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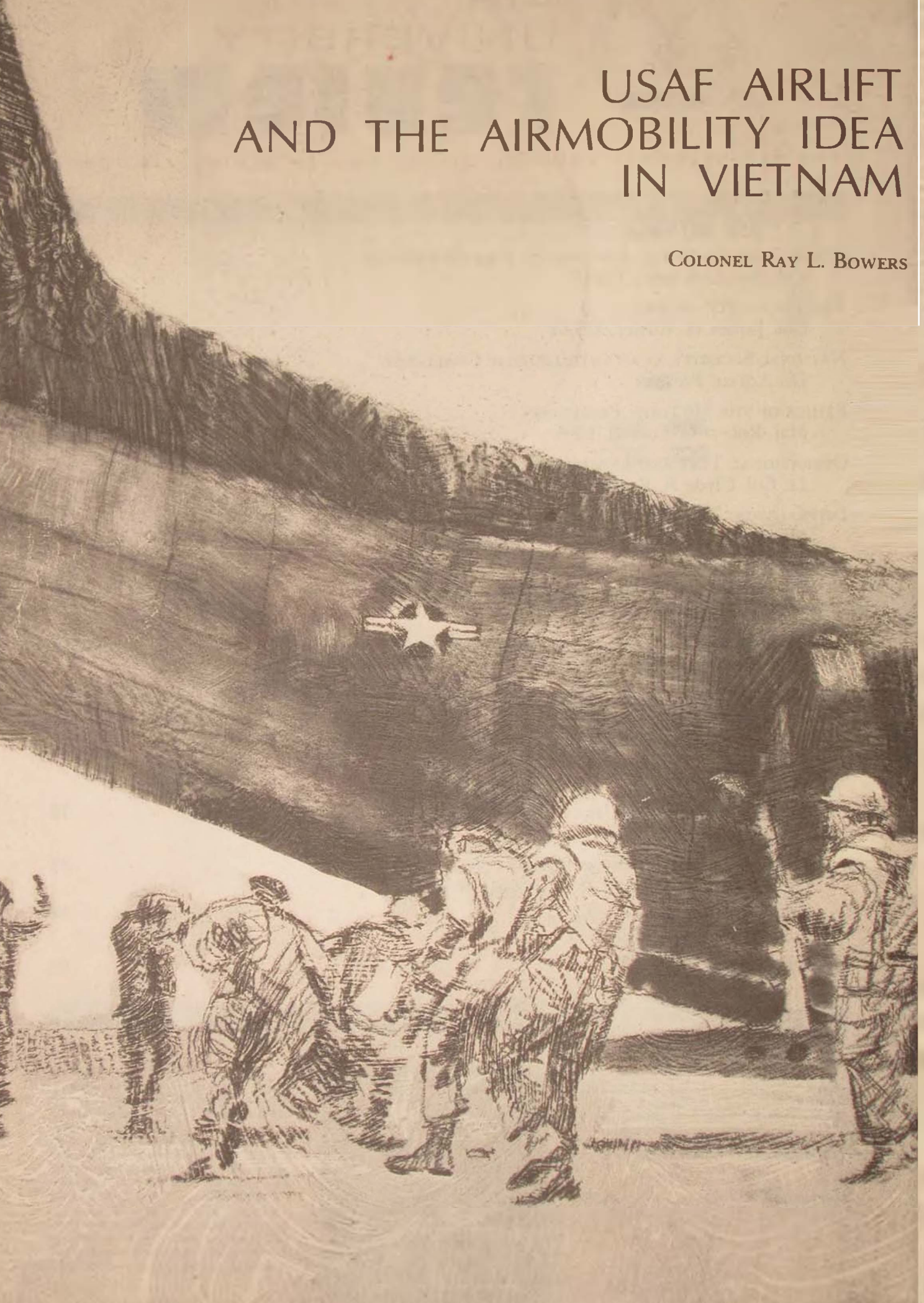


THE COVER

Several articles in this issue of the *Review*—those by Colonel Bowers, Colonel Kasler, and Lieutenant Colonel MacIsaac—derive at least in part from our recent involvement in Southeast Asia. In particular, though, the cover—with C-130 Hercules and CH-47 Chinook in the foreground and the airdrop operation above—reflects Colonel Ray L. Bowers's "USAF Airlift and the Airmobility Idea in Vietnam," which reviews U.S. Army and Air Force experience with airlift and airmobility from Korea to the 1970s and emphasizes "pragmatic and sensible accommodation by both services."

USAF AIRLIFT AND THE AIRMOBILITY IDEA IN VIETNAM

COLONEL RAY L. BOWERS



THE usefulness of the transport airplane in theater operations became clear during the Second World War. An important doctrinal contradiction remained, however. Many American air and ground officers saw in the parachute and glider assault a new order of combat zone mobility for ground units. Others realized that the fixed-wing transport had proven better suited for less rigorous, though important, tasks. The Korean War seemed to support the latter view. Paratroop assaults were rarities in Korea, but several hundred USAF transports ranged the war zone daily—landing with ammunition and other supplies, hauling units and personnel, dropping supplies to isolated units, and evacuating casualties to Japan.¹

Post-Korean tactical airlift doctrine was divided. The quest for battlefield mobility brought into existence the Fairchild C-123. The twin-engine Provider was called an "assault transport," having been developed from a glider airframe for the purpose of rough-field landings at forward landing zones. The craft's assault landing capabilities complemented the parachute-delivery strengths of the older C-119, still in active service in the mid-fifties.²

The larger and more powerful C-130 joined the active force in 1956. This four-engine Lockheed turboprop brought vastly improved speed, range, and payload—qualities useful for high-volume or intertheater operations. During the next decade of Cold War crises, the mission of moving task forces to overseas trouble spots became foremost. Patterns varied, but often the C-130s of Tactical Air Command deployed men and equipment of tactical air units overseas, while the larger C-124s hauled ground troop elements. Although C-130 crews continued to practice parachute techniques and although for its size the Hercules had

excellent short- and rough-field potentialities, combat zone assault work had become secondary.³

One potentially important development had been short-lived. Design studies in 1949 had indicated that rotary-wing craft of worthwhile payload were within reach. Although some officers felt that helicopters were overly vulnerable to ground fire, TAC organized its first rotary-wing unit in early 1952. The helicopter fit easily into older airlift doctrine: the craft possessed obvious advantages over the parachute for the assault and short-haul resupply, along with unmatched capacity for pickup of casualties. By the end of 1955, five helicopter squadrons had been activated in TAC, building toward a nine-squadron force.

The decision to dismantle the helicopter airlift arm was a reluctant one, made after repeated and firm refusals by U.S. Army officials to support a USAF combat zone helicopter lift role. Major General Chester E. McCarty, commanding airlift forces within TAC, dissented, warning that future improvements in rotary-wing craft would eventually result in "real airlift potential that definitely should be integrated with and assigned to the Theater Combat Airlift Force." Most Air Force leaders became reconciled to the loss of the helicopter airlift arm, aware of the very limited range and payload capacities of existing helicopter types. Thus, in 1961, with the USAF helicopter arm stillborn and with the athletic C-123s programmed for retirement from the active force, USAF battlefield delivery capabilities were not impressive.⁴

the airmobility challenge

Robust ideas were emerging in the U.S. Army—toward greater, not less, use of airlift for mobility in the combat zone.

The promise of helicopters had been glimpsed in Korea, and in 1954 Army staff studies were reflected in a *Harper's* article entitled "Cavalry, and I Don't Mean Horses!" The author was Lieutenant General James M. Gavin, G-3, Department of the Army. Later, from retirement, Gavin in *War and Peace in the Space Age* (1958) called for creation of "sky cavalry" formations, capable of dispersal and movement over the nuclear battlefield. Field Manual 57-35, *Airmobile Operations*, described the movement of combat elements about the battlefield in Army-owned air vehicles; for example, following up nuclear detonations or—conceivably—in counter guerrilla situations. In *The Uncertain Trumpet* (1959), General Maxwell Taylor, the retiring Army Chief of Staff, wrote that new equipment for tactical airlift (and for tactical air support) should be organic within the Army, claiming that the Air Force had long neglected these responsibilities to the Army. By 1960, the Army possessed 5500 helicopter and fixed-wing aircraft (up from 3200 in 1953) and planned a further expansion to 8800 over the next ten years. Few of the active helicopters, however, were sufficiently powered to fulfill the kind of large-scale mobility envisioned by Gavin, Taylor, and the newer generation of airmobility leaders.⁵

The Air Force consistently opposed expansion of the Army's transport helicopter arm, convinced that transport aircraft should be controlled centrally at theater commander level to preserve the mobility, flexibility, and capacity for concentration inherent in air forces. USAF positions rested on the Air Force's longstanding legal responsibility for conducting airborne operations and a 1956 clarification ruling out "large-scale movements of sizable Army combat units" by Army aviation. Thus, the disagreement between

the services over ownership and control of airlift forces grew firm. In the regularly held joint field exercises, activities focused on the parachute assault, avoiding the issue-laden matter of helicopter troop mobility. Numerous technical questions relating to airmobility thus remained unanswered, among them methods for air traffic control at forward airheads and agreed responsibilities for medical evacuation, cargo handling, and pathfinding. Army and Air Force aircrews remained equipped with incompatible radio equipment, unable to converse with one another at future crowded airheads.⁶

Secretary of Defense Robert McNamara and members of his civilian staff moved firmly to unblock airmobile policy. After several months of preliminary discussions, McNamara by memorandum of April 1962 called upon the Army for "fresh and perhaps unorthodox concepts which will give us a significant increase in mobility." Four months later, an Army board under the chairmanship of Lieutenant General Hamilton H. Howze reported (in its own words) "a single general conclusion: adoption by the Army of the airmobile concept." The group recommended formation of "air assault" divisions, equipped with large numbers of aircraft for hauling troops into battle and providing fire support. Separately organized air transport brigades, equipped with heavier helicopters and Caribou fixed-wing transports, would distribute supplies to forward points. USAF transports, the Howze group envisioned, would make "wholesale movements to bases as far forward as possible," linking there with the Army's transport craft to form an all-air line of communication.⁷

Partly in response to the Howze report, the Air Force pressed ahead projects designed to improve the ability of the C-130 for forward zone delivery. A new

family of formation low-level tactics was designed and tested, along with new Doppler navigation systems, both in part intended to facilitate accurate drops in marginal weather. Methods of delivering heavy loads while flying several feet above the ground were tested, using either an extraction parachute or a hook-and-cable arrangement. The extraction idea promised to overcome the dependence of the C-130 on semiprepared 3000-foot airstrips. Short-field landing tests in 1962 brought approval for several landing-gear modifications. A new cargo-handling system, known as 463L, included features for better forward area offloading. Thus, the Air Force in November 1962 could correctly inform Secretary McNamara that it, too, was taking "imaginative approaches." The efforts were designed to back up the twofold Air Force position: (1) that the C-130s could do much of the work envisioned by the Howze board for Army craft and (2) that all transports should be centrally controlled at theater level, available for allocation to the most valid requirement.⁸

Concepts of both services were refined in a series of field exercises during 1963 and 1964. Over 200 USAF transports, centrally controlled, served in SWIFT STRIKE III (1963), hauling 34,000 troops and 27,000 tons of cargo into an objective area during two weeks of simulated assault and resupply. Exercise GOLDFIRE I in 1964 again featured mass deliveries by C-130s and further use of the low-level extraction methods. A small provisional unit of USAF CH-3 helicopters performed over 600 assault and resupply sorties: the unit's commander foresaw "a vastly expanded rotary-wing retail air arm working in concert with a fixed-wing wholesale delivery." Army concepts were tested in Exercise AIR ASSAULT II in October 1964. The results greatly encouraged airmobile lead-

ers, although one weakness became clear: despite the tireless efforts of the Army Caribou aircrews, the 2½-ton payload of that craft was far too small for high-volume air line-of-communication (LOC) resupply.⁹

The series of tests failed to end disagreement between the services, but technical progress was undeniable. The competence of the C-130 fleet for much forward area work was now clear, while from AIR ASSAULT II the Army recommended to Secretary McNamara that the provisional air assault division be established on the active list. Plainly, the capabilities of the C-130 and C-123 overlapped with those of the Caribou and Chinook, although complementary features were equally obvious. Basic questions remained—how far forward the C-130 airhead should be located and whether the Army should exclusively retain the Caribou and medium helicopter roles. The emergence of an agreed, flexible system of airmobility and air resupply awaited the realities of Vietnam.

early years in Vietnam

A diverse fleet of American air elements—Army, Air Force, and Marine—served in Vietnam during the early sixties; the dominant elements were fixed-wing and helicopter transport units, with missions of providing airlift for the Vietnamese war effort. Arriving with a small force of strike aircraft in November 1961 were four USAF C-47s, their foremost task the resupply of isolated camps manned by U.S. Special Forces and indigenous irregulars. Deliveries were often by parachute. The air commando C-47s were gradually overshadowed by a larger force of USAF C-123s, expanding to four 16-ship squadrons by late 1964. Besides joining in camp resupply, the 123s lifted Vietnamese infantry units to regional airfields about the





Aspects of Airlift

A USAF C-130 Hercules in Vietnam takes men and equipment aboard in the move of the 1st Brigade, 101st Airborne Division's "Screaming Eagles," from Kontum to Phan Rang in January 1966. In the foreground others await their turn. . . . An Air Force CH-3C delivers supplies to an Army special forces camp in the central highlands of Vietnam. . . . C-130 and Army CH-47 Chinook at forward airhead near the Cambodian border, 1970.



country and performed countrywide air logistics services. The American transport crews also worked with Vietnamese paratroop battalions, making practice drops and standing alert for "fire brigade" emergencies. Two Vietnamese Air Force C-47 squadrons performed similar roles, augmented by several dozen USAF officers assigned as copilots during 1962-63. The Vietnamese airborne battalions made a number of combat parachute assaults from the C-47s and C-123s, in most cases failing to bring the elusive enemy to battle.¹⁰

Three U.S. Army helicopter companies arrived in Vietnam in December 1961 and January 1962, along with a company of Otter fixed-wing craft. The Otters proved useful for supporting the troop-carrying helicopter units and for making deliveries to tiny strips. Two more light helicopter companies followed later in 1962, along with a U.S. Marine helicopter squadron and an Army unit equipped with turbine-powered UH-1s—craft destined to become the backbone of airmobility through most of the war. The American helicopter force performed frequent tactical assaults with Vietnamese infantry, trying out and refining many of the tactics that were later commonplace. An Army Caribou company entered in December 1962, expanding briefly with a second company the next year. The Caribous performed diverse tasks, flying into most Special Forces camps and proving their ability for operations into primitive strips.¹¹

By early 1965, USAF C-130s based offshore were rotating into Vietnam for periods of temporary duty, augmenting the C-123s. Both the 123s and the 130s were centrally controlled, under the USAF-managed Southeast Asia Airlift System. Allocations and priorities were by theater (i.e., MACV) agencies, and an airlift control center at Saigon assigned tasks and moni-

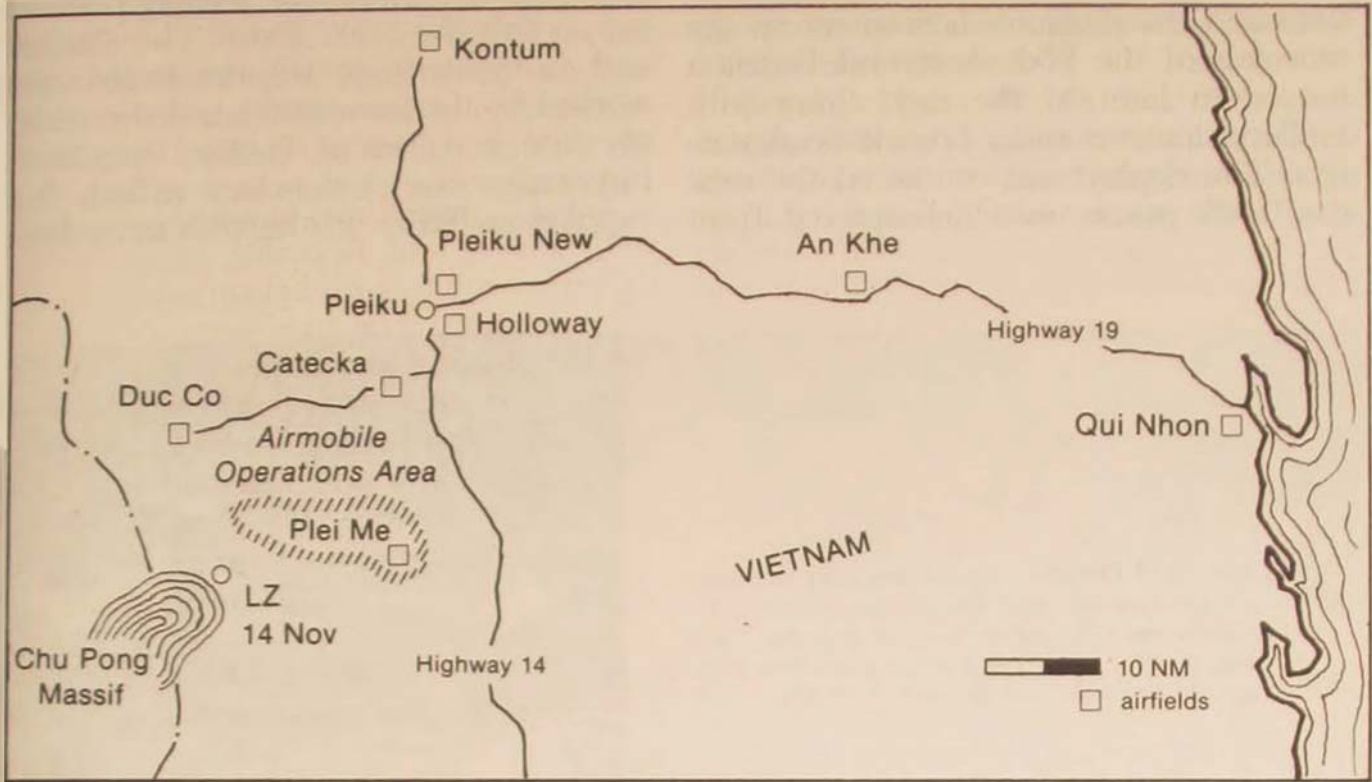
tored the progress of missions countrywide. The other air transport elements remained outside the central system, except for a few Caribous intermittently included in deference to heavy USAF pressure.¹²

To the Americans, the advantages of the mobility and flexibility conferred by the fixed-wing and helicopter package were manifest. The fixed-wing fleet made urgent battalion and larger reinforcement lifts into airstrips in regions of confrontation, while the helicopters had in essence restored to the Vietnamese a capacity for the tactical offensive. The USAF fixed-wing elements, however, had rarely been employed in direct support of airmobile enterprises.

Employment of the C-130s and C-123s to extend the range, stamina, and weight of allied offensive airmobile operations awaited the movement into Vietnam of U.S. Army brigades in 1965. Many of the methods were drawn from the 1963 and 1964 field exercises and were worked out in Vietnam by practical men of both services, many of them veterans of those same exercises. Successful partnership ensued between the Air Force transports and brigades of three distinct configurations—airmobile, airborne, and conventional infantry.

entry of the cavalry division

President Johnson in July 1965 authorized deployment to Vietnam of the newly authorized 1st Cavalry Division (Airmobile). Air Force leaders warned against an Army proposal to place the division in the interior highlands about Pleiku, given the insecurity of land routes from the coast and the small number of C-130 airfields near Pleiku (three). Air officers rebutted suggestions that Caribous could if necessary handle the highlands LOC by delivering into lesser fields, pointing out that a



The Ia Drang campaign, October-November 1965

daily 800-ton lift requirement equated to 141 Caribou round trips (or 29 C-130 trips). The decision to base the division at An Khe, relatively close to the port of Qui Nhon, reflected these considerations.¹³

On entering Vietnam, the cavalry division possessed eight infantry battalions, three of them with parachute capability. Over 400 aircraft were taken overseas, nearly all helicopters, primarily for troop mobility but including a 39-ship rocket battalion. Organized for general support within the division were several dozen medium CH-47 Chinooks. Caribou transports were not organic, but an 18-ship company flew the Pacific during the summer for direct support of the division out of Pleiku.

The cavalry's early operations near An Khe were supported principally by highway LOC from Qui Nhon. C-123s and C-130s made supplementary deliveries to An

Khe, including mail and aircraft spare parts from Saigon. USAF service was handicapped by the destructive effects of the An Khe pierced-steel-plank runway on C-130 tires. Although the cavalry division requested priority allocation, or "dedication," of C-123 and C-130 sorties, each mission was scheduled and controlled under the centralized theater system.¹⁴

The long-contemplated entry of the cavalry into the interior plateau was triggered by Communist pressure against Plei Me, a camp 25 miles south of Pleiku. Beginning on 20 October 1965, USAF C-123s and Army Caribous sustained Plei Me with drops of munitions and food. During the first five days of the resupply, at least 23 C-123s took hits from ground fire; seven ships were temporarily put out of service. As a Vietnamese relief column moved south from Pleiku, a one-battalion task force from the cavalry division moved

to Pleiku, hauled from An Khe by Caribous and the division's helicopters on the morning of the 23d. A second battalion moved in later in the day, along with artillery elements and a brigade headquarters. The deployment continued the next day, while some units helicoptered from

Pleiku to sites chosen for artillery positions supporting the relief force. The Caribou and Chinook force became badly overworked by the movements and the resupply into and out of Pleiku. Despite an impressive round-the-clock effort, fuel supplies at Pleiku on the 26th were down

The C-123 Provider extended airmobility into rough forward landing zones, here Vietnam, 1965. . . . C-130s and C-7s deliver cargo to Ban Me Thuot airstrip, 1968. . . . The fixed-wing/helicopter package demonstrates mobility and flexibility, 1970.



to 7000 gallons, against recent daily consumption of 70,000. Expansion of the air LOC into the region became an absolute necessity on the 27th, with the American decision to unleash the cavalry, to seek out and destroy the enemy, now apparently retreating from Plei Me. Additional battal-

ions moved out from An Khe, to join in the three weeks of aggressive airmobile warfare that followed.¹⁵

General Harry W. O. Kinnard, commander of the cavalry division, has indicated that he "at once" started through "multiple channels" to obtain Air Force



airlift to Pleiku but that the requested assistance began slowly. Awareness of "the critical status of JP-4 at Pleiku" reached the MACV Operations Center at 2120 hours the evening of the 28th. Emergency air delivery of 50,000 gallons was requested for the next day, to commence at 0800. A midnight C-130 lift of empty 500-gallon containers was laid on and executed, hauling the bladders from Pleiku to Tan Son Nhut for refilling. Departures of POL-carrying C-130s from Tan Son Nhut for Pleiku began before dawn. Consumption continued to outpace supply, however, and by evening of the 29th the division reported "zero gallons of fuel on hand to support operations."

Once fully underway, the C-130 POL lift to Pleiku was impressive. Eyewitnesses found the spectacle impressive—the 130s arriving at short intervals, each one rolling off ten or twelve 500-gallon bladders filled with JP-4, then departing without ever stopping engines. One crew offloaded 14 bladders. The huge capacity of the C-130 was of the essence; in contrast, a C-123 could handle only four bladders, a Caribou or Chinook, two. An anxious cavalry G-4 officer became finally reassured, after counting 134 filled bladders on hand.

The C-130 stream from Saigon hauled considerable ammunition as well as POL. The C-123s operated mainly between An Khe and the combat area, assisting the Caribous in troop and supply movements. Initially, all C-130 deliveries were into the 6000-foot Pleiku New airfield, just north of the city. Fuel bladders deposited at that field were picked up by Chinooks and taken to the helicopter forward operating locations south and west of the city; other cargo was trucked to the field at Holloway, just east of the city, which was rarely used by the 130s during the battle. An important step was the decision to bring the 130s directly into the 4000-foot dirt

strip ten miles south of the city, known as Catecka Tea Plantation and serving as the principal helicopter refueling point. This move vastly eased the Chinook workload. It was made possible by dry weather and would have been stopped by any significant rainfall. The division's G-4 afterwards reported that the Air Force transport into Catecka "was certainly one of the biggest godsend of the whole exercise." Highway communications from An Khe into the battle area opened on 9 November, after road-clearing operations, although the airlift effort continued to operate at heavy volume thereafter. The Ia Drang campaign continued into late November, the enemy retiring into Cambodia from ground long dominated by his presence; the cavalry division estimated that enemy losses were equivalent to a full regiment.¹⁶

The air LOC had been vital in the tactical success. The Air Force reported that during the 29 days starting 27 October its transports delivered 5400 tons in direct support of 1st Cavalry Division or a daily average of 186 tons. Of this tonnage, 58 percent was POL. No cavalry request had been rejected, although the quantities delivered most days fell slightly short of the amount requested. General Kinnard, whose data indicated an Air Force contribution of 3188 tons, stated that the division also received from external points 2920 tons by organic air and 1446 tons overland, during 35 days. Retail distribution by organic airlift came to 5048 tons, much of it lifted from Pleiku New.

The campaign did much to clarify future relationships between Army airmobile and Air Force airlift forces. USAF hostility to the airmobile idea softened: General Hunter Harris, Commander of PACAF, advised the Chief of Staff that the cavalry had done "a highly commendable job" despite a demonstrated lack of staying power when using only organic resup-

ply. The chief of the USAF tactical air control party with the division, Lieutenant Colonel John R. Stoner, returned to the United States several months later for a series of debriefings and interviews at Headquarters USAF. In a television tape prepared for internal use, Stoner persuasively stated that the airmobile division had been applied dramatically and effectively in Vietnam and that in the Ia Drang it had proven its ability to find and fight the enemy where no other formation could.

Both Stoner and his airlift coordinator, Captain Charles J. Corey, felt that the campaign had strengthened the willingness among officers of the cavalry division to seek Air Force assistance in the future. Kinnard concluded that airmobile units must plan to rely heavily on USAF support, for both firepower and resupply, and that Air Force airlift should be counted on to bring supplies forward to brigade base areas. Kinnard emphasized that his Chinooks and Caribous were needed for tactical moves and essential distribution, leaving the division with a need for Air Force lift probably greater than any other type of formation. Plainly, doctrinal divergencies of the two services had narrowed.¹⁷

the airborne in Vietnam

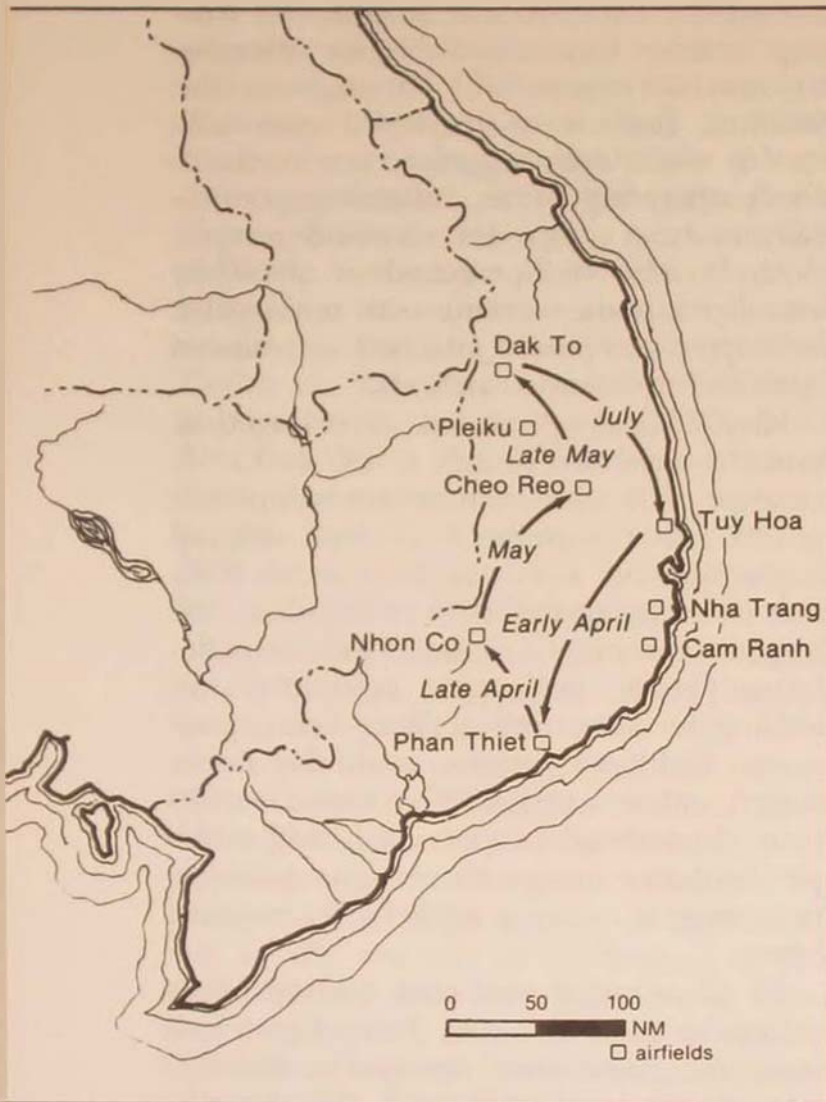
Among the earliest American brigades entering Vietnam were two paratroop units, each with a historic tradition of partnership with the tactical airlift arm. The 173d Airborne Brigade, long stationed in the Pacific, moved from Okinawa in a 142-sortie C-130 stream during 5-7 May 1965. The 1st Brigade/101st Airborne Division arrived by sea at Cam Ranh Bay on 29 July. General William Westmoreland, Commander of MACV (including all U.S. forces in Vietnam), envi-

sioned the two airborne brigades as strategic reserve forces, available for offensive or reaction operations throughout the country. Both were employed essentially in this way: deploying every few weeks to fresh operating areas, returning periodically to base camps for rest and retrofit. Both became well-practiced in airmobile assault methods, working with nonorganic helicopter companies attached on mission basis or for extended periods.

