



312 File Number: **SATPPL2021110400138**

Filing Description

| Question | Response |
|-------------|------------------------------------|
| Description | V-band LEO Satellite Constellation |

Satellite Information

| Question | Response |
|--|--------------------|
| Select Orbit Type | NGSO |
| Space Station or Satellite Network Name | Telesat LEO V-band |
| Estimated Lifetime of Satellite(s) From Date of Launch | 10 Years |
| Will the space station(s) operate on a Common Carrier basis? | No |

Operating Frequency Bands (3)

| Nature of service | Description | Frequency Band(s) | Mode Type |
|--------------------------------|-------------|--------------------------|-----------|
| Fixed-Satellite Service | | 50400.0 MHz -51400.0 MHz | Receive |
| Fixed-Satellite Service | | 47200.0 MHz -50200.0 MHz | Receive |
| Fixed-Satellite Service | | 37500.0 MHz -42000.0 MHz | Transmit |

**Orbital
Information For
Non-
Geostationary
Satellites**

| Question | Response |
|--|------------|
| Total Number of Satellites in the active constellation | 1671 |
| Orbit Epoch Date | 01/01/2017 |
| Celestial Reference Body | Earth |

Orbital Plane 1:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 93.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 45.1 |
| 2 | 72.8 |
| 3 | 100.5 |
| 4 | 128.2 |
| 5 | 155.9 |
| 6 | 183.6 |
| 7 | 211.3 |
| 8 | 239.0 |
| 9 | 266.7 |
| 10 | 294.4 |
| 11 | 322.1 |
| 12 | 349.7 |
| 13 | 17.4 |

Orbital Plane 2:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 106.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.1 |
| 2 | 31.8 |
| 3 | 59.5 |
| 4 | 87.2 |
| 5 | 114.9 |
| 6 | 142.6 |
| 7 | 170.3 |
| 8 | 197.9 |
| 9 | 225.6 |
| 10 | 253.3 |
| 11 | 281.0 |
| 12 | 308.7 |
| 13 | 336.4 |

Orbital Plane 3:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 120.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 350.8 |
| 2 | 323.1 |
| 3 | 295.4 |
| 4 | 267.7 |
| 5 | 240.0 |
| 6 | 212.3 |
| 7 | 184.6 |
| 8 | 156.9 |
| 9 | 129.2 |
| 10 | 101.5 |
| 11 | 73.8 |
| 12 | 46.2 |

| | |
|----|------|
| 13 | 18.5 |
|----|------|

Orbital Plane 4:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 133.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 5.1 |
| 2 | 32.8 |
| 3 | 60.5 |
| 4 | 88.2 |
| 5 | 115.9 |
| 6 | 143.6 |
| 7 | 171.3 |
| 8 | 199.0 |
| 9 | 226.7 |
| 10 | 254.4 |
| 11 | 282.1 |

| | |
|----|-------|
| 12 | 309.7 |
|----|-------|

| | |
|----|-------|
| 13 | 337.4 |
|----|-------|

Orbital Plane 5:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 146.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 19.5 |
| 2 | 47.2 |
| 3 | 74.9 |
| 4 | 102.6 |
| 5 | 130.3 |
| 6 | 157.9 |
| 7 | 185.6 |
| 8 | 213.3 |
| 9 | 241.0 |
| 10 | 268.7 |

| | |
|-----------|-------|
| 11 | 296.4 |
| 12 | 324.1 |
| 13 | 351.8 |

Orbital Plane 6:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 160.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 6.2 |
| 2 | 33.8 |
| 3 | 61.5 |
| 4 | 89.2 |
| 5 | 116.9 |
| 6 | 144.6 |
| 7 | 172.3 |
| 8 | 200.0 |
| 9 | 227.7 |

| | |
|-----------|-------|
| 10 | 255.4 |
| 11 | 283.1 |
| 12 | 310.8 |
| 13 | 338.5 |

Orbital Plane 7:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 173.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 20.5 |
| 2 | 48.2 |
| 3 | 75.9 |
| 4 | 103.6 |
| 5 | 131.3 |
| 6 | 159.0 |
| 7 | 186.7 |
| 8 | 214.4 |

| | |
|-----------|-------|
| 9 | 242.1 |
| 10 | 269.7 |
| 11 | 297.4 |
| 12 | 325.1 |
| 13 | 352.8 |

Orbital Plane 8:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 186.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 7.2 |
| 2 | 34.9 |
| 3 | 62.6 |
| 4 | 90.3 |
| 5 | 117.9 |
| 6 | 145.6 |
| 7 | 173.3 |

| | |
|-----------|-------|
| 8 | 201.0 |
| 9 | 228.7 |
| 10 | 256.4 |
| 11 | 284.1 |
| 12 | 311.8 |
| 13 | 339.5 |

Orbital Plane 9:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 200.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 21.5 |
| 2 | 49.2 |
| 3 | 76.9 |
| 4 | 104.6 |
| 5 | 132.3 |
| 6 | 160.0 |

| | |
|-----------|-------|
| 7 | 187.7 |
| 8 | 215.4 |
| 9 | 243.1 |
| 10 | 270.8 |
| 11 | 298.5 |
| 12 | 326.2 |
| 13 | 353.8 |

