

Exhibit 12 – Narrative

AM FILL-IN TRANSLATOR APPLICATION **Channel 226 D (93.1 MHz)**

FAITH AND POWER COMMUNICATIONS, INC

KLAR 1300 khz
CLASS D
FACILITY ID 14656
BL-19991228AAV
LAREDO, TEXAS

Faith and Power Communications, Inc is submitting this short form application for an AM fill-in translator as provided by FCC DA – 17 – 533 during the 26 July 2017 through 2 August 2017 Window.

Proposed site is located at following coordinates:

NAD(27)
27 – 34 – 44 N
99 – 30 – 09 W

MEXICO

Distance to US / Mexico Border is 1.5 km. This application is in compliance with the US/Mexico Treaty.

KJBZ ch 224

Applicant is requesting a second adjacent channel waiver of KJBZ ch 224. This proposal presents no interference to KJBZ.

KJBZ F(50,10) contour at proposed site of translator is 80.7 db.
Proposed translator F(50,10) interfering contour is 120.7 db. FCC Graph program indicates the distance to this contour is 46 meters. Antenna RCAGL is 60 meters, thus the interfering contour will not reach ground level. 60 meters minus 46 meters, which places the F(50,10) contour 14 meters above ground level. There are no tall buildings within this contour. Population inside the contour is zero persons.

Applicant will construct a 60 meter guyed tower at the proposed site. FCC Tower indicates that the tower is not required to be registered.

Exhibit 10 – AM Fill-in compliance

Exhibit 12 – This Technical Narrative

Exhibit 13 – Overlap Requirements, Channel Study, Aerial Photo, Distance to Contours and Maps

Exhibit 17: Environment – RFE: This facility complies with the requirements 47 CFR 1.1306. Antenna is a Scala HDCA – 5CP/RM directional antenna.

Power density can be calculated using the following formula:

$$S = \frac{33.4 (F^2) ERP}{R^2}$$

where: S = power density in $\mu\text{W}/\text{cm}^2$

F = relative field factor (relative numeric gain)

