

Purpose of Experimental License Modification

This modification application seeks to add transmitting equipment, change the authorized emission, and make associated minor technical revisions and corrections relating to the S-band frequencies licensed for intermittent use at the Comtech TCS Guam Down Range Station (“GDRS”) located at Yona, Guam. The current experimental license under Call Sign WC2XWA will expire on August 1, 2017. By this application, Comtech TCS requests that the license be modified, and the term extended for an additional 24-month term, ending August 1, 2019.

As detailed in prior filings with respect to this facility, the GDRS is used to provide telemetry and telecommand services under contract with the Japanese Aerospace Exploration Agency (“JAXA”) with respect to space vehicles launched from JAXA’s Tanegashima Space Center. These missions include resupply flights to the International Space Station as well as various scientific and satellite missions. The GDRS is used to track and control the launch vehicle, but does not communicate on a continuing basis with any satellite payload. The facility is used on an occasional basis, averaging about three to four missions per year, with each mission period lasting approximately ten days, and occasional transmission of no more than 20 minutes duration occurring on a regular basis during each mission period.

JAXA is updating its launch vehicle communication protocol in connection with a new On-Board Computer (“OBC”) design. The new OBC design will utilize a serial digital data communication method instead of the simple analog tone communication used previously. The digital format also allows a higher data rate for down range communications. Accordingly, it is necessary for Comtech TCS to update the equipment, emission type and bandwidth for its S-band channels to specify a digital signal and a 1.00 megahertz bandwidth for data, telemetry and telecommand. Initial in-flight use of this capability may not occur until the later months of the requested authorization period, but testing of the transmitter and antenna will need to be performed as early as the second half of 2018. Accordingly, Comtech TCS is seeking to update its authorization at this time in order to provide JAXA with assurance that the GDRS will be prepared to communicate with space vehicles that are currently under construction.