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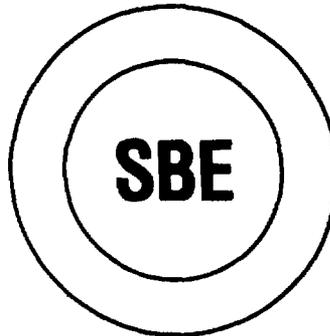
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

**Reply Comments of the
Society of Broadcast Engineers, Inc.**

**ET Docket 97-214
MSS Access to the
455-456 MHz BAS Band**



December 22, 1997

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SOCIETY OF BROADCAST ENGINEERS, INC.
Indianapolis, Indiana

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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DEC 22 1997

In the Matter of)
)
Amendment of Part 2 of the) ET Docket No. 97-214
Commission's Rules to Allocate the)
455-456 MHz and 459-460 MHz Bands)
to the Mobile-Satellite Services)

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: The Commission

Reply 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 in the United States, hereby respectfully submits its reply comments in the above-captioned Notice of Proposed Rulemaking ("NPRM") relating to allocation of 455-456 MHz frequencies to the Mobile-Satellite Service ("MSS").

**I. Majority of Comments Oppose
Reallocation of 455-456 and 459-460 MHz to MSS**

1. SBE notes that the docket record in this proceeding shows comments by 19 parties as of December 10, 1997, when the records were accessed in the Commission's Record Image Processing System ("RIPS"). Sixteen of these comments OPPOSE the proposed re-allocation. Only three commenters, Leo One USA Corporation ("Leo One"), Orbital Communications Corporation ("Orbital"), and Final Analysis Communication Services, Inc. ("Final Analysis") support the proposal, and not surprisingly these three commenters are all MSS entities. Although a re-allocation of 455-456 MHz and 459-460 MHz frequencies to allow MSS access on a co-primary basis would certainly benefit these MSS parties economically, such re-allocation would not be in the overall public interest because of the interference such re-allocation would cause to incumbent users. The lop-sided number of comments documenting the multiple reasons why the proposed re-allocation must not happen should, by itself, tell the Commission that this is an ill-advised plan.

II. Joint MSS Parties Should Not Obtain Benefit from Their Ill-Gotten Gains

2. Orbital and Leo One both claim that use of 455-456 MHz Broadcast Auxiliary Service ("BAS") frequencies for MSS use would be "consistent with past FCC and U.S. Government

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positions at the 1995 World Radiocommunications Conference ("WRC-95") concerning allocation of this spectrum." This is a highly misleading statement. As documented in the initial SBE comments, the FCC position regarding 455-456 MHz was created in violation of the Administrative Procedures Act ("APA"), as a result of the Commission accepting the late-filed "Joint Supplemental Reply Comments" of the "Joint MSS Parties" to IB Docket 94-31, the purpose of which was to establish the U.S. position for WRC-95. This was the **FIRST TIME** the issue of using 455–456 MHz was raised for earth-to-space MSS feeder and service uplinks; the prior and timely filed comments to IB Docket 94-31 had focused on 2 GHz spectrum issues, and not the issue of what frequency bands should be used for uplinking.

3. Because the Commission failed to place the Joint Supplemental Reply Comments on public notice for a further round of comment, so that all interested parties would be afforded their rights under the APA, or, alternatively, to simply dismiss the Joint MSS Parties' comments as grossly late filed, SBE was not able to file its rebuttal comments before the Commission issued its WRC-95 Final Report. Although SBE attempted to compensate for this denial of due process by the FCC, by writing the State Department directly, pointing out the numerous technical errors in the Joint Supplemental Reply Comments of the Joint MSS Parties, this proved unfruitful when the State Department responded stating that it was bound by the FCC Order. Thus, it would now be wildly unfair to allow Orbital and Leo One to benefit from their ill-gotten gains, by giving the false impression that the U.S. Government position at WRC-95 was a second, independently-derived technical decision, as opposed to a mere parroting of an FCC position obtained without due process.

III. MSS Characterization of "Lightly Used" 455–456 MHz Spectrum is Simply Wrong

4. At Page 6 of the Final Analysis comments, it claims that "use of the 455–456 MHz band for remote mobile communications in the broadcast [auxiliary] services is neither heavy nor continuous." This is simply wrong. SBE respectfully reminds the Commission of the 14 pages of 455–456 MHz BAS licensees it submitted as part of its comments; and these listings were for only two areas of the country (Southern California and Dallas-Ft. Worth, Texas). Those two exhibits dramatically support the contention of the majority of the comments that the 455–456 MHz band is anything but "lightly used."

