

# Aerospace World

By Peter Grier

## Ryan: US May Need Space Weapons ...

The US will soon have to decide whether to deploy offensive and defensive capabilities in space, said Gen. Michael E. Ryan, the recently retired USAF Chief of Staff. Bringing the issue to the forefront, he said, will be the continued increase in the number of vital satellites on orbit.

Soon, the Pentagon will have to devise ways to defend critical assets in space, Ryan said. He explained that the United States might do so in a purely defensive way but added, "I would say that, eventually, we are going to have to have capabilities to take things out in orbit."

Ryan, who retired Sept. 6, made his remarks in an Aug. 1 session with defense writers in Washington.

Space systems are already an area of huge "asymmetrical" advantage for the US, he noted and added, "Should we lose them, it will be a huge blow."

## ... And Research Is Under Way

The Pentagon is already spending research money to develop a space based laser capable of blasting ballistic missiles, Ryan said, adding that it might be ready for on-orbit test by 2010.

Ryan also said the Pentagon might eventually develop a space bomber—a hybrid system that would blast off like a missile and fly at hypersonic speed to targets anywhere on Earth, all in a matter of minutes. Precision munitions dropped from such a bomber would have such destructive force that they could destroy deeply buried bunkers without the use of explosives.

Asked whether the US should develop and deploy actual anti-satellite weapons, Ryan replied, "I think that we ought to have the capability. In fact, we are charged at [US] Space Command to be prepared to do that."

The Air Force Chief acknowledged that weaponization of space carries "huge policy implications" and also faces "some legal hurdles."

## Predator UAV Crashes in Iraq

On Aug. 27 an Air Force Unmanned Aerial Vehicle flying a reconnaissance

## Bush Taps the Air Force's Myers for JCS Chairman

As President Bush saw it, Gen. Richard B. Myers of the Air Force was "the right man to preserve the best traditions of our armed forces while challenging them to innovate to meet the threats of tomorrow."

That, he said, is why he nominated Myers to become the next Chairman of the Joint Chiefs of Staff, succeeding Army Gen. Henry H. Shelton in that job.

Bush made the Aug. 24 announcement from a community center near his ranch in Crawford, Tex. It marked the end of a lengthy search-and-decision period in which Bush and Secretary of Defense Donald Rumsfeld interviewed a large number of candidates.

Myers was already familiar with the job. The veteran fighter pilot served for more than a year as the JCS vice chairman, frequently taking up the duties of the Chairman when Shelton was traveling.

Myers would be the first Air Force officer in the nation's top military post since Gen. David C. Jones, who was Chairman in the period 1978–82.

Myers served as both commander of 5th Air Force, Yokota AB, Japan, and as overall commander of Pacific Air Forces. He was commander in chief of US Space Command, 1998–2000, where he was a forceful proponent of space power.

Myers grew up in Merriam, Kan., and graduated from Kansas State University, where he signed up for the Reserve Officer Training Corps. He entered the Air Force in 1965.

His unusually broad career has included 4,000 flying hours in a variety of aircraft as well as a stint directing the Air Force fighter acquisition program.

mission crashed in Iraq and was destroyed. A second UAV fell to Earth Sept. 11.

The August event marked the first time in 10 years of post-Gulf War operations that USAF has lost any kind of aircraft in Iraq. The downed aircraft—a Predator UAV—failed to return to base after its mission.

US officials, if they knew the cause of the crash, did not immediately disclose it. Baghdad claimed it had shot down the UAV in a combat operation. The Pentagon did not dispute the claim but said the loss may have stemmed from technical failure.

Meantime, Air Force officials warned that the incident underscores the increasing dangers that confront pilots carrying out daily patrols of the skies over Iraq in Operations Northern and Southern Watch. (See box on p. 13.)

Pentagon officials said the Predator was lost not far from Basra, a city at the southern extremity of Iraq. Details on the second crash were not immediately available.

## Roche Seeks New C-17 Funds

Secretary of the Air Force James G. Roche has asked the Pentagon to add about \$200 million to its pending

budget to buy long-lead items for more C-17 transports.

Roche reported that the Air Force forgot to include the request in its program for the Fiscal 2002 budget. He chalked up the oversight to the great haste with which the new spending plan was developed in the summer.

He told defense reporters on Aug. 14 that he asked Defense Secretary Donald Rumsfeld to bring the matter to the attention of Congress, which would have to rectify the problem. (InsideDefense.com reported the oversight and the amount on Aug. 10.)

"As we put together the '02 amendment, it was done so quickly that, in fact, the long lead for that fell through the cracks," said Roche.

The long-lead money is important because it is necessary to keep the Boeing C-17 production line running at an efficient rate in Fiscal 2003.

Current plans call for the Air Force to buy only 12 C-17s during that year, not the 15 Boeing considers optimal. The extra \$200 million would put the service in a position to increase its 2003 C-17 order.

## Aldridge: No F-22 Tail Cracks

Defects found over a small area of

# The September Massacre—Sept. 11, 2001

Shocking the world, faceless terrorists launched an astonishing clockwork air blitz on America's key military and financial power centers.

President Bush declared the sneak attacks to be "acts of war," and members of Congress called for a military response.

In a well-planned and well-coordinated operation, suicide teams hijacked four huge commercial jetliners and crashed them into two World Trade Center towers in New York, the Pentagon in Washington, D.C., and—in an apparent failure—the Pennsylvania countryside.

It was the deadliest terrorist event in American history and most dramatic assault on US soil since Pearl Harbor on Dec. 7, 1941.

With deaths still being counted, the September Massacre may yet prove to be the worst single day of carnage in US history, surpassing even Sept. 17, 1862—the day more than 4,000 American soldiers died in the Civil War's Battle of Antietam.

The attack leveled the World Trade Center's twin 110-story towers, caused chaos at the Pentagon, paralyzed domestic air traffic, and put the US military on something close to a war footing.

Of the 266 passengers and crew on the four aircraft, none survived. At the Pentagon, 124 civilians and active duty military personnel died. The number of dead in the Twin Towers is as yet unknown, but it is surely in the thousands. A total of 4,957 people were missing in the World Trade Center catastrophe, officials said Sept. 16. Among those lost in the conflagration were some 300 New York firefighters and police.

While no terrorist organization claimed "credit" for the raids, US officials said they saw the hand of Muslim extremists who are linked to Osama bin Laden, the fugitive Saudi Arabian mastermind of many previous terrorist spectacles.

Other suspects included the security and intelligence organs of Iraq and Iran and the terror groups Hamas and Islamic Jihad.

Bin Laden resides in Afghanistan and enjoys protection of that nation's Muslim extremist rulers, known as the Taliban. That fact alone immediately put the Central Asian nation and its leaders in danger of US military action.

