



Federal Communications Commission Update

**13th Annual Texas Statewide Communications Strategic Planning
Conference
July 16, 2019
Holiday Inn Austin Midtown
6000 Middle Fiskville Road, Austin, TX 78752**



For Those Who Don't Know Me



Federal Communications Commission

Public Safety and Homeland Security Bureau

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The Policy & Licensing Division



At the Policy & Licensing Division, we.....

- ★ License land mobile and microwave systems for Public Safety entities
- ★ Establish policies to maximize efficient use of Public Safety spectrum while minimizing interference
- ★ Incorporate standards into our rules to promote interoperability and access to the latest technology
- ★ Participate in negotiations with Canada and Mexico over international agreements impacting public safety radio communications along common borders



Topics for FCC Update



I. Update on 800 MHz Task Force

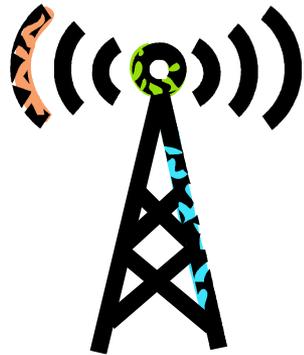
II. 700 MHz Cross-Border Issues

III. FCC Rules Governing Interoperability Channels

IV. Questions?



I. Update on 800 MHz Task Force

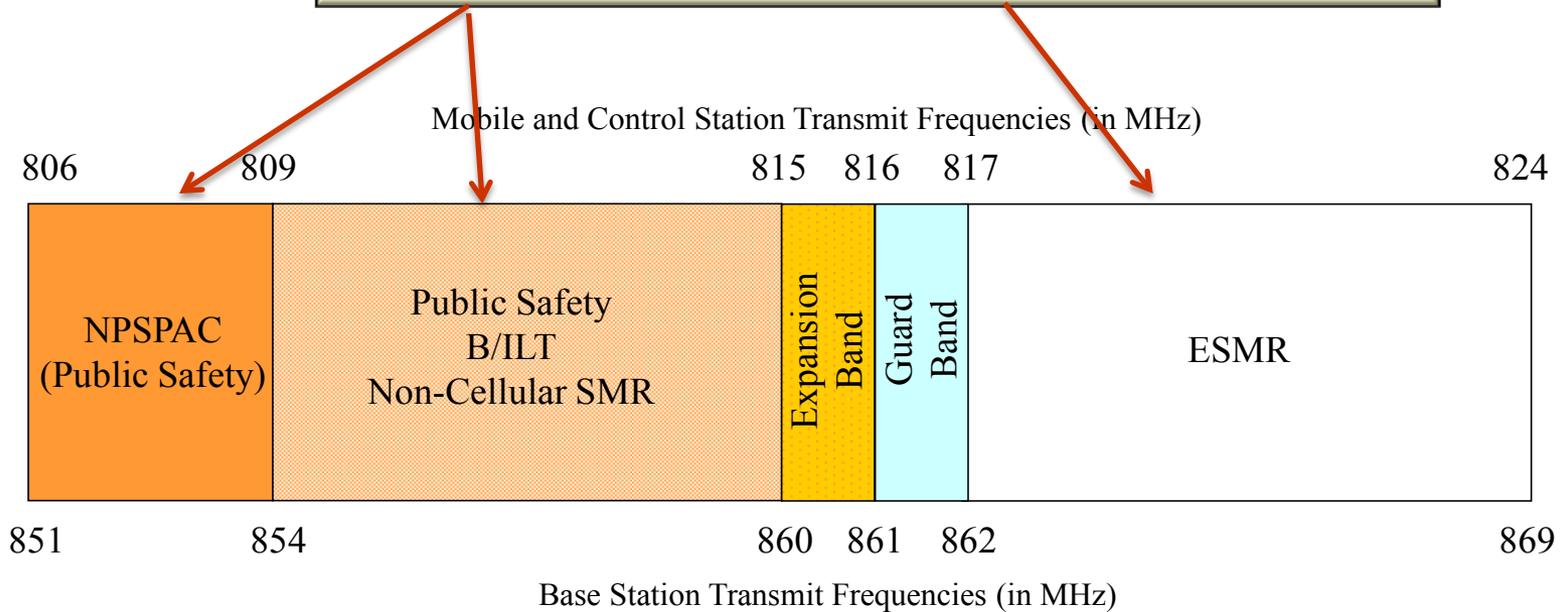




I. Update on 800 MHz Task Force

POST-RECONFIGURATION BAND PLAN

Separating Public Safety and Other LMR Licensees from Commercial Operators



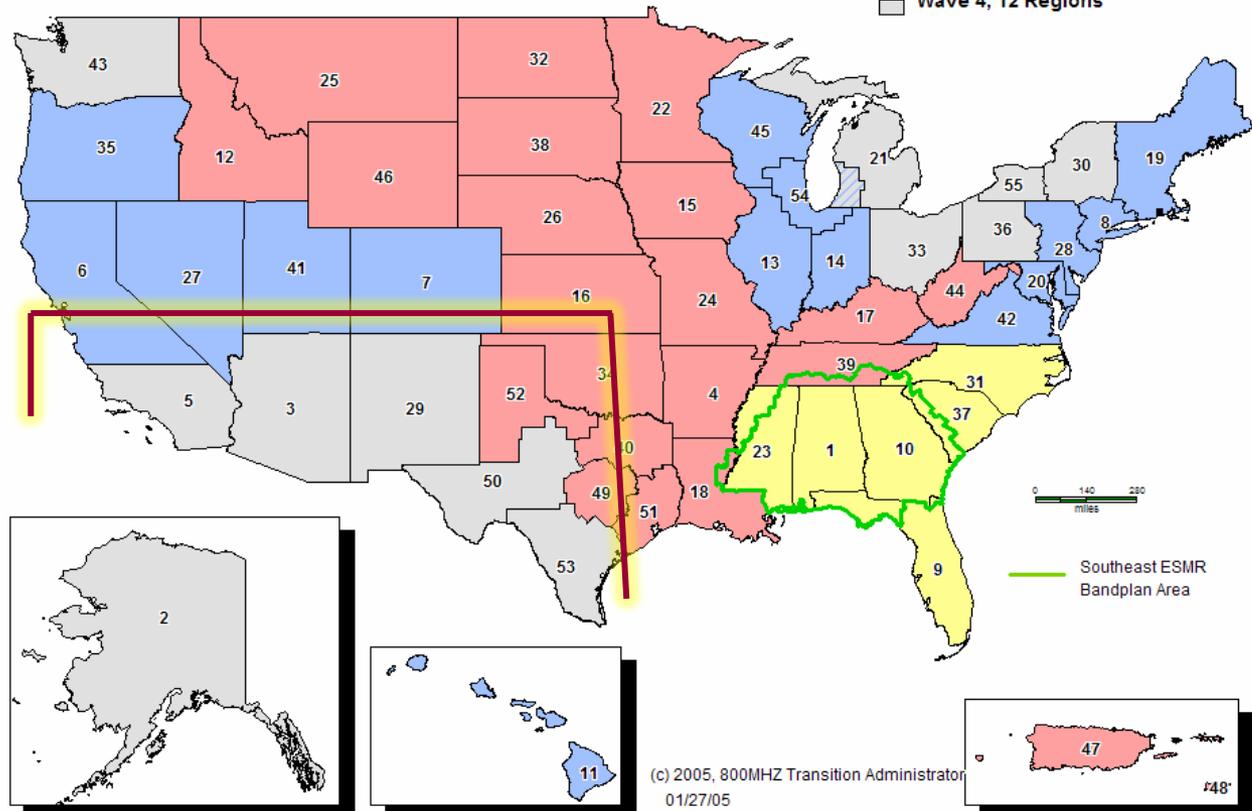


I. Update on 800 MHz Task Force

The U.S. signed a new Protocol with Mexico in June 2012 which allowed 800 MHz Rebanding to proceed in regions bordering Mexico

