

Comprehensive Technical Statement

In support of

RadioForSale LLC

Application for Minor Amendment to Application

BMPFT-20151019AAE

FM Translator K223CI

92.5 MHz, Channel 223, FCC Facility ID # 141418

Tucson, AZ

International Coordination Required (Mexico)**Contingent Grant Requested****Introduction**

RadioForSale LLC proposes the following changes to the captioned application to modify translator construction permit BNPFT-20130822AFP:

- Transmitter location
- Antenna height
- Effective radiated power
- Directional pattern orientation change
- Primary station

Data Sources

Distances were calculated using the FCC method defined in 73.208 of the Commission's Rules.

Except where otherwise noted, contours shown in this report were generated using antenna center above mean sea level, NAD-27 coordinates, and the FCC online HAAT calculator, which uses 30-second terrain data. Field strength tabulations were generated using USGS03 three-second terrain data.

Dates shown on maps are the latest entries into the earlier of the CDBS and VAX databases at the time the map was prepared.

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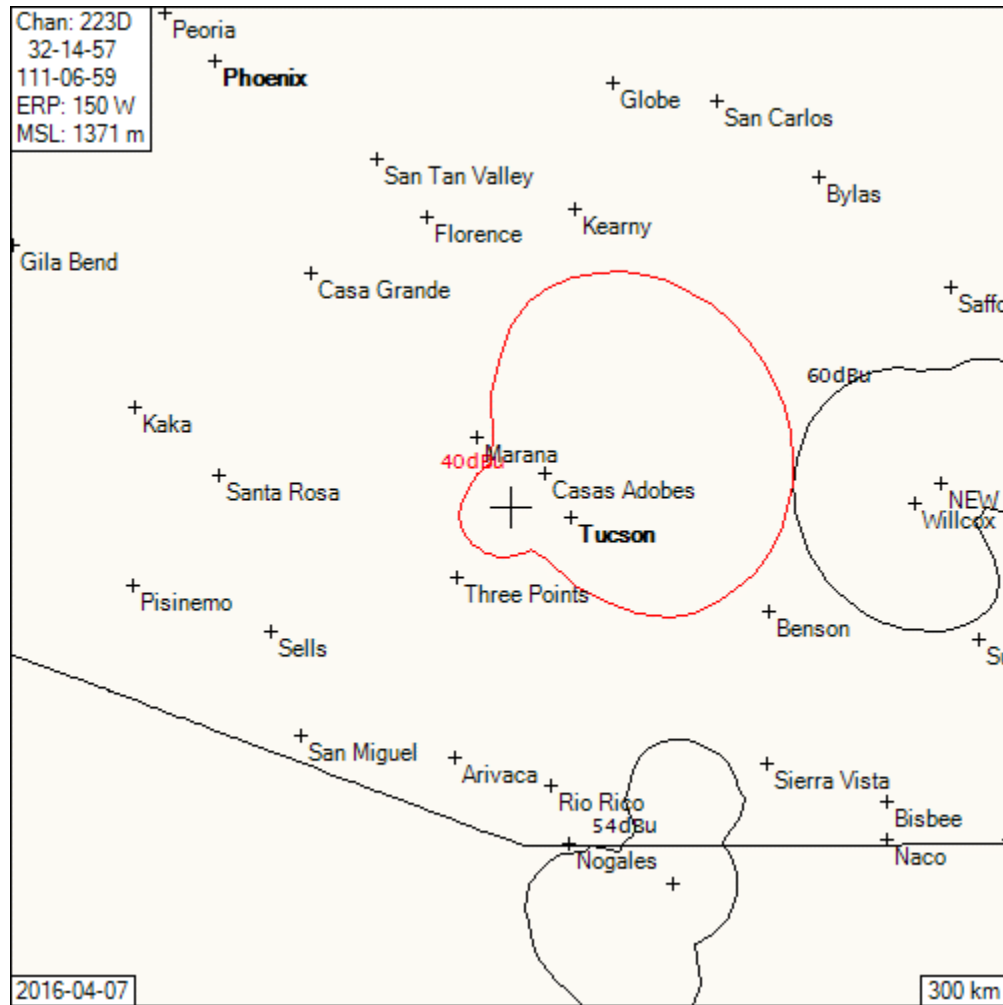
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Detailed Interference Study

The following collection of maps and the narrative accompanying each show conclusively that no prohibited interference will occur between the proposed facility and any potentially conflicting facility or proposal.

