

# Reconfiguration Along the U.S.-Mexico Border

Meeting in NPSPAC Region 3: Arizona

May 16, 2013



### Agenda



- Program Overview
- Recent Developments
- Preparing for Reconfiguration
- Phases of Reconfiguration
  - Planning and Negotiation
  - Reconfiguration Implementation
  - Closing
- Border Frequency Information and Band Plans
- TA Resources
- Q&A



### **Program Overview**

Public safety radio systems operating at 806-824 MHz/851-869 MHz — commonly known as "the 800 MHz band" — have been experiencing increasing levels of interference from commercial wireless carriers operating in the same or adjacent spectrum bands. Public safety systems have been and continue to encounter pockets of "dead zones" or have otherwise suffered from interference within their coverage areas.

Given the mission critical nature of public safety radio systems, the FCC ordered the reconfiguration of the 800 MHz band to avoid a potentially life-threatening problem where public safety communications equipment may be rendered inoperable.





### **Impacted Parties**

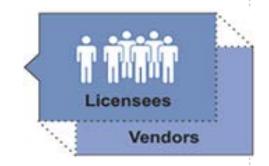
The FCC's 2004 Report and Order mandated specific requirements and responsibilities of the parties tasked with and impacted by 800 MHz band reconfiguration.



The FCC established the Transition Administrator (TA) as an independent party to oversee the administrative and financial aspects of reconfiguration. The TA is charged with facilitating reconfiguration in an expeditious, cost-effective manner with minimal disruption to licensees.



Sprint Nextel is responsible for paying the cost of relocating affected 800 MHz licensees to new frequencies with facilities comparable to those presently in use.



The FCC provided that costs (and other terms) would be determined via contracts between Sprint Nextel and licensees/vendors and that the TA would review and approve such agreements to ensure compliance with the FCC's orders and program guidelines.



### **Transition Administrator**

- The TA consists of Deloitte Consulting LLP, Squire Sanders (US) LLP, and Baseline Wireless Services, LLC.
- The TA is charged by the FCC to:
  - Facilitate reconfiguration of the 800 MHz band and the separation of public and private spectrum users.
  - Minimize disruption to licensees and the public.
  - Manage the reconfiguration program's schedule, processes, and policies.
  - Communicate with and educate impacted stakeholders.
  - Specify replacement channels for relocating licensees.
  - Facilitate and/or mediate negotiations, as needed.
  - Review and approve contracts between Sprint Nextel and individual licensees.
  - Work with licensees, Sprint Nextel, and vendors to monitor and manage licensee and regional implementation schedules.
  - Review the expenditures of Sprint Nextel and individual licensees.
  - Provide regular status reporting to the FCC and as part of the public record.
  - Certify the completion of band reconfiguration in each NPSPAC region.



# Recent Developments Mexican Border

#### **Program Milestone Dates:**

- On June 8, 2012, the United States and Mexico signed an Amended Protocol for sharing spectrum in the 800 MHz band along the U.S.-Mexico border.
- On August 17, 2012, the FCC issued a Notice of Proposed Rulemaking (NPRM) seeking comments on its proposed band plan along the U.S.-Mexico border.
- On April 1, 2013, the FCC released a Fifth Report and Order adopting a reconfigured channel plan for the 800 MHz band along the U.S.-Mexico border.
  - Established a 30-month transition period for licensees to complete rebanding that will begin on August 23, 2013.
  - Set forth timelines and procedures for planning, negotiations, and implementation of reconfiguration.



### **Preparing for Reconfiguration**

#### **Prepare now**

- The FCC encouraged licensees to begin preparing for reconfiguration <u>prior to</u> the start of the 30-month transition period that will begin on August 23, 2013.
- There are a number of non-frequency-dependent activities that you can initiate prior to receiving proposed replacement frequencies from the TA.

