

Aerospace World

By Suzann Chapman, Associate Editor

Geese Caused AWACS Disaster

Pacific Air Forces released accident investigation board findings that confirmed earlier speculation that a flock of geese caused the crash of an E-3B Sentry in Alaska on September 22, 1995.

The Airborne Warning and Control System (AWACS) aircraft's two left-wing engines ingested several Canada geese, according to the official report released January 11.

"The result was an immediate, unconfined, catastrophic failure of the number two engine as well as compressor stalls in the number one engine," the report stated. It added that the E-3 began a "slow left-hand climbing turn, struck a hilly wooded area less than one mile off the departure end of the [Elmendorf AFB] runway and broke apart."

The crash killed all twenty-four crew members and destroyed the aircraft. [See "AWACS Crash Claims Twenty-Four Lives," November 1995 "Aerospace World," p. 14.]

What About Human Error?

The report ruled out crew error, stating that "the aircrew did everything humanly possible to fly this aircraft out of an unflyable situation." However, it did note two other factors that "substantially contributed to the accident."

One was the failure of the airfield tower controller to notify the AWACS crew or airfield management about a flock of geese that had been flushed when a C-130, using the same runway, took off just two minutes before the E-3 began its takeoff roll.

The second factor was that the base "lacked an aggressive program to detect and deter" the presence of the large birds and "did not adequately prepare for the migration season."

According to the report, the 3d Wing mistakenly believed its program was sound, based on an Air Force Safety Agency team's July 1995 endorsement of the wing's written plan to handle potential aircraft birdstrike problems.

Since the accident, according to a PACAF release, base officials have

Although they form only a small part of the US airlift fleet, C-17s have delivered, as of February 5, about 42.3 percent of the cargo airlifted for Operation Joint Endeavor. Here, SSgt. Christopher Dockery, 17th Airlift Squadron, Charleston AFB, S. C., coordinates offloading of Humvees at Sarajevo Airport.



USAF photo by SrA. Kari Olson

stepped up bird-control efforts to include increasing flight-line patrols and installing sound cannons to disperse the birds.

USAF Drops Below 400,000

For the first time in decades, Air Force strength has dipped below 400,000 troops.

Data released by the Pentagon December 20 showed that USAF active-duty personnel numbered 398,560 on October 31, 1995. The Air Force has shed nearly 210,000 active-duty men and women in the past nine years.

The last time the Air Force ended a fiscal year with fewer than 400,000 troops was in 1948 during its first full year as an independent service. Air Force strength at the end of Fiscal 1948 was 387,730. USAF's postwar strength peaked in 1953 at 977,593.

Current plans call for the Air Force drawdown to bottom out at about 385,000 troops.

Perry Sees Force Structure Going

Defense Secretary William J. Perry will cut force structure further if hoped-for increases in defense spending—as well as anticipated savings from base closings and acquisition reform—don't materialize. Such cuts would also require a change in national strategy, he said.

Secretary Perry told Washington defense reporters on January 24 that the department's five-year defense plan has "embedded in it . . . important increases in modernization" and that "all" of the savings from base closures, amounting to some \$10 billion in Fiscal 1997, are earmarked for development and purchase of new

Clearing the Air on More B-2s

The Clinton Suggestion

"I signed this appropriations bill [containing B-2 bomber funds], and I think it was the right decision. . . . You know I have mixed feelings about the B-2. I think it's a good plane, but I don't think we need as many as the Congress wants to build. And I think if we are going to have limited funds, we should do things that we know we need for our long-term planning—like the C-17, another thing that's of real importance to California that I have supported consistently since 1991, that I really believe in. But I signed the bill. There are going to be more B-2s built. . . .

"I think [B-2 supporters in Congress] want to build more than we need, and I think they want to build more than even the Pentagon thinks we need. But there are circumstances under which I could go along with building some more. But it depends on what our overall defense needs are and what the defense budget's going to be—not just this year, but in the outyears, as compared with the other things that we need to do in this country."

President Clinton, in a December 20, 1995, interview with Los Angeles Times reporters in Washington, D. C. The bill to which Clinton refers is the Fiscal Year 1996 Defense Appropriations Act, which contains \$493 million in new B-2 funds.

