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Tactical forces are better prepared for the air war and the ground war—but face heavy losses in the budget war.

Tactical Warfare High and Low

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EVEN in their present condition, stretched thin and lacking some important capabilities, US tactical forces are considerably more effective than they were five years ago. Air Force-wide, tactical squadrons are better equipped, better supplied, and more proficient.

Given the essential parts of the improvement program planned for them, they will be reasonably prepared to fight and win in theater battles abroad. That, however, depends on their surviving the budget wars at home.

The attention of official Washington is riveted on the budget and the federal deficit. Intense budget-cutters tend to regard military force planners as intransigent and warn that defense spending will be reduced, with or without their cooperation.

Against that backdrop, the commanders responsible for employment of theater combat forces explained what they must have—and why—at AFA's Tactical Airpower Symposium in Orlando, Fla., January 30–31.

- The tactical air forces have four overriding system needs: the Advanced Medium-Range Air-to-Air Missile (AMRAAM), which will allow fighters to engage several enemy aircraft at the same time; the Low-Altitude Navigation and Targeting Infrared for Night (LANTIRN) system for attack of ground targets in darkness and bad weather; the F-15E dual-role fighter, which doubles as an air-superiority and long-range ground attack aircraft; and the Advanced Tactical Fighter (ATF), which, assuming it comes on line as scheduled in 1995, will be USAF's first all-new fighter in twenty years.
- Nobody knows for sure how much tactical airlift it would take to supply the warfighting commands in conventional combat. What is certain, though, is that Military Airlift Command does not have enough of the right kinds of cargo-carrying aircraft to do the job. Among other things, MAC needs the C-17 airlifter, which combines intercontinental range with the capability to operate from small, austere airfields.
- Quality considerations aside, there is a serious problem of numbers. The Air Force needs at least forty combat-coded fighter and at-

tack wings to meet its tasking. It presently has 36.6.

Both the progress and the problems in tactical airpower were illustrated by the report of Gen. Charles L. Donnelly, Jr., CINCUSAFE. He told the symposium that USAFE flying hours are up twenty-two percent since 1980 and that the number of sorties flown has increased by fifty-one percent. F-4Ds and F-15A/Bs have been phased out as the command has received F-16A/Bs and F-15C/Ds. The modernization, he said, will continue for the next two years with the deployment of F-16C/Ds and new forward-looking radars for RF-4C reconnaissance aircraft.

But USAFE urgently needs new weapons and a better ability to operate at night, and congressionally-imposed troop ceilings have left the command seriously shorthanded.

—Photo by Theodore R. Jessup

RUSS: Gradual progress toward forty tactical wings.

Toward Forty Wings

The Air Force is working a problem of quantity as well as one of quality in its tactical lineup. It has been reaching toward forty tactical wings since 1976. Although the target year in which that level is to be achieved has slipped several times, Gen. Robert D. Russ, TAC Commander, said that there has been "a gradual, continual increase in the number of wings. Right now, we have 36.6. The [aircraft] buy that got us there was in 1984. With the 1986 buy [of] 288 aircraft that will come into service in 1988, we will have thirty-eight wings [flying aircraft with an] average age of ten years."

The current projection is for the Air Force to field its fortieth tactical wing sometime in the 1990s. The forty-wing goal was set rather arbitrarily as a programming-budgeting compromise. Actual requirements would suggest around forty-four wings.

In response to a question from the audience about why he had not commented more specifically about Guard and Reserve force structure, General Russ said that he does not make that much distinction between active-duty and reserve forces wings: "I give them the same support. I ask them to do the same things. I test them in the same manner with ORIs [Operational Readiness Inspections]."

The thinness of USAF force structure is felt starkly in the Pacific. Gen. Robert W. Bazley, CINCPACAF, said that, without augmentation, he has only eleven fighter squadrons and 264 fighter aircraft. Vietnam—the third-ranking threat in the Pacific, behind Soviet Far Eastern Forces and the North Koreans—has an air force that General Bazley said "is equal in size to PACAF and equipped mainly with very capable MiG-21 Fishbeds and Su-22 Fitters."