Orbital Plane 10:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 213.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.2 |
| 2 | 35.9 |
| 3 | 63.6 |
| 4 | 91.3 |
| 5 | 119.0 |

| | |
|-----------|-------|
| 6 | 146.7 |
| 7 | 174.4 |
| 8 | 202.1 |
| 9 | 229.7 |
| 10 | 257.4 |
| 11 | 285.1 |
| 12 | 312.8 |
| 13 | 340.5 |

Orbital Plane 11:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 226.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.3 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 22.6 |
| 2 | 50.3 |
| 3 | 77.9 |
| 4 | 105.6 |

| | |
|----|-------|
| 5 | 133.3 |
| 6 | 161.0 |
| 7 | 188.7 |
| 8 | 216.4 |
| 9 | 244.1 |
| 10 | 271.8 |
| 11 | 299.5 |
| 12 | 327.2 |
| 13 | 354.9 |

Orbital Plane 12:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 240.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 9.2 |
| 2 | 36.9 |
| 3 | 64.6 |

| | |
|-----------|-------|
| 4 | 92.3 |
| 5 | 120.0 |
| 6 | 147.7 |
| 7 | 175.4 |
| 8 | 203.1 |
| 9 | 230.8 |
| 10 | 258.5 |
| 11 | 286.2 |
| 12 | 313.8 |
| 13 | 341.5 |

Orbital Plane 13:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 253.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 23.6 |
| 2 | 51.3 |

| | |
|----|-------|
| 3 | 79.0 |
| 4 | 106.7 |
| 5 | 134.4 |
| 6 | 162.1 |
| 7 | 189.7 |
| 8 | 217.4 |
| 9 | 245.1 |
| 10 | 272.8 |
| 11 | 300.5 |
| 12 | 328.2 |
| 13 | 355.9 |

Orbital Plane 14:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 266.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 10.3 |

| | |
|----|-------|
| 2 | 37.9 |
| 3 | 65.6 |
| 4 | 93.3 |
| 5 | 121.0 |
| 6 | 148.7 |
| 7 | 176.4 |
| 8 | 204.1 |
| 9 | 231.8 |
| 10 | 259.5 |
| 11 | 287.2 |
| 12 | 314.9 |
| 13 | 342.6 |

Orbital Plane 15:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 280.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
|------------------|--|

| | |
|----|-------|
| 1 | 24.6 |
| 2 | 52.3 |
| 3 | 80.0 |
| 4 | 107.7 |
| 5 | 135.4 |
| 6 | 163.1 |
| 7 | 190.8 |
| 8 | 218.5 |
| 9 | 246.2 |
| 10 | 273.8 |
| 11 | 301.5 |
| 12 | 329.2 |
| 13 | 356.9 |

Orbital Plane 16:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 293.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 11.3 |
| 2 | 39.0 |
| 3 | 66.7 |
| 4 | 94.4 |
| 5 | 122.1 |
| 6 | 149.7 |
| 7 | 177.4 |
| 8 | 205.1 |
| 9 | 232.8 |
| 10 | 260.5 |
| 11 | 288.2 |
| 12 | 315.9 |
| 13 | 343.6 |

Orbital Plane 17:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 306.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 25.6 |
| 2 | 53.3 |
| 3 | 81.0 |
| 4 | 108.7 |
| 5 | 136.4 |
| 6 | 164.1 |
| 7 | 191.8 |
| 8 | 219.5 |
| 9 | 247.2 |
| 10 | 274.9 |
| 11 | 302.6 |
| 12 | 330.3 |
| 13 | 357.9 |

Orbital Plane 18:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 320.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 12.3 |
| 2 | 40.0 |
| 3 | 67.7 |
| 4 | 95.4 |
| 5 | 123.1 |
| 6 | 150.8 |
| 7 | 178.5 |
| 8 | 206.2 |
| 9 | 233.8 |
| 10 | 261.5 |
| 11 | 289.2 |
| 12 | 316.9 |
| 13 | 344.6 |

Orbital Plane 19:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 333.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.3 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 26.7 |
| 2 | 54.4 |
| 3 | 82.1 |
| 4 | 109.7 |
| 5 | 137.4 |
| 6 | 165.1 |
| 7 | 192.8 |
| 8 | 220.5 |
| 9 | 248.2 |
| 10 | 275.9 |
| 11 | 303.6 |
| 12 | 331.3 |
| 13 | 359.0 |

Orbital Plane 20:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 346.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 13.3 |
| 2 | 41.0 |
| 3 | 68.7 |
| 4 | 96.4 |
| 5 | 124.1 |
| 6 | 151.8 |
| 7 | 179.5 |
| 8 | 207.2 |
| 9 | 234.9 |
| 10 | 262.6 |
| 11 | 290.3 |
| 12 | 317.9 |
| 13 | 345.6 |