The Perry Interpretation

"The extra twenty B-2s, which some have proposed that we buy, will cost us about \$30 billion over the life cycle of that program. We have to ask ourselves the question, 'What else could you do with that \$30 billion?' We have asked ourselves that question. [Under Secretary of Defense for Acquisition and Technology] Dr. [Paul] Kaminski's bomber modernization study looked precisely at that question. His study makes a compelling argument that, first of all, our bombing needs are met by a fleet of bombers—long-range, short-range, tactical, strategic, some of them stealth, some of them not stealth—and they work in harmony with each other. And, if you're putting more money into that bomber force, the highest payoff for the first \$10 billion more comes not from buying more B-2s, it comes from buying more advanced precision weapons, which go on all of our bomber force, not just on our B-2s. I found that argument quite compelling. . . .

"We're building B-2s right now. We've only delivered, I think, nine to this point, out of the twenty. We'll be building B-2s for a couple of years to come. I'm not supporting and the President is not supporting funding that \$30 billion for the next twenty B-2s. It's nowhere in our program. And, I might say, implicitly it's not in the Congressional Republican program that has the seven-year balanced budget. There's no way of balancing the budget with a \$30 billion B-2 program in there, as I see it."

Defense Secretary William J. Perry, responding to questions posed by John A. Tirpak, senior editor of Air Force Magazine, at a January 24, 1996, session of the Defense Writers Group in Washington, D. C.

systems. Success in "reaping the savings from acquisition reform," while difficult to predict, is also being counted on to enrich the modernization accounts.

"We have to get more dollars in the top line to get more into modernization," he asserted.

He then added, "If any of these three assumptions is not met—and this is what I'm concerned about—if we fail in any of those, then we would

not be able to have adequate modernization."

If that happens, the Secretary continued, "I would not go back on my priority to [maintain near-term] readiness. I do not think we dare let our modernization go below what we project, and therefore, the only alternative . . . is to cut force structure."

He quickly added that he does not want to cut force structure, because he believes the existing force size is

The White House Leak

"President Clinton has ordered aides to take 'a fresh look' at buying more B-2 bombers, causing fits at the Pentagon, which opposes more of the expensive stealth planes, but the action is certain to boost hopes in California and other key electoral states where the aircraft is made.

"White House officials say the President has not decided to seek more than the twenty bombers already ordered, but his willingness to reconsider the issue comes after three years in which his administration unflinchingly maintained that additional planes were unaffordable and unnecessary."

From the article, "White House May Beef Up Order for B-2 Bombers," published in the February 4, 1996, Washington Post.

The Kaminski Confirmation

"We're in a period where there's been some disagreement between the Congress and the Administration on the B-2, [resulting in] the addition of \$493 million. With that new fact, any Administration would come back and look at the issue to try to understand and resolve the basis of the disagreement—so we're involved in discussions to do that. But fundamentally, from my perspective, nothing has changed in the underlying foundation of that [previous bomber] study. . . .

"The underlying rationale of the study that I spoke of—the assumptions made and the conclusions—I've not seen anything that would change that basis. . . .

"Those conclusions were that buying additional B-2s would add value, but that there were more cost-effective things to be done with additional funding. For example, it was more cost-effective to weaponize the B-2s that we had rather than to buy new ones. It was also more cost-effective to provide some of the upgrades that were available to us on the B-1 fleet. . . .

"I think from my perspective [the question of whether to buy more B-2s] has been answered, and I don't see anything at the moment that would change the conclusion. . . .

"Yes, [DoD has been asked to participate in a new White House study]. We've had discussions, and we're providing information back as you would expect."

Under Secretary of Defense Paul G. Kaminski, author of DoD's 1995 study on bomber requirements, at a February 5, 1996, Pentagon press briefing.

The White House Decision

"President Clinton met with [his senior advisors] to discuss the National Security Council review of B-2 bomber acquisition options. . . . The Administration believes that no additional B-2s are required and will not include any money for additional B-2s in its Fiscal Year 1997 budget. The Department of Defense will, however, expand an ongoing study . . . to examine tradeoffs [among] long-range bombers, land- and seabased tactical aircraft, and missiles that are used to strike the enemy's rear area."

White House Press Secretary Mike McCurry in a statement issued February 8, 1996.

"required" to support the national strategy of being able to fight two nearly simultaneous major regional conflicts.

Asked if he would adjust the military strategy to accommodate a smaller force, Secretary Perry said, "You'd have to."

He said that modernization accounts have been in a "slowdown . . . over the last five years" because the overall shrinkage of the military has permitted retirement of older equip-

ment while remaining units kept the newest and most capable systems.

