



PUBLIC NOTICE

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WIRELESS TELECOMMUNICATIONS BUREAU ANNOUNCES PERMANENT PROCESS FOR REGISTERING LINKS IN THE 71-76 GHz, 81-86 GHz, AND 92-95 GHz BANDS

By this Public Notice, the Wireless Telecommunications Bureau (“WTB” or “Bureau”) announces additional details of the link registration process for the 71-76, 81-86, 92-94.0 and 94.1-95 GHz bands.¹ This Public Notice also establishes February 8, 2005, as the date on which the Commission’s Universal Licensing System (ULS) will no longer process link registrations and the third party database system will become the sole source for registering links.

BACKGROUND

On October 16, 2003, the Commission adopted a *Report and Order* establishing service rules to promote non-Federal Government development and use of the “millimeter wave” spectrum in the 71-76 GHz, 81-86 GHz and 92-95 GHz bands² on a shared basis with Federal Government operations.³ The Commission adopted a flexible and innovative regulatory framework for the 71-95 GHz bands that would not require traditional frequency coordination among non-Federal Government users. Under this approach, the Commission issues an unlimited number of non-exclusive nationwide licenses to

¹ In the *Report and Order* released November 4, 2003, the Commission adopted rules for both unlicensed (Part 15) and licensed (Part 101) use of portions of these bands. Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, WT Docket No. 02-146, *Report and Order*, 18 FCC Rcd 23318 (2003) (*Report and Order*) (*recon. pending*). The instant Public Notice concerns licensed use of the bands, which involves all of the bands except for 100 megahertz of spectrum at 94.0-94.1 GHz. For convenience only, we refer to the licensed spectrum herein as “the bands,” “the Millimeter Wave 70/80/90 GHz Radio Service,” or “71-95 GHz”; such references do not include 94.0-94.1 GHz. See note 4, *infra*.

² On February 23, 2004, The Wireless Communications Association International, Inc. filed a petition for reconsideration of certain aspects of the *Report and Order* relating to the 71-76 and 81-86 GHz bands.

³ In the context of spectrum management, “Federal Government” refers to use by the Federal Government and “non-Federal Government” refers to use by private entities and state and local governments. See *Report and Order*, 18 FCC Rcd at 23319 n.3. See also 47 C.F.R. §§ 101.147(z) (sites may not operate until NTIA approval is received); 101.511 (authorization will be granted upon proper application filing and link coordination in accordance with the Commission’s rules); 101.1523 (sharing and coordination among non-Federal Government licensees and between non-Federal Government licensees and Federal Government services).

non-Federal Government entities for the 12.9 gigahertz of spectrum allocated for commercial use.⁴ These licenses serve as a prerequisite for registering individual point-to-point links, which in turn is required prior to operating a link. Furthermore, the 71-95 GHz bands are allocated on a shared basis with Federal Government users. Therefore, a licensee may not operate on a link until the link has been coordinated with the National Telecommunications and Information Administration (NTIA) with respect to Federal Government operations. NTIA has separately developed an automated coordination mechanism discussed in detail in Section I.C. below.

In the *Report and Order*, the Commission explained that link registration would be handled through an independent link registration system (LRS) to be developed and maintained by FCC-appointed database managers. The Commission indicated that the licensing and link registration implementation would be detailed in public notices.⁵ The Bureau subsequently announced June 21, 2004, as the start date for filing applications for non-exclusive nationwide licenses and July 19, 2004, as the start date for licensees to register individual links under an interim link registration process (Interim Procedures) through ULS.⁶ Pursuant to the *Report and Order*, link registration through ULS would end at such time as a third-party, non-FCC database system was in place through which 70-90 GHz licensees would register links.⁷

On September 29, 2004, the Bureau released an Order announcing the appointment of Comsearch, Frequency Finder, Inc.,TM and Micronet Communications, Inc. as independent database managers (Database Manager or, collectively, Database Managers) responsible for the design and management of the third-party 71-95 GHz bands link registration system (LRS).⁸ The LRS is now complete. Accordingly, this Public Notice sets forth the provisions for the permanent link registration process through the LRS.