ERP = power in watts

R = distance in meters

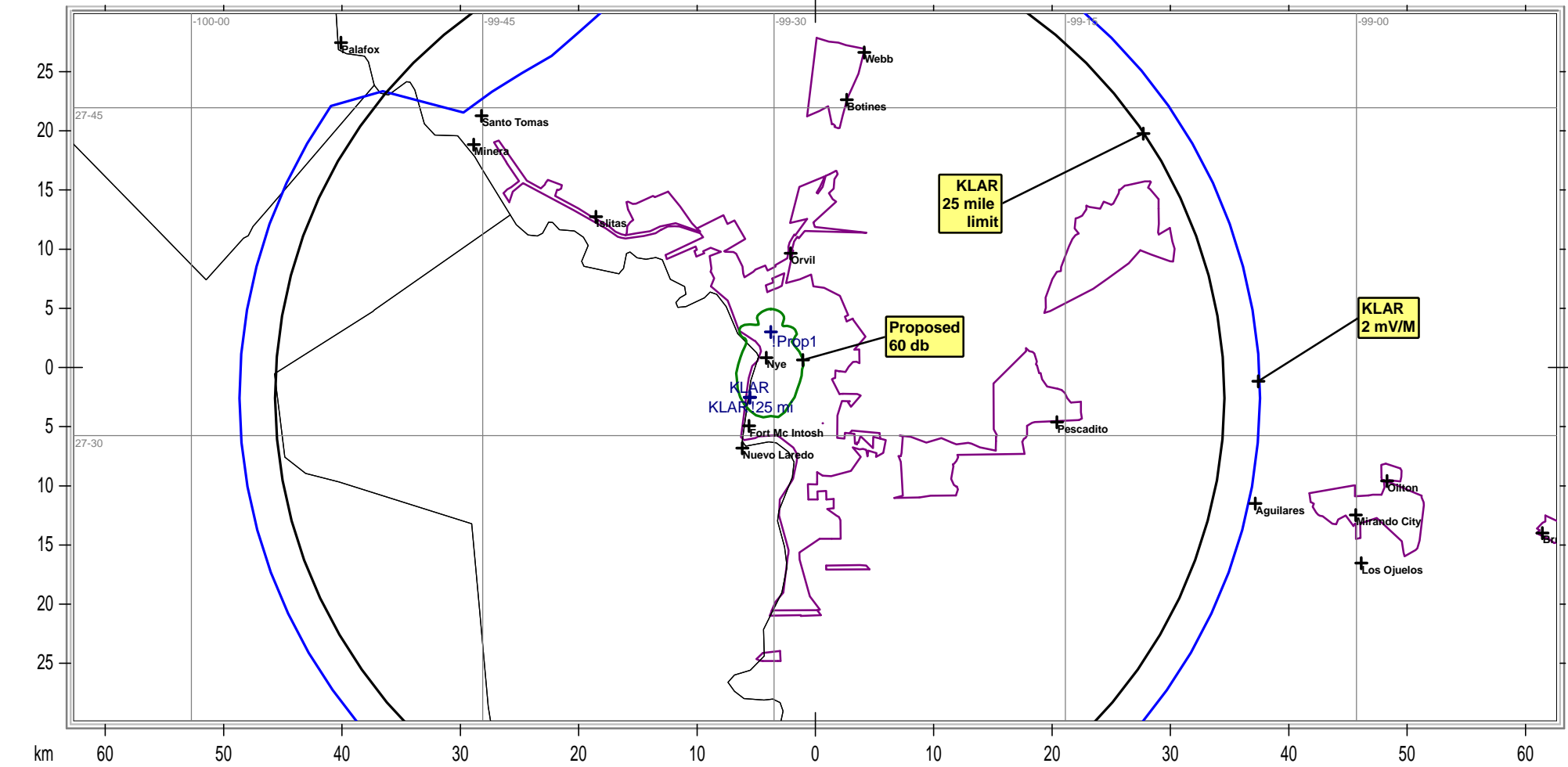
F = 1.0 relative field

ERP = 100 watts

R = 58 meters

For this proposal, the calculated power density is:

$S = 1.0 \mu\text{W}/\text{cm}^2$, or 0.50% of uncontrolled public access limit of $200 \mu\text{W}/\text{cm}^2$. This is less than 5% of the total allowable uncontrolled public access exposure of $200 \mu\text{W}/\text{cm}^2$, therefore no further study is required. When workers are present on the tower, applicant will reduce power or cease transmission.



State Borders City Borders Lat/Lon Grid

Contour Distance

EXHIBIT 13 MEXICO

DISTANCE TO CONTOUR

Site: !Prop1
Coordinates: 27-34-44.8 N, 99-30-09.8 W
Freq: 93.10000 MHz
ERP: 50.00 W
F(50,10) 34 db

Bearing	ERP W	HAAT	DH	Distance	Lat	Lon
0	1.05	27	60	9.72	27.666581	-99.502748
5	1.07	20	50	9.76	27.666544	-99.494114
10	1.02	16	40	9.65	27.664649	-99.485724
15	0.97	7	50	9.52	27.661818	-99.477734
20	0.91	4	70	9.38	27.658371	-99.470188
25	0.82	0	70	9.12	27.653451	-99.463624
30	0.71	0	70	8.78	27.647482	-99.458199
35	0.55	6	70	8.20	27.639516	-99.455019
40	0.41	10	60	7.61	27.631542	-99.453107
45	0.26	20	60	6.75	27.622046	-99.454310
50	0.11	23	50	5.49	27.610854	-99.460083
55	0.05	20	30	4.54	27.602554	-99.465002
60	0.04	24	50	4.15	27.597810	-99.466246
65	0.04	26	30	4.32	27.595538	-99.463049
70	0.15	29	30	5.86	27.597144	-99.446890
75	0.40	32	40	7.52	27.596624	-99.429028
80	0.76	35	50	8.93	27.593053	-99.413517
85	1.08	37	60	9.79	27.586775	-99.403796
90	1.22	37	50	10.08	27.579100	-99.400462
95	1.17	40	60	9.98	27.571276	-99.401849
100	1.02	39	60	9.65	27.564026	-99.406286
105	0.92	40	50	9.41	27.557199	-99.410523
110	0.95	37	50	9.48	27.549939	-99.412357
115	1.10	33	50	9.82	27.541777	-99.412458
120	1.86	34	30	11.18	27.528824	-99.404544
125	3.46	44	40	12.94	27.512334	-99.395244
130	5.99	47	30	14.92	27.492806	-99.386829
135	9.64	47	60	17.29	27.469111	-99.378804
140	14.26	43	50	19.32	27.445998	-99.376916
145	19.53	44	50	21.00	27.424382	-99.380710
150	25.20	45	60	22.42	27.404453	-99.389176
155	30.97	48	50	23.61	27.386606	-99.401657
160	36.72	54	60	24.64	27.370829	-99.417383
165	41.95	58	40	25.48	27.357761	-99.435966
170	45.89	67	50	26.05	27.348341	-99.456933
175	48.22	72	30	26.39	27.342694	-99.479461
180	49.70	69	40	26.59	27.339967	-99.502748
185	48.91	72	50	26.48	27.341843	-99.526120
190	47.04	72	30	26.22	27.346861	-99.548856