"But the drawdown in forces is about over now, and so we have to start increasing our modernization in order to preserve long-term readiness," he said.

Pentagon Proposes C-17 Multiyear Buy

The Defense Acquisition Board has recommended multiyear procurement of the C-17 at a maximum production rate of fifteen a year, which would fulfill the planned 120-plane fleet in 2003.

The proposal, which must be approved by Congress, would cut \$900 million—five percent—from the price of buying the airplanes at the slower rate of twelve a year and will conclude production nearly two years earlier. Greater efficiencies and lower overhead make the savings possible. The buy would include purchase of C-17 engines, as well.

At fifteen per year, the multiyear buy will bring C-17s in at a cost of \$173 million each, in Fiscal 1996 dollars.

The eighty aircraft yet to be purchased would be bought in fiscal years as follows: 1997, eight; 1998, nine; 1999, thirteen; 2000, fifteen; 2001, fifteen; 2002, fifteen; 2003, five.

Pilot Faulted in F-15 Crash

An Air Force investigation into the August 3, 1995, crash of an F-15C in a military operating area about 110 miles east of Eielson AFB, Alaska, revealed that the pilot had maneu-

vered the aircraft "beyond approved flight standards," according to a January release.

The F-15 was destroyed in the crash, but the pilot ejected safely.

The pilot, Capt. Garth Doty with the 18th Wing at Kadena AB, Japan, "exceeded the maximum angle of attack while using external wing [fuel] tanks, causing the aircraft to spin out of control and crash," the investigating officer concluded in the report. The report also stated that a fuel transfer and weight imbalance problem from the external fuel tanks contributed to the accident.

At the time of the crash, the pilot was participating in attack training during a PACAF Cope Thunder exercise, held several times each year in Alaska.

French Fly Last Provide Promise

A French C-130 flying a humanitarian relief mission into Sarajevo, Bosnia-Herzegovina, on January 9 provided a ceremonial pallet of food to end Operation Provide Promise, the longest-running air supply effort in history.

The operation, which began on July 1, 1992, officially terminated on January 4.

Another French C-130 had initiated the United Nations airlift three-and-one-half years earlier.

Ten minutes before the last aircraft landed, a C-130 from the 37th Airlift Squadron, Ramstein AB, Germany, delivered its last load of supplies. The 37th AS flew more than ninety percent of the US airlift mis-

sions, according to USAF Capt. Dub Morris of the Provide Promise Operations Center at Vicenza, Italy.

In all, twenty-one participating nations flew 12,951 sorties—4,597 by US aircraft—bringing in more than 160,000 metric tons of food, medicine, and relief supplies. During some months, eighty-five percent of the city's aid came via the air bridge.

Even in recent weeks, following the peace agreement, combatants on the ground fired on aircraft, including a 37th AS C-130 in late December. Kevlar armor added to the aircraft prevented a small-arms round from penetrating the flight deck, according to a USAF release.

Ninety-three aircraft were fired on, including an Italian transport that was shot down, killing its crew of four.

After 140 missions, the senior loadmaster for the 37th AS, MSgt. Ricky C. Gehris, wondered what history would reveal about the endeavor. He said, "To me it's something most people won't comprehend."

Sergeant Gehris flew the first US mission to land at Sarajevo and the first airdrop mission, which began when landing became too dangerous. He said that, though people were apprehensive at first, they thought it would be just a routine airlift operation. As the operation progressed, he said, things got more hostile—it wasn't routine anymore.

The Sergeant also flew the last US flight. He added, "I never would have guessed it would last this long."

Watch Pilots Lock On Targets

Senior defense officials revealed in early January that US Air Force and Navy pilots helping enforce the UN-sanctioned no-fly and no-drive zones over southern Iraq routinely target Iraqi defense installations.

The news came during a January 7 visit to the Joint Task Force—Southwest Asia (JTF-SWA) by Secretary Perry. He told reporters and task force members that this tactic, more than anything else, gets Saddam Hussein's attention. "He cannot avoid it, he cannot ignore it, he sees it every day."

As reported by the Associated Press, USAF Maj. Gen. Carl E. Franklin, JTF-SWA commander, explained the Operation Southern Watch missions, saying, "Our . . . aircrews fly against targets they would be expected to pursue in our contingency plans." He added, "We do so with the intent of having our force visible to the Iraqi regime so that there is no doubt in their minds as to our resolve."

