

Comprehensive Technical Statement

In support of

George W. Kimble

Long Form Application for New FM Translator
92.5 MHz, Channel 223D, FCC Facility ID # 141418
Tucson, AZ

Introduction

This long-form application covers short-form application BNPFT-20030314AZS.

No technical changes are proposed. A correction to the overall height of the tower above ground is included. This does not represent a change to the technical operating parameters of the proposal.

The only change is to the primary station. The application is for fill-in service.

Data Sources

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

The 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.

Detailed Interference Study

The following collection of maps and the narrative accompanying each show conclusively that no prohibited overlap will occur between the proposed facility and any nearby conflict.

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PO Box 4, Millbury, MA 01527

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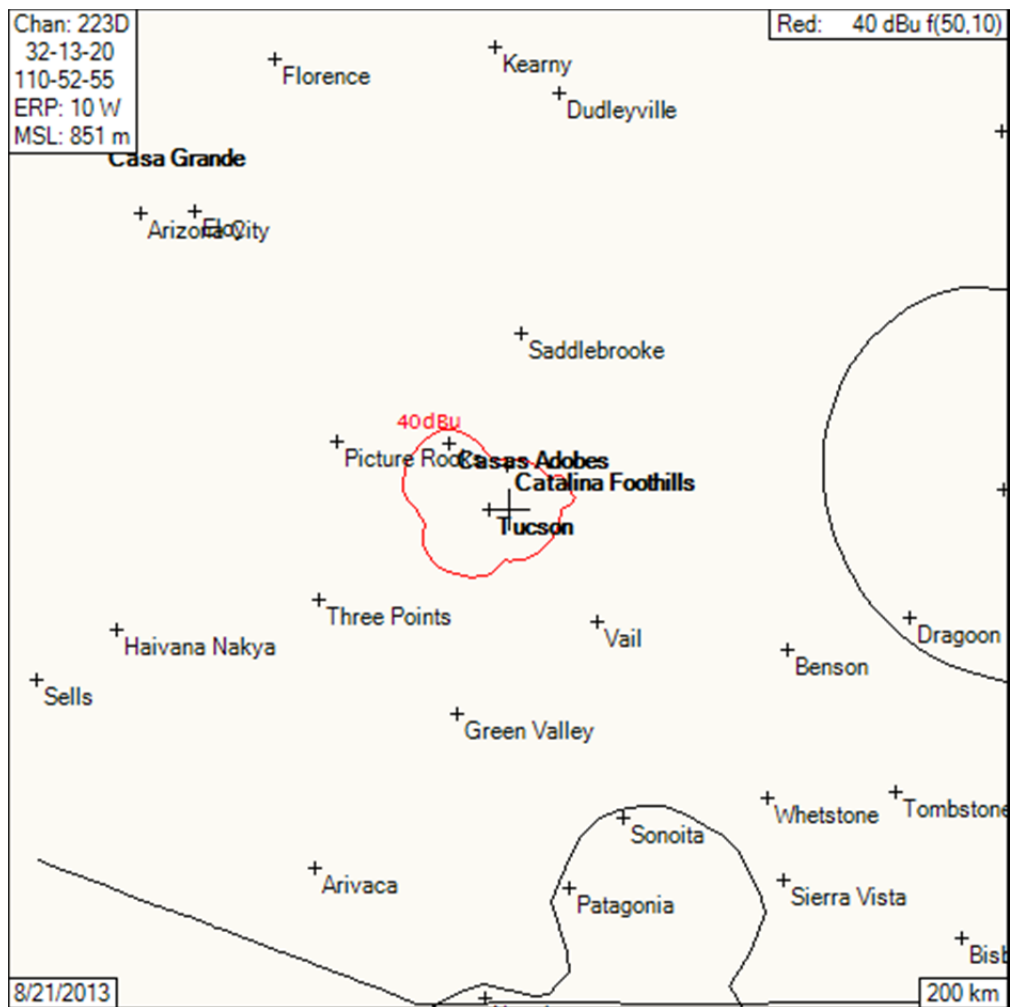
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Map 1 – Co-channel Outbound Interference

The site is located in Zone 2.



There are no nearby co-channel conflicts.

