HARRIS,
WILTSHIRE &
GRANNIS LLP

1200 EIGHTEENTH STREET, NW
WASHINGTON, DC 20036

TEL 202.730.1300 FAX 202.730.1301
WWW.HARRISWILTSHIRE.COM

ATTORNEYS AT LAW

July 30, 2007

Ex Parte

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: TV White Spaces Proceeding, ET Docket Nos. 04-186, 02-380

Dear Ms. Dortch:

In its ex parte letter of June 27, 2007, the Sports Technology Alliance ("Sports Alliance") quite rationally seeks to ensure that high quality sports programming is unaffected by this proceeding. The White Spaces Coalition[1] shares this goal. However, contrary to the Sports Alliance's contention, the Commission need not choose between sports broadcasts and new, innovative broadband services enabled by personal/portable white space devices. Indeed, the fears that have been raised by the Sports Alliance are completely unfounded.

In addition to respecting the public's demand for high quality sports programming, the Coalition has substantial economic incentives to ensure the continued availability of high quality broadcast sports events. Indeed, some Coalition members are investing in the public's desire for high-quality sports programming by manufacturing and selling high definition television sets. Further, since the FCC would require marketing of white space devices to cease if the devices interfered with sports broadcasting, the Coalition would suffer significant financial harm. Therefore, the Coalition is strongly motivated to protect all incumbents from harmful interference.

The Sports Alliance's predictions, although long on scare, are short on substance. The Sports Alliance ignores the protections the Coalition's operating parameters provide for wireless microphones; bases its assertions solely on rhetoric, offering no scientific information to support its claims; and does not acknowledge that the FCC is already rigorously testing prototype white space devices to ensure that the very concerns the Sports Alliance raises will not occur.

---

[1] The White Spaces Coalition's members include Dell, Inc., EarthLink, Inc., Google, Inc., Hewlett-Packard Col, Intel Corp., Microsoft Corp., and Philips Electronics North America Corp. (hereafter the "Coalition").

The Sports Alliance ignores the many interference protections the Coalition has integrated into its proposed operating parameters for portable devices.[2] For example, the Sports Alliance's scenarios assume portable white spaces devices would consistently transmit at 100 milliwatts,[3] even though the actual devices the Coalition has proposed would use transmit power control to ensure that the device would always transmit at the lowest power required for reliable communication.[4] This means white space devices in most instances will transmit far below 100 milliwatts, and in some cases below 1 milliwatt. The Sports Alliance also dismisses spectrum sensing as an unproven interference protection method[5] even though many wireless microphones themselves use spectrum sensing to find clear channels on which to transmit.[6] This fact alone, contrary to the claims of the Sports Alliance, proves that the wireless microphone industry believes spectrum sensing is a workable and proven technology. In short, the distressing scenario posited by the Sports Alliance does not fully credit the protections provided by Coalition's proposed devices.

In addition to ignoring the technical specifications of proposed white space devices, the Sports Alliance provides no technical support for its own assertions that portable white space devices would wreak havoc on the coordination and use of wireless microphones. For example, the Sports Alliance asserts that portable devices will potentially cause interference for "kilometers"[7] and that portable devices "down the street" from a licensed wireless microphone somehow would be unable to detect the microphone's signal.[8] However, nowhere does Sports Alliance provide any technical basis for such claims. Indeed, the majority of its letter discusses only the importance of wireless microphones and the need for coordination and protection from harmful interference -- without ever providing any substantive analysis as to why devices operating under the parameters proposed by the Coalition would be insufficient to protect wireless microphones. Devices that use the Coalition's proposed operating parameters—which include scanning to confirm channel vacancy before transmitting and re-scanning the channel every 60 seconds thereafter to re-determine channel vacancy[9]—will protect wireless microphones and will not interfere with microphone users coordinating their signals with either over-the-air television signals or with other wireless microphone signals.

---

2 *See* Coalition Reply Comments at 5-8 (Mar. 2, 2007).

3 *See* Sports Technology Alliance ex parte, attachment at 2 (June 27, 2007) ("Sports Alliance ex parte").