Coalition airpower provides fifty to 125 sorties daily to enforce the UN operation.



Brig. Gen. Charles D. Burnfield, North Carolina ANG commander, accepted a safety achievement award from Lockheed Martin in December for the 145th Airlift Wing's completion of 100,000 accident-free flying hours in the C-130. The 145th may be the first operational unit to reach this major milestone.

Joint STARS

Arms proliferation, decentralization of military power, political instability, and reduced forward presence dramatically increase the need for around-the-clock information on the location and movement of potentially hostile surface forces. Doubling the size of the currently programmed Joint STARS fleet will give our diplomats and military commanders this critical advantage—anywhere in the world, anytime, under any conditions. A revolutionary system proven in combat and peacekeeping, Joint STARS provides both moving imagery that detects, locates, and tracks vehicles in real time and high-resolution, near-real-time Synthetic Aperture

Radar still
images to its
18 onboard
workstations
and to Army

deterrents.

Ground Station Modules (GSMs). This enables the aircraft and the GSMs to perform command-and-control functions and coordinate airborne and land-based strike forces. Also, their connectivity with other space, airborne, and ground-based surveillance and reconnaissance assets makes Joint STARS one of the most effective force multipliers in our arsenal. Joint STARS—a peacekeeping, crisis-management, and war-fighting solution for the next century.



Aerospace World

Following threatening moves made by Iraq in October 1994, pilots are more alert for signs of advancing armored columns, according to a senior JTF officer. The officer said that if the pilots spotted a column in the restricted zone, they could attack it.

Mr. Perry further stated, "We think we won't have to fight because the capability we have here is so impressive that no sane aggressor would challenge it."

Policy Change Masks Degrees

Starting with the 1996 major's board, meeting this month, the Air Force will "mask" the advanced academic degree status of candidates from central selection boards considering line officers for promotion to either captain or major, according to Air Force Chief of Staff Gen. Ronald R. Fogleman. He announced the policy change in a January news release.

In effect, the Air Force will remove the entry that indicates completion or noncompletion of an advanced degree from an officer's selection brief, a summary of personal and career information used by a promotion board during the selection process. However, once the officer comes up for promotion consideration to lieutenant colonel, the information will again be shown in the brief.

Impetus for the change came from responses to the 1995 Quality-of-Life Survey, in which a majority of officers saw factors other than job performance playing too great a role in promotion consideration. General Fogleman noted that when service officials compared career fields, they found "a considerable difference" in timing of completion of advanced degrees.

The new policy, he said, will "level the playing field" across all career fields, some of which "do not enjoy the same opportunity for off-duty education that others do." He specifically mentioned aircraft maintenance, security police, and operators.

He stressed that the policy change does not lessen the importance of degrees but emphasizes completion "at the right time for the right reasons."

No Frocking for Enlisted Troops

During last year's enlisted evaluation system review, some enlisted members suggested that the Air Force should "frock" its enlisted members. The Air Force announced in January that current procedures "best satisfy" service needs.

Based on recommendations from CMSAF David J. Campanale, who

worked with top Senior Enlisted Advisors from the Air Force and the other services, the service decided to stick with the present process of pinning on a new rank when the promotion becomes effective, rather than earlier, when selected.

Although General Fogleman noted that frocking provides "instant recognition at the higher grade," he said that the current process ensures that "we don't exceed, or appear to exceed, our grade limits."

USAF Merges SC and IM

The long anticipated merger of the information management (IM) and command, control, communications, and computers (C⁴) functions will take place in early 1996, according to a December release. Secretary of the Air Force Sheila E. Widnall approved the merger, creating a new career field called "communications and information," which will retain the current C⁴ office symbol of "SC."

The 85,000 officers and enlisted personnel affected by the move will receive additional training. Enlisted personnel will continue testing for promotion in their current Air Force Specialty Codes.

An Air Force statement said that the service is "sensitive to the concerns and anxieties that any merger generates." However, the statement also emphasized the "inseparable relationship" between the two functional areas. "The combination of these disciplines into a single functional area will guarantee that the vision the Air Force has for information dominance will be met."

Just a month earlier, the service had separated three career fields it had merged in 1993. In that case, USAF decided that air traffic control, air weapons control, and operations management were too diverse to be consolidated. [See "Splitting Command and Control," February 1996 "Aerospace World," p. 20.]

