

Introduction: With this submission, the Commission seeks Office of Management and Budget (“OMB”) approval for an extension to this information to obtain the full three-year clearance for the requirements described below. Although there are no program changes, we are adjusting estimates of the currently approved information collection to more accurately reflect our current estimates by decreasing some estimates and adding estimates for previously reported, periodic collections that will be active during the three-year approval period.

A. Justification:

1. The currently approved information collections under Control No. 3060-1030¹ relate to three groups of Advanced Wireless Service (“AWS”) spectrum, commonly referred to as AWS-1, AWS-3, and AWS-4. The FCC’s policies and rules apply to application, licensing, operating and technical rules for this spectrum. The respondents are AWS licensees, incumbent Fixed Microwave Service (FS) and Broadband Radio Service (BRS) licensees that relocate out of the AWS bands, and AWS Clearinghouses that keep track of cost sharing obligations. AWS licensees also have coordination requirements with certain Federal Government incumbents.

AWS-1

In the *AWS-1 Report and Order*, FCC 03-251, the Commission adopted flexible use rules for the AWS-1 bands (1710-1755 MHz and 2110-2155 MHz), including the following information collection requirements:²

- (a) AWS-1 licensees must make a showing of "substantial service" in their license area prior to the expiration of their license term. Licensees would receive a renewal expectancy provided they file a substantial service showing as part of their license renewal application and have complied with the Communications Act and applicable FCC rules and policies. (See item 12-b below.)
- (b) The *AWS-1 Report and Order* also adopted the requirement of coordination as a solution to possible in-band interference between AWS licensees in adjacent geographic licensing areas and possible out-of-band interference between AWS licensees and adjacent-band licensees. (See items 12-c and 12-m below.)

The Commission subsequently adopted mechanisms for the relocation of incumbent Fixed

¹ See ICR Reference No. 201302-3060-009, submitted May 31, 2013 and approved by OMB July 31, 2013.

² In 2005, the Office of Management and Budget (“OMB”) approved Control No. 3060-1030 based on service rules that the FCC adopted for Advanced Wireless Services (“2005 submission”). See *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, 69 FR 5711 (Feb. 6, 2004) (*AWS-1 Report and Order*). The license application requirements and the disaggregation and partitioning burdens contained in the *AWS-1 Report and Order* were approved by OMB as part of the Commission’s Universal Licensing Service (ULS) system, OMB Control No. 3060-0798, which also contains approval for requiring all licensees in the 1710-1755 MHz and 2110-2155 MHz bands to report to the FCC any change in their foreign ownership status, as discussed in paragraph 61 of the *AWS-1 Report and Order*. However, this approval (3060-0798) covered only initial foreign ownership reporting requirements; subsequent foreign ownership filings for AWS licensees are covered by Control No. 3060-1030.

Microwave Service (FS) radio links and Broadband Radio Service (BRS) systems, and for coordination with incumbent Federal Government operators:³

- (a) The *Ninth Report & Order*, FCC 06-45, established procedures for the relocation of FS and BRS stations, including mechanisms for the reimbursement of relocation costs and the sharing of these costs among benefitting new licensees. It also provided that in some cases, these procedures would require use of a clearinghouse for cost sharing. (See items 12-d, 12-e, 12-f, 12-g, 12-h, 12-I, 12-j, 13-a, 13-b below.)
- (b) In its *Clearinghouse Order*, DA 07-1120, the Commission's Wireless Telecommunications Bureau ("Bureau") specified the duties and responsibilities of the clearinghouses, including requiring them to file reports with the FCC (see items 12-k, 14-c below) and to make disclosures to each other (see item 12-l below).
- (c) In a *Public Notice* issued jointly with the National Telecommunications and Information Administration ("NTIA"), the FCC set forth procedures for AWS-1 licensees to coordinate frequency usage with incumbent Federal Government users in the 1710-1755 MHz band. (See items 12-m and 13-c below.)

AWS-4

In the *AWS-4 Report and Order*, FCC 12-151, the Commission adopted flexible use rules for the AWS-4 bands (2000-2020 MHz and 2180-2200 MHz), including information collection requirements similar to those for AWS-1.⁴ They included:

- (a) Construction requirements tied to the fourth and seventh anniversaries of initial license grants, and substantial service and license renewal requirements. (See item 12-b below.)
- (b) Protection of Federal Government operations and associated record keeping requirements. (See items 12-m and 13-c below.)
- (c) A requirement to notify the Commission if service is discontinued. (See item 12-n below.)
- (d) Protection of in-band Mobile Satellite Services systems. (See item 12-o below.)
- (e) Documentation of private agreements relaxing out-of-band emission limits. (See item 12-p below.)

AWS-3

In February 2012, Congress enacted the Middle Class Tax Relief and Job Creation Act of 2012.⁵ Title VI of the Act⁶ ("the Spectrum Act") requires the Secretary of Commerce and the Commission to

³ In 2007, the Commission received OMB approval for revisions to this information collection made by the *Ninth R&O*, 71 FR 29818 (May 24, 2006), a *Clearinghouse Order*, 72 FR 41940 (Aug. 1, 2007), and a *Public Notice* issued jointly with the National Telecommunications and Information Administration ("NTIA"), 71 FR 28696 (May 17, 2006) ("2007 submission"). Furthermore, in 2010, the Commission submitted and received OMB approval extending this information collection.

⁴ In 2013, the Commission received OMB approval for the extension and revisions to this information collection as a result of the *AWS-4 Report and Order*. See *Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands*, 78 FR 8230 (Feb. 5, 2013).

⁵ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96 (2012).

⁶ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, §§ 6402 (codified at 47 U.S.C. § 309(j)(8)(G)), 6403 (codified at 47 U.S.C. § 1452), 126 Stat. 156 (2012).

identify, reallocate, auction, and license certain spectrum for commercial use by February 2015, under flexible use service rules.⁷ In the *AWS-3 Report and Order*, the Commission adopted rules for the allocation, licensing and commercial use of a total of 65 megahertz of spectrum including bands specifically identified in the Spectrum Act and other bands that the Act required NTIA or the Commission to identify and allocate for commercial use. NTIA identified 1695-1710 MHz, a band currently authorized for Federal operations; the FCC identified 1755-1780 MHz, a band currently authorized for Federal operations, after extensive consultations with NTIA and the affected Federal incumbents; and the Spectrum Act specifically identified 2155-2180 MHz, a band currently authorized for non-Federal use. For the two Government bands, the transition to shared commercial use will be protracted, with some incumbent Federal operations remaining permanently and some relocating to other spectrum over time.⁸ The shared use of these two bands thus requires coordination to ensure that AWS-3 operations will not interfere with Federal incumbents.

