

**Exhibit D**

**Frequency Coordination Reports**

**Response to Question E18**

# FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for  
**LightSquared Subsidiary LLC**  
**NAPA, CA**  
**(7.3 meter)**  
**Satellite Earth Station**

Prepared By:  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147  
February 24, 2011

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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 modifications to the existing earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

## 2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed modifications to the existing 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 every case.

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 are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-only earth station.

Company

CBS Broadcasting Inc

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 modifications proposed in this application were 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 01/18/2011.

Company

ADVANCED BROADBAND  
Alameda County of California  
American Telecasting, Inc.  
AT&T California  
BorderComm Partners LP (XC)  
California, State of  
CBS Broadcasting Inc  
CENTRAL VALLEY CABLE TV, LLC  
Channel 40, Inc.  
CHRISTIAN COMMUNICATIONS OF CHICAGOLAND  
Citizens Telecommunications of CA  
CNN America, Inc.  
COMCAST CABLEVISION CORP OF CALIFORNIA  
COMCAST OF CALIF/COLO/WASH, LP  
COMCAST OF NORTHERN CALIFORNIA I, INC.  
COMCAST OF NORTHERN CALIFORNIA II, INC.  
CONTRA COSTA COUNTY COMMUNICATIONS DEPT.  
County of Sacramento IT Department  
EAST BAY MUNICIPAL UTILITY DISTRICT  
Edge Wireless Licenses, LLC  
Gannett River States Publishing Corp.  
GTE Mobilnet of California LTD Partnersh  
HAYWARD, CITY OF  
Hearst Stations, Inc. (KCRA)  
HORIZON CABLE TV, INC  
ION MEDIA SACRAMENTO LICENSE, INC.  
KDTV License Partnership, G.P.  
KGO TELEVISION INCORPORATED  
KQED INC  
KTVU PARTNERSHIP (KTVU - KICU, CA)  
KUVS License Partnership, G.P.  
KVIE INC  
LAKE COUNTY TELEVISION CLUB  
LELAND STANFORD JUNIOR UNIVERSITY  
Lincoln Broadcasting Co, A California LP  
M.U.T. Licensing, LLC  
Marin County of California  
MARIN EMERGENCY RADIO AUTHORITY (MERA)  
MATRIX CABLEVISION INC  
MCI Communication Services, Inc.

MEDIACOM CALIFORNIA LLC  
METRO NETWORKS COMMUNICATIONS INC  
MetroFi Inc.  
Moreen, Steven K  
Napa, City of  
NBC TELEMUNDO LICENSE CO.  
NBC Telemundo License Co. - KNTV  
New Cingular Wireless PCS LLC - N CAL  
NORTHERN CALIFORNIA PUBLIC BROADCASTING  
POLAR BROADCASTING, INC  
Regents of the University of California  
ROMAN CATHOLIC COMMUNICATIONS CORP  
Sacramento County  
Sacramento Television Stations, Inc  
Sacramento Valley Limited Partnership  
SAN FRANCISCO CITY & COUNTY CALIFORNIA  
San Joaquin County  
SAN MATEO COUNTY  
SAN MATEO COUNTY COMMUNITY COLLEGE DIST  
SBE Coordinator  
TTBG/KTNC License Sub, LLC  
WILINE NETWORKS, INC.  
YOUNG BROADCASTING OF SAN FRANCISCO INC

## **4. EARTH STATION COORDINATION DATA**

This section presents the data pertinent to frequency coordination of the proposed modifications to the existing earth station that were 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: 02/24/2011  
Job Number: 110118COMSGE01

### Administrative Information

Status ENGINEER PROPOSAL  
Call Sign E080030  
Licensee Code MOSVLP  
Licensee Name LightSquared Subsidiary LLC

### Site Information NAPA, CA

Venue Name  
Latitude (NAD 83) 38° 14' 41.5" N  
Longitude (NAD 83) 122° 16' 47.5" W  
Climate Zone A  
Rain Zone 3  
Ground Elevation (AMSL) 3.05 m / 10.0 ft

### Link Information

Satellite Type Inclined Geo Orbit  
Mode TR - Transmit-Receive  
Modulation Digital  
Minimum Elevation Angle 34°  
Azimuth Range 101.0 degrees to 107.3 degrees West Longitude  
Antenna Centerline (AGL) 3.66 m / 12.0 ft

