

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for

**Intelsat North America LLC
Nuevo, California
(Call Sign: E020169)**

Satellite Earth Station

Prepared By:
COMSEARCH
19700 JANELIA FARM BOULEVARD
ASHBURN, VIRGINIA 20147
FEBRUARY 17, 2006

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment, based upon the restrictions noted in the Summary of Results (Section 2).

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in most cases.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses and frequency separation are considered on the interfering paths, sufficient losses exist to negate harmful interference from occurring with the proposed transmit-only earth station. Further the transmit spectrum will be limited to frequencies 6525.0 to 6539.0 MHz, 6551.0 to 6579.0 MHz, 6591.0 to 6596.5 MHz, and 6603.5 to 6650.0 MHz.

Company

Southern California Edison Company
Southern California Gas Company
Imperial Irrigation District
Los Angeles SMSA Ltd. Partnership
Cox Communications PCS, L.P.
Union Pacific Railroad Company
California, State of

No other carriers reported potential interference cases.

3. SUPPLEMENTAL SHOWING

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.

Coordination data for this earth station was sent to the below listed carriers with a letter dated July 6, 2005. An extension notice was forwarded on February 16, 2006.

Company

AERA ENERGY LLC
ANTELOPE VALLEY EAST KERN WATER AGENCY
ARCHDIOCESE OF LOS ANGELES WELFARE CORP
BNSF Railway Company
CARITAS TELECOMMUNICATIONS
COACHELLA VALLEY COUNTY WATER DISTRICT
California, State of
Cox Communications PCS, L.P.
GLENDALE CITY CALIFORNIA
IMPERIAL IRRIGATION DISTRICT
INCOMM DIVISION CHURCH OF SCIENTOLOGY
KERN COUNTY CALIFORNIA
LOS ANGELES CITY WATER & POWER
Los Angeles City Info Technology Agency
Los Angeles County Dept of Public Works
Los Angeles County FCC Licensing Section
Los Angeles County Metro Transit Auth
Los Angeles SMSA Ltd. Partnership
METROPOLITAN WATER DIST OF SO CALIFORNIA
MOBILE RELAY ASSOCIATES INC
Mile High Inc
NEXTEL OF CALIFORNIA INC
New Cingular Wireless PCS LLC - N CAL
New Cingular Wireless PCS LLC - S CAL
ORANGE COUNTY GSA COMMUNICATIONS DIV
Palomar Observatory California Institute
Pomana City / Police Dept.
RIVERSIDE COUNTY OF
SAN DIEGO COUNTY
SAN DIEGO, CITY OF
San Bernardino County of California
San Diego Gas & Electric Company
Southern California Edison Company
Southern California Gas Company
The Boeing Company
UNIVERSITY OF CALIFORNIA, SAN DIEGO
Union Pacific Railroad Company
Verizon Wireless (VAW) LLC (CA)
West End Communications Authority

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

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

Date: 08/08/2005
Job Number: 050706COMSJC01

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign: E020169
Licensee Code: INTELS
Licensee Name: Intelsat North America LLC

Site Information

NUEVO, CALIFORNIA

Venue Name
Latitude (NAD 83): 33° 47' 46.5" N
Longitude (NAD 83): 117° 5' 15.0" W
Climate Zone: A
Rain Zone: 4
Ground Elevation (AMSL): 550.0 m / 1804.5 ft

Link Information

Satellite Type: Geostationary
Mode: TO - Transmit-Only
Modulation: Digital
Satellite Arc: 55° W to 56° West Longitude
Azimuth Range: 106.4° to 107.1°
Corresponding Elevation Angles: 14.5° / 15.3°
Antenna Centerline (AGL): 11.0 m / 36.1 ft

Antenna Information

Manufacturer: Vertex/RSI
Model: 16.4 Meter THC
Gain / Diameter: 59.0 dBi / 16.4 m
3-dB / 15-dB Beamwidth: 0.20° / 0.40°

