

EXHIBIT #9

SPECIAL OPERATING CONDITIONS

Youngstown State University
License to Cover Construction Permit
WYSU
BPED-20090818ACO
Youngstown, Ohio

November 2010

CH 203B

50 kW H + V DA

The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.

1. Proof of Performance – Attachment A is the antenna proof of performance provided by Jampro, the manufacturer of the installed Jampro JCPD-3/3(9)DA antenna. This proof of performance has been reviewed. The as-built, composite pattern was found to be in compliance with the Commission's Rules on RMS. The as-built RMS is 0.637 and the theoretical RMS is 0.734. The as-built RMS is 86.8% of the theoretical. All points of the as-built pattern are within the corresponding points of the theoretical.
2. Affidavit from licensed surveyor – The affidavit is included as Attachment B.
3. Affidavit from overseer of antenna installation. – Attachment C is a statement by Ronald Krauss, the engineer who supervised the antenna installation.
4. See Attachment A.
5. Youngstown State University requests program test authority for station WYSU.
6. In lieu of radiofrequency electromagnetic (RF) field strength measurements, Youngstown State University respectfully submits the measured vertical elevation field pattern supplied by the antenna manufacturer, Jampro. Please see Attachment D. In no instance will the RF emissions exceed the maximum allowable levels.
7. Youngstown State University will coordinate with other users of the site to protect workers on the tower by either reducing ERP or terminating transmission.

JAMPRO ANTENNAS, INC.

WYSU

JCPD-3/3(9)DA - 88.5 MHz

CERTIFICATION

MARCH 18, 2010

SERIAL NUMBER 15388





6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

ENGINEERING STATEMENT

DATE: March 18, 2010

FM ANTENNA FOR:

STATION: WYSU

LOCATION: Youngstown, Ohio

MODEL NUMBER: JCPD-3/3 (9) DA

FREQUENCY & ERP: 88.5 MHz, 50 kW (H), 44.3 kW (V)

ANTENNA INPUT POWER: 11.36 kW

ANTENNA BOOM HEADING: 330° / 255° / 180° T.N.

ANTENNA GAIN:	H-pol	V-pol
Relative to Dipole	4.40	3.89
(dBd)	6.43	5.90

AZIMUTH PATTERN RMS:

Composite: 0.638

H-pol: 0.584

V-pol: 0.621

Limits: 0.734

CERTIFICATION:

This certification, along with the accompanying antenna specification sheet, antenna mounting sketches, and azimuth and elevation patterns, certifies the construction and measurement of the *JAMPRO* FM CP antenna to the station's requirements, as measured at the *JAMPRO* antenna site in Sacramento, California. The following is an outline of construction methods, pattern measurements, installation requirements and recommended maintenance.

CONSTRUCTION:

Three standard model JCPD antenna panels were mounted on a model tower in an array configuration. These panels were fed by a corporate feed style power divider mounted inside the tower. Connections between the power divider and each panel were made with foam dielectric coaxial cables of appropriate lengths. The panel positions, power division between panels and the lengths of the cables were adjusted in order to meet the pattern and gain requirements.

MEASUREMENT:

One bay of the antenna was mounted on an exact duplicate of its final support at the station. We were careful to duplicate conduits, cables and anything peculiar to this mounting. This was then placed on a turntable at the *JAMPRO* antenna range. This directional antenna was used for receiving the radiation from a transmitting antenna that is elevated 25 feet above ground and located at a distance of 7000 feet. This transmitting antenna is capable of transmitting either horizontal or vertical polarization. The frequency of the signal generator was accurately set to station frequency by use of a frequency counter. A spectrum analyzer was used to continuously measure field strength as the antenna was rotated. Field strength at each azimuth was then plotted using a Scientific Atlanta plotter.



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

MEASUREMENT EQUIPMENT:

Model 3000 Wavetec Signal Generator, S/N 66479

Model 8591E Hewlett-Packard Spectrum Analyzer, S/N 3308A01312, calibrated 1/16/2003

Tuned cavity dipole transmitting antenna

Scientific Atlanta Plotter

INSTALLATION:

The antenna must be installed in exactly the manner in which it was measured at the factory. This is shown in detail on the antenna mounting sketch; including the azimuth bearing of the main boom(s) of the elements. The boom(s) must be verified by a surveyor at the site when installation is being completed. Good engineering practice should be followed in any details not covered by specific instructions.

MAINTENANCE:

Annual or regular inspection should be made on an antenna system. At this time, tightness of U-bolts or other fastenings should be routinely checked. Any deterioration of the antenna due to lightning or other causes should be promptly repaired.

CONCLUSION:

In the development of this pattern, *JAMPRO* Antennas, Inc., observed known requirements of the FCC, as stated on the station construction permit.

Gain figures and required input power to achieve station ERP, as well as other details, are to be found on the first and accompanying pages.

This certification, with its calculations, were performed by Vyacheslav M. Bulkin, PhD EE, Antenna Engineer, *JAMPRO* Antennas, Inc.

