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the cover

The long annals of warfare abound in instances of victory or defeat having turned on the one factor of adequate logistic support. Major General Jonas L. Blank, in "The Impact of Logistics upon Strategy," dwells on only the latest chapters of that history, World War II to Vietnam, but they, too, pose some meaningful lessons for today and tomorrow. One of the logistical stumbling blocks in Southeast Asia, for instance, has been the dearth of adequate ports and harbors.

THE IMPACT OF LOGISTICS UPON STRATEGY

MAJOR GENERAL JONAS L. BLANK

LIVING dangerously is an inherent part of every military man's life. We accept personal risk when we accept our commissions. We may have to face danger dramatically in combat or, more subtly, in suggesting that logistics must be considered on an equal plane with tactics and strategy.

I shall begin my defense of this premise with a general discussion of the role logistics plays in military planning and operations, support that with some lessons learned in World War II and Korea, then review our logistics experiences in Southeast Asia, and conclude with some observations about logistics discipline.

I have no intention of downgrading strategy and tactics. Militarily, I consider those two and logistics to be very much like the legs of a three-legged stool. But that part of the stool supported by the logistics leg gets sat upon the most heavily and has to struggle the hardest for recognition. However, that only applies to peacetime planning and the early stages of a conflict. When the war gets hot and heavy and logistics needs become urgent, no one has to be reminded of their importance. If there is time, frantic efforts by hastily trained support personnel can make up the shortages. They have in the past, although sometimes at a fearful cost. At worst, military disaster may be the price of logistics neglect.

We in the military have the reputation of learning too much from history. We are accused of always preparing to fight the last war—only better next time around. Risking the charge of perpetuating that reputation, I shall cite some factual accounts of the cost of logistic oversights in recent wars. Perhaps a historical perspective might encourage military planners to give logistics a fair share of their attention.

World War II

Probably, there can never again be a war similar to World War II, but that one merits special attention, not only because it was the last major conflict that ended with a decisive military victory but also because of the magnitude of its logistics. Looking back, one finds it difficult to realize that the losing side had such early momentum that it seemed assured of victory. No other conqueror ever gained control over so much of Europe as did the Germans, nor over so vast an area of the Pacific as that taken by the Japanese. What turned these early victories into a military collapse?

Clashing tank armadas and infantry, spectacular sea and air battles, courage and determination, brilliant and awesome strategic planning and tactical execution—all played their part. But it was no coincidence that victory went to the nations that organized an overwhelming superiority in materiel. This recurring theme is echoed by many World War II historians.

Materiel superiority is obviously not the whole story. Economic potential and effective military strength are not synonymous. Campaigns and wars are won or lost on the basis of military strength in existence and effectively used at the time of conflict. Germany proved that lesser resources effectively organized for war can produce impressive victories. As World War II started, the combined armies of France, England, Holland, and Belgium were numerically larger than that of the Germans but were defeated by newer weapons imaginatively applied. They could not cope with the blitzkrieg led by Stuka dive bombers, fast maneuverable tanks, and motorized infantry. Germany then turned east and plunged a thousand miles into Russia, and Rommel swept across North Africa, but final victory continued to elude the Germans.

At this point in 1942, three years after the start of the war, Germany finally totally mobilized her industry for a sustained war effort. Her leaders had gambled against a prolonged war. Had they started sooner, one wonders if the Allies could ever have caught up.

In North Africa the Germans frittered away their early gains after coming within an eyelash of making the Mediterranean a German lake.

Again, brilliant tactical execution was undone by inadequate logistic support. Only about 10 percent of Rommel's fuel requirements for his tanks was delivered during the critical days when the fate of North Africa hung in the balance. What he needed could have been delivered. This was proved the next year when German equipment and supplies poured into Tunisia in response to the American landings in Africa, but by then it was too late. Field Marshal Kesselring, the German commander in chief in Italy, and Rommel disagreed on many aspects of the North African campaign. They did agree, however, after it was over, that it was primarily a logistics battle and that their promising opportunity for decisive victory evaporated because transportation had been badly planned and clear organizational channels for logistics support had never been established.

Certainly neither side had a monopoly on logistics mistakes. Let's examine just a few of ours, but of course there were many others.

When the Japanese attacked the Philippines, the defenders of Bataan fought on half rations, critical shortages of munitions, and a scarcity of medical supplies in a malaria-infested area. In the words of the division commander whose outfit was the last to stop fighting:

> By March 1942, every officer, enlisted man and civilian on Bataan was logistics conscious, and realized that in 26 years of planning for this campaign, its logistics side had not been as thoroughly nor as carefully planned as its strategic and tactical side.[1]

Later in the war, the strategic plan for the invasion of Europe listed four requirements on which its success depended. One of them was an adequate number of landing craft. And yet, despite prolonged planning and a compelling need for an earlier date, D-Day had to be postponed for thirty days *because of a shortage of landing craft*. Bad weather encountered because of the delay added greatly to the problem of crossing the English Channel. Furthermore, the invasion of southern France, which was originally scheduled to occur simultaneously with the Normandy landing, had to be postponed for two months until the landing craft used in Normandy could be sailed to the Mediterranean and assembled for that assault.

In general, planning for logistics immediately preceding World War II, in both the United States Army and Navy, was grossly inadequate. The only reason it was not grossly inadequate in the United States Air Force was that a separate Air Force did not exist at that time.

As we started to mobilize for World War II, only 11 percent of the Army consisted of service troops, compared to 34 percent at the end of World War I. Instead, we needed *more* support forces than ever before, basically because mechanization of combat equipment of our armed forces had leaped forward between the two World Wars.

The unrealistically low ratio of service troops to combat troops made itself felt almost at once. In the spring of 1942, few trained service troops were available for overseas duty; and service troops, beyond all others, were required in the early phases of the war. It was imperative that they prepare depots, receive equipment and supplies, and establish the essential services for the combat troops.

By any yardstick the invasion of Europe was the largest amphibious operation ever attempted. Despite its success, it may also have been, at least in retrospect, the most chaotic from a logistics standpoint.

In analyzing transportation during the Normandy invasion, an Army study concluded that gross failures in marshaling and moving forces through the British ports threatened the collapse of the operation. It stated flatly:

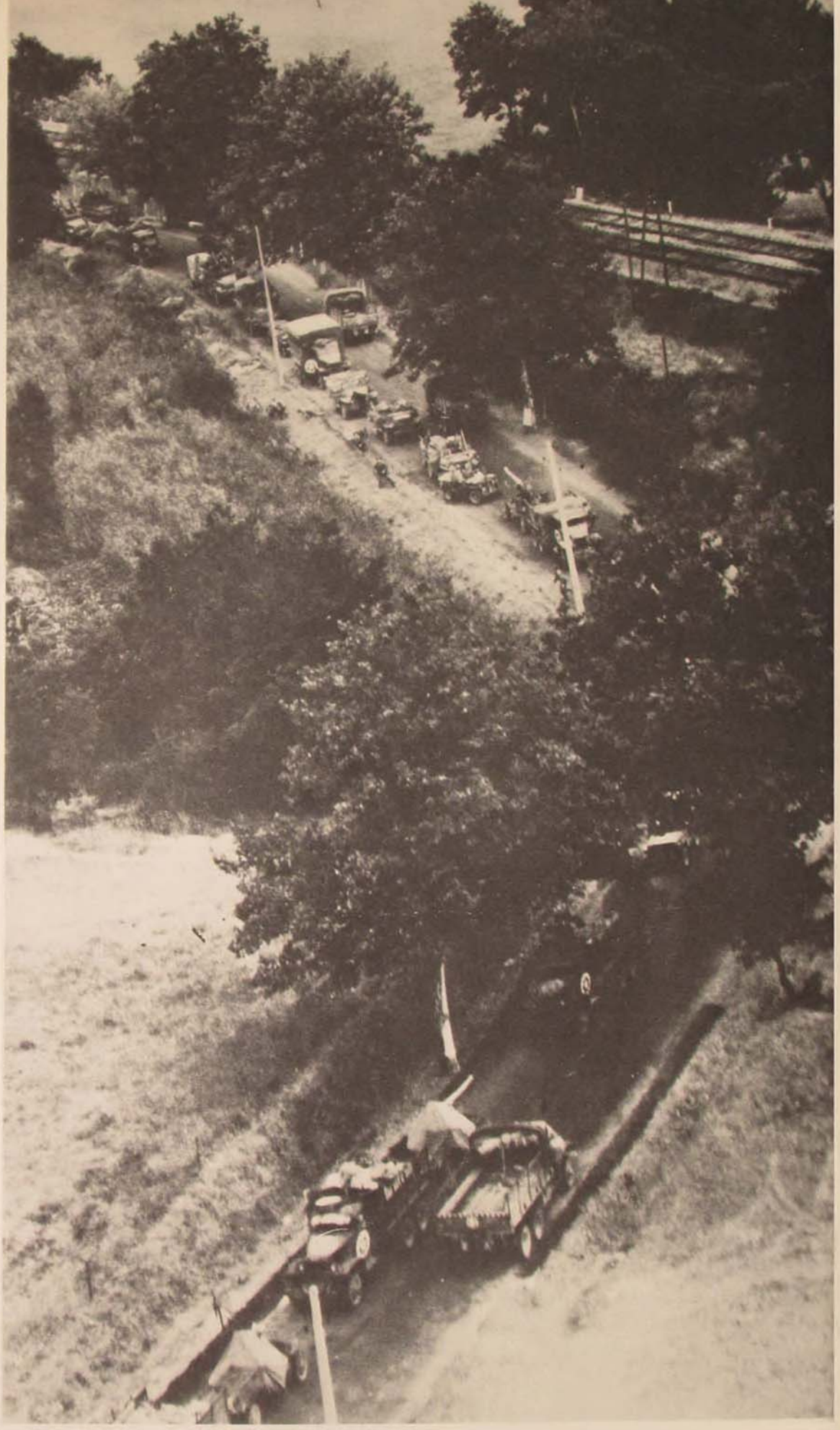
> There was an almost universal lack of logistical discipline on the part of units to be moved. There was a marked tendency for commanders at all levels to disregard logistical orders. In many cases, these units failed to comply with published directives and brought excesses of both personnel and equipment into the marshaling areas in direct violation of instructions. The resultant congestion within these areas created a bottleneck that was a

Continued on page 9

World War II

The Ju 87 Stuka dive bomber led Germany's blitzkriegs that at first exceeded the Allies' capability. . . . German panzer and motorized infantry cross an improvised bridge, during the Balkan campaign in summer of 1941.

North American B-25s head out to a target somewhere in North Africa, part of the force that softened up Rommel's Mareth Line and helped force the Afrika Korps's retreat in Tunisia. . . . Heavy bombing raids by the U.S. Twelfth Air Force and the RAF greatly reduced the flow of supplies to Rommel and Von Arnim through the Tunisian seaport of Sousse.



Allied supply trucks towing heavy guns roll in a steady stream to reach troops that had landed in southern France on D-Day. . . . Troops sandbag antiaircraft positions on the beach as Seventh Fleet men and equipment pour ashore during MacArthur's return to the Philippines, October 1944, but only later, at Okinawa, did we properly coordinate the landing of men and materiel on an enemy beachhead that was defended.

major factor in the threatened collapse of the operation.[2]

Six days after D-Day, the English ports were so badly scrambled that troops could not be sorted into the landing craft to which they were assigned. The situation became so disorganized that even available ships could not be loaded. Only extraordinary measures, such as indiscriminate shipment of troops without regard to craft-loading plans, plus an absence of enemy interference, allowed us to straighten out the chaos.

Many vessels arrived in France with contents completely unknown to shore personnel. One consequence was a frantic search for 81-millimeter mortar shells, needed in the hedgerow fighting, because shore troops did not know which ships carried what cargoes. They called forward a large additional quantity of these shells from England. Even when the special shipments were made, a ship-by-ship search was required to find the desperately needed munitions.

Huge quantities of supplies were unloaded from ships and piled up in such disarray that they could not be identified and issued to combat forces. Ports became so cluttered that identifiable supplies in the holds of other ships could not be moved ashore.

Eyewitness accounts verify the confusion, which in a sense is understandable in the midst of a massive invasion. The point is that most of it was unnecessary. It was not that we did not know better, but that we did not apply what

we knew. And it could have spelled the difference between victory and defeat if the defenders had had the wisdom and ability to concentrate their defenses quickly. Fortunately, the Germans believed, as we hoped they would, that the main thrust would come later directly across the English Channel, so they did not commit their reserves to stop the Normandy landings until it was too late.

The breakout from the Normandy beachhead was followed by an amazingly rapid pursuit across France despite logistic difficulties that mounted as our armies outraced their supplies. This period has been the subject of bitter controversy over shortages experienced by the combat troops, but perhaps a more impartial overall evaluation was made by leaders of the Russian army. General Eisenhower commented on this in his book, *Crusade in Europe.* In the months following the conclusion of hostilities, he had many conversations with Russian leaders, including Generalissimo Stalin. Without exception, the Russian officers asked him to explain the supply methods that enabled the Allied armies to cover all of France, Belgium, and Luxembourg in one rush.

> They suggested that of all spectacular feats of the war, even including their own, the Allied success in the *supply* of the pursuit across France would go down in history as the most astonishing.[3]

Despite this high praise by an ally from whom compliments came grudgingly, there was tremendous room for improvement.

The supply of the armies racing across France was made possible by improvised but effective measures that temporarily overcame a shortage of transportation facilities. The Red Ball Express was created by simply clearing the narrow French roads of local traffic and making half of them one-way roads leading to forward supply dumps and the other half one-way roads returning to the Normandy staging area. Supply trucks rolled over these roads around the clock. As French railroads were repaired, the same idea was used, with trains moving almost nose to tail. Bombers were converted to cargo planes and helped fly 2000 tons of supplies a day to the lead columns.

When the advance finally ground to a halt, it was not because of enemy opposition but a lack of logistics support at the front. We had ample supplies, but they were in Normandy, 300 miles away. We simply ran out of transportation capability to continue supplying the lengthening pipeline, and fuel trucks became more important than tanks.

An Army historian, R. G. Ruppenthal, in discussing the shortage of gasoline during this period, made this observation:

> The Third Army even resorted to commandeering the extra gasoline which the Red Ball trucks carried for their return trips to the base areas. As a result of this shortsighted practice some convoys were stranded and available transportation facilities were consequently reduced. . . . at least one division, the 5th Armored, admitted resorting to hijacking gasoline, a practice of which other units were also guilty.[4]

Here we have an extreme example of a breakdown in logistics discipline and its painful consequences.

Ruppenthal was referring to this halt in the advance toward Germany when he wrote:

> For the next two months, supply limitations were to dominate operational plans and the Allies were now to learn the real meaning of the "tyranny of logistics." [5]

After the war General Eisenhower made the broad statement: "You will not find it difficult to prove that battles, campaigns and even wars, have been won or lost primarily because of logistics." [6] About the same time, Field Marshal Sir Archibald Percival Wavell wrote: "I have soldiered for more than 42 years, and the more I have seen of war, the more I realize how much it all depends on administration and transportation, which our American friends call logistics." [7] Hopefully, it will not take everyone 42 years to learn that lesson.

As our needs became clearer from 1940 through 1945, we increased the U.S. Navy's combat ships to eight times the number in the peacetime fleet. But, significantly, logistics vessels increased to 28 times the prewar number, and vessels with a combined combat and logistics capability surged to more than 200 times the number in existence before the war. Stated another way, before the war 75 percent of all our naval vessels were combat ships; as the war ended, this ratio was almost reversed: fewer than 30 percent were combat craft. It was this mix of combat and logistics vessels that cleared the Pacific all the way to the Japanese mainland.

This is not to say that our conduct of the war in the Pacific was logistically superior to our performance in Europe. Repeatedly, Army and Navy supplies were landed in such excess tonnage over capabilities of local logistics organizations that soon things could not be found at all. Special shiploads of some items that were "somewhere around but lost" had to be rushed to the combat theater, and at a time when ships were worth their weight in gold.

Ammunition specialists have estimated that only 30 percent of the ammunition sent to the Pacific was ever used. And while no planning can hope to kill the last enemy with the last bullet, the abrupt end of the war does not fully explain such a low percentage of consumption. Most of it was in the piles of equipment and supplies that were lost in island depots and left behind as the U.S. pushed its combat operations ever closer to Japan.

It was not until the last battle of the war, at Okinawa, that we properly coordinated the landing of men and materiel on a defended enemy beachhead. The ship from which directions were issued for the landing of materiel remained alongside the commander's flagship. Close communication among operations and logistics officers was maintained throughout the landings, and a relatively orderly flow of men and materiel onto the shores of Okinawa resulted.

Korean War

The lessons we learned at so great a cost in World War II were soon forgotten. Five years later in Korea we had to learn many of them over again.

Within three weeks after the start of the Korean War, the backlog of top-priority shipments had built up to more than could be airlifted in two months. More than half the requisitions received from Korea were listed as top priority and designated for air transportation. Yet our air cargo capability could accommodate only a small fraction of that amount. Flooding the supply system with top-priority requisitions was self-defeating. Cargo jammed aerial ports of embarkation and sat there for months, although it could easily have been delivered in less time by surface transportation.

Two years after the start of the Korean War, an Army general inspected the port of Pusan. He reported that, despite prolonged hard work, one-fourth of the supply tonnage stored there had still not been sorted out. As supply personnel did not know what these supplies were, obviously they could not be issued.

Ironically, some of our logistical ineptitude in World War II paid an unexpected bonus during the Korean War: some of the equipment and supplies abandoned on the Pacific islands were gathered up, renovated, and put to use. That sometimes happens in our unpredictable business. An anecdote by a British officer about the Boxer Rebellion in China described the advantage they enjoyed through lack of communications: He told of the desperate plight of their scattered forces, who were unaware of how ghastly everything was and so fought on to a happy conclusion. In his opinion, half a dozen radio transmitters would have brought about a catastrophe.

Logistics discipline, a perennial problem, also left much to be desired in Korea. Lieutenant General W. B. Palmer, who served there and witnessed waste at close hand, wrote in exasperation:

> It appalls me to think how many failures occur in the very last link of the logistic chain. Equipment is manufactured at great expense, shipped 5,000 miles by train, ship and truck. It is issued to troops and, eventually, with great labor, carried to the top of a mountain in Korea. How many times, at that last point, has this whole enormous effort been thrown away, as carelessly as a burnt match, by the happy-go-lucky negligence of the very people whose lives depend upon keeping the stuff in shape.[8]

How many times have we all seen similar incidents of callous disregard for the products of a carefully conceived and executed system?

Vietnam

Before drawing any profound conclusions based on the incidents here presented, let's take a look at our experience in supporting operations in Southeast Asia, particularly Vietnam. For brevity's sake, I will skip a detailed description of our materiel support organizations and procedures, relying on the reader's general familiarity with the logistic support structure of the Department of Defense and the individual services.

At the outset, let me say that we have tried

Korea

Desperately needed supplies pile up at a U.S. Far East Air Force base in Japan before being loaded aboard Combat Cargo Command planes and flown to units cut off near Choshin reservoir in Korea.

very hard to record honestly our logistic experiences—good and bad—as well as lessons learned from Southeast Asia. Some judgments have already been made by independent study groups. This is great and, hopefully, will pay important dividends. But, personally, I am inclined to believe it is premature to draw any performance comparisons with prior military operations. It must be recognized, however, that logistics systems had improved dramatically by the time of our big buildup in 1965. Much of our system was computerized and oriented toward sophisticated communication hookups unknown during World War II or Korea. However, early in Southeast Asia we did not have *established bases* with computers and advanced communication hookups to take advantage of the latest in logistic technology. We had to revert to manual operations, using messages and mail service to requisition supplies.

Except for the early stages, there was no massive push of equipment and supplies into the combat zone. By "push" I mean the process of shipping items without waiting for requisitions from the combat forces. The principal exceptions were one-time shipments to provision new bases that were being built. Generally, from that point on, requirements were requisitioned as needed. Asset visibility and stock control were better than ever before in past conflicts. Despite some scandalous exceptions, we generally knew what we had, where it was, and the stock levels required to prevent shortages. The principal difference this time was that trained personnel handled logistics operations. It is true that the Army had difficulty in maintaining an even flow of trained logistics personnel to Vietnam for their one-year tours. Their problem was that, in their wholesale supply depots in the United States, the Army employed large numbers of civilians, who were not generally available for employment in depots which they set up in Vietnam. The Air Force does not use overseas depots; we supply bases directly from stateside depots and so did not encounter this problem.

By all odds, the major logistics problem was inadequate port facilities and/or a shortage of self-sustaining vessels that carry their own unloading equipment on board. During the early years of the escalation, before we made large-scale improvements to fixed port facilities, an average of 100 oceangoing ships a day were either in the harbors or anchored off the coast. At the same time, other ships en route to Vietnam were held up at the Philippines, Okinawa, and Japan, to avoid further congestion. Sixty percent of the supplies flowed through Saigon, where the average wait for a ship to unload was 22 days. The average waiting times at two other major ports were 31 and 40 days.

Understandably, inadequate unloading of the sealift added to the strain on airlift. Congestion and clogged harbors forced our cargo planes to carry items normally supplied by vessel. Repair parts were used at an excessive rate because of greatly increased flying hours, and as a result some critical shortages of aircraft parts developed. Airlift transported only four percent of the tonnage delivered to Vietnam, but that four percent consisted of critical items, either munitions or parts urgently needed to keep weapon systems and equipment operational. Also, most personnel were transported to the combat theater by air, and practically all wounded were evacuated by air as soon as they could be moved. Internally, within Vietnam, in 1970 alone we airlifted close to three quarters of a million tons of cargo and over four million passengers. No other air force in the world has anything approaching this capacity.

The Army made extensive use of prepackaged shipments, which were "pushed" to build up initial stocks of supplies for deploying troops. These were discontinued in 1966. The Army also used special "super-high" priorities but limited their use to requisitioning parts required to return critical equipment to operational status. They set up focal points for individual weapon systems and funneled all requisitions for parts needed on those weapon systems through the focal point. A third special system

Vietnam

Jet-age successor to the Red Ball Express of World War II, Military Airlift Command's fleet of Lockheed C-141 Starlifters speeds critical equipment from Travis AFB, California, to Southeast Asia. . . . The offloading of materiel from a barge at Tuy Hoa Air Base in South Vietnam dramatizes the inadequacy of unloading and port facilities.

was used to track items closely through each step of a repair cycle and insure priority transportation and repair scheduling so as to guarantee rapid return of repaired items.

The Navy did not use "push" packages or vary their system, but they instituted a number of special projects to insure expedited supply support and used several special codes to get preferential treatment for their requisitions from Vietnam.

THE AIR FORCE's experiences in Southeast Asia vividly illustrate the interdependence of military operations and logistics support. An air force fights from fixed bases. In the beginning of the buildup in Vietnam, the number and quality of bases required to support flying operations just plain did not exist. We decided to build six new bases and upgrade thirteen others. Construction on that large a scale would take two to three years to complete.

As Air Force tactical units are deployed, they carry kits of spares and repair parts for 30 days of operations, by which time we hope to establish normal supply channels to support them. This presumes deployment to an operating base that can provide fuel, ammunition, living quarters, and personal necessities.

To provide temporary quarters and support the deployed squadrons at inadequate bases,

we shipped portable kits designed to provide temporary housing and operational accommodations for increments of 1100 men. These are called "Harvest Eagle" kits. They contain tents and equipment for food services, materiel handling, power generation, and field maintenance. We delivered twelve of these sets to Vietnam to support our deployed units until more permanent structures could be built. They did the job, but we found that some were in terrible condition, a result of the lack of attention which often afflicts war readiness materiel during peacetime.

To further equip these bases, we established a group at Hq Air Force Logistics Command to assemble packages of equipment and supplies tailored to the special needs of each of the bases in the combat zone. There were 234 different kinds of packages, each one for a specific purpose, such as support of a particular kind of aircraft, a maintenance shop, an office, or any other function performed on an air base. Each group of packages was assembled for a specific base and forwarded in one shipment as construction neared completion.

This group also monitored deployment of mobile civil engineer repair squadrons to bases requiring their services.

Then, to assist in making a base operational after construction was completed, we brought in teams of supply, maintenance, and transportation specialists to assist base personnel. These

A USAF supply sergeant processes a parts request from maintenance through a computer at Bien Hoa Air Base, South Vietnam, one of 17 computers at SEA bases by 1969. . . . The Air Force built a mobile computer in three vans to fill a crucial need.

teams stayed at the base as long as required to get their part of the operation functioning smoothly. They were also available to return when base personnel required assistance because of peak workloads.

In 1965 we lacked munition storage facilities in SEA and suffered from inadequate munition unloading facilities at the ports. We solved both by a "special express" system, consisting of a fleet of ships chartered exclusively to transport munitions to Vietnam. Upon arrival there, these ships served as floating warehouses. Twenty percent of their cargo space was devoted to aisles, so they could be selectively unloaded. Shore personnel had manifests of their contents, to enable them to call for specific quantities of particular munition items. The ships remained in the area until their cargoes were exhausted and then returned to the United States for reloading. After two years, as munition storage facilities were built and port capacities enlarged, we phased out the "special express" system and began a normal resupply of munitions.

From 1965 to 1968 our monthly requirement for aviation fuel grew from three million to 180 million gallons per month. A great deal of improvising was required to handle that large an increase. We had neither the time nor resources to build permanent storage facilities, so we had to rely heavily on air-transportable refueling systems, aerial bulk delivery, and collapsible bladder storage tanks at the bases. Some of the bladder tanks had a capacity as high as 420,000 gallons. Air-transportable fuel systems have almost unlimited mobility. During the *Pueblo* crisis, we dispatched enough of these systems to Korea in a matter of hours to support aircraft deployed there.

Where we could, in protected areas, we built some underground and overland pipelines, but these served only to transport fuel over short distances. Special piers for unloading ocean-going fuel tankers were built. Where we did not have deep-water ports, we built a device resembling a buoy, which was used to unload tankers in 200 feet of water as much as two miles offshore.

Our vehicle fleet in Southeast Asia grew to about 10,000 units, of two principal kinds: (1) those built to military specifications and obtained through the Army, which furnishes follow-on supply support; and (2) commercial vehicles. Prior to Vietnam we had removed repair parts for the latter category from our supply network and instead supported commercial vehicles through purchase of parts from local vendors. There being no vendors in Vietnam, we experienced rising out-of-commission rates on the commercial vehicles in the combat zone and had to bring parts for them back into the Air Force supply inventory. The point is that we had to relearn a lesson learned many times before: that the system we develop in peacetime in the CONUS must be workable in a wartime environment overseas.