### Antenna Information

#### Receive - FCC32

#### Transmit - FCC32

Manufacturer	ViaSat	ViaSat
Model	7.3 Meter	7.3 Meter
Gain / Diameter	57.4 dBi / 7.3 m	58.8 dBi / 7.3 m
3-dB / 15-dB Beamwidth	0.07° / 0.10°	0.10° / 0.20°
Max Available RF Power (dBW/4 kHz)	(1) 23.7	(2) -1.1 (3) -1.1 (4) 9.9
(dBW/MHz)	23.7	22.9 22.9 9.9
Maximum EIRP (dBW/4 kHz)	85.0	57.7 57.7 68.7
(dBW/MHz)	85.0	81.7 81.7 68.7

Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
	Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%

### Frequency Information

#### Receive 11.0 GHz

#### Transmit 13.0 GHz

Emission / Frequency Range (MHz)	NON - 7M50G7D / 10700.0 - 10950.0	(1) NON - 7M50G7D / 13240.5 - 13245.5
	NON - 7M50G7D / 11200.0 - 11450.0	(2) NON - 7M50G7D / 13248.0 - 13250.0
		(3) NON - 7M50G7D / 12750.0 - 12752.0
		(4) NON - 7M50G7D / 12780.0 - 13140.0

Max Great Circle Coordination Distance	156.8 km / 97.4 mi	156.8 km / 97.4 mi
Precipitation Scatter Contour Radius	351.5 km / 218.4 mi	100.0 km / 62.1 mi

# COMSEARCH

## Earth Station Data Sheet

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

### Coordination Values

### NAPA, CA

Licensee Name LightSquared Subsidiary LLC  
Latitude (NAD 83) 38° 14' 41.5" N  
Longitude (NAD 83) 122° 16' 47.5" W  
Ground Elevation (AMSL) 3.05 m / 10.0 ft  
Antenna Centerline (AGL) 3.66 m / 12.0 ft  
Antenna Model Viasat 7.3 Meter  
Antenna Mode Transmit 13.0 GHz  
Interference Objectives: Long Term -151.0 dBW/4 kHz 20%  
Short Term -128.0 dBW/4 kHz 0.0025%  
Max Available RF Power -1.1 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 13.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	72.05	-10.00	156.80
5	0.00	67.93	-10.00	156.80
10	0.95	64.16	-10.00	107.80
15	0.66	60.12	-10.00	111.40
20	0.50	56.20	-10.00	129.20
25	0.59	52.51	-10.00	140.70
30	1.62	49.52	-10.00	116.00
35	2.51	46.79	-10.00	100.00
40	2.26	43.61	-10.00	100.00
45	3.09	41.57	-10.00	100.00
50	2.92	39.16	-10.00	100.00
55	3.71	38.05	-10.00	100.00
60	3.85	36.89	-10.00	100.00
65	4.79	37.10	-10.00	100.00
70	4.77	36.95	-10.00	100.00
75	4.32	36.95	-10.00	100.00
80	4.26	37.91	-10.00	100.00
85	4.19	39.39	-10.00	100.00
90	3.93	41.18	-10.00	100.00
95	3.28	43.11	-10.00	100.00
100	4.45	46.72	-9.32	100.00
105	4.45	49.72	-8.55	100.00
110	5.08	53.30	-7.80	100.00
115	5.77	57.01	-7.03	100.00
120	6.24	60.70	-6.22	100.00
125	6.24	64.26	-5.51	100.00
130	7.44	68.32	-5.25	100.00
135	7.18	71.93	-4.93	100.00
140	7.18	75.68	-5.17	100.00
145	6.96	79.45	-5.57	100.00
150	6.52	83.26	-6.27	100.00
155	6.90	87.17	-7.07	100.00
160	6.90	91.05	-7.65	100.00
165	6.90	94.93	-7.85	100.00
170	9.76	98.42	-8.27	100.00
175	9.76	102.09	-8.75	100.00
180	9.92	105.68	-9.26	100.00
185	9.80	109.28	-9.84	100.00

# COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
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### Coordination Values