Addressing the nation on the day after the attacks, Bush declared, "We will make no distinction between the terrorists who committed these acts and those who harbor them."

At home, US military activity was immediate and extensive.

Air Force F-16 and F-15C fighters, controlled by North American Aerospace Defense Command, launched combat air patrols over more than 30 US cities. The combat aircraft were deployed to enforce an unprecedented ban on civilian air traffic over the United States. The concern was that terrorists would attempt further attacks using airliners.

Secretary of Defense Donald Rumsfeld said the fighters would continue to fly CAP "as long as it is appropriate."



—Agence France-Presse



DOD photo by Gerry J. Gilmore

The Pentagon also sent aloft at least one E-3 Airborne Warning and Control System aircraft to keep track of activity in the skies and provide early warning of any further attack.

The Navy deployed a group of ships equipped with anti-aircraft missiles to patrol the US East Coast and West Coast.

The Pentagon on Sept. 14 asked Bush to authorize the activation of thousands of reserve troops for "homeland defense," primarily increased "strike alert" protection in the air.

Rumsfeld planned to activate at least 30,000 reservists and National Guard members, including pilots, flight crews, military police, flight controllers, and others at military bases.

Rumsfeld was also expected to announce expanded fighter operations from 26 domestic US bases.

Meanwhile, the Pentagon's second-high-

est-ranking official said Sept. 13 that Washington planned to mount a "sustained" military campaign against terror forces abroad.

"It's going to unfold over time," said Deputy Defense Secretary Paul Wolfowitz. "One thing that is clear is you don't do it with just a single military strike, no matter how dramatic. ... It will be a campaign, not a single action," he said. "And we're going to keep after these people and the people who support them until this stops."

Wolfowitz added:

"These people try to hide, but they won't be able to hide forever. They think their harbors are safe, but they won't be safe forever. I think one has to say it's not just simply a matter of capturing people and holding them accountable, but removing the sanctuaries, removing the support systems, ending states who sponsor terrorism."

—by Robert S. Dudley

## Defense Needs Every Nickel, Says Rumsfeld

The Administration will fight any attempt by Congress to trim its defense budget request, Secretary of Defense Donald Rumsfeld said during an Aug. 23 appearance in the Pentagon press briefing room.

The armed forces need every nickel of the \$18.4 billion increase in funds that the White House wants, said Rumsfeld.

"Defense is a priority that's distinctive, and the President has indicated that," he said.

Some lawmakers have begun grumbling that shrinking surplus predictions make it less likely that the Defense Department will get all it wants. On Aug. 22, the Office of Management and Budget lowered its estimate of the Fiscal 2001 surplus to \$158 billion. That's the second largest amount of black ink ever recorded by the federal government—but virtually all of it is generated by the Social Security and Medicare trust funds, which politicians of both parties have vowed to protect.

Even top Republicans have begun indicating that the defense budget increase might be in danger.

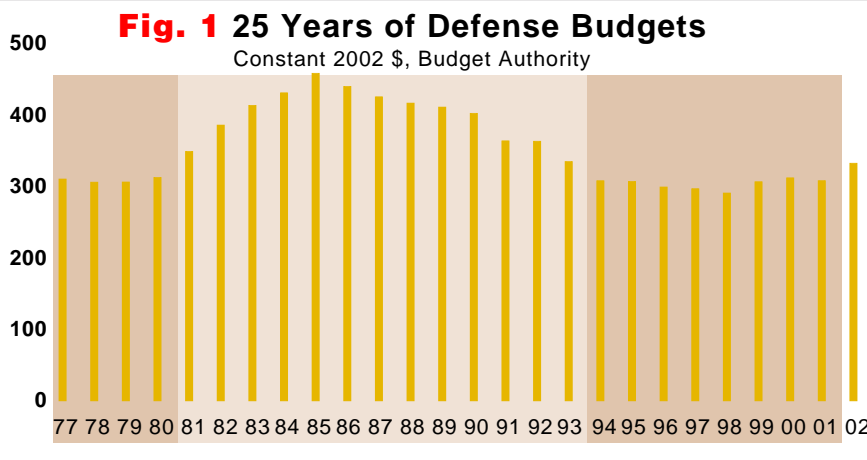
"If we don't have \$18 billion, we won't do \$18 billion," said Minority Leader Sen. Trent Lott (R-Miss.) earlier this year.

President Bush's original request for Fiscal 2002 defense money, submitted shortly after he took office, was for \$310 billion, up from \$296 billion in 2001.

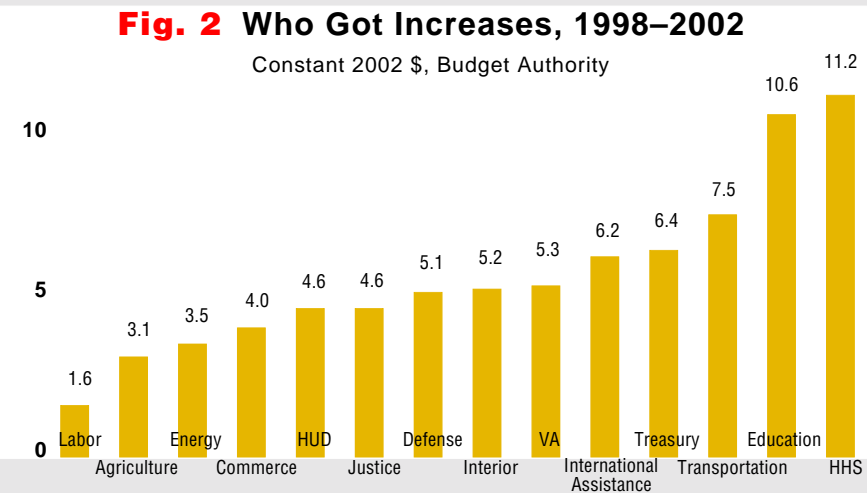
Subsequently the Administration asked for \$18.4 billion more, to cover increased health costs, more missile defense spending, and other Bush priorities.

Rumsfeld predicted that the increase would, in the end, win approval—despite the current level of Congressional static.

"I've generally found that there are always some people who are against defense spending at any level. And yet when the votes tend to be done, they seem to find a majority to support a strong national defense," he said.



*Pundits often refer to Bush's 2002 DOD budget as if it were unusually large. It is not—not by historical standards. The Bush budget is \$328.9 billion. As Fig. 1 shows, that is only a bit larger than any of the eight Clinton budgets (1994–2001), but it is smaller—usually far smaller—than any of the Reagan or Bush I defense budgets (1982–93) and even the last Carter budget (1981). In other words, over the last 25 years, the new budget ranks 13th in size. Fig. 2 shows that DOD experienced 5.1 percent annual growth over the past five years. However, that rise was smaller than seven of 13 major US agencies. Moreover, the modest increase was preceded by 13 straight years of budget cuts.*



an F-22 tail are no problem and should not necessitate any structural redesign, said Pete Aldridge, undersecretary of defense for acquisition, technology, and logistics, at an Aug. 15 appearance before reporters.

