A new doctrine is taking shape. The Air Force of the future may eliminate artificial divisions of labor and project flexible power at great distances from US bases.

Global Power from American Shores

BY JAMES W. CANAN, SENIOR EDITOR

"AIRPOWER is indivisible. We don't speak of a 'strategic' or a 'tactical' Army or Navy, yet those terms are constantly applied to the Air Force. The overriding purpose of every plane, whether it is a bomber or a fighter, is to win the air battle on which victory on land or sea is predicated."

Those words were spoken thirty-eight years ago, in 1951, by Gen. Hoyt Vandenberg, then Chief of Staff of the Air Force. His message that strategic airpower and tactical airpower are all of a piece in terms of their military purpose had been borne out in World War II and in the Korean War, being waged even as he spoke. Its truth would again become evident in Vietnam.

In each of those wars, bombers assigned to strategic missions were used to support tactical operations—B-29s in the Pacific and Korean theaters and, in Vietnam, B-52s in close air support of US Marines besieged at Khe Sanh. In Vietnam, obversely, F-105s were flown on countless missions that purists would have defined as strategic.

Now the Air Force is moving to endorse indivisible airpower as official writ. It is updating the doctrine by which it lives, the doctrine for employing airpower. In the process, distinctions long drawn between strategic and tactical airpower and between the combat locations of air and space are going by the wayside.

That's not all. Ideas for projecting indivisible airpower in new and different ways are percolating in the Air Staff shop of Maj. Gen. Charles G. "Chuck" Boyd, Director of Plans for Lt. Gen. Jimmie Adams, Air Force Deputy Chief of Staff for Plans and Operations (XO).

Says General Boyd: "We're thinking about alternative futures, about the kinds of aerospace power that will be required. We're giving thought to what the world might look like ten years from now to forty years from now, and we're thinking about what kind of an Air Force, what kind of a national defense structure, might be appropriate for that altered world.

"We're going about this in a very serious way."

To General Boyd and his planners, the only thing that really matters about airpower, when you get right down to it, is its effect on the

—Illustration by Randy Lyhus

enemy in the pursuit of US military and political objectives. Whether the flying machines that apply airpower are called strategic or tactical, or whether they are flown in air or space or both, is unimportant.

For now, USAF's planners are continuing to call airpower just that—"air" power—even though they are factoring space into it. They are inclined to make space synonymous with air for purposes of simplification. But the term "aerospace power," as used by General Boyd, is an option.

Under whatever heading, USAF is making provision for projecting airpower into faraway conventional conflicts from bases in the United States. Plans are afoot for long-range combat aircraft to weigh in, if need be, with nonnuclear weapons in various scenarios all around the globe. This concept has already taken hold with B-52Gs and B-1Bs and is in the works for the stealthy B-2s.

The Air Force has never made any bones about the B-1B's potential for projecting nonnuclear airpower as a penetrating bomber. Four years ago, Gen. Lawrence Skantze, USAF (Ret.), then the Commander of Air Force Systems Command, declared that "the B-1B has been designed to support tactical forces behind the FEBA [forward edge of the battle area]. . . . There's no doubt it can play a significant role in the kind of tactical warfare expected in the AirLand Battle scenario."

In a Class by Itself

Amen, and then some, for the B-2. The Air Force puts the B-2 in a class by itself and has given it superstar billing in the streamlining of airpower doctrine. The B-2 can be seen as both cause and effect of that effort.

USAF trusts that it will be better able to justify its need for the controversial, costly B-2 by weaving into its updated airpower doctrine all the things that the bomber can do, thus making its prowess indispensable to that doctrine. However, the revolutionary capabilities offered by the B-2 have made it possible—indeed, necessary—to update the doctrine in the first place.

In arguing that the US should ante up for the B-2, the Air Force emphasizes the enormous military value that it expects from the bomber—value far surpassing the B-2 program's skyscraping price tag.

