

FREQUENCY COORDINATION REPORT
14 AND 11 GHZ TRANSMIT-RECEIVE EARTH STATION

ARQIVA INC.

MARINA DEL REY, CA

July 27, 2011

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 as defined on the frequency coordination data sheet.

2. **SUMMARY OF RESULTS**

There were no unresolved great circle interference cases at 11 GHz. There were no potential great circle interference cases at 14 GHz.

There were no reported cases of rain scatter beam intersections.

3. **SUPPLEMENTAL SHOWING**

The Satellite Earth station proposed in this Application was coordinated by Tele-Sci Solutions using computer techniques and in accordance with Parts 25 and 101 of the FCC Rules and Regulations.

4. **FREQUENCY COORDINATION DATA**

Frequency Coordination Data which is attached, contains the following:

Technical Characteristics of Proposed Earth Station

Horizon Antenna Gain Plot 11 & 14 GHz

Local Horizon Plot

Satellite Elevation Plot with Discrimination Angle Plot

14 and 11 GHz Coordination Contour

14 and 11 GHz Rain Scatter

5. **FREQUENCY COORDINATION STATEMENT (FCC PART 101)**

Holders of licenses, permittees, prior filed applicants or planners of 11 and 14 GHz transmitting stations were notified on June 29, 2011 of the proposed Earth Station technical details in accordance with Section 25.203 (c-2) of the FCC Rules and Regulations. Satisfactory coordination was achieved on the basis that harmful interference would not occur, or that sufficient terrestrial blocking exists.

These companies are as follows:

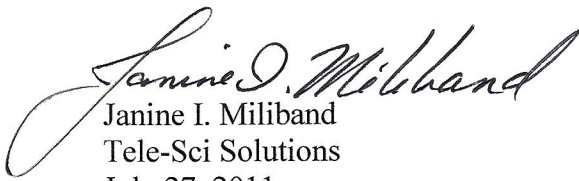
Aera Energy LLC
Airband Communications Inc.
New Cingular Wireless PCS LLC – San Diego
New Cingular Wireless PCS – Los Angeles
Southern California Regional Rail Authority
Clearwire Spectrum Holding III, LLC
Nextlink Wireless Inc.
T-Mobile License LLC
AT&T California
Los Angeles County FCC Licensing Section
Verizon California Inc.
Los Angeles SMSA Ltd. Partnership
Riverside, County of
Riverside County Communications Bureau
Orange County of CA
Southern California Gas Company
Southern California Edison Company
Long Beach City Electronics Div.
Metropolitan Water District of Southern California
Los Angeles Unified School District
Los Angeles City Information Technology Agency
Verizon Wireless (VAW) LLC (CA)
Los Angeles, City of
SkyRiver Communications
Los Angeles City of, Dept. of Water & Power
Towerstream Corp.
Turn Wireless LLC
Southern California Telephone Company
Voicestream Wireless PCS BTA 1 Lic Corp
Gilcomm LLC

Tejon Ranch Company
Santa Barbara County of
Ventura Regional Sanitation District
Fireline Network Solutions
Glendale, City of
J G Boswell
Ventura County Office of Education
Chevron USA Inc.
AirSites2000 LLC
Northrop Grumman Systems Corporation
Nextweb Inc.
ABC Holding Company, Inc.
UCSD/HPWREN
CBS Broadcasting Inc.
International Communications Network, Inc.
ABC Radio Los Angeles Assets, LLC
AIRCELL, LLC – GOGO, LLC
AT&T Mobility Wireless Ops Hldgs – PNW Mk
Antelecom, Inc.
Arizona Public Service Company (APS)
BNSF Railway Company
CNG Communications Inc.
California, State of
Cellco Partnership – California
City of Riverside
Color Broadband Inc.
Comsearch
Cox Communications – San Diego Mkt
Fresno MSA Limited Partnership
Frontier Communications of the Southwest
GTE Mobilnet of California LTD Partnership
GTE Mobilnet of Santa Barbara LTD Partnership
Gila Electronics of Yuma, Inc.
Imperial Irrigation District
Kern Community College District Bakersfield
Kern County Superintendent of Schools
Lightwave Broadband LLC
Long Beach City California
Long Beach City Wireless Communications Div.
Los Angeles County Dept of Public Works
Maricopa County Wireless Systems
MetroPCS California, LLC
Micronet Communications Inc.
NEXTEL OF CALIFORNIA INC.
NSAC, LLC
New Cingular Wireless PCS LLC – AZ

New Cingular Wireless PCS – PNW Region
New Cingular Wireless PCS – N CAL
Orange County Transportation Authority
QWEST CORPORATION
RADYN, INC.
Regional 3Cs
San Diego County
San Diego, City of
San Bernardino Community College Dis KVCR-TV
San Bernardino County of California
San Diego Gas & Electric Company
Santa Barbara Cellular Systems Ltd.
Sprint Telephony PCS, L.P.
T-MOBILE USA, INC.
Union Pacific Railroad Company
Verizon Wireless (VAW) LLC – Southwest Region
WWC License LLC – California
WWC License LLC – Desert Mtn Region

6. **Certification of Person Responsible for Preparing Frequency Coordination Information Submitted in this Application**

I hereby certify that I am the technically qualified person responsible for -
reparation of the frequency coordination information contained in this application;
that I am familiar with Parts 101 and 25 of the Commission's Rules; that I have
either prepared or reviewed the frequency coordination information submitted in
this application; and, that it is complete and accurate to the best of my knowledge.


Janine I. Miliband
Tele-Sci Solutions
July 27, 2011

Tele-Sci Solutions

P.O. Box 237

Augusta, NJ 07822-0237

Phone: 973-383-7845

Fax: 973-383-5625

Email: telesci@yahoo.com

TO: All Coordinators

June 29, 2011

Re: Arqiva Inc.

T/R Earth Station KU Band

Marina Del Rey, CA

Dear Frequency Coordinator:

On behalf of Arqiva Inc. we are forwarding the attached frequency coordination request for a permanent, KU band, transmit-only earth station to be located in Marina Del Rey, CA. Please review this data for potential downlink interference in accordance with Part 101 and 25 of the FCC Rules and Regulations.

We would appreciate your reply either by telephone, mail, email or fax to the Tele-Sci Solutions office by July 20, 2011. If you should have any questions, please do not hesitate to contact me. Thank you for your assistance in this coordination.

