

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)

Additional Spectrum for Unlicensed Devices)
Below 900 MHz and in the 3 GHz Band)

ET Docket No. 02-380

To: The Commission

REPLY COMMENTS OF THE BLOOSTON PRIVATE USER GROUP

The law firm of Blooston, Mordkofsky, Dickens, Duffy & Prendergast, on behalf of its clients operating private land mobile radio systems licensed under Part 90 of the Commission’s Rules (the “Blooston Private Users”), hereby submit these reply comments in the above-captioned docket.¹

The *NOI* seeks comment on the possibility of permitting unlicensed devices to operate in additional frequency bands, including the television broadcast bands² at locations and times when spectrum is not being used, and based on technical requirements to ensure that such devices do not cause interference to authorized services operating within the TV broadcast bands. While the Blooston Private Users agree that there could be significant benefits to the economy, businesses and the general public in making additional spectrum available for unlicensed transmitters, the Blooston Private

¹ In the Matter of Additional Spectrum of Unlicensed Devices Below 900 MHz and in the 3 GHz Band, *Notice of Inquiry*, ET Docket No. 02-380 (*rel.*, December 20, 2002) (“*NOI*”). The comment and reply deadlines in this proceeding were initially set at April 7, 2003 and May 6, 2003, respectively, by publication of the in the *NOI* in the *Federal Register*. See 68 FR 2730 (January 21, 2003). The Office of Engineering and Technology recently extended these deadlines by ten (10) days. See *Order Granting Extension of Time*, DA 03-1022 (*rel.* March 31, 2003).

² As used in the *NOI*, the term “TV broadcast bands” refers to the 402 MHz of spectrum allocated to the broadcast services at 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz and 614-806 MHz. The band 470-512 MHz is allocated to the land mobile and commercial mobile radio services in 13 cities, and the broadcast auxiliary service also operates on certain channels in the TV broadcast bands.

Users support LMCC, AMTA, APCO and numerous other commenters in this proceeding who urge the Commission not to permit unlicensed transmitters the 470-512 MHz band (the “T-band”) and other frequency bands that are currently licensed or that have been allocated for use by licensed Mobile Radio Systems because of the potential for interference. Among the Blooston Private Users, the City of Jersey City Police Department recently obtained a waiver of the Commission’s Rules allowing it to utilize T-band channels for its public safety communications system,³ and the California State Automobile Association (“CSAA”) uses these channels in the Bay Area in conjunction with the San Francisco Police Department (“SFPD”) and the California Highway Patrol (“CHP”). The Commission has concluded that automobile emergency road services have a significant “quasi-public safety” component involving safety on the nation’s highways.⁴ In this regard, the SFPD and CHP to keep the Northern California roadways clear of hazards. The Blooston Private Users note that both the SFPD and CHP utilize T-band channels for public safety communications. It is vital that these safety-related operations be protected from interference.

The Blooston Private Users also join LMCC and AMTA in calling for the FCC to commence an inquiry into further PMRS sharing of unused television channels in markets throughout the country.

³ See In the matter of Application of Jersey City Police Department, *Order*, DA 03-1131 (*rel.* April 11, 2003).

⁴ See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignments Policies of the Private Land Mobile Services, PR Docket No. 92-235, Second Report and Order, 12 FCC Rcd. 14307 (1997). Indeed, the legislative history of the Balanced Budget Act of 1997 declares that automobile clubs provide a “valuable public safety service” protecting the safety of life, health and property. See H.R. Conf. Rep. No. 217, 105th Cong., 1st Sess. at 572 (1997).

I. A Consensus of Commenters Urge the Commission Not to Permit Unlicensed Devices to Operate in the TV Bands.

A consensus of commenters in the mobile radio industry, CMRS carriers, and television broadcast interests urge the Commission not to permit unlicensed devices to operate in the TV broadcast bands. These commenters raise legitimate questions whether unlicensed devices can feasibly share spectrum with authorized services. As discussed below, the Blooston Private Users agree with the majority of commenters in this proceeding who believe that the Commission's first priority in determining whether unlicensed devices can be authorized to operate on additional frequency bands should be the prevention of interference to incumbent operations.

