ARRC 800 MHZ

Arizona Regional Review Committee P.O. BOX 863 • PHOENIX, AZ. 85001-0863

March 21, 2005

Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Room TW-204B
Washington, DC 20554

Subject: **WT Docket No. 02-55 – Improving Public Safety Communications in the 800 MHz Band**
Specifically - 800 MHz Rebanding and Mexican Border Issues

The Arizona Regional Review Committee (ARRC) is responsible for the six megahertz of NPSPAC spectrum devoted to Region 3. The ARRC has discussed at great length the 800 MHz Rebanding and Mexican Border issues, in our last several meetings. We have also appointed an ad hoc sub-committee to follow developments in the Rebanding and keep the full committee up to date on developments. We have met with Mr. Dave Buchanan from the Southern California (Region 5) Region at a special meeting at the Arizona/California border to discuss and review a rebanding proposal from Arizona Public Service Company (APS).

The ARRC has carefully considered the previously submitted (November 11, 2004) Region 5 comments and the APS comments submitted to the FCC on November 22, 2004. At our last general committee meeting on April 11, 2005, the Committee voted unanimously to endorse the APS comments. Since APS's submittal on 11/22/04, they have expanded their comments based on conversations with the ARRC and Region 5. Those expanded comments are the ones that the ARRC endorses. I have included a copy (Attachment A) of the revised comments from APS as part of the ARRC submittal.

The APS plan provides for more spectrum for Public Safety than the Region 5 plan and it also eliminates the use of offset channels in the Mexican Border Region. The border plan is very closely aligned with the standard channel allocation plan.

These suggestions are respectively submitted by:

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Mexican border re-banding plan Summary.

The proposed plan has 4 major components dealing with the Mexican treaty negotiations:

1) Swap the existing NPSPAC region (½ of the channels in 866-869) for ½ of the channels currently allocated to Mexico at the target NPSPAC location (851-854).
2) Provide full spectrum use above 862 by low site ESMR by allowing normal licensing of Mexican allocated channels on US soil in the border area with the requirement that emissions do not exceed the maximum power flux density of -107 dB at the border.
3) Consolidate the alternating US and Mexican channels above 861. 40 channels to 861-862 and 60 channels to ESMR above 862.
4) Other treaty considerations, including the elimination of the offset channel requirement.

A fifth, but critical, component to clean up the Mexican border area is that the FCC channel allocation plan in the border area should match the channel allocation plan in the regular area.

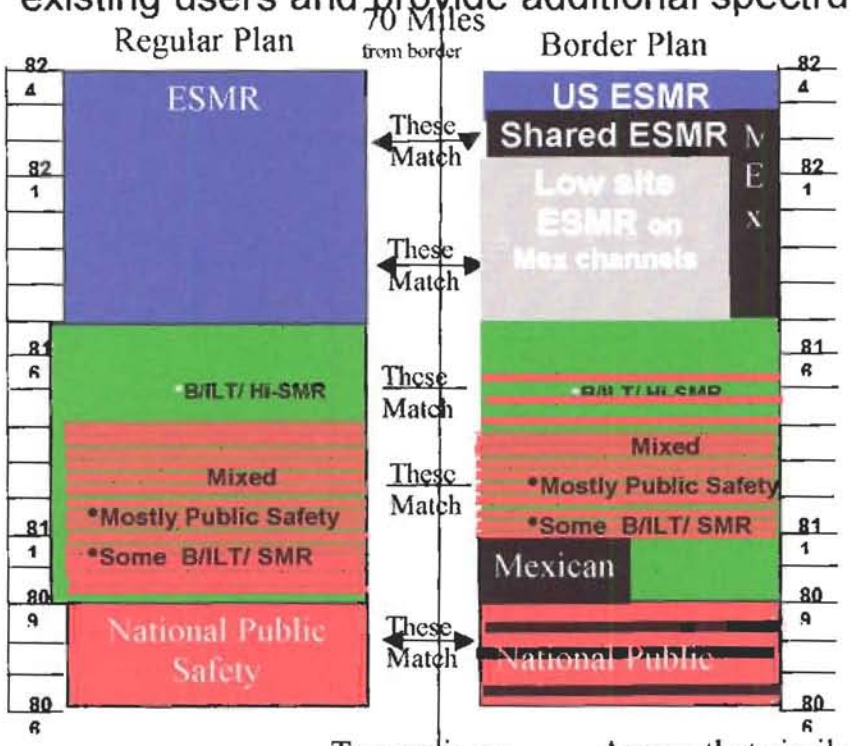
1) Swap the existing NPSPAC region.
The simplest and most straight forward treaty re-banding plan for the Mexican border area is to simply swap the existing NPSPAC region (1/2 of the channels in 866-869) for ½ of the channels allocated to Mexico at the target NPSPAC location (851-854). Total spectrum allocation between the countries and all other allocations remain the same.