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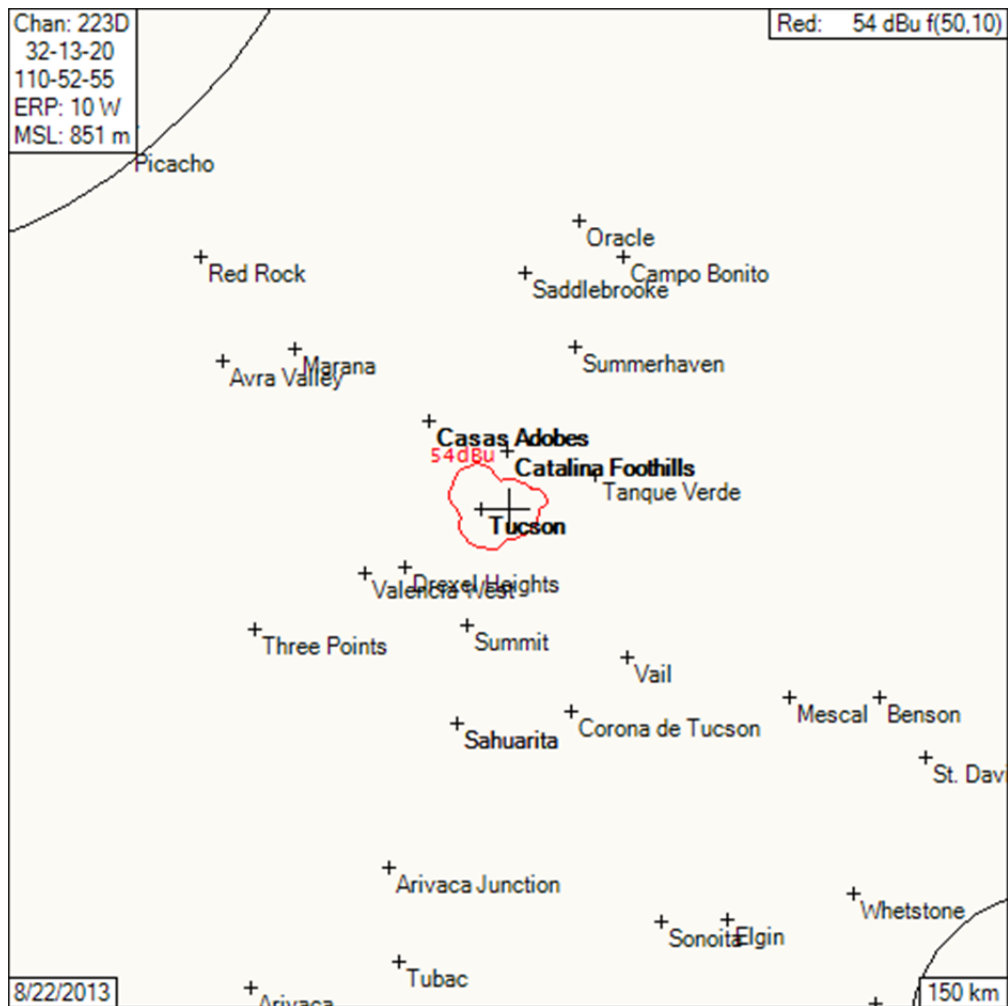
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Map 2 – First Adjacent Outbound Interference



There are no nearby first-adjacent conflicts.

