

SATELLITE EARTH STATION
 FREQUENCY COORDINATION DATA
 02/15/2011

| | | |
|--|------------------|-----------------------------------|
| Company | TELESAT | |
| Owner Code | | |
| Earth Station Name, State | KING WILLIAM, VA | |
| Latitude (DMS) (NAD83) | 37 43 8.4 N | |
| Longitude (DMS) (NAD83) | 77 7 12.0 W | |
| Ground Elevation AMSL (ft/m) | 157.00 / | 47.85 |
| Antenna Centerline AGL (ft/m) | 9.00 / | 2.74 |
| Transmit Antenna Type: | FCC32 | Prodelin 1.8 meter Model 1184 |
| 14.0 GHz Gain (dBi) / Diameter (m) | 46.5 / | 1.8 |
| 3 dB / 15 dB Half Beamwidth | 0.25 / | 0.50 |
| Operating Mode | TRANSMIT ONLY | |
| Modulation | DIGITAL | |
| Emission / Transmit Band (MHz) | 2M02G7W | 2M02G7W / 14000.0000 - 14500.0000 |
| Max. Available RF Power (dBW)/4 kHz | -21.10 | |
| (dBW)/MHz | 2.90 | |
| Max. EIRP (dBW)/4 kHz | 25.40 | |
| (dBW)/MHz | 49.40 | |
| Max. Permissible Interference Power | | |
| 14.0 GHz, 20% (dBW/4 kHz) | -151.0 | |
| 14.0 GHz, 0.0025% (dBW/4 kHz) | -128.0 | |
| Range of Satellite Arc (Geostationary) | | |
| Degrees Longitude | 63.0 W / 63.0 W | |
| Azimuth Range (Min/Max) | 157.7 / 157.7 | |
| Corresponding Elevation Angles | 43.8 / 43.8 | |
| Radio Climate | A | |
| Rain Zone | 2 | |
| Max. Great Circle Coordination Distance (mi./km) | | |
| 14.0 GHz | 62.7 / 100.9 | |
| Precipitation Scatter Contour Radius (mi./km) | | |
| 14.0 GHz | 62.1 / 100.0 | |

Note: Horizon is less than 0.2 degrees at all azimuths

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 Antenna Centerline (ft/m) 9.00 / 2.74 Agl
 Antenna Model Prodelin 1.8 meter
 Objectives: Transmit -151.0 (dBW /4 kHz) Tx Power -21.1 (dBW/4 kHz)

| Azimuth (Deg) | Horizon Elevation Angle (Deg) | Antenna Disc. Angle (Deg) | Antenna Gain (dBi) | 14.0 GHz Coordination Distance (km) |
|------------------|--|------------------------------------|--------------------------|--|
| 0 | 0.00 | 131.85 | -10.00 | 100.0 |
| 5 | 0.00 | 129.85 | -10.00 | 100.0 |
| 10 | 0.00 | 127.55 | -10.00 | 100.0 |
| 15 | 0.00 | 124.99 | -10.00 | 100.0 |
| 20 | 0.00 | 122.22 | -10.00 | 100.0 |
| 25 | 0.00 | 119.26 | -10.00 | 100.0 |
| 30 | 0.00 | 116.14 | -10.00 | 100.0 |
| 35 | 0.00 | 112.90 | -10.00 | 100.0 |
| 40 | 0.00 | 109.56 | -10.00 | 100.0 |
| 45 | 0.00 | 106.13 | -10.00 | 100.0 |
| 50 | 0.00 | 102.63 | -10.00 | 100.0 |
| 55 | 0.00 | 99.09 | -10.00 | 100.0 |
| 60 | 0.00 | 95.51 | -10.00 | 100.0 |
| 65 | 0.00 | 91.91 | -10.00 | 100.0 |
| 70 | 0.00 | 88.31 | -10.00 | 100.0 |
| 75 | 0.00 | 84.71 | -10.00 | 100.0 |
| 80 | 0.00 | 81.13 | -10.00 | 100.0 |
| 85 | 0.00 | 77.58 | -10.00 | 100.0 |
| 90 | 0.00 | 74.08 | -10.00 | 100.0 |
| 95 | 0.00 | 70.65 | -10.00 | 100.0 |
| 100 | 0.00 | 67.30 | -10.00 | 100.0 |
| 105 | 0.00 | 64.05 | -10.00 | 100.0 |
| 110 | 0.00 | 60.93 | -10.00 | 100.0 |
| 115 | 0.00 | 57.96 | -10.00 | 100.0 |
| 120 | 0.00 | 55.17 | -10.00 | 100.0 |
| 125 | 0.00 | 52.60 | -10.00 | 100.0 |
| 130 | 0.00 | 50.29 | -10.00 | 100.0 |
| 135 | 0.00 | 48.26 | -10.00 | 100.0 |
| 140 | 0.00 | 46.58 | -9.70 | 100.0 |
| 145 | 0.00 | 45.26 | -9.39 | 100.1 |
| 150 | 0.00 | 44.36 | -9.18 | 100.6 |
| 155 | 0.00 | 43.90 | -9.06 | 100.9 |
| 160 | 0.00 | 43.88 | -9.06 | 100.9 |
| 165 | 0.00 | 44.32 | -9.17 | 100.6 |
| 170 | 0.00 | 45.20 | -9.38 | 100.1 |
| 175 | 0.00 | 46.49 | -9.68 | 100.0 |
| 180 | 0.00 | 48.15 | -10.00 | 100.0 |

