

Airpower and "The Long War"



The battle against terror is reshaping Air Force priorities.

By John A. Tirpak, Executive Editor, and Peter Grier

AT THE Air Force Association's inaugural Air & Space Conference, held in Washington, D.C., three featured speakers took up issues ranging from USAF's top priorities to the state of the Global War on Terror.

The three major addresses were delivered by James G. Roche, Secretary of the Air Force; Gen. John P. Jumper, Chief of Staff of the Air Force; and R. James Woolsey, Director of Central Intelligence in the period 1993-95.

In one way or another, the remarks of all three speakers dealt with or expanded on what Woolsey described as "the Long War of the 21st Century." By that, he was referring to Washington's global struggle against the toxic combination of political fascists and religious extremists in the Islamic world. As Roche and Jumper suggested, this war against terrorists has become a driving factor in Air Force planning and operations.

What follows are summaries of presentations and press remarks. Full transcripts are posted at www.afa.org. Remarks of other speakers can be found there as well.

James G. Roche

The Air Force has shifted from a force that merely coordinates with the other services to one that is "thoroughly integrated" with them and is now focused tightly on supporting ground units, Roche said.



Photo by Paul Kennedy

R. James Woolsey, former CIA director, likens "the Long War" to the Cold War. By Woolsey's count, the free world is engaged in combat against at least three totalitarian movements in the Middle East: Secular fascists, Shiite extremists, and fundamentalist Sunni Islamists.

"In the past, air and space power operations were planned and executed in concert with ground operations but not as part of an integrated campaign," said Roche. "That's changed."

Roche laid out USAF's transformation efforts, as well as its new priorities in operations and funding.

According to Roche, special operations forces, once considered "peripheral" to USAF's main mission, are "now part of the mainstream." In fact, he went on, "we cannot perform our mission without them."

Recent technical advances have given battlefield airmen the ability to designate targets for overhead bombers even when the objective is more than six miles away, achieving an accuracy of within about 17 feet, a sequence that now takes “well under three minutes.” This, Roche declared, “is a change to war.”

The Air Force’s fighter and strike aircraft must be “rapidly ... available to land forces, particularly the American Army, when they need us,” he continued.

“Our ability to support land forces will grow as we field the F-35,” said Roche. USAF plans to purchase the short takeoff and vertical landing version for land support, but service leaders have not specified the number. At a press conference, Roche said simply, “We have time” to make that decision.

Likewise, the Air Force’s considerable powers in intelligence, surveillance, and reconnaissance must adapt to new targets, which are “smaller, more fleeting, dispersed, and located around the world,” he said. The Air Force must concentrate on delivering “persistent surveillance” to deny an enemy sanctuary from which to plan and launch an attack.

The Air Force will “examine lift requirements in light of the emerging new doctrines of the Army and Marine Corps,” which will also be deployed in smaller, widely dispersed units, said Roche. Airlift



Photo by Paul Kennedy

Secretary James Roche says USAF is more “thoroughly integrated” with other services than it was in the past and that special operations forces, once on the periphery, are now “mainstream” Air Force.

forces will be adapted “the better to support this concept,” and it will be up to USAF, with its fighter attack fleet, to “create corridors that are protected in order to resupply these folks,” he said.

Future ground forces must not be “weighed down with a lot of trucks full of artillery shells,” said Roche. As he put it, “We will be providing them power, and we may have to do it in [the face of] hostile defenses.”

In the press conference, Roche outlined USAF’s top three priorities.

First is “to be able to support Army units that are deep [within enemy territory],” said Roche. Sec-

ond is to “make sure that the joint forces can operate in an air environment that is not precluded by the greatly increasing surface-to-air missile capabilities” of potential adversaries. Third, he said, is to cope with “a cruise missile attack against deployed forces at some point in the future, and that’s not an easy problem, technologically or militarily.”

The F/A-22 and F-35 fighters, with their stealth and precision weapons, will take care of ground forces and provide a permissive air environment for US forces overall, he said.

Roche also pointed to the future E-10A airborne battle manager and

Rep. Jim Marshall: The Future of Iraq

Staff photo by Guy Aceto



Rep. Jim Marshall (D-Ga.) addresses one of the conference forums.

Rep. Jim Marshall (D-Ga.), a member of the House Armed Services Committee, gave a mixed report on US progress in Iraq. He said that, while positive things are happening there, tough problems remain.

“It has been and it will be a difficult go for us,” said Marshall.

On a trip to the region, Marshall and others in a Congressional delegation attended a meeting with the top officers of the US Navy’s 5th Fleet in Bahrain. They spent some 20 minutes hashing over the possible whereabouts of six individuals that US Intelligence believed constituted a terrorist cell in Bahrain or Saudi Arabia.

Bahraini authorities were reluctant to cooperate in finding the suspects, so US dependents were ordered home for their safety, said Marshall.