The *AWS-3 Report and Order* adopted application, licensing, operating and technical rules for these AWS-3 bands. It applied the Commission's Part 27 flexible use rules to these bands,⁹ as it did for the AWS-1 and AWS-4 spectrum bands discussed above, with modifications necessary to account for issues relevant to the AWS-3 bands. Many information collections in Part 27 are implemented by requirements to file FCC forms, in particular Form 601, OMB Control No. 3060-0798 (FCC Application for Radio Service Authorization: WTB and PSHSB). This includes filings that may be necessary to keep information accurate. For example, under 47 C.F.R. § 27.10(b), a Part 27 applicant must report its regulatory status, and the FCC collects this information on FCC Form 601. 47 C.F.R. § 27.10(d) provides that the regulatory status of a Part 27 license can be amended by filing an application for minor modification of the license within 30 days of the change in regulatory status. Such a license modification is also filed on FCC Form 601. By administering AWS-3 under Part 27, these information collections would be extended to the AWS-3 bands even though the *AWS-3 Report and Order* does not propose to amend § 27.10(d). See also *AWS-3 Report and Order* at para. 120 (foreign ownership reporting).

Many of the other information collections adopted in the *AWS-3 Report and Order* were previously described in earlier submissions to OMB (3060-1030) for both AWS-1 and AWS-4 and the previously submitted (Nov. 2014) descriptions for AWS-3 are below for reference.¹⁰ In the *AWS-3 Report and Order*:

(a) **Section 2.1033(c)(19)(i)-(ii)** – (AWS-3 equipment certification) the Commission is in the process of requesting OMB approval for this collection under OMB Control No. 3060-0057 (Application for Equipment Authorization).

(b) **Section 27.14(k) and (s)** – set forth performance requirements for AWS-3 licensees. Section 27.14(s) requires AWS-3 licensees to offer service to 40 percent of the population of their license areas within six years of licensing, and to 75 percent of the population within 12 years

⁷ See generally *id.*

⁸ To facilitate relocation, NTIA will publicize certain transition plans provided by the Federal users. These transition plans will disclose Federal users' frequencies, emission bandwidth, system use, service area, timeline for sharing and transition, and estimated costs for relocation or sharing. Short-form bidders/applicants must complete a certification acknowledging the potential for interference to AWS-3 from Federal systems.

⁹ See *AWS-3 Report and Order* at para. 114.

¹⁰ On January 13, 2015, the Commission received OMB approval for the revisions to this information collection as a result of the *AWS-3 Report and Order* and related public notices. See OMB Control No. 3060-1030, *Notice of Office of Management and Budget Action* dated 1/13/2015.

(accelerated to 10 years if the interim performance requirement is not met). These performance timeframes are different from those for AWS-4 due to the longer initial AWS-3 license terms (12 years versus 10 years for AWS-4). Section 27.14(k) requires AWS-3 licensees to demonstrate compliance with the performance requirements by filing construction notifications with the Commission within 15 days of the expiration of the applicable benchmark, certifying whether they meet the applicable performance requirements, and including a description and certification of the areas for which they are providing service. Construction notifications must include electronic coverage maps, supporting technical documentation, and any other information as the Wireless Telecommunications Bureau may prescribe by public notice.

(c) **Section 27.14(s)** – requires AWS-3 licensees to make a “renewal showing” at the time of license renewal—independent of the performance requirements— as a condition of renewal. The showing must include a detailed description of the applicant’s provision of service during the entire license period and address: (1) the level and quality of service provided by the applicant (*e.g.*, the population served, the area served, the number of subscribers, the services offered); (2) the date service commenced, whether service was ever interrupted, and the duration of any interruption or outage; (3) the extent to which service is provided to rural areas; (4) the extent to which service is provided to qualifying tribal land as defined in § 1.2110(f)(3)(i); and (5) any other factors associated with the level of service to the public.

(d) **Section 27.17(c)** – requires that an AWS-3 licensee that permanently discontinues service must notify the Commission of the discontinuance within 10 days by filing FCC Form 601 or 605 requesting license cancellation. It also provides that an authorization will automatically terminate, without specific Commission action, if service is permanently discontinued, even if a licensee fails to file the required form requesting license cancellation. Sections 27.17(a) and (b) define permanent discontinuation of service as 180 days during which a licensee does not provide service to at least one unaffiliated subscriber.

(e) **Section 27.50(d)(3)** – requires that a licensee operating an AWS-3 base or fixed station utilizing a power greater than 1640 watts EIRP or 1640 watts/MHz EIRP must be coordinated in advance with the following licensees authorized to operate within 120 kilometers (75 miles) of the base or fixed station: all Broadband Radio Service (BRS) licensees authorized in the 2155-2160 MHz band, and all AWS licensees authorized to operate on adjacent frequency blocks in the 2110-2180 MHz band.

(f) **Section 27.1131** – requires AWS-3 licensees, prior to initiating operations from any base or fixed station, to coordinate their frequency usage with incumbent co-channel and adjacent-channel fixed point-to-point microwave licensees operating in the 2110-2150 MHz and 2160-2200 MHz bands. If coordination does not resolve potential conflicts, an AWS licensee may undertake to relocate the FS stations under Part 101, Subpart B of the Commission’s rules. Although AWS-1 licensees have relocated many FS legacy operations, AWS-3 licensees will likely have to relocate some remaining incumbents, resulting in disclosures described below. Under section 101.79 of the Commission’s rules, these requirements will sunset ten years after the first AWS license is issued in the band.

(g) **Section 27.1132** – requires AWS-3 licensees in the 2155-2160/62 MHz band to protect BRS stations from interference or to relocate them prior to initiating operations. Under section 27.1253 of the Commission’s rules, these requirements will sunset fifteen years after the first AWS license is issued in the band.¹¹

¹¹ The information collection requirements that are involved with this rule section are coordination requirements.

(h) **Section 27.1134(c)** – requires AWS-3 licensees to coordinate with Federal Government incumbents before commencing operations in the 1695-1710 MHz band, and to provide and maintain a point of contact in case interference occurs. For transmitters operating with a maximum EIRP of 20 dBm, coordination is required inside 27 specific Protection Zones detailed in US note 88 to section 2.106 of the Commission’s rules and in the 2014 Joint PN. For higher-powered operations, § 27.1134(c) and US note 88 to § 2.106 both require coordination nationwide unless otherwise specified by FCC rule, order, or notice. The 2014 Joint PN (see below) refined the nationwide default zone for higher-power operations by adding 27 Protection Zones (larger than the zones for operations up to 20 dBm, to account for the higher power).

(i) **Section 27.1134(f)** – requires AWS-3 licensees to coordinate with Federal Government incumbents before commencing operations in the 1755-1780 MHz band, and to provide and maintain a point of contact in case interference occurs. While the default coordination requirement for this band is nationwide, the 2014 Joint PN (see below) effectively reduced the scope of coordination to specific Protection Zones for many AWS-3 licensees that limit transmitter power to 20 dBm EIRP.