In 1965, at our CONUS bases, we were implementing a standard base supply system, designed to operate from identical computers installed at our bases. Programs for the computers were designed at Headquarters USAF, assuring uniformity of operations. It was the most advanced retail supply system in existence at the time. Although nothing that sophisticated had ever been employed in a combat environment before, we decided to install the system, with its advanced computers, at our major bases in Vietnam.

One advantage of standardization is that our supply personnel all use the same system. Once trained, they are able to transfer to any of our worldwide bases and start functioning immediately. This gave us an ample reservoir of trained personnel to manage our base supply accounts in the combat area.

By 1969, we had installed the last of seventeen computers at Southeast Asian bases, and they have served us well. We use a NORS (not operationally ready supply) rate as a key indicator of the effectiveness of supply support to our operating units. This rate in the combat area has consistently been better than has our

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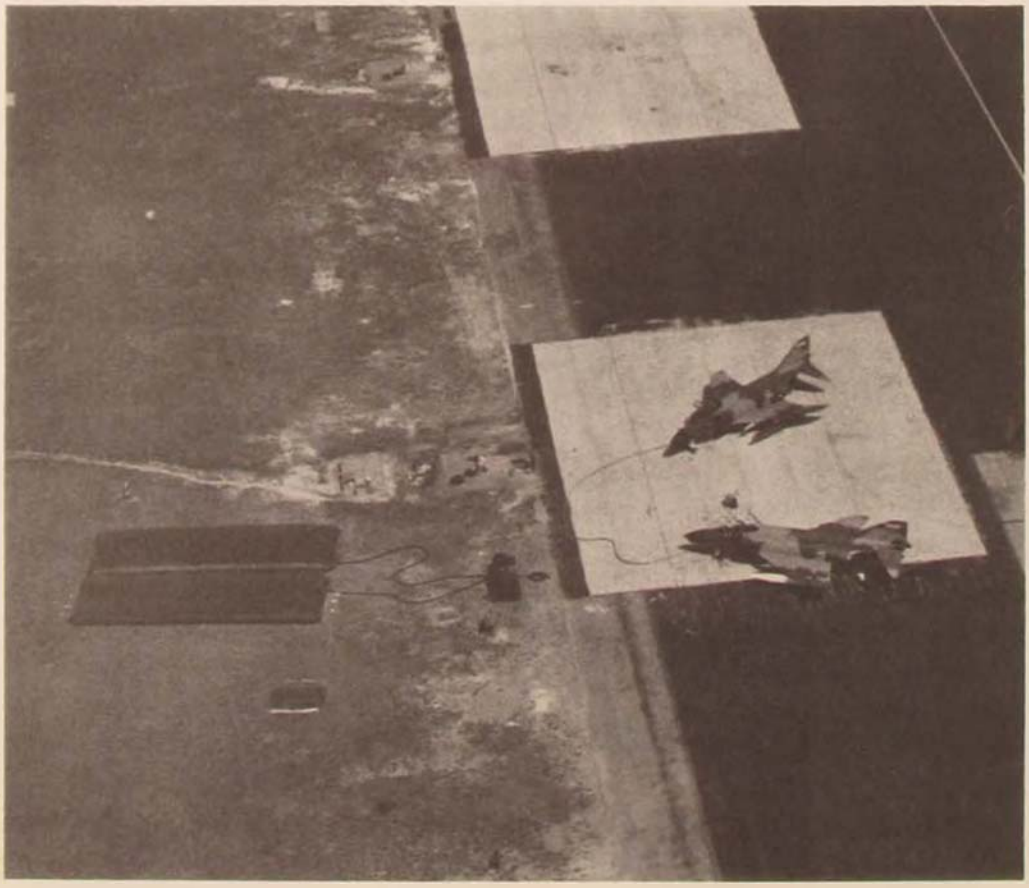
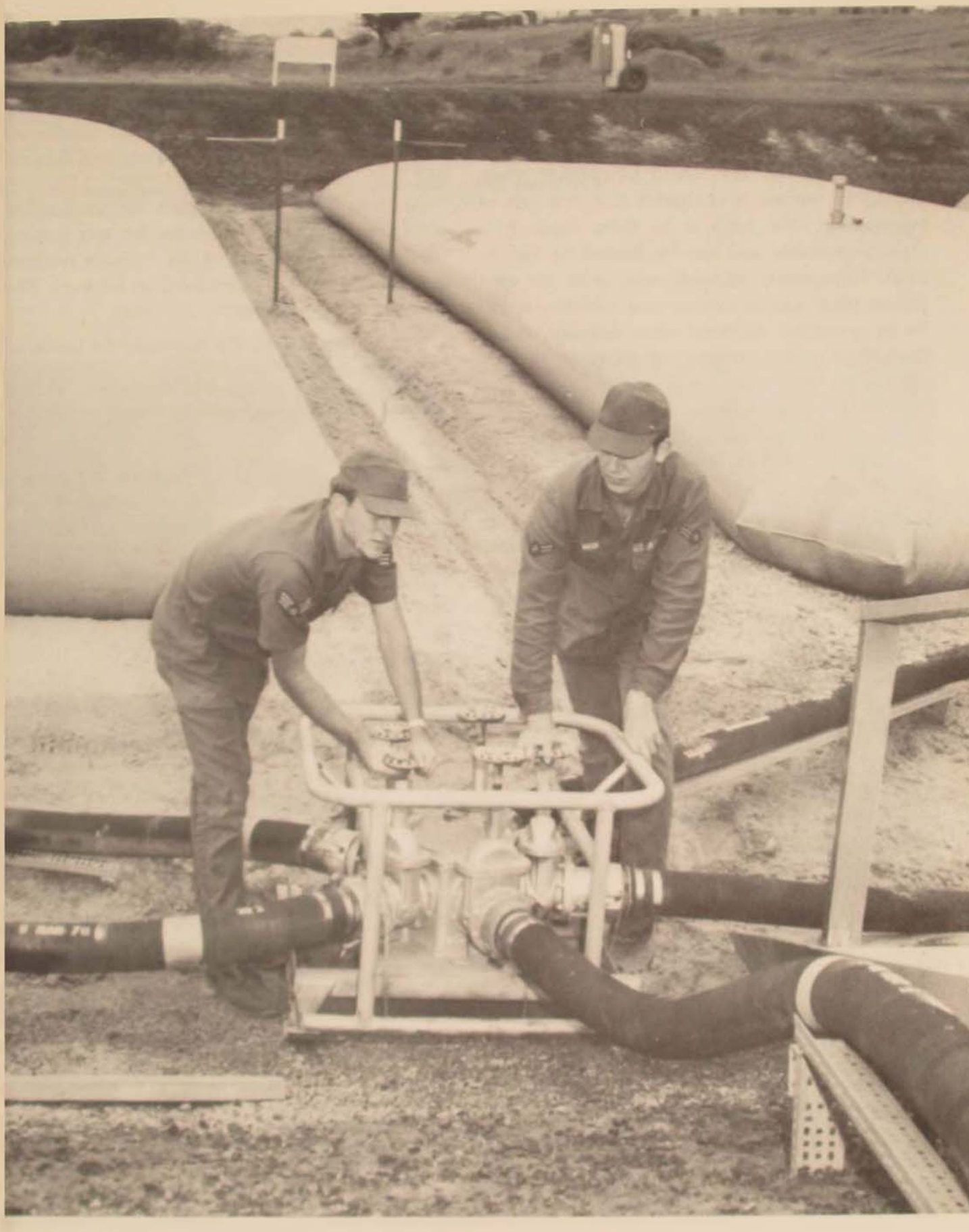
The R-14 air-transportable hydrant refueling system module can service fuel at 600 gallons per minute when the two 50,000-gallon rubber fuel storage tanks, encased on top of the unit, are spread out. . . . The module in use, servicing two F-4 Phantoms. . . . Two tanks being balanced, Phu Cat Air Base, South Vietnam.





average worldwide rate since we installed the computers.

To guard against the possibility that one of the base supply computers might become inoperative through enemy action, natural disaster, or maintenance breakdown, we designed a mobile computer that could be quickly transported to replace a computer that was out of commission. We built it in three vans; it is air-transportable and can be hauled by rail or road. Completely self-sufficient, with its own power plant and environmental controls, it can be in operation six hours after delivery. It has been deployed a number of times to replace computers that were temporarily out of commission or to precede the installation of a permanent computer, and each time it proved that the principle of a mobile replacement computer was sound.

The decision to put computers in the SEA bases has paid big dividends. Early in 1968, at the beginning of the Tet offensive, direct hits from mortar shells destroyed a supply warehouse at the Da Nang Air Base in Vietnam. Sixteen thousand line items of supply went up in smoke. Later that day, we assigned a special project code to the Da Nang base supply operation, to guarantee top-priority replacement of those supplies. Asset records for the destroyed supplies were reduced to zero; consequently, the base computer automatically printed out stock replenishment requisitions, which were transmitted to CONUS depots that afternoon. Five days later, 78 percent of the requisitioned stock was in the supply-receiving line at Da Nang. Without the standard base supply computer, coupled with rapid communications and airlift of high-priority requirements, the prompt resupply of the destroyed items to Da Nang would not have been possible.

Records of logistical support to Vietnam are undoubtedly the most thorough ever kept in a wartime environment. For a full year, a high-level Joint Logistics Review Board intensively studied these records, spanning from 1965 through 1969. They came up with many conclusions concerning lessons that we can profit by in the future. From my standpoint, perhaps the most important conclusion reached was: "that the standard logistics systems functioned satisfactorily in their first exposure to a combat test."

Andrew Wilson, an English writer familiar with the computer simulation for war-gaming used in designing some of our logistics systems, made this unbiased assessment in his book *The Bomb and the Computer:*

> I was seeing, not for the first time, the lessons of war games applied in action—and some, I had to admit, had been well and profitably learned. The logistic apparatus in Vietnam was superlative.[9]

EARLIER in this article I compared strategy, tactics, and logistics to a three-legged stool. I think evidence adequately supports the thesis that, unless the logistics leg of the stool is carefully conceived, developed, and implemented, success of the military operation it supports is in jeopardy.

From World War I to World War II, our forces became more mechanized and sophisticated. Between World War II and the present, that trend has accelerated. The more complicated the implements of war become, the more professional support they require. As a consequence, we must gear our thinking to accepting a higher ratio of support forces to combat forces, commensurate with advances in modern weapon systems.

Finally, as commanders and future commanders, you would do well to ponder the examples of breakdown in logistics or supply discipline that I have cited. Poor supply discipline can cancel out the best logistics system. Supply discipline, logistics discipline—whichever you choose to call it—is everybody's business, particularly the business of the operational commanders who are dependent upon this discipline for the quality of their support.

Hq United States Air Force

Notes

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Basis of Issue of *Air University Review*

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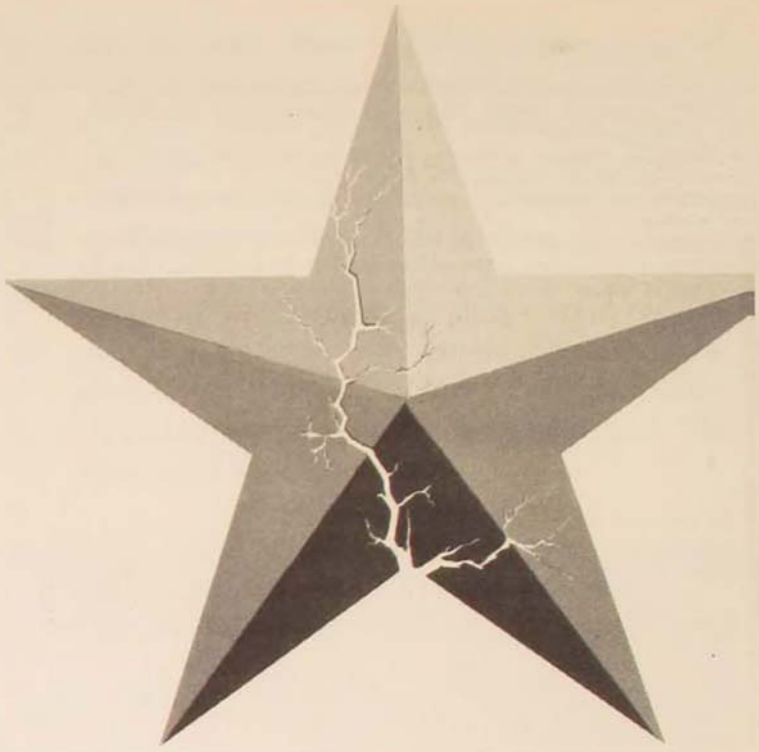
THE EDITOR



THE TRANSFORMATION OF WORLD POLITICS

THE HONORABLE CURTIS W. TARR

The Thomas D. White Lectures at Air University continued on 15 November 1972 when The Honorable Curtis W. Tarr, Under Secretary of State for Security Assistance, presented an address. Air University Review *gladly includes an adapted version of Dr. Tarr's lecture in this issue.*

THE EDITOR

MAY I begin by taking you to another place and another time, to Austria in 1945? There I was, a soldier awaiting transfer to the Pacific and reflecting upon the combat recently ended in Europe. The Army was sponsoring a tour to the Ice Caves south of Salzburg, so I decided to join friends and see some of Austria's natural beauty.

We had Fritz for our guide, a young Austrian who recently had been discharged from an elite mountain unit of the Wehrmacht. Fritz, in another day, might have been a model for Michelangelo's "David," so perfectly proportioned was his powerful body. That night, after we had explored the Ice Caves, we talked until midnight in the nearby hostel. I will never forget one of Fritz's puzzling statements.

"I don't understand the foolishness of your government, scattering the proud German Army."

I was surprised. To me, the German Army had been a determined and sometimes ruthless foe. "Why?" I asked.

"Because your real enemy is not Germany but Russia. Inevitably you must fight them."

We Americans during the war had considered the Soviet Union a formidable ally and her people courageous friends. Obviously our naiveté prepared us poorly for the Cold War that soon began. Many times later I recalled how much better Fritz foresaw problems of the future than did I.

But fortunately we avoided the open conflict that Fritz considered inevitable. We have gone through the dark uneasiness of the Cold War. Now a new pattern of political relationships is developing among the community of nations, a new pattern that calls for fresh thoughts and imaginative programs during the decade of the seventies. Let us consider some of the conditions that will influence those policies.

First, the bipolar pattern of relationships among blocs of nations, dominant since World War II, is attenuating.

Soviet hegemony over the Communist world has diminished. Not only has the People's Republic of China grown to be a major disputant to Soviet leadership but also other Communist nations have become more independent. Despite the Soviet use of troops to repress the peoples of East Germany, Hungary, and Czechoslovakia, the desire for a somewhat more independent foreign policy grows among Warsaw Pact nations and other Communist powers.

During the same period, American influence over non-Communist nations also has waned. This decline is linked, at least in part, to diminished Soviet influence, but it results from other factors as well. The Common Market has gained strength unevenly but increasingly since its founding in 1957. The European Community nations now have a total gross national product approaching that of the United States. The success of the recent summit talks of European Community nations, with a pledge to work for a common currency and further political bonds by 1980, is the latest in a series of encouraging milestones.

At the same time, the Japanese people have emerged from the ashes of war to build one of the strongest economies of the world, a miracle of economic growth. With a population about half of ours, the Japanese already have a gross national product more than one-fourth that of

the United States, and their economy is growing more rapidly than our own.

Furthermore, the nations of the third world have adopted independent positions in world politics, not subject to the beck and call of either the Soviet Union or ourselves. This has taken place despite generous assistance from the major powers. American problems with India and the Soviet rebuff in Egypt both reflect the self-determination of developing nations.

In many respects America has encouraged progress that has eroded bipolarity. We have given both political and economic encouragement to nations in Europe and the Orient. Much of the one hundred billion dollars of aid sent abroad from America since World War II went to Europe for reconstruction and to stimulate industry. We have been vocal proponents of the Common Market. Aid and technical advice have helped the industrious Japanese, the Chinese on Taiwan, and the Koreans. Following colonialism, doomed by World War II, many new nations have taken their place in the United Nations; most of these, in one way or another, have received United States assistance.

These factors have changed world politics so that the old bipolar pattern no longer represents the true condition of the political world. It is not likely to do so ever again. In its place, we find a community of independent nations, sometimes acting in concert, sometimes alone. In this community a nation no longer can assume the undivided friendship of another nation, despite tradition, when the course of friendship runs counter to the course of national interest.

Second, we have entered an era of negotiation.

For nearly a quarter of a century, the uneasy peace of mankind has been preserved partly by strategic forces, forces that each of the major powers has improved and augmented to prevent a successful "first strike" by the other. Now the Soviets and ourselves seek to stop the upward spiral of a nuclear arms race, first by consolidating a fair status quo and later, hopefully, by scaling down the size of strategic forces.

Negotiation has not yet replaced our dependence upon strategic forces, and probably it will not do so for many years to come. Both the United States and the Soviet Union are building and improving some systems as permitted under the first SALT agreement. Other nuclear powers, thus far, have not joined the Strategic Arms Limitation Talks. Likewise, any advanced industrial society now can build its own nuclear weapons or soon will be able to do so, because the technology is widely understood and materials are becoming more available. Thus we have much work yet to do, to reduce the possibility of nuclear war. But a start has been made.

The era of negotiation has been marked by the initial SALT talks, the further ones soon to begin, the scheduled mutual balanced force reduction negotiations in Europe, and the various treaties signed with the Soviet Union at the time of President Nixon's visit, including those on environment, medicine, space, and naval incidents at sea. More recently, trade treaties have been concluded between the United States and the Soviet Union.

The President's trip to China brought about agreements between the two powers for exchanges in science, culture, journalism, technology, and sports. This détente has facilitated moves in many parts of the world to bring mainland China back into normal international relationships.

Furthermore, antagonists elsewhere have begun to discuss their differences. We follow closely the Government-level and Red Cross talks between North and South Korea: it may be many years before substantial achievements are realized, but communication has begun. East and West Germany have made gratifying progress. Throughout the world, national leaders are talking to each other in conversations that promise better understanding, increasing

cooperation, and a more stable peace.

What is the reason for this spirit of détente?

Perhaps no answer will be as important as the one we Americans give to that question. I believe that diplomacy, coupled with military strength, has made the era of negotiation possible. Clearly, American military strength assured that, in sensitive areas of East-West confrontation around the world, existing frontiers would be maintained. In time, rival nations came to realize that efforts to change the status quo were not worthwhile, especially in view of the pressing problems at home which each had to face. It was also understood that most local conflicts in the third world involved mainly local or regional interests, which were not of great moment for the major powers. Out of these new perceptions of the world situation grew new opportunities for imaginative diplomacy.

The era of negotiation produces new problems for us, just as it buries some of the old frustrations of the Cold War. If my assumption about the critical role of military force is correct, then we must continue to be vigilant as a people, to maintain essential military forces, or the pattern for our recent successes will collapse. Nevertheless, negotiation itself sets the climate for public relaxation.

I am not sure what might happen to expansionist dreams in the future. I do expect in the years ahead that some of our friends and allies will have greater difficulty guarding themselves against insurgency than they will against outright invasion. Our assistance to these nations must take this new threat into account. But I believe we are mistaken if we assume that all the Cold War aims of other major powers have changed, even though their tactics may well undergo a major overhaul.

The third condition influencing the pattern of political relationships in the seventies is that it is a time of economic restructuring.

If one considers the economic progress of so many nations since World War II, then one begins to realize the importance of the fundamental decisions made at Bretton Woods. Those economic arrangements made possible the reconstruction of old nations and the development of new ones. World trade has expanded in vast proportions.

But now we have come to a time when the community of nations no longer can rely upon an inflexible dollar standard. We have begun a search for a reasonable balance in our international trading relationships that will provide more opportunities for American firms to export their products. We will be able to maintain our economic and military assistance programs—those that go directly from our government to others, those financed partly by our contributions to the multilateral lending agencies, and those financed by private credit from this country—only if economic changes can be accepted by all nations.

Likewise we will depend upon other nations to support progress throughout the world. Probably we will continue to reduce United States aid, both economic and military. Other nations will assume a larger proportion of the total aid given to the developing nations. I expect also that the forms of United States assistance will change. We now provide less grant aid than many Americans assume; we use loans as well as grants for economic and military assistance. But eventually we will complete the shift away from grants to loans. Furthermore, we must search for other stimulants to the development of a nation. Money alone will not guarantee progress.

As we carry out this shift in trading relationships, we become aware of the growing dependence our nation must place upon world trade. There is no way we can avoid doing so.

One reason for dependence upon trade is the crisis that we face in raw materials. We all have talked about the energy shortage that looms in the near future. If we had to rely entirely upon domestic reserves of crude oil, we would deplete them in a very few years and still face critical shortages in the process. Barring utilization of high-cost oil derived from

shale, I see no way to provide for our energy needs except looking to the troubled Middle East with its huge oil reserves.

We have encountered other critical needs as well. For instance, the world use of iron and copper has increased four times since 1960, while aluminum use has increased five times in the same period. The major industrial nations more and more face shortages in the materials they need to operate their plants; and more and more they compete against each other to gain what they require from the nations that own resources.

In the nineteenth century, America grew strong economically for many reasons, including our abundance of raw materials. Then we were a "have" nation. We now have become a "have not" nation that must look to the resources of the world to fill some of our needs. Many of our people do not realize how dramatically our requirements have outdistanced our natural wealth.

Another reason for our growing dependence upon world trade is that we have substantial needs for other imports as well. We no longer produce cheaply some of the manufactured products that contribute to our high standard of living. I am sure each of us relies upon the products of other nations to enhance his life style and individuality: e.g., British woolens, Japanese cameras, Thai silks, French antiques—the list is a long one. Likewise, we live richer lives because we travel abroad, and some of our youth study abroad. Both activities, in foreign exchange terms, are the equivalent of importing foreign goods.

We can afford these trading transactions in the world market only if we export sufficient quantities of sophisticated goods, technology, and ideas in order to balance our payments. It is to ensure that we will be able to do so that we continue the economic restructuring of our relationships with other nations.

Fourth, man must control his abuse of the environment or he may destroy his chance for survival. That is a sobering admonition. It involves a matter that few of us understand and none of us has accepted with sufficient concern.

Let us first consider pollution. We usually think of pollution in national terms, and indeed we must continue to do so; but it has an international dimension as well, and perhaps that is the more terrifying. The problems of smog and the blight of our cities persist. But if the burning of fossil fuels charges the upper atmosphere with enough carbon dioxide, it will modify the natural shield surrounding the earth and increase surface temperatures. Immediately that would not constitute a major difficulty, especially in winter, except that finally it could cause the polar ice caps to melt, inundating much of the inhabited world and changing the climate of the continents. Apparently the earth has a natural tendency to eliminate its ice caps anyway, since it has had no permanent ice fields during most of geologic time. But if we hasten this thawing by tilting a delicate balance, we would invite cataclysmic problems.

Radioactivity can be harmful to both plant and animal life, the cause for anxious speculation during major weapons tests. Naturally a nuclear war would threaten all people everywhere with a cruel fate. But harmful effects are caused also by radioactive waste, a by-product of the nuclear power stations upon which the industrial nations must increasingly rely for electricity.

Water pollution also poses giant difficulties. In 1970 the beaches near Rome were closed by the threat of hepatitis. What happens to the sea near Rome can soon happen elsewhere in the Mediterranean, and the oceans can be contaminated as surely and not long thereafter. Oceanic pollution would affect every nation beside the sea: food supply, public health, recreation, the quality of the environment—all would suffer. We understand stream and lake pollution through routine observation, but the ocean has a unique quality because it lacks any estuary draining elsewhere to help the process of purification. Pollute the ocean sufficiently and it cannot cleanse itself.

All men everywhere have a vested interest in preventing pollution. Other examples emphasize even further the blight that environmental contamination brings to the quality of life for men everywhere. Only cooperation among nations will insure the required protection.

Pollution relates inevitably to population, and we are not making satisfactory progress toward controlling the numbers of mankind. Without population limitation, pollution cannot possibly be brought under control. Statistics help us to visualize the coming press of humanity.

The population of the developing world now numbers two billion people and is growing at the rate of 2½ percent per year. If that growth rate holds, then the population of the developing world will be 5.5 billion in the year 2000, 28 billion in 2050. Or consider another possibility: if families in developed nations average two children by the year 2020 and families in developing nations do so by 2040, then the world population will stabilize at 16 billion people. Speeding up the process by twenty years will cause the world population to stabilize at eleven billion, three times the present total. Some observers believe that eleven billion may be the absolute limit beyond which the Malthusian controls of war, disease, and famine will reap their grim harvest. But even if this many people survive, what hope would remain for the dignity of the individual?

It seems clear to me that all nations have become dependent upon each other, not only for peace and growing prosperity but for sheer survival. Interdependence requires cooperation.

That requirement comes at a time when many Americans want to withdraw from world problems. If you walk along the main street of America, you hear this desire expressed. Many of us wish to concentrate on our own critical national problems, and of course we must do so with dedication. But in undertaking that, we cannot abandon our role as a leader of the nations of the world without fearful consequences.

Some people seem to be telling me that there is an inevitability about the future, that there is no use trying to solve problems because the worst will happen anyway. In reply and in closing, let me share with you an experience, again from World War II.

After my unit had finished its combat assignment in the Ardennes, during the winter of 1944–45, a few of us lived for several days in the home of a Belgian family. I became well acquainted with little Lea, a twelve-year-old child about half my height. We talked endlessly in French, insofar as I could, about her village, her home, her friends, about war-torn Belgium. On warmer days we roamed the countryside. During storms I read to her while she smiled at my poor pronunciation. Ours was a friendship growing out of vicissitude.

The evening before our departure, I told Lea that we would be leaving early the next morning and that she should not awaken herself to bid us farewell. But she did so at four o'clock, and her large tears were honest ones as she said goodbye. I promised to write to her after the war, but she shook her head, crying all the more. When I asked why she did not believe my promise, she gave a child's view of war.

"Because all soldiers are killed in war." To my remonstrance she explained, "All boys from our village who became soldiers now are dead."

I did write to Lea a year later, and we corresponded for several years. In due time one of her letters brought a picture of a lovely girl of eighteen, the bride of a Belgian soldier who *did* return. What had appeared likely in days of adversity did not transpire for Lea as the future unfolded.