New Year Brings Ninth B-2

Two 509th Bomb Wing pilots, Maj. Bob Tilson and Capt. Frank Cavuoti, flew the ninth operational B-2 Spirit to its home at Whiteman AFB, Mo., from the Northrop Grumman plant at Palmdale, Calif., on January 11. It was the first bomber delivered in 1996.

Current plans call for Northrop Grumman to produce another eleven B-2s by early 1998. The final number of stealth bombers the Air Force will procure is still in doubt as Congress and the Clinton Administration wrangle over budget issues.

The eight earlier B-2s have all been named after various states, starting with the first, known as *Spirit of Missouri*, which arrived December 17, 1993. The other seven are named for California, Texas, Washington, South Carolina, Kansas, Nebraska, and Georgia, named in December.

AFRES To Share New C-17s

The Air Force Reserve announced December 18 that additional units currently flying C-141 transport at Charleston AFB, S. C., and McChord AFB, Wash., would convert to USAF's newest airlifter, the C-17. The move follows the Defense Acquisition Board's decision to procure eighty additional C-17s and USAF's subsequent decision on where to base them.

The timing of the changeovers depends on delivery of new C-17 aircraft to the active-duty airlift wings at Charleston and McChord. Under the associate program, Reserve personnel at those locations will share the aircraft with their active-duty counterparts, rather than maintaining separate complements of C-17s.

Charleston has the only operational C-17s, which the active-duty 437th Airlift Wing shares with two Reserve 315th AW squadrons. Based on the USAF decision to locate a second active-duty C-17 squadron at Charleston, the 315th plans to convert its two remaining C-141 squadrons to C-17s.

Likewise, USAF's plans to locate two active-duty C-17 squadrons with the 62d AW at McChord led to the Reserve decision to convert its three C-141 associate squadrons, part of the 446th AW, to C-17s.

The Air Force also announced in November that the Air National Guard's 172d Airlift Wing at Jackson, Miss., would receive six C-17s and that the service would establish a training unit at Altus AFB, Okla., with eight C-17s.

Carrier Landings Impress USAF Pilots

Six Air Force instructor pilots now have an "up close and personal" understanding of Navy flying after their exchange visit aboard USS *John F. Kennedy*, off NAS Cecil Field, Fla.

The Air Force IPs from Laughlin AFB, Tex., observed preflight briefings and preparations by Navy student pilots making their first attempts at aircraft carrier landings. They also experienced carrier landings firsthand, flying in the back seat of Navy T-45s.

"The thing I was most impressed with was the accuracy with which the [Navy] pilots had to land on the carrier," said Capt. Max Tipton, an IP with Laughlin's 86th Flying Training Squadron.

Captain Tipton and the other USAF IPs said the visit helped them understand Navy terminology and flying operations. Navy IPs from NAS Kingsville, Fla., had previously visited Laughlin, where they observed Air Force training and flew in T-38s. [See "Training Together," p. 34.]

Cold Plus Hot Equals Mission-Ready

Two more new aircraft maintenance training programs produced Mission-Ready Technicians (MRTs) in December. Unlike previous programs in

which airmen arrived at their first duty locations as semiskilled apprentices, MRT training develops airmen who can start working on their own immediately.

According to Air Force news releases, six airmen graduated from the first 111-day C-130 crew chief training program December 15 and seven from the first 114-day F-15 program on December 22.

The new-style C-130 MRT program includes ninety-one days of fundamentals and "cold" training—learning the aircraft and its systems in the classroom at Sheppard AFB, Tex. The follow-on "hot," or hands-on, phase features twenty days working on operational C-130s at Little Rock AFB, Ark.

Similarly for the F-15 MRTs, the airmen start at Sheppard with twenty-three days of fundamentals and seventy-three days of "cold" training. They then move to Tyndall AFB, Fla., for another eighteen days of "hot" training on operational F-15s.

With these two courses, the Air Force now has four MRT programs on line. The first two courses to produce MRTs were those for the F-16 and C-141. The first HH-53 helicopter MRTs graduate next month.

Help for Cycle Test

The controversial cycle ergometry program has a new look for 1996, and USAF officials hope it will shift the focus from scores to aerobic fitness.

Air Force Surgeon General officials at Bolling AFB, D. C., announced in late December that the changes would begin January 2, 1996. They include:

- Hiring a trained exercise physiologist at each base—some have already done so—to manage the program, to train people who administer the test, and to help commanders assess repeated failures.

