Beam Pointing Locations for the Ku-Band HTS Uplink Beam (HUH2) and Downlink Beam (HDV4)

The EUTELSAT 172B HTS payload uses a total of 11 identical beams in both the uplink and downlink directions. In accordance with 25.114(c)(4)(vii), an overall area map of the eleven beam is illustrated in Figure 1 and a table describing the maximum antenna gain points in latitude and longitude is shown in Table 1.

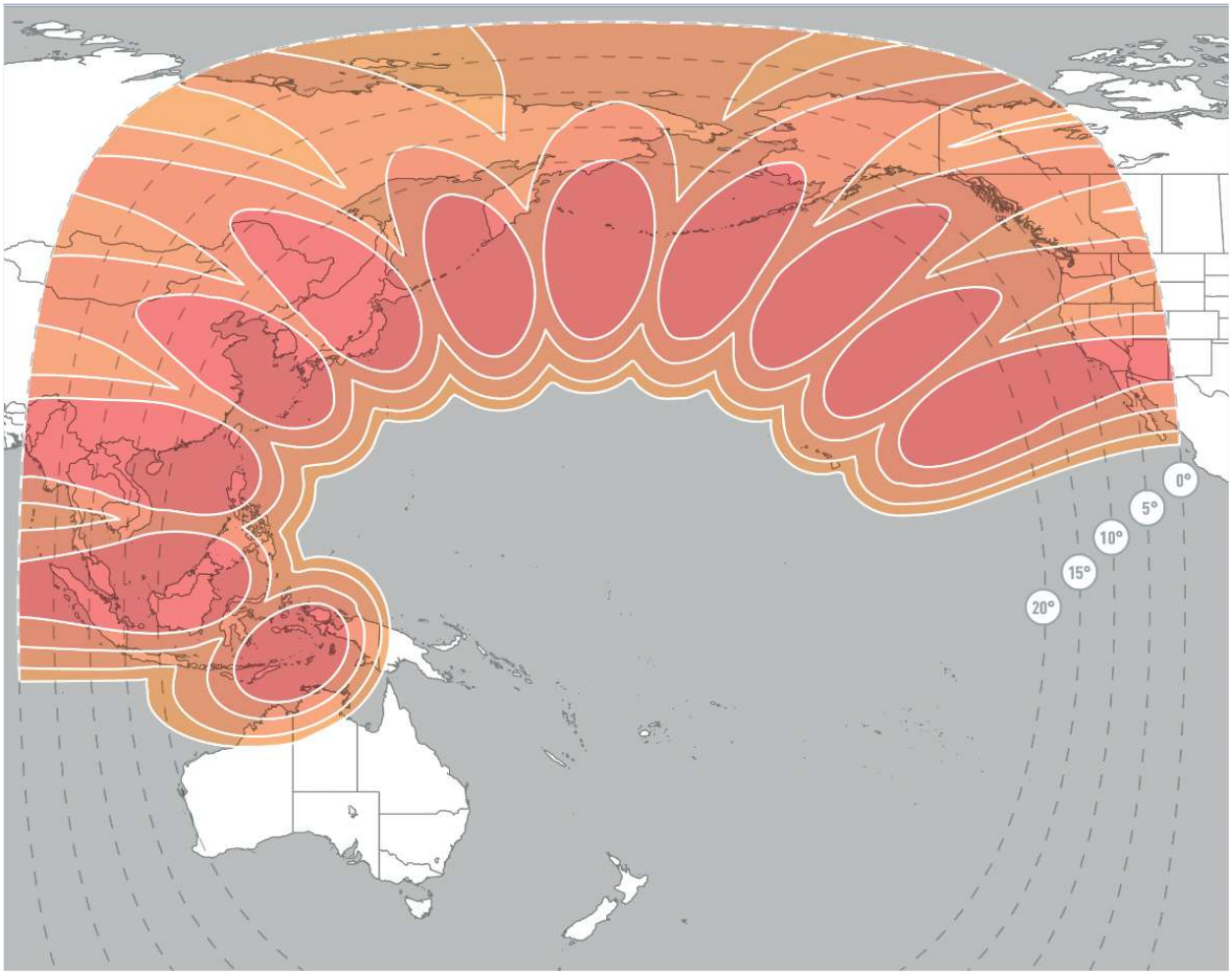

Figure 1 Provisional Ku-band North Pacific HTS uplink/down coverage of EUTELSAT 172B

Table 1 HTS Ku-band Uplink/Downlink Beam Peak Gain Locations

HTS Spot Beam Number	long (°E)	lat (°N)
Spot 1	130.5°	-6.9°
Spot 2	113.2°	2.9°
Spot 3	113.5°	19.7°
Spot 4	125.4°	32.6°
Spot 5	139.2 °	41.2°
Spot 6	155.8 °	43.9°
Spot 7	170.7 °	46.6°
Spot 8	-172.6°	46.6°
Spot 9	-158.2°	42.0°
Spot 10	-148.3°	33.8°
Spot 11	-135.6°	26.7°

The HTS beams are formed with two reflectors that are fed from 11 transmit/receive feeds (five feeds using one reflector and six feeds using the second reflector), are 2°x3° in size and are rotated 15° clockwise with respect to boresight vector. Differences in coverage area/shape are a result of differences in projection of the beams on the surface of the Earth.

This information is applicable to beam HUH2 on the uplink and HDV4 on the downlink. The GIMS database, attached to the Schedule S, provides antenna patterns for a representative uplink and downlink beam.