Groups representing a consensus of the mobile radio industry question whether unlicensed devices can utilize the TV broadcast bands without causing interference to authorized land mobile systems operating on in the 470-512 MHz band (the "T-band") in major metropolitan areas.⁵ In particular, these commenters note that the technology to enable opportunistic, unlicensed devices to share bands with licensed incumbents without raising the risk of harmful interference is not yet available⁶ and that technical data available to the Commission does not support a determination that such technology is likely to be developed in the near future.⁷

⁵ See, e.g., Comments of American Mobile Telecommunications Association ("AMTA Comments") at 2-4, Comments of APCO (APCO Comments") at 1-3, Comments of Atlantic Telecommunications ("Atlantic Comments") at 1-2, Comments of Los Angeles County ("LA County Comments") at 3-4, Comments of Land Mobile Communications Council ("LMCC Comments") at 4-7, Comments of Motorola, Inc. ("Motorola Comments") at 5-7, Comments of Port Authority of New York and New Jersey ("Port Authority Comments") at 2-4.

⁶ AMTA Comments at 3 (citing comments TIA and Motorola in the Spectrum Policy Task Force proceeding, ET Docket No. 02-135), LMCC Comments at 4-5.

⁷ LMCC Comments at 4.

The Blooston Private Users agree with LMCC and the Port Authority of New York and New Jersey that preventing harmful interference before it occurs to land mobile radio operations and public safety radio systems must continue to be a priority for the Commission.⁸ The Blooston Private Users also agree with commenters who point out that it would be difficult, if not impossible, to recall or to regulate unlicensed devices once they are released into the marketplace.⁹ The fact that users are unlicensed makes it more difficult for affected licensees to identify the source of interference, and difficult for the FCC to stop them.¹⁰ Moreover, APCO correctly notes that there is no effective means of restricting where an unlicensed device is used.¹¹ Given the tremendous growth of Wi-Fi and other unlicensed wireless technologies recently, the Commission must be extremely careful of “letting the genie out of the bottle” before it has unequivocal proof that licensed operations will not be affected. Allowing unlicensed devices to utilize channels that are currently licensed or that have been allocated for mobile use would risk saturating the spectrum to the point of failure – what the FCC’s Spectrum Policy Task Force aptly termed as “a tragedy of the commons.”¹²

The Blooston Private Users also support comments by CMRS carriers and Lower 700 MHz Band licensees, which suggest that any effort by the Commission to permit unlicensed users to operate on licensed channels would be a violation of the FCC’s

⁸ LMCC Comments at 3-8, Port Authority Comments at 4.

⁹ AMTA Comments at 3.

¹⁰ Atlantic Comments at 2; Comments of Cingular Wireless, LLC (“Cingular Comments”) at 9. Cingular correctly notes that “[a]s unlicensed devices proliferate and become accepted by the public, it may become politically untenable for the Commission to shut down the devices if they are causing interference.” *Id.*

¹¹ APCO Comments at 3.

¹² See Report of the Spectrum Policy Task Force, ET Docket No. 02-135 (November 2002) (“*SPTF Report*”) at p. 38.

obligation under Section 301 of the Communications Act to maintain control over the electromagnetic spectrum,¹³ and that permitting unlicensed operations in spectrum occupied by incumbents would be extremely unfair to licensees and applicants that have invested significant time, effort and money in reliance on existing licensing and technical rules, which limit unlicensed operations to a number of discrete spectrum bands.¹⁴ As these commenters have pointed out, requiring incumbents to share spectrum with new unlicensed uses will not only penalize the most innovative and efficient users of radio spectrum,¹⁵ but it will provide a significant disincentive for potential spectrum users to enter into secondary market transactions with exclusive use licensees, including commercial spectrum leasing arrangements that have recently been approved by the Commission.¹⁶

Joint Commenters on representing the TV broadcast industry believe that the possibility of allowing unlicensed devices to operate in “unused” portions of the TV broadcast bands poses a serious risk to the integrity of over-the-air broadcasting and would be especially problematic during the transition to digital television.¹⁷ The Blooston Private Users agree with MSTV and the Rural 700 MHz Band Licensees that the Commission should not initiate any proceeding to allow unlicensed use of the TV broadcast bands if this could delay or add expense to the DTV transition process.¹⁸ At this point, not enough is known about how the spectrum will be occupied after the DTV

¹³ Cingular Comments at 2-4.

¹⁴ Comments of the Rural 700 MHz Licensees (“Rural 700 MHz Comments”) at 3-4.

¹⁵ Cingular Comments at 7-8.

¹⁶ CITE to soon-to-be-released order in WT Docket 00-230.

¹⁷ Joint Comments of The Association for Maximum Service Television, *et. al.* (“MSTV Comments”) at 2-7, 8-13.