Map 1 – Co-channel Outbound Interference



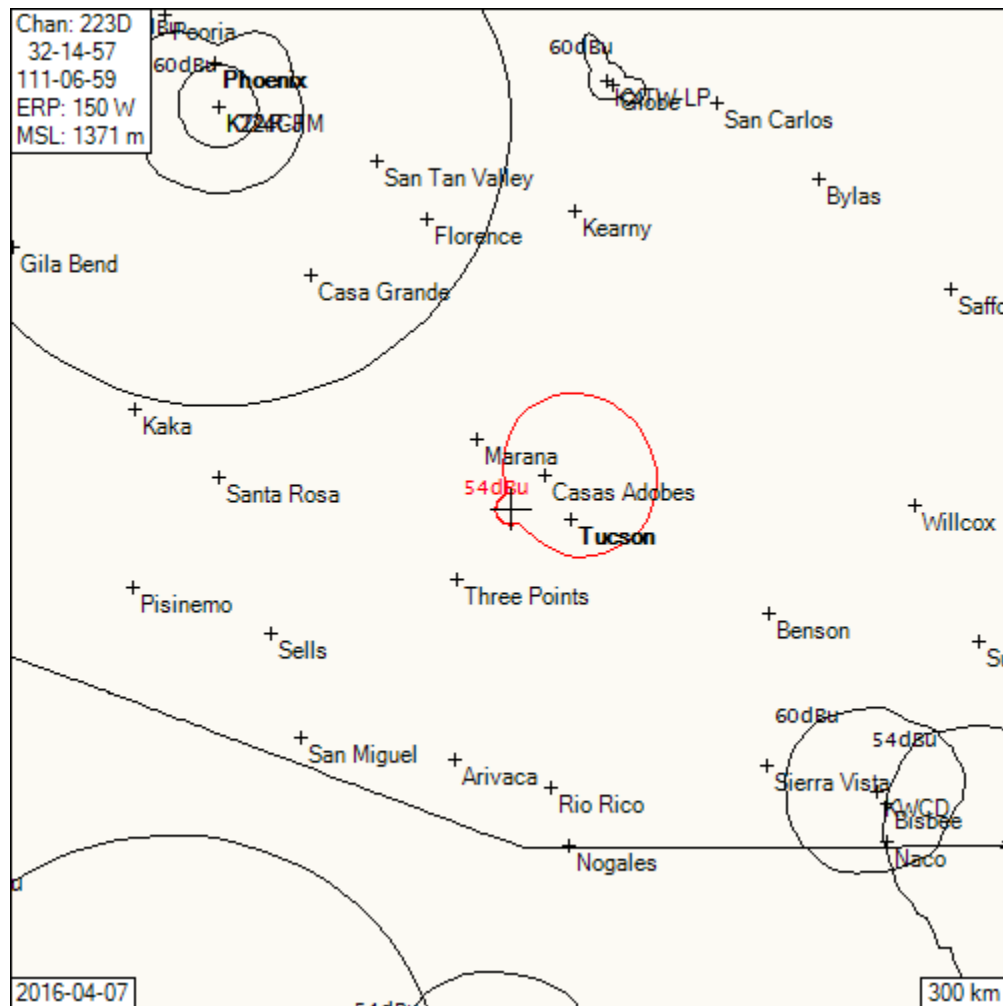
There is no overlap between the proposed 40 dBu $f(50,10)$ contour and the protected contour of any co-channel station.

The interfering contour is close to the protected contour of NEW, FCC Facility ID 184846 in Willcox, AZ. A tabulation is provided on the following page.