Transmit

36M0F3F 43K8G7W - 44M0G7W

Max Available RF Power	(dBW/4 kHz)	0.0	-2.7	-	-13.5
	(dBW/MHz)	24.0	7.7	-	10.5

Maximum EIRP	(dBW/4 kHz)	59.0	56.3	-	45.5
	(dBW/MHz)	83.0	66.7	-	69.5
	(dBW)	86.0	66.7	-	86.0

Interference Objectives:	Long Term	-154.0 dBW/4 kHz	20%
	Short Term	-131.0 dBW/4 kHz	0.0025%

Frequency Information

Transmit 6.7 GHz

Emission / Frequency Range (MHz)
36M0F3F / 6603.5 - 6649.0
43K8G7W - 12M0G7W / 6525.0 - 6539.0
43K8G7W - 26M0G7W / 6551.0 - 6579.0
43K8G7W - 3M50G7W / 6591.0 - 6596.5
43K8G7W - 44M5G7W / 6603.5 - 6650.0

Max Great Circle Coordination Distance: 181.1 km / 112.5 mi
Precipitation Scatter Contour Radius: 115.6 km / 71.8 mi

COMSEARCH

Earth Station Data Sheet

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(703)726-5500 <http://www.comsearch.com>

Coordination Values

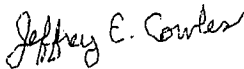
NUEVO, CA

Licensee Name: Intelsat North America LLC
Latitude (NAD 83): 33° 47' 46.5" N
Longitude (NAD 83): 117° 5' 15.0" W
Ground Elevation (AMSL): 550.0 m / 1804.5 ft
Antenna Centerline (AGL): 11.0 m / 36.1 ft
Antenna Model: Vertex/RSI 16.4 Meter THC
Antenna Mode: Transmit 6.7 GHz
Interference Objectives: Long Term: -154.0 dBW/4 kHz 20%
Short Term: -131.0 dBW/4 kHz 0.0025%
Max Available RF Power: 0.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	5.78	78.09	-10.00	100.00
190	6.11	83.01	-10.00	100.00
195	6.28	87.95	-10.00	100.00
200	6.39	92.88	-10.00	100.00
205	6.25	97.82	-10.00	100.00
210	5.77	102.74	-10.00	100.00
215	5.60	107.66	-10.00	100.00
220	6.12	112.61	-10.00	100.00
225	5.72	117.50	-10.00	100.00
230	5.71	122.40	-10.00	100.00
235	5.56	127.28	-10.00	100.00
240	5.58	132.16	-10.00	100.00
245	5.55	137.01	-10.00	100.00
250	4.99	141.71	-10.00	100.00
255	4.43	146.31	-10.00	100.00
260	4.21	150.90	-10.00	100.00
265	4.26	155.44	-10.00	100.00
270	4.46	159.86	-10.00	100.00
275	4.46	163.82	-10.00	100.00
280	3.56	166.31	-10.00	100.00
285	2.27	166.80	-10.00	100.00
290	1.35	165.75	-10.00	116.75
295	0.89	163.60	-10.00	130.65
300	0.21	160.23	-10.00	180.20
305	0.00	156.60	-10.00	181.13
310	0.21	152.65	-10.00	180.22
315	0.00	148.24	-10.00	181.13
320	0.00	143.77	-10.00	181.13
325	0.00	139.20	-10.00	181.13
330	0.00	134.54	-10.00	181.13
335	0.00	129.84	-10.00	181.13
340	0.00	125.09	-10.00	181.13
345	0.00	120.32	-10.00	181.13
350	0.28	115.55	-10.00	172.85
355	1.34	110.83	-10.00	116.93

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Jeffrey E. Cowles
Frequency Planner
COMSEARCH
19700 Janelia Farm Blvd.
Ashburn, Va. 20147

DATED: February 17, 2006