

## **8.19 A SYSTEM FOR SYNCHRONIZED MULTI-RADAR SCANNING FOR METEOROLOGICAL REMOTE SENSING**

C. J. WALDEN<sup>1</sup>, M. FORTESCUE<sup>2</sup>, M. L. TRETHERWEY<sup>2</sup>, D. N. LADD<sup>1</sup>, A. DOO<sup>1</sup>

<sup>1</sup> STFC Chilbolton Observatory, U.K.

<sup>2</sup> Control Loop Concepts Ltd., U.K.

chris.walden@stfc.ac.uk

We report on new developments at Chilbolton Observatory in the UK that enable coordinated scanning of multiple radars, and their initial application in support of the PICASSO (Parameterizing ice clouds using airborne observations and triple-frequency Doppler radar data) campaign. The inter-radar communication and control protocols were originally devised as part of a programme of work to track space hardware (orbiting satellites and debris). This is their first use in atmospheric science, and follows a need to coordinate multiple wavelength radar observations with in-situ aircraft measurements from the FAAM (Facility for Airborne Atmospheric Measurements) aircraft. The observations involved automated steering of the radar antennas using position data streamed from the aircraft via satellite communications links. The architecture has been designed to be extensible, and may be readily applied to cases where the radars are geographically separated.