I. INDIVIDUAL LINK REGISTRATION AND COORDINATION

A. Introduction

As noted above, links cannot be registered by a licensee until a geographic nationwide license is issued by the Commission to the licensee. Applications for non-exclusive nationwide licenses will continue to be filed with the Commission, and applicants are encouraged to electronically file using ULS⁹

⁴ The 71-76 GHz, 81-86 GHz and 92-95 GHz bands are allocated to both Federal Government and non-Federal Government users on a co-primary basis, except the 94.0-94.1 GHz portion, which is allocated for exclusive Federal Government use. *See generally, Report and Order*, 18 FCC Rcd at 23322-31.

⁵ *Report and Order* at ¶ 59. *See also* 47 C.F.R. § 101.1523(b).

⁶ Wireless Telecommunications Bureau Announces Licensing and Interim Link Registration Process, Including Start Date for Filing Applications for Non-Exclusive Nationwide Licenses in the 71-71 GHz, 81-86 GHz, and 92-95 GHz Bands, *Public Notice*, DA 04-1493 (March 12, 2004) (*Interim Procedures Public Notice*).

⁷ *Report and Order* at ¶¶ 59-60.

⁸ Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, *Order*, DA04-3151 (WTB, Sept. 29, 2004) (*Database Manager Order*). Each Database Manager has executed a Memorandum of Understanding with the Commission memorializing their obligations and responsibilities as a 71-95 GHz link registration database manager.

⁹ Pursuant to Section 1.913(d) of the Commission's Rules certain categories of applicants are permitted to file their license applications manually. However, the Bureau urges all applicants to file electronically using ULS because "[l]icensees who continue to file applications manually risk dismissal of their applications for routine errors." *See* Wireless Telecommunications Bureau Revises and Begins Phased Implementation of its Unified Policy for Reviewing License Applications and Pleadings, *Public Notice*, 14 FCC Rcd 11182, 11186 (WTB 1999). The

for the licenses on FCC Form 601.¹⁰ See *Interim Procedures Public Notice* for further details regarding the filing of applications for a non-exclusive nationwide license.

B. Link Registrations under the Permanent Process—LRS

Transition from Interim Process (using ULS) to Database Managers (using LRS).

Starting on February 8, 2005 (Transition Date), licensees must register links on the LRS. As of the Transition Date, ULS will no longer accept applications for registration of individual links and will no longer assign an interference protection date to any link registration. The first-in-time interference protection date will be established by registration on the LRS.¹¹ Any pending link registrations filed with the Commission prior to the Transition Date will be processed to completion by the Commission under the Interim Procedures. The link data will be transferred to the Database Managers upon completion of the registration process. Once all registered link data has been transferred to the Database Managers, the link registration data residing in ULS will be archived.

Because the three Database Managers have designed the LRS to work through their separate but redundant databases, each link's status will be available through any one of the three. The successful completion of the registration will be recorded by the originating Database Manager and will be shared with each of the other Database Managers. Licensees should consult the LRS for up-to-date information regarding their links and the public can access information online about all registered links through LRS (see attachment for contact information). Licensees may not begin operation of a link until the registration of that link has been completed through the LRS.

Licensees will not be able to complete link registrations through the LRS until (a) the link is successfully coordinated through NTIA and (b) the necessary approvals and clearances have been obtained through the FCC (see Sections I.C. and I.D. below for further details). The Database Managers have indicated that they may offer FCC filing services as one of several optional services,¹² and LRS will be querying NTIA's automated database at the time the licensee submits the link for registration. Nevertheless, we remind licensees that they remain responsible for obtaining all of the necessary governmental approvals in order to complete the link registration and operate on a link.

LICENSEES ARE STRONGLY ADVISED TO SUBMIT A PROPOSED LINK TO A DATABASE MANAGER AS SOON POSSIBLE AND PRIOR TO MAKING ANY REQUIRED FCC FILINGS (SEE SECTION I.D.BELOW).

Bureau has noted that “[m]any of the filing errors routinely made by applicants involve missing signatures, missing or invalid answers to mandatory questions, missing or incorrect fees, and technical information inconsistent with the applicant’s authorization,” and that using ULS would nearly eliminate the filing of applications with these types of errors due to the real-time feedback online prior to the applicant submitting the application electronically. *Id.* at 11185.

