

**S1. GENERAL INFORMATION** Complete for all satellite applications.

|  |                          |   |  |  |  |
|--|--------------------------|---|--|--|--|
| a. Space Station or Satellite Network Name:<br>GALAXY 11 |                          | e. Estimated Date of Placement into Service:                              |  | i. Will the space station(s) operate on a Common Carrier Basis:<br>N   |  |
| b. Construction Commencement Date:                       |                          | f. Estimated Lifetime of Satellite(s):<br>Years                           |  | j. Number of transponders offered on a common carrier basis:   |  |
| c. Construction Completion Date:                         |                          | g. Total Number of Transponders:<br>64                                    |  | k. Total Common Carrier Transponder Bandwidth:<br>MHz  |  |
| d1. Est Launch Date Begin:                               | d2. Est Launch Date End: | h. Total Transponder Bandwidth (no. transponders x Bandwidth)<br>2160 MHz |  | i. Orbit Type: Mark all boxes that apply:<br><input checked="" type="checkbox"/> GSO <input type="checkbox"/> NGSO |  |

**S2. OPERATING FREQUENCY BANDS** Identify the frequency range and transmit/receive mode for all frequency bands in which this station will oper  
Also indicate the nature of service(s) for each frequency band.

| Frequency Band Limits |                 |                       |                 | e. T/R Mode | f. Nature of Service(s): List all that apply to this band |
|-----------------------|-----------------|-----------------------|-----------------|-------------|---|
| Lower Frequency (.Hz) |                 | Upper Frequency (.Hz) |                 |             |   |
| a. Numeric            | b. Unit (K/M/G) | c. Numeric            | d. Unit (K/M/G) |             |   |
| 5925                  | M               | 6425                  | M               | R           | Fixed Satellite Service                                   |
| 3700                  | M               | 4200                  | M               | T           | Fixed Satellite Service                                   |
| 14000                 | M               | 14500                 | M               | R           | Fixed Satellite Service                                   |
| 11700                 | M               | 12200                 | M               | T           | Fixed Satellite Service                                   |
| 13750                 | M               | 14000                 | M               | R           | Fixed Satellite Service                                   |
| 10950                 | M               | 11200                 | M               | T           | Fixed Satellite Service                                   |

**S3. ORBITAL INFORMATION FOR GEOSTATIONARY SATELLITES ONLY:**

|   |                              |  |  |  |
|---|------------------------------|--|--|--|
| a. Nominal Orbital Longitude (Degrees E/W):<br>55.5 W |                              | b. Alternate Orbital Longitude (Degrees E/W):  |  | c. Reason for orbital location selection:<br>PROVIDE SERVICE TO SOUTHERN UNITED STATES, MEXICO, CENTRAL AMERICA, THE CARIBBEAN AND SOUTH AMERICA |
| Longitudinal Tolerance or E/W Station-Keeping:        |                              | f. Inclination Excursion or N/S Station-Keeping Tolerance:   |  |  |
| d. Toward West: 0.05 Degrees                          | e. Toward East: 0.05 Degrees | Range of orbital are in which adequate service can be provided (Optional):<br>g. Westernmost: _____ Degrees _____ E/W _____<br>h. Easternmost: _____ |  |  |
| i. Reason for service are selection (Optional):       |                              |  |  |  |

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S4. ORBITAL INFORMATION FOR NON-GEOSTATIONARY SATELLITES ONLY

S4a. Total Number of Satellites in Network or System:

S4c. Celestial Reference Body (Earth, Sun, Moon, etc.):

S4b. Total Number of Orbital Planes in Network or System:

S4d. Orbit Epoch Date:

For each Orbital Plane Provide:

| (e) Orbital Plane No. | (f) No. of Satellites in Plane | (g) Inclination Angle (degrees) | (h) Orbital Period (Seconds) | (i) Apogee (km) | (j) Perigee (km) | (k) Right Ascension of the Ascending Node (Deg.) | (l) Argument of Perigee (Degrees) | Active Service Arc Range (Degrees) |               |           |
|-----------------------|--------------------------------|---------------------------------|------------------------------|-----------------|------------------|--|-----------------------------------|------------------------------------|---------------|-----------|
|                       |                                |                                 |                              |                 |                  |  |                                   | (m) Begin Angle                    | (n) End Angle | (o) Other |
|                       |                                |                                 |                              |                 |                  |  |                                   |                                    |               |           |

S5. INITIAL SATELLITE PHASE ANGLE For each satellite in each orbital plane, provide the initial phase angle.

| (a) Orbital Plane No. | (b) Satellite Number | (c) Initial Phase Angle (Degrees) |
|-----------------------|----------------------|-----------------------------------|
|                       |                      |                                   |

**NO NGSO DATA FILED**

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S6. SERVICE AREA CHARACTERISTICS for each service area provide:

| (a) Service Area ID | (b) Type of Associated Station (Earth or Space) | (c) Service Area Diagram File Name (GXT File) | (d) Service Area Description. Provide list of geographic areas (state postal codes or ITU 3-ltr codes), satellites or Figure No. of Service Area Diagram. |
|---------------------|---|---|---|
| 1                   | S   |   | SOUTHERN UNITED STATES, MEXICO, CENTRAL AMERICA, THE CARIBBEAN  |
| 2                   | S   |   | GLOBAL  |
| 3                   | S   |   | SOUTH AMERICA   |

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S7. SPACE STATION ANTENNA BEAM CHARACTERISTICS For each antenna beam provide:

