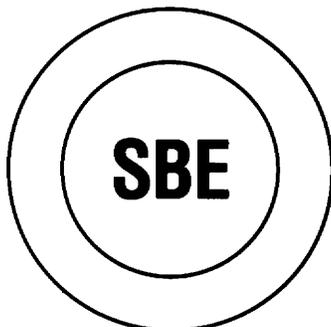


***Ex Parte* Comments of the
Society of Broadcast Engineers, Inc.**

**WT Docket 00-32
4.9 GHz Public Safety Operations**

July 23, 2002

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SOCIETY OF BROADCAST ENGINEERS, INC.
Indianapolis, Indiana

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of)
)
The 4.9 GHz Band Transferred From) WT Docket No. 00-32
Federal Government Use)
)
)
)

To: The Commission

Comments of the Society of Broadcast Engineers, Inc.

The Society of Broadcast Engineers, Incorporated (SBE), the national association of broadcast engineers and technical communications professionals, with more than 5,000 members world wide, hereby respectfully submits its *ex parte* comments in support of the Petitions for Reconsideration filed by the Los Angeles County Sheriff's Department ("LASD") and by Microwave Radio Corporation ("MRC") to the above-captioned rulemaking relating to public safety use of 4,940–4,990 MHz.

I. Airborne Operation for 4.9 GHz TVDLs Is Imperative

1. LASD and MRC both ask the Commission to reconsider the decision in the February 27, 2002, Report & Order ("R&O") to this proceeding, to prohibit airborne operations by public safety users. This restriction eviscerates the usefulness of the 4,940–4,990 MHz public safety band ("4.9 GHz band") for Tactical Video Down Link ("TVDL") use, because such relays are often used from police (and Sheriff) helicopters. The LASD and other public safety agencies currently must use the 2.5 GHz band for TVDL operations, and this band is shared with the TV Broadcast Auxiliary Services ("BAS"), with Private Operational Fixed Service ("POFS") users, and is also used by Industrial, Scientific and Medical ("ISM") devices. The conflict arises when a breaking news event that draws electronic news gathering ("ENG") stations also has a public safety operator such as LASD needing to use the same frequencies for TVDL. Accordingly, SBE is on record as supporting a dedicated microwave band for use by public safety, and agrees with MRC and LASD that use of the 4.9 GHz band by public safety should not be crippled by prohibiting airborne operations.

**SBE *Ex Parte* Comments in Support of MRC and LASD Petitions for
Reconsideration: WT Docket 00-32, 4.9 GHz Public Safety Operations**

2. SBE agrees with MRC that the use of a steerable, directional antenna, limitations on geographical deployment to protect the limited number of radio astronomy observatories, restrictions on maximum flight altitude while radiating, and, of course, frequency coordination, will be adequate to ensure that airborne TVDL operations do not cause interference to, or receive interference from, other users. SBE also agrees with both MRC and LASD that the Part 2 Table of Allocations should be more liberally amended to allow mobile and airborne operations in the entire 4,940–4,990 MHz band. SBE agrees with MRC that restricting airborne operations to a subset of the 4.9 GHz band, namely 4,940–4,950 MHz, which is not used by radio astronomy, would not provide sufficient spectrum for TVDL use in large population centers such as Los Angeles, where it is entirely possible that simultaneous use of more than one TVDL would be needed.

3. If airborne operations for public safety use of the 4.9 GHz band are not allowed, then TVDL operations will need to stay at 2.5 GHz and 6.5 GHz, and the frequency congestion problem with BAS ENG, also wanting to use those very same frequencies, often at the very same time and in the very same location, because any event requiring public safety TVDL is virtually guaranteed to also be an event warranting news coverage, would not be eliminated. In this regard, SBE urges that the Commission go a step further, and requests that if the Commission does reconsider its decision in the WT 00-32 R&O, and allows airborne public safety use of 4.9 GHz, that it then issue a Further Notice of Proposed Rulemaking (“FNPRM”) that would require public safety users to vacate the 2.5 GHz and 6.5 GHz bands and use the 4.9 GHz band exclusively, subject to a two-year transition period to allow public safety users to replace their 2.5 GHz and 6.5 GHz radios with 4.9 GHz radios. SBE notes that one advantage of a public safety transition out of 2.5 GHz and 6.5 GHz, to 4.9 GHz, is that the new hardware will undoubtedly be digitally modulated, most likely using highly robust coded orthogonal frequency division multiplexing (“COFDM”), and that the analog-to-digital conversion necessary for such transmissions can be made secure from inadvertent, or even unauthorized, viewing, by using security algorithms when digitally compressing the video signal for transmission. Thus, the current problem of airborne FM video analog public safety transmissions in the shared 2.5 GHz and 6.5 GHz bands being inadvertently received by TV BAS receive sites would be eliminated.

**SBE *Ex Parte* Comments in Support of MRC and LASD Petitions for
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II. Summary

4. SBE supports the MRC and LASD petitions for reconsideration, and urges the Commission to eliminate the restriction on airborne operations for 4.9 GHz TVDLs. SBE further urges the Commission to issue a FNPRM that would require, after a two-year transition period, public safety TVDLs only be allowed in the 4.9 GHz band, and no longer allowed in the now shared 2.5 GHz or 6.5 GHz TV BAS bands.

Respectfully submitted,

Society of Broadcast Engineers, Inc.

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