

Before the  
**Federal Communications Commission RECEIVED**

**Washington, D.C. 20554**

**APR 15 2003**

In the Matter of )  
)  
Amendment of the Commission's Rules )  
Regarding Dedicated Short- Range )  
Communications Services in the )  
5.859 – 5.925 GHz Band (5.9 GHz Band) )  
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)  
Amendment of Parts 2 and 90 of the )  
Commission's Rules to Allocate the 5.850- )  
5.925 GHz Band to the Mobile Service for )  
Dedicated Short Range Communications )  
of Intelligent Transportation Services )

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

WT Docket No. 01-90

ET Docket No. 98-95  
RM-9096

To The Commission:

**REPLY COMMENTS OF THE  
E-ZPASS INTERAGENCY GROUP**

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To The Commission:

**REPLY COMMENTS OF THE**  
**E-ZPASS INTERAGENCY GROUP**

The E-ZPass Interagency Group ("**IAG**") by its attorneys, hereby submits the following Reply Comments pursuant to the Commission's Notice of Proposed Rulemaking and Order, FCC 02-302, released November 15, 2002 ("NPRM") in the above referenced matter concerning the establishment of Dedicated Short-Range Communication ("DSRC") services in the 5.850-5.925 GHz band

**I. INTRODUCTION**

While differing views **are** expressed on many of the myriad of policy and licensing issues set forth in the NPRM, the Comments received by the Commission reflect a broad consensus on

several of the key precepts that should govern the development of DSRC services in the 5.850-5.925 GHz band. Specifically, there is general agreement on the following lynchpins to the development of a full range of intelligent highway services for the safety and benefit of the American public:

- While eligibility and service rules must be sufficiently flexible a variety of developing technologies and applications, both public and private, the core purpose and use of the band must be limited to public safety services.
- Full interoperability among all band users is essential to the development and use of the band.
- The use of auctions to award licenses is inconsistent with fundamental band usage requirements and would be counterproductive to the use of the band for public safety services.
- Existing use of the 900 MHz band for intelligent highway services that now serve millions of people should not be disturbed in any way pending the full development of services in the new DSRC band.

IAG members<sup>1</sup> are responsible for the operation of the largest Electronic Toll Collection (“ETC”) service in the world. They have been at the forefront of industry efforts to

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<sup>1</sup> IAG is a regional consortium of the following 21 public transportation agencies spanning ten northeastern states committed to offering a fully interoperable electronic toll collection system, popularly known as E-ZPass:

- Buffalo and Fort Erie Public Bridge Authority
- Burlington County Bridge Commission
- Delaware Department of Transportation
- Delaware River and Bay Authority
- Delaware River Joint Toll Bridge Commission
- Delaware River Port Authority
- Indiana Department of Transportation
- Maine Turnpike Authority
- Maryland Transportation Authority
- Massachusetts Turnpike Authority
- MassPort

plan for and develop intelligent highway services in the new DSRC band. In addition to our previous comments, we are pleased to provide the Commission with the following additional information in response the comments filed by other parties.

## II. INTEROPERABILITY STANDARDS

As previously discussed, IAG believes the adoption of, and compliance with, a common interoperability standard is essential to the development of intelligent highway services in the 5.9 GHz band. Indeed, it is the fundamental precept on which the licensing and use proposals set forth in the NPRM are premised. This view is universally shared by the commenting parties, including equipment manufacturers\*, technologists<sup>3</sup>, vehicle manufacturers<sup>4</sup> and service providers.<sup>5</sup> Simply put, the shared vision of a ubiquitous device in the vehicle, able to communicate with a variety of public and private systems (as well as other vehicles) for a variety of public safety and other uses, cannot be realized in the absence of a common interoperability standard. Without a common standard accepted by all parties using the band, the full realization of technology and rapid deployment of services will not be achieved.