The only thing that is inevitable about the world's future is that it will be shaped with American help or without it. It will be a more promising future for us and for all of mankind with the substantial contributions of courage, understanding, and wisdom that we can provide. We have no reasonable choice but to do so.

Washington, D.C.

U.N. PEACEKEEPING AND U.S. NATIONAL SECURITY

Dr. Raymond J. Barrett

STRENGTHENING United Nations peacekeeping is in the best interests of the United States, as we adjust our national security policies in a changing world. Clearly diminishing are the American profile in the world and the readiness of the United States to involve itself in crisis situations not directly threatening it. At the same time, episodes of violence and instability are likely to continue, and many of them will have worrisome possibilities for damaging important American interests. Direct United States involvement is likely to be inhibited or, worse, counterproductive. A viable international means for dealing with lower-level violence would thus offer many practical advantages to the United States. It would offer us a formula that could help contain violent or chaotic situations without unilateral U.S. involvement. It would provide an internationally acceptable concept, while still being compatible with the security concerns of the United States. In short, strengthened United Nations peacekeeping could provide us with a means to deal with lower-level violence, something we are in danger of losing.

There are other important advantages of U.N. peacekeeping that would also be distinctly beneficial to the United States. A constructive and realistic peacekeeping ability could revitalize the integrity and utility of the United Nations, something that is badly needed. The development of peacekeeping capabilities and the consequent reinvigoration of the general concept would also have an important collateral impact on the international community. Most nations, in a world dominated by a few superpowers, are uncertain or anxious about having any meaningful role in international affairs. Making peacekeeping viable and active could give them a useful and meaningful purpose. In addition, development of peacekeeping units and doctrine would have further benefits in many of these countries by strengthening their own internal security and providing professionally satisfying roles for their military.

United Nations peacekeeping, of course, is not a panacea. It has had a checkered history, and its present status is dubious. Its role is a limited one. The limitations are real, but so are the advantages.

U.N. peacekeeping operations have evolved from emergency situations. Their broad purpose has been to keep international crises from getting out of hand. Three large peacekeeping forces have been assembled, at one time or another, under the U.N. banner: the United Nations Emergency Force in Egypt (UNEF); the *Opération des Nations Unies au Congo* (ONUC); and the United Nations Peacekeeping Force in Cyprus (UNFICYP). UNEF was established at the time of the 1956 Suez Crisis as a buffer between Israel and Egypt, and its withdrawal in 1967 preceded the Arab-Israeli war of that year. ONUC was created in 1960 to protect the territorial integrity and political independence of the Congo when chaos developed after independence. UNFICYP, assembled in 1964 to help restore order and keep peace between Greeks and Turks in Cyprus, is still in being.

Discussion of U.N. peacekeeping generally refers to this type of complex and quasi-military force. The United Nations has also engaged in a number of smaller operations involving essentially the dispatching of observer groups. For instance, small U.N. units have reported on compliance with cease-fires in Indonesia and Kashmir and on the disengagement agreement in the Yemen and are currently trying to maintain the shaky truce between the Arabs and the Israelis.

In India and Pakistan, 1955

A Uruguayan member of the U.N. Military Observer Group talks with villagers in Kashmir.

The U.N. Charter (Articles 43–45) provides for member states to place military forces at the disposition of the United Nations. These provisions were designed to supply the organization with effective sanctions against aggression of the kind encountered in World War II or earlier. The United Nations Command in Korea was the only U.N. force of this type, and it seems unlikely that this kind of operation will ever be repeated.

As this background suggests, the role of U.N. peacekeeping is a limited one. The U.N. could not conduct peacekeeping operations in an area of vital security concern to the United States (e.g., Cuba) or the Soviet Union (e.g., Hungary or Czechoslovakia). Nor, in the realities of world power, are there adequate substitutes for nuclear deterrence and national power to forestall conventional warfare. In talking of peacekeeping operations, we are clearly referring only to the lower levels of the spectrum of violence.

Experience has shown, however, that U.N. peacekeeping operations can serve a useful function in certain situations. The United Nations, on several occasions, has been able to obtain and enforce cease-fires in quarrels and border disputes. U.N. peacekeeping operations have also helped to reduce the possibility of big-power confrontation or the spread of violence that threatened to draw in outside meddlers. In other situations the United Nations has reduced the explosive potential by exposing subversion and infiltration. In more than a dozen instances since World War II, the United Nations helped to end violence and preserve order.

United Nations peacekeeping operations may not "solve" problems, but they have, in several very tense and complicated crises, kept bad situations from getting very much worse. They have been able, at least, to achieve conditions of "suspended violence" or deter degeneration into chaos.

These are achievements not to be lightly dismissed in today's changing world. The social and political turbulence within and between the many new nations naturally fosters occasional violence or pronounced instability. Such episodes, in and of themselves, are not likely to be threats to world peace or directly inimical to U.S. national security. But if left to fester, they could arouse concern in wide areas of the world community. They also present the temptation for exploitation by outside elements likely to widen the problem substantially or even to escalate it in terms of big-power concern. In any such situation, unilateral intervention by the United States (or the U.S.S.R. or any outside power) is almost certain to make the problem more complex, tense, and therefore dangerous. In today's climate of opinion, U.S. intervention is also likely to engender intense and debilitating opposition in Congress and among the American public.

A U.N. peacekeeping force, with all its complexities and limitations, could thus be an attractive alternative to help keep problems manageable. The existence of a U.N. peacekeeping capability also would increase the likelihood that nations would opt to use it. This would, among other things, reduce the danger of other outside intervention. Not the least of the advantages for the United States would be the ability to endorse a broadly backed international effort as a counterpoise to Soviet or other outside intervention.

The present status of the U.N. peacekeeping concept is cloudy. In recent years the United States and the Soviet Union have tried to develop mutually acceptable models for peacekeeping operations. Some progress apparently

In Africa, 1960

U.N. Secretary-General Dag Hammarskjold (above) coordinated the withdrawal of Belgian forces from the Congo and deployment of the U.N. Force with Katanga and Belgian authorities. . . . Major General Carl von Horn (right, above), Supreme Commander of the ten-country U.N. Force, with Colonel Henry Byrne, Commander of U.N. units in Katanga and Kivu. . . . Ghanian troops board USAF C-130.

has been made in developing guidelines on observer-type operations but little on the larger, more complex peacekeeping forces. The central question at issue has been the degree of flexibility to be left to the U.N. Secretary General to adapt operations to the circumstances of each case. The United States feels that he needs considerable latitude in managing an operation. The Soviets have wanted all major decisions kept in the Security Council's hands, where they can use their veto. There seems to be an impasse on this point.

The financial basis of U.N. peacekeeping has also been uncertain. The Soviets and several other countries have refused to pay their shares of the costs of the Middle East and Congo operations. They argue that these operations as directed by the Secretary General did not take into account their views and interests and were partial to ours. The small observer missions in Kashmir and on the Suez Canal are being financed out of the regular U.N. budget, with the costs assessed against all members. The larger Cyprus operation, on the other hand, is being sustained by voluntary contributions from about 24 countries, out of a total U.N. membership five times as large. It has incurred a large deficit. These arrears have been an important cause of the United Nations' currently precarious financial situation. If agreement can be achieved with the Soviets, presumably these financial problems can be eliminated, at least for the future.

MEANWHILE, it should be possible to take a number of steps toward strengthening U.N. peacekeeping. The effort to get Soviet agreement should be continued. Soviet concurrence, if it can be obtained without excessive constraints, would obviously bolster the U.N. peacekeeping concept. It would also be beneficial to have a more reliable understanding on ground rules and procedures for the establishment, direction, and conduct of peacekeeping missions.

One important step now feasible is the development of a roster of national peacekeeping capabilities. The U.N. Secretary General could ask member nations what type of personnel and equipment they would be prepared to provide for peacekeeping operations authorized by the Security Council. The U.S. Representative to the United Nations, then Ambassador Charles W. Yost, made a proposal along these lines at the 1970 General Assembly. The United States suggested that a register of availabilities might include information on the number and type of contingents, military observers, and auxiliary personnel that member states were prepared to provide. The register, Ambassador Yost added, might indicate the state of readiness and the type of equipment, facilities, and services that could be made available on short notice. The U.S. proposal also suggested an effort to identify and fill any potential shortages, whether of personnel or logistics, that might be revealed in forming the register. If a shortage of a particular type of specialized personnel did emerge, appropriate member nations could be encouraged to train such specialists, or the United Nations itself might provide or arrange for such training.

The lack of concrete progress on these and other proposals has been disappointing. Soviet foot-dragging has obviously been a hindrance. So has concern for the United Nations' troubled financial status. The difficulty seems to be lack of a careful and constructive effort to mobilize the considerable potential interest in peacekeeping needed to effectuate those steps that are feasible.

The concept of U.N. peacekeeping, on its own merits, has considerable attraction for many of the developing countries of the world. There is also a group of nations, such as Canada and the Scandinavian countries, that has long been interested in the practical aspects of peacekeeping. There thus seems to be appreciable potential support for increased U.N. abilities in the peacekeeping field if both these groups are adequately encouraged.

This is clearly an area in which a vigorous campaign by the United States would be inappropriate. Overidentification of peacekeeping with the United States, one of the superpowers, would probably vitiate the whole idea. It would probably arouse strong Soviet suspicions and, perhaps, counterproductive opposition fostered by the U.S.S.R. Equally inhibiting, U.S. dominance would cause many nations that might otherwise support peacekeeping to shy away, for fear of being caught in a superpower confrontation.

However, clear indications that the United States really did favor improved U.N. peacekeeping efforts and was prepared to support others in developing this concept might well revitalize the interest in peacekeeping. An effort in this direction was the first recommendation of the Commission set up by the President to propose measures to increase the effectiveness of the United Nations and of U.S. participation therein. The President's Commission on the Observance of the 25th Anniversary of the United Nations was chaired by Henry Cabot Lodge, who had been U.S. Representative to the U.N. The Commission's first recommendation, in its report dated April 25, 1971, urged that the United States "undertake bold new initiatives to revitalize the peacekeeping and peacemaking capabilities of the UN." The Commission also recommended that the United States "indicate its readiness to cooperate fully with the UN and other countries in developing contingents and specialized units for a UN Peace Reserve."

With a clear indication of American readiness to cooperate, the countries particularly interested in peacekeeping might take the initiative to develop support from other countries and propose practical measures for U.N. consideration. These countries are not prepared to be front men for the United States, nor should we allow them to seem to be. The atmosphere fostered by the United States would be crucial. America would have to make manifest her sincerity in strengthening U.N. peacekeeping as a viable means of dealing with lower-level violence and in a sense foregoing the possibility of unilateral U.S. intervention. The United States would also have to be ready to accept and work with the initiatives and proposals of others. We can encourage viable arrangements by others, but excessive U.S. activity in proposals and negotiations would give the concept an overly American cast and might well doom it.

In the context of active and substantial interest among U.N. members, the U.S.S.R. might moderate or cease its present uncooperative stance. Perhaps the Soviets might not actively oppose such measures as the development of a register of capabilities that would not involve any commitments to specific modes of peacekeeping.

More broadly, the possibilities for developing momentum on the question of U.N. peacekeeping seem distinctly improved in today's changing world. There is great interest everywhere in finding modes of accommodation that avoid big-power confrontations and strengthen the possibilities for an era of negotiation. One constructive area for focusing this interest could be U.N. peacekeeping in a way that produced broad support, strong itself and powerful enough to induce the Soviets to go along.

The prospects for encouraging the development of U.N. peacekeeping would be measurably improved if it were clear that the United States is prepared to support it in practical ways. Measures to create the specific American wherewithal to assist and support peacekeeping would be the most convincing demonstration of U.S. support for the concept. Unfortunately, nothing like this has yet been done.

The idea of U.N. peacekeeping has been generally blessed in U.S. policy and in initiatives at the United Nations. But implementing specifics, such as detailed inclusion in the military doctrine of the Joint Chiefs of Staff or the earmarking of American units, have been absent. The general attitude has been that the U.S. armed forces have a broad spectrum of capabilities; if a need should emerge in a

specific U.N. peacekeeping operation, the United States would identify and provide the needed capability from among the many that it possesses.

This approach to the problem is hardly adequate in an era of reducing American military forces and lowering visibility around the world. Our forces must be multipurpose and carefully targeted. We are going to continue to have problems with lower-level violence. At a minimum, it would be prudent to have U.S. military doctrine and capabilities to support U.N. peacekeeping fully spelled out; they can then be promptly implemented if this were judged most advantageous to the United States in a particular crisis. More broadly, other countries are not going to work to ready their own doctrine and capabilities for U.N. peacekeeping unless we demonstrate our seriousness by visibly doing so.

Significantly, the President's Commission on the United Nations followed its policy recommendations, cited earlier, with several specific

In Cyprus, 1967

By its presence in disputed areas, the U.N. peacekeeping force has helped to avoid new outbreaks of fighting and reduced tensions.

ones. The Commission said that the United States should "pledge air/sealift facilities for immediate transport of UN peace troops." In many U.N. peacekeeping operations the U.S. has, in fact, supplied the trooplift. But the Commission recommends that the United States take the significant further step of pledging the continual availability of this support. If nothing else, by such action we could highlight the peacekeeping value of such uniquely American capabilities as naval transports and resupply and the C-5A aircraft.

The Commission also recommended that the United States "earmark within the U.S. defense forces specialized units in signals, transport and logistics for backstopping UN peacekeeping operations and for possible participation in such operations." This is an area in which the United States has been deficient. Actually providing a unit for a peacekeeping operation is more than a mechanical process; there are many practical requirements, ranging from familiarity with the special hazards and guidelines of international operations to up-to-date inoculations and passports. Earmarking is essential to be sure that these requirements are properly met.

Perhaps even more important would be specific U.S. support for U.N. peacekeeping in our military assistance program and in our relationships with the military of other countries. Another recommendation of the President's Commission on the U.N. was that the United States "insure through existing and/or new legislation that the United States is fully prepared to support UN peacekeeping operations, including assistance in training and equipping contingents for UN service through use of existing (but unused) provisions of the Foreign Assistance Act."

Our military assistance programs can readily be adjusted to assist other countries to develop peacekeeping forces. The capabilities required in peacekeeping are also needed by these countries in protecting their own security. Particularly is this true in maintaining internal security, which is the primary purpose of most U.S. military assistance programs. In most cases the development of peacekeeping units is a question of cross-training existing forces to provide multipurpose units. The principal mission of the latter is internal security, but they would also be capable of and ready for participation in international peacekeeping operations. Thus, without detriment to existing U.S. military assistance programs (MAP) and procedures, we could incorporate specific advice and equipment designed to encourage peacekeeping capabilities.

Helping other nations develop units earmarked for U.N. service should be an accepted part of our military assistance programs. We can help train and equip contingents for those MAP recipients who desire to earmark units. We can identify needs and help develop capabilities to meet them. Perhaps we can help these countries devise and carry out exercises to improve their peacekeeping potential. We may be able to help modify equipment or procedures to make them more adaptable to peacekeeping operations. In those countries with more preliminary interest in peacekeeping, our military assistance personnel can help the military of their host country by furnishing documents or getting for them information from other countries with earmarked units or previous U.N. experience. The practical ways in which we can assist are many and varied. Directives and guidance to carry them out need to be specifically incorporated in our military assistance training, planning, and programming.

The basic concept of U.N. peacekeeping involves national units, appropriately trained, equipped, and earmarked as available for U.N. service. Member nations would offer these units to the United Nations, if they deemed it desirable, in response to the U.N.'s call to organize a peacekeeping force for a particular crisis. It is up to each nation to decide whether to develop such a unit, what its composition should be, and whether to make it available when requested by the U.N. To date, some 54 coun-

tries have assigned personnel to U.N. operations, and some 27 nations have made major contributions of military units (over 100 men) to one or more of the U.N. forces.

Experience has shown that a great variety of units is needed. U.N. forces have had to do much more than police and patrol. They have had to disperse rioting mobs, guard key political leaders, operate airports and radio stations, and exert the utmost in persuasion and diplomacy to stop or head off hostilities. They have had to help civil administration in a multitude of ways in order to prevent disorder or chaos. Circumstances have often made them *de facto* mediators and quasi magistrates. In addition, a variety of language capabilities (e.g., French-speaking personnel in the Congo) has been needed and not always readily available.

Along with regular infantry units, there has been a need for such related elements as air transport, naval support, river patrol, reconnaissance, communications, and logistics forces. Also urgently needed have been such specialized units as air traffic controllers, military police, sanitary engineers, postal clerks, medical personnel, and paymasters. In short, the range of useful capabilities is great.

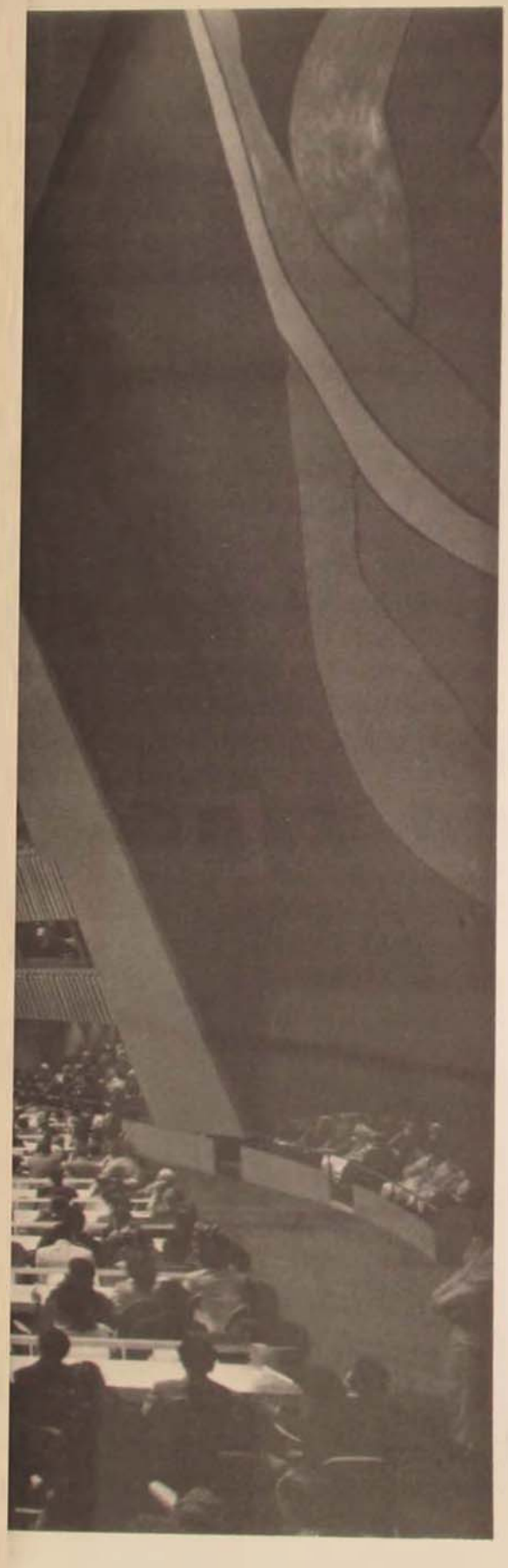
Most of these capabilities are feasible (in terms of talents and resources) for most countries of the world. In fact, many of them already exist. These capabilities are directly related to internal security, the principal military concern of these countries. With little difficulty, it should be possible to suggest quite a few countries around the world that could readily adjust existing capabilities to provide dual status as designated standby peacekeeping units. Simply as an almost random selection, without any political judgments intended, some or all of the following countries might be listed: Mexico, Venezuela, Yugoslavia, Romania, Tunisia, Kenya, Spain, Iran, Indonesia, Ivory Coast, Jamaica, and Ethiopia. There are many others; this list is not meant to be complete.

A number of other countries have already demonstrated an interest. A few already have standby peacekeeping units. Others are participating in the U.N. force in Cyprus or in other U.N. peacekeeping activities, such as the U.N. truce supervisory organization in the Middle East.

In fact, the development of peacekeeping concepts, units, doctrine, and equipment would offer these countries a significant role in the world, something they now largely lack because of superpower dominance. The problems of peacekeeping, by and large, are similar to those that they deal with internally. By concentrating diplomatic and professional talents in the area of peacekeeping and the problems of lower-level violence, they could become the acknowledged international experts in their fields. Their expertise would give them credibility and confidence in international relations. An intimate awareness of the difficulties involved would probably also produce a salutary strengthening of responsibility and appreciation of feasible arrangements. A sense of leadership for these countries in peacekeeping should also be conducive to their constructive participation more generally in maintaining world peace on a realistic basis.

In similar fashion, a leadership role in peacekeeping would provide the military of these countries with a legitimate professional role. Satisfactory outlets for military professionalism now are generally lacking in the developing countries. This situation has an important bearing on the proclivity of the military of these countries to seek advanced weaponry or to intervene in the political process. U.N. peacekeeping offers a meaningful external mission for small armed forces of limited capabilities and one that relates well to their primary mission of maintaining internal stability in their own countries.

The practical problems of peacekeeping, as noted, are very similar to those of internal security. They are also appreciably simpler than those generally faced by sophisticated military forces, such as those of the United States or the other powers. A good deal needs to be done in



thinking through the doctrine and equipment best adapted to these lower-level situations.

There is, for instance, no well-developed or widely agreed doctrine for peacekeeping operations, with their many diplomatic, psychological, and other complexities. Peacekeeping forces could conceivably be used in a variety of ways: to re-establish law and order; to backstop local police forces so as to preclude a breakdown of order; to evacuate foreigners; to establish or maintain a truce; to police an election; to isolate conflicts from outside influences, supplies, and agitators; or to observe or monitor tense situations. Each of these categories presents a host of special complications. Clearly it would be an important step forward if the likely problems of peacekeeping were thought through and more specific doctrine or guidance developed.

The question of equipment also needs examination. Presumably, relatively simple equipment would be most appropriate for peacekeeping and internal security. Some random ideas include small boats for riverine or coastal patrol, a simplified jeep-type vehicle for cross-country and trail movements, or perhaps even mule-pack artillery for mountain and jungle use. In relatively undeveloped conditions simple equipment may well be more useful and less costly than trying to adapt advanced equipment available from sophisticated military forces. Furthermore, simplified equipment is likely to be within the industrial capabilities of many developing countries, thus giving them another interest in peacekeeping.

In other words, there is a broad area of military expertise not now being much used. It is one in which the military of the developing nations are uniquely situated to become the

The United Nations General Assembly, on opening its twenty-seventh regular session 19 September 1972 in New York City, elected as its current president Stanislaw Trepczynski, the incumbent Polish Deputy Minister for Foreign Affairs.

international experts. Such international military recognition would provide a sense of professional fulfillment now lacking.

The availability of a wide variety of appropriate peacekeeping units should, itself, be conducive to dealing with critical episodes of destructive violence. The likelihood that the United Nations would agree to deploy a peacekeeping force would almost certainly be greater if it were well known that effective capabilities were regularly available. Past operations have been organized in haste, with a good deal of inefficiency and makeshift arrangements. The more earmarked units available, the more likely it is that enough will be suitable in a particular crisis, both on political and practical grounds. The formation of a U.N. peacekeeping force would obviously be easier and more successful if a number of trained units, with a variety of capabilities, are readily available. Furthermore, a small and effective U.N. contingent that arrives early in a situation may be of much greater benefit than a large force later.

Even if the United Nations is ultimately unwilling to act, the availability of a wide variety of national peacekeeping units may help in containing a crisis. It would enable like-minded countries that were prepared to participate to provide peacekeeping assistance to a friendly nation in a crisis. For instance, an Asian country might form a peacekeeping force and help a neighbor weather a period of instability or violence. The availability of national peacekeeping units in the countries of the western hemisphere might give the Organization of American States another useful option in dealing with a crisis of general concern. Other types of international peacekeeping were originally considered during the Cyprus crisis, when it appeared that the Soviet Union might prevent organization of a U.N. force. In short, the availability of peacekeeping units adds one more possibility for the solution of crises of violence or instability. Even if the peacekeeping units were never used, the assurance of their existence and availability should have some constructive impact on the prospects for world peace.

WE HAVE nothing to lose and much to gain by taking the practical steps open to us to improve our own ability to support peacekeeping operations and help friendly nations develop their capabilities to meet peacekeeping emergencies. Lower-level violence and instability are certain to persist. Under present circumstances we do not have an effective way to deal with such situations so as to preclude their developing into threats to U.S. national security. Strengthened, viable U.N. peacekeeping offers a means to handle such dangers in a manner compatible with U.S. interests. It would, in effect, give us a strategic option to contain lower-level violence, an option we are now in grave danger of losing.

John F. Kennedy Center for
Military Assistance
Fort Bragg, North Carolina

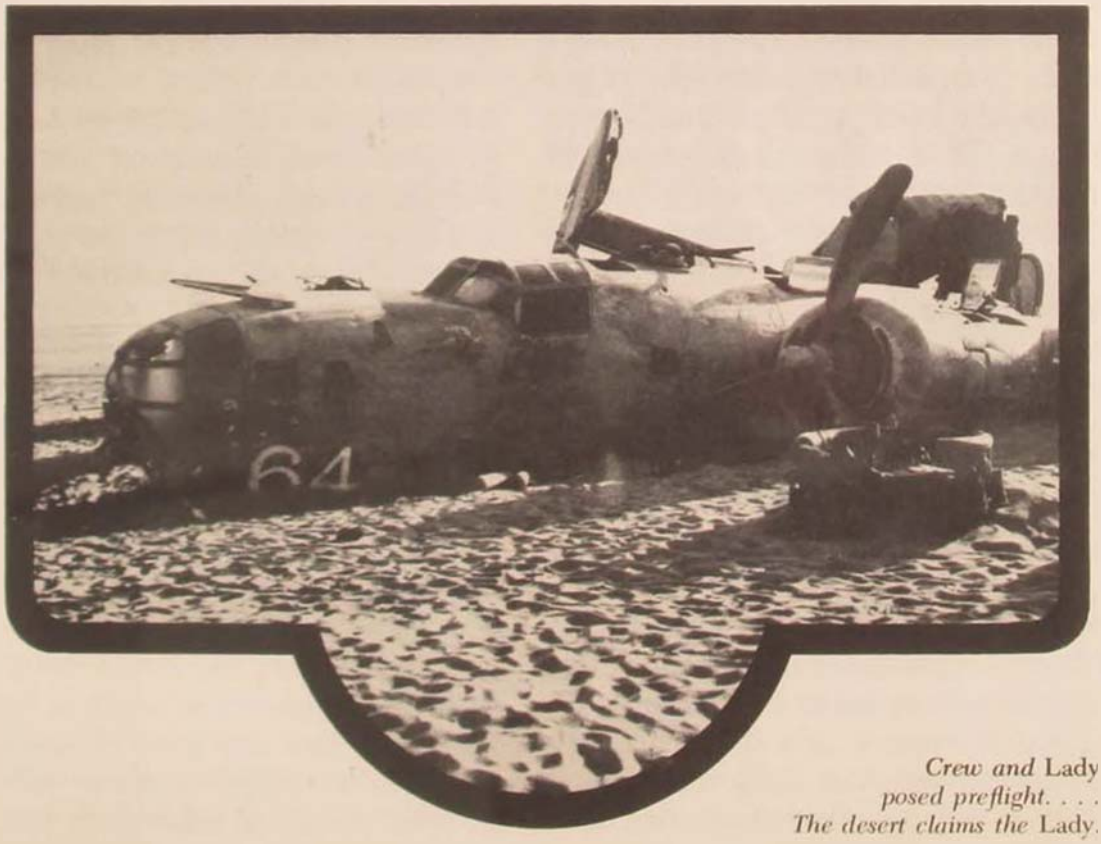
Acknowledgment

With one exception (the USAF C-130 photograph on page 32), all photographs are courtesy of the United Nations Washington Information Center.

