

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

|                                    |   |                      |
|------------------------------------|---|----------------------|
| In the Matter of                   | ) |                      |
|                                    | ) |                      |
| Expanding Flexible Use in Mid-Band | ) | GT Docket No. 17-183 |
| Spectrum Between 3.7 and 24 GHz    | ) |                      |
|                                    | ) |                      |
|                                    | ) |                      |
|                                    | ) |                      |

To: The Commission

**Reply Comments of EIBASS**

Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (EIBASS) hereby respectfully submits its reply comments to the above-captioned Notice of Inquiry (NOI) relating to possible new shared use of "mid-band" microwave spectrum between 3.7 and 24 GHz.

**I. EIBASS Agrees with the NSMA Comments**

1. EIBASS fully agrees with the comments filed by the National Spectrum Management Association (NSMA): Opening of heavily used microwave bands at 6 and 7 GHz, which would include the 6,425–6,525 MHz and 6,875–7,125 TV Broadcast Auxiliary Services (BAS) bands, is an idea fraught with interference risks to incumbent users.

2. NSMA correctly notes that in shared fixed microwave service bands

...since interfering transmitter characteristics and locations are well known, interference prediction is now standardized.<sup>1</sup>

For this reason the recently authorized shared use of the 6,875–7,125 MHz "7 GHz" Part 74, Subpart F, TV BAS band with Part 101 Fixed Service (FS) microwave stations, as created in the WT Docket 10-153 "BAS Flexibility" rulemaking, has been a success. However, opening these bands to many Part 15, unlicensed mobile and/or itinerant users would be a recipe for disaster. While the 7 GHz TV BAS band is used by both fixed, point-to-point stations such as TV studio-to-transmitter links (STL) and Inter City Relay (ICR) stations, and also mobile TV Pickup (electronic news gathering, or ENG) stations, this mixture of fixed link and mobile stations in the same band only works because all are licensed stations, and all

---

<sup>1</sup> NSMA comments, at page 6.

## **EIBASS Reply Comments: GT Docket 17-183, Expanded Use of Mid-Band Microwave Spectrum Between 3.7 and 24 GHz**

licensees are linked users: TV stations, Broadcast Network Entities (BNEs), and Cable Network Entities (CNEs). These shared industry users have a strong incentive to carefully limit their use of mobile TV Pickup stations in markets with same band fixed STL and ICR stations, and to cooperate with each other, often with sophisticated, real-time or near real-time frequency coordination. This incentive to minimize interference and industry-supported frequency coordination by the Society of Broadcast Engineers, Inc. (SBE), would be missing should the 7 GHz TV BAS band be opened to non-broadcast mobile licensees. The interference threat would be even more severe (and obvious) if opened to Part 15 Subpart E Unlicensed National Information Infrastructure (U-NII) users.

### **II. EIBASS Also Agrees with Portion of NAB Comments Warning of Interference to 6.5 and 7 GHz TV BAS Band Licensees**

3. The National Association of Broadcasters (NAB) similarly expresses concern about opening the 6.5 and 7 GHz TV BAS bands to unlicensed mobile devices, where NAB so aptly states

The Commission's first priority should be to avoid creating irreconcilable interference issues that undermine the value of spectrum to both incumbents and new users. Particularly in bands that are already extensively used, the Commission should take care to protect incumbent operations by allowing expanded operations only if they are technologically compatible and can realistically co-exist with those incumbent operations.<sup>2</sup>

EIBASS believes that this is a null set; that is, there would be no way to credibly protect incumbent users from chronic interference caused by a plethora of newcomer users; especially if they are Part 15, unlicensed users. Although Section 15.5(b) of the Part 15 rules<sup>3</sup> states that Part 15 devices must not cause interference to any licensed users, and further are not protected from interference caused by licensed users, EIBASS believes that

---

<sup>2</sup> NAB comments, at page 1.

<sup>3</sup> The exact language is

(b) Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.

## **EIBASS Reply Comments: GT Docket 17-183, Expanded Use of Mid-Band Microwave Spectrum Between 3.7 and 24 GHz**

this is the most violated all FCC Rules. In part because only Commission representatives, and not Commission licensees, have standing to enforce this rule.

### **III. Summary**

4. EIBASS believes that this NOI is breathtaking in its ill-advised concept of band sharing in heavily used microwave spectrum by new users with no inherent compatibility or sophistication. It is a recipe for obvious spectrum chaos that should not be pursued.

Respectfully submitted,

/s/ Dane E. Ericksen, P.E., CSRTE, 8-VSB, CBNT  
EIBASS Co-Chair  
Consultant to Hammett & Edison, Inc.  
Sonoma, CA

/s/ Richard A. Rudman, CPBE  
EIBASS Co-Chair  
Remote Possibilities  
Santa Paula, CA

November 11, 2017

EIBASS  
18755 Park Tree Lane  
Sonoma, CA 94128  
707/996-5200  
dericksen@h-e.com