

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of:	)	
	)	
Higher Ground, LLC	)	IBFS File No.: SES-LIC-20150616-00357
	)	
Application for Blanket Earth Station License	)	Call Sign: E150095

**COMMENTS OF  
THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL**

The National Public Safety Telecommunications Council (NPSTC) submits these comments in support of the Applications for Review submitted by APCO, International and the Enterprise Wireless Alliance concerning the International Bureau’s above-referenced blanket license grant to Higher Ground.<sup>1</sup> The Higher Ground blanket license grant decision issued by the International Bureau, The Wireless Telecommunications Bureau and the Office of Engineering and Technology provides for up to 50,000 earth stations transmitting in the earth-to-space direction in the 5925-6425 MHz spectrum.<sup>2</sup> This spectrum is used to support thousands of fixed microwave paths used by public safety, utilities, pipelines, railroads and other licensees. APCO, International and the Enterprise Wireless Alliance have each pointed out valid reasons the license grant should be set-aside, and NPSTC supports their Applications for Review.

---

<sup>1</sup> Application for Review of APCO International, submitted February 17, 2017; Application for Review of the Enterprise Wireless Alliance, submitted February 17, 2017.

<sup>2</sup> Order and Authorization, released January 18, 2017.

## **The National Public Safety Telecommunications Council**

The National Public Safety Telecommunications Council is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 16 organizations serve on NPSTC's Governing Board:

- American Association of State Highway and Transportation Officials
- American Radio Relay League
- Association of Fish and Wildlife Agencies
- Association of Public-Safety Communications Officials-International
- Forestry Conservation Communications Association
- International Association of Chiefs of Police
- International Association of Emergency Managers
- International Association of Fire Chiefs
- International Municipal Signal Association
- National Association of State Chief Information Officers
- National Association of State Emergency Medical Services Officials
- National Association of State Foresters
- National Association of State Technology Directors
- National Council of Statewide Interoperability Coordinators
- National Emergency Number Association
- National Sheriffs' Association

Several federal agencies are liaison members of NPSTC. These include the Department of

Homeland Security (the Federal Emergency Management Agency, the Office of Emergency Communications, the Office for Interoperability and Compatibility, and the SAFECOM Program); Department of Commerce (National Telecommunications and Information Administration); Department of the Interior; and the Department of Justice (National Institute of Justice, Communications Technology Program). Also, Public Safety Europe is a liaison member. NPSTC has relationships with associate members: The Canadian Interoperability Technology Interest Group (CITIG) and the Utilities Technology Council (UTC), and affiliate members: The Alliance for Telecommunications Industry Solutions (ATIS), Open Mobile Alliance (OMA), Telecommunications Industry Association (TIA), TETRA Critical Communications Association (TCCA), and Project 25 Technology Interest Group (PTIG).

### **NPSTC Support of Applications for Review**

The Higher Ground blanket license grant decision issued on January 18, 2017 provides for up to 50,000 low power earth stations transmitting in the earth-to-space direction in the 5925-6425 MHz (6 GHz band) spectrum. This 6 GHz band supports thousands of fixed microwave facilities used by public safety, utilities, pipelines, railroads and other licensees. Operation of the earth stations by Higher Ground would be conducted on a shared spectrum basis with these fixed microwave systems using a proprietary sharing mechanism.

In its Application for Review, APCO, International (APCO) indicates the Commission's Universal Licensing System (ULS) data base shows there are over 6,000 licensed public safety microwave stations in the 6 GHz band. APCO states that it is:

...particularly concerned about potential interference to the thousands of public safety microwave licensees currently operating in the 6 GHz band and fundamentally opposes

the use of an unproven frequency coordination method in a public safety band.<sup>3</sup> Further, APCO notes that “...Higher Ground’s self-coordination method is untested and unproven, and for public safety, this uncertainty is unacceptable.”<sup>4</sup>

NPSTC agrees with APCO that a proprietary, untested and unproven coordination method provides a significant potential risk to public safety. Given the method is proprietary, it is not possible for public safety to review fully the details of how the spectrum sharing mechanism would work. However, based on the information in the record, it appears that Higher Ground bases its sharing mechanism on some assumed average fixed system parameters rather than a mechanism that uses the actual technical parameters of each fixed system that needs to be protected.

NPSTC notes that some public safety agencies have 6 GHz microwave systems in which there is a high angle between path ends, e.g., one dish is high on a mountaintop looking down to its companion dish in a valley or other areas of the jurisdiction below. It is not at all clear that Higher Ground’s proprietary sharing mechanism takes into account the requisite parameters of such high angle systems. Accordingly, NPSTC supports the concern APCO has raised that a proprietary, untested, unproven coordination spectrum sharing mechanism in spectrum used by public safety is unacceptable.

Both APCO and the Enterprise Wireless Alliance (EWA) recommend the Commission set aside the Higher Ground application grant and instead initiate a rulemaking proceeding to address the relevant issues more fully. EWA notes that most commenting parties had “urged the Commission to proceed, if at all, through rulemaking, and not by granting individual waiver

---

<sup>3</sup> APCO Application for Review at page 2.

