Doug Vernier - Telecommunications Consultants
721 W. First St, Suite A, Cedar Falls, Iowa 50613

Single Channel Study
Texas Public Radio - Alpine, Texas

REFERENCE CH# 219A - 91.7 MHz, Pwr= 1 kW, HAAT= 83.2 M, COR= 1559.2 M DISPLAY DATES
30 21 03.5 N. Average Protected F(50-50)= 10.16 km DATA 10-06-07
103 39 22.7 W. SEARCH 10-07-07

CH CALL / CITY	TYPE ANT / STATE	AZI <--	DIST / FILE #	LAT / LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
219C VA0030	VAC __N	323.6	1.09	30 21 32.0	100.000	193.2	88.7	-215.22*<	-157.59*< **
Alpine	TX	143.6		103 39 47.0	600	2066			
216B AL4529«	AL ___	265.2	106.59	30 15 56.0	50.000	6.1	66.3	64.5R	42.1M
Ventanas	CH	84.6		104 45 37.0	150	1260			
222C AL9776«	AL ___	154.5	147.53	29 09 00.0	100.000	14.3	93.8	93.5R	54.0M
San Vicente	CI	334.8		103 00 00.0	600	1288			
217B AL3339«	AL ___	220.4	114.36	29 33 53.0	50.000	4.9	56.9	64.5R	49.9M
Ojinaga	CH	40.0		104 25 23.0	150	985			
217A AP2507	APP _CX	6.4	119.10	31 25 06.0	0.100	0.7	5.6	90.10	111.48
Pecos	TX	186.5	BNPED20000201ACO	103 30 55.0	19	814	American Family Associatio		
1/27/2003: accepted by Mexico 9/18/02 as class AA									

Terrain database is USGS 03 SEC Distance + R = FCC Required Spacings in KM, Distance + M = Margin in KM
ERP and HAAT are on direct line to and from reference station.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.
"«" = Station meets FCC minimum distance spacing for its class.
"<" = Contour Overlap
Reference station has protected zone issue: Mexico
"**" Applicant proposes to use this allocation channel.

HOW TO READ THE FM COMPUTER PRINT-OUT

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of contour overlap. Listed antenna heights and power are the specific antenna heights and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance in kilometers of overlap or clearance between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap.

Under the "AZIMUTH" column, the first row of numbers indicate the True North bearings from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships and relationships with commercial channel stations the minimum spacings the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The call letters of stations meeting the minimum separation distances will be flagged by the characters “<<” appended to the end of the call letters. The “^” character appended to the call letters means the station has been “max-classed” according to the provisions of section 73.525 of the Rules.

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. “Z” indicates a 73.215 directional. An “N” indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an “X” if the commission is not sure, otherwise it will be an “N” or left blank.