. My purpose in the concluding chapter, in discussing a variety of scenarios describing changes that conceivably could be introduced at the academies in coming years, was not the one attributed to me by the reviewer: "to remedy these ills" (the ones he erroneously associates with my analysis). The bulk of the book describes and analyzes patterns of change at the academies, especially in the years since 1945. Thus, in conclusion I sought (1) to apply the findings regarding how, why, and in what ways the academies have changed in the past, to a consideration of how they might change in the future, and (2) to stimulate a consideration of the implications of the alternative change scenarios. The most probable one, at least in the short run, as I noted, is continued cautious incremental change. Such a pattern may be entirely appropriate; but, as I note in conclusion, "only the foolish among members of the academy community will never doubt that the changes made are adequate to the challenging demands of the future."

The unkindest cut of all is the reviewer's contention that the book is severely biased and based on "careless research." As acknowledged in the preface, virtually each new interview conducted and document perused over the seven years during which the research was most intensive provided new insights; thus, I have no doubt that if the research had been continued even longer, the analysis might have been refined still further. I am happy to learn of more recent research, such as that being conducted by the oral history program of the Air Force Academy. Mine was not an attempt at writing a history of the academies, and doubtless the historian will pursue questions and sources that I did not regard as central to my essentially sociological inquiry.

The review grossly exaggerates the limitations of sources that I did consult. For Air Force Academy research, most of the helpful sources are identified in 90 notes at the end of the chapter. Documentary and written sources were supplemented by interviews and correspondence with persons who had been intimately involved in the formative years of the academy. (Correspondence is footnoted if it was quoted, paraphrased, or used to substantiate facts or interpretation.) Some of the most candid and helpful comments came from persons who had not been in top positions but who had been close enough to decision-making to offer informed explanation of policy developments and events. I sought a range of views and obtained comments from two former superintendents, two academic deans, a commandant, a wing air officer commanding, a dean of admissions, numerous department heads, the head football coach, and other staff and faculty members. In addition, I benefited greatly by having five persons (identified in the preface) who had been at the academy during those years read drafts of the chapter on the academy and provide criticisms and comments.

The reviewer is understandably concerned

that the actions of particular academy officials may have been misjudged in the book. However, I did *not* say (as the review reports) that an investigation of the 1965 cheating incident by Lieutenant General William Stone led to the removal from office of the incumbent commandant and superintendent. I did point out, in a footnote, that in an interview with me the man who had been academic dean at the time indicated that he was convinced that such a causal connection existed. In the text, I noted simply that "under the circumstances [of the widely publicized cheating incident], the reassignments had the appearance of being punitive. . . ." Surely it is beyond dispute that many persons at the time interpreted the reassignments in such a light. However, I added that both of the officers who had been reassigned were soon promoted; in short, the Air Force in effect had absolved them of command failure.

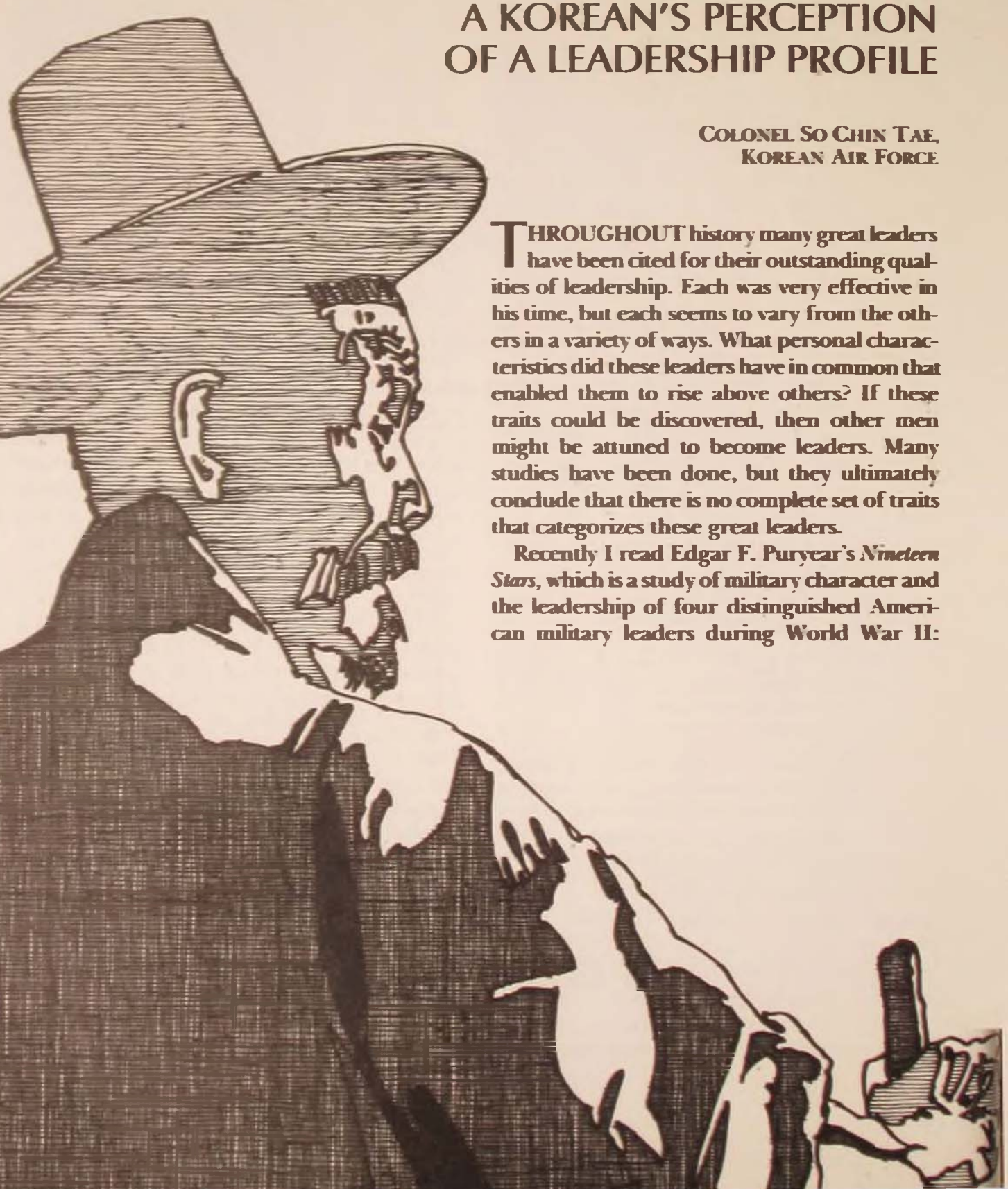
But we need not pursue a line-by-line rebuttal. My hope is simply that fair-minded persons who genuinely care about the American service academies will read the book themselves and form their own conclusions.

Indiana University, Bloomington

John P. Lovell (USMA; M.A., Ph.D., University of Wisconsin) is Professor of Political Science at Indiana University.

A KOREAN'S PERCEPTION OF A LEADERSHIP PROFILE

COLONEL SO CHIN TAE,
KOREAN AIR FORCE



THROUGHOUT history many great leaders have been cited for their outstanding qualities of leadership. Each was very effective in his time, but each seems to vary from the others in a variety of ways. What personal characteristics did these leaders have in common that enabled them to rise above others? If these traits could be discovered, then other men might be attuned to become leaders. Many studies have been done, but they ultimately conclude that there is no complete set of traits that categorizes these great leaders.

Recently I read Edgar F. Puryear's *Nineteen Stars*, which is a study of military character and the leadership of four distinguished American military leaders during World War II:

Generals MacArthur, Marshall, Eisenhower, and Patton.* Each of these men had distinctive idiosyncrasies yet contrasting traits. General MacArthur can be described as an autocratic figure, General Patton a driving figure, General Eisenhower a humanitarian figure, and General Marshall a bureaucratic figure. While these characteristics stand in isolation, the men themselves had the common values of duty-mindedness, devotion to country, empathy toward the people they served, and self-confidence. All were concerned with their physical fitness, all were excellent speakers, and all were intelligent and decisive.

There is a Korean axiom suggesting four virtues for a successful general (military commander):

"Shin" (身): Physique, appearance.

"On" (言): Eloquence, communication.

"So" (書): Intelligence, wisdom.

"Pahn" (判): Judgment, insight.

In my study of the four generals in *Nineteen Stars*, each so different yet each so much alike, there appear virtues expressed in the ancient history of Korea. These virtues represent a cumulation of values resulting in the integrity of the individual. While integrity is considered an intangible factor, it is nonetheless the foundation of the leader's character that distinguishes him from other men. Integrity is the foremost quality of most successful military leaders. My analysis of integrity leads me back to the Korean axiom, beginning with "Shin" (身).

"Shin" (Physique, appearance): "Shin" refers to one's physical features, health, and appearance. The premise of his thought is "a sound mind in a sound body"; i.e., *mens sana in corpore sano*—Juvenal. A person's physical features can complement his leadership; the man of poor physique, unkempt appearance, and an altogether unpleasant personality can never be a leader of others. A leader is expected to be a model his subordinates will either look up to or emulate. Pride in his physical appearance and meticulousness in dress and grooming standards are the first tools of his trade. A leader will convey by his appearance an image of competence and authority. His appearance will also be a reflection of dignity and concern for himself and others. Careful personal grooming was exhibited by all four generals in the book. For example, MacArthur never wore fatigues; he always wore his khaki uniform. Patton always wore a freshly pressed uniform and shining boots. The generals had an overriding concern with making a conspicuous and symbolic image: MacArthur and his corn pipe, Eisenhower and his "Ike" jacket, Patton with his decorated pistol and his highly polished helmet. Mentally and physically, inwardly and outwardly a leader must be concerned with how he projects his image.

