

Tele-Sci Solutions, LLC

P.O. Box 237

Augusta, NJ 07822-0237

Phone: 973-383-7845

Fax: 973-383-5625

Email: telesci@yahoo.com

FREQUENCY COORDINATION REPORT

4 AND 6 GHZ TRANSMIT-RECEIVE EARTH STATION

UNIVISION NETWORKS

CHICAGO, IL

SEPTEMBER 24, 2012

1. **CONCLUSIONS**

An Interference Study considering all existing, proposed and prior coordinated microwave and wireless facilities within the coordination contours of the proposed Earth Station demonstrates that this site will operate satisfactorily with the Common Carrier and Private Microwave Environment as defined on the frequency coordination data sheet.

2. **SUMMARY OF RESULTS**

There were no potential great circle interference cases at 4 GHz. There were no potential great circle interference cases at 6 GHz which remain unresolved.

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, LLC using computer techniques and in accordance with Parts 25 and 101 of the FCC Rules and Regulations.

4. **FREQUENCY COORDINATION DATA**

The attached Frequency Coordination Data contains the following:

Technical Characteristics of Proposed Earth Station

Horizon Antenna Gain Plot 6 & 4 GHz

Satellite Elevation Plot

Local Horizon Plot

4 and 6 GHz Coordination Contour

4 and 6 GHz Rain Scatter

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

Holders of licenses, permittees, prior filed applicants or planners of 6 GHz transmitting stations were notified on August 30, 2012 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 and/or artificial shielding exists.

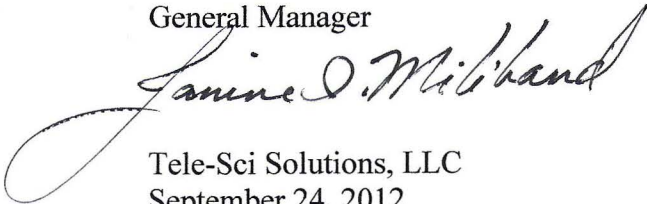
Ameren Services Company
Appalachian Broadcasting
Auburn Data Systems, LLC
BNSF Railway Company
Blackwater Telecom
Cellco Partnership – Indiana/Illinois
Chicago SMSA Limited Partnership
China Cat Productions LLC
Clear Spiral LLC
Comsearch Inc.
ComEd a.k.a. Commonwealth Edison
Comprehensive Wireless LLC
Converge Towers LLC
Coral Reef Technologies Ltd.
Coralinks
Eastern MLG LLC
GTE Mobilnet of Indiana Ltd. Partnership
High Voltage Communications LLC
Indiana Dept of Transportation Toll Rd.
Illinois Central Railroad
Illinois RSA #1 Limited Partnership
Indiana Michigan Power Company
Illinois State Toll Highway Authority
Indiana RSA #1 Limited Partnership
Kenosha Cellular Telephone, LP
Kenosha County of
KN Telecommunications Inc.
Micronet Communications Inc.
MVC Research LLC

New Cingular Wireless PCS – Indiana
New Cingular Wireless PCS, LLC – IL
Newgig Networks, LLC
Norfolk Southern Railway
Northern Indiana Public Service Company
Pinnacle Telecommunications Group Inc.
Pitt Power
Racine Cellular Telephone Co.
Rockford MSA Limited Partnership
Torelco LLC
US Cellular Operating Company, LLC (WI)
USCOC of Central Illinois, LLC
Velox Networks LLC
Verizon Wireless (VAW) LLC – IA/IL/WI
Verizon Wireless (VAW) LLC – CO/ID/MT/WY
Verizon Wireless (VAW) LLC – IN & KY Mkt
Weblin Holdings LLC
Wireless Backhaul Infrastructure LLC
Wireless Internetwork LLC
Zen Networks

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 preparation 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
General Manager



Janine I. Miliband

Tele-Sci Solutions, LLC
September 24, 2012

PERMANENT SATELLITE EARTH STATION
FREQUENCY COORDINATION DATA
08/30/12

COMPANY NAME:	UNIVISION NETWORKS
EARTH STATION LOCATION:	CHICAGO, IL
LATITUDE (DMS):	41 53 28.6
LONGITUDE (DMS):	87 37 9.8
SITE GROUND ELEVATION (FT. AMSL):	591.0
ANTENNA CENTER LINE (FT)	290.0
ANTENNA TYPE:	ANDREW
	4.5 METER
ANTENNA DIAMETER (METERS):	4.5
4 GHZ ANTENNA GAIN (DBI):	44.2
15 DB HALF BEAMWIDTH (DEG):	2.47
6 GHZ ANTENNA GAIN (DBI):	46.2
15 DB HALF BEAMWIDTH (DEG)	1.60
OPERATING MODE:	T/R
RECEIVE BAND (MHZ):	4020
TRANSMIT BAND (MHZ):	6245
EMISSION DESIGNATOR	36MOG1F
MODULATION:	DIGITAL
MAX. AVAILABLE RF POWER (DBW/4KHZ):	-15.54
(DBW/36MHZ) :	24.00
MAX. EIRP (DBW/4KHZ):	30.66
(DBW/36MHZ) :	70.20
MAX. PERMISSIBLE INTERFERENCE POWER	
4 GHZ 20% (DBW)	-140.0
4 GHZ 0.0100% (DBW)	-130.0
6 GHZ 20% (DBW/4KHZ)	-154.0
6 GHZ 0.0025% (DBW/4KHZ)	-131.0
SATELLITE ARC (MIN/MAX)	103/103 DEG
AZIMUTH	202.4/202.4 DEG
ELEVATION	39.1/ 39.1 DEG
RADIO CLIMATE	A
RAIN ZONE	2
MAXIMUM GREAT CIRCLE COORDINATION DISTANCE (KM)	
4 GHZ	228.3
6 GHZ	117.6
PRECIPITATION SCATTER CONTOUR RADIUS (KM)	
4 GHZ	131.2
6 GHZ	182.3

