

FAA William J. Hughes Technical Center

Radio Control Equipment (RCE) System

The RCE provides an interfacility subsystem network in support of air/ground communications within enroute, TRACON, and terminal environments. RCE allows voice and data communications between the air traffic controller and pilots using remotely located VHF/UHF radios accessible via the RCE and interconnection telecommunications networks.



Background

The RCE contract was awarded to CSTI Corporation in July 1994 and approved for NAS deployment in May 1995. Over 9500 RCE units have been acquired since contract award. In 1992 the RCE project office initiated a "try before buy" concept as a key ingredient to the RCE acquisition process. Vital to that process was the development of an Operational Capability Test (OCT) test bed at the William J. Hughes Technical Center which served as a testing ground for proof of the potential RCE offerers' compliance to the product specification.

Key Projects

Since 1995 the RCE test bed has supported air/ground (A/G) communications and related telecommunications subsystem testing at the Technical Center, including Year 2000 support.

For Calendar Year 2000, RCE continues to support new air/ground features and sustainment engineering efforts including:

- Software enhancements for unique A/G applications in the Alaskan region
- Software enhancements to the RCE Centralized Maintenance System
- RCE Power Systems second source testing and validation.

Key Accomplishments

- OT&E Test Support for FAATSAT Transportable Earth Station (ES-T), August 1998.
- NEXCOM solution implementation data collection and analysis efforts, spring 1999.
- Eastern Region Communications Applications Testing, October 1999.
- Factory Testing of Alaskan region RCE software enhancements, January 2000.
- OT&E Testing of Alaskan region RCE software enhancements, February 2000.



Status

RCE is in an in-service state supporting air/ground communications.

The RCE test bed at the William J. Hughes Technical Center provides continued Air/Ground Communication Sustainment engineering support. The RCE test bed is interconnected to the ACT-330 telecommunication facilities consisting of FAA Telecommunications Satellite (FAATSAT), Radio Communication Link (RCL), Low Density (LDRCL) and Bandwidth Manager (BWM). These consolidated services of this division support the Voice Switch laboratories and the Next Generation A/G Communication System (NEXCOM) facility.

Plans

This division continues to utilize the William J. Hughes Technical Center RCE test bed for sustainment engineering support, NEXCOM OCT, and OT&E Testing efforts and future airspace applications and design experiments.

To find out more about the Radio Control Equipment System, contact:

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