



19700 Janelia Farms Blvd  
Ashburn, VA 20147  
703-726-5718  
mgibson@comsearch.com

September 14, 2005

**FILED ELECTRONICALLY**

Marlene Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

**RE: Comsearch *Ex Parte* Submission regarding the Dedicated Short Range  
Communications Service (DSRCS)  
WT Docket 01-90; ET Docket 98-95**

Dear Ms Dorch,

Comsearch, an Andrew Company, hereby submits this *ex parte* letter to support petitions for reconsideration filed by both ARINC<sup>1</sup> and ITS America<sup>2</sup> and *ex parte* submissions filed by ARINC<sup>3,4</sup> in the above-mentioned proceeding. Specifically, Comsearch agrees with the rationale described in the ARINC submissions supporting a DSRC Site Registration Manager.

Background

Comsearch, headquartered in Ashburn, Virginia specializes in spectrum management of terrestrial microwave, satellite and mobile telecommunications systems. Comsearch regularly interacts with the Commission and the National Telecommunications and Information

---

<sup>1</sup> Petition for Reconsideration and/or Clarification of ARINC Incorporated, WT Docket No. 01-90 (filed Sept. 2, 2004) (“ARINC Petition”).

<sup>2</sup> Petition for Reconsideration and/or Clarification of ITS America, WT Docket No. 01-90 (filed Sept. 2, 2004), (“ITS Petition”).

<sup>3</sup> Notice of *Ex Parte* Presentation in Amendment of the Commission’s Rules Regarding dedicated Short Range Communications Services in the 5.850-5.925 GHz Band (5.9 GHz Band), WT Docket No. 01-90 and ET Docket No. 98-95, filed on behalf of ARINC on June 27, 2005 (“1<sup>st</sup> ARINC *Ex Parte*”).

<sup>4</sup> *Ex Parte* Submission of ARINC Incorporated, WT Docket No. 01-90, ET Docket No. 98-95, RM-9096, (filed August 5, 2005) (“2<sup>nd</sup> ARINC *Ex Parte*”).

Administration (NTIA) and actively participates in various industry groups such as the National Spectrum Managers Association (NSMA), the Telecommunications Industry Association (TIA), Institute of Electrical and Electronics Engineers (IEEE), and the Wireless Communications Association International (WCA) to inform rules and develop industry recommendations and standards to promote the efficient use of the radio spectrum. Since 1977, Comsearch has been a leading provider of engineering services and software for mobile, microwave and satellite communications systems, both domestically and internationally. In this role, we have gained extensive experience in developing industry-standard coordination processes, creating and maintaining state-of-the-art software and databases, performing interference analyses of complex environments, and understanding regulatory requirements.

In their filings, both ARINC and ITS America raise two examples of services as precedents for an approach proposed for the DSRCS: the Above 70 GHz Service (70-90 GHz service)<sup>5,6,7</sup> and the Wireless Medical Telemetry Service (WMTS)<sup>8,9,10</sup>. In both of these services, Comsearch is a key participant.

In the 70-90 GHz service, Comsearch played a critical role in the early development of industry-proposed procedures for a streamlined device registration and interference management system, and was appointed by the FCC as a Site Registration Manager in these bands. As such, our role is to develop and manage a microwave link registration database for FCC licensees operating in the 71-76, 81-86, and 92-95 GHz bands. This is a web-based application that permits licensees

---

<sup>5</sup> ARINC Petition at 6, 17.

<sup>6</sup> ITS Petition at 6.

<sup>7</sup> 2<sup>nd</sup> ARINC *ex parte* at 18-25.

<sup>8</sup> ARINC Petition at 16.

<sup>9</sup> ITS Petition at 6.

<sup>10</sup> 2<sup>nd</sup> ARINC *ex parte* at 33, 39.

to identify available spectrum in these bands and register their links, ensuring interference-free operation.<sup>11</sup> Our database provides up-front interference analysis with commercial systems as well as automatic coordination with the NTIA. In addition, registering in this database obviates the need to register these devices in the FCC's Universal Licensing System (ULS).

For WMTS, Comsearch is the technical partner to the American Society for Healthcare Engineering of the American Hospital Association (ASHE). ASHE is the FCC-designated frequency coordinator for the WMTS. We have worked closely with ASHE, the FCC, and the healthcare community to develop a web-based medical telemetry device registration database.<sup>12</sup> As with the 70-90 GHz service, registering in the WMTS database eliminates the need to register these devices in the ULS. As part of our efforts, we have worked closely with all stakeholders to ensure that the process is easily understood, streamlined, and efficient. To date, this database contains over 1600 registered WMTS deployments in over 1200 hospitals.

### Discussion

In their filings, both ARINC and ITS America discuss the need of a Site Registration Manager in lieu of relying upon the "lower power of the RSUs and other interference mitigation provisions in the ASTM-DSRC standard" to manage interference.<sup>13,14,15,16</sup> Considering our long background in spectrum management, interference analysis, and frequency engineering, we concur that active spectrum management techniques under the control of a Site Registration Manager will "facilitate the intelligent placement of RSUs that maximizes available spectrum for

---

<sup>11</sup> [www.gigabitlink.com](http://www.gigabitlink.com)

<sup>12</sup> [www.wmtssearch.com](http://www.wmtssearch.com)

<sup>13</sup> ARINC Petition at 6-22.

<sup>14</sup> ITS Petition at 4-6.

<sup>15</sup> 1<sup>st</sup> ARINC *ex parte* at 2.

<sup>16</sup> 2<sup>nd</sup> ARINC *ex parte* at 10-15.

all users while ensuring the reliable and effective delivery of higher priority safety Communications”.<sup>17</sup>

In their *ex parte*, ARINC provides four reasons why a Site Registration Manager is needed for DSRC.<sup>18</sup> The first two reasons relate to the inadequateness of the ASTM DSRC standard to directly address RF interference concerns. Comsearch concurs in principle with the arguments presented, and would add that because of these arguments it is inadvisable to rely upon technology standards alone to mitigate interference, and absolutely so where public safety is at stake.

The third reason discusses the need for a mechanism to identify and resolve interference problems before systems are deployed. We believe this is a textbook reason to have a Site Registration Manager. Indeed, the primary task of the Site Registration Manager will be to analyze and resolve interference problems before systems are deployed rather than after, where analysis and mitigation will be more costly, time-consuming, and risky. In addition, considering the potential impact to public safety from RF interference, this alone is perhaps the most cogent reason to have a Site Registration Manager.

The final reason ARINC states for using a Site Registration Manager is for channel load balancing. This provides an active means to ensure adequate access to spectrum for public safety needs. Considering the 5.9 GHz DSRC band will be shared with both public safety and non-public safety licensees, the role of the Site Registration Manager will be critical to ensure that public safety licenses have priority access to spectrum. In addition, the Site Registration Manager will be able to perform the necessary engineering analyses to ensure that the spectrum is properly shared among all

---

<sup>17</sup> *Id.* at 16.

<sup>18</sup> 2<sup>nd</sup> ARINC *ex parte* at 10-15.

stakeholders.

### Conclusion

The DSRC represents a potentially powerful new service to both enhance the driving experience and improve public highway safety. However, we believe strongly that the full potential of DSRC cannot be realized, and public safety may be compromised, without proper management of the frequency spectrum through a Site Registration Manager. Accordingly, we support the above-mentioned filings for the reasons stated herein.

Sincerely,

/s/ H. Mark Gibson

Sr. Director, Business Development  
COMSEARCH