

Looking to new leaders



THE SHUTTLE ATLANTIS LANDED ITS SEVEN astronauts at Edwards AFB, California, on May 24, ending its 13-day STS-125 mission to repair and enhance the Hubble Space Telescope. In Washington, there had been hopes that the shuttle's success could coincide with the White House's announcement of President Obama's choice for NASA administrator: retired Marine Corps Maj. Gen. Charles F. "Charlie" Bolden Jr. When weather delayed and diverted the shuttle's landing, Obama's office proceeded with the nomination while the astronauts were still in orbit.

Bolden is a naval academy graduate, former A-6 Intruder attack pilot, Vietnam veteran, and astronaut who flew in space four times between 1986 and 1994, twice as a space shuttle commander, logging 680 hr in orbit. His crew put the Hubble observatory into orbit in 1990. Bolden is considered a protégé of Sen. Bill Nelson (D-Fla.), who flew with him in the shuttle on a 1986 mission. Washington observers say the senator used his clout in space policy to shoot down earlier Obama choices for the administrator's job while lobbying strongly for Bolden.

Lori B. Garver, a former NASA official and space policy advisor to Obama during the presidential campaign and transition, was expected to win easy confirmation as NASA deputy administrator.

The shape of NASA's future

NASA has been without a leader since Michael Griffin stepped down in January. The new administrator will face fundamental decisions about U.S. space policy but also could be preempted: An independent panel commissioned by the Obama administration in May, and led by former aerospace executive Norman Augustine, is looking at the Constellation program that will develop the next-generation Ares and Orion manned space boosters and vehicles.

It is unclear whether the new admin-



Charles F. Bolden Jr.

istrator can shape key decisions (or even spend appropriated funds) before late summer, when the commission issues its findings. Most observers in the capital feel, however, that the White House, the new NASA administrator, and Capitol Hill lawmakers must take an even broader look—going far beyond Augustine's mandate to study Constellation—at what the nation wants to do in space and whether the public will support it.

Obama inherited President Bush's "vision" for a new generation of manned spacecraft under the Constellation program, to be preceded by retirement of the shuttle fleet next year. As a candidate, Obama reversed an early position and supported the vision, which would take astronauts to the Moon by 2020 and eventually to Mars. As president, he has seemed lukewarm on human spaceflight and has made no significant statement about space policy.

The editorial board of *USA Today*, citing NASA's "diminished stature," urged a focus "not on fixing NASA's failures"—a reference to a string of unfulfilled human spaceflight programs under several presidents—"but on building on its successes." Those include probes to Mars, the Chandra X-Ray Observatory, and other robot platforms, the newspaper opined, but not space vehicles that carry astronauts.

Calling Constellation a costly program with "modest support," the newspaper implied that human spaceflight is not viable and that "NASA's real stars are its machines." On the day of this

pro-robot editorial, it was reported that the NASA Mars rover Opportunity had discovered new evidence of water in a Martian crater called Victoria. However, the second of two Mars rovers, Spirit, has been foiled by technical glitches.

The administration's budget proposals for NASA do not respond to the view of some that space exploration ought to be conducted by robots. Many argue, however, that the proposals do not sufficiently support human spaceflight either. The administration endorses shuttle retirement in 2010 and a return to the Moon by 2020. But while the Obama team's proposals boost near-term NASA funding, they cut spending by \$3.1 billion between 2011 and 2013. If that money is not restored, the Constellation program may be stalled, and expeditions to the Moon will be delayed or called off.

And some who strongly support a robust human spaceflight effort argue that, instead of Constellation, alternative boosters and vehicles can be developed faster and more economically. There is speculation that the commission could recommend scrapping Constellation.

NASA is struggling to complete the international space station with the final eight shuttle missions before the shuttle is put to pasture. After that, the agency will be able to put humans into orbit and aboard the ISS only by purchasing seats on the Russian Soyuz—until the Constellation effort produces a new vehicle, no earlier than 2015.



Sen. Richard Shelby

Sen. Richard Shelby (R-Ala.) is one of the lawmakers unhappy with the confluence of budget and technical issues confronting NASA, and with the question of who is in charge.

"The proposed budget has welcomed increases in the areas of science and exploration, and maintains aeronautics funding at an acceptable level," Shelby said in a statement. "However, more than 21% of NASA's budget, nearly \$4 billion, is being set aside as a placeholder while NASA turns its manned space program over to [the Augustine commission]." Shelby also accused the White House of making Augustine "the de facto interim administrator" and of "delaying any plan for over \$4 billion of NASA's budget until weeks before the start of the fiscal year."