EXECUTED THIS 18th DAY OF MARCH, 2010

BY: _____

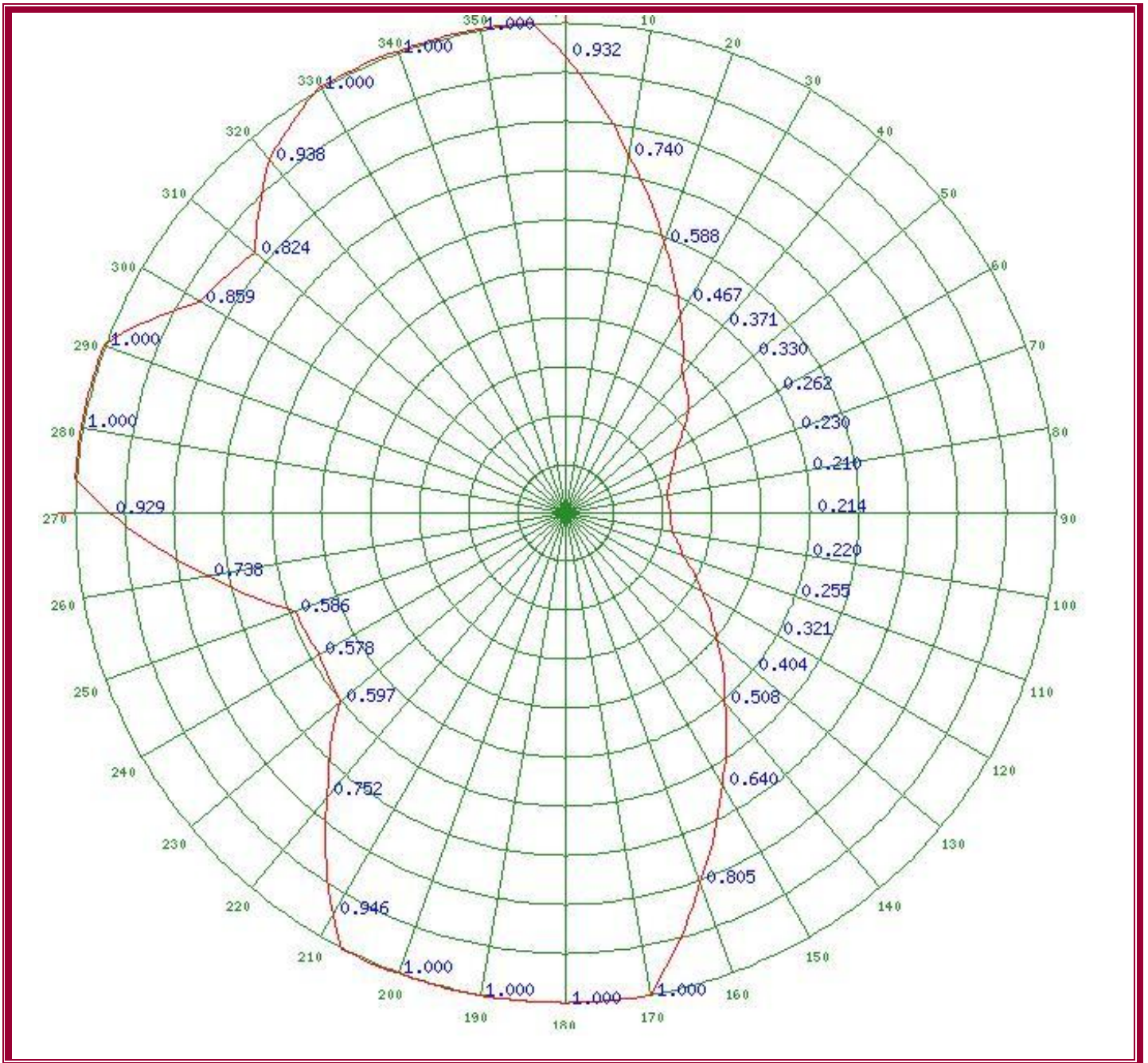
Vyacheslav M. Bulkin, PhD EE, Antenna Engineer, *JAMPRO* Antennas, Inc.