Says General Boyd: "The B-2's principal role will be that of a SIOP [single integrated operational plan] penetrating bomber, because the mission of nuclear deterrence will remain the most important one that we perform. I cannot envision a world just yet in which we can effectively deter nuclear war without a penetrating bomber, a land-based ICBM, and a sea-based ICBM—in short, the triad.

"But the B-2 may also be the best system for nonnuclear conflict that we have. Right from the outset, we have been thinking about, and planning, how to use it across a wide variety of tasks. We can't help but be intrigued by how useful this aircraft ultimately will be."

The B-2 translates into "open sesame" for indivisible airpower and the doctrine to make that airpower come to pass.

Asserts General Boyd: "Absolutely fundamental to the concept of indivisible airpower is the notion of a long-legged, stealthy penetrator that can be armed with conventional or nuclear weapons." Such a bomber becomes all the more important "if we have to put even more of a premium on our ability to project power from the shores of this nation."

More Integrated Airpower

The B-2 is shaping up as the cleanup hitter in a new lineup of Air Force operational organizations, now under conceptual development in General Boyd's shop, for doing just that. Each such unit might embody all, or most, types of combat aircraft—for example, long-range bombers, shorter-range ground-attack aircraft, air-combat fighters, and radar-attacking Wild Weasels—that are now segregated in single-purpose units.

The combat units with catch-all aircraft would also contain space specialists, perhaps formed into "space squadrons," responsible for making optimum use of such orbital assets as communications satellites and reconnaissance satellites.

"We can't think of the future without thinking about space," General Boyd declares. "Most, if not all, of the missions that we perform in the atmosphere today we will be able to perform from space.

"We should not turn to performing them from space just to be able to say we can. However, as technologies evolve, and if they make it possible for us to do our missions more efficiently, more effectively, and at less cost from space, then we must do so, whether those missions be close air support, interdiction, offensive counterair, defensive counterair, or whatever."

The National Aerospace Plane program is the seedbed of such technologies. The ultimate goal of the NASP program is a family of hypersonic aircraft/spacecraft for military and commercial purposes. They would be capable of taking off from runways, vaulting directly into orbit, and flying in the atmosphere at speeds up to Mach 25. But the NASP program has been stretched to cut its short-term costs and long-term technical risks, and Air Force planners must take a wait-and-see approach to its power-projection potential.

Action central for the updating of airpower doctrine is XO's Deputy Directorate for Warfighting under Col. John A. Warden III. He took on the job more than a year ago at the direction of General Boyd and his boss, Gen. Michael Dugan, then the three-star DCS/XO, who is now the four-star CINC of US Air Forces in Europe. General Dugan's successor as DCS/XO, General Adams, continues to back the directorate's doctrinal endeavors.

A Redefined Threat

The blue-suiters do not have stars in their eyes about the Soviets. No one in Air Staff planning circles expects the Soviet threat to go away. In fact, says General Boyd, "I have not seen any substantive changes in Soviet force structures or correlation of forces. . . . We are not at all certain that the world is changing in significant ways, but we are doing some conceptual thinking on the basis of the possibility that it is."

Whether the Soviet threat diminishes or resurges, it seems obvious to Air Force strategists that ever-graver threats to US interests—and to US national security—will rise up elsewhere, especially in the increasingly well-armed Third World.

As of now, those threats are nonnuclear, but there are disturbing indications that they may not stay that way. They cannot, in any case, be taken lightly.

The increasingly worrisome dimensions of Third World threats have prompted the Joint Chiefs of Staff to conclude that deterring or waging a so-called low-intensity conflict in those parts of the world will be the most demanding job for US military forces in the foreseeable future.

US politico-military strategists evidently have come to believe that the prospect of US involvement in such conflicts is greater than the likelihood of either general nuclear war with the USSR or a Warsaw Pact nonnuclear attack on NATO.

To USAF, a threat is a threat is a threat. Says Colonel Warden: "We need to examine whether the world changes all that much simply because the Soviets seem to be going away. The Soviets have been our principal, almost our exclusive, enemy, and everything that happened around the world was somehow associated with them.