TELE-SCI SOLUTIONS, LLC

P.O. Box 237 Augusta, NJ 07822-0237 973-383-7845□

CHICAGO, IL
 41 53 28.6
 87 37 9.8

AZIMUTH DEGREES	HORIZON ANGLE DEGREES	DISC ANGLE DEGREES	HORIZON GAIN DBI	4GHZ COORD DISTANCE KM	6 GHZ DISTANCE KM	RAIN4 SCATTER KM	RAIN6 SCATTER KM
5.	.0	179.0	-10.0	214.6	110.5	131.2	182.3
10.	.0	179.0	-10.0	214.6	110.5	131.2	182.3
15.	.0	179.0	-10.0	214.6	110.5	131.2	182.3
20.	.0	179.0	-10.0	214.6	110.5	131.2	182.3
25.	.0	179.0	-10.0	214.6	110.5	131.2	182.3
30.	.0	176.8	-10.0	214.6	110.5	131.2	182.3
35.	.0	171.9	-10.0	214.6	110.5	131.2	182.3
40.	.0	167.0	-10.0	214.6	110.5	131.2	182.3
45.	.0	162.2	-10.0	214.6	110.5	131.2	182.3
50.	.0	157.3	-10.0	214.6	110.5	131.2	182.3
55.	.0	152.5	-10.0	214.6	110.5	131.2	182.3
60.	.0	147.7	-10.0	214.6	110.5	131.2	182.3
65.	.0	142.9	-10.0	214.6	110.5	131.2	182.3
70.	.0	138.1	-10.0	214.6	110.5	131.2	182.3
75.	.0	133.3	-10.0	214.6	110.5	131.2	182.3
80.	.0	128.5	-10.0	214.6	110.5	131.2	182.3
85.	.0	123.7	-10.0	214.6	110.5	131.2	182.3
90.	.0	119.0	-10.0	214.6	110.5	131.2	182.3
95.	.0	114.3	-10.0	214.6	110.5	131.2	182.3
100.	.0	109.6	-10.0	214.6	110.5	131.2	182.3
105.	.0	105.0	-10.0	214.6	110.5	131.2	182.3
110.	.0	100.3	-10.0	214.6	110.5	131.2	182.3
115.	.0	95.8	-10.0	214.6	110.5	131.2	182.3
120.	.0	91.2	-10.0	214.6	110.5	131.2	182.3
125.	.0	86.7	-10.0	214.6	110.5	131.2	182.3
130.	.0	82.3	-10.0	214.6	110.5	131.2	182.3
135.	.0	77.9	-10.0	214.6	110.5	131.2	182.3
140.	.0	73.7	-10.0	214.6	110.5	131.2	182.3
145.	.0	69.5	-10.0	214.6	110.5	131.2	182.3
150.	.0	65.4	-10.0	214.6	110.5	131.2	182.3
155.	.0	61.5	-10.0	214.6	110.5	131.2	182.3
160.	.0	57.7	-10.0	214.6	110.5	131.2	182.3
165.	.0	54.1	-10.0	214.6	110.5	131.2	182.3
170.	.0	50.8	-10.0	214.6	110.5	131.2	182.3
175.	.0	47.8	-10.0	214.7	110.5	131.2	182.3
180.	.0	45.1	-9.4	218.6	112.6	131.2	182.3
185.	.0	42.8	-8.8	222.1	114.4	131.2	182.3
190.	.0	41.1	-8.3	225.1	115.9	131.2	182.3
195.	.0	39.8	-8.0	227.2	117.0	131.2	182.3
200.	.0	39.2	-7.8	228.3	117.6	131.2	182.3
205.	.0	39.2	-7.8	228.3	117.6	131.2	182.3
210.	.0	39.9	-8.0	227.2	117.0	131.2	182.3
215.	.0	41.1	-8.4	225.0	115.8	131.2	182.3
220.	.0	42.9	-8.8	222.0	114.3	131.2	182.3
225.	.0	45.2	-9.4	218.4	112.5	131.2	182.3

