Prepared By

## COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Prepared For
Intelsat License LLC
Nuevo, California
Temporary Transmit-Only Earth Station
Operation Dates: 01/20/2017-01/30/2017

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. Verbal and written coordination was conducted with the below listed carriers on December 13, 2016.

Company<br>ABC Holding Company Inc.<br>AT\&T Corp.<br>AT\&T Mobility Spectrum LLC - Southern CA<br>AirSites2000, LLC<br>Anaheim City, of<br>Arizona Public Service Company (APS)<br>Arizona, State Of<br>BNSF Railway Company<br>CCO SoCal I, LLC<br>California, State of<br>Calvary Chapel of Costa Mesa<br>Cellco Partnership - Southern California<br>City of Los Angeles Dept Water \& Power<br>City of Montebello<br>City of Yuma<br>Coachella Valley Water District<br>Coast Community College District<br>Commnet Four Corners, LLC<br>DM Ventures, Inc. dba Warp2Biz<br>DRS Global Enterprise Solutions, Inc.<br>Entravision Holdings, LLC<br>Federal Communication Commission<br>Fisher Wireless Services, Inc.<br>Fresno MSA Limited Partnership<br>Glendale, City of<br>Global Telecom \& Technology Americas, In<br>GovNET Licenses LLC<br>ION Media Los Angeles License, Inc.<br>Kern Ed Telecom Consortium<br>Kern, County of<br>LDM Engineering<br>Lightwave Broadband LLC<br>Los Angeles County Dept of Public Works<br>Los Angeles County FCC Licensing Section<br>Los Angeles Regional Interoperable Comm

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Los Angeles SMSA Ltd. Partnership
MHO Networks
MOBILE RELAY ASSOCIATES INC
Metropolitan Water Dist of So California
NRJ TV LA License Co, LLC
New Cingular Wireless PCS LLC - AZ
New Cingular Wireless PCS - Los Angeles
New Cingular Wireless PCS LLC - N CAL
New Cingular Wireless PCS LLC -San Diego
Nextel of California Inc.
Norris, Samuel O
Northrop Grumman Systems Corp.
Olympic Wireless, LLC
Orange, County of, CA
Pacific Bell Tel Com dba AT&T California
Pacific Lightwave Inc
QUALCOMM INC.
Qwest Corporation
Regional 3Cs
Riverside, County of
San Bernardino County of California
San Diego Broadband
San Diego County Water Authority
San Diego Gas & Electric Company
San Diego, City of
San Diego, County of
Skyriver Communications
Southern California Edison Company
Southern California Gas Company
Southern California Regional Rail Auth.
SpectrumLink
Station Venture Operations, LP
T-Mobile License LLC
TV Microwaves Company
Telink Networks SW, LLC
Time Warner Cable Pacific West LLC
Turn Wireless, LLC
Ultimate Internet Access, Inc
Union Pacific Railroad Company
University of California, HPWREN
Vectus, Inc
Verizon California Inc.
Verizon Wireless (VAW) LLC (Southern CA)
Verizon Wireless (VAW) LLC-N CA/NV
Western Technical Services
White, Fred K
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There are no unresolved interference objections with the station contained in these applications.
The following section presents the data pertinent to frequency coordination of the earth station that was circulated to all carriers within its coordination contours.

## COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
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| Date: | 12/13/2016 |
| :---: | :---: |
| Job Number: | 161213COMSGE03 |
| Administrative Information |  |
| Status | TEMPORARY (Operation from 01/20/2017 to 01/30/2017) |
| Call Sign | TEMP01 |
| Licensee Code | INTELS |
| Licensee Name | Intelsat License LLC |
| Site Information | NUEVO, CA |
| Venue Name |  |
| Latitude (NAD 83) | $33^{\circ} 47{ }^{\prime} 43.6{ }^{\prime \prime} \mathrm{N}$ |
| Longitude (NAD 83) | 117 ${ }^{\circ} 5^{\prime} 20.4{ }^{\prime \prime} \mathrm{W}$ |
| Climate Zone | A |
| Rain Zone | 4 |
| Ground Elevation (AMSL) | 566.62 m / 1859.0 ft |
| Link Information |  |
| Satellite Type | Geostationary |
| Mode | TO - Transmit-Only |
| Modulation | Digital |
| Satellite Arc | $45^{\circ} \mathrm{W}$ to $170^{\circ}$ West Longitude |
| Azimuth Range | $100.2^{\circ}$ to $247.2^{\circ}$ |
| Corresponding Elevation Angles | $6.2^{\circ} / 22.0^{\circ}$ |
| Antenna Centerline (AGL) | $7.32 \mathrm{~m} / 24.0 \mathrm{ft}$ |


