

Discussion Regarding Antenna Registration #2

Air-Based Data Link (Downlink) Transmissions

The frequencies specified at Antenna Registration #2 relate to BAE Systems' proposed Air-Based Data Link Transmissions to be initiated from the target aircraft (while the aircraft is within the FAA-approved Flight Operations Area) and directed to the ground-based receiver located at BAE Systems' Merrimack Antenna Test Range. With respect to these Air-Based Data Link Transmissions, the following is noted:

1. **Purpose**

These Air-Based Transmissions are for the purpose of transmitting data regarding the aircrafts' position, velocity, altitude and other flight information.

2. **Frequencies/Other Parameters**

- BAE Systems requests authority to transmit on the 14400-14830 MHz band for these air-based data link (downlink) transmissions.
- Amplifier output will be 5W and antenna gain will be 26dBic - therefore the output power is reported as 50W "Peak". Emissions designators are "21M4G7D" and "64M0G7D" for these transmissions.
- In the attached form, BAE Systems specified "2896 meters" as the "Overall height above ground to tip of antenna". In this regard, BAE Systems notes that the flight paths required for these tests will occur at a variety of altitudes, but in no event will the altitude of the aircraft exceed 2896 meters above mean sea level. For this reason, "2896 meters" was specified in response to this question.

3. **FAA-Approved Flight Operations Area**

These Air-Based Data Link Transmissions are intended to be utilized solely within the following FAA-Approved Flight Operations Area:

32 km radius around the centerpoint:
42-44-15 N.Lat.; 071-57-59 W.Long. (NAD 83)

A graphic description of the Flight Operations Area is attached hereto.

FAA Approved Flight Operations Area (20 mile radius)

East Freetown, NH

Manchester
Airport

Helicopter Storage,
Fuel, Maint. Facilities



Flight Path
to

Operations
Area over
Merrimack
River

Litchfield, NH

Transmit Location,
Calibration Control
Station and TC DL
Location