| (a)<br>Beam<br>ID | (b)<br>T/R<br>Mode | Isotropic Antenna<br>Gain |                   | (e)<br>Pointing<br>Error<br>(Degrees) | (f)<br>Rotational<br>Error<br>(Degrees) | (g) Min.<br>Cross-<br>Polar Iso-<br>lation (dB) | (h) Polar-<br>ization<br>Switch-<br>able?<br>(Y/N) | (i) Polarization<br>Alignment Rel.<br>Equatorial<br>Plane (Degrees) | (j) Service<br>Area ID | Transmit                       |                                      |                              | Receive                            |                                       |  | Input Attenuator (dB) |                  |
|-------------------|--------------------|---------------------------|-------------------|---------------------------------------|---|---|--|---|------------------------|--------------------------------|--------------------------------------|------------------------------|------------------------------------|---------------------------------------|--|-----------------------|------------------|
|                   |                    |                           |                   |                                       |   |   |  |   |                        | (k)<br>Input<br>Losses<br>(dB) | (l) Effective<br>Output<br>Power (W) | (m)<br>Max.<br>EIRP<br>(dBW) | (n)<br>System<br>Noise<br>Temp (k) | (o) G/T<br>Max.<br>Gain Pt.<br>(db/K) | (p) Min.<br>Saturation<br>Flux Density<br>(dBW/m2) | (q) Max.<br>Value     | (r) Step<br>Size |
|                   |                    | (c) Peak<br>(dBi)         | (d) Edge<br>(dBi) |                                       |   |   |  |   |                        |                                |                                      |                              |                                    |                                       |  |                       |                  |
| CHU               | R                  | 29.6                      | 25.6              | 0.14                                  | 0.22                                    | 30  | Y  | 0   | 1                      |                                |                                      |                              |                                    | 2.5                                   | -94  | 14                    | 1                |
| CVU               | R                  | 31.2                      | 27.2              | 0.14                                  | 0.22                                    | 30  | Y  |   | 90                     | 1                              |                                      |                              |                                    | 4.2                                   | -95.2  | 14                    | 1                |
| KHU               | R                  | 33.3                      | 27.3              | 0.14                                  | 0.22                                    | 30  | N  |   | 0                      | 1                              |                                      |                              |                                    | 6.3                                   | -99.8  | 16                    | 1                |
| KVUL              | R                  | 32                        | 26                | 0.14                                  | 0.22                                    | 30  | N  |   | 90                     | 1                              |                                      |                              |                                    | 4.8                                   | -98.3  | 16                    | 1                |
| CHD               | T                  | 28.8                      | 24.8              | 0.14                                  | 0.22                                    | 30  | Y  |   | 0                      | 1                              |                                      | 40.2                         |                                    |                                       |  |                       |                  |
| CVD               | T                  | 29                        | 25                | 0.14                                  | 0.22                                    | 30  | Y  |   | 90                     | 1                              |                                      | 40.1                         |                                    |                                       |  |                       |                  |
| KHD               | T                  | 32.2                      | 28.2              | 0.14                                  | 0.22                                    | 30  | N  |   | 0                      | 1                              |                                      | 49.7                         |                                    |                                       |  |                       |                  |
| KVDL              | T                  | 31.9                      | 27.9              | 0.14                                  | 0.22                                    | 30  | N  |   | 90                     | 1                              |                                      | 49.7                         |                                    |                                       |  |                       |                  |
| BHU               | R                  | 32.6                      | 24.6              | 0.14                                  | 0.22                                    | 30  | N  |   | 0                      | 3                              |                                      |                              |                                    | 5.7                                   | -98.3  | 16                    | 1                |
| BVUL              | R                  | 33.3                      | 25.3              | 0.14                                  | 0.22                                    | 30  | N  |   | 90                     | 3                              |                                      |                              |                                    | 6.3                                   | -99.9  | 16                    | 1                |
| EHU               | R                  | 32.1                      | 24.1              | 0.14                                  | 0.22                                    | 30  | N  |   | 0                      | 1                              |                                      |                              |                                    | 5.2                                   | -94.3  | 16                    | 1                |
| EVUL              | R                  | 32.3                      | 24.3              | 0.14                                  | 0.22                                    | 30  | N  |   | 90                     | 1                              |                                      |                              |                                    | 5.2                                   | -94.2  | 16                    | 1                |
| BHD               | T                  | 31.6                      | 25.6              | 0.14                                  | 0.22                                    | 30  | N  |   | 0                      | 3                              |                                      | 52.5                         |                                    |                                       |  |                       |                  |
| BVDL              | T                  | 31.3                      | 25.3              | 0.14                                  | 0.22                                    | 30  | N  |   | 90                     | 3                              |                                      | 51.9                         |                                    |                                       |  |                       |                  |
| EHD               | T                  | 31.4                      | 25.4              | 0.14                                  | 0.22                                    | 30  | N  |   | 0                      | 1                              |                                      | 52.1                         |                                    |                                       |  |                       |                  |
| EVDL              | T                  | 31.7                      | 25.7              | 0.14                                  | 0.22                                    | 30  | N  |   | 90                     | 1                              |                                      | 52                           |                                    |                                       |  |                       |                  |
| CMD               | R                  | 32                        | 22                | 0.14                                  | 0.22                                    |   | N  |   | 90                     | 1                              |                                      |                              |                                    | -3                                    | -119.6   |                       |                  |
| CMD               | R                  | 2.2                       | -0.8              | 0.14                                  | 0.22                                    |   | N  |   | 0                      | 2                              |                                      |                              |                                    | -30.8                                 | -91.8  |                       |                  |
| CMD               | R                  | 3.8                       | -0.2              | 0.14                                  | 0.22                                    |   | N  |   |                        | 2                              |                                      |                              |                                    | -28.7                                 | -94.3  |                       |                  |
| TLM               | T                  | 31.9                      | 21.9              | 0.14                                  | 0.22                                    |   | N  |   | 90                     | 1                              |                                      | 15.3                         |                                    |                                       |  |                       |                  |
| TLM               | T                  | 2.7                       | -0.8              | 0.14                                  | 0.22                                    |   | N  |   | 90                     | 2                              |                                      | 11.6                         |                                    |                                       |  |                       |                  |
| TLM               | T                  | 5.3                       | -0.7              | 0.14                                  | 0.22                                    |   | N  |   |                        | 2                              |                                      | 11.6                         |                                    |                                       |  |                       |                  |
| UPC               | T                  | 32.2                      | 22.2              | 0.14                                  | 0.22                                    |   | N  |   | 0                      | 1                              |                                      | 25.3                         |                                    |                                       |  |                       |                  |
| UPG               | T                  | 24.2                      | 18.2              | 0.14                                  | 0.22                                    |   | N  |   | 0                      | 2                              |                                      | 19.1                         |                                    |                                       |  |                       |                  |
| UPG               | T                  | 24.2                      | 18.2              | 0.14                                  | 0.22                                    |   | N  |   | 90                     | 2                              |                                      | 19.1                         |                                    |                                       |  |                       |                  |

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S8. ANTENNA BEAM DIAGRAMS For each beam pattern provide the reference to the graphic image and numerical data:  
Also provide the power flux density levels in each beam that result from the emission with the highest power flux density.