- Eliminating the six categories of performance in favor of a "pass-fail" system, although it will still be necessary to score in category three or higher to pass.

- Centralizing the assessments at base fitness centers.

- Using USAF-developed computer software to let monitors know what actions to take and when to take them.

- Establishing a service-wide standard process for those who fail the assessment, beginning with a retest within one week.

Two years ago, only seventy percent of USAF personnel passed the

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In January, Lockheed Martin technicians placed the first of seven F-22 test canopies into a test rig where it will be pressurized then checked for leaks. Program officials will use the canopies later this year to test the F-22's modified ACES II ejection seat.

cycle test, according to the Surgeon General's staff. The most recent figures climbed to eighty percent.

MATT Completes Testing

Bringing near-real-time threat data into a fighter cockpit is a step closer now that tests are over and production of the multimission advanced tactical terminal (MATT) has started, according to Electronic Systems Center (ESC) officials at Hanscom AFB, Mass., in December.

The MATT, a miniaturized, ultra-high-frequency receiver, delivers over-the-horizon threat data using encrypted digital information from national intelligence sources, according to ESC Program Manager John Kasianowicz. He said that during recent field tests the terminal delivered continuous threat updates.

ESC expects to produce 120 MATTs initially, each costing about \$150,000. The system will be used on special operations aircraft and, potentially, battle-management aircraft. It has been demonstrated using an F-15 by USAF's Space Warfare Center.

News Notes

■ The President has nominated Maj. Gen. Michael D. McGinty, USAF's director of Personnel Programs, Education, and Training, for a third star. Pending Senate confirmation, General McGinty would replace outgoing Gen. Eugene E. Habiger as the Air Force deputy chief of staff for Personnel. General Habiger is the new commander in chief of US Strategic Command.

■ USAF convened the first wing and group commander screening

board in mid-January [see "First Command Board Meets," January 1996 "Aerospace World," p. 14]. Following the board's selections and the Chief of Staff's approval, major commands then made their choices. The service expects to publish the new commander assignments next month.

■ The *Enola Gay* exhibit at the National Air and Space Museum, which opened June 28, 1995, logged its half-millionth visitor on January 16. As of the end of January, a total of 524,810 had been through the exhibition, which features the B-29 aircraft that dropped the first atomic bomb on Hiroshima in 1945. Two years ago, reports by *Air Force Magazine* and the Air Force Association alerted the public to plans by museum curators to display the *Enola Gay* as a prop in a politicized horror show. The Smithsonian Institution, of which the museum is a part, eventually canceled the flawed exhibit in favor of a straightforward display of the bomber and presentation of factual information. Public response to the revised exhibit has been very favorable.

■ Herbert Anderlik on January 11 became the first foreign employee in Europe to complete fifty years of service with US forces, according to Gen. Richard E. Hawley, US Air Forces in Europe commander, who presented the Czech Republic native with a certificate of service.

■ Columbus AFB, Miss., received \$152,753 in restitution in December from Charles Bullock, a contracted housing maintenance site manager found guilty of falsifying government

claims. The Air Force Office of Special Investigations uncovered the illegal practices for which Mr. Bullock also received a one-year sentence in a federal penitentiary and a \$3,000 fine.

■ The Louisiana Wing, representing the Southwest Region, won the annual National Civil Air Patrol Cadet Competition held at Maxwell AFB, Ala., December 28–29. What began in 1948 as the National Drill Competition has evolved into a match testing knowledge of aerospace facts, leadership, and current events, drill and ceremonies, and physical fitness. The Illinois Wing won second place for the Great Lakes Region, and the Southeast Region won third place.

■ The Defense Base Closure and Realignment Commission closed its doors December 29 after completing its charter—in all, recommending the closure of 243 installations via closure rounds in 1991, 1993, and 1995.

■ Aeronautical Systems Center at Wright-Patterson AFB, Ohio, issued a request for proposal December 14 to upgrade the AT/T-38 avionics and aircrew training devices. The upgraded system will be the T-38C. ASC expects to complete source selection this summer.

■ Northrop Grumman announced January 3 that it had signed an agreement to acquire the defense and electronics systems business of Westinghouse Electric Corp. for \$3 billion in cash. Subject to government and regulatory reviews, the companies expect to close the sale this month.