| Antenna Information |  | Transmit - FCC32 |
| :---: | :---: | :---: |
| Manufacturer |  | TIW |
| Model |  | 11 KPC |
| Gain / Diameter |  | 55.5 dBi / 11.0 m |
| 3-dB / 15-dB Beamwidth |  | $0.29^{\circ} / 0.54^{\circ}$ |
| Max Available RF Power | (dBW/4 kHz) | 3.7 |
|  | (dBW/MHz) | 27.7 |
| Maximum EIRP | (dBW/4 kHz) | 59.2 |
|  | (dBW/MHz) | 83.2 |
| Interference Objectives: | Long Term | -154.0 dBW/4 kHz 20\% |
|  | Short Term | -131.0 dBW/4 kHz 0.0025\% |
| Frequency Information <br> Emission / Frequency Range (MHz) |  | Transmit 6.1 GHz |
|  |  | 850KFXD / 6410.896-6412.912 |
| Max Great Circle Coordination Distance Precipitation Scatter Contour Radius |  | 436.9 km / 271.5 mi |
|  |  | 193.4 km / 120.1 mi |


| Coordination Values | NUEVO, CA |
| :---: | :---: |
| Licensee Name | Intelsat License LLC |
| Latitude (NAD 83) | $33^{\circ} 47^{\prime} 43.6^{\prime \prime} \mathrm{N}$ |
| Longitude (NAD 83) | $117^{\circ} 5^{\prime} 20.4{ }^{\text {l W }}$ |
| Ground Elevation (AMSL) | $566.62 \mathrm{~m} / 1859.0 \mathrm{ft}$ |
| Antenna Centerline (AGL) | $7.32 \mathrm{~m} / 24.0 \mathrm{ft}$ |
| Antenna Model | TIW 11 meter |
| Antenna Mode | Transmit 6.1 GHz |
| Interference Objectives: Long Term | m -154.0 dBW/4 kHz 20\% |
| Short Term | m -131.0 dBW/4 kHz 0.0025\% |
| Max Available RF Power | 3.7 (dBW/4 kHz) |

Transmit 6.1 GHz

|  | Horizon | Antenna | Horizon | Coordination |
| :--- | :--- | :--- | :--- | :--- |
| Azimuth $\left({ }^{\circ}\right)$ | Elevation $\left({ }^{\circ}\right)$ | Discrimination $\left({ }^{\circ}\right)$ | Gain $(\mathrm{dBi})$ | Distance $(\mathrm{km})$ |
| 0 | 0.91 | 100.15 | -10.00 | 140.70 |
| 5 | 2.23 | 95.18 | -10.00 | 108.07 |


| 10 | 1.88 |
| :--- | :--- |
| 15 | 2.42 |


| 20 | 2.49 |
| :--- | :--- |
| 25 | 2.56 |
| 30 | 3.50 |


| 35 | 3.34 |
| :--- | :--- |
| 40 | 3.36 |


| 45 | 3.28 |
| :--- | :--- |
| 50 | 2.88 |

55
60
65
70
75
80
85
90
95
100
105
110 3.

115
120
125
130
135
140 -
145
150 ,

155
160 -
165
170 五
175
90.19
-10.00 115.57
$85.20 \quad-10.00 \quad 104.40$

| 80.21 | -10.00 | 102.97 |
| :--- | :--- | :--- |
| 75 | -10.00 | 10159 |


| 75.22 | -10.00 | 101.59 |
| :--- | :--- | :--- |


| 70.22 | -10.00 | 100.00 |
| :--- | :--- | :--- |
| 65.23 | -10.00 | 100.00 |


| 60.23 | -10.00 | 100.00 |
| :--- | :--- | :--- |


| 55.24 | -10.00 | 100.00 |
| :--- | :--- | :--- |


| 50.27 | -10.00 | 100.00 |
| :--- | :--- | :--- |
| 45.31 | -9.40 | 104 |

$3.44 \quad 40.31$

| -8.14 | 104.29 |
| :--- | :--- |
| -6.69 | 100.00 |


| 3.10 | 30.33 |
| :--- | :--- |
| 3.36 |  |


| -5.05 | 109.59 |
| :--- | :--- |
| -3.10 | 115.52 |

3.19
3.76
3.33
20.33
-0.70 114.30
$2.28 \quad 133.01$
3.39
15.45
$6.41 \quad 147.94$
$11.94 \quad 197.03$
2.99
3.63
3.84
3.70
3.87
3.84
4.49
3.88
4.24
4.11
4.48
4.67
4.09
4.55
4.85