Contour Distance

195	43.71	69	40	25.74	27.355485	-99.570216
200	38.90	65	30	25.00	27.367853	-99.589331
205	33.29	61	30	24.04	27.383108	-99.605673
210	27.53	56	30	22.92	27.400533	-99.618865
215	21.78	50	60	21.60	27.419937	-99.628286
220	16.30	48	50	20.02	27.441122	-99.633181
225	11.38	43	30	18.14	27.463706	-99.632772
230	7.30	39	50	15.89	27.487226	-99.626149
235	4.35	39	80	13.68	27.508511	-99.616396
240	2.38	38	70	11.85	27.525825	-99.606800
245	1.30	41	70	10.24	27.540178	-99.596899
250	0.99	43	90	9.59	27.549618	-99.594131
255	0.91	46	100	9.38	27.557283	-99.594621
260	0.98	54	100	9.55	27.564186	-99.598191
265	1.12	56	110	9.89	27.571352	-99.602677
270	1.22	57	130	10.08	27.579100	-99.605035
275	1.17	59	120	9.98	27.586926	-99.603662
280	0.90	62	100	9.34	27.593693	-99.596088
285	0.53	66	100	8.11	27.597987	-99.582224
290	0.22	68	80	6.52	27.599175	-99.564912
295	0.06	66	80	4.81	27.597410	-99.546983
300	0.04	64	50	4.15	27.597810	-99.539251
305	0.04	62	30	4.32	27.601399	-99.538632
310	0.08	50	50	4.99	27.607988	-99.541556
315	0.19	44	60	6.27	27.619008	-99.547754
320	0.35	39	70	7.29	27.629386	-99.550346
325	0.50	34	80	7.97	27.637888	-99.549190
330	0.65	30	70	8.58	27.645933	-99.546287
335	0.78	28	50	9.00	27.652522	-99.541384
340	0.88	26	30	9.30	27.657763	-99.535059
345	0.94	17	20	9.45	27.661210	-99.527578
350	1.01	20	30	9.62	27.664348	-99.519713
355	1.07	28	70	9.76	27.666544	-99.511383

Contour Distance

EXHIBIT 13 MEXICO

DISTANCE TO CONTOUR

Site: !Prop1
Coordinates: 27-34-44.8 N, 99-30-09.8 W
Freq: 93.10000 MHz
ERP: 50.00 W
F(50,50) 60 db

Bearing	ERP W	HAAT	DH	Distance	Lat	Lon
0	1.05	27	60	1.92	27.596434	-99.502748
5	1.07	20	50	1.93	27.596395	-99.501045
10	1.02	16	40	1.92	27.596109	-99.499372
15	0.97	7	50	1.90	27.595671	-99.497750
20	0.91	4	70	1.89	27.595103	-99.496191
25	0.82	0	70	1.86	27.594332	-99.494753
30	0.71	0	70	1.83	27.593392	-99.493462
35	0.55	6	70	1.77	27.592193	-99.492433
40	0.41	10	60	1.71	27.590885	-99.491626
45	0.26	20	60	1.59	27.589281	-99.491303
50	0.11	23	50	1.40	27.587208	-99.491896
55	0.05	20	30	1.22	27.585410	-99.492640
60	0.04	24	50	1.14	27.584250	-99.492756
65	0.04	26	30	1.17	27.583584	-99.491988
70	0.15	29	30	1.46	27.583631	-99.488816
75	0.40	32	40	1.71	27.583127	-99.485948
80	0.76	35	50	1.91	27.582118	-99.483671
85	1.08	37	60	2.07	27.580756	-99.481853
90	1.22	37	50	2.13	27.579136	-99.481084
95	1.17	40	60	2.21	27.577405	-99.480428
100	1.02	39	60	2.10	27.575856	-99.481763
105	0.92	40	50	2.07	27.574310	-99.482430
110	0.95	37	50	2.00	27.572993	-99.483707
115	1.10	33	50	1.97	27.571637	-99.484604
120	1.86	34	30	2.28	27.568900	-99.482749
125	3.46	44	40	2.95	27.563932	-99.478255
130	5.99	47	30	3.52	27.558767	-99.475368
135	9.64	47	60	3.94	27.554095	-99.474505
140	14.26	43	50	4.13	27.550658	-99.475797
145	19.53	44	50	4.55	27.545597	-99.476262
150	25.20	45	60	4.90	27.540944	-99.477881
155	30.97	48	50	5.34	27.535605	-99.479857
160	36.72	54	60	5.90	27.529269	-99.482281
165	41.95	58	40	6.31	27.524324	-99.486187
170	45.89	67	50	6.90	27.518045	-99.490602
175	48.22	72	30	7.24	27.514257	-99.496348
180	49.70	69	40	7.14	27.514917	-99.502748
185	48.91	72	50	7.27	27.514015	-99.509172



