

SDR Receive-Only Operations Commencement:

This letter is intended to notify the Commission that Analytical Space will be turning on the software-defined radio (SDR) on board the licensed spacecraft "Radix" to conduct receive-only testing under the process and with the conditions as set forth prior to the grant of the Radix license from the Commission on April 5th, 2018.

The proposed test was described in the exhibit "SDR Radio Description", uploaded on March 26th, 2018. The portion from that document describing the test is quoted below for convenience –

"we are proposing to do a receive-only test to validate the proper mechanical deployment and function of the wideband and parabolic antennas. By using the sun as a reference source and tuning in the range of 2655-2690 MHz we can assess performance of the wideband and parabolic antennas post-deployment compared to ideal conditions on the ground that we have already measured. This can be used to test the receive capabilities of both the wideband and parabolic antennas.

To accomplish this test, we would upload software via the UHF TT&C link to the flight computer to enable the PDU channels, upload software to the SDR to enable its receive-only functionality in the authorized band, and send commands to turn on the SDR and parabolic antenna to perform the receive-only test. As outlined above, the radio will still be inhibited from transmitting due to the lack of software to drive the transmit function, as well as the lack of transmit commands sent from the ground station via the UHF TT&C link."

Per the agreed upon process for post-deployment concurrence prior to the SDR being switched on, Analytical Space coordinated with Catherine Sham of the National Aeronautics and Space Administration's Johnson Space Center Spectrum Office. Ms. Sham gave her verbal concurrence on a telephone call with Analytical Space on July 26th, 2018.