Also included is the swapping of the 5 interoperability channels and the allocation of these channels for public safety use in Mexico also.

The treaty should specify who and how the cost to change Mexican licenses will be accomplished.

Arizona Public Service Co.
800Mhz Mexican border zone treaty

Desired solution is to provide equivalent spectrum for existing users and provide additional spectrum for Public safety



WIN, WIN, WIN

- **Nextel wins– in the border area can use the same spectrum as in the regular area. The 60 US channels or the shared channels can be used to provide full service to the borders edge.**
- **Public safety wins - they get more spectrum in most border areas.**
- **Mexico wins - Maintains 50 50 spectrum split.**

This swap will allocate part of the 866-869 area to Mexico; however, Nextel with their low site technology will still be able to use this spectrum on US soil.

US licensing of Mexican Channels with restrictions of at-the-border signal strength will allow low site ESMR to utilize this spectrum in over 80% of the Mexican border area. Low site ESMR station emissions typically do not extend beyond 7 to 8 miles in urban areas. In areas such as Tucson, Arizona which is not on the Mexican border there will be no loss of spectrum for low site ESMR users!

According to Nextel's September 21, 2004 report, Nextel identifies their spectrum holdings by county. In all the Mexican border areas, Nextel holds about 1/4th the amount of spectrum as they do in the regular area.
If the revised treaty provides more spectrum to ESMR over and above what Nextel currently holds the result will actually REMOVE spectrum from public safety use. By allocating only 60 channels to US ESMR it will provide channels to public safety in most areas and will not significantly impact the operation of US low site ESMR in the Mexican border area.

County	State	ESMR channels
(From Nextel Sept 22nd report)		
San Diego	CA	111
Imperial	CA	105
Yuma	AZ	61
Pima	AZ	126
Santa Cruz	AZ	95
Cochise	AZ	85
Dona Ana	NM	154
Hidalgo	NM	80
Luna	NM	83
Brewster	TX	77
Camaron	TX	116
Crockett	TX	56
Culberson	TX	74
Dimmit	TX	80
Duval	TX	47
Edwards	TX	55
El Paso	TX	166
Hidalgo	TX	115
Hudspath	TX	154
Jeff Davis	TX	68
Jim Hogg	TX	65
Kinney	TX	98
La Sallie	TX	97
Maverick	TX	81
Presidio	TX	83
Real	TX	55
Starr	TX	88
Terrell	TX	78
Uvaide	TX	84
Val Verde	TX	98
Webb	TX	138
Willacy	TX	118
Zapala	TX	84
Zavala	TX	84

In the table above, data taken from NEXTEL's September 21st 2004 report, identifies NEXTELS holdings by county. When you subtract 60 channels from this number it result's in the number of channels that would be available to public safety in that border county. Conversely in border counties in which Nextel has less then 60 channels Public safety and other 800 users will have to give up spectrum. (The region 5 proposal with 160 channels allocated to ESMR actually has all border counties but El Paso giving up channels).

2) Allow normal licensing of Mexican allocated channels on US soil in the border area with the requirement that it does not exceed the maximum power flux density of -107 dB at the border.

This capability is already provided for in the existing treaty[1], several entities already have transmitters operating on Mexican channels on US soil. What is needed is:

1. Formalizing the application process of the at-the-border and across-the-border signal strength limits. Require that applications for transmitters in the border zone on Mexican channels include an at-the-border signal strength

[1] See Protocol 3 found at: ***www.fcc.gov/ib/sand/agree/mex_nonbroad_agree.html***