¹⁸ Rural 700 MHz Comments at 7.

transition or how unlicensed devices would interact with the new technology.¹⁹ Moreover, there may actually be fewer potentially “vacant” television channels available for unlicensed use after the DTV transition than suggested by the Commission, because Low Power Auxiliary Stations, TV translators, boosters, and other important secondary operations that are currently operating on channels 52-69 will need to be accommodated in the core TV channels.²⁰ The Blooston Private Users agree with Shure that “the establishment of a ‘Spectrum Commons’ underlay permitting unlicensed devices to operate within the television broadcast bands could result in interference problems on a grand scale.”²¹ Even if “frequency agile” equipment is used, an unlicensed device may sense that a shared private radio channel is clear and begin using it, and such unlicensed operations could prevent licensed users from using the spectrum.²² Given these uncertainties, the Blooston Private Users must agree with MSTV that “[t]he costs and risks of introducing unlicensed devices into the broadcast band at this time strongly outweigh the limited benefits.”²³

Some manufacturers of wireless equipment and unlicensed spectrum advocates believe that unlicensed devices should be permitted to operate within the TV broadcast bands “to the maximum extent possible.”²⁴ Indeed, NAF argues that under utilization on channels 52-69 is “huge” and that this spectrum could be used “immediately” by

¹⁹ MSTV Comments at 2.

²⁰ MSTV Comments at Comments of Shure Incorporated (“Shure Comments”) at 1.

²¹ Shure Comments at 15.

²² *Id.* at 14.

²³ MSTV Comments at 2.

²⁴ Comments of 802.18, the Radio Regulatory Technical Advisory Group within IEEE Local and Metropolitan Area Networks Standards Committee (“RR-TAG Comments”) at 3. Comments of the New America Foundation, *et. al.* (“NAF Comments”) at 6.

unlicensed devices.²⁵ The Blooston Private Users urge the Commission not to be swayed by these unrealistic suggestions, which ignore the Commission’s obligation, first and foremost, “to maintain control of the United States over all the channels of radio transmission.”²⁶ Other commenters that support the ability for unlicensed devices to utilize spectrum in the TV broadcast bands appear to understand and accept the obligation of unlicensed spectrum users to protect licensed operations. These commenters have indicated that any implementation of unlicensed operations in the TV broadcast bands needs to be capable of fully protecting TV reception, even in the case of TV stations being moved and modified,²⁷ and that protecting viewers’ reception of broadcast television signals must be given priority.²⁸ While these statements regarding the importance fully protecting TV reception are undoubtedly true, the Blooston Private Users believe that the Information Technology Industry Council (“ITI”) is more precise when it acknowledges the existence of interference concerns with respect to television channels 14-20 and recognizes that unlicensed spectrum users have “an obligation to prevent harmful interference to current or future licensed services and government operations and to accept interference from these services and operations.”²⁹ ITI also recognizes that investment decisions by licensed spectrum holders will be affected by the FCC’s policies and rules with respect to the unlicensed bands.³⁰

²⁵ NAF Comments at 9.

²⁶ *See* 47 U.S.C. § 301, Cingular Comments at 2-4.

²⁷ Joint Comments of Intersil Corporation and Symbol Technologies (“Intersil/Symbol Comments”) at 2, 8-9.

²⁸ Comments of Consumer Electronics Association (“CEA Comments”) at 4.

²⁹ ITI Comments at 5-6.

³⁰ *Id.* at 6.

II. The FCC Should Initiate an Inquiry Into Further Sharing of Unused Television Channels by Private Land Mobile Radio Systems

A number of commenters on behalf of the private land mobile radio industry have suggested that the Commission should address the significant underuse of the TV broadcast bands by allowing further land mobile sharing of unused television channels under the same rules that govern their current co-existence.³¹ The Blooston Private Users agree that television spectrum is underutilized in certain bands, and join LMCC and AMTA in calling for the FCC to begin such an inquiry. Moreover, as LMCC notes, such an initiative would not be inconsistent with the possibility of allowing unlicensed devices into the TV broadcast band at some future date.³²

III. Commenters Urge the FCC to Identify Additional Bands that Can Be Dedicated for Use By Unlicensed Devices

The Blooston Private Users agree with commenters who believe that any additional allocation of unlicensed spectrum should come from bands that have been set aside for such use, thereby isolating unlicensed devices from bands in which licensees are entitled to operate on an exclusive basis without interference.³³ However, if there is to be any use of the TV broadcast bands by unlicensed devices, the Blooston Private Users agree with Motorola that the 76-216 MHz and 512-698 MHz bands (*i.e.*, TV channels 5-13 and 21-51) would be the most appropriate for shared services with unlicensed devices, provided that the existing and future licensed users in such spectrum are adequately protected.³⁴ This spectrum is not shared with other public safety and private radio

³¹ AMTA Comments at 1, 3; LMCC Comments at 9-10.