“We are not set up to find six people,” said Marshall. “For us to be successful in this kind of effort, we’ve got to have local help.”

Photo by Paul Kennedy



Gen. John Jumper, USAF Chief of Staff, mingles with conference attendees between sessions. His remarks covered topics ranging from space applications to the next generation gunship.

sensor aircraft, coupled with the F/A-22, as the best likely solution to the cruise missile threat.

He also reported that the Air Force is under orders from Defense Sec-

retary Donald H. Rumsfeld not to incur any “bow waves” of funding in the service’s plans.

Rumsfeld, Roche said, has warned the Air Force to budget as if there

will be a “leveling” of funding in the future. Roche noted that “a leveling in current year dollars is a decrease in real dollars.”

Roche wants integration of the active, Guard, and Reserve forces that is even greater than is now the case. He announced that Guard and Reserve units or personnel will “participate fully in space operations, in the world of remotely piloted aircraft, and other fields” which have traditionally been staffed only by active forces.

He forecast a move to more blended wings—such as the one that operates the E-8 Joint STARS aircraft—and more variations on associate wings, which will feature combined ranks of active and reserve component personnel.

Roche also announced a new approach to the ongoing education of Air Force people. “We’re getting out of the business of filling squares for promotion,” Roche said. In other words, the Air Force wants to make sure that advanced education meshes with the needs of the Air Force.

He explained that the service in-

Gen. Hal Hornburg: Next Steps in Combat Airpower

Air Combat Command is rapidly improving its capabilities most relevant to future warfighting—capabilities such as time-critical targeting, said ACC Commander Gen. Hal M. Hornburg.

It is taking less and less time for Air Force attackers to run through the “kill chain”—the process of finding, fixing, tracking, targeting, engaging, and assessing an attack on a particular target.

Air Force combat forces have shown dramatic improvement in recent years. Hornburg told a conference audience Sept. 15 that the average time required has dropped from 120 minutes in 2002 to 10 minutes today.

The forecast is that the time required will drop to only nine minutes in 2005, Hornburg said.

It has been a long-standing priority of Gen. John P. Jumper, Chief of Staff, to be able to execute an attack in single-digit minutes. That is because fleeting and time-critical targets are becoming more and more important.

Hornburg sees exponential growth in use of distributed mission operations (DMO) for training. DMO refers to large, multiplayer exercises that actually take place in different parts of the world but which are linked together in a “virtual world,” via computers and networked communications systems.

Hornburg said there were 25 command and control DMO events last year—and 410 this year. The forecast for 2005 is 600 DMO events.

Distributed training allows airmen to have realistic training much more frequently than is possible if they must pack up and deploy to a common site.

Hornburg, who is retiring at the end of the year, also said ACC is working on a new concept of operations to make better use of intelligence-surveillance-reconnaissance capabilities.

He told reporters at a media roundtable that Air Force Space Command recently completed a command and control CONOPS heavy on space systems.

ACC seeks a similar CONOPS for air-breathing ISR systems to create “balance” with the space assets, Hornburg said.

One goal is to highlight the use of unmanned systems for battlespace awareness missions. The CONOPS “should define the concept of operations to use present and future UAV systems,” Hornburg said, and it should decide “in a broad sense, what systems might fill ‘niches and voids’ in the future.” Hornburg estimated the ISR CONOPS will be complete in six months.

Hornburg also told reporters that ACC plans to upgrade every viable A-10. Previous plans called for retiring some A-10s, as a cost-saving move, to free up funds for upgrades to the remaining Warthogs. Financial retirements are no longer deemed necessary.

Desired upgrades include a precision attack capability, new engines, and a service life extension. This can be done within the A-10 budget, Hornburg said, but ACC “will probably still want to retire some of them, because it won’t be worthwhile to modernize airplanes that basically are ... about to go off the end of the cliff with respect to their service life.”

The A-10 has been heavily tasked in both Afghanistan and Iraq, Hornburg noted. “I would not want to retire any of these airplanes if they weren’t approaching a service life issue, because we need them,” he said. But “at some point, with any airplane, you cross a line of diminishing returns.”

The Air Force’s Fleet Viability Board will assess how much service life the A-10s have remaining.

—Adam J. Hebert, Senior Editor

tends to pick up the cost of higher education—both for enlisted troops and officers—if the degree is one the service wants the person to have.

The Air Force is awaiting the results of several ongoing studies before a plan emerges on recapitalizing the aerial tanker fleet, which USAF must do, Roche reported.

Gen. John P. Jumper

The Air Force's top uniformed leader said the the service is grappling with many questions about how it will go forward in the areas of space, unmanned vehicles, special operations, and long-range strike, all of which could soon see big new initiatives.

USAF space leaders are trying to figure out "how we can take space and bring it in a focused way to the operational and tactical level of war," Jumper said.