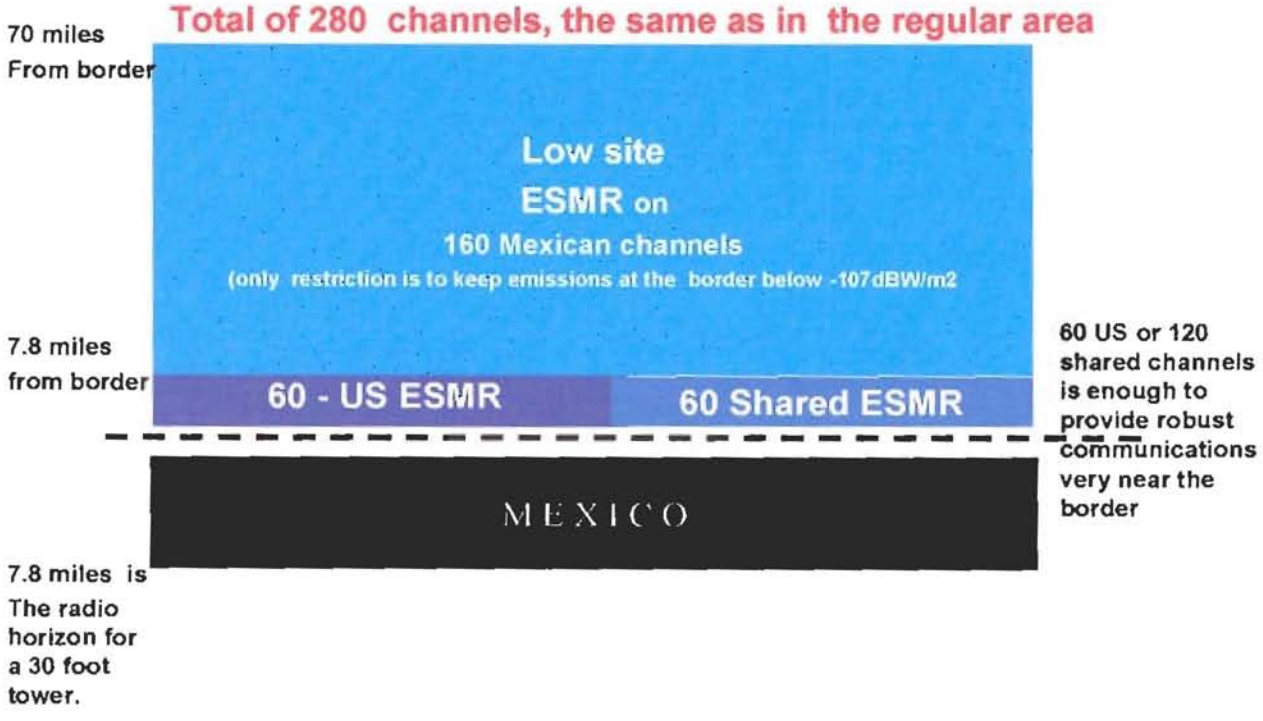
graph. The operating parameters for a given license must be specific to assure that the at-the-border signal strength level will not be exceeded.

Low site ESMR and low site Public Safety sites will be able to use the Mexican allocated channels to within 7 to 10 miles of the border. Use of directional antennas may reduce this distance even further. This effectively reduces the size and impact of the Mexican border zone from 70 miles to 7 miles for low site users. This dramatically increases the spectrum efficiency and increases the utilization of the spectrum, and provides the much needed spectrum.

Interference from high site transmitters in Mexico should not be a factor, the FAR transmitter will not appreciably affect the NEAR site communications for users of the low site transmitters on US soil.

In areas like Tucson which straddles the 70 mile border zone edge, 100% of the NPSPAC spectrum would be available for public safety use, if low sites use the Mexican allocation, thus providing the same number of channels as in the non-border zone areas.

ESMR will be able to use 100% of the spectrum between 862 and 869.



3) To optimize ESMR – consolidate 60 alternating channels (US 863-866) to 867.5 – 869. Consolidate forty (40) 861-863 alternating US channels to (40) non-alternating 861-862.

The treaty should specify who and how the cost to change Mexican licenses will be accomplished for these moves also.

4) Other Treaty considerations -----

a. Change height above sea level ERP limitation on primary channels to an emission at the border limitation. Recommend the maximum of -50dBW flux density across the border for primary channels. (This does not change the -107dBW flux density limitation for the use of the other countries channels). This allows flexibility in areas far from the border. (Protocol 3 Article III paragraph 3).

b. Alternatively assign 866-869 to cellular using protocol 4 instead of protocol 3. *(but this involves modifying 2 protocols)*

c. Verify that within the US block of channels that the US has the option to use regular channels instead of offset channels.

SUMMARY

The revised Mexican treaty strategy should strive to provide additional spectrum for Public Safety as promised with this re-banding effort. This Mexican border band plan, namely that of swapping the NPSPAC spectrum, extensive use of Mexican channels by low site ESMR, and allowing ESMR to share the Mexican channels above 862 MHz with Mexican entities, should provide an additional 40 to 60 channels for Public Safety in the border areas, and still provide NEXTEL and other low site SMR's with nearly the same usable spectrum they have in the regular area.