On July 18, 2014, the FCC and NTIA jointly published a public notice to provide guidance on the process of coordinating with Federal incumbents (“2014 Joint PN”).¹² The guide does not create additional information collection requirements. Instead, it provides information and guidance on the overall coordination process adopted in the *AWS-3 Report and Order*, including informal pre-coordination discussions; the formal process of submitting coordination requests, including points of contact with Federal agencies and online coordination portals; receiving results from relevant agencies; and dispute resolution options. As noted above, the 2014 Joint PN also refines certain protection zones by reducing their size, and provides a streamlined option for satisfying the coordination requirement with respect to Federal satellite uplink stations.

Statutory authority for these collections are contained in sections 1, 2, 4(i), 201, 301, 302, 303, 307, 308, 309, 310, 316, 319, 324, 332, and 333 of the Communications Act of 1934, as amended, and sections 6003, 6004, and 6401 of the Middle Class Tax Relief Act of 2012, Pub. L. No. 112-96, 126 Stat. 156, 47 U.S.C. §§ 151, 152, 154(i), 201, 301, 302(a), 303, 307, 308, 309, 310, 316, 319, 324, 332, 333, 1403, 1404, and 1451.

These information collection requirements do not affect individuals or households; thus, there are no impacts under the Privacy Act.

2. Recordkeeping, reporting, and third party disclosure requirements associated with the FCC items listed in item 1 will be used by incumbent licensees and new entrants to negotiate relocation agreements and to coordinate operations to avoid interference. The information also will be used by the clearinghouses to maintain a national database, determine reimbursement obligations of entrants pursuant to the Commission’s rules, and notify such entrants of their reimbursement obligations. Additionally, the information will be used to facilitate dispute resolution and for FCC oversight of the clearinghouses and the cost-sharing plan.

3. Before finalizing rulemakings, the Commission conducted an analysis to ensure that improved information technology could be used to reduce the burden on the public. This analysis considers the

¹² See The Federal Communications Commission and the National Telecommunications and Information Administration: Coordination Procedures in the 1695-1710 MHz and 1755-1780 MHz Bands, GN Docket No. 13-185, *Public Notice*, DA 14-1023 (rel. Jul. 18, 2014) (“2014 Joint PN”).

possibility of obtaining and/or computer-generating the required data from existing data bases in the Commission or other Federal agencies. The Commission encourages licensees to provide the requested information and notifications electronically in situations where licensees wish to use electronic means and the Commission's regulations permit this approach. Any submissions made through the Universal Licensing System ("ULS") must be filed electronically. Additionally, the clearinghouses use technological collection techniques, such as electronic filing, to reduce the burden on respondents. The Commission does not impose a similar information collection on the respondents. There are no similar data available.

4. The Commission does not impose a similar information collection on the respondents. There are no similar data available.

5. In conformance with the Paperwork Reduction Act of 1995, the Commission is making an effort to minimize burdens on all respondents, regardless of size. The Commission has limited the information requirements to those absolutely necessary for evaluating compliance with Commission rules and policies, to ensure fair and efficient relocation and cost sharing, and to avoid interference between radio services, especially to Federal operations in the 1.7 GHz band. The Commission's use of a flexible regulatory scheme for relocation of incumbents that includes an industry-administered cost-sharing plan is a reflection of the FCC's intent to minimize the regulatory burden on incumbents as well as prospective applicants and licensees for these frequencies. Likewise, offering guidelines, developed and issued jointly with NTIA, for AWS-3 licensees that wish to operate before Federal operations are relocated, promotes the opening of these frequencies to a wide variety of licensees offering a range of services to the public. In addition, applying to AWS-3 licensees' information requirements that are already in place for AWS-1 and AWS-4 licensees would limit the additional information requirements needed for AWS-3 licensees.

6. Without the reporting, recordkeeping, and disclosure requirements, it would be difficult for the Commission to ensure that licensees are in compliance with FCC rules and policies. Specifically, without the required disclosures and recordkeeping for incumbent licensees and new entrants, the Commission could not effectively facilitate the relocation of incumbents from the bands and clear the bands for the services that will be offered by AWS. Moreover, the costs of relocating incumbents could not be allocated and shared among all entrants benefiting from the relocation of any given incumbent, which would lead to an inequity in the development of competition in the wireless telecommunications service market. In addition, if the collection of information from clearinghouses were not required, the Commission would be required to expend extraordinary resources in administering the cost-sharing plan, a function which falls more squarely and efficiently within the expertise of the industry. The license condition requiring coordination with Federal operations and the related FCC/NTIA guidelines allow AWS operations to commence prior to the relocation of Federal incumbents, in accordance with the Commercial Spectrum Enhancement Act (CSEA).¹³

7. No special circumstances exist except as follows: some relocators that seek reimbursement through the FCC cost-sharing plan administered by the clearinghouses will be required to retain records for more than three years, as will the clearinghouses themselves.

8. Pursuant to 5 CFR 1320.5(d), the FCC published a 60-day notice which appeared in the Federal

¹³ Commercial Spectrum Enhancement Act, Pub. L. No. 108-494, 118 Stat. 3986, Title II (2004) (codified in various sections of Title 47 of the United States Code).

Register on October 18, 2017 (82 FR 48510) seeking comment from the public on the information collection requirements contained in this collection. No PRA comments have been received.

9. Respondents will not receive any payments or gifts from the Commission associated with this collection of information.

10. There is no need for confidentiality except as follows: the clearinghouses have committed, pursuant to the FCC's directive, to implement safeguards to maintain the confidentiality of information where necessary to protect respondents' legitimate commercial interests. The Commission's rules permit parties filing information with the Commission to request confidential treatment of that information under 47 CFR § 0.459.

11. The reporting and disclosure requirements described herein do not address any private matters of a sensitive nature.

12. Respondent Burden: In this section, we revised the estimate of burdens on rules related to AWS-1, AWS-4 and AWS-3 licensees based on updated licensing data and other developments. For example, some AWS relocation and cost-sharing rules are common among the three AWS services, however, the activation of these reporting or third-party disclosure requirements begins with the issuance of the first license in the service and sunsets 10 or 15 years thereafter:

- AWS-1: November 29, 2006; 1710-1755 MHz and 2110-2115 MHz
- AWS-4: March 8, 2013; 2000-2020 MHz and 2180-2200 MHz
- AWS-3: April 8, 2015; 1695-1710 MHz, 1755-1780 MHz and 2155-2180 MHz

For purposes of this submission, we estimate for each AWS, the following:

- AWS-1: 142 Licensees; 1,581 Licenses
- AWS-3: 37 Licensees; 1,403 Licenses
- AWS-4: 2 Licensees; 352 Licenses

Approximately 5 of the 37 AWS-3 licensees hold licenses in the 1695-1710 MHz band – hence these licensees are particularly impacted by section 27.1134(c), below.

In addition, due to the ongoing clearance of FS and BRS stations from the AWS bands, there are now

- FS: Licensees: 60; Licenses: 90
- BRS (AWS): Licensees: 4; Licenses: 8

We also estimate up to 7 satellite entities and up to 2 AWS clearinghouse companies.