EPITAPH TO THE *LADY*—

30 Years After

WILLIAM G. HOLDER



Crew and Lady
posed preflight. . . .
The desert claims the Lady.

SHE was just another B-24, one of thousands of Liberators that rolled off the production lines during World War II. Her aircraft number was 41-24301, and she was assigned to the 514th Squadron of the 376th Bomb Group. However, these rather bland statistics belie the story of probably the most famous B-24 of World War II. But the reason for her fame was not fantastic feats during aerial combat. In fact, this brand-new airplane flew only one mission—a mission from which she never returned. By now the reader has probably guessed that the plane about which we speak is the ill-fated *Lady Be Good.*

Since the plane was discovered in the Libyan Desert in 1959, thousands of words have been written about it and the probable reasons for its demise. The old TV show, Armstrong Circle Theatre, had a program on what happened to the unfortunate *Lady.* A final review of the resultant documentation shows some interesting and unexplained facts about the accident. Also, some of the facts relating to this incident are shown to be untrue, while others remain unchanged and in many cases unexplained.

Most of the facts are well known. The *Lady's* lone mission, designated Mission 109, began from a makeshift airstrip called Soluch near Bengazi, Libya. The mission objective of the 26 B-24s was to strike the port facilities at Naples. As was true with many of the B-24 operations out of North Africa, the gritty sand got into everything that moved and caused great maintenance problems. And the *Lady* was probably a victim of the sand, as her engines sucked in large amounts of the desert at takeoff. It is probably also a good guess that this was a contributing factor to the engine problems it faced early in the flight on 4 April 1943.

Only 11 of the Mission 109 planes ever reached Naples. One aborted at takeoff, and the other 14 turned around and either struggled back to Soluch or landed at a British strip on Malta. Of the 14, only the *Lady* was not accounted for. It is known that she turned back some 30 minutes short of the target. And then the great mystery begins.

After all the other planes of Mission 109 had been accounted for, there was still hope that the *Lady* would turn up. And by this time her pilot, Lieutenant William Hatton, must have realized that he was not on course. Finally, he broke radio silence and contacted the control tower at Benina, the master control facility for the Bengazi area. Hatton probably figured that he should have seen the African coast by then, and he wanted a fix on his position. The tower gave him a heading of 330 degrees, north by northwest.

The Benina directional finder, unfortunately, was the type that could record the *Lady's* signal from both 330 degrees and the reciprocal position, 150 degrees. The correct fix of 150 degrees was never considered by the tower, since Hatton thought (erroneously) that he was still over the water. (At night, it is extremely difficult to distinguish between the sea and the desert.) The *Lady Be Good* was already over the desert south by southeast at 150 degrees when the pilot radioed the tower. The *Lady* was not headed home but exactly 180 degrees away from it.

When the *Lady* took off for her mission, the wind had been blowing off the desert. In the interim, though, the wind had shifted to the opposite direction, and a strong tailwind had probably been mistaken for a headwind. It is therefore understandable why the crew was probably not overly concerned about being so long in getting back to Soluch. The ironic part was that her engines were apparently heard droning overhead by several ground personnel as she flew south to her end. It was reported that an air-sea rescue was initiated on the same 330-degree course that had been given the *Lady.*

Since the *Lady* was heard flying south, why didn't the search extend south as well as north? The fact that the crew was inexperienced should have caused a rescue attempt to be made in directions other than the 330-degree

heading. If that had been done, the needless loss of a young crew probably could have been avoided.

As the *Lady* droned on, the fuel began to deplete, probably causing the engines to die one at a time. When the plane had only one prop turning, the crew bailed out. At the crash site, three of the *Lady's* props were bent back, indicating that they were dead when the *Lady* belly-flopped onto the desert floor. The fourth engine had torn loose, still wheeling with a few last drops of petrol, and fought its way 50 yards farther through the loose pebbles and sand.

Just recently another bit of evidence has been added to the mystery. McDonnell Douglas Corporation was loaned one of the *Lady's* recovered engines for analysis. Upon examination of the engine, McDonnell Douglas technicians discovered a flak hole, probably caused by a 20-mm cannon shell, in the rocker box cover. This evidence suggests that the *Lady* may have made it to the target area and encountered enemy fire. In fact, that particular engine might have been feathered once the damage was inflicted.

In the experience of B-24 pilots, the *Lady*, with only number 4 engine running, would have fallen in a sweeping arc to the left. The radius of the turn would have been from 5 to 10 miles. Analysis of the crash site showed that the *Lady* struck the gravel plain in near-level flight and skidded for about 700 yards from east to west, rotating in a clockwise direction. She came to rest with her nose pointing southeast. Her wingtips were unmarked, indicating that she remained fairly level during her death skid. At the end of the skid, the grinding stresses proved too much for her, and she "broke her back" just behind the main wing roots. Debris, including portions of bomb-bay racks, bits of tubing, and sections of cowling, marked the *Lady's* route from initial impact to her final resting place.

The fact that three engines had been feathered was further verified when searchers examined the engine control positions. The mixture controls, generator switches, and throttle levers for engines 1, 2, and 3 were all set in the "off" position. Also, the propeller controls for these three engines were set to "feathered." The number 4 engine, however, had all switch controls, generator, propeller, and throttle lever set for "full operation." The wing flaps were not extended, and the landing gear had not been lowered for a pilot's controlled landing. The Form 41-B maintenance record indicated that the engines each had a total time of only 148 hours. The log also indicated that the *Lady* had previously flown only a few test flights, and the fatal Mission 109 was her first combat mission.

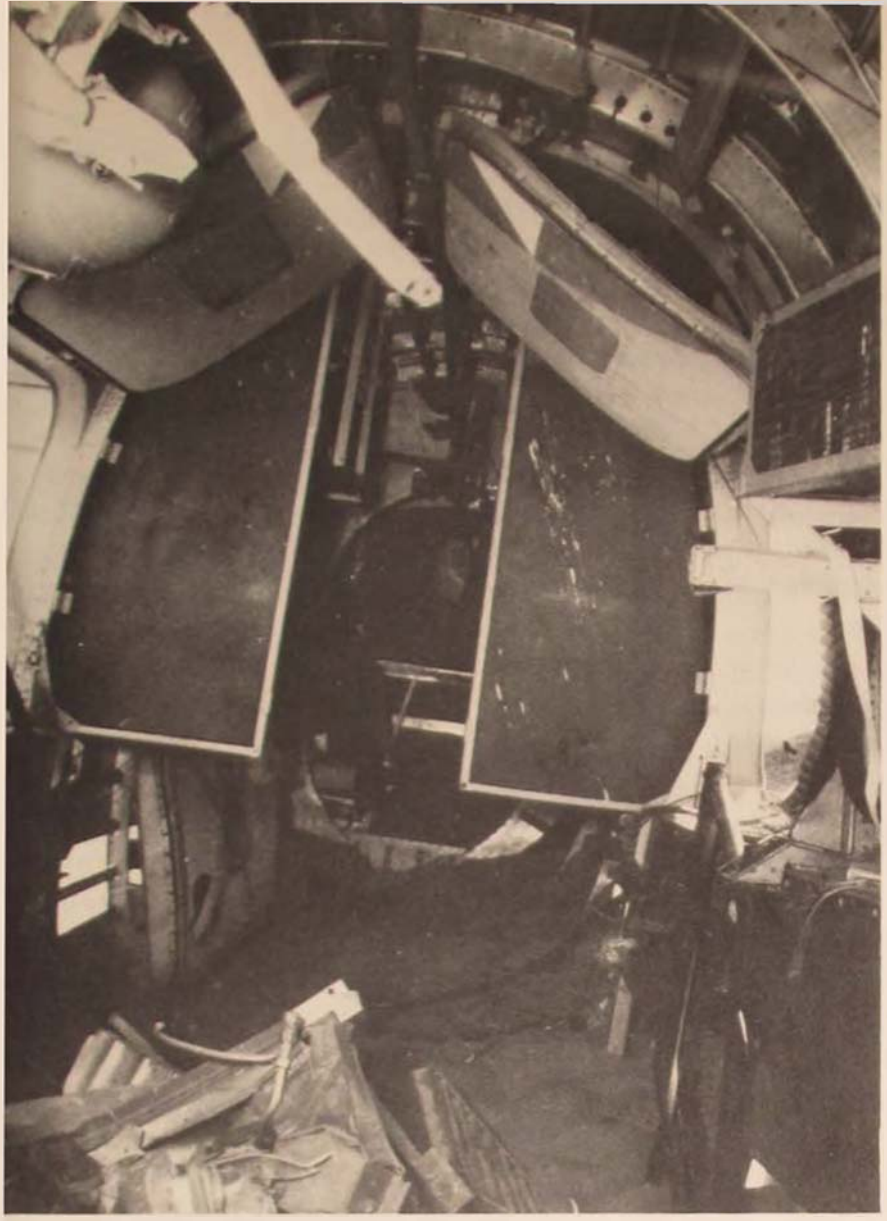
In retrospect, would the *Lady's* crew have survived if they had stayed with their plane? The chances are that they would have. And the chances are that, with their radio, they might have been recovered. At least with the provisions and water on board, they could have survived for a considerable length of time.

All of the 50-caliber ammunition was intact at each machine-gun position with the exception of a few rounds that were probably expended when the guns were checked out in flight. According to the official Air Force Investigation Report, there were no water jugs aboard the plane as reported in some accounts. A thermos jug three-fourths full of coffee was found on the floor at the flight engineer's position. An earlier British party had removed the sextant, bombsight, and chronometer.

Both parachutes and Mae West life preservers had been worn by the crew when they left the old girl for the last time. The nine-man crew bailed out, undoubtedly thinking they were over the Mediterranean, but that body of water was some 400 miles away to the north. One can but wonder whether the crew felt any animosity toward the navigator, who was at least partially responsible for getting them into their predicament. The nearly blank navigator's W6 sheet for the return portion of the mission certainly indicts him. None of the W6 reflects the standards that were representative of the times. All the crew knew was that they had

Continued on page 46

A trail of debris marks the Lady's *final movements. . . . Nomadic tribesmen had visited the scene, helped themselves to souvenirs.*



The inside of Lady Be Good *was in amazingly good condition, considering her long sunbaking. . . . The rear-turret guns were still in excellent condition, capable of firing. . . . An Army helicopter deplanes from a C-130 to join the search operation.*

landed somewhere in the desert; otherwise, they had no idea where they were. What a hopeless feeling it must have been!

The initial Air Force search party from Wheelus Air Base, Tripoli, was not equipped for full-scale search operations and found no trace of the crew. It was decided later that an extensive operation would be carried out to find the crew and close out the still open book on the *Lady*. But the task facing the search party was awesome—there was just no way of knowing where the crew had bailed out.

It was assumed, however, that the crew probably parachuted when only one engine was churning and therefore probably landed within 8 to 10 miles of the crash site. It was obvious that they had not found the downed bomber, and it is doubtful that they could have found her even if they had tried. It is interesting to wonder whether the possibility entered their minds. But the searchers theorized, and correctly, that the crew would have headed north toward the sea they probably thought was so near.

The medical people with the search party reasoned that it would be impossible to last more than a couple of days, even with water. The experts also gave the men, each with a canteen, a chance of going only 25 to 30 miles at best. But the experts overlooked one factor the *Lady's* crew had going for it: the desire to survive. And it would be this desire which would push the men to continue on to superhuman feats with the hope that the sea was just over the next rise.

Moving north from the crash site, the searchers found the first clue some 19 miles away, where a pair of boots was found pointing north. The search then concentrated in that general area. Shortly afterward, the wheel tracks of five large, heavy vehicles were found. It was thought that the tracks were very old, made before the *Lady* went down. Therefore, the searchers speculated that if they were indeed present for the crew to see, they probably represented a great ray of hope to the stricken airmen—a trail they probably followed.

It was not long after taking up the trail that the search party found their assumption to be correct: more flight equipment was found. A parachute had been fashioned into the shape of an arrowhead, pointing north along the 5-vehicle track. It had been weighted down with stones and was still quite visible after 16 years. Still farther along the trail, more parachute arrowhead markers were found.

Just north of the last chute the search reached the sand sea of Calanscio, an area of shifting sand mounds that have been known to bury cities. Realizing that it must have been a tremendously discouraging sight to the *Lady's* crew, the searchers felt the last chapter could soon be closed. After an extensive effort, though, the search teams gave up, and the mystery of the "ghost bomber" lived on. The final report of the investigation stated that "the crew members perished in the sand dunes and have been covered by the sands."

So then the case of the *Lady Be Good* was laid to rest. But the quest for oil in the desert still continued, and some four months later, in February 1960, the remains of five bodies were discovered on a plateau inside the sand sea. The Air Force quickly identified them as five of the nine crewmen. The area was littered with canteens, a Mae West life vest, and the diary of Second Lieutenant Robert Tower, the copilot, which told of the last nine days of heat and suffering. It was not long until the remains of three others were found. Only Staff Sergeant Vernon Moore was never found; he still rests in the desert that had claimed his *Lady*.

It is generally agreed that the circumstances which took the *Lady Be Good* to her appointment with death in the desert were a weird combination of mistakes and circumstances, a one-in-a-million fatal combination. Unfortunately, the inexperienced crew of the *Lady* fell victim to them on her first mission.

Many have suggested bringing the *Lady* back and displaying her at the Smithsonian or Air Force Museum. But that will never happen.

She has become an intrinsic part of the desert that claimed her, and there she will remain. The plane today, after the ravages of souvenir collectors who at one point used axes, is little more than a shell and has long since ceased to be exhibitable.

THE VICKERS DIVISION of Sperry Rand has long been interested in the effects of long-term storage on missile and aircraft components. To further this study, Vickers in March 1960 procured eleven hydraulic components from the *Lady Be Good* for examination, including the main system pump, relief valve, unloading valve, accumulator, turret transmission, and various engine components.

The results were surprising. All components were found to be in very satisfactory condition after their 17-year desert sunbath. There was little or no evidence of corrosion on most of the components. The piston rods moved freely and were coated with a film of oil when extended. The piston surfaces were bright and shiny, showing no evidence of corrosion or other deterioration. Both the pump and motor drive shafts rotated freely by hand.

About a quart of red hydraulic fluid was obtained from the system, and although slightly discolored, the fluid felt and smelled in very satisfactory condition. However, all the aircraft engine oil in the sample had evaporated, leaving only a black sludge in the engine oil reservoirs.

It was also reported that, as a result of the crash, the nose gear was broken off the aircraft and stuck in the sand with the tire sticking up. The slightest wind would rotate the wheel, indicating that the bearings were free and in good condition. Significantly, the conditions in the Libyan Desert are considerably better than those at the USAF aircraft storage area at Davis-Monthan AFB, Arizona.

In 1970 Shell Oil Company completed a series of tests on an oil sample from the recovered engine. It seems remarkable that no appreciable evaporation of volatile constituents of the oil sample appears to have taken place.

Another equipment analysis was conducted by the Olin Company of East Alton, Illinois, on four .45 cartridges from the *Lady Be Good*. The tests were conducted in 1962 on ammunition manufactured by the Remington Arms Company in 1942. The 1962 standards for the ammo (the same as in 1942) were 820 feet-per-second velocity, and the average pressure was not to exceed 19,000 pounds per square inch. The *Lady's* shells averaged 871.5 fps and 18,275 psi. Olin concluded that "from a ballistic standpoint, the ammunition appears safe." One of the searchers also confirmed the adequacy of the *Lady's* ammo when he checked out one of the bomber's machine guns: when he pulled the trigger, tracers went zooming out across the desert.

The equipment of the *Lady* has made its way all over the world. Many small pieces of equipment were stripped off by members of the search parties and kept as souvenirs.

Many items of clothing and equipment, including two government-issue watches that would still run, were found with the remains of the crew. These items are on display at the Quartermaster Museum, Fort Lee, Virginia. There is also some *Lady* equipment in the Air Force Museum at Wright-Patterson AFB, Ohio, one of the major items being a propeller. All the small arms went to the Libyan police, and all the rafts were eventually thrown away because over the years they had been ruined by the heat.

The first Air Force party at the crash site found flight suits hanging undisturbed in the bent fuselage, and in odd corners they found cigarettes, gum, and bits of flight rations. The butts in one ashtray had been smoked down to the last puff, probably slowly and almost confidently, the way a young flyer might drag on a weed during his first mission. In another tray they had been crushed out by nervous hands, the way a man smashes a cigarette when he is out of time.

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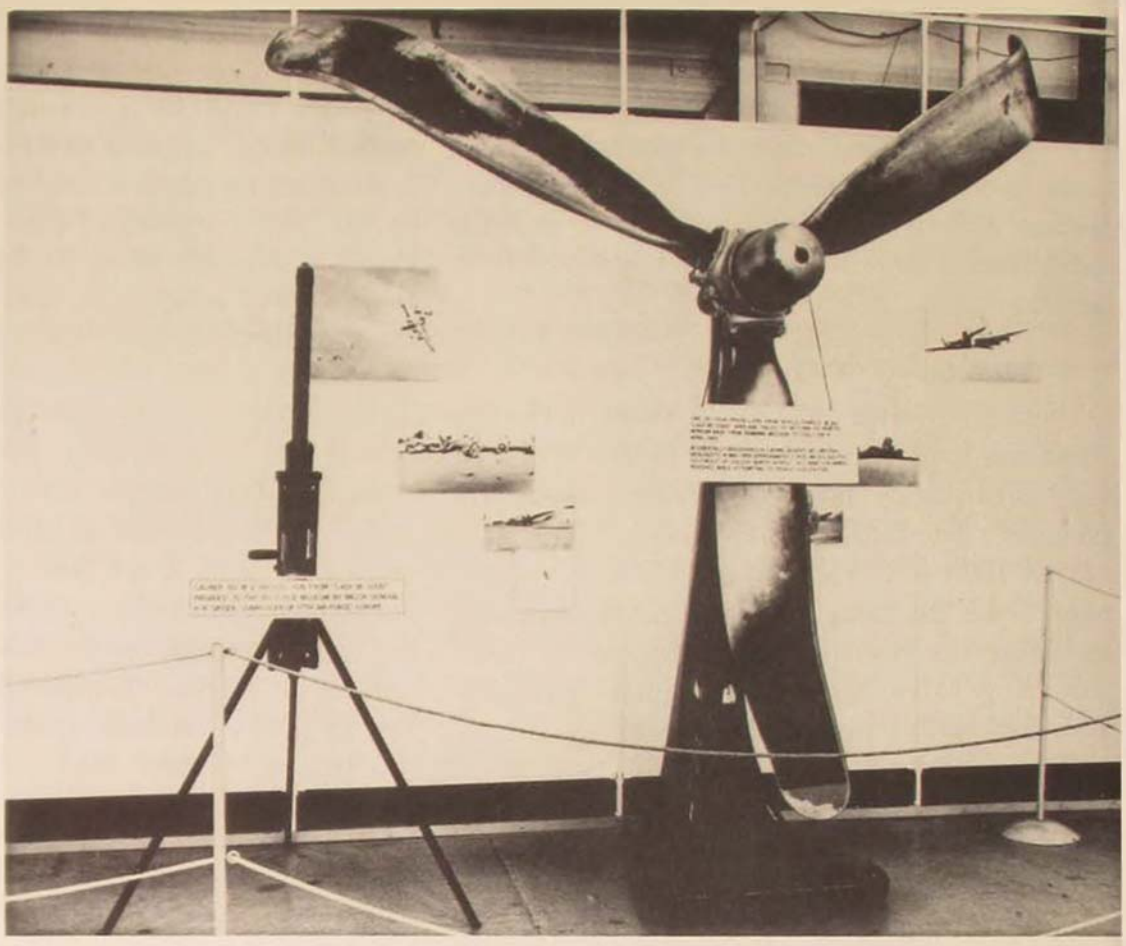

The Lady Be Good *exhibit at the Air Force Museum. . . . It was necessary to break the top turret in order to release the tremendous heat. . . . Panel of photographs (right) shows the progress of the ill-fated crew after parachuting safely from the* Lady Be Good.

A1
B-24D
Lady Be Good
AF M 41-24301 / Phot 25

Exhibit E

th Clue--Portion of harness and parachute weighted down in the orm of an arrowhead pointing north-ard along WW II 5-vehicle trail. nd parachute bundled and partially overed by sand.

Exhibit F

7th Parachute marker and shroud line cuttings pointing towards th 5-vehicle trail and clues seen in Exhibit D.

Exhibit G

8th Parachute forming an arrowhead pointing on a 325 degree heading. Parachute harness visible in upper left hand corner.

The radio set from the *Lady* was removed and installed in the recovery C-47, where it worked perfectly in place of a radio that had failed on the flight from Wheelus. The story has it, though, that this aircraft some time later went down with all aboard lost. Thus began the "jinx" stories.

Several servomotors that had once driven some of the instruments on the *Lady* were installed in a C-54 assigned to Wheelus. On a Thanksgiving Day flight to Bengazi, carrying mail and Thanksgiving turkeys, one of the plane's engines feathered, and even with maximum power on the other three engines the crew had to dump all cargo in order to make Bengazi safely.

But the most tragic of the "jinx" incidents involving parts from the ghost bomber happened with an Army Otter observation aircraft. Only the armrests had been removed from the *Lady* and installed in the Otter. Shortly thereafter, the Otter crashed into the Gulf of Sidra. No trace of its ten-man complement was ever discovered. Amongst the scattered debris washed up on the Libyan coast by the waves was an armrest.

These incidents have added an air of mystery to the old "ghost bomber." In fact, it is said that native caravans skirt the site of the crash because they believe it is haunted. And as the years pass, the haunted aspects of the *Lady Be Good* will grow more fixed with each repetition of her anguished saga.

Wright-Patterson AFB, Ohio

Acknowledgment

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W.G.H.

THE "NEW" CIVIL-MILITARY RELATIONS: *Retrospect and Prospect*

Dr. Adrian Preston

ACADEMIC and professional study by the modern defense specialist of contemporary war, strategy, and national security is the most exacting of the social sciences. It calls for extraordinary skills and demands a sense of discrimination, commitment, and perspective that would both electrify and dismay the conventional student of economics, jurisprudence, theology, or medicine. If his scholarship is to be balanced and significant, accurately reflecting the contradictions, dialectics, and paradoxes of the human condition, the defence specialist must take into account a wide range of variables: variables of a political, financial, psychological, and sociological character, technical as well as theoretical. With the analysis and integration of all these factors, he may not feel entirely comfortable.

For this comprehensive approach to the study of war, whether for its preparation and conduct or for its deterrence, the historian's methodology seems the most sound. The historian, by providing a sheet anchor to the concrete realities of the condition of man—his social, psychological, geostrategic, and demographic environment at

any chosen period of time—will not be led into the fallacy of believing that there is a technical solution for every social problem and that by endlessly reconstructing models and refining theories of international behavior and organization it would be possible to banish forever the inevitability of war from the conduct of human affairs.

These nuclear age exercises in the construction of a positive science of peace, enscaffolded with laws and principles by which it can be immutably governed, are as ludicrously and tragically out of touch with the technological "state of the art" as were those baroque and didactic theories of the strategic positivists of the late nineteenth and early twentieth centuries—men such as Hamley, Foch, Fuller, and Liddell Hart—whose central dogma of the decisive battle had, by 1945, brought classical warfare to its climax. Admirable though they might be to apostolic theologians and other rulers of celestial societies, these exercises are potentially disastrous in political communities whose relations, order, and security are determined by the controlled interpretation of, among other things, military power and civil authority.

Indeed, it can be asked in considering the problem of civil-military relations within an age and system of international order and politics clouded and suffused by deterrence, disarmament, arms control, peace keeping, military assistance, and alliance structures in which the military factor must compete with other domestic claims in the formulation of national goals and policy, and in which the distinctive image and classical functions of the profession of arms have been eroded and defiled, does the traditional dialectical approach—the clear separation and strict subordination of military power to political authority—have any valid claim to exist? Should the scientific study of civil-military relations continue to turn exclusively upon the simple and emotive issue of political control over military expertise when the politico-strategic-technological environment in which such a study must take place has paradoxically become at once more confused and more rational? Is it any longer sufficient to explain the democratic condition exclusively in terms of a suspicious civil power, embodying the protection of individual liberty and justice, jealously scrutinizing and, if necessary, restraining a professional leviathan whose accretion of power might lead to the insensible and inadvertent conversion of the classical freedoms into an implacably garrisoned state? In an age that has blurred the classical distinctions between war and peace, strategy and policy, victory and defeat, fears and threats, does not the politician, bureaucrat, or industrialist "on horseback" represent at least an equal and perhaps more insidious threat to the constitutional order of the State as that supposed to have been traditionally posed by the man in uniform? [1]

For where soldiers and politicians disagree, only bureaucracy prevails.[2] It is here, in the grey no-man's-land of joint services and interdepartment committees dealing with policy, manpower, procurement, education, management, and research that soldiers are momentarily "politicised." They are brought to realize that, if the balance of freedom and security is to be preserved, then armed forces must necessarily constitute not the overriding and decisive interest to which all others must defer but one which, while significant and indispensable, must be capable of voluntary self-restraint and self-analysis, must efface the arrogance of the power which it disposes, and must never concede the claims of competing, equally urgent interests with a shrill or ill grace.