The need for force structure was also declared by Maj. Gen. Thomas S. Swalm, Commander of the USAF Tactical Air Warfare Center at Eglin AFB, Fla. His organization conducts operational tests and evaluations of new weapons as they are introduced for use by tactical squadrons. He said that US tactical airpower must exploit the value of high technology and "magic systems" and is benefiting measurably from quality improvements but (in response to a question from the audience) that the single greatest deficiency today is "the number of airplanes that we have."

Adding force structure alone, however, is insufficient to meet the needs of today, much less for battles of the future when warfare will be even more complex, difficult, and dangerous. Army Gen. Fred K. Mahaffey, CINCREDCOM, recounted an incident from the recent joint exercise Bold Eagle '86 that explains why one of the tactical airpower system priorities—LANTIRN—is by itself so urgent.

"At one point," General Mahaffey said, "the Army force commander had planned a major night attack involving an armored division in order to capitalize on the superior night-fighting capabilities of his modernized armor and mechanized infantry forces featuring the M1 Abrams tank and the M2 Bradley fighting vehicle, which are capable of moving, operating, and shooting at night. In the end, he had to cancel plans for that operation. The air forces available could not support the operation because there were no effective night systems on the aircraft performing close air support. The planned attack had to be postponed until daylight. The availability of a system like LANTIRN would have made all the difference in the world."

DONNELLY: Biggest problem is troop strength ceiling.

Requirements High and Low

General Swalm described the dense battle arena of tactical warfare today, with its netted radars, integrated command control and communications, graduated air de-

fenses, and look-down/shoot-down fighters. "Between 1986 and the year 2000, we expect the battlefield to become more complex by a significant magnitude," he said, predicting "use of satellites, lasers, drones, advanced weapons, high-tech SAMs, and improved C^3I systems."

Faced with a rapidly expanding electronic order of battle, the Air Force has supplemented its Tactical Fighter Roadmap with "an Electronic Combat Action Plan that addresses the need, across all mission areas, to provide warning, jamming, and other disruptive and destructive techniques to ensure our effectiveness in the electronic spectrum," General Swalm said. The performance, supportability, cost, and deployment schedule of pods, internal countermeasures, and radar-warning receivers were just reviewed at top levels to make certain that C^3, warning, and countermeasures can be provided for the force as it builds toward forty tactical wings, he said.

To control the air in the 1990s, USAF must have the ATF. It needs AMRAAM even sooner than that, because, General Russ says, "It is absolutely vital that we have in the tactical forces the ability to have the first look and the first shot" in air-to-air fighting. Hot new Soviet fighters, such as the MiG-29 Fulcrum and the Su-27 Flanker, are creeping up on the dominance of the US F-15.

Meanwhile, things have been heating up on the ground, too. The Air Force will have to support the Army, which will be thrusting and maneuvering with its AirLand Battle tactics that, General Mahaffey said, "put emphasis on the spirit of the offense." The implications for close air support and battlefield air interdiction are considerable.

"Close air missions may be required on short notice," General Mahaffey said, "involving flights over dozens of kilometers of unsecured terrain to support a ground force maneuvering rapidly way beyond the forward line of troops or even in somebody else's area of responsibility. Will the air-tasking-order cycle be responsive enough to meet the needs? Can the close air support aircraft find the maneuvering force and the target? How do forward air controllers operate in such an environment? What if it's at night or in adverse weather?

"Air interdiction missions can no longer operate freely forward of some clear, straight fire-coordination line. The battlefield will be nonlinear and full of enemy and friendly pockets. Battlefield air interdiction may look a lot like close air support of a deep-attacking ground force."