Sincerely,

Janine Miliband
General Manager

SATELLITE EARTH STATION
FREQUENCY COORDINATION DATA
06/29/11

COMPANY NAME:	ARQIVA INC
EARTH STATION LOCATION:	MARINA DEL REY, CA
LATITUDE(DMS):	33 58 55
LONGITUDE(DMS):	118 25 38.3
SITE GROUND ELEVATION(FT. AMSL):	15.0
ANTENNA CENTER LINE(FT)	7.0
ANTENNA TYPE:	PRODELIN 1385-350
ANTENNA DIAMETER(METERS):	3.8
11 GHZ ANTENNA GAIN(DBI):	51.2
15 DB HALF BEAMWIDTH(DEG):	1.50
14 GHZ ANTENNA GAIN(DBI):	53.0
15 DB HALF BEAMWIDTH (DEG)	1.30
OPERATING MODE:	T/R
RECEIVE BAND(MHZ):	10950-12200
TRANSMIT BAND(MHZ):	14000-14500
EMISSION DESIGNATOR	6M76G7W
(See Attachment for Additional Emission Designators)	
MODULATION:	DIGITAL
MAX. AVAILABLE RF POWER(DBW/4KHZ):	-9.28
(DBW/6M76HZ) :	23.00
MAX. EIRP (DBW/4KHZ):	43.72
(DBW/6M76HZ) :	76.00
MAX. PERMISSIBLE INTERFERENCE POWER	
11 GHZ 20% (DBW)	-168.0
11 GHZ 0.0100% (DBW)	-160.0
14 GHZ 20% (DBW/4KHZ)	-151.0
14 GHZ 0.0025% (DBW/4KHZ)	-128.0
SATELLITE ARC (MIN/MAX)	50/191 DEG
AZIMUTH	102.5/260.0 DEG
ELEVATION	9.2/ 5.7 DEG
RADIO CLIMATE	A
RAIN ZONE	4
MAXIMUM GREAT CIRCLE COORDINATION DISTANCE(KM)	
11 GHZ	416.2
14 GHZ	256.7
PRECIPITATION SCATTER CONTOUR RADIUS(KM)	
11 GHZ	95.8
14 GHZ	135.3
TELE-SCI SOLUTIONS	
P.O. Box 237 Augusta, NJ 07822-0237 973-383-7845_	

Satellite Earth Station
Frequency Coordination Data
06/29/11

Additional Emission Designators
Permanent Fixed KU Earth Station
Marina Del Rey, CA

Emission Designator	Modulation	Max.Available RF Power (DBW/4KHz)	Max EIRP Density	Max EIRP (DBW)
Transmit Emission Designators:				
9M00G7W	Digital	-10.52	42.48	76.0
12M8G7W	Digital	-12.07	40.95	76.0
36M0F8W	Digital	-16.54	36.46	76.0
36M0G7W	Digital	-16.54	36.46	76.0
Receive Emission Desitnators:				
6M76G7W	Digital	0.0	0.0	0.0
9M00G7W	Digital	0.0	0.0	0.0
12M8G7W	Digital	0.0	0.0	0.0
36M0F8W	Digital	0.0	0.0	0.0
36m0G7W	Digital	0.0	0.0	0.0

Tele-Sci Solutions
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AZIMUTH	HORIZON	DISC	HORIZON	11GHZ COORD	14 GHZ	RAIN11	RAIN14
DEGREES	ANGLE	ANGLE	GAIN DBI	DISTANCE	DISTANCE	SCATTER	SCATTER
DEGREES	DEGREES	DEGREES		KM	KM	KM	KM
10.	.5	91.9	-10.0	214.6	132.3	95.8	135.3
15.	.5	87.3	-10.0	214.6	132.3	95.8	135.3
20.	.5	82.5	-10.0	214.6	132.3	95.8	135.3
25.	.3	77.7	-10.0	214.6	132.3	95.8	135.3
30.	.3	72.7	-10.0	214.6	132.3	95.8	135.3
35.	.3	67.8	-10.0	214.6	132.3	95.8	135.3
40.	.5	62.6	-10.0	214.6	132.3	95.8	135.3
45.	.5	57.7	-10.0	214.6	132.3	95.8	135.3
50.	.5	52.8	-10.0	214.6	132.3	95.8	135.3
55.	.5	47.8	-10.0	214.6	132.3	95.8	135.3
60.	.5	42.9	-8.8	222.0	136.9	95.8	135.3
65.	.5	38.1	-7.5	230.5	142.1	95.8	135.3
70.	.5	33.2	-6.0	240.5	148.3	95.8	135.3
75.	.5	28.5	-4.4	252.4	155.6	95.8	135.3
80.	.5	23.8	-2.4	267.0	164.7	95.8	135.3
85.	.5	19.2	-.1	285.3	175.9	95.8	135.3
90.	.5	15.0	2.6	308.5	190.2	95.8	135.3
95.	.5	11.3	5.6	336.6	207.5	95.8	135.3
100.	.5	9.0	8.1	361.6	223.0	95.8	135.3
105.	.5	9.0	8.1	361.4	222.8	95.8	135.3
110.	.5	11.4	5.6	336.1	207.3	95.8	135.3
115.	.5	15.0	2.6	308.1	190.0	95.8	135.3
120.	.1	19.4	-.2	284.4	175.3	95.8	135.3
125.	.1	23.4	-2.2	268.4	165.5	95.8	135.3
130.	.1	27.2	-3.9	255.9	157.8	95.8	135.3
135.	.1	31.0	-5.3	245.7	151.5	95.8	135.3
140.	.1	34.7	-6.5	237.3	146.3	95.8	135.3
145.	.1	38.2	-7.5	230.3	142.0	95.8	135.3
150.	.0	41.5	-8.5	224.3	138.3	95.8	135.3
155.	.0	44.4	-9.2	219.7	135.5	95.8	135.3
160.	.0	46.7	-9.7	216.2	133.3	95.8	135.3
165.	.0	48.5	-10.0	214.6	132.3	95.8	135.3
170.	.0	49.6	-10.0	214.6	132.3	95.8	135.3
175.	.0	50.3	-10.0	214.6	132.3	95.8	135.3
180.	.0	50.5	-10.0	214.6	132.3	95.8	135.3
185.	.0	50.3	-10.0	214.6	132.3	95.8	135.3
190.	.0	49.6	-10.0	214.6	132.3	95.8	135.3
195.	.0	48.5	-10.0	214.6	132.3	95.8	135.3
200.	.0	46.7	-9.7	216.2	133.3	95.8	135.3
205.	.0	44.4	-9.2	219.7	135.5	95.8	135.3
210.	.0	41.5	-8.5	224.3	138.3	95.8	135.3
215.	.0	38.3	-7.6	230.1	141.9	95.8	135.3
220.	.0	34.8	-6.5	237.1	146.2	95.8	135.3