It is here that bureaucrats, who often confuse economy with efficiency, are "militarized" in the sense that they are brought to realize that the intangible and contingent factors of national security and professional expertise (such as discipline, judgment, and morale, which condition the equally intangible qualities of surprise and stubbornness upon which victory often depends) are not so susceptible to cost-effectiveness analysis as their economic mod-

ular theories lead them to dogmatise. It is here, too, that politicians—who are not always prone to trust their official professional advisers, who sometimes confuse real power with furtive popularity, and who often see in bureaucratic consolidation and force reductions a means of emasculating inconvenient advice and unpalatable initiatives while reasserting their sovereign political authority—become both bureaucratised and militarized.

Here they are forced to weigh the ineluctability of violence in domestic and international politics (including the vast destructive and repressive potential of which the armed profession disposes) against the diplomatic—indeed humanistic—necessity for negotiation and compromise, for moderation and restraint. It is primarily here that the politician, if he did not understand it before, is educated in the idea that the armies for whose direction and control he is ultimately accountable are no less than great corporations, whose functioning is limited not only by the frictions engendered by administrative shortcomings, natural hazards, inadequate information, and human fear but also by rivalries, ambitions, and an institutional inertia which it requires great qualities of character to overcome. To the professional and bureaucratic arguments of what is militarily, financially, and administratively desirable, he must present the case for what is socially acceptable and politically possible.

But all of this, if it is to be more than a matter of good intentions, high purpose, and rule of thumb, presupposes that soldier, bureaucrat, and politician are not only talking the same language but are able at once to translate their technical jargon into the plain table talk of a literate but largely indifferent electorate—an electorate that confides ever greater degrees of trust to experts charged with the higher direction and management of their personal safety and national security. This must be done while at the same time satisfying that powerful lobby of civilian academic defence specialists which, since 1945, has done so much to shape and influence the nuclear strategic debate, a debate to which the armed forces have not provided an altogether effective response.

Thus a case can be made for the conduct of civil-military relations in the nuclear-guerrilla age wherein the various exponents of the instruments and resources of national power have been brought into continuous contact, not so much for the capricious control of military power as for its precise and intelligent regulation through a comprehensive system of interpenetration. Such a case would recognize the incipience of violence in political instability and the inevitability of organized violence in the orderly conduct of international affairs. It would do so because man, as a political animal desirous of promoting the perceived interests of the state he controls, must acknowledge that the possibility of the use of violence always exists and therefore the instruments of violence must be ready at hand.

Wolfville, Nova Scotia

Notes

This article was largely inspired by a rereading of E. M. Lyon's analysis of "The 'New' Civil-Military Relations," *American Political Science Review*, Vol. 55, March 1961, pp. 53–63.

1. See, for instance, Adam Yarmolinsky, "The Military Establishment (How Political Problems Become Military Problems)," *Foreign Policy*, No. 1, Winter 1970–71, pp. 78–98.

2. Morton H. Halperin, "Why Bureaucrats Play Games," *Foreign Policy*, No. II, Spring 1971, pp. 70–90.

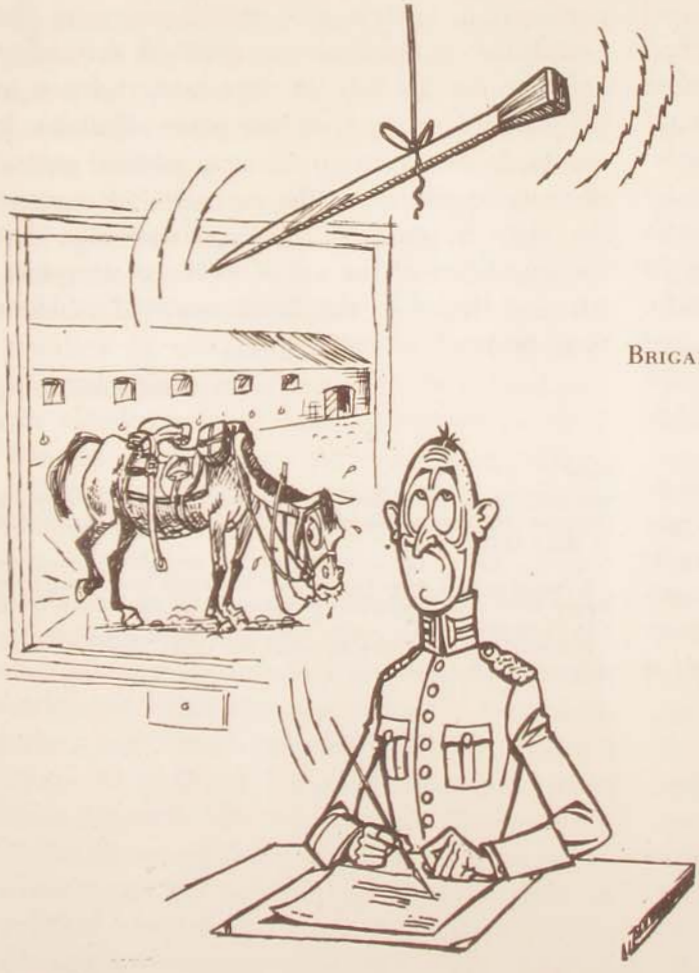
We were pleased recently to receive a letter from Brigadier General Heinz Waldhecker, Commander of the Air Force Department, German Armed Forces Staff College, enclosing a copy of an item taken from *Truppenpraxis*, Number 7, 1970, page 496.

General Waldhecker, a regular reader of *Air University Review*, referred to Lieutenant Colonel Edward Stellini's article appearing in our issue of March-April 1972 (page 26) and quoting Benjamin Franklin's axiom of the "horseshoe nail." The adage inspired him to send us another "horseshoe nail" story. His letter reads, in part, as follows:

> In the German Forces, too, the horseshoe nail proved significant as the symbol of "bureaucratic lengthiness" in a directive by the then [1925] Chief of Staff Reichswehr, Generaloberst v. Seeckt. . . . This paper has entered German military history under the term "Horseshoe nail decree." Undoubtedly, however, the horseshoe nail played a different role for General v. Seeckt than for Benjamin Franklin.

We thought our readers would enjoy this amusing anecdote, which probably has more relevance today than it had in 1925.

THE EDITOR



HORSESHOE NAIL

BRIGADIER GENERAL HEINZ WALDHECKER, LUFTWAFFE

The "horseshoe nail decree"

Many an event from the time of our military ancestors proves that not all problems with which the commanding authorities of the Federal Armed Forces have to deal are new. We may realize that fact with some regret, but often with a smile, too.

Chief of the Army Command
5th December, 1925
No. 250/12.25 Army Command Staff

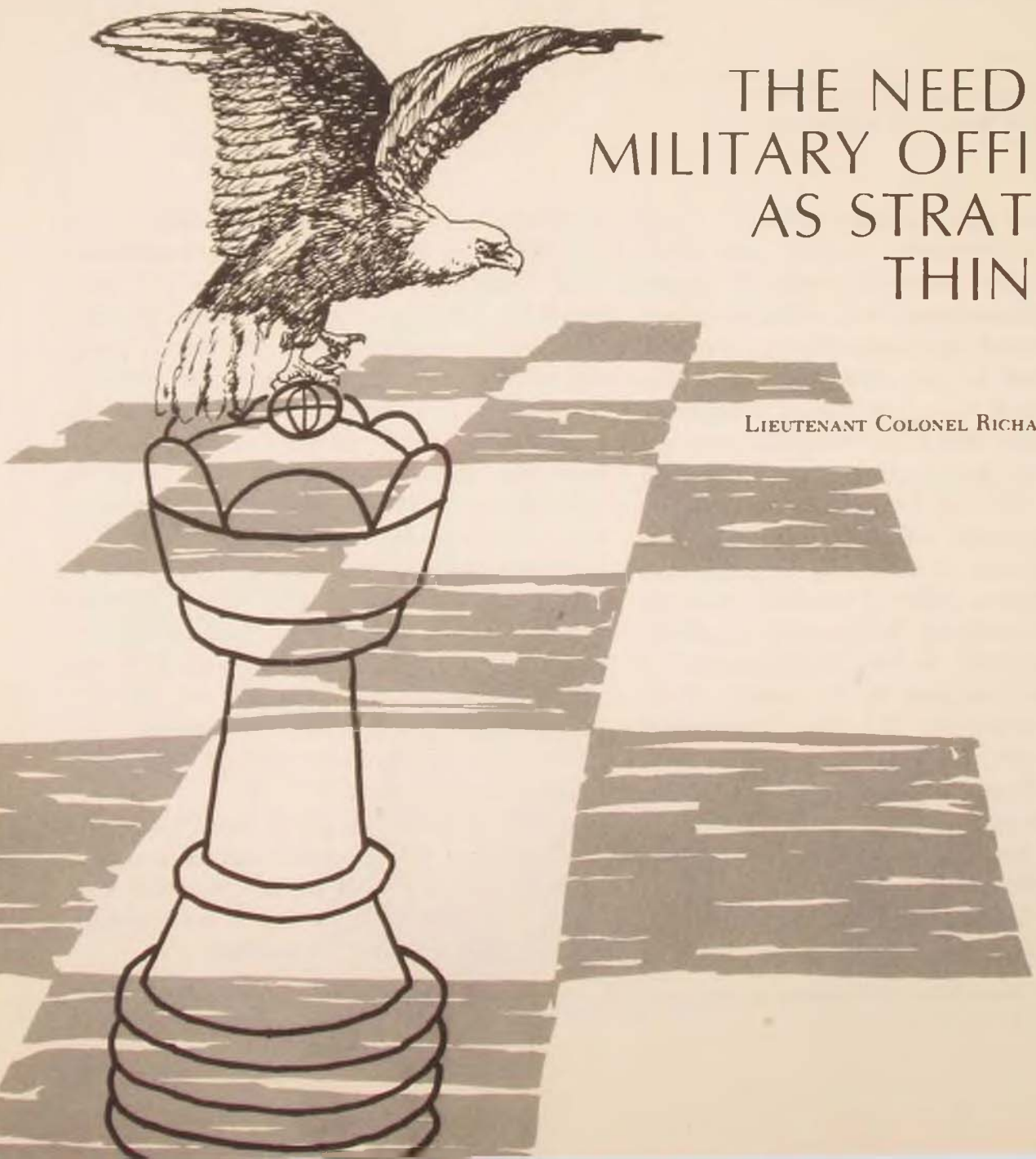
To all
Chiefs and Department Heads of the
Inspectorate of the Army Command

In my opinion office routine within the Army Command is becoming lengthy and time-consuming. Even decisions made by myself through oral communication or written marginal notes take several days before they are prepared and forwarded to me; often they even take weeks to reach their destination. Frequently I am astonished that my instructions have not yet reached the field forces. Petitions addressed to me are repeated, because the answer has not been received, although some time has passed. I certainly do not blame this delay on a lack of diligence; rather I attribute it to increasingly intensifying bureaucratic practices. We are beginning to lose the advantage of centralization compared to the variety of decentralized authorities and other independent agencies of pre-war times. I am afraid that, instead of correspondence from house to house, now correspondence from room to room is developing. Above all, I am afraid of a vanity developing within the departments that requires hearing and being heard on all and sundry items and does not permit a new shape of horseshoe nail to be recommended until T 1, 2, 3, 4, A.A., Wa J.W.G. in the legal departments 1 to 7, and Frieko* have delivered their comments in writing and until differences of opinion have been settled by a discussion among the officers in charge of departmental sections. Even more am I afraid that, on the part of the departments and inspectorates, their action must wait until all *units* have been consulted individually on the "horseshoe nail" in question. When, finally, the exclusively competent Veterinary Inspectorate submits the "horseshoe nail" to me for decision, after all the agencies concerned have consented to such submission, either a hundred horses have been made lame unnecessarily in the meantime or the old, time-proven horseshoe nail remains, and thus all the work of the ministry and the field forces has been a sheer waste of time.

I request all authorities of the Army Command to understand this horseshoe nail as a symbol and to assist me so that we are protected from a bureaucratic lengthiness that is not in consonance with the military profession.

Armed Forces Staff College
Hamburg, Germany

*Translator's note: These are special departments within the former Ministry of the Army.



THE NEED FOR MILITARY OFFICERS AS STRATEGIC THINKERS

LIEUTENANT COLONEL RICHARD D. BESLEY

Who is this that darkeneth counsel by speaking words without knowledge?
—Job 38:2

SINCE World War II, there has evolved a body of civilian intelligentsia that has flourished through thinking, writing, and counseling our national leaders on military strategic theory. During a renaissance of military strategic thought which began in the 1950s, civilian scholar-thinkers—militarists in mufti—have built an edifice of strategic theory that still exerts a profound influence on all important aspects of United States defense policy.

The Scholar-Strategists

The advent of thermonuclear weapons and intercontinental delivery systems brought American strategists face to face with a task of unforeseen difficulty. The traditional concepts of war and peace, which had allowed the United States to sally forth from its continental fortress to engage in peace-restoring crusades and then return home, were rendered invalid.

International conflict used to be viewed as clearly defined periods of violence which began when diplomacy failed and statesmen handed the burden of achieving victory over to the military. This mutual exclusion of political and military considerations in strategic planning was illustrated a few days before Pearl Harbor in Secretary of State Cordell Hull's comment on the U.S.–Japanese diplomatic situation: "I have washed my hands of it, and it is now in the hands of . . . the Army and the Navy." [1] The corollary philosophy was reflected in General George C. Marshall's remark during World War II concerning a British proposal to modify Allied strategy: "I would be loath to hazard American lives for purely political purposes." [2]

World War II in Europe was hardly over when the grim realization finally struck that, while Germany was being defeated, a new and growing political threat was introduced by the half ally, Soviet Russia. The United States found itself confronting an expansive power whose conflicting postwar aims had been cloaked by the common Allied military strategy framed during the war.[3] Even though the threat of Communist expansionism was worrisome, the U.S. strategists theorized that a containment policy, backed by the still exclusive American atomic arsenal, would discourage Soviet incursions beyond the periphery of existing boundaries.[4]

The atomic blasts over Hiroshima and Nagasaki presented the air power strategists a new and presumably ultimate weapon. It heralded the massive retaliation era and the accompanying drawdown of conventional, or general purpose, forces. Those explosions were blinding to more than the unfortunate Japanese. The apparent economy of mass destruction weapons gave rise to the slogan "More bang per buck," but sole reliance on atomic bombs ignored the

fact that they might soon be bought with rubles as well as dollars.[5]

The Eisenhower administration took office in 1953 committed to ending the Korean War and taking a new look at U.S. military strategy. The New Look strategy embodied a long-haul concept with an attendant need for economy.[6] It discarded the Truman administration's notion of planning toward a crisis year and formalized a dominant role for the Air Force as the practitioner of deterrence through the threat of "massive retaliation."

massive retaliation strategy

The massive retaliation strategy was announced officially to the world by Secretary of State John Foster Dulles in 1954, and the Communists were warned that further aggression in Korea might lead to a United Nations response which would "not necessarily be confined to Korea."[7] The massive retaliation concept established the basic orientation for future defense policy for many years to come.[8]

The storm of criticism over Secretary Dulles's 1954 pronouncement was widespread. It came not only from Democrat leaders, the political opposition, but from the scholars of national security policy, such as Henry Kissinger, William W. Kaufmann, and others.

The fact that a Republican administration espoused the philosophy of massive retaliation gave considerable political flavor to the criticism of that philosophy, so that the scholar-strategists paid court to, and were heard by, the Democratic hopefuls. This courtship of strategic thinking and politics culminated, circa 1961, in the marriage of a number of strategy critics to the Kennedy administration. A large part of the 1960 presidential campaign battle between Kennedy and Nixon was waged over defense strategy issues. As Nixon felt duty-bound to defend the Eisenhower administration, he was thereby linked to the massive retaliation idea. Kennedy, on the other hand, was free to pursue new thinking that favored a more flexible posture, and he carried a host of the civilian neostrategists along to victory and to Washington.

After Kennedy's inauguration, Alain Enthoven and Henry Rowen, former RAND analysts, were installed in high-level Pentagon positions. They had both collaborated with Albert Wohlstetter in the early 1950s on a RAND project to study alternatives for basing the strategic bomber force overseas.[9] Wohlstetter and William Kaufmann became actively involved as consultants to the Office of the Secretary of Defense. Henry Kissinger, of course, has served both the Kennedy and Nixon administrations, demonstrating a remarkably durable and apolitical brand of stewardship. Herman Kahn, a RAND product, served both as an adviser to the Atomic Energy Commission and as a consultant to the Department of Defense. Thomas C. Schelling was a senior staff member at RAND and joined the Kennedy camp as an adviser to the United States Arms Control and Disarmament Agency. He was probably recruited to the position on the basis of his 1961 book (with Morton Halperin), *Strategy and Arms Control.*[10]

These civilian scholars, drawn from the varying disciplines of the physical sciences, economics, and international relations, are representative of the relatively small group of neostrategists upon whom a great burden was placed.[11] Beginning at the RAND Corporation, they assumed the task of determining how to think about nuclear weapons under rapidly changing technological and political circumstances.

Why have the military professionals been so ineffective in this area? The answer appears to lie in a paradoxical pair, discipline and disunity: the discipline of the military in faithfully carrying out administration policy and the disunity born of interservice rivalry.

follow the leader

The President is the Commander in Chief of the armed forces. Once he has set the course in American relations with other nations (e.g., the

massive retaliation concept), it behooves the uniformed military strategist/planner to steer that course. As General Maxwell Taylor pointed out in *The Uncertain Trumpet* (1959), when President Eisenhower implemented the New Look military policy in 1953 all members of the Joint Chiefs of Staff were summarily replaced.[12] This action made clear the position of the JCS as workers for the administration team. They were expected to accept public responsibility for the decisions and actions of their civilian superiors concerning military policy, regardless of their own views and recommendations.

The more immediate results of the puppet-JCS syndrome were that most military strategy planners marched resolutely forward under the banner of massive retaliation while the civilian thinkers raised a hue and cry against it. By the time the political opposition stormed the White House in 1960, the civilian strategists had established themselves as creative and innovative, and the military were viewed as unimaginative, with little promise of developing any forward-looking strategy.

It was not until after the Kennedy administration emphasized the concepts of flexible response and counterinsurgency that objectives other than total victory and means other than head-on conflict became accepted in principle by the military establishment.[13] Henceforth, the JCS and military planners would think through such concepts because the President, the Commander in Chief, had given them direction. To have pursued the development of such strategy earlier, during the Eisenhower years, would have been unwise from a military professional's viewpoint.

interservice rivalry

Probably of significance equal to the disciplinary or bureaucratic factor that enhanced the rise of civilian scholar-thinkers was the lack of agreement between the armed services. Although the separate services had fought through World War II more or less in harness, it was seemingly impossible for them to agree on strategic plans for the postwar era.[14] They soon came to realize that the selection of strategy would hinge largely on the budget.

As the military budget was sharply reduced after the war, the most economical strategy appeared to favor the Air Force because the massive retaliation concept rested largely on the Air Force capability to deliver intercontinental nuclear weapons. Hence the Air Force could expect the largest share from annual defense budgets. The Army flatly opposed massive retaliation, partly because it meant a drastic cutback in ground forces and therefore less money to develop its desired force structure.

Service rivalries became so intense and enduring that, even with a strong chairman, the Joint Chiefs of Staff could not develop a set of coherent strategic plans. Indeed, President Kennedy in June 1961 was so frustrated by JCS disunity that he gave them a direct order by written memorandum asking for their "help in fitting military requirements into the overall context of any situation. . . ." He wanted to consider them as "more than military men" for the purpose of strategic thinking and planning.[15]

The overall result of the service rivalries and the attempts by the JCS to tell the boss what they thought he wanted to hear concerning strategy was that nothing new or thought-provoking issued from them.[16] In urgent need of fresh new approaches to the problems of a world in political flux, the Kennedy administration installed the civilian neostrategists as the primary thinkers on national security matters.

How Civilian Strategists Performed

In assessing the past performance of the civilian strategists, Colin S. Gray, writing in the Fall 1971 issue of *Foreign Policy*, observed: "In 1961 the promise was high. Yet in 1971 it is fair to say that their performance has not lived

up to their promise."[17] Another critic commented that the philosophy which evolved from "thinking about the unthinkable" had caused a widespread tendency to "unthink the thinkable."[18] To paraphrase, we have spent so much time gaming and analyzing scenarios of nuclear confrontation between superpowers that we have failed to consider adequately the more likely encounters.

Other writers have given the civilians better marks. Writing in *World Politics* in July 1968, Hedley Bull, Professor of International Relations at the Australian National University, observed that the doctrine evolved by the scholar-strategists, while not the "last word on strategy in the nuclear age," should be viewed as at least a clear definition of the problems we faced. Professor Bull gave them credit for charting "some reasoned course" when otherwise we might have been adrift; he said that even though history may reject the "intellectual fare" which they provided, it should certainly applaud the efforts of the scholarly strategists to frame and dissect the issues.[19]

The methodologies of the scholar-strategists, such as economic models, game theory, and escalation ladders, comprise the basic reason for the difficulty in transferring answers from model-building to prescriptions for action. Although the sincere and vital interest of the scholars in the survival of their country cannot be denied, it can nevertheless be deduced that their thinking and writing were often as much a bid for recognition from their peers as they were an accurate reflection on military and political realities. The shower of articles, books, and other publications by the civilian scholars demonstrated their compulsion to publish the great American strategic volume. Publication of an acceptable book is a significant and much-sought-after career milestone in the scholarly disciplines. According to reliable estimates, over 100,000 pieces of "literature" were written on the subject of warfare in the years just prior to 1967.[20] Herman Kahn probably won the strategy publication race with his efforts, *On Thermonuclear War* (1960), *Thinking About the Unthinkable* (1962), and *Limited Strategic War* (1962).

It is fact that the most influential of the civilian strategists have been the most prolific publishers.[21] It is also factual that the strategy writers' tenure with RAND and similar agencies has given them access to classified information, which puts the stamp of authenticity on their works. While it may be beneficial to communicate to other nations exactly how we are approaching the study of war in the nuclear age, it could be of more value to cloak our innermost thoughts with a semblance of security and thereby deny potential enemies a check list of our probable responses. Anyone familiar with the Pentagon Papers incident, in which a RAND employee revealed highly classified national security documents to the world, will appreciate the dangers inherent in the scholar's tendency toward dual loyalties: to his country and to mankind.

the nonprofessionals

Because they are essentially men of ideas, the civilian scholar-strategists tend to be overly optimistic about the transferability of their theories to the real world. The aspects of speculation and abstractness, characteristic of the study of nuclear conflict, are the very sirens that lured the scholars to the study of military strategy. Since there has never been a nuclear war per se and as time passes that possibility seems less likely to rational men, the mere speculation about how nations might react as such an event unfolded becomes even more of a fantasy.[22] A few of the scholars, on introspection, have admitted that, even though speculation on nuclear conflict was a useful development, its direct application to diplomacy suffered from a fatal defect, and that least of all the academics had any idea how a nuclear war would be fought or even whether it would favor the offense or defense.

This is not to suggest that to qualify for stra-

tegic thought one must first enjoy a reputation as a great field general. On the contrary, most of the world's recognized military strategists in uniform never attained the rank of general or its equivalent. For that matter, few were even considered good soldiers. Nevertheless, a historical assumption has been that strategy is essentially a practical consideration and that some experience in the management of forces and weapons, while not a guarantee of strategic expertise, should certainly be a prerequisite to entering the field.[23]

sterile methodology

An assumption basic to most of the theories advanced by the scholar-strategists, notably Thomas Schelling and Oskar Morgenstern, is that contemporary international conflict can be analyzed in terms of rational "strategic men." This assumption is necessary in order to fit the study of strategy problems into the economic models and gaming scenarios that characterize the scientific systems-analysis approach. According to Colin Gray:

> Apart from natural pride in theoretical accomplishment, the predisposition of American strategists to discern a Western tutelage of Soviet strategic doctrine derives in part from the academic backgrounds of many theoreticians and the economic orientation of the strategists of the RAND Corporation. [As a result] . . . a good number of the leading civilian strategists created a mirror-image opponent.[24]

In a purely theoretical exercise, the assumed symmetry of opponents is harmless, but the games of strategy played out in the scholarly literature of the past two decades were not intended exclusively for an academic audience. The simulated "American" nature of the opponent was transferred to the thinking of advisers to the government and to the policy-makers themselves. The result has been that United States strategic theory is highly ethnocentric and diverges from the military professional's cautious axiom, "Know your enemy."

By minimizing the personal or psychological element in the pursuit of gaming models and simulation, the scholars accept as fixed the goals and interests of the players. They tend to disregard the interdependence of goals, means, personalities, and group arrangements of the opponents.[25]

An indictment of method may seem harsh or unfair, given that the analytical gaming methodologists promise nothing more than a reduction of uncertainty. But such an evaluation seems necessary to offset the claims that the scholar-strategists presided over the birth of a new science which will eliminate outdated methods and replace them with technically superior and sophisticated systems analysis techniques. The tools of the scholar are helpful in considering alternative solutions to critical problems; but as Bernard Brodie, an eminent civilian strategist in his own right, has admitted, the systems analysis technique "is not coterminous with strategy, as Mr. McNamara, among others, thought it was." Brodie pointed out that Secretary McNamara, a statistician by training, was "plainly in love with it [systems analysis]" and rejected the "poetry" of those around him who tried to introduce some political intuition.[26]

The neostrategists comprised a highly like-minded school which absorbed most of the appropriate and available talent. Any dissident spokesmen from outside were few and easily stifled. Given this enviable position, it is to their credit and that of the very methods they employed that objectivity and reason have prevailed through the years of their dominance in the field of national strategic thought.

Opportunity and Challenge

During those years when thinking about the unthinkable was in vogue, the face of the strategic enemy was blurred behind satellites, computers, and ICBM launchers. He was perceived to be a single-minded, rational, American-like strategic analyst. Fortunately for the

Free World, the neostrategists apparently convinced the Soviet of his "genius" and thereby lessened the chances of irrational behavior. Certainly we should give the civilian strategist-writers credit for inculcating in the Soviets, as well as our own leadership, an appreciation of world stability and a desire to limit and control warfare.

The unfortunate result is that our national military leadership entered the seventies with twenty-five years of experience during which they were seldom afforded opportunity or encouragement to think in broad strategic terms.[27]

Since 1970, it has appeared that President Nixon and Dr. Kissinger want to consider a grand new strategic design and have invited the military to participate. Concurrently, it is apparent that the game-theory syndrome of the sixties, which emphasized the symmetrical structure of possible conflict between mutually perceptive strategic players, is at an end.

