

AM MINOR CHANGE WORKSHEET

Proposed facility:

Frequency (kHz) 890 (circle one) Facility ID 60454
Power (kW): Night 0.108 ~~DA~~/ND Call sign KDXU
Day 25.0 ~~DA~~/ND City & state St. George, UT
CH _____ DA/ND Applicant Townsquare

File No. 0000239024

Proposed changes:

Relocate to diplex with station KSUB(AM).

37-04-04.90 N 37-41-51 N DAN-U > ND2-U 76.4>94 m
113-31-10.80 W 113-10-54.40 W 10/10 > 25/0.108 299.33 >310.943
Moving 36.5 mi N, 20.5 mi E

Comments:

Engineering Checks	Legal Review	Reviewers' signatures	
<input type="checkbox"/> Database OK (AMQ)	<input type="checkbox"/> Major NEPA	_____	_____
<input type="checkbox"/> Environmental (RFR)	<input type="checkbox"/> Other _____	Staff Attorney	Date
<input type="checkbox"/> Other _____			
Worksheets (attach)	Miscellaneous	Staff Engineer	Date
<input type="checkbox"/> Category A <input type="checkbox"/> Category G	<input type="checkbox"/> Waiver _____	<u>edelozier@wbklaw.com</u>	
<input type="checkbox"/> Category B <input type="checkbox"/> Category H	<input type="checkbox"/> Other _____	Supervisory Attorney	Date
<input type="checkbox"/> Category C <input type="checkbox"/> Category I	<input type="checkbox"/> Informal Objection	<u>gorton@hatdaw.com</u>	
<input type="checkbox"/> Category D <input type="checkbox"/> Category J	<input type="checkbox"/> Non-routine grant	Supervisory Engineer	Date
<input type="checkbox"/> Category E <input type="checkbox"/> Critical Hours	<input type="checkbox"/> BMP:(for permit being modified)		
<input type="checkbox"/> Category F <input type="checkbox"/> Class C RSS	File No. _____		
<input type="checkbox"/> Other _____	Expires _____		
Geographic Coordinates (NAD 1983)		Tower Registration:	
<u>37°</u> o <u>41'</u> <u>51.0</u> N. Lat.		ASRN: <u>1041458</u>	
<u>113°</u> o <u>10'</u> <u>54.4</u> W. Long.		Overall Height (if not registered): _____ meters	

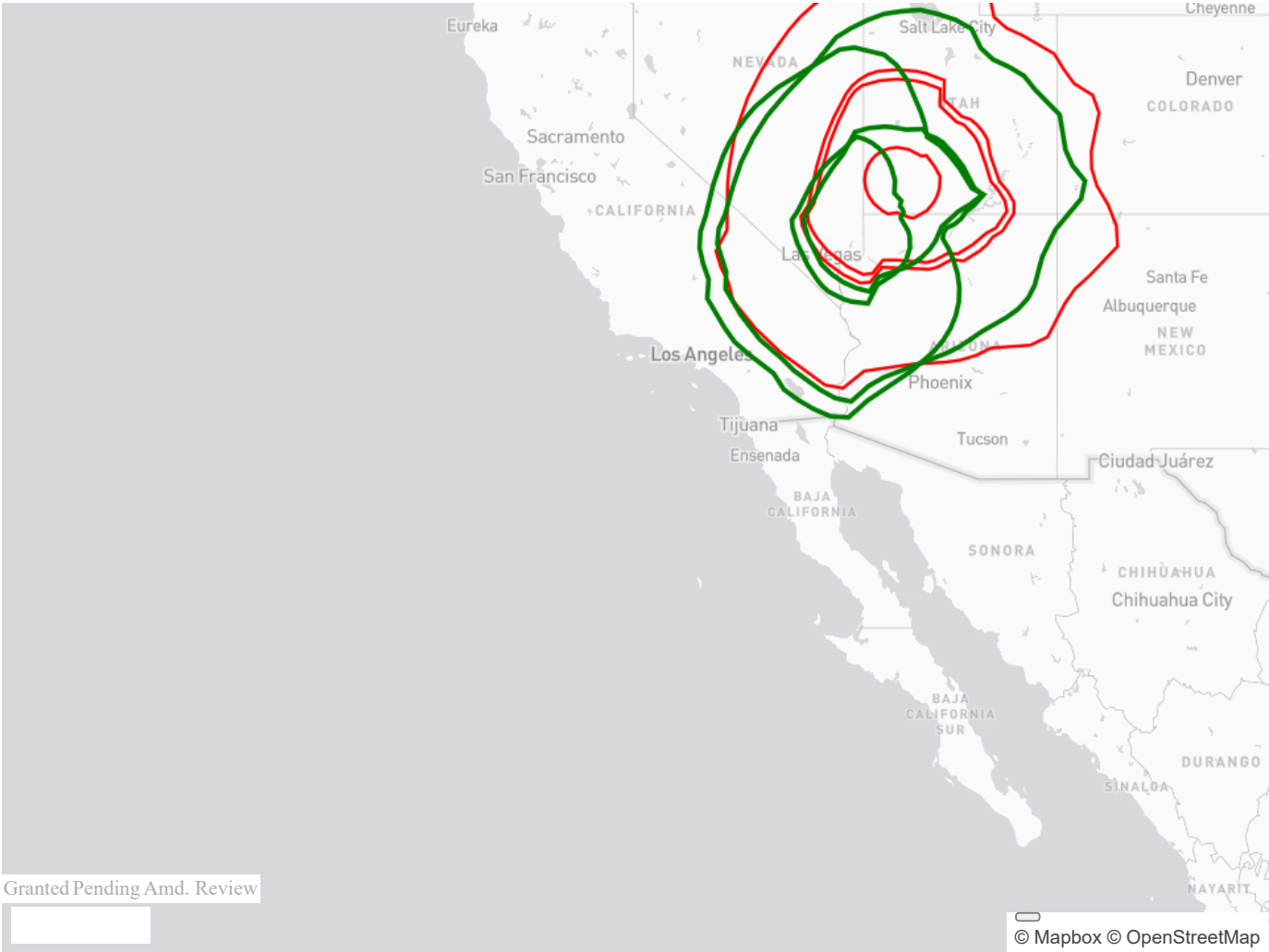
AM Single Station Report

Single Station Report as of 2024-04-18 11:31:30am ET

Table of Contents
DAY NITE CRI UNL
City of License Coverage
Location Tests
Overlap Tests
Critical Hours Tests
Nighttime Incoming RSS
Nighttime Outgoing RSS

KDXU - 0000239024		
14 Feb 2024		
ST. GEORGE, UT		
890 kHz (AM)	PEN	MOD MIN
Class D		
Admin Public 60454 LICEN		

Active files for Facility ID: 60454



US

KDXU - 0000239024			14 Feb 2024			Engineering Links		SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR						
ST. GEORGE, UT						DAY		Non-Directional: 25 kW						
890 kHz (AM)			PEN	MOD MIN		NITE		Non-Directional: 0.108 kW						
Class D														
Admin Public 60454 LICEN														
KDXU - BMML-20170303ABU														
03 Apr 2017						Engineering Links		SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR						
ST. GEORGE, UT						DAY		Non-Directional: 10 kW						
890 kHz (AM)			GRA	AMD MIN MOD		NITE		Directional: 10 kW, 3 Towers, 1 Augmentations						
Class B														
Admin Public 60454 LICEN														

Detected Changes from Active Files

KDXU - BMML-20170303ABU				
03 Apr 2017				
ST. GEORGE, UT				
890 kHz (AM)	GRA	AMD MIN		
Class B		MOD		
Admin Public 60454 LICEN				
Day		Nite		
Coords (76.1 km)		Coords (76.1 km)		
10 → 25 kW		10 → 0.108 kW		
		Cri	Unl	

B → D Class	DA → ND		
299.33 → 310.943 Vrms	B → D Class		
Towers	984.3 → 310.943 Vrms		
	Towers		
	Augmentations		

International Coordination Reports

[Link to Admin Intl](#)

Number of Operational Hour Modes: 2

Mode: DAY

Towers: 1, Augmentations: 0

KDXU - 0000239024 14 Feb 2024			Coordinates			Nominal Power		RMS Values	
ST. GEORGE, UT			NAD83	Latitude	Longitude	Power	Theoretical	310.943	
890 kHz (AM) Class D			Decimal	37.69750	-113.18178	25 kW			
PEN	MOD	MIN	DD MM SS.S	37 41 51.00	113 10 54.40				
Admin Public 60454 LICEN									

Sunrise/Sunset Report:

America/Denver
(ST: -7, DT: -6)

Month	Local Sunrise	Local Sunset
Jan	7:45	17:30
Feb	7:30	18:15
Mar (ADV)	7:45	19:45
Apr (ADV)	7:00	20:00
May (ADV)	6:30	20:30
Jun (ADV)	6:15	21:00
Jul (ADV)	6:15	21:00
Aug (ADV)	6:45	20:30
Sep (ADV)	7:15	19:45
Oct (ADV)	7:45	19:00
Nov	7:15	17:30
Dec	7:45	17:15

Towers

Tower #	Ratio	Phase	Spacing	Orientation	Height	TL Type	A	B	C	D
1	1	0	0	0	98.0	0 - Neither	0	0	0	0

Theoretical Pattern

Azimuth	Elevation												
	0	5	10	15	20	25	30	35	40	45	50	55	60
Omni	1554.71	1545.45	1518.01	1473.35	1412.98	1338.85	1253.21	1158.45	1056.96	950.96	842.43	733.00	623.92

Max Distance: 1300

Distances to Contours (km) from 37.6975, -113.181777777778

0	1554.71	642.05	482.33	396.35	356.14	282.24	226.24	163.41	136	124.07	101.03	91.04	81.7	63.9	50.66	36.71	1.53	645.73
5	1554.71	659.46	499.74	411.59	366.16	282.28	226.29	163.46	136.05	124.12	101.07	91.09	81.74	63.95	50.71	36.75	1.53	645.05
10	1554.71	660.16	500.45	411.65	366.22	282.35	226.35	163.52	136.11	124.18	101.14	91.15	81.81	64.01	50.77	36.82	1.53	644.73
15	1554.71	652.73	493.01	409.46	366.27	282.4	226.4	163.57	136.16	124.23	101.19	91.2	81.86	64.06	50.83	36.87	1.53	644.82
20	1554.71	635.78	476.07	397.06	362.03	282.48	226.48	163.65	136.24	124.31	101.27	91.29	81.94	64.15	50.91	36.95	1.53	645.28
25	1554.71	629.14	465.95	387.91	352.88	282.59	226.59	163.76	136.35	124.42	101.38	91.4	82.05	64.26	51.02	37.06	1.53	646.46
30	1554.71	592.04	421.4	351.08	314.19	238.28	192.57	144.96	125.46	117.19	101.52	91.59	82.24	64.45	51.21	37.25	1.53	647.72
35	1554.71	571.81	417.08	337.47	300.48	234.52	188.97	141.35	121.85	113.58	97.91	91.23	82.57	64.78	51.54	37.58	1.53	649.36
40	1554.71	580.38	427.01	337.79	302.76	232.96	187.41	139.79	120.29	112.02	96.35	89.67	83.27	65.48	52.24	38.28	1.53	651.67
45	1554.71	590.44	436.65	346.36	311.33	233.25	187.7	140.08	120.58	112.31	96.64	89.96	83.7	67.34	54.1	40.15	1.53	654.33
50	1554.71	619.68	450.39	362.07	327.04	248.66	196.01	148.39	128.9	120.63	104.95	98.27	92.01	80.16	64.14	44.5	1.53	657.02
55	1554.71	607.95	448.23	363.56	328.53	254.32	198.33	149.3	129.81	121.54	105.86	99.18	92.92	81.07	64.14	44.5	1.53	660.34
60	1554.71	606.63	452.66	366.68	331.56	256.91	200.92	149.84	130.35	122.08	106.4	99.72	93.46	81.62	64.14	44.5	1.53	663.96
65	1554.71	627.11	479.42	387.38	341.94	258.07	202.07	150.73	131.23	122.96	107.29	100.6	94.34	82.5	64.14	44.5	1.53	667.85
70	1554.71	624.51	479.89	384.62	339.18	255.31	199.93	152.31	132.82	124.55	108.87	102.19	95.93	83.46	64.14	44.5	1.53	672
75	1554.71	613.12	460.25	370.13	335.12	251.24	202.12	154.5	135.01	126.74	111.06	104.38	98.12	83.46	64.14	44.5	1.53	676.37
80	1554.71	594.21	445	366.48	331.44	254.71	204.95	157.33	137.84	129.57	113.89	107.21	100.95	83.46	64.14	44.5	1.53	680.92
85	1554.71	584.51	442.85	365.5	330.47	259.25	208.56	160.94	141.44	133.17	117.5	110.82	104.55	83.46	64.14	44.5	1.53	685.64
90	1554.71	597.21	455.08	377.72	342.69	268.73	213.4	165.78	146.29	138.02	122.34	115.66	109.4	83.46	64.14	44.5	1.53	690.81
95	1554.71	635.23	484.97	407.62	371.99	288.12	232.12	172.63	153.14	144.87	129.19	122.51	110.02	83.46	64.14	44.5	1.53	695.72