800 MHz Reconfiguration
NPSPAC Public Safety Region
Prioritization Map

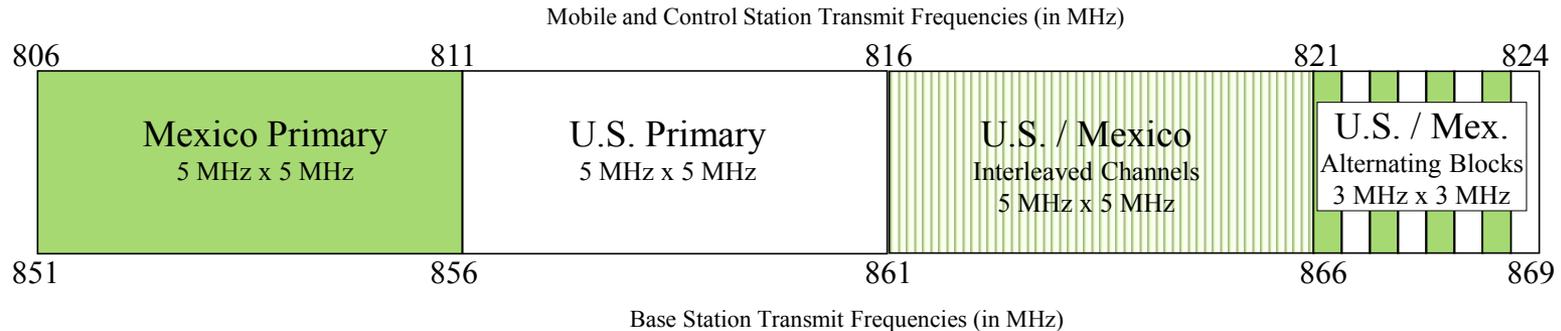
- Wave 1, 15 Regions
- Wave 2, 22 Regions
- Wave 3, 6 Regions
- Wave 4, 12 Regions



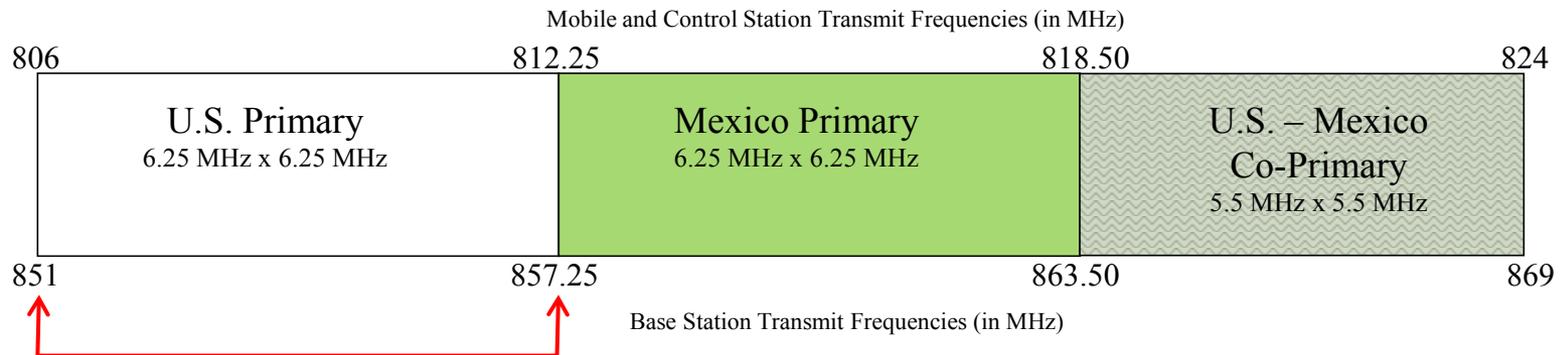


I. Update on 800 MHz Task Force

Previous 800 MHz Band Plan for Sharing Zone



Current 800 MHz Band Plan for Sharing Zone Based Upon New Protocol



PS and Business LMR Licensees Relocate Here

8



U.S. Primary



Mexico Primary



I. Update on 800 MHz Task Force

800 MHz Task Force Accomplishments



All major blockers in Mexico have vacated the lower-segment of the band along the border including: AT&T Mexico, Pemex and Telmex.