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AZIMUTH DEGREES	HORIZON ANGLE DEGREES	DISC ANGLE DEGREES	HORIZON GAIN DBI	11GHZ DISTANCE KM	COORD 14 GHZ DISTANCE KM	RAIN11 SCATTER KM	RAIN14 SCATTER KM
225.	.0	31.1	-5.3	245.5	151.4	95.8	135.3
230.	.0	27.3	-3.9	255.6	157.6	95.8	135.3
235.	.0	23.5	-2.3	268.1	165.3	95.8	135.3
240.	.0	19.5	-.3	283.9	175.1	95.8	135.3
245.	.0	15.5	2.2	304.9	188.0	95.8	135.3
250.	.0	11.5	5.5	334.9	206.5	95.8	135.3
255.	.0	7.6	9.9	380.6	234.7	95.8	135.3
260.	.0	5.7	13.0	416.2	256.7	95.8	135.3
265.	.0	7.6	10.0	381.6	235.3	95.8	135.3
270.	.0	11.5	5.5	335.1	206.6	95.8	135.3
275.	.0	16.0	1.9	302.1	186.3	95.8	135.3
280.	.0	20.8	-.9	278.6	171.8	95.8	135.3
285.	.0	25.6	-3.2	260.9	160.9	95.8	135.3
290.	.0	30.5	-5.1	247.0	152.3	95.8	135.3
295.	.0	35.4	-6.7	235.7	145.4	95.8	135.3
300.	.0	40.4	-8.1	226.3	139.5	95.8	135.3
305.	.3	45.0	-9.3	218.7	134.9	95.8	135.3
310.	.3	50.0	-10.0	214.6	132.3	95.8	135.3
315.	.3	55.0	-10.0	214.6	132.3	95.8	135.3
320.	.3	59.9	-10.0	214.6	132.3	95.8	135.3
325.	.5	64.7	-10.0	214.6	132.3	95.8	135.3
330.	.5	69.7	-10.0	214.6	132.3	95.8	135.3
335.	.5	74.7	-10.0	214.6	132.3	95.8	135.3
340.	.5	79.7	-10.0	214.6	132.3	95.8	135.3
345.	.5	84.6	-10.0	214.6	132.3	95.8	135.3
350.	.5	89.6	-10.0	214.6	132.3	95.8	135.3
355.	.5	94.6	-10.0	214.6	132.3	95.8	135.3
360.	.5	99.6	-10.0	214.6	132.3	95.8	135.3

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POINTING AZIMUTH AND ELEVATION ANGLES

SATELLITE LONGITUDE	LONG DIFF	ELEV AZIMUTH	ANGLE	SATELLITE NAME
------------------------	--------------	-----------------	-------	-------------------

50.00	-68.43	102.46	9.18	
51.00	-67.43	103.08	10.01	
52.00	-66.43	103.71	10.84	
53.00	-65.43	104.34	11.67	
54.00	-64.43	104.97	12.50	
55.00	-63.43	105.62	13.33	
56.00	-62.43	106.27	14.15	
57.00	-61.43	106.93	14.98	
58.00	-60.43	107.60	15.81	
59.00	-59.43	108.27	16.63	
60.00	-58.43	108.96	17.45	
61.00	-57.43	109.65	18.27	
62.00	-56.43	110.35	19.09	
63.00	-55.43	111.07	19.91	
64.00	-54.43	111.79	20.73	
65.00	-53.43	112.52	21.54	
66.00	-52.43	113.27	22.35	
67.00	-51.43	114.03	23.16	
68.00	-50.43	114.79	23.96	
69.00	-49.43	115.58	24.76	
70.00	-48.43	116.37	25.56	BRASILSAT B2
71.00	-47.43	117.18	26.35	
72.00	-46.43	118.00	27.14	AMC 6
73.00	-45.43	118.84	27.92	
74.00	-44.43	119.69	28.70	SBS 6
75.00	-43.43	120.56	29.48	
76.00	-42.43	121.45	30.25	COMSTAR 1&2
77.00	-41.43	122.35	31.01	
78.00	-40.43	123.27	31.77	ANC 5
79.00	-39.43	124.21	32.52	
80.00	-38.43	125.17	33.26	
81.00	-37.43	126.14	34.00	
82.00	-36.43	127.14	34.72	NIMIG 2
83.00	-35.43	128.16	35.44	AMC 9
84.00	-34.43	129.20	36.15	BRASILSAT B3
85.00	-33.43	130.26	36.86	XM 3
86.00	-32.43	131.34	37.55	
87.00	-31.43	132.45	38.23	AMC 3
88.00	-30.43	133.58	38.90	
89.00	-29.43	134.74	39.56	
90.00	-28.43	135.92	40.20	
91.00	-27.43	137.12	40.83	
92.00	-26.43	138.36	41.45	BRASILSAT B4
93.00	-25.43	139.62	42.06	INTELSAT 6
94.00	-24.43	140.90	42.65	
95.00	-23.43	142.22	43.23	
96.00	-22.43	143.56	43.78	
97.00	-21.43	144.93	44.33	INTELSAT 5
98.00	-20.43	146.32	44.85	
99.00	-19.43	147.75	45.36	GALAXY 4R

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POINTING AZIMUTH AND ELEVATION ANGLES