In the first days of a war in Europe, Western fighters would be performing not only close air support and battlefield air interdiction in hostile territory but also flying deep-interdiction missions hundreds of miles to the rear of the enemy's first echelon. *(See also "The Opening Rounds," p. 76 of this issue.)* It is a tall order to reconcile federal budget pressures with funding for equipment and force structure to carry out these missions.

The Uncertainties of Airlift

Once engaged, forces in the well-defined theaters would rely on airlift as their lifeline for resupply and reinforcement. They would also look to the airlifters for redistribution of warfighting assets within the theater. And for operations in less predictable parts of the world, the adequacy of airlift would determine whether or not combat forces could get to the fight before it got out of hand.

It is ironic that a requirement so fundamental defies quantifying, even after forty-five years of trying. "We have *never* accurately determined how much airlift is enough in any theater," said Gen. Duane H. Cassidy, CINCMAC.

He recalled that, in 1941, the great-granddaddy of all air war plans—the legendary AWPD-1—predicted within two percent the number of heavy bombers it actually took to win the war. Airlift requirements, however, were more than four times what AWPD-1 had forecast.

Even the numbers-minded Robert S. McNamara was unable to calculate the airlift requirement when he was Secretary of Defense in the 1960s. The Congressionally Mandated Mobility Study (CMMS) done by the Pentagon in 1981 sets the goal of 66,000,000 ton-miles a day for intertheater airlift, but that's only a guess for purposes of budgeting. A Department of Defense-Joint

—Photo by Theodore R. Jessup

BAZLEY: We cannot afford strategy of attrition.

Chiefs of Staff study on worldwide intratheater mobility is two years late.

It is only the *upper* limit of the requirement, though, that forty-five years of calculating have been unable to pin down.

"Since the beginning of World War II," General Cassidy said, "airlift has become increasingly critical to battlefield success in every major conflict. The requirements for airlift have almost always been greater than were expected at the beginning of the conflict, and the variety of missions performed by airlift increased measurably as the conflict developed."

MAC is well short of the CMMS goal, which itself is generally acknowledged to be underestimated as well as artificial.

Those who think of tactical airlift in terms of C-130s and nothing more fail to understand the situation. "Sure, if you must concentrate a resupply through a container delivery system to troops in contact—or if you're moving some precision-guided munitions from Sembach to Hahn—the C-130 is the way to go," General Cassidy said. "On the other hand, if you are going to tactically insert some troops from Fort Lewis, Wash., to a target in Southwest Asia, the best airplane is going to be

the C-141. If you are going to tactically move some missile batteries, the best airplane will be the C-5. If you're going to deploy troops nonstop from Fort Bragg to Australia or Japan, you certainly wouldn't want to do it in a C-130."

The airlifter that MAC needs now, General Cassidy said, is the C-17, contrary to the opinions of those "who would have us buy additional C-5Bs and wish the problem of the airlift shortfall away." Unlike the C-130, the C-17 can carry outsize cargo. Unlike the C-5, it can use small landing fields. In Central Europe, there are 436 runways to accommodate the C-17, but only fifty-six that can handle the C-5. *(See also "MAC's Magic Number," November 1985 issue.)*

Undermanned in Europe

USAFE's General Donnelly, citing the numerical and qualitative improvements to his force since 1980, pronounced himself "positive about our ability to give the Warsaw

Photo by Theodore R. Jessup

SWALM: Future battlefields will be more complex.

Pact a bloody nose." He said that in the unlikely event the Warsaw Pact allowed time for Western forces to mobilize, they could throw back a strong ground attack. His biggest problem is the number of troops on hand in Europe without such a mobilization.

"Ensuring readiness with the possibility of a severely diminished DoD budget is not an easy task when we are limited by the congressionally imposed European troop strength ceiling," General Donnelly said. "While we have outstanding people, we just do not have enough of them. In this fiscal year, the ceiling forces us to civilianize 1,700 more military positions and delay or cancel projected growth. [It] creates artificial constraints and is our greatest weakness in improving USAFE's conventional capability."