³² LMCC Comments at 10.

³³ Cingular Comments at 10.

³⁴ Motorola Comments at 1, 3.

services (as is the 470-512 MHz band), nor is it allocated for future use by public safety and commercial spectrum, as is the 698-806 MHz spectrum.³⁵

Unlicensed wireless advisory groups point to spectrum in the 5470-5725 MHz band, requested in “WECA Petition,” as appropriate for unlicensed wireless access systems³⁶ and wireless LAN equipment manufacturers believe that the 3650-3700 MHz band is well suited for unlicensed operations.³⁷ The Blooston Private Users support these suggestions.

³⁵ *Id.*

³⁶ RR-TAG Comments at 3.

³⁷ Intersil/Symbol Comments at 5-7.

IV. Conclusion

For reasons stated above, the Blooston Private Users urge the Commission not to initiate any proceeding that would permit unlicensed operations on the TV broadcast bands or other frequency bands that are currently licensed or that have been allocated for use by mobile radio systems. The Blooston Private Users also join LMCC and AMTA in calling for the FCC to commence an inquiry into further land mobile sharing of unused television channels in markets throughout the country.

Respectfully Submitted,

THE BLOOSTON PRIVATE USERS GROUP

By: 
John A. Prendergast
Harold Mordkofsky
D. Cary Mitchell

Their Attorneys

Blooston, Mordkofsky, Dickens,
Duffy & Prendergast
2120 L Street, NW, Suite 300
Washington, DC 20037
(202) 659-0830

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The Blooston Private Users

The businesses participating in these Reply Comments (the “Blooston Private Users”) include the following:

- 3M Company
- AAA North Jersey
- AAA Oregon/Idaho
- California State Automobile Association
- City of Jersey City, NJ
- Forest Oil Corporation
- Fugro Chance Incorporated
- Mobile Communications Service of Miami, Inc.
- Peninsula Regional Medical Center

Service List - Unlicensed Spectrum NOI (ET Docket No. 02-380)

Chairman Michael K. Powell
Federal Communications Commission
445 12th Street, SW – Room 8-B201
Washington, DC 20554

Commissioner Kathleen Q. Abernathy
Federal Communications Commission
445 12th Street, SW – Room 8-B115
Washington, DC 20554

Commissioner Jonathan S. Adelstein
Federal Communications Commission
445 12th Street, SW – Room 8-C302
Washington, DC 20554

Commissioner Michael J. Copps
Federal Communications Commission
445 12th Street, SW – Room 8-A302
Washington, DC 20554

Commissioner Kevin J. Martin
Federal Communications Commission
445 12th Street, SW – Room 8-A204
Washington, DC 20554

Edmond J. Thomas, Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Julius P. Knapp, Deputy Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Bruce A. Franca, Deputy Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Michael J. Marcus
Associate Chief (Technology)
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Bruce A. Romano
Associate Chief (Legal)
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Alan J. Scrim, Chief
Policy and Rules Division
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Karen Rackley, Chief
Technical Rules Branch
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

John A. Reed
Senior Electronics Engineer
Technical Rules Branch
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Hugh van Tuyl
Technical Rules Branch
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Martin W. Bercovici
Keller and Heckman LLP
1001 G Street NW Suite 500W
Washington, DC 20001
Counsel to Data Flow Systems, Inc.

Wayne V. Black, Esq.
Keller and Heckman LLP
1001 G Street, NW Suite 500W
Washington, DC 20001
Counsel to American Petroleum Institute

William J. Byrnes
Shared Spectrum Company
7921 Old Falls Road
McLean, VA 22102 -2414

J. R. Carbonell
Carol L. Tacker
Cingular Wireless, LLC
5565 Glenridge Connector
Suite 1700
Atlanta, GA 30342

Kimberly Card
RadioShack Corporation
100 Throckmorton Street, Suite 1300
Fort Worth, TX 76102

Richard DalBello, President
Satellite Industry Association
225 Reinekers Lane Suite 600
Alexandria, VA 22314

Mr. Brian Dewhurst
MS W922
National Research Council
500 Fifth Street, NW
Washington, DC 20001

Allison M. Ellis, Esq.
Birch, Horton, Bittner and Cherot
1155 Connecticut Avenue, N.W. Suite 1200
Washington, DC 20036

Harold Feld
Andrew Jay Schwartzman
Media Access Project
1625 K Street, Suite 1118
Washington, DC 20006

Paul Feldman, Esq.
Fletcher, Heald and Hildreth
1300 North 17th Street 1th Floor
Rosslyn, VA 22209
Counsel to National Academy of Sciences