| (a)<br>Beam<br>ID | (b)<br>T/R<br>Mode | (c) Co-or<br>Cross<br>Polar<br>Mode ("C"<br>or" X") | (d) GSO<br>Ref.<br>Orbital<br>Longitude<br>(Deg. E/W) | (e) NGSO Antenna Gain<br>Contour Description<br>(Figure/Table/ Exhibit) | (f) GSO Antenna<br>Gain Contour Data<br>(GXT File) | Max. Power Flux Density (dBW/M2/Hz)                                  |            |            |            |            |
|-------------------|--------------------|---|---|---|--|--|------------|------------|------------|------------|
|                   |                    |   |   |   |  | At Angle of Arrival above horizontal (for emission with highest PFD) |            |            |            |            |
|                   |                    |   |   |   |  | (g) 5 Deg  | (h) 10 Deg | (i) 15 Deg | (j) 20 Deg | (k) 25 Deg |
| CHU               | R                  | C   | -55.5   |   | chul.gxt   |  |            |            |            |            |
| CVU               | R                  | C   | -55.5   |   | cvul.gxt   |  |            |            |            |            |
| KHU               | R                  | C   | -55.5   |   | khul.gxt   |  |            |            |            |            |
| KVUL              | R                  | C   | -55.5   |   | kvul.gxt   |  |            |            |            |            |
| CHD               | T                  | C   | -55.5   |   | chdl.gxt   | -153.1   | -153       | -152.8     | -152.7     | -152.6     |
| CVD               | T                  | C   | -55.5   |   | cvdl.gxt   | -153.2   | -153.1     | -152.9     | -152.8     | -152.7     |
| KHD               | T                  | C   | -55.5   |   | khdl.gxt   |  |            |            |            |            |
| KVDL              | T                  | C   | -55.5   |   | kvdL.gxt   |  |            |            |            |            |
| BHU               | R                  | C   | -55.5   |   | bhul.gxt   |  |            |            |            |            |
| BVUL              | R                  | C   | -55.5   |   | bvul.gxt   |  |            |            |            |            |
| BHD               | T                  | C   | -55.5   |   | bhdl.gxt   | -150   | -147.5     | -145       | -142.5     | -140.3     |
| BVDL              | T                  | C   | -55.5   |   | bvdl.gxt   | -150   | -147.5     | -145       | -142.5     | -140.9     |
| EHU               | R                  | C   | -55.5   |   | ehul.gxt   |  |            |            |            |            |
| EVUL              | R                  | C   | -55.5   |   | evul.gxt   |  |            |            |            |            |
| EHD               | T                  | C   | -55.5   |   | ehdl.gxt   | -150   | -147.5     | -145       | -142.5     | -140.7     |
| EVDL              | T                  | C   | -55.5   |   | evdl.gxt   | -150   | -147.5     | -145       | -142.5     | -140.8     |
| CMD               | R                  | C   | -55.5   |   | cmdc.gxt   |  |            |            |            |            |
| CMD               | R                  | C   | -55.5   | cmdb.pdf  |  |  |            |            |            |            |
| CMD               | R                  | C   | -55.5   | cmdp.pdf  |  |  |            |            |            |            |
| TLM               | T                  | C   | -55.5   |   | tlmc.gxt   |  |            |            |            |            |
| TLM               | T                  | C   | -55.5   | tlmb.pdf  |  |  |            |            |            |            |
| TLM               | T                  | C   | -55.5   | tlmp.pdf  |  |  |            |            |            |            |
| UPC               | T                  | C   | -55.5   |   | upcc.gxt   |  |            |            |            |            |
| UPG               | T                  | C   | -55.5   | upgh.pdf  |  | -152.1   | -152       | -151.9     | -151.8     | -151.7     |
| UPG               | T                  | C   | -55.5   | upgv.pdf  |  | -152.1   | -152       | -151.9     | -151.8     | -151.7     |

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S9. SPACE STATION CHANNELS For each frequency channel provide: S10. SPACE STATION TRANSPONDERS For each transponder provide:

| (a) Channel No. | (B) Assigned Bandwidth (kHz) | (c) T/R Mode | (d) Center Frequency (MHz) | (e) Polarization (H, V, L, R) | (f) TTC or Comm Channel (T or C) |
|-----------------|------------------------------|--------------|----------------------------|-------------------------------|----------------------------------|
| UC001           | 36000                        | R            | 5945                       | V                             | C                                |
| UC003           | 36000                        | R            | 5985                       | V                             | C                                |
| UC005           | 36000                        | R            | 6025                       | V                             | C                                |
| UC007           | 36000                        | R            | 6065                       | V                             | C                                |
| UC009           | 36000                        | R            | 6105                       | V                             | C                                |
| UC011           | 36000                        | R            | 6145                       | V                             | C                                |
| UC013           | 36000                        | R            | 6185                       | V                             | C                                |
| UC015           | 36000                        | R            | 6225                       | V                             | C                                |
| UC017           | 36000                        | R            | 6265                       | V                             | C                                |
| UC019           | 36000                        | R            | 6305                       | V                             | C                                |
| UC021           | 36000                        | R            | 6345                       | V                             | C                                |
| UC023           | 36000                        | R            | 6385                       | V                             | C                                |
| UC002           | 36000                        | R            | 5965                       | H                             | C                                |
| UC004           | 36000                        | R            | 6005                       | H                             | C                                |
| UC006           | 36000                        | R            | 6045                       | H                             | C                                |
| UC008           | 36000                        | R            | 6085                       | H                             | C                                |
| UC010           | 36000                        | R            | 6125                       | H                             | C                                |
| UC012           | 36000                        | R            | 6165                       | H                             | C                                |
| UC014           | 36000                        | R            | 6205                       | H                             | C                                |
| UC016           | 36000                        | R            | 6245                       | H                             | C                                |
| UC018           | 36000                        | R            | 6285                       | H                             | C                                |
| UC020           | 36000                        | R            | 6325                       | H                             | C                                |
| UC022           | 36000                        | R            | 6365                       | H                             | C                                |
| UC024           | 36000                        | R            | 6405                       | H                             | C                                |
| DC001           | 36000                        | T            | 3720                       | H                             | C                                |
| DC003           | 36000                        | T            | 3760                       | H                             | C                                |
| DC005           | 36000                        | T            | 3800                       | H                             | C                                |
| DC007           | 36000                        | T            | 3840                       | H                             | C                                |
| DC009           | 36000                        | T            | 3880                       | H                             | C                                |
| DC011           | 36000                        | T            | 3920                       | H                             | C                                |

| (a) Transponder ID | (b) Transponder Gain (dB) | Receive Band    |             | Transmit Band   |             |
|--------------------|---------------------------|-----------------|-------------|-----------------|-------------|
|                    |                           | (c) Channel No. | (d) Beam ID | (e) Channel No. | (f) Beam ID |
| C0001              | 112.7                     | UC001           | CVUL        | DC001           | CHDL        |
| C0003              | 112.7                     | UC003           | CVUL        | DC003           | CHDL        |
| C0005              | 112.7                     | UC005           | CVUL        | DC005           | CHDL        |
| C0007              | 112.7                     | UC007           | CVUL        | DC007           | CHDL        |
| C0009              | 112.7                     | UC009           | CVUL        | DC009           | CHDL        |
| C0011              | 112.7                     | UC011           | CVUL        | DC011           | CHDL        |
| C0013              | 112.7                     | UC013           | CVUL        | DC013           | CHDL        |
| C0015              | 112.7                     | UC015           | CVUL        | DC015           | CHDL        |
| C0017              | 112.7                     | UC017           | CVUL        | DC017           | CHDL        |
| C0019              | 112.7                     | UC019           | CVUL        | DC019           | CHDL        |
| C0021              | 112.7                     | UC021           | CVUL        | DC021           | CHDL        |
| C0023              | 112.7                     | UC023           | CVUL        | DC023           | CHDL        |
| C0002              | 112.8                     | UC002           | CHUL        | DC002           | CVDL        |
| C0004              | 112.8                     | UC004           | CHUL        | DC004           | CVDL        |
| C0006              | 112.8                     | UC006           | CHUL        | DC006           | CVDL        |
| C0008              | 112.8                     | UC008           | CHUL        | DC008           | CVDL        |
| C0010              | 112.8                     | UC010           | CHUL        | DC010           | CVDL        |
| C0012              | 112.8                     | UC012           | CHUL        | DC012           | CVDL        |
| C0014              | 112.8                     | UC014           | CHUL        | DC014           | CVDL        |
| C0016              | 112.8                     | UC016           | CHUL        | DC016           | CVDL        |
| C0018              | 112.8                     | UC018           | CHUL        | DC018           | CVDL        |
| C0020              | 112.8                     | UC020           | CHUL        | DC020           | CVDL        |
| C0022              | 112.8                     | UC022           | CHUL        | DC022           | CVDL        |
| C0024              | 112.8                     | UC024           | CHUL        | DC024           | CVDL        |
| K0001              | 128.3                     | UK001           | KVUL        | DK001           | KHDL        |
| K0003              | 128.3                     | UK003           | KVUL        | DK003           | KHDL        |
| K0005              | 128.3                     | UK005           | KVUL        | DK005           | KHDL        |
| K0007              | 128.3                     | UK007           | KVUL        | DK007           | KHDL        |
| K0009              | 128.3                     | UK009           | KVUL        | DK009           | KHDL        |
| K0011              | 128.3                     | UK011           | KVUL        | DK011           | KHDL        |