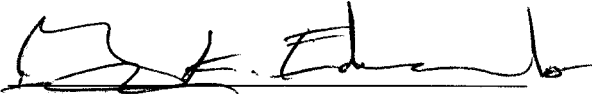
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Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 13.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	9.80	112.76	-10.00	100.00
195	7.26	117.25	-10.00	100.00
200	7.26	120.69	-10.00	105.00
205	7.26	123.99	-10.00	116.50
210	6.58	127.53	-10.00	137.70
215	6.58	130.49	-10.00	156.80
220	5.86	133.74	-10.00	156.80
225	4.77	137.08	-10.00	156.80
230	4.77	139.24	-10.00	156.80
235	4.29	141.42	-10.00	156.80
240	3.40	143.54	-10.00	144.50
245	3.40	144.28	-10.00	130.50
250	3.40	144.42	-10.00	143.10
255	2.14	145.19	-10.00	144.00
260	2.15	144.09	-10.00	139.00
265	1.54	142.97	-10.00	130.90
270	1.54	140.80	-10.00	126.50
275	1.54	138.21	-10.00	128.20
280	0.89	135.71	-10.00	131.50
285	0.89	132.46	-10.00	127.70
290	0.91	128.98	-10.00	109.30
295	1.11	125.25	-10.00	119.30
300	0.89	121.56	-10.00	111.10
305	1.27	117.54	-10.00	100.40
310	0.86	113.70	-10.00	115.90
315	1.08	109.60	-10.00	103.60
320	1.12	105.50	-10.00	104.40
325	1.21	101.36	-10.00	101.30
330	0.86	97.24	-10.00	108.90
335	0.00	93.09	-10.00	156.80
340	0.00	88.85	-10.00	156.80
345	0.00	84.62	-10.00	156.80
350	0.00	80.41	-10.00	156.80
355	0.00	76.21	-10.00	156.80

## 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.

BY: 

Gary K. Edwards  
Senior Manager  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147

DATED: February 24, 2011

# FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for  
**LightSquared Subsidiary LLC**  
**NAPA, CA**  
**(11.3 Meter)**  
**Satellite Earth Station**

Prepared By:  
COMSEARCH  
19700 Janelia Farm Boulevard  
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February 24, 2011

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Citizens Telecommunications of CA  
CNN America, Inc.  
COMCAST CABLEVISION CORP OF CALIFORNIA  
COMCAST OF CALIF/COLO/WASH, LP  
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COMCAST OF NORTHERN CALIFORNIA II, INC.  
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County of Sacramento IT Department  
EAST BAY MUNICIPAL UTILITY DISTRICT  
Edge Wireless Licenses, LLC  
Gannett River States Publishing Corp.  
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KVIE INC  
LAKE COUNTY TELEVISION CLUB  
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MCI Communication Services, Inc.

MEDIACOM CALIFORNIA LLC  
METRO NETWORKS COMMUNICATIONS INC  
MetroFi Inc.  
Moreen, Steven K  
Napa, City of  
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New Cingular Wireless PCS LLC - N CAL  
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# COMSEARCH

## Earth Station Data Sheet

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

Date: 02/24/2011  
Job Number: 110118COMSGE02

### Administrative Information

Status: ENGINEER PROPOSAL  
Call Sign: E080030  
Licensee Code: MOSVLP  
Licensee Name: LightSquared Subsidiary LLC

### Site Information

#### NAPA, CA

Venue Name  
Latitude (NAD 83): 38° 14' 41.5" N  
Longitude (NAD 83): 122° 16' 47.5" W  
Climate Zone: A  
Rain Zone: 3  
Ground Elevation (AMSL): 3.05 m / 10.0 ft

### Link Information

Satellite Type: Inclined Geo Orbit  
Mode: TR - Transmit-Receive  
Modulation: Digital  
Minimum Elevation Angle: 34°  
Azimuth Range: 101.0 degrees to 107.3 degrees West Longitude  
Antenna Centerline (AGL): 6.4 m / 21.0 ft

### Antenna Information

#### Receive - FCC32

#### Transmit - FCC32

Manufacturer	ViaSat	ViaSat
Model	11.3 Meter	11.3 Meter
Gain / Diameter	61.2 dBi / 11.3 m	61.4 dBi / 11.3 m
3-dB / 15-dB Beamwidth	0.07° / 0.10°	0.10° / 0.20°
Max Available RF Power (dBW/4 kHz)	(1) 23.6	(2) -1.1 (3) -1.1 (4) 9.8
(dBW/MHz)	23.6	22.9 22.9 9.8
Maximum EIRP (dBW/4 kHz)	85.0	60.3 60.3 71.2
(dBW/MHz)	85.0	84.3 84.3 71.2
Interference Objectives: Long Term	-156.0 dBW/MHz 20%	-151.0 dBW/4 kHz 20%
Short Term	-146.0 dBW/MHz 0.01%	-128.0 dBW/4 kHz 0.0025%