Orbital Plane 21:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 0.0 |
| 2 | 10.9 |
| 3 | 21.8 |
| 4 | 32.7 |
| 5 | 43.6 |
| 6 | 54.5 |
| 7 | 65.5 |
| 8 | 76.4 |
| 9 | 87.3 |
| 10 | 98.2 |
| 11 | 109.1 |
| 12 | 120.0 |
| 13 | 130.9 |
| 14 | 141.8 |
| 15 | 152.7 |
| 16 | 163.6 |
| 17 | 174.5 |
| 18 | 185.5 |
| 19 | 196.4 |
| 20 | 207.3 |
| 21 | 218.2 |
| 22 | 229.1 |
| 23 | 240.0 |
| 24 | 250.9 |

| | |
|-----------|-------|
| 25 | 261.8 |
| 26 | 272.7 |
| 27 | 283.6 |
| 28 | 294.5 |
| 29 | 305.5 |
| 30 | 316.4 |
| 31 | 327.3 |
| 32 | 338.2 |
| 33 | 349.1 |

Orbital Plane 22:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 9.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |

| | |
|-----------|-------|
| 4 | 39.3 |
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |

| | |
|-----------|-------|
| 30 | 322.9 |
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 23:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 18.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |

| | |
|-----------|-------|
| 9 | 89.5 |
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 24:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 27.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |

| | |
|----|-------|
| 15 | 161.5 |
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 25:

| Question | Response |
|-----------------------------------|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 36.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |

| | |
|---|---------------|
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 320.7 |
| 2 | 331.6 |
| 3 | 342.5 |
| 4 | 353.5 |
| 5 | 4.4 |
| 6 | 15.3 |
| 7 | 26.2 |
| 8 | 37.1 |
| 9 | 48.0 |
| 10 | 58.9 |
| 11 | 69.8 |
| 12 | 80.7 |
| 13 | 91.6 |
| 14 | 102.5 |
| 15 | 113.5 |
| 16 | 124.4 |
| 17 | 135.3 |
| 18 | 146.2 |
| 19 | 157.1 |
| 20 | 168.0 |

| | |
|-----------|-------|
| 21 | 178.9 |
| 22 | 189.8 |
| 23 | 200.7 |
| 24 | 211.6 |
| 25 | 222.5 |
| 26 | 233.5 |
| 27 | 244.4 |
| 28 | 255.3 |
| 29 | 266.2 |
| 30 | 277.1 |
| 31 | 288.0 |
| 32 | 298.9 |
| 33 | 309.8 |

Orbital Plane 26:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 45.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 10.9 |
| 2 | 21.8 |
| 3 | 32.7 |
| 4 | 43.6 |
| 5 | 54.5 |
| 6 | 65.5 |
| 7 | 76.4 |
| 8 | 87.3 |
| 9 | 98.2 |
| 10 | 109.1 |
| 11 | 120.0 |
| 12 | 130.9 |
| 13 | 141.8 |
| 14 | 152.7 |
| 15 | 163.6 |
| 16 | 174.5 |
| 17 | 185.5 |
| 18 | 196.4 |
| 19 | 207.3 |
| 20 | 218.2 |
| 21 | 229.1 |
| 22 | 240.0 |
| 23 | 250.9 |
| 24 | 261.8 |
| 25 | 272.7 |

| | |
|-----------|-------|
| 26 | 283.6 |
| 27 | 294.5 |
| 28 | 305.5 |
| 29 | 316.4 |
| 30 | 327.3 |
| 31 | 338.2 |
| 32 | 349.1 |
| 33 | 0.0 |

Orbital Plane 27:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 54.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |

| | |
|-----------|-------|
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |

| | |
|-----------|-------|
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 28:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 63.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |

| | |
|----|-------|
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 29:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 72.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |

| | |
|-----------|-------|
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 30:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 81.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |

| | |
|---|---------------|
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |

| | |
|-----------|-------|
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Orbital Plane 31:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 90.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 0.0 |
| 2 | 349.1 |
| 3 | 338.2 |
| 4 | 327.3 |
| 5 | 316.4 |
| 6 | 305.5 |
| 7 | 294.5 |
| 8 | 283.6 |
| 9 | 272.7 |
| 10 | 261.8 |
| 11 | 250.9 |
| 12 | 240.0 |
| 13 | 229.1 |
| 14 | 218.2 |
| 15 | 207.3 |
| 16 | 196.4 |
| 17 | 185.5 |
| 18 | 174.5 |
| 19 | 163.6 |
| 20 | 152.7 |
| 21 | 141.8 |
| 22 | 130.9 |
| 23 | 120.0 |
| 24 | 109.1 |
| 25 | 98.2 |

| | |
|-----------|------|
| 26 | 87.3 |
| 27 | 76.4 |
| 28 | 65.5 |
| 29 | 54.5 |
| 30 | 43.6 |
| 31 | 32.7 |
| 32 | 21.8 |
| 33 | 10.9 |