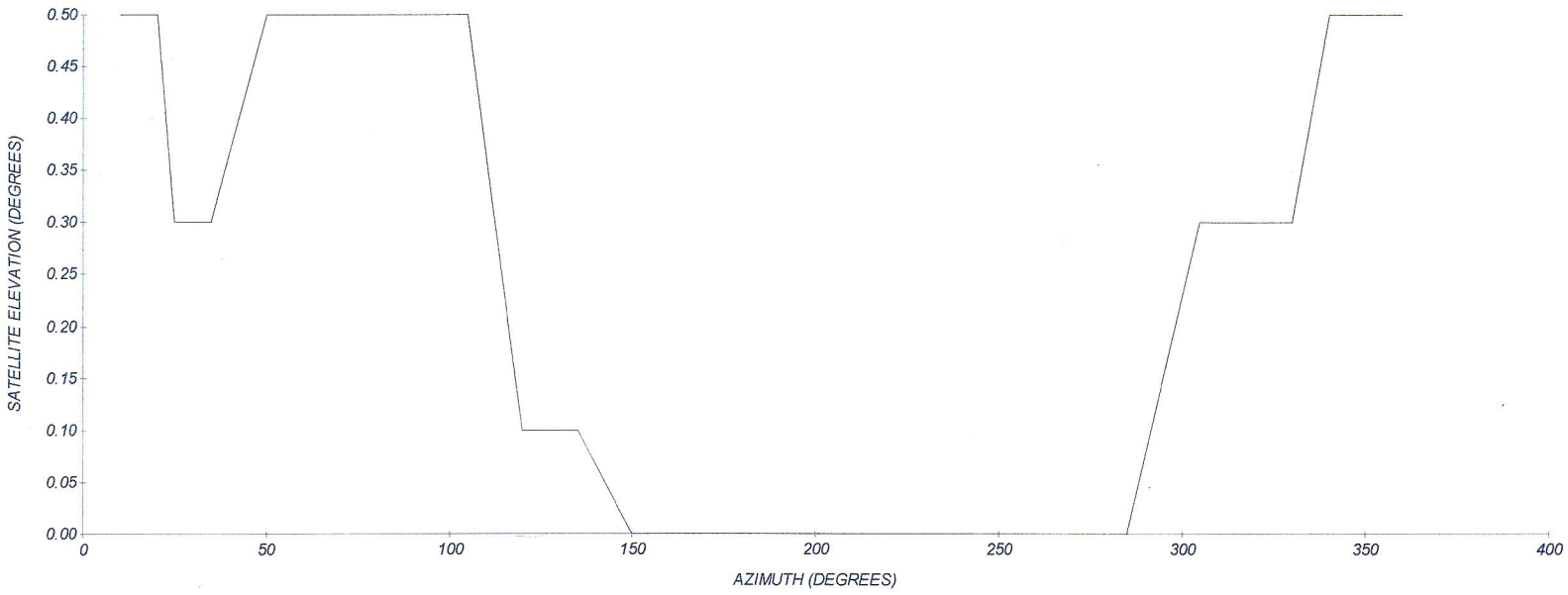
SATELLITE LONGITUDE	LONG DIFF	ELEV AZIMUTH	ANGLE	SATELLITE NAME
100.00	-18.43	149.20	45.84	
101.00	-17.43	150.68	46.31	
102.00	-16.43	152.19	46.75	
103.00	-15.43	153.72	47.18	AMC 1
104.00	-14.43	155.28	47.58	
105.00	-13.43	156.87	47.96	AMC 2
106.00	-12.43	158.48	48.31	
107.00	-11.43	160.12	48.64	ANIK F1
108.00	-10.43	161.78	48.95	
109.00	-9.43	163.46	49.23	
110.00	-8.43	165.15	49.48	EHOSTAR 6
111.00	-7.43	166.87	49.71	ANIK F2
112.00	-6.43	168.61	49.91	
113.00	-5.43	170.35	50.08	SOLIDARIDAD 2
114.00	-4.43	172.11	50.22	
115.00	-3.43	173.88	50.34	
116.00	-2.43	175.66	50.42	SATMEX 5
117.00	-1.43	177.45	50.48	
118.00	-.43	179.24	50.51	
119.00	.57	181.02	50.50	EHOSTAR 7
120.00	1.57	182.81	50.47	
121.00	2.57	184.60	50.41	EHOSTAR 9
122.00	3.57	186.37	50.32	
123.00	4.57	188.14	50.20	GALAXY 10R
124.00	5.57	189.90	50.06	
125.00	6.57	191.65	49.88	GALAXY 12
126.00	7.57	193.38	49.68	
127.00	8.57	195.09	49.45	
128.00	9.57	196.79	49.19	
129.00	10.57	198.47	48.91	INTELSAT 7
130.00	11.57	200.12	48.60	
131.00	12.57	201.75	48.26	AMC 11
132.00	13.57	203.36	47.90	
133.00	14.57	204.94	47.52	GALAXY 1
134.00	15.57	206.50	47.12	
135.00	16.57	208.03	46.69	AMC 10
136.00	17.57	209.54	46.24	
137.00	18.57	211.01	45.77	AMC 7
138.00	19.57	212.46	45.28	
139.00	20.57	213.88	44.77	AMC 8
140.00	21.57	215.27	44.25	
141.00	22.57	216.64	43.70	
142.00	23.57	217.98	43.14	
143.00	24.57	219.29	42.57	
144.00	25.57	220.57	41.97	EHOSTAR 1,2
145.00	26.57	221.82	41.36	
146.00	27.57	223.05	40.74	
147.00	28.57	224.26	40.11	
148.00	29.57	225.43	39.46	
149.00	30.57	226.59	38.80	

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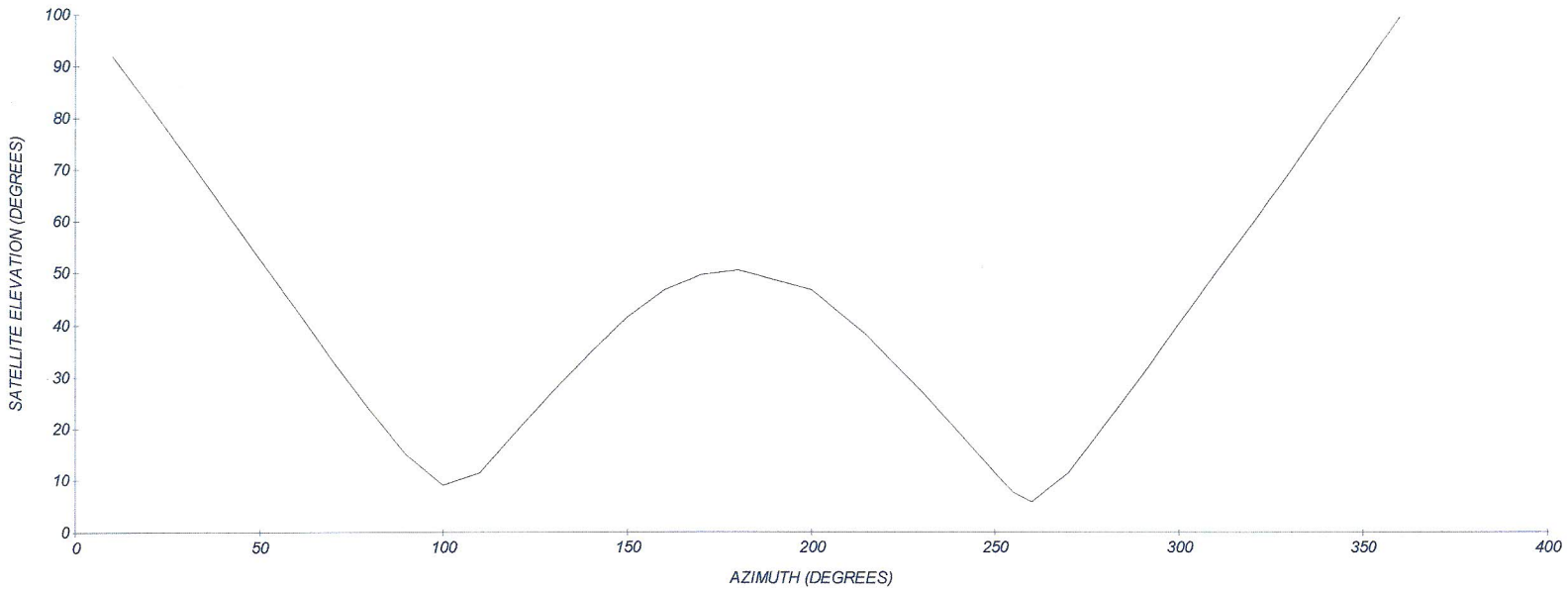
POINTING AZIMUTH AND ELEVATION ANGLES