Contour Distance

190	47.04	72	30	7.19	27.515414	-99.515417
195	43.71	69	40	6.91	27.519068	-99.520897
200	38.90	65	30	6.54	27.523826	-99.525449
205	33.29	61	30	6.11	27.529328	-99.528939
210	27.53	56	30	5.62	27.535397	-99.531226
215	21.78	50	60	4.99	27.542340	-99.531805
220	16.30	48	50	4.57	27.547681	-99.532516
225	11.38	43	30	3.91	27.554292	-99.530769
230	7.30	39	50	3.34	27.559836	-99.528691
235	4.35	39	80	2.93	27.564030	-99.527083
240	2.38	38	70	2.55	27.567659	-99.525173
245	1.30	41	70	2.30	27.570408	-99.523862
250	0.99	43	90	2.21	27.572350	-99.523782
255	0.91	46	100	2.25	27.573907	-99.524762
260	0.98	54	100	2.48	27.575267	-99.527501
265	1.12	56	110	2.59	27.577105	-99.528930
270	1.22	57	130	2.65	27.579135	-99.529670
275	1.17	59	120	2.67	27.581225	-99.529699
280	0.90	62	100	2.56	27.583134	-99.528332
285	0.53	66	100	2.30	27.584485	-99.525274
290	0.22	68	80	1.88	27.584923	-99.520686
295	0.06	66	80	1.42	27.584535	-99.515808
300	0.04	64	50	1.21	27.584574	-99.513374
305	0.04	62	30	1.26	27.585617	-99.513189
310	0.08	50	50	1.41	27.587301	-99.513725
315	0.19	44	60	1.65	27.589606	-99.514560
320	0.35	39	70	1.76	27.591277	-99.514243
325	0.50	34	80	1.79	27.592348	-99.513185
330	0.65	30	70	1.81	27.593236	-99.511933
335	0.78	28	50	1.85	27.594242	-99.510696
340	0.88	26	30	1.88	27.595044	-99.509281
345	0.94	17	20	1.90	27.595610	-99.507729
350	1.01	20	30	1.91	27.596082	-99.506120
355	1.07	28	70	1.93	27.596395	-99.504452