### 5.79

6.19
6.91

| 3.18 | 19.45 | 436.93 |
| :--- | :--- | :--- |
| 5.38 | 13.72 | 181.51 |


| 5.38 | 13.72 | 181.51 |
| :--- | :--- | :--- |


| 9.29 | 7.80 | 145.52 |
| :--- | :--- | :--- |


| 13.36 | 3.86 | 132.68 |
| :--- | :--- | :--- |

$17.17 \quad 1.13 \quad 119.25$
$21.02 \quad-1.07 \quad 111.62$
$24.32 \quad-2.65 \quad 100.00$

| 28.30 | -4.29 | 100.00 |
| :--- | :--- | :--- |


| 31.47 | -5.45 | 100.00 |
| :--- | :--- | :--- |

$34.76 \quad-6.53 \quad 100.00$
$37.41 \quad-7.32 \quad 100.00$
$39.84 \quad-8.01 \quad 100.00$
42.53

| -8.72 | 100.00 |
| :--- | :--- |
| -9.06 | 100.00 |
| -9.30 | 100.00 |
| -9.25 | 100.00 |
| -9.21 | 100.00 |
| -8.98 | 100.00 |


| Coordination Values | NUEVO, CA <br> Licensee Name | Intelsat License LLC |
| :--- | :--- | :--- |


|  |  |  | Transmit 6.1 GHz |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Horizon | Antenna | Horizon | Coordination |
| Azimuth $\left({ }^{\circ}\right)$ | Elevation $\left({ }^{\circ}\right)$ | Discrimination $\left({ }^{\circ}\right)$ | Gain $(\mathrm{dBi})$ | Distance $(\mathrm{km})$ |
| 190 | 7.27 | 42.53 | -8.72 | 100.00 |
| 195 | 6.99 | 41.64 | -8.49 | 100.00 |
| 200 | 6.27 | 40.64 | -8.22 | 100.00 |
| 205 | 5.71 | 38.99 | -7.77 | 100.00 |
| 210 | 5.71 | 36.45 | -7.04 | 100.00 |
| 215 | 6.70 | 32.84 | -5.91 | 100.00 |
| 220 | 7.49 | 29.16 | -4.62 | 100.00 |
| 225 | 7.03 | 26.16 | -3.44 | 100.00 |
| 230 | 5.65 | 23.57 | -2.31 | 100.00 |
| 235 | 6.10 | 19.95 | -0.50 | 100.00 |
| 240 | 5.73 | 17.76 | 0.76 | 100.00 |
| 245 | 5.59 | 16.57 | 1.52 | 100.00 |
| 250 | 5.18 | 17.07 | 1.20 | 102.02 |
| 255 | 4.95 | 18.72 | 0.19 | 100.66 |
| 260 | 4.51 | 21.57 | -1.35 | 100.79 |
| 265 | 4.74 | 24.62 | -2.78 | 100.00 |
| 270 | 4.38 | 28.54 | -4.39 | 100.00 |
| 275 | 4.51 | 32.48 | -5.79 | 100.00 |
| 280 | 4.14 | 36.88 | -7.17 | 100.00 |
| 285 | 3.19 | 41.60 | -8.48 | 100.00 |
| 290 | 2.77 | 46.16 | -9.61 | 100.00 |
| 295 | 1.04 | 51.16 | -10.00 | 135.52 |
| 300 | 0.82 | 55.70 | -10.00 | 145.16 |
| 305 | 0.00 | 60.40 | -10.00 | 195.36 |
| 310 | 0.00 | 64.94 | -10.00 | 195.36 |
| 315 | 0.00 | 69.50 | -10.00 | 195.36 |
| 320 | 0.00 | 74.10 | -10.00 | 195.36 |
| 325 | 0.00 | 78.71 | -10.00 | 195.36 |
| 330 | 0.00 | 83.34 | -10.00 | 195.36 |
| 335 | 0.00 | 87.97 | -10.00 | 195.36 |
| 340 | 0.00 | 92.60 | -10.00 | 195.36 |
| 345 | 0.00 | 97.24 | -10.00 | 195.36 |
| 350 | 0.00 | 101.86 | -10.00 | 195.36 |
| 355 | 0.00 | 105.10 | -10.00 | 195.36 |
|  |  |  |  |  |

## Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.

BY:


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Senior Manager
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DATED: January 6, 2017