Much of the change can be attributed to the decreasing preoccupation with a strictly bipolar U.S.–U.S.S.R. relationship and a growing appreciation of more complex and multipolar scenarios that reject nuclear war as a viable instrument of national policy.

As a result, the diplomatic situation between the two superpowers has changed in recent years. There is an implied nuclear standoff and tacit recognition of each other's zones of influence and vital interests.[28] A situation of this sort, with inherent ambiguity and implied relationships, does not lend itself to sterile gaming analysis.

Morton Halperin, in his *Defense Strategies for the Seventies*, interpreted the changing scene by saying that as we have passed from the massive retaliation stratagem of the fifties, and as thermonuclear war has become unthinkable as an alternative, the relevancy of civilian strategists has diminished. He observed that, in the shadow of nuclear stalemate, we are returning to a conventional concept of military power, where military thinkers are best.

professional opportunity knocks

Since the advent of the Nixon administration, the door has been opened to military professional advice and counsel on national security matters. Whereas Secretary McNamara exercised virtual autonomy over Defense policy decisions, even those with large foreign policy impact, Secretary Laird returned the military to a substantial role in policy-making. A senior State Department official has noted that instead of dealing largely with civilian analysts, as during the Kennedy-Johnson years, the Foreign Service offices deal increasingly with both the Joint Staff and the separate services.[29]

Secretary Laird seemed to be granting the military more autonomy and reducing the role of the civilian staffers. At the same time the highly structured National Security Council staff and the new Defense Policy Review Committee suggest that President Nixon means to substitute rigorous institutional procedure for the systems analyses of his predecessors as the means of assuring civilian control.[30] The administration has offered the military profession an opportunity to become involved in developing national security policy.

The military leadership can no longer complain before congressional committees that all their troubles stem from the "whiz kid" civilians in OSD Systems Analysis. The challenge to the military is obvious: be creative, imaginative, innovative, and responsive. The related challenge is to avoid renewal of the harsh interservice arguments that have detracted from military counsel so often in the past.

The military services must provide an institutional capability to understand political objectives and to suggest appropriate applications of the armed forces to achieve them. Military leaders must comprehend more fully the relationship of means to ends and appreciate the moral principles that play a vital role in the success and acceptability of military operations. Deterrence of war and the attainment of political objectives must be recognized as "victory," even at the lower levels of conflict.[31]

strategists and commanders

It is difficult to generate a body of competent strategic thought at high levels within the services as they are presently structured. In fact, the misconception that a military chief of staff is also a strategist may be responsible for many of our past problems. Often, when civilians did defer to the military chiefs on national security questions, they were disappointed.

Our armed forces are commanded by intelligent, competent, and dedicated leaders. But that does not say that they are strategists.[32] There are numerous strategists and potential strategists in our armed forces, but that does not say that they are in positions of command. Leadership of the forces is not and cannot be reserved for strategists. Good strategists are not always good leaders. But certain key positions at high level should be filled by strategic thinkers.

One thing needed to insure military strategic expertise at the proper levels is a reasonable prospect of promotion for those officers who demonstrate talent in strategy matters yet may not necessarily aspire to command troops.

An example of the type of program we need is the Air Force Research Associate Program. This program selects promising Air Force lieutenant colonels and colonels for one-year tours with civilian organizations engaged in studies of national security policy. The places of assignment vary from year to year and include such organizations as the Council on Foreign Relations, New York; Center for International Studies, Harvard University; the Institute of War and Peace Studies, Columbia University; the Washington Center for Foreign Policy Research, Johns Hopkins University; and the Institute for Strategic Studies, London. Before reporting to their one-year assignments for study, these officers are given a two-week orientation program, consisting of several briefings in the Pentagon, three days at the RAND Corporation, and sometimes visits to major command headquarters.

This type of program allows the selected military professional to step outside the military establishment for a time, look back on it, and view it in relationship to the other elements of national security. Armed with this perspective and educated to the ideas and logic of the civilian strategists and their institutions, the military officer is better equipped to contribute to the development of a body of coherent strategic thought within the military. Moreover, the very presence of intellectually oriented officers in the civilian institutions should contribute to a mutual respect between the disciplines and could influence the direction of strategic thought generated among civilian scholars.

An expansion of programs such as this can satisfy the requirement to select and train military strategic thinkers; their placement, promotion, and recognition will take more time and effort on the part of all the armed services, separately and jointly.

IF THE MILITARY PROFESSION is to regain its rightful position in the design of national strategy, then the level of interservice bickering over parochial interests must be depressed. By the time strategic issues are laid before the National Security Council or the President, the Joint Chiefs of Staff owe their leader a semblance of unity. Neither he nor the National Security Council nor the Defense Policy Review Committee should be put in the position of arbitrating an interservice squabble. Differences in service outlook are certain to arise, but they should be resolved in the JCS arena. That is why we need military strategic thinkers at all levels down to major command, to think through the doctrinal differences which impede service unity and thereby reduce damaging arguments at higher levels.

Our civilian chiefs have offered us a meaningful role in the formulation of national security strategy. We should answer the call by expanding, in a joint services effort, programs like the Air Force Research Associates. Our personnel assignment and promotion policies

should be tailored to encourage and reward career-minded strategists, but the most telling impetus will simply be top-level service interest.

We must identify those with particular genius and place them in key positions in or near the policy power centers such as the Defense Policy Review Committee, Net Assessment Group, and National Security Council.

It behooves the military hierarchy to seize the opportunity and meet the challenge which the current scene affords, lest we once again abdicate our role in national security affairs.

Norfolk, Virginia

Colonel Besley adapted this article from a study prepared as part of his academic work while a student in the 1972 class of Air War College.

Notes

1. Robert S. Gard, "The Military and American Society," *Foreign Affairs*, Vol. 49, No. 4, July 1971, p. 699.
2. *Ibid.* It is quite possible that this remark by General Marshall demonstrated not so much an aversion to politics in general as a distaste for using American troops to help restore portions of the British colonial empire.
3. Maurice Matloff, "The Evolution of Strategic Thought," *The National War College Forum*, Spring 1971, 12th Issue, p. 79.
4. Martin Lichterman, "Korea: Problems in Limited War," in Gordon B. Turner and Richard D. Challener, eds., *National Security in the Nuclear Age* (New York: Frederick A. Praeger, Inc., 1960), p. 31.
5. General Maxwell D. Taylor, *The Uncertain Trumpet* (New York: Harper and Brothers, 1959), p. 13.
6. Morton H. Halperin, *Defense Strategies for the Seventies* (Boston: Little, Brown and Company, 1971), p. 41.
7. Secretary Dulles was quoted in Bernard Brodie, *Strategy in the Missile Age* (Princeton, New Jersey: Princeton University Press, 1959), p. 249.
8. *Ibid.* A book by Brigadier General Dale O. Smith, *U.S. Military Doctrine* (New York: Duell, Sloane & Pearce, 1955), provides one of the few comprehensive treatments of massive retaliation given by a military writer at that time.
9. Ernest R. May, "The Influence of Ideas on American Foreign Policy: Ideas about Military Strategy," a paper presented at the 67th Annual Meeting, American Political Science Association, Chicago, Illinois, 10 September 1971, p. 9.
10. Raymond J. Wilson, Jr., *The Eggheads and the Pentagon: The Influence of Civilian Intellectuals on National Security Policy*, Air War College Thesis No. 2379, Maxwell AFB, Alabama, 1963, pp. 13–15. Colonel Wilson's thesis, written nine years ago, is accurate in its implied prophecy that Dr. Kissinger's influence on strategic policy-making was durable.
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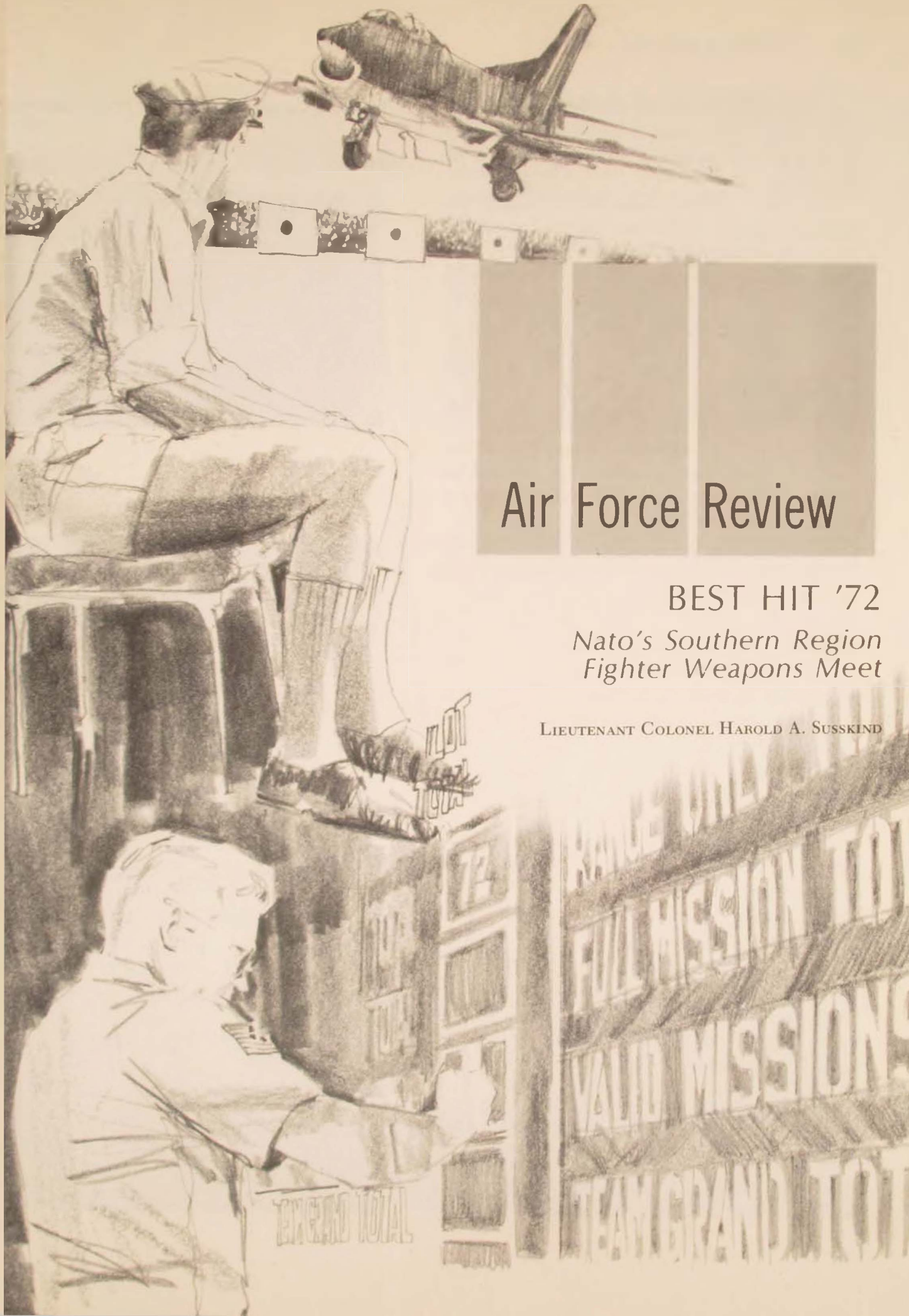


Air Force Review

BEST HIT '72

Nato's Southern Region Fighter Weapons Meet

LIEUTENANT COLONEL HAROLD A. SUSSKIND

A NUMBER of factors that became obvious in the 1960s made it necessary for NATO to review and revise its strategic concept of operations.

First, the apparent relaxation of tension between the East and West in Central Europe led to the realization that a major attack on that front was not necessarily the main threat that the North Atlantic Treaty Organization had to face. Increasing account needed to be taken of the possibility of limited, peripheral, or ill-defined threats in other areas. It was noticeable that the Soviet Union was developing types of forces designed to enable it to deploy a significant military capability in any part of the world. In particular, the increasing penetration of the Mediterranean posed a potential threat to NATO's southern flank.

Accordingly, a new and more flexible strategic concept was developed and adopted by the Defense Planning Committee meeting at the Defense Minister's level in December 1967. The basis of this concept, which retains the principle of forward defense, is that credible deterrence of military actions of all kinds is necessary and that this can be secured only through a wide range of forces equipped with a well-balanced mixture of conventional weapons with tactical and strategic nuclear weapons.

The purpose of this balance of forces is to permit a flexible range of responses combining two main principles. The first principle is to meet any aggression with direct defense at approximately the same level; the second is to deter through the possibility of escalation. If an attack cannot be contained, the responses must at least be sufficient to convince the enemy of NATO's determination to resist and to force a pause, during which the risks of escalation must be considered. The keystone of the new strategy is that an aggressor must be convinced of NATO's readiness to use nuclear weapons if necessary, but at the same time he must be uncertain regarding the timing or the circumstances in which they would be used. In short, while this flexible strategy involves the possibil-

Turkey's Participation

A Turkish Air Force F-104G Starfighter. . . . Turkish pilot makes preflight inspection of Lockheed F-104G.

Greece Plays Host

Hellenic Air Force "chase planes" flew judges observing missions. . . . Greek crew readies Northrop RF-5A.

ity, ever present in the background, of escalation to a nuclear strike, it is based essentially on controlling the progress of escalation of any conflict rather than on planning to meet any attack with instant and massive nuclear retaliation.

The new strategic concept, with its increased emphasis on the need to be prepared for attacks of varying scales in any region of the NATO area, calls for a comprehensive range of mobile and well-equipped air forces, conventional as well as nuclear.

This change of strategy from one of all-out retaliation if somebody stepped across the line

Italy's Involvement

Italian Air Force Fiat G-91 comes in for landing. . . . An IAF ground crew prepares Fiat G-91 for next mission.

to the one of today, which is to "retain that nuclear capability, but be prepared to fight conventionally," has had a very significant effect on the air forces of the Southern Region.

Now the pilots of the Greek, Italian, and Turkish air forces assigned to the Allied Air Forces, Southern Europe (AIRSOUTH), must not only retain their proficiency in nuclear weapons delivery but also become proficient in conventional (bomb, rocket, strafe) weapons delivery. At the same time they must stay adept in air-to-air gunnery.

Improving the conventional capability of the pilots equates to improving and increasing the

lethality of every mission and every sortie flown by AIRSOUTH.

Lieutenant General Fred M. Dean, Commander, AIRSOUTH from August 1968 to June 1972, was a firm believer that a tactical weapons meet with its pressures, problems, and requirements contributed immeasurably toward increasing the overall ability of a command to accomplish its mission. Soon after taking over as Commander, he directed his staff to look into the possibilities of reviving the AIRSOUTH weapons meet competition among the air forces of the three Southern Region nations. The meets, which had been hotly contested and

USAF's Guest Role

A USAFE F-4E rolls down runway at Larissa AB, Greece. . . . Ground crew watches McDonnell Douglas F-4E warm up.

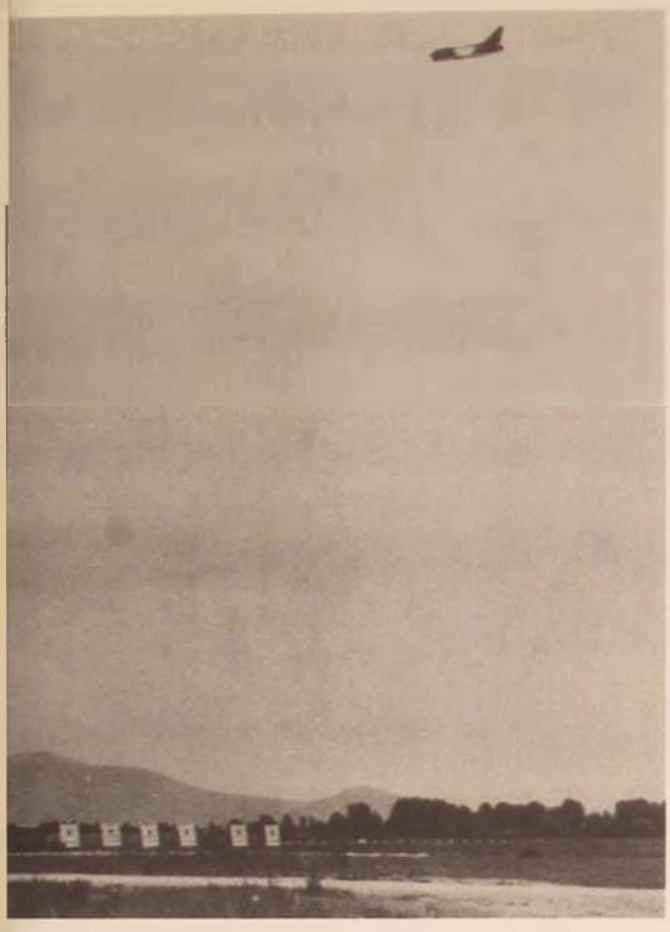
well attended during the mid-fifties, had not been held since 1956, even though each nation had won a leg on the Air Commander's Trophy during that period.

In September 1969, after much spade work, the Italian Air Force was officially asked to host the meet, reviving the AIRSOUTH Weapons Competition. Upon Italy's acceptance, invitations went out to the other Southern Region nations asking them to participate. Turkey accepted, but the Greek Air Force, although strongly supporting the meet, could not actively participate the first year. The United States Air Force and the United States Navy were each asked to contribute a team to be known as guest teams. Both accepted the invitation, but the Navy team withdrew before the competition started.

The 1970 AIRSOUTH Tactical Weapons Meet, "Best Hit '70," was held at Istrana Air Base, Italy, 4–12 September 1970. The Maniago Gunnery Range, 70 kilometers northeast of Istrana Air Base, was used for all ordnance delivery. With the AIRSOUTH Commander's Trophy as top prize, the meet initially took the form of competition between the Fifth Allied Tactical Air Force and the Sixth Allied Tactical Air Force, with the Italians representing FIVEATAF and the Turks representing SIXATAF.

Poor weather conditions during the competi-

A USAF F-4E flies over the Ambelon Gunnery Range. . . . An L-T-V A-7B of the U.S. Navy element makes strafing pass.



tion phase of the meet prevented flying the minimum number of missions required by the rules, so a winning team could not be selected.

Although no winner was named, the meet was deemed a success since many organizational procedures were tested and the competition did give valuable training to the pilots participating. It also furthered the close working relationship between the ground and air crews of the nations involved. Most of all, it set the stage for "Best Hit '71."

The 1971 meet was held at Eskisehir, Turkey, and hosted by General Mushin Batur, Chief of Staff of the Turkish Air Force. It brought together pilots from all three NATO Southern Region nations, plus a combined U.S. Navy–U.S. Air Force guest team. It also featured for the first time in international gunnery competition five different air weapon systems: Northrop F-5s, Fiat G-91s, North American F-100s, LTV A-7As from the USN, and McDonnell Douglas F-4Es from the USAF.

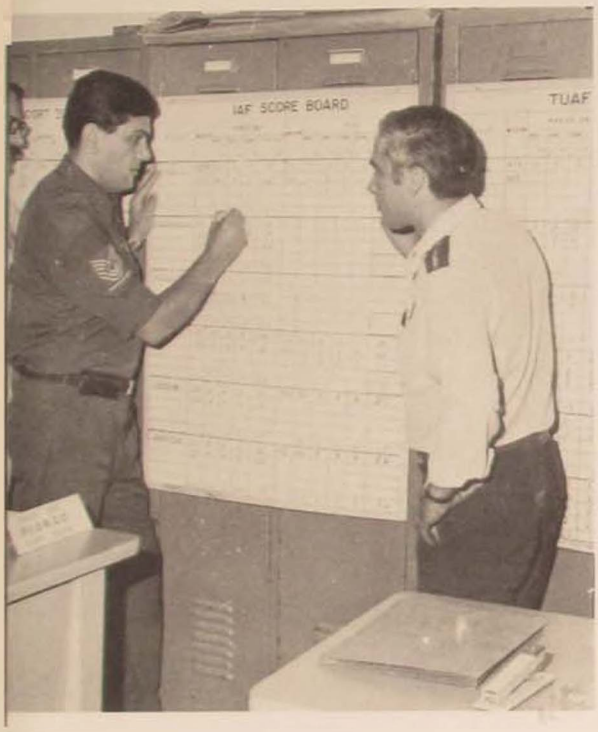
Final standings showed the Turks on top with 596 points, the combined U.S. team with 538, the Italians with 464, and the Greeks, the first-day leaders, with 422. By winning, the Turks were one up on their Southern Region allies.

PREPARATIONS for "Best Hit '72" started in November 1971, with the selection of an AIRSOUTH project officer. In December the agreement to host the meet at Larissa Air Base, Greece, was received from the then Hellenic Air Force Chief of Staff, Lieutenant General Demetrios Kostakos.

It was decided that the meet would be open to teams comprised of combat-ready pilots from all Southern Region attack squadrons. Pilots of dual-capable units and pilots assigned to staff positions would also be eligible to compete, provided they were combat-ready in the attack role. It was also decided that the meet would be open, on an optional basis, to one guest team composed of combat-ready pilots not permanently assigned to the Southern Region.

Close-up of bull's-eye and the Dutch range judge . . . Judge counts hits on the strafing target.

Score-keepers record the hits counted by the range judges.



The Arbitration Committee reviews data to rule on a claim.

Invitations were issued by the Hellenic Air Force to the Italian, Turkish, and United States air forces and the U.S. Navy to participate in the meet. The USAF and USN were asked to supply elements that would participate as a combined guest team but be ineligible to compete for the AIRSOUTH Commander's Trophy. However, they would be eligible to compete for the high-score team trophy.

In the master plan for the meet, it was estimated that 30 milestones would have to be passed before the meet was concluded, a winner crowned, and a final report submitted.

In February 1972 the eighth milestone was accomplished when a committee team from AIRSOUTH visited Larissa Air Base to check operational requirements and accommodations and to set a firm date for the meet. The Hellenic Air Force officers from the 110th Wing and the 28th Tactical Air Force had anticipated most of the committee's desires and questions and had prepared a master plan of their own. Hotels in Larissa, a city dating back to ancient Greece, had already been contacted. Ramp parking places for visiting aircraft on Larissa AB, as well as office space for the various committees and participating teams, were already designated. The Ambelon Gunnery Range, approximately 10 miles east of the air base, was picked as the site for the delivery of all ordnance. A "we can do it" spirit seemed to be the motto of the Hellenic Air Force hosts.

Many administrative and operational problems had to be solved before the teams could depart for the meet. Requests went out to qualified weapons meet officials in Allied Forces Northern Europe, Allied Forces Central Europe, and the United Kingdom's Near East Air Force, requesting their services for the meet. Permission to take aerial photographs of the navigation routes and targets by a Southern Region nation had to be received from the Greek officials. Upon receiving permission, the Ministry of Defense of the United Kingdom was asked to take the photographs. The Royal Air Force 13th P.R. Squadron from Akrotiri, Cyprus, accomplished the task.

On 9 July 1972, milestone 28 was reached with the arrival of the organizing committee and the participating teams at Larissa AB. "Best Hit '72" officially opened at 0900 hours on 10 July as the NATO flag and flags of the five nations assigned to the Southern Region were raised in the slight warm breeze blowing across Larissa AB. Major General Alexandros Papanikolaou, Commander of the Greek 28th Tactical Air Force, welcomed the visitors on behalf of Lieutenant General Thomas Mitsanas, Commander, Hellenic Air Force. At 1300 hours on the 10th, a team captains' meeting, presided over by the Chief Judge, was held to discuss the local flying procedures and to resolve any last-minute questions regarding the rules of the competition.

The 1972 meet brought together pilots from three of NATO's Southern Region nations, plus a combined U.S. Navy and U.S. Air Force guest team, and again it featured five different air weapon systems. Representing the Hellenic Air Force and flying Northrop RF-5As was the 349th Tactical Reconnaissance Squadron from Larissa AB, Greece. Competing from the Italian Air Force, flying Fiat G-91s, was the 14th LWAR Squadron from Treviso AB, Italy. Shooting for the Turkish Air Force, flying Lockheed F-104G Starfighters, was the 191st Fighter Bomber Squadron, Balikesir AB, Turkey. Making up the Navy element of the guest team, flying Ling-Temco-Vought A-7Bs, was Attack Carrier Wing Six from the USS *Roosevelt*. And for the USAF guest element was USAFE's 612th TAC Fighter Squadron of the 401st Tactical Fighter Wing, Torrejon AB, Spain, flying McDonnell Douglas F-4Es.

The uniqueness of the meet in having five different air weapon systems called for some unique decisions. The F-4E and F-104G have a "gatling" gun that, because of its rapid-firing capability and design characteristics, could not be loaded with only the 80 rounds required by meet rules. The solution to this problem was to load the gun fully, set a limit switch at approximately 80, and then count the expended rounds after the mission. If more than 80 rounds were fired, the number over 80 was subtracted from the pilot's score. If fewer than 80 rounds were fired, the number of hits stood. This method was agreed to by all participating team captains.

Procedures also had to be set up to score the Italian Air Force G-91, which uses a .50-caliber weapon system. This was taken care of by moving the foul or firing line up to 1200 feet, whereas the rest of the competitors had to observe a 1600-foot foul line.

As in the previous year's meet, each pilot was required to fly at least two familiarization flights prior to competition flying. Six competition missions were scheduled for each pilot: four range-only missions and two full missions. On each range-only mission, the pilot was to expend one dive bomb, one skip bomb, and 80 rounds of ammunition for a possible perfect score of 30 points.

On each full mission, the pilot was to low-level navigate to an equivalent target, then fly to the range to expend two rockets and 80 rounds of ammunition for a possible perfect score of 40 points.

On 11 and 12 July, 87 familiarization flights were scheduled and 86 actually flown; one pilot had to abort because of sickness. To make the familiarization flights as meaningful as possible, every pilot flew a practice low-level navigation

All the teams were well trained and closely matched, but after six days of competition, the Hellenic Air Force team won "Best Hit '72." . . . Lieutenant General Richard H. Ellis, Commander AIRSOUTH, presents the trophy to the team's captain.

mission, with targeting judges in place, and escorted by chase aircraft.

During the competition phase, every pilot was scheduled to fly a low-level navigation route on each of his two full missions. Low-level navigation routes and equivalent targets were all located in the Larissa area. Fourteen targets and routes were chosen prior to the meet, and a target folder was prepared for each target. Included in the folder were maps, a target route description form, and at least three aerial photographs of the target.