He wants to know how much capability can be packed into 1,000-pound "smallsats" or "microsats" to help with communications, sensors, and blue force tracking. He also wants new ways to launch such satellites "reliably, in hours instead of weeks, days, and months, and put them into orbit over a focused point on the Earth to deal with the spe-

Lt. Gen. John Bradley Jr.: Focus on the Air Force Reserve

The Air Force Reserve has improved its recruiting in recent years, but still falls short of its authorized end strength, said Lt. Gen. John A. Bradley Jr., chief of the Air Force Reserve.

The Reserve will be roughly 98.7 percent manned at the end of the year, he said, "which is not good."

Air Force Reserve Command missed its recruiting target each year from 1998 through 2000, but has met its goals every year since, Bradley said. "This year, we've already exceeded our goal," he said.

Despite reaching the Reserve's recruiting goal in the period 2001-04, "we haven't met our end strength, and we're not going to meet our end strength this year," said Bradley.

The problem is not retention—Bradley said command retention is currently at 89.9 percent, which is better than the average since 2000. Part of the manpower shortfall is attributable to the economy, he said, but part of the problem probably has to do with the goals themselves.

"Maybe our goals should be a tad higher. ... It's an area I'm greatly concerned about," Bradley said.

cific situation for a certain amount of time."

Jumper noted that lighter-than-air vehicles could be positioned in "near space," which he described as "that area between 65,000 feet and about 300 kilometers [982,080 feet] which is governed neither by treaty nor by other convention." Such vehicles would be able to provide persistent surveillance, one of

the top requirements for the future USAF.

Jumper told reporters that USAF has yet to define how many short takeoff and vertical landing F-35s the service wants to acquire, but it will be "in the hundreds."

The Chief of Staff also acknowledged that the great capability resident in the F/A-22 and F-35 fighters, along with new munitions such

Lt. Gen. John Baker: Getting the Joint Force to the Fight

Setting up an air base in an austere location on virtually no notice is going to be an increasingly important mission in the future, and Air Mobility Command has further refined the existing tanker airlift control element concept to do it, according to Lt. Gen. John R. Baker of AMC.

AMC is forming 120-person contingency response groups that will function "like a TALCE on steroids," Baker asserted. They will be able to assess conditions at an operating site, call forward the necessary gear to set up a working air base, and make a "smooth transition to combat operations," Baker said.

This new organization is being tested in Eagle Flag exercises, in which airfields are built from scratch in a matter of days or even hours, he reported.

Baker said that it has been difficult to keep up with the Army's new concept of operations, which calls for rapid air mobility with the new Stryker fighting vehicle.

The Army's plan was to have a C-130 carry two Strykers at a time, but, Baker said, the weight and clearance of the vehicle has grown to 30,000 pounds each. Some variants are 40,000 pounds.

"That's not easy to load," he said, adding that only one Stryker will fit on a C-130.

Also, because the C-130 must keep fuel in its center tanks to stiffen the wings when carrying a heavy load, the distance that Strykers can be moved before landing to refuel has also shrunk, Baker explained. Under very high-altitude, high-temperature conditions, he said, Strykers on C-130s "can't get there."



Photo by Guy Aceto

Lt. Gen. John Baker reports that AMC is further refining its expeditionary airlift control element.

The Stryker mobility concept is having to be redefined. The new metric is "three on a C-17," Baker said.

He also said he is getting "very concerned" about the Civil Reserve Air Fleet. While CRAF has been an invaluable partner in picking up the extra load during the last few years, the industry has been steadily moving "toward smaller and smaller ... airplanes, which are less useful to me."

Command Chiefs' Forum: Training for Combat

CMSAF Gerald R. Murray selected a panel of six command chief master sergeants to represent the enlisted force in a panel discussion. The chiefs spoke at the Air Force Association's Air & Space Conference Sept. 13.

Proper training for combat missions—and the lack of it—were major concerns.

The Air Force is taking on new roles, such as providing the Army with convoy drivers in Iraq, as combat force imbalances across the Defense Department have required creative solu-

tions. There is a need for balance. The Air Force does not want to overtrain forces for combat skills, because those are for limited missions—and new training has to come at the cost of something else. However, airmen must always be ready to go to war.

New missions continue to accumulate. USAF security forces were to take over security at Abu Ghraib prison in Iraq in the fall, officials noted.

At Air Mobility Command, said CMSgt. Michael R. Kerver, everyone has "struggled" with how to balance combat training. Until recently, most career fields never received "any kind of contingency training at all," he said.

The recent creation of Eagle Flag, at which airmen practice establishing bare bases, has been successful, he said, but it does not solve the main issue: "How do we supplement the combat skill training that our troops aren't getting?"

How much of such training is enough? According to Kerver, the answer is, "enough to survive in [a combat] environment." Combat support airmen will soon be getting additional combat skills training, because the airmen are still "not prepared as well as like we'd like [them] to be," he said.