### Undertake the following activities to prepare for reconfiguration

- Ensure that the TA has your most current contact information by filling out a Point of Contact (POC) Form.
- Review and update your license information, particularly contact information, in the FCC's Universal Licensing System (ULS) database to ensure that it is correct and up-to-date.
- Review the Preparing for Mexican Border Reconfiguration Fact Sheet.
- Identify and contact vendors and/or consultants that can assist with the reconfiguration of your radio system.



### **Reconfiguration Costs**

- All reconfiguration costs, including those related to planning, must be negotiated with and approved by Sprint Nextel as part of either a Planning Funding Agreement (PFA) or a Frequency Reconfiguration Agreement (FRA) and approved by the TA.
- Funding for all licensee planning and reconfiguration activities should be approved by both Sprint Nextel and the TA in advance of incurring costs to ensure that they are reimbursable activities.
- The TA will approve reasonable and prudent expenses directly related to the retuning of an 800 MHz system for reimbursement.
- Licensees that have begun planning for the implementation of a system upgrade during reconfiguration should review paragraph 63 of the FCC's Fifth Report and Order and the TA's upgrade policy (available in the Reconfiguration Handbook). Upgrade proposals must comply with the TA's upgrade policy and are subject to TA approval.



### **Phases of Reconfiguration**

Planning and Negotiation Phase Reconfiguration Implementation Phase

xecuted

Contract

Closing Process Begins

Closing Phase

**Objective:** Develop plan for implementing the reconfiguration of your system and execute an FRA with Sprint Nextel

- Contact Sprint Nextel to initiate negotiations
- If necessary, complete
   Request for Planning Funding
   (RFPF) Form and submit to
   the TA and enter into a PFA
   with Sprint Nextel (may not
   be needed on smaller
   systems)
- Document Subscriber and Infrastructure facilities inventory
- Evaluate proposed frequencies
- Submit a Cost Estimate
- Negotiate the FRA

Objective: Replacement and retuning of subscriber equipment, retuning of base stations to new channels, commencement of new system operations, and additional post cutover system modifications

- Begin Implementation
   Planning & attend
   Implementation Planning
   Session (IPS)
- Reconfigure Subscriber units
- File application for license modification
- Request Sprint Nextel to clear frequencies
- · Reconfigure Infrastructure
- Complete system cutover
- · Complete acceptance testing

Objective: Complete Actual Cost Reconciliation and provide documentation needed for final payments and to "close" the FRA and fully complete the reconfiguration process

- Complete FCC license modifications and other filings
- Equipment Reconciliation
- Actual Cost Reconciliation
- Closing
- Maintain records and documentation



### **Planning and Negotiation Phase**

#### Planning and Negotiation Phase

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Closing Process Begins

Maintain records and documentation



### **Planning Funding**

### **Request For Planning Funding (RFPF)**

- The objective of the RFPF process is to determine all tasks and costs necessary to <u>plan</u> the reconfiguration of your radio system.
- The RFPF Form, together with supporting documentation, will serve as the basis for requesting funding from Sprint Nextel for reconfiguration planning activities.
- Determine the level of planning activities you expect.
  - Specific planning activities required will vary based on the size and scope of your system.
  - An RFPF and a Planning Funding Agreement are typically used for more complex systems and may not be needed for small or simple systems. If minimal planning costs are expected, they can be included in an FRA, if agreed to by Sprint Nextel.
- If you need funding to conduct planning activities, you should prepare and submit an RFPF Form on or before August 23, 2013. You may submit an RFPF prior to receiving your replacement frequencies.



### **Templates & Tools**

### Various templates and tools are available to assist in preparing an RFPF. These include:

- RFPF and Statement of Work (SOW) Template
- RFPF Instructions
- Sample RFPF Packages
  - Sample "completed" RFPF Forms and supporting SOWs for fictional licensees reconfiguring (a) a large/medium system, and (b) a small system.
  - These samples provide additional insight into the level of detail expected within this process. The samples are not intended to guide the licensee on what may be acceptable activities for their specific system or situation.
- Planning Funding Cost Metrics
  - The TA publishes a set of cost metrics that identify typical licensee planning costs and rates based on system size.
  - This information can assist stakeholders in preparing RFPFs and negotiating PFAs.