Orbital Plane 32:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 99.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |

| | |
|-----------|-------|
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |

| | |
|-----------|-------|
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 33:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 108.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |

| | |
|----|-------|
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 34:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 117.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |

| | |
|-----------|-------|
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 35:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 126.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |

| | |
|---|---------------|
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |

| | |
|-----------|-------|
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Orbital Plane 36:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 135.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 10.9 |
| 2 | 21.8 |
| 3 | 32.7 |
| 4 | 43.6 |
| 5 | 54.5 |
| 6 | 65.5 |
| 7 | 76.4 |
| 8 | 87.3 |
| 9 | 98.2 |
| 10 | 109.1 |
| 11 | 120.0 |
| 12 | 130.9 |
| 13 | 141.8 |
| 14 | 152.7 |
| 15 | 163.6 |
| 16 | 174.5 |
| 17 | 185.5 |
| 18 | 196.4 |
| 19 | 207.3 |
| 20 | 218.2 |
| 21 | 229.1 |
| 22 | 240.0 |
| 23 | 250.9 |
| 24 | 261.8 |
| 25 | 272.7 |

| | |
|-----------|-------|
| 26 | 283.6 |
| 27 | 294.5 |
| 28 | 305.5 |
| 29 | 316.4 |
| 30 | 327.3 |
| 31 | 338.2 |
| 32 | 349.1 |
| 33 | 0.0 |

Orbital Plane 37:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 0.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 332.3 |
| 2 | 304.6 |
| 3 | 276.9 |
| 4 | 249.2 |

| | |
|----|-------|
| 5 | 221.5 |
| 6 | 193.8 |
| 7 | 166.2 |
| 8 | 138.5 |
| 9 | 110.8 |
| 10 | 83.1 |
| 11 | 55.4 |
| 12 | 27.7 |
| 13 | 0.0 |

Orbital Plane 38:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 13.3 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 14.4 |
| 2 | 42.1 |
| 3 | 69.7 |

| | |
|-----------|-------|
| 4 | 97.4 |
| 5 | 125.1 |
| 6 | 152.8 |
| 7 | 180.5 |
| 8 | 208.2 |
| 9 | 235.9 |
| 10 | 263.6 |
| 11 | 291.3 |
| 12 | 319.0 |
| 13 | 346.7 |

Orbital Plane 39:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 26.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 1.0 |
| 2 | 28.7 |

| | |
|-----------|-------|
| 3 | 56.4 |
| 4 | 84.1 |
| 5 | 111.8 |
| 6 | 139.5 |
| 7 | 167.2 |
| 8 | 194.9 |
| 9 | 222.6 |
| 10 | 250.3 |
| 11 | 277.9 |
| 12 | 305.6 |
| 13 | 333.3 |

Orbital Plane 40:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 40.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 292.3 |

| | |
|----|-------|
| 2 | 320.0 |
| 3 | 347.7 |
| 4 | 264.6 |
| 5 | 236.9 |
| 6 | 209.2 |
| 7 | 181.5 |
| 8 | 153.8 |
| 9 | 126.2 |
| 10 | 98.5 |
| 11 | 70.8 |
| 12 | 43.1 |
| 13 | 15.4 |

Orbital Plane 41:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 53.5 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
|------------------|--|

| | |
|-----------|-------|
| 1 | 2.1 |
| 2 | 29.7 |
| 3 | 57.4 |
| 4 | 85.1 |
| 5 | 112.8 |
| 6 | 140.5 |
| 7 | 168.2 |
| 8 | 195.9 |
| 9 | 223.6 |
| 10 | 251.3 |
| 11 | 279.0 |
| 12 | 306.7 |
| 13 | 334.4 |

Orbital Plane 42:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 66.7 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 16.4 |
| 2 | 44.1 |
| 3 | 71.8 |
| 4 | 99.5 |
| 5 | 127.2 |
| 6 | 154.9 |
| 7 | 182.6 |
| 8 | 210.3 |
| 9 | 237.9 |
| 10 | 265.6 |
| 11 | 293.3 |
| 12 | 321.0 |
| 13 | 348.7 |

Orbital Plane 43:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 13 |
| Inclination Angle | 99.0 degrees |
| Right Ascension of Ascending Node | 80.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6326.4 seconds |
| Apogee | 1015.0 km |
| Perigee | 1015.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -90.0 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 90.0 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 3.1 |
| 2 | 30.8 |
| 3 | 58.5 |
| 4 | 86.2 |
| 5 | 113.8 |
| 6 | 141.5 |
| 7 | 169.2 |
| 8 | 196.9 |
| 9 | 224.6 |
| 10 | 252.3 |
| 11 | 280.0 |
| 12 | 307.7 |
| 13 | 335.4 |