<sup>4</sup> APCO Application for Review at page 3.

relief to Higher Ground.”<sup>5</sup> However, as EWA notes, the Bureaus disagreed and granted the license stating that “...the adjudicative process, like a waiver proceeding, generally functions as a more effective vehicle for addressing more individualized circumstances...”<sup>6</sup> NPSTC agrees with EWA that even though this proceeding relates to one specific application, it certainly seems to have a broad scope of potential impact that normally would be handled in a rulemaking proceeding:

Higher Ground’s proposed deployment of up to 50,000 mobile terrestrial units in a heavily encumbered band may be a “specific, unique application” on satellite spectrum, but any failure of its interference avoidance techniques has the potential to disrupt the operations of many thousands of incumbent FS systems. As pointed out by numerous parties in this proceeding, after-the-fact remediation will not be adequate should interference occur, even if that interference were traceable to Higher Ground’s operations, which it may not be. A waiver of the FCC rules with that scope of potential impact, a proposal that relies on unconventional and proprietary techniques to avoid interference and has elicited objections and concerned comments from all segments of the FS licensee community, should be considered in a rulemaking, not approved pursuant to delegated authority in an application-based adjudicative process.<sup>7</sup>

In fact, other recent controversial spectrum sharing issues at 3.5 GHz and 5.9 GHz have been addressed in rulemaking proceedings. The rulemaking process at 3.5 GHz, and the ongoing rulemaking and testing at 5.9 GHz, have provided much more transparent opportunities for public input and involvement.

---

<sup>5</sup> EWA Application for Review at page 2.

<sup>6</sup> Order and Authorization at paragraph 34.

<sup>7</sup> EWA Application for Review at pages 3 and 4.

## **Conclusion**

NPSTC supports the Applications for Review submitted by APCO and EWA, and agrees the adjudicatory license process used in this proceeding is inconsistent with its potential impact. Despite the fact that a single entity is involved, NPSTC believes the request to share spectrum with thousands of public safety and critical infrastructure microwave links, potentially placing them at risk of interference by using a proprietary, untested and unproven sharing mechanism to provide go/no go transmit authority to up to 50,000 terrestrially-based satellite terminals, warrants a rigorous and transparent rulemaking process, not just a license proceeding.

Ralph A. Haller, Chairman

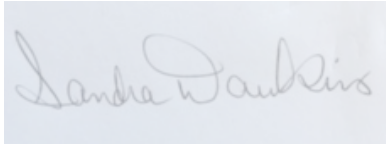


National Public Safety Telecommunications Council  
8191 Southpark Lane, Suite 205  
Littleton, Colorado 80120-4641  
866-807-4755

March 6, 2017

### Certificate of Service

I, Sandra Dawkins, a member of the support office for the National Public Safety Telecommunications Council (NPSTC), hereby state that true copies of the foregoing Comments supporting the Applications for Review of APCO, International and the Enterprise Wireless Alliance were sent by first class mail, postage prepaid, March 6, 2017, to the attached Service List.

A rectangular box containing a handwritten signature in cursive script that reads "Sandra Dawkins".

Sandra Dawkins

## Service List

Adam Krinsky, Esq.  
Wilkinson Barker Knauer LLP  
1800 M Street, NW  
Suite 800N  
Washington, DC 20036  
Counsel for Higher Ground LLC

Michele C. Farquhar  
Hogan Lovells US LLP  
555 Thirteenth Street, NW  
Washington, DC 20004  
Counsel to AAR

Robert S. Reis  
President  
Higher Ground, LLC  
2225 E. Bayshore Road  
Suite 200  
Palo Alto, CA 94303

AJ Burton  
Director, Federal Regulatory Affairs  
Frontier Communications  
1800 M Street, NW Suite 800N  
Washington, DC 20036

Robert S. Koppel  
Lukas, Nace, Gutierrez & Sachs, LLP  
7300 Greensboro Drive  
Suite 1200  
McLean, VA 22102  
Counsel to Mimosa, Inc.

Pamila Gist  
Lukas, Nace, Gutierrez & Sachs, LLP  
7300 Greensboro Drive  
Suite 1200  
McLean, VA 22102  
Counsel to Pioneer Cellular

Nebraska Public Power District  
PO Box 608  
York, NE 68467



## Service List (continued)

TOPAZ Regional Wireless Cooperative  
Attn: Dale Shaw  
c/o City of Mesa Communications Dept.  
PO Box 1466  
Mesa, AZ 85211-1466

Jeffrey L. Sheldon, Esq.  
Levine, Blaszak, Block & Boothby, LLP  
2001 L Street, NW  
Suite 900  
Washington, DC 20037  
Counsel for Southern Services, Inc.

Randy Thompson  
Communications Administrator  
City of Mesa Arizona  
PO Box 1466  
Mesa, AZ 85211-1466

Vince Krog  
State Radio Engineer  
Office of Enterprise Technology Services  
1177 Alakea Street  
Room 201  
Honolulu, HI 96813

George Kizer  
President  
National Spectrum Management Association  
PO Box 528  
Englewood, NJ 07631

Brett Kilbourne  
Vice President & Deputy General Counsel  
Utilities Technology Council  
1129 10th Street, NW  
Suite 350  
Washington, DC 20036

Susan H. Crandall  
Associate General Counsel  
Intelsat Corporation  
7900 Tysons One Place  
McLean, VA 22101

## Service List (continued)

Tiffany West Smink  
CenturyLink  
1801 California Street  
10th Floor  
Denver, CO 80202

Elizabeth R. Sachs  
Lukas, Nace, Gutierrez & Sachs, LLP  
8300 Greensboro Drive  
Suite 1200  
McLean, VA 22102  
Counsel to Enterprise Wireless Alliance

Jonathan Morgan  
GMRS - Radio System Manager  
City of Garland  
1639 Commerce Street  
Garland, TX 75040

Cheng-yi Liu  
Mitchell Lazarus  
Fletcher, Heald & Hildreth, P.L.C.  
1300 North 17<sup>th</sup> Street  
11<sup>th</sup> Floor  
Arlington, VA 22209  
Counsel for Fixed Wireless Communications Coalition