|       |       |   |       |   |   |
|-------|-------|---|-------|---|---|
| DC013 | 36000 | T | 3960  | H | C |
| DC015 | 36000 | T | 4000  | H | C |
| DC017 | 36000 | T | 4040  | H | C |
| DC019 | 36000 | T | 4080  | H | C |
| DC021 | 36000 | T | 4120  | H | C |
| DC023 | 36000 | T | 4160  | H | C |
| DC002 | 36000 | T | 3740  | V | C |
| DC004 | 36000 | T | 3780  | V | C |
| DC006 | 36000 | T | 3820  | V | C |
| DC008 | 36000 | T | 3860  | V | C |
| DC010 | 36000 | T | 3900  | V | C |
| DC012 | 36000 | T | 3940  | V | C |
| DC014 | 36000 | T | 3980  | V | C |
| DC016 | 36000 | T | 4020  | V | C |
| DC018 | 36000 | T | 4060  | V | C |
| DC020 | 36000 | T | 4100  | V | C |
| DC022 | 36000 | T | 4140  | V | C |
| DC024 | 36000 | T | 4180  | V | C |
| UK001 | 36000 | R | 14020 | V | C |
| UK003 | 36000 | R | 14060 | V | C |
| UK005 | 36000 | R | 14100 | V | C |
| UK007 | 36000 | R | 14140 | V | C |
| UK009 | 36000 | R | 14180 | V | C |
| UK011 | 36000 | R | 14220 | V | C |
| UK013 | 36000 | R | 14260 | V | C |
| UK015 | 36000 | R | 14300 | V | C |
| UK017 | 36000 | R | 14340 | V | C |
| UK019 | 36000 | R | 14380 | V | C |
| UK021 | 36000 | R | 14420 | V | C |
| UK023 | 36000 | R | 14460 | V | C |
| UK002 | 36000 | R | 14040 | H | C |
| UK004 | 36000 | R | 14080 | H | C |
| UK006 | 36000 | R | 14120 | H | C |
| UK008 | 36000 | R | 14160 | H | C |
| UK010 | 36000 | R | 14200 | H | C |
| UK012 | 36000 | R | 14240 | H | C |
| UK014 | 36000 | R | 14280 | H | C |
| UK016 | 36000 | R | 14320 | H | C |
| UK018 | 36000 | R | 14360 | H | C |

|       |       |       |      |       |      |
|-------|-------|-------|------|-------|------|
| K0013 | 128.3 | UK013 | KVUL | DK013 | KHDL |
| K0015 | 128.3 | UK015 | KVUL | DK015 | KHDL |
| K0017 | 128.3 | UK017 | KVUL | DK017 | KHDL |
| K0019 | 128.3 | UK019 | KVUL | DK019 | KHDL |
| K0021 | 128.3 | UK021 | KVUL | DK021 | KHDL |
| K0023 | 128.3 | UK023 | KVUL | DK023 | KHDL |
| K0002 | 128.8 | UK002 | KHUL | DK002 | KVDL |
| K0004 | 128.8 | UK004 | KHUL | DK004 | KVDL |
| K0006 | 128.8 | UK006 | KHUL | DK006 | KVDL |
| K0008 | 128.8 | UK008 | KHUL | DK008 | KVDL |
| K0010 | 128.8 | UK010 | KHUL | DK010 | KVDL |
| K0012 | 128.8 | UK012 | KHUL | DK012 | KVDL |
| K0014 | 128.8 | UK014 | KHUL | DK014 | KVDL |
| K0016 | 128.8 | UK016 | KHUL | DK016 | KVDL |
| K0018 | 128.8 | UK018 | KHUL | DK018 | KVDL |
| K0020 | 128.8 | UK020 | KHUL | DK020 | KVDL |
| K0022 | 128.8 | UK022 | KHUL | DK022 | KVDL |
| K0024 | 128.8 | UK024 | KHUL | DK024 | KVDL |
| E0001 | 126.8 | UE001 | EHUL | DE001 | EVDL |
| E0003 | 126.8 | UE003 | EHUL | DE003 | EVDL |
| E0005 | 126.8 | UE005 | EHUL | DE005 | EVDL |
| E0007 | 126.8 | UE007 | EHUL | DE007 | EVDL |
| E0009 | 126.8 | UE009 | EHUL | DE009 | EVDL |
| E0011 | 126.8 | UE011 | EHUL | DE011 | EVDL |
| E0013 | 126.8 | UE013 | EHUL | DE013 | EVDL |
| E0015 | 126.8 | UE015 | EHUL | DE015 | EVDL |
| E0002 | 126.9 | UE002 | EVUL | DE002 | EHDL |
| E0004 | 126.9 | UE004 | EVUL | DE004 | EHDL |
| E0006 | 126.9 | UE006 | EVUL | DE006 | EHDL |
| E0008 | 126.9 | UE008 | EVUL | DE008 | EHDL |
| E0010 | 126.9 | UE010 | EVUL | DE010 | EHDL |
| E0012 | 126.9 | UE012 | EVUL | DE012 | EHDL |
| E0014 | 126.9 | UE014 | EVUL | DE014 | EHDL |
| E0016 | 126.9 | UE016 | EVUL | DE016 | EHDL |
| EB001 | 127.1 | UE001 | EHUL | DB001 | BVDL |
| EB003 | 127.1 | UE003 | EHUL | DB003 | BVDL |
| EB005 | 127.1 | UE005 | EHUL | DB005 | BVDL |
| EB007 | 127.1 | UE007 | EHUL | DB007 | BVDL |
| EB009 | 127.1 | UE009 | EHUL | DB009 | BVDL |