¹⁰ An FCC Registration Number (FRN) is required in order to file in ULS. If the applicant does not have an existing FRN, it must register and obtain an FRN prior to filing the license application. The FCC Registration Number (FRN) is the 10-digit number assigned to all entities (individual and corporate) that transact business with the FCC (including via ULS) and is not to be confused with the “link registrations” discussed in Section I.B. of the instant Public Notice. Applicants can obtain an FCC Registration Number (FRN) using the Wireless Telecommunications Bureau web site at <http://wireless.fcc.gov/> and select “CORES/Call Sign Registration” from the right hand menu under the heading of Licensing. The printed copy of the non-exclusive nationwide license will not be updated to reflect link registrations and will not be re-issued when individual links are registered with that call sign.

¹¹ See discussion *infra*, Section I.E., “Interference Protection Date and Interference Dispute Resolution.”

¹² See *Report and Order*, 18 FCC Rcd 23340 ¶ 50.

C. Coordination with Federal Government Operations (NTIA)

Proposed links must be coordinated with NTIA. NTIA has developed an automated coordination mechanism that will allow non-Federal Government users and the Database Managers to determine whether a given non-Federal Government link has any potential conflict with Federal Government users.¹³

A proposed link entered into NTIA's automated system will result in either a "green light" or a "yellow light" response based on the proposed parameters. If the proposed link receives a green light, that link will be protected for a period of sixty (60) days in NTIA's system; if registration has not been completed through the LRS by the end of that time, the link must be resubmitted through NTIA's automated system for coordination with Federal Government operations.¹⁵ If the proposed link receives a yellow light, an FCC Form 601 and Schedule M will need to be filed with the Commission for further coordination with NTIA through the existing Interdepartment Radio Advisory Committee (IRAC) process.

When IRAC clears a proposed link, the licensee will be notified by Commission letter that the IRAC coordination has been completed. The Database Managers will also be provided with the status through the ULS nightly batch files for purposes of completing registration of the link.¹⁶

D. Link Registrations that Also Require Commission Filings

A filing with the Commission will be required for links that

- receive a yellow light from NTIA's automated system (*see* Section I.C. above);
- require environmental assessment;

¹³ *See Notice*, Establishment of a Frequency Assignment Coordination Web Site, National Telecommunications and Information Administration, 68 FR 74218 (Dec. 23, 2003); the public may access the NTIA website using the following: <http://FreqCoord.ntia.doc.gov>. The sensitive nature of some Federal Government operations precludes the use of a public database containing both Federal Government and non-Federal Government links. *See Report and Order* at ¶ 48.

¹⁴ A filing with the Commission is required even in the event of a green light from NTIA's automated system when the proposed link requires an environmental assessment, is located in a radio quiet zone, or is in an area subject to international coordination. 47 C.F.R. § 101.1523(c).

¹⁵ A filing with the Commission is required even in the event of a green light from NTIA's automated system when the proposed link requires an environmental assessment, is located in a radio quiet zone, or is in an area subject to international coordination. 47 C.F.R. § 101.1523(c).

¹⁶ If a licensee chooses to query NTIA's automated system before submitting a link for registration (for example, in planning a particular system design), we strongly urge the licensee to submit the proposed link(s) for registration on the LRS as soon as possible thereafter in order to receive an interference protection date, thereby avoiding the following situation: Licensee A queries NTIA's system on March 1 and receives a green light. Licensee A submits its proposed link for registration to a Database Manager on April 30; the LRS receives a green light from NTIA's automated system and completes the registration that same day. Licensee B submits its link to a Database Manager on March 5, and a Form 601 for international coordination is filed that same day. The proposed link receives a green light from NTIA on March 5 and international coordination procedures are successfully completed by April 30; registration is completed by June 1. Licensee B's link receives interference from Licensee A's link. Licensee B is entitled to interference protection as against Licensee A's link because Licensee B's link was submitted to the LRS prior to Licensee A's link (*i.e.*, Licensee B's March 5 submission date was preserved while it completed the registration process; Licensee A does not have first-in-time rights against Licensee B because its registration protection date was April 30—the date it submitted the link to the LRS.)