The troop ceiling has remained fixed, even though new missions have been added. For example, authorized manpower levels in Europe did not go up when the ground-launched cruise missile (GLCM) began deploying. General Donnelly said that when GLCM deployment is complete, it will take 9,000 military people to man the system and that other units will have to be drawn down or civilianized in order to fit these troops under the manpower ceiling.

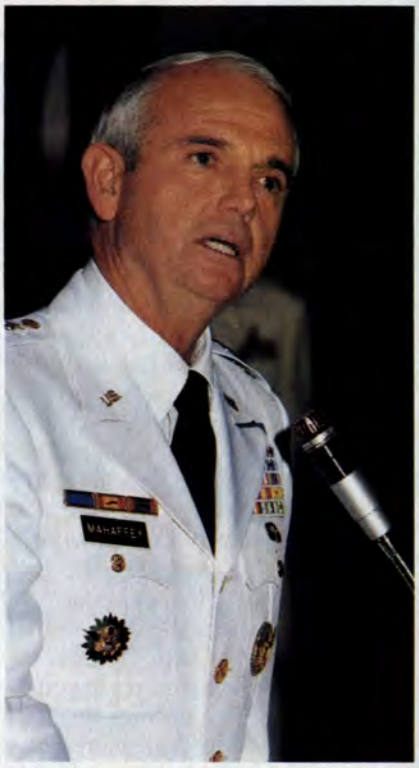
"We are trading nuclear capability for conventional capability," General Donnelly said, and thus creating the perception that "we are not as committed to conventional strength as we used to be."

He pointed out that USAFE would no longer have its OV-10 forward air control aircraft on the first day of a conflict. "We had to send them home [back to the United States] to make headroom," he said.

General Donnelly expressed confidence that his fighter force would be able to operate under attack. "[The enemy's] taking out a runway slows me down, but it doesn't stop me," he said, adding that USAFE's resiliency would be even better with the ATF, which will have a takeoff roll of less than 2,000 feet.

"We can find a surface that will get [USAF's fighters] off—and back down," General Donnelly said. In West Germany alone, there are 200 strips that can be used for tactical air operations.

A questioner from the audience wondered how effective new antiarmor weapons would be in Europe, where the forested terrain could provide protective cover for tanks. "If the tanks are in the trees, they're not going very far or very fast,"



MAHAFFEY: Emphasis on spirit of the offensive.

General Donnelly shot back. "The only reason for them to go into the trees is to hide. Tanks and APCs can't maneuver in the dense European forests."

Looking Ahead in the Pacific

General Bazley also had progress to report from PACAF, whose fighter force has increased from 200 to 264 since 1980. Six years ago, he said, aircraft in-commission rates were commonly between sixty and seventy percent, compared to eighty-five to ninety-five percent now. These gains, however, are not commensurate with the threat posed by the combination of Soviet, North Korean, and Vietnamese military might. The greatest single threat, of course, is the Soviet Union.

"The USSR has modernized its forces in the Far Eastern theater of military operations continually over the last decade," General Bazley said. "Today, there are almost 2,000 third- and fourth-generation fighters. [This is] no longer just a defensive posture. The Soviets routinely employ their 400-plus medium- and long-range bombers—including eighty Backfires—to project power throughout the Pacific. Since 1977, the Soviets have deployed one-third

of their SS-20 [intermediate-range nuclear missile] force to the Far East. This missile and bomber threat encompasses Alaska, Guam, the Philippines, and—with access from Cam Ranh Bay—well into the South Pacific and Indian Ocean."

World War II was won with an attrition strategy that overwhelmed the enemy with superior numbers and resources, General Bazley said. The next conflict in the Pacific, the Korean War, repeated the attrition strategy. General Bazley noted that 710,886 sorties were flown to support combat operations between January 1950 and July 1953. "Later in Vietnam," he said, "we expended enormous quantities of resources, producing sortie rates and ordnance expenditures previously unequaled."