az	eRel	kW	terht	eah	km	lat	lon	km	brg	eRel	kW	terht	eah	fs	margin
258	1	5	1287	316	44.68	32 13 18.25	110 12 34.85	85.51	91.8	0.849	0.108	746	626	38.99	1.01
259	1	5	1288	315	44.66	32 13 43.09	110 12 40.25	85.35	91.3	0.854	0.109	745	626	39.10	0.90
260	1	5	1288	315	44.64	32 14 08.04	110 12 44.93	85.20	90.8	0.859	0.111	745	627	39.21	0.79
261	1	5	1288	315	44.62	32 14 33.01	110 12 49.31	85.07	90.3	0.864	0.112	744	627	39.31	0.69
262	1	5	1289	314	44.60	32 14 58.03	110 12 53.17	84.97	89.7	0.869	0.113	744	628	39.40	0.60
263	1	5	1289	314	44.58	32 15 23.09	110 12 56.52	84.88	89.2	0.874	0.115	743	628	39.49	0.51
264	1	5	1289	314	44.57	32 15 48.19	110 12 59.34	84.81	88.7	0.879	0.116	742	629	39.57	0.43
265	1	5	1290	313	44.54	32 16 13.34	110 13 01.20	84.78	88.2	0.885	0.117	742	629	39.65	0.35
266	1	5	1290	313	44.50	32 16 38.53	110 13 02.30	84.77	87.6	0.890	0.119	741	630	39.71	0.29
267	1	5	1291	312	44.46	32 17 03.70	110 13 02.88	84.79	87.1	0.895	0.120	740	631	39.77	0.23
268	1	5	1292	312	44.43	32 17 28.86	110 13 02.94	84.82	86.6	0.900	0.122	740	631	39.82	0.18
269	1	5	1292	311	44.41	32 17 53.98	110 13 03.18	84.86	86.1	0.906	0.123	739	632	39.87	0.13
270	1	5	1292	311	44.39	32 18 19.09	110 13 02.65	84.92	85.5	0.911	0.124	738	633	39.91	0.09
271	1	5	1293	310	44.36	32 18 44.18	110 13 01.61	85.01	85.0	0.916	0.126	737	634	39.95	0.05
272	1	5	1293	310	44.32	32 19 09.22	110 12 59.38	85.13	84.5	0.919	0.127	737	634	39.95	0.05
273	1	5	1294	309	44.29	32 19 34.21	110 12 57.09	85.26	84.0	0.923	0.128	736	635	39.95	0.05
274	1	5	1294	309	44.27	32 19 59.17	110 12 54.51	85.40	83.5	0.926	0.129	735	636	39.95	0.05
275	1	5	1295	308	44.25	32 20 24.07	110 12 51.41	85.57	83.0	0.929	0.129	735	637	39.94	0.06
276	1	5	1295	308	44.23	32 20 48.92	110 12 48.03	85.74	82.5	0.932	0.130	734	637	39.92	0.08
277	1	5	1296	307	44.19	32 21 13.63	110 12 43.24	85.96	82.0	0.935	0.131	733	638	39.89	0.11
278	1	5	1296	307	44.15	32 21 38.23	110 12 37.93	86.20	81.5	0.939	0.132	733	638	39.85	0.15
279	1	5	1297	306	44.10	32 22 02.70	110 12 31.92	86.47	81.0	0.942	0.133	733	638	39.79	0.21
280	1	5	1298	305	44.06	32 22 27.09	110 12 25.62	86.75	80.5	0.945	0.134	733	638	39.74	0.26
281	1	5	1299	305	44.02	32 22 51.35	110 12 18.82	87.04	80.0	0.948	0.135	733	639	39.67	0.33
282	1	5	1299	304	43.97	32 23 15.45	110 12 11.30	87.36	79.6	0.951	0.136	732	639	39.60	0.40
283	1	5	1300	303	43.90	32 23 39.28	110 12 02.62	87.71	79.1	0.954	0.136	732	639	39.52	0.48
284	1	5	1302	301	43.82	32 24 02.81	110 11 52.80	88.09	78.7	0.956	0.137	732	639	39.42	0.58
285	1	5	1303	300	43.74	32 24 26.14	110 11 42.48	88.50	78.3	0.959	0.138	732	639	39.32	0.68
286	1	5	1304	299	43.69	32 24 49.53	110 11 32.80	88.89	77.8	0.962	0.139	732	639	39.22	0.78
287	1	5	1305	298	43.65	32 25 12.91	110 11 23.30	89.28	77.4	0.964	0.140	732	639	39.12	0.88
288	1	5	1305	298	43.63	32 25 36.30	110 11 13.96	89.67	77.0	0.967	0.140	732	639	39.02	0.98
289	1	5	1305	298	43.62	32 25 59.60	110 11 04.37	90.07	76.6	0.970	0.141	732	639	38.92	1.08

The first six columns show the calculation of distance to the 60 dBu f(50,50) contour of NEW, followed by the latitude and longitude of the point described by the azimuth and distance. The following columns show the calculation of the inbound f(50,10) signal from the proposal, and margin below the 40 dBu limit. (A negative margin indicates prohibited overlap.) The inbound signal strength does not exceed the 40 dBu limit.

Map 2 – First Adjacent Outbound Interference



There is no overlap between the proposed 54 dBu f(50,10) contour and the protected contour of any first adjacent station.

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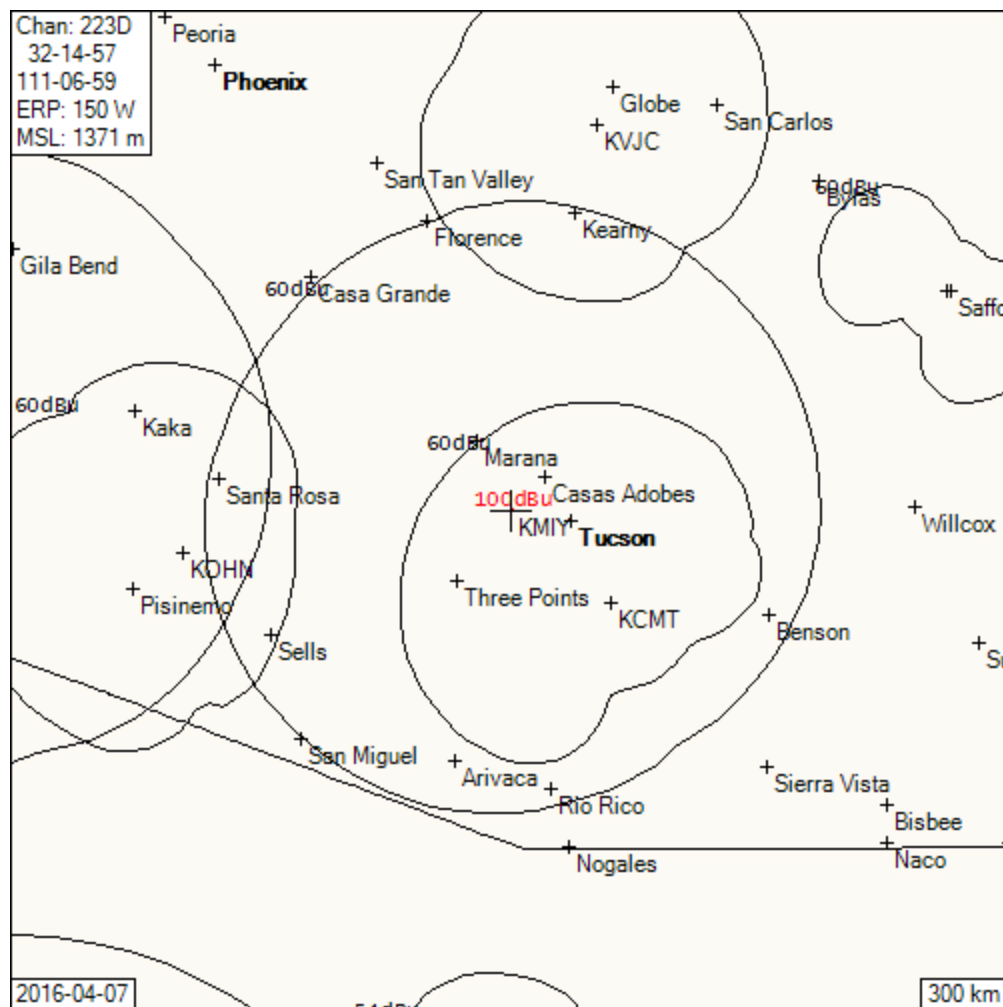
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Map 3 – Second/Third Adjacent Outbound Interference Detail