- require coordination because of a radio quiet zone; or
- are subject to international coordination requirements.¹⁷

For links that fall into any one of the aforementioned categories, the licensee must file FCC Form 601 Main Form and Schedule M; a separate filing is required for each link. The filings will not be placed on public notice as a matter of routine¹⁸ unless they raise a matter of public significance, *e.g.*, environmental concerns.¹⁹ For those links that are filed on FCC Form 601/Schedule M and shown as accepted or rejected in ULS, the Database Managers are required to record the result of the FCC process for the link in the LRS.²⁰ Upon acceptance of the link filing in ULS, the link registration can be completed.

E. Interference Protection Date and Interference Dispute Resolution

Under the permanent link registration process, the interference protection date is the date that a link registration (new or modified) is submitted to a Database Manager.²¹

LINKS DO NOT RECEIVE AN INTERFERENCE PROTECTION DATE UNTIL SUBMITTED TO THE LRS.

To ensure an orderly, reliable and streamlined link registration system that would facilitate the resolution of any interference between links, the Commission provided priority of protection based on the date and time of registration.²² The first-in-time interference protection rights are explained below:²³

1. The protection attaches only to a successfully completed registration. Furthermore, first-in-time protection rights can only be established and enforceable for a link that can or ultimately will be constructed.²⁵

Examples: (a) (i) A proposed link cannot be successfully coordinated through IRAC after receiving a yellow light; (ii) international coordination cannot be successfully

¹⁷ See *Report and Order*, 18 FCC Rcd 23341 ¶ 56.

¹⁸ The filings with the Commission will be electronically available for public inspection through ULS.

¹⁹ See, *e.g.*, 47 C.F.R. § 1.933(a) (3) (categories of information of public significance include special environmental considerations as required by Part 1, FCC Rules).

²⁰ Licensees will continue to file with the Commission any waiver requests or similar filings related to a link. The licensees must inform the Database Managers of any such filings or any other matters related to a proposed or existing link that would affect the status of the link in the LRS.

²¹ Licensees are required to notify a Database Manager any time they make changes to the proposed link parameters.

²² *Report and Order*, 18 FCC Rcd 23343 ¶ 58.

²³ The licensee will receive notice of the request for information and detailed written instructions for submitting the needed information within a prescribed timeframe.

²⁴ See also n.13 *supra*.

²⁵ We stress that licensees shall not arbitrage high value paths by filing link registrations to preserve first in time protections against competitors for those paths, and then later making conforming modifications to meet particular coverage needs. The Commission will take appropriate enforcement steps against a licensee should such activity come to the Commission's attention.

completed for the link; (iii) negotiation as to a radio quiet zone is not successful; or (iv) review for environmental assessment of the link is not favorable.

(b) The licensee is asked to supplement a Form 601/Schedule M filing with additional information and fails to do so within the required timeframe.

In any of those situations, the filing with the Commission will be dismissed and the interference protection date will be rendered ineffective as of the dismissal date.

(c) A registered link is not timely constructed but the licensee fails to remove the link from the LRS.

In (a)-(c), the licensee must resubmit the link for registration to receive an interference protection date.

2. Interference protection inures to a link by the latest technical parameters provided by the licensee through the LRS. If a licensee modifies its link during the link registration process or thereafter, the first-in-time protection date attaches to the date the modified link is submitted to a Database Manager (*see* additional information regarding modifications in Section I.H. below).

Example: (a) IRAC (in the case of a yellow light) or the FCC (for environmental assessment, international coordination or radio quiet zone coordination filings) seeks additional information that results in the licensee needing to modify its link.

The Form 601/Schedule M will need to be amended in accordance with the Commission's rules. The link must have a new interference protection date, which will be the date the modified link information is submitted to the LRS. It will **not** be the date the Form 601/Schedule M amendment is filed.

3. If the licensee (a) timely responds to a request for information from the FCC regarding a pending Form 601/Schedule M link filing, and (b) does not make any changes to the data on FCC Form 601 or Schedule M, the current interference protection date will be preserved.