### **Planning Funding Agreement**

### **Planning Funding Agreement Negotiations**

- After submitting an RFPF, you will negotiate a PFA with Sprint Nextel.
- You and Sprint Nextel have 30 days to negotiate a PFA.
- If a PFA has not been submitted to the TA by the end of the 30 day period, you and Sprint Nextel will participate in mediation for 20 working days.

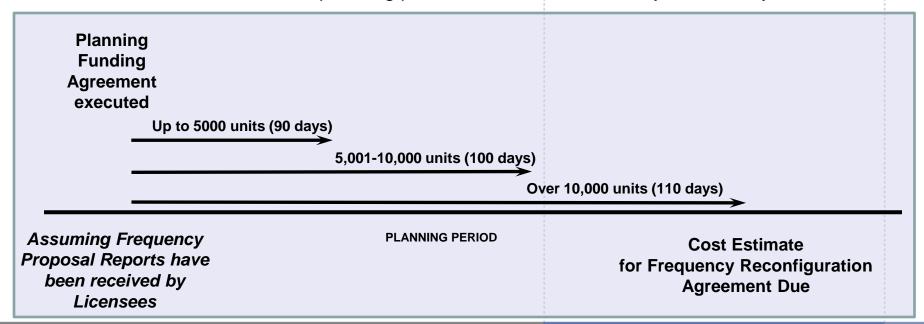
### **PFA Amendment Negotiations**

- If you already have a PFA and need to amend it to complete the planning process, you should submit a Change Notice. A Change Notice Form is available on the TA's website.
- After submitting a Change Notice, you will negotiate an Amendment to your PFA with Sprint Nextel.
- You and Sprint Nextel have 30 days to negotiate a PFA Amendment.
- If a PFA Amendment has not been submitted to the TA by the end of the 30 day period, you and Sprint Nextel will participate in mediation for 20 working days.



### **Planning Timeframe**

- After the TA approves your PFA or PFA Amendment, you will have 90 to 110 days, depending on the number of subscriber units in your system, to complete your planning activities and prepare and submit a Cost Estimate.
  - 5,000 or fewer subscriber units 90 days
  - 5,001 to 10,000 units 100 days
  - More than 10,000 units 110 days
- If you have not received Frequency Proposal Reports (FPRs) by the date the TA approves your PFA or PFA Amendment, the planning period will run from the date you receive your FPRs.





### Planning activities that can be conducted <u>prior to</u> receiving proposed replacement frequencies from the TA:

- Document subscriber unit inventory.
- Document infrastructure facilities inventory.
- Determine whether any of the equipment requires special considerations for reconfiguration. Examples include Vehicular Repeater Systems (VRS), irrigation systems, sirens, and equipment in nuclear power plants.
- Conduct non-frequency-specific engineering and implementation planning.
- Define your interoperability environment.

### Planning activities to conduct <u>after</u> receiving proposed replacement frequencies from the TA:

- Evaluate proposed new frequencies, including identifying combiner spacing issues.
- Conduct frequency-specific engineering and implementation planning.
- Prepare a Cost Estimate.





### During planning, you should prepare a Cost Estimate.

- A Cost Estimate is an estimate of the costs associated with the reconfiguration of your radio system. It defines in detail all of the costs required to reconfigure your system.
- If you have a complex system, you should also prepare a supporting SOW.
- Cost Estimate preparation and development should describe and define:
  - Subscriber Equipment Reconfiguration Costs
  - Infrastructure Equipment Reconfiguration Costs
  - Engineering and Verification Costs
  - Contracts and Legal Costs
  - All other costs required to reconfigure your system (i.e., meetings, conference calls, negotiations, mediation activities, etc.)
- Cost Estimates can include costs for licensee internal labor, vendors, consultants, and attorneys.