Orbital Plane 44:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 144.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |

| | |
|-----------|-------|
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 45:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 153.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |

| | |
|-----------|-------|
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |

| | |
|-----------|-------|
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 46:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 162.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |

| | |
|----|-------|
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 47:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 171.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |

| | |
|-----------|-------|
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Orbital Plane 48:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 180.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |

| | |
|---|---------------|
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | -50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 10.9 |
| 2 | 21.8 |
| 3 | 32.7 |
| 4 | 43.6 |
| 5 | 54.5 |
| 6 | 65.5 |
| 7 | 76.4 |
| 8 | 87.3 |
| 9 | 98.2 |
| 10 | 109.1 |
| 11 | 120.0 |
| 12 | 130.9 |
| 13 | 141.8 |
| 14 | 152.7 |
| 15 | 163.6 |
| 16 | 174.5 |
| 17 | 185.5 |
| 18 | 196.4 |
| 19 | 207.3 |
| 20 | 218.2 |

| | |
|-----------|-------|
| 21 | 229.1 |
| 22 | 240.0 |
| 23 | 250.9 |
| 24 | 261.8 |
| 25 | 272.7 |
| 26 | 283.6 |
| 27 | 294.5 |
| 28 | 305.5 |
| 29 | 316.4 |
| 30 | 327.3 |
| 31 | 338.2 |
| 32 | 349.1 |
| 33 | 0.0 |

Orbital Plane 49:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 189.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |

| | |
|-----------|-------|
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 50:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 198.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |

| | |
|-----------|-------|
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |

| | |
|-----------|-------|
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 51:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 207.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |

| | |
|----|-------|
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 52:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 216.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |

| | |
|-----------|-------|
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Orbital Plane 53:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 225.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |

| | |
|---|---------------|
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 10.9 |
| 2 | 21.8 |
| 3 | 32.7 |
| 4 | 43.6 |
| 5 | 54.5 |
| 6 | 65.5 |
| 7 | 76.4 |
| 8 | 87.3 |
| 9 | 98.2 |
| 10 | 109.1 |
| 11 | 120.0 |
| 12 | 130.9 |
| 13 | 141.8 |
| 14 | 152.7 |
| 15 | 163.6 |
| 16 | 174.5 |
| 17 | 185.5 |
| 18 | 196.4 |
| 19 | 207.3 |
| 20 | 218.2 |

| | |
|-----------|-------|
| 21 | 229.1 |
| 22 | 240.0 |
| 23 | 250.9 |
| 24 | 261.8 |
| 25 | 272.7 |
| 26 | 283.6 |
| 27 | 294.5 |
| 28 | 305.5 |
| 29 | 316.4 |
| 30 | 327.3 |
| 31 | 338.2 |
| 32 | 349.1 |
| 33 | 0.0 |

Orbital Plane 54:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 234.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |

| | |
|-----------|-------|
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 55:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 243.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |

| | |
|-----------|-------|
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |

| | |
|-----------|-------|
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 56:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 252.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |

| | |
|----|-------|
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 57:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 261.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |

| | |
|-----------|-------|
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Orbital Plane 58:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 270.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |

| | |
|---|---------------|
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 10.9 |
| 2 | 21.8 |
| 3 | 32.7 |
| 4 | 43.6 |
| 5 | 54.5 |
| 6 | 65.5 |
| 7 | 76.4 |
| 8 | 87.3 |
| 9 | 98.2 |
| 10 | 109.1 |
| 11 | 120.0 |
| 12 | 130.9 |
| 13 | 141.8 |
| 14 | 152.7 |
| 15 | 163.6 |
| 16 | 174.5 |
| 17 | 185.5 |
| 18 | 196.4 |
| 19 | 207.3 |
| 20 | 218.2 |

| | |
|-----------|-------|
| 21 | 229.1 |
| 22 | 240.0 |
| 23 | 250.9 |
| 24 | 261.8 |
| 25 | 272.7 |
| 26 | 283.6 |
| 27 | 294.5 |
| 28 | 305.5 |
| 29 | 316.4 |
| 30 | 327.3 |
| 31 | 338.2 |
| 32 | 349.1 |
| 33 | 0.0 |

Orbital Plane 59:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 279.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |

| | |
|-----------|-------|
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 60:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 288.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |

| | |
|-----------|-------|
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |

| | |
|-----------|-------|
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 61:

| Question | Response |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 297.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |

| | |
|----|-------|
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 62:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 306.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |

| | |
|-----------|-------|
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Orbital Plane 63:

| Question | Response |
|-----------------------------------|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 315.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |

| | |
|---|---------------|
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 10.9 |
| 2 | 21.8 |
| 3 | 32.7 |
| 4 | 43.6 |
| 5 | 54.5 |
| 6 | 65.5 |
| 7 | 76.4 |
| 8 | 87.3 |
| 9 | 98.2 |
| 10 | 109.1 |
| 11 | 120.0 |
| 12 | 130.9 |
| 13 | 141.8 |
| 14 | 152.7 |
| 15 | 163.6 |
| 16 | 174.5 |
| 17 | 185.5 |
| 18 | 196.4 |
| 19 | 207.3 |
| 20 | 218.2 |

| | |
|-----------|-------|
| 21 | 229.1 |
| 22 | 240.0 |
| 23 | 250.9 |
| 24 | 261.8 |
| 25 | 272.7 |
| 26 | 283.6 |
| 27 | 294.5 |
| 28 | 305.5 |
| 29 | 316.4 |
| 30 | 327.3 |
| 31 | 338.2 |
| 32 | 349.1 |
| 33 | 360.0 |