CMSgt. Karl W. Meyers, command chief of Air Education and Training Command, said he recently visited Kuwait, where airmen were "very concerned" that they did not have the training needed for their safety and survival.

AETC is now sending teams through combat convoy training as complete units, as they will deploy. They "go on an actual on-the-road convoy before they leave," he said, which has proved to be "exactly what was required."



Photo by Paul Kennedy

USAF command chief master sergeants tackle tough questions from the enlisted force.

—Adam J. Hebert, Senior Editor

as the Small Diameter Bomb, will permit the service to shrink its fighter fleet while gaining even greater capability. (See "The New Fighter Debate," September, p. 34.)

Roche in a press conference noted that in initial operational test and evaluation of the F/A-22, the aircraft is proving "more than twice as capable" as the F-15C.

Roche revealed that USAF now intends to replace the F-117 first-generation stealth attack airplane with F/A-22s, even though the Air Force's stated requirement for F/A-22s remains at 381 aircraft—enough to equip each of USAF's 10 air expeditionary forces with one full squadron.

The Air Force will hang onto some number of F-15C air superiority airplanes, as well as many F-15E strike models, for some time to come, Jumper said. "The F-15Cs that we decide to keep will have an air-to-ground capability," Jumper explained. This will allow them to play a role in "the execution phase" of a future campaign "and be active in all phases of combat rather than just [in] ... the air superiority phase."

Roche also revealed that while all

Lt. Gen. Ronald Keys: Expeditionary Force Close-Up

The Air Force is searching for creative ways to bring more airmen into its 10 air and space expeditionary forces (AEFs), said Lt. Gen. Ronald E. Keys, USAF deputy chief of staff for air and space operations. (Keys has been nominated for a fourth star and reassignment as commander of Air Combat Command.)

Most notable is the likely creation of "expeditionary AFSCs," which will be new Air Force specialty codes that airmen master strictly for deployed assignments.

Currently, some categories of airmen, such as missileers with alert duty or uniformed scientists, are largely exempt from AEF deployments simply because their primary jobs do not exist in forward locations. But, Keys noted, that does not mean those airmen could not perform other missions, if trained.

For example, missileers could be trained to coordinate air traffic, while scientists may have actually helped develop the software used at an air operations center.

The issue becomes one of balance, he said. Airmen "ought to have a skill where they can go," Keys noted, but whether program managers or highly specialized experts should be pulled from their primary jobs is a matter that must be decided on a case-by-case basis. For a certain number of airmen, Keys conceded, deploying with an AEF is "just not worth it."

The Air Force is looking for additional AEF personnel because it needs to spread expeditionary duties over a larger number of airmen, thereby lessening the pressure on each individual.

In a list of AEF "lessons learned," Keys said something always proves to be in short supply, but the Air Force may not know in advance what that shortage is.

—Adam J. Hebert, Senior Editor

Gen. Donald Cook: Educating and Training the Force

Gen. Donald G. Cook, AETC commander, said Sept. 15 that the Air Force continues to make investments in recruiting, training, and education to best prepare airmen for an expeditionary culture.

Recruitment efforts were highly successful as the result of an addition of 700 recruiters, a national advertising campaign, and a continuing willingness of young persons to join, in the wake of the Sept. 11, 2001, terrorist attacks.

Cook believes USAF faces a challenge in maintaining the momentum of training. The focus must stay on expeditionary skills in an Air Force context.

"Airmen training airmen is a big deal to me," he said, asserting that most airmen should be trained by blue-suiters. Too much cross-service training could lead airmen to "become people they are not."

AETC has developed a Basic Combat Convoy Escort Skills Course, drawing from field experience in Operations Enduring Freedom and Iraqi Freedom. The course, located at Ft. Hood, Tex., includes weapons training, use of night vision goggles, vehicle driving, and dealing with ambushes and night attacks. There are about 500 Air Force transporters supporting Army convoy operations.

Education initiatives include a new senior chief master sergeant course and the granting of master's degrees from the Air War College and Air Command and Staff College as a result of their recent accreditation by the Southern Association of Colleges and Schools. The Community College of the Air Force also earned another five years' accreditation.

USAF will change the training of its navigators and change their title to combat systems officers. Further training will



Photo by Paul Kennedy

Gen. Donald Cook (left) talks with Gen. Gregory Martin. Cook's forum dealt with USAF's training challenges.

open up such fields as air battle management and electronic warfare to them.

USAF continues its Classroom 2005 program, equipping all classrooms with technological upgrades. Use of these classrooms yielded a 35 percent lower retest rate and much higher certification rates. Cook sees these statistics as a "good solid return on investment."

Distance learning courses are now available to forces in Kyrgyzstan, and, in November, CCAF courses will be online for remote locations.