NOTE: † in the table below indicates a figure rounded following computations. See explanatory text following the table for details.

1 2-	Burden on Respondents	Total Number of Responde nts	Average Annual Response s per Respond ent	Total Average Annual Response s	Time per Respon se (Hours)	Total Annual Burden Hours
a.	Foreign ownership reports ¹⁴	10	1 (on occasion)	10	0.5	5
b.	<p>§ 27.14 (Substantial service performance and renewal showings for AWS-1 licensees at end of 15-year license term (e.g., 2006+15= 2021))</p> <p>§ 27.14 (Performance showings for AWS-4 and AWS-3 licensees)¹⁵ (AWS-4 R&O and AWS-3 R&O)</p> <p>§ 27.14 (License renewal criteria showings for AWS-4 and AWS-3 licensees)¹⁶ (AWS-4 R&O and AWS-3 R&O)</p>	<p>142 (AWS-1)</p> <p>37 (AWS-3)</p> <p>2 (AWS-4)</p> <p>37 (AWS-3)</p> <p>2 (AWS-4)</p>	<p>4†</p> <p>15†</p> <p>1†</p> <p>0</p> <p>0</p>	<p>568</p> <p>555</p> <p>2</p> <p>0</p> <p>0</p>	<p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	<p>1,136</p> <p>1,110</p> <p>4</p> <p>0</p> <p>0</p>

¹⁴ Foreign ownership reports refer to an applicant initial review of possible foreign ownership; and all AWS-1, AWS-4 and AWS-3 licensees must report change in foreign ownership.

¹⁵ In an abundance of caution, we estimate that all AWS-4 and AWS-3 licensees will have to complete the requirements for performance during the next three-year OMB approval period.

¹⁶ AWS-4 and AWS-3 licenses will not be up for renewal in the next three years.

1 2-	Burden on Respondents	Total Number of Respondents	Average Annual Responses per Respondent	Total Average Annual Responses	Time per Response (Hours)	Total Annual Burden Hours
c.	§ 27.1131 (Protection of Part 101 operations) (AWS-1, AWS-4 and AWS-3 R&O) § 27.1132 (Protection of incumbent operations in the 2150-2160/62 MHz band) (AWS-1 and AWS-3 R&O) § 27.1133 (Protection of Part 74 and Part 78 operations) (AWS-1 and AWS-3 R&O)	30 (AWS-1) 2 (AWS-4) 37 ¹⁷ (AWS-3)	2 176 each (on occasion) 38† (on occasion)	60 352 1,406	0.25 0.25 0.25	15 88 352†
d.	§§ 101.69, 101.73(d), 101.75(a) (disclosures related to negotiation and relocation of FS links) (AWS-1 ¹⁸ , AWS-4, AWS-3 R&O)	43 43	1† (on occasion) 1† (on occasion)	43 43	0.5 0.5	22† 22†
e.	§§ 27.1250, 27.1251, 27.1252,	4 (BRS)	6 (on	24	5	120

¹⁷ AWS-3 licensees will complete all § 27.1131, 1132 and 1133 at the same time, as applicable, when planning a new or modified base station..

¹⁸ AWS-1: Four licensees hold 8 BRS licenses, and the 8 licenses are a total of 12 BRS channels. We assume that 2 AWS licensees could engage in negotiations with one of the four BRS licensees to coordinate with or relocate each of the 12 BRS channels and that each of the 12 channels. The total number of AWS respondents is 24 (2 AWS licensees x 12 BRS channels).

1 2-	Burden on Respondents	Total Number of Responde nts	Average Annual Response s per Respond ent	Total Average Annual Respons es	Time per Respon se (Hours)	Total Annual Burden Hours
	27.1255(a) (disclosures related to negotiation and relocation of BRS systems) (AWS-1 and AWS-3 R&O)	24 (AWS)	occasion) 1 (on occasion)	24	2	48
f.	§§ 27.1166(a)(1)-(2), 27.1182(a) (1) (disclosures related to registration of FS or BRS relocations with a clearinghouse) (AWS-1 ¹⁹ , AWS-4 and AWS-3 R&O)	241	3 (on occasion)	723	0.5	362†
g.	§§ 27.1166(b), 27.1182(b) (disclosures to clearinghouses related to documentation of reimbursable costs for FS or BRS relocations) (AWS-1, AWS-4 and AWS-3 R&O)	241 (FS) 60 (BRS)	1 (on occasion) 1 (on occasion)	241 60	1 3	241 180
h.	§§ 27.1166(a),(b),(f) 27.1182(b) (additional recordkeeping, disclosures of documentation to clearinghouse or other licensee(s), and reporting to FCC (AWS-1,	60	10† (on occasion)	600	1	600

19

1 2-	Burden on Respondents	Total Number of Responde nts	Average Annual Response s per Respond ent	Total Average Annual Responses	Time per Respon se (Hours)	Total Annual Burden Hours
	AWS-4 and AWS-3 R&O)					
i.	§§ 27.1170, 27.1186 (disclosures to clearinghouses related to AWS site-specific data (prior to initiating new or modified operations). (AWS-1, AWS-4 and AWS-3 R&O)	181	1 (on occasion)	181	0.25	45†
j.	§§ 27.1168, 27.1170, 27.1184 (recordkeeping; disclosures from clearinghouses to licensees) (AWS-1, AWS-4 and AWS-3 R&O)	2	100 (on occasion)	200	0.25	50
k.	Reports by clearinghouses to FCC	2	5	10	4	40
l.	Disclosures between the clearinghouses	2	260	520	0.25	130
m	Disclosures by AWS to Federal incumbents operating in the 1.7 GHz or 2.2 GHz bands, and associated record keeping requirements	10	1	10	5	50
.	§ 27.1134(a) (AWS-1)	179	6†	1,074	5	5,370
	§ 27.1134(e)(1) and (2) (AWS-4) § 27.1134(c)(1), (4) and (5), and					

1 2-	Burden on Respondents	Total Number of Responde nts	Average Annual Response s per Respond ent	Total Average Annual Response s	Time per Respon se (Hours)	Total Annual Burden Hours
	(f)(1), (3) and (4) (AWS-3 R&O)					
n.	§ 27.17 (Discontinuance of Service) (AWS-4 and AWS-3 R&O)	0	0	0	0.5	0
o.	§ 27.1136 (AWS-4 protection of MSS) (AWS-4)	0	0	0	0.5	0
p.	§ 27.53(h)(4)(iii) (An AWS licensee who is a party to a private agreement must maintain a copy of the agreement in its station files and disclose it, upon request, to prospective AWS assignees, transferees, or spectrum lessees and to the Commission.) (AWS-4)	0	0	0	0.5	0
q.	§27.50(d)(3) (AWS coordination of high-power operation with nearby licensees) (AWS-1, AWS-4 and AWS-3 R&O)	52	21(on occasion)	1,092	2x2	4,368
	Totals:	254		7,798	0.25-5 Hours	14,358 Hours

12-a. *Reporting- Compliance with foreign ownership filing requirements for AWS-1, AWS-3 and AWS-4 licensees.* The Commission sought and received OMB approval for the estimated burden that it would take about 0.5 hours to complete this filing and that perhaps 10 licensees would make this occasional filing per year, prepared by a licensee’s existing staff attorneys (“in-house”) at approximately \$69.97 per

hour, the average hourly rate for an in-house attorney according to the Bureau of Labor Statistics²⁰. This information is collected on FCC forms that are separately approved by OMB. In an abundance of caution, this entry covers any approval required in addition to OMB approval of the relevant FCC forms.

