Use of Spectrum Bands Above 24 GHz for Mobile Radio Services **3060-1215**

May 2017

SUPPORTING STATEMENT

1. **Justification:**
2. The Federal Communications Commission (Commission or FCC) adopted Use of

Spectrum Bands Above 24 GHz for Mobile Radio Services in a Report and Order (R&O, Docket No. 14-177, FCC 16-89, on July 14, 2016, published in 81 FR 79894 on November 14, 2016. In this R&O, the Commission adopted service rules for licensing of mobile and other uses for millimeter wave (mmW) bands. This R&O will help facilitate Fifth Generation mobile services and other mobile services. In developing service rules for mmW bands, the Commission will facilitate access to spectrum, develop a flexible spectrum policy, and encourage wireless innovation.

On March 17, 2016, the Commission received a pre-approval from the Office of Management and Budget (OMB) for information collection proposed for 47 C.F.R. Part 30 – Upper Microwave Flexible Use Service. Part 30 is a new collection under this Notice of Proposed Rulemaking (NPRM) titled Use of Spectrum Bands Above 24 GHz for Mobile Radio Services, GN Docket No. 14-177, IB Docket Nos. 15-256 and 97-95, RM-11664, WT Docket No. 10-112, and FCC 15-138.

The Commission now seeks final approval from the OMB for the following information collection requirements:

**§ 25.136** – *Earth Stations in the 27.5-28.35 GHz and 37.5-40 GHz bands.*

Fixed Satellite Service (FSS) is secondary to the Upper Microwave Flexible Use Service

(UMFUS) in the 27.5-28.35 GHz band. Notwithstanding that secondary status, an earth station in the 27.5-28.35 GHz band that meets one of the criteria listed below may operate consistent with the terms of its authorization without providing any additional interference protection to stations in the UMFUS:(1) The FSS licensee also holds the relevant UMFUS license(s) for the area in which the earth station generates a power flux density (PFD), at 10 meters above ground level, of greater than or equal to -77.6 dBm/m2/MHz;

(2) The FSS earth station was authorized prior to July 14, 2016; or

(3) The application for the FSS earth station was filed prior to July 14, 2016 and has been subsequently granted; or

(4) The applicant demonstrates compliance with all of the following criteria in its application:

(i) There are no more than two other authorized earth stations operating in the 27.5-28.35

 GHz band within the county where the proposed earth station is located that meet the criteria contained in either paragraphs (a)(1), (2), (3), or (4) of this section. For purposes of this requirement, multiple earth stations that are collocated with or at a location contiguous to each other shall be considered as one earth station;

(ii) The area in which the earth station generates a power flux density (PFD), at 10 meters above ground level, of greater than or equal to -77.6 dBm/m2/MHz, together with the similar area of any other earth station authorized pursuant to section (a) of this rule, does not cover, in the aggregate, more than 0.1 percent of the population of the county within which the earth station is located;

(iii) The area in which the earth station generates a PFD, at 10 meters above ground level, of greater than or equal to -77.6 dBm/m2/MHz does not contain any major event venue, arterial street, interstate or U.S. highway, urban mass transit route, passenger railroad, or cruise ship port; and

(iv) The applicant has successfully completed frequency coordination with the UMFUS licensees within the area in which the earth station generates a PFD, at 10 meters above ground level, of greater than or equal to -77.6 dBm/m2/MHz with respect to existing facilities constructed and in operation by the UMFUS licensee. In coordinating with UMFUS licensees, the applicant shall use the applicable processes contained in § 101.103(d) of this part.

1. Applications for earth stations in the 37.5-40 GHz band shall provide an exhibit describing

the zone within which the earth station will require protection from transmissions of UMFUS licensees. For purposes of this rule, the protection zone shall consist of the area where UMFUS licensees may not locate facilities without the consent of the earth station licensee. The earth station applicant shall demonstrate in its application, using reasonable engineering methods, that the requested protection zone is necessary in order to protect its proposed earth station.