4 *See* Coalition Reply Comments at 5 (Mar. 2, 2007).

5 *See* Sports Alliance ex parte, attachment, at 3.

6 *See* http://www.shure.com/ProAudio/Products/us_pro_ea_wireless_freq_help (All of Shure's current wireless systems are frequency-agile.") (last visited June 29, 2007); Shure's Audio System Guide for Theater Performance, at 23, available at

http://www.shure.com/stellent/groups/public/@gms_gmi_web_ug/documents/web_resource/us_pro_al1532_theater_guide_ea.pdf (describing automatic frequency selection for wireless microphones); ULX Professional Wireless System Features, at http://www.shure.com/ProAudio/Products/WirelessMicrophones/us_pro_ULXP_content ("Automatic Frequency Selection provides a straight shot to a clear channel") (last visited June 29, 2007).

7 Sports Alliance ex parte, attachment, at 2.

8 Sports Alliance ex parte, attachment, at 3.

9 *See* Coalition Reply Comments at 6 (Mar. 2, 2007).

Wireless microphones authorized for use in the TV bands are intended to transmit only for distances of approximately 100 meters;[10] however, wireless microphone manufacturers are claiming protection for ranges far in excess of 100 meters. In fact, many microphones in use today will be transmitting at powers far in excess of what is required to communicate 100 meters, some as high a 100 milliwatts.

There are additional real-world considerations not addressed in the Sports Alliance's letter. First, it fails to acknowledge that the Commission is *already* addressing its concerns by rigorously testing several prototype portable devices to ensure that any approved devices provide adequate interference protection to incumbents. Proponents of white space devices are not asking the Commission to make a major policy decision on the basis of theory or calculations alone. The Coalition has backed up its proposed specifications with the tools the Commission needs to confirm that its proposal will protect broadcasters and wireless microphones. In addition, the Sports Alliance also recommends that the Commission adopt additional technical requirements, such as those "proposed" by IEEE 802.22.[11] But 802.22 has not proposed any technical requirements for the white spaces; the only information from that group is an unapproved draft document.

The Sports Alliance recommends that the "best" approach to avoid interference is a geolocation system.[12] But geolocation will not protect wireless microphones. For example, if a major news story occurred near a base station under a geolocation regime, the reporters attempting to broadcast information from the location would be faced with a strong signal that would not detect and avoid their wireless microphone transmissions. By contrast, a system where devices are programmed to detect and avoid wireless microphones allows for harmonious co-existence in the TV bands.

Finally, the Sport's Alliance's suggestion that white space devices be authorized only as fixed devices in rural areas would frustrate the very benefits this proceeding aimed to provide to rural residents. If white space devices are limited in such a way, the prices of the devices will be burdensomely high and will jeopardize the delivery of new and innovative broadband devices to consumers. So, underprivileged rural residents would be deprived of the affordable broadband access that this proceeding envisioned providing to them. In addition, such a plan would deprive underprivileged urban residents of the affordable broadband service and the innovative and affordable new applications from portable devices that the Commission set out to provide in this proceeding.

* * * *

The White Spaces Coalition appreciates high quality sports broadcasting, but there is no need to choose between broadcast sports and innovative white space devices. Indeed, the innovative broadband applications of white space devices may ultimately help further satisfy the public's

---

[10] 47 C.F.R. § 74.801.

[11] Sports Alliance ex parte, attachment at 4.

[12] Sports Alliance ex parte at 2.

appetite for sports information. Despite the alarmist scenarios presented by the Sports Alliance, arguments that fail to consider the Coalition's proposed technical specifications and that present no scientific support for their own positions provide no reason to hinder the authorization of new and innovative portable white space devices. The Coalition urges the Commission to rely on its own test results to determine the specifications necessary to protect wireless microphones in the TV bands. The Coalition remains confident that the Commission's rigorous and thorough testing will confirm that our proposed operating parameters will provide TV band incumbents with the protection to which they are entitled.

Yours truly,

_____/s/_____
Edmond J. Thomas
Senior Technology Policy Advisor