TELE-SCI SOLUTIONS, LLC
 P.O. Box 237 Augusta, NJ 07822-0237 973-383-7845

CHICAGO, IL
41 53 28.6
87 37 9.8

AZIMUTH DEGREES	HORIZON ANGLE DEGREES	DISC ANGLE DEGREES	HORIZON GAIN DBI	4GHZ COORD DISTANCE KM	6 GHZ DISTANCE KM	RAIN4 SCATTER KM	RAIN6 SCATTER KM
230.	.0	47.9	-10.0	214.6	110.5	131.2	182.3
235.	.0	50.9	-10.0	214.6	110.5	131.2	182.3
240.	.0	54.3	-10.0	214.6	110.5	131.2	182.3
245.	.0	57.9	-10.0	214.6	110.5	131.2	182.3
250.	.0	61.6	-10.0	214.6	110.5	131.2	182.3
255.	.0	65.6	-10.0	214.6	110.5	131.2	182.3
260.	.0	69.7	-10.0	214.6	110.5	131.2	182.3
265.	.0	73.8	-10.0	214.6	110.5	131.2	182.3
270.	.0	78.1	-10.0	214.6	110.5	131.2	182.3
275.	.0	82.5	-10.0	214.6	110.5	131.2	182.3
280.	.0	86.9	-10.0	214.6	110.5	131.2	182.3
285.	.0	91.4	-10.0	214.6	110.5	131.2	182.3
290.	.0	96.0	-10.0	214.6	110.5	131.2	182.3
295.	.0	100.5	-10.0	214.6	110.5	131.2	182.3
300.	.0	105.2	-10.0	214.6	110.5	131.2	182.3
305.	.0	109.8	-10.0	214.6	110.5	131.2	182.3
310.	.0	114.5	-10.0	214.6	110.5	131.2	182.3
315.	.0	119.2	-10.0	214.6	110.5	131.2	182.3
320.	.0	124.0	-10.0	214.6	110.5	131.2	182.3
325.	.0	128.7	-10.0	214.6	110.5	131.2	182.3
330.	.0	133.5	-10.0	214.6	110.5	131.2	182.3
335.	.0	138.3	-10.0	214.6	110.5	131.2	182.3
340.	.0	143.1	-10.0	214.6	110.5	131.2	182.3
345.	.0	147.9	-10.0	214.6	110.5	131.2	182.3
350.	.0	152.7	-10.0	214.6	110.5	131.2	182.3
355.	.0	157.6	-10.0	214.6	110.5	131.2	182.3
360.	.0	162.4	-10.0	214.6	110.5	131.2	182.3

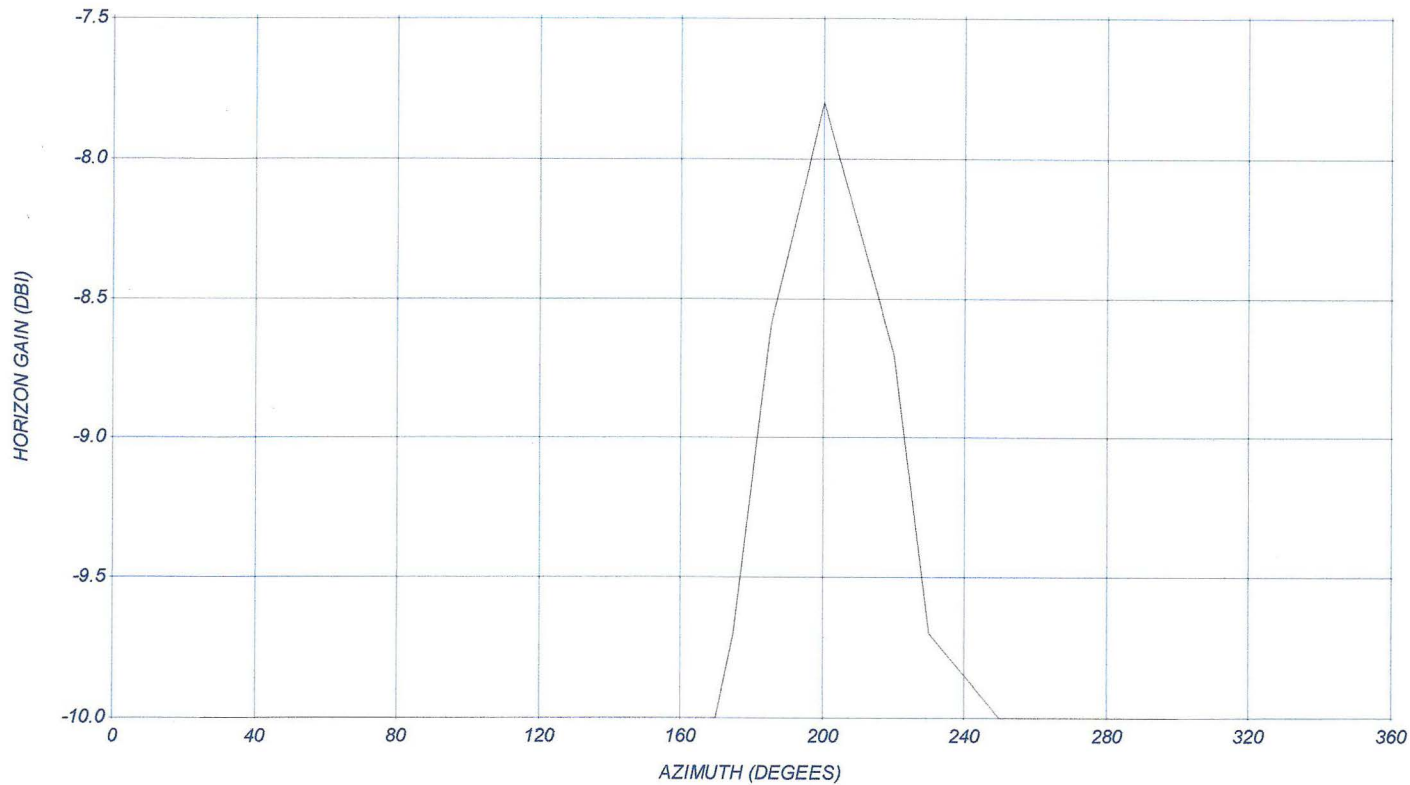
TELE-SCI SOLUTIONS, LLC
P.O. Box 237 Augusta, NJ 07822-0237 973-383-7845