SATELLITE LONGITUDE	LONG DIFF	AZIMUTH	ELEV ANGLE	SATELLITE NAME
150.00	31.57	227.71	38.13	
151.00	32.57	228.82	37.45	
152.00	33.57	229.90	36.75	
153.00	34.57	230.96	36.05	
154.00	35.57	231.99	35.34	
155.00	36.57	233.01	34.62	
156.00	37.57	234.00	33.89	
157.00	38.57	234.98	33.15	
158.00	39.57	235.93	32.41	
159.00	40.57	236.87	31.66	
160.00	41.57	237.78	30.90	
161.00	42.57	238.68	30.14	
162.00	43.57	239.57	29.37	
163.00	44.57	240.43	28.59	
164.00	45.57	241.28	27.81	
165.00	46.57	242.12	27.02	
166.00	47.57	242.94	26.24	
167.00	48.57	243.75	25.44	
168.00	49.57	244.54	24.64	
169.00	50.57	245.32	23.84	
170.00	51.57	246.09	23.04	
171.00	52.57	246.84	22.23	
172.00	53.57	247.58	21.42	
173.00	54.57	248.32	20.61	
174.00	55.57	249.04	19.79	
175.00	56.57	249.75	18.97	
176.00	57.57	250.45	18.15	
177.00	58.57	251.14	17.33	
178.00	59.57	251.83	16.51	
179.00	60.57	252.50	15.69	
180.00	61.57	253.17	14.86	
181.00	62.57	253.82	14.03	
182.00	63.57	254.48	13.21	
183.00	64.57	255.12	12.38	
184.00	65.57	255.76	11.55	
185.00	66.57	256.39	10.72	
186.00	67.57	257.01	9.89	
187.00	68.57	257.63	9.06	
188.00	69.57	258.24	8.23	
189.00	70.57	258.85	7.40	
190.00	71.57	259.45	6.57	
191.00	72.57	260.05	5.74	

