

SUPPORTING STATEMENT

A. Justification:

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.

On January 25, 2022, the Commission adopted a Second Order on Reconsideration, Further Notice of Proposed Rulemaking, and Order in ET Docket Nos. 14-165, 20-36, 04-186 and GN Docket No. 12-268, FCC 22-6, that made changes to the requirements for how white space devices interact with the white space database. The white space database determines which frequencies are available for unlicensed devices and is the primary means to prevent white space devices from causing harmful interference to TV reception and other protected services. The Commission eliminated the requirement for white space database administrators to “push” changes in channel availability information to white space devices. It instead requires fixed and Mode II personal/portable white space devices, except narrowband devices, to re-check the white space database once per hour rather than once per day. The Commission retained a daily re-check requirement for mobile and narrowband devices but sought comment on whether to apply an hourly re-check requirement to these types of devices. The Commission also retained the requirement for white space database administrators to share licensed wireless microphone registration information with other database administrators within ten minutes after it is received, but moved this requirement to a different rule section.

The modified database administrator requirements, Section 15.715(l) are as follows:

§15.715 White space database administrator.

(l) If more than one database is developed, the database administrators shall cooperate to develop a standardized process for providing on a daily basis or more often, as appropriate, the data collected for the facilities listed in §15.713(b)(2) to all other white space databases to ensure consistency in the records of protected facilities. In response to a request for immediate access to a channel by a licensed wireless microphone user, white space database administrators are required to share the licensed microphone channel registration information to all other white space database administrators within 10 minutes of receiving each wireless microphone registration.

On October 27, 2020, the Commission adopted a Report and Order and Notice of Proposed Rulemaking in ET Docket No. 20-36, FCC 20-156, that made targeted changes to the Part 15 rules for unlicensed white space devices in the TV bands to provide improved broadband coverage that will benefit American consumers in rural and underserved areas as well as to provide improved access to narrowband Internet of Things applications while still protecting broadcast television stations from harmful interference. Specifically, the Commission permits higher EIRP and higher antenna HAAT for fixed white space devices in “less congested”

geographic areas. In addition, the Commission permits higher power mobile operation within “geo-fenced” areas in “less congested” areas. The Commission also adopted rule changes designed to facilitate the development of new and innovative narrowband IoT services.

The white space rules as amended by the 2020 White Spaces R&O require that fixed white space devices and installing parties comply with the following requirements with respect to the antenna height above average terrain:

§ 15.709 General technical requirements

(g) Antenna requirements -

(1) Fixed white space devices -

(ii) *Height above average terrain (HAAT)*. For devices operating in the TV bands below 602 MHz, the transmit antenna shall not be located where its height above average terrain exceeds 250 meters generally, or 500 meters in less congested areas. For devices operating in all other bands the transmit antenna shall not be located where its height above average terrain exceeds 250 meters. The HAAT is to be calculated by the white space database using the methodology in § 73.684(d) of this chapter. For HAAT greater than 250 meters the following procedures are required:

(A) The installing party must contact a white space database and identify all TV broadcast station contours that would be potentially affected by operation at the planned HAAT and EIRP. A potentially affected TV station is one where the protected service contour is within the applicable separation distance for the white space device operating at an assumed HAAT of 50 meters above the planned height at the proposed power level.

(B) The installing party must notify each of these licensees and provide the geographic coordinates of the white space device, relevant technical parameters of the proposed deployment, and contact information.

(C) No earlier than four calendar days after this notification, the installing party may commence operations.

(D) Upon request, the installing party must provide each potentially affected licensee with information on the time periods of operations.

(E) If the installing party seeks to modify its operations by increasing its power level, by moving more than 100 meters horizontally from its location, or by making an increase in the HAAT or EIRP of the white space device that results in an increase in the minimum required separation distances from co-channel or adjacent channel TV station contours, it must conduct a new

notification.

(F) All notifications required by this section must be in written form (including e-mail). In all cases, the names of persons contacted, and dates of contact should be kept by the white space device operator for its records and supplied to the Commission upon request.