Example: IRAC seeks more detailed information (*e.g.*, a particular antenna pattern or additional terrain data) that is timely supplied by the licensee. The first-in-time interference protection date assigned to the link does not change.

Should a licensee receive interference from another licensee, the licensees shall take the following steps to resolve the matter. A licensee should look to the LRS to identify the source of the interference and seek the assistance of the Database Managers in resolution of the interference. The Database Managers will use the interference protection dates of the affected parties in helping to resolve the interference.²⁶ The licensee causing the interference shall respond immediately and make every reasonable effort to identify and resolve the interference immediately pursuant to the interference resolution procedures outlined in Section 101.105 of the Commission's rules.²⁷ Links shall be protected in accordance with the interference criteria specified in Section 101.147(z)(2), unless the parties

²⁶ See Database Manager Order at ¶ 10.

²⁷ 47 C.F.R. § 101.105.

otherwise mutually agree to other criteria.²⁸ While the parties may engineer around the interference as they mutually deem appropriate, the licensee with the first-in-time protection date is entitled to interference protection.²⁹

The parties shall establish a time period for resolution of the interference. If, however, the licensee receiving the interference and entitled to protection is not satisfied that the problem has been adequately resolved, and after 30 days have passed following completion of the parties' efforts, the licensee may seek Commission assistance to rectify the problem.³¹ However, we strongly encourage parties to make every attempt to resolve the harmful interference before seeking assistance from the Commission.³²

INTERFERENCE PROTECTION DATE—GUIDE

Under the permanent process, the interference protection date is the date that a link registration is submitted to a Database Manager—even for link registrations that also require FCC filings. Thus, under the permanent process, the interference protection date is NOT set or changed by the following events:

- required FCC filings
- FCC acceptance on ULS
- NTIA “green light”
- IRAC coordination (after NTIA yellow light”)

THE INTERFERENCE PROTECTION DATE WILL CHANGE if at any time technical data is modified or amended

F. Fees for Link Registration

Individual link registrations will not be subject to FCC application or regulatory fees, including those subject to FCC Form 601 filing requirements discussed above.³³ In the *Report and Order*, the Commission provided that Database Managers may charge fees in order to recoup costs associated with LRS services.³⁴

²⁸ See 47 C.F.R. § 101.147(z) (2).

²⁹ The licensee who has the earlier filed link may refuse to protect later filed links against interference. Nevertheless, we ask that all licensees consider interference resolutions notwithstanding their first-in-time interference protection rights.

³⁰ See 47 C.F.R. § 101.147(z) (2).

³¹ *Report and Order*, 18 FCC Rcd 23343 ¶ 58.

³² See 47 C.F.R. § 101.105(e)(2).

³³ The Commission adjusts filing and regulatory fees periodically as required by several statutes, see 47 U.S.C. §§ 158(b)(1), 159(b)(2), and proposed adjustments to the regulatory fees for microwave point-to-point and other licenses may be subject to periodic changes. See e.g., Assessment and Collection of Regulatory Fees for Fiscal Year 2004, MD Docket No. 04-73, *Report and Order*, 19 FCC Rcd 11662 (2004).

³⁴ See *Report and Order* at ¶ 51.

G. Link Construction Requirements

Licensees must begin operation of a link within twelve months from the date that the link is registered on the LRS.³⁵ While licensees need not file a notification of construction completion, it is the responsibility of the licensee to notify a Database Manager to withdraw unconstructed links from the LRS, and Database Managers shall remove a link from the LRS if they learn that a link is unconstructed after the required timeframe.³⁶ In addition, the interference protection date will be rendered invalid for any registered link that does not comply with the 12-month construction requirement.³⁷

H. Modifications and Amendments to Link Registrations

Changes to the technical data on an individual link registration will result in a new interference protection date.³⁸ The LRS must correctly reflect the interference protection date as the date that the licensee submits the modification to a Database Manager.

A licensee will be required to notify the Database Manager if it modifies the technical data on an individual link registration. The new link parameters must be coordinated with NTIA through its automated system. If the modified link receives a green light from NTIA's automated system, the link registration can be completed. If the modified link parameters receive a yellow light, an FCC Form 601 Main Form and Schedule M must be filed with the FCC for the purpose of coordinating the modified link through IRAC.