LOCAL HORIZON PLOT



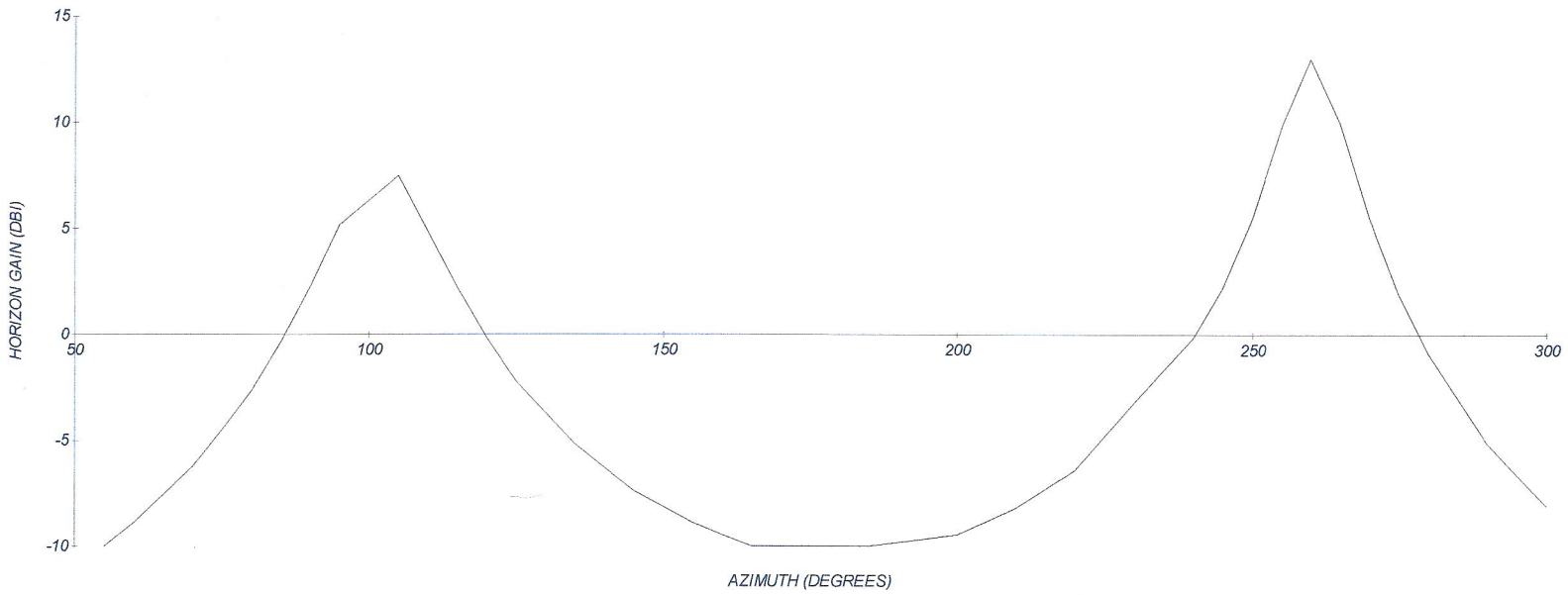
SATELLITE ELEVATION PLOT



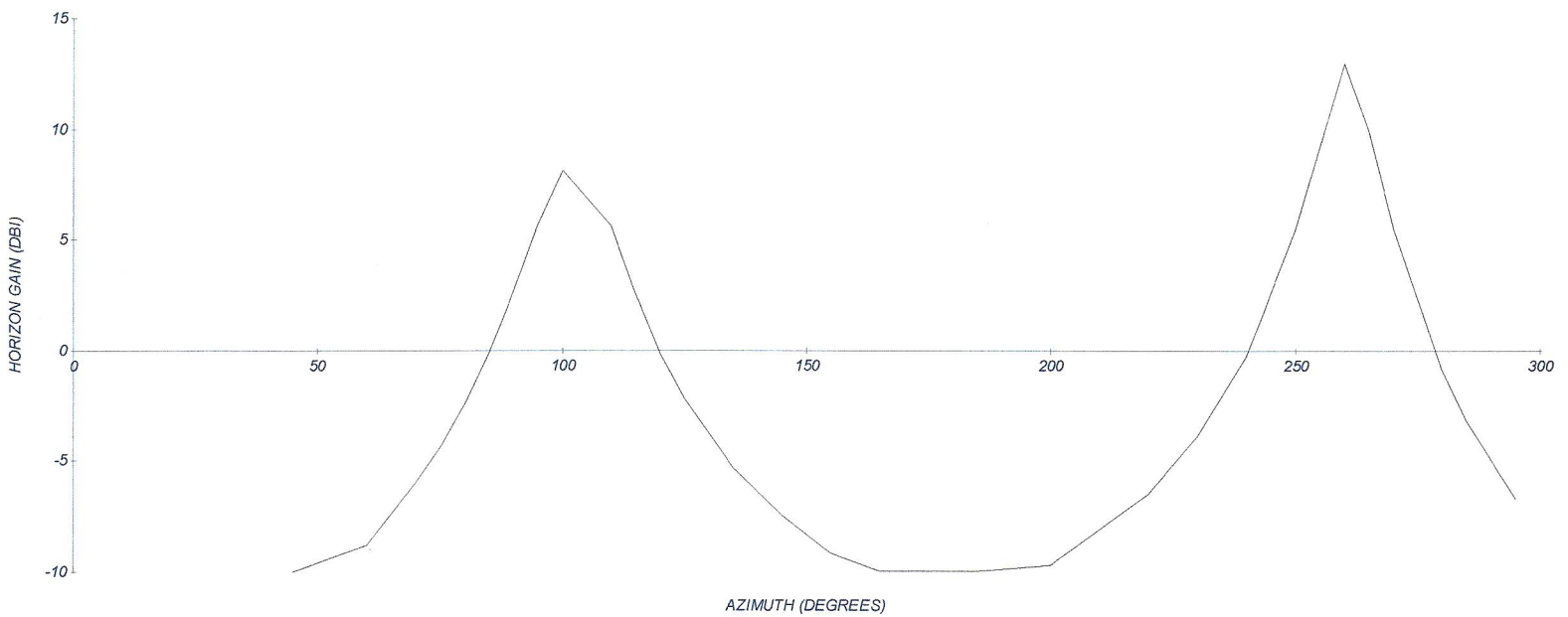
ARQIVA, INC.
MARINA DEL REY, CA
38 58 55.0
118 25 38.3