100	1554.71	661.76	512.91	435.55	390.65	306.78	250.78	187.95	162.38	154.11	138.43	124.17	110.02	83.46	64.14	44.5	1.53	700.71	13037.9
105	1554.71	681.69	528.65	433.48	388.05	306.65	261.1	207.72	180.31	168.38	139.24	124.17	110.02	83.46	64.14	44.5	1.53	705.72	13024.2
110	1554.71	681.71	508.75	413.59	372.29	300.48	254.92	205.24	177.84	165.91	139.24	124.17	110.02	83.46	64.14	44.5	1.53	710.71	13010.7
115	1554.71	663.81	495.19	409.22	369.01	297.19	251.64	203.39	175.98	164.05	139.24	124.17	110.02	83.46	64.14	44.5	1.53	715.61	17872.8
120	1554.71	639.43	481.61	395.64	355.43	283.61	238.06	179.11	151.7	139.84	124.17	117.49	110.02	83.46	64.14	44.5	1.53	720.45	17848.1
125	1554.71	645.81	481.74	395.77	354.72	282.9	233.09	170.26	143.64	135.37	119.7	113.02	106.76	83.46	64.14	44.5	1.53	725.14	17824.7
130	1554.71	651.39	491.67	401.37	359.3	284.46	228.46	165.63	141.44	133.17	117.5	110.82	104.55	83.46	64.14	44.5	1.53	729.68	17801.5
135	1554.71	654.7	504.98	409.81	364.38	280.51	224.51	161.68	139.82	131.55	115.88	109.2	102.93	83.46	64.14	44.5	1.53	734.03	17777.3
140	1554.71	642.57	493.72	404.95	359.52	275.65	219.65	158.15	138.66	130.39	114.71	108.03	101.77	83.46	64.14	44.5	1.53	738.13	17754.8
145	1554.71	628.06	468.34	379.38	333.94	250.34	204.79	157.17	137.67	129.4	113.73	107.05	100.78	83.46	64.14	44.5	1.53	741.98	17732.6
150	1554.71	607.5	447.78	361.81	321.6	249.78	204.23	156.61	137.12	128.85	113.17	106.49	100.23	83.46	64.14	44.5	1.53	745.55	17709.9
155	1554.71	607.33	447.62	361.64	321.43	249.61	204.06	156.44	136.95	128.68	113	106.32	100.06	83.46	64.14	44.5	1.53	748.49	17709.2
160	1554.71	610.58	444.8	358.83	318.62	246.8	201.25	153.63	134.14	125.87	110.19	103.51	97.25	83.46	64.14	44.5	1.53	751.42	17686.8
165	1554.71	607.21	438.64	352.66	312.45	240.63	195.08	147.46	127.97	119.7	104.02	97.34	91.08	79.24	64.14	44.5	1.53	753.65	17687.6
170	1554.71	606.46	433.05	347.08	306.87	235.05	189.5	141.88	122.38	114.11	98.44	91.76	85.5	73.65	64.14	44.5	1.53	755.89	17664.4
175	1554.71	603.45	430.49	343.08	302.87	231.05	185.5	137.88	118.39	110.12	94.44	87.76	81.5	69.66	60.76	44.5	1.53	757.37	17666.1
180	1554.71	600.96	433.51	341.33	301.12	229.3	183.75	136.13	116.64	108.37	92.69	86.01	79.75	67.9	59.01	44.5	1.53	758.51	17664.4
185	1554.71	611.55	440	344.84	301.8	229.98	184.43	136.81	117.32	109.05	93.37	86.69	80.43	68.58	58.82	44.5	1.53	759.56	17642.7
190	1554.71	621.47	452.06	356.89	311.45	232.3	186.75	139.13	119.63	111.36	95.69	89.01	82.74	70.9	57.66	43.7	1.53	759.88	17642.5
195	1554.71	665.17	502.85	407.68	362.25	278.38	222.38	164.62	142.04	130.11	107.06	97.08	87.73	69.94	56.7	42.74	1.53	759.79	17642.7
200	1554.71	663.55	507.54	413.67	370.84	286.97	230.97	168.14	140.73	128.8	105.76	95.78	86.43	68.64	55.4	41.44	1.53	759.3	17643
205	1554.71	648.39	496.71	407.05	366.84	286.12	230.12	167.29	139.88	127.95	104.91	94.93	85.58	67.79	54.55	40.59	1.53	758.06	17665.1
210	1554.71	645.1	487.96	401.99	361.77	285.48	229.49	166.66	139.25	127.32	104.27	94.29	84.94	67.15	53.91	39.95	1.53	756.79	17664.5
215	1554.71	626.7	484.3	398.33	358.12	284.61	228.61	165.78	138.37	126.44	103.4	93.42	84.07	66.28	53.04	39.08	1.53	755.11	17665
220	1554.71	662.36	479.64	393.67	353.46	281.64	228.02	165.19	137.78	125.85	102.81	92.82	83.48	65.68	52.44	38.49	1.53	752.74	17686.7
225	1554.71	662.86	475.75	389.77	349.56	277.74	227.63	164.8	137.39	125.46	102.42	92.43	83.09	65.29	52.05	38.1	1.53	750.33	17687.1
230	1554.71	627.31	472.56	386.58	346.37	274.56	226.93	164.1	136.69	124.76	101.71	91.73	82.38	64.59	51.35	37.39	1.53	747.25	17709.3
235	1554.71	626.77	470.72	384.74	344.53	272.72	226.57	163.74	136.33	124.4	101.36	91.38	82.03	64.24	51	37.04	1.53	743.86	17731.9
240	1554.71	603.97	455.12	377.76	342.73	271.56	226.01	163.58	136.17	124.24	101.2	91.21	81.86	64.07	50.83	36.88	1.53	740.49	17732.5
245	1554.71	605.86	452.54	375.18	340.15	270.27	224.72	163.49	136.08	124.15	101.1	91.12	81.77	63.98	50.74	36.78	1.53	736.52	17755.5
250	1554.71	598.91	446.93	369.58	334.54	264.21	218.66	163.44	136.03	124.1	101.05	91.07	81.72	63.93	50.69	36.73	1.53	732.3	17778.6
255	1554.71	551.01	405.75	328.39	293.36	233.02	196.53	160.2	135.99	124.06	101.01	91.03	81.68	63.89	50.65	36.69	1.53	727.88	17802
260	1554.71	539.09	396.51	319.16	284.12	223.79	187.29	150.97	135.96	124.03	100.99	91.01	81.66	63.87	50.63	36.67	1.53	723.26	17825.3
265	1554.71	534.37	389.86	312.51	277.48	217.14	180.65	144.32	130.23	124.02	100.97	90.99	81.64	63.85	50.61	36.65	1.53	718.52	17847.6
270	1554.71	527.34	385.91	308.56	273.52	213.19	176.69	140.37	126.28	120.47	100.96	90.98	81.63	63.84	50.6	36.64	1.53	713.64	17871.9
275	1554.71	531.59	382.74	305.39	270.35	210.02	173.53	137.2	123.11	117.31	100.95	90.97	81.62	63.83	50.59	36.63	1.53	708.69	13011
280	1554.71	529.93	381.08	303.73	268.69	208.36	171.87	135.54	121.45	115.65	100.95	90.96	81.62	63.82	50.58	36.63	1.53	703.69	13024.6
285	1554.71	529.05	380.2	302.84	267.81	207.47	170.98	134.66	120.57	114.76	100.94	90.95	81.61	63.81	50.58	36.62	1.53	698.37	13051.3
290	1554.71	528.78	379.92	302.57	267.54	207.2	170.71	134.38	120.29	114.49	100.94	90.95	81.61	63.81	50.58	36.62	1.53	693.4	13065
295	1554.71	530.3	381.45	304.1	269.06	208.73	172.23	135.91	121.82	116.01	100.93	90.95	81.6	63.81	50.57	36.61	1.53	688.5	13078.9
300	1554.71	532.39	383.54	306.18	271.15	210.81	174.32	137.99	123.91	118.1	100.93	90.95	81.6	63.81	50.57	36.61	1.53	683.73	13091.9
305	1554.71	535.12	386.27	308.91	273.88	213.54	177.05	140.72	126.64	120.83	100.93	90.95	81.6	63.81	50.57	36.61	1.53	679.07	13106.1
310	1554.71	539.47	390.62	313.26	278.23	217.89	181.4	145.07	130.99	123.97	100.93	90.95	81.6	63.81	50.57	36.61	1.53	674.59	13120.3
315	1554.71	543.67	396.14	318.78	283.75	223.41	186.92	150.59	135.91	123.98	100.93	90.95	81.6	63.81	50.57	36.61	1.53	670.31	13134.6
320	1554.71	550.1	403.01	325.66	290.62	230.29	193.8	157.47	135.91	123.98	100.93	90.95	81.6	63.81	50.57	36.61	1.53	666.27	13149
325	1554.71	560.6	411.75	334.4	299.36	239.03	202.53	163.32	135.91	123.98	100.94	90.95	81.61	63.81	50.58	36.62	1.53	662.49	13163.7
330	1554.71	570.28	421.43	344.08	309.04	248.71	212.21	163.32	135.92	123.99	100.94	90.96	81.61	63.82	50.58	36.62	1.53	658.99	13178.2
335	1554.71	579.19	430.34	352.99	317.95	257.62	221.13	163.33	135.92	123.99	100.95	90.96	81.62	63.82	50.58	36.63	1.53	655.8	13193.2
340	1554.71	585.64	436.79	359.44	324.4	264.07	226.17	163.34	135.93	124	100.96	90.97	81.63	63.83	50.59	36.64	1.53	652.95	13207.7
345	1554.71	602.83	449.26	363.28	327.99	267.65	226.18	163.35	135.94	124.01	100.97	90.98	81.64	63.84	50.61	36.65	1.53	650.75	13207.1
350	1554.71	626.01	466.29	380.32	340.11	271.79	226.19	163.36	135.95	124.02	100.98	91	81.65	63.85	50.62	36.66	1.53	648.62	13221.6
Azimuth	Field	0.005	0.025	0.0625	0.1	0.25	0.5	1.25	2	2.5	4	5	6.25	10	15	25	1000	SW 0.5 50	SW 0.25 10

Mode: NITE

Towers: 1, Augmentations: 0

KDXU - 0000239024 14 Feb 2024			Coordinates			Nominal Power	RMS Values		
ST. GEORGE, UT			NAD83	Latitude	Longitude	Power	Theoretical	310.943	
890 kHz (AM) Class D			Decimal	37.69750	-113.18178	0.108 kW			
PEN	MOD	MIN	DD MM SS.S	37 41 51.00	113 10 54.40				
Admin Public 60454 LICEN									

Sunrise/Sunset Report:

America/Denver
(ST: -7, DT: -6)

Month	Local Sunrise	Local Sunset
Jan	7:45	17:30
Feb	7:30	18:15
Mar (ADV)	7:45	19:45
Apr (ADV)	7:00	20:00
May (ADV)	6:30	20:30
Jun (ADV)	6:15	21:00
Jul (ADV)	6:15	21:00
Aug (ADV)	6:45	20:30
Sep (ADV)	7:15	19:45
Oct (ADV)	7:45	19:00
Nov	7:15	17:30
Dec	7:45	17:15

Towers

Tower #	Ratio	Phase	Spacing	Orientation	Height	TL Type	A	B	C	D
1	1	0	0	0	98.0	0 - Neither	0	0	0	0

Creating NIF 4.94 for 25076f918d5ca61e018d85b7df2413e8

Theoretical Pattern

	Elevation												
Azimuth	0	5	10	15	20	25	30	35	40	45	50	55	60
Omni	102.18	101.57	99.77	96.83	92.86	87.99	82.36	76.14	69.47	62.50	55.37	48.17	41.01

Max Distance: 1300

Distances to Contours (km) from 37.6975, -113.181777777778

0	102.18	378.28	247.44	180.3	151.56	103.34	73.93	43.8	32.12	27.44	19.28	16.15	13.45	9.02	6.31	3.96	0.1	73.93	103.34	16.31
5	102.18	392.89	247.49	180.35	151.61	103.39	73.98	43.85	32.17	27.49	19.32	16.2	13.5	9.07	6.36	3.96	0.1	73.98	103.39	16.35
10	102.18	392.95	247.55	180.41	151.67	103.45	74.04	43.91	32.23	27.55	19.39	16.26	13.57	9.13	6.42	3.96	0.1	74.04	103.45	16.42
15	102.18	393	247.6	180.46	151.72	103.5	74.09	43.96	32.28	27.6	19.44	16.31	13.62	9.18	6.47	3.96	0.1	74.09	103.5	16.47
20	102.18	382.87	247.68	180.54	151.8	103.58	74.18	44.04	32.37	27.68	19.52	16.39	13.7	9.27	6.47	3.96	0.1	74.18	103.58	16.55
25	102.18	371.15	247.8	180.66	151.91	103.69	74.29	44.15	32.48	27.79	19.63	16.5	13.81	9.38	6.47	3.96	0.1	74.29	103.69	16.66
30	102.18	339.74	209.56	157.37	136.45	103.1	74.48	44.35	32.67	27.99	19.82	16.7	14	9.49	6.47	3.96	0.1	74.48	103.1	16.85
35	102.18	318.01	205.92	153.73	132.81	99.46	74.81	44.67	33	28.31	20.15	17.02	14.33	9.49	6.47	3.96	0.1	74.81	99.46	17.18
40	102.18	326.57	204.36	152.16	131.25	97.89	75.5	45.37	33.7	29.01	20.85	17.72	14.61	9.49	6.47	3.96	0.1	75.5	97.89	17.88
45	102.18	334.85	204.65	152.45	131.53	98.18	77.37	47.24	35.57	30.88	21.66	17.83	14.61	9.49	6.47	3.96	0.1	77.37	98.18	18.02
50	102.18	345.07	215.17	160.78	139.87	106.51	86.84	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	86.84	106.51	18.02
55	102.18	351.71	219.63	161.7	140.79	107.43	87.76	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	87.76	107.43	18.02
60	102.18	355.21	222.44	162.24	141.33	107.98	88.31	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	88.31	107.98	18.02
65	102.18	369.46	224.06	163.11	142.2	108.85	89.18	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	89.18	108.85	18.02
70	102.18	367	221.6	164.71	143.8	110.45	90.77	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	90.77	110.45	18.02
75	102.18	360.05	219.09	166.89	145.98	112.62	92.95	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	92.95	112.62	18.02
80	102.18	353.89	221.91	169.72	148.8	115.45	95.78	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	95.78	115.45	18.02
85	102.18	350.65	225.56	173.36	152.45	119.09	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	119.09	18.02
90	102.18	364.51	233.08	178.15	157.24	123.88	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	123.88	18.02
95	102.18	388.53	253.8	186.66	164.13	130.78	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	130.78	18.02