"On" (言 : Eloquence, communication): Again the four generals in question were by nature or by training all possessed of the ability to communicate their ideas via the spoken word. The quality of relation that a leader is able to establish with his subordinates is a reflection of his own values and beliefs as well as how he assesses the willingness and capabilities of his staff and the requirements of the situation. Leadership involves establishing rapport between the leader and his subordinates. Therefore, unless he can convey his ideas effectively and convincingly to his men, they will be nothing more than ideas, never acted on. This does not mean one-way communication. An effective leader reaches out to his subordinates by directing their activities and responding to their needs. Reaching out naturally entails risk—of being rejected, of being wrong, of being used.

*Edgar F. Puryear, Jr., *Nineteen Stars* (Orange, Virginia: Green Publishers, Inc., 1971).

A leader needs confidence in himself. He needs to acquire both knowledge and skill, but he also needs to accept the fact he can get support, respect, and acceptance from others. Exchange is a two-way process. "You give and you get." He must develop his ability to listen and to hear what is being expressed with an open mind. To enhance communication, listening is as important as speaking. A good leader should know when to talk and how to listen to his men. Sometimes less speaking creates more eloquence. Reserved listening promotes a mystique of the leader which can be interpreted in an individual way. In fact, according to Korean custom, composure and reserve are the virtues of a master. A leader should be eloquent yet modest, to encourage his people to express themselves freely. One of the most important attributes for a leader is not to give the impression of being talkative and saying nothing.

"So" (書 : Intelligence, wisdom): A leader will be concerned with broad-based intelligence. He will seek to expand his knowledge and not merely be satisfied with limited information gathering. Since leadership is "the act of influencing and directing men in such a way as to obtain their willing obedience, confidence, respect and loyal cooperation in order to accomplish the objective of the organization,"* unless a leader has expertise in his field, it is impossible for him to perceive the situation, thereby failing to influence his subordinates. A leader should be knowledgeable as far as his duty is concerned; therefore, he should always be consistent in broadening the spectrum of his knowledge. Knowledge in itself is not intelligence. Intelligence is concerned chiefly with the wisdom of the application of knowledge. Unless your knowledge is applicable in implementing your leadership, it will be of no use. Quite often we see a very knowledgeable officer fail to be a good leader, indicating his failure to transform his knowledge into a workable communication. This is well illustrated by the tunnel-vision personality found in highly educated leaders. Intelligence helps the leader understand his people more humanely. Intelligence gives him a sense of humor and the ability to develop a good human relationship with his subordinates. Comparative needs for dependence and independence vary greatly among people. Intelligence also teaches the leader that leadership is granted to him by his men; it is not forced on his men by him. Human nature is composed of many facets and cannot always be dealt with as knowledge alone based on logic and reason. The dictate of human behavior is such that at times emotion plays a predominant role between the leader and his men. A leader will develop wisdom to realize that he has to deal with different levels of intelligence and emotion depending on existing circumstances. This is best illustrated by Generals Eisenhower and Marshall when they dealt with the controversial slapping incident of General Patton. They used their wisdom to weigh the incident in its true perspective in relation to the importance of General Patton's role as a field commander in an important theater of war.

"Pahn" (判 : Judgment, insight): A leader's primary responsibility is to mandate decision-making. This involves choice and choice leads to judgment tempered with perception. All the preceding characteristics lead to this one crucial element of leadership. Without the ability to render decisions, a leader is virtually inept; particularly so under the strained and exacting circumstances of the combat situation. These decisions are not involved with monetary gains or losses; it is a matter of all or nothing, life and death, which is the culminative end of life as we know it. The decision should be enacted with precision and timeliness. Circumstances sometimes demand instant decision affecting not only thousands of lives but also the destiny and fate of nations. General Eisenhower's decision of the Normandy landing and General MacArthur's decision of the

Leadership Guide, Fort Benning, Georgia, U.S. Army Infantry School, Department of Operations, FB-C-12, 14 October 1957, p. 1.

Inchon landing well illustrate the absolute loneliness of the leader who must take the final responsibility of making a commitment which no one else will endeavor to make for him. This finality of choice requires the fine-honed edge of the individual leader's integrity subsumed within the virtues of "Shin" (身), "On" (言), "So" (書), and "Pahn" (判).

Integrity seems to be the principal trait found in most successful military leaders throughout history. But it is not easy to define the precise nature of this composite quality that has such a profound bearing on a man's effectiveness. To say a man has integrity is to pay him one of the highest compliments. Yet, we would be hard pressed to give it a scientific analysis, since it is more apparent in its results than in its nature.

AGAIN, let me emphasize there is no set model we can follow to develop a "brand" or "canned" leadership. To put complete reliance on the imitation of another leader's traits or characteristics can only achieve a second-rate copy of the original model. The combination of attributes that you as an individual consider most important will be influenced by your own values, your own cultural background, and always existing circumstances. Acceptance of self is the first sign of a mature leader. Accepting oneself realistically entails a recognition of one's personal strengths and weaknesses unhampered by wishful thinking. Acceptance of both strengths and weaknesses in self, and in others, allows a leader to be concerned with motivating subordinates rather than manipulating them. It allows for collaboration rather than competition.

A competent leader can get efficient service from poor troops; while, on the contrary, incapable leaders can demoralize the best of troops.

General John J. Pershing

Seoul, Korea

THE AMERICAN ECONOMY AND WORLDWIDE PROGRESS

CAPTAIN STEVEN E. CADY

THE American economy and the economies of other major industrial nations seem to be on the verge of significant changes, ones that may alter fundamentally the world's economic framework. These changes will require positive approaches to national and international policy to ensure continued economic progress, both for the United States and for the world.

World progress will depend heavily on the stability of the American economy and of other developed nations. To promote general economic progress, Americans need to confront some basic issues. What threats are there to American economic security? How should Americans meet these threats? How will the United States deal with the challenges to its progress in coming decades? What role will the United States play in the world's future economic development?

These and other significant issues are discussed in three recent books about the American

economy and international progress. Gerald R. Zoffer's *Economic Sanity or Collapse* argues that the United States economy is locked into obsolete concepts and proposes possible solutions to America's economic difficulties. Martin Carnoy and Derek Shearer's *Economic Democracy: The Challenge of the 1980s* is a discussion of and call for alternatives to the present structure of American production, alternatives that would alter the control of capital. Barbara Ward's *Progress for a Small Planet* examines major environmental and economic threats to the economies of developed and undeveloped nations, calling for a program of world cooperation.

Inflation and Federal Spending

Of all the problems facing Americans today, inflation is perhaps the most intractable one. Zoffer observes that no president since Franklin D. Roosevelt has succeeded in curbing inflation effectively.† Roosevelt adopted John Maynard Keynes's program of deficit spending and applied it to the American economy. To stimulate it, Roosevelt pursued a policy of federal spending.

That policy encouraged the growth of government bureaucracy and waste. The result, according to Zoffer, has been the development of powerful bureaucratic agencies, "modern-day dinosaurs," saddling private industry with innumerable federal regulations and wasting billions of dollars on useless expenditures. (p. 13) Programs such as CETA (Comprehensive Employment and Training Act) are staggering boondoggles. The government's use of income transfers is simply an elaborate program of federal waste, one in which the government, in its role as "good fairy" to nonproductive Americans, distributed more than $250 billion in 1979 via income transfer programs: almost one-third of the national budget. (p. 45) In dealing with the energy crisis, Congress established the Department of Energy in 1977, requiring more government spending and taking the energy industry deeper into the federal regulatory jungle. (p. 65) While the programs instituted are intended to alleviate social and economic difficulties, they may be creating additional problems.

Zoffer believes that huge government-spending programs merely result in more inflation, which stifles private enterprise and works hardships on consumers. Yet, the federal government seems more concerned with spending than with inflation. More imaginative solutions to the problem are needed. Washington's popular remedy for curing inflation, wage and price controls, is sheer folly. The author notes that those who call for controls do not seem concerned with the cause of inflation. They simply point an accusing finger at business and labor as being responsible for high prices, when the real cause of inflation is government spending.

Washington's current attitude toward the nation's economic problems is attributable in part to the influence of conventional economists. Many of these economists are followers of Keynes. They encourage government spending and regulations, policies which may be based on fallacious economic theories. Zoffer believes that the most glaring fault of conventional economists is their tendency to study the economy in the same way that natural scientists study nature. They try to construct economic laws that "are not derived from socioeconomic reality, but are simply accepted a priori and based on Newtonian mechanistic thinking." (p. 106) This attempt is a basic fallacy of conventional economics. The laws and phenomena of natural science exist independently

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†**Gerald R. Zoffer, *Economic Sanity or Collapse: Including the Roman-Loebl Approach to Economics* (New York: McGraw-Hill, 1980, $12.50), 340 pages.**

of man. A scientific discipline such as physics studies the composition, properties, and reactions of atomic and molecular structures. Economics, by contrast, is a man-made science. Moreover, the underlying economic thought "is based on observations made over a century ago when the modern economy, the economy of the post-Industrial Revolution, was in its infancy." (p. 135) As Zoffer observes, man long ago transcended such simplified economic formulations by bringing new realities into existence. In the field of economics, however, obsolete thinking still prevails.

One problem may be that the significance of the Industrial Revolution has never been understood properly. It was probably not truly understood even by such profound thinkers as Adam Smith, Karl Marx, or John Maynard Keynes. Zoffer points out that these men regarded the Industrial Revolution as one in which the introduction of machinery was coupled with the division of labor to transform the productive process. This is a simplistic view of the Industrial Revolution, which was also an intellectual revolution that found expression in the social and economic domains. The nature of everything related to the productive process changes drastically. The author argues that the economy itself assumed the form of a dynamic organism, which should logically have put an end to mechanistic thinking about economic processes. Such was not the result, unfortunately: Smith, Marx, and Keynes adjusted themselves to the new conditions without basic changes. Economic thought remained "mired in the concepts of classical economics, which became obsolete with the coming of the Industrial Revolution." (p. 152) Under the circumstances, Zoffer believes that conventional economists are not likely to develop realistic solutions to the nation's economic difficulties.