Most licensees in Texas have retuned to their replacement channels.



I. Update on 800 MHz Task Force

The U.S. members of the 800 MHz Task Force are currently working with IFT to clear remaining incumbents in Mexico from the lower-segment of the band.



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II. 700 MHz Cross-Border Issues

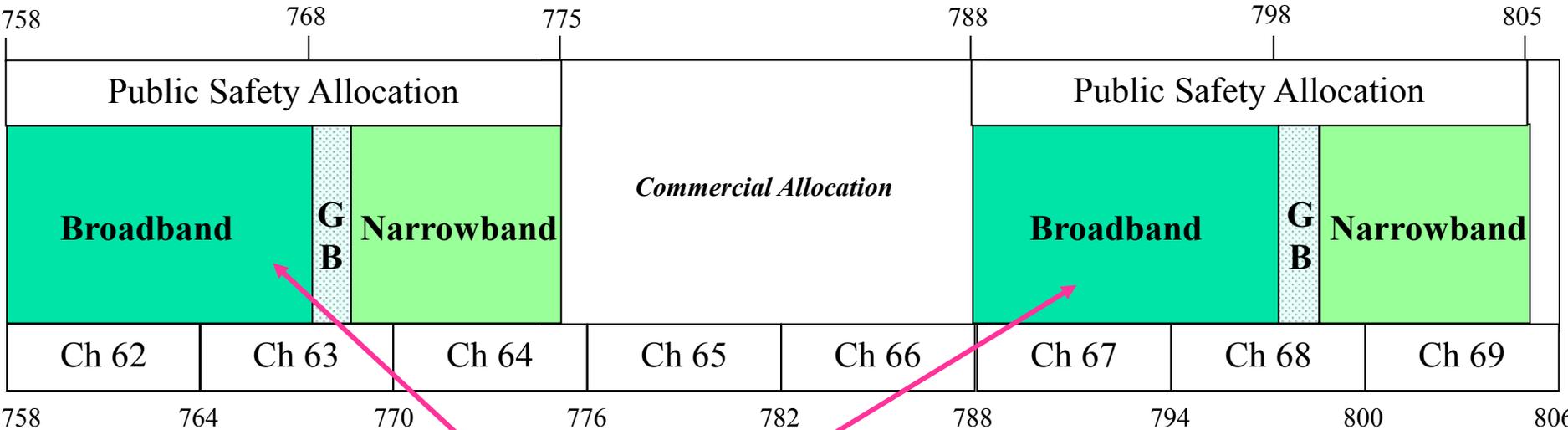




II. 700 MHz Cross-Border Issues

700 MHz Band Plan for Public Safety Services in U.S.

Frequencies in MHz



FirstNet License 12