—Tamar A. Mehuron, Associate Editor

F-15Es will receive a radar upgrade to improve their ground-attack capability, only one F-15C will be so modified. The upgrade will be available on short notice if conditions dictate an F-15C fleet retrofit, he said.

The Air Force is also considering "the next generation of gunship," Jumper said, to replace the AC/MC-130 and is trying to define "how much stealth is appropriate in the special operations mission."

The Air Force is trying to reach some decisions about a new long-range attack capability—whether it should be manned or unmanned, reusable or disposable, how fast it needs to go, how soon it needs to be available.

According to Jumper, hypersonic technology is not yet mature enough to go forward into a system development so USAF is pursuing an "intermediate step" with some type of bridge bomber. Filling that role could be an FB-22 or other "regional bomber" with "the characteristics that we value," said Jumper.

Those characteristics include stealth, high speed, and the ability to defend itself if attacked, he said.

(At the joint press conference

Lt. Gen. Michael Wooley: SOF in the Global War on Terror

The Global War on Terror is a new type of battle, one that Air Force Special Operations Command is well-suited to fight, said Lt. Gen. Michael W. Wooley, commander of AFSOC.

"Quiet operations" are AFSOC's forte, Wooley said, and many of the nations that help the US battle terrorism worldwide seek to do so "covertly." Fear of antagonizing political and religious factions in many nations make overt support of the United States untenable.

"We at AFSOC are uniquely capable of working with these coalition partners clandestinely, and often ... no one even knows we are in the country," Wooley said.

AFSOC's 6th Special Operations Squadron has a history of working quietly with nations to train allied forces. In fact, Wooley said, the 6th SOS, out of Hurlburt Field, Fla., was in Uzbekistan performing language training on Sept. 11, 2001.

The relationship the commandos had already established with Uzbekistan paid "immediate basing benefits," when Operation Enduring Freedom required access to bases near Afghanistan, he said.

with Jumper, Roche said the putative aircraft would have a range in excess of 2,500 miles. In some 14 scenarios gamed in computer simulations pitting various potential future US Air Forces against a variety of threats, said Roche, "some number of those, to augment the existing long-range strike fleet, and

as a transition to something longer [ranged], seemed to make sense.")

If it appears that the next big leap in high-speed capability will not be available until "20 or 25 years from now," said Jumper, the need for a "bridge capability" will become more apparent.

"I personally believe we're going

James Webb: The Real Vietnam War

In three decades since the end of the Vietnam War, the US has forgotten the reasons it became involved in that conflict in the first place, former Secretary of the Navy James H. Webb told an AFA conference audience.

Webb said that, in his opinion, there was more justification for US involvement in the Vietnam War than there is for its action in Operation Iraqi Freedom.

Webb, now a best-selling author, served in the Marine Corps in Vietnam and has since returned to that country numerous times.

Communist leader Ho Chi Minh trained for years at the Soviet Comintern and was committed to spreading communism through all of Southeast Asia, said Webb. He executed as many noncommunist nationalist leaders as he could.

The first big increase in US presence in Vietnam came in 1961 in response to terrorism, said Webb. Communist cadres were killing 11 South Vietnamese government officials a day.

"It was similar to what we're seeing in Iraq," said Webb, who served as Secretary of the Navy during the latter days of the

Reagan Administration. "They were targeting anyone with ties to the new [South Vietnamese] government."

The US military had to fight the war with one hand tied behind its back, Webb noted. Too many targets were ruled off-limits for political reasons.

"Never did we use strategic bombing on strategic targets until it was too late, in political terms," said Webb.

The US then began to hand over responsibility for the war to a South Vietnamese military that was only partly prepared for the burden. Some units were good. Some weren't. Reductions in US aid undercut South Vietnamese officers who continued to fight.

Ultimately, the war was a holding action that allowed varied political and economic systems to take root in other parts of the region. Ironically, pressure from an expansionist China may today be ameliorating the behavior of Ho Chi Minh's successors.

"In the end, you're going to see what we wanted: a government that treats its people well," predicted Webb.

to need a midterm solution, and I think the Secretary agrees with that," Jumper said. He expects the answer to emerge in the "next couple" of years.

R. James Woolsey

Former CIA director R. James Woolsey does not believe that the term "war on terror" is the best way to describe the conflict in

which the United States is currently engaged.

Instead, he calls it "the Long War of the 21st Century."

Like the Cold War, the Long War could last decades, Woolsey told AFA conference attendees. Actual combat might be episodic. And there is a deep ideological divide between the US and its enemies.

According to Woolsey, "We are

in a war against, I would say, at least three totalitarian movements from the Middle East." The first of these, said Woolsey, is a fascist movement. The Baath Parties of Iraq and Syria were—and are—structured like the European fascist movements of the 1920s and 1930s, and they are similarly anti-Semitic. To call the remnants of the Saddam Hussein regime "insurgents" is thus

Lt. Gen. Roger Brady: Update on Force Development

Speaking on Sept. 14 in a room jammed with officer and enlisted airmen, Lt. Gen. Roger A. Brady, deputy chief of staff for personnel, addressed force development, customer service, and force shaping efforts.