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IV. MSS Conclusions of "No Harm to Incumbent Users" are Not Credible

5. And at Page 7 of its comments, Final Analysis claims that non-voice non-geostationary ("NVNG") MSS service uplinks on 455–456 MHz can be structured so as to not cause harmful interference to incumbent users or constraining future use of the band for BAS. SBE submits that the initial comments filed not only by SBE but also by the National Association of Broadcasters ("NAB"), ABC, Inc. ("ABC"), and several other parties with BAS expertise and experience demonstrate that the Final Analysis claims are simply wrong. For example, 455 MHz "P" channels are used for telemetry return links ("TRL") and have continuous duty cycles, and the scanning telemetry activity receiver system ("STARS") supposedly allowing "polite-protocol" dynamic channel activity assignment system ("DCAAS") interference-avoiding techniques are unlikely to be able to even recognize the presence of wide-band, high-fidelity remote broadcasts using 50 kHz wide R-channels or 100 kHz wide S-channels or to hear certain low-powered "handie-talkie" RPU transmissions. Any party with any practical experience with 455–456 MHz BAS Remote Pickup ("RPU") channels knows that these channels are heavily used during the morning and afternoon drive times, both by traffic reporting services and TV station news departments. And in the top-Ten markets, they are heavily used during virtually the entire day.

V. One Claimed Use of NVNG MSS Rebutted by LMCC Comments

6. At Page 3 of the Final Analysis comments, the claim is made that "automated meter reading" is one of the applications for NVNG "Little LEO" MSS, and presents this use as one of the public interest justifications for allowing MSS access to 455–456 and 459–460 MHz. SBE notes that this supposed application is rebutted at Page 4 of the Land Mobile Communications Council ("LMCC") comments opposing the re-allocation. The LMCC comments noted that one of its members is UTC, "the national representative on communications matters for the nation's electric, gas, and water utilities, and natural gas pipelines," and that UTC found that "few, if any, of its members have expressed any interest in utilizing Little Leos for that application."

VI. Lesson for Future Spectrum Sharing Proposals: The Horse Must Always Go Before the Cart

7. In the future, SBE respectfully submits that the Commission should first explore the ground rules and technical parameters for band sharing before issuing a proposal to in fact implement such spectrum sharing. SBE cannot help be struck by how clearly this NPRM got

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the “cart before the horse.” SBE certainly does not automatically take the position that spectrum sharing by newcomer users must always be opposed (for example, in Attachment B to the SBE comments, at Page 4, the possibility of SBE not objecting to shared use of the 450 and 455 MHz RPU bands was acknowledged, if certain technical safeguards were to be adopted). But SBE has yet to see the Commission or the MSS parties address these technical concerns. SBE urges that in future rule makings the Commission first require proponent newcomers to demonstrate that they have engaged in talks/discussions/explorations with industry groups with demonstrated expertise in the targeted band(s); in effect, the Commission should first require the proponent to submit a “frequency allocation environmental impact report” showing that it has done its homework and that a technically credible proposal is being made.

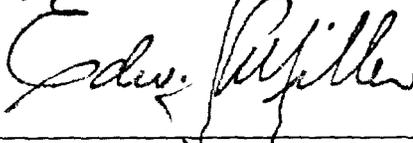
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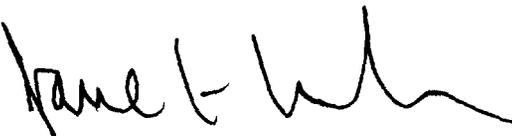
VII. Summary

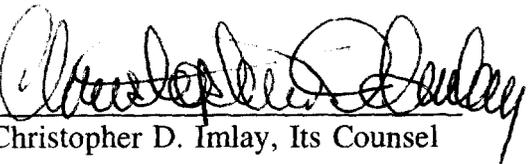
8. SBE believes that the comments to this proceeding present a clear and overwhelming record that the proposed re-allocation of 455-456 and 459-460 MHz for shared use by MSS feeder and service uplinks would not be a compatible use, would cause interference to the existing users of those bands, and would not be in the public interest. SBE urges the Commission to not allow MSS access to these heavily used bands.

Respectfully submitted,

Society of Broadcast Engineers, Inc.

By 
Edward Miller, CPBE
President

By 
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December 22, 1997

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