TELE-SCI SOLUTIONS
JULY 27, 2011

HORIZON ANTENNA GAIN PLOT 11GHZ



HORIZON ANTENNA GAIN PLOT 14GHZ

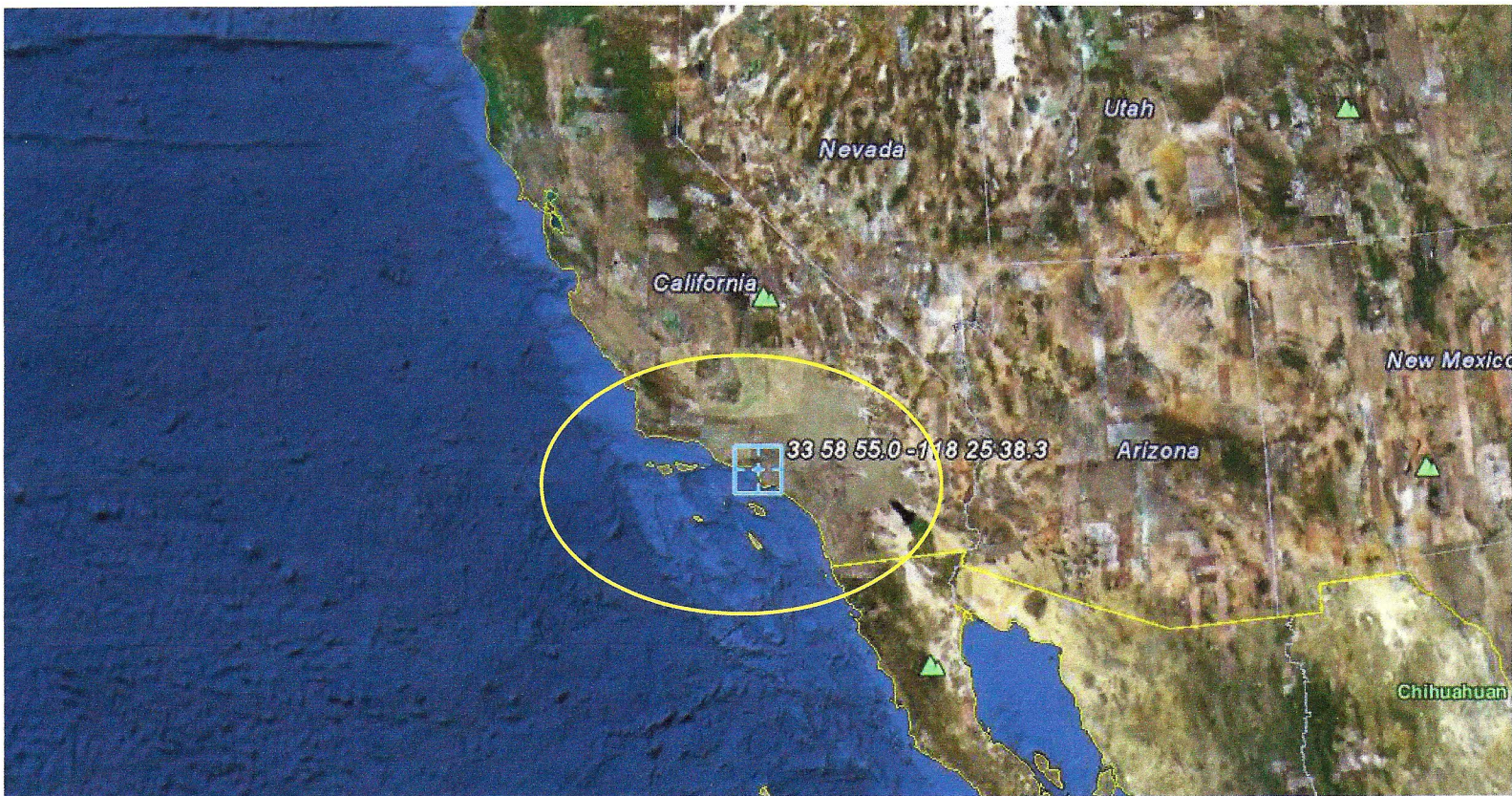


ARQIVA, INC.
MARINA DEL REY, CA
38 58 55.0
118 25 38.3

TELE-SCI SOLUTIONS
JULY 27, 2011

COORDINATION CONTOUR

11 GHZ

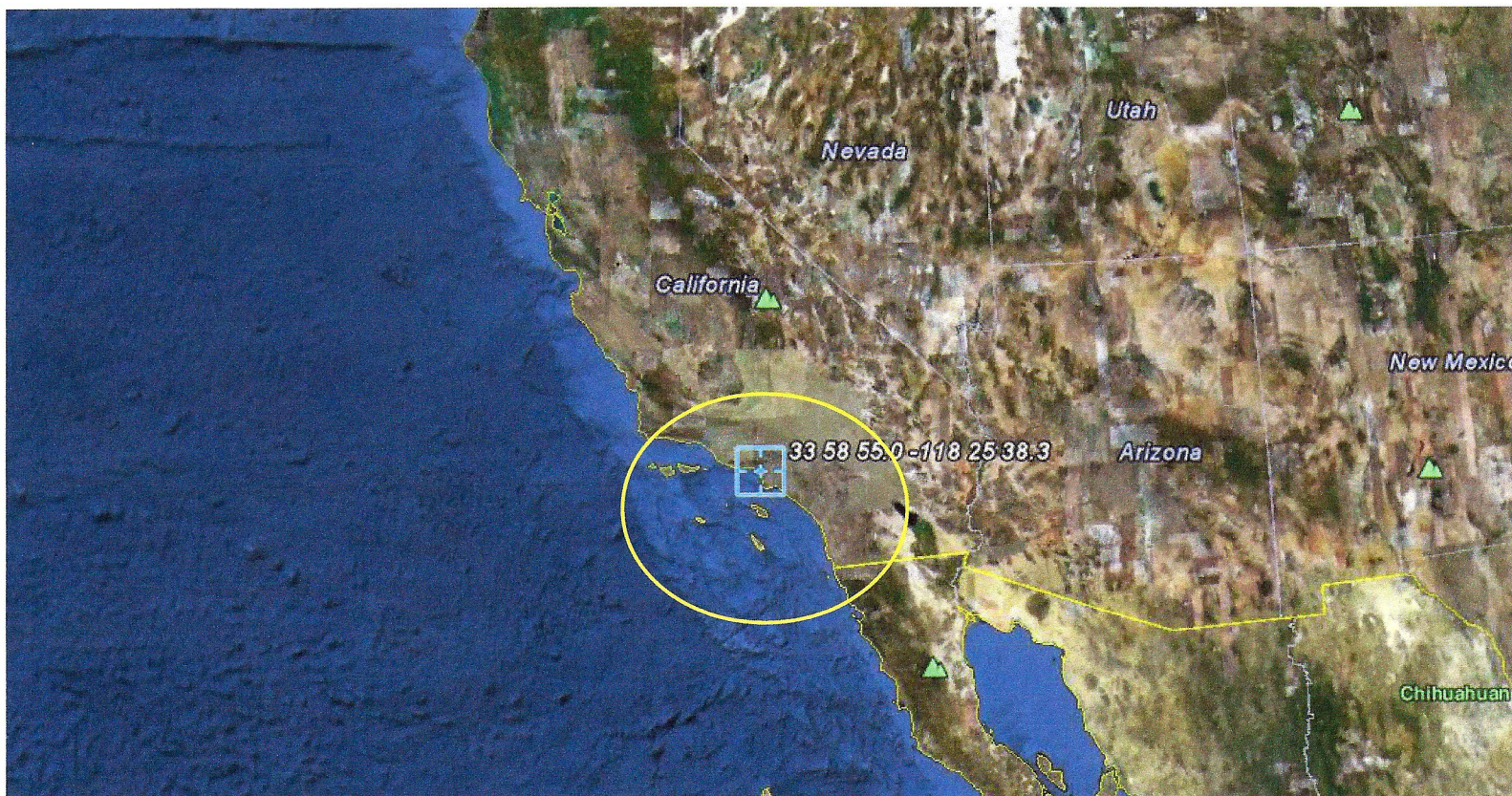


ARQIVA, INC.
MARINA DEL REY, CA
38 58 55.0
118 25 38.3

TELE-SCI SOLUTIONS
JULY 27, 2011

COORDINATION CONTOUR

14 GHZ

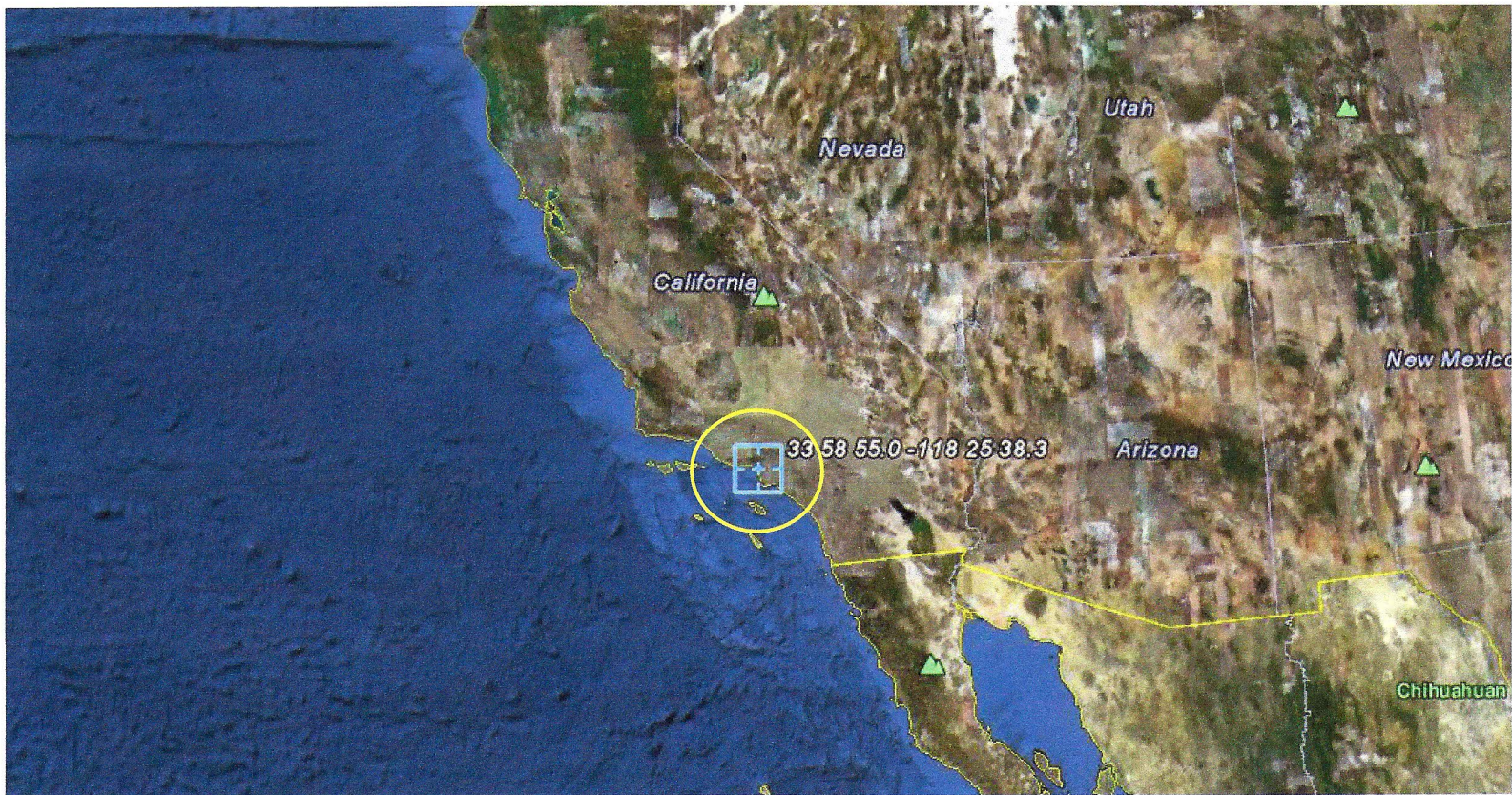