CHICAGO, IL
41 53 28.6
87 37 9.8

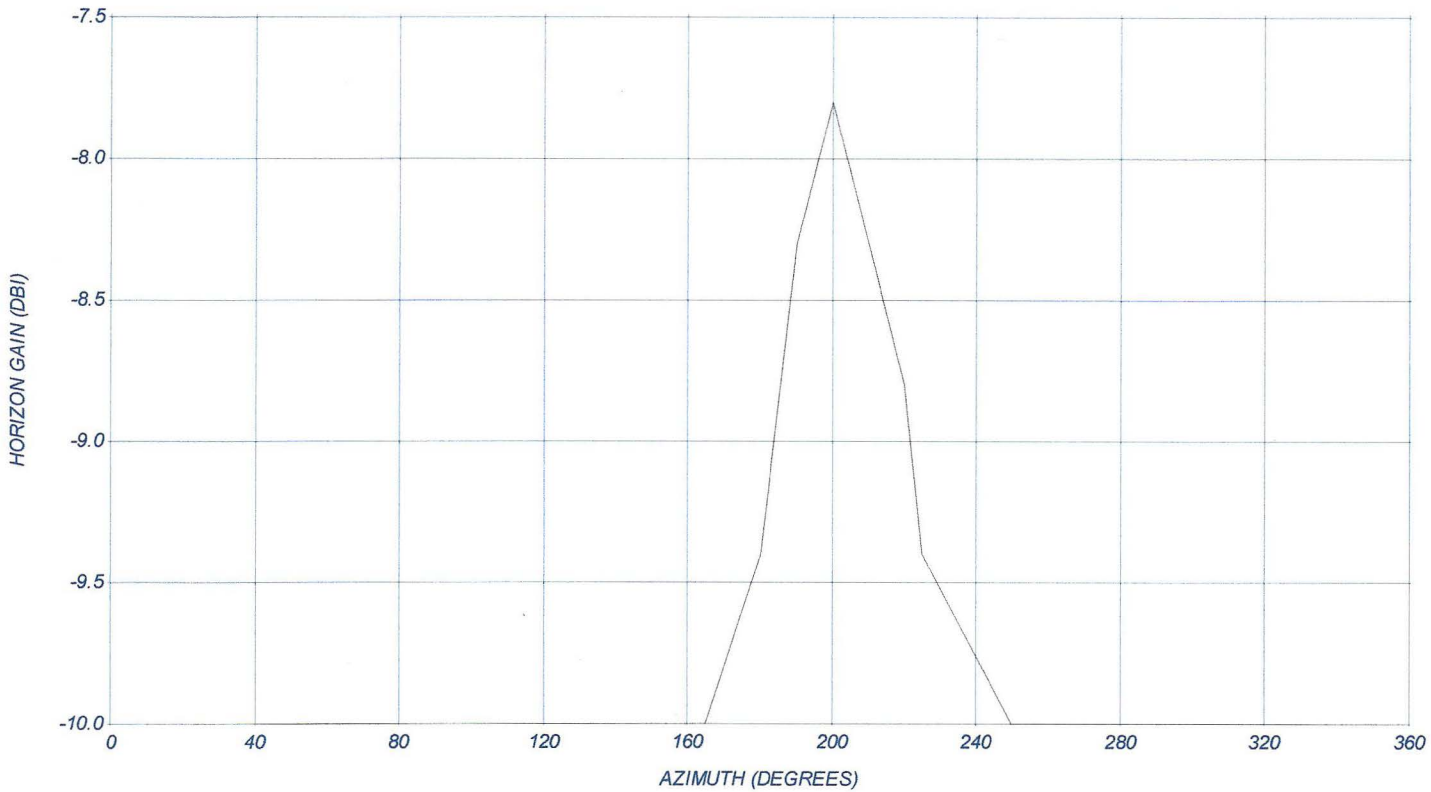
POINTING AZIMUTH AND ELEVATION ANGLES

SATELLITE LONGITUDE	LONG DIFF	AZIMUTH	ELEV ANGLE	SATELLITE NAME
103.00	15.38	202.39	39.15	AMC 1