"Crack" isn't even really the right word to use in this context, according to Aldridge.

He noted that there is a honeycomb

structure inside the tail that is used to fill a void, and technicians have found that, in a few of the Raptors currently undergoing flight testing, some of that honeycomb has pulled away from an internal structural member.

"There is no crack in the F-22 tail, OK?" Aldridge said in response to a question. "It's not a structural problem. ... It's a delamination of an area."

Air Force Secretary Roche echoed Aldridge's statement. "You've read about the little delamination that's around the pivot point," said Roche. "It's not a problem. You build with plastics, that happens. It happened to every plastic airplane."

The Pentagon in August approved production of nearly 300 more of the F-22 fighters.

## McCain Sees "Pork" in Veterans Bill

Pork barrel projects abound in the funding bill for the Departments of Veterans Affairs and Housing and Urban Development, according to Sen. John McCain (R-Ariz.).

Senators earmarked \$523 million, for 492 "parochial projects" in the bill, said McCain.

On Aug. 2, the Senate rejected an amendment proposed by McCain that would have shifted \$5 million of this money to veterans' accounts.

The projects include:

- \$100,000 for a spaceship-shaped museum in Nevada.

- \$1 million to celebrate the bicentennial of the Louisiana Purchase.

- \$200,000 for historical renovation to an art museum in Newport, R.I.

- \$350,000 for Pittsburgh's Harbor Gardens Greenhouse Project, a large glass building dedicated to producing orchids.

"I really believe it would be a good idea to grow orchids in Pittsburgh," said McCain. "I also happen to believe our veterans ... [are] a greater priority."

## Handy, Foglesong Named for New Posts

Gen. John W. Handy, vice chief of staff of the Air Force, has been nominated by President Bush to become the commander in chief of US Transportation Command and commander of Air Mobility Command, the Pentagon announced Aug. 6.

Handy has been in his present post since April 2000. Prior to that, he served as deputy chief of staff for installations and logistics and commander of 21st Air Force at McGuire AFB, N.J., among other positions.

Lt. Gen. Robert H. Foglesong, the Air Force's deputy chief of staff for air and space operations, was tapped to move up to become the vice chief and receive a fourth star. Foglesong is a former commander of 12th Air Force at Davis-Monthan AFB, Ariz.

## B-1Bs Will Be Moved, Says Roche

The Air Force and Pentagon will persist in attempts to cut the B-1B bomber force from 93 to 60 aircraft and consolidate the remaining aircraft at Dyess AFB, Tex., and Ellsworth AFB, N.D., according to Secretary of the Air Force James Roche.

Lawmakers from states that will lose airplanes are opposed to the move, acknowledged Roche during an Aug. 9 press conference near Robins AFB, Ga., one of the affected installations.

But the need to save money is paramount. At 90 aircraft, the B-1B

## Base Closing Fight Begins

The Administration submitted its long-awaited base closing legislation to Congress on Aug. 3, marking the official beginning of what is likely to be a contentious effort to trim fat off the nation's military infrastructure.

If previous base closing rounds are any guide, lawmakers from states with endangered installations are sure to battle the effort.

"It's going to be tough," said Pete Aldridge, undersecretary of defense for acquisition, technology, and logistics, at a news conference.

If Congress passes the Efficient Facilities Initiative of 2001, Secretary of Defense Donald Rumsfeld will work with the services on a comprehensive review of DOD installations, with an emphasis on their military value. He would then recommend an infrastructure plan to a nine-member EFI commission by March 2003.

The commission—composed of persons appointed by both the legislative and executive branches—would deliberate this plan and then forward its own recommendations to the President by July 2003. Once the plan hits the Oval Office, President Bush would have two weeks to accept or reject base closing recommendations in their entirety.

Following Presidential action, Congress would have 45 days to pass a resolution that would kill the plan, on a similar all-or-nothing basis. Absent such a move, the closures would become binding.

The Secretary of Defense must then "initiate the binding recommendations within two years and complete them within six years," said Aldridge.

fleet is not mission ready. Its budget for maintenance and upgrades is at least \$2 billion short.

"I would not send that plane into heavy combat today, unless I had that \$2 billion," said Roche.

At Robins, loss of the B-1B mission would result in the loss of about 550 full-time Air National Guard jobs. But those affected are likely to be retrained as information technology specialists.

Robins employs about 23,000 personnel, the bulk of whom work at Warner Robins Air Logistics Center. Since the Administration has proposed a new round of base closures, the loss of any mission raises fears that a base may become a prime closure candidate.

However, the Secretary was unequivocal about his endorsement of the ALC at Robins.

"I would not worry about Warner Robins. I need Warner Robins and I need it to be a world-class center," said Roche.

## Aldridge Still Assessing Osprey

Pentagon acquisition chief Pete Aldridge says he has been briefed on the troubles of the V-22 tilt-rotor aircraft but has not yet decided where he stands on the program's future.

"I'm going to reserve judgment," he told reporters at an Aug. 15 Pentagon briefing.

There are still many uncertainties surrounding the program, he said, from the aerodynamic phenomena it creates during flight to the possible need for reliability improvements.

"It's just a very difficult problem to decide upon, and we are not going to decide quickly," he said.

## Study Prompts Look at JP-8 Health Effects

An 18-month study led by the Air Force surgeon general has investigated complaints of acute, short-term health effects among personnel who work closely with JP-8 jet engine fuel—and determined that more effective protective clothing may be necessary.

The effects in question are similar to those experienced by painters working in closed rooms or others who work closely with solvents. They include dizziness, lightheadedness, and skin irritation.

For fuel cell maintainers and others at risk "we have protective equipment and technical orders in place, but we're taking the initiative to explore recent advances in equipment that may provide greater protection," said Lt. Col. Thomas Neal, chief consultant for occupational medicine at the Air Force surgeon general's office.

Study results so far indicate no long-term health problems from JP-8 exposure, said Neal.

## Maintainers Finish START Job

Maintainers from the 90th Space Wing, F.E. Warren AFB, Wyo., have finished reconfiguring 150 Minuteman IIIs to turn them into single-warhead weapons.

The ICBM nosecones previously contained three independently targetable warheads.

This reduction in striking power was called for by the terms of the START I nuclear arms control agreement between the US and the Soviet Union. When the Soviet Union collapsed, Russia assumed its treaty obligations and START I continued in

## USAF Names Distinguished Dozen

The Air Force has selected the 12 Outstanding Airmen of the Year for 2001, honored as the service's top enlisted members.