|       |       |   |       |   |   |
|-------|-------|---|-------|---|---|
| UK020 | 36000 | R | 14400 | H | C |
| UK022 | 36000 | R | 14440 | H | C |
| UK024 | 36000 | R | 14480 | H | C |
| DK001 | 36000 | T | 11720 | H | C |
| DK003 | 36000 | T | 11760 | H | C |
| DK005 | 36000 | T | 11800 | H | C |
| DK007 | 36000 | T | 11840 | H | C |
| DK009 | 36000 | T | 11880 | H | C |
| DK011 | 36000 | T | 11920 | H | C |
| DK013 | 36000 | T | 11960 | H | C |
| DK015 | 36000 | T | 12000 | H | C |
| DK017 | 36000 | T | 12040 | H | C |
| DK019 | 36000 | T | 12080 | H | C |
| DK021 | 36000 | T | 12120 | H | C |
| DK023 | 36000 | T | 12160 | H | C |
| DK002 | 36000 | T | 11740 | V | C |
| DK004 | 36000 | T | 11780 | V | C |
| DK006 | 36000 | T | 11820 | V | C |
| DK008 | 36000 | T | 11860 | V | C |
| DK010 | 36000 | T | 11900 | V | C |
| DK012 | 36000 | T | 11940 | V | C |
| DK014 | 36000 | T | 11980 | V | C |
| DK016 | 36000 | T | 12020 | V | C |
| DK018 | 36000 | T | 12060 | V | C |
| DK020 | 36000 | T | 12100 | V | C |
| DK022 | 36000 | T | 12140 | V | C |
| DK024 | 36000 | T | 12180 | V | C |
| UE001 | 27000 | R | 13764 | H | C |
| UE003 | 27000 | R | 13794 | H | C |
| UE005 | 27000 | R | 13824 | H | C |
| UE007 | 27000 | R | 13854 | H | C |
| UE009 | 27000 | R | 13884 | H | C |
| UE011 | 27000 | R | 13914 | H | C |
| UE013 | 27000 | R | 13944 | H | C |
| UE015 | 27000 | R | 13974 | H | C |
| UE002 | 27000 | R | 13776 | V | C |
| UE004 | 27000 | R | 13806 | V | C |
| UE006 | 27000 | R | 13836 | V | C |
| UE008 | 27000 | R | 13866 | V | C |

|       |       |       |      |       |      |
|-------|-------|-------|------|-------|------|
| EB011 | 127.1 | UE011 | EHUL | DB011 | BVDL |
| EB013 | 127.1 | UE013 | EHUL | DB013 | BVDL |
| EB015 | 127.1 | UE015 | EHUL | DB015 | BVDL |
| EB002 | 127.1 | UE002 | EVUL | DB002 | BHDL |
| EB004 | 127.1 | UE004 | EVUL | DB004 | BHDL |
| EB006 | 127.1 | UE006 | EVUL | DB006 | BHDL |
| EB008 | 127.1 | UE008 | EVUL | DB008 | BHDL |
| EB010 | 127.1 | UE010 | EVUL | DB010 | BHDL |
| EB012 | 127.1 | UE012 | EVUL | DB012 | BHDL |
| EB014 | 127.1 | UE014 | EVUL | DB014 | BHDL |
| EB016 | 127.1 | UE016 | EVUL | DB016 | BHDL |
| B0001 | 130.7 | UB001 | BHUL | DB001 | BVDL |
| B0003 | 130.7 | UB003 | BHUL | DB003 | BVDL |
| B0005 | 130.7 | UB005 | BHUL | DB005 | BVDL |
| B0007 | 130.7 | UB007 | BHUL | DB007 | BVDL |
| B0009 | 130.7 | UB009 | BHUL | DB009 | BVDL |
| B0011 | 130.7 | UB011 | BHUL | DB011 | BVDL |
| B0013 | 130.7 | UB013 | BHUL | DB013 | BVDL |
| B0015 | 130.7 | UB015 | BHUL | DB015 | BVDL |
| B0002 | 131.9 | UB002 | BVUL | DB002 | BHDL |
| B0004 | 131.9 | UB004 | BVUL | DB004 | BHDL |
| B0006 | 131.9 | UB006 | BVUL | DB006 | BHDL |
| B0008 | 131.9 | UB008 | BVUL | DB008 | BHDL |
| B0010 | 131.9 | UB010 | BVUL | DB010 | BHDL |
| B0012 | 131.9 | UB012 | BVUL | DB012 | BHDL |
| B0014 | 131.9 | UB014 | BVUL | DB014 | BHDL |
| B0016 | 131.9 | UB016 | BVUL | DB016 | BHDL |
| BE001 | 130.4 | UB001 | BHUL | DE001 | EVDL |
| BE003 | 130.4 | UB003 | BHUL | DE003 | EVDL |
| BE005 | 130.4 | UB005 | BHUL | DE005 | EVDL |
| BE007 | 130.4 | UB007 | BHUL | DE007 | EVDL |
| BE009 | 130.4 | UB009 | BHUL | DE009 | EVDL |
| BE011 | 130.4 | UB011 | BHUL | DE011 | EVDL |
| BE013 | 130.4 | UB013 | BHUL | DE013 | EVDL |
| BE015 | 130.4 | UB015 | BHUL | DE015 | EVDL |
| BE002 | 131.7 | UB002 | BVUL | DE002 | EHDL |
| BE004 | 131.7 | UB004 | BVUL | DE004 | EHDL |
| BE006 | 131.7 | UB006 | BVUL | DE006 | EHDL |
| BE008 | 131.7 | UB008 | BVUL | DE008 | EHDL |



|       |       |   |       |   |   |
|-------|-------|---|-------|---|---|
| UE010 | 27000 | R | 13896 | V | C |
| UE012 | 27000 | R | 13926 | V | C |
| UE014 | 27000 | R | 13956 | V | C |
| UE016 | 27000 | R | 13986 | V | C |
| DE001 | 27000 | T | 10964 | V | C |
| DE003 | 27000 | T | 10994 | V | C |
| DE005 | 27000 | T | 11024 | V | C |
| DE007 | 27000 | T | 11054 | V | C |
| DE009 | 27000 | T | 11084 | V | C |
| DE011 | 27000 | T | 11114 | V | C |
| DE013 | 27000 | T | 11144 | V | C |
| DE015 | 27000 | T | 11174 | V | C |
| DE002 | 27000 | T | 10976 | H | C |
| DE004 | 27000 | T | 11006 | H | C |
| DE006 | 27000 | T | 11036 | H | C |
| DE008 | 27000 | T | 11066 | H | C |
| DE010 | 27000 | T | 11096 | H | C |
| DE012 | 27000 | T | 11126 | H | C |
| DE014 | 27000 | T | 11156 | H | C |
| DE016 | 27000 | T | 11186 | H | C |
| UB001 | 27000 | R | 14014 | H | C |
| UB003 | 27000 | R | 14044 | H | C |
| UB005 | 27000 | R | 14074 | H | C |
| UB007 | 27000 | R | 14104 | H | C |
| UB009 | 27000 | R | 14134 | H | C |
| UB011 | 27000 | R | 14164 | H | C |
| UB013 | 27000 | R | 14194 | H | C |
| UB015 | 27000 | R | 14224 | H | C |
| UB002 | 27000 | R | 14026 | V | C |
| UB004 | 27000 | R | 14056 | V | C |
| UB006 | 27000 | R | 14086 | V | C |
| UB008 | 27000 | R | 14116 | V | C |
| UB010 | 27000 | R | 14146 | V | C |
| UB012 | 27000 | R | 14176 | V | C |
| UB014 | 27000 | R | 14206 | V | C |
| UB016 | 27000 | R | 14236 | V | C |
| DB001 | 27000 | T | 10964 | V | C |
| DB003 | 27000 | T | 10994 | V | C |
| DB005 | 27000 | T | 11024 | V | C |