Reform Proposals

If conventional economists do not have the required answer, what is the solution to America's economic problems? Perhaps, the country needs a new way of thinking. Zoffer contends that it is time to ask, once again, an old but fundamental question: What is the source of a nation's wealth? In bygone times, labor was the source of that wealth. In exchange economies, commodities were produced by labor and exchanged for other commodities also produced by labor. The system was based on labor: the more people worked, the more was produced. Economies no longer operate that way. The development of "energy slaves," the use of the natural environment to man's advantage, has altered the traditional system irreversibly. The ability to transform natural resources into productive use "has become awesomely efficient" as a result of the application of higher levels of thought and applied science. Involved in this transformation is much greater output than input. This difference between the new economic process and the traditional process is crucial.

Zoffer suggests that the difference between input and output may be termed social "gain," which, he asserts, is the true source of a nation's wealth. (p. 253) The more social gain is achieved in the transformation process, the more wealth is created. Although social gain is not necessarily expressed in monetary units, everyone benefits from it: society as a whole, as well as its members. Presumably, government also benefits, but government planning plays no part in social gain. The role of government is limited to protecting social gain. The federal government should develop a program of government lending, not spending, calculated to reduce the size of its budget. A new system of taxation should be devised: one eliminating certain taxes, such as corporate taxes, which inhibit expansion. Such measures would contribute effectively to price stabilization, resulting in an immediate reduction in the federal budget and bringing inflation under control. Zoffer concludes that making such a program succeed will depend on the determination of the American people. They must want economic democracy, and

they must be willing to take the action necessary to bring the federal government under their control. If they are willing to do so, economic democracy can become a reality.

Economic democracy is the central concern of Carnoy and Shearer's book regarding American business practices.† Unlike Zoffer, however, these authors are more concerned with corporate power than with government bureaucracy. Carnoy and Shearer believe that the American economy faces problems which corporate capitalists are incapable of solving. Essential changes can be achieved only by transforming the means by which the economy is governed and production is sustained. The essence of such a transformation would be economic democracy, "the transfer of economic decision-making from the few to the many." (p. 3)

Political as well as economic change is needed. A reform strategy is required to effect the desired changes. The authors have devised a strategy intended to bring about fundamental reforms. There are two essential elements in their reform program: the shift of investment control from corporate domination to the public, and the reconstruction of economic decision-making through democratic worker/consumer-controlled production. They argue that investment decisions are currently made almost entirely by private corporations. Any alternative economic strategy must, therefore, begin by restricting the power of the corporations. Needed is a strategy that will transfer capital from the corporations to the public, so that workers and consumers may decide democratically how to use the capital. Government must be encouraged to restrict corporate power. Over the next two decades, Carnoy and Shearer hope to see the development of a mass political movement winning control of local, state, and national government, a movement transforming American society into an economic democracy.

How, exactly, will political action bring about economic democracy? Perhaps political action should start on the local and state level. Carnoy and Shearer advocate the creation of public enterprises in the various states in order to bring about greater democratization of economic decision-making. Democratic control of investment would also be a step in the right direction. The basic elements in this arrangement would be both private and public employee funds and city-owned and state-owned banks, including large trust departments to handle pension funds. These resources should be accompanied by the establishment within the labor movement of a national pension fund investment advisory service to assist unions in fashioning strategies for using the pension funds.

An essential element in the development of democratic decision-making is worker control at the plant level. As Carnoy and Shearer point out, American industry already has some experience in this area: the producer cooperatives are obvious examples. Such cooperatives fall into two categories: those formed by workers as new firms (job creation) and those arising out of corporate divestitures (job preservation). The plywood factories of the Pacific Northwest fall into the first category and the asbestos firms of Vermont into the second. Such programs are basic grassroots movements designed to change worker-employer relationships. They are characterized by local control and individual involvement in decision-making.

Perhaps the greatest challenge will be the drive to control the nation's largest corporations—the *Fortune* 500. Carnoy and Shearer frankly admit the task will not be easy, as the experience of enforcing the antitrust laws has demonstrated. New approaches have, however,

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†**Martin Carnoy and Derek Shearer, *Economic Democracy: The Challenge of the 1980s* (White Plains, New York: M. E. Sharpe, 1980, $15.00 hardcover, $7.95 paper), 436 pages.**

been proposed. Ralph Nader and others have made a number of reform suggestions. These include federal chartering of corporations, federal minimum standards, and placing workers on boards of directors. In the final analysis, however, democracy in the workplace is most likely to come through aggressive collective bargaining and innovative labor legislation encouraging democratic participation on all levels of the corporation. Building both on new programs and on traditional practices, reformers will simply have to push for democratic changes.

Carnoy and Shearer believe that the 1980s hold promise for progressive political change. Although the 1970s were a relatively conservative decade, the authors observe that some significant liberal activity took place. They point to the interest in democratic management, the result of new and comparatively small-scale industries such as solar-equipment forms, publishing houses, and arts centers. The decade also witnessed some political successes by liberals at the local and state level. For example, the left-wing mayor of Madison, Wisconsin, Paul Soglin, established a city-owned development corporation to provide loans and technical assistance to local cooperatives and small businesses, and the attorney general of Arkansas, Bill Clinton, a former McGovern organizer, fought for consumer interests. Carnoy and Shearer contend that America needs more such activities, anticorporate activities leading toward economic democracy. What is needed "is not nationalization of the means of production from the top down, but democratization of the economy from the bottom up, starting with the workplace and the community," a progressive movement ensuring economic democracy. (p. 375)

The American progressive movement was destroyed in the 1950s but revived in the 1960s and is apparently still alive. Nevertheless, Carnoy and Shearer argue that if the movement is to make substantial progress in the 1980s, multi-issue political coalitions must appear at the local and state levels. These coalitions would be in the reform tradition of American populism, the primary values of which have always been democratic in nature. Thus, it would appear that the fight for economic democracy will remain viable in the last decades of the twentieth century.

Energy Difficulties

In whatever direction political and economic events in America may move, there is certainly potential for substantial change. British social economist Barbara Ward notes that we live in a time of unrest and social upheavals.† She believes that twentieth-century world upheavals have resulted from the accelerating and unpredictable course of the world's scientific and technological revolution. This revolution has been accompanied by the increasing use of nonrenewable energy resources, a practice unchecked until the oil embargo of 1973. Now that the energy bonanza is over, industrial nations are trying to implement new energy policies.

As supplies of fossil fuels have dwindled, industrial nations have increasingly discussed conservation. Since 1973, national governments have, indeed, scaled down their projections for future fuel use. Nations now acknowledge cautiously that conservation is capable of reducing energy demand. Projections, however, greatly underestimate the potential application of conservation measures. These measures are still not recognized as an effective method for increasing the energy supply. Governments concentrate their efforts not on saving energy but on developing alternative sources of energy.

Coal and nuclear energy have naturally

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†**Barbara Ward, *Progress for a Small Planet* (New York: W.W. Norton & Company, 1979, $13.95), 305 pages.**

received the most attention, since they are so easily accessible. The dangers and environmental problems associated with these energy sources, however, encourage nations to search for energy alternatives. So far, the search has not produced satisfactory results. One problem may be the fact that our concepts are still based on the character of fossil fuels, encouraging us to look for solutions within a narrow range. Ward suggests that we need to exercise more imagination in conceiving new energy patterns. After the energy bonanza of the fifties and sixties, the developed nations have taken the "energy slaves" for granted: they still look to the natural energy resources on which they have traditionally relied. As a result, they have not developed long-term fuel-saving programs. Ward concludes that industrial nations, therefore, have at least a century ahead of them of using "bridging" fuels such as coal, oil, natural gas, and—as a last resort—nuclear technology. (p. 59) During this period, the world's nations may gradually shift to using relatively harmless energy sources, possibly through a systematic program of conservation and energy alternatives.

The Need for Cooperation

Although a program of conservation and energy alternatives may eventually result in energy stability, such a program involves no drastic changes. For this reason, Ward is not convinced that conventional energy programs will be sufficient to meet future needs. She observes that we may be in the contradictory position of needing the Keynesian instrument of demand management yet unable to use the method without producing economic stagnation, inflation, or social dislocation. She seems to agree with Zoffer that a new look at the Keynesian approach is required. Ward argues that the nation may have to move toward a system of "private socialism," which is simply a call for representative economic democracy and cooperation. Under this system, government, union, management, and consumer representatives would meet periodically to assess the scale of resources and production required to provide sufficient income and work and to determine whether the economy could then produce the needed goods and services. (p. 137) However, even these changes may not be enough. Changes of an even greater magnitude may be necessary.

The world may need to effect some fundamental changes in its outlook. Ward believes that the United States and other industrial nations are possibly moving toward a new concept of the technological society, requiring new approaches by the developed countries. In the coming decades, the developed nations may join in an economic compact with the undeveloped countries. The world could be on the verge of a new international economic order, an emerging world community, a compact in which the interests of the member nations are paramount. Ward observes that energy concerns have opened a new phase in international negotiations. The time for a new understanding may be at hand, perhaps opening the door to a global compact between developed and undeveloped nations. The traditional suspicions and resentments may be overcome by simple self-interest. In searching for new relationships, markets, and opportunities, the developed nations may look to the undeveloped countries as economic partners. Since the world coming into being in the twilight of the twentieth century is one in which no nation "can escape a truly global destiny," (p. 264) the author concludes that the only choice remaining is international cooperation.