Exhibit 13

Aerial Photo of proposed site
27 - 34 - 44 N ; 99 - 30 - 09 W

Legend

-  46 meters Distance to Contour
-  proposed



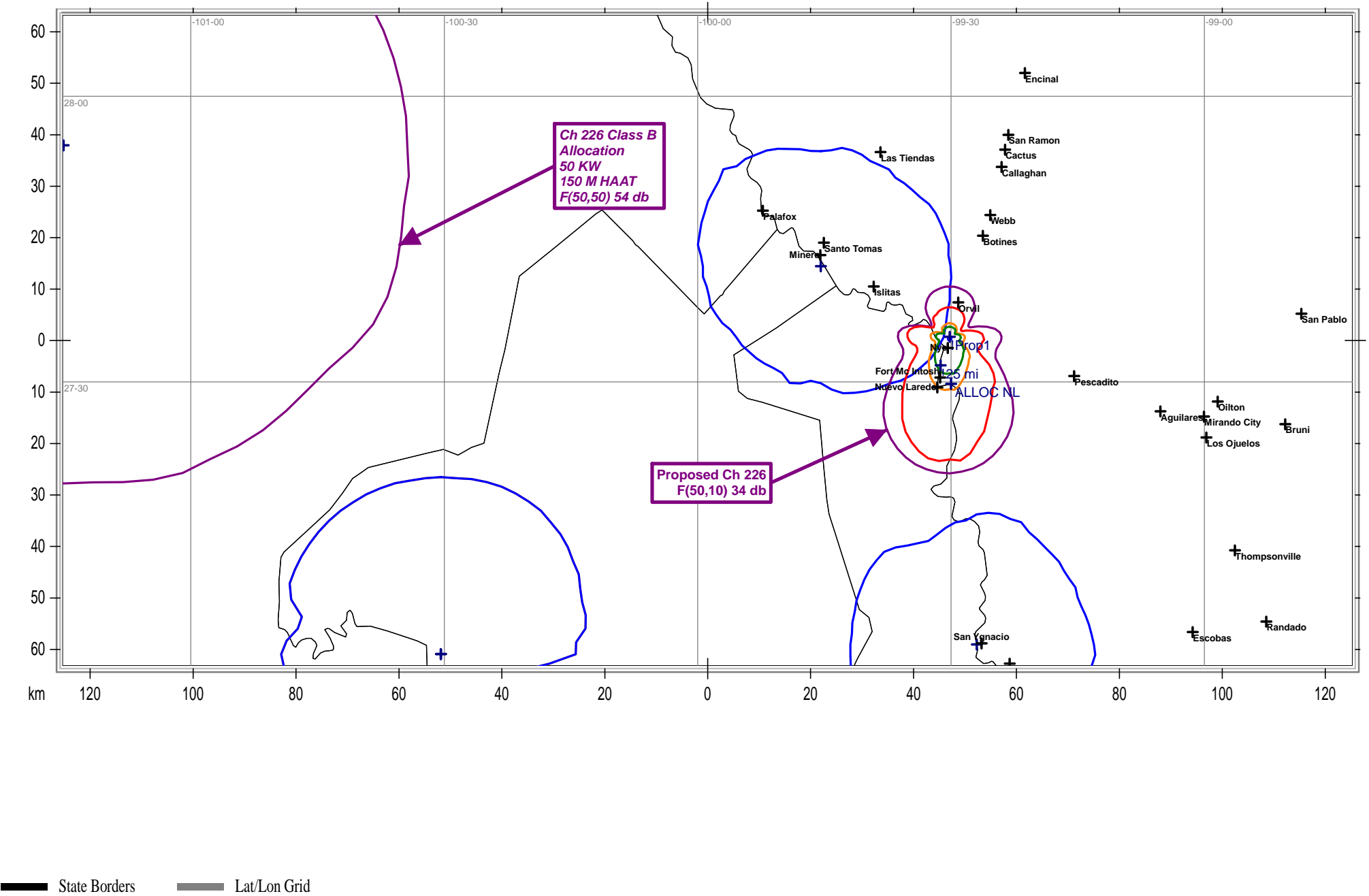