Stephen C. Garavito
AT&T Corp.
One AT&T Way
Room 3A250
Bedminster, NJ 07921

Lisa S. Gelb, Esq.
San Francisco City Attorney's Office
City Hall, Room 234
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Jeffrey S. Green, Esq.
Shook Hardy & Bacon
225 Park Avenue South, 15th Floor
New York, NY 10003
Counsel to Port Authority of NY and NJ

Benjamin J. Griffin
Mintz, Levin, Cohn, Ferris, *et. al.*
701 Pennsylvania Avenue, N.W. Suite 900
Washington, DC 20004
Counsel to Coalition of Program Networks
and Distributors, *et. al.*

Robert M. Gurss, Esq.
Shook, Hardy & Bacon
600 14th Street, NW Suite 800
Washington, DC 20005
Counsel to APCO

Christopher R. Hardy, Vice President
Comsearch
19700 Janelia Farm Boulevard
Ashburn, Virginia 20147

Scott Blake Harris, Esq.
Harris, Wiltshire & Grannis LLP
1200 Eighteenth Street, NW
Washington, DC 20036 -2506
Counsel to Software Defined Radio Forum
Counsel to Bluetooth SIG, Inc.

Jennifer A. Johnson
Covington & Burling
1201 Pennsylvania Avenue, N.W.
Washington, DC 20004-2401
Counsel to MSTV, Inc.

William H. Johnson
Information Technology Industry Council
1250 I Street, NW
Suite 200
Washington, DC 20005

Devendra T. Kumar, Esq.
Covington & Burling
1201 Pennsylvania Avenue, NW
Washington, DC 20004
Counsel to MSTV, NAB, and APTS

Mitchell Lazarus, Esq.
Fletcher, Heald & Hildreth, PLC
1300 North 17th St., 11th Floor
Arlington, VA 22209 -3801
Counsel to Intersil Corp. and Symbol
Technologies, Inc.

Larry A. Miller
Land Mobile Communications Council
1110 N. Glebe Rd., Suite 500
Arlington, VA 22201

Allen Petrin
1244 Defoor Village CT. NW
APT 440
Attanta, GA 30318

Lee G. Petro, Esq.
Fletcher Heald & Hildreth
1300 North, 17th Street, 11th Floor
Arlington, VA 22209 -3801
Counsel to Alaska Broadcaster Assoc., *et. al.*

Peter Pitsch
Intel Corporation
1634 I Street, NW #300
Washington, DC 20006

Kevin F. Reed, Esq.
Dow, Lohnes & Albertson, PLLC
1200 New Hampshire, Ave., NW Suite 800
Washington, DC 20036
Counsel to Cox Broadcasting, Inc.

Todd D. Rosenberg
O'Melveny & Myers LLP
1650 Tysons Boulevard Suite 1150
McLean, VA 22102
Counsel to Los Angeles County

Elizabeth R. Sachs, Esq.
Lukas, Nace, Gutierrez & Sachs, Chartered
1111 Nineteenth St., N.W., Ste. 1200
Washington, DC 20036
Counsel to Lans Service Corporation
Counsel to Atlantic Telecommunications
Counsel to AMTA

Kathryn R. Schmeltzer
Shaw Pittman LLP
2300 N Street, NW
Washington, DC 20037 -1128
Counsel to Sinclair Broadcast Group Inc.

Steve B. Sharkey
Motorola, Inc.
1350 I Street, N.W.
Washington, DC 20005

David R. Siddall, Esq.
Paul, Hastings, Janofsky & Walker LLP
1299 Pennsylvania Avenue, NW
Washington, DC 20004
Counsel to Consumer Electronics Association

Thomas C. Smith
1310 Vandenburg Street
Sun Prairie, WI 53590-1077

J.H. Snider, Senior Research Fellow
New America Foundation
Spectrum Policy Program
1630 Connecticut Avenue, NW
Washington, DC 20009

Carl R. Stevenson
Chair, IEEE 802.18 Radio Regulatory
Technical Advisory Group
4991 Shimerville Road
Emmaus, PA 18049

Sarosh Vesuna
Wi-Fi Alliance
2570 West El Camino Real
Suite 304
Mountain View, CA 94040-1313

Catherine Wang, Esq.
Swidler Berlin Shereff Friedman
3000 K Street, NW, Suite 300
Washington, DC 20007-5116
Counsel to Shure Incorporated

Jonathan L. Weil, Esq.
Philips Medical Systems
3000 Minuteman Road, MS 0230
Andover, MA 01810