The 12 selectees, whose names were announced July 20, are authorized to wear the Outstanding Airman of the Year ribbon with bronze service star device. The Air Force Association sponsors the award. The selectees are:

**SSgt. Dennis L. Alexander**, Pacific Air Forces  
**MSgt. (sel.) Maria D. Cornelia**, Air Education and Training Command  
**TSgt. Myrna L.S. Cornelson**, Air Force Reserve Command  
**SSgt. James J. Delo Jr.**, Air Combat Command  
**SSgt. Gregory W. Fry**, Air Intelligence Agency  
**TSgt. Ronald A. Gisel**, Air Force Honor Guard, 11th Wing  
**MSgt. (sel.) Monica M. Hill**, Air Combat Command  
**SSgt. Tien N. Ho**, Air Mobility Command  
**SMSgt. (sel.) David D. Lesieur**, Air Force Materiel Command  
**MSgt. (sel.) John A. Maldonado II**, US Air Forces in Europe  
**SSgt. Brandon R. Pearce**, Air National Guard  
**SSgt. Jason Raether**, Air Force Space Command

force. The Air Force maintainers completed their work Aug. 6, four months ahead of schedule.

"It's not every day that you go to work knowing you completed an international treaty," said A1C David Glass, a Minuteman III maintenance technician.

### Air Force Pushes Data Link Upgrades

At Air Combat Command, the Aerospace Command and Control & Intelligence, Surveillance, and Reconnaissance Center is wrapping up a Tactical Data Link Roadmap intended to smooth the way for upgrades of data links throughout the force.

Data links allow information to be sent graphically to aircraft via a computer link, as opposed to voice communication over radios. They are exceptionally effective—increasing daytime air-to-air kills by three times and nighttime kill ratios by more than four times and boosting air-to-ground targeting success to nearly 100 percent.

"Right now we have less than 400 aircraft that have data links," said Capt. Kjall Gopaul, Aerospace C<sup>2</sup> & ISR Center's data link expert. "Within the next 15 years, that number is expected to explode by 1,000 percent."

The roadmap will set priorities for data link implementation within and across Air Force mission areas.

### Airlifters for Space Launch?

Air Force Research Laboratory is looking at a concept to transform the C-17 transport and other large airlifters into flying space launch com-

plexes. The plan calls for equipping each aircraft with a pneumatic launch tube that would spit small expendable or reusable spaceplanes, carrying microsattelites, out the back of the transport.

The new concept could produce a modular system that could allow airlifters to be reconfigured to space launch mode in less than a day, claims its inventor, Ken Hampsten, who is head of AFRL's Space Vehicles Directorate's Advanced Space Transportation branch.

The tube, which would be integrated into the inside of the cargo bay, would expel the small spaceplane out of the aircraft—flying at about 40,000 feet at approximately 530 mph—over the

ocean. The process would give the spaceplane a head start in altitude and speed, possibly lowering the propulsion system orbital velocity requirements by up to 10 percent.

The whole system would provide the low flight cost, high reliability, and quick turnaround that is needed to feed microsattellite constellations, which can range from 40 to more than 200 satellites.

The system could also provide "a quick and cheap way to send supplies up to the International Space Station," said Hampsten.

### Tech Orders Going Digital

The Air Force is quietly revolutionizing its aircraft maintenance by converting millions of pages of technical orders into billions of electronic bytes.

At the direction of the Department of Defense, USAF is testing digital technical orders at several bases, aiming for implementation of an Air Force-wide system by 2004.

Digital tech orders, displayed on computers, are far easier to update than printed versions. They're also far less bulky. There are 1.4 million pages of tech data that support the F-16, for example, weighing in at around 14,000 pounds. Yet one test electronic system holds the whole set—and weighs eight pounds.

"We anticipate more than \$200 million in savings over the lifetime of the aircraft, and that's just for the F-16," says Al Simpson, an Air Combat Command digitalization field service evaluation manager.

Nor are all test systems laptops. The Air Force is also looking at eye-

## DOD Takes Second Look at Up or Out

The Pentagon is considering longer tours of duty and a relaxation of "up or out" promotion rules in an effort to increase military job satisfaction.

Longer tours would allow members of the armed forces to become more proficient at each position, David Chu, undersecretary of defense for personnel and readiness, told reporters at an Aug. 8 Pentagon briefing. They might also ease family strain and increase retention.

"One of the reasons I do think we get people declining assignments that in the past have been seen as plum jobs is because the families have said, 'We've had it. You know, we're not moving,'" said Chu.

The downside of longer tours might be that key personnel would have fewer experiences in preparation for senior posts.

"The issue, of course, is can I substitute some other vehicle for giving them that preparation," said Chu. "The average tour is very short. ... Are we demanding so much that it is so badly undercutting family life that we are turning away many talented people?"

At the same time Pentagon officials are considering relaxation of the up-or-out rule to help the military fill critical skill slots, such as computer technician, and allow people to stay longer in jobs they enjoy. For instance, Chu cited the oft-repeated example of officers who want to stay in the cockpit rather than advance to command positions.

He said, "The critics would say we've driven the up-or-out principle, both in the officer and enlisted force, a little bit too far."

pieces that project the equivalent of a 15-inch digital screen to the user, and other versions of "wearable" hardware.

### Some Enlisted To Get Pay Hike

Some Air Force command chief master sergeants and first sergeants may be eligible for special duty assignment pay of up to \$165 a month.

The planned increase, effective Oct. 1, is meant to recognize the special demands placed upon these NCO leaders, whether active, Guard, or Reserve.

Among criteria for eligibility: Recipients must be master sergeants and above, serving in an authorized billet. Command chief master sergeants must be serving in Special Duty Identifier 9E000. First sergeants must have completed the First Sergeant Academy and be serving in Special Duty Identifier 8F000.

### Army Guard Releases C-23 Crash Findings

The March 3 crash of a Florida Army National Guard C-23B Sherpa that killed 18 Virginia ANG members and its three Army Guard flight crew was caused by crew error, according to an accident investigation report released Aug. 6.

The report said the Sherpa crew, because it did not properly load the aircraft, created a cargo weight imbalance.

In an unusual dissent, however, the Florida National Guard official who convened the investigation board claimed that an imbalance of cargo was only one factor contributing to the accident.

The Florida adjutant general, Army Maj. Gen. Ronald O. Harrison, said he believed the aerodynamic forces produced by a severe thunderstorm was the primary cause of the crash.

Harrison cited a weak weather radar, poor route selection, possible cargo imbalance, and design limita-

## Iraq Rebuilds Defenses, Intensifies Effort

Iraq has rebuilt air defenses damaged by US and British warplanes in last February's extensive bombing raids, say US officials.