HORIZON ANTENNA GAIN PLOT 4 GHZ



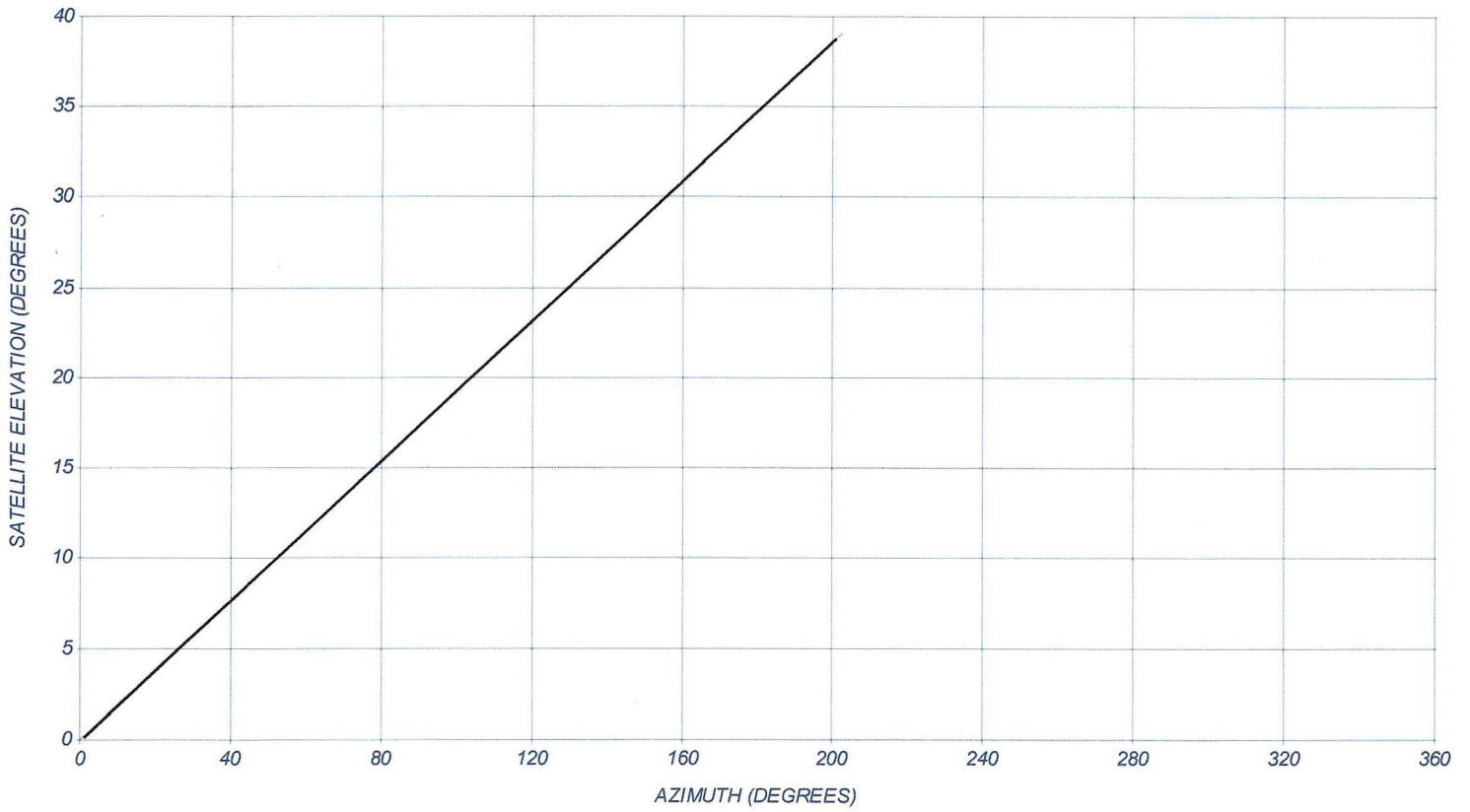
HORIZON ANTENNA GAIN PLOT 6 GHZ



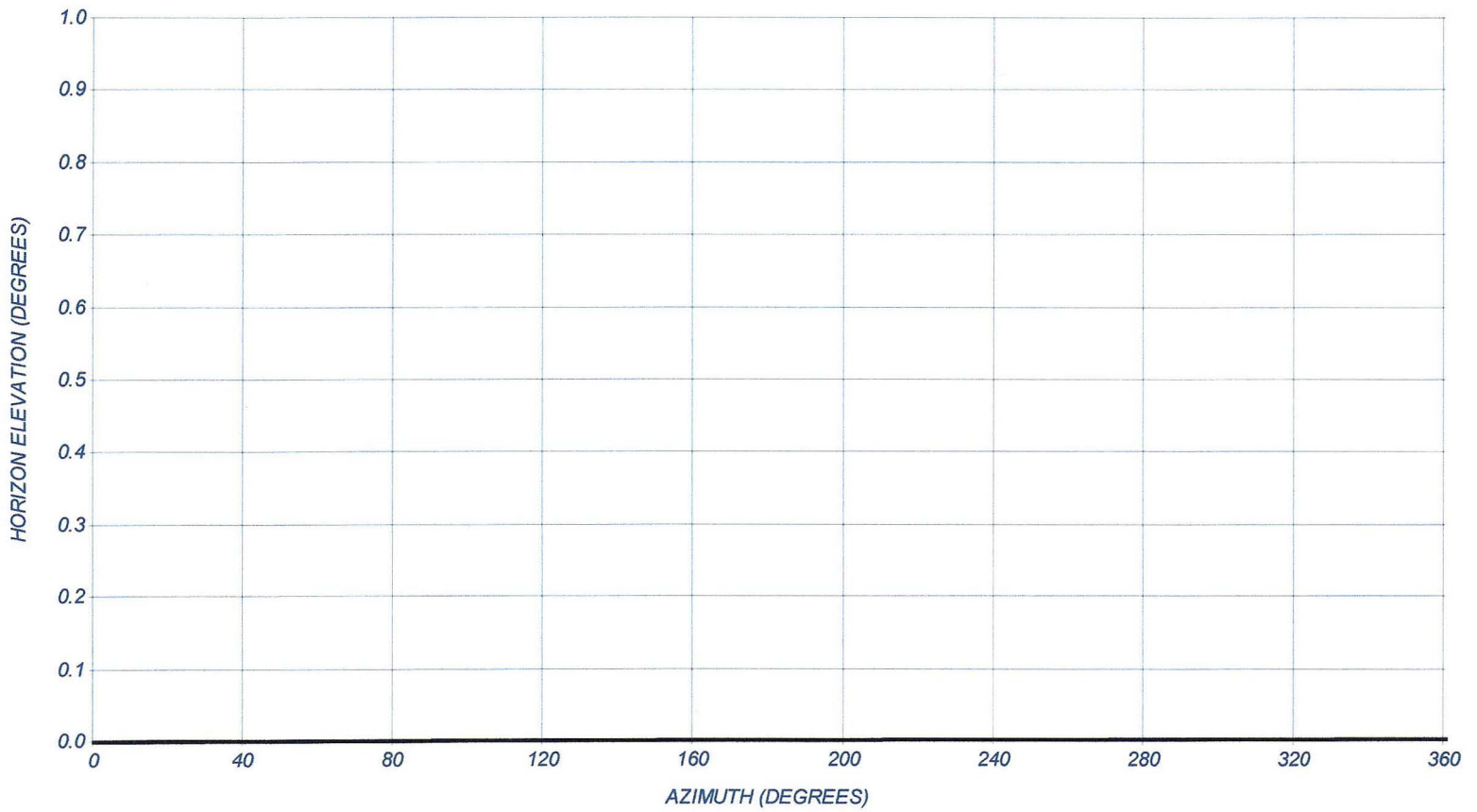
Univision Networks
Chicago, IL
41 53 28.6
87 37 9.8