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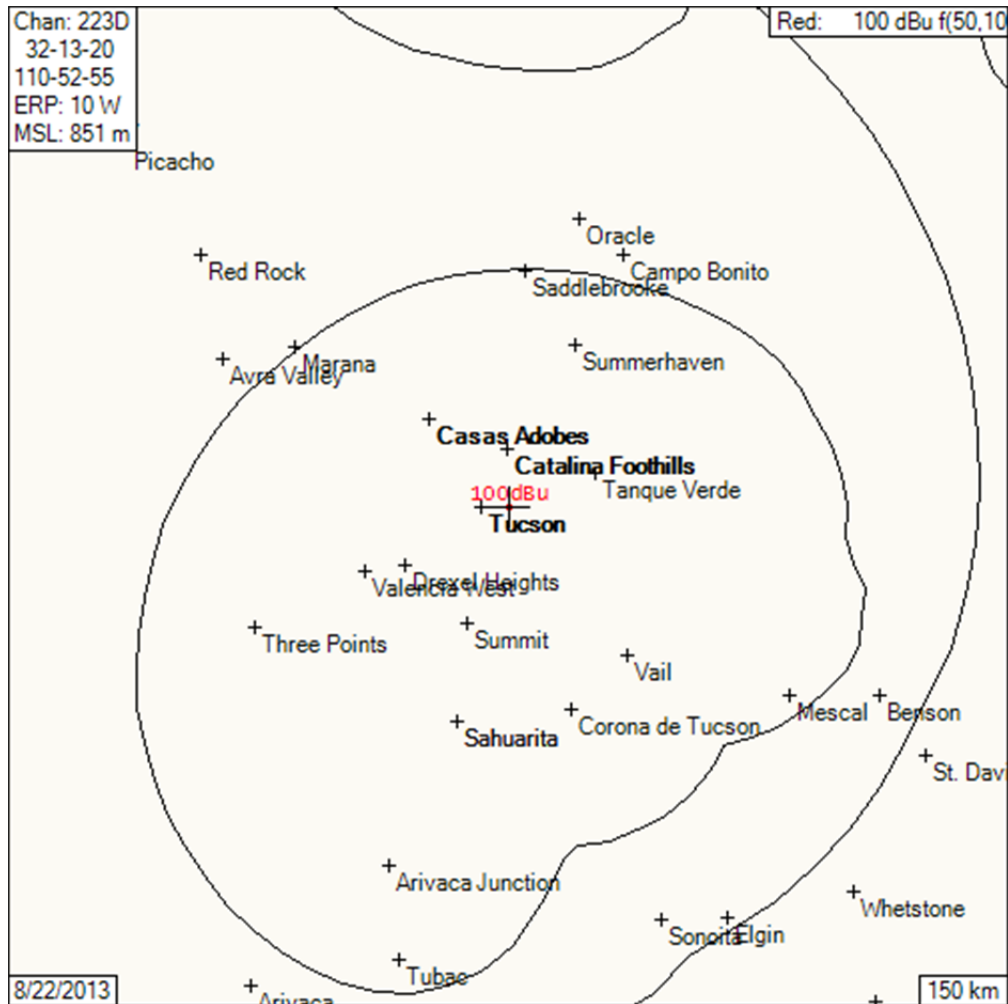
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Map 3 – Second/Third Adjacent Outbound Interference Detail



The proposed site is atop an office building and is located within the 60 dBu f(50,50) contours of two 2nd adjacent conflicts, KMIY and KFMA.

The signal strength of KMIY at the proposed site is 92.8 dBu. The permissible interfering signal strength from the proposal is 132.8 dBu.

The signal strength of KFMA at the proposed site is 79.0 dBu. The permissible interfering signal strength from the proposal is 119.0 dBu.

KFMA is the worst case and therefore controlling influence with respect to interference.

The free-space distance to 119.0 dBu with the proposed ERP of 10 Watts is 25 m. The antenna height above ground is 74 m. No residential buildings exist within 25 m of the antenna. It is clear that the interfering signal of 119 dBu will not reach the ground or any residence.

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IF Separation requirements

With an ERP of 10 Watts, the proposal is exempt from IF separation requirements.

Channel 6 Interference

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

Antenna

An omnidirectional antenna is proposed.

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 141 km distant, in Douglas, AZ.

RF Exposure

The tower is fenced and locked. Warning signs provide notification to authorized personnel of hazardous areas.

According to 47 C.F.R 1.1307 (b) (1) Table 1, FM Translator stations with 100W or less ERP are exempted from RF Exposure study. The proposed ERP is 10 W-H + 10 W-V, for a total of 20 W. The facility is therefore exempt from RF Exposure studies.

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.

