

# **Bandwidth Measurement Exhibit to STA Request**

**STA Confirmation Number: EL252618**

**STA File Number: 0651-EX-ST-2012**

# Waveform Bandwidths

- The radar system is designed to have at least a 1.25 m range resolution

- Required bandwidth

$$B = \frac{c}{2\Delta R} = \frac{3 \times 10^8 \text{ m/s}}{2(1.25 \text{ m})} = 120 \text{ MHz}$$

- The pulse is linear FM

- Measurements on the transmitter were taken in the lab and tabulated below

Measurement Point	Bandwidth
-3 dB	130 MHz
-20 dB	150 MHz
-40 dB	250 MHz
-60 dB	400 MHz