

## CRDA COA Application System Description – Communication

There are a variety of communication systems that are used for electronic communication between the control station and the unmanned aircraft. The communication system for the Aerostar UAS is typical of many UAS communications systems. Some UAS communication system uses redundant uplink channels. The primary and the secondary. The signals are transmitted by dish, directional antenna, or omni-directional antennas. Some systems only have one control link (normally sUAS). The UAS FTC performs a communications analysis of the UAS data link(s) and determines flight limitations based on the analysis finding. The FAA UAPO (AFS 407) reviews the analysis and UAS limitations prior to giving flight approval. Additionally, Radio Frequency approval through the FCC, DOD/NTIA where appropriate, or systems meeting the FAA Part 15 allowance for non-licensed communications systems are verified or obtained prior to completion of the airworthiness analysis. Additionally, frequency coordination with White Sands Missile Range (WSMR) is conducted for deconfliction of frequencies and the frequencies are checked before communications systems are turned on prior to flight to ensure no interference is present.



Prior to the operation of any unmanned aircraft at the NMSU UFTC that UAS's communication system will be evaluated and tested to determine its functionality and capabilities.