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

COMPOSITE H-POL & V-POL AZIMUTH PATTERNS LIMITS

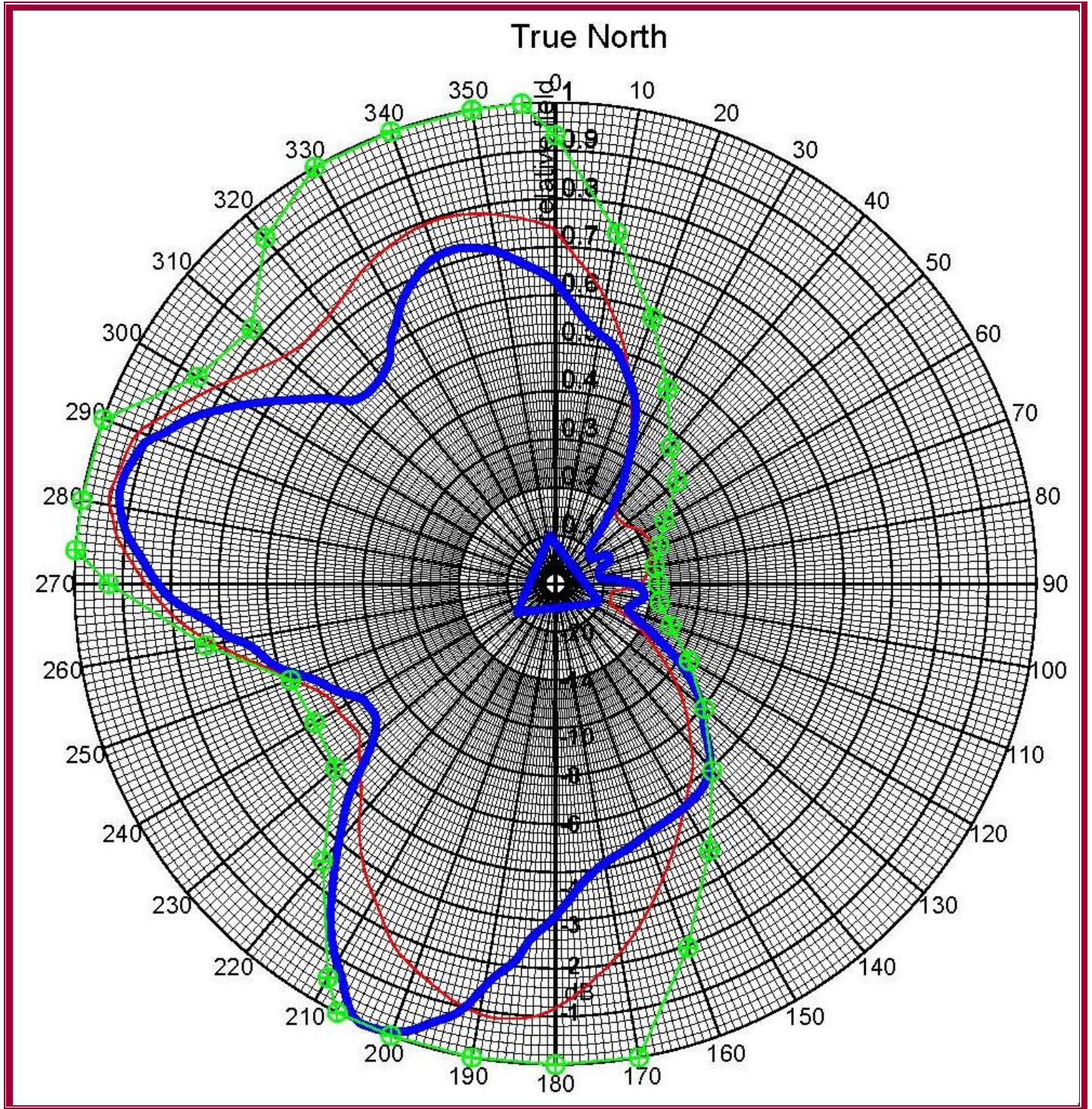




6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

AZIMUTH PATTERNS



CALL SIGN: WYSU - 88.5 MHZ

TYPE NUMBER: JCPD-3/3(9)DA

LEGEND: -V-POL, -H-POL, --O-- LIMITS

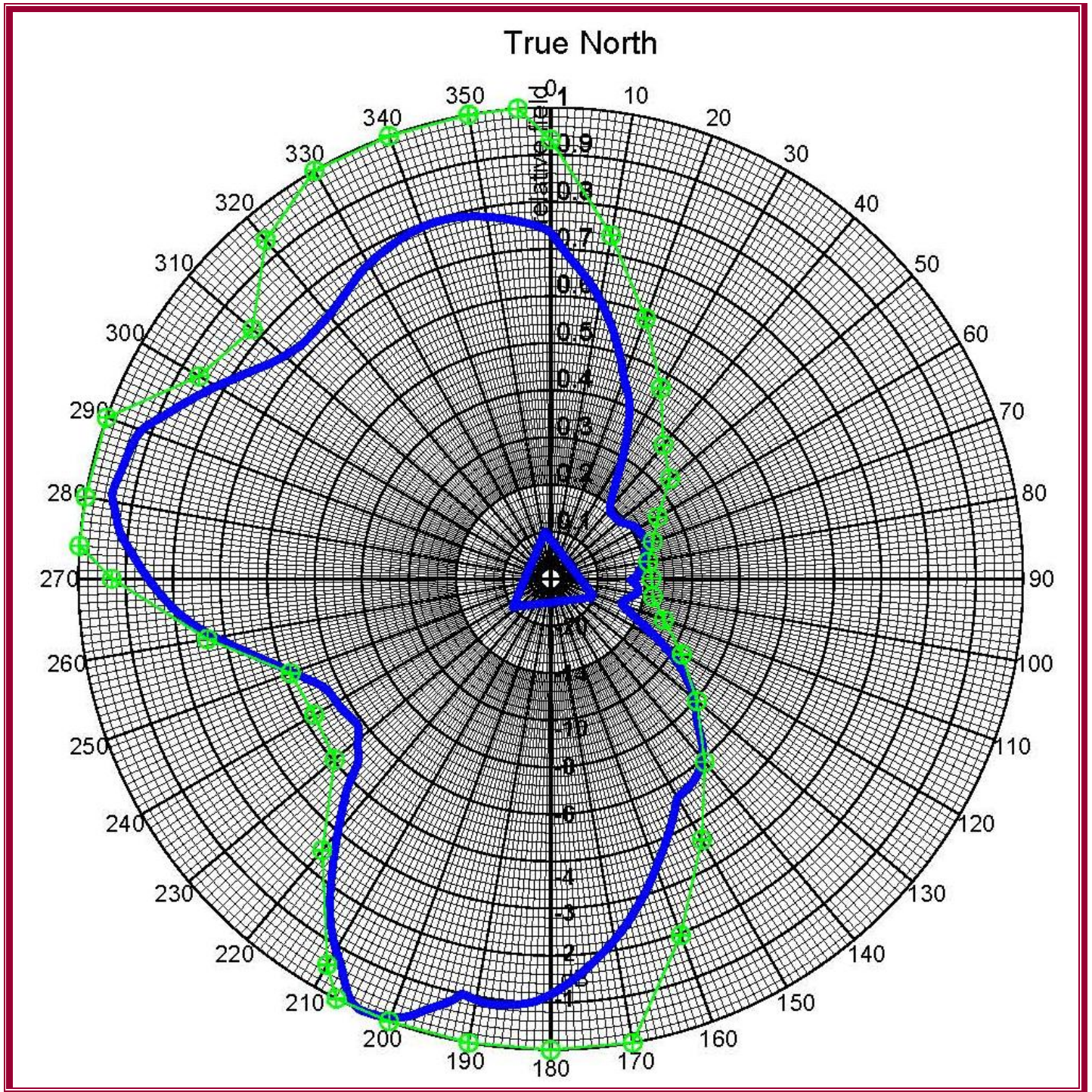
DATE: 18 MARCH 2010



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

COMPOSITE H-POL & V-POL AZIMUTH PATTERN



CALL SIGN: WYSU - 88.5 MHZ

TYPE NUMBER: JCPD-3/3(9)DA

LEGEND: — COMPOSITE H-POL & V-POL, - - O - - LIMITS DATE: 18 MARCH 2010



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

AZIMUTH PATTERNS TABULATION

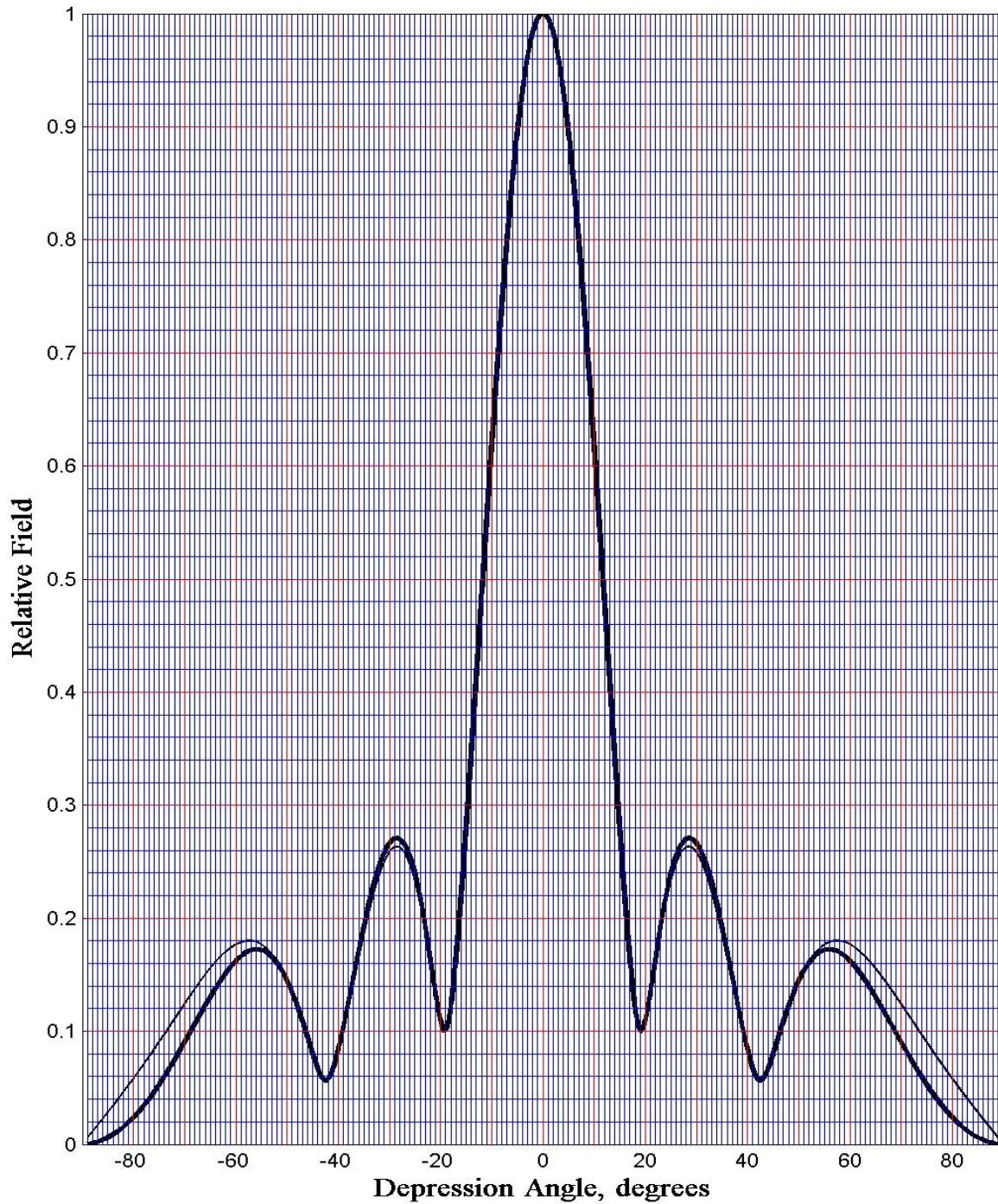
WYSU-88.5 MHz		ERP = 50 kW (H) / 44.3 kW (V)				3/18/2010					
		JCPD-3/3(9) DA									
TABULATION OF MEASURED RELATIVE FIELD											
Horizontal Polarization				Vertical Polarization		Composite H & V					
Azimuth	Field	ERP		Field	ERP		Field	ERP			
Angle	Value	(kW)		Value	(kW)		Value	(kW)			
0	0.628	19.72		0.735	27.02		0.735	27.02			
10	0.528	13.93		0.601	18.06		0.601	18.06			
20	0.451	10.15		0.453	10.25		0.453	10.25			
30	0.310	4.80		0.303	4.58		0.310	4.80			
40	0.149	1.11		0.196	1.93		0.196	1.93			
50	0.091	0.42		0.189	1.79		0.189	1.79			