Azimuth	Field	0.005	0.025	0.0625	0.1	0.25	0.5	1.25	2	2.5	4	5	6.25	10	15	25	1000	SW 0.5 50	SW 0.25 10	4.94
105	102.18	416.03	277.71	224.55	195.81	142.79	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	142.79	18.02
110	102.18	395.92	272.01	219.82	193.32	142.79	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	142.79	18.02
115	102.18	392.33	268.43	216.23	191.58	142.79	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	142.79	18.02
120	102.18	379.21	255.3	195.81	167.07	125.71	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	125.71	18.02
125	102.18	378.81	254.17	187.03	158.29	121.25	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	121.25	18.02
130	102.18	381.25	249.89	182.75	154	119.09	98.38	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	98.38	119.09	18.02
135	102.18	390.78	245.38	178.24	150.78	117.42	97.75	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	97.75	117.42	18.02
140	102.18	386.27	240.87	173.73	149.65	116.29	96.62	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	96.62	116.29	18.02
145	102.18	359.43	221.75	169.55	148.64	115.29	95.62	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	95.62	115.29	18.02
150	102.18	345.11	221.2	169	148.09	114.74	95.07	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	95.07	114.74	18.02
155	102.18	344.94	221.03	168.84	147.92	114.57	94.9	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	94.9	114.57	18.02
160	102.18	342.11	218.21	166.01	145.1	111.74	92.07	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	92.07	111.74	18.02
165	102.18	335.96	212.05	159.86	138.94	105.59	85.92	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	85.92	105.59	18.02
170	102.18	330.38	206.47	154.27	133.36	100.01	80.33	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	80.33	100.01	18.02
175	102.18	326.38	202.48	150.28	129.36	96.01	76.34	54.37	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	76.34	96.01	18.02
180	102.18	324.63	200.72	148.52	127.61	94.26	74.59	53.52	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	74.59	94.26	18.02
185	102.18	325.32	201.41	149.21	128.3	94.95	75.28	51.96	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	75.28	94.95	18.02
190	102.18	338.98	203.72	151.52	130.6	97.25	77.58	50.8	38.29	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	77.58	97.25	18.02
195	102.18	389.13	243.73	176.88	155.97	109.37	79.97	49.83	38.16	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	79.97	109.37	18.02
200	102.18	397.58	252.18	185.04	156.3	108.08	78.67	48.54	36.86	32.08	21.66	17.83	14.61	9.49	6.47	3.96	0.1	78.67	108.08	18.02
205	102.18	394.58	251.33	184.19	155.44	107.22	77.82	47.68	36.01	31.32	21.66	17.83	14.61	9.49	6.47	3.96	0.1	77.82	107.22	18.02
210	102.18	386.39	250.69	183.55	154.81	106.59	77.18	47.05	35.37	30.69	21.66	17.83	14.61	9.49	6.47	3.96	0.1	77.18	106.59	18.02
215	102.18	382.68	249.81	182.67	153.93	105.71	76.3	46.17	34.5	29.81	21.65	17.83	14.61	9.49	6.47	3.96	0.1	76.3	105.71	18.02
220	102.18	376.28	249.22	182.08	153.34	105.12	75.71	45.58	33.9	29.22	21.06	17.83	14.61	9.49	6.47	3.96	0.1	75.71	105.12	18.02
225	102.18	371.87	248.83	181.69	152.95	104.73	75.32	45.19	33.51	28.83	20.67	17.54	14.61	9.49	6.47	3.96	0.1	75.32	104.73	17.7
230	102.18	370.48	246.58	180.99	152.25	104.02	74.62	44.49	32.81	28.13	19.96	16.83	14.14	9.49	6.47	3.96	0.1	74.62	104.02	16.99
235	102.18	368.78	244.88	180.64	151.89	103.67	74.27	44.13	32.46	27.77	19.61	16.48	13.79	9.36	6.47	3.96	0.1	74.27	103.67	16.64
240	102.18	362.15	243.6	180.47	151.73	103.51	74.1	43.97	32.29	27.61	19.45	16.32	13.62	9.19	6.47	3.96	0.1	74.1	103.51	16.48
245	102.18	361.57	241.04	180.38	151.64	103.42	74.01	43.88	32.2	27.52	19.35	16.23	13.53	9.1	6.39	3.96	0.1	74.01	103.42	16.38
250	102.18	358.97	235.26	180.33	151.59	103.36	73.96	43.83	32.15	27.47	19.3	16.17	13.48	9.05	6.34	3.96	0.1	73.96	103.36	16.33
255	102.18	313.83	210	169.47	151.55	103.33	73.92	43.79	32.11	27.43	19.26	16.13	13.44	9.01	6.3	3.96	0.1	73.92	103.33	16.29
260	102.18	304.53	200.7	160.17	144.72	103.3	73.89	43.76	32.09	27.4	19.24	16.11	13.42	8.99	6.27	3.95	0.1	73.89	103.3	16.27
265	102.18	297.92	194.1	153.57	138.12	103.28	73.88	43.75	32.07	27.39	19.22	16.09	13.4	8.97	6.26	3.93	0.1	73.88	103.28	16.25
270	102.18	293.91	190.08	149.56	134.11	103.27	73.87	43.73	32.06	27.38	19.21	16.08	13.39	8.96	6.25	3.92	0.1	73.87	103.27	16.24
275	102.18	290.8	186.97	146.45	130.99	103.26	73.86	43.72	32.05	27.36	19.2	16.07	13.38	8.95	6.24	3.91	0.1	73.86	103.26	16.23
280	102.18	289.13	185.3	144.78	129.33	103.26	73.85	43.72	32.04	27.36	19.2	16.07	13.38	8.94	6.23	3.9	0.1	73.85	103.26	16.23
285	102.18	288.2	184.37	143.85	128.4	103.25	73.84	43.71	32.04	27.35	19.19	16.06	13.37	8.93	6.22	3.89	0.1	73.84	103.25	16.22
290	102.18	287.98	184.15	143.63	128.18	103.25	73.84	43.71	32.04	27.35	19.19	16.06	13.37	8.93	6.22	3.89	0.1	73.84	103.25	16.22
295	102.18	289.54	185.71	145.18	129.73	103.24	73.84	43.71	32.03	27.35	19.18	16.05	13.36	8.93	6.22	3.89	0.1	73.84	103.24	16.21
300	102.18	291.54	187.71	147.18	131.73	103.24	73.84	43.71	32.03	27.35	19.18	16.05	13.36	8.93	6.22	3.89	0.1	73.84	103.24	16.21
305	102.18	294.36	190.53	150	134.55	103.24	73.83	43.7	32.03	27.34	19.18	16.05	13.36	8.92	6.21	3.89	0.1	73.83	103.24	16.21
310	102.18	298.63	194.81	154.28	138.83	103.24	73.83	43.7	32.03	27.34	19.18	16.05	13.36	8.92	6.21	3.89	0.1	73.83	103.24	16.21
315	102.18	304.26	200.43	159.9	144.45	103.24	73.84	43.71	32.03	27.35	19.18	16.05	13.36	8.93	6.22	3.89	0.1	73.84	103.24	16.21
320	102.18	311.11	207.28	166.75	151.3	103.24	73.84	43.71	32.03	27.35	19.18	16.05	13.36	8.93	6.22	3.89	0.1	73.84	103.24	16.21
325	102.18	319.67	215.84	175.31	151.47	103.25	73.84	43.71	32.04	27.35	19.19	16.06	13.37	8.93	6.22	3.89	0.1	73.84	103.25	16.22
330	102.18	329.3	225.47	180.22	151.48	103.25	73.85	43.71	32.04	27.36	19.19	16.06	13.37	8.94	6.23	3.9	0.1	73.85	103.25	16.22
335	102.18	338.34	234.51	180.22	151.48	103.26	73.85	43.72	32.04	27.36	19.2	16.07	13.38	8.94	6.23	3.9	0.1	73.85	103.26	16.23
340	102.18	344.5	240.67	180.23	151.49	103.27	73.86	43.73	32.05	27.37	19.21	16.08	13.39	8.95	6.24	3.91	0.1	73.86	103.27	16.24
345	102.18	349.25	245.42	180.24	151.5	103.28	73.87	43.74	32.06	27.38	19.22	16.09	13.4	8.96	6.25	3.92	0.1	73.87	103.28	16.25
350	102.18	366.25	247.39	180.25	151.51	103.29	73.88	43.75	32.08	27.39	19.23	16.1	13.41	8.97	6.26	3.94	0.1	73.88	103.29	16.26
355	102.18	375.09	247.42	180.28	151.53	103.31	73.91	43.77	32.1	27.41	19.25	16.12	13.43	9	6.29	3.96	0.1	73.91	103.31	16.28

Contour generation time in seconds: 3.1326920986176

City of License Coverage Detail

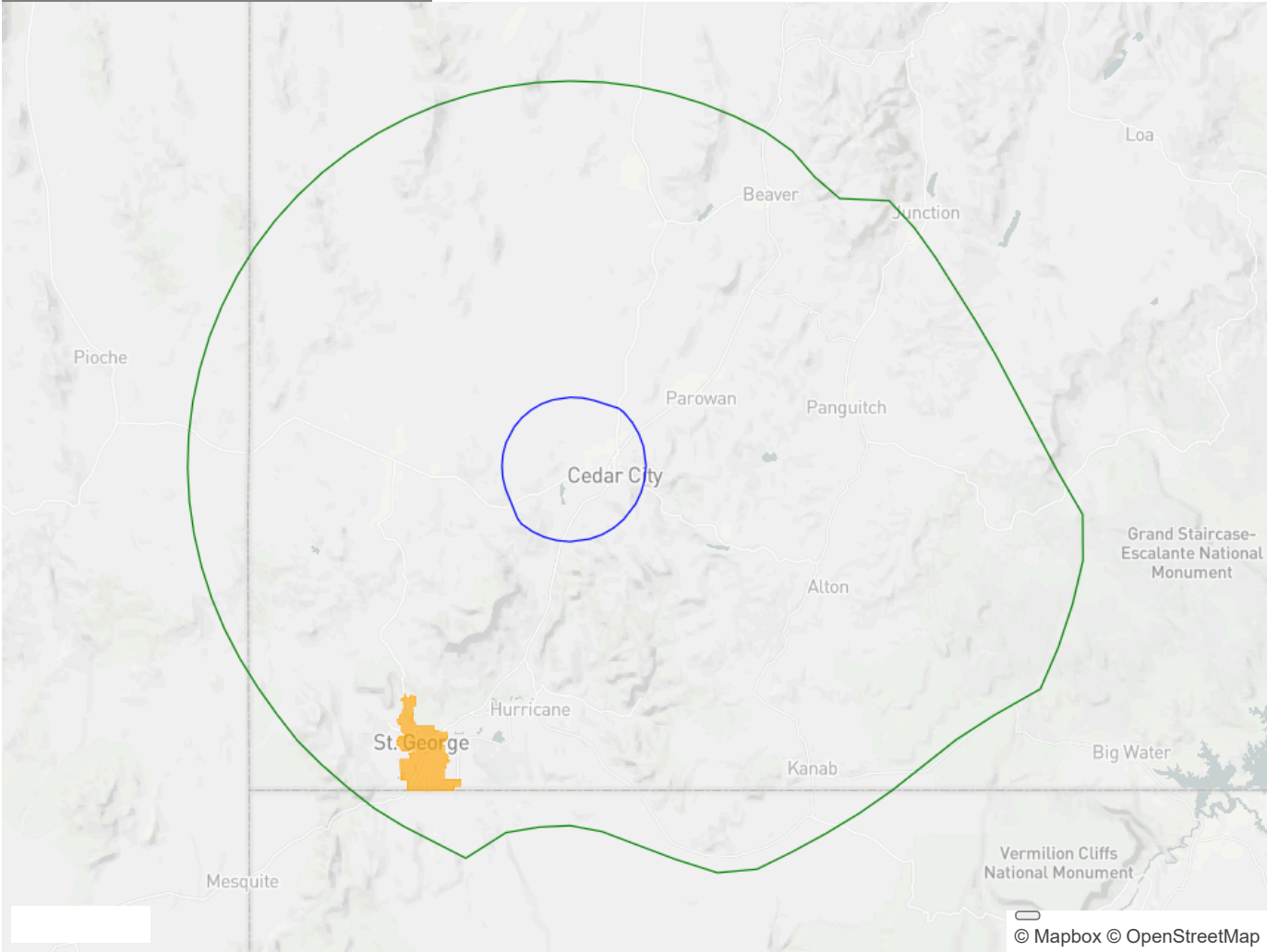
KDXU - 0000239024		
14 Feb 2024		
ST. GEORGE, UT		
890 kHz (AM) Class D	PEN	MOD MIN
Admin Public 60454 LICEN		

