Ed Prior --- Bio (November 08)

Ed Prior received a B.S. in engineering (U. of Illinois, 1965), and M.S. degrees in astronomy (U. of Virginia, 1972) and Management Information Systems (George Washington U., 1979). During 40 years at NASA, he authored or co-authored over 65 research reports, presentations or journal articles. He was co-discoverer of the "Winter Helium Bulge", called "the most striking recent result concerning composition of the upper atmosphere" in the NASA publication Significant Achievements in Space Science. The discovery led to his becoming a co-recipient of the 1974 NASA Reid Award for the "best paper of the year", and later the NASA Exceptional Service Medal. In 1978, he disputed the accuracy of early satellite ozone data, showing they gave spuriously high (25% or more) values (Geophysical Research Letters, June 1978) for stratospheric ozone in September and October at the edge of the Antarctic Circle. Had the ozone algorithms not been corrected, the actual *decrease* (that was discovered years later) in the Antarctic stratosphere---the Ozone Hole---could have been masked by spurious satellite data. Prior's ground-level ozone model (Environmental Science and Technology, April 1981) was chosen by the American Chemical Society as a highlighted atmospheric chemistry-related paper of the past during "National Chemistry Week" (http://pubs.acs.org/NCW/2003/articles_est.html). His was the only paper selected that had been published between the years 1979-1999. He has been variously cited in The Stratosphere: Past and Present, the COSPAR International Reference Atmosphere, the U. S. National report on Geodesy, and the various U. S. Standard Atmosphere publications. There are a total of six references to his research in three different annual editions of Significant Achievements in Space Science.

Prior was the Principal Investigator for PAGEOS, still the second largest satellite by volume placed into earth orbit. He used its orbital data to perform the first hydrogen drag measurements in the earth's exosphere (The Use of Artificial Satellites for Geodesy, Byrd Press, 1972, pp. 197-207), and found hydrogen levels to be 200% greater than given in the U. S. Standard Atmosphere. In 2008, the Air Force Space Command announced Prior's results had been confirmed and incorporated his 36-year old hydrogen measurements into its new atmospheric drag model---used by the AF Space Battlelab for missile trajectories (http://sol.spacenvironment.net/~JB2008/pubs/JASTP_Bowman_JB2006_2008.pdf). Prior was a Co-Investigator on NASA's Pioneer Venus Orbiter Drag Experiment in the 1970's. As Tropospheric Research Program Manager (1979-1980) during a NASA headquarters detail, he served on the United Nations Earthwatch Task Force. He was appointed Acting Chief Scientist for a major NASA laboratory (Langley) during 1981-82.

In the field of education, he was Production Supervisor for a NASA TV show "The Idea that Nobody Wanted", concerning Dr. John Houbolt's struggle to persuade the Agency that the Lunar Orbit Rendezvous method was the best way to land men on the moon and return them safely. In 2004, for the NASA Sci Files TV show "The Galactic Vacation", Prior was a technical script consultant/writer and was featured as the "Moon Guy" describing Apollo lunar discoveries to the young "Treehouse Detectives". The show became a regional Emmy winner for children's education that year, his last with the agency. Prior has been cited in a variety of "Who's Who" publications over the years, and now writes and consults. His interest in the Shroud of Turin has grown steadily since he saw a television special about the cloth in Chicago when he was only a child. He and his wife Margaret live in Poquoson, Virginia. Their son James works for Cotton Incorporated and lives in Hong Kong.