1. The protection zone (as defined in paragraph (b) of this section) shall comply with the

following criteria. The applicant shall demonstrate compliance with all of the following criteria in its application:

(1) There are no more than two other authorized earth stations operating in the 37.5-40 GHz band within the Partial Economic Area (PEA) within which the proposed earth station is located that meet the criteria contained in paragraph (c) of this section. For purposes of this requirement, multiple earth stations that are collocated with or at a location contiguous to each other shall be considered as one earth station;

(2) The protection zone, together with the protection zone of other earth stations in the same PEA authorized pursuant to this section, does not cover, in the aggregate, more than 0.1 percent of the population of the PEA within which the earth station is located;

(3) The protection zone does not contain any major event venue, arterial street, interstate or U.S. highway, urban mass transit route, passenger railroad, or cruise ship port; and

(4) The applicant has successfully completed frequency coordination with the UMFUS licensees within the protection zone with respect to existing facilities constructed and in operation by the UMFUS licensee. In coordinating with UMFUS licensees, the applicant shall use the applicable processes contained in § 101.103(d) of this part.

1. If an earth station applicant or licensee in the 27.5-28.35 GHz or 37. 5-40 GHz bands enters into an agreement with an UMFUS licensee, their operations shall be governed by that agreement, except to the extent that the agreement is inconsistent with the Commission’s rules or the Communications Act.

**§ 30.3 Eligibility ‒** *Foreign Ownership Reports.*

Any entity who meets the technical, financial, character, and citizenship qualifications that the Commission may require in accordance with such Act, other than those precluded by section 310 of the Communications Act of 1934, as amended, 47 U.S.C. 310, is eligible to hold a license under this part.[[1]](#footnote-1)

**§ 30.105, Subpart B – Applications and Licenses ‒** *Construction Requirements.*

1. UMFUS licensees must make a buildout showing as part of their renewal applications.

Licensees relying on mobile or point-to-multipoint service must show that they are providing reliable signal coverage and service to at least 40 percent of the population within the service area of the licensee, and that they are using facilities to provide service in that area either to customers or for internal use. Licensees relying on point-to-point service must demonstrate that they have four links operating and providing service, either to customers or for internal use, if the population within the license area is equal to or less than 268,000. If the population within the license area is greater than 268,000, a licensee relying on point-to-point service must demonstrate it has at least one link in operation and is providing service for each 67,000 population within the license area.

1. Existing 39 GHz licensees shall not be required to make a showing pursuant to this rule and

shall be governed by the provisions of § 101.17 of this chapter if the expiration date of their license is prior to March 1, 2021.Showings that rely on a combination of multiple types of service will be evaluated on a case-by-case basis.

1. If a licensee in this service is also a Fixed-Satellite Service (FSS) licensee and uses the

spectrum covered under its UMFUS license in connection with a satellite earth station, it can demonstrate compliance with the requirements of this section by demonstrating that the earth station in question is in service, operational, and using the spectrum associated with the license. This provision can only be used to demonstrate compliance for the county in which the earth station is located.

1. Failure to meet this requirement will result in automatic cancellation of the license. In

bands licensed on a Partial Economic Area basis, licensees will have the option of partitioning a license on a county basis in order to reduce the population within the license area to a level where the licensee’s buildout would meet one of the applicable performance metrics.

1. Existing 28 GHz and 39 GHz licensees shall be required to make a showing pursuant to

this rule by June 1, 2024.

**§ 30.107, Subpart B – Applications and Licenses ‒** *Discontinuance of Service.*

An Upper Microwave Flexible Use License authorization will automatically terminate,

without specific Commission action, if the licensee permanently discontinues service after the initial license term.

1. For licensees with common carrier regulatory status, permanent discontinuance of service is

defined as 180 consecutive days during which a licensee does not provide service to at least one subscriber that is not affiliated with, controlled by, or related to the licensee in the individual license area. For licensees with non-common carrier status, permanent discontinuance of service is defined as 180 consecutive days during which a licensee does not operate.