10 respondents x 1 response x 0.5 hours per response = **5 hours**.

Internal cost: \$69.97 x 5 hours = \$350

12-b. Reporting - Showing of compliance with substantial service requirement for AWS-1 licensees. See 47 C.F.R. §§ 27.14(a). AWS-1 licensees must, as a performance requirement, make a showing of "substantial service" in their license area prior to the expiration of their license term. Licensees can file their showings any time before the performance deadline, but we estimate that most licensees will wait until the deadline approaches given that they will need to prepare a substantial service showing for their license renewal applications. (AWS-1 licensees also have the right to a renewal expectancy under § 27.14(b) if they have provided substantial service during their past license term and have complied with the Communications Act and applicable FCC rules and policies. As such, licensees will also have to file substantial service showings, regarding the renewal expectancy under § 27.14, with their renewal license applications.) The first AWS-1 licenses were granted in 2006; thus, this is an occasional requirement likely to be performed at the end of the first 15-year license term and then every 10 years thereafter. When reports are required, we estimate 2 hours per response. We are also assuming an equal distribution of the 1,581 total number of responses among 142 AWS-1, which works out to an average 11.13 responses per respondent over the course of the three-year approval period, or 4 (3.71) per year. $((1,581 \div 142) \div 3 = 3.71)$

142 respondents x 4 response x 2 hours per response = **1,136 hours**

Internal cost: \$69.97 x 1,136 hours = \$79,486

Reporting - Showing of compliance with performance requirement for AWS-4 and AWS-3 operators. See 47 C.F.R. § 27.14(k), (q), (s). During their initial license terms, AWS-4 and AWS-3 licensees are required to file aggregate performance data with the FCC at the end of specified buildout periods (4 and 7 years for AWS-4 licensees and 6 and 12 years for AWS-3). Only the AWS-4 initial buildout deadline will fall within the next three-year approval period, so these licensees will have an average of 0.333 responses per year; for all others, we do not anticipate any burden hours for this collection during the next three-year approval period. The Commission estimates that licensees' staff engineers (\$37.85 per hour)²¹ will take an average of two hours to prepare each disclosure. We are also assuming an equal distribution of the 1,403 total number of responses among 37 AWS-3. We estimate that 40 percent will respond that will average of 15 (15.16) responses. $((1,403 \div 37) \times .40 = 15.16)$

For AWS-3 operators (initial buildout period): 37 respondents x 15 responses x 2 hours per response = **1,110 hours**.

For AWS-4 operators: 2 respondents x 1 response x 2 hours per response = **4 hours**.

²⁰ U.S. Bureau of Labor Statistics, Occupational Employment and Wages, May 2016, Attorney, Hourly Mean Wage.

²¹ U.S. Bureau of Labor Statistics, Occupational Employment and Wages, May 2016, Engineer, Hourly Mean Wage.

Internal cost: $\$37.85 \times 1114 (1,110 +4) \text{ hours} = \$42,165$

Reporting - License renewal criteria showings for AWS-4 and AWS-3 licensees. See 47 C.F.R. §27.14(q) (7), (s)(6). AWS-4 and AWS-3 licensees are required to make renewal showings, independent of their performance requirements, as a condition of license renewal.²² We estimate 2 hours per response. However, no AWS-4 licenses will come due for renewal during the next three-year approval period; thus, we do not anticipate any burden hours for AWS-3 in this collection during the next three-year approval period. Only the AWS-4 initial buildout deadline will fall within the next three-year approval period, so these licensees will have an average of 0.333 responses per year; for all others, we do not anticipate any burden hours for this collection during the next three-year approval period. The Commission estimates that licensees' staff engineers (\$37.85 per hour)²³ will take an average of two hours to prepare each disclosure.

See *Reporting - Showing of compliance with performance requirement for AWS-4 and AWS-3 operators.* The Commission believes that licensees will complete both requirements collectively; thus, we will not duplicate hourly and internal cost.

For AWS-4 operators: = **0 hours** (this entry is on the statement merely to remind FCC staff to reactivate it

12-c. *Disclosures for interference coordination.* See 47 C.F.R. §§ 27.1131, 27.1132, 27.1133. For AWS-1, licensees have coordination requirements to protect against interference to operations in co- or adjacent bands (BRS, Part 74/78 operations, and fixed microwave links). The Commission believes that many cases of potential interference with in-band and out-of-band licensees requiring coordination have already been resolved with existing deployments of the AWS-1 band but we estimate that up to 30 AWS-1 licensees could send coordination notices to co-or adjacent band licensees. For AWS-4 and AWS-3, we estimate that up to all 39 licensees (two AWS-4 and an estimated 37 AWS-3) will be affected by coordination requirements as those bands are deployed, and that each licensee will send 1,755 coordinations per year. See 47 C.F.R. §§ 27.1131 (Protection of Part 101 operations), 27.1132 (Protection of incumbent operations in the 2150-2160/62 MHz band), 27.1133 (Protection of Part 74 and Part 78 operations). The Commission estimates that licensees' staff engineers (\$37.85 per hour) will take an average of 15 minutes to prepare §§ 27.1131, 27.1132, 27.1133 for AWS-3 licensees and 15 minutes for AWS-4 to prepare § 27.1131.

AWS-4: 2 respondents x 176 responses x 0.25 hours per response = **88 hours.**

AWS-3: 37 respondents x 38 responses x 0.25 hours per response = **352 hours.**

AWS-1: 30 respondents x 2 responses x 0.25 hours per response = **15 hours.**

Internal cost: $(88 + 352 + 15 = 455) \times \$37.85 = \$17,222$

12-d. *Disclosures related to negotiation and relocation of FS links.* See 47 C.F.R. §§ 101.69, 101.73(d), 101.75(a). There are approximately 90 FS links remaining in the 2110-2150 MHz and 2160-2200 MHz bands, which overlap the AWS-1, -4 and -3 bands and 60 incumbent FS licensees. We expect

²² The requirement that AWS-4 licensees file renewal criteria showings was originally codified in 47 C.F.R. § 1.949(c). The *AWS-3 Report and Order* recodified this requirement in 47 C.F.R. § 27.14(q)(7), with no substantive change. The requirement to file license renewal applications is covered by Control No. 3060-0798.