■ On January 8, Lockheed Martin and Loral announced a series of inter-related transactions with an estimated value exceeding \$10 billion. These will include combining the companies' defense electronics and system integration businesses, formation of Loral Space and Communications Corp., and purchase by Lockheed Martin of an equity position in Loral Space.

■ Fire destroyed the fitness center at March AFB, Calif., on January 17. Base officials estimate the damage at more than \$3 million. The cause is under investigation.

■ DoD began accepting bulk donations from US citizens and organizations for transport to US military units in Bosnia in February. The Defense Logistics Agency is coordinating the program and provides information via a twenty-four-hour recording at (703) 767-5266.

■ Anyone who would like to write to a service member deployed in support of the Bosnian peacekeeping operation may address mail to: Any Service Member, Operation Joint Endeavor, FPO AE 09397. For those aboard ship: Any Service Member,

Operation Joint Endeavor, APO AE 09398. For families in Germany: Any Family Member, Operation Joint Endeavor, APO AE 09399.

■ The Joint Direct Attack Munition Acquisition Team won the 1995 Outstanding Achievement Award for Acquisition Reform and the Air Force Acquisition "Lightning Bolt" Award. JDAM is a joint USAF-Navy program that developed an adverse-weather, accurate guidance kit for 1,000- and 2,000-pound bombs currently in the military inventory for use on the B-1, B-2, B-52, F-15, F-16, F/A-18, F-22, and AV-8B aircraft.

■ Maj. Scott E. Neilson, 304th Rescue Squadron, Portland IAP, Ore., and Maj. Max H. Della Pia, 95th Airlift Squadron, General Mitchell IAP/ARS, Wis., are the first Air Force Reserve representatives serving on Capitol Hill under the Legislative Fellows Program. They will work as Congressional staffers until December 1996.

■ More than 2,000 Tinker AFB, Okla., employees received medals

December 11 for their disaster response actions in the Oklahoma City federal building bombing on April 19, 1995. About 1,700 military members received the Humanitarian Service Medal and more than 430 civilians, the Exemplary Civilian Service Medal.

Obituaries

Aviation pioneer **Robert McCulloch** died at home in Dallas, Tex., on November 30 at the age of ninety-two. He worked his way up in the aviation industry and, during World War II, headed North American Aviation production, which built the P-51 at the company's Grand Prairie, Tex., facility. When the plant closed after the war, he reopened it with another former NAA executive, founding the Texas Engineering & Manufacturing Co., later known as Temco Aircraft Co. It evolved into LTV (Ling-Temco-Vought) Corp. Temco Electronics & Missiles Co. became E-Systems. He was named LTV's chairman of the board and CEO in 1961.

Retired **Col. Richard Moody Suter** died suddenly January 11. He was sixty years old. An Air Force fighter pilot for more than twenty-five years, he is perhaps best remembered as the creator and designer of Red Flag, USAF's premier fighter training program, conducted at Nellis AFB, Nev. Air Force Chief of Staff Gen. Ronald R. Fogleman has already stated that the Red Flag Building 201 will be dedicated in Colonel Suter's name.

During his career, he served as an undergraduate pilot training instructor pilot, flew more than 200 Vietnam combat missions, and instructed at Nellis's Fighter Weapons School. Following a tour at the Pentagon, where he conceived Red Flag, Colonel Suter commanded the 555th Fighter Squadron at Luke AFB, Ariz. On his last tour, he created a wargaming center, the Warrior Preparation Center, at Ramstein AB, Germany. USAF has also proposed that a building at that center be named in his honor. ■

Senior Staff Changes

RETIREMENTS: B/G Dwight M. Kealoha, B/G Stephen C. Mannell, B/G Floyd K. Tedrow.

PROMOTIONS: To be **General:** Eugene E. Habiger.

To be **Brigadier General:** Brian A. Arnold, John R. Baker, Richard T. Banholzer, John L. Barry, John D. Becker, Robert F. Behler, Scott C. Bergren, Paul L. Bielowicz, Franklin J. Blaisdell, John S. Boone, Clayton G. Bridges, John W. Brooks, Walter E. L. Buchanan III, Carrol H. Chandler, John L. Clay, Richard A. Coleman, Jr., Paul R. Dordal.