In particular, some fiber-optic communications cables linking defense sites have been re-laid, Secretary of Defense Donald Rumsfeld said at an Aug. 3 meeting with reporters. The cables, a target of the February strikes, could enable anti-aircraft missile batteries to fire without having to be guided by nearby, easily detectable radars.

"It does appear that Iraq has been successful in quantitatively and qualitatively improving [its] air defense," said Rumsfeld.

Slicing the cables with another attack might prove difficult. They have now been buried, and Saddam Hussein knows that the US knows of their existence. Instead, the US is weighing other response options.

"If you're going to do something, one question is, What's its value and for how long does it last?" said Rumsfeld. "One tends to want to do things that will have somewhat more lasting effects."

Reconstruction of the cables is only part of a stepped-up Iraqi air defense effort, according to the Pentagon. Saddam is doing his best to try to bring down a US or coalition aircraft.

Through the first seven months of this year, the US counted 370 "provocations" against airplanes enforcing Operation Southern Watch, as opposed to 221 for all of 2000. Anti-aircraft gunfire, missile launches, and radar lock-ons all count as provocations. Operation Northern Watch has seen 62 provocations through July 31, compared to 145 in the previous year.

The increased volume of fire does not necessarily mean Iraq is coming closer to hitting an aircraft. "Sometimes [they're] closer, sometimes they're farther away. I'd be hard-pressed to make an across-the-board assessment" of their capabilities, said Pentagon spokesman Rear Adm. Craig Quigley on July 31.

In response, Northern Watch warplanes have launched seven strikes on Iraq through July 31, as opposed to 48 in 2000. The corresponding figures for Southern Watch are 19 this year and 32 last year.

The US "reserve[s] the right to strike targets at a time and a place and a manner of our choosing," said Quigley.

tions of the autopilot system as secondary factors.

According to the investigative report, the airplane was carrying "a large amount of personal baggage, as well as four large toolboxes, two sets of golf clubs, and a commercial stereo system (about 25 pounds)." Investigators could not determine the exact position of passengers and cargo but believe that the aircraft was over its maximum weight.

In his briefing, Harrison stated that none of the contributing factors could have individually caused the crash. "Only this combination of factors, acting together on the aircraft at one precise moment, pushed the

aircraft beyond its normal operating limits."

The investigation was conducted by Army and Air Force experts.

### Hero at Mogadishu Retires

USAF MSgt. Timothy A. Wilkinson, the only enlisted Air Force Cross recipient in uniform, retired from active duty July 20.

Wilkinson, a pararescueman, received the medal for heroic efforts in supporting Task Force Ranger during an 18-hour firefight in Mogadishu, Somalia, in October 1993.

A Somali rocket propelled grenade had shot down a US Army MH-60 helicopter, sending the aircraft and its load of Rangers to the streets of Mogadishu. A firefight with Somali irregulars ensued. Wilkinson ran repeatedly through enemy fire to extract, one by one, five wounded Army Rangers. As the fight continued, he crossed an exposed intersection twice to bring medical supplies to more wounded and helped fight off the attackers.

The US suffered 18 dead and 80 wounded that day, but the toll would have been far worse had it not been for Wilkinson's efforts.

The Army Ranger team leader on the scene said that Wilkinson displayed absolutely no fear throughout the ordeal.

## Spence, Former Armed Services Chairman, Dies at 73

South Carolina Congressman Floyd D. Spence, a Republican and former chairman of the House Armed Services Committee, died Aug. 16 of post-surgery complications. He was 73.

Spence was a staunch supporter of military spending and a proponent of national missile defense throughout his years in the GOP leadership. First elected to Congress in 1970, he ascended to the top post of what was then called the National Security Committee after his party took control of the House in 1995. He stepped down from the post earlier this year.

Spence retained the chairmanship of the panel's subcommittee on military procurement until his death.

Spence's basic position was that the world was a dangerous place and that in the post-Soviet years America needed as strong a military as ever to deal with regional conflicts.

## Age of Aircraft Only One Part of O&M Problem

The rising age of the aircraft fleet is a significant factor driving up Operations and Maintenance costs, even though other problems figure into the O&M increase as well, according to Air Force officials.

They made their comments following release of a Congressional Budget Office report that cast doubt on claims that aging weapons are the main force behind spiraling O&M costs.

“Aging aircraft are a considerable concern to the Air Force, as they are to all the services with their types of respective equipment,” said Lt. Gen. Michael E. Zettler, deputy chief of staff for installations and logistics, at an Aug. 16 press conference.

Since 1996, the number of hours flown by Air Force pilots has remained relatively constant. Yet flying hour costs have been going up by about 10 percent per year, according to figures presented by Zettler, even after adjusting for inflation and the highly variable cost of fuel.

One reason the same airplanes have become more expensive to fly is that they consume more spare parts as they age. Within the flying hours category, the cost of spare parts has risen 50 percent since 1996, according to Air Force data.

“That’s the cost we associate with aging,” said Zettler.

F-15s, for example, have seen a large cost increase in maintaining engines as they go through a cyclic replacement of the parts that have literally worn out over their 15- to 20-year operating time.

Congressional Budget Office analysts, by contrast, figured the rise in spares costs at 10 percent since 1995, instead of 50 percent.

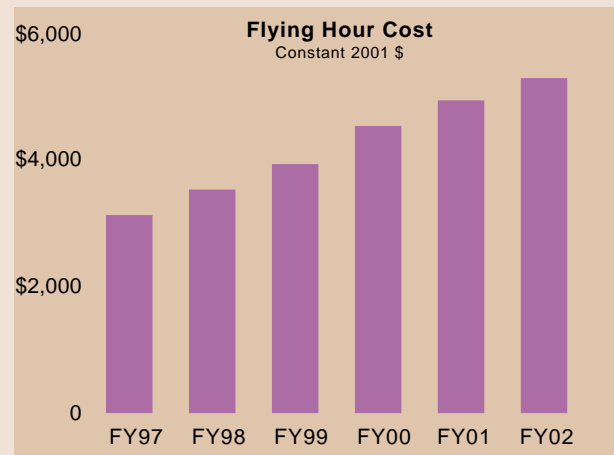
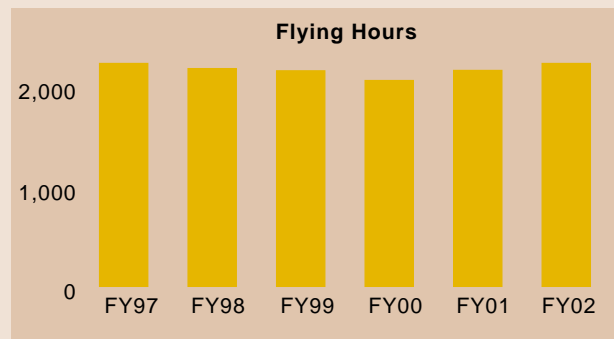
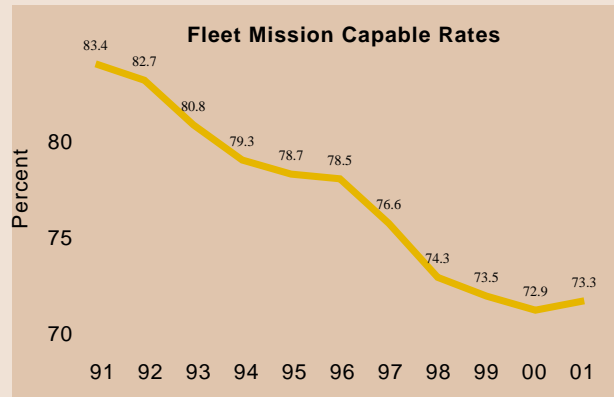
Their report, released in August, held that O&M costs for aircraft increase by one to three percent for each additional year of age—well below Air Force estimates.