II. 700 MHz Cross-Border Issues



700 MHz Protocol with Mexico

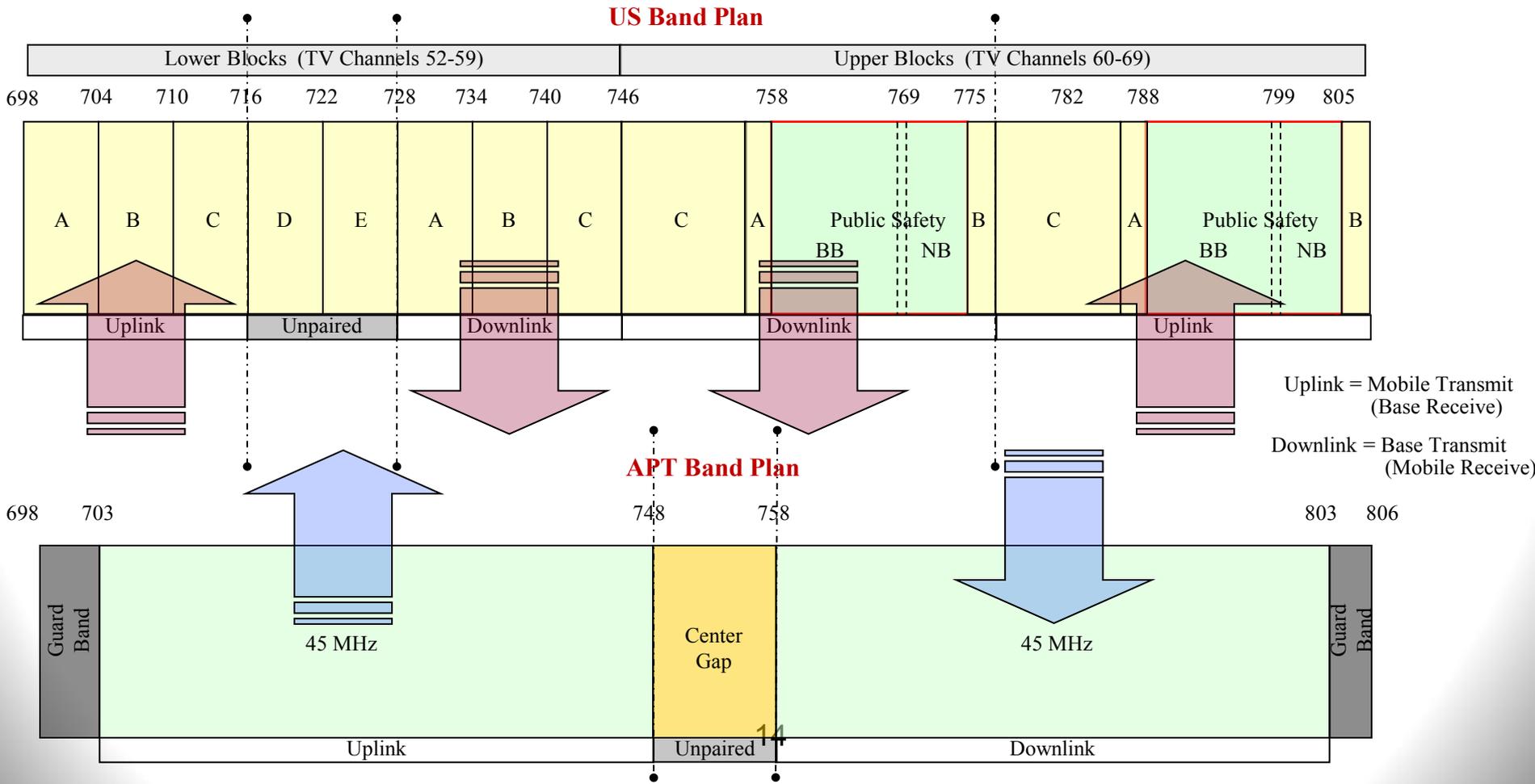


- ➔ In November 2006, the U.S. and Mexico signed a Protocol covering operations along the border in the 700 MHz band.
- ➔ The 2006 Protocol was based upon the U.S. domestic band plan at that time. The U.S. has attempted to update the Protocol to reflect FirstNet and consolidated Narrowband spectrum.
- ➔ Mexico, however, is deploying the Asia Pacific Telecommunity (APT) band plan in the 700 MHz band.