A key force development issue, he said, is the Air Force push to instill in airmen a "wider perspective" of the service and its many interlocking career fields. Ultimately, the goal is to expand the leadership pool by growing as many prospective leaders as possible through "systematic and deliberate" development, in which today's airmen "master the necessary skills" and "enduring competencies" of leadership.

USAF expects its future senior officers to be skilled at multiple jobs and future command chief master sergeants to be capable of even greater roles than today.

At the same time, the service still must address a basic manpower question: Can a civilian, Guardsmen, or Reservist handle a particular task or does it require an active duty member? The answer to that question will help the service further develop its force shaping plans and help define its necessary end strength, said Brady.

He also talked about the push toward more and more automation. USAF plans to deliver about 80 percent of its military and civilian personnel services through self-service Web sites. Another 15 percent of services will be handled by call-in centers, leaving only five percent that would require face-to-face interaction.

—Tamar A. Mehuron, Associate Editor

Maj. Gen. John Spiegel: New DOD Civil Service System

Now that the National Security Personnel System has become law, the process of working out all the details has begun, Maj. Gen. John M. Spiegel, director of personnel policy, said on Sept. 13. He offered a status report of NSPS progress so far and steps soon to be taken.

He called it a "multilayered, multiyear" process, one that is being developed jointly by DOD and the Office of Personnel Management, with the input of DOD employees and unions.

The legislation was prompted by the realization that DOD's current civil service system is inadequate to manage its civilian workforce in the 21st century. The hiring process is far too slow and adversely affects recruiting top prospective employees.

Outstanding performers are paid the same as less productive employees, he said. Currently, managers have limited flexibility to reassign people, and there is limited accountability, Spiegel noted.

Provisions already implemented under NSPS include employer authorizations to hand out retirement pay, leaves, and so forth. DOD managers can also now hire highly qualified experts at special salary rates for specific periods of time.

In the planning stage is the Senior Executive Service Performance System.

Spiegel said the first implementation "spiral" will begin in July 2005 and that the goal is to have everyone in the new system by 2008. He referred attendees to the Air Force Web site, www.dp.hq.af.mil/dpp/dppn/nsps.

—Tamar A. Mehuron, Associate Editor

to be too kind. "They're fascists," said Woolsey.

The second group comprises Shiite Islamists. Woolsey maintained that these extremists don't represent Islam any more than Torquemada, the cruel Grand Inquisitor of the Spanish Inquisition, represented 15th century Christianity.

The third group is composed of Sunni Islamist terrorists. Al Qaeda is the embodiment of these terrorists, but their roots lie in the anti-Christian, anti-Jewish, anti-female, anti-modern Wahabism prevalent most notably in Saudi Arabia. "Not all Saudi Wahabis become Islamists or terrorists, but the link is there," said Woolsey.

These groups, Woolsey went on, are united by their deep, abiding hatred of American freedoms. In addition, they all think Americans have little regard for Arabs, seeing them only as a source of oil.

Most critically, these groups believe that Americans will cut and run if sufficiently bloodied.

"No combination of messages to ... totalitarians—especially in that part of the world—could be more provocative than that," said Woolsey.

At home, fighting these enemies will require the US to weigh trade-offs between liberties and security for decades to come. Many Americans might not like that, but the nation has made such compromises in wartime before. The Constitution historically has given the President



Staff photo by Guy Accato

Lt. Gen. Dick Scofield, USAF (Ret.), argued that the Air Force should go "back to the future" and retool its acquisition system to more closely resemble that which existed in the early 1970s. It was during that period, said the former Aeronautical Systems Center commander, that USAF launched highly successful programs such as the F-15, F-16, and A-10 fighters. A new study Scofield prepared for AFA, "Delivering Combat Capability at Home and Abroad," can be found at www.afa.org.

the flexibility to make those trade-off decisions.

The Long War may also make the West painfully aware of its reliance upon hundreds of complex networks, from the Internet to food processing to chemical production and transportation. These networks have been designed for ease of access and maintenance. Now they need to be recast with security in mind.

"We're not used to thinking about

how these networks can be utilized in order to kill us intentionally, and we have to deal with both malignant and malevolent problems," said Woolsey.

The Cold War was won by building the West's military deterrent, maintaining strong alliances, and drawing the line against Soviet expansionism. It was also won via ideological battle, which helped to convince dissidents of the communist world that the Soviet Union offered

Science and Technology Forum: The Challenge to Adapt

When it comes to science and technology funding, the sky is not falling, declared Air Force acquisition chief Marvin R. Sambur.