Where the original link required filing with the FCC for the purpose of environmental assessment, radio quiet zone, or international coordination, an FCC Form 601 Main Form and Schedule M must be filed with the Commission to obtain approval for the modified link parameters. The applicant must file FCC Form 601 Main Form with a purpose of "Register Link/Location" (RL).

To amend or supplement the information contained in a pending Form 601/Schedule M link filing, licensees will be required to file another FCC Form 601 Main Form and Schedule M. The FCC Form 601 should indicate a purpose of Amendment (AM) and identify the file number of the link filing being changed. When filing electronically, the previously entered data from Schedule M will be displayed and the licensee will be allowed to change the data. **Licensees are reminded that a change to the technical data provided or included as part of the Schedule M will require a change in the link in the LRS and will result in a new interference protection date.**

I. Transfer and Assignment of Registered Links

In setting 71-95 GHz licensee obligations, the Commission noted that "[t]he overarching purpose of our requirements in this setting, concerning link construction, modification and discontinuance, is to ensure that spectrum is put to use and to maintain the integrity of the information in the relevant databases by correctly reflecting the actual record...."³⁹ Furthermore, the Commission found that, due to the similarity of these bands with other Part 101 microwave bands, the nationwide licenses in the 70-90 GHz

³⁵ 47 C.F.R. § 101.63(b); *see also Report and Order* at ¶ 80.

³⁶ *Report and Order* at ¶ 80. Forfeiture and termination of a link will be handled in accordance with Section 101.65 of the Commission's rules. *Id.*

³⁷ *Id.* at n.204.

³⁸ *See* "Interference Protection Date and Interference Dispute Resolution," Section I.D, *supra*.

³⁹ *Report and Order* at ¶ 80.

bands should be regulated under Part 101 of the Commission's rules.⁴⁰ Accordingly, licensees will be allowed to transfer and assign their non-exclusive nationwide licenses pursuant to Part 101 of the Commission's rules, but individual links may be swapped or assigned among 71-95 GHz licensees without the need for Commission approval.⁴¹ Thus, all links registered under a nationwide call sign will continue to be associated with that call sign upon grant of the assignment or transfer. If the nationwide license is not included in the transaction, individual links under a valid call sign that have been successfully registered may be moved from one licensed entity to another through notification to a Database Manager. In either case, the Database Managers must update the LRS to reflect the correct licensee name for call signs and associated links.⁴²

II. FURTHER INFORMATION OR ASSISTANCE

Questions regarding the application filing and link registration procedure outlined in this public notice may be directed to the ULS Hotline at 1-888-CallFCC Option #2. Questions regarding this Public Notice may be directed to Cheryl Black or Stephen Buenzow, Broadband Division, WTB, 717-338-2687.

Action by the Chief, Broadband Division, Wireless Telecommunications Bureau.

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⁴⁰ *Id.* at ¶¶ 88-89.

⁴¹ *See Interim Procedures Public Notice*, "Transfer and Assignment of Non-exclusive Nationwide Licenses" at p. 5.

⁴² *See, e.g., Report and Order*, 18 FCC Rcd 23340 ¶ 49 (third-party entity serves as a clearinghouse and repository of site path information).

ATTACHMENT

Licensees may contact any of the Database Managers for more information about registering a link on the Link Registration System (LRS). Please contact one of the following Database Managers (listed in alphabetical order):

- Comsearch — Denise Finney, Comsearch, 19700 Janelia Farm Boulevard, Ashburn, VA 20147, (703)726-5500, facsimile-(703)726-5599, www.comsearch.com, www.gigabitlink.com; or
- Frequency Finder — Peter Moncure, Frequency Finder, Inc., 160 Sosebee Lane, Demorest, GA 30535, (706)778-6811, facsimile-(706)778-6812, www.mmRadioForms.com; or
- Micronet Communications — Steve Knauber, Micronet Communications, Inc., 720 F Avenue, Suite 100, Plano, TX 75074, (972)422-7200, facsimile-(972)422-1900, micronet@micronetcommunications.com, www.micronetcommunications.com.