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#### Transmit 13.0 GHz

Emission / Frequency Range (MHz)	NON - 7M50G7D / 10700.0 - 10950.0 NON - 7M50G7D / 11200.0 - 11450.0	(1) NON - 7M50G7D / 13240.5 - 13245.5 (2) NON - 7M50G7D / 13248.0 - 13250.0 (3) NON - 7M50G7D / 12750.0 - 12752.0 (4) NON - 7M50G7D / 12780.0 - 13140.0
Max Great Circle Coordination Distance	156.8 km / 97.4 mi	156.8 km / 97.4 mi
Precipitation Scatter Contour Radius	351.5 km / 218.4 mi	137.2 km / 85.2 mi

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Antenna Mode Transmit 13.0 GHz  
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Max Available RF Power -1.1 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 13.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	72.05	-10.00	156.80
5	0.00	67.93	-10.00	156.80
10	0.92	64.15	-10.00	107.80
15	0.64	60.11	-10.00	111.40
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25	0.55	52.49	-10.00	140.70
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35	2.47	46.76	-10.00	100.00
40	2.21	43.58	-10.00	100.00
45	3.05	41.54	-10.00	100.00
50	2.88	39.12	-10.00	100.00
55	3.67	38.01	-10.00	100.00
60	3.82	36.86	-10.00	100.00
65	4.76	37.07	-10.00	100.00
70	4.74	36.92	-10.00	100.00
75	4.29	36.92	-10.00	100.00
80	4.23	37.88	-10.00	100.00
85	4.16	39.36	-10.00	100.00
90	3.91	41.16	-10.00	100.00
95	3.13	42.99	-10.00	100.00
100	3.51	46.07	-9.32	100.00
105	4.03	49.46	-8.55	100.00
110	4.71	53.09	-7.80	100.00
115	5.40	56.83	-7.03	100.00
120	5.69	60.45	-6.22	100.00
125	5.69	64.05	-5.51	100.00
130	6.90	68.14	-5.25	100.00
135	6.63	71.78	-4.93	100.00
140	6.63	75.57	-5.17	100.00
145	6.41	79.37	-5.57	100.00
150	5.97	83.21	-6.27	100.00
155	5.81	87.13	-7.07	100.00
160	5.80	91.07	-7.65	100.00
165	5.80	95.01	-7.85	100.00
170	8.68	98.57	-8.27	100.00
175	8.68	102.30	-8.75	100.00
180	8.84	105.95	-9.26	100.00
185	8.72	109.61	-9.84	100.00

# COMSEARCH

## Earth Station Data Sheet

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

### Coordination Values

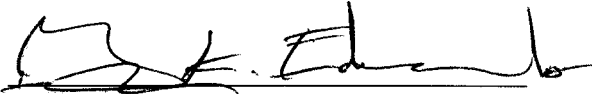
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			Horizon Gain (dBi)	Coordination Distance (km)
190	8.72	113.17	-10.00	100.00
195	6.16	117.71	-10.00	105.00
200	6.16	121.22	-10.00	116.50
205	6.17	124.59	-10.00	137.70
210	5.48	128.20	-10.00	156.80
215	5.48	131.24	-10.00	156.80
220	4.76	134.56	-10.00	156.80
225	3.67	137.97	-10.00	156.80
230	3.67	140.20	-10.00	156.80
235	3.18	142.44	-10.00	144.50
240	2.29	144.61	-10.00	130.50
245	2.29	145.38	-10.00	143.10
250	2.29	145.53	-10.00	144.00
255	1.03	146.28	-10.00	139.00
260	1.03	145.13	-10.00	130.90
265	0.54	143.85	-10.00	126.50
270	0.59	141.57	-10.00	128.20
275	0.54	138.95	-10.00	131.50
280	0.50	135.97	-10.00	127.70
285	0.48	132.71	-10.00	109.30
290	0.89	128.99	-10.00	119.30
295	1.09	125.26	-10.00	111.10
300	0.87	121.57	-10.00	100.40
305	1.25	117.55	-10.00	115.90
310	0.84	113.71	-10.00	103.60
315	1.03	109.61	-10.00	104.40
320	1.07	105.51	-10.00	101.30
325	1.18	101.37	-10.00	108.90
330	0.84	97.24	-10.00	156.80
335	0.00	93.09	-10.00	156.80
340	0.00	88.85	-10.00	156.80
345	0.00	84.62	-10.00	156.80
350	0.00	80.41	-10.00	156.80
355	0.00	76.21	-10.00	156.80

## 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.

BY: 

Gary K. Edwards  
Senior Manager  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147

DATED: February 24, 2011