The proposed site is within the protected contours of two second-adjacent stations, KCMT (FCC Facility ID # 2746) and KMIY (FCC Facility ID # 53594).

The following image obtained from Google Earth includes a red polygon that represents the 100 dBu f(50,50) contour:



The site is remote. The only structures within the interfering contour are associated with the tower. No residences or public highways are in the contour.

Therefore, the proposal qualifies under 74.1204(d).

Channel 6 Interference

The proposed facility is not on a channel that is implicated in channel 6 interference.

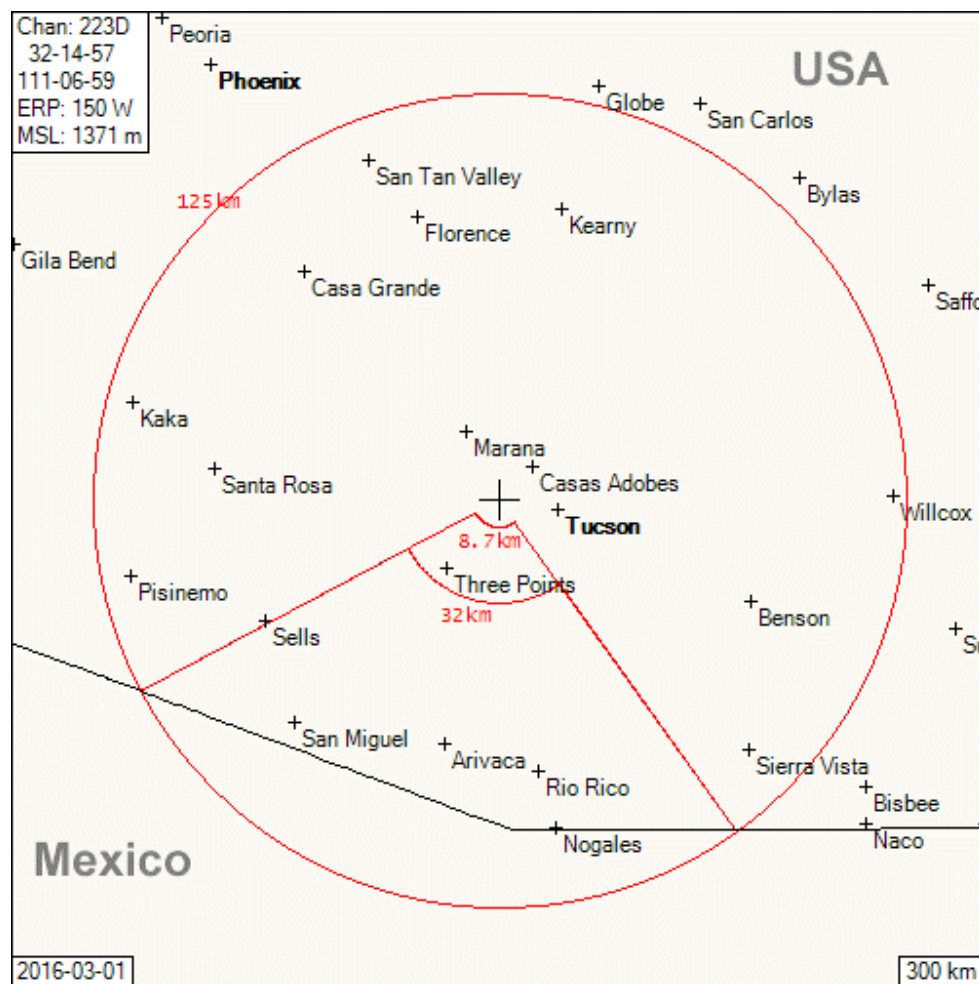
International

The FM Agreements with Canada and Mexico require evaluation and potential coordination of any proposal within 320 km of the border.