II. 700 MHz Cross-Border Issues

US Band Plan vs. Asia Pacific Telecommunity (APT) Band Plan

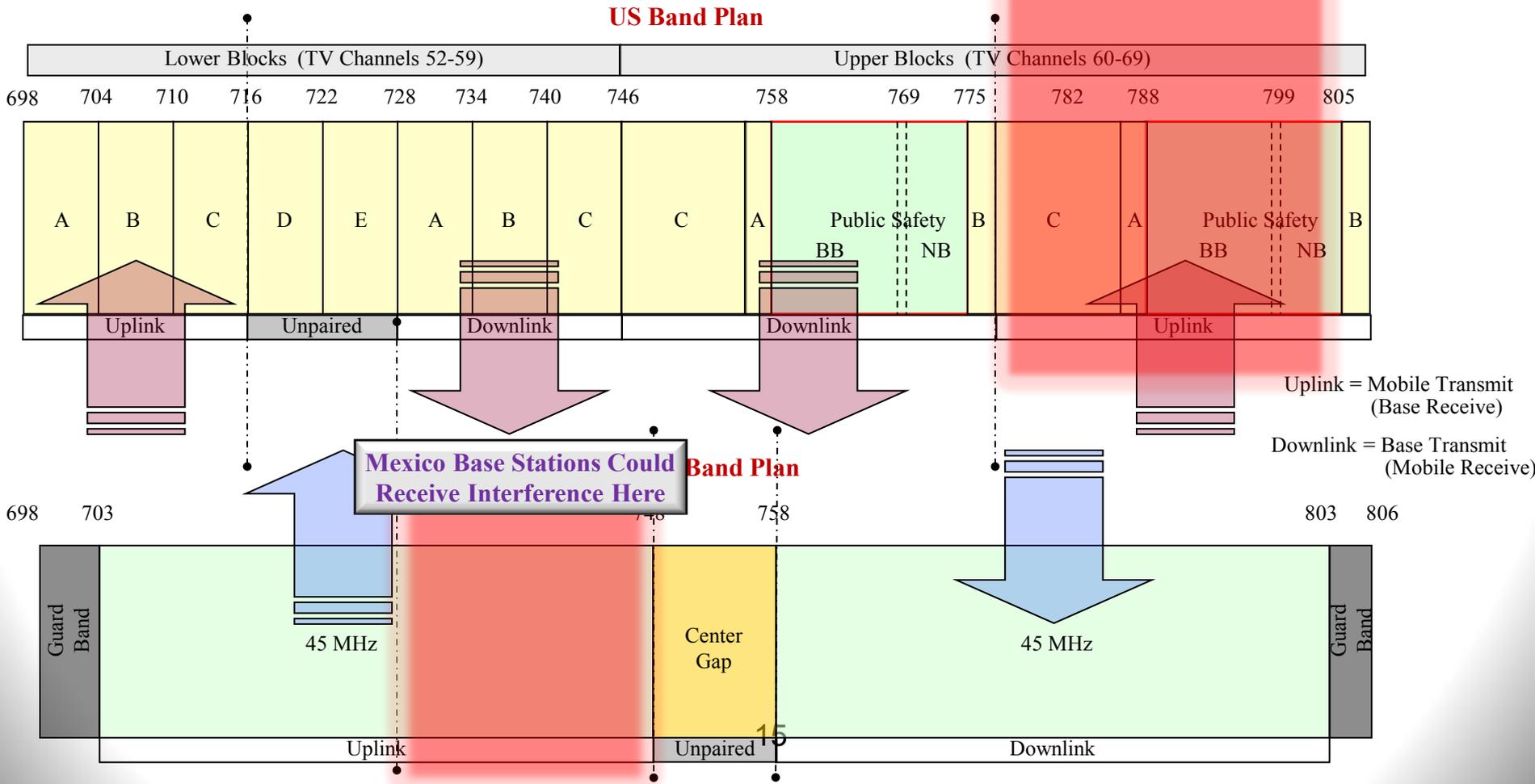




II. 700 MHz Cross-Border Issues

Coordination Needed to Avoid Mutual Interference

U.S. Base Stations Could Receive Interference Here





II. 700 MHz Cross-Border Issues



The U.S. and Mexico Have Formed a Task Force on 700 MHz to Discuss Technical Issues Related to the Deployment of the APT Band Plan in Mexico and the Protection of U.S. Licensees from Harmful Interference.