1. A licensee that permanently discontinues service as defined in this section must notify the

Commission of the discontinuance within 10 days by filing FCC Form 601 or 605 requesting license cancellation. An authorization will automatically terminate, without specific Commission action, if service is permanently discontinued as defined in this section, even if a licensee fails to file the required form requesting license cancellation.

Statutory authority for this collection are contained in sections 1, 2, 3, 4, 5, 7, 10, 201, 225, 227, 301, 302, 302a, 303, 304, 307, 309, 310, 316, 319, 332, and 336 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 153, 154, 155, 157, 160, 201, 225, 227, 301, 302, 302a, 303, 304, 307, 309, 310, 316, 319, 332, 336, Section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302.

This information collection does not affect individuals or households; thus, there are no impacts under the Privacy Act.

1. The information collection requirements adopted in the R&O will apply to all entities in

the same manner. The Commission believes that applying the same rules equally to all entities in this context promotes fairness. The Commission does not believe that the costs and/or administrative burdens associated with the proposed rules will unduly burden small entities, as discussed below. The revisions the Commission adopts should benefit small entities by giving them more information, more flexibility, and more options for gaining access to wireless spectrum.

Any applicants for UMFUS licenses will be required to file license applications using the Commission’s automated Universal Licensing System (ULS). ULS is an online electronic filing system that also serves as a powerful information tool, one that enables potential licensees to research applications, licenses, and antenna structures. It also keeps the public informed with weekly public notices, FCC rulemakings, processing utilities, and a telecommunications glossary. UMFUS applicants that must submit long-form license applications must do so through ULS using Form 601, FCC Ownership Disclosure Information for the Wireless Telecommunications Services using FCC Form 602, and other appropriate forms.

Applicants in the UMFUS will be required to meet buildout requirements. In doing do, they will be required to provide information to the Commission on the facilities they have constructed, the nature of the service they are providing, and the extent to which they are providing coverage in their license area.

1. The Commission’s rules provide for electronic filing, as stated in No. 2, and it is the

Commission’s goal to eliminate, to the greatest extent possible, the filing of paper applications.

1. The Commission does not impose a similar information requirements on the respondents;

therefore, the R&O does not impose duplicative information to be collected. Similar data is not available elsewhere.

1. The Commission will license the 28 GHz band using county-sized licenses. The 39 GHz

band and the 37.6-38.6 GHz band will be licensed using Partial Economic Areas. These license areas are small enough to provide spectrum access opportunities for smaller carriers. County license areas also nest within and may be aggregated up to larger license areas. Therefore, the benefits and burdens resulting from assigning spectrum in county license areas are equivalent for small and large businesses. Licensees may adjust their geographic coverage through auction or through secondary markets. This rule should enable providers, or any entities, whether large or small, providing service in the mmW bands to more easily adjust their spectrum to build their networks pursuant to individual business plans. As a result, we believe the ability of licensees to adjust spectrum holdings will provide an economic benefit by making it easier for small entities to acquire spectrum or access spectrum.

The proposals to facilitate satellite service in the 28 GHz, 39 GHz, and 37 GHz bands would facilitate service by all Fixed Satellite Service entities, including small entities.

The Commission will conduct any auction for licenses for spectrum in the mmW bands in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission’s rules, and substantially consistent with the competitive bidding procedures that have been employed in previous auctions. Specifically, we employ the Part 1 rules governing competitive bidding design, designated entity preferences, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants. Specifically, small entities will benefit from the proposal to provide small businesses with a bidding credit of 15 percent and very small businesses with a bidding credit of 25 percent. Providing small businesses and very small businesses with bidding credits will provide an economic benefit to small entities by making it easier for small entities to acquire spectrum or access to spectrum in these bands.