City of License Coverage

DAY 5 mV/m	Mode	Area (sq km)	Population
	City	184	72897
	Intersection	184	72897
	Ratio	100%	100%

City of License Coverage

NITE 4.94 mV/m	Mode	Area (sq km)	Population
	City	184	
	Intersection	0	
	Ratio	0%	0%



Checking For Blanketing Interference (1V/m contour pop > 300, <1% of 25 mV/m pop)

1 V/m Population: 220

Location Clearance Tests

Monitoring Station Distances from 10 mV/m Contour

Daypart	Monitoring Station Name	State	Contour Distance (km)	Site Distance (km)
DAY	Douglas	AZ	676.3	759.6
DAY	Livermore	CA	691.7	755.6
DAY	Grand Island	NE	1236.4	1320.0
DAY	Ferndale	WA	1397.4	1461.1
DAY	Kingsville	TX	1744.4	1828.0
DAY	Allegan	MI	2288.3	2371.8
DAY	Powder Springs	GA	2514.0	2597.7
DAY	Canandaigua	NY	2999.9	3083.4
DAY	Laurel	MD	3074.1	3157.7
DAY	Vero Beach	FL	3148.7	3232.3
DAY	Kenai	AK	3623.5	3687.2
DAY	Belfast	ME	3651.3	3734.4
DAY	Waipahu	HI	4588.3	4652.4
DAY	Santa Isabel	PR	4951.9	5035.4
NITE	Livermore	CA	746.7	755.6
NITE	Douglas	AZ	750.2	759.6
NITE	Grand Island	NE	1310.5	1320.0
NITE	Ferndale	WA	1452.2	1461.1
NITE	Kingsville	TX	1818.5	1828.0
NITE	Allegan	MI	2362.3	2371.8
NITE	Powder Springs	GA	2588.1	2597.7
NITE	Canandaigua	NY	3073.9	3083.4
NITE	Laurel	MD	3148.2	3157.7
NITE	Vero Beach	FL	3222.8	3232.3
NITE	Kenai	AK	3678.3	3687.2
NITE	Belfast	ME	3724.9	3734.4
NITE	Waipahu	HI	4643.3	4652.4
NITE	Santa Isabel	PR	5025.9	5035.4

Site Distance from Quiet Zone areas

Daypart	Quiet Zone	Distance (km)
DAY	NRAO-WV	2841.7
NITE	NRAO-WV	2841.7
DAY	Table Mountain	738.0
NITE	Table Mountain	738.0

Nearby Non-Directional
AM Facilities

KSUB - 0000222879 13 Oct 2023			DAY	DAY	0 km, °
CEDAR CITY, UT				NITE	0 km, °
590 kHz (AM) Class D	PEN	L2C	NITE	DAY	0 km, °
				NITE	0 km, °
Admin Public 61384 LICEN					
KSUB - BL-20060501AOZ 04 May 2006			DAY	DAY	0.01 km, 253°
CEDAR CITY, UT				NITE	DAY
590 kHz (AM) Class B	GRA	L2C			
Admin Public 61384 LICEN					
KSUB - BP-20230207AAF 23 Feb 2023			DAY	DAY	0.01 km, 253°
CEDAR CITY, UT				NITE	0.01 km, 253°
590 kHz (AM) Class D	GRA	MOD MIN	NITE	DAY	0.01 km, 253°
				NITE	0.01 km, 253°
Admin Public 61384 LICEN					

Nearby Directional AM Facilities	KSUB - BL-20060501AOZ 04 May 2006					
	CEDAR CITY, UT			DAY	NITE	0.184 km, 259°
	590 kHz (AM) Class B	GRA	L2C	NITE	NITE	0.184 km, 259°
	Admin Public 61384 LICEN					

ASRN/TOWAIR Checks

Mode	Tower	Height(m)	ASRN	Result	Description
DAY	1	93	1041458	OK	Tower is Registered
NITE	1	93.0	1041458	OK	Tower is Registered

Overlap Tests

ALLO Style Nearby Station Search

Nearby Station Radii

Relationship	Co	1st Adj	2nd Adj	3rd Adj	
Dist (km)	500	300	200	100	Recompute
Daypart	Day ▾				

Domestic												
Frequency	Relationship	Callsign	Class	City	File Number	Status	DA?	Daypart	Latitude	Longitude	Distance (km)	Bearing
890	0	KDXU	D	ST. GEORGE, UT	0000239024	PEN	N	DAY	37.6975	-113.181777777778	0	0.0
890	0	KDXU	B	ST. GEORGE, UT	BMML-20170303ABU	GRA	N	DAY	37.068027777778	-113.519666666667	76	203.2

Foreign

Frequency	Relationship	Callsign	Class	City	File Number	Status	DA?	Daypart	Latitude	Longitude	Distance (km)	Bearing
-----------	--------------	----------	-------	------	-------------	--------	-----	---------	----------	-----------	---------------	---------

Co/1st Class A Stations

Number of Results: 10													
Filing Links	Callsign	Facility ID	File Number	Frequency/Class	Community	State Code	Country Code	Op Hours	Directional Ind	Power	# Towers	# Augs	Status Engineering Links
Admin Public	WCBS	9636	BL-19791001AI	880 A	NEW YORK	NY	US	UNL	N	50 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	CD 89	100271		890 A	PUNTA ARENAS	NUL	CI	NITE	N	20 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	CMHB	100274		890 A	CAMAGUEY 3	NUL	CU	NITE	N	30 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	CX18	100287		890 A	MONTEVIDEO 1	NUL	UY	NITE	N	10 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	HJCE	100272		890 A	BOGOTA IC	NUL	CO	NITE	N	5 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	KBBI	33256	BL-19901009AC	890 A	HOMER	AK	US	UNL	N	10 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	TGHU	100278		890 A	ESCUINTLA	NUL	GT	NITE	N	5 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	WLS	73227	BL-19860731AL	890 A	CHICAGO	IL	US	UNL	N	50 kW	1		GRA SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR

Filing Links	Callsign	Facility ID	File Number	Frequency/Class	Community	State Code	Country Code	Op Hours	Directional Ind	Power	# Towers	# Apts	Status	Engineering Links
Admin Public	YVLW	100288		890 A	VALENCIA 1	NUL	VE	NITE	N	50 kW	1		GRA	SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR
Admin Public	ZYH-706	100251		890 A	BRASILIA	NUL	BR	NITE	Y	10 kW	2		GRA	SSR RSS-IN RSS-OUT JSON ALLO BCM RADIAT ScratchSSR

Checking Co-Channel Domestic Overlap ... 0.024072170257568 sec

Checking Co-Channel CA/MX Overlap... 0.67912817001343 sec

Checking Co-Channel Class A Domestic Overlap... 0.68240308761597 sec

Checking Co-Channel Region 2 Class A Overlap... 0.69571304321289 sec

Checking First-Adjacent Domestic Overlap... 0.71961808204651 sec

Checking First Adjacent CA/MX/R2 NZ1 Overlap

Checking First Adjacent CA/MX/R2 NZ2 Overlap... 0.76958799362183 sec

Checking Second Adjacent Domestic Overlap... 0.81098413467407 sec

Checking Third Adjacent Domestic Overlap... 0.84595417976379 sec

Checking Co-Channel Class A Skywave Overlap... 0.85556602478027 sec

Checking First Adjacent Class A Skywave Overlap... 0.8719470500946 sec

Critical Hours Studies

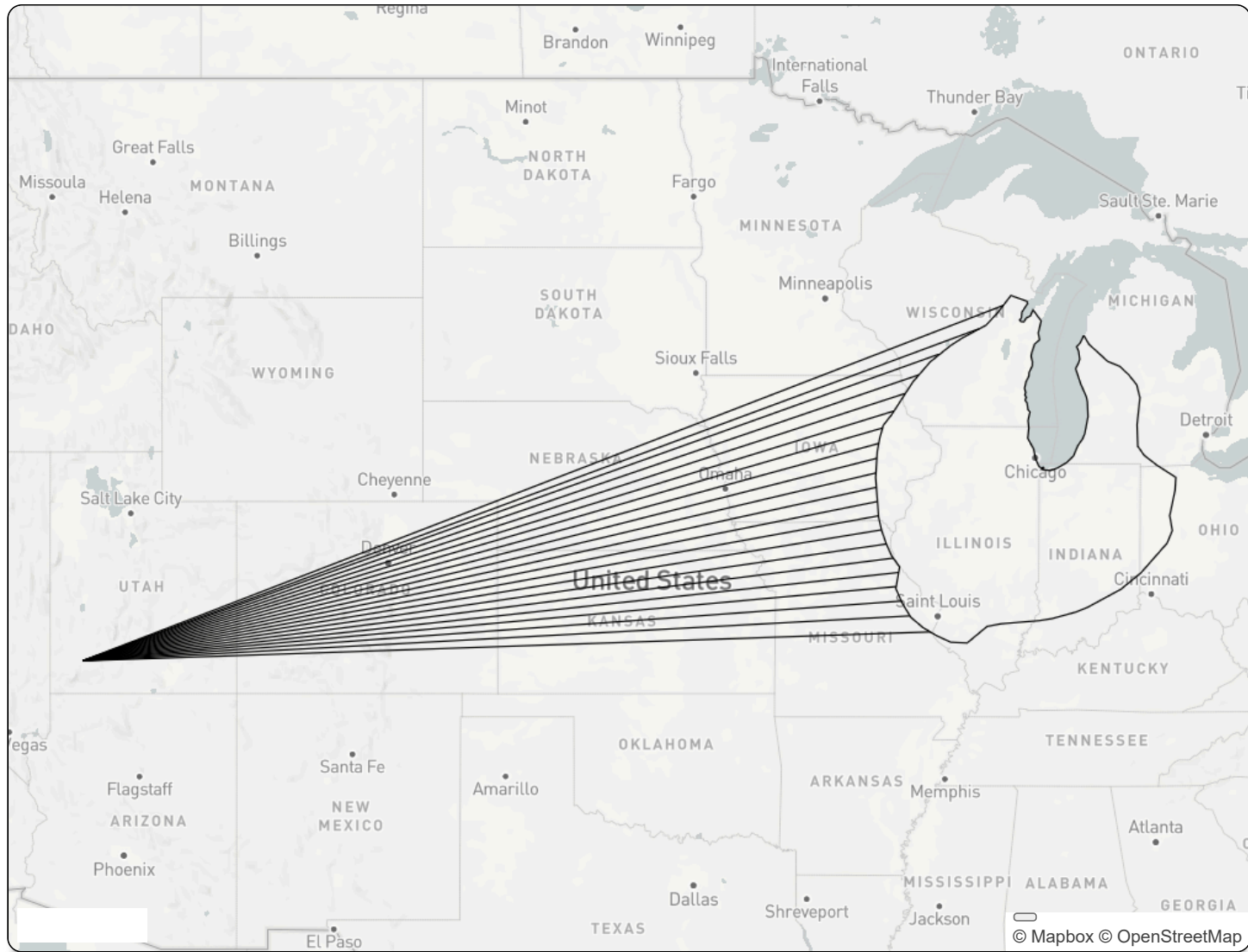
Studying Critical Hours on 890D between 0000239024 (25076f918d5ca61e018d85b7df2413e8) and BL-19860731AL (2f478c760fb5410ab6f4c1b6063ebeb7):

RADIAT Input								
ERP	Theoretical RMS	Number of Towers		Number of Augments				
25.000	310.943	1		0				
Towers								
Field Ratio	Spacing	Orientation	Phasing	Elec Height	Type	A	B	C D
1	0	0	0	98.0	1	0	0	0 0

Study Coordinates: POINT(-113.181777777778 37.6975)

Critical Hour Study on 890 kHz
from KDXU 0000239024 (DAY - PEN)
to WLS BL-19860731AL (GRA)

Azimuth	Distance (km)	Departure Angle	Permissible Field	Actual Field	Margin
61	2201.2	1.2	4615.728	1554.71	3061.018
62	2141	1.5	4272.989	1554.71	2718.279
63	2045.8	2.0	3769.799	1554.71	2215.089
64	1993	2.3	3480.415	1554.71	1925.705
65	1955.9	2.6	3285.159	1554.71	1730.449
66	1926.1	2.7	3124.747	1554.71	1570.037
67	1895.6	2.9	2967.432	1554.71	1412.722
68	1882.2	3.0	2888.416	1554.71	1333.706
69	1872.9	3.0	2829.125	1554.71	1274.415
70	1867.3	3.1	2785.609	1554.71	1230.899
71	1865.1	3.1	2757.558	1554.71	1202.848
72	1864.3	3.1	2735.357	1554.71	1180.647
73	1865.2	3.1	2721.025	1554.71	1166.315
74	1870.5	3.1	2724.394	1554.71	1169.684
75	1880.4	3.0	2749.85	1554.71	1195.14
76	1895.7	2.9	2797.023	1554.71	1242.313
77	1908.2	2.8	2835.278	1554.71	1280.568
78	1903.3	2.9	2801.454	1554.71	1246.744
79	1916.5	2.8	2844.057	1554.71	1289.347
80	1938.5	2.7	2922.829	1554.71	1368.119
81	1988.5	2.4	3120.792	1554.71	1566.082