### **Templates & Tools**

### Various templates and tools are available to assist in preparing a Cost Estimate. These include:

- Templates
  - Cost Estimate (Schedule C) Template
  - Statement of Work Template
- Guidelines for Preparing a Cost Estimate
- FRA Cost Metrics
  - The TA publishes a set of cost metrics that identify statistical measures of licensee reconfiguration implementation costs and rates, based on system size.
  - This information can assist Public Safety licensees in the preparation of Cost Estimates and expedite the negotiation of FRAs.



### **Frequency Reconfiguration Agreement**

### **Frequency Reconfiguration Agreement Negotiations**

- After completing your planning activities and submitting a complete Cost Estimate to Sprint Nextel, you will negotiate a Frequency Reconfiguration Agreement with Sprint Nextel that will provide funding for your reconfiguration implementation and closing activities.
- You and Sprint Nextel have 30 days to negotiate a FRA.
- If an FRA has not been submitted to the TA by the end of the 30 day period, you and Sprint Nextel will participate in mediation for 20 working days.
- If you and Sprint Nextel do not reach agreement during the mediation period, the TA will refer any remaining disputed issues to the FCC.



# Reconfiguration and Implementation Phase

Closing Process Begins

Planning and Negotiation Phase

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- Evaluate proposed frequencies
- Submit a Cost Estimate
- Negotiate the FRA

Reconfiguration Implementation Phase

Objective: Replacement and retuning of subscriber equipment, retuning of base stations to new channels, commencement of new system operations, and additional post cutover system modifications

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Closing Phase

Objective: Complete Actual
Cost Reconciliation and
provide documentation
needed for final payments and
to "close" the FRA and fully
complete the reconfiguration
process

- Complete FCC license modifications and other filings
- Equipment Reconciliation
- Actual Cost Reconciliation
- Closing
- Maintain records and documentation



### **Guiding Principles**

### The Reconfiguration Implementation Phase will generally consist of the following activities:

- Attend an Implementation Planning Session (IPS)
- Reconfigure Subscriber Units
- File FCC Applications for License Modifications
- Sprint Nextel Clears Frequencies
- Reconfigure Infrastructure
- System Cutover
  - Some licensees may be required to move multiple times to support the migration plan
- Complete Acceptance Testing (if required)
- Second Touch of Subscriber Units (if necessary)



### **Closing Phase**

Planning and Negotiation Phase

Implementation Phase

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Closing Process Begins

Objective: Complete Actual
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You have not completed reconfiguration until all closing process activities required in your FRA are complete.

### For FRAs, the closing process consists of the following activities:

- License Modification Complete FCC Surrender Applications and Other Filings
  - The modification of your FCC licenses to delete or surrender your old frequencies.
  - Two additional FCC filings may need to be made in conjunction with reconfiguration.
    - Certification of Construction
    - Notice of Consummation

#### Equipment Reconciliation

- The true up of loaned, replaced, and replacement equipment.
- Return all loaned equipment and replaced equipment to Sprint Nextel (or in some instances, Motorola).
- Maintain accurate records of equipment returned.





### For FRAs, the closing process consists of the following activities continued):

- Actual Cost Reconciliation (ACR)
  - The true up of cost support documentation with amounts paid or to be paid by Sprint Nextel.
  - You must submit supporting documentation to Sprint Nextel evidencing the actual costs incurred (e.g., receipts, timesheets, and invoices).
  - Additional information is in the Actual Cost Reconciliation Fact Sheet.

#### Closing

- The preparation, execution, and delivery of the closing documents.
- You must sign an FRA Completion Certification.
- Sprint Nextel will forward all closing documentation to the TA, and the TA will register the reconfiguration as complete.

### Maintaining records and documentation

 You should retain all information related to reimbursable costs for reconfiguration for a minimum of 18 months after the closing of a FRA and longer if you typically retain records for longer.