60	0.122	0.74		0.211	2.22		0.211	2.22			
70	0.106	0.57		0.215	2.32		0.215	2.32			
80	0.092	0.42		0.198	1.95		0.198	1.95			
90	0.160	1.28		0.175	1.53		0.175	1.53			
100	0.184	1.69		0.118	0.70		0.184	1.69			
110	0.160	1.28		0.122	0.75		0.160	1.28			
120	0.268	3.59		0.218	2.39		0.268	3.59			
130	0.397	7.88		0.331	5.48		0.397	7.88			
140	0.498	12.42		0.439	9.65		0.498	12.42			
150	0.537	14.40		0.536	14.39		0.537	14.40			
160	0.555	15.37		0.653	21.30		0.653	21.30			
170	0.590	17.39		0.778	30.27		0.778	30.27			
180	0.691	23.87		0.882	38.90		0.882	38.90			
190	0.852	36.29		0.908	41.24		0.908	41.24			
200	0.992	49.16		0.853	36.39		0.992	49.16			
210	0.909	41.35		0.754	28.44		0.909	41.35			
220	0.700	24.51		0.634	20.08		0.700	24.51			
230	0.491	12.07		0.532	14.17		0.532	14.17			
240	0.472	11.14		0.523	13.70		0.523	13.70			
250	0.558	15.59		0.581	16.85		0.581	16.85			
260	0.673	22.64		0.720	25.91		0.720	25.91			
270	0.827	34.23		0.852	36.30		0.852	36.30			
280	0.919	42.27		0.941	44.30		0.941	44.30			
290	0.889	39.48		0.921	42.44		0.921	42.44			
300	0.745	27.73		0.817	33.34		0.817	33.34			
310	0.595	17.72		0.736	27.09		0.736	27.09			
320	0.562	15.79		0.730	26.65		0.730	26.65			
330	0.651	21.19		0.771	29.70		0.771	29.70			
340	0.723	26.13		0.794	31.52		0.794	31.52			
350	0.701	24.59		0.780	30.43		0.780	30.43			