He said that, in 1943, the Army Air Forces crashed more than 20,000 airplanes in *noncombat* losses alone. Today, the entire US Air Force inventory of aircraft of all types, including those operated by the Air National Guard and the Air Force Reserve, totals fewer than 10,000.

"We can no longer afford a strategy of attrition," General Bazley said. "We have to strike smartly to inflict wounds so severe that further prosecution of the war would be futile. We are forced to move toward a maneuver strategy—one where we strike at the time and place of our choosing. There must be a closer scrutiny of targets and a more refined prioritization. We have to be able to mass our forces against his weaknesses."

Modern systems, properly employed and supported, can produce unprecedented combat capability. General Bazley recalled the two strikes on the ball-bearing plants at Schweinfurt in World War II. The second raid put up 291 B-17 bombers, each carrying a crew of ten.

"We did get some ordnance on target and a lot around the target, but at what a price. We lost nearly 600 young Americans as sixty aircraft went down. Another five airplanes were abandoned prior to landing back in England, and seventeen others were damaged. The Germans continued to produce those war-important ball bearings, and we changed the way we did business.

"Today, we could send a handful of F-16s, [each with a] single pilot, against a similar target and take it out with nonnuclear conventional ordnance—dumb bombs plus smart airplanes. Additionally, we could do it at night or in bad weather with Pave Tack and soon with LANTIRN-equipped F-16s or F-15Es."

—Photo by Theodore R. Jessup

CASSIDY: Airlift requirement never quantified.

The first F-15E dual-role fighters come off the line in 1986, and PACAF eagerly awaits the arrival of its initial complement. The F-15E has a combat radius of 670 nautical miles on a high-low-high profile mission. Its long reach, either for air superiority or ground attack, is ideal for PACAF, where vast distances are a major fact of life.

PACAF conducts approximately fifty exercises a year. Although there is no NATO-like formal structure to pull things together in the Pacific, ninety-eight percent of the exercises are joint (involving other US services), and fifty-four percent are combined (with allied nations participating).

Since the symposium was held a week before the Philippine election, General Bazley was bombarded with questions about US basing rights in the Pacific.

"There is no really good alternative to the Philippine bases," he acknowledged. "The strategic importance of Clark is obvious." He said that "nonknowledgeable people" sometimes suggest Guam as a possible substitute. "To operate fighters between Guam and Cam Ranh Bay, we'd need every tanker in the Air Force," he said.

Other Operations

Several of the speakers fielded questions about USAF preparations for low-intensity conflict and defense against terrorism.

"It's virtually impossible to protect all our installations," General Donnelly said. "A determined terrorist can get you. Ramstein alone has fourteen miles of fence. How can you secure all that?"

General Russ said that the Air Force and the Army were that day opening a joint Low-Intensity Conflict Center to work on concepts, procedures, and doctrine. But, he said, "The answer to terrorism doesn't really lie in airpower. It lies in getting enough international pressure put on the people who are financing that sort of thing."

General Cassidy, who commands USAF's Special Operations Forces, said that proposals for a separate service for special operations "make little or no sense." And, he said, "You can't throw money at [the Special Operations Forces] and expect to turn things around overnight. They have been neglected moneywise for some time. They are not being neglected now. We've got to give it a chance to mature. And I think that should be done within the institutions that we have."

Responding to a question of a different nature, General Russ said, "We currently have no plans for buying a new airplane to replace the Aggressors. We need to put our money elsewhere."

Tactical Air Command operates two "Aggressor" squadrons of camouflaged F-5Es that simulate late-model MiGs for training exercises. Aggressor training is also conducted with F-5s in the Philippines and in Great Britain.

"We are this year putting $25 million into upgrading the F-5 to give it a better radar, that sort of thing. The real benefit of the F-5 or any aggressor airplane is the tactics that the crews use. It's not so much the aircraft itself. It doesn't have to simulate *exactly* what the Russians have." ■