Google earth

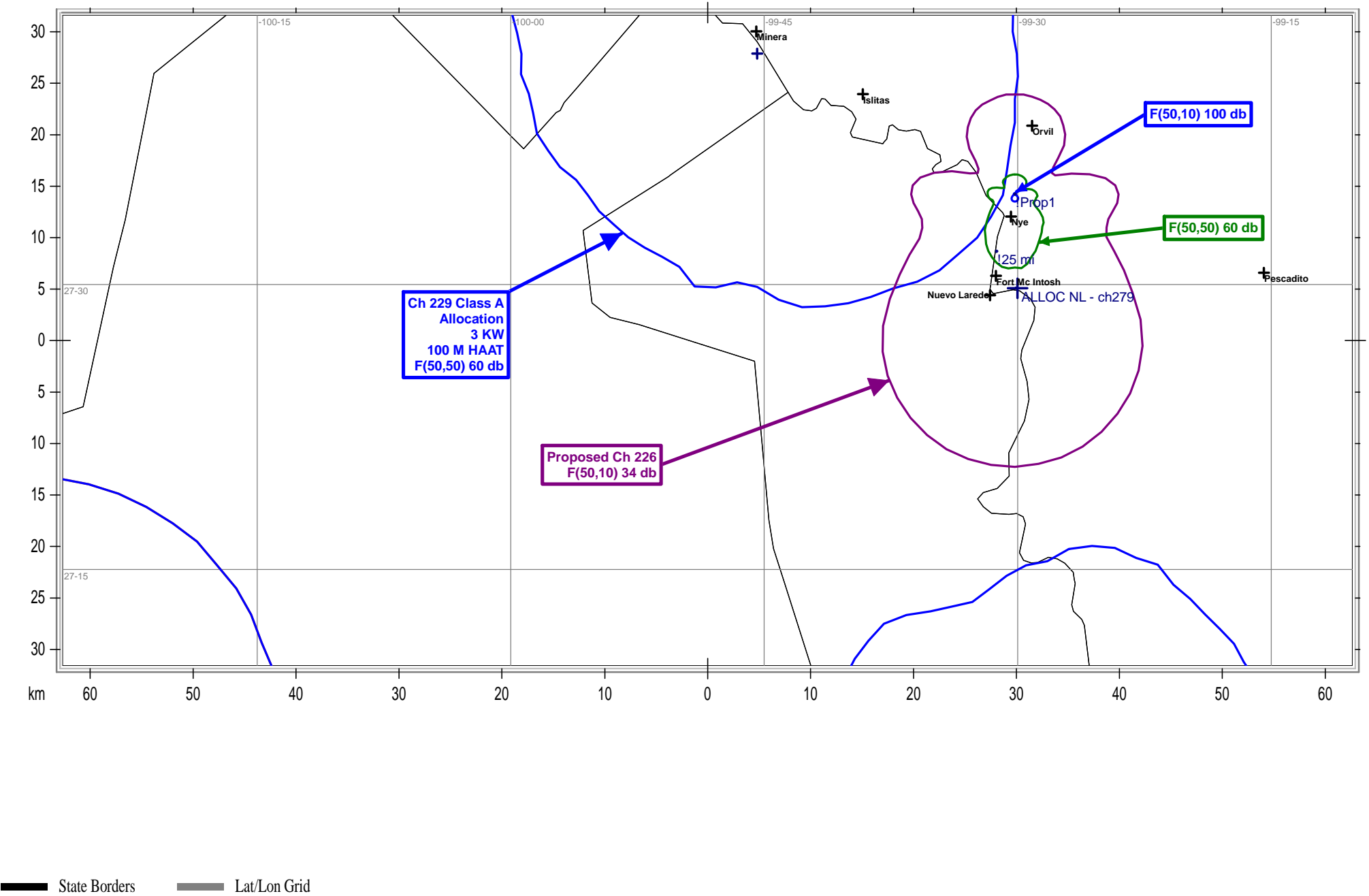
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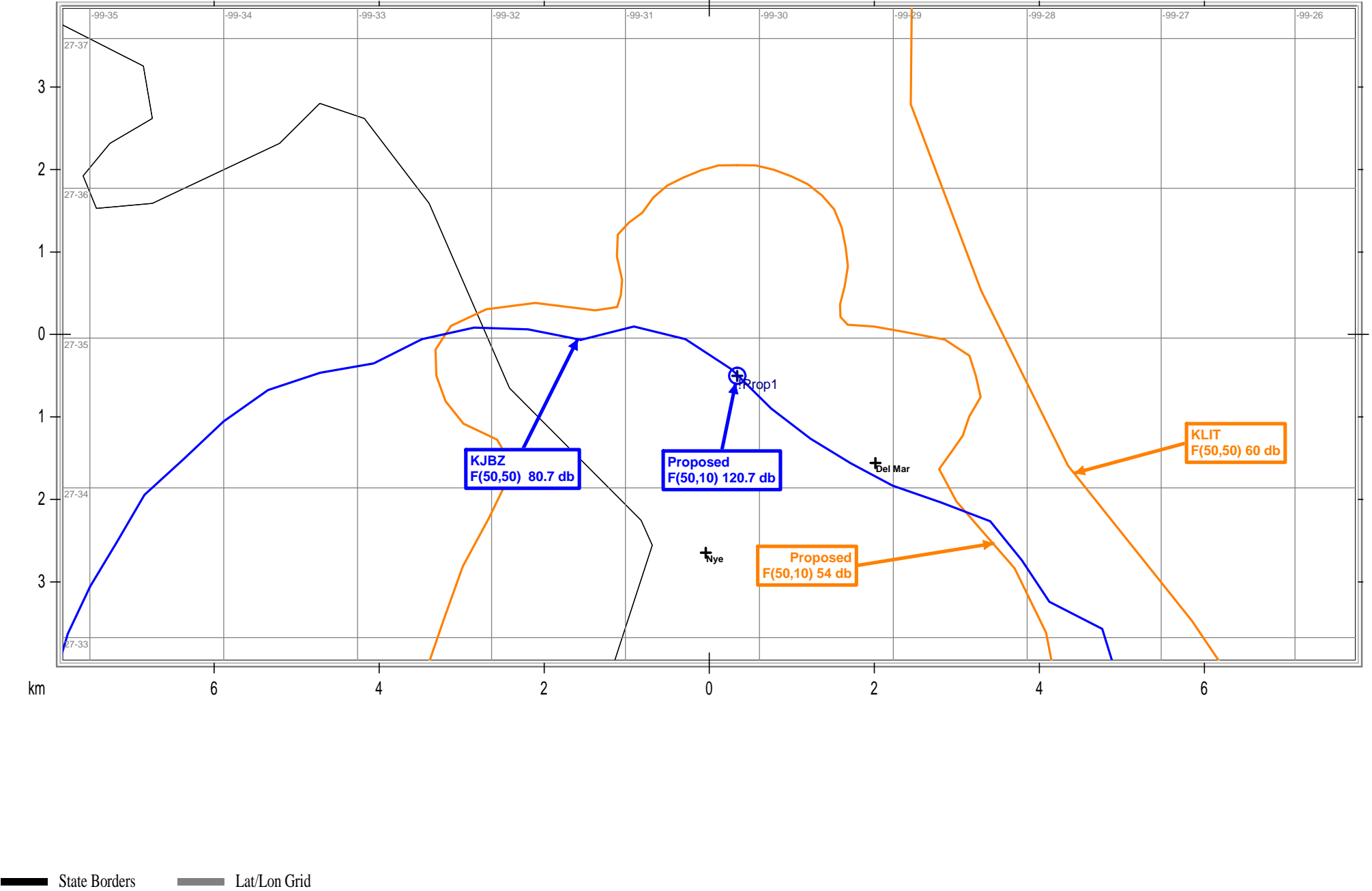
90 m