In June, when the House appropriations subcommittee released the budget, it was lighter by \$483 million. Rep. Alan Mollohan (D-W.Va.) insisted that the cut was a "deferral" while the Augustine commission completed its study.

Scrutinizing the regionals

A series of airline safety hearings held in May by the National Transportation Safety Board (NTSB) almost certainly are a precursor to a congressional crack-down on regional commercial carriers, which many call commuter airlines.

In the wake of the NTSB findings, four senators have called for an investigation. Manassas, Va., based regional carrier Colgan Airways operated Continental Flight 3407, which experienced an aerodynamic stall and plunged into a house in Buffalo, N.Y., on February 12, killing 50 people. It was the first time in 30 months that anyone died during a scheduled flight on a U.S. carrier. Since December 2001, the major airlines' big jets have gone without a fatal crash, while 150 people have died in regional airline accidents.

The senators wrote to Calvin Scovel, Dept. of Transportation inspector general, that the circumstances of the crash raised questions about the FAA's enforcement of regulations on pilot training and crew rest at regional carriers.

"Adequate pilot training and rest is a basic prerequisite to make certain the air

transportation system achieves a high level of safety," they wrote. "Such regulations, however, must be paired with vigorous FAA oversight of airline compliance to have a credible effect."

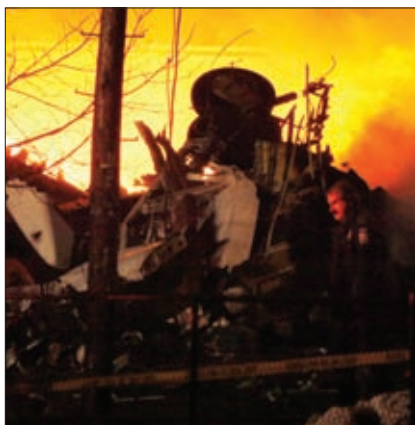
During a confirmation hearing May 19, Sen. Byron Dorgan (D-N.D.) took up the subject with J. Randolph "Randy" Babbitt, who won the Senate's blessing and became FAA administrator the next day. Dorgan said he was "just furious" about evidence of flaws on the part of the regionals in pilot hiring and training, and in averting fatigue, which may have been a factor in the Buffalo crash.

The NTSB hearings suggest that regional airlines pay their pilots very low wages, let them commute to work from hundreds of miles away, and do not provide proper facilities for food and rest. This adds up to a picture of pilots who are inexperienced, and often hungry and exhausted, while on the flight deck.

NTSB member Kitty Higgins said pilot fatigue was a factor in other crashes and is a major concern for the board and the FAA. NTSB's chairman, retired Maj. Gen. Mark Rosenker, said the Flight 3407 crew and their carrier were guilty of "cutting the salami too thin on being fit to fly."

Among revelations was the fact that first officer Rebecca Shaw worked part-time in a coffee shop and commuted 2,817 mi. to her work station in Newark. The day before the crash, she flew on a FedEx red-eye to Newark, with a stop in Memphis, going 36 hr without proper

On February 12, Colgan Airways Flight 3407 plunged into a house in Buffalo, N.Y., killing 50 people. Credit: PA Photos.



Sen. Byron Dorgan

bed rest prior to the fatal flight. Shaw's family defended her as a professional with a flawless flying record, but cockpit recordings indicate that she had never before flown in serious icing conditions.

Capt. Marvin Renslow commuted to Newark from Tampa. The NTSB announced that, when hired, Renslow failed to list two FAA flight certification tests he had flunked. Mary Finnigan, Colgan vice president for administration, said that had the airline known, Renslow "would've been immediately dismissed." But critics wondered why the airline did not find out, and said that bashing the pilots was a ploy to draw attention from flaws in the regional airline industry and its oversight.

The *Buffalo News* wrote, "...flying turboprops and small jets, regional airlines now run nearly half of the nation's commercial flights. But those airlines, whose names remain unknown to much of the flying public, have been responsible for all of the nation's multiple-fatality commercial plane crashes since 2002." Many passengers do not even know that the name painted on the fuselage of a regional airliner is not usually the company that operates it.

A Colgan official testified that of 137 Newark-based pilots, 93 commute to work by air, with 20% of them living over 1,000 mi. away. Long-distance commuting by airline crews has never been limited to the regionals: USAirways Capt. Chesley B. Sullenberger, hero of the successful February 2 ditching of an A320 in the Hudson River, maintains his home on one coast and is based on the other. But he is among those who say harsh pay cuts are driving experienced pilots from the cockpit.