Current Information Collection Requirements which already received OMB Approval:

On November 14, 2008, the Federal Communications Commission (Commission) adopted a Second Report and Order and Memorandum Opinion and Order (Second Report and Order), ET Docket No. 04-186, FCC 08-260, that established rules to allow unlicensed wireless devices to operate in the broadcast television spectrum at locations where that spectrum is not being used by licensed services. This unused spectrum is often termed “white spaces”. The rules allow for the use of unlicensed devices in unused TV spectrum to provide broadband data and other services for consumers and businesses. Subsequently on September 23, 2010, the Commission adopted a Second Memorandum Opinion and Order, ET Docket No. 04-186; ET Docket No. 02-380; FCC 10-174, finalizing the rules.

In the Second Report and Order, the Commission decided to designate one or more database administrators from the private sector to create and operate databases that provide lists of available channels to white space devices. The white space database administrators act on behalf of the Commission but offer a privately owned and operated service. Each database administrator is responsible for operation of their database and coordination of the overall functioning of their database with other administrators and provides database access to white space devices. To ensure proper functioning of the database, administrators must collect certain information from the Commission databases, protected entities such as wireless carriers and parties operating wireless microphones, and white space devices.

On August 11, 2015, the Commission adopted a Report and Order, ET Docket No. 14-165 and GN Docket No. 12-268, FCC 15-99 (2015 White Spaces R&O). This R&O made certain changes to the rules for unlicensed device operations in the frequency bands that were and continue to be allocated and assigned to broadcast television services, including fixed and personal/portable white space devices and unlicensed wireless microphones. It also adopted rules for fixed and personal/portable white space devices and wireless microphones in the 600 MHz guard bands, including the duplex gap, and the 600 MHz band that will be repurposed for new wireless services, and for fixed and personal/portable white space devices on channel 37. The Commission decided that it would no longer allow registration in the white space database of unlicensed wireless microphones at venues of events and shows that use large numbers of wireless microphones. This change was effective 18 months after the effective date of the rules in the 2015 White Spaces R&O, but no later than the release of the Channel Reassignment Public Notice after the conclusion of the incentive auction.

On July 13, 2017, the Commission adopted an Order on Reconsideration in ET Docket Nos. 14-165 and 14-166, FCC 17-95, that addressed wireless microphone issues (2017 Wireless Microphone Order). Because the date for ending registration of unlicensed wireless microphones in the white space database had passed with the release of the Channel Reassignment Public Notice on April 13, 2017, the Order removed and reserved Section 15.713(j)(9) that had previously allowed such registrations.

The white space rules as amended by the 2015 White Spaces R&O and the 2022 White Spaces Second Order on Reconsideration require that each white space database administrator shall:

- (a) Maintain a database that contains the information described in Section 15.713 of the rules. The database must include information on protected entities and services, including TV stations, Broadcast Auxiliary Services, Private Land Mobile and Commercial Radio Service operations, Part 74 Low Power Auxiliary Stations such as wireless microphones, the locations where part 27 600 MHz service licensees have commenced operation, and the locations of health care facilities that use WMTS equipment operating on channel 37. (Section 15.715(a));
- (b) Establish a process for acquiring and storing in the database necessary and appropriate information from the Commission's databases and synchronizing the database with the current Commission databases at least once a week to include newly licensed facilities or any changes to licensed facilities (Section 15.715(b));
- (c) Establish a process for registering fixed white space devices and registering and including in the database those facilities entitled to protection but not contained in a Commission database, including Multi-channel Video Programming Distributor (MVPD) receive sites. The database administrators must establish procedures to allow part 27 600 MHz service licensees to upload, modify and replace registration information for areas where they have commenced operations; allow health care facilities to register the locations of facilities where they operate WMTS networks on channel 37; and to allow unlicensed wireless microphone users in the 600 MHz band to register with the database and to provide lists of channels available for wireless microphones at a given location (Sections 15.715(n), (p) and (q)). Database administrators must remove from the database the registrations of fixed white space devices that have not checked the database for at least three months to update their channel lists (Section 15.715(o));
- (d) Establish a process for registering facilities where Part 74 low power auxiliary devices are used on a regular basis (Sections 15.713(j)(8) and 15.715(d));