Tele-Sci Solutions
September 24, 2012

SATELLITE ELEVATION PLOT



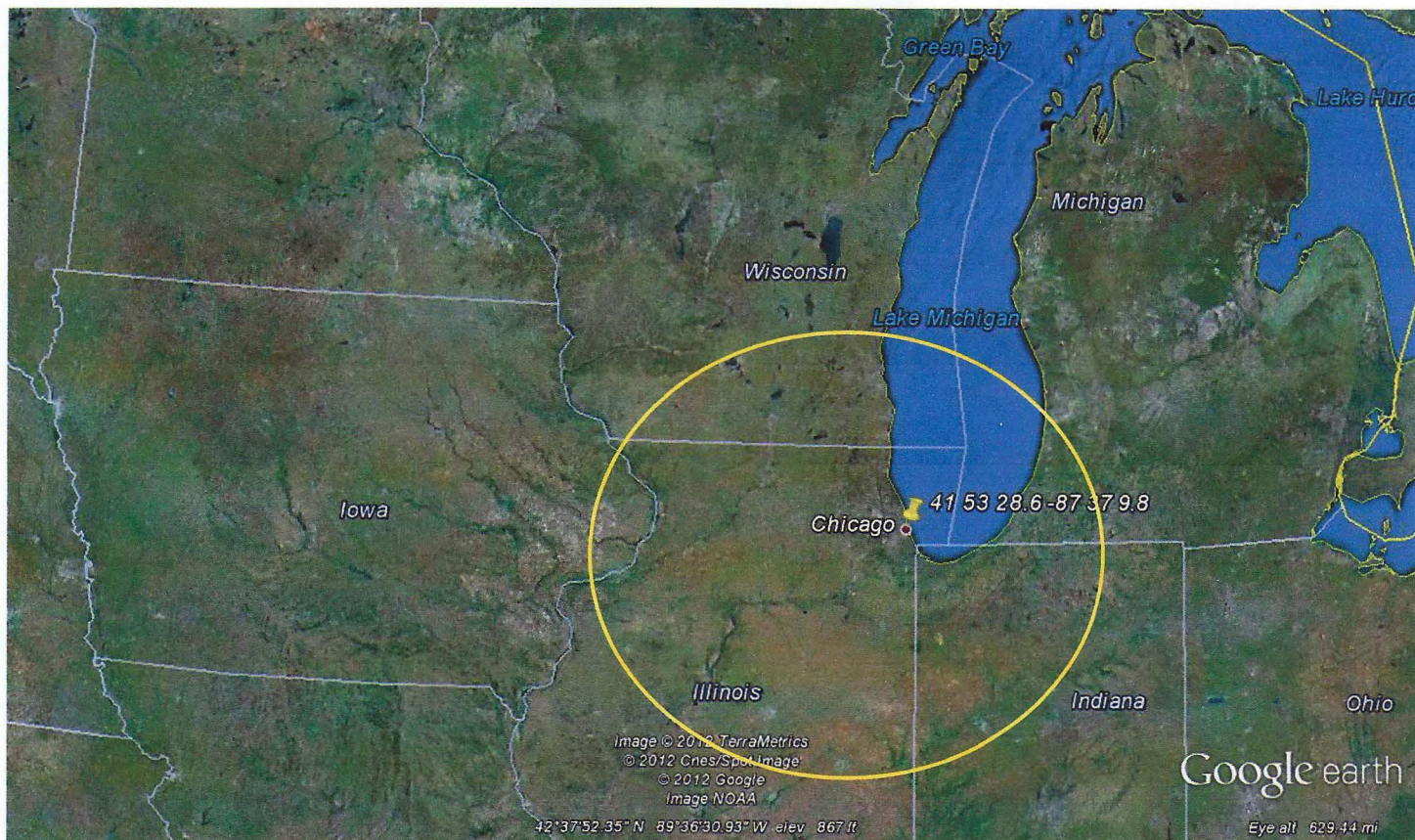
LOCAL HORIZON PLOT



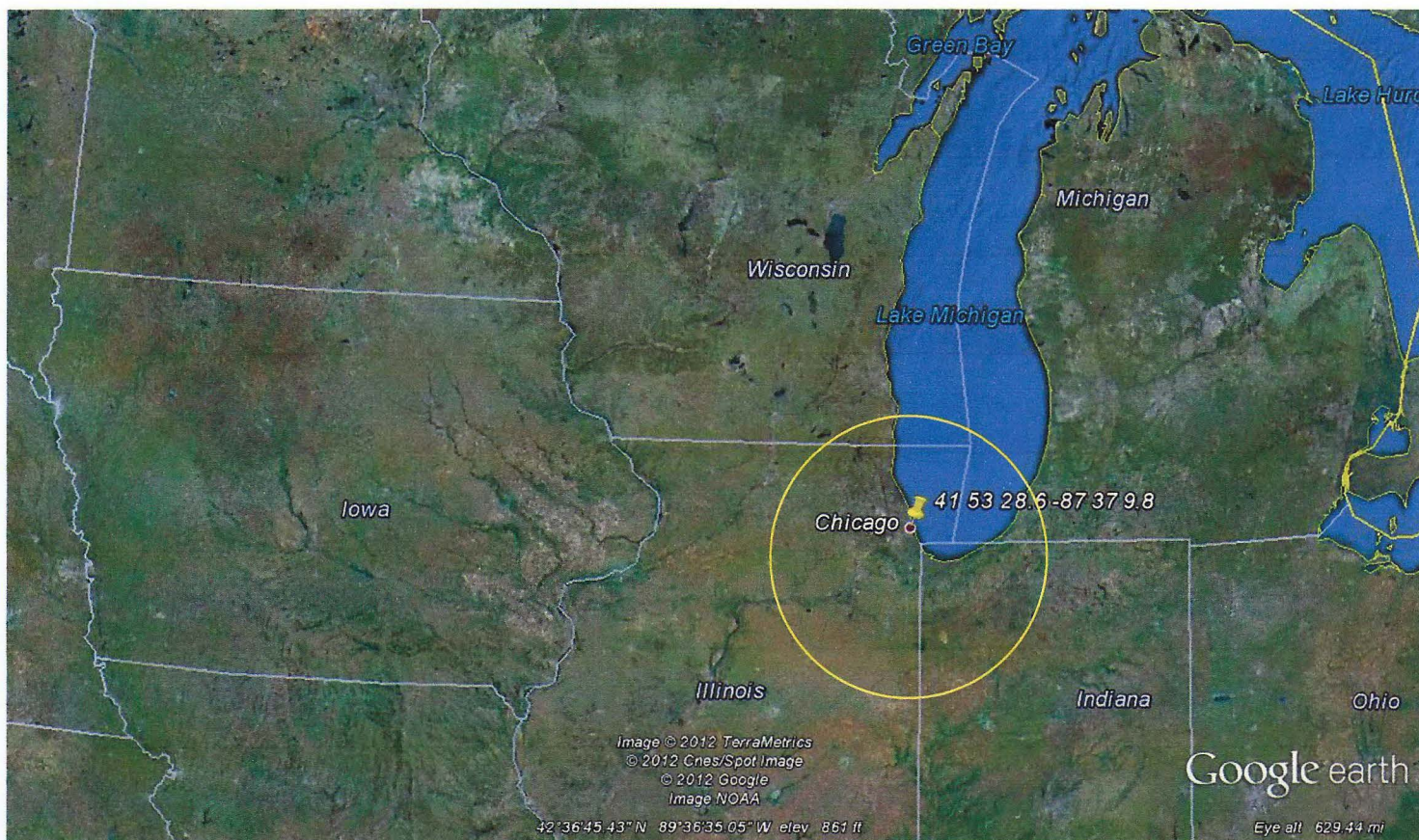
Univision Networks
Chicago, IL
41 53 28.6
87 37 9.8