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- New Hampshire DOT Bureau of Turnpikes
  - New Jersey Highway Authority
  - New Jersey Turnpike Authority
  - New York State Bridge Authority
  - New York State Thruway Authority
  - Pennsylvania Turnpike Commission
  - Port Authority of New York & New Jersey
  - South Jersey Transportation Authority
  - Triborough Bridge and Tunnel Authority
  - West Virginia Parkways Economic Development & Tourism Authority

<sup>2</sup> See, e.g., Comments of 3M, p.3 (“Interoperability can only be achieved through standardization of operation with the ITS Band.”); and Comments of Mark IV Industries, Ltd, p. 13.

<sup>3</sup> See, e.g., Comments of John Hopkins University, Applied Physics Laboratory, pp. 4-5

<sup>4</sup> Comments of the Alliance of Automobile Manufacturers, p. 2

<sup>5</sup> Comment of IBTTA, p. 2.

Moreover, as pointed out by Mark IV Industries, the interoperability standards adopted by the Commission must be sufficiently flexible to incorporate additional standards now under development by IEEE.<sup>6</sup> The additional standards to which Mark IV refers are essential to the overall interoperability baseline because they will define the critically important protocols for according priority of use for public safety communications? Without this key interoperability component, the ability of public safety and private users to share the same spectrum fairly cannot be assured and use of the band primarily for public safety services could be compromised. IAG urges the Commission to make specific provision for the incorporation of this developing standard in the basic interoperability standards that will govern use of the 5.9 GHz Band.

While support for a common interoperability standard has been universal, a few parties have suggested that non-interoperable systems should be permitted in the band for private systems not intended to operate with other systems.\* IAG does not believe this would be a wise idea. While DSRC service areas will be highly localized, the danger of destructive interference either to the interoperable or non-interoperable system cannot be completely dismissed, particularly at intersecting corridors of transportation where both systems could be operating in close proximity. Moreover, IAG is concerned that the problems inherent in defining what constitutes a private, non-interoperable system could perpetuate the existing incompatibility of systems which has ill-served public agencies and the public. *See*, Comments of John Hopkins University, Applied Physics Laboratory, p. 4.

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<sup>6</sup>Comments of Mark IV, p. 14

<sup>7</sup> *See*, Comments of Alliance of Automobile Manufacturers, pp. 11-12; Comments of BMW Group, p. 2; Comments of the International Municipal Signal Association, p. 3; and Comments of TransCore Corp., p. 7 (“The ASTM-DSRC standard, with a spectrum access mechanism that gives priority to public safety uses, will ensure that public and private users can coexist successfully.”)

<sup>8</sup> Comments of Siemens Transportation Systems, pp. 7-8

Nor, as previously stated, does IAG believe the bifurcation of the band into separate public safety and private use bands serves the goal of nationwide interoperability of use by the public.<sup>9</sup> Particularly given the priority protocols for public safety communications that are an inherent component of the interoperability standard, the need for an exclusive public safety band to assure the primacy of public safety band use does not exist. Moreover, classifying private use as secondary to public safety use, as IAG has proposed, will provide further assurance that the band will be used primarily for public safety purposes, as envisioned by the Commission. It is noteworthy that several other parties have specifically supported this secondary use concept for private band users."

### **III. LICENSING REQUIREMENTS FOR RSUs AND OBUs**

In our opening comments, **TAG** strongly supported the issuance of licenses for both public safety and private use on a site-specific basis subject to appropriate frequency coordination to reduce the potential for interference among all users. In addition, we urged that public agencies such as toll operators, responsible for a large number of facilities across a wide geographic area, should be able in a single application to obtain a single "blanket" license to operate their systems within the appropriately defined "communications zone" defined in the aggregate by the specific site locations proposed in the application.

While most parties have similarly supported site-specific **RSU** licensing, a few commenting parties have suggested that geographic area of licensing is preferable because of the

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<sup>9</sup>**See** Comments of Public Safety Wireless Network, p. 6

<sup>10</sup>*See* Comments of NATOA and the National League of Cities, p. 9; Comments of the Public Safety Wireless Network, p. 9; and Comments of 3 M, p.3.

cumbersome nature of site-specific licensing.” This view misperceives the realities of the situation for several reasons. First, geographic area licensing is conceptually at odds with the fundamental technological and use characteristics of DSRC service, premised on the shared use of spectrum by a diverse number of users with localized communication zones. As one commenting party has noted, “while geographic licensing works best for cellular service, it is not the correct solution for DSRC.”<sup>12</sup> The approach, if anything, would threaten the full realization of DSRC service by creating entry barriers and limiting the number of services.

