

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of Public Notice on “Spectrum)
Policy Task Force Seeks Public Comments) ET Docket No. 02-135
On Issues Related to Commission’s) DA 02-1311
Spectrum Policies”)

To the Commission:

**COMMENTS BY THE STATE OF ARIZONA
TO THE PUBLIC NOTICE**

Submitted By:

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Dated: July 8, 2002

INTRODUCTION

The Arizona Department of Public Safety (ADPS) is filing Comments on Public Notice ET-02-135, DA 02-1311; “Spectrum Policy Task Force Seeks Public Comment on Issues Related to Commission’s Spectrum Policies.”

ADPS , speaking for the State of Arizona, maintains the lead role in Arizona State radio communications, pursuant to Arizona Revised Statute 41-1749A. This Department bids, engineers, licenses, installs, and maintains radio systems for 14 State Governmental entities in Arizona, including the following:

Department of Administration	Agriculture Department
Army National Guard	Capitol Police
Department Of Correction	Department of Economic Security
Emergency Services Division	Game and Fish Department
Land Department/Forestry Division	Liquor License and Control
State Parks Board	Department of Transportation

Several of these agencies each have over 2000 mobile and portable radios, and over 30 base/mobile relay stations on various mountaintop repeater sites. Radios maintained by the ADPS exceed 10000 units. These entities have radio license eligibility in the Public Safety radio service. The ADPS assists each of these agencies in obtaining licenses for new sites or frequencies as required. The ADPS maintains over 500 licenses for the user agencies under Parts 90 and 101. The ADPS has had this lead role in Arizona State radio communications systems since its inception in 1969.

COMMENTS:

We believe that there are two key issues in spectrum management for the nation's public safety community. First, is spectrum availability. The second is spectrum security and freedom from interference.

SPECTRUM AVAILABILITY:

There are several major issues affecting public safety spectrum availability.

First is the 700 MHz issue. Although this spectrum was allocated to public safety over 5 years ago, there is still no access, and may not be even after the television cutover date of January 1, 2006. Even the State licenses, which have already been granted in advance of completion of regional plans, are useless. In Arizona, where there are no high power UHF broadcasters on channels 63-64/68/69, we are not allowed to assert our primary status over the so-called "Low Power" UHF TV stations (Low Power in the Phoenix metro area is up to 80 KW ERP). Several immediate changes MUST be made to the 700 MHz allocation. First, new construction licenses for these public safety channels should be immediately revoked. Secondly, low power and translator stations should be given a one-year evacuation notice from the public safety channels. No secondary television operation should be allowed after July 1, 2003. Thirdly, the FCC MUST state that January 1, 2006 is a hard and fast date, after which NO television stations will be allowed to operate on the public safety channels.

Public safety also requires adequate VHF (150-174 MHz) and UHF (450-512 MHz) spectrum for wide-area systems for which propagation at 700/800 MHz is not adequate. In the early 1990's, "Spectrum Refarming" was supposed to provide new spectrum through channel bandwidth narrowing. Although manufacturers were mandated to produce equipment capable of narrowband operation (12.5 KHz in phase I, and 6.25 KHz in phase II) , no date-certain for required narrowband operation was made. As a consequence, most stations on UHF still operate on 20 KHz bandwidths (25 KHz channels) and on VHF at 16 KHz bandwidths (15 KHz channels) . The time has long passed when we can afford to allow grandfathered systems to continue to occupy double bandwidth channels in our crowded metropolitan areas. The Commission needs to set a date-certain that, in the nation's top 20 metropolitan areas, all operations wider than 12.5 KHz bandwidths will become secondary.

A related VHF/UHF issue is spectrum sharing with the nation's military. A number of proposals have been offered for sharing of VHF spectrum in 138-144 MHz. These negotiations need to be pressed to allow immediate public safety access to at least a portion of this spectrum with 12.5 KHz bandwidths. Similar sharing should be initiated in the 406-420 MHz spectrum. There is long term precedence for spectrum sharing with military operations. The military and the amateur radio communities have shared similar popular UHF spectrum for decades with no particular problems (420-450 MHz). In Arizona, amateurs extensively utilize the 420-450 MHz spectrum around Ft. Huachuca, the nation's top military radio listening station. With reduced power amateur radio operation (50 watts transmitter power), no cases of interference from the amateur community to military operations are known to exist.

SPECTRUM SECURITY & INTERFERENCE MITIGATION:

Interference from digital commercial operations, primarily common carrier systems, has become a major issue in the past few years, seriously compromising the security of many of the nation's 800 MHz public safety radio networks. It simply is not acceptable for municipalities to invest hundreds of millions of dollars in 800 MHz systems, only to find that there are a number of areas

where operations within a radius of half a mile or more of a common carrier tower cannot be carried out.

The PSWAC report to the Commission on the public safety spectrum needs through 2010 indicated a need for an additional 125 MHz of spectrum. Even with the newly allocated (but not usable) 4.9 GHz spectrum, public safety is still short of meeting its needs in 2010. Although voice operations are becoming more narrowband, new needs and applications are arising monthly, requiring greater spectrum in public safety to protect the populace from the new threats which arise with ever increasing frequency. We recommend a thorough review of the VHF 174-213 MHz television spectrum usage, and a determination if a portion of it can be allocated to public safety operations after digital television has made the transition to UHF channels in most major metropolitan areas. Also, we recommend a review of what has taken place in public safety spectrum allocations over the past 5 years, to assure that the spectrum needs are being met for 2010.

Curt Knight, Manager
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