



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

NATHAN HAYWARD III
SECRETARY

March 14, 2003

Federal Communications Commission
445 12th Street SW
Washington, DC 20554

**RE: Comments of Delaware Department of Transportation
In the Matter of Amendment of the Commission's Rules Regarding Dedicated
Short-Range Communications in the 5.850 – 5.925 GHz Band (5.9 GHz Band), WT
Docket No. 01-90**

While the IAG and the IBTTA have submitted responses to the proposed designation of frequencies in the 5.9 GHz band for Intelligent Transportation Services (ITS), and DelDOT concurs with these responses, we feel that the issue is important enough to submit an additional response on behalf of the agency as a separate entity.

As all aspects of transportation continually transform as new technologies develop, it is extremely important that we, as government agencies serving the traveling public, not only stay on top of these changes, but anticipate future developments that could move our transportation services into the next level of technological sophistication. Electronic Toll Collection, through use of transponders, has already revolutionized several aspects of road-based transit. Regionally formed associations between toll collecting agencies have allowed for the merging of services throughout a regional area. While this has been a tremendous step forward in many ways, including traffic flow, reduced emissions, and public safety, the “regionality” of the current system, as well as its limitations inherent in the current technology, calls for a much more universal and expandable solution. The migration of the current 915 MHz license to a faster 5.9 GHz DSRC is essential in the journey towards an interoperable, expandable, versatile system. DelDOT supports this migration fully, with the restrictions and suggestions outlined below:

- Licensing, rules, and communication standards will need to be in place to ensure a “checks and balances” between public/safety oriented use and private usage.

Opening up the spectrum to include non-public DSRC operations in this new band is imperative to ensure the fast development of the technology needed to communicate within the band itself. Private/ for profit entities have the funds and resources that are necessary to push the development, testing, and installation of new technology into the every day sphere. Private usage will also speed up the need for the technology to be deemed “standard issue” and to make it available for a fair price on the market.

By inviting private, non-public safety related activity into this spectrum, some restrictions will need to be in place to protect the “first priority status” of a public service and safety related messaging system.

- ***License Roadside Units (RSU) by site***

Licensing RSUs would allow for site-specific usage, and sharing the site with another RSU would be prohibited unless a guarantee could be made that the RSUs would not interfere with each other. Site-specific RSUs ensure that safety related messages do not take secondary status to private messaging.

Site-specific RSUs would also enable operations to track usage, compile data from this usage, and monitor usage demands.

Toll Agencies should have a “blanket license” so that there can be interoperability and communication between toll roads.

- ***Licensing of On Board Units (OBUs) associated with fixed systems under the RSU license***

Licensed Toll Agencies do this now under the 915 MHz band, and it would be important to continue this licensing method with the 5.9GHz band. By controlling the transmissions through the RSU, potential interference between the RSU and OBU is lessened.

Any OBUs that are not associated with fixed systems should not fall under licensing restrictions other than those that maintain the integrity of public service messaging as a “first priority” standard.

- **Definition of Public Safety**

- An acknowledgement that public safety as defined is not limited to fire, ambulance, and police services is needed. Toll Agencies and other transportation entities function to ensure the safety of travel on our nation’s roadways by warning the public of potential hazards on the road. With this new technology and increased ability to get travel warnings out to drivers quickly, public safety will increase.

- **Push toward Interoperability**

- The long-term goal of our migration to the 5.9 GHz band should be first and foremost interoperability within the ETC system. So called “Open Roads,” where interoperable OBUs and RSUs would be standard could revolutionize the toll taking industry. Every detail from traffic flow to system administration would be linked in a nation-wide, and potentially

international (Mexico and Canada) operation. This could eliminate region-by-region incompatibility that the traveling public currently faces. It would also enable us to link the technology to other ITS equipment such as variable message signs.

It will take time and a great deal of coordination among the participating agencies and resources to accomplish such a far-reaching, long-term goal. Because of this, DelDOT believes that it is important that toll agencies should be able to function in both bands (915 MHz and 5.9 GHz) until the public and private sector can develop, test, and implement the new technology and successfully migrate completely to the 5.9GHz band. This “dual migration” would ensure that safety continues to be the main focus of all transportation agencies.

Sincerely,

PJ Wilkins
Toll Operations Administrator

PJW:jls

cc: Nathan Hayward III, Secretary, Department of Transportation
Carolann Wicks, Chief Engineer, DelDOT
James R. McNinch III, Director, Maintenance and Operations
Gene Donaldson, TMC