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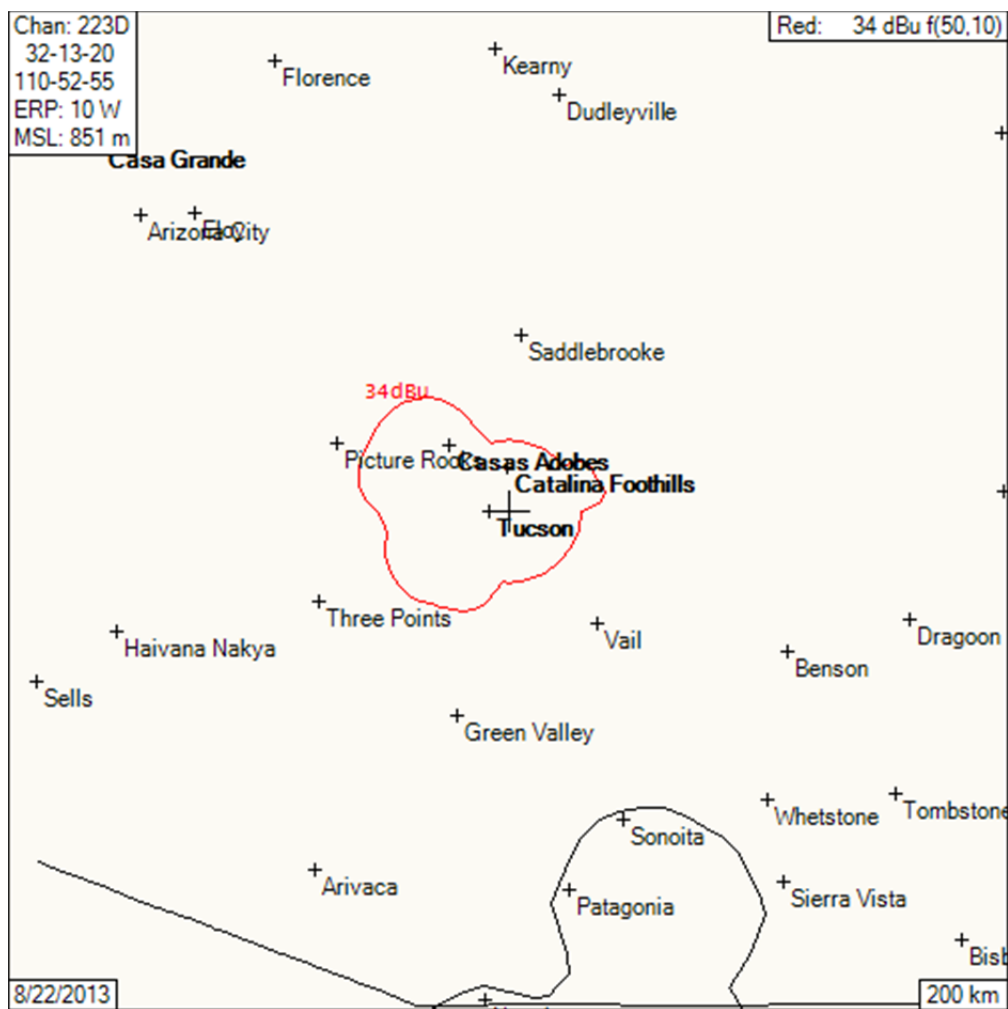
International

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 1,864 km. Coordination with Canada is not required.

The distance to the nearest point along the US/Mexico border is 99 km. Evaluation with respect to Mexican facilities and proposals is required.

The 34 dBu f(50,50) contour does not come within 50 km of the border. The nearest Mexican conflict is a vacant co-channel Class A allotment at Santa Cruz, SO, 113 km to the southeast. From the following map, it is clear that the proposed 34 dBu f(50,10) contour does not come near the protected contour of this vacant allotment:



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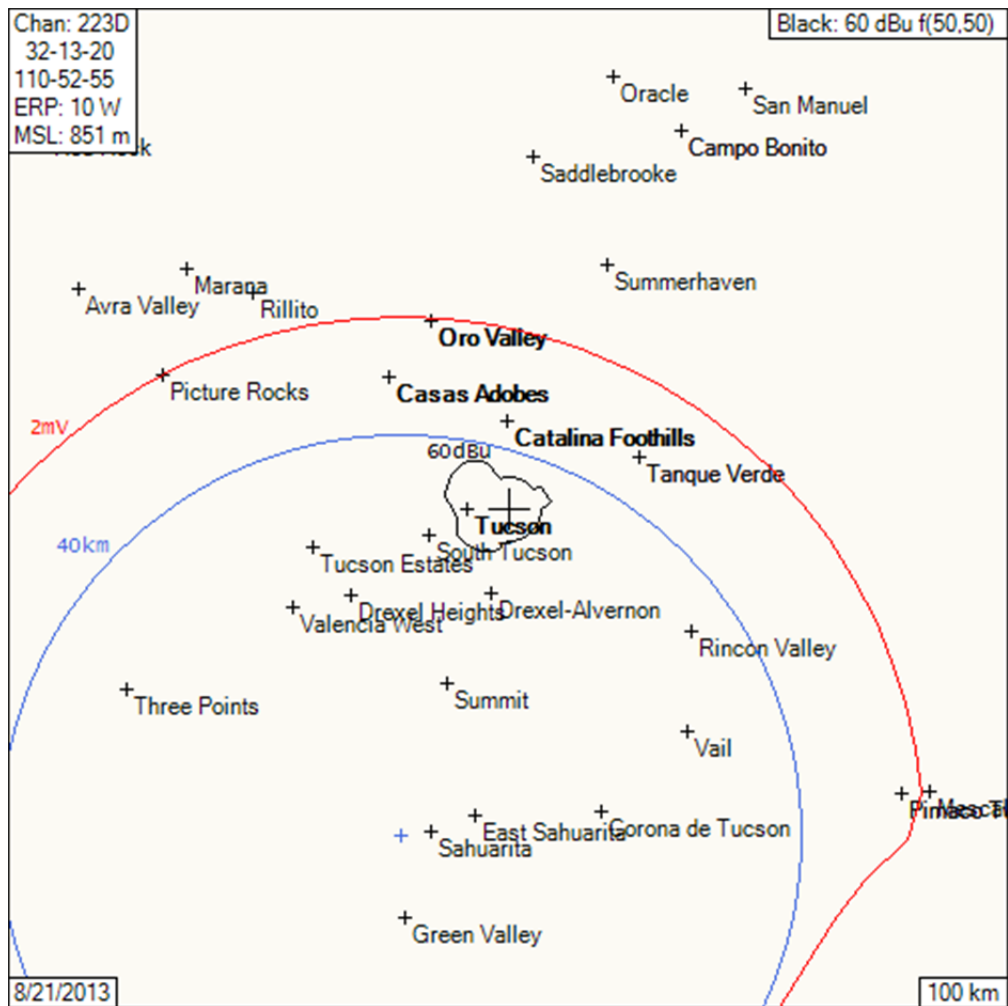
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Fill-In Translator



The proposed 60 dBu f(50,50) contour is shown in black.

The proposed primary station is KGVY (AM), FCC Facility ID # 14662. The 2 mV/m contour of KGVY is shown in red, and 40 km from the KGVY transmitter site is shown in blue.

It is clear that the proposed 60 dBu f(50,50) contour falls completely within 40 km from KGVY and the KGVY 2 mV/m contour.

The proposal is therefore for fill-in service.

Applicant George Kimble has an attributable interest in the primary station, KGVY.