Other driving forces—such as the need to factor in rising health care costs and more stringent environmental requirements—have pushed up O&M costs faster than aircraft age, according to CBO.

Air Force officials agree that these other factors are important. But they feel that for technical reasons CBO analysts have underestimated aging’s effects.

“We believe it’s in the methodology, and we’ve got apples and oranges,” said Zettler.

### Aging Fleet Indicators



### DOD Braces for Health Cost Rise

The Defense Department is preparing to pay for the new lifetime health care and prescription drug benefits mandated by the Congress for military retirees age 65 and over.

The benefits, provided under the banner of the Tricare health care program, will cost \$3.9 billion in Fiscal 2002, according to the Pentagon’s top personnel officer.

“This is a better package than the average American is going to receive,” said David Chu, undersecretary of

defense for personnel and readiness. “But these people have also done things that are different from the average citizen.”

DOD’s plan called for activating the so-called Tricare for Life system on Oct. 1. Under that plan, 65-and-over military retirees would use Medicare as the primary insurer, with Tricare serving as a second payer on many costs not covered by Medicare.

Until now, military retirees were forced out of the Tricare system and

into Medicare at age 65. Many had to buy expensive private insurance supplements to pay for uncovered expenses.

Tricare is now supposed to fill that role, but Tricare officials had not yet made public a full listing of expenses that will or will not be covered.

### US–Europe Defense Spending Gap Narrows

The gap between US and European defense spending burdens has narrowed over the last 15 years, but

## Public Supports Missile Defense, Knows Little About It

Public opinion polls show that Americans, in general, support the concept of defenses against ballistic missiles. But the surveys also reveal that the respondents know little about the subject and that their opinions remain unsettled.

"Few Americans have followed the issue closely, and most are unaware that the United States does not already have such a system," said an analysis published Aug. 1 by the Gallup Organization.

The idea of missile defense has received high marks in polls since the days of Ronald Reagan. When Gallup asked about the development of Reagan's "Star Wars" program in 1986, 52 percent of respondents said they favored it.

More recently, a Gallup survey from last February found that 44 percent of Americans support research, and possible development, of a defensive system. Twenty percent said they were opposed, and 36 percent said they were unsure of their opinion.

But missile defense is down near the bottom of policy issues that average Americans are following. In a CBS/*New York Times* survey from last year, only six percent of respondents said they were following the subject "a lot." Fully 58 percent believed the US was already protected by missile defenses, with another 14 percent unsure as to whether a shield was already in place or not.

Given their lack of knowledge about the subject, Americans thus respond with different opinions about defenses, depending upon how the question is asked. Told that the Pentagon has already spent \$60 billion on defenses and that opponents think it won't work, 52 percent of ABC News poll respondents said they oppose development. When told in the CBS/*New York Times* survey that building defenses would mean ending an arms control treaty with Russia, 52 percent of those who had initially supported the system changed their minds and registered opposition.

These variances suggest "that attitudes on the matter could undergo a significant fluctuation in the wake of a public debate about the merits of the proposed missile system," said Gallup.

it still is large, according to a new Congressional Budget Office report.

In 1985, near the peak of the Reagan Administration's military buildup, the US defense budget was equivalent to about 6.7 percent of US Gross Domestic Product. For NATO Europe, the corresponding figure was an average of 3.5 percent.

By 1999, the US figure had declined to 3.0 percent of GDP, while Europe's burden shrank less slowly, to 2.3 percent, according to a CBO study prepared for the Senate Foreign Relations Committee. Numbers for Fiscal 2000 were expected to be similar, projected CBO.

The only European allies whose 2000 defense spending-to-GDP ratio was projected to be higher than that of the US were Greece, at 4.9 percent, and Turkey, at 6.0 percent.

### BMDO Presents Reorganization

Lt. Gen. Ronald T. Kadish, director of the Ballistic Missile Defense Organization, was to propose a streamlined management plan for BMDO at a meeting with senior defense officials Aug. 16, according to Pentagon acquisition chief Pete Aldridge.

Final details are not yet set, but the plan would allow the BMDO director to make quick program decisions across the whole range of technolo-

gies he now oversees. BMDO management would become similar in flexibility and style to that of the National Reconnaissance Office.

Given that Kadish oversees multiple approaches to everything from terminal defense to boost-phase intercepts and missile defense command and control, "he cannot afford

all the [typical Pentagon procurement] oversight and scrutiny of every one of his programs every day," Aldridge told reporters Aug. 15.

A Senior Executive Council of Defense Department officials would provide BMDO with board of directors-like oversight, said Aldridge. When, or if, deployment decisions are made on specific missile defense technologies, those programs would then be turned over to the services and become subject to the normal defense acquisition process.

### Report: NRO Loses Satellite Data for 12 Hours

The National Reconnaissance Office may have lost touch with one of its most technologically sophisticated spy satellites for a 12-hour period in late July.

The satellite in question was a Series 3100 radar-imaging Lacrosse, according to an account of the incident published in the *Washington Times*. Lacrosse radar can operate through clouds and at night.

The NRO declined comment on the specific malfunction, but an NRO spokesman said that from time to time US spy satellites automatically shut down into a "safe" mode in the event of computer malfunction or other problems.

### Retired Airman Arrested for Espionage

Brian P. Regan, a retired Air Force master sergeant, was arrested and charged with conspiracy to commit espionage. He worked for a govern-

## Academy Takes a Step to Resume Powered Flight

On July 31, officials of the US Air Force Academy announced they will resume powered flight training in the summer of 2002.

There has been no powered flight training at the academy since 1997, when it was suspended due to accidents involving T-3 Firefly aircraft. Beginning in late 1998, the academy initiated an Introductory Flight Training program contracted with civilian flight schools in the local area.

Taking this training back in-house will provide the extra rigor of military oversight, note officials.