Most tactical operations were staged at forward airheads, usually C-130 or C-123 airstrips that were natural transshipment points for resupply. A typical airhead might contain a Forward Support Area unit (stocking several days of supplies), the brigade command center, perimeter defense forces, helicopter refueling and loading facilities, and artillery firing positions. Field operations could be easily staged within a radius of at least 20 miles from the airhead location, featuring multiple heliborne troop movements and fire from several outlying artillery fire support bases.

In planning movements and resupply efforts to these airheads, Army logisticians exploited fixed-wing transports, helicopters, ground vehicles, and, occasionally, water craft. Shifts over distances greater than 50 miles were usually performed by the C-123 and C-130 fleets exclusively. For shorter moves, considerations included the condition and security of roadways, desire for speed and surprise, and the availability of helicopters and trucks.

After a move in summer 1965 by C-130 and C-123 to the Pleiku region, the 173d returned to base camp at Bien Hoa, to begin a series of offensive endeavors, increasingly in partnership with the USAF airlift arm. For the penetration into the Iron Triangle region north of Saigon in early October, initial movement was by road. Subsequent resupply was by air, to



The odyssey of the 1st Brigade, 101st Airborne Division, April-July 1966

avoid ambush by an alerted enemy. Since the forward supply point lacked a satisfactory airstrip, the air LOC rested upon C-123 airdrops, low-level extraction delivery by Caribous, and helicopters. The brigade had initially planned to receive eight C-123 (or four C-130) resupply deliveries daily by the extraction method but was surprised to learn that the ships and crews in Vietnam lacked this relatively recent delivery capability. The operation featured

a five-ship C-123 airdrop to an isolated unit of the 173d in critical need of resupply. All five ships received battle damage in repeated passes at 400 feet—tactics made necessary by the small dimensions of the available drop zone.¹⁸

Transportation patterns varied in subsequent forays. Operation NEW LIFE-65, for example, commenced with a helicopter assault into a dirt strip, 40 miles east of Bien Hoa, on 21 November 1965. The first C-130 landed within one hour, followed by the arrival of 70 more 130s in the next 36 hours, each delivering troops or cargo. Overland LOC became established on the third day, allowing reduction of the C-130 resupply to about ten sorties daily.

After several comparable ventures north and west of Saigon, the brigade on 10 April 1966 commenced Operation DENVER, its first all-air LOC effort. The four-day unit move to Song Be, 50 miles north of Bien Hoa, was handled without difficulty. Troops, vehicles, artillery, and supplies were hauled in 129 C-130 sorties. For two weeks the brigade operated about the Song Be airhead, staging numerous lesser movements by helicopter and receiving an average of 60 tons daily by air resupply into Song Be. In later years the Song Be strip became a focal point for supporting allied forces in the border area.¹⁹

Yet more spectacular was the Vietnam odyssey of the 1/101st. During the spring and summer of 1966, the brigade made five successive moves to new operating areas, each of them entirely by USAF airlift. Each shift required some 200 C-130 lifts, and each operation was subsequently sustained largely by air resupply. The brigade moved from Tuy Hoa to Phan Thiet in early April, to the highlands strip at Nhon Co late in the month, north to Cheo Reo in May, to Dak To soon

afterwards, and finally to Tuy Hoa in July. The operations at Nhon Co and Cheo Reo were complicated by the rough and deteriorating airstrips and the doubtful adequacy of smudge-pot lighting for night landings, but no aircraft were lost in accidents. Ground fighting was occasionally sharp—at Nhon Co in May and Dak To in July. Tactical mobility and supply redistribution about each airhead was mainly by helicopter.²⁰

Both brigades retained parachute proficiency. Paratroop assaults were occasionally planned (for example, in *NEW LIFE-65*), but none were performed until Operation *JUNCTION CITY*. In that 1967 venture, a battalion from 173d jumped almost simultaneously with multiple helicopter assaults, staged over a wide region. The parachute assault thus served the modest purpose of enlarging the assault force beyond that transportable by available helicopters. After the jumps, the C-130s made cargo drops, for several weeks resupplying elements positioned along the Cambodian border. In the final stages of *JUNCTION CITY*, the 130s sustained an American infantry brigade in “floating” operations over the operational area, making daily drops into newly designated drop zones. The airdrop and extraction capabilities thus were confirmed useful assets, with their greater applications in Vietnam yet ahead. The *JUNCTION CITY* assault remained the only significant American paratroop operation of the war, however.²¹

The early operations of the airborne brigades in Vietnam reflected the complementary strengths of the helicopter and fixed-wing airlift arms. The helicopter was clearly superior to the parachute for short-distance assault but could not match the ability of the fixed-wing transport for moving and resupplying substantial forces over medium distances. The unit equipment of airborne formations had been

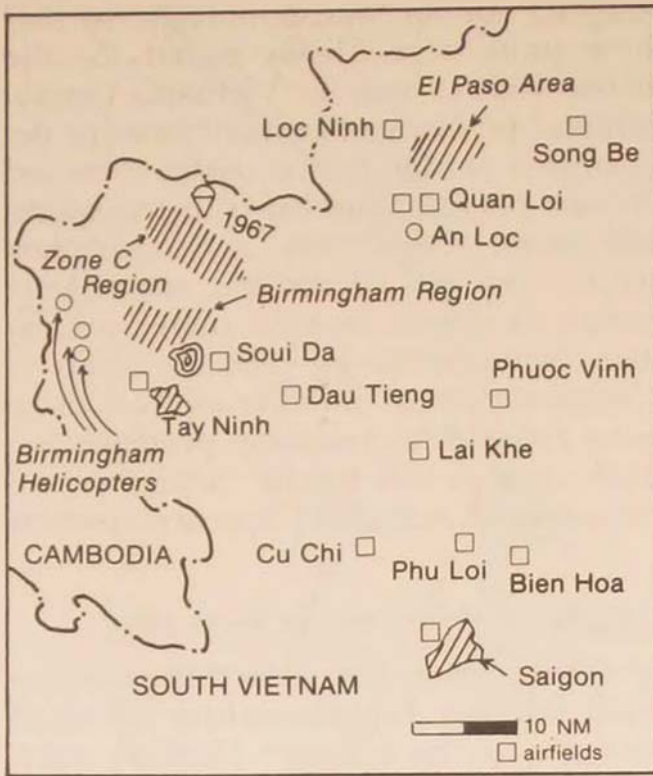
designed for air transportability, so that these units were ideally suited for the mobile reserve role in Vietnam. Certain technical problems remained: airstrips deteriorated under heavy usage; forward airspace became crowded with transports, helicopters, artillery fire, and air strikes; overworked transports and crews were sometimes drawn away by higher-priority tasks. Nevertheless, by 1966 the ability of a relatively small number of C-130s to move brigades to relatively primitive forward airstrips and sustain them over several weeks of operations appeared proven.

First Infantry Division and the Saigon plain

By spring 1966, five American conventional infantry brigades (three of them belonging to 1st Infantry Division) operated from base camps about Bien Hoa and Saigon. Periodically, these units moved out for multibattalion sweeps, usually into the region between Saigon and the Cambodian border, seeking to attrite the enemy's forces and force him away from the capital city. Helicopters and fixed-wing transports gave heavy support to these operations, in effect achieving airmobility for units not organized or equipped for movement by air.

The earliest ventures rested heavily on road transport for movements to forward bases, supplemented by Caribou, Chinook, and USAF lift. The C-123s operated into the base camp strips and into many of the regional forward strips. C-130s were seldom used because few improved strips were available. Air Force CH-3 craft of 20th Helicopter Squadron augmented scarce Chinooks in displacing artillery and making deliveries to field units. Troop assaults were performed exclusively by the UH-1Ds; use of CH-3s in this role was unauthorized.²²

Operation *BIRMINGHAM*, the four-week



Operations northwest of Saigon, 1966

invasion of Tay Ninh province, was launched 24 April 1966 and involved all three brigades of 1st Division. Movement to the operational area was entirely by air. Planning initially called for delivery of five infantry battalions, five artillery batteries, and two brigade headquarters, all in 75 C-130 loads on D-day. Concern for possible saturation at the 4600-foot laterite dirt strip just west of Tay Ninh caused changes: some units were positioned by C-123 at two dirt strips (Soui Da and Dau Tieng) east of Tay Ninh. On D-day morning the initial four C-130s arrived at Tay Ninh in close trail formation, landing with textbook precision at 30-second intervals and depositing 400 troops. During the first day, C-130s made a total of 56 sorties into Tay Ninh, with none of the feared congestion. Flights originated from the base camp strips (Lai Khe, Phu Loi, and Phuoc Vinh). Weather was ideal; the only delays came from several instances of

tire damage. Ground fire hit one ship, wounding two men.

Army logistics officers had forecast an air resupply requirement into Tay Ninh of 465 tons daily. During the first six days, through 30 April, a daily average of 424 tons was actually flown into Tay Ninh. Landings went on around the clock, flare pots and portable lamps providing runway illumination for reduced operations during darkness. Although substantial, the air line of communication was insufficient to meet the unexpectedly high artillery consumption, and a land LOC was opened to Tay Ninh on 1 May. Tonnages hauled after that date by road convoy approximated the amounts airlifted; the 130s continued hauling most of the POL to Tay Ninh because of bridge limitations for large POL road carriers. Heavy rains necessitated closure of the road LOC on 8 May, and resupply for the rest of the operation was again entirely by air, despite runway deterioration caused by the rain. Upon return of the last units to base camps on 17 May, the Air Force reported that a total of 679 C-130 and 266 C-123 sorties had supported the operation, lifting 9500 troops and 9700 tons of cargo. Meanwhile, Caribou courier craft linked each base camp with Tay Ninh, averaging 14 sorties daily, under operational control of the 1st Division. As in past ventures, supply distribution to field units, as well as tactical movements and assaults out of the forward airhead, were by Army helicopters. The infantry counted destruction of numerous Communist supply caches along the Cambodian border but had brought to battle only a single enemy battalion.²³

Land and air transport modes were meshed in further operations of the infantry brigades. Air Force C-123s were active in the summer 1966 EL PASO series in the Loc Ninh and An Loc region north of

Saigon. Typically, artillery ammunition was airlifted from Bien Hoa to one of four C-123 airstrips in the border region, for further distribution by helicopter to firing positions. Despite seasonal wet weather and marginal landing fields in the operating area, over 1000 C-130 and 5000 C-123 sorties supported the four-month effort. Operation ATTLEBORO in November featured now-familiar divisions of effort: C-130s again delivered into Tay Ninh, C-123s into Dau Tieng, sustaining forward support area supply activities at the two airheads. Dau Tieng, exclusively under air resupply, received a daily average of 37 C-123 and eight Caribou sorties, delivering principally POL from Tan Son Nhut and rations and munitions from Bien Hoa.²⁴

THE USAF tactical airlift arm performed numerous other tasks in Vietnam, many of them highly challenging. The airlifters hauled extensively for Special Forces camps in border regions, often by airdrop. Air Force transports worked at times massively on behalf of U.S. Marine forces in the northern provinces of South Vietnam, the airlifters attaining their finest hour to date in the battles there of early 1968. The C-130s performed administrative unit movements across regional boundaries or from offshore, reinforcing against enemy buildups. Routinely and continuously, the airlifters provided a countrywide airlift service, hauling passengers, mail, and cargo in sustained high-volume traffic.

The foremost mission, however, remained an assuredly "tactical" one—the airlanded movement and resupply of Army units into forward airstrips. Fundamental in this evolution was the flexibility of the Army's logistical system, which allowed supply redistribution to take place at the natural transshipment point be-

tween the fixed-wing and helicopter modes. Noteworthy also were the efforts of the engineers in upgrading and maintaining the necessary airstrips. As a result, the USAF airlift arm became a crucial element, strengthening the ability of the Army's airmobile, airborne, and infantry brigades to seek out and destroy enemy forces. Further, the ability of the allies to shift forces by air into (or out of) regions of enemy buildup permitted wide economy of defensive forces. Thus, the American offensives battered the enemy in areas once safe, meanwhile threatening those remaining sanctuaries. The Communist leadership, seeing the hopelessness in these developments, decided on a new strategy, resulting in the general offensive of Tet 1968.²⁵

The campaigns of 1965-66 saw U.S. Army and Air Force officers adjust major differences in outlook, finding ways of meshing the capabilities of the fixed-wing airlift force into the new procedures of offensive airmobile warfare. USAF airlift managers, for example, concerned after complaints during EL PASO over unsatisfactory airlift "responsiveness," introduced a series of constructive reforms, including formation of an in-country airlift air division in late 1966. The developments in Vietnam helped produce agreement between the respective Chiefs of Staff, who decided in April 1966 to transfer the Caribou fleet to USAF ownership. In turn, the Air Force formally renounced ownership of helicopters for air LOC roles, an important concession although one effectively conceded several months earlier. Meanwhile, officers of the two services in Vietnam addressed the long-neglected practical problems in the common use of airheads by helicopters and USAF transports. Solutions were not immediate, but progress increased after formation of joint working groups in 1968.


Thus, from the necessities of combat operations in Vietnam came pragmatic and sensible accommodation by both serv-

ices to the burst of creativity accompanying the airmobile doctrines of the early sixties.

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Notes

1. Robert F. Futrell, *The United States Air Force in Korea, 1950-53* (New York, 1961), pp. 12-13, 73-74, 148-327, 521-36; Col Samuel T. Moore, "Tactical Employment in the U.S. Army of Transport Aircraft and Gliders in World War II" (AFF Hist Office, 1946).
2. Study, 18th AF, Concept of Troop Carrier Operations, 1955-58, 1953; draft USAF Hist Study 134, "Troop Carrier Aviation in USAF, 1945-55," (RSI, AU), pp. 30-32.
3. Robert F. Futrell, *Ideas, Concepts, Doctrine: A History of Basic Thinking in the USAF, 1907-64* (ASI, AU, 1971), pp. 583-95; Report, TAC Worldwide Troop Carrier Conference, 17-19 Jan 56; Study, Dir/Operations Analysis, TAC, A Review of Tactical Combat Airlift, 1956-70, Aug 56; Ltr, OPR-G, 18th AF, to Cdr, TAC, subj: A Concept of Operations for Tactical Air Power and Related Airfield Requirements Forecast, 7 Jan 55.
4. Futrell, *Ideas, Concepts, Doctrine*, pp. 583-84; Address, Maj Gen Chester E. McCarty, Cdr, 18th AF, TAC Worldwide Troop Carrier Conference, 17-19 Jan 56; Ltr, Maj Gen Chester E. McCarty, to DCS/Opns, TAC, 6 Mar 56; Study, 18th AF, Troop Carrier Concept for Employment of Assault Helicopters (n.d., c 1954); Ltr, Cdr, TAC, to CSAF, subj: Provision of Airlift by Rotary Wing Assault Airlift to Army, 27 Dec 54.
5. James M. Gavin, *War and Peace in the Space Age* (New York, 1958), pp. 227, 271-72; FM 57-35, *Airmobile Operations*, Nov 60; Theodore H. White, "Tomorrow's Battlefield: An Interview with General Gavin," *The Army Combat Forces Journal*, Mar 55; Maxwell D. Taylor, *The Uncertain Trumpet* (New York, 1959), pp. 168-70; Robert A. Olson, "Air Mobility for the Army," *Military Affairs*, winter 1964-65; Study, U.S. Army Combat Developments Command, A Short History of Close Air Support Issues, Jul 68, pp. 44-47; Lt Gen John J. Tolson, *Airmobility, 1961-1971* (Vietnam Studies, Dept Army, 1973), pp. 4-8; John R. Galvin, *Air Assault: The Development of Airmobile Warfare* (New York, 1969), pp. 254-64.
6. Minutes, 464th TC Wg, Flying Safety Council Mtg, 6 Sep 60; Memo, 50th TC Sq to D/Opns, 314th TC Wg, subj: Final Rprt of Exercise Swift Strike III, 2-23 Aug 63; Memo, TPL, Hq TAC, to D/Plans, TAC, subj: Joint Exercises, 28 Jul 60; Rprt, 3d Aer Port Sq, Exercise Swift Strike, 25 Aug 61; Rprt, 464th TC Wg, Exercise Tacair 61-1, 12 Sep 60; Command Histories, 18th AF, 1952 through 1954, TAC, 1957 through 1962.
7. Final report, U.S. Army Tactical Mobility Requirements Board, 20 Aug 62; Alain E. Enthoven and K. Wayne Smith, *How Much Is Enough? Shaping the Defense Program, 1961-1969* (New York, 1971), pp. 100-104; Futrell, *Ideas, Concepts, Doctrine*, pp. 745-48; Galvin, *Air Assault*, pp. 274-79; Tolson, *Airmobility*, pp. 16-24.
8. Report, AF Flt Test Center, 463L Universal Cargo Handling System for C-130 Act, Aug 62; Report, Project Close Look, Sewart AFB, TAC Programming Plan 202-62, 1963; Brig Gen H. D. Aynesworth, Cdr, 32d TC AF (Provis), Troop Carrier Activities, Swift Strike II, 22 Sep 62; Richard E. Stanley, "Tactical Airlift Support: Army or Air Force?" (AWC Thesis, AU, Apr 65), pp. 74-80.
9. Ltr, Lt Col James L. Blackburn, Cdr 4488th Test Sq (Helic) to ALTF, Goldfire I, subj: Final Rprt for Helicopters, Goldfire I, 1964; Rprt, 516th TC Wg, Special Rprt on Airlift, Goldfire I, 1964; History, 314th TC Wg, Jul-Dec 64, pp. 8-12; Hist, 9th AF, Jul-Dec 64, pp. 126-97; Col Frederick A. Sanders, "Exercise Swift Strike III," in *Air University Review*, Jan-Feb 64, pp. 4-16; Ltrs, Brig Gen William T. Daly, D/Opns, 9th AF, to Gen Walter Sweeney, Cdr TAC, 16 and 22 Oct 64; Galvin, *Air Assault*, pp. 280-86.
10. DOD, Annual Report for FY 1965 (Report of Secy of AF), pp. 332-35; Hist Rprts, 346th TC Sq, Jan, Feb, Mar 62; R. L. Bowers, "Americans in the VNAF: The Dirty Thirty," *Aerospace Historian*, Sep 72, pp. 125-31; Interviews, Lt Col Charles R. Blake, 6 May 70, Lt Col Benjamin N. Kraljev, 29 Jan 71, Maj Bernard J. Clark, 4 Nov 70, Maj Hugh D. Perry, 3 Nov 70, Lt Col Richard D. Kimball, 4 Nov 70, Maj Charles B. West, 5 May 70.
11. Tolson, *Airmobility*, pp. 15-16, 25-50; Adm U. S. G. Sharp and Gen W. C. Westmoreland, *Report on the War in Vietnam* (GPO, 1968), pp. 79-81.
12. Fact Sheet, MACV J-3, subj: Need for C-130 Airlift, 11 Mar 65; Rprt, Capt Charles W. Case, EOT Rprt, 11 Jun 65; Hist, 315th AD, Jan-Jun 65 and Jul-Dec 65.
13. Pentagon Papers, GPO ed., Vol. V, sec IV.c.6.(a), pp. 13-17; Vol. IV, sec IV.c.5; Vol. III, sec IV.c.1, pp. v-vii, a10-a16, 103; Brief, Lt Col C. W. Abbott, D/Plans, Hq USAF, subj: Comments on a Concept for Employment of Army Airmobile Div, 4 May 65.
14. Fact Sheet, D/Army, subj: U.S. Army Air Mobile Division, Jul 65; Tolson, *Airmobility*, pp. 59-62, 68-73; Edward Hymoff, *The First Air Cavalry Division in Vietnam* (New York, 1967), pp. 6-12; Ltr, 1st Air Cav Div to MACV, subj: Lessons Learned, 1 Oct-30 Nov 65, 10 Jan 66; Interview, Lt Col Charles J. Corey, 17 Aug 72.
15. H. W. O. Kinnard, "A Victory in the Ia Drang: The Triumph of a Concept," in *Army*, Sep 67, pp. 71-91; Ltr, Maj C. A. Beckwith, Cdr Det B52, 5th Sp F Gp, to Cdr, 5th Sp F Gp, subj: Sequence of Events for Plei Me Operation for 20-28 Oct 65, 15 Nov 65; Hist, 315th AC Gp, Jul-Dec 65, p. 21; Daily staff journal, MACV COC, 19-26 Oct 65; Memo, 1/Lt Peter R. Teasdale, USA, Air Movemts Off, 5th Sp F Gp, to cdr 5th Sp F Gp, subj: Support of Plei Me, Nov 65; Rprt, 1st Air Cav Div, Combat Opns AAR, Pleiku Campaign, 4 Mar 66.
16. Daily staff journal, MACV COC, 26-28 Oct 65; Kinnard, "A Victory in the Ia Drang," in *Army*, Sep 67; Msg, 1st Air Cav Div to CG I FFV, 29/2340Z Oct 65; Col John R. Stoner, "The Closer the Better," in *Air University Review*, Sep-Oct 67, pp. 40-41; Interviews, John R. Stoner and Lt Col Charles J. Corey, 17 Aug 72; Rprt, 1st Air Cav Div, Comb Opns AAR, Pleiku Campaign, 4 Mar 66; Tolson, *Airmobility*, pp. 73-82.
17. Kinnard, "A Victory in the Ia Drang," in *Army*, Sep 67; Msg, 2d AD to PACAF, 28/1210Z Nov 65; Rprt, 1st Air Cav Div, Combat Opns AAR, Pleiku Campgn, 4 Mar 66; Video tape, Lt Col John R. Stoner, Briefing from Vietnam, 29 Apr 66; Ltr, 1st Cav Div to subord staff and cd officers, subj: Lessons Learned, Nr 2, 9 Dec 65; Ltr, 1st Cav Div to MACV, subj: Lessons Learned, 1 Oct-30 Nov 65; Intvws, Stoner and Corey, 17 Aug 72.
18. Hist, 19th AC Sq, Jul-Dec 65, pp. 25-30; Rprt, Brig Gen Ellis W. Williamson, Cdr 173d Abn Bde, Critique of the Iron Triangle Opn, 25 Oct 65; Rprts, 173d Abn Bde, Daily SITREPs for Oct 65; Ltr, 315 AC Wg to 7th AF, Recomm for PUC, 30 Jan 66; Ltr, Col T. C. Mataxis, Sr Advis, II Corps, to Cdr 2d AD, subj: Exceptional Performance by 315th AD, 19 Aug 65; Lt Col Robert L. Burke, "Corps Logistic Planning in Vietnam," in *Military Review*, Aug 69, pp. 3-11.
19. Rprt, Lt Col Harold S. Snow, ALO, 173d Abn Bde, AAR (Denver), 28 Apr 66; Ltr, Lt Col B. R. Cryer, to Cdr Det 5, 315th AD, subj: Msn Cdr Rprt, Opn Denver, Apr 66; Hist Rprt, Maj Robert Carmichael and Lt Richard E. Eckert, USA, subj: Opn New Life-65, (n.d.); Rprts, 173d Abn Bde, Comb Opns AAR, New Life-65, 26 Jan 66, Silver City, 1966, Marauder I, Jan 66; Tolson, *Airmobility*, pp. 63-64, 86-88; Ltrs, Capt William A. Barrv, to author, subj: Tactical Airlift Missions in Vietnam, May 72 and 17 Jun 72.
20. Study, 22d Mil Hist Det, USA, subj: Vietnam Odyssey, 28 Jul 65-31 Dec 66; Rprts, USARV G-4, Daily Significant Logistical Activities, 7 Apr-26 May 66; Ltrs, Lt Col O. M. Coats, Maj Peter T. DiCroce, Maj E. T. Yelton, to Det 5, 315th AD, subj: Msn Cdr Rprts, 6 May, 7 Jun, 26 May 66; Rprts, PACAF, Monthly Airlift Rprts, Apr 66, May 66; Rprts, 1/101st Abn Bde, Comb Opns AARs, Van Buren, 23 Mar 66, Austin, 5 Jun 66, J. P. Jones, 28 Sep 66.
21. Hist, 315th AD, Jul-Dec 65, p. xi; Msg 00037, 314th TC Wg to 9th AF, 16 Sep 65; Tolson, *Airmobility*, pp. 126-29; Rprts, 1st Log Cd, AARs, Airdrop Msns 16-22, 16 Apr 67, 26-40, 21 Apr 67; Sharp and Westmoreland, *Report on the War*, p. 137; Rprt, 196th Lt Inf Bde, AAR, Junction City, 4 May 67.
22. Sharp and Westmoreland, *Report on the War*, pp. 113-17; Rprt, 1st Inf Div, Qtrly Command Report, 31 Dec 65; Rprt, 1st Inf Div, Comb Opns AAR, Opn Mastiff, 1966.
23. Ltr, Maj Ernest L. Howell, to Cdr Det 5, 315th AD, subj: Msn Cdr Report, Opn Birmingham, Apr 66; Rprt, 1st Inf Div, Comb Opns AAR, Opn Birmingham, May 66; Rprt, USARV G-4, Daily Significant Logistical Activities, 17 Apr-16 May 66; Rprt, 315th AD, PACAF Airlift System Accomplishments, CY 66.
24. Ltr, Maj Robert A. Hutto, to Det 5, 315th AD, Msn Cdr Rprt, Opn El Paso, 2 Jun 66; Hist, 8th Aer Port Sq, Jul 66-Oct 67; Hist, 315th AC Wg, Jul-Dec 66, pp. 26, 44-45; Intvw, Lt Col Richard H. Prater, 9 Nov 72; Rprt, 1st Log Cd, Logis Critique, 1-68, (Opn Attleboro), 29 Apr 67; Rprts, USARV G-4, Daily Logistical Activities, dates in Jun-Jul 66.
25. Lt Col Robert L. Burke, "Corps Logistics Planning in Vietnam," in *Military Review*, Aug 69, pp. 3-11; Sharp and Westmoreland, *Report on the War*, pp. 136-37, 157-58; Briefing text, MACV Dir/Construction, subj: Construction in RVN, 25 Oct 66.



THE HANOI
POL
STRIKE

COLONEL JAMES H. KASLER

UNTIL mid-1966, the USAF's aerial bombardment of North Vietnam was restricted to targets of comparatively little importance. These restrictions were a direct result of such thinking as that reflected by the then Secretary of Defense Robert S. McNamara, who declared that "the targets that are influencing the operations in the South, I submit, are not the power, the oil, the harbor, or the dams. The targets are the roads and the war material being moved over the roads." There were also no-strike areas surrounding Hanoi and Haiphong, thus making a virtual sanctuary of these areas. The North Vietnamese were well aware of this sanctuary and took the utmost advantage of it, especially in the positioning of strategic war materials.

As it became increasingly obvious that the destruction of targets such as vehicles, roads, small bridges, and river traffic was causing hardly a ripple insofar as affecting the Communists' ability to carry the war to the South, it was decided in Washington in June 1966 not only to increase the tempo of air strikes against the North but also to include targets of greater strategic significance. The first of these targets was the great petroleum, oil, and lubricant (POL) facility located just outside Hanoi. The following account is my recollection of that 29 June day when I led Thailand-based aircraft of the 355th Tactical Fighter Wing on one of the most spectacular and successfully conducted missions of the air war.

On the afternoon of 28 June, I had just returned from a mission and, after my intelligence debriefing, had stopped in at the Wing Command Post. The Deputy for Operations motioned me into his office and told me that my squadron had drawn the lead for the Hanoi POL storage complex. (I was Operations Officer of the 354th Tactical Fighter Squadron at

Takhli, Thailand.) He also informed me that the Wing Commander, Colonel William H. Holt, would lead the mission and that Colonel Holt had asked that I finalize the navigation and attack plan and prepare the combat mission folders for the strike. On 21 June, when we had first been informed of the contemplated strike, we had been directed to identify to Wing Operations those pilots who were to participate. They were to be selected according to their skill and experience. It was one of the most difficult decisions I ever had to make because there was no pilot in the squadron whom I considered to be unqualified, and I knew how disappointing it would be for those not selected. Two of my most experienced flight commanders, Captain Lewis Shattuck and Captain Norman Wells, assisted me in planning the mission.

Air-to-ground combat is the most exacting type of flying in the Air Force and certainly the most dangerous, as the combat casualty records of World War II, Korea, and Vietnam bear out. Moreover, low-level navigation at speeds in excess of 500 knots requires the utmost in skill in that a one- or two-degree heading error can throw one miles wide of the route in a few minutes. In addition, timing is essential because each element of the attack must mesh exactly or the mission will be seriously degraded in effectiveness. I feel that there are three elements necessary to increase the air-to-ground combat pilots' chances of survival: planning, execution of the mission, and luck. Of course, experience and skill in the planning and execution phases decrease one's dependence on luck.

We spent six hours planning, checking, and double-checking every facet of the mission. This was our first detailed study of the defenses in the Hanoi area, and we found little in the aerial photographs to

give us comfort. The enemy's air defenses, formidable from the start, were becoming more formidable each day. By every estimate, Hanoi had the greatest concentration of anti-aircraft weapons ever known in the history of aerial warfare. In Vietnam itself, there were from 7000 to 10,000 fast-firing anti-aircraft weapons of 37-mm caliber or larger. In addition, the Russians had provided the Vietnamese with a sophisticated radar and communication network for detection and coordination of their surface-to-air missiles (SAM) and MIG fighters.