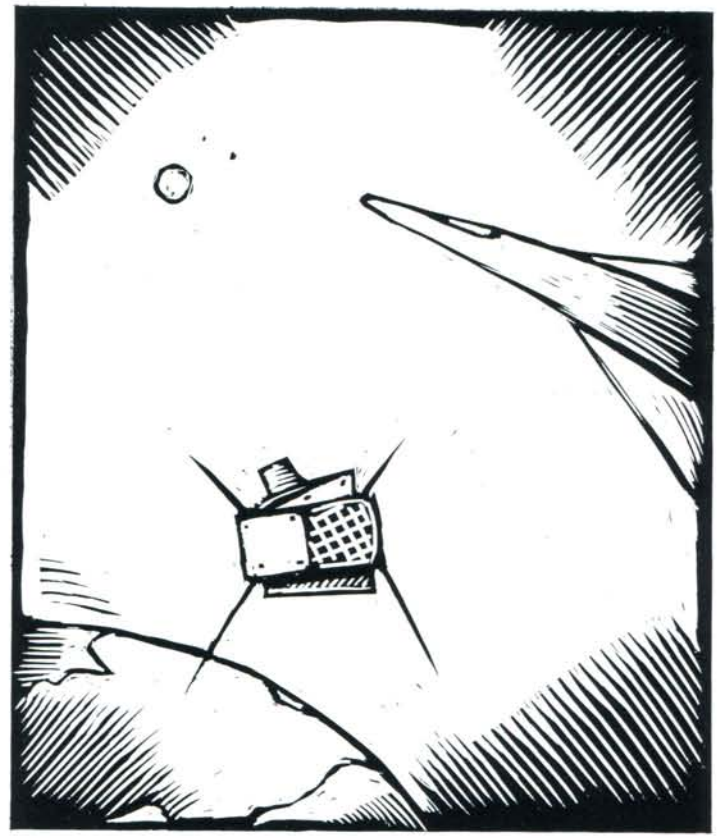
"Because we've had that focus, we might conclude that when the Soviet threat recedes—it isn't going away—the world becomes much safer. But in fact it may not."

Cases in point: the recent ordering of advanced Soviet MiG-29 and Su-27 fighters, respectively, by Iran and Libya, two demonstrably warlike nations likely to remain hostile to the US and to other states in their regions that support, or are sympathetic to, US interests.

There will almost certainly be many more instances of US-baiting nations arming to the teeth—not just with modern variants of fighters, tanks, and the like, but also with globally scarier things like ballistic missiles and the makings for chemical and biological warfare.

Lt. Col. (Col. selectee) Mike Hayden, acting director of the XO warfighting shop's Strategy Division, suggests that "the world may actually become more fearsome for us, not safer" if the Soviet threat lessens. The reason, he says, is that "there are lots of 'Balkans' all around the world where war could start. The Soviet influence tended to keep them under control. But they have their own dynamics, and they'll be more likely to create tensions as the superpower influence recedes.

"It may be difficult to explain this to the American people, but the threat to the US will nonetheless be at least as real as it is now. The potential threat to the United States at the height of the Cold War was probably greater in terms of nuclear exchange. But now the real threat, in terms of Americans really being put at risk and dying, could come at us from all angles and could be, in fact, much worse in a multipolar world."



Drawing the Right Conclusions

For USAF strategists, drawing the right conclusions about the dimensions and directions of future threats is the first order of business. Those conclusions are the wellsprings of Air Force thinking on how best to project airpower in the future and on the forces and weapons that will be required.

"We're looking at threats in a different way," explains Lt. Col. (Col. selectee) Dail Turner, chief of the warfighting directorate's Long-Range Planning Division. "In the past, we've tended to focus on military threats. Now we're taking a broader look at all threats to our national interests."