Discussions are ongoing.....





III. FCC Rules Governing Interoperability Channels





III. FCC Rules Governing Interoperability Channels



47 CFR § 90.20(i) – Public Safety Pool



Lists FCC designated interoperability channels in the 150 MHz, 220 MHz, 450 MHz, 700 MHz and 800 MHz bands.



Specifies a blanket licensing approach for mobile and portable units operated on the interoperability channels by any public safety eligible entity holding a Part 90 license.



Requires base stations and control stations to be licensed separately.



III. FCC Rules Governing Interoperability Channels



FCC Designated Interoperability Channels in 150 MHz and 450 MHz Frequency Bands

150-170 MHz

<u>Interoperability Channel (MHz)</u>	<u>Label *</u>	<u>Purpose</u>
151.1375 MHz (base/mobile)	VTAC11	Tactical
154.4525 MHz (base/mobile)	VTAC12	Tactical
155.7525 MHz (base/mobile)	VCALL10	Calling
158.7375 MHz (base/mobile)	VTAC13	Tactical
159.4725 MHz (base/mobile)	VTAC14	Tactical

450-470 MHz

<u>Interoperability Channel (MHz)</u>	<u>Label *</u>	<u>Purpose</u>
453.2125 MHz (base/mobile) 458.2125 MHz (mobile)	UCALL40 UCALL40D	Calling
453.4625 MHz (base/mobile) 458.4625 MHz (mobile)	UTAC41 UTAC41D	Tactical
453.7125 MHz (base/mobile) 458.7125 MHz (mobile)	UTAC42 UTAC42D	Tactical
453.8625 MHz (base/mobile) 458.8625 MHz (mobile)	UTAC43 UTAC43D	Tactical

* Industry adopted channel nomenclature but not specified in FCC rules.



III. FCC Rules Governing Interoperability Channels



47 CFR § 90.20(d)(80) – Public Safety Pool

Applies to interoperability channels in the 150 MHz and 450 MHz bands and states that these channels are “*primarily* [emphasis added] for public safety interoperability only communications.”

It also states that after January 1, 2005, all non-interoperability communications will be “*secondary* [emphasis added] to co-channel interoperability operations.”*

* Incumbents were grandfathered as of December 7, 2000



III. FCC Rules Governing Interoperability Channels



FCC Designated Interoperability Channels in 700 MHz and 800 MHz Frequency Bands

800 MHz NPSPAC

Interoperability Channel (MHz)	Label *	Purpose
851.0125 MHz (base/mobile) 806.0125 MHz (mobile)	8CALL90 8CALL90D	Calling
851.5125 MHz (base/mobile) 806.5125 MHz (mobile)	8TAC91 8TAC91D	Tactical
852.0125 MHz (base/mobile) 807.0125 MHz (mobile)	8TAC92 8TAC92D	Tactical
852.5125 MHz (base/mobile) 807.0125 MHz (mobile)	8TAC93 8TAC93D	Tactical
853.0125 MHz (base/mobile) 808.0125 MHz (mobile)	8TAC94 8TAC94D	Tactical

* Industry adopted channel nomenclature but not specified in FCC rules.