|       |       |       |      |       |      |
|-------|-------|-------|------|-------|------|
| BE010 | 131.7 | UB010 | BVUL | DE010 | EHDL |
| BE012 | 131.7 | UB012 | BVUL | DE012 | EHDL |
| BE014 | 131.7 | UB014 | BVUL | DE014 | EHDL |
| BE016 | 131.7 | UB016 | BVUL | DE016 | EHDL |

|       |       |   |         |   |   |
|-------|-------|---|---------|---|---|
| DB007 | 27000 | T | 11054   | V | C |
| DB009 | 27000 | T | 11084   | V | C |
| DB011 | 27000 | T | 11114   | V | C |
| DB013 | 27000 | T | 11144   | V | C |
| DB015 | 27000 | T | 11174   | V | C |
| DB002 | 27000 | T | 10976   | H | C |
| DB004 | 27000 | T | 11006   | H | C |
| DB006 | 27000 | T | 11036   | H | C |
| DB008 | 27000 | T | 11066   | H | C |
| DB010 | 27000 | T | 11096   | H | C |
| DB012 | 27000 | T | 11126   | H | C |
| DB014 | 27000 | T | 11156   | H | C |
| DB016 | 27000 | T | 11186   | H | C |
| CMD1  | 1000  | R | 14498.5 | V | T |
| CMD2  | 1000  | R | 14498.5 | H | T |
| CMD3  | 1000  | R | 14000.5 | L | T |
| TLM1  | 500   | T | 11701   | V | T |
| TLM2  | 500   | T | 11702   | V | T |
| TLM3  | 500   | T | 11701   | V | T |
| TLM4  | 500   | T | 11702   | V | T |
| TLM5  | 500   | T | 11701   | L | T |
| TLM6  | 500   | T | 11702   | L | T |
| UPC1  | 25    | T | 12195   | H | T |
| UPC2  | 25    | T | 10951   | H | T |
| UPC3  | 25    | T | 10951   | V | T |

**FEDERAL COMMUNICATIONS COMMISSION**  
**SATELLITE SPACE STATION AUTHORIZATIONS**  
**FCC Form 312 - Schedule S: (Technical and Operational Description)**

S11. DIGITAL MODULATION PARAMETERS For each digital emission provide:

| (a) Digital Mod. ID | (b) Emission Designator | (c) Assigned Bandwidth (kHz) | (d) No. of Phases | (e) Uncoded Data Rate (kbps) | (f) FEC Error Correction Coding Rate | (g) CDMA Processing Gain (dB) | (h) Total C/N Performance Objective (dB) | (i) Single Entry C/I Objective (dB) |
|---------------------|-------------------------|------------------------------|-------------------|------------------------------|--------------------------------------|-------------------------------|--|-------------------------------------|
| D1                  | 36M0G7W                 | 36000                        | 4                 | 24575                        | 0.5                                  |                               | 3.4                                      | 17.2                                |
| D2                  | 24M0G7W                 | 27000                        | 1                 | 18432                        | 0.5                                  |                               | 3.4                                      | 17.4                                |
| D3                  | 10M3G7W                 | 10300                        | 4                 | 6000                         | 0.5                                  |                               | 3.9                                      | 18.1                                |
| D4                  | 100KG7W                 | 100                          | 4                 | 64                           | 0.5                                  |                               | 3  | 17.6                                |
| D5                  | 1M45G7W                 | 1450                         | 2                 | 512                          | 0.5                                  |                               | 3.4                                      | 17.4                                |
| D6                  | 400KG7W                 | 400                          | 2                 | 128                          | 0.5                                  |                               | 3.4                                      | 18.6                                |

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S12. ANALOG MODULATION PARAMETERS For each analog emission provide:

| (a)<br>Analog<br>Mod. ID | (b) Emission<br>Designator | (c)<br>Assigned<br>Bandwidth<br>(kHz) | (d) Signal<br>Type | (e)<br>Channels<br>per Carrier | Multi-channel Telephony                         |                                       |                                    |                                | (j) Video<br>Standard<br>NTSC,<br>PAL, etc. | (k) Video<br>Noise-<br>Weighting<br>(dB) | (l) Video<br>and<br>SCPC/FM<br>Modulation<br>Index | (m) SCPC/FM<br>Compander,<br>Preemphasis,<br>and Noise<br>Weighting (dB) | (n) Total C/N<br>Performance<br>Objective<br>(dB) | (o) Single<br>Entry C/I<br>Objective<br>(dB) |
|--------------------------|----------------------------|---------------------------------------|--------------------|--------------------------------|---|---------------------------------------|------------------------------------|--------------------------------|---|--|--|--|---|--|
|                          |                            |                                       |                    |                                | (f) Ave.<br>Companded<br>Talker Level<br>(dBm0) | (g) Bottom<br>Baseband<br>Freq. (MHz) | (h) Top<br>Baseband<br>Freq. (MHz) | (i) RMS<br>Modulation<br>Index |   |  |  |  |   |  |
| A1                       | 36M0F3F                    | 36000                                 | TV/FM              | 1                              |   |                                       |                                    |                                | NTSC  | 12.8                                     | 2.6  |  | 10  | 22.3   |
| A2                       | 24M0F3F                    | 24000                                 | TV/FM              | 1                              |   |                                       |                                    |                                | PAL   | 12.8                                     | 2.1  |  | 10  | 27.6   |

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**FCC Form 312 - Schedule S: (Technical and Operational Description)**

S13. TYPICAL EMISSIONS For each planned type of emission provide:

| Associated Transponder ID Range<br>(a) Start (b) End |       | Modulation ID           |                        | (e) Carriers per Transponder | (f) Carrier Spacing (kHz) | (g) Noise Budget Reference (Table No.) | (h) Energy Dispersal Bandwidth (kHz) | Receive Band (Assoc. Transmit Stn)      |  |       | Transmit Band (This Space Station) |      |   |                                |
|--|-------|-------------------------|------------------------|------------------------------|---------------------------|--|--------------------------------------|---|--|-------|------------------------------------|------|---|--------------------------------|
|  |       | (c) Digital (Table S11) | (d) Analog (Table S12) |                              |                           |  |                                      | (i) Assoc. Stn. Max. Antenna Gain (dBi) | Assoc. Station Transmit Power (dBW)<br>(j) Min. (k) Max. |       | EIRP (dBW)<br>(l) Min. (m) Max.    |      | (n) Max. Power Flux Density (dBW/m2/Hz) | (o) Assoc. Stn Rec. G/T (dB/K) |
| C0001  | BE016 |                         | A1                     | 1                            |                           | LINK BUDGET                            | 4000                                 | 52.8                                    | 21.1   | 25.1  | 36.1                               | 40.1 | -152                                    | 23.6                           |
| C0001  | BE016 | D1                      |                        | 1                            |                           | NOTE.txt                               |                                      | 49.4                                    | 19.5   | 23.5  | 36.1                               | 40.1 | -160.7                                  | 19.2                           |
| C0001  | BE016 | D3                      |                        | 2                            | 10300                     | NOTE.txt                               |                                      | 49.4                                    | 11.2   | 15.2  | 28.1                               | 32.1 | -162.3                                  | 19.2                           |
| C0001  | BE016 | D4                      |                        | 311                          | 100                       | NOTE.txt                               |                                      | 49.4                                    | -9.2   | -5.2  | 7.7                                | 11.7 | -163.2                                  | 19.2                           |
| C0001  | BE016 |                         | A1                     | 1                            |                           | NOTE.txt                               | 4000                                 | 52.8                                    | 19.9   | 23.9  | 36.2                               | 40.2 | -151.9                                  | 23.6                           |
| C0001  | BE016 | D1                      |                        | 1                            |                           | NOTE.txt                               |                                      | 49.4                                    | 18.3   | 22.3  | 36.2                               | 40.2 | -160.6                                  | 19.2                           |
| C0001  | BE016 | D3                      |                        | 2                            | 10300                     | NOTE.txt                               |                                      | 49.4                                    | 10.4   | 14.4  | 28.6                               | 32.6 | -161.8                                  | 19.2                           |
| C0001  | BE016 | D4                      |                        | 285                          | 100                       | NOTE.txt                               |                                      | 49.4                                    | -10.1  | -6.1  | 8.2                                | 12.2 | -162.7                                  | 19.2                           |
| C0001  | BE016 |                         | A1                     | 1                            |                           | NOTE.txt                               | 4000                                 | 56.9                                    | 17.2   | 23.2  | 45.7                               | 49.7 | -142.4                                  | 25                             |
| C0001  | BE016 | D1                      |                        | 1                            |                           | NOTE.txt                               |                                      | 56.9                                    | 17.4   | 23.4  | 44.8                               | 48.8 | -152.1                                  | 18.8                           |
| C0001  | BE016 | D3                      |                        | 2                            | 10300                     | NOTE.txt                               |                                      | 56.9                                    | -3   | 3     | 36.9                               | 40.9 | -153.5                                  | 22.3                           |
| C0001  | BE016 | D4                      |                        | 273                          | 100                       | NOTE.txt                               |                                      | 56.9                                    | -20  | -17.2 | 16.7                               | 20.7 | -154.2                                  | 22.3                           |
| C0001  | BE016 | D5                      |                        | 17                           | 1450                      | NOTE.txt                               |                                      | 56.9                                    | -11.2  | -5.2  | 28.7                               | 32.7 | -154.3                                  | 22.3                           |
| C0001  | BE016 | D6                      |                        | 90                           | 400                       | NOTE.txt                               |                                      | 46.4                                    | -9.2   | -3.2  | 20.1                               | 24.1 | -156.9                                  | 33.1                           |
| C0001  | BE016 |                         | A1                     | 1                            |                           | NOTE.txt                               | 4000                                 | 56.9                                    | 17.7   | 23.7  | 45.7                               | 49.7 | -142.4                                  | 25                             |
| C0001  | BE016 | D1                      |                        | 1                            |                           | NOTE.txt                               |                                      | 56.9                                    | 18   | 24    | 44.8                               | 48.8 | -152.1                                  | 18.8                           |
| C0001  | BE016 | D3                      |                        | 2                            | 10300                     | NOTE.txt                               |                                      | 56.9                                    | -2.4   | 3.6   | 36.9                               | 40.9 | -153.5                                  | 22.3                           |
| C0001  | BE016 | D4                      |                        | 270                          | 100                       | NOTE.txt                               |                                      | 56.9                                    | -20  | -16.6 | 16.8                               | 20.8 | -154.1                                  | 22.3                           |
| C0001  | BE016 | D5                      |                        | 17                           | 1450                      | NOTE.txt                               |                                      | 56.9                                    | -10.6  | -4.6  | 28.8                               | 32.8 | -154.2                                  | 22.3                           |
| C0001  | BE016 | D6                      |                        | 90                           | 400                       | NOTE.txt                               |                                      | 46.4                                    | -8.6   | -2.6  | 20.2                               | 24.2 | -156.8                                  | 33.1                           |
| C0001  | BE016 |                         | A2                     | 1                            | 24000                     | NOTE.txt                               | 4000                                 | 56.7                                    | 12.9   | 20.9  | 46                                 | 52   | -140.1                                  | 21.6                           |
| C0001  | BE016 | D2                      |                        | 1                            | 27000                     | NOTE.txt                               |                                      | 56.7                                    | 14.9   | 22.9  | 41.4                               | 47.4 | -152.2                                  | 21.6                           |
| C0001  | BE016 | D3                      |                        | 2                            | 10300                     | NOTE.txt                               |                                      | 56.7                                    | -0.3   | 7.7   | 36.2                               | 42.2 | -152.2                                  | 21.6                           |
| C0001  | BE016 | D4                      |                        | 270                          | 100                       | NOTE.txt                               |                                      | 56.7                                    | -20.5  | -12.5 | 16                                 | 22   | -152.9                                  | 21.6                           |
| C0001  | BE016 | D5                      |                        | 18                           | 1450                      | NOTE.txt                               |                                      | 56.7                                    | -8.5   | -0.5  | 28                                 | 34   | -153                                    | 21.6                           |
| C0001  | BE016 | D6                      |                        | 67                           | 400                       | NOTE.txt                               |                                      | 46.2                                    | -7.1   | 0.9   | 18.9                               | 24.9 | -156.1                                  | 32.4                           |
| C0001  | BE016 |                         | A2                     | 1                            | 24000                     | NOTE.txt                               | 4000                                 | 56.7                                    | 13   | 21    | 46.1                               | 52.1 | -140                                    | 21.6                           |
| C0001  | BE016 | D2                      |                        | 1                            | 27000                     | NOTE.txt                               |                                      | 56.7                                    | 15   | 23    | 41.5                               | 47.5 | -152.1                                  | 21.6                           |
| C0001  | BE016 | D3                      |                        | 2                            | 10300                     | NOTE.txt                               |                                      | 56.7                                    | -0.4   | 7.6   | 36.1                               | 42.1 | -152.3                                  | 21.6                           |