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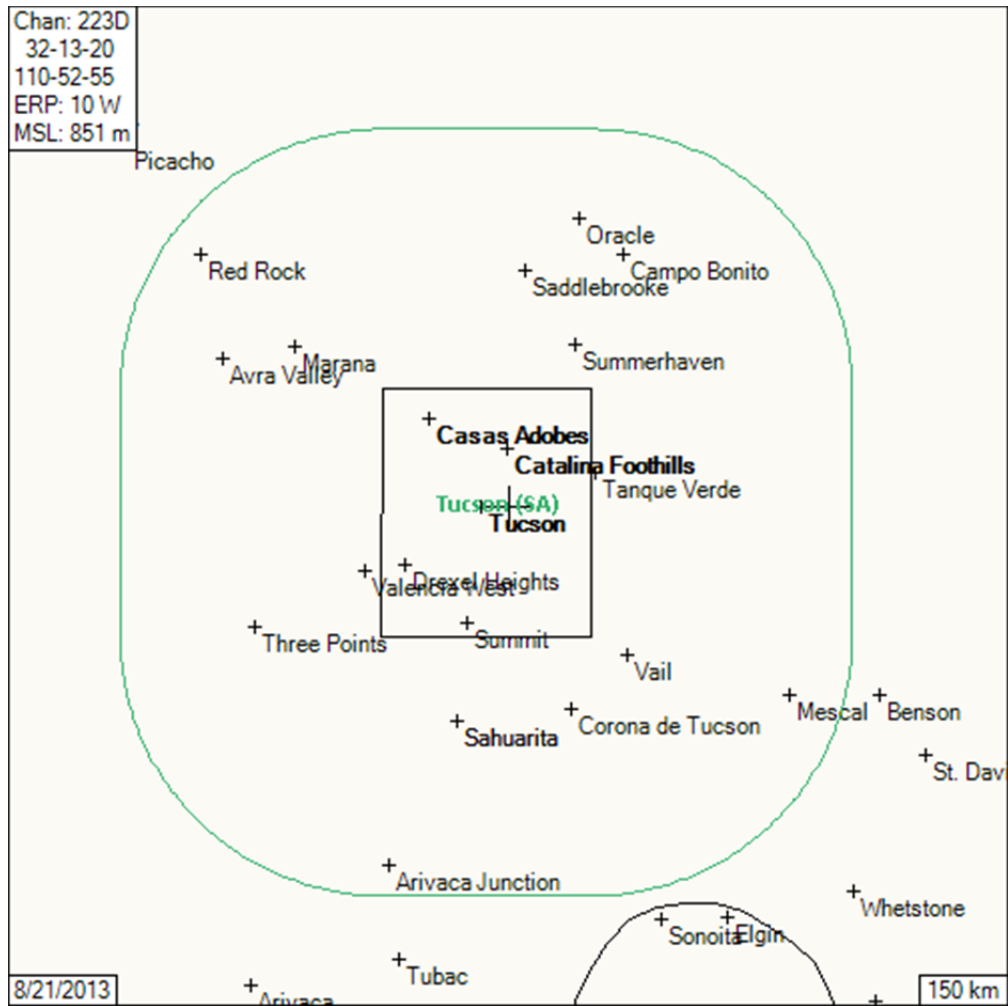
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LPFM Preclusion



The proposed site is marked by the "+" at the center of the map.

The site is within the Tucson LPFM "Appendix A" grid. Tucson is a "Spectrum Available" market.

The LPFM6 program was run for the market, using the spectrum-available parameters. The program shows no availability for LPFM proposals on proposed channel 223 or any of its mutually-exclusive adjacencies. A copy of the program output is provided on the next page.

Therefore, the proposal passes the LPFM preclusion test.

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Tucson, AZ
 Latitude 32-12-52
 Longitude 110-55-05
 Grid Size 21 x 21
 Micro FM 100 Watts at 30m HAAT
 Co-Channel and 1st Adjacent Protected
 2nd Adjacent Channel Protected
 3rd Adjacent Channel Not Protected
 I.F. Not Protected
 TV Channel 6 Protected
 CP Records Protected
 APP Records Protected
 FM Translators Protected
 TV Channel 6 Translators/LP Protected
 Auc83 FX App Records Protected

Chan	Avai l	Chan	Avai l	Chan	Avai l	Chan	Avai l	Chan	Avai l
200	0	220	0	240	0	260	0	280	0
201	0	221	0	241	0	261	10	281	0
202	0	222	0	242	0	262	21	282	0
203	0	223	0	243	0	263	36	283	0
204	0	224	0	244	0	264	0	284	0
205	0	225	0	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	0	269	0	289	0
210	60	230	0	250	0	270	0	290	0
211	0	231	0	251	0	271	0	291	0
212	0	232	4	252	0	272	0	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	21	275	0	295	0
216	0	236	0	256	0	276	0	296	0
217	0	237	0	257	0	277	0	297	0
218	0	238	0	258	0	278	0	298	0
219	0	239	0	259	0	279	0	299	0
								300	0

Total	152								

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Form 349 Tech Box Data

Channel	223D
Primary Station	Facility ID 14662 KGVY (AM) Green Valley, AZ
Delivery Method	Terrestrial
Coordinates (NAD-27)	32 13 20 N Lat 110 52 55 W Lon
Coordinates (NAD-83)	32 13 20.3 N Lat 110 52 57.3 W Lon
ASR	1200291
Site Elevation AMSL	777 m
Overall Tower Height AGL	81 m ¹
Radiation Center AGL	74 m
Effective Radiated Power	10 W-H + 10 W-V
Antenna type	Omnidirectional
Manufacturer / Model	SWR ILLUMITRON-4

¹ The short form indicated 858 m, which is actually the height above mean sea level. That error, which does not constitute a change to the technical operating parameters, is corrected here.

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