Since six days of competition flying were planned, eight full missions per day were scheduled. This schedule required a total of eight different targets for the meet.

As in the familiarization flights, at each equivalent target there were two target judges to accurately time and position each aircraft. Every full-mission pilot was followed by a two-place chase aircraft piloted by the Hellenic Air Force. Chase judges from Hq AIRSOUTH and

Flags of several participating NATO nations frame a helicopter of the Hellenic Air Force flying over Italian Air Force G-91s at Larissa AB, Greece, "Best Hit '72" site.

the RAF occupied the rear seats.

Competition flying started on 12 July. At the end of the first day's competition, the Turkish Air Force team found the Ambelon Gunnery Range much to their liking and jumped off to a five-point lead over the Greek team, 119 to 114, followed by the U.S. team with 102.

It became evident that the teams were well trained and evenly matched and that the Commander's Trophy would go to the team making the fewest mistakes.

Five points down at the end of the first day of competition, the Greek team rallied and took over the lead early in the morning of the second day of competition. They ended the day with a 14-point margin over the second-place U.S. team. Each consecutive day saw the Hellenic team gradually increasing its lead, to 29, 35, and 39 points, and when the meet ended they had won by a 28-point margin and a total score of 714 points. Finishing in second place was the USN–USAF guest team with 686 points. In third place was the Turkish team with 671 points, followed closely by the Italian team with 662.

The 714 points rolled up by the Greek team was the highest winning score to date. Besides the "Over-all Top Gun" of the meet, Captain G. Papaioannou, who amassed 136 points, all the members of the Greek team scored at least 110 points.

Tops in the range-only missions with 481 points was the Turkish team, which also walked off with individual honors in the dive-bombing and strafing events.

Speaking to a closing-day ceremonies audience, General Papanikolaou likened participation in "Best Hit" to competition in the early Olympic Games:

> To compete in these Olympic Games was an honor in itself for the participants, their families and the community. . . . Also, a portion of the wall that encircled the winners' community was symbolically torn down to indicate that their brave and able competitors could defend the town better than a wall.
>
> Today in our countries, we have no walls for defense, rather we have our Alliance. The achievements of all competitors during "Best Hit '72" show that a great improvement has been achieved by the Allied Air Forces of the Southern Region. That enables us, I believe, to be more optimistic for the efficiency of our common defense, as well as more confident of ourselves.

Lieutenant General Richard H. Ellis, Commander, AIRSOUTH, in summarizing the meet said:

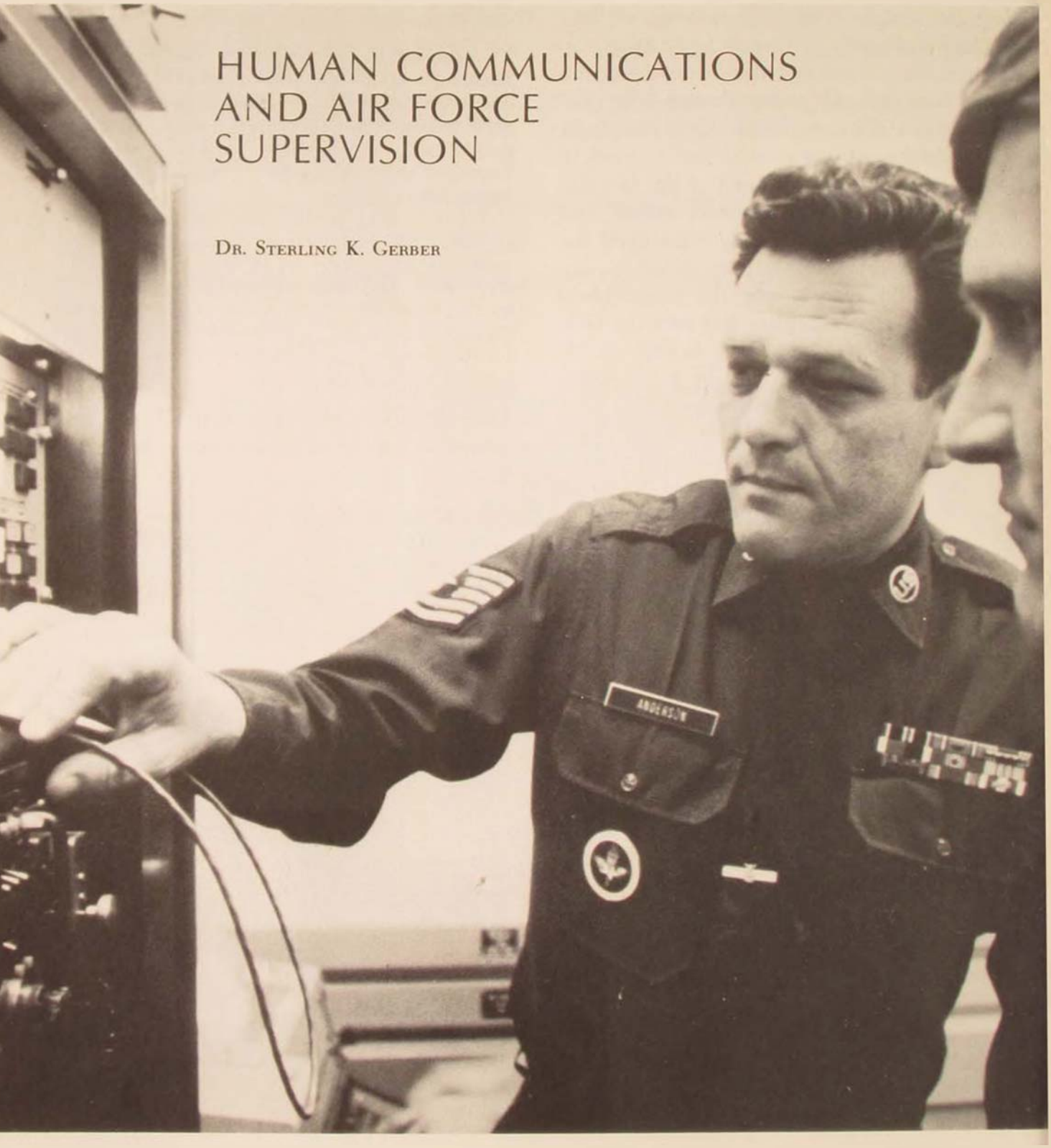
> The 2733 points scored in this year's meet are 713 points more than last year's total of 2020, a tribute to the training and competitive spirit of the participating pilots and ground crews, and concrete evidence that the over-all aim of the meet—"to serve as an incentive for internal improvement in the over-all weapons delivery capability of AIRSOUTH's air forces"—has been achieved.

"Best Hit '73" will be held in Italy.

Hill Air Force Base, Utah

HUMAN COMMUNICATIONS AND AIR FORCE SUPERVISION

Dr. Sterling K. Gerber



TWO concomitant, although not parallel, trends over the past several years have established a condition of possible impact and change on the internal functioning of modern military organizations.

The first trend, occurring within the Air Force, has been a change in the capability, experience, and maturity of enlisted men in supervisory positions. Because of policy shifts affecting the time required to advance from enlistee to supervisor—and this constitutes a considerable reduction in time—young men frequently are placed in positions for which they lack needed experience and maturity. Typically, they demonstrate sufficient capability and perhaps are more highly educated on entering the service than were previous generations. This constellation of factors in turn presents unique problems to senior noncommissioned officers who, themselves often similarly affected by relatively swift promotion through the ranks, must work through their subordinates to gain the high level of efficiency required increasingly by sophisticated equipment and the complex demands of today's world.

Another trend, not occurring within the military but happening probably as an outgrowth of the business world or other segments of society trying to cope with problems similar to those of the Air Force, is an increase in knowledge and application of improved communication techniques. It has become common for groups of business managers, foremen, and sales staffs to enlist the aid of communications specialists in providing training and practice in improved expression, listening, and understanding.

a pilot program

The above trends found common expression in a trial program established at Fairchild Air Force Base, Washington, in July 1970. Because of the large proportion of untrained first sergeants and the realization that getting many of them to an NCO academy would take considerable time, an attempt was initiated to provide a short-term, non-TDY, intensive training program.

A two-phase workshop was planned by the sergeant majors. It included (1) an information segment, reviewing knowledge of facts and procedures necessary for first sergeants to function well, and (2) a communication segment, imparting skills needed in relating to subordinates, particularly to first-term enlistees. The first phase was taught by specialists, primarily military, who were especially knowledgeable in areas such as military justice, payroll, commissary operation, narcotics and dangerous drugs, base exchange operation, CHAMPUS, and educational opportunities.

The second phase required instruction by a person qualified and experienced in teaching human communications. A college professor was selected, and he helped formulate the pattern of activities for that phase. As a result, the workshop was organized as a college class, for which the participants would receive college credit.

Three objectives were established for the second phase. Participants should (1) become better aware of themselves as they interact with others, (2) become more sensitive to the needs and motives of those with whom they interact, and (3) learn specific interviewing techniques appropriate for working with people under their supervision.

Accordingly, the participants were given some experiences and short lectures focusing on self-awareness, several group interaction exercises for studying communication processes and

participant reactions, and an intensive treatment of dyadic interview dynamics. All participants were given the opportunity to practice, under supervision, the new interview skills with Air Force and civilian volunteers.

Several factors led to the specific formula for the workshop. The above-stated objectives—difficult to accomplish at best and particularly

so in only a 30-hour format—formed the basic structure. The participants themselves imposed considerable restraints on the formula. They were career noncommissioned officers, ranging in age from 32 to 55 years. Having progressed through the military system, they could be described as generally capable, accustomed to rigid adherence to rules and regulations, somewhat stereotyped in their approach to people and problems, quite dependent upon past procedures, and therefore threatened by variations in perception, communication, and action. In some respects, they could be seen as having learned to play the military game so well that they had become inflexible in relating personally and limited even in playing the same game under modified rules. Change seemed especially threatening to this group of people.

In almost direct contrast to the nature of the participants was the nature of the training procedure. Being supervised, receiving feedback, demonstrating skills, and making mistakes in the company of peers—all require a fair degree of flexibility, and all entail a certain amount of threat. The need to communicate person-to-person rather than role-to-role works at odds with game playing. The wide range of potential group training experiences presented problems of selection—how to choose those which would insure maximum movement without producing damaging resistance on the part of the participants.

With these factors in mind, the workshop was organized in two divisions. The first week included activities geared to (1) reduce threat, (2) focus on the peopleness of the participants, (3) encourage self-disclosure, and (4) accept and use productive feedback.

The second week was devoted to role playing and interviewing with consistent focus on (1) seeing supervisees as people and (2) listening to communication; i.e., ferreting out the message from the verbiage.

The overall pattern of rationale went from reducing threat through focusing on self-awareness, sensitivity to other people, specific interview training to practice of skills with volunteer clients.

results

Somewhat standard participant rating forms were administered at the end of the second phase. Responses were very high: on a scale from −2 through 0 to +2 they averaged 0.76 for Phase I and 1.84 for Phase II. Subjective comments recommended extension of the experience to officers and other enlisted supervisors. A special endorsement was indicated for the usefulness of the workshop in dealing with

problems across the "generation gap," between career supervisors and first-term airmen.

As a result of the positive feedback from participants in the initial workshop, personnel from Fifteenth Air Force Headquarters (SAC) carefully reviewed the program through three successive trials and then initiated similar training programs at all bases and tenant wings in the Fifteenth Air Force.

As with the initial workshop, ratings were obtained from participants at other bases. The rating questionnaire was as follows for the second phase:

sampled and the results generalized to the total return.

The average numerical evaluation was 1.78. There was a combined total of 15 neutral or negative ratings, constituting 2.8% of the total. Responses to the open-ended questions tended to reinforce the numerical average rating:

Question 1: "Value to supervisor." All the responses in a random sample of 50 were affirmative.

Question 2: "Recommended changes." Of the 50 sampled, 23 (46%) suggested making the program longer. A second popular suggestion,

Human Relations Program Questionnaire

Stop Human Relations Program —"a waste."	Shorten or de-emphasize the H. R. Program.	Indifferent— neither warm nor cool to it.	Believe Program should continue without change.	Strongly favor Human Relations Program—expand.
-2	-1	0	1	2

Circle one of the five negative, neutral, or positive numbers listed above. Then answer the following, please.

1. Does the course have value to you as an Air Force supervisor?
2. Do you recommend any changes to the course such as additions or deletions? Specify.
3. Do you recommend another method of presentation?
4. If you disagree with any portion of the course, please specify.
5. Other comments.

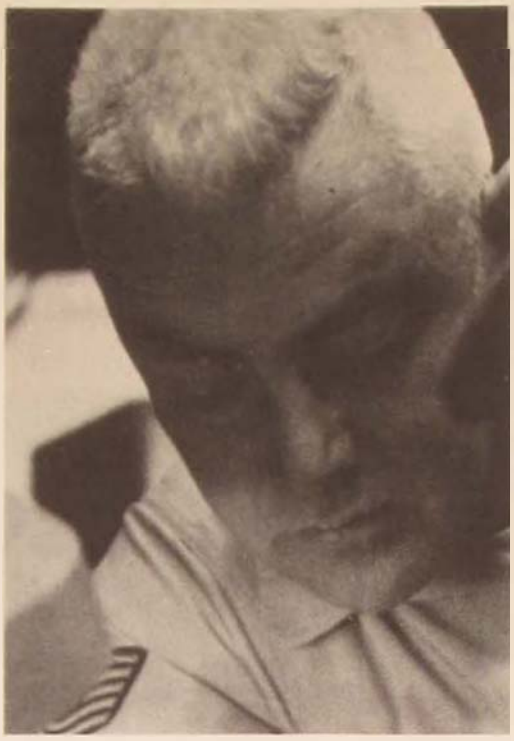
Responses of 580 participants from the first year of operation were processed by averaging the numerical rating as well as counting "0" and negative (-1, -2) responses. The 580 forms were from 20 workshops. Forms from the other workshops were not submitted by the time of initial processing. Because of the large number and because some forms from each base and tenant wing were included, it was felt that the results would be representative of all participants.

Responses to the open-ended questions were

made by 15 of the 50 (30%), was to extend the workshop to all officers; a few thought it should be made available to all personnel. Several comments were made relative to deleting or expanding certain activities; however, no strong consistency was shown for any one treatment of any activity.

Question 3: "Method of presentation." Of those sampled, all were satisfied, many pleased, with the methods they were subjected to.

Question 4: "Disagreements." The most con-



expansion in 1971-72 and 1972-73

The consistently positive response by participants and a feeling expressed by base commanders of a positive impact on their personnel resulted in an expansion to 74 workshops during 1971–72. Additionally, nine workshops were conducted in PACAF: four at Hickam Air Force Base and one each at Kadena, Clark, Yokota, Ching Chuan Kang, and Osan. One workshop was conducted at Kirtland Air Force Base, New Mexico, for a U.S. Navy unit on that base.

In a sample (463 participants) of the 1971–72 course, the following ratings were realized: Phase I = 0.99; Phase II = 1.81.

For the 1972–73 year, 74 workshops were scheduled for the Fifteenth Air Force and Eighth Air Force, both of the Strategic Air Command. PACAF officials, impressed by the results of their initial workshops the previous year, scheduled 50 workshops for the current year.

sistent response in the sample indicated that the size of the class was too large. A second concern frequently expressed was that regular duty requirements competed with class attendance. Although neither of these totaled over 10% of the sample, they may be important factors to the ultimate success of the program.

Question 5: "Other comments." Responses to this item tended to be repetitious of previous items and did not emphasize any one point. The following quotations are typical:

> The most valuable course of instruction that I have *ever* attended in my life. It has profound effect in all my dealings with people on the job—off duty—business and family.
>
> ° ° °
>
> . . . course should be added to the curriculum of the NCO Academy and the Leadership schools.
>
> ° ° °
>
> I believe this course is the most significant single step yet taken by the Air Force to open channels of communication. Please make every effort to continue the program. *All* personnel stand to benefit.

As of January 1973, 180 workshops had been conducted for approximately 4000 people, enlisted and officers. Response has been consistently high: 97.2% of the latest sample rated Phase II positive (82% rated it 2), which is identical to the data from the first-year ratings; i.e., 2.8% of the total ratings were neutral or negative.

AN INNOVATIVE training program, arising at a time of two supporting trends and tailored to the needs of the trainees, has been conducted over a two-and-a-half-year period at 22 Air Force bases, a total of 180 workshops for approximately 4000 people. It has received consistently high ratings from the participants and considerable support from base commanders, personnel officers, top-three NCO's, and education officers.

With movement toward an all-volunteer military system, programs such as this may help the United States to maintain a highly efficient and highly effective military force.

Cheney, Washington

We Stand Corrected Department

Colonel William C. Ferguson, Chief of the Munitions Division at Headquarters Aerospace Defense Command, writes:

It was with a distinct feeling of frustration that I noted reference to M-117 (rather than M117) bombs and LAU-3A (rather than LAU-3/A) rocket launchers on page 6 of the November–December 1972 issue of the *Air University Review*.

The same caption incorrectly describes the ordnance load of the F-4E illustrated on page 7. Three LAU-3/A rocket launchers are clearly visible on a six-station multiple ejector rack (MER) suspended from the outboard pylon. The inboard pylon is equipped with a triple ejector rack (TER) loaded with 3 M117 bombs. A MER cannot be used at this station because it would extend aft into the landing gear. Therefore, only 3 bombs can be carried on this station, not 4 as noted. It appears that a MER may be mounted on the centerline bomb rack, but it is impossible to be sure.

Colonel Daniel H. Lufkin, Chief, Space Environment Branch, 12th Weather Squadron (MAC), Ent Air Force Base, Colorado, writes:

The article "Aerospace Systems and Weather" by Major John Manley in the November–December issue of the *Air University Review* suffers from a number of sins of both omission and commission which deserve to be aired if not rebutted.

Manley begins by demolishing the "all-weather" myth, although I deeply doubt that he could produce a single Air Force operator or planner who truly embraces such a starkly literal concept as Manley postulates. By and large, serious discussion of "all-weather" operations takes place in a context sufficient to make clear to the average reader that "all" means "as much as possible" rather than "the whole of." (See *Webster's Seventh New Collegiate Dictionary*, p. 23.)

. . . After establishing "solar flares" as a prime hazard in space flight, he has captioned the frontispiece (p. 42) as an

example of a "sun flare" invading the camera lens. Someone has confused "flare = a temporary outburst of energy from a small area of the sun's surface" with "flare = light resulting from reflection (as between lens surfaces) or an effect of this light (as a fogged or dense area in a photographic negative)." (Webster, p. 317)

So much for semantics. A more serious error occurs in the discussion of the effects of flares (in the first sense of the word). It is not true that "During . . . Apollo XII, solar flares created 'weather' that temporarily blacked out all communication with the astronaut crew on numerous occasions." (Manley, p. 44) Since the greatest part of the Apollo flights takes place outside the ionosphere, and for other technical reasons, communication with the spacecraft is carried by radio frequencies much higher than those which are strongly affected by ionospheric disturbances. During the flight of Apollo XII, our Aerospace Environmental Support Center, the unit that actually performs the space weather function, issued alerts for 44 events connected with solar activity. Of these events, seven caused measurable ionospheric changes which could have interfered with conventional radio communications between elements of the military recovery force. Even in these cases, though, adequate backup communication is available, mostly through satellite relay.

Let me emphasize that the space weather services of our unit do play a useful role in many space-flight operations. Both we and the operators we support understand what that role is, and neither of us profits from having it misrepresented in the pages of the *Review*.

Manley is also mistaken in his assessment of the effects of changes in the density of the outer atmosphere on the orbital mechanics of satellites. Although it seems counterintuitive to a layman, the effect of drag on an orbiting satellite is *always* to speed it up. Since the drag brings the satellite into a lower orbit, its velocity must increase to balance the loss of potential energy with an increase in kinetic energy. (A rigorous discussion of the so-called "satellite paradox" will be found in N. Ya. Kondrat'ev and V. A. Odintsov, eds., *Handbook of Astronautics*, NASA Technical Translation F-500, 1968.)

Although few readers are likely to be misled by the caption on page 45, that remarkable photograph should receive proper attribution. It is not a nimbus cloud-cover picture at all, but rather a photograph of a solar prominence taken in hydrogen-alpha light at 1636Z, 4 June 1946, by Dr. Walter Orr Roberts, then at Climax Observatory, Colorado. It is particularly interesting to us solar physicists because of its strong suggestion of helical structure. (See G. P. Kuiper, ed., *The Sun*, University of Chicago Press, 1953, p. 413.)

Major Manley replies:

Unfortunately, Colonel Lufkin missed the main point of this philosophical (not technical) article. By defining the word "all" to mean "as much as possible," he has admitted to being an advocate of the "all weather myth" himself.

He has convinced me that my message needs repeating, i.e., that the current approach to designing aerospace systems to resist adverse environmental effects "as much as possible" is *not* cost effective. Military operators and planners must become more creative and explore the alternatives suggested on pages 49–50. Specifically, systems designers should place greater emphasis on threat, force-mix, and climatological considerations. They should try to avoid the syndrome of continually building systems that are more and more weather resistant but, at the same time, more and more expensive.

J.H.M.

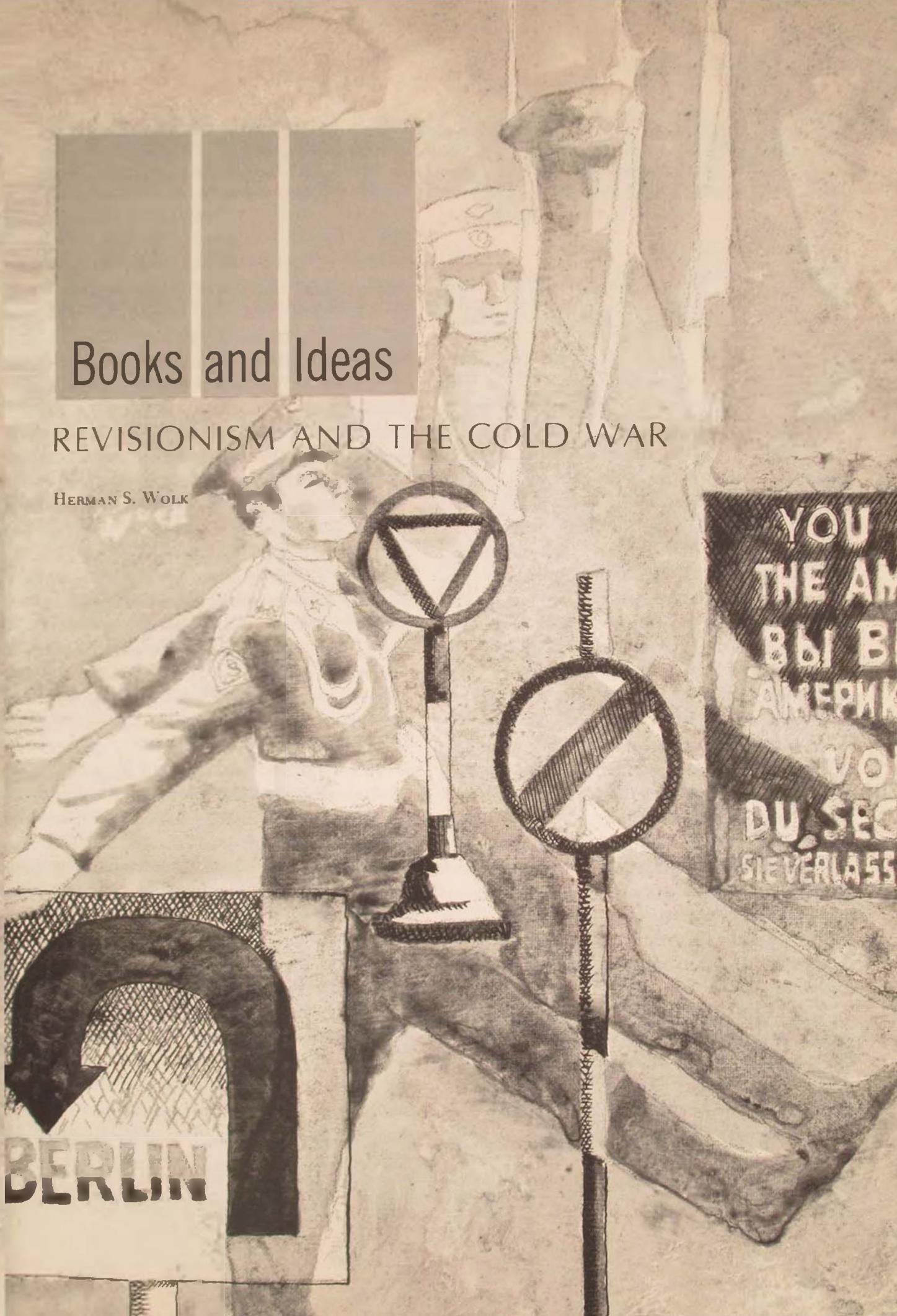
Air University Review replies: The confusion regarding the captions is regrettable, and we are glad that Colonel Lufkin (and others) called it to our attention.

THE EDITOR

Books and Ideas

REVISIONISM AND THE COLD WAR

HERMAN S. WOLK



. . . even if, as the revisionists suggest, American officials had enjoyed a completely free hand in seeking a settlement with the Soviet Union, it seems unlikely that they would have succeeded. Accomplishment of this task required not only conciliatory actions by Washington but a receptive attitude on the part of Moscow. The latter simply did not exist.

—JOHN LEWIS GADDIS

THE "father" of post-World War II American revisionist historiography is William Appleman Williams. His *The Tragedy of American Diplomacy* set the standard for his contemporaries. Now come Joyce and Gabriel Kolko with a massive revisionist tome, *The Limits of Power.*†

It has become increasingly clear that the cold war—Walter Lippmann's term—holds a fascination for Americans perhaps equal to the fading appeal of the American Civil War. Now we even hear mention of "cold war buffs." How to explain this powerful appeal of the post-World War II years for the historian and the public? I believe there are two major reasons. First, there is increasing awareness that, on its own merits, the transformation of American foreign policy after the Second World War constitutes one of the most important epochs in modern American diplomacy. The second reason is the Vietnam war.

The fact that the Vietnam war has turned out to be the longest and most unpopular conflict in American history has generated a vast amount of research and writing. Much of this is concerned with how the United States got involved in Indochina. This search has naturally gone back through the decade of the 1950s and into the immediate post-World War II period, the years that mark the origins of the cold war.