"Civilian flight schools are concerned with preparing students for their [Federal Aviation Administration] check ride, not with preparing them for the challenges of [Undergraduate Pilot Training]," said Lt. Col. Kathy Doby, 557th Flying Training Squadron commander.

The academy takes such preparation seriously, since it provides almost 50 percent of the Air Force pilot candidates in UPT. Its cadets also generally do well—the academy has a 50 percent lower attrition rate for pilot training than the Reserve Officer Training Corps or Officer Training School.

Increased noise as flights resume is a concern for many in the surrounding Colorado Springs community. But the program will consist of only 300 students to start, as opposed to 650 in previous years. The number of sorties will be capped at 96 per day.

"Obviously, no matter what we do, short of quitting flights altogether, some folks aren't going to be happy," said Col. Korky von Kessel, 34th Operations Group commander.



## Kadish Says October NMD Test Will Be a Repeat

The next test of the Pentagon's missile defense technology will look very similar to the last one.

In particular, that means it will not have any more sophisticated decoys or other countermeasure devices than did July's successful intercept experiment. The reason: Lt. Gen. Ronald T. Kadish wants to further test the system's technologies in the context of simple defense scenarios.

"I am worried that we have the reliability we need in the system's basic functionality," said Kadish at a breakfast meeting with reporters.

The next test is currently scheduled for October. If things go well, more countermeasures can be introduced into the test series relatively quickly, perhaps as early as next year.

During July's test of the hit-to-kill interceptor technology, software problems affected the system's ability to assess its success, added Kadish. The problem was not in the X-band radar that tracked the target missile but in the software used to process the radar tracking data. System engineers are now patching in a software fix.

ment contractor and was assigned to the National Reconnaissance Office in Chantilly, Va.

The FBI picked up Regan on Aug. 23. He is a resident of Bowie, Md., a suburb of Washington, D.C. Regan retired from the Air Force in August 2000, officials said.

The FBI filed an affidavit stating that the NRO was Regan's last active duty assignment.

Published reports said FBI agents observed Regan taking clandestine notes about classified NRO surveillance data to which he had access. They further alleged that Regan may have intended to sell his information to Libya.

The FBI took Regan into custody at Dulles International Airport, near Washington, as he attempted to board a flight to Switzerland.

### Rumsfeld Names Two to Head Nuke Panel

Defense analysts Keith B. Payne and Kurt Guthe are co-chairing an advisory panel on nuclear deterrence concepts for the Pentagon, according to *Inside the Pentagon*.

Payne and Guthe are president and a former senior analyst, respectively, of the Washington, D.C.-area National Institute for Public Policy. Prior to last year's election, NIPP produced a long report urging the US to combine cuts in nuclear warheads with missile defense, among other doctrinal changes.

The Deterrence Concepts Advisory Panel will serve as part of Secretary of Defense Donald Rumsfeld's overall nuclear posture review.

Other members include: Linton F. Brooks, vice president at the Center for Naval Analyses; James N. Miller Jr., vice president of national security planning at Hicks and Associates; and Chris Williams of Johnston and Associates.

### Shays Blasts DOD Hold on F-22 Data

Rep. Christopher Shays (R-Conn.), chairman of the House government reform subcommittee on national security, veterans affairs, and international relations, has written a letter to two House defense subcommittees, warning members about the Pentagon's projected cost estimates for the F-22. He criticizes the Pentagon for what he calls its close hold on F-22 production cost data.

Both his subcommittee and the General Accounting Office have been denied access to methodologies and supporting analyses used by DOD's Cost Analysis Improvement Group to develop Raptor price projections, the Congressman wrote.

CAIG's estimate of F-22 total program costs, and the Air Force's own projections, are nearly \$7 billion apart.

The Pentagon approved low-rate production of the F-22 Aug. 14.

### Lockheed Wins Targeting Contract

Air Force Materiel Command has awarded Lockheed Martin a seven-year, \$843 million contract to replace the service's existing missile target-

ing technology with Sniper XR targeting pods.

The contract provides for up to 522 targeting pod sets, though the Air Force currently estimates it is likely to buy only 168 of the advanced targeting pods.

The Air Force's current targeting system is LANTIRN, also produced by Lockheed. It is based on 20-year-old technology and is intended for use with low-level flight tactics.

Sniper XR's range is three times that of LANTIRN, according to firm officials, and lends itself better to high-altitude tactics.

First sets are scheduled for delivery in January 2003. Active duty F-16 Block 50 and National Guard F-16 Block 30 aircraft will be first in line for the new equipment.

### News Notes

■ TSgt. Charles L. Fouch III, an aerospace propulsion technician instructor from the 361st Training Squadron at Sheppard AFB, Tex., received the 2001 Pitsenbarger Award for heroic action by an enlisted member of the force. Fouch was honored by the Air Force Sergeants Association for risking his life to save a neighbor in an apartment building fire.

■ Northrop Grumman delivered the eleventh E-8 Joint STARS aircraft to the Air Force on Aug. 6. The aircraft was the first of the new Block 20 models.

■ Both competitors for the Joint Strike Fighter program, Boeing and Lockheed Martin, announced in late July that demonstrator aircraft have successfully completed their flight test programs.

■ An accident board report concludes that the March 30 crash of a Predator UAV supporting the Kosovo Stabilization Force was caused when the aircraft experienced icing problems and the pilot was unable to maintain control of the aircraft.

## Reagan Library Lands an Air Force One

The aircraft that served Ronald Reagan as Air Force One throughout the eight years of his Presidency was flown to San Bernardino International Airport, near the Ronald Reagan Presidential Library in Simi Valley, Calif., on its final flight Sept. 8.

The library's foundation will pay to build a hangar for the Air Force C-137 next to the library itself and to contract with Boeing for its maintenance. It will be restored to Air Force One colors and redecorated with a Reagan-era interior, complete with Reagan's signature bowl of jelly beans.

If all goes as planned, the aircraft will eventually be the centerpiece of a Museum of Presidential Travel.

"We are extremely pleased with the vision set forth by the Ronald Reagan Presidential Library Foundation," said Secretary of the Air Force James G. Roche. "Not only do they have the commitment to preserve this significant piece of American history, but their proximity to the Los Angeles metropolitan area provides opportunities for millions of people to view this historic aircraft."

■ The April 3 crash of an F-16 off the coast of Japan was caused by foreign object damage that resulted in engine failure, according to the accident report. The pilot ejected from the aircraft with minor injuries in the incident.

■ The Pentagon announced Aug. 7 that it has granted clearance for foreign military sales of the F/A-18E/F Super Hornet. Malaysia is among the nations that have expressed interest in upgrading their current F/A-18 fleets with new purchases of the E/F variant.

■ Russian officials say Russia needs to develop new fighter jets to stay competitive with the United States, according to a press report out of Moscow. And they think pooling resources with China or India might be the best way build next-generation warplanes.