Michael M. Dunn, Thomas F. Gioconda, Thomas B. Goslin, Jr., Jack R. Holbein, Jr., John G. Jernigan, Charles L. Johnson II, Lawrence D. Johnston, Dennis R. Larsen, Theodore W. Lay II, Fred P. Lewis, Stephen R. Lorenz, Maurice L. McFann, Jr., Timothy J. McMahon, John W. Meincke, Howard J. Mitchell, William A. Moorman, Teed M. Moseley.

Robert M. Murdock, Michael C. Mushala, David A. Nagy, Wilbert D. Pearson, Jr., Timothy A. Peppe, Craig P. Rasmussen, John F. Regni, Victor E. Renuart, Jr., Richard V. Reynolds, Earnest O. Robbins II, Steven A. Roser, Mary L. Saunders, Glen D. Shaffer, James N. Soligan, Billy K. Stewart, Francis X. Taylor, Garry R. Trexler, Rodney W. Wood.

To be **ANG Major General:** James F. Brown, William A. Henderson, Timothy J. Lowenberg, James McIntosh, Melvyn S. Montano, Guy S. Tallent, Larry R. Warren.

To be **ANG Brigadier General:** James H. Baker, James H. Bassham, Gary A. Brewington, William L. Fleshman, Allen J. Henderson, John E. Iffland, Dennis J. Kerkman, Paul D. Knox, Stephen M. Koper, Anthony L. Liguori, Carl A. Lorenzen, Kenneth W. Mahon, Terry A. Maynard, Fred L. Morton, William H. Phillips, Jerry H. Risher, Loran C. Schnaidt, William J. Shondel, Bruce F. Tuxill.

CHANGES: B/G David E. Baker, from Vice Dir., Operational Plans and Interoperability, J-7, Jt. Staff, and Dep. Dir., Jt. Staff, Mil. Education, Washington, D. C., to Dep. Dir., National Sys.

Support, J-3, Jt. Staff, Washington, D. C. . . . **Col. (B/G selectee) Richard A. Coleman, Jr.**, from Dir., Security Police, ACC, Langley AFB, Va., to Chief, Security Police, Hq. USAF, Washington, D. C., replacing retired B/G Stephen C. Mannell . . . **L/G (Gen. selectee) Eugene E. Habiger**, from DCS/Personnel, Hq. USAF, Washington, D. C., to CINC, Hq. USSTRATCOM, Offutt AFB, Neb. . . . **M/G Michael V. Hayden**, from Special Ass't to the Cmdr., AIA, Kelly AFB, Tex., to Cmdr., AIA, and Dir., Jt. Command and Control Warfare Ctr., Kelly AFB, Tex., replacing M/G John P. Casciano.

B/G Charles R. Henderson, from Spec. Ass't to the Cmdr., 8th AF, ACC, and Cmdr., Combined Task Force, Operation Provide Comfort, USEUCOM, Incirlik AB, Turkey, to Dep. Dir., Operational Requirements, DCS/P&O, Hq. USAF, Washington, D. C., replacing Col. Russell J. Anarde . . . **B/G Donald A. Lamontagne**, from Dep. Dir., Roles and Missions, J-5, Jt. Staff, Washington, D. C., to Commanding Gen., Combined Task Force, Operation Provide Comfort, USEUCOM, Incirlik AB, Turkey, replacing B/G Charles R. Henderson . . . **Col. (B/G selectee) Timothy A. Peppe**, from Cmdr., 47th FTW, AETC, Laughlin AFB, Tex., to Dir., Contingency Ops., 16th AF, USAF, Vicenza, Italy . . . **Gen. Joseph W. Ralston**, from Cmdr., Hq. ACC, Langley AFB, Va., to Vice Chairman, JCS, Washington, D. C.

SENIOR EXECUTIVE SERVICE CHANGES: W. Wade Adams, to Chief Scientist, Materials, Wright Lab, Hq. AFMC, Wright-Patterson AFB, Ohio . . . **James A. Cunningham**, to Program Dir., Training Systems, ASC, AFMC, Wright-Patterson AFB, Ohio, replacing Dr. Robert R. Barthelemy . . . **David N. Erwin**, to Dir., Occupational and Environmental Health, Armstrong Lab, AFMC, Brooks AFB, Tex., replacing John Mitchell . . . **Robert A. Lach**, to Dir., Centralized Request for Proposal Support Team, Hq. AFMC, Wright-Patterson AFB, Ohio . . . **Kenneth J. Payne**, to Dep. Dir., Requirements, Hq. AFMC, Wright-Patterson AFB, Ohio, replacing Robert A. Lach. ■