Ward's observations are both interesting and thought-provoking. Since, however, Americans are uncertain about the course of future world events, they must keep their options open with respect both to international and to internal developments. Regardless of whether the United States and other nations move toward global economic union, we must stand ready to deal with events on the international stage. Global involvement will almost certainly be

necessary merely to provide for the daily needs of American citizens. Adverse economic developments in other nations could, therefore, undermine America's economy. The energy and resource policies of foreign nations will assuredly be a problem for quite some time to come. The United States must strive to develop programs satisfying its material needs in order to assure a stable economy. Not only will a stable American economy permit needed economic progress but it will also encourage the peaceful resolution of demands for economic change.

IN the coming decades, there will be repeated calls for change in the United States. In a democratic society, there will understandably be demands for more democracy in economic affairs and increased involvement with other nations. While these demands are likely to produce some uncertainty among Americans, they are in accord with the nation's democratic heritage and are no cause for prophecies of doom and disaster. Economic change does not portend inevitable conflict and disastrous upheavals. While moving progressively toward greater economic democracy and international cooperation, America can also promote internal stability; the two processes are not antagonistic. With positive approaches to the nation's economy and mutually beneficial programs in effect between the United States and other countries, America can simultaneously move toward economic democracy in American society and involvement with other nations.

Washington, D.C.

ENERGY

the crisis and the controversy continue

CAPTAIN CHARLES A. ROYCE

Beginning this moment, this nation will never use more foreign oil than we did in 1977—never.

President Jimmy Carter—July 1979
Television address to the nation

Oil imports are projected to increase . . . to about 9.3 million barrels per day in 1990.

Exxon Oil Company—December 1979
Energy Outlook

SINCE the Yom Kippur War of 1973, the cost of world crude oil has escalated from $3.00 to more than $35.00 per barrel. The perturbation accompanying this "energy crisis" has spawned literally thousands of publications advocating a wide variety of actions and reactions. Quite naturally, diverse viewpoints by writers have led to lively debate on virtually all aspects of the issue. Since the governments of the United States and several of its major allies have yet to develop a coordinated, comprehensive, long-range energy policy to deal with the crisis, the controversy is certain to continue. This article relates to five of the recent books in the lengthening profusion of energy-related works.

IN *Energy: The Created Crisis*, one of the more important volumes written in recent years, Professor Antony C. Sutton states that

his book ". . . has a simple and fundamental message: Our American energy crisis is a counterfeit crisis thrust onto the American people by a politicized elite who have more ambition than common sense."† He supports this rather startling, albeit unoriginal, accusation with some very credible data. Unlike so many authors of energy-related treatises who cite often-questionable figures on resources, imports, exports, reserves, consumption, etc., Professor Sutton uses statistics from the United States Geological Survey, a reliable source. He proceeds to do more than prove that the energy crisis was contrived. He expends considerable effort to show that an abundance of resources exists and is currently recoverable. While some of his assertions are moot—particularly those concerning unconventional technologies—he does provide convincing arguments. It is these statements that belie his opening claim of a fundamental message for his book. Actually, an equally important, underlying refrain emerges.

Professor Sutton believes the real problem facing us today is not a scarcity of resources but a paucity of production. He correctly asserts that enhanced production is the key to our society's survival in its present state. In order to accomplish this increased productivity, he advocates a revocation of excessive government controls on the energy industry and the reinstatement of an impartial market which ". . . left alone, does an excellent job of allocating resources to their best uses." Consequently, he is quite critical of bureaucratic solutions proposed by the Nixon and Carter administrations.

This book represents Professor Sutton's first effort in dealing specifically with energy, and he shows an ability to discuss technical statistical analyses and complicated economic interrelationships in layman's terms. This well-written book, then, establishes Sutton as an important author in a new field. *Energy: The Created Crisis* should be required reading for every person interested in exposure to a variety of informed viewpoints on the subject.

ACCORDING to a report of the Energy Project at Harvard Business School, none of the four conventional sources of energy (i.e., coal, oil, natural gas, and nuclear power) can supply much more energy than they currently yield. Based on this premise, *Energy Future* concludes that the energy importing countries of the world are confronted with only two options: increased imports of oil from the Organization of Petroleum Exporting Countries (OPEC) or a serious effort to conserve conventional energy and make use of low-technology solar power.†† Inasmuch as nearly every expert analyst decries the former choice, this report advocates the latter course of action. Since this stance has been repeatedly taken by the more iconoclastic reformers, it is interesting that the usually staid Harvard Business School has also adopted this position.

Energy Future presents an incisive look at the status of the oil, natural gas, coal, and nuclear industries. A chink in the armor of the report's logic is its assertion that ". . . nuclear power offers no solution to the problem of America's growing dependence on imported oil for the rest of this century." This statement is predicated on the belief that a stalemate exists between nuclear energy proponents and opponents that will not permit any significant increase in the production of nuclear power for the next two

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†**Antony C. Sutton, *Energy: The Created Crisis* (New York: Books in Focus, 1979, $10.95), 175 pages.**

††**Robert Stobaugh and Daniel Yergin, editors, *Energy Future: Report of the Energy Project at the Harvard Business School* (New York: Random House, 1979, $12.95), 353 pages.**

decades. Needless to say, this view is not shared by many other authors. The study then recommends the creation of a national energy policy of enhanced development of solar power coupled with an aggressive conservation program. Overall, the report is a scholarly one which adds still another proposed solution to the energy dialogue.

FREQUENTLY, publications dealing with the subject of energy are so technical and incorporate so many graphic illustrations that only those with a broad knowledge of economics and statistics are able to decipher the academese. In *Energy from Heaven and Earth*, Dr. Edward Teller provides a refreshing departure from complicated economic models.† A noted physicist, Dr. Teller takes a different tack to prove his point that, given the complexities involved, no single prescription exists to cure the West's energy ills.

Beginning with an excellent tracing of the origins of energy and its sources, the author describes present resources and even ventures to foresee the future. Dr. Teller predicts that by the year 2000 the state of the world will either be very much better or very much worse than today's status quo. Displaying an unbridled optimism and a strong faith in Yankee ingenuity, the author proposes a series of policies to alleviate our fuel situation. Essentially, he advocates the complete utilization of every feasible form of fuel available.

This monograph is based on several speeches given by Dr. Teller and is, therefore, written in a light and almost conversational manner. It is a welcome addition to a field dominated by frequently uninteresting books.

AN ambitious undertaking of the Council on Foreign Relations has been entitled the "1980s Project." This project has been discussed in detail in previous editions of the *Air University Review*. The series will eventually consist of some 30 volumes, which will address a variety of pertinent topics. Basically, the project's intent is to provide effort and integrated forethought on important subjects to ensure progress in the next decade toward a more humane, peaceful, and productive world. *Oil Politics in the 1980s: Patterns of International Cooperation* by Oystein Noreng is dedicated to this end.††

The treatise begins with an examination of the inherent stability of the world market. Then it moves to an analysis of the political relationships between OPEC and the Organization for Economic Cooperation and Development (OECD). Using complex economic models, the study projects future developments and proposes solutions based on the adoption of a cooperative, unselfish attitude by all parties involved. Most observers would say agreement is not likely to occur. Noreng also calls for expanded trade outside of oil interests to further strengthen the bond. This study is a complicated, heavily researched, and well-documented effort. Unfortunately, it is not written on the layman's level and is, therefore, not suitable for general informational purposes.

THE distinguished economist and author Dr. Yuan-li Wu has written *Raw Material Supply in a Multipolar World*, published under the auspices of the National Strategy Information Center, Inc. The book's stated

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†Edward Teller, *Energy from Heaven and Earth* (San Francisco: W. H. Freedman and Company, 1979, $15.00), 322 pages.

††Oystein Noreng, *Oil Politics in the 1980s: Patterns of International Cooperation* (New York: Council on Foreign Relations, Inc., 1978, $9.95, $5.95 paper), 171 pages.

purpose is to provide ". . . educational programs in national defense."† Dr. Wu wrote the first edition of this work in 1973. The second edition updates information contained in the original book and reviews important recent developments in the world energy situation. Dr. Wu is an authority on the economy of the People's Republic of China. One theme of the book calls for the United States not to overlook the feasibility of realigning alliances (particularly vis-à-vis Communist China) as a potential solution to our energy problems. The author points out a rather disturbing fact. While the United States has a requirement to protect sea lanes to permit the flow of oil to our shores, it also must recognize total dependence on these channels for the vast majority of its defense metals. The importance of these sea lanes and some strategic vulnerabilities is discussed in great detail. Since this study was written prior to the fall of the Shah of Iran, some of the information and analyses are dated. Because it deals in matters pertinent to military planning, it is an important publication to read.

ECONOMISTS, energy experts, military strategists, and authors from many other areas have been literally pleading for the United States and its allies to develop a viable, long-term energy policy. These books are no exception. Dr. Wu brings the urgency of the situation into sharp focus when he says,

> It is high time that the U.S. cease placing the future of its security in the hands of others, in the hope that those among them who wish us ill will be few and/or will prove to be both incompetent and unlucky. We can begin by developing related domestic and external policies which are mutually compatible and supportive, and it is incumbent upon us to make our own position and objectives clear.

McGuire AFB, New Jersey

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†Yuan-li Wu, *Raw Material Supply in a Multipolar World*, second edition (New York: Crane, Russak & Company, 1979, $4.95), 99 pages.

THE HISTORIAN'S RESPONSIBILITY

CAPTAIN JULIUS F. SANKS

THE theory that histories should not be written until fifty or a hundred years have passed may be valid, at least for controversial subjects.[1] The controversy of the Vietnam War, for example, may not be so much dead as dormant, for it certainly has resurfaced in *Sideshow: Kissinger, Nixon, and the Destruction of Cambodia*.† The book is a history of the war in

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†William Shawcross, *Sideshow: Kissinger, Nixon, and the Destruction of Cambodia* (New York: Simon and Schuster, 1979, $13.95), 467 pages.

Cambodia with emphasis on wiretaps and other "high crimes and misdemeanors."

