



# Support for LMCC Narrowbanding Initiatives

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# VHF/UHF (150-174, 421-512 MHz) Efficiency Requirements

## Equipment Certification/Sales

- Since 2/14/97: Certifications must include 12.5 kHz equivalent efficiency or better
- 1/1/2011: Can no longer certify, manufacture or import 25 kHz efficiency mode
- 1/1/2011: Certifications must include 6.25 kHz equivalent efficiency\* (Can be dual mode 12.5/6.25 kHz efficiency)

\* Except for hand-held transmitters with output power of 2 watts or less

## User Licensing/ Operation

- 1/1/2011: No new/expanded 25 kHz efficiency licenses issued
- 1/1/2013: All operations must be 12.5 kHz equivalent efficiency or better
- No 6.25 kHz or equivalent efficiency user requirements have been set yet

### Notes:

- Paging-only channels are exempt from narrowbanding rules
- FCC just reiterated dates in 4<sup>th</sup> MO&O, released 5/14/08



# Equivalent Efficiency at VHF/UHF

- **FCC mandates efficiency, not channel width**
- **Efficiencies that meet FCC certification rules for 2011:**
  - **2 voice paths in 12.5 kHz;**
  - **4 voice paths in 25 kHz;**
  - **1 voice path in 6.25 kHz**
  - **Data: 4800 bps per 6.25 kHz; 9600 bps per 12.5 kHz; 19200 bps per 25 kHz**
- **6.25 kHz and 6.25 kHz equivalent products are entering the low/mid-tier market**
- **P25 Phase 2 Standard under development**



# LMCC Request - Background

- **3rd MO&O & 3rd NPRM\* requires FCC WTB to issue Public Notice by 12/31/09 reminding**
  - **Licensees & FACs\*\* of 1/1/2011 deadline for filing new applications & modifications for any systems using 25 kHz efficiency mode**
  - **Licensees of 1/1/2013 deadline for migrating to 12.5 kHz efficiency mode or better**
- **All FCC-certified FACs members of LMCC**
- **FACs are responsible for overwhelming majority of applications subject to NB rules**
- **LMCC and its members want to ensure a smooth narrowband migration and licensing process for all licensees**

\* Released 12/23/04

\*\* Frequency Advisory Committees



# LMCC Request for Clarification PN

- **1/14/08: LMCC proposed FCC accelerate required PN and include clarified licensee compliance procedure to ensure**
  - A current and accurate database that reflects the bandwidth status of all licensees
  - A smooth NB migration
- **PN to remind licensees of**
  - 1/1/2011 12.5 kHz (e) application requirements for new systems and system modifications
  - 1/1/2013 12.5 kHz (e) operating requirements



# LMCC Request for Clarification PN

- **PN should also establish compliance procedures:**
  - **10 days after PN, new applicants/existing licensees who modify authorizations to meet NB requirements must use new radio service codes in their applications**
  - **Licensees operating 25/12.5 kHz dual mode equipment must ensure 25 kHz mode is disabled by 1/1/2013**
    - **Licensees may disable 25 kHz mode via software programming (rather than firmware or hardware changes) on most equipment**
    - **Licensees must submit certification by 2/1/2013 that 25 kHz mode was disabled**
  - **FCC to cancel licenses after 1/1/2013 if:**
    - **Licensee fails to meet NB deadline**
    - **Licensee meets NB deadline but fails to modify license to show new service code**
  - **FCC to issue another PN after 1/1/2013 which identifies license cancellations – reinstatement will require FCC approval of Petition for Reconsideration**



# TIA-PRS\* Request - Background

- To meet customer requirements, manufacturers have included both 25 and 12.5 kHz technologies in multi-mode equipment designed during last decade
- 25/12.5 kHz dual mode equipment is enabled primarily via software programming (rather than firmware or hardware changes)
- Need FCC to affirm that manufacturers are correctly interpreting the NB rules to ensure compliant products
- Licensees look to manufacturers to help them develop NB equipment migration plans
- Manufacturers have only 2 years to meet the 1/1/2011 deadline for
  - Manufacture and import of 25 kHz efficiency mode
  - Including 6.25 kHz efficiency mode in new certifications



# TIA-PRS Request for Clarification

- On 11/11/08, TIA-PRS asked FCC OET Chief to clarify that:
  - Manufacturers are compliant if they do not provide programming software capable of activating 25 kHz mode for equipment manufactured/imported after 1/1/2011
  - No changes to equipment certifications are required for equipment originally certified before 1/1/2011
    - Certifications remain valid as long as no 25 kHz technology programming is provided with equipment manufactured/ imported after 1/1/2011
    - If FCC does require changes to equipment certifications, such changes are to be treated as Class I permissive changes (modifications that do not degrade reported characteristics)
  - By exempting hand-held transmitters with output power of 2 watts or less from the 6.25 kHz (e) certification requirement after 1/1/2011, certification will continue to be granted if these handsets meet the 12.5 kHz (e) requirement
    - 90.203(j)(4) has this low power exemption; 90.203(j)(5) does not
    - Low power transmitters will only comply with 90.203(j)(3)



# TIA-PRS Call to Action

- On 11/11/08, TIA-PRS also issued letter to WTB and PSHSB Chiefs in support of LMCC 1/14/08 letter, urging them to issue proposed PN
- Both letters also request meeting(s) between TIA-PRS, LMCC and NPSTC representatives and
  - OET Chief to address the clarification issues raised by TIA-PRS
  - WTB and PSHSB Chiefs to address the clarification issues raised by LMCC
- The goal is to get a timely FCC decision

**LMCC and TIA-PRS urge the NPSTC Governing Board to support NPSTC participation in this initiative**