Surprise was pretty well ruled out as a possibility in our attack plans. For one thing, the Navy attack fighters were striking the Haiphong POL complex fifteen minutes prior to our time over target (TOT). For another, the defenses would certainly be alerted in the Hanoi area because our sixteen aircraft would be preceded in the attack by eight aircraft from the 388th Wing.

The intelligence planning room to an outsider would resemble a madhouse located in a paper factory. Once the mission leader has laid out the route and attack plan, every pilot must prepare his own charts. The charts are cut, glued, and then folded in accordion fashion. Routes are drawn down the center of the page and ticked off in time and distance. Each turn requires another chart because the route line must remain centered for ease of navigation.

By midnight, we were satisfied with our work and headed for our quarters. Usually, the briefing for the first mission of the day was scheduled between 0100 and 0900 hours, but this one was special. Except for a few selected strikes, involving only a few aircraft, the Hanoi raid was the only one scheduled for our wing on the 29th. Our briefing time was scheduled for 0830, with time over the target at 1210.



On the morning of the strike, I walked into the wing intelligence building at about 0810. General George Simler, the Deputy for Operations of Seventh Air Force, was standing by the door with Colonel Holt. General Simler looked at me and said, "Major Kasler, how would you like to lead this mission?" I said, "Yes Sir, I certainly would!" General Simler handed me the combat mission folder that I had prepared for Colonel Holt the preceding day. I looked at Colonel Holt, who did not appear too happy, and said, "I'm sorry about that, Colonel." He muttered something and stalked into the briefing room. I had not meant for it to come out the way it sounded because I knew how anxious he was to lead the mission, and I was sincerely sorry. Every fighter pilot dreams of leading a mission of this importance, but few ever have the opportunity.

As it turned out, all the wing commanders whose units were participating in the



F-105 Thunderchiefs in Vietnam

Planning every facet of the mission is the first essential. . . . Workhorse on 75 percent of USAF strikes against Communist forces in North Vietnam during 1966, F-105s line up on the parking ramp, getting ready for the next one. . . . Air refueling, to enable completion of the mission plan, imposes exact timing of the rendezvous with the tankers. . . . After Navy fighters had hit the Hanoi POL complex, the Thunderchiefs unloaded their bombs amid bursting groundfire, leaving a column of smoke and flame rising above 35,000 feet.







Hanoi raid, whether in the strike, top cover, or a support role, had scheduled themselves to lead their wings. But they were all removed from the mission by order of General Joseph Moore, Commander of Seventh Air Force.

The general briefing preceding a mission is little more than a refresher of those items that the pilots have learned and memorized about the route, tactics, and target defenses. The things the pilots are most interested in are the weather and bombing winds in the target area. The weather for the Hanoi area that day was perfect for fighter-bomber operations. It was forecast as clear with light and variable winds to 10,000 feet.

General Simler concluded the briefing with a short talk, in which he emphasized the importance of the Hanoi POL complex to the Vietnamese supply lines. He

pointed out that the facility at Hanoi contained twenty percent of all North Vietnam's petroleum products. He also made it clear that under no circumstances, even if hit, was any pilot to jettison his bombs into the city of Hanoi.

The role of our sister wing, the 388th at Korat, was to initiate the attack on the POL complex with eight aircraft. Their plan was to approach the Communist capital from the south, low behind the screen of high mountains southwest of the city. At the mountains, they would pop up over them and then dive in low over Hanoi and strike the target.

The 355th struck from the north. The plan was to cross the Red River 100 miles northwest of Hanoi, turn east, and descend to low altitude to avoid SAM missiles. Our route took us parallel and north of Thud Ridge, the 5000-foot razorback mountain running west to east through the heart of North Vietnam. The eastern tip of the mountain ended about 25 miles due north of Hanoi. We would screen ourselves behind the mountain until we reached the eastern tip, then make a 90-degree turn south toward Hanoi.

The operations order had also directed that all attacks would be executed on a south-to-north heading to preclude tossing a hung bomb into the city of Hanoi. Approaching from the north, we had to make a 180-degree pop-up maneuver to strike the target as ordered.

What the attack order meant was that every aircraft would be rolling into the bomb run at approximately the same spot, heading in the same direction. Not too smart from the pilot's viewpoint, but, in the interest of protecting civilian populations, such orders were commonplace in Vietnam. Ideally, attacks should be on divergent headings to confuse the gunners and thus prevent them from zeroing in on one spot.

Following General Simler's remarks, a short briefing with the other three flight commanders was conducted. Each aircraft was carrying eight 750-pound bombs armed with a fraction-of-a-second delayed fuse. It was decided to change the fusing of the two bombs carried on the outboard wing stations to an instantaneous setting, to ensure that there would be some flying shrapnel among the fuel storage tanks in the event of a near miss.

A final briefing was held in the squadron before the pilots headed for their aircraft. The crew chief greeted me as I stepped from my pickup. He walked around the aircraft with me as I made the preflight inspection. I told him that if I gave him the abort signal after I had started the engine he was to get the ladder back up immediately because I was heading for the ground spare. He said, "Major Kasler, my assistant and I have spent the last nine hours checking every system on this airplane, and you aren't going to abort." He was right! I have never found more dedicated or experienced airmen than those who worked on our aircraft in Vietnam. In the 91 missions I flew there, I never had an abort or an armament malfunction—a fantastic achievement.

We started engines and taxied to the marshaling area at the end of the runway, where the maintenance crews made a final inspection of the aircraft. We then lined up on the runway and were cleared for takeoff. Our takeoff weight was around 51,000 pounds, the maximum gross weight for the F-105. In the hot Thailand summer, this meant a long ground roll and a lift-off speed of 205 knots.

I breathed a sigh of relief when my gear was in the well, not because I was concerned about the takeoff but because 95 percent of our aborts occur on the ground. I was airborne with a perfectly

functioning aircraft leading the biggest mission of the Vietnam war to date.

As the rest of the flight slid into position, I completed a slow turn back to the north and contacted our radar site. They gave me a bearing to our tankers 250 NM to the north.

Approaching the tankers, I could see a row of ominous thunderstorms stretched across the horizon to the north. It was obvious that the tankers were not going to be able to maintain their briefed refueling route. Fighters can refuel and even effect join-ups in thin cirrus clouds, but the turbulence and lack of visibility associated with heavy cumulus clouds create an impossible situation.

We began taking on fuel, but the tankers were unable to maintain their track because of the thunderstorms. Ten minutes prior to our drop-off time, the tanker lead advised that he had to turn back because he was unable to circumnavigate the storms ahead. We had all refueled, but we were not able to recycle through again to top off as planned.

I rejoined my flight in close formation, flicked on my radar, and picked my way between the thunderstorm cells. We were 60 miles southeast of our desired point of departure when we left the tankers. It was imperative that our timing be exact, so I had selected a prominent river junction in Laos as my starting checkpoint. As luck (the third element mentioned earlier) would have it, we broke out in a small hole directly over the point. I was three minutes ahead of time, so I made a 360-degree turn to use up time and set course to the north.

We immediately re-entered the clouds, and when we next broke out, after 20 minutes, we were directly over the Red River northwest of Yen Bai. My Doppler was functioning perfectly, and we were directly on course and time. I turned right

and began a descent through several layers of clouds. Vietnam north of Thud Ridge was covered with ground fog. I continued the descent to 300 feet, which was just above the fog bank. At higher altitudes, SAM missiles have a nasty way of popping up through clouds at an unsuspecting pilot, and 300 feet was a fairly safe altitude to prevent this from happening.

We were skimming along the base of Thud Ridge, which towered above us to the right. As we approached its eastern tip, our external fuel tanks showed empty, and I ordered them dropped. I could hear Lieutenant Colonel James R. Hopkins, leader of the 388th, departing the Hanoi target area, and I asked him what the weather was. He said, "It's clear in the target area, but there are MIG's airborne."

Looking far to the east, I could see smoke rising from the POL tanks at Hai-phong, which the Navy fighters had already struck.

When we passed our initial point at the end of Thud Ridge, I called the flight to push it up and started a turn south toward Hanoi. As we turned, the fog bank faded away beneath us and we broke into the clear. At that same instant, flak began bursting around us. I glanced to the right toward Phuc Yen airfield and could see the flak guns blinking at us. Despite the fact that we were only 300 feet above the ground, the Vietnamese had leveled their heavy 85-mm and 100-mm guns and were firing almost horizontally at us. I called the flight to start "jinking," a series of irregular evasive maneuvers designed to confuse ground gunners.

We were running parallel to the north-east railroad that leads into the city of Hanoi. This was North Vietnam's most important supply link with the People's Republic of China, and it was protected

by flak guns of every caliber and description. Ahead, I could see two black smoke columns rising from a portion of the Hanoi POL field, just struck by the 388th. The sky was dotted with hundreds of white, grey, and black puffs, the remaining traces of shells that had been fired at the departing Korat aircraft. Thus we had a good idea of what was awaiting us over the target.

We approached slightly left of target. I called for afterburner and began my pullup. I climbed through 8000 feet and began a slow turn to the right until I reached my roll-in point at about 11,000 feet. I cut my afterburner, dropped dive brakes, and rolled into the bomb run. As I was turning in, I could see three ten-gun 85-mm batteries on Gia Lam airfield frantically firing. Ignoring these as best I could, I began my bomb run. I saw that two large tanks on the extreme left side of the complex and one on the right side were already burning. As I continued my dive between the rising columns of smoke, I could hardly believe my eyes—my entire view was filled with big, fat fuel tanks! I pushed my pickle button and made a rolling pullout to the right. When I cleared the smoke, I made a gentle left turn around the target complex. The huge fuel tanks were erupting one after another, sending up immense billowing fireballs.

By the time I had circled to the southwest corner of the target, each of my flight members had also made his bomb run and had rejoined me. The smoke now merged into one huge boiling red and black pillar, an unbelievable sight. As I climbed back to about 5000 feet, I could see flames leaping out of the smoke thousands of feet above me.

After my number four man had rejoined the formation, I swung around to the north toward Phuc Yen airfield. I had

seen a MIG on the end of the runway when we began our dash toward Hanoi and thought we might get a shot at it if it got airborne. I changed my mind when I saw the fantastic intensity of the flak bursting around us. I then banked my Thunderchief to the south, and as I did so I looked at the ground; there were so many guns firing that the valley reminded me of a desert city viewed from the air at night.

After we crossed south of the Red River, the flak diminished as the gunners apparently switched their attention to the fighter-bombers behind my flight. We headed west, searching the roads for targets of opportunity. As we approached Hoa Binh on the Black River, I noticed that a new road had been cut up the side of a high plateau that extended east back toward Hanoi.

Investigating, I popped over the rim of the plateau and dropped my nose; there, directly under my gunsight pippet, was a truck. I squeezed the trigger, and the 20-mm cannon shells tore into the truck, setting it on fire. All told, we found 25 trucks on the plateau. We set twelve afire and damaged at least six others. It appeared that the Vietnamese were floating supplies from China down the Black River on rafts to Hoa Binh, transferring them to trucks, and moving them across the plateau to Hanoi.

As I pulled out of one of my strafing passes, I looked back at Hanoi 35 miles to the east. It was a windless day, and the black smoke formed a perfect pillar reaching above 35,000 feet. By now our fuel was running low. We were forced to head for home. We did not have enough fuel to reach Takhli, so I planned a recovery at Ubon if we could not get fuel from the airborne tankers. Looking back toward Hanoi, I could still see the smoke column over 150 miles away. The GCI controller

found us a KC-135 tanker; we refueled over the Mekong, and headed for home.

THE HANOI POL strike was one of the most successful missions of the Vietnam war. The complex was over 90 percent destroyed and was one of the few targets in North Vietnam that never required a restrike, as the Vietnamese abandoned the facility altogether.

Amazingly, only one of the strike aircraft was lost to flak in the raid; the pilot, Captain Neil Murphy Jones, was interned in North Vietnam until February 1973. Three aircraft suffered battle damage, with one pilot receiving minor wounds.

On the other hand, the MIG's were conspicuously absent; they engaged only one flight of the SAM suppression aircraft. They inflicted minor damage on one of



the F-105s, but the pilot was credited with a probable MIG kill in the brief aerial battle.

By comparison with the World War II Ploesti oil raid, when German Me-109 pilots flew through their own flak to get at the B-24s, the North Vietnamese MIG pilots' efforts were far less courageous.

One of the puzzles of the raid was why the Vietnamese had not fired any of the dozens of SAM missiles that rimmed Hanoi. The day following the raid, they began firing SAM's in volleys at our aircraft, which was a complete change in the tactics they had used previously. The answer to this question was learned two months later when I was shot down and captured by the North Vietnamese.

Shortly after my capture on 8 August 1966, I was questioned by a Vietnamese interrogator while lying in a hospital room in Hanoi. The interrogator tried to get information from me concerning the Hanoi POL strike. He asked: "What did you think about our defenses during the Hanoi raid?" I said, "I figure you got a new

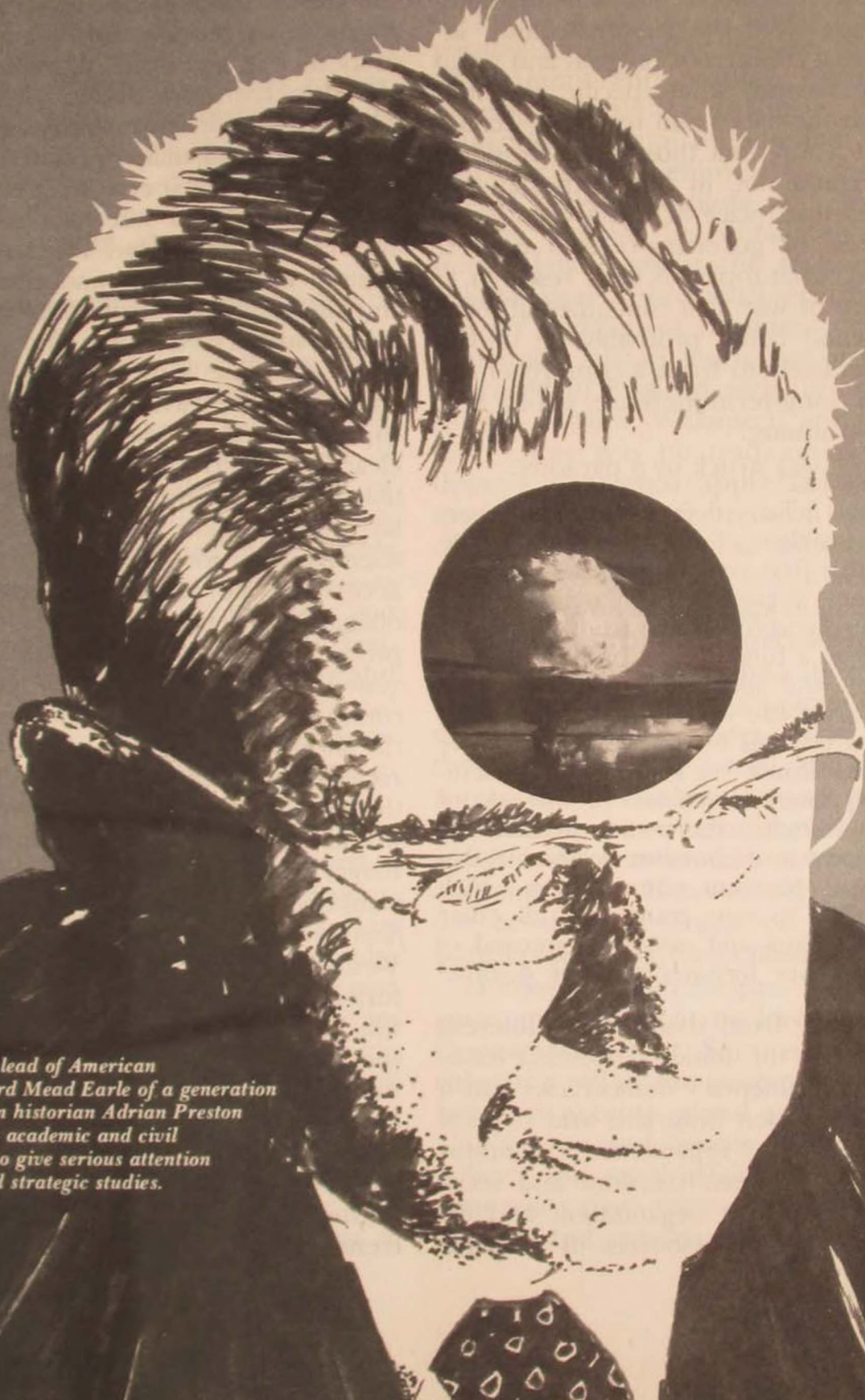
air defense boss." Just a guess on my part, but apparently a correct one as he became quite agitated and left. A short time later my room was invaded by four very stern-looking Vietnamese, who spent the next two days trying to figure out how I knew they had a shake-up in their air defense command.

The Hanoi POL strike was a supreme feat of courage, fortitude, and airmanship. The pilots who participated in the raid felt at the time that it was a major step toward shortening the war. Ironically, however, despite an almost perfectly conceived and executed mission, there was no perceptible slowdown in the North Vietnamese POL supply system, as Soviet tankers continued to discharge fuel supplies at Haiphong harbor until 1972. Had the port been closed and the fighter-bombers and B-52s used in conjunction with the strategic targets struck in 1966 as they subsequently were, America might very well have avoided the agonizing years of war that followed.

Air War College

NATIONAL SECURITY AS AN INTELLECTUAL CHALLENGE

DR. ADRIAN PRESTON



Following the lead of American scholar Edward Mead Earle of a generation ago, Canadian historian Adrian Preston challenges the academic and civil communities to give serious attention to defense and strategic studies.

IN his celebrated indictment in December 1940 of national defence studies as an obligation of scholarship,¹ Edward Mead Earle called for a radically new treatment of national defence problems and posed three major questions: first, whether military affairs were the legitimate and, indeed, a vital concern of political and social scientists; second, what specific contribution academic habits and techniques could make, in a way that those of professional soldiers could not, to our understanding of the essential place of military power in the science of government and politics; and third, what topics of basic research in the nature of war as a fundamental social phenomenon could profitably be undertaken ultimately to form a comprehensive basis for long-term defence policy and strategic planning.

Dr. Earle was struck by a paradox:

Although military defense has been a perennial problem of the American people since the first colonists landed on this continent, there has been no conscious, integrated and continuous study of military security as a fundamental problem of government and society. . . . Although we live in a war-like world and have ourselves been participants in large-scale wars, there has been almost no systematic consideration by American scholars of the role of war in human affairs—this despite the transparent truth, however deplorable, that war is a recurrent phenomenon which from time to time transcends all other human activity and assumes command of our lives, our fortunes and our destiny.²

Quite aside from this intrinsic interest, the problems of national defence confronting parliamentary democracies had a special claim upon historians and political scientists, for they represented a continuing dialectic between freedom and security. The intelligent organisation and direction of national resources in prepara-

tion for and during war required effective collaboration between civilians and soldiers. While soldiers were groping toward a wider comprehension of the social and economic constraints that effectually circumscribed their policies, there seemed no reason why civilians should not turn to the study of war and defence, matters deeply affecting both the nation at large and themselves as individuals. After all, strategic theory and military history, the social and economic aspects of defence, the military aspects of international relations and international law, the structure of military establishments and their political and constitutional relationship with civilian society, military education and professionalism—all these were not black arts consigned to the caves of the occult, the supratemporal, or the recondite but were clear, hard, and practical problems susceptible of analysis and criticism by informed laymen and upon which factual data as a scientific basis for scholarship were readily accessible. For academics to shirk the obligations of defence studies might well prove disastrous. There would always be vested interests and captivating theories to corrupt sound sense and discretion, while the sheer inertia of large military bureaucracies constituted an obstacle in itself. The theory and analysis of war and defence would be betrayed by default into the hands of a clique of eccentric publicists, would-be reformers, civil servants, or *beau flaneurs* who, in the vigorous tradition of Victorian military positivism, dredged with furious industry for facts and figures with which to entrench and advance their own special tactical theories or strategic policies: men of gritty brilliance, with quicksilver tongues and dogmatic candour, who linked events into problems, reduced the chaos of experience to predictable order, deduced principles and extrapolated trends, struck hard and fast analogies

between the historical and contemporary conditions of war and defence, and in general tossed around the stuff of history—such recent and appalling history—with an insouciance which outraged all accepted rules of precaution, reason, or even strict military logic; men such as Vansittart and Liddell Hart who peddled their policies of despair, limited liability, and the indecisiveness of modern war and who seemed prepared to sacrifice the Indian Empire—and indeed the whole Asian theatre of war—to a perverse obsession with averting another Continental commitment.

In the best liberal traditions of Western constitutionalism, the notion that defence studies might be incorporated into their curricula struck most American universities as repellent, immoral, and positively unthinkable. The study of the history of war itself was regarded as a kind of seditious cloak for official militarism. Despite Earle's own pioneering efforts, there had not existed in American institutions—as there were at Oxford, Cambridge, and more recently at the University of London—chairs for the comprehensive and systematic study of war as a rational medium of social conflict, of the limitations and capabilities of organised force in statecraft.

Even the study of American military history until recently had been forfeited to foreigners: Englishmen such as Henderson (Stonewall Jackson) and Liddell Hart (Sherman) had written the best biographical studies of the American Civil War; and no attempt had been made to salvage an official account of the American Expeditionary Force in Europe from the crates of documents disintegrating in Boston warehouses. Those civilian societies that skirted obscurely on the fringes of military scholarship and research did so out of a fugitive and sterile antiquarianism or to

serve the purposes of some inexplicable propaganda: neither of which, in the eyes of professional and civilian critics, helped—indeed they unwittingly damaged—the otherwise sound case for the rigorous, dispassionate, and documented study of war as a factor inherent in—and possibly indispensable to—the science of government and politics. Neither the American Military Institute nor the United States Naval Institute has achieved the effectiveness enjoyed by the Royal United Services Institute as a forum or floating seminar for stimulating professional debate about the technical and political aspects of national security. There was no tradition of consistent critical yet responsible military journalism of the kind associated in England with the names of Russell, Forbes, Wilkinson, and Repington. There was no tradition grounded upon a clear-eyed appreciation of the special attributes and needs of the American profession of arms without being mesmerised by them; none which would place that profession—with all its claims to a distinct corpus of specific technical knowledge and doctrine, an exclusive group coherence, and a unique complex of institutions and codes—firmly within the context of the social and political forces that had shaped—and possessed the ultimate power to disband—it; none which could translate the alarming shifts and changes in international politics and the bewildering jargon of the military bureaucrat into layman's table talk.

Moreover, within the pre-World War II government itself, at no level—Executive, Congressional, or Service—was there either the will or the machinery to formulate and execute grand strategic policy. The House and Senate committees on military and naval affairs and appropriations were riven with parochialism, partisanship, and patronage; and national de-

fence had degenerated into the grubby dispensation of local contracts for army posts and naval stations. An occasional chairman of extraordinary abilities, ambition, or eloquence might drive or drag his committee above its stagey mediocrity; but, in the main, Congressional reaction to the issues of national defence was intermittent, short-term, and uncritical. Although technically and constitutionally Commander in Chief, the President—unlike his fascist contemporaries in Italy and Germany and Japan and indeed unlike Baldwin or Chamberlain in Britain—rarely found the time to keep directly and personally informed about the national military condition. Presidential messages and quadrennial platform speeches were confessedly collections of unworkable platitudes. The secretaryships of War and Navy, like the War Ministries of Victorian England, were distinctly inferior Cabinet posts, attracting with rare exceptions only the theatrical or incompetent and otherwise providing a springboard for coming politicians of ambition and weight. It seemed an axiom of American politics that the administration of defence contained an inherent capacity for unwelcome controversy that was in inverse proportion to the budget allocated and its direct relationship with the broader social and economic interests of the state. There was no National Defense Council, similar to the Committee of Imperial Defence, charged with the continuous, systematic, and professional study of contemporary developments in international politics and military technology as they bore upon the conditions and needs of American security; with the formulation of integrated contingency plans; with the coordination of domestic resources and strategic interests; and with the provision of a reservoir of expert up-to-date technical military advice, skills, and knowledge. The Army

War College had been closed because there were not then enough crises or colonels to make it worthwhile. There was no higher defence college (similar to the Imperial Defence College) to compose the interservice and civil-military disputes which had been so disfiguring a feature of the military politics of World War I and which the service war colleges themselves had done much to perpetuate and embitter.

Writing in 1940, Dr. Earle observed:

. . . the Army War College has been closed because of the shortage of commissioned personnel in the higher ranks. There is now no group of trained personnel engaged in theoretical studies—a deficiency which expert scholars might overcome were they available in any number. In general, however, what is involved is not temporary measures to meet an emergency but a long-term program of research and, ultimately, of teaching which will enable the United States in times of peace as well as in times of crisis and war to build up a body of knowledge and a corps of scholarly experts who can help in the formulation of public policy and who can contribute to an understanding of the military problems and the military power of the nation.

. . . Only the scholar is capable of maintaining a *continuous, objective and documented* study of the problem. Experience shows that comparable results cannot be expected from the public, the politician, the government, or even the armed services. Furthermore, only the scholar can create a vast reservoir of competence in the field. The people whom he teaches and for whom he writes today will be the voters, teachers, reserve officers and statesmen of tomorrow. No such reservoir of competence now exists. . . . Studies now undertaken will have . . . their greatest importance . . . in laying sound and broad foundations for a national military policy in the longer future which will not merely

be concerned with a passing crisis—however menacing and prolonged—but will be intimately related to our political ideals, geographical position, industrial resources, governmental institutions, standard of living, and long-run national objectives.³

All this, unimaginably distant and innocent as it seems today, could be explained in terms of the geostrategic position of the United States, its absorption with frontier pacification and economic self-sufficiency, its rooted and abiding aversion to the unbridled presence or use of military power, the absence of extrahemispheric wars and colonial military commitments, and the protection incidentally afforded by the incessant balancing of power in Europe. It was transformed dramatically and irrevocably between Pearl Harbor and Hiroshima. The defeat or dismemberment of France, Italy, Germany, and Japan; the emergence of organised national resistance and liberation movements in Europe, Africa, and Asia; the disintegration of the British, French, and Dutch colonial empires; and the advent of nuclear deterrence for those powers which could afford it—all thrust upon the United States the reluctance of a policy of containment and retaliation and an unprecedented range of military problems and commitments both in Europe and in Asia with which it was historically, intellectually, and psychologically ill-equipped to deal.

American national security policy rapidly assumed the grotesque features of a massive ideological crusade. In these circumstances the growth of defence studies in the United States and to a lesser extent in Great Britain and Europe, for which Earle had pleaded a quarter century or so before, was at once explosive, encyclopedic, even Promethean.⁴

Much of this work has been unfortunately and undeniably oversophisticated and at times counterproductive in its

influence upon defence policy; but pessimists can still be found who believe that unless they turn away from the study of past military operations to the nature of war itself, making greater use of the resources of political philosophy, economics, and sociology and somehow coming to better terms with applied science, the traditional processes of professional education are doomed to antiquarianism. Yet it is clear that the development of weapons and new states, which has effected so drastic a change in the nature of war and international relations since 1945, has also caused us radically to re-examine the concepts and presuppositions on which the fabric and philosophy of the profession of arms are based. Indeed, Earle himself, in his discussion of the conditions that circumscribed the role of the soldier in the public discussion of strategy and defence policy, as much as admitted that he was treating less than half of a twofold problem. And today intelligent commentators frequently express concern that strategy has become too much of an esoteric plaything in the hands of irresponsible "experts" and often all too unrelated to professional, technological, and humanitarian considerations.

If the civilian has become "the compleat stratygyst" of our time, there may be danger in encouraging the soldier to go too far the other way. Since Plato, philosophers have wrestled with the purposes of education; but it is in the military profession that men's lives and national security at once depend as much upon contemplation as upon action, upon diplomacy as upon force; that the conflict between "general" and "technical," "cultural" and "vocational," "humanistic" and "technological" has been most acute and long-standing. However this relationship may be resolved—and it is largely a matter of cultural heritage and social values—in

most nations that have pretensions of military power the complexion and objectives of professional military education are manifestly constrained by the state of military technology and international relations and the nature of future war that might predictably emerge between them. At the same time, military education, like the profession which it sustains, clearly mirrors the society in which it must flourish and so is shaped in its raw materials by the standards and structure of secondary and higher education generally and by the exigencies and pressures of domestic politics and economics. Only when all these elements are working in harmonious dialectic can there be a fruitful policy of education for defence.

If for Americans today Earle's article possesses no more significance than that of a remarkably prescient document of a previous era, for Canadians it contains an intrinsic lesson of great relevance, embarked as we are on a subtle but impatient revolution in social, constitutional, and military affairs. But only by establishing the context in which it was written, assessing the nature, extent, and significance of the changes that have since occurred, and relating them to Canadian conditions and needs can we take his words as a guide to our own studies and policies as we move to fulfill Sir Wilfrid Laurier's promise of destiny in world affairs in the second half of the twentieth century.