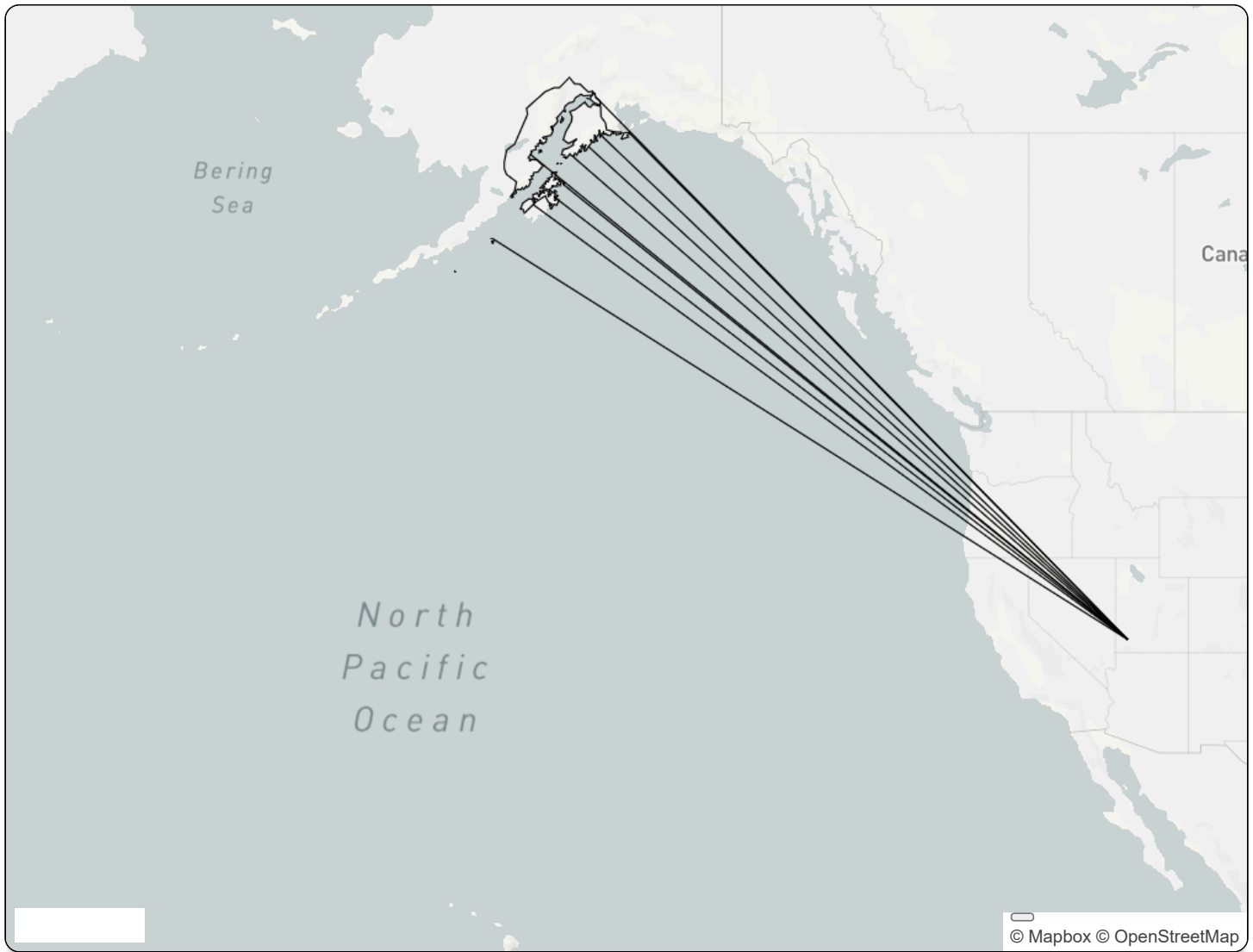
Studying Critical Hours on 890D between 0000239024 (25076f918d5ca61e018d85b7df2413e8) and BL-19901009AC (cfa7549d5a8c448fa69ec1b6063eb7):

RADIAT Input									
ERP	Theoretical RMS	Number of Towers			Number of Augments				
25.000	310.943	1			0				
Towers									
Field Ratio	Spacing	Orientation	Phasing	Elec Height	Type	A	B	C	D
1	0	0	0	98.0	1	0	0	0	0

Study Coordinates: POINT(-113.181777777778 37.6975)

Critical Hour Study on 890 kHz
from KDXU 0000239024 (DAY - PEN)
to KBBI BL-19901009AC (GRA)

Azimuth	Distance (km)	Departure Angle	Permissible Field	Actual Field	Margin
317	3804	0.0	11194.844	1554.71	9640.134
320	3677.3	0.0	10778.27	1554.71	9223.56
321	3608.3	0.0	10555.238	1554.71	9000.528
322	3589.9	0.0	10616.435	1554.71	9061.725
323	3758.2	0.0	11960.857	1554.71	10406.147
324	3606.9	0.0	11086.23	1554.71	9531.52
325	3564.7	0.0	11029.368	1554.71	9474.658
326	3537.3	0.0	11053.13	1554.71	9498.42
327	3451.9	0.0	10734.591	1554.71	9179.881
328	3626.5	0.0	12055.829	1554.71	10501.119



Incoming RSS Study for:

KDXU - 0000239024

14 Feb 2024

ST. GEORGE, UT

890 kHz (AM)

Class D

PEN

MOD MIN

[Admin](#) | [Public](#) | [60454 LICEN](#)

[Customize](#)

Study Country Code: US

Show Class D

Summary

RSS Cutoff	SW10%
50%	4.93
25%	5.47
0%	6.28

RSS for 890 kHz at 37.6975, -113.181777777778 using SW10%

File Number	Status	Callsign	Facility ID	Frequency (kHz)	Op Hours	Azimuth	Distance (km)	Center Rad	Bracket Rad	SW10% Multiplier	Limit	RSS	Reason
BMML-20170303ABU	GRA	KDXU/	60454	890B	NITE	23.01	76.1	142.826	150.613	431.53	12.999		Colocated
BL-19860731AL	GRA	WLS/	73227	890A	UNL	267.16	2203	2788.04	2788.04	8.85	4.935	4.935	
MX_CANANEA_308701	GRA	XENVA2/O	101688	890B	NITE	341.31	794.9	209.411	212.574	65.19	2.772		Objected
BL-20030131AKK	GRA	KRVN/	48002	880B	NITE	259.67	1228.4	3989.6	4007.74	29.43	2.359	5.47	
MX_CULIACAN_308700	GRA	XENZ1/O	101687	890B	NITE	340.26	1536.5	351.913	352.929	24.16	1.705		Objected
CU_CAMAGUEY 3_307211	GRA	CMHB/	100274	890A	NITE	306.19	3825.6	1694.98	1694.98	4.18	1.416		Cuban
MX_COL.EX-HACIENDA DE C_308724	GRA	XEW/O	101711	900A	NITE	329.29	2455.6	5947.61	5947.61	11.46	1.363		Objected
BMML-20170320ANW	GRA	KSAC/	160999	890B	NITE	94.38	740	92.0719	94.2	70.39	1.326	5.628	
MX_MEXICO CITY_616039	GRA	XEW1/A	137568	900A	NITE	329.25	2455.9	5724.19	5724.19	11.45	1.311	5.779	
BMML-20080801BCY	GRA	KCEG/A	135886	890B	NITE	265.73	755.9	87.0681	89.43	66.94	1.197	5.902	
VE_VALENCIA 1_307227	GRA	YVLW/	100288	890A	NITE	311.89	5440.7	2188.21	2188.21	2.46	1.077		IFRB List B
MX_ZACATECAS_308715	GRA	XEPCL/O	101702	890B	NITE	330.99	1945.4	304.225	304.323	16.48	1.003		Objected
BL-20070904AJD	GRA	KTXV/	161266	890B	NITE	295.81	1675.3	260.261	260.552	18.88	0.984	5.983	
BML-20201014AAV	GRA	KIHC/	87729	890B	NITE	64.48	715.1	62.1957	62.563	75.18	0.941	6.057	
GT_ESCUINTLA_307217	GRA	TGHU/	100278	890A	NITE	323.79	3412.3	691.989	691.989	6.59	0.912	6.125	
MX_NUEVO LAREDO_308702	GRA	XENVA2/O	101689	890B	NITE	315.05	1707.9	215.734	215.987	19.38	0.837		Objected
PM_RADIO GUAYMI_307222	GRA	HOL-81/	100283	890B	NITE	318.84	4644.3	978.591	978.591	3.79	0.741		IFRB List B
CA_TRAIL_305559	GRA	NEW/A	98940	890C	NITE	161.82	1319.8	131.317	131.343	23.3	0.612	6.155	
PE_PROGRESO 1_307224	GRA	OAX1D/	100285	890B	NITE	327.54	5839.1	980.078	980.078	3.1	0.609	6.185	
CA_DAWSON CREEK_305558	GRA	CJDC/A	98939	890B	NITE	162.38	2077.6	408.68	408.898	7.44	0.608	6.215	
MX_TARIMORO_308694	GRA	XEAK1/O	101681	890B	NITE	330.87	2276.5	215.045	215.045	12.97	0.558		Objected
MX_CD. OBREGON_1288865	GRA	XEBS/O	180584	890B	NITE	346.02	1172.4	71.6007	71.938	36.68	0.528		Dup FacID
BL-19880401AH	GRA	KVOZ/A	6429	890B	NITE	314.68	1712.6	134.082	134.138	19.28	0.517	6.237	
BL-19890911AG	GRA	KHAC/A	71796	880B	NITE	302.83	435.5	171.532	178.892	143.23	0.513	6.258	
MX_TEPIC_308697	GRA	XEPNA/O	101684	890B	NITE	337.94	1968.7	152.112	152.153	16.64	0.506		Dup FacID
MX_CD. OBREGON_1339090	GRA	XEBS/A	180584	890B	NITE	346.02	1172.4	68.5522	68.875	36.68	0.505	6.278	

Outgoing RSS Study for:

KDXU - 0000239024

14 Feb 2024

ST. GEORGE, UT

890 kHz (AM)

Class D

PEN

MOD MIN

[Admin](#)

[Public](#)

[60454 LICEN](#)

[Customize](#)

Report generation time in seconds: 0.57302117347717

AM Nighttime Skywave Contribution Study

File Number	Class	Status	Frequency	Op Hours	Callsign	Facility ID	Result	Link	Individual Contribution	Max Contribution by Existing Auth
BMML-20170303ABU	B	GRA	890	NITE	KDXU	60454	3.293 (Class D)	Study	3.293	0
MX_CANANEA_308701	B	GRA	890	NITE	XENVA2	101688	(1.712 <= 12.361)	Study	1.712	12.361
BML-20201014AAV	B	GRA	890	NITE	KIHC	87729	(1.501 <= 25.848)	Study	1.501	25.848
BMML-20170320ANW	B	GRA	890	NITE	KSAC	160999	(1.409 <= 22.538)	Study	1.409	22.538
BMML-20080801BCY	B	GRA	890	NITE	KCEG	135886	1.341 (Class D)	Study	1.341	0.523
MX_CD. OBREGON_1288865	B	GRA	890	NITE	XEOBS	180584	(0.969 <= 8.773)	Study	0.969	8.773
MX_CD. OBREGON_1339090	B	GRA	890	NITE	XEOBS	180584	(0.969 <= 8.773)	Study	0.969	8.773
CA_TRAIL_305559	C	GRA	890	NITE	NEW	98940	(0.753 <= 4.171)	Study	0.753	4.171
CA_SWIFT CURRENT_495295	B	GRA	890	NITE	NEW	98942	(0.579 <= 0.594)	Study	0.579	0.594
CA_SWIFT CURRENT_305561	B	GRA	890	NITE	NEW	98942	(0.579 <= 0.594)	Study	0.579	0.594
MX_SAN PEDRO_1337782	B	GRA	890	NITE	XENZ	171199	(0.501 <= 3.756)	Study	0.501	3.756
MX_SAN PEDRO DE LOS ROS_1184175	B	GRA	890	NITE	XENZ	171199	(0.501 <= 3.756)	Study	0.501	3.756

Displayed results limit to contributions >= .5 for SSR

AM Daytime Study

Reference Station:

Call: KDXU

Freq: 890 kHz

ST. GEORGE, UT, US

Lat: 37-41-51.09 N

Power: 25.0 kW

Lng: 113-10-51.57 W

Theo RMS: 310.94 mV/m @ 1km

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	98.0	0	0	0.0	0.0	0.0	0.0

Call	Freq	City	ST	Dist	Azi	In	Out
KDXU	890	ST. GEORGE	UT	0.1	267.7	-138720.00	-138712.00
KDXU	890	ST. GEORGE	UT	76.0	203.1	-138720.00	-97208.00
KHAC	880	TSE BONITO	NM	436.0	122.7	25.09	18.39
KLSQ	870	WHITNEY	NV	247.8	219.1	95.67	95.67
KYWN	890	MERIDIAN	ID	690.3	336.9	115.59	125.84
KCEG	890	FOUNTAIN	CO	745.8	83.0	307.21	182.19
KIHC	890	ARROYO GRAN	CA	716.4	244.6	276.15	197.71
KCEG	890	FOUNTAIN	CO	757.7	85.8	340.82	213.19
KSAC	890	OLIVEHURST	CA	741.9	274.4	239.28	218.97
KALI	900	WEST COVINA	CA	577.9	223.9	312.46	273.13
KBIF	900	FRESNO	CA	587.6	257.1	319.81	299.45
XENVA2	890	CANANEA	SO	793.5	161.2	278.60	305.72
XENVA2	890	CD.JUAREZ	CH	913.7	138.8	418.77	398.06
KKMC	880	GONZALES	CA	744.0	257.8	422.10	417.56
XENVA2	880	SONOITA	SO	651.5	176.8	338.43	464.56
XE	880	CABORCA	SO	780.5	173.2	521.38	521.38
XENVA2	880	LAS PALOMAS	CH	833.7	144.2	557.93	609.15
XEOBS	890	CD. OBREGON	SO	1169.8	166.0	670.40	615.76

