## Warren Madden Chief Reconnaissance Coordinator CARCAH

Warren Madden leads the Air Force's Chief, Aerial Reconnaissance Coordination All Hurricanes (CARCAH) unit at NOAA's National Hurricane Center in Miami, Florida.

Madden received a Bachelor's Degree in Computer Science and Engineering from the Massachusetts Institute of Technology (1985),а Bachelor's Degree in Meteorology from Penn State University(1991) and a Master's Degree in Computer Science from Wright State University(1999). He was commissioned as a Lieutenant in the U.S. Air Force through the Reserve Officer Training Corps (ROTC) in 1985.

He began his Air Force career at Wright Patterson AFB, OH, developing software for command and control training applications and later analyzed the impact of weather on aircraft and weapons systems such as the B-1 Lancer and the V-22 Osprey.

From 1993 to 1996, he was the weekend meteorologist at WHIO-TV in Dayton, OH, followed by ten years at The Weather Channel as an on-air meteorologist.





During his years in television, Madden remained in the U.S. Air Force Reserve and, in 1998, joined the Hurricane Hunters of the 53rd Weather Reconnaissance Squadron. He served as an Aerial Reconnaissance Weather Officer until his retirement as a lieutenant colonel in 2012, flying over 1000 hours including missions into Hurricanes Rita, Ivan, Wilma, Floyd, and Typhoon Megi.

After leaving the Weather Channel in 2007, he joined Lockheed Martin as an Avionics Software Engineer where he helped develop both mission critical software for the WC-130J Hurricane Hunter aircraft and mission computer avionics for the transport version of the aircraft. He joined CARCAH in 2014, where he tasks, coordinates, and quality-controls missions in support of both the National Hurricane Center and Central Pacific Hurricane Center. During the winter, CARCAH supports the National Centers for Environmental Prediction (NCEP) by coordinating winter storm missions. He was promoted to lead the unit in 2018. He is a member of the American Meteorological Society and holds the AMS Television Seal of Approval.