### 9/10/2012

### Submitted By:

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Subject: Correspondence ID: 17835 & FCC Application #: 0009-EX-ML-2012

The filed materials are being provided in an effort to respond to the FCC inquiry on August 21<sup>st</sup>, 2012 regarding the satellite, earth station, and mobile antenna information. If additional information is required, please provide clarification regarding the nature of the information needed.

#### **Earth Station Antenna Information:**

The Ground Station for Eutelsat 7A uplink is leased and is located at Rambouillet about 50 miles west of Paris.

#### **Mobile Antenna Information:**

Active Aperture Diameter	38 cm (uniform illumination)
Beamwidth at 0° Scan <sup>1</sup>	3.3° x 3.5°
Operating Frequency Band	14.0 – 14.5 GHz
Peak Gain at 0° Scan <sup>2</sup>	34.0 dBi
Maximum EIRP at 0° Scan2	49.0 dBW
Minimum Elevation Angle	~20°
Polarization	Variable linear

Table 1. Transmit Phased Array Antenna Characteristics

<sup>&</sup>lt;sup>1</sup> Increases in the scan plane approximately as  $1/\cos^{1.2}(\theta)$  as a function of scan angle  $\theta$ .

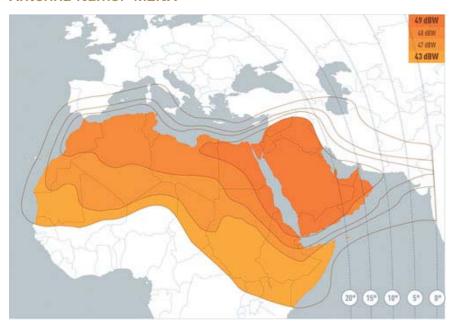
 $<sup>^{2}</sup>$  Decreases approximately as  $cos^{1.2}(\theta)$  as a function of scan angle  $\theta.$ 

### **Satellite Antenna Information:**

# **EUTELSAT 7 WEST A at 7° West**

# **Downlink Coverage**

**Antenna Name: MENA** 



# **Antenna Name: North West Africa**