Sambur, heading an S&T panel comprising himself, Air Force Materiel Command chief Gen. Gregory S. Martin, and Air Force Chief Scientist Mark J. Lewis, said USAF spending for science and technology continues to go up, thanks largely to annual add-on funding provided by Congress.

Budget pressures on S&T, Sambur said, are not a problem.

What is a constant challenge, however, is the speed at which new technology can be pushed out to the field. That process needs to become much faster, Sambur said.

He noted, for example, that Air Force scientists are working hard to develop ways to counter improvised explosive devices, which are taking a toll on US service members in Iraq.

Such threats, Sambur said, are wholly different from the "somewhat predictable" ones faced during the Cold War years, and the Air Force technology engine is adapting, he said.

The Air Force is pursuing many ideas for speeding the process. These include the recent restructuring of the program executive officer organization and AFMC. (See "Operational Acquisition," August, p. 54.)

Another approach is to shoot for less capability in the first versions of a new technology and add on more capability later and incrementally. Requirements officers traditionally demand more than they really need, in hopes that, falling short, the new technology will still be better than if the demand had been more realistically stated in the first place, Sambur said. More discipline will be put into the requirements process.

Likewise, Sambur warned contractors that the Air Force will be highly suspicious of bids that come in well below what the service thinks new technology should cost. Lowballing bids leads to exaggerated expectations, delays, and restructures, which the service can't afford.

From now on, if you bid low, because you think that low bidders win, you do it at your own peril, Sambur warned. Unrealistic bids will be considered a risk factor, he said.

Brig. Gen. Charles Ickes II: Focus on the Air National Guard

The Air National Guard is looking for creative Total Force arrangements to help it carry out future missions, said Brig. Gen. Charles V. Ickes II, ANG chief operating officer. The Guard is fighter-centric and upcoming reductions in USAF's fighter force could bring serious problems.

The Air Force plans to retire old aircraft faster than it replaces them with new fighters. Moreover, new fighters will be purchased in small numbers. Therefore, the Guard needs to reshape its force structure to match the reduced buys of new weapons systems, Ickes said.

"We would anticipate somewhere around a 33 percent reduction [in airframes] ... through 2025," he said.

Meanwhile, the coming base closure round could eliminate as much as 25 percent of the Air Force's base infrastructure, stated Ickes. Though BRAC is looming, he said, it is not the primary concern. "Whether BRAC occurs or not, the Air Force is going to recapitalize and restructure," he said.

Therefore, the Guard is looking to reshape to make the most of the reduced buys of new weapons systems. The likely decline in "tails" could threaten the existence of some Guard units, Ickes said.

Secretary of Defense Donald H. Rumsfeld on numerous occasions has asked the Air Force to look at its active-reserve mix, Ickes said, and the Joint Staff is conducting its own operational availability study, which is "looking at processes and ways to better utilize the Total Force."

In response, the Guard has created a Vanguard program to build a strategy for the future. Ickes said Vanguard will ensure the Air Guard remains "very accessible to the active component" even as it carries out its homeland defense and state missions.

New ANG-active duty teaming arrangements—along the lines of the associate units and blended wings that have already proved successful—are also likely.

The Guard is also searching for organizational efficiencies. For example, ANG tanker and fighter squadrons typically contain 12 to 15 aircraft. Ickes said 18 or 24 aircraft is the vision for the future.

These enlarged units will then be "perfectly structured" to receive the F/A-22 or the F-35 Joint Strike Fighter in later years, he said.

—Adam J. Hebert, Senior Editor

only tyranny, while the West represented freedom.

To win the Long War, the US may have to make this same appeal to the Islamic world.

"We're going to have to convince hundreds of millions of good and decent Muslims around the world—who don't want to live in dictatorships, who don't want to be terror-

ists—that they and we are on the same side," said Woolsey.

The task sounds daunting, he said, but the rise of democracy around the world shows that it can be done. Since the end of World War II, the number of democratic nations has increased from 20 to 117, with 88 of those operating under the full rule of law.

Adversary regimes might want to note that the big totalitarian empires of this century, from Hitler's Germany to Stalin's USSR, have all crumbled, while the US remains.

Woolsey quoted the poet Carl Sandburg's famous statement about the strength of the American people. "This old anvil laughs at many broken hammers," he said. ■

Space Forum: The Road to Space Dominance

Conventional booster rocket technology has been in use for 45 years, but something better is needed. Military space leaders are still waiting for the next big leap in launch technology that will bring about "responsive" access to space, top Air Force space officials told a conference audience Sept. 14.

Revolutionizing access to space will require a breakthrough akin to the invention of the jet engine, said Undersecretary of the Air Force Peter B. Teets, who serves as the nation's point man for military space matters. "We have not had a revolution" in space launch capability, he said.

"What we need in the rocket world, what we need in the space-launch access world, ... is that 'jet engine' of revolutionary technology," said Teets. "We don't have it yet." Developing a new, incrementally better rocket engine isn't going to meet the true needs.

