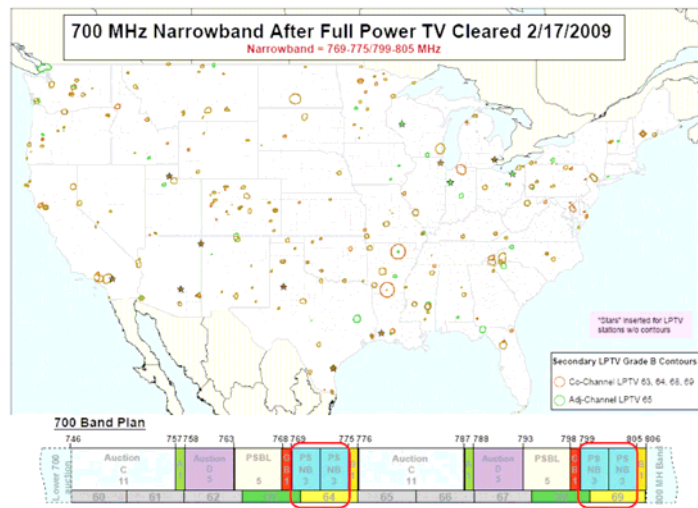


Low Power TV (LPTV): Avoiding Potential Interference from Secondary Users in the 700 MHz Band

Full power analog TV stations are required by law to vacate the 700 MHz band no later than February 17, 2009; however, there is no wholesale requirement to clear low power TV stations (LPTV), TV translators, ad hoc auxiliary broadcast operations, or wireless microphones from the band. Under the Federal Communications Commission (FCC) rules, these uses have secondary status to public safety users. Unfortunately there is a



potential risk of harmful interference to public safety from these secondary users. An entity with secondary status must resolve the interference it causes to primary users or discontinue operation. Public safety communications involve safety of life and therefore licensees cannot afford to wait until interference exists but must eliminate the potential for interference before it occurs. Public safety agencies need to notify LPTV and TV translator licensees of any 700 MHz operations they plan to deploy. The notifications would be targeted to LPTV and TV translator stations on conflicting channels within interference range of pending public safety deployments and would advise these licensees of the need to move to an alternative channel. The National Public Safety Telecommunications Council (NPSTC's) 700 MHz Advocacy Working Group has been studying this issue and has released an informational paper, with a template letter and additional analysis and resources for addressing the risk of interference from LPTV and other secondary sources in your area. The package, *Maximizing Availability of the 700 MHz Band*, is available at www.npstc.org.

LPTV and TV Translator Notification

The FCC is supporting the NPSTC efforts and recommends that notifications for relevant LPTV and TV translator stations occur 9 to 12 months prior to actual operation of a 700 MHz public safety system. LPTV stations need this time to find a viable alternative channel and to obtain authorization from the FCC to use it. The map below depicts the LPTV stations in the narrowband segment of the 700 MHz band. While different LPTV stations impact the broadband spectrum, the maps are similar. A full set of maps and station counts for all segments of the 700 MHz public safety spectrum are included in the package referenced above on the NPSTC web site.

TV Broadcast Auxiliary Operations

Broadcasters are allowed to use spectrum not occupied by TV for broadcast auxiliary operations, including wireless microphone use in support of broadcast operations, as well as permanent and temporary fixed links. These operations, which occur on an ad hoc basis are coordinated through the Society of Broadcast Engineers (SBE); therefore,

SBE coordinators also need to be made aware of 700 MHz public safety systems so they can avoid any proposed auxiliary operations that would conflict with public safety systems.

Unlicensed Use

In addition to broadcast and auxiliary uses licensed “by rule,” churches, schools, bands, businesses, and others use wireless microphones in this spectrum. While not authorized under the rules, these wireless microphones are nonetheless prevalent in the market. Some wireless microphone manufacturers have designed new products that avoid the 700 MHz band; however, there is a significant embedded base of wireless microphones already in the market and some operate at 700 MHz. These are low power and pose a limited interference potential but still must be addressed. NPSTC is having additional discussions with microphone manufacturers and the FCC to determine viable ways to address the wireless microphone issue.

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