Some American writers and historians, in major works on the subject, have argued that the post-World War II foreign policy imposed by American leaders basically is responsible for the nation's being sucked into the Southeast Asian quagmire. To these "revisionists," Dean Acheson and Harry S. Truman (in that order) have become almost the demons of twentieth century American diplomacy. Acheson has been turned into a manipulator of the President he served. The former Under Secretary of State—appointed Secretary of State by Truman in January 1949—has been portrayed as suave, arrogant, and the man who, by himself, structured America's postwar foreign policy. President Truman, according to some revisionists, merely took whatever policy advice Acheson offered.

This is a false scenario. Among American historians, there seems genuine agreement now that Franklin D. Roosevelt papered over the basic, evolving differences between the Soviet Union and the United States. Despite the fact that Roosevelt became frustrated and bitter at the Soviets in the last few months of his life, the general thrust of his thinking and policies reveals his misunderstanding of Stalin's motivations and the basic drives of Soviet foreign policy, primarily the Russian concern with security on the western borders. It then fell to President Truman to reform American foreign policy. Truman and Acheson did work well together, their personalities complementing each other nicely. But Truman had his own ideas on foreign policy. He learned fast. He had talked to Stalin and had even berated Molotov, admonishing the Soviets to keep their promise to hold free elections in eastern Europe.

Harry S. Truman faced a difficult choice. In the wake of Germany's collapse, the Russians had gained control over eastern Europe, fomented rebellion in Greece, and attempted to

† Joyce and Gabriel Kolko, *The Limits of Power: The World and United States Foreign Policy, 1945-1954* (New York: Harper and Row, 1972, $15.00), xii and 820 pages.

overthrow the Iranian government. Truman determined that America had a direct interest in what happened elsewhere in the world. As one historian put it: "American leaders did not want a Cold War, but they wanted insecurity even less." [1] Consequently, the President promulgated the Truman Doctrine, the Marshall Plan was established, and the United States determined to draw the line at the risk of war.

To understand what motivated the postwar leaders of the United States to structure an internationalist foreign policy, overturning the historic American isolationism, one must attempt to recreate the postwar years. It is not good enough to begin with Vietnam and then work backwards. Such an approach usually results in more polemics than history.

Given Stalin's goals in east-central Europe and his understandable obsession with preventing Germany's rearming, it was President Truman's fate to lead this nation during a period when events were shattering America's postwar dreams. By 1946, just months after the end of the most destructive war in history, it had become clear that the world situation was far different from what many had visualized at the close of the war. Western Europe faced an economic and political crisis, and Communist guerrillas were fomenting rebellion in Greece. China was torn by civil war. This was not the scenario that American leaders and citizens had hoped to find after the war.

Nonetheless, Truman and Acheson gave strong support to the United Nations. The Truman Doctrine, the Marshall Plan, the Berlin airlift in 1948, and the birth of the North Atlantic Treaty Organization in 1949 were all formulated against a backdrop of essential optimism that, once these crises were over, things would get better. Stuart Symington, after becoming Secretary of the Air Force, put it this way:

> Two years ago we were hopeful that many of these problems would have been solved by now. We must still be hopeful. The lack of progress is discouraging but we must not give way to despair. We must realize that the building and the maintenance of peace, requires more patience, more perseverance, and perhaps even more moral courage than does the conduct of war itself, for the issues involved are less clearly defined, and less dramatic, than the objectives of war.[2]

Truman and Acheson (also Symington), though they distrusted the Soviet Union, did not believe war either necessary or inevitable. The best chances for peace lay in helping Europe to regain its economic and political stability and in building an American atomic deterrent force to prevent general war. Successful diplomacy, Acheson felt, had to be backed by military power. The actions of nations could be restricted only by a balance of power. But the objective of statecraft was to avoid atomic war. President Truman and his Secretary of State were confident of the public's understanding, and in retrospect—despite a rocky journey—they carried the day.

As to postwar military policy, the Kolkos' treatment proceeds from their conviction that President Truman had all along planned for military superiority to buttress his postwar global foreign policy. According to this thesis, by the summer of 1945 American leaders had come to the conclusion that the Soviet Union was the potential enemy and that a strong military establishment would be required to deal with the Russians.

"The preeminent strategic doctrine," the authors note, "was that air power would determine the future of modern warfare." This idea, they allege,

> which was not laid to rest for well over a decade, meant that despite demobilization, the elimination of the mass of the navy, or the like, so long as the United States retained a far superior air arm, equipped with atomic weapons, it could relax its efforts to maintain what it considered to be partially obsolescent land and sea forces. (p. 92)

The Kolkos then proceed on the basis that by the summer of 1946 (Bikini atomic bomb tests)

the United States had "overwhelming offensive air power" based on the atomic weapon. They fail to mention that between the end of the war and the summer of 1948 the United States had few atomic bombs and atomic-modified B-29 long-range bombers.[3]

All of this fits their contention that in the postwar world the U.S. attempted to substitute military power for diplomatic initiatives: "The almost continuous American strategy crisis after World War II, with its tortured, unresolved effort to substitute the power of machines for the appeals of revolutionary ideology, ultimately ended in disaster." (p. 477) From July 1946 until late 1949, they say, American defense expenditures were "probably almost twice Soviet expenditures." (p. 479) The fact was that during this period Russian defense spending outstripped the American.[4] The Soviets, during this period, attempted "to lower the international temperature," pursuing what the Kolkos term a "conservative course." (p. 482)

The difficulty with the Kolkos' treatment is their attempt to fit military policy and force structures into their central contention that the United States was at war with "the Left" on a global scale because of the requirements of the American capitalist system. Consequently, the flow of cold war events is downgraded. Thus, the authors think the term "cold war" imposes a burden on "comprehension of the postwar era with oversimplifications and evokes the wrong questions. At best, that unfortunate phrase describes United States–Soviet diplomacy in the narrowest context, as if the relationship subsumes most that is crucial in the history of our times." (p. 6) What is most crucial is the manner in which America pursued world capitalism and the defeat of the Left (including Russia). This, contend the authors, "is one of the major dimensions of postwar history." (p. 6)

To the Kolkos, the primary American aim was to remold the world so that American business could profit everywhere. "On this," they say, "there was absolute unanimity among the American leaders." Political and business leaders wanted to foster capitalism on a worldwide scale so the United States would have free access to raw materials.

As so-called revisionists, clearly the Kolkos do not accept the standard version of the origins of the cold war, which holds that Soviet-American distrust basically grew out of conflicting interests and views of the two nations after World War II. The fact is that the origins of the cold war are complex and surely include what Stalin considered an unexplained delay in opening a second front in western Europe and then the Soviets' hegemony in eastern Europe after the vacuum left by the destruction of Germany.

Publication of many revisionist books — the Kolkos' being the most recent—has prompted scholars to take a fresh look at the cold war. This is a timely development, all to the good. It seems reasonable to conclude that as a result of revisionism we are going to get a number of well-documented and remarkably objective books on this subject, a kind of backlash against the excesses of revisionism. As an example, John Lewis Gaddis has recently published his *The United States and the Origins of the Cold War 1941–1947*, which concludes that revisionists have relied too heavily on economics, ignoring the influence of domestic politics on the conduct of American foreign policy.

In summary, a consensus has evolved in the American historical community which posits that American economic determinism was not the primary cause of the cold war, revisionism to the contrary notwithstanding. Men and events make history. The origins of major historical events and epochs are complex. Basically, historians have rejected the revisionist thesis because it relies on a simplistic explanation. One might conclude that for a historian to be charged with constructing a simplistic argument is surely paradoxical—and perhaps also rather uncomfortable.

The search for profits does not explain the

cold war. It might be some part of the explanation. For centuries, historians have studied the interaction of men and events. Which makes history? It is a complex combination. As for the cold war, the flexibility of both Stalin and Truman was severely limited. The Soviet Union had been invaded from the west twice in a quarter century. Russia had been decimated in the Second World War. It would not happen again. The western borders would be secured, and Soviet hegemony would be won in east-central Europe. American leaders had not planned on this. After the war, with an idealistic belief in the dawn of world peace and freedom, they felt betrayed. Their choices were limited by the consequences of World War II—the destruction, chaos, and economic collapse—and by the restrictions imposed by America's own history and ethos.

Men do not operate in a vacuum. The United States and the Soviet Union were swept into a cold war, primarily because of the burden of history. In retrospect, one speculates as to whether it could have been otherwise. Probably not. But the fact remains that it was, after all, a *cold* war. America and Russia, the two rivals, still have outstanding differences. Nevertheless, an American president recently went to Moscow. It is anticipated that soon the Soviet leader will come to the United States.

One suspects things could have been a great deal worse.

Silver Spring, Maryland

Notes

1. John Lewis Gaddis, *The United States and the Origins of the Cold War 1941–1947* (New York: Columbia University Press, 1972, paper), p. 353.
2. Address by Secretary of the Air Force Stuart Symington, Navy Day, Manchester, New Hampshire, 27 October 1947.
3. See George H. Quester, *Nuclear Diplomacy: The First Twenty-Five Years* (New York: Dunellen, 1970).
4. *Ibid.*, p. 293.

GERMANY AND EUROPEAN DÉTENTE

LIEUTENANT COLONEL E. W. GIESECKE

I prefer the most unjust peace to the justest war that was ever waged.

Cicero

DURING the past several years, there has been a relaxing of tensions in Central Europe. Concurrently, the use of force to achieve political objectives has been avoided. The invasion of Czechoslovakia by the Soviets in 1968 marked the last low point in relations. Conversely, the ratification of the "renunciation of force" agreement between West Germany and the Soviet Union in 1972 set the recent high level of European détente.

As diplomatic exchanges increased, it remained evident that the problem was—and still is—Germany. As a powerful nation, comprising two separate states, Germany holds the key to détente in Europe. In today's world, a constructive relationship between East and West requires the active involvement of Germany.

An important and scholarly book has appeared recently that presents a crisp analysis of East-West relations. In *Détente in Europe*, Professor Josef Korbel gives special attention to the role of Germany in world power relations.† At the same time, however, he recognizes that a lasting détente in Europe is interlocked with developments between the United States and the Soviet Union. These developments, he says, though sometimes encouraging, are often foreboding, and he forecasts the same fluctuations for the lessening of tensions in Europe.

Many studies such as Korbel's do not include a summary as to why Europe is so important today in the struggle for world power—power in the sense of ability to influence the behavior of others in accordance with one's own ends.

Any listing of the readily apparent reasons for Europe's current significance would include the following:

• It is now widely held that total or large-scale nuclear war is unacceptable. The stated goals of the Soviet Union and of the United States do not encompass the expected cost of a nuclear war. Thus the emphasis shifts to conventional forces and to political, economic, and other forms of power. Here, Western Europe is strong. The defense capabilities of the North Atlantic Treaty Organization (NATO) are considerable, and this is not a question here. In terms of overall power, Western Europe has been gaining rapidly and now ranks in the top three or four new power centers that have evolved in a multipolar world. Accordingly, what happens to this "pole" becomes more critical to world stability.

• West European strength lies in unity, and the expansion of the European Economic Community (EEC) or Common Market from six to nine nations, as decided in 1972, was followed later in the year by the agreement of sixteen West European states to create among themselves a single economic region. This agreement, signed in Brussels between the members of the EEC and the European Free Trade Association, marked that region as the world's largest trading group, accounting for fifty percent of global trade.

• A new, all-European culture is growing, replacing the nationalism of the individual

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† Josef Korbel, *Détente in Europe: Real or Imaginary?* (Princeton, New Jersey: Princeton University Press, 1972, $10.00), 302 pages.

states. Western politics, culture, and economics are showing a propensity to spread. These ideas are finding ready takers among the East European states; and while this was expected as a by-product of détente, the Soviets have maintained a close control over the extent of this influence. They have negotiated the first few years of détente carefully, so as to guard against any erosion in the posture of their Warsaw Pact allies.

background to détente

Korbel has traced the changes in mood and practices between East and West since World War II. Gone are the tensions of the Stalin era; the strategy became rapprochement. This matured gradually in West Germany from Adenauer to Brandt. Under the latter's tenure, some of the Soviet overtures were accepted and implemented as Bonn's current *Ostpolitik.*

To a lesser extent, Korbel has reviewed the trend toward rapprochement among some of the other Western allies. Trade between the EEC members and the Eastern bloc gradually increased in the 1960s. While the Federal Republic of Germany (F.R.G.) consistently led the Big Four in the overall value of trade between East and West, Great Britain often led in the value of imports from Russia and Poland. Italy was also high on the list of Eastern traders, and France generally placed fourth. While the French cultural détente was impressive, having included the exchange of students, tourists, scientific information, and publications, it did not appear to have exceeded the efforts of other Western powers in the East. Nonetheless, President Charles de Gaulle had made a bold attempt to blend the mutual interests of France with the Eastern states into resurrection of the grand old Continent. His vision of *l'Europe des patries* saw the Continent completely free of the hegemony of the two superpowers, U.S. and U.S.S.R. (As is well known, de Gaulle's policies led to the withdrawal of France from her military role in NATO, though politically she remains as one of the fifteen members.) Acting independently, France created its own nuclear deterrent, called the *force de dissuasion.* Though not under NATO supervision, this force could well be a deep thorn in the paw of any aggressor upon the West.

West Germany's course to *Ostpolitik* can best be charted by reviewing the policies of her chancellors. World War II in Europe ended with Germany's unconditional surrender in May 1945. The decisions at Yalta and Potsdam left Germany divided into four zones of occupation, with Berlin receiving special status under four-power rule. The Sovietization of the eastern zone and the blockade of West Berlin in 1948 and 1949, as episodes in the cold war, precluded agreement on a general peace treaty. The constitution of the F.R.G. was adopted in 1949, the same year that Konrad Adenauer was elected chancellor. In his fourteen years of leadership, West Germany became solidly aligned with the Western states as well as a leading member of NATO and EEC. Adenauer felt that the reunification of the east and west halves of his divided nation could best be negotiated by strong support from the West. He hoped that with this backing the U.S.S.R. could be persuaded to agree to reunification in return for a peace treaty that would legitimize the Soviet's westward expansion into what was formerly Polish territory. In retrospect, it is now apparent that the West gave more than this but received less in exchange.

Adenauer resigned in 1963, favoring Foreign Minister Schroeder as his successor. However, Ludwig Erhard was elected instead by a majority of the *Bundestag.* Erhard's reputation was built upon creating the "German economic miracle"; he maintained the close ties with the U.S. and supported the expansion of the Common Market.

Kurt Georg Kiesinger next served as Federal Chancellor, from 1966 to 1969. He was noted as the author of the Grand Coalition, a merger of the then governing Christian Democrats and Christian Socialists with the Social Democratic

Party (SPD), its former opposition. Under the coalition, Willy Brandt, chairman of the Social Democrats, became Vice-Chancellor and Foreign Minister. The rise of the Socialists was the major event leading to the softening of Bonn's policy toward the East.

As a prelude to his *Ostpolitik*, Brandt began corresponding with Moscow in 1967 concerning a nonaggression declaration. This contact was broken off, however, in mid-1968 after Soviet insistence that such an agreement must be accompanied by the Federal Republic's acceptance of two separate German states. Under no condition was Bonn—at that time—willing to concede on a single point leading to international acceptance of the German Democratic Republic (G.D.R.) as a sovereign state.

When Willy Brandt assumed the chancellorship in October 1969, his Social Democratic Party came into power and dropped the coalition with the Christian Democrats. As Professor Korbel has written, "By the end of 1969 the majority of West Germans, if not reconciled, could see no viable alternative to an indefinite existence of two German states and, for the benefit to a détente in Europe, they were not willing to press for reunification. At the same time, however, an even larger majority was not yet ready to go as far as full recognition of East Germany as a state."

Western interest in Germany

The SPD (in coalition with the Free Democrats) was not to govern with an illusory dream of reunification when it inaugurated its new version of *Ostpolitik*. It was at this juncture that Willy Brandt advanced the idea of "two German states of one German nation." He was backed by a majority of West Germans, who no longer believed that the Western big powers would support reunification. Korbel lists polls taken in November 1969 showing that 37 percent of the German respondents thought "the United States favored reunification and 42 percent thought it did not. As to Great Britain, the percentages were 32 and 43; as to France . . ., 28 and 50, respectively."

Korbel suggests that the U.S. was increasingly torn by the war in Vietnam and accorded less concern to European problems: "As NATO's homogeneity was weakening and its strategy constantly changing, [as some members of Congress] pressed for a partial and unilateral withdrawal of U.S. troops from West Europe, the Bonn government felt compelled to prepare itself for the possibly grave consequences of this American neo-isolationism. Brandt's gambit was to accelerate the FRG *Ostpolitik* and to seek an understanding with the Soviet Union."

In May 1972, the West German parliament voted to approve the nonaggression treaties with Russia and Poland which Chancellor Brandt had negotiated in 1970. The voting in the *Bundestag* seesawed on a razor's edge, nearly carrying Dr. Rainer Barzel, the CDU party leader, into power, for Brandt had placed his ruling SPD/FDP coalition on the line in support of *Ostpolitik*. Though Brandt received almost no support from the CDU, the treaties won by a slim margin.

The treaties renounced the use of force by all sides and recognized German territorial losses from World War II. It gave to Poland all former German territory east of the Oder-Neisse Line, and it legitimized the present borders of the German Democratic Republic (formerly the Soviet zone). The meaning was clear: reunification was a past issue, and Bonn was preparing to recognize the existence of two separate German states—one of them a Communist regime with a population of 17 million, the other a republic with 60 million inhabitants.

Agreeing with most analysts, Korbel wrote that "the treaty brings a sense of immediate relief to West Germany and to the whole of Europe. It has opened the door . . . to settling Bonn's relations" with Eastern Europe as well as removing the "principal source of tension—Bonn's quest for reunification."

"However," he added, "all these short-term achievements and expectations carry far-reach-

ing, long-term connotations that are at best uncertain and that inescapably hinge upon the Soviet's real intentions and Bonn's perception of Soviet goals in Europe."

objectives of Ostpolitik

As reported by Korbel, "Only a few months after the treaty had been signed in May 1970, Kosygin appealed to the West European nations to seek independence from the United States." The Soviets had achieved their initial goal and were following through. On the chessboard of Europe, they had played masterfully and received recognition of Soviet control over East Europe and legitimacy for the East German regime. A secondary goal of "full recognition of the GDR" was well on its way to fruition, for by late 1972 several Scandinavian states and India were planning initial diplomatic relations with the G.D.R. Additionally, membership in the United Nations for both the G.D.R. and the Bonn government was being actively discussed.

The chief concession by the Soviets was the Berlin agreement of September 1971. They agreed to preserve Western access into West Berlin, to Bonn's right to conduct government business and meetings in the divided city, and, in general, to the existing ties between the F.R.G. and West Berlin.

West Europe, since 1945 casting an anxious eye on the East, accepted Soviet professions of détente in good faith and with visible relief. Korbel added, however, that "it is exactly this West European mood of relaxation, which approaches complacency, that is the grave danger accompanying any further progress beyond détente." One could expect "Moscow to probe into any avenue that could weaken the West," as evidenced by her changing and sinuous policy toward individual Western states, "to the question of European security, and her continuing attempts to weaken or eliminate the American presence in Europe—[which] indicates that Moscow will miss no opportunity to use detente to strengthen its own position toward the West and to exploit fully any indication of the West's own weakness."

Détente in the West, from the Soviet view, has also served to give the U.S.S.R. a greater position of strength in her dealings with China. This marks a significant easing of her geopolitical stance since Czechoslovakia in 1968 and the China border conflicts, when she was agonizing over problems on two "fronts."

According to Korbel's analysis, as détente in Europe progressed and the European members of the Atlantic alliance saw in it "an opportunity to foster their individual national interests, the thrust of NATO was quickly weakened." The acute concern of the West should be that our "experience tells us that democracies rarely foresee or plan against crises until they face them directly and irrevocably."

For the F.R.G., *Ostpolitik* has gained new markets for trade and commerce in the East, expanded diplomatic exchanges, and, above all, fostered an easing of concern over Soviet intentions. The SPD/FDP government carried out talks with the G.D.R. in 1972 leading to formal recognition of each other's sovereignty. A liberal article in the *Frankfurter Rundschau* (August 19, 1972) mentioned the problem of "human rights in Germany as a whole . . ." and said that "people in both parts of Germany harbor hopes of deriving personal advantage" from the intra-German talks. It was apparent that Bonn, by recognizing an independent G.D.R., hoped that the latter would be able of its own accord to draw closer to the West, resulting in increased contact between the two German peoples.

The final solution to the problem of a divided German "nation" has been pushed into the future by some German writers, at a point following *Ostpolitik*'s "third stage"—the development of a lasting and peaceful order in Central Europe. They have reasoned that the F.R.G. and the G.D.R., each independent, should be able to achieve rapprochement in an environment of a stable peace, the absence of a Big Four military presence, and cooperation

between the two coexistent groups of the German people.

Author Korbel, too, expresses concern that a permanent and total division could, with the fluctuations of Central European politics and the emotional potential of the people, produce serious conflicts. Chancellor Brandt, in his State of the Union address in January 1970, referring to the concept of "two German states in one German nation," described a *nation* as

> more than a common language or culture, more than state and society. The nation is rooted in the peoples' lasting sense of solidarity. . . . As long as the Germans do not abandon this political will . . . the hope remains that future generations will live in a Germany in whose political structure all Germans can take part.

European security conference

For years the Soviet Union had been proposing a conference on security and cooperation in Europe (CSCE), to meet just this type of need for self-realization and stability. The U.S. has wisely opted to participate, and the 34-country conference was given substantial support by the Nixon-Brezhnev talks of 1972. U.S. participation is extremely essential, even if one does not accept the critics' view that this long-term Russian proposal is aimed at "Finlandization" of Western Europe. This term has unfortunately been too widely used to describe a status of neutrality in Europe resulting from the active pursuit of détente by both the East and the West.

Some conservative leaders have feared that even a status of collective *semi*-neutrality would give the Russians an end-position of political supremacy over Western Europe. However, Western statesmen have been alert to such a possibility, realizing that maintenance of a strong NATO is required to preclude such a trend. The U.S. and its allies have resisted unilateral force reductions and have pushed for talks on mutual and balanced force reduction to be held concurrently with the CSCE at Helsinki.

Despite the current success of détente in Europe, the U.S. should maintain a high level of forces there, at least until gradual reductions can be made under a mutual and balanced force reduction. The *Ostpolitik* conducted by Bonn promises many benefits in international goodwill. For the present, however, it is best carried out with strong support from a Western Europe that is rapidly uniting, politically as well as economically, and is backed up by a determined and viable NATO.

Robins AFB, Georgia

The Contributors

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Dr. Curtis W. Tarr (Ph.D., Stanford University), until his appointment as Under Secretary of State for Security Assistance, served as Director of the Selective Service System. He was Assistant Secretary of the Air Force (Manpower and Reserve Affairs) in 1969-70. After combat service in the U.S. Army, European Theater, he earned degrees and filled teaching and dean assignments at Stanford and Harvard. Dr. Tarr was President of Lawrence University, 1963-69, and served as Chairman, Task Force on Local Government Finance and Organization, State of Wisconsin.

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Dr. Adrian Preston (Ph.D., University of London) is Visiting Professor of Military and Strategic Studies at Acadia University, Nova Scotia, Canada. He served as captain in the Canadian Army, 1954-62, and is a graduate of the Royal Military College of Canada, where he is an Associate Professor of History and War Studies. He has lectured at defense colleges in Canada and India and is author of three books and numerous articles in professional journals worldwide. He is a Fellow of the Royal Geographical Society and of the Royal Historical Society.

Brigadier General Heinz Waldhecker, Luftwaffe, is Commander, Air Force Department, German Armed Forces Staff College, Hamburg. During World War II he served as a pilot and was a unit commander at the end of the war. He returned to the Luftwaffe in 1956 and served as an Air Traffic Controller until entering general staff officer training in 1959. Following staff duties at intermediate-command levels, he was assigned as an air defense instructor at the Staff College. General Waldhecker served as deputy commander and chief of staff of an air division until his present assignment in 1969.

Lieutenant Colonel Richard D. Besley (M.S., George Washington University) is a Faculty Adviser at the Armed Forces Staff College, Norfolk, Virginia. His experience includes six years in MATS, flying the C-124. Later he flew the C-47, C-54, C-118, and the C-7 in Vietnam. He worked in Range Operations at the Air Force Eastern Test Range, 1960-65, and four years on the Air Staff, dealing with rated officer requirements for the Director, Manpower and Organization. Colonel Besley is a graduate of Air Command and Staff College and Air War College.

Lieutenant Colonel Harold A. Susskind is Chief, Information Division, Ogden Air Materiel Area (AFLC), recently assigned there from similar duty in AIRSOUTH, Naples, Italy. During World War II he served as navigator with the Eighth Air Force, and after recall in 1949 he flew as navigator-bombardier in air rescue. Assigned to Southeast Asia as an information officer, he won the Aviation Space Writers' Orville Wright Award in 1964. Colonel Susskind is a graduate of the Boston University public relations course.

DR. STERLING GERBER (Ph.D., University of Utah) is Associate Professor of Psychology, Eastern Washington State College. For 2½ years he has directed the Human Communications Training Project, which required his involvement at all bases and tenant wings of Fifteenth Air Force (SAC) and seven PACAF bases. Dr. Gerber is a licensed psychologist in the State of Washington and holds the Diploma in Counseling Psychology of the American Board of Professional Psychology.

HERMAN S. WOLK (M.A., American International College) has been with the Office of Air Force History since 1966. For seven years he was a historian for Hq Strategic Air Command. During the Korean War he served in the U.S. Army information and education program. Mr. Wolk has taught history and lectured on strategic nuclear deterrence and matters related to the cold war. His articles have appeared in *Air Force and Space Digest, Military Review,* and *Air University Review,* among others.

LIEUTENANT COLONEL EBERHARD W. GIESECKE (M.P.S., Auburn University) is Chief of Programs Division, DCS/Plans, Hq Air Force Reserve. As an Air Force officer, he was assigned in Germany for three years in analysis work. In civilian capacity, he was with the State of Washington in government analysis functions for a dozen years. Colonel Giesecke teaches Political Science part-time at Middle Georgia College. He is a graduate of the Air War College.

AWARD

The Air University Review Awards Committee has selected "Resource Management, Economic Analysis, and Discounting in the Department of Defense" by Major Richard Zock, USAF, as the outstanding article in the January-February 1973 issue of the *Review.*

ATTENTION

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