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

NORMALIZED FIELD ELEVATION PLANE PATTERN



Call Sign: WYSU

Date: March 2, 2010

Frequency - 88.5 MHz

Type Number: JCPD-3/3(9)DA

Legend: ■ H-pol (norm.) at Azimuth 204°, - V-pol(norm.) at Azimuth 281°



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

Call Sign: WYSU

Date: March 18, 2010

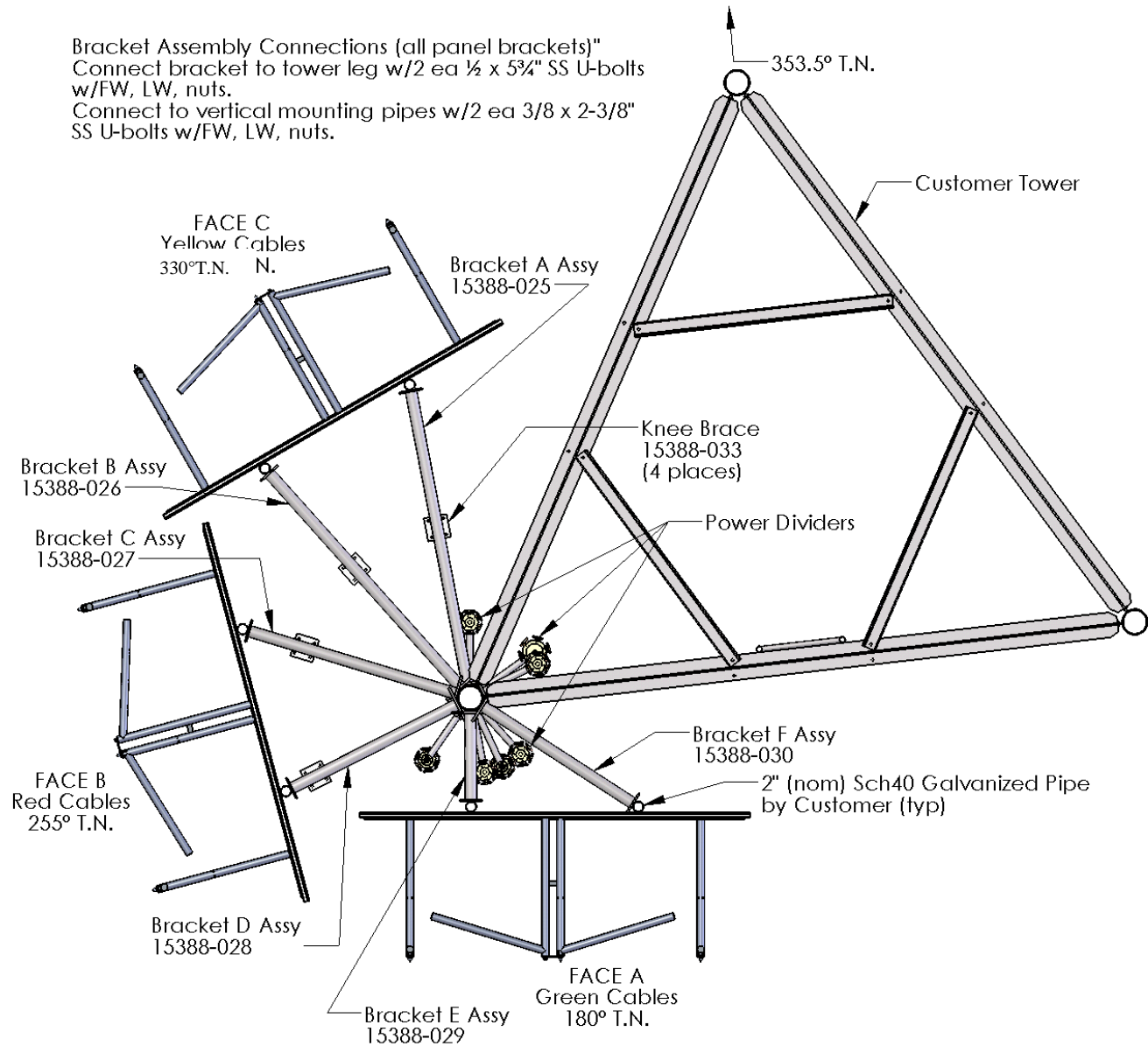
Frequency: 88.5 MHz

Type Number: JCPD-3/3(9)DA

Elevation Pattern Tabulation of Normalized Relative Field

<u>Elevation</u> <u>angle</u>	<u>H-pol</u>	<u>V-pol</u>	<u>Elevation</u> <u>angle</u>	<u>H-pol</u>	<u>V-pol</u>	<u>Elevation</u> <u>angle</u>	<u>H-pol</u>	<u>V-pol</u>
10	0.616	0.614	-24	0.218	0.213	-58	0.170	0.180
9	0.681	0.678	-25	0.239	0.233	-59	0.166	0.179
8	0.742	0.740	-26	0.254	0.248	-60	0.162	0.177
7	0.798	0.796	-27	0.265	0.258	-61	0.157	0.174
6	0.849	0.848	-28	0.270	0.263	-62	0.151	0.170
5	0.894	0.893	-29	0.270	0.263	-63	0.145	0.166
4	0.931	0.930	-30	0.266	0.259	-64	0.138	0.161
3	0.961	0.960	-31	0.258	0.250	-65	0.130	0.156
2	0.982	0.982	-32	0.246	0.238	-66	0.122	0.150
1	0.996	0.996	-33	0.231	0.223	-67	0.114	0.144
0	1.000	1.000	-34	0.212	0.206	-68	0.106	0.137
-1	0.996	0.996	-35	0.192	0.186	-69	0.098	0.131
-2	0.982	0.982	-36	0.171	0.165	-70	0.090	0.124