**EXHIBIT 13
OVERLAP REQUIREMENTS**

Callsign	State	City	Freq	Channel	ERP_w	Class	Status	Distance_km	Sep	Clr
KJBZ	TX	LAREDO	92.7	224	3000	A	LIC	7.07	0	-22.78 dB
KLIT	TX	RANCHITOS LAS LOMAS	93.3	227	6000	A	LIC	30.39	0	0.19 dB
	NL	COLOMBIA	93.7	229	3000	A		28.57	0	0.59 dB
ALLOC NL	TA	NUEVO LAREDO	103.7	279	3000	A		9.14	9	0.1
	TA	SAN IGNACIO	92.5	223	3000	A		59.94	0	19.32 dB
XHAAAFM	TA	REYNOSA	93.1	226	100000	C		204.38	0	27.98 dB
XHAAAFM	TA	REYNOSA	93.1	226	100000	C		203.69	0	27.81 dB
XHQQFM	NL	MONTERREY	93.3	227	100000	C		228.45	0	30.72 dB
XHQQFM	NL	MONTERREY	93.3	227	100000	C		230.54	0	30.33 dB
	NL	MONTERREY	92.5	223	100000	C		226.21	0	32.74 dB
K226BA	TX	KINGSVILLE	93.1	226	70	D	LIC	163.15	0	33.93 dB
KRPT	TX	DEVINE	92.5	223	50000	C2	LIC	155.74	0	34.03 dB
K226AV	TX	BEEVILLE	93.1	226	62	D	CP	179.46	0	34.82 dB
	NL	LAMPAZOS	92.9	225	3000	A		116.92	0	34.88 dB
KAJP	TX	CARRIZO SPRINGS	93.5	228	6000	A	LIC	109.41	0	35.28 dB
	CI	NUEVA ROSITA	93.1	226	50000	B		176.33	0	35.68 dB
	NL	LAMPAZOS	93.7	229	3000	A		116.92	0	36.89 dB
K226CF	TX	CORPUS CHRISTI	93.1	226	250	D	CP	203.75	0	37.00 dB
K226AV	TX	BEEVILLE	93.1	226	115	D	LIC	195.62	0	37.21 dB
KGWT	TX	GEORGE WEST	93.5	228	22500	C3	LIC	148.93	0	38.55 dB
KGWT	TX	GEORGE WEST	93.5	228	25000	C3	APP	148.73	0	39.57 dB







The Kathrein-Scala HDCA-5CP/RM is a ruggedly built yagi antenna, designed for professional FM transmit and receive applications.

Like all Kathrein-Scala antennas, the HDCA-5CP/RM is made of the finest materials resulting in superior performance and long service life.

The HDCA-5CP/RM may be used stand-alone or in stacked arrays for higher gain, increased side-lobe suppression, or custom azimuth patterns.

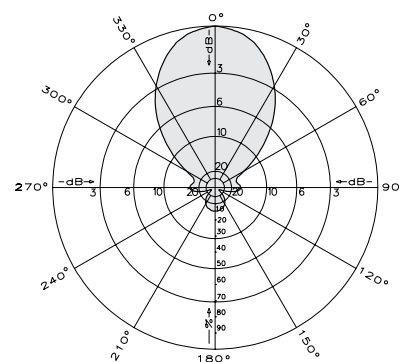
Specifications:

Frequency range	Any specified FM channel 88 to 108 MHz
Gain	4.5 dBd
Power gain	2.82
Impedance	50 or 75 ohms
VSWR	< 1.5:1
Polarization	Circular
Front-to-back ratio	>14 dB
Maximum input power	100 watts (75Ω N) 250 watts (50Ω N)
Azimuth pattern	62 degrees (half-power)
Elevation pattern	62 degrees (half-power)
Connector	50Ω N or 75Ω N
Weight	34.5 lb (15.6 kg)
Dimensions	74.1 x 54 x 51 inches maximum (1882 x 1372 x 1295 mm)
Wind load Front	at 100 mph (160 kph) 79 lbf (350 N) maximum
Wind survival rating*	120 mph (200 kph)
Shipping dimensions	84 x 13 x 8 inches maximum (2134 x 330 x 203 mm)
Shipping weight	37.5 lb (15.6 kg)
Mounting	For masts of 2.375 inches (60 mm) OD.