The distance to the nearest point along the US/Canada border is 1,861 km. Coordination with Canada is not required.

The distance to the nearest point along the US/Mexico border is 94 km from the proposed site. Evaluation with respect to Mexican facilities and proposals is required.

The US-Mexico FM agreement of 1995 limits “low power FM stations” to 50 Watts “in the direction of the other country” when the proposed facility is within 125 km of the border. Additional limits apply to the 60 dBu contour (8.7 km) and the “interfering contour” (32 km).

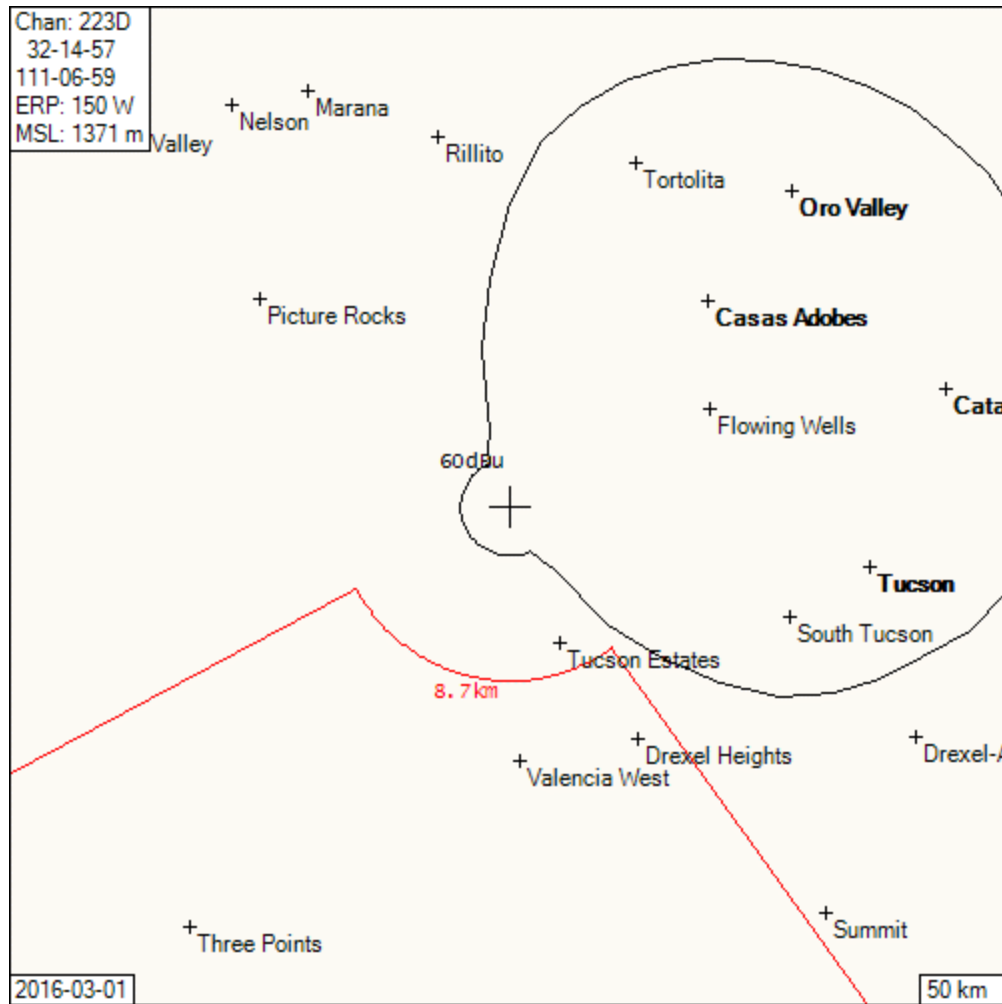


The proposed 60 dBu f(50,50) contour does not exceed 8.7 km in the directions of concern:

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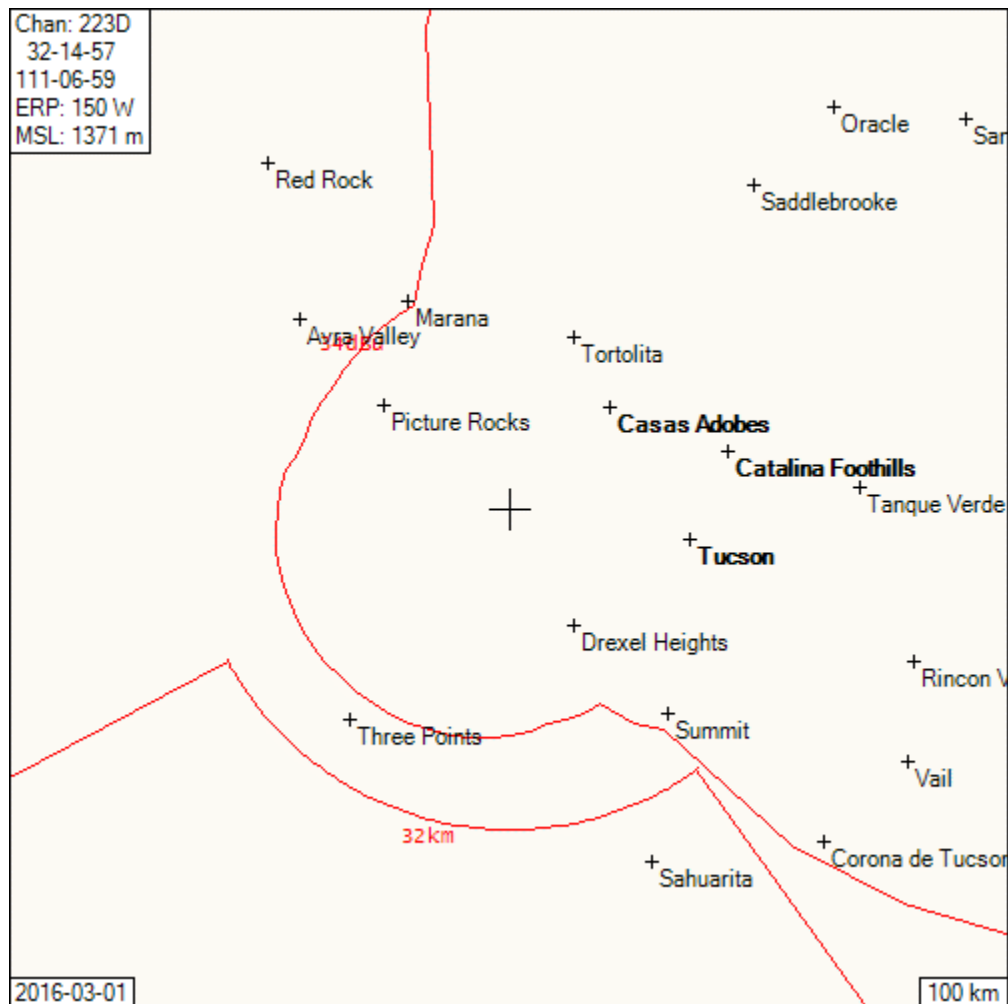


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The proposed 34 dBu f(50,10) contour does not exceed 32 km in the directions of concern:



The ERP limit toward Mexico (145° to 245°) is 50 Watts. At 145°, the relative field is .050, and the ERP is 0.375 Watts. From 150 to 245, the relative field on 0.030 and the ERP is 0.135 Watts.

Therefore, it is submitted that the proposal meets the requirements on the US-Mexico FM Agreement.

Contingent grant request

The applicant requests a grant prior to FCC receipt of Mexican concurrence, and contingent upon such concurrence. The applicant understands and accepts the consequences of a potential objection by Mexico.

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Quiet Zones

The proposed site is outside the National Radio Quiet Zone (National Radio Astronomy Observatory Notification Area) in West Virginia.

The proposed site is outside the Arecibo Observatory notification area in Puerto Rico.

The proposed site is not within a 100 km extension of the Table Mountain Radio Receiving Zone in Colorado.

Protected Monitoring Stations

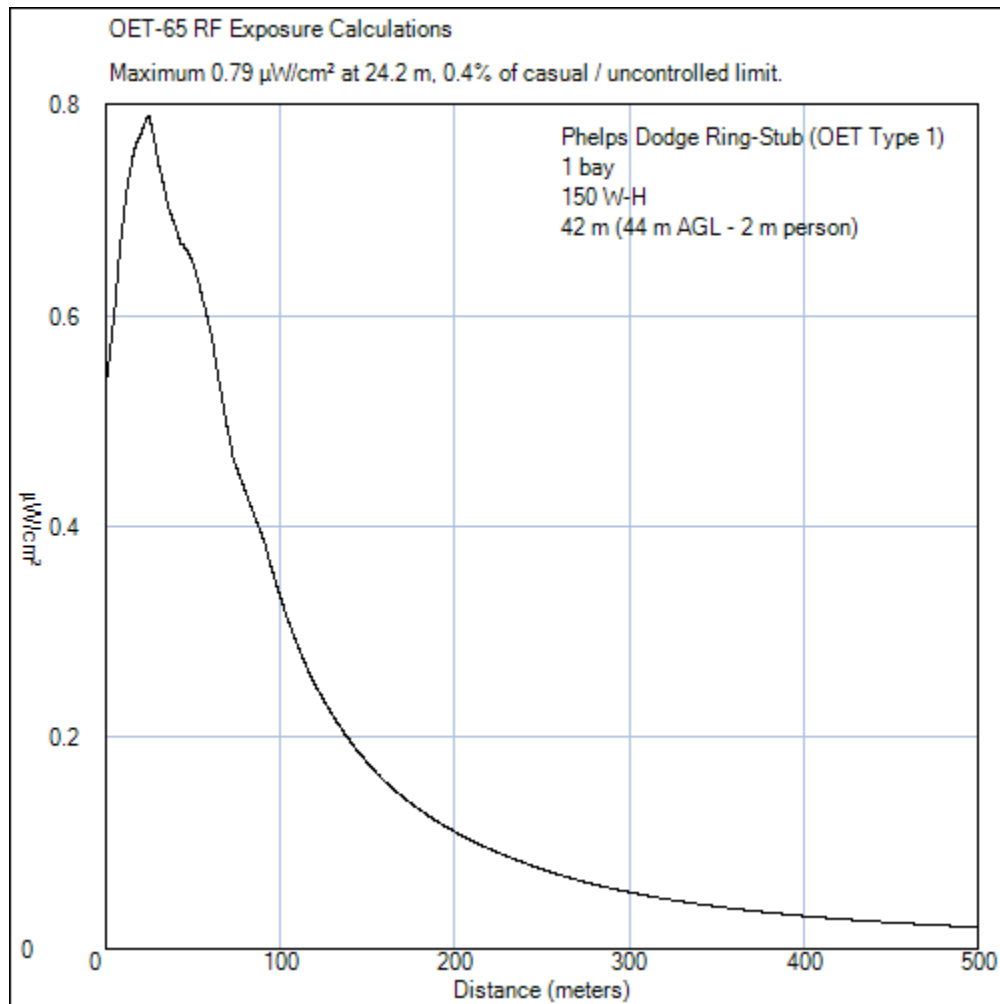
The nearest Protected Monitoring Station is 140 km distant, in Douglas, AZ. This is well beyond any potential 80 dBu contour.