-3	0.961	0.960	-37	0.148	0.143	-71	0.082	0.117
-4	0.931	0.930	-38	0.125	0.121	-72	0.074	0.111
-5	0.894	0.893	-39	0.103	0.100	-73	0.067	0.104
-6	0.849	0.848	-40	0.083	0.080	-74	0.060	0.097
-7	0.798	0.796	-41	0.067	0.065	-75	0.053	0.090
-8	0.742	0.740	-42	0.058	0.056	-76	0.046	0.084
-9	0.681	0.678	-43	0.058	0.057	-77	0.040	0.077
-10	0.616	0.614	-44	0.067	0.065	-78	0.034	0.071
-11	0.549	0.546	-45	0.080	0.078	-79	0.029	0.064
-12	0.481	0.478	-46	0.094	0.092	-80	0.024	0.058
-13	0.412	0.409	-47	0.109	0.107	-81	0.019	0.052
-14	0.344	0.341	-48	0.122	0.120	-82	0.015	0.046
-15	0.278	0.276	-49	0.134	0.133	-83	0.012	0.040
-16	0.217	0.215	-50	0.145	0.144	-84	0.009	0.034
-17	0.163	0.161	-51	0.153	0.153	-85	0.006	0.028
-18	0.121	0.119	-52	0.161	0.161	-86	0.004	0.023
-19	0.101	0.100	-53	0.166	0.168	-87	0.002	0.017
-20	0.109	0.107	-54	0.170	0.173	-88	0.001	0.011
-21	0.134	0.131	-55	0.172	0.177	-89	0.000	0.006
-22	0.164	0.161	-56	0.172	0.179	-90	0.000	0.000
-23	0.193	0.189	-57	0.172	0.180			

TOP VIEW



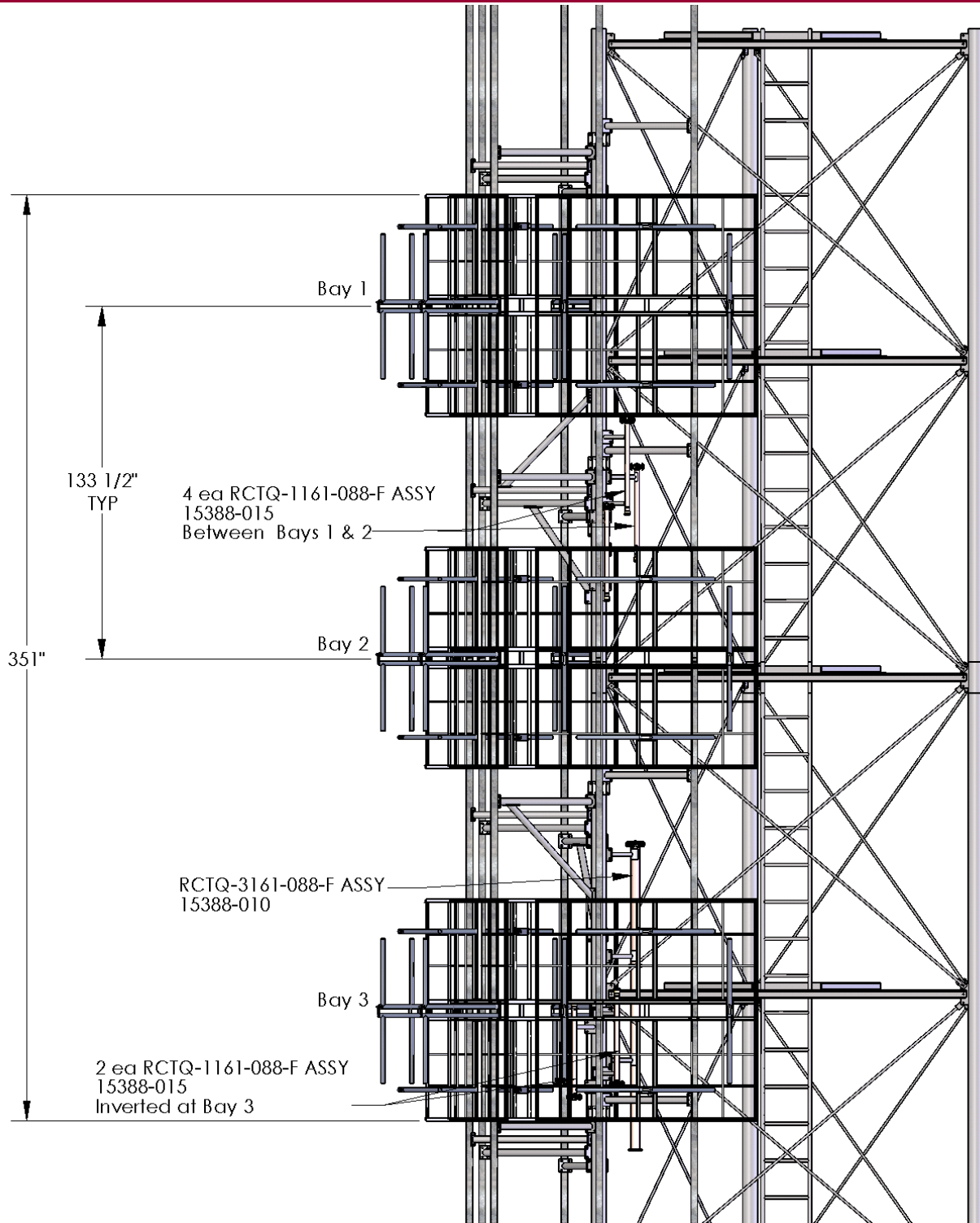
Knee Brace Connections:
Connect to tower leg w/2 ea $\frac{1}{2}$ x $5\frac{3}{4}$ " SS U-bolts w/FW, LW, nuts.
Connect to panel bracket assemblies w/2 ea $\frac{3}{8}$ x 2- $\frac{3}{8}$ " SS U-bolts w/FW, LW, nuts.