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 Antenna Model Prodelin 1.8 meter
 Objectives: Transmit -151.0 (dBW /4 kHz) Tx Power -21.1 (dBW/4 kHz)

| Azimuth (Deg) | Horizon Elevation Angle (Deg) | Antenna Disc. Angle (Deg) | Antenna Gain (dBi) | 14.0 GHz Coordination Distance (km) |
|------------------|--|------------------------------------|--------------------------|--|
| 185 | 0.00 | 50.15 | -10.00 | 100.0 |
| 190 | 0.00 | 52.45 | -10.00 | 100.0 |
| 195 | 0.00 | 55.01 | -10.00 | 100.0 |
| 200 | 0.00 | 57.78 | -10.00 | 100.0 |
| 205 | 0.00 | 60.74 | -10.00 | 100.0 |
| 210 | 0.00 | 63.86 | -10.00 | 100.0 |
| 215 | 0.00 | 67.10 | -10.00 | 100.0 |
| 220 | 0.00 | 70.44 | -10.00 | 100.0 |
| 225 | 0.00 | 73.87 | -10.00 | 100.0 |
| 230 | 0.00 | 77.37 | -10.00 | 100.0 |
| 235 | 0.00 | 80.91 | -10.00 | 100.0 |
| 240 | 0.00 | 84.49 | -10.00 | 100.0 |
| 245 | 0.00 | 88.09 | -10.00 | 100.0 |
| 250 | 0.00 | 91.69 | -10.00 | 100.0 |
| 255 | 0.00 | 95.29 | -10.00 | 100.0 |
| 260 | 0.00 | 98.87 | -10.00 | 100.0 |
| 265 | 0.00 | 102.42 | -10.00 | 100.0 |
| 270 | 0.00 | 105.92 | -10.00 | 100.0 |
| 275 | 0.00 | 109.35 | -10.00 | 100.0 |
| 280 | 0.00 | 112.70 | -10.00 | 100.0 |
| 285 | 0.00 | 115.95 | -10.00 | 100.0 |
| 290 | 0.00 | 119.07 | -10.00 | 100.0 |
| 295 | 0.00 | 122.04 | -10.00 | 100.0 |
| 300 | 0.00 | 124.83 | -10.00 | 100.0 |
| 305 | 0.00 | 127.40 | -10.00 | 100.0 |
| 310 | 0.00 | 129.71 | -10.00 | 100.0 |
| 315 | 0.00 | 131.74 | -10.00 | 100.0 |
| 320 | 0.00 | 133.42 | -10.00 | 100.0 |
| 325 | 0.00 | 134.74 | -10.00 | 100.0 |
| 330 | 0.00 | 135.64 | -10.00 | 100.0 |
| 335 | 0.00 | 136.10 | -10.00 | 100.0 |
| 340 | 0.00 | 136.12 | -10.00 | 100.0 |
| 345 | 0.00 | 135.68 | -10.00 | 100.0 |
| 350 | 0.00 | 134.80 | -10.00 | 100.0 |
| 355 | 0.00 | 133.51 | -10.00 | 100.0 |