

Laurels for 1974

This year has been lively for aerospace and here are the people we think made significant contributions to its progress in 1974:

■ **Clarence L. "Kelly" Johnson**, senior vice president and head of advanced development projects at Lockheed Aircraft Corp., for more than 40 years of pioneering in designs of new high-performance fighters and reconnaissance aircraft which ends with his retirement in January. His work began with the P-38 continuing through the P-80, F-104, U-2 and SR-71 from the initial fringe of compressibility to Mach 3 flight.

■ **Col. Wendell Shawler**, USAF, and **Irv Burrows**, McDonnell Douglas, for their successful F-15 flight test program at Edwards AFB that paved the way for early operational introduction of this new USAF air-superiority fighter.

■ **Astronauts Gerald P. Carr, William R. Pogue and Edward G. Gibson** for their 84-day, 34-million-mile Skylab 3 mission—man's longest voyage in space.

■ **Andre Turcat, Jean Franchi and Gilbert Defer** of Aerospatiale and **Brian Trubshaw and John Cochrane** of British Aircraft Corp., Concorde test pilots, for their demonstration of routine supersonic airline operations across the Atlantic.

■ **Edward Carlson**, president of United Airlines, who led his airline from a 1970 loss through three profitable years to where it is pushing Delta for the lead as the most profitable airline in 1974.

■ **Charles E. Tiffany**, engineering advisor in Aeronautical Systems Div.'s Directorate of Airframe Engineering at Wright-Patterson AFB, for his work on basic understanding and control of fracture mechanics now being applied to the B-1, AWACS and A-10 aircraft.

■ **Dr. Richard Whitcomb**, NASA Langley Research Center, for adding the fuel conserving winglet design for airliners to his already long list of basic aerodynamic research achievements.

■ **Leo Boyd** of Eastman Chemical's Flight Dept., who, as chairman of the avionics subcommittee of the National Business Aircraft Assn.'s technical committee, led the development of a comprehensive program for all-weather corporate aircraft operations.

■ **Lyman Joseph** of General Dynamics, for heading the design team that produced two YF-16 fighter prototypes embodying advanced aerodynamic concepts in record time.

■ **Walt Fellers** of Northrop Corp., who led the design team that produced two YF-17 fighter prototypes embodying advanced aerodynamic concepts in record time.

■ **Col. William E. Thurman**, deputy commander for air combat fighters, USAF Aeronautical Systems Div., for his work in transforming the leisurely paced lightweight fighter prototype program into the fast-moving air combat fighter flight test program that has put the U. S. into the worldwide export market with two strong contenders for NATO and other fighter replacement programs.

■ **Lt. Col. Jim Rider**, commander of the USAF Joint Flight Test Force at Edwards AFB; **Phil Oestricher**, chief YF-16 test pilot for General Dynamics, and **Hank Chouteau**, chief YF-17 test pilot for Northrop, for their successful accelerated flight test program that proved out the advanced principles embodied in these designs and demonstrated their high performance and reliability.

■ **Frank Borman**, executive vice president and general operations manager of Eastern Airlines, for his improvement in operational efficiency and passenger service that has moved Eastern to the top of the CAB on-time performance list and drastically improved the operating profits of the airline.

■ **George Peterson**, director of the USAF Materials Laboratory at Wright-Patterson AFB, for his pioneering and continued development work on composite materials that has led to their increasing application on the new generation of aircraft such as the F-15, B-1 and F-17.

■ **Frank Kolk**, vice president of American Airlines, for his conception of the airline engine deterioration analysis program, now being carried out by NASA, which promises a new and more economic approach to airline maintenance costs.

■ **Thomas P. Pepler** and his Boeing Vertol team that successfully developed and demonstrated the first helicopter with a completely fly-by-wire control system. Others who played key roles included **Thomas Sanders**, Vertol avionics engineer; **A. J. Hutto**, Vertol test pilot; **David Hogan**, General Electric Aerospace Control Systems Dept.; **Donald Herzog**, RCA Advanced Technology Laboratory, and **S. E. Scarborough**, Honeywell Aircraft Flight Systems Div.

■ **N. William Cunningham** of NASA headquarters, **Gene Giberson** of Jet Propulsion Lab and **Haim Kennet** of Boeing for the effective management of the Mariner 10 Venus/Mercury program that produced an operational triumph within severe cost constraints of a \$98-million program ceiling. The spacecraft made two successful sweeps past Mercury and is headed for a third next March.

■ **Dr. James Dunne** of JPL, Mariner 10 project scientist, for planning the flyby trajectories and coordinating on-board experiments. **Dr. Bruce Murray** of Caltech, television experiment leader, whose team devised the twin television camera pack that transmitted the first close-up pictures of Venus cloud cover and Mercury surface features. **William I. Purdy**, JPL guidance and control engineer, who developed the "solar sailing" technique that steered the Mariner 10 spacecraft by using solar wind pressure on antennas and solar panels to make the additional Mercury passes possible after all onboard fuel reserves had been expended. **Victor J. Clarke**, JPL engineering manager, who developed the gravitational swing-by trajectory technique that made the Venus-Mercury mission possible.

■ **Charles O. Miller**, former chief of the National Transportation Safety Board's Bureau of Aviation Safety, who, at great personal sacrifice, exposed to Congress and thwarted the Nixon Administration's efforts to subvert board actions and policy which he believed would adversely affect aviation safety.

■ **Helmut Klumpp** of Lufthansa, for spurring his airline to worldwide leadership in utilizing the main deck cargo capability of the Boeing 747 freighter and pioneering a cargo course now pursued by 13 other airlines.

■ **Col. Wilbur Botzong**, of Air Force System Command's SAMSO, for his skillful direction of the Defense Dept. Meteorological Satellite program, which yielded a wealth of high-quality weather data despite unusually tight fiscal restraints.

—Robert Hotz