WE ARE often tempted today to overestimate the changes brought about in the nature of war and international politics through the introduction of nuclear weapons. The present ascendancy of political scientists, economists, mathematicians, and sociologists in our universities and defence research institutes has challenged the relevance of military history—indeed most history—to modern social and political con-

ditions, which seem to have been wrenched out of all historical context. The responsible defence specialists upon whom was first thrust the task of devising strategic policy with weapons capable of unleashing unprecedented destruction were readily vulnerable—and indeed sometimes pardonably susceptible—to those theoreticians who, much like those interwar theorists who passionately ascribed to their chosen innovations the qualities of ultimate weapons, saw no alternative to subverting the established Clausewitzian thesis concerning the relationship between war, strategy, and diplomacy to that of Ludendorff and Lenin. These specialists concluded that since war was essentially a conflict of societies—a permanent state of social conflict varying only in its methods and intensity—all international relations were but a mere extension of warfare.

The entry into common usage of such terms as “national strategy,” “cold war,” and “garrison state” is clothed with a subtle and sinister significance and may or may not, as some critics have argued,⁵ betray a dangerous confusion of categories and a fundamental misappreciation of the nature of international affairs. For, after all, there is much inescapable logic in Marxist military philosophy, and the result of antithesis between two rival military cultures is not necessarily, nor even usually, conflict but is mutual conformity. Rather it betrays perhaps a constitutional reluctance to reshape the foundations of our beliefs and the armies recruited to defend them, to counter more limited and effective forms of violence specifically deployed to exploit the very contradictions in our society that we refuse to resolve.

Such instruments of policy, so ably wielded in the past by Machiavelli, Gandhi, and Hitler, today provide nations with sufficient and acceptable substitutes for nuclear warfare in the acquisition and

exercise of their political power. Indeed, in the generation that has elapsed since 1939, there has been an intensification rather than a cessation of traditional means of limited conflict, whose potentiality as valid instruments of major strategy and policy were all too imperfectly recognized and understood by the Western democracies before then and whose perfection today is of paramount concern to military planners. The complex tangle of social, constitutional, and diplomatic consequences of the military revolution of our time is still without logic or pattern and perhaps may never be completely unravelled by any future historian or political scientist. His task might be made that much simpler, however, were he to accept as a starting point the thesis that the revolution in nuclear warfare—with all its implications—is merely an amplification of that inaugurated by Machiavelli and Gustavus Adolphus three centuries before and that a more approximate comprehension of the complexity of modern war as an intellectual challenge might be gained from a comparative analysis of the nature and enduring features of the original.

The effective combination of missile weapons and close action has always been one of the central problems of warfare. That statement is no less true of the attempts of Maurice of Nassau and Gustavus Adolphus to develop the right form of close action dependent upon the impact and mass, the firepower and shock, of heavy infantry than it is of military planners today who must seek some effective form of combining the impact and mass represented by nuclear and conventional or guerrilla forces. Indeed, the most intractable question facing strategic specialists today is as much to visualise, then plan and educate for, some practicable synthetic pattern of battlefield behaviour based on the effective combination of

nuclear, conventional, and guerrilla forms of war as it is of the vast collective humanitarian interest to prevent, restrain, or retard it.

The widespread introduction of handgun and arquebus, while in itself a symbolic and accessory factor in the overthrow of the old chivalric order centred on heavy cavalry and castles, did not immediately transform the monarcho-feudalism of the Middle Ages into the nation-state system of modern international politics. In the same way, the introduction of nuclear weapons was not singular in contributing to international anarchy and did not, in the opinion of defence theorists on both sides, at once or drastically alter the conventional pattern of warfare as it had been experienced in World War II.

In terms of the actual conduct of warfare and the refinement of strategic thought, these potentially revolutionary innovations, whether of firearm or nuclear missile, in fact represented a retrograde step or at least created such a confusing and precarious situation that it seemed impossible or positively dangerous to move forward in it. If Agincourt represented the medieval climax in the effective coordination of archer and man-at-arms, so the German blitzkrieg, or perhaps more appropriately the OVERLORD invasion, suggests the culmination of a trend towards the tactical integration of land, sea, and air power that we are not likely to see repeated on so huge a scale.

As governments, specialists, and peoples came to recognise if not embrace the potentialities and implications of the new weapons, as the possible nature of a nuclear war threw increasing doubt on either the time or the need to convert the national peacetime economy to a war footing, on the old techniques of mobilising major conventional forces, and on the classical strategical principles along which

they had been deployed, so it seemed imperative to seek ways and means not so much for abandoning conventional forces, techniques, and strategic concepts as for adapting them to the new conditions of warfare within a fresh harmonic symphony of nuclear and modified conventional forces that they hoped to bring about. Thus, by a curious paradox, the coming of new weapons was accompanied by a sharp and sudden decline in firepower.

For the tacticians of the sixteenth century, like the strategists of the twentieth, found they had been provided with a thoroughly expensive and inefficient weapon.

For almost identical reasons, the earliest atom bombs, for all their unexampled power, were not immediately accepted as being in themselves decisive weapons of war. Their process of manufacture was so slow and expensive that it was several years before the United States could compile a stock sufficient to devastate its most probable rival. Such bombs as the scientists devised could be transported to their targets only in subsonic, short-range manned bombers, vulnerable to ground fire or fighter interception. Moreover, blast and radiation presented such seemingly irresolvable tactical, legal, and moral issues that it was difficult to conceive of their use in safe combination with other tactical forces or indeed at any time in circumstances short of national survival or some great ideological crusade.

When the world began to rearm again in 1950, the atom bomb was considered an ancillary and not a decisive weapon in a conflict which would be unlikely to differ much in its basic pattern from World War II. The year 1945, like 1495, only provided a foretaste of what might come when the new technology got into its stride; when thermonuclear fusion re-

placed atomic fission, and manned bombers were supplemented by ballistic missiles; when national security had become a matter of survival and international relations one gigantic ideological confrontation.

It was logical and perhaps even necessary in these circumstances that attempts should be made to provide in numbers of weapons what they lacked in individual performance. At the same time, there seemed good and sufficient reasons for *not* abandoning those eclectic forces and techniques—such as blockade, propaganda, blitzkrieg, and unconventional warfare—which had contributed significantly if indirectly to the defeat of the Axis powers. Indeed, their combined effectiveness in certain well-prescribed situations such as the Berlin and Cuban blockades, the Korean War, and the Arab-Israeli wars, soon emphasised their prescriptive right to be retained as adjunctive if not primary forms of conflict. Yet acute ideological as well as strategic interests in Europe made it urgent to effect somehow a fruitful combination between massed atomic firepower and massed ground forces. As the Spanish *tercio* represented the first clumsy attempt, without achieving optimal firepower or maneuverability, at hastily combining massed musketeers with massed pikemen, so NATO represented a *mariage de convenance* between nuclear and conventional forces—a marriage made all the more hazardous and potentially barren by the “shotgun” character of its inception and the debatable provision of tactical nuclear weapons.

At the same time, the swift achievement of Russian nuclear parity and the development of early warning and antiballistic missile systems brought profound changes to the science and strategic theory of defence. Poised beneath the threat of inescapable and unacceptable destruction,

military security, for those nations that could afford it, lay only in the capacity to deter one's adversary by having the capacity to inflict on him inescapable and unacceptable damage in return.

The short-term effects of these developments were not simply to hobble the conduct of nuclear warfare but to create a distinct and rooted aversion towards it and, in the absence of operational analysis under real conditions, to stunt the growth of applied strategy involving the integrated deployment of all alternative forms of conflict. The huge size of the nuclear stockpile and the maintenance of large conventional forces, strategically and politically fused as they came to be in NATO and subsequent alliance systems, could not be sufficiently reconciled as a tactical instrument appropriate to the peculiar cut and thrust of international politics. Together they obscured the need for alternative mechanisms to wage more limited but less regular forms of conflict as they began to develop in the 1950s.

Tactical nuclear weapons made the possibility of a major nuclear war not less certain but less controllable, dependent as it might be upon the untrained judgement of junior commanders. Correspondingly, the creation of international defence organisations in peacetime not only evoked official countersystems that were tolerable because expected but posed fundamental issues of command and control which themselves further compounded the formulation and adoption of a common integrated and realistic strategy by concentrating too much upon European, as distinct from Asian or global, conditions and needs.

The steady magnification of nuclear power by both sides has paradoxically strengthened that element, or agent, of national power that is least apt to be used offensively; and strategy, by a curious

confusion of terms, has all too often been identified with the weapon it is partially but not principally designed to deploy. At the same time, many theorists, rationalising their own impotence and the intrinsic deterrent strength of nuclear power, have continued to extol a superior science of psychological maneuver and revolutionary warfare which others consider would be ultimately destructive of our moral traditions and social values, would be productive of deep domestic cleavages, and would promote, not alleviate, international anarchy. They cannot visualise any political problem to which the destruction of millions of civilians would provide the appropriate military answer. They would condemn nuclear warfare as the last resort of a singularly inept or ill-advised politician.

Between those two extremes in military postures that are accentuated versions of Clausewitz's concepts of "absolute" and "real" war, and the reluctance to contemplate the extensive use of either, modern strategic thought now stands paralysed and may never be hammered out except in the blazing forge of a long war. Over the past decade or so, the shifts and trends in international politics and technology—not least in public communications media—have made nuclear warfare decreasingly likely or tenable as a rational instrument of national policy, though the remote possibility in exceptional circumstances always remains. Moreover, the wholesale reconversion of our military establishment, if not of our social and moral environment, in such a way as to combine the techniques of the insurgent with the discipline of the regular would involve the creation of a revolutionary ethos of professional responsibility and behaviour which would not only be susceptible to social disorder and internal revolt in time of actual or apprehended

crisis but would impose inevitable and intolerable strains upon the constitutional prerogatives of the state which could only be safeguarded by imposing in return restraints intolerable to professional spirit and efficiency.

To restate our original proposition, one of the major military problems today is how best to contain and control the new insurgent spirit and techniques of armed forces, contracted by exposure during prolonged Asiatic warfare, in such a way as to preserve their enhanced tactical aptitudes and adapt them to operations of a conventional or nuclear kind without impairing the moral values or constitutional supremacy of the state. For the professional soldier, the answer, at least in part, lay, as it did for Gustavus Adolphus and Sir David Dundas, in the introduction of a more enlightened but equally more exacting form of discipline and education, to give him the technical expertise and exceptional political wisdom required to cope intelligently with the demands of modern conflict.

For statesmen and specialists, officials, and academics, there is a need, greater

beyond all precedent, for a deeper understanding of the nature of war, of the role of force in statecraft, and of the needs, capabilities, and limitations of the armed forces of which they dispose. The development of some neo-Clausewitzian philosophy of war comprising a fresh analysis of the dialectic between extremist forms of conflict that would provide a basis for education for defense is, of course, not fully possible in the absence of nuclear wars during which the just apportionment of responsibility and influence as between statesmen and soldiers, soldiers and strategists, scientists and specialists, would be evolved.

In these circumstances military philosophy is dangerously liable to wither into the recondite preserve of economists or mathematicians, divorced from practical, professional, or humanitarian considerations. There are signs that the dimensions of the problem are being probed and that such a philosophy of conflict might ultimately prevail, but there are many who feel that it is still far from attaining its legitimate and final form.⁶

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Notes

1. Edward Mead Earle, "National Defense and Political Science," *Political Science Quarterly*, LV, 4 December 1940, pp. 481-95; see also by the same author, "American Military Policy and National Security," *ibid.*, LIII, March 1938, pp. 1-13. Earle's pioneering efforts to persuade American scholars to take seriously the question of national defence and grand strategy, of which his *Makers of Modern Strategy* was but the culmination, have yet to receive the recognition they deserve.

2. Earle, "National Defense and Political Science," p. 481.

3. *Ibid.*, pp. 490-91; 494-95.

4. That the evolution of modern strategic thought is at last susceptible to the techniques and perspectives of the historian's craft has been recently suggested by Raymond Aron and Michael Howard. See R. Aron, "The Evolution of Modern Strategic Thought," and M. Howard, "The Classical Strategists," *Adelphi Paper no. 54*, International Institute for Strategic Studies, London, 1969, pp. 1-17, 18-32. See also C. S. Gray, "The Rise and Fall of the Academic Strategists," *Journal of the Royal United Services Institute for Defence Studies*, May 1970. Whether war studies or strategic history is the most appropriate foundation for professional military education continues to be debated in the *Army Quarterly*. See also H. Bull, "Strategic Studies and Its Critics," *World Politics*, XX, July 1968; J. Garnett, ed., *Theories of Peace and Security: A Reader in Contemporary Strategic Thought*, London: Macmillan, 1972. It is often forgotten that Machiavelli and Clausewitz, Jomini and Mahan, even Kissinger and Brodie were historians before they became strategic analysts and theoreticians.

5. Michael Howard, "Military Power and International Order," *International Affairs*, XL, July 1964, pp. 379-408.

6. In Canada, the strategic speculation that emerges fitfully and more or less unofficially from the established chairs of military and strategic studies, the Canadian Institute of International Affairs, the university centres of international studies, and the service academies often conveys a tone of futility, apology, or despair: that no matter what they say or do, Canadian analysts will never attain the pre-eminence or influence commanded by their European or American colleagues, nor the problems of Canadian security be fairly faced by their governments and people. This disillusionment is real and understandable and is no implicit reflexion upon the quality of Canadian scholarship and research. The absence of Canadian strategists of world stature is quite simply explained in terms of Canada's small and thinly scattered population, her traditions of political and military subordination, an officer corps educated in a technical rather than a literary cast of mind, and, perhaps most important of all, the lack of any sovereign defence problems that require her to maintain and deploy powerful armed forces independent of those committed to NATO and NORAD. Even Canadian military history, rich and instructive as it is, is but a series of footnotes to that of Europe and America. Nevertheless, the depth and growth of Canadian defence studies had not been well served by the practice of employing fugitive foreign defence specialists—however great the temptation and however good they may be—or by an emphasis upon "applied policy" research into subjects of immediate "defence relevance." For further discussion of this point, see C. S. Gray, "The Need for Independent Canadian Strategic Thought," *Canadian Defence Quarterly*, 1, Summer 1971, pp. 6-12.

ETHICS OF THE MILITARY PROFESSION

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RECENTLY a general officer addressed a group of officers on the subject of ethics. He made a grave but common error. He argued that because the image of the military was tarnished in the public eye, we must improve our integrity. He failed to state that by focusing on our image, we lose sight of our soul. We must have integrity for reasons other than image, and if we succumb to the institutional neurosis of overconcern for our exterior image, we will in fact prostitute our integrity to embellish that image.

The intent of this article is to examine military ethics and to advocate more systematic and enlightened discussion of the topic within the profession of arms. No one denies the importance of integrity, that admirable, abstract quality of a person who abides by an ethical code. But the ethical code for the military man is rarely explored with any degree of personal concern or conceptual sophistication.

complexities

Ethical judgments in the military involve complex and conflicting alternatives that cannot be resolved by an appeal to an abstract notion of integrity. The West Point motto, "Duty-Honor-Country," provides a guide for an ethical code, but



these three concepts can, unfortunately, be in conflict. An example illustrates the point.

It is conceivable that an officer could be urged by his superior, peers, or subordinates to "pad" a report of combat success. The "padding" may be argued in terms of debatable assumptions concerning the action, existing organizational norms concerning reporting, or furtherance of the mission or morale goals of the unit. Insofar as the organization asks the officer to take this action, it can be viewed as his *duty*. Insofar as this action conflicts with his desire to be truthful, it affronts his integrity and conflicts with his sense of *honor*. It is also conceivable that the officer believes that the action is not in the best interests of his *country*. He might believe that the battle should have been less restricted by nonmilitary considerations or, on the other hand, that the fighting should have excluded certain populated areas. Or perhaps the report will go to the press, which can be expected to treat it unfavorably. Any of these considerations could convince the officer that a given action is not in the best interests of his *country*. It is an understatement to say that these ethical contradictions are complex.

With varying circumstances, this conflict can be made personally relevant to all officers. Ethical contradictions occur in varying degrees of intensity, based on the individual's background and the situations in which he finds himself. It is my belief that far too many officers resolve these dilemmas only in the heat of crisis and emotion. The crisis can derive from social pressure or from the heat of battle, neither of which maximizes rational analysis and predictable behavior so essential to conducting the business of war. Even in circumstances where the ethical decision is not immediately needed, lingering

unresolved ethical dilemmas can cause serious psychological problems for the individual and degradation of combat efficiency for the unit.

Why are officers reluctant to examine these issues before they are faced with the necessity of immediate action? The overriding reason is that the issues are extremely complex and difficult to resolve. To whom does the commander of a United Nations peace-keeping force owe allegiance? Does the "end" of taking care of the troops justify the "means" of midnight requisitioning? Is it unethical to refuse to obey a lawful but ill-conceived order that will result in needless loss of life? Is the total veracity of the staff officer's report really essential when it will result in the termination of careers of competent, dedicated men? These questions do not lend themselves to easy solutions or pat prescriptions. They are extremely complex because fundamental values are in direct opposition and a judgment must be made concerning the priority of those values.

Some argue that these issues have been addressed in recent years through highly publicized accounts. Certainly the stories of men like Calley, Turner, Wooldridge, Bucher, and Lavelle provide poignant case studies of ethical dilemmas. These accounts are indeed demonstrative of issues involved, but they fail to force the typical officer to examine his own code of ethics. The publicity and the stakes involved make the cases impersonal and distant. It is too easy to praise or condemn from afar without examining one's own conflicts. The normal dilemmas of officers will not make headlines, and by some they are considered petty or trivial. The triviality of these decisions is misleading, however. What is frequently forgotten is that one's behavior over time determines one's attitude in the future. A

series of "petty infractions" will erode a standard of conduct. The small white lies make it easier to tell the big one. The incipient abuse of integrity not only tarnishes the man's integrity in the eyes of both soldiers and civilians but, more important, also permits greater personal tolerance for failure by the man himself.

These concerns are very personal and individual, and they are not likely to be divulged over coffee or beer. Officers are not prone to confess breaches of integrity, particularly when they are not proud of their actions. The sad feature of this institutional inhibition to discuss ethics is that it precludes significant correction of unethical behavior. If the specific ethical issues were discussed and analyzed before the frenzy of pressure for a decision arrived, individual and group strength for supporting "correct action" would be enhanced. Naturally it is impossible to foresee all potential ethical dilemmas, but it is possible to search for likely hypothetical situations, to examine the issues, and to resolve the conflict intellectually. This is a more healthy approach than that of the ostrich.

a framework for ethical decisions

As stated earlier, ethical situations are too multifaceted for general prescriptions. The remainder of the article attempts to describe the framework in which ethical decisions are made by military professionals. This framework consists of four topics: conscience, equilibrium, the core military ethic, and a moral calculus. These topics could well serve as the foundation for a block of instruction in military schools at all levels. This framework could also be used in an officers call at the unit level or as the structure for informal dialogue among a group of concerned military officers. Although not

a panacea, this framework provides a route toward systematic and enlightened ethical analysis.

Conscience. Human beings distinguish right from wrong or good from bad by what is called their conscience or inner voice. The conscience is developed, nurtured, and changed throughout life. Initially an authority figure, such as a parent, priest, or policeman, defines "good" in terms of the institution he represents. The child, adolescent, or adult conducts his behavior based on fear of punishment or desire for reward by the authority. As the experience of the individual increases, he accepts or rejects the values of the authority, and his actions are judged by his own conscience. Saluting the flag is an example in the military context. Initially the serviceman performs this act because authority demands it; later, as a professional, he does it because he thinks he should. Saluting thus becomes a matter of conscience.

This significant change whereby the conscience was developed, or the norm internalized, is only possible because of faith in the authority figure. The performance of the authority must be consistent, and those acts defined as "good" cannot be contradictory if the conscience is to develop. The individual accepts the dictates of the authority based on a *rational faith*.

The concept of conscience is intensely relevant to integrity and professional ethics because a man can only achieve integrity by following his conscience and can only be professional if his conscience is not in conflict with professional ethics. This does not mean that the soldier should stop questioning his own actions or orders. With blind, unquestioning obedience, men become robots, automatons, animals; with thoughtful obedience, men become professional soldiers who have

not surrendered their human nature.

The conscience must be the final guide for "right" actions. The alternative is "sin" and guilt. Violating one's conscience is psychologically unhealthy. Violating a moral rule established by society is sociologically disruptive and chaotic. There is no more sensible alternative than to follow the maxim "To thine own self be true."

Equilibrium. Problems surface, however, when man is subjected to several sets of codes that are not in total harmony with what he has been taught or holds dear. Some values such as honesty are, hopefully, central and common to all codes: family, church, military, etc. These values form the nucleus of several codes and can symbolically be portrayed as the center of concentric circles. Other codes or systems of "rights" and "wrongs" can be incongruent, if not antithetical. For example, aggressive combat action resulting in danger to self and death to the enemy is not a value taught by most societal institutions. This situation can result in ethical disequilibrium, represented symbolically by interlocking non-concentric circles.

The individual must examine the disparate codes and adjust his values and conscience to compensate for these differences. The ethical system must be brought into equilibrium or symmetry. Failure to do so results in ambivalence, anxiety, and uncertainty. Procrastinating this adjustment function is the mark of a weak man, a psychologically immature person, an individual whose actions are unpredictable. In the military it could well mean a man who may not do what his country is paying him to do.

The core military ethic. The two central values of the military profession are subservience to civilian control and the desire to win wars if engaged. The former

takes precedence over the latter, and this is a bitter pill for some to swallow in these times of strategic "sufficiency" and "no-win" policies. If the ethical priorities were reversed, however, the justification for mutiny would have been laid. MacArthur, probably the most brilliant strategist and soldier-diplomat of the century, was blinded to this fact by his own pride.

It is not an insignificant fact that an officer being commissioned into the military service takes an oath to support and defend the Constitution, a document which describes and symbolizes our type of government. The oath does not denote loyalty to a given person as did oaths taken in feudal times by serfs to their lord or in the Third Reich by soldiers to Hitler. In the American military our loyalty is to the commands of the President, as authorized by the Congress and as interpreted by the courts. This balanced governmental machinery finances, codifies, and directs the business of the profession of arms in those endeavors that the government sees as necessary and right.

When the governmental structure dictates attack, or attack under certain constraints, or reduction of the size of force, the military complies. It does so collectively and individually because reason and observation over time have given the military professionals a *rational faith* in the decisions of the civilian authority with regard to what is "right" for national defense. The oath to support the Constitution, hence the government, is predicated not on blind obedience to authority but rather on a rational, intelligent understanding of that authority.

To support the Constitution is to be obedient to the lawful orders of the civilian government. All policies, instructions, regulations, and laws are derived from a legitimate authority clearly spelled

but in the Constitution. Compliance with these orders, whether they pertain to hair styles or nuclear weapons, is a direct derivative of the officer's oath.

Some may question whether following every rule and regulation is part of the military ethic. It is naïve to think that a regulation on wearing the uniform is in essence different from a regulation on the use of government property, treatment of prisoners of war, or firing nuclear weapons. The difference is only in degree of importance. The violation of any rule, regulation, or order, no matter how trivial, is a deviation from the military ethic. The only difference in violations is in *degree* of deviation from the ethic. The officer who believes he may pick and choose between important, logical, and realistic regulations, on the one hand, and trivial, illogical, and meaningless ones, on the other, is guilty of violating the professional ethic and is a victim of serious self-delusion.

A moral calculus. This is not to argue that every regulation must be enforced to the hilt but rather that failure to enforce a regulation or to follow an order will exact a price. The *understanding* of the trade-offs involved, the consequences of the acts, and the cumulative erosion caused by relatively minor infractions is a *mental* process. The locus of this ethical decision-making is the brain: hence the term "moral calculus."

When an officer is faced with a conflict between his conscience and an order, he must resolve the issue, and for his own psychological health and moral well-being the decision should be in favor of his conscience. The problem is that the military cannot tolerate this breakdown in authority during times of crisis. Nor will a man's reasoning or his intellectual search into the moral consequences of an

act be clear and logical in the emotional frenzy of physical or social conflict. These dilemmas should be resolved before the moment arrives requiring a quick crucial decision, so that intellect and not emotion will be the chief source of inquiry into the conscience.

Man's psyche is capable of amazing distortion of reality under stress. Rationalization and displacement of responsibility are well-documented phenomena of both the healthy and the psychotic mind. A moral calculus or an examination of the issues in a setting unencumbered by stress will minimize the distortion of the issues and will result in the clearest delineation of the ethical code.

I HAVE USED a framework for ethical decisions to describe the process by which an officer evaluates an ethical issue, considers his responsibility to support the Constitution, and brings into equilibrium or harmony any values that are in opposition. This framework is not intended to be a template for correct decisions but rather a description of a process that actually occurs. The central point is that this process occurs too often in the crisis of immediacy. I have advocated increased discussion and analysis of military ethics in a noncrisis environment in order to resolve issues rationally and strengthen "right" decisions with the solidarity of fellow professionals.

If the reader now believes he understands the nature of military ethics, this treatise has been a singular failure. The reader should merely have derived an appreciation of how complex the subject is. Ethical issues are seldom either black or white; they occur in the grey zone. The purpose of this article was not to *eliminate* the grey but to *illuminate* it.

A glowing incandescent light bulb with a pull chain, set against a dark background. The bulb is the central focus, emitting a warm, yellowish light. The pull chain is visible on the left side, extending from the top of the bulb down towards the bottom left corner. The background is a dark, textured surface, possibly a wall or a book cover.

OPERATIONAL TEST AND EVALUATION

*A look into the
fundamentals*

LIEUTENANT COLONEL CLYDE R. ROBBINS

IN July 1970 the Blue Ribbon Defense Panel passed the following severe judgment on Department of Defense Operational Test and Evaluation (OT&E) efforts:

There has been an increasing desire, particularly at OSD level, to use data from OT&E to assist in the decision-making process. Unquestionably, it would be extremely useful to replace or support critical assumptions and educated guesses with quantitative data obtained from realistic and relevant operational testing.

Unfortunately, it has been almost impossible to obtain test results which are directly applicable to decisions or useful for analyses. Often test data do not exist. When they do, they frequently are derived from tests which were poorly designed or conducted under insufficiently controlled conditions to permit valid comparisons. It is especially difficult to obtain test data in time to assist in decision-making. Significant changes are essential if OT&E is to realize its potential for contributing to important decisions, particularly where the tests and the decisions must cross Service lines.¹

Since that time there have been important policy changes that significantly increase the role of OT&E in the systems acquisition process. On 13 July 1971 the Department of Defense (DOD) decisively linked OT&E to the important decisions to buy large-scale production quantities.

Test and evaluation shall commence as early as possible. A determination of operational suitability, including logistic support requirements, will be made prior to large-scale production commitments, making use of the most realistic test environment possible and the best representation of the future operational system available. The results of this operational testing will be evaluated and presented to the DSARC at the time of the production decision.²

On 19 January 1973, DOD took further steps to assure that OT&E is responsive to

the decision process.³ This directive stressed that OT&E should be independent of the developer, timely, and realistic.

In September 1974 the United States Air Force began using a Special Operating Agency, the Air Force Test and Evaluation Center, to carry out service OT&E management functions.

The defense policy and management structure for OT&E is well advanced, but what of the execution of the tests themselves? Will their quality rise above the condition reported by the Blue Ribbon Defense Panel in 1970? To some extent OT&E has already improved, simply because there is now a feeling that the results are needed at a level where important decisions are made. It is the premise of this article that further improvement can be had by careful attention to some fundamental considerations. The mechanism now exists to use OT&E results as inputs to decision-making. The work that remains is to make sure that OT&E quality is worthy of this important purpose.

What Is OT&E?

In the USAF, the test and evaluation process for systems acquisition has been divided into two types. The first, called development test, is concerned primarily with the engineering function of the design. Development test may also be thought of as one of the later refining steps in the design process, where the entire design or its components are subjected to selected test conditions that have been chosen to qualify or pass the engineering design. The development test is largely quantitative and may also be linked to the development contract as an incentive to contractor performance.

Another type of systems acquisition test, which is the topic of this article, is called operational test. The focus of the opera-

tional test is on the intended operation or use of the system. The dominant consideration for operational test is the relationship of the system to other enemy and friendly systems with which it may operate. The operational test will be active, will involve people, support, communications, and tactics, and will try to judge the contribution of the test system to the overall military effectiveness of the forces in which it will operate.

Another aspect that may need clarification is the use of the term "evaluation." In current USAF usage, "test" refers to physical activities designed to secure data, while "evaluation" refers to the mental activity used in processing the test results and other relevant information to get useful conclusions. From this usage have evolved the terms "development test and evaluation" (DT&E) and "operational test and evaluation" (OT&E).

The proper conduct of OT&E, in my opinion, requires that the OT&E tester give attention to some basic considerations that are derived from the purposes served by his test. He must be attuned to his role in the larger context of systems acquisition and be able to direct his efforts toward the assigned task.

Purposes of OT&E

OT&E serves two main purposes. As previously noted, it provides information about the system for decisions in the systems acquisition process. OT&E also provides detailed information to support operational introduction of the weapon system. This second function has been carried out over several years without significant controversy and has *not* been the subject of recent OT&E policy changes. In the second function OT&E information supports the development of training programs, logistic planning, verification of

manning levels and operating rates, and employment planning. All these uses require information about the expected characteristics of the system when employed in an actual operating situation. In contrast to early OT&E efforts that support production decisions, information for operational introduction can be served by later, more extensive OT&E conducted with production equipment in an environment more closely resembling actual operations.

Both procurement decisions and operational introduction require two kinds of operational information, one relating to effectiveness, the other to suitability. Operational effectiveness refers to the ability of the system to perform its intended military task; operational suitability refers to the compatibility of the weapon system with its surroundings. These are not completely separate questions since suitability factors (i.e., how well the system can be supported) may also indirectly influence combat effectiveness. Still, these classifications provide a useful way to think about test objectives, and they are commonly used.

