## Brief Biographical Information, Dr. Jay Apt

Jay Apt graduated from Harvard in 1971 with a bachelor's degree in physics. He completed his Ph.D. in experimental atomic physics at MIT and in 1976 joined the Center for Earth and Planetary Physics at Harvard, studying the weather on Venus. He later directed the observatory at NASA's Jet Propulsion Lab in Pasadena, and worked in NASA's mission control center in Houston.

Dr. Apt has spent more than 847 hours in space, on four Space Shuttle missions, and performed two space walks. He has been to the Russian space station Mir, and is the recipient of NASA's highest honor, the Distinguished Service Medal.

He is a pilot and aircraft owner with 7,000 hours of experience in more than 25 types of aircraft, sailplanes, and human-powered aircraft. He has flown single-engine aircraft to Greenland, Iceland, Europe, Alaska, and Central America.

An award-winning photographer, Apt shares his images and knowledge of the Earth in Orbit: NASA Astronauts Photograph the Earth, published by the National Geographic Society. The book has been printed in eleven languages; more than 600,000 copies are in print.

Dr. Apt is an emeritus Professor at Carnegie Mellon University's Tepper School of Business and in the CMU Department of Engineering and Public Policy. He served as the Director of the Carnegie Mellon Electricity Industry Center. He has authored over 120 papers in peer-reviewed scientific journals as well as two books and several book chapters. He has published op-ed pieces in the Wall Street Journal, the New York Times and the Washington Post. He is a Fellow of the American Association for the Advancement of Science. He received the Metcalf Lifetime Achievement Award for significant contributions to engineering.