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

SIDE VIEW

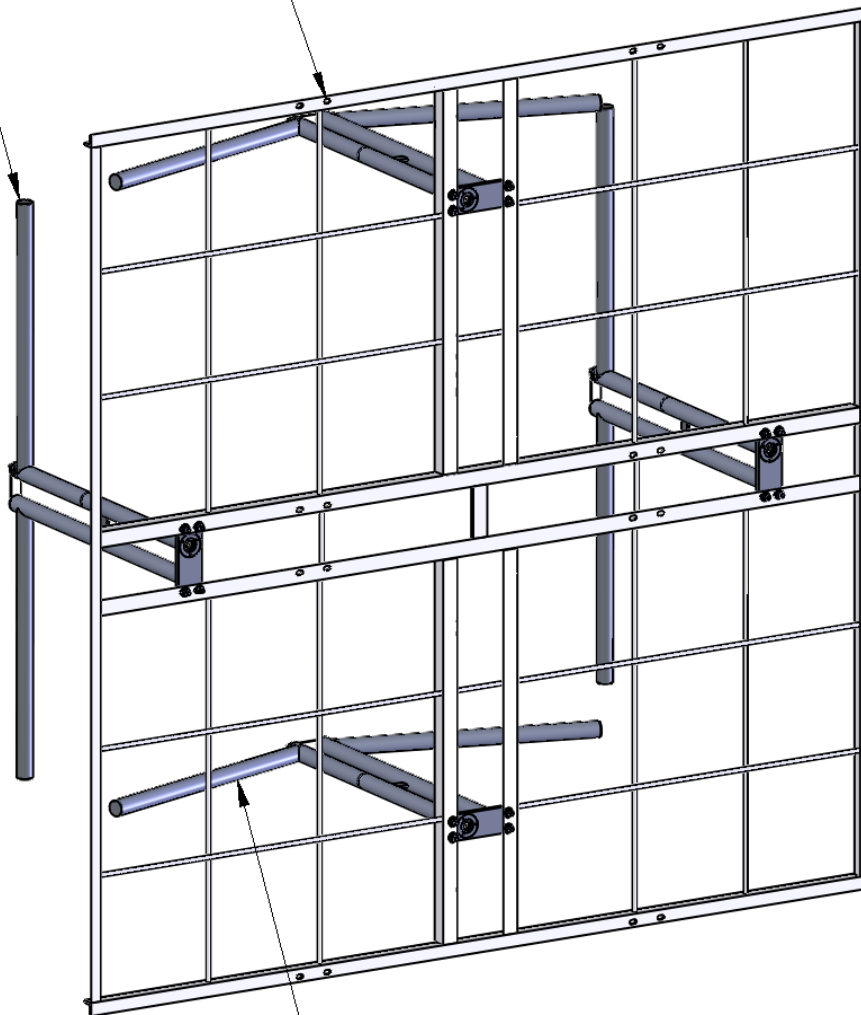


DIPOLE MOUNTING

Vertical (straight arms) Dipole
013-00046-00

Connect to panel with hot (input) boom UP with 4 ea 3/8 x 1 1/2" SS hex bolts w/FW, LW, nuts.

Connect assembled panel to vertical mounting pipes
with 8 ea 3/8 x 2-3/8" SS U-bolts w/FW, LW, nuts.



Horizontal (swept arms) Dipole
013-00045-00

Connect to panel with hot (input) boom to the left (as seen from lower side of panel) with 4 ea 3/8 x 1 1/2" SS hex bolts w/FW, LW, nuts.

Drescher & Associates

5250 South Avenue
Youngstown, Ohio 44512
Phone: (330)788-9811
FAX: (330)788-7620

November 5, 2010


WYSU - FM Radio Station
3930 Sunset Boulevard
Youngstown, Ohio 44512

Re: WYSU - FM Radio Station
Antenna Installation

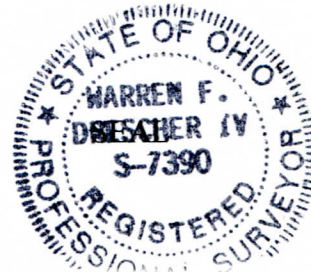
On Thursday November 5th, Drescher & Associates performed careful a geodetic survey of the new antenna installation for said WYSU - FM Radio Station, and verified that said antenna(s) are oriented correctly as per the base azimuth(s) provided.

Please contact our office with any questions or comments regarding this proposal. Thank you, very much.

Respectfully



Warren F. Drescher IV
Ohio Registered Surveyor No. 7390





One University Plaza, Youngstown, Ohio 44555

WYSU-FM 88.5

330.941.3363

Fax 330.941.1501

www.wysu.org

Attachment C

Supervising Engineer Affidavit

Ronald F. Krauss supervised the entire scope of the antenna upgrade process authorized by FCC Permit File Number BPED-20090818ACO issued on 23 September 2009. To my knowledge all of the necessary requirements of the permit were met including stressing the importance to the construction crew and chief to be aware of the critical installation and proper alignment and orientation of parts necessary to achieve the desired outcome. All printed manufacturer's installation instructions and recommendations were understood and followed by installation personnel. The Supervising Engineer was on site for the entire project.

The person supervising the project is the Broadcast Engineer responsible for the technical operation of WYSU-FM, holds both an FCC General Radiotelephone Operator License and an Amateur Radio License.

Ronald F. Krauss 5 NOV 2010

Ronald F. Krauss

FCC Operator License # PG-19-20442

Amateur Radio License W8RZE

Youngstown State University
License to Cover Construction Permit
WYSU
BPED-20090818ACO
Youngstown, Ohio

50 kW H & V DA

[illegible]

The proposed FM station will not increase the amount of RF emissions over that which is permissible by Section 1.1307 of the FCC's Rules.