Second, in a shared use environment, it is essential that you know the existence and location of other users in order to properly coordinate use and avoid interference. Otherwise, all parties would be shooting in the dark in establishing their operations and chaotic conditions could result.

Third, site-specific licensing does not need to be cumbersome or burdensome. It has worked well with respect to 900 MHz band licensing, both from the Commission and user standpoint. IAG sees no reason why 5.9 GHz Band licensing should be any different. Particularly with the use of a private frequency coordination process, as has been proposed in the NPRM, there is no reason to expect that it will prove to be an undue burden on the Commission’s resources.

In its opening comments, IAG also supported the adoption of a new licensing approach for onboard units (OBUs) based on the concept of authorization by rule. A review of the comments of other parties confirm that this is the only realistic alternative. On one hand, because of the ubiquitous character of OBUs, it will be impossible to associate them with a

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<sup>11</sup> See Comments of NATOA and National League of Cities, p.9.

<sup>12</sup> See Comments of John Hopkins University, Applied Physics Laboratory, p. 14.

single specific system for FCC licensing purposes.<sup>13</sup> And on the other hand, “conformance with . . . highly advanced DSRC design requirements cannot be ensured by Part 15 regulation.”<sup>14</sup>

In this context, the licensing by rule approach provides the right balance, properly reflecting the actual operational circumstances of the OBU at the same time providing the license status necessary for full technical operation. Moreover, unlike ~~Part~~ 15 devices which are not entitled to protection from interference from other sources, the licensing by rule approach properly recognizes that DSRC service, including OBU operation, represents a primary use of 5.9 MHz band entitled to protection from secondary users and unlicensed devices.

### CONCLUSION

**As** previously stated, DSRC services in the 5.9 GHz Band hold the promise of providing the public with a vast array of intelligent highway services that will contribute in a very direct and substantial way to the safety of life, health and/or property on our nation’s road and highway system. IAG members stand ready to work to fulfill this promise both in providing a wider array of Electronic Toll Collection services to the public and in developing new and innovative services.

We further stand ready to work with other existing 900 MHz band service providers to begin the extensive long-range planning effort that will be necessary for the ultimate transition of existing 900 MHz band services to the 5.9 MHz band. **As** recognized in the opening round of comments,” IAG members and other existing 900 MHz band service providers have made a tremendous investment in existing infrastructure and hardware, an investment which must be

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<sup>13</sup> See Comments of John Hopkins University, Applied Physics Laboratory, p. 12

<sup>14</sup> *Id.* at p. 13.

<sup>15</sup> *Id.* at p.4, Comments of IAG, pp.12-13.

very carefully balanced with the ultimate need to migrate systems to the 5.9 MHz band. To facilitate this process and provide certainty, IAG requests that the Commission expressly confirm that no arbitrary deadlines or timelines will be established for the migration of services and ultimate termination of operations in the 900 MHz band

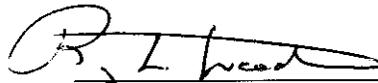
For these reasons, TAG urges the Commission to proceed promptly in implementing use and service rules for DSRC service in the 5.9 MHz band as outlined herein and in our opening comments.

Respectively submitted,

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Delaware River Joint Toll Bridge Commission  
Delaware River Port Authority  
Indiana Department of Transportation  
Maine Turnpike Authority  
Maryland Transportation Authority  
Massachusetts Turnpike Authority

MassPort  
New Hampshire DOT Bureau of Turnpikes  
New Jersey Highway Authority  
New Jersey Turnpike Authority  
New York State Bridge Authority  
New York State Thruway Authority  
Pennsylvania Turnpike Commission  
Port Authority of New York & New Jersey  
South Jersey Transportation Authority  
Triborough Bridge and Tunnel Authority  
West Virginia Parkways Economic Development & Tourism Authority

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