²³ U.S. Bureau of Labor Statistics, Occupational Employment and Wages, May 2016, Engineer, Hourly Mean Wage.

43 licensees (4 AWS-1²⁴, 37 AWS-3 and 2 AWS-4) to relocate in the next three years. $((90 \div 60) \div 3 = 0.5$ or 1)). We expect that the relocations will proceed via agreements between AWS licensees and FS incumbents negotiated by in-house by staff attorneys (\$69.97) and engineers (\$37.85). We estimate that the required disclosures will take each party an average of 0.5 hours each per relocation (1 hour total per relocation).

43 (4 + 37 + 2) respondents x 1 responses x 0.5 hours per response = 22 (21.5) hours x \$69.97 (attorney) = \$1,539.34

43 (4+ 37 + 2) respondents x 1 responses x 0.5 hours per response = 22 (21.5) hours x \$37.85 (engineer) = \$832.7.

Internal cost: \$1,539.34 + \$832.7 = \$2,372

12-e. *Disclosures related to negotiation and relocation of BRS systems.* See 47 C.F.R. §§ 27.1250, 27.1251, 27.1252, 27.1255(a). Approximately 4 licensees hold approximately 8 BRS licenses with a total of approximately 12 channels remaining in AWS spectrum. In an abundance of caution, we are assuming over the next three-year approval period that up to 2 AWS licensees could negotiate with a BRS licensee to relocate one of the 12 BRS channels. If 2 AWS licensees initiate negotiations for each of the 12 channels, one BRS licensee per channel must provide information about its system to the 2 AWS licensees. Under this estimate, in the aggregate, 4 BRS licensees will make 24 responses to 24 AWS licensees (2 AWS per 12 BRS channels). All parties must share necessary information and engage in good faith negotiation. If no agreement is reached, the rules provide a process for involuntary relocation. In an abundance of caution, we are assuming that all of the AWS licensees negotiating for relocation of the 12 BRS channels are unique. For convenience, we are assuming an equal distribution of 24 potential negotiations among the 4 BRS licensees. We estimate that the required disclosures will take each AWS respondent an average of 2 hours per relocation and each BRS respondent an average of 5 hours per relocation, and that the negotiations will probably be conducted in-house by staff engineers at \$37.85. Additional, external costs are shown in item 13.

(24 AWS respondents x 1 response x 2 hrs.) + (4 BRS respondents x 6 responses x 5 hours) = **168 hours.**

Internal cost: 168 hours x \$37.85 = \$6,359

12-f. *Disclosures related to registration of FS or BRS relocations with a clearinghouse.* See 47 C.F.R. §§ 27.1166(a)(1)-(2), 27.1182(a)(1). Although relocators are not required to seek reimbursement via the FCC's cost-sharing plan, those who do seek reimbursement must register their reimbursement rights with a clearinghouse. We are assuming up to 68 (60 FS + 8 BRS) relocations will be registered with a clearinghouse by up to 181 (142 + 37 + 2) AWS licensees. Additionally, we estimate that approximately 20 links (one-third of the remaining FS links) will be voluntarily "self-relocated" by FS incumbents who will register their costs for reimbursement. Accordingly, we estimate 1,755 responses by 225 (181 AWS + 60 FS) respondents over the course of the three-year approval period, or an average of 3 (2.6) per respondent annually. $((1,755 \div 225) \div 3 = 2.6)$ We assume that respondents will use in-house personnel to file their registrations and that each registration will take a staff analyst an average of 0.5 hours to prepare and file, at \$43.29/hr., the equivalent of a GS 12 Step 5 in the Federal pay scale²⁵.

²⁴ See 19.

241 (181 AWS + 60 FS) respondents x 3 responses x 0.5 hrs. = **362 hours**.

Internal cost: 362 hours x \$43.29 = \$15,671

12-g. *Disclosures to clearinghouses related to documentation of reimbursable costs for FS or BRS relocations.* See 47 C.F.R. §§ 27.1166(b), 27.1182(b). As discussed in paragraph (f) above, over the course of the three-year approval period, we expect up to 309 relocations (241 FS/AWS + 8 BRS + 60 FS) will be registered with a clearinghouse by up to 241 respondents (181 AWS and 60 FS). We are assuming an equal distribution of the 309 FS relocations among the 241 respondents, which works out to approximately one (1.28) responses per respondent annually. We are also assuming an equal distribution of the 8 BRS relocations among the 2 AWS respondents, which works out to approximately 1 responses per respondent annually. We estimate that meeting the documentation requirement will average 1 hour per FS relocation and 3 hours per BRS system, and that relocators will use in-house staff (\$34.06/hr.) to prepare, submit, and retain this documentation itemizing reimbursable costs. (Appraisal costs are covered in Item 13.)

FS: 241 (181 AWS + 60 FS) respondents x 1 responses @ 1 hr. = **241 hours**

BRS: 60 respondents x 1 responses @ 3 hrs. = **180 hours**

Total = **421 hours**.

Total Internal cost: 421 hours x \$34.06 = \$14,339

12-h. *Additional reporting and disclosures of documentation to FCC, clearinghouse, or AWS licensee(s) when another new entrant triggers a cost-sharing obligation for a given, registered relocation.* See 47 C.F.R. §§ 27.1166(b), 27.1182(b). All respondents must maintain documentation of cost-related issues until the applicable sunset date and provide such documentation, upon request, to a clearinghouse, the FCC, or an entrant that triggers a cost-sharing obligation. Regarding the recordkeeping requirement, we believe this requirement imposes no annual burden because respondents already will retain these cost-related documents as part of customary and usual business practices. Regarding the third-party disclosures, we estimate that up to 60 relocations (25% of the 241 relocations registered with clearinghouses). We are assuming an equal distribution of the 1,755 responses among the 60 respondents, which works out to an average 29.25 responses per respondent per year, over the course of the three-year approval period, which works out to an average of 9.75 or 10 responses per respondent annually.

60 respondents x 10 responses x 1 hr. = **600 hours**.

Internal cost: 600 hours x \$34.06 = \$20,436

12-i. *Disclosures to clearinghouses related to AWS site-specific data (prior to initiating new or modified operations).* See 47 C.F.R. §§ 27.1170, 27.1186. We assume that 181 AWS licensee operators (142 + 37 + 2) will file with clearinghouses a total annual average of 20,000 notices for new or modified facilities. In many cases, new entrants will have to prepare and send a “prior-coordination notice” (“PCN”) that includes the relevant site data to FS licensees for relocation negotiation purposes (see para. 12-d above), in which case the new entrant can send a copy of the PCN to a clearinghouse. Furthermore, we believe that licensees will prepare and retain site data on their facilities (*i.e.*, assets) as part of

²⁵2017 General Schedule (Base); 2017 GS Pay Tables; General Schedule & Locality Pay Tables; Salaries & Wages; Pay & Leave; Policy; Office of Personnel Management; website: <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2017/general-schedule/>.

customary and usual business practices. Our estimate of the disclosure burden is 15 minutes (0.25 hrs.) per submission to a clearinghouse at \$34.06 per hour. We are assuming an equal distribution of the 20,000 responses among the 181 respondents, which works out to an average 110.50 responses per respondent per year.