Transmitter Location

The proposed location is on an existing tower, ASR # 1218276. No change to the height of the tower is proposed. No construction or excavation is planned.

RF Exposure

The antenna will be mounted 44 meters above the ground. The effective radiated power will be 150 W V-only. Assuming the worst-case antenna, OET Type 1, the maximum RF exposure near the ground will be 0.4% of the limit for casual / uncontrolled exposure:



Warning signs provide notification to authorized personnel of hazardous areas.

The applicant agrees to coordinate with other users of the site to reduce power or shut down in order to protect workers at the site. Appropriate access controls and warning signage are provided.

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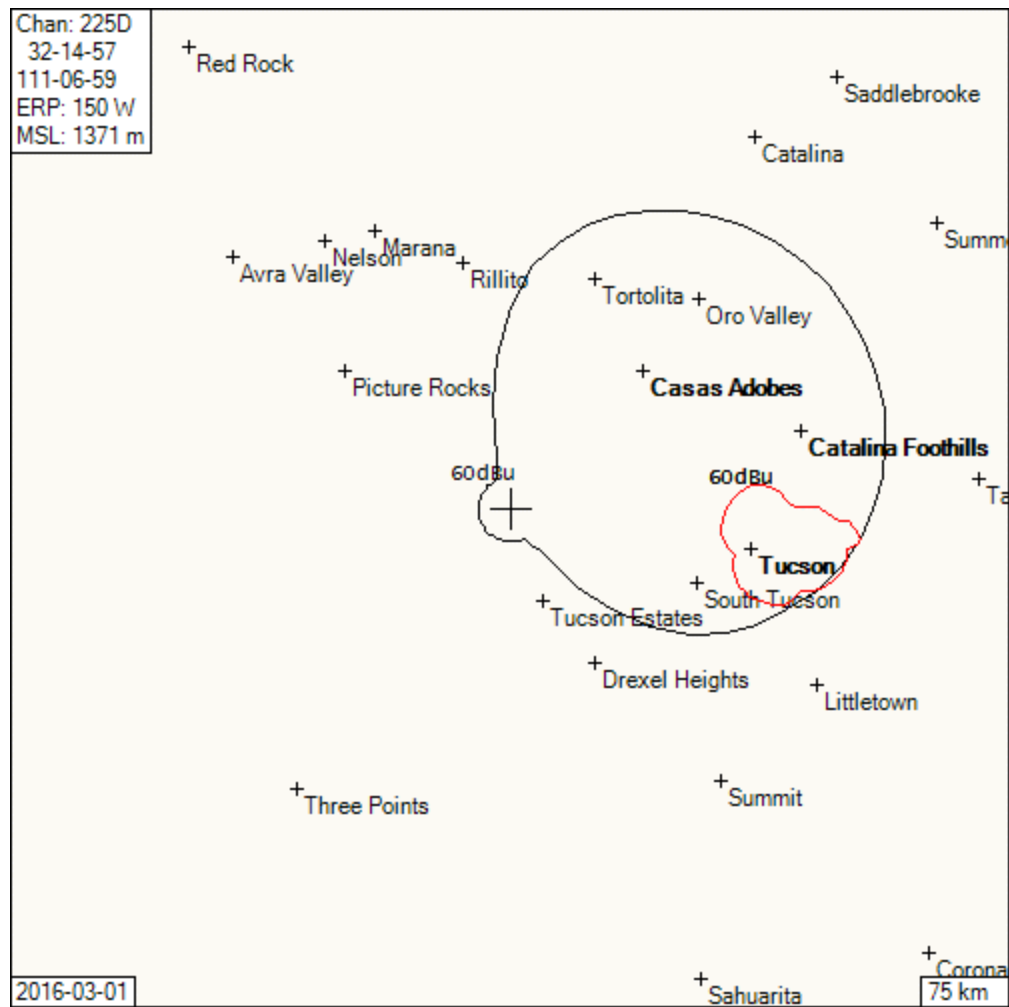
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Minor Change



The black polygon represents the proposed 60 dBu f(50,50) contour. The red polygon represents the current CP 60 dBu f(50,50) contour. The contours clearly overlap. No change in frequency is proposed. Therefore, the proposal is for a minor change.