British journalist William Shawcross maintains that Cambodia was at peace with the world until Secretary of State Henry Kissinger and President Richard Nixon, acting illegally, authorized B-52 strikes on areas of Cambodia suspected of being staging areas for North Vietnam. These bombings forced the North Vietnamese to withdraw deeper into Cambodia, which caused the air strikes to penetrate farther, thus, destroying more Cambodian civilians. It also caused the Khmer Rouge to gain sufficient strength to defeat the Lon Nol regime. The implication is that had there been no B-52 strikes, Cambodia would today be a peaceful and prosperous nation.

The significance of *Sideshow* lies in the manner in which Shawcross has reported and analyzed this unfortunate campaign, rather than whether his conclusions are correct. The Vietnam War, as a defeat for the United States, should be understood in terms of what happened there and the way the war progressed. After all, the United States was not outfought in Vietnam; nor was it overwhelmed by superior numbers and technology. It simply made more mistakes than the enemy.

Shawcross has exaggerated a few of the mistakes made in Cambodia and ignored the rest. He has let reason be clouded by emotionalism in his unrelenting condemnation of the actions and motivations of Nixon and Kissinger. Consequently, Shawcross has failed to make his point.

The narrative is a disjointed collection of chapters, each covering one aspect of the fighting in Cambodia. The central point that links the chapters is the "villainy" of Kissinger, and, to a lesser extent, Nixon. Shawcross portrays them as two evil manipulators who backbite, lie, and connive their way to their nefarious goals. Their every action appears to have been either illegal, immoral, or irrational.

Shawcross contends that Nixon's decision to conduct B-52 raids over Cambodia was a usurpation of the congressional power to declare war. The question of war powers has long been a difficult point in constitutional law, as exemplified by the debates surrounding the War Powers Resolution of 1973.[2] To assert, as Shawcross has done, that bombing Cambodia was illegal, because Congress had not declared war, is to ignore both the historical struggle between the executive and legislative branches and the legal basis for the Vietnam War. It can be argued that the Cambodian operations, being directed against North Vietnamese rather than Cambodian forces, were legally permissible under the Gulf of Tonkin Resolution.[3]

Continuing his legal arguments, Shawcross accuses Kissinger and Nixon of violating the Cooper-Church amendment that sharply limited U.S. military involvement in Cambodia. He indicates that this amendment was passed as part of the 1970 amendment to the Foreign Military Sales Act, and that it "prohibited all air operations in direct support of Cambodian forces" after 30 June 1970.[4] He omits that this amendment is not part of the act as legislated, having been approved by the Senate Foreign Relations Committee only. The amendment later became law on 1 January 1971 as part of the Special Foreign Assistance Act of 1971.[5] As enacted, there is no prohibition of air operations. The amendment expressly forbids financing the "introduction of United States *ground* combat troops into Cambodia, or to provide United States advisors to or for Cambodian military forces in Cambodia."[6] Shawcross repeatedly cites this reference to claim the administration's air operations were illegal.

Shawcross does not hesitate to employ a double standard to show that everything Kissinger and Nixon did was wrong. He criticizes the United States for recognizing Lon Nol after the coup that overthrew Prince Sihanouk, although he concedes there is no evidence of U.S. intervention. He condemns the United States for supporting Lon Nol with weapons and supplies and, finally, for failing to assist Lon Nol's army against the Khmer Rouge

adequately, despite the fact that the Cooper-Church amendment (as passed into law) had by that time precluded such actions.

The impression Shawcross conveys is that of two men, crazed with power, manipulating the world as if it were a musical instrument. As a matter of fact, the rational and irrational acts that contributed to the Cambodian situation began long before the presidency of Richard Nixon.

Had Shawcross not hounded Kissinger and Nixon so emotionally, he might have criticized the North Vietnamese for using Cambodia as a staging area and refuge. He might have seen that his narrative indicates that Nixon and Kissinger genuinely desired a peace negotiation for the United States. And he might have recognized the truth of Otto von Bismarck's philosophy of statesmanship: "Man cannot create the current of events. He can only float with it and steer."[7] Kissinger and Nixon cannot have been as totally responsible for Cambodia's agony as Shawcross claims, regardless of the legality of their acts. They were, however, well aware that the fighting in Cambodia was a classic case of Clausewitzian warfare.

Has Shawcross studied Clausewitz? Probably not. He has neglected the essential point that the military operations in Southeast Asia were conducted to achieve political goals. Extension of the war into Cambodia was intended to help achieve those goals; criticism of the responsible decision-makers should be tempered by understanding the friction of battle they have to contend with. Shawcross has shown neither understanding nor the knowledge of strategy necessary to analyze military operations and their goals. His lengthy discussion of domestic wiretaps bears little relationship to the bombing of Cambodia; on the other hand, the Linebacker operations, which did affect the Cambodian situation, are barely mentioned. Altering reality to depict the fighting in Cambodia as a Greek tragedy, as Shawcross has done, serves no purpose.

The reader should remember from *Sideshow* that not everything in print represents reality. In their analyses, historians must accept the facts as they stand, examine them as rationally and unemotionally as possible, and present conclusions. How else are we to learn?

Grand Forks AFB, North Dakota

Notes

1. William L. Shirer, *The Rise and Fall of the Third Reich* (New York, 1960), p. xi.
2. Public Law 93-148.
3. Properly referred to as "Southeast Asia—Peace and Security," Public Law 88-408.
4. Public Law 91-672.
5. Public Law 91-652.
6. Ibid., Section 7, para (a). Emphasis added.
7. Alan J. Taylor, *Bismarck: The Man and the Statesman* (New York, 1955), p. 70.

> . . . in Viet Nam the [American] media became the primary battlefield. Illusory events reported *by* the press as well as real events *within* the press corps were more decisive than the clash of arms or the contention of ideologies. For the first time in modern history, the outcome of a war was determined not on the battlefield, but on the printed page and, above all, on the television screen.
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> Robert Elegant, "How to Lose a War," *Encounter*, September 1981, pp. 73-90

Potpourri

The CIA and the American Ethic: An Unfinished Debate by Ernest W. Lefever and Roy Godson. Washington: Ethics and Public Policy Center (Georgetown University), 1979, 157 pages, $9.50 hardcover, $5.00 paper.

This small book is high-quality writing with a purpose: to provide the basis for a genuine debate about the state and role of intelligence in U.S. policy.

Founding director of the Ethics and Public Policy Center at Georgetown University, Ernest W. Lefever argues that we live in a dangerous world where democratic government, the rule of law, and the survival of freedom are jeopardized by the Soviet Union and its client states. For our survival, we need a vigorous foreign policy supported by an effective and responsible foreign intelligence establishment with the capability for clandestine collection and covert action. This, he adds, is wholly compatible with the American ethic, if these activities conform to the standards of "just war" doctrine: If the ends are just, the means are just and appropriate, and the probable consequences of success would advance the cause of security, justice, and freedom.

Roy Godson, professor of government at Georgetown, recounts how Congress recently has played an unprecedented and intense role in U.S. intelligence. He decries the fact that congressional activity and interest have not led to a serious evaluation of certain intelligence capabilities; rather, Congress avoided any efforts to improve them. Godson presents a telling analysis of the "anti-intelligence lobby," which seeks limitation or abolition of U.S. capabilities in counterintelligence, clandestine collection, and covert action.

In the final chapter, Lefever presents convincing data that the three networks' television evening news reporting (1974-78) on CIA has lacked balance and depth and perspective, both reflecting and reinforcing the general focus of America's "prestige press" (*Time*, *Newsweek*, *New York Times*, and *Washington Post*). He charges that the television networks observed neither the spirit of the Fairness Doctrine nor the letter of their own Code of Broadcast News Ethics.

The book makes good reading.

Dr. James H. Buck
University of Georgia, Athens

The Royal Air Force and Two World Wars by Sir Maurice Dean. London: Cassell Ltd., 1979, 349 pages, £8.95.

This new addition to air war history will only be useful to those not already familiar with official Royal Air Force (RAF) history. Written by a long-term Air Ministry official, it is really a bureaucratic look at World War II. The title is misleading, for Sir Maurice Dean concentrates overwhelmingly on the prewar and early war periods. Uncertain whether he is writing a basic history or an analysis of specific issues, Dean falls between the two. Whole areas are left out while others are minutely scrutinized. The result is a confused affair that does little but attempt to exonerate the RAF high command and the Air Ministry from errors in the initial bombing offensive.

Dean's basic problem is one that has tripped up numerous RAF historians. The prewar RAF based its existence almost solely on the belief that strategic bombing could not be halted by any defence. When war broke out, this theory was shown to have major flaws. Britain had to rely on its fighters for protection while its bombers proved ineffective and vulnerable. Instead of admitting that the RAF's dogmatic belief in its bombers almost cost Britain the war, Dean attempts to justify this outlook. The smug self-righteousness and "we know best" attitude that run through this book are most irritating; apparently nothing was learned from the entire experience. Dean seems to be saying that since the RAF was finally victorious, any criticism is totally unwarranted, merely nit-picking and bad manners.

Military organizations cannot afford to have an attitude such as Dean displays in this book. His attempts to minimize command incompetence by maximizing subordinate heroism never deal with the basic issues. The pilots who died in obsolete Defiants and Battles did not "sacrifice themselves in the highest traditions of their Service"; they were victims of an organization that refused to maintain a critical and honest appraisal of itself.

Dr. Brian M. Linn
Ohio State University, Columbus

MiG Pilot: The Story of Viktor Belenko by John Barron. New York: Reader's Digest Press and McGraw-Hill, 1980, 256 pages, $10.00.

On 6 September 1976, when Lieutenant Viktor Belenko flew his MiG-25 to Japan and sought asylum in the United States, he embarrassed the Soviet Union before the other nations of the world. With that flight he brought the West the latest in Soviet fighter technology and a view of the Soviet Union and military through the eyes of one of its top pilots. Perhaps even more damaging to the Soviets, however, was the indisputable fact that despite endless hours of indoctrination in an almost totally closed society, Belenko's spirit remained free. He belied the Communist claim of having created the New Soviet Man. For this reason the Soviets pulled no punches in their ensuing propaganda campaign to get him back. Unlike a more

recent incident involving the Russian peasant soldier who sought asylum in the U.S. Embassy in Afghanistan, the Soviet appeals failed.

