

NOAA Employee Receives Silver Medal

On November 15th in Silver Spring, Maryland Randall C. Johnson with the National Oceanic & Administrative Agency (NOAA) received the 2007 Silver Medal. The Silver Medal is the Commerce Department's second highest honorary award. The Secretary awards it for exceptional performance characterized by noteworthy or superlative contributions which have a direct and lasting impact within the Department.

Since 1992, Randall Johnson has developed four generations of autonomous Smart Balloons that use state-of-the-art technology to observe air motions and air quality over extended periods of time. Randy Johnson developed the NOAA "Smart Balloon" that has been deployed in seven air quality and hurricane research experiments since 1992. These experiments have led to significant advances in the understanding of marine boundary layers and the chemistry of aerosols and various gaseous constituents of the atmosphere. In 2004, a Smart Balloon carrying a miniature ozone sensor successfully crossed the Atlantic Ocean from Long Island, New York to the African Coast of Morocco. NOAA Smart Balloons have also been used to study atmospheric dynamics within the inflow regions of hurricanes.

The data from the Smart Balloon are now being incorporated in air quality and climate change models. Many peer-reviewed journal articles have been written from the seven field experiments. In some of these experiments the balloon was a key to success, because it allowed U.S. and European research aircraft to locate and repeatedly sample the same marine air mass over several days in the vicinity of the balloons.

The research supports improvement in the National Weather Service air quality forecasting. It also helps the Environmental Protection Agency with its air quality assessment and regulatory functions.

Congratulations Randy!