KDXU

Freq: 890 kHz

Class: D

Latitude: 37-41-51.09 N

Longitude: 113-10-51.57 W

Power: 25 kW

RMS: 310.943 mV/m @1km

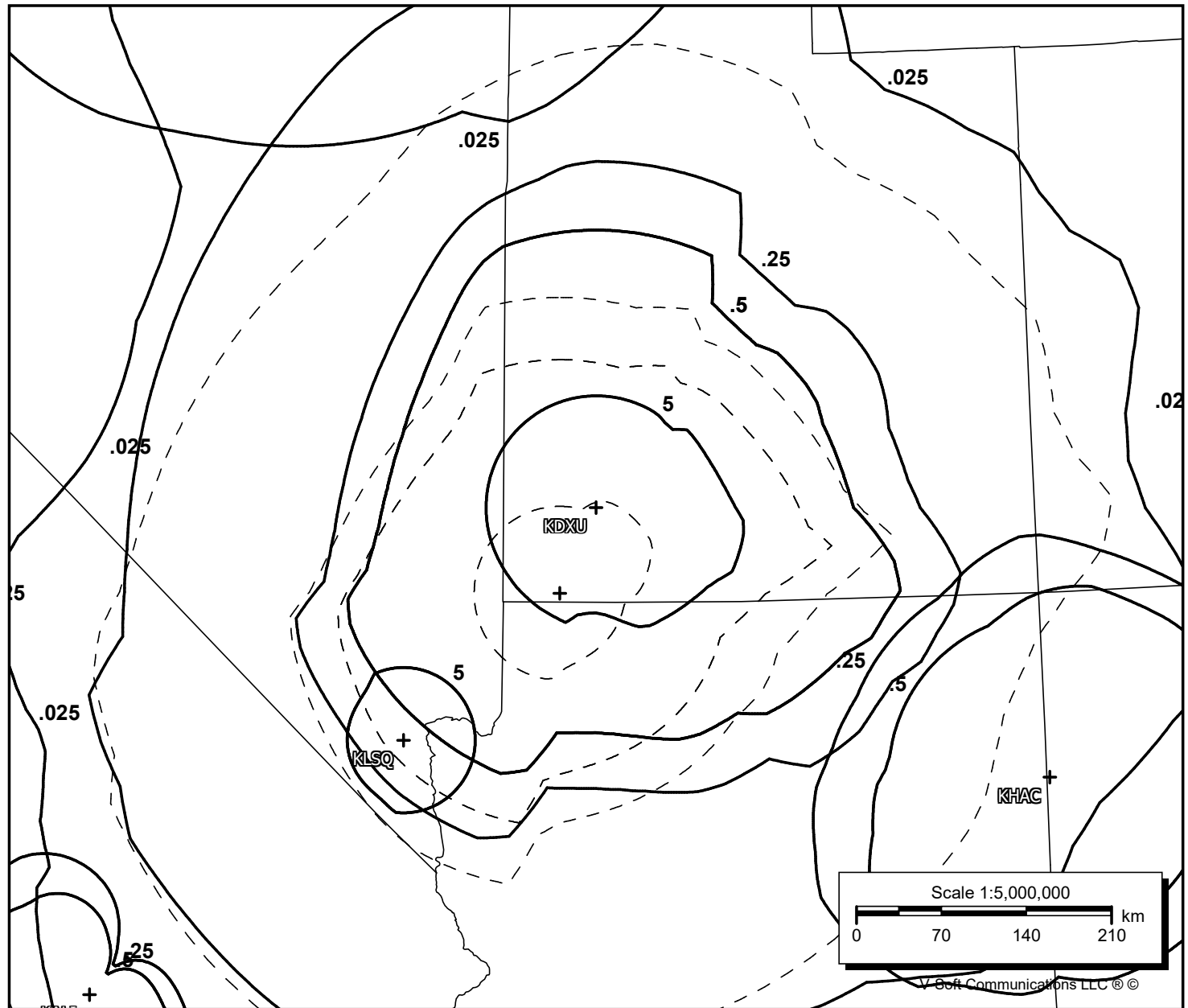
Towers: 1

Augs: 0

Causes

Receives

No Ix



Night Allocation Protection Report

Call: KDXU
 Freq: 890 kHz
 ST. GEORGE, UT, US
 Hours: N
 Lat: 37-41-51 N [NAD83]
 Lng: 113-10-54.40 W
 Power: 0.108 kW
 Theo RMS: 310.94 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	98.0	0	0	0.0	0.0	0.0	0.0

Call Letters	Ct St City	Azi (deg)	Ang Low (deg)	Ang High (deg)	SWFF (100uV/m)	Req Prot (mV/m)	Permis (mV/m)	Cur Rad (mV/m)	Margin (mV/m)
WLS (258)	US IL CHICAGO	76.57	2.91	6.80	24.50	0.500	102.05S	101.98	0.07
KCEG	US CO FOUNTAIN	80.43	9.08	15.84	66.94	3.507	261.95	100.19	161.77
50% = 14.028, 25% = 14.028; WLS=10.86 KRVN=8.88									
NEW SWIFT CURRENCA SK SWIFT CURRENT		15.60	4.18	4.18	28.46	4.013	705.11	101.76	603.35
50% = 8.027, 25% = 8.904; WLS=8.03 KCEG=3.85									
NEW SWIFT CURRENCA SK SWIFT CURRENT		15.60	4.18	4.18	28.46	4.013	705.11	101.76	603.35
50% = 8.027, 25% = 8.904; WLS=8.03 KCEG=3.85									
XENVA2/O	MX SO CANANEA	159.67	11.75	11.75	86.59	12.359	713.62	98.84	614.77
50% = 12.359, 25% = 12.934; KDXU=12.36 WLS=3.82									
KVOZ	US TX DEL MAR HILLS	127.18	0.94	4.08	19.28	2.805	727.60	102.17	625.44
50% = 10.94, 25% = 11.294; WLS=8.41 XEW1/A=7.00 KTXV=2.81									
XENZ/A	MX SI SAN PEDRO	158.04	3.66	3.66	24.59	3.757	763.94	101.85	662.08
50% = 8.27, 25% = 9.017; KVOZ=7.37 KDXU=3.76 WLS=2.82 XEPNA/A=2.23									
XENZ/A	MX SI SAN PEDRO DE LO	158.04	3.66	3.66	24.59	3.757	763.94	101.85	662.08
50% = 8.27, 25% = 9.017; KVOZ=7.37 KDXU=3.76 WLS=2.82 XEPNA/A=2.23									
XENZ1/O	MX SI CULIACAN	157.20	3.64	3.64	24.46	3.808	778.41	101.87	676.54
50% = 7.615, 25% = 9.186; KVOZ=7.62 KDXU=3.62 WLS=2.87 XEPNA/A=2.25									
XEOBS/A	MX SO CD. OBREGON	164.28	6.63	6.63	47.93	8.772	915.16	101.13	814.03
50% = 10.055, 25% = 10.492; KDXU=8.77 KVOZ=4.91 WLS=3.00									
XEOBS/O	MX SO CD. OBREGON	164.28	6.63	6.63	47.93	8.772	915.16	101.13	814.03
50% = 10.055, 25% = 10.492; KDXU=8.77 KVOZ=4.91 WLS=3.00									
NEW TRAIL/A	CA BC TRAIL	345.03	5.28	5.28	37.10	6.903	930.28	101.50	828.78
50% = 13.805, 25% = 14.421; NEW SWIFT CURRENT/A=10.57 CJDC/A=8.88 KDXU=4.17									
XENVA2/O	MX TA NUEVO LAREDO	127.63	2.55	2.55	17.19	3.468	1008.83	102.03	906.79
50% = 6.936, 25% = 8.229; WLS=6.94 KTXV=3.14 KCEG=3.12									
KTXV	US TX MABANK	105.89	1.13	4.34	18.88	3.979	1053.52	102.16	951.36
50% = 15.914, 25% = 15.914; WLS=15.91									
KBBI (138)	US AK HOMER	322.97	0.00	0.00	2.12	0.500	1184.03E	102.19	1081.84
KSAC	US CA OLIVEHURST	279.57	9.34	16.22	70.39	22.538	1600.88	100.10	1500.78
50% = 22.538, 25% = 23.486; KDXU=22.54 KIHC=6.60									
KBIF	US CA FRESNO	260.98	12.47	20.85	98.37	3.291	1672.53	98.44	1574.08
50% = 10.71, 25% = 11.204; XEW1/A=10.71 KDXU=3.29									

KIHC	US CA ARROYO GRANDE	248.84	9.77	16.86	75.18	25.848	1719.18	99.87	1619.31
50% = 25.848, 25% = 25.848; KDXU=25.85									
XEPNA/A	MX NA TEPIC	153.79	1.12	1.12	10.89	3.767	1729.41	102.16	1627.25
50% = 7.533, 25% = 7.933; KVOZ=7.53 WLS=2.49									
XEPNA/O	MX NA TEPIC	153.79	1.12	1.12	10.89	3.767	1729.41	102.16	1627.25
50% = 7.533, 25% = 7.933; KVOZ=7.53 WLS=2.49									
KKMC	US CA GONZALES	262.73	9.30	16.17	70.85	2.655	1873.59	100.10	1773.49
50% = 10.279, 25% = 10.619; KRVN=10.28 KWIP=2.67									
XEPC1/O	MX ZA ZACATECAS	145.59	1.24	1.24	11.31	5.097	2252.79	102.15	2150.64
50% = 10.194, 25% = 10.671; KVOZ=10.19 WLS=3.16									
XEPAN/O	MX MC URUAPAN	148.90	0.00	0.00	6.96	3.385	2431.30	102.19	2329.11
50% = 6.771, 25% = 7.554; KVOZ=6.77 XEPNA/A=2.38 WLS=2.35									
KRVN	US NE LEXINGTON	70.95	3.91	8.23	29.43	1.440	2446.54	101.82	2344.72
50% = 4.73, 25% = 5.76; WCBS=4.73 WLS=2.11 WWL=1.94 KHAC=1.60									
XEAK1/O	MX GT TARIMORO	144.76	0.00	0.00	7.19	4.047	2813.27	102.19	2711.09
50% = 8.094, 25% = 8.814; KVOZ=8.09 WLS=2.68 XEPNA/A=2.23									
KHAC	US NM TSE BONITO	120.34	17.30	27.76	143.23	8.498	2966.55	95.13	2871.42
50% = 33.992, 25% = 33.992; KRVN=33.99									
XEPOR/O	MX OA PUTLA DE GUERRE	142.89	0.00	0.00	4.45	2.786	3128.29	102.19	3026.11
50% = 5.571, 25% = 6.725; KVOZ=4.56 HRGY 3-A=3.21 HRH6-A=2.49 WLS=2.17 TIBAS-A=1.81									
XEBE/O	MX VE EL PROGRESO	137.99	0.00	0.00	5.36	3.378	3148.42	102.19	3046.23
50% = 6.755, 25% = 8.352; KVOZ=6.76 HRGY 3-A=3.23 WLS=2.83 HRH6-A=2.39									
XEBY1/O	MX VC TUXPAN	136.46	0.00	0.00	6.38	4.179	3277.66	102.19	3175.47
50% = 8.359, 25% = 9.394; KVOZ=8.36 WLS=3.30 HRGY 3-A=2.73									
XEBY/A	MX VE TUXPAN	136.37	0.00	0.00	6.38	4.180	3277.94	102.19	3175.76
50% = 8.36, 25% = 9.401; KVOZ=8.36 WLS=3.31 HRGY 3-A=2.74									
CJDC/A	CA BC DAWSON CREEK	347.58	0.58	0.58	9.35	6.334	3387.08	102.18	3284.90
50% = 12.668, 25% = 12.668; NEW SWIFT CURRENT/A=10.61 NEW TRAIL/A=6.92									
KWIP	US OR DALLAS	316.86	4.42	8.97	32.03	2.796	4364.79	101.71	4263.07
50% = 10.742, 25% = 11.185; KRVN=7.88 KIXI=7.30 C880/ =3.12									
XEPY1/O	MX YC MERIDA	122.66	0.00	0.00	3.80	3.961	5204.90	102.19	5102.72
50% = 8.418, 25% = 9.214; HRGY 3-A=5.71 HRH6-A=4.75 WLS=3.96 TIBAS-A=2.92 KVOZ=2.35									
XEUL/O	MX YC PROGRESO	122.25	0.00	0.00	3.86	4.103	5312.86	102.19	5210.67
50% = 8.293, 25% = 9.059; HRGY 3-A=5.57 HRH6-A=4.58 WLS=4.10 TIBAS-A=2.79 KVOZ=2.35									
WFAB	US PR CEIBA	101.74	0.00	0.00	2.25	2.467	5493.62	102.19	5391.43
50% = 8.635, 25% = 9.868; HIPJ-C=8.63 4VVB-A=3.71 WLS=3.01									
CMHB-D (305)	CU NU CAMAGUEY 3	108.35	0.00	0.00	1.04	1.140	5508.20P	102.19	5406.01
50% = 2.539, 25% = 3.009; WLS=1.95 4VVB-A=1.16 HRGY 3-A=1.14 HRH6-A=1.11 HIPJ-C=0.91 TIBAS-A=0.74									
WCBS (194)	US NY NEW YORK	81.86	0.00	0.00	3.78	0.500	6610.91G	102.19	6508.72
KIXI	US WA MERCER ISLAND/S	329.16	3.24	7.27	24.32	3.408	7006.32	101.94	6904.38
50% = 12.329, 25% = 13.633; KWIP=9.92 KRVN=7.32 C880/ =5.82									
WAMG	US MA DEDHAM	68.49	0.00	0.00	2.38	3.437	7219.51	102.19	7117.33
50% = 12.449, 25% = 13.75; WLS=10.45 WCBS=6.76 NEW900 SHERBROOKE/A=5.84									
KJJR	US MT WHITEFISH	355.94	4.19	8.63	28.17	4.109	7292.22	101.76	7190.46
50% = 15.381, 25% = 16.436; KRVN=12.34 C880/ =9.18 KIXI=5.79									