John Barron's *MiG Pilot* tells of Belenko's daring escape, his reason for risking all, and his reaction to life in the United States. Since childhood, Belenko yearned to be free. He realized early that education and hard work were the only means to escape the normal fate of the Russian peasant. His adventure began in books provided by an understanding and compassionate librarian. His spirit was further nurtured by the helpful guidance of his first flight instructor, who recognized his rare gift for flight. However, his illusions were dashed following a gruesome accident in which a MiG-25 slammed into a bus loaded with school children. At that point Belenko decided to escape.

During his first days in the United States, Belenko must have thought he was dreaming. Peering through the intellectual prison of the Soviet Man, he believed everything to be a sham perpetrated by clever, devious capitalists. His first trip to the supermarket, the men's clothing store, department stores, amusement parks, the casualness of the American people, life on a farm, and seeing a black man with a white woman—all overwhelmed him. He refused to believe what he saw until watching an aircraft carrier in operation. As a military man he realized that no one could stage such a complex military operation. It had to be genuine.

According to Belenko such cooperation could not be achieved in the Soviet military, which is undergoing a crisis best reflected by Belenko's personal struggle to free himself from the malaise caused by the Communist Party's attempt to create the Soviet Man and the Socialist State. As a result, life in Communist Russia is bleak. The average citizen is lifeless, joyless, and without hope. Alcoholism, crime, corruption, and graft flourish. The system is a complete failure. By American standards, nothing works except the Party, and the Party's image is protected regardless of cost. For this reason Belenko's tale is discouraging. There is no hope of achieving America's concept of détente as long as the Communist Party prevails in Russia. Ours is an experiment in individual liberties, while theirs is a mass exercise in psychological conditioning. Unable to provide the Russian people the standard of living available in the West, the Communist Party has substituted the Soviet Man instead. So long as the Communist Party prevails in Russia, inexorably, there must be "Dark Forces" in the West.

Even though I believe Belenko's tale, the nagging question remains as to what degree other Soviet officers share Belenko's views. Perhaps the critical factor, as his experience suggests, is opportunity. I find it curiously revealing that while past nations have found it necessary to construct walls to keep barbarians out, the Soviets must do the same to keep their citizens in. Belenko's escape, as well as the attempt of the Soviet bloc family to flee in a rickety balloon in a desperate bid for freedom, speaks as eloquently of the Soviet system as the reams of analysis prepared by our political scientists.

Captain Dennis G. Hall, USAF
Department of History
United States Air Force Academy

The American Flying Boat: An Illustrated History by Captain Richard C. Knott, USN. Annapolis: Naval Institute Press, 1979, 262 pages, $29.95.

To many people, the mention of flying boats conjures up only romantic images of the China Clipper, Howard Hughes's "spruce goose," and the Catalinas of World War II fame. In reality, the flying boat played an instrumental role in the development of both naval and commercial aviation in the United States. Almost immediately after the Wright brothers' flight at Kitty Hawk, other experimenters began attempts to launch airplanes from the water. The resulting aircraft over the next fifty years and the men who flew them had a marked effect on the spread of aviation worldwide.

Captain Richard Knott has produced an excellent history of flying boats and their niche in American aviation. Taking the story from the very first sea-launch attempts of Glenn Curtiss, Knott relates the development of the flying boat to the Navy's gradual acceptance of aviation as an integral part of its operations. The story of the early years of the flying boat is also interwoven with the early years of America's aircraft industry, for Douglas, Curtiss, Lockheed, and Consolidated took an active part in its development.

This book is lavishly illustrated with photographs and fine drawings of virtually every aircraft type mentioned in the text. These are invaluable to the reader in understanding the evolution of flying boat design concepts from the flimsy Curtiss Loon to the supersonic Convair Sea Dart fighter.

The American Flying Boat is well written and highly recommended as a glimpse at the trials and triumphs of an aviation era that is nearly gone.

Captain Don Rightmyer, USAF
Office of Air Force History
Bolling AFB, D.C.

Can Government Go Bankrupt? by Richard Rose and Guy Peters. New York: Basic Books, 1978, 283 pages, $12.50.

You do not need to read the whole book to answer the title question. It can be found on page 7—a government cannot go bankrupt "in the normal commercial sense of that term." But if the reader is interested in more than just scratching the surface of a profound issue, the time invested in reading this book will indeed be well spent.

The problem is not a simple one. Once the framework of the answer to the question posed by the book's title has been presented, Richard Rose and Guy Peters concede that the government can go politically bankrupt, if not financially bankrupt. In a politically bankrupt environment, citizens are indifferent to a government due to its loss of popular consent and economic effectiveness. While contending that the threat of political bankruptcy is worldwide, the authors weaken their argument by limiting their examples to selected major Western governments (the United States, Britain, France, Germany, Italy, and

Sweden). An analysis of the growth of government's claim on national product through public policy implies eventual reduction of take-home pay. Further, a look at the creeping problem of past commitments to spending foretells an eventual undermining of nominal progress being made in terms of any economic growth. Both possibilities would enhance the probability of political bankruptcy in any country.

Rose and Peters are well equipped to write this text. Both have been significantly honored in the academic community; and while both are American, they have studied and done research in Europe, primarily at the University of Strathclyde but at other institutions as well.

One of the strengths of the book is the set of elaborate tables in the appendix. The authors' position is fairly well substantiated in these tables. However, much of the narrative seems to be explaining data that could easily be absorbed by inspecting the tables.

The book examines a broad issue in a palatable, nontechnical way. If you are at all concerned about the financial problems faced by Western governments today, *Can Government Go Bankrupt?* is a book you should read.

Lieutenant Colonel F. E. Ward, Jr., USAF
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Maxwell AFB, Alabama

What You Say Is What You Get by Roger A. Golde. New York: Hawthorn Books, 1979, 218 pages, $9.95.

It is rare to find a book so helpful and at the same time so delightful!

Roger Golde, an independent management and education consultant who has worked with an unusual variety of organizations, both government and private, has put together a small yet exciting buffet of verbal possibilities. His use of "she" as often as "he" in his examples indicates a sensitive spirit. This series of living language spectra includes more than eighty techniques, plus several alternative sets of words that can be used in a variety of situations. Each spectrum has two extremes. Where you fall is not good or bad in any absolute way. Rather, where you fall is more appropriate or less appropriate to a particular situation and the conversational tone or communicative style you wish to construct.

Awareness of style enables you to realize that the other person may not be talking from the same place on the spectrum as you are. From that point on, you are encouraged to listen, analyze, and call forth more effective techniques.

Moving through this entertaining text, you will become increasingly aware of the options available. Since the verbal approaches are based on an unusual set of premises, they offer significantly different alternatives from the ones you may be used to or have been taught in a command situation, for example. Nevertheless, these verbal formulas are useful even if you do not fully subscribe to Golde's humanistic philosophy. I am convinced that these alternatives can add to your linguistic armamentarium and be fun as well.

Officers, managers, instructors, public speakers, and concerned conversationalists will find that *What You Say Is What You Get* will expand any repertoire. From discovering why "and" is better than "but" and why "Why?" is not a good first question to giving instructions, asking questions, and solving problems, to communicative combinations that provide serious speculation about selves-in-relation, this little book has much to offer. Read it and what you say will never be quite the same again.

Dr. Porter J. Crow
Center for Leadership Development
Washington, D.C.

Admiral Bradley A. Fiske and the American Navy by Paolo E. Coletta. Lawrence: Regents Press of Kansas, 1979, 301 pages + index, $25.00.

Dr. Paolo E. Coletta, professor of history at the U.S. Naval Academy, contends that Admiral Bradley A. Fiske possessed unique gifts as a scientist, inventor, and strategist. He argues convincingly that Fiske (the guiding force behind numerous improvements in naval engineering and fire control in the late nineteenth century and father of the torpedo plane and of the Office of Chief of Naval Operations) was "the most innovative, inventive, and scientifically minded naval officer of his generation." However, his claims for the admiral as a strategist seem overstated.

Coletta gives scant attention to the motives and ideas of Fiske's opponents. Acceptable in discussions of technical innovation, this omission weakens the author's treatment of Fiske's differences with Secretary of the Navy Josephus Daniels, differences that led to Fiske's resignation in 1915. The admiral, Coletta argues, was simply trying to protect the service from a meddling politician. But his evidence suggests that, especially regarding fleet deployments, Fiske tried to substitute his views for those of Daniels and President Woodrow Wilson. Fiske believed that American participation in the European war was inevitable. Thus, he was not worried that actions to prepare for war might make U.S. involvement more likely. Wilson and Daniels, however, sought to avoid American participation and insisted that fleet dispositions be consistent with the diplomatic objectives of the administration.

The dispute involved fundamental questions of national policy. By accepting too readily Fiske's opinions and by not exploring in greater depth the views of those who opposed him, Coletta has missed an opportunity to examine them and explore some of the most sensitive issues of civil-military relations.

Dr. Daniel F. Harrington
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Raw Material Supply in a Multipolar World by Yuan-li Wu. Second edition. New York: Crane, Russak, 1979, 95 pages, $4.95 paper.

This book will never be a best seller. However, a catchier title, perhaps like *The Decline and Fall of the West*, might help. This book, written by an eminent economist who served as a Deputy Assistant Secretary of Defense in 1969-70, was originally published in 1973, when the average American suddenly became aware, waiting in a gas line, of our dependence on all those sandy little countries surrounding Israel.