Considerations in Conducting OT&E

There are several vital considerations that must be addressed in planning and conducting an OT&E. These considerations are basic and fundamental to a sound test that will convincingly answer the critical questions. These points may seem basic and obvious, but the importance to the USAF of a strong OT&E program, one that produces high-quality results, warrants continuing attention to fundamentals.

The situation in OT&E may be compared to that of a football team. No matter how sophisticated the game plan becomes, everything rests on the execution of fundamental skills. Also, it is important to realize that these are "considerations," not

shortcut methods to "get a handle" on the problem. In these quickly changing times, each OT&E is a new event, and the burden of proof must be on those who would bypass these basic considerations and treat a new OT&E as a repetition of any past OT&E.

mission definition

The starting point for an operational test must be a definition of the operational mission, preferably in as much detail as possible. This definition should consider all intended missions, including combat, training, and other uses of the system. The definition should also include the likely range of operating conditions for each mission. Also needed is a full and complete description of enemy threats that may be encountered, with expected capabilities and characteristics. Finally, the definition must consider the friendly supporting systems with which the system will operate.

This mission definition should be as thorough and detailed as possible, for consideration of specific questions makes the critical test factors more readily identifiable. For example, consider the questions "What kind of runways will an aircraft normally use?" or "How much loiter time is needed in the target area?" These questions are important to the evaluation of close air support systems, and a complete evaluation requires some answers. To cite another case, in the counterair mission much depends on the enemy defensive capabilities in the intended operating area, and complete evaluation of an air-to-air fighter system cannot be made until this hostile environment is defined. These cases briefly illustrate the importance of trying to answer specific questions about the intended use of the system as a fundamental starting point in planning an

OT&E. It must also be recognized that many of the detailed questions cannot be resolved with a definitive quantitative answer. A question concerning range or loiter-time requirements may be answered by trade-off analysis to show that there is a range of "acceptable" value, each with associated penalties in other capabilities. Also, not every specific question that may be raised need be answered. The value of the procedure is realized if a judgment is made as to which factors are important enough to define clearly and which are not.

The test reference mission may be derived from the same source that provided the basis for the development program, but it cannot be identical. A number of years will have passed since the requirement studies were done, and significant updating changes may need to be made due to changes in the threat, supporting system, logistics, deployment posture, or even added new missions. The essential point is that there must be a reference (operational mission definition) in order to make a comparison (operational evaluation).

The mission definition is inevitable. Even if this mission definition is not written and carefully considered, it will nevertheless exist in the minds of the evaluators, where it may be erroneous, fuzzy, or incomplete. This informal, personally held mission definition might be correct, but it is not readily available for review by decision-makers.

It is almost self-evident that an adequate mission definition must exist as a standard against which to measure the weapon system.

test objectives

Spelling out test objectives may be straightforward if two things are known:

first, the mission definition is needed; and, second, there must be a definitive statement of the information wanted from the OT&E. These information needs are largely a management function. If the test supports a production decision, the key factors in that decision should be identified so that they may be purposefully satisfied by the test from its inception. In the current DOD directives these may be derived from the "critical questions and issues" that are pertinent to the specific decision.⁴ These key factors must be understood before preparing a test plan because an operational test that supports a production decision will usually use limited quantities of development hardware. With limited time and resources, the test must specifically address the questions in the minds of decision-makers. Such specific management questions are the primary reason that the early OT&E exists, and the capability to answer such questions was the primary incentive to the recent OT&E policy changes. Later OT&E that supports operational introduction also requires specific information, but these needs are more varied. Varied and diverse information needs may never come to focus in a single key event like the production decision, but they are no less important. Operational data are the lubricating knowledge that should make the introduction of the system smooth and avoid the slow and painful process of relearning in actual operations the techniques and procedures that have been learned by others in a test program.

realism

Operational testing must be designed to reflect adequately the conditions that will exist in actual operation. The answers provided by OT&E must deliberately be made relevant to the real employment of

the system because there are many obstacles to realism. The test cannot possibly have total realism, for the only full measure of combat reality is combat itself. Furthermore, each instance of combat has been unique, and it is impossible to predict the future unique combat situation that a new system will experience. Yet, if the purposes of OT&E are to be met responsibly, someone must create an acceptable description of this unknown future reality.

Realism is vital to keep the OT&E from becoming a repeat of earlier development analysis. Some analysis and evaluation will always be needed to convert test results into a usable form that can be projected into the future; but if the test itself has few elements of realism, then a greater amount of analysis and judgment (or guessing) is needed to bridge the gap between test and reality. The basic reason for performing a test is to confirm the utility of a design resulting from earlier analysis. It therefore follows that the test should take as large a step as possible away from analysis and toward full operational reality. An active effort is needed to achieve realism. If realism is not earnestly sought and operational tests are conducted in the test environment that just "naturally happens" at a test site, the test situation will be primarily oriented to the restraints imposed by engineers, range and traffic controllers, safety supervisors, data collectors, and many others whose support is needed. The dominant factor will then be convenience, not realism. Although total realism is not possible, there are some steps that can be taken to introduce this vitally needed realism into the test situation:

Use of two-sided tests. War is a two-sided affair. Move and countermove come in an endless stream. Sometimes the action is fast-paced, and sometimes events move

slowly as each side thinks about the situation and devises new approaches to the contest. The human gifts of ingenuity and adaptation are constantly in use as military tacticians try to employ men and materials in a more advantageous way. This innovative process has an uncanny way of quickly exposing and exploiting the strengths and weaknesses of weapon systems. These same desirable effects can be realized in a test situation simply by making the test "two-sided." Even a small amount of two-sidedness is helpful. For example, one-on-one engagements between tactical fighters are a useful way to bring out critical design features for evaluation, even though it is recognized that the real world is usually larger than one-on-one. Limited two-sided tests are valuable to the extent that they represent key competing elements of the larger situation.

In the past, one of the problems with two-sided tests has been organizational. For example, the resources needed for a two-sided test of bombers versus fighters were in different Air Force commands, while the forces needed to conduct an air-versus-ground engagement were in different services. While no intentional bias has existed against two-sided tests, the various organizations naturally tended to focus attention on their own pressing problems to the neglect of objective two-sided operational tests. Recently some favorable changes have come about, and one excellent two-sided test, COMBAT HUNTER, was conducted in 1972 using Army and Air Force resources. Further two-sided tests are now being planned, and this trend may be expected to continue, in view of expressed DOD support for joint tests.⁵ Also, recent emphasis on coordinated efforts at the service level should help remove this obstacle to two-sided tests in the organization.

Increased scale. As football coaches know, a partial two-sided drill is not as helpful in assessing a team as a full-dress scrimmage against a competent team. Likewise, the larger the scale of the test, the more likely that it will include all the important force elements. In the example of a one-on-one fighter engagement, the test becomes more comprehensive when other aircraft are introduced (perhaps four-on-four) and elements of the ground environment are added, e.g., radar sites, surface-to-air missiles, etc. With the scale of the test increased in this way, the results may reveal deficiencies in communications links or in pilot-to-aircraft interface problems that occur only when the pilot workload becomes high. The major obstacle to large-scale tests is their increased cost and complexity. The operating cost of each element in active test time may be small, but these same resources will, in all probability, be lost to other uses for a greater period of time because of the inherent difficulties in coordinating and scheduling a large and complex test operation. One must therefore approach increases in the scale of a test in a selective way, choosing those elements which experience or analysis shows to be important while omitting for the sake of economy those which are expected to have a minor influence on the results.

Removal of unnecessary constraints. Realism may also be improved simply by removal of the unrealistic and unnecessary restraints of the normal test environment that will not exist in the expected employment situation. The key word is "unnecessary," and if a restraint is to be kept, one must ask, "Why is the condition necessary?" Often a closer look at the restraints will reveal ways that they can be avoided. Following are typical test restraints:

Data systems. The requirement for engineering data will usually result in limits

on altitude or operating area, to remain within the instrumented range area. Telemetry reception, photo coverage, and positioning information all have their own characteristics that may limit the way a test is conducted.

Weather. The tactically difficult "bad weather" needed for an operationally realistic mission may simply not be readily available at the test site. In another case, safety or data considerations may require clear weather when the existing weather is actually realistically bad. In most cases, operational realism will call for consideration of a wide range of weather conditions while the typical test restraints will normally favor good weather tests during daylight hours.

Airspace. Airspace for operational testing is often smaller than desired and located in places where the earth below is used for a totally unrelated purpose, such as farming, residence, game preserves, or national parks, thus ruling out supersonic flight and the dropping or firing of various objects from an aircraft. Unfortunately, little can be done about these restrictions in existing operating areas. Recognizing this difficulty, the USAF has initiated the Continental Operation Range program, which seeks to make larger, more useful airspace areas available for testing and operational training.

Safety. The most difficult limitations to relieve are related to safety. Safety limitations are usually imposed for good reason, based on experience with accidents. The desire for safety may have an even more compelling reason during a test program than would normally exist because the test resources may be "one of a kind" prototypes, the loss of which would have serious consequences to the entire program. It is very difficult to press for test realism in the face of a potentially hazardous situation. The elements of realism that are

sought at the expense of safety must be essential to a convincing test that will answer important questions.

Use of representative hardware. Realism is enhanced when the most representative test and supporting items available are used. In the past, most newly developed systems have used development hardware for operational testing. Under present systems acquisitions policy, the basic structure of a development program is designed to provide a reasonably mature system for operational evaluation. Representative test supporting items are also important. In recent years one of the most difficult test problems has been encountered with targets supporting air-to-air missile tests. Target drones are often destroyed during air-to-air missile tests, and the development of drones has therefore emphasized a low-cost vehicle. At the same time, a target drone that can adequately reflect the speed, maneuver, and radar and infrared signature of an aircraft tends to be almost as large as an aircraft. In fact, one solution has been to convert aircraft that have been retired from active service into unpiloted targets. This approach has provided more representative targets, but with these large targets there has been a tendency to conserve target aircraft. It is very difficult to design a fully realistic missile test and at the same time conserve the target. There is a basic conflict between the objectives of the missile test and the desire to conserve targets. The difficulties in obtaining fully representative test support items suggest the need for a continuing effort to develop improved test techniques and supporting hardware as a part of the overall OT&E capabilities program.

point of view

It seems self-evident that a test should be

objective and should represent the situation as viewed by a prospective user, but there is a strong human tendency against objectivity when one is personally involved in a project. This tendency, which might be called the "success syndrome," occurs when the tester desires to be associated with a successful weapon system program rather than an unsuccessful one. This attitude, which stems from a desire for personal career success, will inevitably creep into the selection of test conditions and the subjective interpretation of results.

In contrast to a successful weapon system program, a successful test program does not depend on the test outcome. A successful test program may have any result if it is valuable to the decision process. A successful test program might very well spell the end of a weapon system program and save production funds from being spent on a lemon.

The tester must be neither success-oriented nor excessively critical, for by his actions in test planning and evaluation he can influence the outcome for the weapon system. The tester must be objective and faithful to his purpose, which is to provide reliable, accurate facts and considered judgments as a basis for good decisions. The decision-maker must also take care that he does not inadvertently encourage the success syndrome by praising the tester for the successful system. Plaudits for a successful weapon system belong to those who participated in its development. Testers, by contrast, must be rewarded for sound test execution, thoughtful evaluation, and honest reporting.

reports

The tangible outputs of a test are the reports it provides. These reports support key decisions or other events and must meet the schedule of the events they

support. From the outset, a test must be organized based on knowledge of which organization needs what information, when, and for what purpose. If these things are not known, the test tends to serve itself and its internally generated ends, and one might properly ask, "Why is this test being done?"

The frequency, format, style, and communication of test reports should be specifically adapted to the test at hand and not simply patterned after precedents. Interim reports, tv or film reports, briefing reports, letter and message or telephone reports should all be considered as possible means to get needed information into the proper hands on time.

evaluation

Tests alone do not provide simple answers totally applicable to operational reality. Evaluation is needed to apply reasoning and judgment to the test results and answer the operational questions about a weapon system's effectiveness and suitability. In considering this process, it is important to remember that judgment is a personal, subjective quality. It resides with individual people and reflects their knowledge, attitudes, and experiences. For an operational evaluation, this background resides with individuals who possess significant military experience of a kind most closely related to the projected military environment.

But experience alone does not insure an adequate evaluation. These same individuals, while possessing relevant experience, must then apply themselves with an eye to the future. Their task is not to measure tomorrow's weapons against yesterday's battlefield but to envision the conditions of the future and evaluate test results against that future. Evaluators must not take for granted that any particular

aspect of past experience will apply in full measure to the future, but at the same time they must make full use of the insights gained from this experience to produce an operational evaluation oriented to the future.

cost

There are two perspectives that may be used to view OT&E costs. One viewpoint stresses the program cost implications or those costs associated with arranging a weapon system development and production program so that adequate OT&E may be conducted before committing funds for production equipment. The other viewpoint could be called a preventive costs approach, for it stresses the use of adequate OT&E as a means to minimize the probability of a serious mistake.

In a somewhat oversimplified explanation, these two viewpoints may be related to the systems acquisition concepts of "concurrency" versus "fly before buy." In a fully concurrent program, the decision to design, develop, and produce the weapon system is made at the outset. All activities proceed together so that the time to complete the full program is minimized and efficient use of design and production resources is possible. This is undoubtedly the preferred approach—if there are no mistakes. But people do make mistakes, and in a concurrent development program the only way to rectify a mistake is to stretch out the program, slow down the planned production, and then retrofit the defective items already produced. To avoid these very significant consequences of a mistake, the "fly before buy" concept plans for an orderly "stretched out" program, which uses OT&E to reduce the probability of buying weapon systems that must later be fixed. A detailed consideration of *program* costs related to OT&E is not

really necessary here because a "fly before buy" policy has been adopted, and the somewhat higher initial program costs associated with that decision are accepted, both to achieve a better product and to control risks.

On the other hand, the direct costs of OT&E are not a closed question. These costs will remain vulnerable to the financial pressures that may exist in a weapon system program. In such circumstances, an OT&E program, like a safety program, should be considered in relation to the disasters it prevents. It is penny-wise and pound-foolish to cut corners on a test program that is intended to answer major questions in support of a production decision. Test resources must, of course, be managed efficiently to get the most from each test dollar. However, when allocating test resources, it is better to err on the side of a more-than-adequate test than to risk a significant error in a production decision. A production decision error may result in the purchase of large quantities of ineffective or unsupported systems, causing expensive retrofit programs and substantial delay in reaching a combat capability. It is this sobering possibility that should be balanced against the direct costs of an OT&E program.

Looking Ahead

Operational testing is now firmly established as a part of the systems acquisition process. In the future, new systems exploiting expanding technology will continue to create possibilities for operational employment that cannot be closely linked to our previous experience. This situation will, in turn, demand more careful consideration and greater ingenuity in the design of operational tests and will require

greater management skill to carry out these new tests. The emphasis must shift away from the routine use of established test procedures and toward developing methods of test problem analysis. Such analyses should include the basic considerations discussed here and stress a tailor-made OT&E for each application.

THE TESTER must keep one thought constantly in mind: the purpose of the test. He must plan, execute, evaluate, and report with a concern for producing the information needed by others. He must conduct a deliberate, orderly, and well-

considered program that addresses the fundamental considerations which may be important in his situation. He must avoid the complacent view which holds that all OT&E is basically alike and one may simply pattern the current test after a convenient precedent. He must recognize that each test has a unique set of circumstances and may demand a near-total reconsideration of the answers which applied to any previous test. All this he must do with a feeling for the combat operations of the past and an eye to the possibilities of the future.

Air War College

Notes

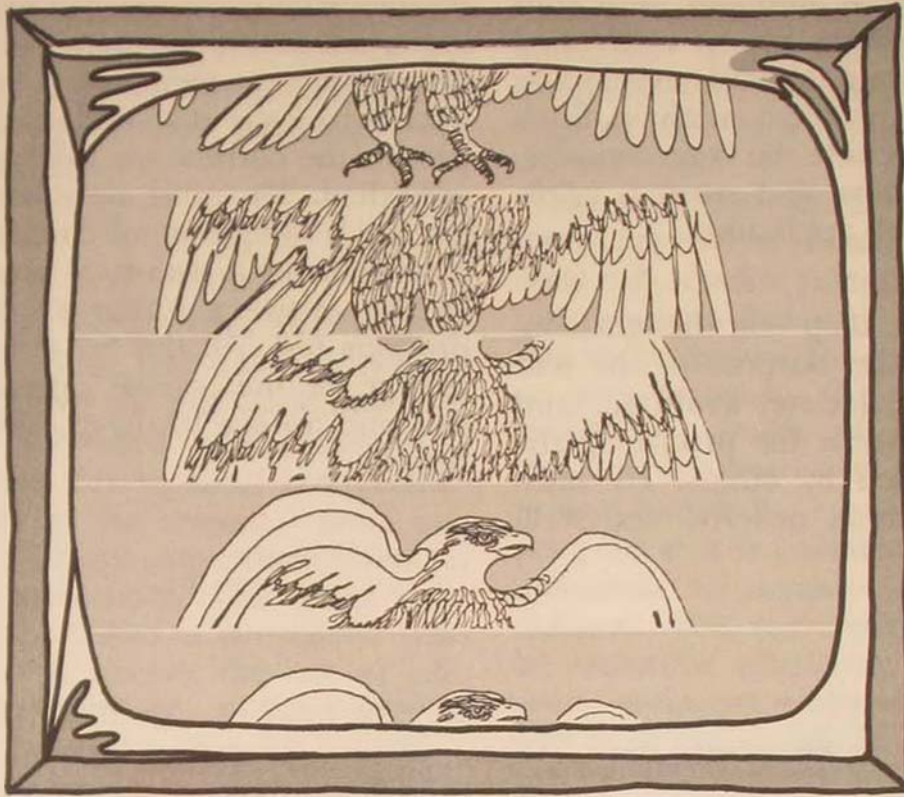
1. Blue Ribbon Defense Panel, Gilbert W. Fitzhugh, Chairman, *Report to the President and the Secretary of Defense on the Department of Defense*, Washington, GPO, 1970, p. 89. Also called the Fitzhugh Report.

2. Department of Defense, DOD Directive Number 5000.1, 13 July 1971, para III C 6.

3. Department of Defense, DOD Directive Number 5000.3, 19 July 1973, para III C 4.

4. *Ibid.*, para III H 1.

5. *Ibid.*, para VII E.



INTERACTION

The Military and the Media

MAJOR JOHN DUNCAN WILLIAMS



FEW would challenge the notion that in the United States the viability of the military services rests squarely upon broad-based public support and understanding. Such grass-roots support means that the nation's young people will continue to come into the service, that military installations can effectively and harmoniously coexist with their civilian neighbors, and that congressmen elected by this citizenry can more easily vote the appropriations necessary to build and maintain a first-rate, modern military force.

Given this, it seems important to examine the process by which such public support is generated and sustained. In large measure, the public's attitudes toward the military are directly dependent upon the amount of information about the military that they receive and believe. And because most of this information reaches the public via the mass media, the

interaction process between the military and the media must be understood if ways to enhance this flow of information are to be found. To this end, an extensive quantitative and qualitative study of the military and the media was undertaken. This research report focuses on two principal actors in the news process: the media reporter and the military information officer.

A questionnaire designed to measure and correlate variables that impact on the government/media interaction was sent to the base information officer at each of the 100 Air Force bases in the continental United States and then to 150 reporters who cover these bases on a regular basis. The names of 75 of the reporters were provided by information officer respondents, and the remaining 75 were selected by editors of newspapers located near the bases.

Several factors influenced the decision to use these groups in the study. First of all, base information officers are government information officials who are *primary* contacts at their respective installations for news media representatives. Newsmen selected for the survey were those who were assigned military affairs reporting responsibility for their respective news organizations.

An excellent response rate was achieved from both newsmen (58 percent) and information officers (75 percent). The data were then keypunched on computer cards and analyzed by use of an existing computer program that generated frequency distribution statistics and contingency tables print-outs.

To gauge role performance in the interaction process, a number of questions were included in the questionnaire to obtain expressions of attitudes and performance ratings by each respondent about his protagonist counterpart and, in

some instances, about himself. The findings yield insights upon which improvements in the interaction process could be based.

validity of information officer role

As a matter of custom, and in some instances regulation, the information officer is the primary contact for news media representatives who seek information about the activity of the given federal agency. Newsmen occasionally balk, however, at going through the information office, saying they prefer to eliminate the "middleman"—the information officer—and go directly to primary news sources such as, for instance, a base finance officer for a story on military pay increases. Information officers typically prefer that all news media contacts with their installation be initiated with their offices. Occasionally, the media representatives assume that the information officer is not privy to important matters of possible news interest, and thus they are virtually forced to bypass him.

Question: Are you generally willing to use the base information office as a primary contact point or do you prefer to go directly to other news sources within the organization?

Only one journalist in four, 26.4 percent, indicated a preference for using the information office as a primary contact point. Other data generated by this question indicate that the government's practice of requiring that contact be initiated through the information office may well be a significant impediment to productive media/government interaction.

Conversely, information officer respondents by a wide margin feel that the media are "satisfied" to come to the information office first with their questions.

Question: Do you think the press is satisfied to use your office as a primary contact point or do you think they would prefer to go directly to other potential news sources on base?

The high percentage of information officers who feel that the press is satisfied to come to them first—some 87 percent—contrasts sharply with the actual preferences of journalists as reflected in their responses to the question.

Still, almost 80 percent of journalists are at least willing to use the information office, although many respondents added that they would not hesitate to “go over the 10’s head” if necessary.

utility of interaction process

The regulations and directives of most government agencies specify that a primary task of the information officer is to assure a maximum possible flow of information to the public. Nonetheless, some newsmen have complained that information officers often constitute buffer zones between newsmen and news sources and thus render the task of news gathering more difficult. The following two questions were designed to determine if there are significant differences in the way the information officer function is perceived by the two groups.

Question: Do you think that generally the 10 helps you to get information and thus increases the flow of news to the public or that he stands between you and news sources and thus decreases the flow?

Question: Do you believe that newsmen generally think you help them to get information and thus increase the flow of news to the public or that they think you stand between them and news sources and thus decrease the flow?

A number of the journalist respondents checked the “no opinion” response on this

question and indicated by means of marginal notes that they were unwilling to generalize because the individual performance of the information officers with whom they dealt varied so widely. The percentage of journalists who think the information officers impede news flow 16.1 percent, is very close to the percentage of information officers who feel that journalists believe information officers impede, 17.3 percent. Several journalists noted that they felt that information officers increased the flow on certain types of news and impeded the flow on others.

credibility and trustworthiness

Preliminary investigations undertaken prior to the development of the questionnaire indicated that persistent blockages in the information channel could be attributed to deficiencies in trustworthiness and credibility. Some newsmen would complain that information officers sometimes did not provide complete and factual answers to inquiries and might even release untruths or half-truths. In short sometimes, among some newsmen, the credibility of the information officer was suspect.

On the other hand, some information officers said that they experienced difficulties in working with newsmen because they could not be trusted to quote them accurately, to respect news embargoes, or to refrain from using information provided to them “for background only.” Some information officers declared that they could not be more open with reporters because they could not trust them to observe the “ground rules” that certain types of information required.

Questions were designed to determine how general were these perceived deficiencies in information officer “credibility” and in journalist “trustworthiness.” The

close correlation of responses from both groups is shown in Tables 1 and 2.

Question: As a reporter covering a military activity, you rely on the base information officer (IO) to accord you fair and professional treatment. Much of this reliance is based on your concept of the credibility of the IO. Can you rely on the IO with whom you deal most to give you accurate and complete responses to your inquiries?

Responses to the question on accuracy clearly indicate that reporters generally believe that information officers provide them with accurate and complete answers to queries. Over 85 percent of the journalists said that they could rely on the information officer for accurate responses "frequently or most of the time." (Table 1)

Table 1. Information Officer Credibility

Rating	N	%
Rarely	2	2.3
Occasionally	7	8.1
No opinion	3	3.5
Frequently	11	12.7
Most of the time	64	73.4
Totals	87	100.0

These data strongly support the conclusion that most journalists do believe the information officers and that lack of credibility is simply not a general deterrent to the flow of news.

Information officer respondents were asked to evaluate the trustworthiness of the reporters who covered their respective organizations.

Question: As base information officer you rely on the press to accord your activity fair and professional treatment. Much of this reliance is based on your concept of the reporter's trustworthiness. Can you rely on the reporter with whom you deal most to report news of your activity accurately?

Responses reflected in Table 2 suggest that trustworthiness of newsmen, like credibility of information officers, cannot be termed a serious problem in the news process. Although a few of the informa-

Table 2. Journalist Trustworthiness

Rating	N	%
Rarely	2	2.7
Occasionally	3	4.0
No opinion	1	1.3
Frequently	12	16.0
Most of the time	57	76.0
Totals	75	100.0

tion officer respondents scored journalists in the lower two blocks, over 90 percent gave journalists high trustworthiness scores.

negative and controversial news

Government officials have frequently charged that the press coverage of government activity tends to stress "bad" news—the controversial, the sensational, shortcomings, and failures—while "good" news—positive accomplishments and successes—is given short shrift. Just as often newsmen have retorted that they cover all news, good or bad, with equal vigor. The following question relates to these points of contention:

Question: Given the difficulty of neatly categorizing a news story, how would you characterize most of your stories about the nearby military base?

Obviously—at least from the journalists' point of view—allegations that "trouble" stories are stressed are exaggerated. Only one respondent was willing to characterize his stories as "mostly about problems." The majority, over 62 percent, said they wrote more "success" stories. Several respondents indicated in marginal notes that they wrote success stories and failure

stories as they happened, if they were newsworthy.

On the other hand, some 45 percent of the information officers thought that newsmen gave undue play to negative stories about the military. Since proportionately so many more information officers than journalists thought adverse stories were stressed, it is likely that stories which appear to information officers to have negative connotations are not so regarded by newsmen.

obstacles to news flow

Respondents were asked to describe, in their own words, what they felt to be the principal obstacles to news flow.

Question: In your opinion, what are the principal obstacles to the free flow of information about government to the press and the public?

Most respondents appeared to give very careful attention to this response. Although some offered a one-word answer, many among both groups wrote 500- to 1000-word essays to express their views on obstacles. The thrust of the opinions and recommendations advanced by both groups was that the public has a right to know what their government and the military are doing, that the press has an obligation to report the news candidly and fairly, and that the information officer has the responsibility of removing obstacles to the flow of news and assisting the press in getting information to the public.

Even a cursory examination of Table 3 leads one to the conclusion that certain of the perceived news obstacles can be reduced or removed. News media performance can be improved by assigning more knowledgeable and/or more experienced reporters to cover government. Commanders (or other government officials) can be made aware of the parameters

within which public affairs reporters must operate, what types of information must be provided to them, and what types may be withheld. Such educative processes should work to dispel actual or perceived "fear of the media" regarding access to government information.

A prevailing sentiment of both groups was expressed by one reporter:

The government and the media are all out to do the same job and I feel it's high time we began treating each other openly and as equals to achieve our common goal of information dissemination.

Table 3. Reported Obstacles to News Flow

<i>Obstacle Identified</i>	<i>Journalists</i>		<i>Information Officers</i>	
	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
Commander's fear of media	17	19.5	14	18.7
Poor media performance	10	11.5	8	10.7
Good news only policy	10	11.5	5	6.7
"Make no waves" policy	9	10.3	0	0.0
Bureaucracy	7	8.1	15	20.0
Mutual distrust	6	6.9	4	5.3
Security considerations	5	5.8	6	8.0
Poor IO performance	4	4.5	4	5.3
Media/IO friendships	2	2.3	0	0.0
Personal PR for commander	1	1.2	8	10.7
News cover-ups	1	1.2	6	8.0
Lack of communication	1	1.2	0	0.0
No response	14	16.0	5	6.6
Totals	87	100.0	75	100.0

GIVEN the responsibility of a free press to provide the public with complete and unbiased reportage of all elements of governmental activity—including the military—and given the military's apparent interest in assuring maximum public understanding of its function, it seems obvious that the reduction or removal of real or imagined obstacles to the flow of military news is both desirable and necessary.

Randolph AFB, Texas



In My Opinion

**SIMULATION:
A Threat to Tactical Air Power**

COLONEL HARRY A. GOODALL

AS Headquarters USAF leaders shape the Air Force for the time frame of the Airborne Warning and Control System (AWACS), the B-1, F-15, and A-10, they face many serious problems. That they will be equal to the task is unquestioned; however, to solve the problems, they need to know what the problems are. Flight simulation is one. Simulation is creating a problem about which little awareness has been demonstrated, principally because we appear to be on track.

The General Accounting Office (GAO) has issued its long-awaited report on the use of flight simulators by the Department of Defense.¹ The Air Force was reported to be well ahead of the other services in planning for effective use of simulators. Nonetheless, we need to look closely at the impact of what was said. The GAO report recommended that the Air Force and Navy:

. . . use simulators as much as possible to reach [Flying Training Squadrons'] and maintain [Combat Flying Units'] proficiency, including . . . evaluation of pilot proficiency.²

The report also developed in great detail that 25 percent of Air Force flight time for bombers and fighters could be replaced by simulator hours, which could save about \$300,000,000 annually. A 50 percent substitution would save about \$620,000,000.³

The problem that results from all this is rooted in the difference between how both DOD and the GAO perceive simulation and how simulation can, in practice, be applied. Among the various mission areas, the greatest difference in perception lies generally in the area of tactical air power and specifically in the realm of continuation training in combat units.