YVLW-B (153)	VE NU VALENCIA 1	113.22	0.00	0.00	0.36	0.626	8683.89S	102.19	8581.70
50% = 1.252, 25% = 1.61; HIPJ-C=1.05 OAX1D-A=0.69 WFAB=0.59 4VVB-A=0.56									
HCIM1-A=0.45 HCTL5-A=0.40									
KHCM	US HI HONOLULU	259.81	0.00	0.00	3.71	0.665	8963.98	102.19	8861.79
50% = 2.414, 25% = 2.732; KCMC=1.93 KRVN=1.44 KIXI=1.09 ZYL-275-A=0.67									
XETAP/O	MX CS TAPACHULA	135.27	0.00	0.00	2.95	5.322	9015.38	102.19	8913.20
50% = 10.644, 25% = 10.644; HRGY 3-A=6.67 HRH6-A=6.28 TIBAS-A=5.43									
TGHU-D (274)	GT NU ESCUINTLA	136.05	0.00	0.00	1.15	2.131	9287.42S	102.19	9185.23
50% = 4.262, 25% = 4.262; HRGY 3-A=2.62 HRH6-A=2.50 TIBAS-A=2.25									
CD 89-A (267)	CI NU PUNTA ARENAS	162.41	0.00	0.00	0.12	0.250	10382.37S	102.19	10280.18
50% = 0.556, 25% = 0.601; LRG382-A=0.40 CX18-A=0.30 CC 89-A=0.25 LV11-A=0.17									
LU33-A=0.15									
KJOZ	US TX CONROE	111.51	0.39	3.33	16.53	3.437	10397.17	102.18	10294.99
50% = 12.765, 25% = 13.75; WWL=8.40 KRVN=7.67 WCBS=5.78 KLRG=5.11									
HJCE-B (332)	CO NU BOGOTA IC	118.16	0.00	0.00	0.48	1.041	10736.85S	102.19	10634.66
50% = 2.198, 25% = 2.795; TIBAS-A=1.40 HIPJ-C=1.34 OAX1D-A=1.04 4VVB-A=1.04									
HRH6-A=0.84 HCIM1-A=0.83 HCTL5-A=0.71									
WMEQ	US WI MENOMONIE	59.14	0.00	2.62	10.72	2.435	11352.00	102.19	11249.81
50% = 9.738, 25% = 9.738; WCBS=8.33 WLS=5.04									
KLRG	US AR SHERIDAN	95.11	0.03	2.86	14.30	3.264	11410.65	102.19	11308.47
50% = 13.057, 25% = 13.057; WCBS=8.49 WWL=7.86 WIJR=6.06									
KMVI	US HI KAHULUI	258.08	0.00	0.00	3.90	0.894	11449.78	102.19	11347.60
50% = 3.294, 25% = 3.577; XEW1/A=3.29 CKMO/A=0.99 CIRB/A=0.98									
HRGY 3-A	HN NU S PEDRO SULA	128.17	0.00	0.00	1.01	2.321	11528.49	102.19	11426.30
50% = 4.642, 25% = 4.642; HRH6-A=3.54 TIBAS-A=3.00									
KTIS	US MN MINNEAPOLIS	57.84	0.21	3.10	11.74	2.818	12001.83	102.19	11899.65
50% = 9.865, 25% = 11.272; XEW1/A=8.07 CHML/A=5.68 WLS=4.27 WSUI=3.39									
NEW EDMUNDSTON/ACA NB EDMUNDSTON		58.96	0.00	0.00	2.13	5.221	12267.58	102.19	12165.39
50% = 10.443, 25% = 11.534; WLS=10.44 WAMG=4.90									
TIBAS-A	CR NU GUANACASTE	130.67	0.00	0.00	0.70	1.864	13363.51	102.19	13261.33
50% = 3.728, 25% = 3.904; HRH6-A=2.98 HRGY 3-A=2.24 OAX1D-A=1.16									
YSLA-B	ES NU SANTA ANA 5	132.22	0.00	0.00	0.99	2.801	14180.28	102.19	14078.10
50% = 5.601, 25% = 5.601; HRH6-A=3.29 HRGY 3-A=3.29 TIBAS-A=3.12									
HRH6-A	HN NU EL PARAISO	128.11	0.00	0.00	0.86	2.453	14209.51	102.19	14107.32
50% = 4.907, 25% = 4.907; TIBAS-A=3.67 HRGY 3-A=3.26									
HOL-81-B	PM NU RADIO GUAYMI	124.75	0.00	0.00	0.54	1.732	15905.50	102.19	15803.32
50% = 3.464, 25% = 4.298; TIBAS-A=2.99 OAX1D-A=1.75 HRH6-A=1.70 HCIM1-A=1.15 HRGY 3-A=1.07									
HCTL5-A=1.06									
WIJR	US IL HIGHLAND	79.42	0.00	2.01	11.15	3.612	16196.91	102.19	16094.72
50% = 14.447, 25% = 14.447; WCBS=12.60 WLS=7.07									
YNW1-B	NI NU RADIO MUNDIA	130.15	0.00	0.00	0.82	2.916	17874.16	102.19	17771.98
50% = 6.382, 25% = 6.382; TIBAS-A=4.16 HRH6-A=3.86 HRGY 3-A=2.92									
WXBN	US FL SWEETWATER	103.89	0.00	0.00	5.19	2.866	27613.73	102.19	27511.54
50% = 9.974, 25% = 11.464; WCBS=9.97 YVMP-A=3.71 OBZ4N-A=3.07 ZYL-275-A=2.96									
WJTH	US GA CALHOUN	89.45	0.00	0.00	7.67	4.851	31629.60	102.19	31527.42
50% = 16.187, 25% = 19.402; XEW1/A=16.19 WKXV=7.09 WGOK=6.37 WYCV=4.86									

WKXV	US TN KNOXVILLE	85.23	0.00	0.00	7.12	4.540	31869.24	102.19	31767.06
50% = 15.407, 25% = 18.161; XEW1/A=13.63 WJTH=7.19 WYCV=6.42 WACA=5.36 WAYN=4.74									
WGOK	US AL MOBILE	101.15	0.00	0.14	9.35	6.756	36111.66	102.19	36009.48
50% = 27.023, 25% = 27.023; XEW1/A=27.02									
WAYN	US NC ROCKINGHAM	85.62	0.00	0.00	5.22	4.050	38814.47	102.19	38712.29
50% = 13.708, 25% = 16.201; XEW1/A=11.80 WYCV=6.97 WIAM=5.53 WCPA=4.90 WKXV=4.47									
WNMB	US SC NORTH MYRTLE BE	87.39	0.00	0.00	4.90	4.024	41071.65	102.19	40969.46
50% = 14.241, 25% = 16.095; XEW1/A=12.01 WAYN=7.65 WIAM=5.44 WYCV=5.16									
CA 89-A	CI NU POZO ALMONTE	137.07	0.00	0.00	0.19	1.727	44682.09	102.19	44579.91
50% = 3.455, 25% = 3.717; LV11-A=3.45 UNK-A=1.37									
ZYK690-A	BR NU SAO PAULO	122.64	0.00	0.00	0.14	1.375	50652.15	102.19	50549.96
50% = 2.751, 25% = 4.233; CX18-A=1.80 ZYK703-A=1.51 ZYJ-755-A=1.43 UNK-A=1.34 UNK-A=1.26 ZYJ499-A=1.25 ZYL370-A=1.20 UNK-A=1.17 UNK-A=1.16 ZYK-295-A=1.11									
ZYI-772-A	BR NU RECIFE	103.56	0.00	0.00	0.14	1.470	52536.12	102.19	52433.93
50% = 2.022, 25% = 2.218; UNK-A=1.33 UNK-A=1.13 ZYH-706-A=1.03 ZYK690-A=0.68 ZYL-250-A=0.60									
CX18-A (157)	UY NU MONTEVIDEO 1	137.39	0.00	0.00	0.13	1.317	52648.68S	102.19	52546.50
50% = 2.634, 25% = 3.328; LV11-A=1.89 LU33-A=1.83 ZYK690-A=1.31 ZYK-295-A=0.93 LRG382-A=0.93 ZYK-215-A=0.83									
WIAM	US NC WILLIAMSTON	82.46	0.00	0.00	4.26	4.661	54677.16	102.19	54574.97
50% = 15.041, 25% = 18.642; WNMB=11.59 XEW1/A=9.59 WAYN=6.64 NEW900 SHERBROOKE/A=6.28 WCPA=6.15									
HCTL5-A	EC NU RIOBAMBA 4	132.87	0.00	0.00	0.37	4.628	63313.96	102.19	63211.77
50% = 9.256, 25% = 9.604; OAX1D-A=9.26 HCIM1-A=2.56									
CC 89-A	CI NU CONCEPCION	148.71	0.00	0.00	0.15	1.931	65717.30	102.19	65615.11
50% = 4.165, 25% = 4.45; LRG382-A=2.32 LV11-A=2.10 CX18-A=1.96 LU33-A=1.93 CD 89-A=1.57									
LV11-A	AR NU SGO DEL ESTE	137.37	0.00	0.00	0.16	2.129	67667.17	102.19	67564.99
50% = 4.258, 25% = 4.979; CX18-A=4.26 ZP-33-A=1.58 LU33-A=1.46 CA 89-A=1.42									
WACA	US MD LAUREL	75.79	0.00	0.00	3.95	5.391	68252.15	102.19	68149.96
50% = 18.64, 25% = 21.563; WCPA=13.63 CHML/A=12.71 XEW1/A=7.69 NEW900 SHERBROOKE/A=7.64									
WCPA	US PA CLEARFIELD	71.89	0.00	0.00	4.21	6.442	76479.53	102.19	76377.35
50% = 24.717, 25% = 25.768; CHML/A=24.72 XEW1/A=7.28									
4VVB-A	HT NU GONAIVES	105.97	0.00	0.00	0.61	9.515	77878.46	102.19	77776.28
50% = 3.077, 25% = 3.368; HIPJ-C=3.08 WFAB=1.03 WLS=0.91									
OAX1D-A	PE NU PROGRESO 1	137.51	0.00	0.00	0.34	5.673	83392.79	102.19	83290.61
50% = 3.172, 25% = 3.172; HCTL5-A=2.68 HCIM1-A=1.70									
HCIM1-A	EC NU IBARRA 1	130.80	0.00	0.00	0.39	6.499	84289.80	102.19	84187.61
50% = 7.6, 25% = 8.293; OAX1D-A=7.60 HCTL5-A=3.32									
LRG382-A	AR NU MAQUINCHAO	148.22	0.00	0.00	0.13	2.372	89460.52	102.19	89358.34
50% = 4.744, 25% = 5.763; CD 89-A=3.71 CX18-A=2.96 CC 89-A=2.36 LU33-A=2.26									
HIPJ-C	DO NU S DOMINGO 11	104.78	0.00	0.00	0.53	9.614	90398.17	102.19	90295.99
50% = 2.752, 25% = 2.854; 4VVB-A=2.37 WFAB=1.39 WLS=0.75									
ZYH-706-A (328)	BR NU BRASILIA	117.73	0.00	0.00	0.15	2.822	91575.37S	102.19	91473.19
50% = 5.643, 25% = 6.12; ZYK690-A=5.64 UNK-A=2.37									
KZPA	US AK FORT YUKON	337.91	0.00	0.00	0.76	1.572	102739.58	102.19	102637.40
50% = 1.113, 25% = 1.237; CIRB/A=0.69 CKMO/A=0.67 KBBI=0.56 XEW1/A=0.54									
UNK-A	BR NU SANTA QUITER	104.01	0.00	0.00	0.16	3.601	113149.18	102.19	113047.00
50% = 7.201, 25% = 7.201; ZYI-772-A=7.20									

