BIG CHANGES FOR AEROSPACE GIANTS

Major changes are underway at the top of two of the aerospace and defense industry's largest companies.

United Technologies Corp. (UTC) Chairman George David will retire at the end of 2009, completing a leadership transition that has been under way for nearly four years at the parent company of Pratt & Whitney, Hamilton Sundstrand and Sikorsky Aircraft. Louis Chenevert, who was appointed president of UTC in 2006 and CEO two years later, will add the title of chairman on Jan. 1.

Lockheed Martin Corp. said Christopher E. Kubasik, who runs its Electronic Systems business, will become president and chief operating officer on Jan. 1, directly overseeing the corporation's four business areas. Under the "organizational alignment," Robert J. Stevens will relinquish the position of president but remain chairman and CEO.

David was UTC's CEO from 1994 to 2008. His accomplishments include dramatically expanding the company's international business and tripling profit margins. Asked about his biggest disappointments, David noted that UTC was minutes away from agreeing to a merger with Honeywell International in October 2000 before talks were scuttled. That deal "would have changed the landscape," he said.

deputy general director of part owner Rostechnotepolity Corp. Rosavia earlier this year announced a tender for 65 narrow-body aircraft it plans to acquire. Zavalov, however, has not excluded the possibility that Airbus could also supply aircraft.

AFRICA

Improved Astra

Following last month's first flight of an upgraded South African Air Force Pi-latus Astra PC-7 Mk II, Pilatus and its South African industrial partner are looking to undertake further modifications starting next month. The first of 35 PC-7s being upgraded with new avionics flew on Sept. 23 after the aircraft was modified in Switzerland. The work will now transition to South Africa.

ASIA-PACIFIC

Boeing Opens Shanghai Hangar

Boeing Shanghai Aviation Services, a partnership between the manufacturer, Shanghai Airlines and Shanghai Airport Authority, has opened a two-bay hangar at Pudong Airport. It will provide line and heavy maintenance, repair and overhaul services, and undertake upgrades to airplane interiors, avionics and inflight entertainment systems.

Correction:

Rob Gillette is the former president and CEO of Honeywell Aerospace (Oct. 12, p. 13). Rob Wilson remains a senior executive at the company.

OBITUARIES: Airliner, lighter or business jet—almost every modern aircraft owes part of its aerodynamic design to one man: Richard T. Whitcomb, who died Oct. 15 in Newport News, Va. He was 89. As a NASA engineer, Whitcomb developed three of the most important post-war innovations in aeronautics: transonic area rule, supercritical airfoil and winglets. Whitcomb, shown above working with a wind-tunnel model of NASA's TF-8 fitted with his supercritical wing, devoted his career to reducing drag.

Born in Illinois, Whitcomb began by building, flying—and continually improving—rubber-band-powered model airplanes. He studied engineering at Worcester (Mass.) Polytechnic Institute (WPI) and in 1943 joined what is now the NASA Langley Research Center in Virginia, where he worked until retiring in 1980.

Whitcomb began working to reduce the drag that prevented aircraft from going supersonic and in 1951 made a breakthrough that changed the way high-speed aircraft were designed. He realized that transonic drag is a function of the aircraft's total cross-sectional area, and that narrowing the fuselage where the wing and tail attach would reduce drag. The "area rule" was quickly applied, with Whitcomb helping to redesign the underperforming Convair YF-102. His work led to the wasp-waisted "Coke bottle" fuselage shape most evident in aircraft like the Northrop F-5, which today is applied to everything from wide-body airliners to business jets to minimize high-speed drag.

Whitcomb was an intuitive aerodynamicist. "I didn't run a lot of mathematical calculations. I'd just sit there and think about what the air was doing, based on flow studies in the wind tunnel," Whitcomb told WPI's Transitions magazine. He would use fingertips and a file to painstakingly shape wind-tunnel models.

In the 1960s, Whitcomb designed the supercritical airfoil, its rounded leading edge, flattened upper surface and cambered aft section delaying the onset of wave drag and allowing aircraft to perform more efficiently. First flight tested on NASA's TF-8A, supercritical wings are now used on many aircraft. In the 1970s, with oil prices soaring, Whitcomb took a decades-old idea and perfected the drag-reducing winglet, which is now installed on almost every business jet and a growing number of airliners.

Whitcomb won the Collier Trophy in 1954 for the area rule, and in 1983 received the National Medal of Science. "It's fair to say he was the most important aerodynamic contributor in the second half of the first century of flight," says Tom Crouch, aviation historian at the Smithsonian Institution.


Doyce oversaw Hubble Space Telescope science operations at the Baltimore-based institute, working closely with the scientists operating the telescope, its designers at NASA's Goddard Space Flight Center, and the astronomers around the world who relied on the observatory for their research. Doyce came to the institute in 1981, nine years before Hubble was launched. He was named mission operations scientist, and served on the science operations teams for the SAS-3 and HEO-1 X-ray space observatories.

In 1991, NASA awarded Doyce its Distinguished Public Service Medal, the agency's highest honor for a non-government employee. He received the American Astronomical Society's Van Biesbroeck Prize in 2004, for "his outstanding, unselshless dedication to making the Hubble Space Telescope one of the most scientifically productive telescopes of all time."