Tele-Sci Solutions
September 24, 2012

Coordination Contour 4GHZ



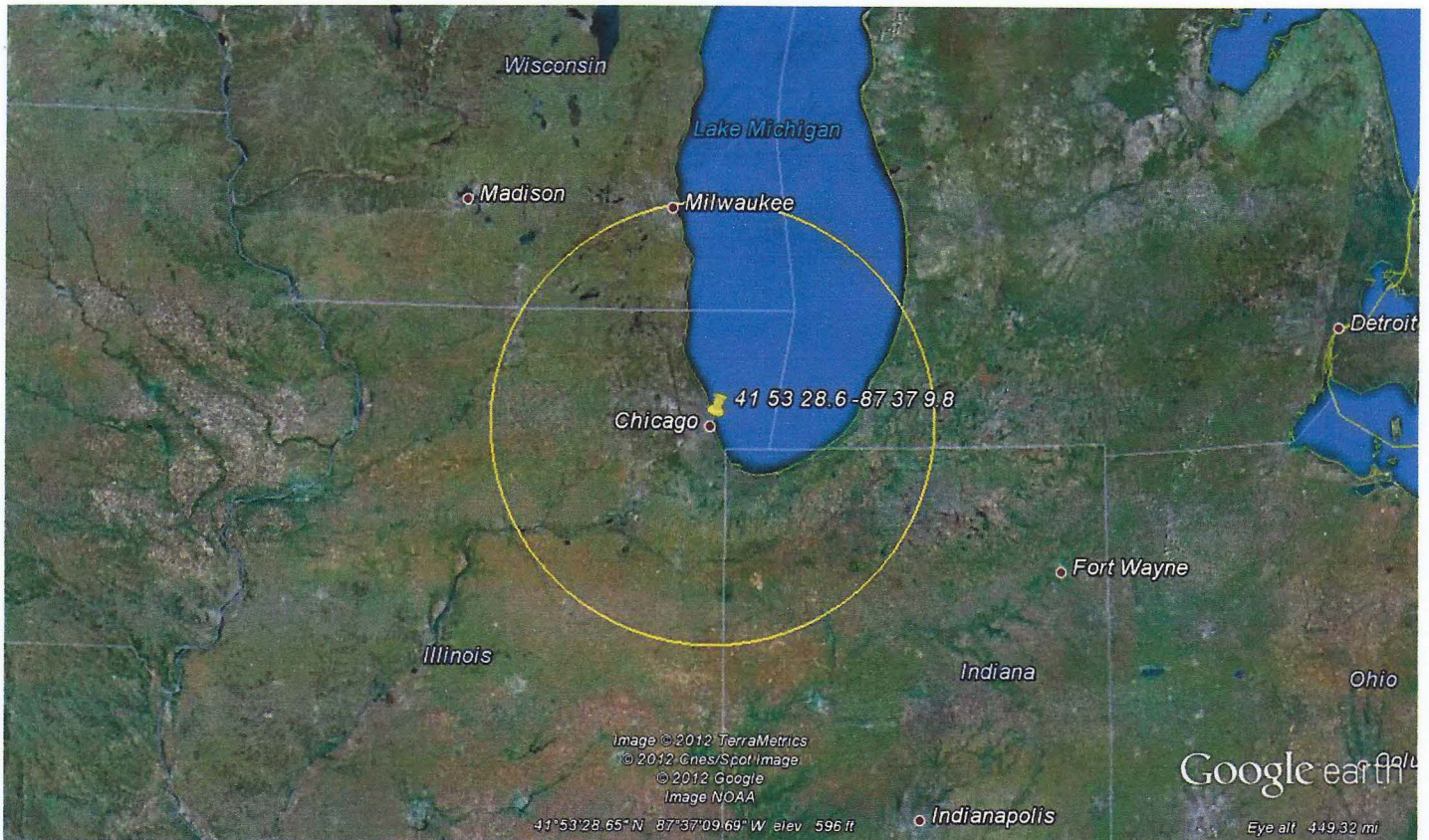
Coordination Contour 6 GHZ



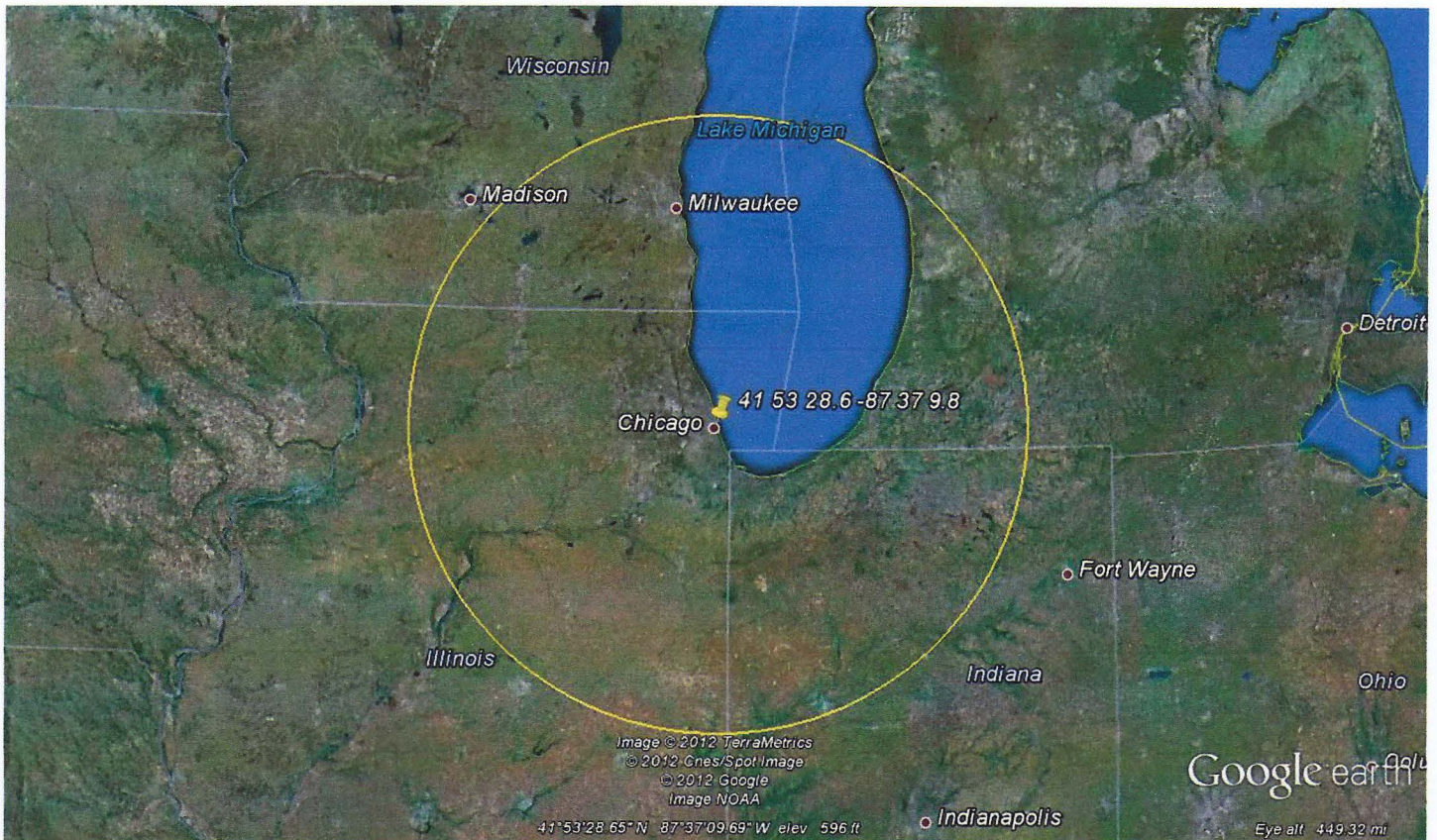
Univision Networks
Chicago, IL
41 53 28.6

Tele-Sci Solutions
September 24, 2012

Rain Scatter Coordination Contour 4 GHZ



Rain Scatter Coordination Contour 6 GHZ



Univision Networks

Chicago, IL
41 53 28.6
87 37 9.8

Tele-Sci Solutions
September 24, 2012