From that viewpoint, certain kinds of threats are seen as emerging from nations that are now allied militarily and geopolitically with the US. Such nations may find it expedient to team up with one another, as in western Europe, or with nations unfriendly or cool to the US, as perhaps in the Pacific basin and the Mideast, in order to strengthen their own economies and mount stronger economic challenges to the US.

Some such US allies may also see fit to oppose US policies vis-à-vis the Third World. Accordingly, they may forbid the US to use bases on their soil and may deny the US overflight rights to carry out military action in the furtherance of those policies.

There is already plenty of precedent for this kind of policy. It could get out of hand if US allies no longer see the Soviet threat as big enough to warrant their common cause with

Washington. Political pressures in such places as western Europe, Korea, the Philippines, and even, in the long run, Japan, could wear out USAF's welcome at more and more forward air bases, as at Spain's Torrejon, in years to come.

On top of all that, the US may take itself out of the action abroad. Washington and Moscow seem intent on working up an agreement to make big cuts in both sides' forces in Europe, and this could well lead to a significant US pullback.

The increasing difficulty for the US in standing fast on foreign soil was underlined in a 1988 report by the White House Commission on Integrated Long-Term Strategy, which said in part:

"The United States must develop alternatives to overseas bases. In some contexts, to be sure, bases will continue to be critically important—especially when our problem is to defend against possible Soviet aggression.

"But we should not ordinarily be dependent on bases in defending our interests in the Third World. We have found it increasingly difficult and politically costly to maintain bases there."

Deploying From Home

The Air Force is already hedging its bets on overseas bases. "We may not have a whole lot of forward presence," says XO's Colonel Turner. "Our units are more and more likely to be based in the United States. So we're thinking in terms of deploying airpower from home."

Many influential strategic thinkers are of like mind. For example, Gen. Russell E. Dougherty, who retired from the Air Force as Commander in Chief of Strategic Air Command and who still serves on the Defense Science Board, is convinced that "the key to our future will be our ability to project power without being there."

In turn, the key to projecting airpower may well lie in making it truly and thoroughly indivisible, in doctrine and in practice.

General Vandenberg was way ahead of his time in championing such airpower in 1951. But it was not to be. USAF assigned its intercontinental-range combat aircraft, along with the ICBMs that came along later, exclusively to SIOP missions. The bombers became synonymous with "strategic"—interpreted as "nuclear"—airpower only. On the other hand, shorter-range attack aircraft assigned to theater missions became synonymous with "tactical conventional" airpower, even though some of these aircraft have long since carried nuclear weapons, just in case.

In wartime operations and in peacetime deployments aimed at stopping trouble before it starts, USAF has used its combat aircraft more flexibly than its airpower distinctions would seem to allow.

Strategic bombers have never flown SIOP missions against the USSR, but they have been used in every war on long-distance tactical conventional missions. Thanks to in-flight refueling, tactical fighters have ranged far beyond their assigned theaters to make the US presence felt in relatively remote parts of the planet.

The Air Force, intent on preserving the top-priority, nuclear-deterrent, SIOP status of its long-range bombers, has been reluctant to raise its voice about their conventional capability—or, for that matter, about the nuclear capability of its in-theater, "tactical" fighter-bombers.

Now USAF is sounding off and coming around. The service is taking cues from a body of airpower literature that has built up in recent years, such as the 1986 Air University book *Aerospace Power: The Case for Indivisible Application.*

The author, Maj. Grover E. Myers, noted that General Vandenberg and other Air Force leaders of the post-World War II era "supported an end to the parochial strategic/tactical division of labor," but that they had to give way to "the requirements of nuclear deterrence and the realities of budget allocations."

Major Myers continued, "Since that time when we were still sorting through the lessons of World War II and developing a way to manage the nuclear nemesis, we have become so immersed in the mythology of nuclear deterrence and so accustomed to the presence of 'strategic forces'—nuclear bombers, nuclear missiles, and nuclear submarines—as to lose sight of the real military value of a large portion of our military forces."

