

Flightline Films**STA Application 1897-EX-STA-2019****Frequency Coordination and Explanation – Expansion of Testing Area and Time Frame
Mid-West****High Altitude Video, Data, Telemetry and Systems Control Testing.****October 25, 2019 – November 15, 2019**

This application proposes the continued use of certain C and S Band spectrum originally granted under 1628-EX-ST-2019, WP9XHM, throughout a larger geographic area and expanded time frame for the continued testing of a high altitude airborne video and telemetry platform to determine optimal frequency ranges for both the air to ground (AtG) and ground to air (GtA) links, data throughput and video resolution capability under various operating conditions along with the telemetry of these systems. This system is intended for commercial, government and public safety sectors.

Ground station transmission (GtA) will utilize a very narrow azimuth and elevation beamwidth tracking antenna at ground level capable of 360° azimuth and 90° elevation tracking. Actual propagated beamwidth in C Band (4400-4500 MHz & 4800-4900) is 1.8° AZ x 2.9° EL with a gain of 29.5dB. Tracking is achieved via GPS & telemetry link with the airborne platform.

Airborne vehicle is an unmanned balloon with suspended equipment platform. (Appropriate and relative FAA compliances are under the purview of the airframe operations company.) New areas of operation will be five (5) different temporary ground station locations where the mobile ground station will be deployed for a short period of time. Airborne operations will be a 150 mile (241.4km) radius about the ground station, at a maximum altitude of 65,000' AGL. Airborne transmission (AtG) will be through an omni-directional 4dB gain antenna mounted to the underside of the equipment platform. Due to the radius of operations, the airborne platform is quite low relative to the horizon and thus a directional antenna would not provide sufficient coverage at "0°" elevation under the equipment platform. We again request 2200-2290 MHz, or any 35MHz segment thereof, As AFTRCC bands are unavailable.

Airborne and ground operational dates are continuous from October 25, 2019 through and including November 15, 2019.

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