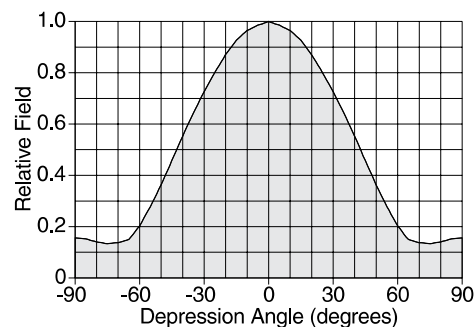
* Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.

Order Information:

Contact Kathrein-Scala Customer Service for detailed order information.



Azimuth pattern

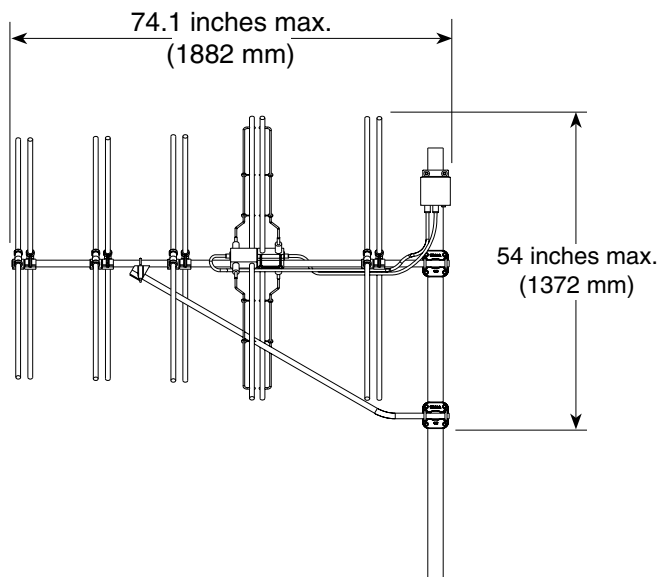
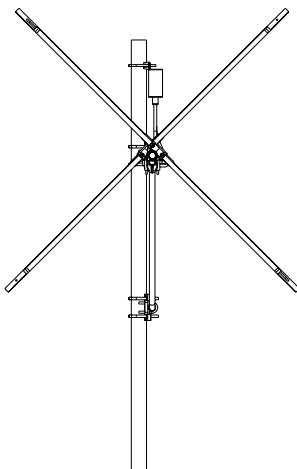
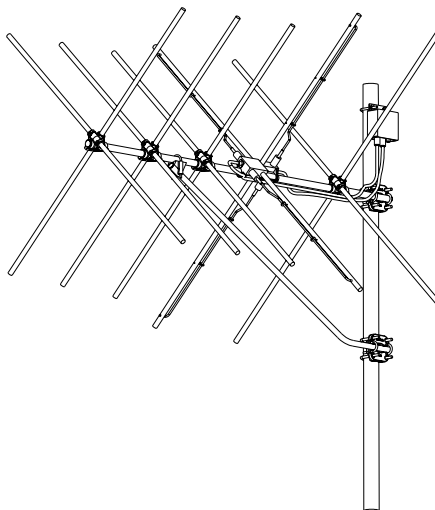
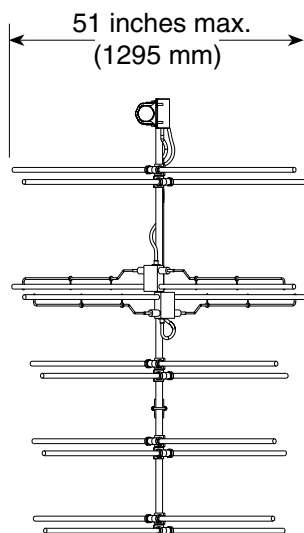


Elevation pattern



10768-B





Order Information:

Contact Kathrein-Scala Customer Service for detailed order information.

All specifications are subject to change without notice. The latest specifications are available at www.kathrein-scala.com.

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