Orbital Plane 64:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 324.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 6.5 |
| 2 | 17.5 |
| 3 | 28.4 |
| 4 | 39.3 |
| 5 | 50.2 |
| 6 | 61.1 |
| 7 | 72.0 |
| 8 | 82.9 |
| 9 | 93.8 |
| 10 | 104.7 |
| 11 | 115.6 |
| 12 | 126.5 |
| 13 | 137.5 |
| 14 | 148.4 |
| 15 | 159.3 |
| 16 | 170.2 |
| 17 | 181.1 |
| 18 | 192.0 |
| 19 | 202.9 |
| 20 | 213.8 |
| 21 | 224.7 |
| 22 | 235.6 |
| 23 | 246.5 |
| 24 | 257.5 |
| 25 | 268.4 |

| | |
|-----------|-------|
| 26 | 279.3 |
| 27 | 290.2 |
| 28 | 301.1 |
| 29 | 312.0 |
| 30 | 322.9 |
| 31 | 333.8 |
| 32 | 344.7 |
| 33 | 355.6 |

Orbital Plane 65:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 333.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 2.2 |
| 2 | 13.1 |
| 3 | 24.0 |
| 4 | 34.9 |

| | |
|-----------|-------|
| 5 | 45.8 |
| 6 | 56.7 |
| 7 | 67.6 |
| 8 | 78.5 |
| 9 | 89.5 |
| 10 | 100.4 |
| 11 | 111.3 |
| 12 | 122.2 |
| 13 | 133.1 |
| 14 | 144.0 |
| 15 | 154.9 |
| 16 | 165.8 |
| 17 | 176.7 |
| 18 | 187.6 |
| 19 | 198.5 |
| 20 | 209.5 |
| 21 | 220.4 |
| 22 | 231.3 |
| 23 | 242.2 |
| 24 | 253.1 |
| 25 | 264.0 |
| 26 | 274.9 |
| 27 | 285.8 |
| 28 | 296.7 |
| 29 | 307.6 |
| 30 | 318.5 |

| | |
|-----------|-------|
| 31 | 329.5 |
| 32 | 340.4 |
| 33 | 351.3 |

Orbital Plane 66:

| Question | Response |
|---|-----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 342.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|-------------------------|---|
| 1 | 8.7 |
| 2 | 19.6 |
| 3 | 30.5 |
| 4 | 41.5 |
| 5 | 52.4 |
| 6 | 63.3 |
| 7 | 74.2 |
| 8 | 85.1 |
| 9 | 96.0 |

| | |
|----|-------|
| 10 | 106.9 |
| 11 | 117.8 |
| 12 | 128.7 |
| 13 | 139.6 |
| 14 | 150.5 |
| 15 | 161.5 |
| 16 | 172.4 |
| 17 | 183.3 |
| 18 | 194.2 |
| 19 | 205.1 |
| 20 | 216.0 |
| 21 | 226.9 |
| 22 | 237.8 |
| 23 | 248.7 |
| 24 | 259.6 |
| 25 | 270.5 |
| 26 | 281.5 |
| 27 | 292.4 |
| 28 | 303.3 |
| 29 | 314.2 |
| 30 | 325.1 |
| 31 | 336.0 |
| 32 | 346.9 |
| 33 | 357.8 |

Orbital Plane 67:

Question

Response

| | |
|---|----------------|
| Number of Satellites in Plane | 33 |
| Inclination Angle | 50.9 degrees |
| Right Ascension of Ascending Node | 351.0 degrees |
| Argument of Perigee | 0.0 degrees |
| Orbital Period | 6728.4 seconds |
| Apogee | 1325.0 km |
| Perigee | 1325.0 km |
| Active Service Arc Begin Angle with respect to Ascending Node | -50.9 degrees |
| Active Service Arc End Angle with respect to Ascending Node | 50.9 degrees |

Mean Anomaly For Each Satellite

| Satellite Number | Mean Anomaly (degrees) at the Orbit Epoch Date |
|------------------|--|
| 1 | 4.4 |
| 2 | 15.3 |
| 3 | 26.2 |
| 4 | 37.1 |
| 5 | 48.0 |
| 6 | 58.9 |
| 7 | 69.8 |
| 8 | 80.7 |
| 9 | 91.6 |
| 10 | 102.5 |
| 11 | 113.5 |
| 12 | 124.4 |
| 13 | 135.3 |
| 14 | 146.2 |
| 15 | 157.1 |

| | |
|-----------|-------|
| 16 | 168.0 |
| 17 | 178.9 |
| 18 | 189.8 |
| 19 | 200.7 |
| 20 | 211.6 |
| 21 | 222.5 |
| 22 | 233.5 |
| 23 | 244.4 |
| 24 | 255.3 |
| 25 | 266.2 |
| 26 | 277.1 |
| 27 | 288.0 |
| 28 | 298.9 |
| 29 | 309.8 |
| 30 | 320.7 |
| 31 | 331.6 |
| 32 | 342.5 |
| 33 | 353.5 |