■ The Air Force's recruit attrition rate has dropped from 8.8 percent in 1999 to 7.1 percent so far this year, thanks in part to revamped training and the delayed enlistment program, which helps to prepare enlistees for the rigors of basic training.

■ Three National Guard units were certified as the nation's first fully mission capable Weapons of Mass Destruction Civil Support Teams on July 26. The units are from Aurora, Colo.; Scotia, N.Y.; and Tacoma, Wash.

■ An Indiana ANG F-16 crashed into a cornfield in southern Illinois on July 26. The pilot ejected safely.

■ An F-16 from Luke AFB, Ariz., crashed north of Gila Bend, Ariz., on July 23. The pilot, Maj. Robert P. Egan, ejected safely.

■ The Air Force plans to spend more than \$150 million over the next seven years to upgrade about 1,300 military housing units in the United Kingdom. With an average age of more than 40 years, UK housing is nearly 10 years older on average than US military housing.

■ A three-judge panel from the 10th US Court of Appeals has ruled that the Colorado ANG is within its legal rights to conduct low-level training flights through Colorado's San Luis Valley and Wet Mountain Valley. The flights were opposed by some local residents and environmentalists.

■ A B-52 based at Minot AFB, N.D., was named *Spirit of Minot*, in honor of the nearby town of Minot, during an Aug. 10 ceremony at the base.

■ An Air Force C-9 Nightingale based in Japan evacuated a critically injured Chinese national seaman from Christmas Atoll on Aug. 8 and flew him to Hickam AFB, Hawaii, for treatment at a Honolulu hospital. ■

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## Senior Staff Changes

**CHANGES:** Maj. Gen. John J. **Batbie Jr.**, from Dir., Mobilization and Reserve Component Affairs, EUCOM, Stuttgart-Vaihingen, Germany, to Vice Cmdr., AFRC, Robins AFB, Ga. ... Maj. Gen. Paul L. **Bielowicz**, from Dir., Log., AFMC, Wright-Patterson AFB, Ohio, to Dir., Ops. & Log., STRATCOM, Offutt AFB, Neb. ... Brig. Gen. (sel.) Ted F. **Bowlds**, from Spec. Asst. to Principal Dep. Asst. SECAF, Acq., Pentagon, to PEO, Airlift, Trainers, & Modeling & Simulation, AFPEO, Asst. SECAF, Acq., Pentagon ... Brig. Gen. Robert W. **Chedister**, from PEO, Airlift, Trainers, & Modeling & Simulation, AFPEO, Asst. SECAF, Acq., Pentagon, to Cmdr., Air Armament Ctr., AFMC, Eglin AFB, Fla. ...

Brig. Gen. Robert J. **Elder**, from Dep. Dir., Reaction Force Air Staff, Allied Cmd. Europe, NATO, Kalkar, Germany, to Vice Cmdr., 9th AF, ACC, Shaw AFB, S.C. ... Maj. Gen. Michael N. **Farage**, from Cmdr., 37th Tng. Wg., AETC, Lackland AFB, Tex., to Chief, US Mil. Tng. Mission, CENTCOM, Saudi Arabia ... Gen. (sel.) Robert H. **Foglesong**, from DCS, Air & Space Ops., USAF, Pentagon, to Vice C/S, USAF, Pentagon ... Brig. Gen. Terry L. **Gabreski**, from Dir., Maintenance, DCS, Instl. & Log., USAF, Pentagon, to Dir., Log., AFMC, Wright-Patterson AFB, Ohio ... Brig. Gen. (sel.) David S. **Gray**, from Cmdr., 319th ARW, AMC, Grand Forks AFB, N.D., to Vice Cmdr., 12th AF, ACC, Davis-Monthan AFB, Ariz. ...

Gen. John W. **Handy**, from Vice C/S, USAF, Pentagon, to CINC, TRANSCOM, Scott AFB, Ill. ... Maj. Gen. Gary W. **Heckman**, from Dir., Force Structure, Resources, Rqmts., & Strategic Assessments Ctr., SOCOM, MacDill AFB, Fla., to Asst. DCS, P&P, USAF, Pentagon ... Brig. Gen. Thomas P. **Kane**, from Cmdr., 60th AMW, AMC, Travis AFB, Calif., to Dep. Dir., Reaction Force Air Staff, Allied Cmd. Europe, NATO, Kalkar, Germany ... Brig. Gen. (sel.) David R. **Lefforge**, from Exec. to CINC, TRANSCOM, Scott AFB, Ill., to Cmdr., 60th AMW, AMC, Travis AFB, Calif. ... Maj. Gen. David F. **MacGhee Jr.**, from Cmdt., AWC, AETC, Maxwell AFB, Ala., to Cmdr., AF Doctrine Ctr., Maxwell AFB, Ala. ...

Brig. Gen. Robert E. **Mansfield Jr.**, from Dir., Supply, DCS, Instl. & Log., USAF, Pentagon, to Spec. Asst., Supply Chain Integration and Log. Transformation, DCS, Instl. & Log., USAF, Pentagon ... Lt. Gen. (sel.) Teed M. **Moseley**, from Dir., LL, OSAF, Pentagon, to Cmdr., 9th AF, ACC, Shaw AFB, S.C. ... Gen. Richard B. **Myers**, from Vice Chairman, JCS, Pentagon, to Chairman, JCS, Pentagon ... Maj. Gen. Larry W. **Northington**, from Dep. Asst. Secy., Budget, Asst. SECAF (Financial Mgmt. & Comptroller), OSAF, Pentagon, to Dep. to Asst. Secy., Strategic Planning, Asst. SECAF (Financial Mgmt. & Comptroller), OSAF, Pentagon ...

Maj. Gen. Bentley B. **Rayburn**, from Dir., P&P, ACC, Langley AFB, Va., to Cmdt., AWC, AETC, Maxwell AFB, Ala. ... Maj. Gen. Mary L. **Saunders**, from Cmdr., Defense Supply Ctr. Columbus, DLA, Columbus, Ohio, to Dir., Supply, DCS, Instl. & Log., USAF, Pentagon ... Brig. Gen. Frederick D. **Van Valkenburg Jr.**, from Dep. Cmdr., 16th AF, USAF, Vicenza, Italy, to Cmdr., 37th TW, AETC, Lackland AFB, Tex. ... Lt. Gen. Charles F. **Wald**, from Cmdr., 9th AF, ACC, Shaw AFB, S.C., to DCS, Air & Space Ops., USAF, Pentagon.

**COMMAND CHIEF MASTER SERGEANT RETIREMENT:** CMSgt. Larry D. **Palmer**.

**CCMS CHANGE:** CMSgt. James V. **Callander**, to 11th Wg., Bolling AFB, D.C. ■