|       |       |    |    |     |       |          |      |      |       |       |      |      |        |      |
|-------|-------|----|----|-----|-------|----------|------|------|-------|-------|------|------|--------|------|
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.7 | -20.6 | -12.6 | 15.9 | 21.9 | -153   | 21.6 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.7 | -8.6  | -0.6  | 27.9 | 33.9 | -153.1 | 21.6 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 46.2 | -7.3  | 0.7   | 18.7 | 24.7 | -156.3 | 32.4 |
| C0001 | BE016 |    | A2 | 1   | 24000 | NOTE.txt | 4000 | 56.7 | 15.9  | 23.9  | 45.9 | 51.9 | -140.2 | 24.3 |
| C0001 | BE016 | D2 |    | 1   | 27000 | NOTE.txt |      | 56.7 | 15.1  | 23.1  | 41.5 | 47.5 | -152.1 | 21.6 |
| C0001 | BE016 | D3 |    | 2   | 10300 | NOTE.txt |      | 56.7 | 1.9   | 9.9   | 36.3 | 42.3 | -152.1 | 21.6 |
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.7 | -18.3 | -10.3 | 16.1 | 22.1 | -152.8 | 21.6 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.7 | -6.3  | 1.7   | 28.1 | 34.1 | -152.9 | 21.6 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 46.2 | -5.9  | 2.1   | 18   | 24   | -157   | 32.4 |
| C0001 | BE016 |    | A2 | 1   | 24000 | NOTE.txt | 4000 | 60   | 14.7  | 22.7  | 46.5 | 52.5 | -139.6 | 21.6 |
| C0001 | BE016 | D2 |    | 1   | 27000 | NOTE.txt |      | 56.7 | 14.5  | 22.5  | 41.5 | 47.5 | -152.1 | 21.6 |
| C0001 | BE016 | D3 |    | 2   | 10300 | NOTE.txt |      | 56.7 | 2.5   | 10.5  | 36.3 | 42.3 | -152.1 | 21.6 |
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.7 | -17.8 | -9.8  | 16.1 | 22.1 | -152.8 | 21.6 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.7 | -5.8  | 2.2   | 28.1 | 34.1 | -152.9 | 21.6 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 46.2 | -5.5  | 2.5   | 17.9 | 23.9 | -157.1 | 32.4 |
| C0001 | BE016 |    | A2 | 1   | 24000 | NOTE.txt | 4000 | 56.8 | 14.8  | 22.8  | 45.9 | 51.9 | -140.2 | 32.4 |
| C0001 | BE016 | D2 |    | 1   | 27000 | NOTE.txt |      | 56.8 | 14    | 22    | 41.5 | 47.5 | -152.1 | 21.6 |
| C0001 | BE016 | D3 |    | 2   | 10300 | NOTE.txt |      | 56.8 | 1.8   | 9.8   | 36.3 | 42.3 | -152.1 | 24.3 |
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.8 | -18.3 | -10.3 | 16.2 | 22.2 | -152.7 | 24.3 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.8 | -6.3  | 1.7   | 28.2 | 34.2 | -152.8 | 24.3 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 48.9 | -6.7  | 1.3   | 19.8 | 25.8 | -155.2 | 32.4 |
| C0001 | BE016 |    | A2 | 1   | 24000 | NOTE.txt | 4000 | 56.8 | 15.2  | 23.2  | 46.5 | 52.5 | -139.6 | 24.3 |
| C0001 | BE016 | D2 |    | 1   | 27000 | NOTE.txt |      | 56.8 | 11.7  | 19.7  | 41.5 | 47.5 | -152.1 | 21.6 |
| C0001 | BE016 | D3 |    | 2   | 10300 | NOTE.txt |      | 56.8 | 1.5   | 9.5   | 36.2 | 42.2 | -152.2 | 24.3 |
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.8 | -18.7 | -10.7 | 16   | 22   | -152.9 | 24.3 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.8 | -6.7  | 1.3   | 28   | 34   | -153   | 24.3 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 48.9 | -7.1  | 0.9   | 19.7 | 25.7 | -155.3 | 32.4 |
| C0001 | BE016 |    | A2 | 1   | 24000 | NOTE.txt | 4000 | 60.1 | 14.5  | 22.5  | 46   | 52   | -140.1 | 21.6 |
| C0001 | BE016 | D2 |    | 1   | 27000 | NOTE.txt |      | 56.8 | 13.8  | 21.8  | 41.4 | 47.4 | -152.2 | 21.6 |
| C0001 | BE016 | D3 |    | 2   | 10300 | NOTE.txt |      | 56.8 | 0.7   | 8.7   | 36.3 | 42.3 | -152.1 | 24.3 |
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.8 | -19.4 | -11.4 | 16.2 | 22.2 | -152.7 | 24.3 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.8 | -7.4  | 0.6   | 28.2 | 34.2 | -152.8 | 24.3 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 48.9 | -7.4  | 0.6   | 20.2 | 26.2 | -154.8 | 32.4 |
| C0001 | BE016 |    | A2 | 1   | 24000 | NOTE.txt | 4000 | 58   | 15    | 23    | 46.1 | 52.1 | -140   | 21.6 |
| C0001 | BE016 | D2 |    | 1   | 27000 | NOTE.txt |      | 56.8 | 12.2  | 20.2  | 41.5 | 47.5 | -152.1 | 21.6 |
| C0001 | BE016 | D3 |    | 2   | 10300 | NOTE.txt |      | 56.8 | 3.1   | 11.1  | 35.4 | 41.4 | -153   | 24.3 |
| C0001 | BE016 | D4 |    | 270 | 100   | NOTE.txt |      | 56.8 | -15.5 | -7.5  | 16.8 | 22.8 | -152.1 | 21.6 |
| C0001 | BE016 | D5 |    | 18  | 1450  | NOTE.txt |      | 56.8 | -3.6  | 4.4   | 28.7 | 34.7 | -152.3 | 21.6 |
| C0001 | BE016 | D6 |    | 67  | 400   | NOTE.txt |      | 46.3 | -3.2  | 4.8   | 18.6 | 24.6 | -156.4 | 32.4 |



**FEDERAL COMMUNICATIONS COMMISSION  
SATELLITE SPACE STATION AUTHORIZATIONS  
FCC Form 312 - Schedule S: (Technical and Operational Description)**

S14. Is the space station(s) controlled and monitored remotely? If Yes, provide the location and telephone number of the TT and C control point(s): Yes

**Remote Control (TT C) Location(s):**

|   |               |  |                          |
|---|---------------|--|--------------------------|
| S14a: Street Address:<br>3400 INTERNATIONAL DRIVE, N.W. |               |  |                          |
| S14b. City:<br>WASHINGTON                               | S14c. County: | S14d. State/Country<br>DC                            | S14e. Zip Code:<br>20008 |
| S14f. Telephone Number:<br>202-944-7701                 |               | S14g. Call Sign of Control Station (if appropriate): |                          |



**FEDERAL COMMUNICATIONS COMMISSION  
SATELLITE SPACE STATION AUTHORIZATIONS  
FCC Form 312 - Schedule S: (Technical and Operational Description)**

**Page 11:  
Characteristics and  
Certifications**

S15. SPACECRAFT PHYSICAL CHARACTERISTICS:

S16. SPACECRAFT ELECTRICAL CHARACTERISTICS:

S17. CERTIFICATIONS:

|   |                                     |     |                          |    |                                     |     |
|---|-------------------------------------|-----|--------------------------|----|-------------------------------------|-----|
| a. Are the power flux density limits of § 25.208 met?:  | <input checked="" type="checkbox"/> | YES | <input type="checkbox"/> | NO | <input type="checkbox"/>            | N/A |
| b. Are the appropriate service area coverage requirements of § 25.143(b)(ii) and (iii), or § 25.145(c)(1) and (2) met?  | <input type="checkbox"/>            | YES | <input type="checkbox"/> | NO | <input checked="" type="checkbox"/> | N/A |
| c. Are the frequency tolerances of § 25.202(e) and the out-of-band emission limits of § 25.202(f)(1), (2) and (3) met?  | <input checked="" type="checkbox"/> | YES | <input type="checkbox"/> | NO | <input type="checkbox"/>            | N/A |
| <b>In addition to the information required in this Form, the space station applicant is required to provide all the information specified in Section 25.114 of the Commission's rules, 47 C.F.R § 25.114.</b> |                                     |     |                          |    |                                     |     |