Real Military Value

Refocusing on that real value is what USAF is now all about—in freshening up its airpower doctrine and, not coincidentally, in justifying its beleaguered B-2 bomber.

The B-2 program has managed to stay alive, but has taken a pounding in Congress this year. The outlook for a full-fledged force of the bombers is not bright.

Air Force leaders past and present insist that the US needs all, or nearly all, of the 132 B-2s originally planned and that a lesser force won't be able to cover all nuclear and nonnuclear contingencies in the threatening world seen ahead.

General Dougherty, for one, maintains that it will take "well over a hundred" B-2s to give SAC a "meaningful" force. Such a force, the former CINCSAC continues, "will provide an entirely different—but consequential—global power projection and warfighting capability, with either nuclear or nonnuclear weapons, across a full spectrum of conflict situations.

"And, importantly, it [the B-2 force] can do these critical strategic tasks from centrally located air bases within the United States."

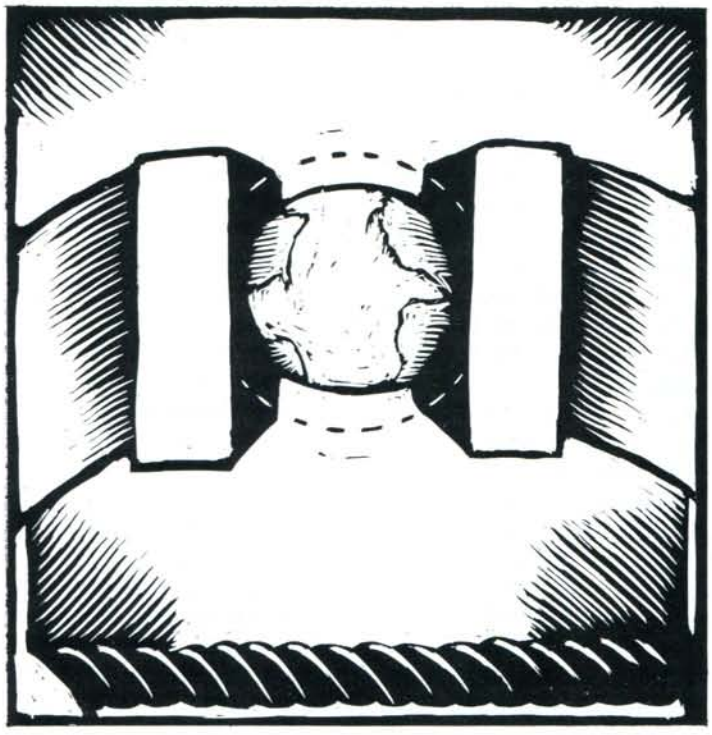
The B-2 could also operate from overseas bases that the US owns or occupies, such as those on Guam in the western Pacific and British-owned Diego Garcia in the middle of the Indian Ocean. The Air Force alluded to those bases in a report last summer that summed up unclassified congressional testimony on the B-2 by Chief of Staff Gen. Larry D. Welch and Secretary of the Air Force Donald Rice.

The report depicted the B-2 as the premier means of projecting US airpower until well into the next century. It emphasized that the B-2 is needed, first and foremost, as a SIOP weapon. It noted that nonnuclear missions are in the cards as well.

Air Force planners can easily envision the stealth bomber on such conventional missions against high-value targets in the Soviet Union and eastern Europe. This could happen in the unlikely—but not impossible—event of war in Europe remaining nonnuclear throughout.

The B-2 might also be used for shorter-range interdiction. Given the intensity of Warsaw Pact air de-

fenses and the problems that the US is having with electronic countermeasures, including those on its B-1B bomber, the stealthy B-2 may turn out to be the only "reusable" weapon system capable of delivering large nonnuclear payloads against targets deep behind enemy lines, in accordance with AirLand Battle doctrine and with long-established Air Force doctrine in support of theater CINCs.



Then there is the problem, which is expected to grow, of how to retaliate against nations or groups that foment terrorism against the US and its citizens.