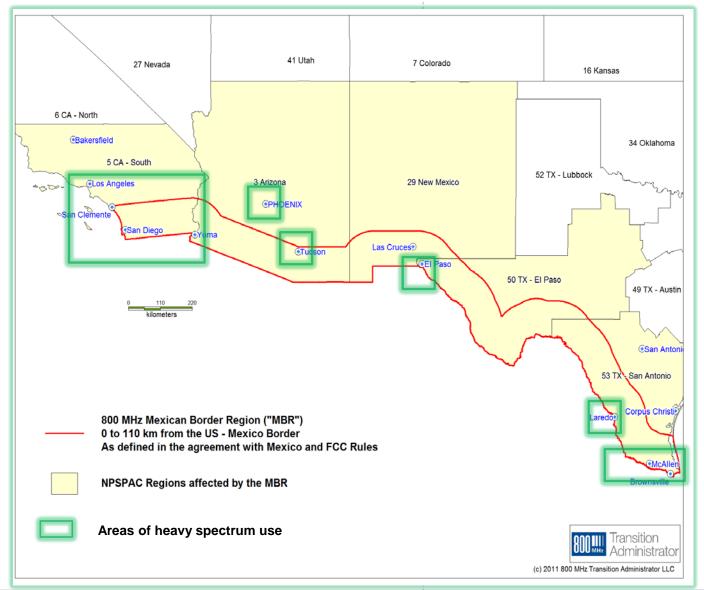


### **Border Frequency Information**

- Impacted Area
- Band Plans
- Reconfiguration Sequence
- Replacement Frequencies



### **Impacted Area**





#### **Border Band Plans**

- There are three distinct post-reconfiguration band plans for the NPSPAC regions along the U.S.-Mexico border
  - 1. Sharing Zone band plan used within 110 km of the U.S.-Mexico Border
  - 2. Outside the Sharing Zone in NPSPAC Region 5: Southern California
  - 3. Outside the Sharing Zone in NPSPAC Region 3: Arizona; Region 29: New Mexico; Region 50: Texas El Paso; and Region 53: Texas San Antonio



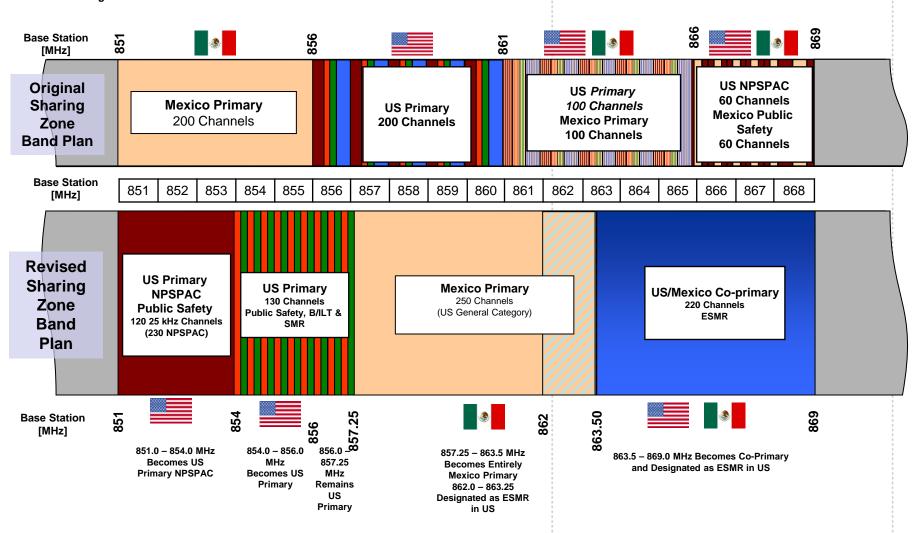
# U.S.-Mexico Sharing Zone Band Plan

- Sharing Zone (SZ) extends 110 km from the U.S.-Mexico border
- Single band plan for the entire SZ, within each of the five NPSPAC regions along border
- Offset channels (also called splinter channels) will no longer be used. Licensees will
  move to standard channels
- U.S. and Mexico will have contiguous blocks of spectrum
  - U.S. Primary = 806.0 to 812.25 / 851.0 to 857.25 MHz
  - Mexico Primary = 812.25 to 818.5 / 857.25 to 863.5 MHz
  - Co-Primary = 818.5 to 824.0 / 863.5 to 869.0 MHz (intended for ESMR use)
- All U.S. and many Mexican licensees in the SZ will have to change frequencies
  - Details on clearing in Mexico and cross-border coordination are still being worked out between the U.S. and Mexican governments