181 respondents x 1 responses x 0.25 hrs. = **45 hours.**

Internal cost: 45 hours x \$34.06 = \$1,533

12-j. *Recordkeeping; disclosures from clearinghouses to licensees.* See 47 C.F.R. §§ 27.1168, 27.1170, 27.1184. Clearinghouses are not-for-profit entities voluntarily formed by private-sector entities to keep track of cost-sharing obligations among AWS and MSS (Mobile Satellite Service) operators over the next 10-15 years. The clearinghouses will charge fees for their services, which include retaining records of relocation registrations and then analyzing site-specific data submitted by new entrants to determine whether any cost-sharing obligations exist under criteria set forth by FCC rules. When a cost-sharing obligation is triggered, the clearinghouse must notify the relevant entities of the total amount of its reimbursement obligation. Because the core business of a clearinghouse is directly related to recordkeeping and third party disclosures for which the clearinghouses receive fees, we believe that any burdens associated with these recordkeeping and disclosure requirements are undertaken by the clearinghouses for reasons other than to provide information or keep records for the government and/or are part of customary and usual business or private practices of a clearinghouse. Alternatively, if OMB views these burdens as within the scope of the Paperwork Act, we estimate that each clearinghouse will send an average of 100 cost-sharing notices per year, and that each notice will take an in-house staff analyst (\$34.06/hr.) approximately 0.25 hours to prepare and send.

2 respondents x 100 responses x 0.25 hrs. = **50 hours.** Internal cost: 50 hours x \$34.06 = \$1,703

12-k. *Reports by clearinghouses to FCC.* Each clearinghouse must file reports with the FCC every six months, upon specific FCC request, and occasionally (*e.g.*, when referring a dispute to the FCC). The biannual reports must include an update on the number of links relocated, the amounts paid to relocate these links, updated cost and revenue projections, and any adjustments to existing fee structures. We have also reserved the right at any time to inspect the records of or require additional information or reports from a clearinghouse. We estimate that each clearinghouse will file five reports per year (2 semi-annual and 3 occasional reports) and take an average of 4 hours per report (2 hrs. in-house staff attorney at \$62.93/hr.) and 2 hrs. in-house staff analyst at \$34.06/hr.).

2 respondents x 5 responses x 4 hrs. = **40 hours.**

Internal cost: \$2,080 = (\$69.97 x 20 = \$1,399) + (\$34.06 x 20 = \$681)

12-l. *Disclosures between the clearinghouses.* Having multiple clearinghouses offers participants a choice, thereby increasing the incentive for each clearinghouse to operate in an efficient manner, thus benefiting the consumers of these services. However, with multiple clearinghouses, we must either require participants to file data with both clearinghouses or require the clearinghouses to exchange data with each other. Two entities submitted clearinghouse proposals and each stated that it is capable and willing to work with other clearinghouse managers, if we designated multiple clearinghouses. In this connection, we will require each clearinghouse to exchange data that participants file with the

clearinghouse of their choosing. We anticipate that the clearinghouses will exchange data electronically and that this disclosure will take an average of 0.25 hours on each of 260 business days annually (in-house staff analyst at \$34.06/hr.).

2 respondents x 260 responses x 0.25 hrs. = **130 hours**.

Internal cost: 130 hours x \$34.06 = \$4,428

12-m. *Disclosures for interference coordination by AWS-1 and AWS-3 to Federal incumbents operating in the 1.7 GHz band. See license condition, 2006 NTIA/FCC Public Notice and 2014 NTIA/FCC Public Notice. See generally 47 C.F.R. § 27.1134.* AWS-1 and AWS-3 licensees must coordinate spectrum use with incumbent Federal operations in the 1.7 GHz band. The transition of federal operations out of the AWS-1 band is complete but we estimate that up to 10 AWS-1 licensees could have to coordinate new or modified operations within specified distances from Federal facilities areas set forth in 47 C.F.R. § 27.1134. Additionally, we estimate that up to all 37 AWS-3 licenses (because all the AWS-3 licenses are contained in bands that include federal incumbents) will have to be coordinated. We are assuming an equal distribution of the 2,984 coordinations among 179 AWS-1 and AWS-3 licensees, which works out to an average 16.67 responses per respondent over the course of the three-year approval period, or 6 (5.6) per year. ((2,984 ÷ 179) ÷ 3 = 5.6)). On average, we estimate that the disclosures required for each coordination will take an average of 5 hours (in-house staff engineer at \$37.85/hr.). Additional external costs are discussed in item 13.

10 (AWS-1) respondents x 1 response x 5 hrs. = 50 hours

179 (AWS-1, -3) respondents x 6 responses x 5 hrs. = **5,370 hours**.

Internal cost: (5,370 + 50 = 5,420 hours) x \$37.85 = \$205,147.

12-n. *Discontinuance of service in the 1695-1710 MHz, 1755-1780 MHz, 2000-2020 MHz, 2155-2180 MHz, and 2180-2200 MHz bands. See 47 C.F.R. § 27.17(c).* AWS-4 and AWS-3 licensees must notify the Commission if they permanently discontinue service. We estimate 0.5 hours per response. Since no construction deadlines will fall in this three-year approval period, however, we anticipate no discontinuance notices

0 respondents x 0 response x 0.5 hrs. = **0 hour**. (This entry is on the statement to remind FCC staff to reactivate it in the future and to act as a place holder for this requirement.)

Internal cost = \$0

12-o. *Protection of Mobile Satellite Services in the 2000-2020 MHz and 2180-2200 MHz bands.*
(placeholder)

0 respondent x 0 response x 0.5 hrs. = **0 hour**.

Internal cost = \$0.

12-p. Private Agreements. (placeholder)

0 respondent x 0 response x 0.5 hrs. = **0 hour.**

Internal cost = \$0

12-q. Coordination for use of high power. See 47 C.F.R. § 27.50(d)(3), (8). AWS-1, -4 and -3 licensees utilizing a power greater than 1640 watts EIRP or 1640 watts/MHz EIRP (“high power”) must coordinate such operations in advance with certain AWS and BRS licensees and satellite entities. We expect about 3,336 coordinations annually by 52 AWS-1, -4 and -3 respondents coordinating with up to 4 BRS incumbents, 7 satellite entities and perhaps 2 other AWS licensees, which works out to an average 64.15 responses per respondent over the course of the three-year approval period, or 21 or 21.38 per year. We assume such high-power operations will occur pursuant to agreements negotiated in-house by staff attorneys (\$62.93/hr.) and engineers (\$37.85/hr.). We estimate that the required disclosures will take each party an average of 2 hours per agreement, and we are assuming an equal distribution of the disclosures or responses among the 59 respondents (37 AWS-3 + 4 BRS + 7 satellites + 2 AWS-4), which works out to approximately 21 coordinations per respondent.