On May 21, the House passed the

FAA Reauthorization Act of 2009, which authorizes \$70 billion in funding for FAA capital programs between FY09 and FY12. The Senate was expected to pass its own version. Having traditional funding for the first time since 2006 is expected to enable Babbitt and the FAA to make headway in resolving long-pending issues, including a pay freeze for air traffic controllers and delays with the next-generation air navigation system.

Defense budget debate

This summer and fall, many legislators are expected to challenge the administration's defense budget proposal for FY10. The White House plan halts production of the F-22 Raptor, C-17 Globemaster III, VH-71A Marine One helicopter, and an Air Force combat rescue helicopter, and pares down other programs. Part of the \$3.4-trillion proposal for the entire federal government, the \$533.8-billion defense budget is not everything the nation pays for defense: The figure does not include supplemental spending for wars in Iraq and Afghanistan, nuclear weapons budgeting for the Dept. of Energy, and funding for the Dept. of Homeland Security.

Lawmakers plan to challenge cuts in aerospace programs but were relatively mild when Defense Secretary Robert Gates and Joint Chiefs chairman Adm. Mike Mullen traveled to Capitol Hill to defend the Obama plan. "They're going easy for now," said one observer of Congress. "But supporters of the F-22, C-17, and other platforms will be wheeling out their big guns during testimony in the months ahead."

If legislators seemed inclined to hold their fire for the time being, one excep-



Under current plans, the last F/A-18E/F will be delivered by September 30, 2012.

tion was Rep. W. Todd Akin (R-Mo.), who is bristling about the Navy's long-anticipated shortfall in strike fighter aircraft for its carrier groups. Lawmakers routinely defend aircraft programs in their home districts, but Akin, widely viewed as a spokesman for the conservative base of the Republican party, is sometimes more vocal than most. Rep. John McHugh (R-N.Y.) has made a point, in a more low-key fashion, of publicly supporting Akin's views.

Today, the Navy's 10 carrier air wings fly aging, or legacy, F/A-18C Hornets and new F/A-18E/F Super Hornets, both assembled at a Boeing plant near Akin's district in St. Louis. Under the plan that Obama inherited, the 493rd and last Super Hornet will be delivered by September 30, 2012, and naval strike fighter production will shift to the F-35C Lightning II Joint Strike Fighter, built by Lockheed Martin at a government-owned plant in Fort Worth.

Akin and other proponents of the F/A-18E/F point out that the naval F-35C has not even made its first flight yet and that the F/A-18E/F has been proven in battle. Boeing is offering to sell the Navy 170 more of the 18E/Fs for a bargain basement price of \$49.9 million each. The planemaker also has an order for 24 copies from Australia.

Washington debate over the strike fighter gap comes earlier than, and is a precursor to, expected hassling over other defense programs.

The Navy's stated requirement for strike fighters—now and in the future—is 1,056 aircraft. Based on this figure, a new estimate by the Navy says the Navy and Marine Corps will have a shortage of 15 aircraft this year, 50 next year, and a total of 243 by 2018, roughly double a previous estimate. A separate

report by Congress itself says the gap is 50 this year and will rise to 312.

Akin is one of many who gripe that inconsistent numbers are being bandied about. In a statement he said: "Unfortunately, our Navy faces a significant strike fighter shortfall in the near future, and what good is an aircraft carrier without aircraft? Last year the chief of naval operations, Adm. Gary Roughead, testified to a fighter shortfall of approximately 125 planes for the Dept. of the Navy by 2017. This year, based on an updated analysis, the Navy has told Congress that a more realistic estimate is a shortfall of over 240 planes.

"This assumes that JSF delivers on time, and that the Navy will continue to resource its carrier air wings with fewer aircraft than are called for in the national military strategy. Should the Navy resource to its full strike fighter requirement, the shortfall would be greater than 300 aircraft."

Following Gates and Mullen up to Capitol Hill, Roughead testified that legacy F/A-18A/Ds are undergoing a service life extension program that could help fill the strike fighter shortfall. However, a separate report by the Navy says the legacy Hornets will not be able to last until their 10,000 flight-hour lifetime but instead will have to retire after 8,600 flight hours, suggesting they will not be able to fill in after all. In Iraq and Afghanistan, F/A-18C/Ds and E/Fs have been flying more hours than projected when they were built, and under more difficult conditions.

Akin wants more consistency from the executive branch in reporting strike fighter gap numbers. "I feel like I'm trying to nail Jell-O to a wall, gentlemen," Akin said to Roughead and other naval officers during testimony. "No matter how you look at the numbers, you're coming up short on fighter planes."

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Rep. W. Todd Akin (left); Adm. Gary Roughead