### Sharing Zone Band Plan Used For All Five NPSPAC Regions Along the Border

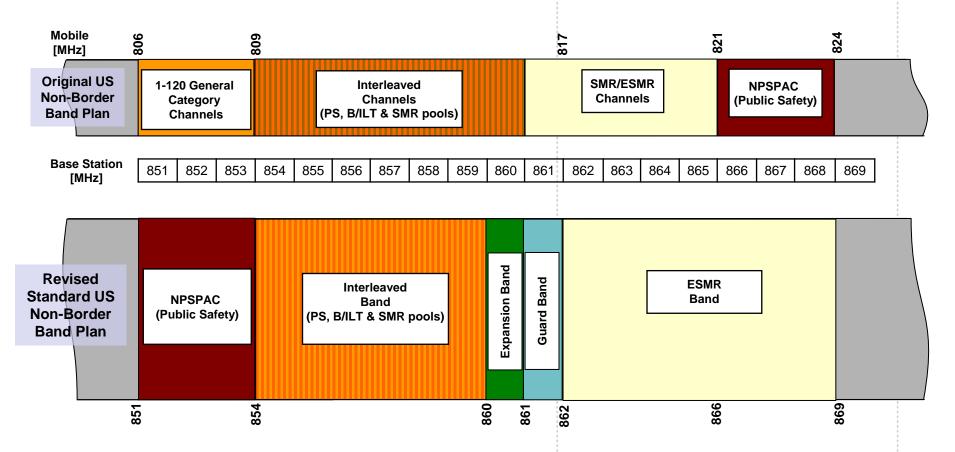
Channel counts based on 25 kHz channel-width and may include guard channels





### Standard US Band Plan

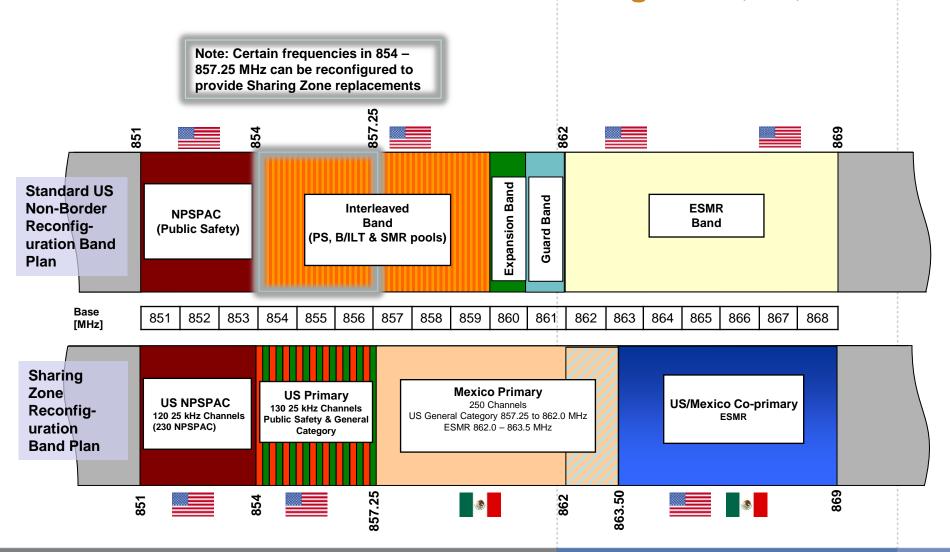
### Non-Sharing Zone: NPSPAC Region 3, 29, 50 & 53



- Public Safety licensees in the Expansion Band are reconfigured unless they elect to stay
- Public Safety licensees are not reconfigured into the Expansion or Guard Bands
- Licensees may elect to move into the Guard Band