52 respondents (2 AWS-1, 37 AWS-3, 2 AWS-4, 4 BRS, and 7 satellite entities) x 21 responses x 2 parties per coordination x 2 hr. = **4,368 hours**

Internal cost: \$235,478 = (2,184 hours x \$69.97 attorney = \$152,814) + (2,184 hours x \$37.85 engineer = \$82,664)

TOTAL NUMBER OF RESPONDENTS: 254²⁶

TOTAL NUMBER OF RESPONSES: 7,798

352+TOTAL ANNUAL BURDEN HOURS: 14,358 HOURS

TOTAL ANNUAL IN-HOUSE/INTERNAL COST: \$648,769

13. Annual Costs to the Respondent:

13-a. *Appraisals required under 47 C.F.R. §§ 27.1166(b)(1), 27.1182(a)(3) to register certain relocations with a clearinghouse.*

- *Appraisal for FS self-relocations:* We estimate that 60 incumbent FS licensees will self-relocate 90 FS links (see item 12-f). When registering these relocations with a clearinghouse, self-relocators must include an appraisal, which we estimate will cost an average of \$750 (engineer/economist at 3 hrs. x \$250/hr.) for each of the self-relocations. We are assuming an equal distribution of the 90 FS

²⁶ The total number of respondents was calculated as follows: FS: 60 licensees, BRS: 4 licensees, Satellite: 7 licensees, Clearinghouse: 2, AWS-1: 142 Licensees, AWS-3: 37 Licensees and AWS-4: 2 Licensees for a total of 254 respondents.

appraisals among 60 FS respondents, which works out to an average of 0.666 appraisal per FS respondent over the course of the three-year approval period, or 0.222 per year.

$$60 \text{ respondents} \times 0.222 \text{ appraisals each} @ \$750 = \mathbf{\$9,990}$$

- Appraisal for BRS relocations BRS relocations can be registered without an appraisal if the AWS registrant agrees to certain conditions. However, we are assuming that the relocators (AWS licensees) will submit appraisals for all 8 BRS relocations and that each appraisal will cost an average of \$1,500 (engineer/economist at 6 hrs. x \$250/hr.). We are assuming an equal distribution of the 8 BRS appraisals among the 4 AWS licensees, which works out to an average of 2 appraisals per respondent over the course of the three-year approval period, or 0.666 per year.

$$4 \text{ respondents} \times 0.666 \text{ responses/respondent/year} \times \$1,500 \text{ per response} = \mathbf{\$3,996}$$

13-b. *Disclosures related to negotiation and relocation of BRS systems.* In addition to the burdens discussed in paragraph 12-e, we estimate that 2 of the 4 of the BRS respondents will retain legal counsel to assist in the negotiations, and that some of these costs will be attributable to the disclosure requirements. We estimate these costs at up to \$3,000 (attorney @ \$300/hr. x 10 hrs.) for each of 8 BRS systems subject to relocation. (Because there are 8 BRS licenses for 4 licensees, with six held by one respondent alone and 2 held by the remaining three, we have taken the six licenses held by one BRS licensee and 1 license held by another licensee to arrive at 4 licensees and 8 licenses, an average of 0.5 licenses each.) These values average to 0.1666 response per respondent per year (0.5 licenses per licensee / 3 years = 0.1666 per year).

$$4 \text{ respondents} \times 0.1666 \text{ responses/respondent/year} \times \$ 3,000 \text{ per response} = \mathbf{\$1,999}$$

13-c. *Disclosures by AWS-1 to Federal incumbents operating in the 1.7 GHz band.* In addition to the burdens discussed in item 12-m, we estimate that for 2,984 AWS licenses coordinated, 142 AWS-1 and 37 AWS-3 licensees will hire a consultant for up to \$750 (3 hrs. x \$250 per hr.) to assist in the coordination with Federal incumbents. We are assuming an equal distribution of the 2,984 licenses among the 179 licensees, which works out to an average of approximately 16.67 responses per respondent, or 5.6 per year.

$$179 \text{ respondents} \times 5.6 \text{ responses} \times \$750 \text{ per response} = \mathbf{\$ 751,800}$$

TOTAL ANNUAL (External) RESPONDENT COST:

$$\mathbf{\$9,990 + \$3,996 + \$1,999 + \$751,800 = \$767,785.}$$

14. Government Costs:

14-a. *Foreign ownership notifications.* We estimate that the cost to the Commission is for a GS 7 Step 5²⁷ legal instrument examiner at \$24.41 per hour to take 0.25 hrs. to review each of the 10 foreign ownership change submissions that might be filed annually.

²⁷ WASHINGTON-BALTIMORE-ARLINGTON, DC-MD-VA-WV-PA; Salaries & Wages; Pay & Leave; OPM; website: <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2017/general-schedule/>.

Annual cost: $\$24.41 \times 0.25 \text{ hrs.} \times 10 \text{ foreign ownership change submissions} = \mathbf{\$61}$.

14-b. *Buildout showings.* We estimate that the Commission would assign a GS 12 Step 5 engineer at \$43.29 per hour to review the interim buildout showings filed by the 142 AWS-1 and 37 AWS-3 licensees (*i.e.*, 19 per year; see item 12-b), and that each review would take an average of about two hours.

Annual cost: $\$43.29 \times 2 \text{ hrs. per review} \times 19 \text{ showings} = \mathbf{\$1,645}$

14-c. *Clearinghouses.* The FCC will incur costs for review of plans, periodic and special reports, and other submissions made by the clearinghouses (see item 12-k). For these reports, we estimate that the cost to the Commission will be as follows: GS-12 Step 5 analyst at \$43.29 per hour to take one hour per report with 10 reports per year (5 reports filed by 2 clearinghouses).

Annual cost: $\$43.29 \times 1 \text{ hr. per report} \times 10 \text{ reports per year} = \mathbf{\$433}$.

Total cost to the government: $\$61 + \$1,645 + \$433 = \mathbf{\$2,139}$.

15. The Commission has adjustments to this collection which are due the Commission adjusting estimates of the currently approved information collection to more accurately reflect our current estimates by decreasing some estimates and adding estimates for previously reported, periodic collections that will be active during the three-year approval period. Therefore, the adjustments are as follows: decreases of 139 to the number of respondents, decreases of 75,707 to the annual number of responses, decreases of 10,059 to the annual burden hours and increases of \$259,665 to the annual cost burden.

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

17. We are not requesting OMB approval to not display the OMB expiration date as the requirements are contained in FCC rules.

The Commission publishes a comprehensive listing of all OMB approved information collections in 47 C.F.R. § 0.408. This listing “displays” the title of the collection, its OMB control number and OMB expiration date.

18. There are no exceptions to the Certification Statement.

B. Collections of Information Employing Statistical Methods:

NO STATISTICAL METHODS ARE EMPLOYED.