ARQIVA, INC.
MARINA DEL REY, CA
38 58 55.0
118 25 38.3

TELE-SCI SOLUTIONS
JULY 27, 2011

RAIN SCATTER COORDINATION CONTOUR

11 GHZ

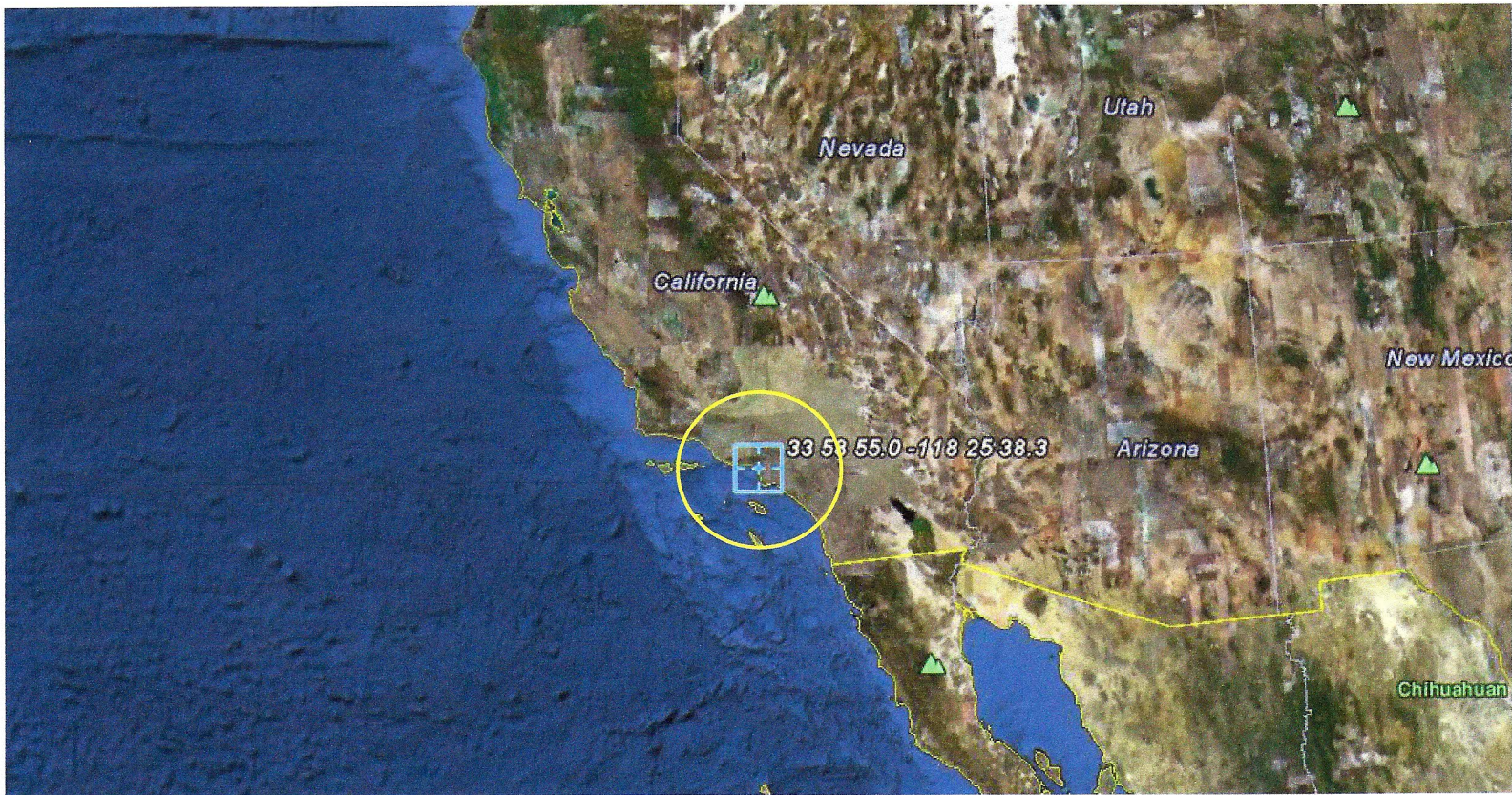


ARQIVA, INC.
MARINA DEL REY, CA
38 58 55.0
118 25 38.3

TELE-SCI SOLUTIONS
JULY 27, 2011

RAIN SCATTER COORDINATION CONTOUR

14 GHZ



ARQIVA, INC.
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38 58 55.0
118 25 38.3

TELE-SCI SOLUTIONS
JULY 27, 2011