Let's turn back the clock and see how we got where we are today. First, simula-

tion became an active subject within the USAF in early 1970 when General John D. Ryan, then Chief of Staff, sent a letter on simulation to Aerospace Defense Command (ADC), Air Training Command (ATC), Military Airlift Command (MAC), Tactical Air Command (TAC), and Strategic Air Command (SAC). In that letter he outlined some training principles used by the airlines that he would like to see incorporated into command flying training programs:

1. Insure that each course is structured to contain precisely the training required.
2. Give only training appropriate to the individual.
3. Measure training on proficiency, not on course length.
4. When a skill is particularly difficult, seek ways to alter the task to make it easier.⁴

He was clearly discussing the formal flying training courses listed in Air Force Manual 50-5, *USAF Formal Schools Catalog*.

Later, in 1970, a USAF Policy Letter on Systems Approach to Training (SAT) was sent to all major commands. This letter explained SAT as a technique for management of training that could lead to significant economies. Application of the SAT technique called for the selection of the right hardware and software and appropriate training.⁵ The objective of SAT was to assure incorporation of the airline training principles. The stated SAT policy provides that:

1. At Hq USAF, the Directorate of Personnel Training, DCS/Personnel, would promote the use of SAT in the major commands.
2. SAT would be applied to all new training systems.
3. SAT would be selectively applied to existing education and training systems.⁶

During the next couple of years, the training course words fell by the wayside

and all-inclusive words began to come to the fore, such as "Incremental plans are needed which apply SAT to our flying training programs."⁷ The *flying training course* emphasis had disappeared. What seemed to emerge was a general feeling that, because we did some of our training with simulators, the cheaper simulator hours could be traded on a one-for-one basis with the more expensive actual flying hours.

here we are today

We are currently at a critical decision time that requires some backpedaling. Let's look at the situation.

First, simulation on the scale that we are considering is currently being used in the training of airline crews. While some airline pilots fly the simulators for training and proficiency, other airline pilots fly *all* the airplanes available in passenger and cargo revenue-generating operations. The alternative to this is to take aircraft out of revenue operations and use them for pilot training. Therefore, simulators are an economically wise choice for the airlines. The Air Force became interested for the same economic reason. Simulation was seen as a concept for savings.

It was obvious from the start that any savings would have to come from reduced flying hours and the concomitant economies. Flying-hour costs are comprised of petroleum, oil, and lubricants; spares; maintenance manpower costs in man-hours and overhead. For example, flying-hour costs are \$1473 for a B-52 and \$853 for an F-4.⁸ Obviously, with simple flying-hour cost calculations, if 50 percent of a 100,000-hour B-52 flying program could be accomplished by simulation, \$148 million would be saved. More complex and comprehensive calculations could yield different savings; however, savings would

always result. A similar application can be made to fighter missions.

Upon critical examination of this simple and desirable alternative, some interesting facts become apparent. A most important fact is that flying-hour costs are high principally because of the manpower required to generate a flying hour. This fact is important because it gives a clue as to where large savings are possible.

For instance, in a Combat Crew Training School (CCTS), where the unit product is a trained pilot, effective simulation can produce direct flying-hour trade-offs. But, as we look at the combat mission units, it begins to be less clear.

Take the strategic bomber mission as an example. If we decide to produce the fatigue of long missions by simulators and then allow crews to fly a short bomb run, we could perhaps save 50 percent of our currently expended flying hours. This would, in gross terms, tell us to reduce our maintenance manpower by 50 percent, and we would have to do so if the advertised savings were to be realized. Now, we could probably stand some reduction so long as sufficient manpower was retained to generate the force in support of war plans. And, in the case of strategic bombers, training mission sorties probably exceed wartime mission sorties.

The same kind of logic applies to strategic defense. Wartime mission requirements are probably less than training requirements. To the extent that this is so, full flying-hour-cost trade-offs can be realized through quality simulation. However, manpower can be reduced only to the point where wartime and peacetime mission requirements meet. And it is precisely at this point that flying-hour costs must increase to account for more maintenance manpower spread over a smaller flying-hour program. Incidentally, no one seems to know really where that point is, and it

doesn't appear that anyone is searching for it. It might be an interesting search, since manpower and programming actions deal in flying hours, and wartime requirements are in sorties that must be generated from an unknown posture at an unknown time.

Nonetheless, it is generally accepted that some savings are possible by effective use of simulation, especially in formal training courses and in airlift and strategic mission areas. However, the savings expected from simulation in tactical mission units portend a potentially serious dilution of air power. We have now reached the point where the record must be set straight—even at the expense of some credibility—or we must prepare to manage significantly different tactical fighter forces in the future.

Unlike the other mission forces, tactical fighter forces have a wartime sortie rate that is *greater* than the peacetime flying-hour program. Likewise, maintenance manning is based on wartime requirements that preclude making the manpower reductions explicit in a simulation concept focused on savings—savings tied directly to peacetime flying-hour costs. If savings were to be directed by DOD for economic reasons, serious dilution of tactical air power would occur.

Where, then, does simulation fit into the scheme of things for tactical mission forces?

simulation and tactical fighter forces

To answer that question, we need to examine the mission(s), pilot and ground support skills, and future fighter aircraft. The examination need not include CCTS's where full simulation application and savings are appropriate—*assuming they are not assigned a contingency combat mission.*

The mission of tactical air forces is widely known:

Tactical air forces are organized, equipped and trained to conduct sustained air operations aimed at destruction or neutralization of enemy forces.⁹

Tactical aircrews and ground crews together shape the weapon system continuum; however, they do have markedly different but equally important functions.

Tactical aircrews are currently assigned an almost impossible complement of mission tasks. They are expected to be expert air-to-ground bombers and skilled air-to-air tacticians. The myriad of training events for F-4 crews is enough to tell even the less-than-realistic manager that skills will be diluted by weather, ranges, maintenance problems, etc. This is the clue to simulation for today's tactical forces. Simulation should be viewed as supplementary training aimed at maintaining aircrew skills, which tend to be diluted through diversity of tasks and a wartime mission effort that is greater than the peacetime flying program.

Ground maintenance personnel of tactical forces are the same breed of technical specialist used throughout the Air Force. Although training requirements for aircrews could justify a larger peacetime flying program, this program naturally remains less than the seven-days-a-week program required to support the higher wartime mission sortie rate.

Since the ground maintenance personnel assigned to tactical fighter units are at the minimum level necessary to support the specified wartime sortie rate, flying hour reductions cannot include the manpower component when calculating anticipated savings. Therefore, the manpower savings explicit in current simulator/flying hour trade-off philosophy cannot be realized without degrading combat capability.

In addition to the mission, pilots, and ground crews, our future aircraft, principally the F-15 and A-10, need to b

surveyed. In keeping with the capacity of pilots to master skills, we will be back to a concept of air-to-air fighter pilots and air-to-ground attack pilots, both essential to accomplishment of the tactical mission. Once more we will be in a position to give aircrews and ground crews adequate training to maintain mission skills sufficient to assure success in combat. Even so, these new aircraft with computer-interfaced weapon delivery systems should be easily simulated, and mission enhancement should be possible.

Let's look again at the question of how simulation should fit into the scheme of things for tactical fighter forces. First, it should be considered additive to enhance skills, not a trade-off. Likewise, this view needs to be immediately and clearly articulated to the Office of the Secretary of Defense, the Office of Management and Budget, and the Congress. Moreover, if sources outside the Air Force persist in

legislating or directing flying-hour reductions in favor of simulation, they need to understand clearly that the flying-hour savings will be small because the manpower component of the flying-hour costs, which is required to support the combat mission, cannot be reduced. As a matter of fact, constant manpower spread over a smaller flying program would have the undesirable effect of increasing USAF flying-hour costs for tactical fighter aircraft.

If carried to its logical economic conclusion, the concept of simulation for savings through flying-hour trade-off presents a clear and present danger to the future of USAF tactical air power. It moves us toward the position where our wartime mission capability will approximate our peacetime flying program, and *you can't defeat the enemy with a simulator.*

Air War College

Notes

1. "Greater Use of Flight Simulators in Military Pilot Training Can Decrease Costs and Increase Pilot Proficiency," A Report to Congress by the Comptroller General of the United States, 9 August 1973 (hereafter cited as Comptroller General's Report).

2. *Ibid.*, p. 3.

3. *Ibid.*, Appendix 1, p. 23.

4. "Flying Training Efficiency," a letter from CSAF to ADC, ATC, MAC, TAC, and SAC, 2 February 1970.

5. "USAF Policy on the Systems Approach to Training (SAT)," an AF/DPTBD letter to all MAJCOMS, 13 November 1970.

6. *Ibid.*, para 4.

7. "Systems Approach to Training," a letter from CSAF to ADC, 2 February 1972.

8. Comptroller General's Report, p. 16.

9. AFM 2-1, *Tactical Air Operations*, 2 May 1969, para 1-1.

THE COMMANDER AND HIS THEOLOGY OF MAN

CHAPLAIN (LIEUTENANT COLONEL) JOHN G. TRUITT, JR.

WHAT is the value of man? Does a person have intrinsic worth independent from another's concept of that worth? Should a military commander even concern himself with such questions? Whether a commander thinks he should or not, he consciously or unconsciously answers such questions all the time. The question of man, whether asked from an economic, tactical, or humanitarian point of view, is of vital importance to the military commander. Any student of military strategy is aware of the importance of men within that strategy, but that is quite different from an understanding of the intrinsic worth of man. The military economist knows all too well the economic restraints that dictate the number of men within his force, but that says nothing about the real value of man; it considers only the costs of obtaining his services. To a tactician, a group of well-trained military men executing a battle plan with split-second precision is like an art form, but that does not address the question of their worth. In today's society the military commander is forced to think as a humanitarian as well as a tactician and economist. As a humanitarian he must broaden his approach.

At first thought, the commander might be turned off by the suggestion of thinking of himself as a humanitarian. However, any man who deals with life and death, as the professional soldier does, should give considerable thought to man from a humanitarian perspective and eventually even develop his own theology of man. Let us explore some of the implications of a commander answering

the very basic question as to the "value of man" from a theological point of view rather than the more usual political, economic, or tactical perspective.

A commander once wrote on the effectiveness report of a chaplain that his sermons did not adhere to the theology of the command. Such a statement implied that there was an established theology for that command; this was not the case, nor should it have been. But it did point out that as an individual this commander had very definite ideas concerning his faith and that as a "whole man" he related them to his official duties as well as his personal life.

Historically, many of our greatest generals have considered man from a theological perspective as well as the more obvious perspectives of their profession. Edwin S. Davis, in a research study entitled *Faith of Our Generals*, concluded that the faith of such famous generals as Washington, Jackson, Lee, Grant, Pershing, MacArthur, and Eisenhower was "clearly a motivating force."¹ It would be an error to infer that the faith of those seven generals accounted for their greatness or that it was the primary perspective from which they viewed their military duty, but Davis claims that their faith was a factor in the specific decisions and orders given relative to their command responsibilities.

Today's commander must still consider man as the basic instrument of war. In these days of technical revolution it is easy to lose one's perspective amidst the sophisticated machinery of warfare to the neglect of the basic ingredient, namely, man.

It would be one of the great tragedies of omission to become so engrossed in the amassing of a great arsenal, capable of man's destruction, that we should forget it was for man's protection that such an awesome arsenal was developed. Indeed, if we are not engaged in the furtherance of man's protection and dedicated to preserving his individual dignity and identity, then in amassing such a destructive force we are perpetrating the greatest tragedy of mankind. To avert such a tragedy, one of the basic questions for every military commander should become a theological one.

Even though it is recognized that man has been unable to achieve an adequate level of acceptance or understanding from among his fellows, yet from within Christian theology war is seen as a tragedy. And man continues to live as though he were a star playing out that old Western movie theme, "This world's not big enough for both of us." Although man A knows that man B is equipped with a weapon and fully intends to use it if challenged, he nevertheless continues to press his will upon him. While that may seem too simplistic to explain the complex economic and political issues that cause conflict between nations, it illustrates the truth that man is not only the basic instrument of war but also the basic cause.

When Christ confronted a group of people about to stone one of their members to death, he removed the point at issue from a group action to an individual action and thereby precluded any stones' being thrown that day. From that encounter, the men holding the stones did not really come to any better understanding of their brother, but they did come to a better understanding of themselves. Because of that, hostilities were avoided.

What are the implications of that story for the military commander? It exempli-

fies the situation in which the commander finds himself. He is often torn between his sworn obligation to be a stone-thrower—an instrument of the state—and the Christian concept that man's life is of a higher order and worth than the laws of society. That is to say, the whole is not of equal value to the sum of its parts. Sociologically, the individual and society are correlative, but the state assumes the greater value for itself. However, theologically, the individual is pre-eminent over the state. It is, after all, individual personality that will transcend the time-encompassed state. From a theological perspective, it is the freedom of individual personality that has the higher value. In a world of political realities, the state continues to predominate over individuals so that their personalities are suppressed or even lost. While this trend should be stopped within the state, it should be recognized also that individualism has never been a hallmark of military life, either. Should a military commander, then, try to adjust somewhat the traditional concept of his absolute authority over the individuals of his command, recognizing the need to preserve the freedom of each individual's personality? To make the point as clear as possible, and for purposes of contrast, it is Communism that would ultimately socialize man so that individualism is destroyed and personality completely suppressed.

Perhaps that leads us to ask the hard question (given the functions of the state): Can any state be Christian? Is it possible for a state to follow an ethic that was conceived for individuals?

Looking back to the Jewish beginnings of Christianity, is it correct to assume that the Ten Commandments were given to a "community," to the group of people that Moses led, or were they offered to the individuals who made up that community? Perhaps it was the latter and we have been guilty of expecting our state and

even its military instrumentalities to be other than they should. A state cannot function from an individual's ethic, nor may an individual be released from his personal responsibility by the state. This intensifies the need for a military commander to develop a clear theology of man. It also becomes clear that it would be in error to assume that the state should or indeed could delineate an ethic or theology for him.

Whereas in the Ten Commandments individuals are forbidden to kill, and murder is considered a sin, the same individuals acting as instruments of the state may find it their duty to kill. Thus the great paradox of the Christian military commander is that, while as an individual he is under the mandate of the commandments of God, he is also an instrument of the state, a professional warrior, a man of war. He cannot expect his responsibility under one to eliminate his responsibility under the other. A real danger might be that we so deceive ourselves as to forget where the truth lies.

The role of the military profession is to fight. Only when an adversary perceives that it is not in his best interest to challenge is there peace as a result of military force. When a commander goes into combat and commits his men to fight, they "throw their stones" not as individuals but as the military arm of the state. To relate this to the Biblical example referred to earlier, the men in that group were enforcing a law of the community by stoning one of their members to death; they were functioning as an arm of the society rather than as individuals. It was only when Christ took the matter out of the group or "state" context and placed each person on his own responsibility that the stones were dropped to the ground. Although a reader of history could make a strong case to show that thousands of

lives have been taken in the name of Christianity, nevertheless individual responsibility within Christianity is a restraint to violence.

The paradox which the Christian commander encounters is that, although as an individual he condemns war, he still considers it the right thing to do as an instrument of the state. Although the absence of war is preferred by the Christian commander, he is painfully aware that the world in which he serves is not free from evil, his own or his neighbors'. This awareness of the human condition is an insight derived from his theology of man. His theology also gives him an overriding concept as to the worth of man even in his sinful nature, and this awareness of man's individual worth becomes a powerful restraint. Perhaps it is the most important restraint for a world that could so easily destroy itself. For, today, when men gather to throw "stones" at another member of the world order, even though he may have transgressed the laws under which we have agreed to live, we could destroy mankind. And again we have a paradox in that we might also destroy mankind by not going to war when man's personal freedom is challenged. Even though one equates war with death, there is a condition of life that is worse than death: indifference to the quality of life. In the United States we have lived so long in an environment of freedom that it is hard to conceive of life any other way. But another way of life could be ours, and there are forces in the world that would like to banish individuality from existence.

A theological understanding of man's worth would not permit a policy of isolation or of indifference to other men and their struggle for freedom. We find that each generation within our country has sacrificed and suffered to preserve our legacy of freedom. In Davis's *Faith of Our*

Generals, he noted that from Washington to Eisenhower (which covers every period of our nation's history up to Vietnam) our highest commanders have been men who acknowledged and exemplified the importance of their faith. Although America is called a Christian nation, it is only more Christian than pagan to the degree that the individuals who incorporate it develop a personal theology and permit it to influence them in their decision-making.

But if we must fight, and if we contend that one who follows the Christian ethic prefers not to engage in conflict, how can we reconcile the fact that the American fighting man does so well in combat? Does he return to some base drive that is a part of his nature? Perhaps there is real truth in that, yet the many military decorations that are given by this country for combat distinction are not tied to the number of men a soldier has killed but rather to the courage, valor, and, if you will, nobility that rise within man which enable him to make the necessary sacrifices to accomplish tasks that appear beyond his capacity. Could it not be that a Christian theology which emphasizes the worth of man actually makes such heroism possible? Is it not yet another paradox that, while war is seen by a Christian commander as an outgrowth of man's (sinful) human condition, he decorates the men of his command because war raises within them acts of nobility?

Every commander needs a theology that will help him understand man's condition, to understand the worth of the men he leads and the worth of those he may be called upon to oppose. Since men hold nuclear weapons in their hands rather than stones, such an understanding could become our best and perhaps our only acceptable deterrent.

Finally, within the military structure itself considerable effort has gone into humanizing the force. Today military commanders are giving each member of their command more control over his life style. An enlightened understanding of individual worth and dignity has led the services to deal more courageously than any other group with the social issues that plague our nation.

So, "Right on," commander, as you sort through the many complex problems that confront you, not the least of which must be to answer the question for yourself, "What is the value of man?" Within your answer you will find new elements for an improved organizational management style, but, most important, you will find the moral incentives to help other people win their personal freedom, while defending your own. The military commander who has developed a sound theology of man will never fail to secure for himself or his brother a life that permits all men to be free. You might call that *détente* raised to the highest power.

Air Command and Staff College

1. Davis, Edwin S. *Faith of Our Generals: An Inquiry into the Significance of Religion in the Lives of Seven Great American Generals*. Maxwell AFB,

Alabama, Air University, Unpublished Air Command and Staff College research study, 1971.

PROFESSIONAL MILITARY EDUCATION FOR THE NONCOMMISSIONED OFFICER

Is It Effective?

CMSGT DONALD S. BESHORE, ANG

ONE result of the tremendous social and technological change in the Air Force has been the creation of professional military education (PME) for the enlisted airman and noncommissioned officer (NCO). These PME schools were created to produce a more efficient, effective, and productive enlisted manager for the highly complex weapon systems of the United States Air Force. To accomplish this objective, Headquarters USAF authorized major commands to establish leadership schools and noncommissioned officer academies. Several major air commands have PME schools under the jurisdiction of the individual command. This article, based on a study of the history and effectiveness of the enlisted professional military education system, advocates central control of the many and somewhat diverse schools.

history

In March 1974, the United States Air Force celebrated another milestone in its short but glorious history, the twentieth anniversary of professional military education for the noncommissioned officer. The first NCO Academy (NCOA) in the United States was opened at March Air Force Base, California, in March 1954. Its forerunner had been an NCO school established by the Strategic Air Command at West Drayton, England, in 1952.¹ There are now eleven accredited academies. In addition, there are 26 accredited leader-

ship schools.² However, it is important to note that the number of these schools has periodically increased and decreased over the last twenty years, depending upon the availability of sufficient funds and support within the commands to conduct these programs. For example, as compared to the 26 leadership schools in operation today, there were 56 in 1962, called NCO preparatory schools.³ A number of command NCO academies have been discontinued at various times since their birth. At one time the Strategic Air Command, for example, operated three NCO academies today only one is in existence.

In January 1973 the Air Force approved a new level of professional military education for the NCO, the USAF Senior Noncommissioned Officer Academy, under control of Air University, and opened its doors at Gunter Air Force Station, Alabama. This new phase of PME did not come about by the wave of a magic wand. In fact, when first proposed to the United States Congress, it was disapproved. The rationale for Congressional disapproval was the fact that the Air Force already was supporting eleven NCO academies. After additional study by USAF and Air University, another proposal was submitted, and this time it was approved. Thus it has taken the Air Force nearly two decades to implement fully a professional military education program for its noncommissioned corps, which is now comparable to that which has been provided for the commissioned officer since March

1946.⁴ The established enlisted and officer PME institutions in the Air Force are as follows:

<i>Enlisted PME</i>	<i>Officer PME</i>
Leadership School (LS)	Squadron Officer School (SOS)
Noncommissioned Officer Academy (NCOA)	Air Command and Staff College (ACSC)
Senior Noncommissioned Officer Academy (SNCOA)	Air War College (AWC)

effectiveness

Just how effective are current enlisted PME programs in meeting the needs of today's Air Force? Unlike officer PME programs, enlisted PME programs have evidenced a lack of continuity over the years since their initial establishment.

To be accredited by USAF, leadership schools and NCO academies must meet minimum standard criteria. The Leadership School curriculum entails at least 136 hours of instruction, conducted over a three-week time period.⁵ The NCO Academy course is of five weeks' duration and at least 225 hours of instruction.⁶ The Senior NCO Academy, which is the highest level of NCO PME, is of nine weeks' duration with a total curriculum of 352 hours.⁷ All these schools are required to be conducted in an in-residence status, with the exception of the Senior NCO Academy. In November 1973 an Extension Course Institute (ECI) correspondence course for the Senior NCO Academy program was activated, and it may be taken in lieu of in-residence training. Air Force Regulation 50-39, "Noncommissioned Officer Professional Military Education," establishes specific authority for the operation of these courses and detailed curriculum informa-

tion. However, core curriculum for the Senior NCO Academy is not yet included in AFR 50-39.

Although AFR 50-39 provides for enlisted PME for ranks E-6, E-7, and E-8, only a few of these noncommissioned officers are afforded the opportunity to attend, and then only after they have served as managers for approximately 15 years or more. A similar problem exists for the junior NCO seeking education through a leadership school. At present, only five major commands are operating such schools. Many of the leadership schools were closed when a manpower shortage developed as a result of the Vietnam war, and very few of them have reopened.

To further substantiate the point, each of the three schools is restricted as follows:

Leadership school. To attend an NCO leadership school, personnel must be in the grade of E-4 or E-5, with fewer than 12 years' total active federal military service, and have more than 6 months' retainability. As stated earlier, there are only 26 Air Force leadership schools in existence, and they have an average student load of twenty per class. The NCO leadership schools conduct eight classes a year and graduate approximately 4000 students annually.⁸ This accounts for only 8 percent of the total eligible personnel resource.

NCO academy. To attend a command NCO academy, personnel should be in the grade E-5 and possess a seven-level or be in grade E-6 or E-7. Personnel in pay grades E-8 and E-9 may also be selected for this level of professional military education. There are eleven command NCO academies in operation, with an average student load of 123 per class. They have eight classes a year and graduate approximately 10,800 students annually.⁹ Only 21 percent of the total Air Force eligible enlisted personnel resource has the oppor-

tunity to receive this level of professional education.

Senior NCO Academy. The recently established Senior Noncommissioned Officer Academy provides advanced professional military education for the senior NCO in pay grade E-7 if he is an E-8 selectee and those in pay grades E-8 and E-9. This school is programmed for five classes per year, with an average student load of 240 per class. This amounts to 9 percent per year of the total available strength in the rank categories eligible to receive this level of professional military education.

THE CURRENT PME programs at the major command academies are effective but inconsistent. For example, some commands conduct extensive outdoor military training programs while others have no outdoor military training at all. In the area of student evaluation, some schools have purely objective pass-fail systems, some have a combination subjective and objective pass-fail system, and others have no pass-fail criteria. Even course lengths vary. Some command academy courses have a five-week program, and others have up to six weeks. There are also differences in physical training programs, in education field trips, and even in the number of instructional and administrative staff personnel.

From the foregoing, it is reasonable to conclude that we are not meeting the total needs to improve the professional ability at all levels within the NCO ranks. In a 1971 article Colonel Doyle E. Larson said: "This deficiency in NCO leadership training is affecting the USAF at a crucial point in the organization: at the middle management level, where young and inexperienced noncommissioned officers are attempting to train, discipline, and motivate large numbers of young airmen of the

Now Generation."¹⁰ These middle managers are "the vital element that should be serving as the bridge to span the generation gap which separates the colonel from the basic airman."¹¹ In an era when we must do more with less, we cannot afford to lose sight of the fact that "these young noncommissioned officers are forced to do their job without benefit of any formal leadership or management training."¹² It is increasingly difficult to accomplish more with less without adequate education in leadership and management techniques.

Another aspect of PME must be discussed when considering the question of effectiveness and relevance of the current PME programs: the core curriculum.

In his article Colonel Larson states:

AFR 50-39 does not presently outline a course of training that will do the job. That course must be revised to provide greater emphasis on human relations, understanding human nature, and personalized leadership techniques based on a knowledge of the strengths and weaknesses of the youth of today Leadership schools must be opened up throughout the Air Force, on each base¹³

Since the publication of Colonel Larson's article, the core curricula for both the leadership schools and the NCO academies are being reviewed annually by major commands. Functioning workshops between various academies have dedicated themselves to update and recommend changes in core curriculum. Because of these annual reviews, there have been some increases of time allowed to the areas of greatest concern at the middle-management level. At present approximately 26 percent of the core curriculum, in both the leadership schools and noncommissioned officer academies, is devoted to the areas of human relations, understanding human resources, and personalized management.

Control and continuous improvement of enlisted professional military education are vital, if we expect to attain the goals that have been established to prepare the enlisted airmen for positions of greater responsibility throughout their careers.

recommendations

To have more effective enlisted PME programs, there are several things that could be done to eliminate the inconsistencies and allow for future expansion of the enlisted PME programs; i.e., centralized control with decentralized facilities could be established. Under this system each command would still operate its own academy; however, the Air University would oversee a program of standardization. Areas that could be effectively standardized are military training programs, evaluation systems, improved school facilities, increase in school faculties in order to accommodate an increased student load, and teaching methods. As the enlisted PME programs continue to expand and improve, Air University could coordinate such things as guest speaker/lecturer programs, faculty enrichment programs, instructor assignments (exchange programs between command academies), and even printed text materials. Additionally, leadership schools could be more effectively structured while operating under the decentralized control of base education and training offices with Air University mentorship. Furthermore, Air University could become the office of primary responsibility for AFR 50-39.

With the mandate of an all-volunteer force, greater emphasis should be given to leadership and management in all the enlisted PME programs. General Ryan and others have stated that more work must be done and done better by fewer people, but immediate corrective action must be

taken so as to give effective leadership and management training for junior noncommissioned officers, the E-4 and E-5 working supervisors who make the first contact with the young airman.¹⁴ This statement is just as applicable to the middle managers—the E-6, E-7, and senior noncommissioned officers.

If we are to be successful in meeting the requirements levied upon us, we must also have the ability to understand the human psychology of today's youth, those who work for us as well as those we work for. We cannot be satisfied with the current curricula and must continue to seek change if we ever hope to meet the needs of a changing Air Force. We cannot continue to relegate ourselves to 1950 management techniques if we expect to meet the Air Force objective in a rapidly changing culture.

THE DEFICIENCIES of noncommissioned officers in broad background and education limit the effectiveness of their leadership and management abilities. More important, the limited number of NCO personnel who are afforded an opportunity to attend Air Force professional schools points to the increased importance of establishing additional leadership schools for the junior noncommissioned officer and centralized controls for the existing noncommissioned officer academies.

The need to broaden the education of today's force has been stressed many times throughout the past years. In light of the increasing demands of doing more with less, as efficiently and effectively as possible, the effort to standardize professional military education opportunities for all enlisted personnel must not cease. Some years ago Major General J. V. Edmundson cited this need for education:

If our Air Force is to live up to the trust

placed in it, if it is to continue to possess the professional competence necessary to utilize to best advantage the current and future complex and exotic weapons systems that are entering our inventory; if it is to maintain familiarity with all sciences and skills necessary to develop, support and fight with these new families of weapons;

then our Air Force needs, in a real sense, educated and enlightened leadership.¹⁵

That kind of leadership is the goal of the Air Force professional military education programs. With such leadership, the Air Force will be able to meet its future challenges.

Senior Noncommissioned Officer Academy

Notes

1. Major Charles G. Randle, "Optimum Utilization of Senior Noncommissioned Officer," unpublished thesis, Air Command and Staff College, Air University, Maxwell AFB, Alabama, 1963, p. 9.
2. AFSAF 100-14-1, "AFSA 1973 Programming Conference Projects," Washington, D.C., November 1973.
3. Randle, p. 9.
4. Department of the Air Force, *Career Fact Book for the Air Force Officer*, p. 24.
5. Air Force Regulation 50-39, "Noncommissioned Officer Professional Military Education," 22 April 1973, para 2, p. 10.
6. *Ibid.*, para 2, p. 6.
7. Curriculum Catalog, "USAF Senior Noncommissioned Officer Academy," Air University, Gunter AFS, Alabama, 1973, p. 12.

8. AFSAF 100-14-1.
9. *Ibid.*
10. Colonel Doyle E. Larson, "Impending Crisis in Air Force Leadership," *Air University Review*, XXIII, 1 (November-December 1971), p. 19.
11. *Ibid.*
12. *Ibid.*
13. *Ibid.*, p. 20.
14. *Ibid.*
15. Major General J. V. Edmundson, USAF, an address, "The United States Air Force in Long Range Qualitative Educational Requirements," Washington, D.C., 17 October 1960, quoted in *Report of Symposium on Long Range Qualitative Educational Requirements*, pp. 24-29.