700 MHz Narrowband

Interoperability Channel (MHz)	Label **	Purpose
769.14375 MHz (base/mobile) 799.14375 MHz (mobile)	--	Tactical
769.24375 MHz (base/mobile) 799.24375 MHz (mobile)	--	Calling
769.39375 MHz (base/mobile) 799.39375 MHz (mobile)	--	Tactical
769.49375 MHz (base/mobile) 799.49375 MHz (mobile)	--	Tactical
769.64375 MHz (base/mobile) 799.64375 MHz (mobile)	--	Tactical
769.74375 MHz (base/mobile) 799.74375 MHz (mobile)	--	Tactical
769.99375 MHz (base/mobile) 799.99375 MHz (mobile)	--	Tactical
770.14375 MHz (base/mobile) 800.14375 MHz (mobile)	--	Tactical
770.24375 MHz (base/mobile) 800.24375 MHz (mobile)	--	Tactical
770.39375 MHz (base/mobile) 800.39375 MHz (mobile)	--	Tactical
770.49375 MHz (base/mobile) 800.49375 MHz (mobile)	--	Tactical
770.64375 MHz (base/mobile) 800.64375 MHz (mobile)	--	Tactical
770.89375 MHz (base/mobile) 800.89375 MHz (mobile)	--	Tactical
770.99375 MHz (base/mobile) 800.99375 MHz (mobile)	--	Tactical
773.00625 MHz (base/mobile) 803.00625 MHz (mobile)	--	Tactical
773.10625 MHz (base/mobile) 803.10625 MHz (mobile)	--	Tactical
773.25625 MHz (base/mobile) 803.25625 MHz (mobile)	--	Calling
773.35625 MHz (base/mobile) 803.35625 MHz (mobile)	--	Tactical
773.50625 MHz (base/mobile) 803.50625 MHz (mobile)	--	Tactical
773.60625 MHz (base/mobile) 803.60625 MHz (mobile)	--	Tactical
773.75625 MHz (base/mobile) 803.75625 MHz (mobile)	--	Tactical
773.85625 MHz (base/mobile) 803.85625 MHz (mobile)	--	Tactical
774.00625 MHz (base/mobile)	--	Tactical



III. FCC Rules Governing Interoperability Channels



- ★ **47 CFR § § 90.525 and 90.531(b)(1)** cover use of interoperability channels in the 700 MHz band. Operation on these channels is limited only to interoperability communications.
- ★ **47 CFR § 90.617(a)(1)** covers use of interoperability (Mutual Aid) channels in the 800 MHz band. Operation on these channels is also limited only to interoperability communications.



Non-Interoperability Communications are Prohibited on These Channels





III. FCC Rules Governing Interoperability Channels



Summary of Rules on Interoperability Channels



47 CFR § 90.20(i)

- Lists interoperability channels
- Provides blanket authorization for mobiles and portables
- Requires separate licensing of base stations

47 CFR § 90.20(d)(80)

- Covers use of 150 MHz & 450 MHz interoperability channels
- Permits secondary use for non-interoperability communications

47 CFR § 90.525, 90.531(b)(1) & 90.617(a)(1)

- Covers use of 700 MHz and 800 MHz interoperability channels
- Prohibits non-interoperability communications



III. FCC Rules Governing Interoperability Channels



Interoperability Channels Below 700 MHz.

- Applicants are advised *not to use interoperability channels for day-to-day operations.*
- Day-to-day operation is *secondary* to interoperability use.
- Thus, day-to-day operations could be preempted when they are needed most.



III. FCC Rules Governing Interoperability Channels



47 CFR § 1.401– Petitions for Rulemaking

Any interested person may petition the Commission for the issuance, amendment or repeal of a rule or regulation.

The petition shall set forth the text or substance of the proposed rule, amendment, or rule to be repealed, together with all facts, views, arguments and data deemed to support the action requested, and shall indicate how the interests of petitioner will be affected.



III. FCC Rules Governing Interoperability Channels



PSHSB Staff Tips for Drafting a Petition for Rulemaking

- ★ Indicate which rule(s) you would like to add or modify
 - ➔ The rule permitting secondary use of interoperability channels?
[47 CFR § 90.20(d)(80)]
 - ➔ The rule permitting fixed base stations on interoperability channels?
[47 CFR § 90.20(i)]
- ★ Be specific how you would write any rule(s) you want modified or added.
- ★ Discuss how rule changes you propose will benefit the public safety community.



IV. Questions?