Receiving Beams 1:

| Question | Response |
|---|------------------------------|
| Beam ID | F1P1 |
| Receive Beam Frequency | 47200.0 MHz -50200.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 30.9 dBi |
| Antenna Pointing Error | 0.06 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 0.1 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m ² |
| Max. Saturation Flux Density | -70.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving Beams 2:

| Question | Response |
|--------------------------|------------------------------|
| Beam ID | F1P2 |
| Receive Beam Frequency | 47200.0 MHz -50200.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 30.9 dBi |
| Antenna Pointing Error | 0.06 degrees |
| Antenna Rotational Error | 0.0 degrees |

| | |
|---|---------------|
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 0.1 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m2 |
| Max. Saturation Flux Density | -70.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible |

Receiving Beams 3:

| Question | Response |
|---|------------------------------|
| Beam ID | F2P1 |
| Receive Beam Frequency | 50400.0 MHz -51400.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 30.9 dBi |
| Antenna Pointing Error | 0.06 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 0.1 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m2 |
| Max. Saturation Flux Density | -70.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving

Beams 4:

| Question | Response |
|---|------------------------------|
| Beam ID | F2P2 |
| Receive Beam Frequency | 50400.0 MHz -51400.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 30.9 dBi |
| Antenna Pointing Error | 0.06 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 0.1 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m ² |
| Max. Saturation Flux Density | -70.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving Beams 5:

| Question | Response |
|--------------------------|--------------------------|
| Beam ID | G1P1 |
| Receive Beam Frequency | 47200.0 MHz -50200.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 40.3 dBi |
| Antenna Pointing Error | 0.3 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |

| | |
|---|---------------|
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 9.5 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m2 |
| Max. Saturation Flux Density | -70.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving Beams 6:

| Question | Response |
|---|--------------------------|
| Beam ID | G1P2 |
| Receive Beam Frequency | 47200.0 MHz -50200.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 40.3 dBi |
| Antenna Pointing Error | 0.3 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 9.5 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m2 |
| Max. Saturation Flux Density | -70.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving Beams 7:

| Question | Response |
|----------|----------|
|----------|----------|

| | |
|---|--------------------------|
| Beam ID | G2P1 |
| Receive Beam Frequency | 50400.0 MHz -51400.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 40.3 dBi |
| Antenna Pointing Error | 0.3 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 9.5 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m2 |
| Max. Saturation Flux Density | -70.0 dBW/m2 |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving Beams 8:

| Question | Response |
|--------------------------|--------------------------|
| Beam ID | G2P2 |
| Receive Beam Frequency | 50400.0 MHz -51400.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 40.3 dBi |
| Antenna Pointing Error | 0.3 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |

| | |
|---|---------------------------|
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| G/T at Max. Gain Point | 40.3 dB/K |
| Min. Saturation Flux Density | -110.0 dBW/m ² |
| Max. Saturation Flux Density | -70.0 dBW/m ² |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Receiving Channels (17)

| Channel ID | Channel Bandwidth (MHz) | Center Frequency s (MHz) | Feeder Link, Service Link or TT&C |
|------------|-------------------------|--------------------------|-----------------------------------|
| TC1 | 1.0 | 47201.0 | TT&C |
| TC10 | 1.0 | 47210.0 | TT&C |
| TC11 | 1.0 | 49695.0 | TT&C |
| TC12 | 1.0 | 49696.0 | TT&C |
| TC13 | 1.0 | 49697.0 | TT&C |
| TC14 | 1.0 | 49698.0 | TT&C |
| TC15 | 1.0 | 49699.0 | TT&C |
| TC2 | 1.0 | 47202.0 | TT&C |
| TC3 | 1.0 | 47203.0 | TT&C |
| TC4 | 1.0 | 47204.0 | TT&C |
| TC5 | 1.0 | 47205.0 | TT&C |
| TC6 | 1.0 | 47206.0 | TT&C |
| TC7 | 1.0 | 47207.0 | TT&C |
| TC8 | 1.0 | 47208.0 | TT&C |
| TC9 | 1.0 | 47209.0 | TT&C |
| U1 | 3000.0 | 48700.0 | Service Link |
| U2 | 1000.0 | 50900.0 | Service Link |

Transmitting Beams 1:

| Question | Response |
|---|------------------------------|
| Beam ID | M1P1 |
| Transmit Beam Frequency | 37500.0 MHz -42000.0 MHz |
| Beam Type | Both Steerable and Shapeable |
| Polarization | RHCP |
| Peak Gain | 31.0 dBi |
| Antenna Pointing Error | 0.06 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -31.2 dBW/Hz |
| Max. Transmit EIRP | 63.5 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -117.9 | -112.7 | -111.7 | -110.7 | -109.8 | -104.6 |