WYKO	US PR SABANA GRANDE	102.86	0.00	0.00	2.37	5.427	114391.25	102.19	114289.06
50% = 21.61, 25% = 22.281; UNK-A=16.98 YVMP-A=13.36 WCBS=5.43									
UNK-A	BR NU VILHENA	124.37	0.00	0.00	0.19	4.504	116095.69	102.19	115993.51
50% = 4.687, 25% = 4.687; ZYH-706-A=4.69									
LU33-A	AR NU S ROSA	142.72	0.00	0.00	0.14	3.564	130091.55	102.19	129989.37
50% = 7.607, 25% = 7.936; CX18-A=6.72 LV11-A=3.56 LRG382-A=2.26									
ZP-33-A	PA NU ITA	131.04	0.00	0.00	0.15	3.947	130889.58	102.19	130787.39
50% = 7.894, 25% = 8.314; LV11-A=5.01 CX18-A=4.49 ZYK690-A=4.13 ZYH-706-A=2.61									
UNK-A	BR NU CAETITE	112.98	0.00	0.00	0.14	3.950	136252.50	102.19	136150.31
50% = 7.9, 25% = 8.821; ZYH-706-A=6.52 ZYI-772-A=4.45 ZYK690-A=3.93									
UNK-A	BR NU FATIMA DO SU	127.00	0.00	0.00	0.15	4.302	141269.24	102.19	141167.05
50% = 8.605, 25% = 9.362; ZYK690-A=6.36 ZYH-706-A=5.79 LV11-A=2.72 CX18-A=2.49									
ZJI536-A	BR NU SANTAREM	112.51	0.00	0.00	0.21	6.043	141929.22	102.19	141827.04
50% = 2.395, 25% = 2.528; ZYH-706-A=1.89 UNK-A=1.47 UNK-A=0.81									
UNK-A	BR NU IMPERATRIZ	109.81	0.00	0.00	0.18	5.228	147962.46	102.19	147860.27
50% = 3.862, 25% = 3.862; ZYH-706-A=2.49 ZYI-772-A=2.39 ZJI536-A=1.73									
ZYK-295-A	BR NU SANTA ROSA	130.75	0.00	0.00	0.14	4.219	149956.16	102.19	149853.97
50% = 8.438, 25% = 9.208; CX18-A=6.40 ZYK690-A=5.50 LV11-A=3.68									
UNK-A	BR NU IVAIPORA	126.41	0.00	0.00	0.14	4.323	151093.76	102.19	150991.57
50% = 8.646, 25% = 9.886; ZYK690-A=8.65 ZYH-706-A=3.56 CX18-A=3.20									
ZYL-250-A	BR NU JEQUITINHONH	113.85	0.00	0.00	0.14	4.279	155149.42	102.19	155047.24
50% = 8.559, 25% = 9.893; ZYH-706-A=6.91 ZYK690-A=5.05 ZYI-772-A=3.89 UNK-A=3.08									
UNK-A	BR NU PATO BRANCO	128.45	0.00	0.00	0.14	4.438	157417.58	102.19	157315.39
50% = 8.876, 25% = 9.581; ZYK690-A=7.51 CX18-A=4.72 LV11-A=2.68 ZYH-706-A=2.41									
ZYJ-755-A	BR NU FLORIANOPOLI	126.80	0.00	0.00	0.13	4.435	167734.19	102.19	167632.01
50% = 8.87, 25% = 9.834; ZYK690-A=8.87 CX18-A=4.25									
ZYJ499-A	BR NU CANTAGALO	118.83	0.00	0.00	0.13	4.501	171369.16	102.19	171266.97
50% = 9.003, 25% = 9.763; ZYK690-A=9.00 ZYH-706-A=3.78									
ZYK-215-A	BR NU B GONCALVES	129.72	0.00	0.00	0.13	4.626	172893.04	102.19	172790.85
50% = 9.253, 25% = 9.253; ZYK690-A=6.58 CX18-A=6.51									
ZYL370-A	BR NU INHAPIM	116.87	0.00	0.00	0.13	4.919	182534.33	102.19	182432.14
50% = 9.838, 25% = 10.221; ZYK690-A=7.80 ZYH-706-A=5.99 ZYJ499-A=2.77									
ZYK703-A	BR NU MATAO	122.36	0.00	0.00	0.14	5.292	186016.64	102.19	185914.45
50% = 10.585, 25% = 10.585; ZYK690-A=10.58									
UNK-A	BR NU JOAO LISBOA	109.52	0.00	0.00	0.18	9.261	262052.83	102.19	261950.64
50% = 3.772, 25% = 3.772; ZYI-772-A=2.45 ZYH-706-A=2.30 ZJI536-A=1.71									

Critical Hours Radiation Report

Call: KDXU
 Freq: 890 kHz
 ST. GEORGE, UT, US
 Hours: D
 Lat: 37-41-51 N [NAD83]
 Lng: 113-10-54.40 W
 Power: 25.0 kW
 Theo RMS: 310.94 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	98.0	0	0	0.0	0.0	0.0	0.0

Interpolation factors for 890 kHz:

K(500) = 0.220
 K(1000) = 0.780
 K(1600) = 0.000

 Call: WLS
 Freq: 890 kHz
 CHICAGO, IL, US
 Hours: U
 Lat: 41-33-21.10 N [NAD83]
 Lng: 087-50-54.20 W
 Power: 50.0 kW
 Theo RMS: 394.29 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	189.3	0	0	0.0	0.0	0.0	0.0

Permissible radiation calculated using FCC 73.190 curves.
 Calculations performed using distance to the class A station's 0.1 mV/m contour.

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km) / (mi)	Max Vert Angle (deg)	Max Rad Below Ang (mV/m@1km)	Permiss Radiation (mV/m@1km)	Margin (mV/m@1km)
352.48	61.00	2207.9 / 1372.0	1.2	1554.71	4656.6	3101.8
344.29	62.00	2157.5 / 1340.6	1.5	1554.71	4357.6	2802.9
325.46	63.00	2055.2 / 1277.0	2.0	1554.71	3817.3	2262.5
314.07	64.00	2001.0 / 1243.4	2.3	1554.71	3527.4	1972.7
305.06	65.00	1963.4 / 1220.0	2.5	1554.71	3324.2	1769.5
297.16	66.00	1934.0 / 1201.7	2.7	1554.71	3164.3	1609.6
289.36	67.00	1901.5 / 1181.6	2.9	1554.71	2996.0	1441.3
283.32	68.00	1887.7 / 1173.0	3.0	1554.71	2912.9	1358.2
277.57	69.00	1878.1 / 1167.0	3.0	1554.71	2850.4	1295.6
271.99	70.00	1872.4 / 1163.4	3.0	1554.71	2805.2	1250.5
266.52	71.00	1870.1 / 1162.0	3.1	1554.71	2775.8	1221.1
261.11	72.00	1869.7 / 1161.8	3.1	1554.71	2755.3	1200.6
255.82	73.00	1870.1 / 1162.0	3.1	1554.71	2739.1	1184.3
250.49	74.00	1875.3 / 1165.3	3.0	1554.71	2743.4	1188.7
245.03	75.00	1885.0 / 1171.3	3.0	1554.71	2767.0	1212.3
239.31	76.00	1899.5 / 1180.3	2.9	1554.71	2811.9	1257.1
233.56	77.00	1915.9 / 1190.5	2.8	1554.71	2865.6	1310.8
230.72	78.00	1906.8 / 1184.8	2.8	1554.71	2814.5	1259.8
225.97	79.00	1921.1 / 1193.7	2.8	1554.71	2861.6	1306.9

220.83	80.00	1942.0 /	1206.7	2.6	1554.71	2937.9	1383.2
212.81	81.00	1990.6 /	1236.9	2.4	1554.71	3133.3	1578.6

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km) / (mi)		K(500) Value (mV/m@1km)	K(1000) Value (mV/m@1km)	Permiss Radiation (mV/m@1km)
352.48	61.00	2207.9 /	1372.0	9311.39	3343.66	4656.6
344.29	62.00	2157.5 /	1340.6	8715.66	3128.44	4357.6
325.46	63.00	2055.2 /	1277.0	7618.17	2745.20	3817.3
314.07	64.00	2001.0 /	1243.4	7019.69	2542.38	3527.4
305.06	65.00	1963.4 /	1220.0	6598.46	2400.67	3324.2
297.16	66.00	1934.0 /	1201.7	6267.48	2289.02	3164.3
289.36	67.00	1901.5 /	1181.6	5920.64	2171.09	2996.0
283.32	68.00	1887.7 /	1173.0	5751.67	2112.25	2912.9
277.57	69.00	1878.1 /	1167.0	5625.63	2067.59	2850.4
271.99	70.00	1872.4 /	1163.4	5535.84	2035.05	2805.2
266.52	71.00	1870.1 /	1162.0	5478.49	2013.49	2775.8
261.11	72.00	1869.7 /	1161.8	5439.65	1998.20	2755.3
255.82	73.00	1870.1 /	1162.0	5409.54	1985.85	2739.1
250.49	74.00	1875.3 /	1165.3	5421.50	1988.09	2743.4
245.03	75.00	1885.0 /	1171.3	5472.57	2003.93	2767.0
239.31	76.00	1899.5 /	1180.3	5566.97	2034.78	2811.9
233.56	77.00	1915.9 /	1190.5	5679.50	2071.88	2865.6
230.72	78.00	1906.8 /	1184.8	5577.19	2035.29	2814.5
225.97	79.00	1921.1 /	1193.7	5675.52	2067.98	2861.6
220.83	80.00	1942.0 /	1206.7	5833.49	2121.22	2937.9
212.81	81.00	1990.6 /	1236.9	6236.06	2258.21	3133.3

Call: KBBI
Freq: 890 kHz
HOMER, AK, US
Hours: U
Lat: 59-40-11.80 N [NAD83]
Lng: 151-26-45.70 W
Power: 10.0 kW
Theo RMS: 305.71 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0

Permissible radiation calculated using FCC 73.190 curves.
Calculations performed using distance to the class A station's 0.1 mV/m contour.

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km) / (mi)		Max Vert Angle (deg)	Max Rad Below Ang (mV/m@1km)	Permiss Radiation (mV/m@1km)	Margin (mV/m@1km)	
219.39	312.00	3924.1 /	2438.3	0.0	1554.71	14222.9	12668.2	**
218.71	313.00	3895.1 /	2420.3	0.0	1554.71	14207.0	12652.3	**
183.33	314.00	3451.8 /	2144.8	0.0	1554.71	12039.5	10484.7	**
174.39	315.00	3366.3 /	2091.7	0.0	1554.71	11762.4	10207.7	**
165.59	316.00	3289.3 /	2043.9	0.0	1554.71	11496.8	9942.1	**
158.05	317.00	3231.5 /	2008.0	0.0	1554.71	11321.7	9767.0	**
151.51	318.00	3190.0 /	1982.2	0.0	1554.71	11235.8	9681.1	**
145.59	319.00	3160.6 /	1963.9	0.0	1554.71	11215.2	9660.5	**
140.06	320.00	3141.6 /	1952.1	0.0	1554.71	11249.3	9694.6	**
134.72	321.00	3131.6 /	1945.9	0.0	1554.71	11332.4	9777.7	**
129.44	322.00	3130.5 /	1945.2	0.0	1554.71	11465.7	9911.0	**
123.78	323.00	3126.1 /	1942.5	0.0	1554.71	11585.9	10031.2	**

118.07	324.00	3130.3 /	1945.1	0.0	1554.71	11755.3	10200.6	**
112.10	325.00	3144.6 /	1954.0	0.0	1554.71	11982.3	10427.6	**
105.55	326.00	3171.3 /	1970.6	0.0	1554.71	12274.9	10720.2	**
97.59	327.00	3219.4 /	2000.4	0.0	1554.71	12666.4	11111.7	**
26.52	328.00	3641.0 /	2262.4	0.0	1554.71	15010.8	13456.1	**

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km) / (mi)	K(500) Value (mV/m@1km)	K(1000) Value (mV/m@1km)	Permiss Radiation (mV/m@1km)	
-----	-----	-----	-----	-----	-----	
219.39	312.00	3924.1 /	2438.3	16093.44	13695.27	14222.9 **
218.71	313.00	3895.1 /	2420.3	16093.44	13674.93	14207.0 **
183.33	314.00	3451.8 /	2144.8	16093.44	10896.03	12039.5 **
174.39	315.00	3366.3 /	2091.7	16093.44	10540.87	11762.4 **
165.59	316.00	3289.3 /	2043.9	16093.44	10200.31	11496.8 **
158.05	317.00	3231.5 /	2008.0	16093.44	9975.84	11321.7 **
151.51	318.00	3190.0 /	1982.2	16093.44	9865.68	11235.8 **
145.59	319.00	3160.6 /	1963.9	16093.44	9839.31	11215.2 **
140.06	320.00	3141.6 /	1952.1	16093.44	9883.03	11249.3 **
134.72	321.00	3131.6 /	1945.9	16093.44	9989.55	11332.4 **
129.44	322.00	3130.5 /	1945.2	16093.44	10160.48	11465.7 **
123.78	323.00	3126.1 /	1942.5	16093.44	10314.59	11585.9 **
118.07	324.00	3130.3 /	1945.1	16093.44	10531.77	11755.3 **
112.10	325.00	3144.6 /	1954.0	16093.44	10822.74	11982.3 **
105.55	326.00	3171.3 /	1970.6	16093.44	11197.92	12274.9 **
97.59	327.00	3219.4 /	2000.4	16093.44	11699.78	12666.4 **
26.52	328.00	3641.0 /	2262.4	16093.44	14705.39	15010.8 **

** Indicates that the distance and/or azimuth was out of the range of the 73.190 permissible radiation graphs. The calculated permissible radiation is invalid.

KDXU

Freq: 890 kHz

Class: D

Latitude: 37-41-51.09 N

Longitude: 113-10-51.57 W

Power: 0.108 kW

RMS: 310.943 mV/m @1km

Towers: 1

Aucs: 0