The Commission permit a licensee to employ the spectrum for any non-Federal fixed or mobile use, subject to the Commission’s proposed Part 30 flexible use and other applicable rules (including service rules to avoid harmful interference). The technical rules we propose or seek comment on will allow licensees of mmW band spectrum to operate while also protecting licensees of nearby spectrum, some of whom are small entities, from harmful interference.

We also permit partitioning and disaggregation by licensees in the mmW bands. These secondary market rules apply equally to all entities, whether small or large. We believe the opportunity to enter into secondary market agreements for mmW band spectrum will provide an economic benefit to all entities, whether large or small. Therefore, the benefits and burdens resulting from secondary market agreements for spectrum are equivalent for small and large businesses.

1. Information collection is required when an applicant seeks Commission approval for

new or modified facilities, or for an assignment or transfer of control. The frequency of the filing is generally determined by the applicant. Renewal applications must be filed once every ten years. If this collection were not conducted, the Commission could not carry out its statutory responsibilities under Section 310(d) of the Communications Act of 1934, as amended.

1. No special circumstances are associated with this collection of information that would

make the current data collection inconsistent with 5 C.F.R. § 1320.5.

8. The 60-day notice soliciting public comments on this collection was published in the Federal Register as required under 5 C.F.R. § 1320.8(d) on September 22, 2016 (81 FR 65358).  In response to the 30-day notice, the Commission received a comment from NCTA – The Internet and Television Association.[[2]](#footnote-2)  The Commission has revised the collection to address the comment.

9. Respondents will not receive any payments in connection with collection of information.

10. No need for confidentiality with this information collection.

11. This collection of information does not address private matters or questions of a sensitive nature.

12. Annual Burden Cost (In-House): For the purpose of this supporting statement, the Commission estimates the number of respondent burden hours for each rule section which contains information collection requirements. The chart below outlines the number of respondents, frequency of response, time per response, and total annual burden hours for each new collection.

For Sections 30.105 and 25.136 a, b (Third Party Disclosure) of the Commission’s rules, the Commission assumes 100 respondents will each respond on occasion, and of the 100 respondents 75 percent of the respondents will contract consultants (see #13, Annual Burden Cost – Consultant) to handle the burden of reporting; the remaining 25 percent of respondents will employ in-house staff to respond. The in-house cost is reflective in the table below titled “Annual Burden”. For the other rules, the Commission estimate that in-house staff will comply with the reporting requirements. We assume that the respondents will use in-house staff attorney ($66.88/hour) or engineer ($44.24/hour) to consult and prepare information.[[3]](#footnote-3)

The Commission calculates the burden from each proposed rule to be as follows:

**Annual Burden**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Respondents | Estimated Number of Respondents | Estimated Frequency of Responses | Total Number of Responses | Time per Response (Hours) | Total Annual Burden Hours | Effective Date |
| a | §25.136, Concerning Satellite Stations -Third Party Disclosure | 25 | On occasion | 25 | 0.5 | 13(12.5)  | Upon OMB Approval |
| b. | §25.136, Concerning Satellite Stations -Filing Requirement | 25 | On occasion | 25 | 10 | 250 | Upon OMB Approval |
| c. | §30.3, Eligibility, Foreign ownership reports | 30  | Once | 30 | 0.5 | 15 | Upon OMB Approval |
| d. | §30.105, Subpart B – Applications and LicensesConstruction requirements | 0 | At endof license term, or 2024 for incumbent licensees | 0 | 2 | 0 | N/A during current 3-year approval period |
| e. | §30.107, Subpart B – Applications and LicensesDiscontinuance of Service | 0 | On occasion | 0 | 0.5 | 0 | N/A during current 3-year approval period |
|  | **Totals:** | **80****In-House** **Respondents** |  | **80****In-House****Responses** | **0.5-10** | **278****Hours** |  |

**12-a.** *§25.136, Concerning Satellite Stations – Third Party Disclosure.* The Commission requires a third party disclosure coordination requirement between terrestrial and satellite operators. The Commission seeks approval for the estimated burden of 0.5 hours for about 100 annual respondents (50 are satellite applicants and 50 are UMFUS licensees) to complete an application. The Commission estimates that 75 percent of coordination will be completed by outside engineers, and 25 percent from in-house engineers.

