UAS Command and Control Link Compatibility

Purpose

- The UAS Command and Control Link Compatibility testing will complement the current validation efforts for Control and Non Payload Communications (CNPC) standards by evaluating the operating compatibility with other L-band avionics equipment

Background

- RTCA Special Committee (SC)-228 UAS Working Group 2 has developed a set of MOPS for CNPC radios. It is important to verify the compatibility of the CNPC radio with other equipment

Projected Benefit of Research

- This research will contribute to RTCA 228 's effort to mature standards for command and non-payload communications for UAS flying within point-to-point of a ground transmitter for the UAS ground control station
- The results from this task will help determine the viability of use of L-Band frequencies for CNPC operations

Research Approach

- Construct a hardware-in-the-loop laboratory environment and conduct laboratory testing using selected equipment of interests (i.e. TACAN, UAT, etc.)

Research Partners

- FAA William J. Hughes Technical Center
- Harris/Rockwell Collins

Status

- Airborne TACAN Compatibility Validation completed February 2017
- Airborne and Ground Co-Site Compatibility Validation in progress
- Planning CNPC Coexistence Compatibility and Link Budget Validation
- Project expected to be completed FY18

UASHELP@FAA.GOV