In April 1986, Air Force and Navy aircraft were used for such a purpose in Operation Eldorado Canyon against Libya. All told, about 120 aircraft took part. Only thirty-two of them, or about one-fourth, carried out the actual strikes against five targets in Libya.

Of those attack aircraft, eighteen were Air Force F-111Fs based in England. They went after three targets in and around Tripoli. Several in-flight refuelings were required to get them to Libya and back, because France had denied them overflight rights. Constrained by stringent rules of engagement, roughly one-third of the F-111Fs were unable to deliver their payloads. One F-111F did not come back.

Fourteen of the attack aircraft in the operation were Navy A-6Es from the carriers *America* and *Coral Sea*. They attacked two targets at Benghazi.

Thirty-one Air Force aircraft were needed in support of the F-111Fs—twenty-eight KC-10 and KC-135 tankers and three EF-111 Ravens for jamming. The Navy devoted almost double that number of aircraft to supporting roles.

The Navy is said to have put more than fifty planes into the air to support its target-attacking A-6Es. Six A-7Es and six F/A-18s reportedly were used for defense suppression. The remaining forty-five or so Navy support aircraft were a handful of E-2C Hawkeyes, for airborne warning and control, and, in much greater numbers, F-14s and F/A-18s.

Those carrier-based fighter-interceptors provided cover for both the Navy and the Air Force attack aircraft and guarded the carriers and their escorting warships against air attack.

Simpler with B-2s

The Air Force claims that the B-2 would have made the operation a whole lot simpler. Not long before the B-2 was rolled out on November 22, 1988, General Welch declared that Eldorado Canyon could have been carried out "with three or four B-2s with no support of any kind."

That would depend on where the bombers came from. Critics of General Welch's statement claim that B-2s based in the central US—for example, at Whiteman AFB, Mo., where the first B-2 wing is indeed destined to be based—would have had to cover some 10,000 nautical miles round trip to Benghazi without overflying other countries. This, they say, would have required one in-flight refueling—and, thus, four or five tankers.

This argument seems to miss the point. Even with five tankers and five B-2s, including one along for the ride as an airborne spare, the five sets of Libyan targets could have been attacked—and likely destroyed—with fewer than one-tenth the total number of aircraft that took to the air in Eldorado Canyon.

This presumes, of course, that the B-2's stealthy characteristics are all they're cracked up to be and, thus, that the B-2s could have dispensed with covering, radar-picket, defense-suppression, and electronic-countermeasures aircraft.

The Air Force is confident that its presumptions of B-2 prowess would be proved in combat. It expressed this confidence in its report on the bomber last summer.

The report addressed a vital question often posed by B-2 critics—whether the Air Force would, or should, ever risk such a high-priced SIOP bomber on a raid against such low-value (meaning non-SIOP) targets as those in Libya.

The answer is yes. According to the Air Force report, the B-2's stealth "would have made the risk minuscule," would have made for "very high secrecy and surprise," and would have enabled "a small force from US soil" to destroy the targets.

In its report, USAF was also at pains to clarify the B-2's capabilities

in another controversial arena. It made a point of not claiming—as it had previously seemed to claim—that the B-2 would be surefire at striking so-called relocatable targets, such as mobile ICBMs.

Even so, the report noted that the B-2 would be the only SIOP weapon anywhere near capable of carrying out that mission and that it would continue to get better at doing so.

The report made a case for manned bombers in general. It predicted that they will carry forty percent of all US nuclear weapons by the year 2000, given the makeup of the US deterrent force to be expected as a result of Strategic Arms Limitation Talks. Furthermore, it said, penetrating bombers, as distinct from standoff cruise-missile bombers, will carry one-fourth of the total number of US nuclear weapons by then.

This puts the burden squarely on the B-2. It is expected to be the only bomber capable of getting through Soviet defenses by the year 2000. By then, in its SIOP role, the B-1B will have been turned into a cruise missile carrier—period—just like the B-52H before it.