OF VICTORIES, DEFEATS, AND FAILURES

Perceptions of the American Military Experience

LIEUTENANT COLONEL DAVID MACISAAC



Books and Ideas

At no point on the spectrum of violence does the use of combat offer much promise for the United States today.

RUSSELL F. WEIGLEY,
The American Way of War

PROFESSOR Weigley's suggestion, rather more complex than it may appear on the surface or at first glance, will be treated in some detail later in this article. It appears in the concluding paragraph of a persuasive history of American military strategy and policy and derives whatever justification it may have from thoughtful considerations of our military experience dating back more than 200 years.

Another way to arrive at worrisome conclusions is to concentrate on the relatively recent past—say the last thirty years and the last ten in particular—

thereby to derive generalizations to the effect that (1) "the American military machine is defeated,"† or (2) American military power is a myth based on "military delusions of grandeur,"†† or (3) in refusing to acknowledge our "failure" in Vietnam, "we seem content to tread water in the hope that somehow the consequences of failure will just go away."††† Dreary diagnoses these, but nonetheless indicative of modes of thought that would likely be far more rampant than they presently appear to be were not the country's attention diverted by domestic political and economic concerns.

Stuart Loory, former newsman and now Kiplinger Professor of Public Affairs Reporting at the Ohio State University, became interested in his topic during 1969 and devoted most of 1971-72 to research, interviews, and a tour of military installations "throughout the world." Profoundly disturbed by much of what he saw and heard, Loory describes the American military today as

wounded, confused, drugged, demoralized, feeling betrayed, its lifeblood clogged in hardened bureaucratic arteries, its reflexes numbed by political intervention. . . . The American military machine today is not qualified to protect the nation's vital interests in situations short of nuclear exchange. There is some question that it could function properly even in that ultimate holocaust. The American military machine is defeated. (p. 10)

By way of illustrating the "dry rot" affecting the military services, Loory parades forth all the horror stories of the 1969-72 period, from race problems to

post exchange scandals, from drug abuse to hang-ups over hair length. He must have talked with every mumbler on active duty, the great majority of whom seem to derive a perverse joy out of posing their own particular problems as the most crucial and destructive in the history of the Republic. He is particularly shrill on the subject of the sex lives of men stationed overseas—Korea, Utao, Sydney, Saigon, etc.—concluding his chapter on "The Yobo Culture" by wondering aloud about the extent to which the military did not mirror a moral breakdown in civilian society but actually *fostered* it! (p. 234)

There's not much new in all this, except perhaps the degree to which Loory parades the dirty linen of *all* the services rather than singling out just one. Even his central thesis is not particularly original, but it is stated with unusual force. Since the end of World War II, he argues, the United States has transformed itself into a militaristic nation, skewing Clausewitz to the point where war was no longer looked upon as a *continuation* of political relations but rather as a *substitute* for political relations.

The defeat was made possible by a civilian leadership whose conceptions of the uses of military power were faulty. Those conceptions grew from the single idea that the spread of international communism could be contained with weaponry and with vast numbers of men to operate that weaponry. (p. 373)

The military played along, seeing in this perception a justification for its continued existence and expansion and becoming in the end an entity in itself that had to be

† Stuart H. Loory, *Defeated: Inside America's Military Machine* (New York: Random House, 1973, \$10.00), x and 407 pages.

†† John J. Chodes, *The Myth of America's Military Power* (Boston: Brandon Press, 1972, \$8.95), 224 pages.

††† William R. Corson, *Consequences of Failure* (New York: W. W. Norton & Company, Inc., 1974, \$7.95), 215 pages.

pampered and maintained like the nation's economy.

Mistakes could be tolerated but not the exposure of mistakes, for that might cast doubt on the utility and capability of the machine. This led to the toleration of the practice of always putting the best face on any situation, then to the encouragement of cover-up, and finally to the widespread practice of lying. (p. 334)

All very neat, and very damning—so much so in places as to make Watergate look like a parish picnic by comparison. In the end, however, the ease with which Loory leaps from the gripe of the individual dissident to broad-ranging generalities leaves the reader wary about accepting the diagnosis in its entirety. What about some of the parts, in particular Air Force-related parts?

Loory's picture of the Air Force singles out three primary areas of vulnerability. The first is a certain degree of "institutional paranoia" that discourages criticism and experimentation with tactical formulae at variance with established doctrine. In this respect one example he cites is that of Colonel Everest E. Riccioni's long and lonely fight to encourage debate and experimentation in fighter tactics—specifically to run a full-scale test of the Double Attack system in the face of long-continued opposition from the Fluid Four establishment at Nellis Air Force Base and their allies on the Air Staff. Certain recent developments—the establishment of the so-called "aggressor squadron" at Nellis, increasing interest in dissimilar ACM, a watchful eye on the Navy program out at Miramar, and the gradual evolution of something very much like the Double Attack idea but referred to as the Fluid Two—suggest a new element of Air Force flexibility in this area. This is all to the good, given the perils of rigidity in tactical doctrine when faced with new and un-

foreseen circumstances. Things appear to be a lot better today in this respect than they were during the late fifties and early sixties, when flexibility and the freedom to disagree were not exactly the hallmarks of the then commanding SAC system.

A second area of criticism relates very closely to the first—the seeming pervasiveness of what Loory describes as "the yes-man syndrome." Somewhat confusingly, Loory ascribes this phenomenon variously to "the doctrine of CYA" (p. 336) and at another place to the inflation of the OER system (p. 54). Whatever the cause, Loory sees no good that can come of it. In this respect he invokes Navy Captain Robert H. Smith's prize-winning essay in the March 1971 *U.S. Naval Institute Proceedings*:

So long as the system in which an officer matures is one that esteems the juggler of figures, and rewards men who can "sell" shaky programs over a man who stubbornly insists that a *bad* one be killed, then we will stay in trouble. (p. 336)

The only problem with statements like these is that they are a lot easier to agree with over the bar than to act upon in the pinch, when the chips are down and the recommendation to tell the emperor about his clothes is countered by veiled threats about one's continued status in good standing. Those who were in Seventh Air Force or VNAF Headquarters in late 1971 and fought the good fight against Project CREDIBLE CHASE may sympathize with Loory's charges.¹ They should also recognize, however, that the Air Force, as a large organization, is hardly unique in this respect.

Finally, in his chapter on "The Bridge at Thanh Hoa," Loory raises a whole series of severe questions about the Air Force dependence since World War II—first in England and the Marianas, then in SAC, then in Japan and South Korea,

presently in Europe, and recently in Thailand and Guam—on sanctuary bases, “completely safe, highly mechanized, heavily supported” with men and equipment. Loory quotes an unnamed young colonel to the effect that “the classic vulnerability of the sanctuary bases is virtually invisible to the current generation of unperceptive Air Force leadership.” That specific charge is not quite true, Air Force leaders—particularly in USAFE—having spent a great deal of their time over the last decade working the base vulnerability problem. Nonetheless, the avionics, spare parts, and AGE backup required by F-4s—let alone F-111s, F-15s, or B-1s—would create a logistical nightmare in the face of an attack by Warsaw Pact forces led by a pre-emptive air strike aimed at our bases of operation. Of which, of course, there are only so many, along with about zero combat aircraft that can operate off PSP or dirt. What one cannot argue with Loory is that the Air Force of today must remain ever aware that the relatively permissive environment surrounding its bases of operation—permissive in the sense of rarely facing imminent attack by enemy air power—could vanish overnight in a new conflict. (pp. 339–49) Given the nature of the equipment to which we are committed, we had probably better win the first air battle.²

WHERE Loory's *Defeated* is occasionally ill-informed and aggravating, John Chodes's *Myth of America's Military Power* is a disaster area unto itself. Chodes, formerly a promotion copywriter for *Forbes*, *Business Week*, and *Fortune* magazines, has also published poetry, fiction, and a play. There is some of each of those in this book as well.

Starting from a general charge raised by many writers—that Americans have

become hung up on replacing men with machines in warfare—Chodes launches right off into a severely unbalanced history of the European campaign of World War II. He chooses the European theater because, “like Vietnam, it was a land war in which the U.S. mobilized a large conscript army.” (The Pacific was largely a naval war and, besides, “the Americans largely depended upon a small number of highly trained volunteers—Marines—to do the bulk of the fighting.”) If this doesn't sound quite right so far, then consider the next sentence: “Thus, only the European campaign can give us a clear understanding of the events in Southeast Asia.” (p. 15. Emphasis added.) So much for demonstrations of logic; let's move quickly to a few of the “facts” that follow.

Chodes describes the war in the air over Europe as completely ineffectual, both misquoting and misunderstanding the reports of the U.S. Strategic Bombing Survey to the extent of alleging that it found “the airplane had only a minor detrimental effect on the Third Reich's capacity to make war.” (p. 45) He then proceeds to claim that the U.S. Army Air Forces willfully engaged throughout the war in a policy of “saturation bombing,”³ citing the criticisms of that RAF Bomber Command policy that were registered by Adolf Galland and later by Noble Frankland—both citing specifically British policies and attacks. (pp. 46–52) After referring again to “America's saturation bombing campaign against Germany,” he advises that German industrial production continued to rise well into 1944 “in the face of having absorbed an incredible 10,996,063 tons of high explosives and incendiary bombs on her cities and factories.” (p. 55) The unwary reader who does not know that the grand total of tonnage dropped on Germany throughout the war by *both* the RAF and USAAF was 1,419,604 tons may

find these statistics persuasive rather than exaggerated by a factor of *eight!*⁴

Perhaps the major danger with a book so blatantly error-ridden as this is the incompetent reviewing that seeks to encourage wider attention. In *The Nation* it is glibly hooded as "an important contribution to the growing awareness of the myths on which much military thinking and decision making are based"; in the prestigious *Library Journal*, on the basis of whose recommendations many librarians depend, we find even this: "At times Chodes's thesis is quite valid; his attack on airpower is based on scholarly research and it is particularly impressive."⁵ Good grief!

BILL CORSON'S *Consequences of Failure* bears little resemblance to the Loory or Chodes books. Where Loory speaks of defeat, Corson treats of what he prefers to call failure; where Chodes uses history he tends to invent it whereas Corson's grasp of historical perspective is what lends to his analysis its particular cogency. Corson, a retired Marine colonel, is well known to readers of military literature, particularly for his scathing indictment of search-and-destroy tactics in *The Betrayal*, which appeared in 1968. In the more recent book Corson ranges well beyond I Corps in an attempt to "evaluate the consequences of America's failure in Vietnam in terms of its observable effects upon the United States and its institutions." (p. 17)

Corson begins by reminding us to understand that we have not experienced a defeat in Vietnam but a "military failure"—defined as the nonperformance of something required or expected—a phenomenon with distinct characteristics and by no means an uncommon experience in the life of a nation. Such failures have been less studied than victories and suc-

cesses, even though "failure is as much a determinant of future political behavior as is success." Corson fervently believes that we will repeat our failure in Vietnam elsewhere unless we as a nation immediately acknowledge the fact of failure and undertake a rigid examination of our collective conscience. (pp. 15–18)

By means of a series of historical case studies, Corson sets out to illustrate how the violating or ignoring of certain principles of "limited war" strategy contributes to the failure of a great power in any conflict that does not affect its national existence. Starting with the Dacian and Parthian campaigns of the Emperor Trajan (A.D. 98–117), he moves through the catastrophic involvement of Spain in its war in the Netherlands during the sixteenth century to the British problems on this continent during the eighteenth century. Then, in somewhat more detail, he treats Britain's military failure in Ireland between 1916 and 1922. From these examples Corson derives a number of general principles that need be applied (and others that need be omitted) if a great power is to avoid encountering military failure. (pp. 28–30, 72–73) In essence, these boil down to abandoning—for limited wars not affecting national survival—MacArthur's definition of victory in favor of Clausewitz's rather more complex idea that winning means either to achieve one's objectives by offensive action or, defensively, to thwart the enemy's intentions; that losing is defined simply as the failure to achieve one's objectives *even though* one's forces are undefeated and still able to engage the enemy. Or, to quote Secretary of State Kissinger on Vietnam, "In the process we lost sight of one of the cardinal maxims of guerrilla war: the guerrilla wins if he does not lose. The conventional army loses if it does not win."⁶

The rest of Corson's book deals with

identifying symptoms of failure as it has affected American society as a whole—not simply the military establishment—and with some speculative scenarios on how the nation might react in the end, in terms both of its continued safety and self-respect. He treats drugs, dissent, race, the career civil service (“not unlike convicts serving a life term who have become trustees in a well-regulated prison”), the confusions of the antiwar groups, the state of the economy, and the plight of the Vietnam veterans. He has particularly strong feelings about the treatment accorded the veterans, some of whose antics gain them little sympathy from those still on active service; so strong are these feelings that they lead him into some thoroughly inaccurate comparisons with the returned POW’s.⁷ Generally, the second half of the book fails of its purposes, but this is understandable in what the author himself describes as a “trial essay.” But his major point—that we probably can’t win them all; indeed, in some instances probably should not even try without major modifications of traditional strategies—comes across well in the first half.

THE term “traditional strategies” in the preceding sentence is the major subject matter of the book cited in the opening paragraph of this article. Professor Weigley’s *American Way of War*[†] is the eighth volume to appear in the Macmillan series on the “Wars and Military Institutions of the United States,” under the general editorship of Louis Morton. It is also Professor Weigley’s second contribution to that series, his *History of the United States Army* having appeared in 1967.

The dust jacket describes this book “authoritative and controversial”; it is both of those and artfully persuasive as well. Starting with the American Revolution and concluding with Vietnam, Weigley traces the whole of American military history and thought, developing in the process a thesis that there has in fact developed a characteristically American way of conducting war. Borrowing from both Clausewitz and Hans Delbrück, Weigley begins by stating that there are basically only two kinds of strategy: the strategy of annihilation, which seeks to overthrow—where possible, utterly destroy—the enemy’s military power; and the strategy of attrition, exhaustion, or erosion, customarily employed by a strategist whose means are not great enough to permit him to pursue the direct overthrow of the enemy and who therefore resorts to an indirect approach designed to wear down either the forces or the will of the enemy.

Given the dearth of American writing on strategy prior to 1945, Weigley is forced to write not a history of ideas but rather a history of ideas as expressed in actions. The early strategists—George Washington, Nathanael Greene, Winfield Scott—were restrained by the limits of the resources available to them and therefore tended to adopt moderate aims. But later in the nineteenth century, given both the increasing wealth of the nation and the idolatry afforded the Napoleonic model by army officers the world over, the initial trend in favor of a strategy of attrition gave way to the adoption, in fact if not in name, of a strategy of annihilation. The turning point came during the Civil War when the nature of the North’s problem—to subdue, indeed to conquer, the South—

† Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (New York: Macmillan Publishing Co., Inc., 1973, \$12.95), xxiv and 584 pages.

literally required the escalation of war aims beyond anything hitherto seen in the American experience. Grant and Sherman, of course, stand out as the premier exemplars of the new approach, but even Lee's strategy of the offensive-defensive so much emphasized the offensive that it aimed at the destruction of the enemy army.

From Cold Harbor to Hamburger Hill is a long way, a century in fact, yet Weigley establishes a strong case for the unconscious acceptance within the U.S. Army of the search for the climactic victory, the Austerlitz battle designed not only to dislocate but to destroy the enemy armed forces, as the only legitimate means toward victory in war. This conception utterly dominated the strategy of World War II, was frustrated in Korea, and in the face of similar frustration in Vietnam reasserted itself in the form of "search and destroy" tactics and occasional suggestions about tactical nuclear weapons—and even, in one JCS paper, a recommended invasion of North Vietnam that "could be suspended short of full destruction of the DRV if our objectives were earlier achieved." "Full destruction of the DRV" is a long way from the "whole new kind of strategy and wholly different kind of force" proclaimed by President Kennedy in 1962 as an appropriate response to unconventional and guerrilla warfare, each with its special problems of indecisiveness. (pp. 464–67)

The military, led on in part by the impatience of its civilian superiors and unable to cope with prospects of indecisive warfare, abandoned its limited strategy and reverted to traditional modes of action in the hope of returning decisiveness to warfare. That the means by which this was to be accomplished would become abhorrent to large numbers of citizens at home—very few of whom had as big a

stake in "victory" as did the political and military leadership—was not a question that attracted the attention either of the JCS or their commander on the scene.

All very neat, perhaps too neat. The thesis has that peculiar symmetry often so dear to academics and other intellectuals; everything seems to fall into place. But have all the right questions been asked? Were the strategies adopted by Washington and Scott the result only of limited resources? Or were they conditioned as well by the nature and capabilities of their opponents? Was Lee all that hung up on the Napoleonic model, or did his strategy take into account the low opinion in which he held most commanders of the Army of the Potomac? What Weigley would seem to slight is the predominantly pragmatic nature of Americans, whose general tendency is to react to the circumstances in which they find themselves with the tools at hand. That these tools have become ever more devastating may well say more about the history of technology than about the American way of war. Still, the search for decisiveness *has* marked the American approach to war, along with impatience on the part of soldiers and civilians alike when that decisiveness has been delayed in its appearance. Impatience, in fact, may well be the driving force and the adoption of strategies of annihilation its reflection, given the tools available and the delayed results promised by a strategy of attrition, exhaustion, or erosion.

Before concluding with some thoughts on what the moral of this tale might be, the reviewer is impelled to point out that Weigley's case for the Navy and Air Force having adopted strategies of annihilation is less persuasive than his case for the Army. He is correct in seeing Captain Alfred Thayer Mahan's battle fleets, designed to produce Trafalgars on the Nelson model, as a fairly direct parallel with the search

for the Austerlitz battle, albeit at sea. But his argument that this conception was the actual driving force behind Admiral Nimitz's Central Pacific Drive requires more evidence.

Similarly, his treatment of Air Force doctrine in the thirties gives far too much weight to Douhet and Seversky at the expense of those within the Army Air Corps who devised the American technique and plans for strategic bombardment. General LeMay's campaign over Japan fits the thesis all too well, of course, but that came during the last few months of the war, when eventual victory had been assured and the pressure was on to achieve final and total victory as soon as possible with the least possible number of *Allied* casualties. What Weigley completely ignores is the work of those who designed the American theory for the employment of strategic bombardment as well as the specific goals set down by the wartime air planners.⁸ The theory set forth at the Air Corps Tactical School and incorporated in AWPD-1 and Operation POINTBLANK was most positively *not* a strategy of annihilation but rather of the attrition, exhaustion, or erosion of Germany's industrial capacity for war—Douhet, the Billy Mitchell of the early 1930s, and Seversky to the contrary notwithstanding.

Weigley's final four chapters treat the period since 1945, and they are superbly done. Especially is this true of Chapter 17, "Strategies of Deterrence and Action: The Strategy Intellectuals," covering the period 1952–60. Starting with the "New Look" and massive retaliation concept of the early Eisenhower years, Weigley traces the civilian-dominated revolution in strategic thought that marked the years 1956 to 1960, the revolution that spawned the academic fields of "national security affairs" and "defense policy." In these carefully reasoned and tightly written pages,

Weigley identifies all the major contributors (individuals, books, institutions, popular ideas) to the conceptions of national security policy ushered in with the election of President Kennedy in 1960. It is must reading for all military professionals who were either too young or too busy to have followed the debate in its original form. For this was also the revolution in thought that spurred the McNamaras, Bundys, Enthovens, Hitches, Taylors, and Rostows—and provided both the rationales and capabilities for eventual wide-scale military involvement in Southeast Asia.

In his final paragraph Weigley suggests that the use of combat does not offer much promise for the United States today. This tentative conclusion is apparently based on his dual conviction that: (1) nuclear combat, at whatever level, is unlikely to prove controllable and would hence add whole new dimensions of futility; and (2) the record of nonnuclear limited war in obtaining acceptable decisions at tolerable cost is also less than heartening, and therefore the history of usable combat may at last be reaching its end.⁹

The reader who would argue these propositions with Weigley is more likely to come armed with *technical* reasons why neither is necessarily true of the future—this plan, that command and control mechanism, a possible weapon breakthrough, etc. What he is *unlikely* to come prepared to argue with is an idea implicit in Weigley's having undertaken the book in the first place.

This book of history, like probably most histories that look back beyond only yesterday, is based on an assumption that what we believe and what we do today is governed at least as much by the habits of mind we formed in the relatively remote past as by what we did and thought yesterday. The relatively remote past is apt

to constrain our thought and actions more, because we understand it less well than we do our recent past, or at least recall it less clearly, and it has cut deeper grooves of custom in our minds. (p. xx)

This assumption—foreign to most professional officers though not entirely uncommon among professional historians—formed the essential starting point for Bernard Brodie's *Strategy in the Missile Age* as long ago as 1958. Brodie was more interested in how the European tradition in strategic thought had set the stage for the strategies of the nuclear age, but Professor John Shy of the University of Michigan took a similar line in a provocative and groundbreaking article late in 1971.¹⁰

In treating the meaning of a nation's military experience, Shy suggested that any "approximation of truth must take into account the deep, primitive understanding of what war means in the life history of the tribe." (p. 227) Speaking to the American experience specifically, he tried to show how military doctrine

has rested upon, and drawn upon for emotional sustenance, the characteristic attitudes and beliefs that were implanted, transmitted, and reinforced by almost four centuries of American military experience.

... In the future, those who seek to explain American governmental or popular behavior on issues involving war and the military must ask more seriously than they have before to what extent they are dealing with learned responses which operate beneath the level of full consciousness. (pp. 225-26)

Any such approach to strategic studies has traditionally been frowned upon in the Air Force, by far the most future-directed of the services and one in which the past is tolerated, perhaps, but generally considered irrelevant. In the Navy on the other hand (and they fly airplanes,

too) the direction taken by the Naval War College, beginning with the class entering in the fall of 1972, might suggest that the Air Force's congenitally cavalier attitude about the past is open to question. In an address to that class Vice Admiral Stansfield Turner, then President of the College, noted his dissatisfaction with the previous approach to strategy through the study of international relations and political science.

... Our courses of instruction have hitherto concentrated too exclusively on the brief period of military strategy since the close of World War II. The domination of this period by only two world powers will likely prove to have been a temporary aberration. The current trend toward a multipolar world would seem to confirm this. Studying historical examples should enable us to view current issues and trends through the broader perspective of the basic elements of strategy. *Approaching today's problems through a study of the past is one way to assure that we do not become trapped within the limits of our own experience.* We will not be concerned with history as chronology, but with its relevancy and application to today and tomorrow. We will start with Thucydides' *History of the Peloponnesian War*. [431-404 B.C.] What could be more related to today than a war in which a democratic nation sent an expedition overseas to fight on foreign soil and then found that there was little support for this at home? Or a war in which a sea power was in opposition to a nation that was basically a land power? Are there not lessons still to be learned here? ¹¹

IF THE NATIONAL strategy of the United States today is one of deterrence, can we afford to continue devoting the overwhelming majority of our study to how to fight—at whatever level of force—if deterrence should falter or fail? The essence of deterrence, to be sure, is a

force so capable that it will in fact deter a potential enemy. And this fact in turn requires that the overwhelming training emphasis out in the squadrons be on maintaining a realistic combat capability. But at the level of the war colleges, and on the whole question of preparing the future leadership of the service for high-level posts in plans and operations or the Joint Staff, is there not more room for the study of war as a social phenomenon, for the study of how different peoples and nations—but at least our own if no others—have tended to respond to military crisis? And is it not perhaps possible that another way to help prevent war is to know more about why nations have tended to go to war in the first place? All the past is prologue, and while yesterday's experience will not provide ready-made

answers to today's problems, a familiarity with that experience will make us something less than strangers to at least the general parameters to today's and tomorrow's problems. The study of history, rightly undertaken, contributes to wisdom. If nothing else it can lead us to realize that the unpredicted and unforeseen results of particular decisions and actions are those that are likely to have the most far-reaching and long-lasting effect. It can also teach us *what questions to ask*—of men, of theories, of systems, and of ourselves. Martin Blumenson said it best: "What history teaches is scepticism. What it gives is wisdom. Out of wisdom may come faith and hope, tempered by a sense of reality."¹²

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Notes

1. See *Aviation Week & Space Technology*, vol. 95, no. 16 (18 October 1971), p. 18.

2. Hopefully, the Directorate of Doctrine, Concepts, and Objectives, Hq USAF, has such matters well in hand. However that may be, the doctrinal issue in Air Force history has not enjoyed an unsullied record. See, for examples: R. Frank Futrell, *Ideas, Concepts, Doctrine: A History of Basic Doctrine in the USAF, 1907-64* (Aerospace Studies Institute, Air University, Maxwell AFB, Alabama, June 1971) and I. B. Holley, Jr., *An Enduring Challenge: The Problem of Air Force Doctrine* (16th annual Harmon Memorial Lecture in Military History, USAF Academy, Colorado; publication scheduled for December 1974).

3. The term "saturation bombing" appears repeatedly, is usually preceded by the adjective "American," and in all instances cited refers to RAF Bomber Command!

4. Well, actually 7.7. For the full statistics, their sources, and other games that have been played with both, see the present writer's "What the Bombing Survey Really Says," *Air Force Magazine*, June 1973, pp. 60-63.

5. *The Nation*, 16 July 1973, p. 60; *Library Journal*, vol. 98, p. 3007 (15 October 1973). Alvin Sunseri's review in *Library Journal* concludes that "this book deserves to be read by all citizens concerned with the state of the armed forces." "Ignored" would seem a more appropriate verb!

6. Henry A. Kissinger, "The Vietnam Negotiations," *Foreign Affairs*, 48, 2 (January 1969), p. 214. Quoted in Corson, p. 29.

7. For example, on p. 170, when he reports that "they were not isolated from one another." Still, his comments about the Vietnam veterans say things about the national reaction to Vietnam that we would do well to heed.

8. See, for example, Haywood S. Hansell, Jr., *The Air Plan That Defeated Hitler* (Atlanta: Higgins-McArthur/Longino & Porter Inc., 1972).

9. Pp. xxiii, 477. Weigley is not alone in questioning the continued resort to war. See, for example, Louis J. Halle, "Does War Have a Future?" *Foreign Affairs*, 52, 1 (October 1973), pp. 20-34, and Fred Charles Iklé, "Can Nuclear Deterrence Last Out the Century?" *Foreign Affairs*, 51, 2 (January 1973), pp. 267-85.

10. John Shy, "The American Military Experience: History and Learning," *Journal of Interdisciplinary History*, 1 (Winter 1971), pp. 205-28.

11. Syllabus for Strategy and Policy, Center for Continuing Education, The United States Naval War College, 1 September 1973, p. 1-3, emphasis added. See also Philip A. Crowl, "Education versus Training at the Naval War College, 1884-1972," *Naval War College Review*, XXVI, 3 (November-December 1973), pp. 2-10.

12. Martin Blumenson, "Some Thoughts on Professionalism," *Military Review*, XLIV, 9 (September 1964), pp. 12-16.



CHURCHILL IN DISTORTED PERSPECTIVE

WING COMMANDER R. A. MASON, RAF

IN HIS collection of writings *Letters and Social Aims*, published in 1876, Emerson wrote: "What anecdotes of any man do we wish to hear and read? Only the best. Certainly not those in which he was degraded to the level of dulness or vice, but those in which he rose above all competition by obeying a light that shone to him alone." Such lofty interpretations of the literary inclinations of his fellowmen are not shared by R.

W. Thompson, who, in his book *Generalissimo Churchill*,† attempts, in the words of the dust jacket, to show how Britain's World War II leader "as a Prime Minister . . . was poor, as a Minister of Defence, a faulty and dangerous strategist, and as a Commander in Chief a near disaster, imposing intolerable burdens upon his Chiefs of Staff, the Planning Staffs, and on his commanders in the field." When this, his 39th book, was published in England last November, Mr. Thompson told a local press reporter: "My books have never been in the best selling lists; I do not write for money or the mass public—my main concern is to tell it like it is."

† R. W. Thompson, *Generalissimo Churchill* (New York: Charles Scribner's Sons, 1973, \$8.95), 252 pages.

He added, "I don't rate very highly most of the books on Churchill. They are all too intimidated by him." Mr. Thompson is certainly not intimidated by his subject nor daunted by its enormous scope. In three parts the author traces first "The Long Apprenticeship" of the British Prime Minister up to his appointment in May 1940, then the activities of the "War Lord" up to the entry of the U.S.A. into the war, and finally the declining impact as Churchill—allegedly—mishandles his "Choice of Options" until the end of the war.

In the 100th anniversary year of Churchill's birth and a generation after his wartime leadership, it is timely that his contributions to Allied victory should be assessed without either adulation or denigration. Mr. Thompson has already published one book on Churchill, *The Yankee Marlborough*, and has established a reputation for iconoclasm in his treatment of Britain's victor at El Alamein in *Montgomery, the Field Marshal*. It is doubly disappointing, therefore, that his latest offering has very little to commend it either to the serious student or to the history buff.

Mr. Thompson first recounts the well-documented vagaries in Churchill's earlier career, particularly stressing the enthusiasm with which the politician seized opportunities to play the soldier in India, Cuba, South Africa, and Flanders. Before the end of the first chapter, however, there occurs the first intimation that the author's analyses may be based on rather more than traditional evidence:

Churchill's tragedy was in his mixed blood. Had he been wholly an Englishman in the sense that Charles De Gaulle was a Frenchman, he might have won the peace and found a new and noble role for his country as the cornerstone of a new Europe. Instead he wanted to reconcile the irreconcilable in himself and achieve a union of the English-speaking peoples, uniting the U.S.A. and Britain.