**Annual Burden: 25 respondents x 1 response each x 0.5 hours per response = 13 (12.5 round up) hours.**

**In-House Staff Cost: (25 respondents x 1 response each x 0.5 hours of engineer time per response) x $44.24/hour = $553.**

**12-b.** *§25.136, Concerning Satellite Stations - Filing Requirement.* The Commission requires a filing requirement when applicants file for earth stations in the 28 GHz or 37.5-40 GHz bands. The Commission seeks approval for the estimated burden of 10 hours for each response to complete a filing and about 100 applications per year. The Commission estimate that 75 percent of applications will be completed by outside engineers, and 25 percent from in-house engineers.

**Annual Burden: 25 respondents x 1 response each x 10 hours per response = 250 hours.**

**In-House Staff Cost: (25 respondents x 1 response each x 10 hour of engineer time per response) x $44.24/hour = $11,060.**

**12-c.** *Reporting ‒ Compliance with §30.3, Eligibility, Foreign ownership reports.* The Commission seeks approval for the estimated burden of 0.5 hours to complete a filing and from 200 possible (respondents) licensees maybe 30 respondents will submit a response at least once per year. The Commission estimates that an in-house attorney paid at an hourly rate of $66.88/hour will make the filing.

**Annual Burden: 30 respondents x 1 response each x 0.5 hours per response = 15 hours.**

**In-House Staff Cost: 30 respondents x 1 response each x 0.5 hour of attorney time per response x $66.88/hour = $1,003.20.**

**12-d.** *Reporting ‒ Compliance with §30.105, Subpart B – Applications and Licenses, Construction requirements.* The Commission requires that UMFUS licensees shall demonstrate compliance with their performance requirements by filing a construction notification with the Commission. The first renewal period should be 10 years after the initial license is granted, or, for incumbent licensees, May 1, 2024. Since the first license renewal application will not be filed until 10 years after the initial license is granted, we do not anticipate burden hours for this collection during the next three-year approval period. When a licensees file a construction notification, the Commission estimates about 2 hours per response.

= **0 hours** (this entry is on the statement merely to remind FCC staff to re-activate it in the future and to act as a place holder for this requirement.)

**12-e.** *Reporting ‒ Compliance with §30.107, Subpart B – Applications and Licenses, Discontinuance of Service.* Upper Microwave Flexible Use Service licensees must notify the Commission within 10 days of discontinuance if they permanently discontinue service by filing FCC Form 601 or 605 to request license cancellation. Since the first license renewal application will not be filed until 10 years after the initial license is granted, we do not anticipate burden hours for this collection during the next three-year approval period. When a licensees file a discontinuance of service, the Commission estimates about .5 hours per response.

= **0 hours** (this entry is on the statement merely to remind FCC staff to re-activate it in the future and to act as a place holder for this requirement.)

**TOTAL NUMBER OF RESPONDENTS: 100 + 100 + 30 = 230.[[4]](#footnote-4)**

**TOTAL NUMBER OF ANNUAL RESPONSES: 100 + 100 + 30 = 230.**

**TOTAL ANNUAL BURDEN: 13 + 250 + 15 + 0 + 0 = 278 HOURS.**

**IN-HOUSE STAFF COST: $553 + $11,060 + $1,003.20 + 0 + 0 = $12,616 (rt).**

13. Annual Cost Burden - Consultant: Applicants should not incur outside capital and start-up costs and/or operation and maintenance of purchase or services in connection with this information collection. However, we assume that 75 percent of the respondents will contract consultants to handle the burden of reporting; the remaining 25 percent of respondents will employ in-house staff to respond, see #12, Annual Cost Burden – In-house. The Commission assumes that the respondents will use either consultant attorney ($300/hour) or engineer ($250/hour) to consult and prepare information.