Shows of Strength

The Air Force also contends that the B-2 could be used for deterrence in an impressive manner without actually bombing anything or resorting to overkill. For example, one B-2 could slip in and drop bags of flour on a chemical weapons plant or a nuclear weapons plant to show how easy it would be to come back with real bombs to blow it to smithereens.

Gen. John T. Chain, Jr., Commander in Chief of Strategic Air Command, makes a big point of the growing importance of such shows of strength. He claims that "long-range bomber striking power—the ability to reach anywhere in a few hours—is integral to future security." He also emphasizes that the stealthy B-2 "can respond with a full spectrum of retaliatory capability" in "dealing with terrorist acts or global conflict."

As CINCSAC, General Chain has done a great deal to promote the strategic bomber—both inside and outside the Air Force—as a nonnuclear powerhouse. He developed a concept called "strategic area of responsibility" in which US theater CINCs have been given operational control of B-52Gs, with no SIOP strings attached, for use on nonnuclear missions.

Using the bombers in this fashion, says CINCSAC, "gives us an extra long arm to reach far behind enemy lines with awesome conventional capability." He also notes that the B-52 is no slouch at sea duty. It can attack enemy ships with Harpoon missiles and can also deliver mines to close harbors, choke sea lanes, and thwart or destroy submarines.

Perhaps most important, "We can do these things from bases in the United States," General Chain declares.

Indeed, range is now, more than ever, the name of the game. Says Colonel Warden: "As we think about what our doctrine and our operational principles should be, one thing that we're emphasizing more and more and more is the fact that we have simply got to have range, range, range."

Penetrating bombers and others armed with cruise missiles figure heavily in USAF's contemplations on how to get that range. So do other kinds of flying machines. All are being considered in terms of how they could be made to work together as an organic whole.

Says Colonel Warden: "Range can come from the national aerospace plane. It can also come from organizations of what we now call tactical fighters that have the ability to move around the planet and operate out of relatively austere fields—not necessarily from established air bases or strips—with a minimum of mobility baggage accompanying them.

"Those fighters could conceivably conduct operations three, four, and five hundred miles from where they've landed."

Command Changes

Moreover, the fighters might belong to units that also embody CONUS-based long-range bombers, cruise missiles, and spaceplanes under the operational control of the unit commanders, possibly brigadier generals or colonels. Those commanders would be ultimately accountable to four-star generals or flag officers in charge of warfighting commands and theaters. They would nonetheless be given great latitude in making decisions and taking actions, just as air component commanders do today.

What counts, says Colonel Warden, is the effect that such commanders and their units will be able to achieve with their organic airpower resources, and "it ought to be immaterial whether those resources are bombers, fighters, space systems, cruise missiles, or whatever."

Air Force planners see the ability to attack strategic or tactical targets from afar with airpower that makes no strategic or tactical distinctions as the core—indeed, as the *sine qua non*—of US military strength in years to come. They tip their caps to the Navy's carrier-based airpower and applaud its recent successes under fire. But there is widespread concern, not just in Air Force circles, about the future vulnerability of aircraft carriers and associated warships to ever-quieter attack submarines and to increasingly potent and abundant antiship missiles around the world.

Land forces, too, may be in for a bit of a comedown in the strategic scheme of things. Those forces will always be important to the projection of US military power, because only they can take and hold territory. But some strategists believe that there may be less reason to capture real estate in the kinds of combat seen ahead.

The thinking in Air Force planning circles, for example, is that the US will resort more and more to airpower to quell conflicts before they get to the point where large land armies must be employed.

Colonel Warden, for example, sees the increasing likelihood of Libya-type "operations in which airpower would be used to hit hard" and "make them [enemies] stop what they're doing."

Adds Colonel Turner: "To our way of thinking, the US Air Force will have the greatest capability to conduct those kinds of operations, given our ability to move airpower around the earth and to strike as hard as necessary in virtually every circumstance.

"We see developing—perhaps very quickly—a new reliance on the Air Force as the most important contributor to national defense." ■