Transmitting Beams 2:

| Question | Response |
|-------------------------|--------------------------|
| Beam ID | M1P2 |
| Transmit Beam Frequency | 37500.0 MHz -42000.0 MHz |

| | |
|---|------------------------------|
| Beam Type | Both Steerable and Shapeable |
| Polarization | LHCP |
| Peak Gain | 31.0 dBi |
| Antenna Pointing Error | 0.06 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -31.2 dBW/Hz |
| Max. Transmit EIRP | 63.5 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| * | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² | (dBW/m ² |
| BW: | /BW): | /BW): | /BW): | /BW): | /BW): | /BW): |
| 1.0 MHz | -117.9 | -112.7 | -111.7 | -110.7 | -109.8 | -104.6 |

Transmitting Beams 3:

| Question | Response |
|-------------------------|--------------------------|
| Beam ID | N1P1 |
| Transmit Beam Frequency | 37500.0 MHz -42000.0 MHz |
| Beam Type | Steerable |
| Polarization | RHCP |
| Peak Gain | 39.3 dBi |
| Antenna Pointing Error | 0.32 degrees |

| | |
|---|---------------|
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -31.2 dBW/Hz |
| Max. Transmit EIRP | 63.5 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Max. Power Flux Density

| | * 0° - 5° (dBW/m ²) /BW: | * 5° - 10° (dBW/m ²) /BW: | * 10° - 15° (dBW/m ²) /BW: | * 15° - 20° (dBW/m ²) /BW: | * 20° - 25° (dBW/m ²) /BW: | * 25° - 90° (dBW/m ²) /BW: |
|----------------|--|---|--|--|--|--|
| 1.0 MHz | -117.9 | -112.7 | -111.7 | -110.7 | -109.8 | -104.6 |

Transmitting Beams 4:

| Question | Response |
|---|--------------------------|
| Beam ID | N1P2 |
| Transmit Beam Frequency | 37500.0 MHz -42000.0 MHz |
| Beam Type | Steerable |
| Polarization | LHCP |
| Peak Gain | 39.3 dBi |
| Antenna Pointing Error | 0.3 degrees |
| Antenna Rotational Error | 0.0 degrees |
| Polarization Switchable | |
| Polarization Alignment Relative to the Equatorial Plane | 45.0 degrees |
| Max. Transmit EIRP Density | -31.2 dBW/Hz |

| | |
|--------------------------|---------------|
| Max. Transmit EIRP | 63.5 dBW |
| Co- or Cross Polar Mode | C |
| Service Area Description | Visible Earth |

Max. Power Flux Density

| | * 0° - 5° | * 5° - 10° | * 10° - 15° | * 15° - 20° | * 20° - 25° | * 25° - 90° |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | (dBW/m ²) | (dBW/m ²) | (dBW/m ²) | (dBW/m ²) | (dBW/m ²) | (dBW/m ²) |
| * BW: | /BW: | /BW: | /BW: | /BW: | /BW: | /BW: |
| 1.0 MHz | -117.9 | -112.7 | -111.7 | -110.7 | -109.8 | -104.6 |

Transmitting Channels (16)

| Channel ID | Channel Bandwidth (MHz) | Center Frequency s (MHz) | Feeder Link, Service Link or TT&C |
|------------|-------------------------|--------------------------|-----------------------------------|
| TM9 | 0.5 | 41993.0 | TT&C |
| TM8 | 0.5 | 41992.0 | TT&C |
| TM7 | 0.5 | 41991.0 | TT&C |
| TM6 | 0.5 | 41990.0 | TT&C |
| TM5 | 0.5 | 40005.0 | TT&C |
| TM4 | 0.5 | 40004.0 | TT&C |
| TM3 | 0.5 | 40003.0 | TT&C |
| TM2 | 0.5 | 40002.0 | TT&C |
| TM1 | 0.5 | 40001.0 | TT&C |
| TM10 | 0.5 | 41994.0 | TT&C |
| TM15 | 1.0 | 41999.0 | TT&C |
| TM14 | 1.0 | 41998.0 | TT&C |
| TM13 | 1.0 | 41997.0 | TT&C |
| TM12 | 1.0 | 41996.0 | TT&C |
| TM11 | 1.0 | 41995.0 | TT&C |
| D1 | 4500.0 | 39750.0 | Service Link |

Certification Questions

| Question | Response |
|---|----------|
| Are the applicable service area coverage requirements of 25.143(b)(2) (ii) and (iii), or 25.144(a)(3)(i), or 25.145 (c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met? | N/A |
| Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met? | Yes |
| Are the cessation of emissions requirements of 25.207 met? | Yes |
| Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application? | Yes |
| For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application? | N/A |
| Are the applicable full-frequency-reuse requirements of 25.210 met? | Yes |
| If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)? | |

Attachments

| File Name | Beam | Field | Attachment Type | Description |
|--------------------|------|---------------------------------|-------------------|---|
| <u>LEOVFCC.mdb</u> | | NGSO Antenna Gain Data | GIMS file (*.mdb) | the attached GIMS database contains the beam gain contours and service area information as per table A.3-1 of the Technical Narrative |
