

## **Allocation Study for KTBX on Channel 263A at Tubac, Arizona**

### **Channel 263A Allotment Site**

The proposed allotment site meets the domestic co-channel and adjacent channel spacing requirements for Class A stations as prescribed in §73.207 of the Commission's Rules. The allotment site is in Tubac.

### **Channel 263A Transmitter Site**

The proposed transmitter site meets the domestic co-channel and adjacent channel spacing requirements for Class A stations as prescribed in §73.207 of the Commission's Rules.

The proposed transmitter facility is short-spaced to Mexican allotments on Channel 263B at Magdalena and Channel 266B at Sasabe.

An allocation study has been conducted in order to demonstrate equivalent protection to the Magdalena allotment. Attached is an engineering study, conducted pursuant to the radial interpolation method set forth in the US-Mexico FM Agreement, which demonstrates that protection is provided to the Magdalena allotment.

An allocation study has been conducted in order to demonstrate equivalent protection to the Sasabe allotment. Attached is an engineering study, conducted pursuant to the radial interpolation method set forth in the US-Mexico FM Agreement, which demonstrates that protection is provided to the Sasabe allotment.<sup>1</sup>

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<sup>1</sup> While Section 3.1.2 of the Agreement calls for us to protect a Mexican Class B allotment to a maximum distance of 65 km, that does not mean that the maximum must be assumed, only set as the maximum. The Sasabe allotment has high terrain in the direction of Tubac, and so its interpolated contour distance along the radial towards Tubac does not extend to the maximum allowable 65 kilometers.

**Tubac Channel 263A**  
**Contour Protection to Magdalena 263B Allotment**

PROPOSED FACILITY

COMMUNITY : TUBAC, ARIZONA  
CHANNEL : 263  
CALL : KTBX  
CLASS : A  
INTERNATIONAL : AA  
COORDINATES : 31-42-02 N 110-58-40 W  
RADIATING CENTER : 1164 METERS AMSL  
AZIMUTH TO PROTECTED FACILITY: 183.9 DEGREES  
STANDARD RADIALS : 180.0 HAAT: 16.6 M  
: 225.0 HAAT: 135.5 M  
  
INTERPOLATED : 183.9 HAAT: **26.9 M**  
  
RESTRICTED POWER : 0.755 KW AT 26.9M ON 183.9 DEG RADIAL  
INTERFERING CONTOUR : 34 DBU (50,10)  
DISTANCE TO INTERFERING CONTOUR: 53.7 KM

PROTECTED ALLOCATION AT MAGDALENA, MEXICO

COMMUNITY : **MAGDALENA, SONORA**  
CHANNEL : 263  
CALL : VACANT CHANNEL  
CLASS : B  
COORDINATES : 30-37-45 N 111-03-42 W  
MAXIMUM FACILITY : 50 KW AT 150 M  
RELATIONSHIP : COCHANNEL  
PROTECTED CONTOUR : 54 DBU (50,50)  
DISTANCE TO PROTECTED CONTOUR : 65.0 KM  
(MAXIMUM PROTECTION FOR CLASS)

SUMMARY

DISTANCE TO PROTECTED CONTOUR(MAGDALENA) : 65.0 KM  
DISTANCE TO RESTRICTED CONTOUR(KTBX) : 53.7 KM  
TOTAL DISTANCE RESTRICTED PLUS PROTECTED : 118.7 KM  
ACTUAL SPACING : 119.3 KM

**CLEARANCE 0.6 KM**  
**NO OVERLAP OF PROTECTED AND INTERFERING CONTOUR**

## **Tubac Channel 263A**

### **Contour Protection to Sasabe 266B Allotment**

#### PROPOSED FACILITY

COMMUNITY : TUBAC, ARIZONA  
CHANNEL : 263  
CALL : KTBX  
CLASS : A  
INTERNATIONAL : AA  
COORDINATES : 31-42-02 N 110-58-40 W  
RADIATING CENTER : 1164 METERS AMSL  
AZIMUTH TO SASABE : 244.8 DEGREES  
STANDARD RADIALS : 225.0 HAAT: 135.5 M  
: 270.0 HAAT: 167.8 M  
  
INTERPOLATED : 244.8 HAAT: **149.7 M**  
  
UNRESTRICTED POWER : 6.0 KW AT 149.7M ON 244.8 DEG RADIAL  
INTERFERING CONTOUR : 94 DBU (50,10)  
DISTANCE TO INTERFERING CONTOUR: 4.9 KM

#### PROTECTED ALLOCATION AT SASABE, MEXICO

COMMUNITY : **SASABE, SONORA**  
CHANNEL : 266  
CALL : VACANT CHANNEL  
CLASS : B  
COORDINATES : 31-28-19 N 111-32-39 W  
MAXIMUM FACILITY : 50 KW AT 150 M  
RELATIONSHIP : THIRD ADJACENT CHANNEL  
8-RADIAL AVG TERRAIN: 1077 METERS  
RADIATING CENTER : 1227 METERS AMSL (1077 + 150)  
AZIMUTH TO KTBX : 64.5 DEGREES  
STANDARD RADIALS : 45.0 HAAT: 102.1 M  
: 90.0 HAAT: 44.5 M  
  
INTERPOLATED : 64.5 HAAT: **77.1 M**  
  
UNRESTRICTED POWER : 50.00 KW AT 77.1M ON 64.5 DEG RADIAL  
PROTECTED CONTOUR : 54 DBU (50,50)  
DISTANCE TO PROTECTED CONTOUR : 52.2 KM

#### SUMMARY

DISTANCE TO PROTECTED CONTOUR(SASABE) : 52.2 KM  
DISTANCE TO INTERFERING CONTOUR(KTBX) : 4.9 KM  
TOTAL DISTANCE RESTRICTED PLUS PROTECTED : 57.1 KM  
ACTUAL SPACING : 59.4 KM

**CLEARANCE 2.3 KM**  
**NO OVERLAP OF PROTECTED AND INTERFERING CONTOUR**