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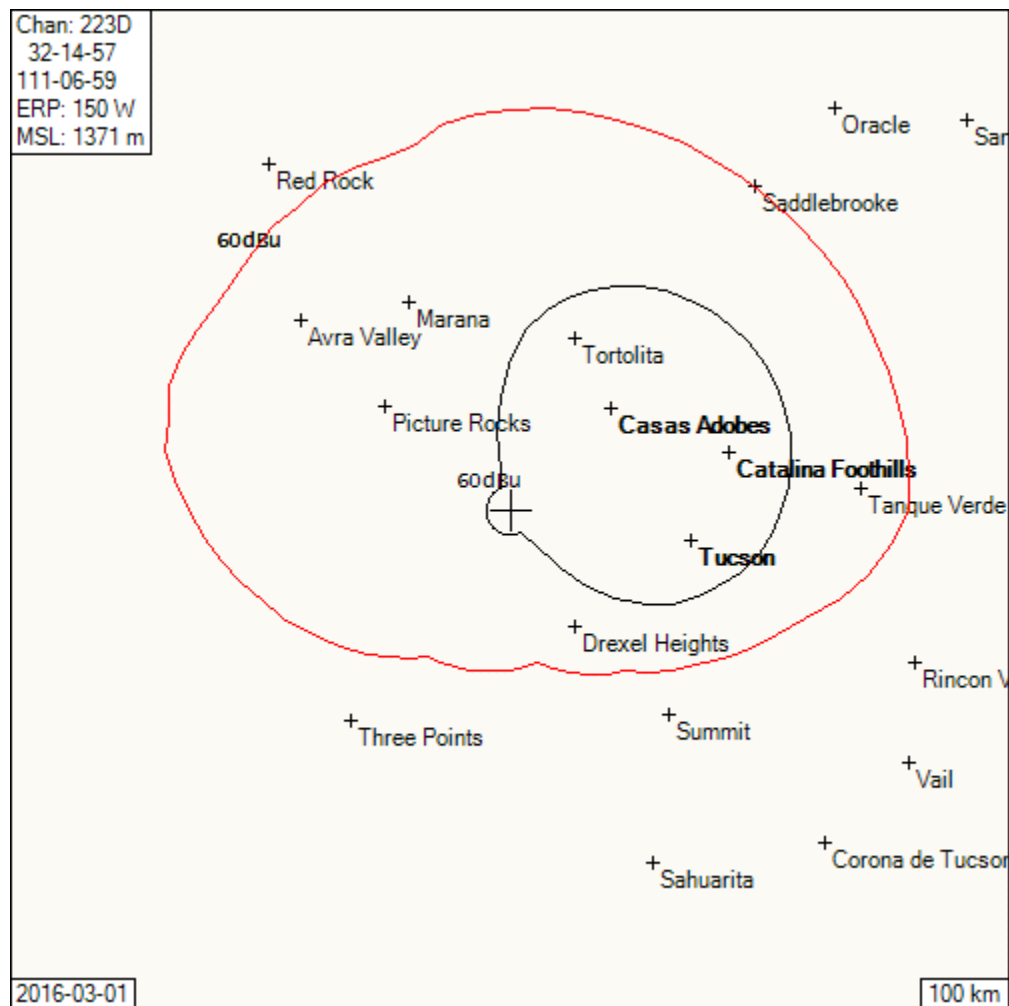
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Fill-In Translator

The proposed primary station is KZLZ HD2, FC Facility ID 36022, Casas Adobes, AZ.



The black polygon represents the proposed 60 dBu f(50,50) contour. The red polygon represents the KZLZ 60 dBu f(50,.50) contour. The proposed 60 dBu contour falls entirely within the KZLZ 60 dBu contour.

A retransmission consent agreement exists between the licensee of KZLZ and the applicant.

Therefore, the proposal is for fill-in service.

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Form 349 Tech Box Data

Channel	223
Primary Station	Facility ID # 36022 KZLZ HD2 Casas Adobes, AZ
Delivery Method	Microwave from studio
Coordinates (NAD-27)	32 14 57 N Lat 111 06 59 W Lon
Coordinates (NAD-83)	32 14 57.0 N Lat 111 07 00.9 W Lon
ASR	1218276
Site Elevation AMSL	1327 m
Overall Tower Height AGL	64 m
Radiation Center AGL	44 m
Effective Radiated Power	150 W-V only
Antenna type	Directional
Manufacturer / Model	SCA CLFM-V oriented at 65 degrees true

-0-