*12-a. §25.136, Concerning Satellite Stations – Third Party Disclosure.*

Annual Cost Burden - Consultant: (75 respondents x 1 response each x 0.5 hours of engineer time per response) x $250/hour = $9,375.

*12-b. §25.136, Concerning Satellite Stations - Filing Requirement.*

Annual Cost Burden – Consultant: (75 respondents x 1 response each x 10 hour of engineer time per response) x $250/hour = $187,500.

12-a. §25.136 = $ 9,375.

12-b. §25.136 = $187,500.

Total Annual Cost Burden – Consultant $196,875.

**TOTAL CAPITAL AND START-UP COSTS and/or OPERATION AND MAINTENANCE (O&M COSTS): $196,875.**

14. Government Cost:

**14-a-b.** *Compliance with §25.136, Concerning Satellite Stations.* The licensees are required to file an application, however, the actual approval under the PRA for the application and the filing of it with the Commission is approved under OMB number 3060-0738 ([Part 25 of the Federal Communications Commission's Rules Governing the Licensing of, and Spectrum Usage By, Commercial Earth Stations and Space Stations)](http://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201608-3060-009).

Annual Cost: **$0**

**14-c.** *Compliance with Foreign Ownership Requirements pursuant to §30.3 – Edibility, Foreign ownership reports.* The Commission will use a reviewer at the rate of $23.72per hour, and the review process should take about a quarter of an hour. The cost to the Federal government processing costs are as follows (the hourly pay rate for the employee is a GS-7 step 5, $23.72/hour).

Annual Cost: 30 respondents x .25 hours/review x $23.72/hour = **$177.90**

**14-d.** *Compliance with Performance Requirements pursuant to §30.105, Subpart B – Applications and Licenses, Construction requirements.* The first notification need not be filed until 12 years after the initial license is granted under §30.105, Subpart B – Applications and Licenses ‒ Construction Requirements. Thus, we do not anticipate any burden hours to the Commission for this collection during the next three-year approval period.

Annual Cost: **$0**

**14-e.** *Compliance with §30.107, Subpart B – Applications and Licenses, Discontinuance of Service.* We do not anticipate any notifications being filed for this collection during the next three-year approval period; therefore, we do not anticipate any burden hours to the Commission for this collection during the next three-year approval period.

Annual Cost: **$0**

**TOTAL ANNUAL GOVERNMENT COST: 0 + $177.90 + 0 + 0 = $177.90**

15. The Commission adopted this final rulemaking, FCC 16-89, which established final information collection requirements which are contained in this collection. Therefore, the following figures will be added to the OMB’s inventory once this collection is approved by OMB: 230 respondents, 230 responses, 278 annual burden hours, and $196,875 to the annual cost.

16. The data will not be published for statistical use.

17. OMB approval of the expiration of the information collection will be displayed at 47 C.F.R. § 0.408.

18. No exceptions have been identified in the Certification Statement.

1. **Collections of Information Employing Statistical Methods:**

No statistical methods are employed.

1. In order to comply with the foreign ownership provisions of 47 U.S.C. Sec. 310, certain licensees will be required to file requests for approval of foreign ownership pursuant to Sections 1.990-1.994 of the Commission’s rules. This collection seeks approval for collection of foreign ownership information from Part 30 licensees. [↑](#footnote-ref-1)
2. *See* OMB Control No. 3060-1215Comment filed by NCTA (Jan. 4, 2017). [↑](#footnote-ref-2)
3. U.S. Bureau of Labor Statistics, Occupational Employment and Wages, May 2014, Attorney and Engineer, Hourly Means Wage. [↑](#footnote-ref-3)
4. The totals for the number of respondents and responses account for all respondents and responses to this information collection for both in-house and consultant. [↑](#footnote-ref-4)