# Sharing & Non-Sharing Zone Band Plans: NPSPAC Regions 3, 29, 50 & 53





# NPSPAC Region 3 General Implementation Sequence

### 1. Non-Sharing Zone (Non-SZ) licensees:

- a) 1-120 channels and a few 854.0-857.25 MHz channels are first to clear
  - i. Licensees will be provided replacement frequencies in the 857.25-861.0 MHz range that will be cleared ahead of their reconfiguration by Sprint Nextel
- b) With proper coordination, Non-SZ Public Safety licensees with non-NPSPAC (including Expansion Band) and NPSPAC frequencies in Region 3 should generally be able to reconfigure both bands of frequencies as a single step once the 1-120 Channels are cleared by B/ILT or SMR licensees

### 2. Sharing Zone (SZ) licensees:

- a) Reconfigure 856.0-866.0 MHz frequencies into 854-857.25 MHz
  - i. B/ILT and SMR licensees will be provided replacement frequencies that are either unblocked or that should be cleared relatively quickly by any blocking U.S. B/ILT or SMR licensees
  - ii. Some SZ Public Safety licensees will have to wait for their replacement frequencies to be cleared by other licensees before implementing their new frequencies
- b) With proper coordination, SZ Public Safety licensees should generally be able to move their NPSPAC frequencies when they move their 856.0-866.0 channels

Note: Non-SZ and SZ may be done in parallel, however frequency clearing in Mexico may impact the schedule for SZ licensees

3. ESMR licensees move up into 862.0-869.0 MHz



### **Replacement Frequencies**

- You will receive a Frequency Proposal Report (FPR) from the TA for every call sign that is reconfiguring
  - The FPR will identify replacement frequencies
  - Each FPR will also provide a unique URL (web address) that will provide online access to additional information and tools:
    - An analysis of your current co-channel environment
    - An analysis of your proposed co-channel environment
    - Tools to identify what U.S. licensees (if any) other than Sprint Nextel must clear your replacement frequencies before you can move to them
- Please start reviewing replacement frequencies as soon as you get them (e.g., for combiner spacing issues, VRS spacing issues, etc.)
- Contact the TA and Sprint Nextel immediately if you have concerns
  - The ability to change frequencies will be very limited
  - Issues raised late in the process, after other licensees start reconfiguring, will be especially difficult to resolve by changing replacement frequencies



### Replacement Frequency Comparability

### Comparability

Pursuant to the 800 MHz Report and Order, comparable facilities are those that will provide the same level of service as the licensee's existing facilities. The FCC has stated that comparable frequencies include:

- Equivalent channel capacity
- Equivalent signaling capability, baud rate, and access time
- Coextensive geographic coverage
- Equivalent operating costs

Licensees should keep in mind that the FCC requires that licensees receive comparable, not better, facilities, including frequencies. The FCC has also determined that reconfiguring licensees are not entitled to their choice of specific frequencies.

PLEASE NOTE: Licensees are responsible for determining comparability.

### Transition Administrator

### **TA Resources**

#### Take advantage of available reconfiguration resources:

- TA's Website: http://800ta.org/
- Mexican Border Region Webpage: <a href="http://800ta.org/content/resources/mexicoborder.asp">http://800ta.org/content/resources/mexicoborder.asp</a>
- Reconfiguration Handbook:
   <a href="http://800ta.org/content/resources/Reconfiguration\_Handbook.pdf">http://800ta.org/content/resources/Reconfiguration\_Handbook.pdf</a>
- Webinars: <a href="http://800ta.org/content/ipswebinars/">http://800ta.org/content/ipswebinars/</a>

### **Contact the TA with questions**

TA Contact Center: 1-888-800-8220 or comments@800ta.org





# Q&A

TA Contact Information: Sprint Nextel Contact Information:

Phone: 1-888-800-8220 Fax: 678-405-8252

Website: <u>www.800TA.org</u> Email: <u>800MHz@Sprint.com</u>

Email: comments@800TA.org

FCC's Website – 800 MHz Band Reconfiguration:

http://www.fcc.gov/pshs/public-safety-spectrum/800-MHz/reconfiguration.html