This second edition wastes little time documenting the obvious failure of the United States and its allies to break their addiction to OPEC oil. Instead, the author documents in some detail their similar precarious positions in regard to six of industrial society's most important metals. He analyzes the positions of the United States, our European allies, and Japan with respect to import dependence, security of trade routes, and ability to pay. His "inescapable conclusion": one cannot continue to count on allegedly parallel national interests among these countries to guarantee actions for the common good. This apparent call for more multinational cooperation comes only on the penultimate page, however, and that scant guidance is undermined in the final paragraph by the assertion that "It is high time the US cease placing the future of its security in the hands of others."

Raw Material Supply in a Multipolar World paints a picture of the near future that every American should seriously study, and then perhaps make recommendations or complaints to his congressman. But one can hardly recommend it as a guide to action for any but the highest level policymakers.

Major Frederick J. Manning, USA
USA Medical Research Unit-Europe

Airborne by Edwin P. Hoyt. New York: Stein & Day, 1979, 240 pages, $10.95.

"Death from above" is the paratrooper's motto, but from time to time it has also been the paratrooper's fate. *Airborne* tells the story of American Airborne forces from their beginnings in World War I through today's highly technical application.

Edwin P. Hoyt describes obstacles that Airborne Forces have had to overcome. First, they fought a tradition-bound command that resisted the concept of a separate airborne force and often misused the Airborne's talents. Second, paratroopers fought unreliable equipment and drop techniques. Finally, and most successfully, they fought the enemy. Often cutoff from resupply, outnumbered, and outgunned, Airborne forces spread confusion, captured roads and bridges, and cut off the path of the enemies' retreat.

The book provides a superficial but generally satisfactory account of Airborne history. The accounts of particular units' battle records make interesting, if somewhat confusing reading. In accounts of some battles, the actions of many units and individuals are described. It is somewhat difficult to see the "big picture." More maps would help keep the action of many units in perspective. The author's editorializing about the correctness of the Vietnam War detracts from the impact of the book. Several grammatical or printing errors prove annoying.

Airborne is recommended for the person with limited knowledge of the history of Airborne forces.

First Lieutenant Lawrence P. Melancon, Jr., USAF
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UFOs: A Pictorial History from Antiquity to the Present by David C. Knight. New York: McGraw-Hill, 1979, 192 pages, $12.95.

Don't worry about whether they exist or not. Read this one for laughs. The book covers the unidentified flying objects (UFOs) craze chronologically, starting with ancient sightings and ending with those of early 1979. It's hard to take the whole thing seriously, especially on noticing that the UFOs discussed reflect terran technology: The UFOs sighted in 1896 had propellers.

There are numerous photographs, sketches, and accounts of UFO "passengers." A few of the photos are genuinely puzzling, but some of the captions insult the intelligence of any reasonably skilled photographer. Is David Knight being tongue-in-cheek? Get *UFOs* from the library—save your cash for a book you need—and spend some time deciding how you might have faked the shots. Don't look for any proof here; just read for amusement.

Captain Julius F. Sanks, USAF
Grand Forks AFB,
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The Decline of Bismarck's European Order: Franco-Russian Relations, 1875-1890 by George F. Kennan. Princeton, New Jersey: Princeton University Press, 1979, $25.00.

In *The Decline of Bismarck's European Order*, distinguished diplomat and author George F. Kennan seeks to find a more selective approach to the causes of World War I in the motivation and calculations of French and Russian leaders of the 1870s and 1880s. What was behind the readiness of Paris and Saint Petersburg to conclude a military alliance, and how did their expectations lead them to wander so blindly into the terrible crucible of 1914-18? What was the role of Bismarck, "attempting always to prevent the boulder of European order from running down the slopes toward international anarchy"?

Kennan is supremely skillful in immersing the reader in the intrigues and maneuvers of European politics. His narrative style of history as storytelling may at times neglect archival material important to the purist, but it makes for easy and interesting reading for both the amateur and expert. Conveying lessons important to the study of mod-

ern apocalyptic war, the book will be valuable for the strategist and scholar as well as the general audience.

Dr. Paul R. Schratz
Homosassa, Florida

Strategic Deterrence in the 1980s by Roger D. Speed. Stanford, California: Hoover Institution Press, 1979, 174 pages, $7.95 paper.

We are currently inundated with literature on the U.S.-U.S.S.R. military balance, particularly the strategic component. The quality of this fare varies considerably. Much is merely polemic; other is so highly technical that it is of little value for even the more informed layman. This excellent treatise avoids both of these pitfalls. In fact, to my mind *Strategic Deterrence in the 1980s* is the best account of our strategic capabilities and vulnerabilities now accessible for the interested novice. Roger Speed has fully tapped the available information.

Speed, a physicist and veteran defense analyst affiliated with R&D Associates in California, strikes a delicate balance between the complexity of technical details and the overall big picture. Briefly, but without undue oversimplification, he traces the evolution of American deterrence policy, development of present systems, nature of the current strategic debate, and projections of future trends. His attention is focused primarily on the survivability of U.S. systems in the event of a Soviet first strike. Although Speed denies it, his scenarios tend toward the worst case; but they are insightful, perceptive, and chilling. One cannot read the book without being deeply disturbed. The final chapters discuss "extended deterrence" against possible Soviet actions in Europe and address means of mitigating the larger Soviet strategic threat.

The tightly written text is augmented by charts, graphs, and an excellent appendix. The copious footnotes provide an introduction to the larger literature. The beginning student can gain the basic terminology, the policy issues in debate, and an introduction to American and Soviet capabilities. The more advanced student will be impressed by the sophistication of Speed's approach. I know whereof I speak as I have found the book a very successful text in my introductory course in national security politics.

Any such book is dated at the moment of publication, its usefulness declining quickly with each passing day. At the time of publication, this was the best work available on this vital topic; it remains extremely valuable.

Dr. Joe P. Dunn
Converse College
Spartanburg, South Carolina

The Extraordinary Envoy: General Hiroshi Oshima and Diplomacy in the Third Reich, 1934-1939 by Carl Boyd. Washington: University Press of America, Inc., 1980, 246 pages, $9.40 paperback, $17.00 hardcover.

Based partially on recently declassified documents, *The Extraordinary Envoy* is a very detailed account of the reciprocal diplomatic exploitation between Nazi Germany and militarist Japan at a time when nations were choosing sides for the world's most destructive war. Carl Boyd provides some new insights into the secretive axis politics that never fully yielded expected benefits, partially because the secrets could not be kept from intelligence-minded Americans and Russians. Serious students of World War II may find the book interesting.

Major E. L. Thompson, USAF
Air Command and Staff College
Maxwell AFB, Alabama

The Dangers of Nuclear War: A Pugwash Symposium edited by Franklyn Griffiths and John C. Polanyi. Toronto: University of Toronto Press, 1979, $15.00 cloth, $5.95 paper.

Since the early days of nuclear confrontation, the Pugwash conferences have made a significant contribution to a better understanding between the scientist and policymaker in the regulation of nuclear armaments. *The Dangers of Nuclear War* offers information that is both important and useful. Typical is Vice Admiral Gerald Miller's discussion of nuclear command and control procedures, which is very well done. The Pugwash goals, however, seek control or elimination of nuclear weapons, and, understandably, most of the essays tend to overstate the dangers of proliferation, accidental use, and nuclear terrorism. Nevertheless, *The Dangers of Nuclear War* is highly recommended for both the student of strategy and the general reader.

Dr. Paul R. Schratz
Homosassa, Florida

Assault on the Liberty: The True Story of the Israeli Attack on an American Intelligence Ship by James M. Ennes, Jr. New York: Random House, 1980, 299 pages, $12.95.

Assault on the Liberty is an unofficial but nonetheless authoritative history of the 8 June 1967 Israeli attack upon the U.S. naval intelligence ship *Liberty*. Evidence presented by James Ennes, Jr., who was Officer of the Deck during the initial attack, not only indicates that the ship was deliberately attacked by combined Israeli air and naval forces but that the ship was deliberately placed in jeopardy by the Joint Chiefs of Staff at presidential request to demonstrate to the Israelis that American intelligence-gathering activities were not under the control of Israeli authorities. (The Israelis had warned such vessels to stand clear of the combat zone lest they discover the impending Israeli invasion of Syria, scheduled for 8 June.)

Ennes, even though he was badly wounded and subsequently taken below, presents a minute-by-minute account of the voyage, from departure at Norfolk to the attack off Gaza to the Court of Inquiry held on arrival in Malta. He

uses numerous official documents, and the work is heavily documented. Most interesting is the official government response to the predicament, hampered by severe inadequacies in worldwide communications.

Assault on the Liberty is pleasurable and stimulating reading, particularly for the individual who may find himself in or near a hostile environment as an intelligence-gathering nonbelligerent.

Robert S. Hopkins III
Blacksburg, Virginia

Gray Steel and Blue Water Navy: The Formative Years of America's Military-Industrial Complex, 1881-1917 by Benjamin Franklin Cooling. Hamden, Connecticut: Archon Books, 1979, 286 pages, $19.50.

Few scholars write well, and even fewer writers are good scholars. Thus it was a pleasant surprise to find this scholarly work to be good reading. Benjamin Cooling's subject is the formation of the military-industrial complex as the United States built its modern steel-armored Navy between 1881 and 1917. The story concerns the U.S. Navy's need for armor and the steel industry's need for profits.

Gray Steel and Blue Water Navy is neither military nor industrial history but the history of a growing relationship between government and business. Cooling traces the story through correspondence between succeeding Navy secretaries and the giants of the steel industry, supplemented with liberal references to government reports. As befits a scholarly work, Cooling includes numerous statistical tables, 28 pages of reference notes, and a voluminous bibliography.

The book would have much broader appeal if the author had widened his horizons. The era in question is one of great intellectual, political, and military turmoil. Cooling could have put his subject in better context by including more discussion of the influences of Stephen Luce and Alfred Mahan on naval thinking, the closing of the western frontier and the desire for national expansion, and the business practices and pressures of the era. He mentions these subjects but only in passing.