Two of the three space "needs" outlined by Teets relate to this search to improve space access. He outlined a requirement for a strong, consistently funded space industrial base and more investment in leading-edge space technology.

Teets said proper investment could lead to a "two-stage, fully reusable, horizontal takeoff [and] landing" vehicle that reaches "into low Earth orbit, with a meaningful payload." Such a capability would "revolutionize the way we think about space," Teets said.

The third military space need identified by Teets: a strong government "space cadre." Both he and Gen. Lance W. Lord, Air Force Space Command chief, touted the merits of a space



Peter Teets (center) and Gen. Lance Lord (right) discussed space dominance, while NASA head Sean O'Keefe dealt with civilian space issues.

cadre—but were strongly opposed to the creation of a separate space service. Teets said the space mission will probably never be so manpower-intensive that it will justify creation of a separate corps or service.

Lord said he did not think creating a separate space force (and new layer of bureaucracy) would "serve us in any way."

—Adam J. Hebert, Senior Editor

Photo by Paul Kennedy

Four-Star Forum: Eyes on the Future

The Air Force is going to get smaller in numbers of people but “not a lot smaller,” said Gen. John P. Jumper, who led a panel of four-star generals in discussing challenges for the Air Force.

The Air Force is already over its statutory end strength—permitted as a temporary, wartime measure by Congress—and will have to reduce its personnel for the long run, Jumper said.

The service will get “smaller in equipment, but not necessarily that much smaller” in people, he noted.

The panel also included Gen. Donald G. Cook, head of Air Education and Training Command; Gen. Paul V. Hester, head of Pacific Air Forces; Gen. Hal M. Hornburg, head of Air Combat Command; Gen. Lance W. Lord, chief of Air Force Space Command; and Gen. Gregory S. Martin, chief of Air Force Materiel Command.

According to Jumper, the reduction in the size of the Air Force will be made possible, in part, by having fewer airframes to crew and maintain, since dramatic new capabilities are reducing the number of aircraft required. However, the Air Force is trying to determine the number of places in which it may conceivably be called to fight.

The force drivers, said Jumper, will be the operating tempo and coverage needs, not capability per aircraft.

Jumper said more and more people not already available for expeditionary, deployable service will be tapped. Also, new wing structures will ensure that “we ... get the packages right” so that a deployment of most of a unit doesn’t stop the regular training and maintenance routine for the rest of the unit dead in its tracks.

The Chief of Staff also acknowledged that the base realignment and closure (BRAC) process, coupled with reductions in the number of fighters—the mainstay of the Air National Guard—will force rethinking of traditional Guard and Reserve roles. To that end, he envisions improved “virtual crew ratios” in which more pilots will be available to fly fewer aircraft in wartime.

Martin said BRAC quite possibly will lead to “joint sustainment centers” that will perform depot maintenance on equipment for all the services, not just the Air

Force. This could increase efficiency and “synergy” between the services to find the most effective way to perform certain functions.

Cook agreed that BRAC and other initiatives will work to combine the functions of several services, but he warned that this should be done “only where it makes sense.” He added, “It doesn’t make sense to go too far.”

Cook noted that the Air Force is about 40 percent smaller than it was during the Cold War and that further integration of some functions will result in the loss of needed specialization.

The Air Force should develop the expertise and status of rated non-pilots, Cook said, by expanding the definition of combat systems officers. He said unmanned aerial vehicles might be operated by non-pilots.

Jumper, however, said the question of who should be a UAV operator remains open.

The Air Force must meet Federal Aviation Administration requirements when UAVs transit civil airspace. Jumper also said UAV operators need to have the “airmanship” to know how to react to unexpected situations that put UAVs in conflict with other air traffic. For the time being, UAVs must be operated by “credentialed warriors” who must “feel the full weight of responsibility” for the aircraft, he said. “It is not a video game,” he added.

The whole notion of what the Air Force wants from UAVs is still very much open to debate, Jumper added.

“It’s not that we don’t embrace it,” he said. “It’s that we’re not sure what to do with it. We have to be careful.”

What would be most valuable in a UAV, he said, is swift time of flight to a target, long persistence in the battle area, ability to carry a large variety of weapons in one load, ability to communicate with ground troops, and ability to employ weapons with less than a minute’s notice.

Experience with Global Hawk and Predator has shown that UAVs are not disposable, but expensive, and they should only be used for those missions where “they considerably advance the art of war.”

This is an area where “we have to think it through and get it right,” Jumper insisted.

—John A. Tirpak, Executive Editor



Left to right, Gens. Paul Hester, PACAF; Donald Cook, AETC; Gregory Martin, AFMC; John Jumper, CSAF; Hal Hornburg, ACC; and Lance Lord, AFSPC. Discussion ranged from personnel reductions to who should fly UAVs.