This hypothesis recurs several times later in the book and is, according to the author, the basic reason why Churchill failed to keep the U.S.A. and U.S.S.R. from dictating the later strategy of the war and the structure of the peace in 1945.

Mr. Thompson argues that Churchill should rather have marshaled the power of the British Commonwealth: with Canada to develop the atomic weapon; with the forces of India, South Africa, and Australia to reduce Britain's dependence on the power of the U.S.A. If British independence (or intransigence?) should have prompted General Marshall to support Admiral King's Pacific preferences, then,

Such a course would have left Britain in Supreme Command of all Allied forces in the Atlantic theatre. Provided such forces were concentrated upon the right places provided Churchill could have been restrained from attempting too much, the "Great Amphibian" might have come into its own.

Such an argument can be resisted in several ways. Without presenting a detailed case, one could ask, What about divided loyalties in South Africa, political instability in India, antipodean nervousness in Australia? Churchill's problems in controlling Commonwealth troops in North Africa in 1942 indicate the pitfalls to be found in co-ordinating the freely volunteered forces of independent countries. Where were the necessary landing craft for European adventures to come from, if not from American shipyards? Where, in the Commonwealth, was an industrial base capable of waging world war to be found?

There is, however, a more acceptable way of refuting Mr. Thompson's rather extravagant assertions. Earlier this year another book was published in England on Churchill's part in World War II. On page 154 of *Churchill as Warlord* (published by B. T. Batsford Ltd., London), Mr.

Ronald Lewin quietly explains why, in the development of tube alloys, Britain had no choice other than to seek the cooperation of the U.S.A.:

In the Spring of 1942 Sir John Anderson made an estimate of the requirements if Britain were to act independently and a gaseous diffusion and heavy water plant were to be erected in the United Kingdom. The conclusion was that within 5 years it would be possible to produce one kilogram of Uranium 235 per day, at the tolerable cost of some 50 million pounds. But this implied a peak labour force of about 20,000 men, half a million tons of steel and an extra supply of half a million kilowatts of electricity. Britain's resources of manpower and material were already stretched to the limit, and it can hardly be doubted that, if the question had ever arisen, Churchill and his Cabinet would have been compelled to abandon a speculative proposition which, in any case could not be expected to pay dividends before the defeat of Germany.

In fact, one of Churchill's greatest achievements must surely have been the securing and retention of American support from the very beginning of his administration.

But in Mr. Thompson's first chapter there is generally no indication that the book as a whole is going to be a disappointment. Although he adds nothing to a knowledge of Churchill's character already vividly illustrated by Alanbrooke, Ismay, Hopkins, Eisenhower, Moran, and many others, he does distil with precision the salient points made by most previous commentators. In two paragraphs he captures the superlative contradictions of his subject:

From the outset Churchill was utterly ruthless, quixotic, uncertain of temper, driving all who worked for him and with him to the limits of their endurance. His demands were incessant and imperious, covering almost every field of human endeavour.

He ignored the limitations of industry and the limitations upon the movement of armies, navies and air forces, and therefore upon strategy and tactics imposed by logistics. Technology and the proliferation of weapons, and the manifold and ever growing needs of troops, had changed the nature of warfare and its tempo. Churchill accepted no limitations until he had to, and then with bad grace. Constantly he extended the bounds of the possible.

Ideas poured from his mind in a ceaseless flow and demanded the immediate attention of dedicated men even when, as was often true, the ideas were impossible. It seems that no rational or reasonable man could have done the job, and Churchill was rarely reasonable or rational. His egocentricity was total, his energy boundless. He was a man with a dimension denied to ordinary men.

Churchill was, Mr. Thompson agrees, aptly named by Liddell Hart the "great animator of war."

In his second part, "War Lord," the objectivity of Mr. Thompson's first chapter begins to fade as he focuses largely on the North African campaign to illustrate the extent and effect of Churchill's "interference" with his commanders. In passing, however, he refers to Air Chief Marshal Dowding being "pushed into retirement. Probably his dogged intervention to save his fighters from being squandered in the final phase of the Battle of France had angered Churchill." In fact, Dowding's retirement had been mooted on several occasions since February 1937, and on 5th July 1940 Air Chief Marshal Newall, Chief of the Air Staff, had asked him to continue as AOC in C Fighter Command "until the end of October." Churchill denied to Dowding's face that he was aware of his retirement, and indeed it may well be that the key to the cold dismissal of the victor of the Battle of Britain lies in his frequently frosty rela-

tions with his Service colleagues rather than in the rancour of the Prime Minister.

Hereafter Mr. Thompson searches for evidence to substantiate his theory that Churchill's ambition was to be a "super general," to dictate not only "the strategy of the nations" but "the tactics of the commanders in the field." Unfortunately he first alleges that the Churchill of 1940 was the same man as when "as First Lord [of the Admiralty] in 1914-15 he had longed to seize Bordeaux with his left and to assault the Dardanelles with his right." One assumes that the French would have opposed the left-hand seizure at least as bitterly as did the Turks the right!

There is no doubt that Churchill's attitude towards Generals Wavell and Auchinleck left much to be desired. Wavell, the Prime Minister could never understand; from Auchinleck he expected too much too quickly. Wavell's case has been argued with strength and clarity by his biographer John Connell, who first labelled Churchill the "supergeneral," while the desert campaigns have been succinctly described by Corelli Barnett in his *Desert Generals*. Mr. Thompson draws heavily on both authors to allege that victories and reputations were denied or sacrificed simply to feed Mr. Churchill's egocentricity. His arguments are certainly strong, but they are neither clear nor succinct. In fact, in the central chapters of the book he steadily loses credibility as a selector of fact, a supporter of chronology, and an analyst of perception.

The author interprets the controversial events of the desert campaigns without exception to the detriment of Churchill. He also holds the Prime Minister responsible for the Greek disaster of 1941 while overlooking the concurrence of Dill, his Chief of Staff, and of Wavell, his theatre general. John Connell's restitution of Wavell's professional reputation is selectively

paraphrased, but the reader's understanding of either tactical decisions or clash personalities is hampered by Mr. Thompson's habit of sometimes repeating or even contradicting himself. Thus, on page 119 Major General Kennedy, Director of Military Operations, is quoted in a passage dealing with events of August 1940, while the same passage is quoted again, in full length, on page 121 during the account of the Greek tragedy. On page 92 one reads that "Churchill refused to understand administration and the limitations imposed by logistics and transport" but on page 93 that "he knew all about the inevitable growth of the tail of an army, of the enormous problems of transport and maintenance of growing armies of machines." Nor is clarity of sequence enhanced by the appearance, in the chapter concentrating on North Africa, of occasional outbursts against the bombing offensive "will o' the wisp" and the machinations of F. E. Lindeman to the detriment of the "good guy," Henry Tizard.

Mr. Thompson's attack leads him to ignore the facts in North Africa of poor British troop disposition, inefficient and ineffective leadership, bad judgement in the selection of field commanders, and repeated failure to analyse and deal with Rommel's recipe for success. As he accuses Churchill of jealousy—and worse—in relieving Auchinleck from command of the 8th Army, he ignores evidence such as the comments of Air Marshal Tedder, who held General Auchinleck personally in high regard. The desert air commander wrote to the Chief of the Air Staff on 25th July 1942, less than a month before Auchinleck was fired:

I wish he [Auchinleck] was a better judge of character and more ruthless in judging people solely by results. I also wish he had the ability to inspire the army here. I'm afraid he hasn't. . . . You may feel that

most of this is quite outside my province. It is. I only write it because I feel the whole situation is grave, and so far I see no move towards improvement.

The partiality of the narrative is fortunately both punctuated and, through implication, contradicted by occasional crowd bedrock observations of forces which did, in fact, impel the Prime Minister:

In those first two years the Middle East was virtually the only battle ground, the only place where British troops fought the German and Italian enemy. It was his consciousness of weakness and of American potential strength that made Churchill harass his generals in the Middle East, and to demand impossible victories, to insist upon premature attacks. Every setback in the field seemed to expose his weakness and his dire need.

Why, one wonders, should Mr. Thompson spend so much time imputing other, less desirable, motives to Churchill?

In Part Three of the history Mr. Thompson covers the events of the war subsequent to the entry of the United States, developing the progressive theme of excessive tactical interference and adding the strategic condemnation, already referred to, of subservience in the Atlantic partnership.

British enthusiasm at the formal entry of the U.S.A. into the war was immediately tempered by the disasters of South East Asia. Surprisingly, Mr. Thompson spends little time on Churchill's share in the responsibility for the loss of two battleships and the base of Singapore, which together constitute the biggest British defeat of the war. Yet Churchill had overruled his military advisers on two points: his decision to give Egypt priority over reinforcement of Singapore and his decision to send a naval "deterrent" force through the Malacca Straits. The former

First Sea Lord, his Chief of Naval Staff, and his task force commander paid very dearly, not for failing to estimate Japanese power and intentions, as alleged by Mr. Thompson, but for failing to comprehend fully both Japanese motivation and the antishipping potential of unhindered air power.

Only in his last chapter does Mr. Thompson take leave of the desert, even though 2½ years of Churchill's leadership remain to be analysed. His predilections have led him to make statements such as: "Unlike Churchill and Rommel, he [Auchinleck] could not focus his entire attention on the Western Desert." or "The frustrated Generalissimo-Prime Minister nursed his rancour, and since he had failed to be in at the kill he denied the kill." or "I believe . . . simply [that] Churchill felt at a disadvantage with men of the stature and integrity of Auchinleck and was always uncomfortable with such men." This last comment is not only perhaps the best example of Mr. Thompson's pejorative imputations but also, by implication, a massive slur on the characters of many men on both sides of the Atlantic with whom Churchill worked forcefully and successfully.

In his last chapter the author reflects upon the broader issues of strategy and in particular reverts to the inhibiting influence of Churchill's ancestry first mentioned at the beginning of his narrative. Although Anglo-American relations are covered spasmodically throughout the book, they are generally viewed from the pyramids rather than from London or Washington. Regrettably, Mr. Thompson does not seem to have read any of Michael Howard's studies of grand strategy: either *The Mediterranean Strategy in the Second World War*, *Grand Strategy* (Volume IV, U.K. official history), or *The Continental Commitment*. Had he done so, he might

not have generalised so glibly about American "smash and grab strategy" or "how absolutely divorced from political considerations were American military attitudes and strategies." He might have explained why the TORCH landings were "probably a potential threat to Russian aims"; and before criticising Churchill for not drawing more fully on the resources of the Commonwealth, he might have commented on the Ogdensburg discussions of August 1940 between Australian Premier Mackenzie King and President Roosevelt, from which developed the arrangements for Hemisphere Defence, without British participation.

Mr. Thompson is very familiar with earlier records, for example Bryant's edition of the Alanbrooke diaries; yet he still overlooks Major General Brooke's first conversation with Churchill, on the evening of 14th June 1940. Brooke withstood half an hour's verbal pressure—including insinuations of "cold feet"—to change his tactical dispositions in France, and later he commented: "Without sufficient knowledge of conditions prevailing on that front at that time, he was endeavouring to force a commander to carry out his wishes against that commander's better judgement. With all his wonderful qualities, interference of this nature was one of his weaknesses. . . . The strength of his powers of persuasion had to be experienced to realise the strength that was required to counter it." It is odd that Mr. Thompson, with all his insights, does not recognise in Churchill the familiar characteristics of the powerful man who will ride roughshod over, and even despise, those who will not face up to him and, conversely, will eventually accept and respect a logical opposition equally forcefully argued. Major General Brooke became Field Marshal Lord Alanbrooke, despite his initial and frequently repeated opposition to his chief.

It is difficult to avoid the conclusion that Mr. Thompson constructed his hypothesis—excessive interference, personal motivation, and the influence of lineage—and then set out to seek evidence to substantiate it. Consequently, he has not probed the strengths and weaknesses of his subject with any degree of objectivity despite occasional redeeming summaries. Nor, because of his selectivity and inconsistencies, is his criticism of Churchill convincing. Overall, *Generalissimo Churchill* does not match the quality of his earlier books. Fortunately, his contribution has been overtaken, at least in Britain and hopefully soon in the U.S.A., by the work of Mr. Lewin. In his *Churchill as Warlord* Mr. Lewin really does synthesise extensive primary and secondary sources to produce a clear, concise, and objective assessment of the war leader which is in every way superior to *Generalissimo Churchill*. All the major issues are clinically analysed: air to France, North Africa, the Bomber Offensive, U-boat war, relations with Stalin, Anglo-American planning, weapon development, South East Asia, Allied leadership and strategy in Europe, etc.

Yet even when further books have been written and when all secrets have been disclosed, it may still be easier to assess Churchill in two paragraphs, as Mr. Thompson does in his first chapter, than attempt to dissect him in volumes. On August 18th 1943 at Quebec, the Prime Minister's dispassionate and often critical personal physician committed two paragraphs to his diary after reflecting on his patient's declining influence on President Roosevelt and Harry Hopkins:

For that matter, it is not only the President and Marshall who are uneasy about the P.M.'s judgement. Brooke is worried by his inability to finish one subject before taking up another, by the darting processes of his mind and by the general instability of his

judgement. But are his critics measuring the Prime Minister by the right yard-stick? His claim to a place in history does not rest on his strategy. His gifts are of a rarer kind.

What his critics are apt to forget is that you cannot measure inspiration. That is why it is not easy to bring home to the military hierarchy the list of assets which easily tilt the balance in his favour: the strength of will that has bent all manner of men to his purpose; the extraordinary tenacity—the Americans call it obstinacy—with which he clings for months, and if need be for years, to his own plans; the terrific force of personality that can brush aside all doubts and hesitations and sweep away inertia, refusing to listen when weaker men begin to whine about difficulties; above all else,

the superb confidence he exuded in 1940. When the Prime Minister set out to inspire the country with his will to win he made up his mind that it must begin in his own bedroom. I have been with him there at all hours, I have seen him take a lot of punishment, and not once did he look like a loser. Not once did he give me the feeling that he was in any way worried or anxious as to the outcome of the fight. Gradually I have come to think of him as invincible.

The one who “obeys a light that shines to him alone” may well rise above all competition, but Emerson should perhaps have added that he can be a most difficult man to work for.

Royal Air Force Brampton

MILITARY HISTORY IN SYMPOSIUM

DR. RICHARD I. LESTER

JOHN ADAMS committed to his diary in 1770: “Pen, ink and paper and a sitting posture are great helps to attention and thinking.” Many pens, flowing ink, more than 200 pages of paper, and much thought and attention characterize the monograph study entitled *Soldiers and*

Statesmen.† Published in 1973, this compact, medium-sized volume is worthy of attention for its penetrating insights into the important historical relationship between soldiers and statesmen.¹ The study has special sig-

† Monte D. Wright and Lawrence J. Paszek, editors, *Soldiers and Statesmen* (Washington, D.C.: Government Printing Office, 1973, \$1.60), vi and 211 pages.

nificance in that it provides an elongated perspective of military-civilian relations, achieved through that useful historical phenomenon, the history symposium. Actually, the study embodies the printed "Proceedings of the Fourth Military History Symposium," held in October 1970 at the United States Air Force Academy.²

The symposium provided a forum for a critical examination of documentary sources, scholarly presentations, and empirical observations concerning the complex subject of civil-military ties from 1815 to the cold war era. Historical conferences, when well organized about a single topic, as this symposium was, usually achieve historical conceptualization by assembling a representation of early and late period scholars. This range leads to more effective historical inquiry and broadens the perspective of the subject under review.

One may ask, Was it necessary even to consider this subject? The answer is obviously in the affirmative. The history of human society has always been punctuated by war; but the study of military history has all too often been undertaken as if war existed in a vacuum. In our historiography until only recently and with few exceptions, there has been a lack of sense perception in the subtlety of civil-military relations. The symposium significantly contributed to the literature of this fascinating and labyrinthine subject. Every generation, as Mark Pattison once said, requires that the facts be recast in its own mold and demands that history be rewritten from its own point of view. This is essential, because ideas change, and the whole mode and manner of looking at things alters in every age. Thus, the task of those scholars attending the Academy symposium was formidable and ambitious, but history is both an ambitious and a formidable discipline.

The symposium searched for basic fac-

tors or principles regarding the relationships between soldiers and statesmen, as it sought to comprehend the past in order better to understand and cope with the future.

At the symposium that produced the study *Soldiers and Statesmen*, the participants had excellent academic credentials and impressive professional backgrounds. Their extensive publications are testimony to their productivity and scholarly contribution, covering such subjects as the Third Crusade in the 12th century, Maryland during and after the Revolution, the historian and the diplomat, Hindenburg and the Weimar Republic, total war and cold war, national security in the nuclear age, and a host of other significant topics. Organizationally, the papers were presented in chronological order. The selected period emphasis was effective.

The two key papers in the opening session treated the theme of soldiers and statesmen from 1815 to 1919 in France and Germany. In the first paper, Professor Gordon Wright, analyzing the French experience, emphasized the relative neglect of this topic by French historians compared to those of Germany. General speaking, there was an absence of crises in French civil-military relations in the 19th century. Wright maintained that routine-minded, unimaginative soldiers, abetted by ineffective and weak politicians, largely contributed to this situation. The French Republic made little headway between Waterloo and Sarajevo toward creating a viable system of civil-military relations. The contrast with Germany during the same period is indeed striking. While French scholars virtually neglected the subject, substantial reference was being made to it in Germany.

In the second paper Professor Andrea Dorpalen noted the great significance of the relative position of soldiers and state-

men in German history. He shows that by the 1870s the German army had become, to a large degree, an integral part of the nation, "the trailblazer of the united empire." Within this frame of reference were laid the foundations for the so-called phenomenon of "Prussianism," the quasi-military organic structure of civil society and the vital role of the army and its elite officer corps. Dorpalen suggests that the main conclusion to be drawn from Prusso-German experience is a reaffirmation of the Clausewitzian doctrine that the military should be subordinated to political leadership in all matters pertaining to national policy. Dorpalen rightly concludes that militarism is a civil-political problem and that every country is the recipient of the kind of civil-military relations it deserves.

Commenting on the Wright and Dorpalen papers, Professor Weigley viewed them from the perspective of American military history. Weigley, who is both eloquent and persuasive, maintains that the period from Vienna to Versailles is one of contrasts rather than comparisons between the French and German experience, with soldiers and statesmen on the one hand and the American encounter on the other. Weigley's summary emphasizes that in the United States during the 19th century the roles of soldier and statesman did not become clearly differentiated. This, in effect, is the basis of his thesis that, in the United States during this period, soldiers and statesmen were interchangeable; their roles had not become early separated as in fact they had in Europe, especially in Germany. Although the historical record corroborates Weigley's proposition, civil-military relations in the United States from 1815 to 1919 were such that it was generally agreed that the control and direction of war are the function primarily of the statesman. Only

the established government can begin a war and decide on the measures necessary to bring it to a successful conclusion. Thus, policy is the master and strategy the servant. Our own Civil War was indeed an object lesson in this regard. Working out a proper balance between the civil and military requires statesmanship of a high order on the part of both the civil executive and the military commander.

The second session covered the period from 1919 to 1945, and the focus was entirely on the American scene. Dr. Forrest Pogue, who opened the second session, concentrated on observing particular soldiers and statesmen.

With a straightforward writing style, containing both comment and solid interpretation, Dr. Pogue's analysis of the wartime Chiefs of Staff and the President has practical potential application for future similar situations. The necessity for teamwork in Washington was recognized early in the war. Accordingly, the Joint Chiefs of Staff was created to coordinate the operations of our armed forces on a worldwide basis. Dr. Pogue took as his central theme an examination of the Samuel P. Huntington thesis that the Joint Chiefs, rather than President Roosevelt, conducted World War II and that they did it by abandoning military values in favor of civilian ones. Pogue's paper illuminates with varying intensities of light and shadow that "the full facts concerning the activities of the Joint Chiefs of Staff," including such key personalities as Marshall, Arnold, and King, do not substantiate the position that the conduct of the war rested, as Huntington has suggested, primarily with senior military staff. With historical sensibility and factual accuracy, Pogue has attempted to put the role of the Joint Chiefs into a meaningful relationship with that of the President though, in the main, the functions and duties of

the Joint Chiefs of Staff were not formally defined during the war. The Joint Chiefs advised the President with regard to military strategy, the requirements, production, and allocations of munitions and shipping, the manpower needs of the armed forces, and matters of joint Army-Navy policy. Further, the Joint Chiefs made strategic plans and issued the implementing directives, but essential policy and decision-making remained with the President. Pogue concludes that differences arose, to be sure, between the views of the Chiefs and those of the President; but in the main, the Chiefs followed the guidance laid down by the Commander in Chief, and the fundamental principle of civilian control survived the war intact.

What also clearly emerges in the Pogue paper is that Marshall actually became the principal spokesman of the Joint Chiefs of Staff to the President, and thus by the early part of 1945 President Roosevelt relied upon Marshall extensively. General Marshall, by any measure, must be considered one of history's great leaders. He had the imagination, foresight, and ability to prepare and guide this nation to victory in the Second World War. He served his President and the nation well, but, perhaps more important, he had tremendous leadership qualities and was a man of enormous moral authority.

In the first of two scheduled commentaries, Dr. Maurice Matloff concluded "that in the last year of the war, perhaps the war itself outran both the military and statesmen, as problems of winning the peace began to come up against those of winning the war."

In the second commentary, Professor Gaddis Smith, with a synthesizing intelligence, supports Pogue and further blunts the Huntington thesis, which he categorized as "just plain wrong." Smith asserts that in order to create an atmosphere

more suitable to better civil-military relations, it is imperative that there be "broad continuing education of military officers in history and the social sciences on the one hand, and "broad education including some education in military history and principles, for the civilian side of national leadership," on the other.

After the traditional evening banquet, General Sir John Winthrop Hackett, Principal of King's College, London, delivered the 13th Annual Harmon Memorial Lecture, which constituted the third session. Sir John addressed his topic, "The Military in the Service of the State," from the standpoint of "what the relationship between the military and the state looks like today, what changes have taken place in our time, and what factors are at work leading to further change." As an officer trained in the best tradition of the British army, the ethical aspects of the soldier-statesman relationship were of particular concern to Sir John. Concentrating on the American experience, Sir John suggested that future historians will view the period 1945 to 1952 as a landmark in civil-military relations. He advised that until 1945, the United States approach to war was fundamentally anti-Clausewitzian, the national ethic being "not greatly in favour of the application of armed force to a political end."

However, events from 1945 to 1952 considerably changed the military dimension. It was clearly seen that military preparedness, perhaps more than ever before, required a military establishment capable of supporting the foreign policies pursued. In effect, military power is now meaningful only in direct relation to strategy, and strategy is most meaningful only in relation to national objectives. Under these circumstances, the military leadership is usually the first to recognize the inherent limitations of their profession.

Within this context, students of the soldier-statesman relationship doubted whether Clausewitz's aphorism that "war is nothing but the continuation of political relations by other means" retains its original meaning. Serious doubts have been raised as to whether all-out war can still be contemplated as a viable alternative in pursuit of national objectives. Sir John indicates that military force is quite clearly very much a part of current world affairs and has become not only an instrument but an end in itself. This situation requires a fresh look at the leadership roles and purpose of both soldiers and statesmen where the "wars of tomorrow will almost certainly be limited wars, fought for limited ends."

Although Sir John presented a highly intelligent interpretation of the symposium theme, his *confessio fidei*—a confession of faith—was in the judgment of this reviewer the most significant aspect of his lecture. This soldier-academician stressed that the military life is a good life. "The human qualities it demands include fortitude, integrity, self-restraint, personal loyalty to other persons, and the surrender of the advantage of the individual to a common good." Emphasizing that the military is a mirror of its parent society, reflecting strengths and weaknesses, Sir John has correctly concluded that the armed forces form a repository of moral resource that should always be a source of strength within the state. This distinguished soldier concluded with the conviction that the highest service of the military profession to the state probably lies in the moral sphere.

The fourth and final session dealt with John Foster Dulles: The Moralist Armed." This paper was presented by Professor Richard D. Challener. Dulles is a contradiction in terms. Claimed by some to be a man of immense courage and

stoutness of heart, he has been classified by others as a querulous, dropsical man with a shrill, ungoverned ambition—a man of outraged morality. Neither a saint nor a senile scoundrel, Dulles is a figure of considerable fascination—a "magma" erupting in the cataclysm of the cold war. With ample evidence of detached, objective assessment, Professor Challener carefully examines the record of Secretary of State Dulles. He devotes particular attention to those special qualities of the man that made him both the spokesman for and the symbol of the foreign policies of the Eisenhower Administration. Challener points up that the Secretary absorbed—if not inherited—the Puritan conscience and that this, together with his religious background, colored his perception of "atheistic communism." Dulles held fast to the concept of a coherent moral order in the world; and he believed that the Soviets were the enemy of a just and lasting peace. Preaching a vigorous foreign policy, Secretary Dulles denounced more "containment" of communism and advocated "liberation" of subject peoples behind the Iron Curtain. Although Challener mentions that Dulles was the apostle of "massive retaliation" and "brinkmanship," it should be noted that in actual practice the foreign policy of the Eisenhower Administration was far more cautious than Secretary Dulles's slogans would suggest. To President Eisenhower and to the more responsible military leadership during this period, nuclear war was unthinkable, since it might mean the destruction of Western civilization.

On balance, Challener suggests that Dulles was "no innovator but rather a man who carried inherited policies to their logical conclusion." Although this may be true, insofar as the soldier-statesman relationship is concerned, the military adapted its strategy to the Dulles concept of mas-

sive retaliation. In keeping with this broad policy, conventional ground forces were cut, and military-civil relations seemed to be fairly well orchestrated as the United States concentrated on developing nuclear weapons and airplanes to deliver them to their targets. In his commentary, Professor William Appleman Williams reminded the audience that Dulles was not the first amateur theologian with a hand in foreign policy. He mentioned Woodrow Wilson and William Jennings Bryan as examples of others who also held similar beliefs. In further discussion of this paper, Professor Louis Morton suggested that Dulles's legacy could lead one to conclude that the major problem today would appear to be not whether the civilian leadership can control the military but whether civilian leadership is being militarized in outlook. The militarization of civilian leadership is a rich area for serious historical research and would be a profitable topic to explore

in the ongoing drama of soldiers and statesmen.

The Fourth Military History Symposium, as reflected in the printed proceedings, thus made an effort, through historical perspective, to cope with the vital roles of soldiers and statesmen in attaining the pre-eminent goal of national security. The symposium tried to evoke, not just explain, the past, but to fill the pages of the proceedings with real people and ideas. Through solid effort and knowledgeable discussion, the symposium brought a fresh dimension to a topic of considerable interest to those concerned with the soldiers and statesmen. The final lesson as perceived by this reviewer is that perfectibility in the soldier-statesman relationship is to be continually sought, not as an end to be achieved necessarily but as an ideal. This is perhaps the real message of the Fourth Military History Symposium.

*Air University Institute
for Professional Development*

Notes

1. This reviewer is appreciative of the excellent introduction to the "Proceedings" written by Major David MacIsaac, USAF, Executive Director, 1970, Fourth Military History Symposium. The Introduction was very helpful in preparing this review.

2. The First Military History Symposium, held at the U.S. Air Force Academy on 4-5 May 1967, considered the topic "Current Concepts in Military History." Its proceedings were not published. The Second Symposium met on 2-3 May 1968 and discussed "Command and Commander in Modern Warfare." Its proceedings were published and have gone through a second printing. The third meeting in the series, held on 8-9 May 1969, was also published and analyzed. It was entitled "Science, Technology, and Warfare." The fourth meeting considered "Soldiers and Statesmen," the subject of this review. The fifth meeting was held on 5-6 October 1972 and discussed "The Military and Society." Its proceedings were also published. The Sixth Military History Sympos-

ium of the USAF Academy is scheduled for 10-11 October 1974, treating "The Military History of the American Revolution." Publication of the proceedings originated with the Office of Air Force History, Headquarters USAF, and the USAF Academy.

3. The principal participants in the symposium were Richard D. Challener (Ph.D.), Princeton University; Philip A. Crowl (Ph.D.), University of Nebraska; Andreas Dorpalen (Dr. Jur.), Ohio State University; General Sir John Winthrop Hackett (M.A.), Principal of King's College, London; Maurice Matloff (Ph.D.), Chief Historian, Office of the Chief of Military History, Department of the Army; Louis Morton (Ph. D.), Dartmouth College; Noel F. Parrish (Ph.D.), Trinity University; Forrest C. Pogue (Ph.D.), Director, George C. Marshall Research Library; Richard A. Preston (Ph.D.), Duke University; Theodore Ropp (Ph.D.), Duke University; Gaddis Smith (Ph.D.), Yale University; Russell F. Weigley (Ph.D.), Temple University; William Appleman Williams (Ph.D.), Oregon State University; Gordon Wright (Ph.D.), Stanford University.

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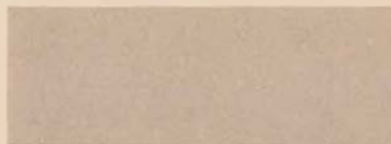


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The Air University Review Awards Committee has selected "The Role of the Chinese People's Liberation Army in the Last Decade" by Dr. Kenneth R. Whiting as the outstanding article in the September-October 1974 issue of the *Review*.

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