This book is for scholars, who will find it both rewarding and readable. One hopes that Cooling's seminal research in this important era and area will result in works of wider scope for a more general audience.

Lieutenant Colonel Dennis M. Drew, USAF
Air Command and Staff College
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Fly Me, I'm Freddie by Roger Eglin and Berry Ritchie. New York: Atheneum, 1980, $11.95.

Well, do not buckle your seat belt just yet. This fawning tribute to Freddie Laker, wizard of the transatlantic rate-busting, cartel-cracking "Skytrain," is worth reading only if you are unaware of three facts:

- An individual can still have stunning impact (for good or evil) on a significant part of the world community;
- Entrenched bureaucracies (in this case the Civil Aeronautics Board, the major airlines, the Executive Branch, the International Air Transport Association, and the Civil Aeronautics Administration) have a marvelously intricate and powerful way of resisting change; and
- No matter how self-righteous one becomes about the wisdom of a certain "solution," that solution more often than not will lead to a new series of problems. (International air fare structures "after Laker" are now in such a state of chaos that quoted prices by different agents for the same route and carrier package can vary as much as $250!)

If you already appreciate the above truisms but still enjoy reading about a man of iron will and nerves to match, then fly Freddie—otherwise take a train.

Roger Eglin and Berry Ritchie describe Ted Kennedy and Jimmy Carter as the guardian angels of deregulation, a view some would consider mythology. In the case of air fare deregulation, however, it appears a fitting rubric.

Lieutenant Colonel Henry A. Staley, USAF
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Escort to Berlin: The 4th Fighter Group in World War II by Garry L. Fry and Jeffrey L. Ethell. New York: Arco Publishing Co., Inc., 1980, 226 pages, $16.95.

Not too many years ago, military history books were governed by a perverse and invariable law: good photographs and illustrations meant an inaccurate, poorly written text; a competently researched, well-written text meant irrelevant illustrations with inaccurate captions written by editors chosen for their ignorance of the subject matter. "Coffee table book" became a curse word among thoughtful students of the military art, and publishing houses deliberately offended the visual sensitivities of those seriously interested in military technology.

Those days, fortunately, are coming to an end, largely because of the efforts of publishers like Arco, who began catering to detail-conscious technology buffs and scale modelers and discovered a much wider and equally sophisticated audience in the process.

Escort to Berlin is a classic product of this evolution, difficult to categorize in orthodox terms but of extremely high quality. The heart of the book is the 4th Fighter Group's day-to-day World War II operational diary—garnished with hundreds of carefully selected and well-captioned photographs, most of them previously unpublished. The physical quality of the book is superior. The excellent paper and quality printing effectively save many fuzzy but fascinating World War II snapshots. The book is rounded out by appendixes dealing with, among other things, organizational structure, pilot losses, aircraft markings, and the 4th Group's dance orchestra! There is a brief and informative introduction, a useful one-page glossary, and a gracious foreword by General Ira C. Eaker. Lying somewhere between pure source documentation and pure visual experience, this is an excellent value for those interested in the subject. Arco and the authors are to be commended for their thoroughness and care.

J.F.G.

War in 2080: The Future of Military Technology by David Langford. New York: William Morrow and Company, Inc., 1979, 229 pages, pictures, illustrations, index, bibliography, $12.95.

War in 2080 is not a story about a war in 2080. It is a book that starts the reader in the weapon technology of the present and moves him out into the technology of the next 100 years. The sophisticated military reader will turn the first 100 pages quickly. It takes David Langford that long to go from Greek fire and the longbow to the triad and fuel-air explosives. On the way, he fills several pages with sigmas, parentheses, and numbers in scientific notation describing fission and fusion. As a new Ph.D. in physics told me, "He gets from A to Z, but he skips D through X on the way." You should skip to page 105 because things get better there.

Langford's first speculation involves the use of volcanoes and tectonic plates as weapons of mass destruction. He moves on to energy beams, lasers, man-machine direct connection, ecological war, and battles in space. His most impressive near-term weapon is the "dumb rock": large asteroids or chunks of moon rock dropped down the "gravity well" of the Earth from space. An object only 12 meters in diameter when it reached the ground would produce a Hiroshima-size explosion with no radiation. Any defense is difficult to imagine. The technology for this weapon has been available for years.

The author is careful to give credit to science fiction writers who have presented the ideas earlier (bombarding moon rocks came from Heinlein's *The Moon Is a Harsh Mistress*), but he further evaluates the plausibility and potential of ideas that existed only in pulp science fiction magazines a few years ago.

War in 2080 is not a great book and not for every reader, military or otherwise. It is a valuable book for those interested in speculation on the future of large-scale weapons and warfare. The science in it is valid but theoretical. It is the only book I know of that tries to fill the vacuum that exists between the ideas of the science fiction writer and the hardware of today. The author succeeds fairly well, but spends too much time on the near past and present and too little on such factors as the structure of the forces needed, possible patterns of society, and future motives for war.

You should keep one thing in mind when reading works like this. Projections of the future are notoriously conservative. We can see well only about five years ahead.

Science fact is gaining rapidly on science fiction. We may have to deal with some of the forces described in *War in 2080* sooner than we like.

Major Frank J. Derfler, Jr., USAF
Hq USAF

The McNamara Strategy and the Vietnam War: Program Budgeting in the Pentagon, 1960-1968 by Gregory Palmer. Westport, Connecticut: Greenwood Press, 1978, 169 pages, $15.95.

It's all in there: the old pre-McNamara budgeting system, the Eisenhower policy of strategy determining service allocations, McNamara's rationalization of the defense budget through the Planning-Programming-Budgeting System (PPBS), that system's centralization in the Office of the Secretary of Defense, and finally the debacle of such a rigid system struggling to cope with a major war in Vietnam and a strategic cold war with the U.S.S.R. Before, during, and debacle, it's all there. Gregory Palmer, research fellow at the Institute for United States Studies at the University of London, has written a brief, intense, and opinionated study that asks pointed questions about the consequences of Robert S. McNamara's tenure at the Pentagon from 1960-68.

Why, for instance, did the United States adopt a policy during the Vietnam War that fragmented military efforts into discrete programs and projects in lieu of a unified strategy? Why did the PPBS fail to provide Congress and the public with accurate cost figures on the United States effort in Vietnam? And why did the system fail so badly in developing and acquiring the TFX fighter-bomber. Palmer answers these and a host of other provocative questions by showing the limits of systems analysis, fractional analysis, and rationalism in formulating defense and foreign affairs policies.

But there are other reasons for reading this important work. Recently, another Secretary of Defense, a former associate of McNamara, instituted the Consolidated Guidance (CG), a major defense planning document. More than just a planning guide, the CG seeks to shift the ground in formulating defense policy from Congress and the public into the Office of the Secretary of Defense. Tightly rationalized, pinned to rigid force projections, and filled with fractional analysis assumptions, this Consolidated Guidance appears to be firmly rooted in the former PPBS system developed under McNamara. If this is true, Palmer's analysis may provide us that rare opportunity, a chance to see the consequences of a major policy process before, not after, its "testing time" of crisis.

Dr. Pat Harahan, Historian
Offutt AFB, Nebraska

The Ebb and Flow of Battle by P. J. Campbell. New York: St. Martin's Press, 1978, 167 pages, $8.95.

The dust cover synopsis begins with the word *astonishing*, which is applicable only if one realizes that *The Ebb and Flow of Battle* is about war—at a distance. P. J. Campbell, a young lieutenant, British army, 1918, artillery, describes beautifully the "hurry-up-and-wait," "what's-happening-now," and "what-do-we-do-next" syndromes. The artillery is usually far from the slow-moving devastation of the World War I battlefield, but when it gets caught in the putsch that Germany launched in 1918, it almost gets swallowed up behind the lines.

The prose is that of a dewy-eyed youngster leading gun crews of Yorkshiremen with their strange dialects and healthy spirits. There are no four-letter words, and most of the grime and devastation of World War I trench warfare is kept at a distance. Instead, this boy's-eye view of battle is a trip down nostalgia lane rather than the usual "Great War" trip down the avenue of death.

Major Theodore M. Kluz, USAF
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the contributors

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Richard Betts (B.A., M.A., Ph.D., Harvard University) is a Research Associate in Foreign Policy Studies at the Brookings Institution, Washington, D.C. He previously served on the faculties at Harvard, Columbia, and Johns Hopkins universities and was a staff member of the National Security Council and the Senate Select Committee on Intelligence. Dr. Betts is a member of the Council on Foreign Relations and serves on the editorial board of *The Journal of Strategic Studies*. He is author of *Soldiers, Statesmen, and Cold War Crises* (1977), coauthor of *The Irony of Vietnam: The System Worked* (1979)—both highly acclaimed—and *Nonproliferation and U.S. Foreign Policy* (1980), and has published in many professional journals.

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Lieutenant Colonel José Sánchez Méndez, Spanish Air Force (Spanish Air Force Academy), is a career officer in the Spanish Air Force. A rated pilot, he has flown the T-33, F-86, F-104, and the Mystère-Falcon 20. He is author of *Organizaciones Europeas* (1977), and from 1978-81 he was an editor of *Revista de Aeronáutica y Astronáutica*, professional journal of the Spanish Air Force. Colonel Sánchez is a recent graduate of the U.S. Defense Intelligence School, Washington, D.C., where he was the outstanding student in his class.

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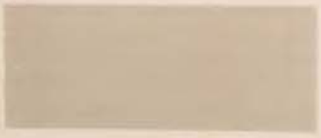

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AWARD

The Air University Review Awards Committee has selected "Technological War: Reality and the American Myth" by Lieutenant Colonel Donald R. Baucom, USAF, as the outstanding article in the September-October 1981 issue of the *Review*.

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attention

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Rolling Thunder and the Law of War