The applicant will protect workers on the tower by either reducing ERP or terminating transmission.

Consequently, it appears that the proposed FM station will be in full compliance with the Commission's human exposure to radiofrequency electromagnetic field rules and regulations.



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

Call Sign: WYSU

Date: March 18, 2010

Frequency: 88.5 MHz

Type Number: JCPD-3/3(9)DA

Elevation Pattern Tabulation of Normalized Relative Field

<u>Elevation</u> <u>angle</u>	<u>H-pol</u>	<u>V-pol</u>	<u>Elevation</u> <u>angle</u>	<u>H-pol</u>	<u>V-pol</u>	<u>Elevation</u> <u>angle</u>	<u>H-pol</u>	<u>V-pol</u>
10	0.616	0.614	-24	0.218	0.213	-58	0.170	0.180
9	0.681	0.678	-25	0.239	0.233	-59	0.166	0.179
8	0.742	0.740	-26	0.254	0.248	-60	0.162	0.177
7	0.798	0.796	-27	0.265	0.258	-61	0.157	0.174
6	0.849	0.848	-28	0.270	0.263	-62	0.151	0.170
5	0.894	0.893	-29	0.270	0.263	-63	0.145	0.166
4	0.931	0.930	-30	0.266	0.259	-64	0.138	0.161
3	0.961	0.960	-31	0.258	0.250	-65	0.130	0.156
2	0.982	0.982	-32	0.246	0.238	-66	0.122	0.150
1	0.996	0.996	-33	0.231	0.223	-67	0.114	0.144
0	1.000	1.000	-34	0.212	0.206	-68	0.106	0.137
-1	0.996	0.996	-35	0.192	0.186	-69	0.098	0.131
-2	0.982	0.982	-36	0.171	0.165	-70	0.090	0.124
-3	0.961	0.960	-37	0.148	0.143	-71	0.082	0.117
-4	0.931	0.930	-38	0.125	0.121	-72	0.074	0.111
-5	0.894	0.893	-39	0.103	0.100	-73	0.067	0.104
-6	0.849	0.848	-40	0.083	0.080	-74	0.060	0.097
-7	0.798	0.796	-41	0.067	0.065	-75	0.053	0.090
-8	0.742	0.740	-42	0.058	0.056	-76	0.046	0.084
-9	0.681	0.678	-43	0.058	0.057	-77	0.040	0.077
-10	0.616	0.614	-44	0.067	0.065	-78	0.034	0.071
-11	0.549	0.546	-45	0.080	0.078	-79	0.029	0.064
-12	0.481	0.478	-46	0.094	0.092	-80	0.024	0.058
-13	0.412	0.409	-47	0.109	0.107	-81	0.019	0.052
-14	0.344	0.341	-48	0.122	0.120	-82	0.015	0.046
-15	0.278	0.276	-49	0.134	0.133	-83	0.012	0.040
-16	0.217	0.215	-50	0.145	0.144	-84	0.009	0.034
-17	0.163	0.161	-51	0.153	0.153	-85	0.006	0.028
-18	0.121	0.119	-52	0.161	0.161	-86	0.004	0.023
-19	0.101	0.100	-53	0.166	0.168	-87	0.002	0.017
-20	0.109	0.107	-54	0.170	0.173	-88	0.001	0.011
-21	0.134	0.131	-55	0.172	0.177	-89	0.000	0.006
-22	0.164	0.161	-56	0.172	0.179	-90	0.000	0.000
-23	0.193	0.189	-57	0.172	0.180			

ID Stations Study at 41 03 23 N, 80 38 44 W, Search Distance = 1 km

Call	Service	City	State	Chan.	Power	Coordinates		Dist-km	Azimuth	File Number	
AM ----- None Found -----											
FM -----											
WYSU	M	Youngstown	OH	203B	0050.000kW	410324N	803844W	000.0	343.6	BLED19900613KB	FM*
WMXY	M	Youngstown	OH	255B	0005.900kW	410324N	803844W	000.0	343.6	BLH19890405KE	FM
WYTN	M	Youngstown	OH	219A	0000.900kW	410328N	803842W	000.2	014.9	BLED19910605KF	FM**
TV -----											
W35CP-	G	Youngstown	OH	35 D	0000.500kW	410324N	803844W	000.0	343.6	BDCCDTL20061006A	TV
WKBN-D	T	Youngstown	OH	41 1C	0700.000kW	410324N	803844W	000.0	343.6	BPCDT19991025ACU	TV
WYFX-L	X	Youngstown	OH	62-T	0025.000kW	410324N	803844W	000.0	343.6	BLTTL20011010AAJ	TV

* Facility being modified by instant proposal




** WYTN is located on this tower, but the coordinates are incorrect in the database.

License Search

Search Results

Specified Search

ASR Number like **1013678**Matches **1 - 6** (of **6**)

 = Pending Application(s)
 = Termination Pending
 = Lease

	Call Sign/Lease ID	Name	FRN	Radio Service	Status	Expiration Date
1	KLF512	SYGNET COMMUNICATIONS, INC.	0003616125	CD	Canceled	04/01/2009
2	KNKC721	Arch Wireless License Co., LLC	0003291341	CD	Canceled	07/01/2008
3	WNGC333	NEXTEL LICENSE HOLDINGS 4, INC.	0002049880	YX	Active	12/15/2012
4	WPOP954	NVT YOUNGSTOWN LICENSEE, LLC		TS	Active	08/01/2007
5	WPRM425	Motient Communications Inc.	0004341228	GB	Canceled	11/17/2010
6	WPYI898	Staley Communications	0002941011	IG	Active	08/19/2013

	Call Sign/Lease ID	Name	FRN	Radio Service	Status	Expiration Date
--	--------------------------	------	-----	------------------	--------	--------------------