- (e) Provide accurate automated information regarding available channels to fixed and personal/portable white space devices that submit to the database the information required under Section 15.713(e), (g) and (h) based on the geographic location of the device; and provide accurate automated information regarding available channels to fixed and Mode II devices requesting information regarding available channels for Mode I devices. Database administrators may allow prospective operators of white space devices to query the database and determine if there are vacant channels at a particular location (Section 15.715(e));
- (f) Establish protocols and procedures to ensure that all automated communications and interactions between the database and white space devices are accurate and secure and that unauthorized parties cannot access or alter the database or the information regarding available channels sent to a white space device consistent with the provisions of Section 15.713(l) (Section 15.715(f));
- (g) Make database services available to all unlicensed white space device users on a non-discriminatory basis (Section 15.715(g));
- (h) Provide service for a five-year term. This term can be renewed at the Commission's discretion (Section 15.715(h));
- (i) Respond in a timely manner to verify, correct and/or remove, as appropriate, data in the event that the Commission or a party brings a claim of inaccuracies in the database to the attention of the administrator. This requirement applies only to information that the Commission requires to be stored in the database (Section 15.715(i));
- (j) Transfer the database, along with the IP addresses and URLs used to access the database and data for registered fixed and personal/portable white space devices, to another designated entity in the event it does not continue as the database administrator at the end of its term (Section 15.715(j));
- (k) The database must have functionality such that upon request from the Commission it can indicate that no channels are available when queried by a specific white space devices or model of white space device (Section 15.715(k));
- (l) If more than one database is developed, the database administrators shall cooperate to develop a standardized process for providing on a daily basis or more often, as appropriate, the data collected for the facilities listed in §15.713(b)(2) to all other white space databases to ensure consistency in the records of protected facilities. In response to a request for immediate access to a channel by a licensed wireless microphone user, white space database administrators are required to share the licensed microphone

channel registration information to all other white space database administrators within 10 minutes of receiving each wireless microphone registration.

(m) The database administrator may charge a fee for provision of lists of available channels to fixed and personal/portable devices and for registering fixed devices. This provision applies to devices that operate in the TV bands, 600 MHz service band, and the 600 MHz guard bands and duplex gap. A white space database administrator may also charge a fee for provision of lists of available channels to wireless microphone users. (Section 15.714).

To receive interference protection, 600 MHz licensees must notify one of the white space database administrators of the areas where they have commenced operation pursuant to §§ 15.713(j)(10) and 15.715(n) of this chapter (Section 27.1320).

The rules adopted in the 2020 White Spaces R&O require parties planning to install a white space device with an antenna HAAT of greater than 250 meters, up to the maximum of 500 meters permitted on TV channels 2-35 in “less congested” areas, to use the following coordination procedure with potentially affected TV broadcasters. The Commission noted in the 2020 White Spaces R&O that this procedure could be automated through the white space database.

(A) The installing party must contact a white space database and identify all TV broadcast station contours that would be potentially affected by operation at the planned HAAT and EIRP. A potentially affected TV station is one where the protected service contour is within the applicable separation distance for the white space device operating at an assumed HAAT of 50 meters above the planned height at the proposed power level.

(B) The installing party must notify each of these licensees and provide the geographic coordinates of the white space device, relevant technical parameters of the proposed deployment, and contact information.

(C) No earlier than four calendar days after this notification, the installing party may commence operations.

(D) Upon request, the installing party must provide each potentially affected licensee with information on the time periods of operations.

(E) If the installing party seeks to modify its operations by increasing its power level, by moving more than 100 meters horizontally from its location, or by making an increase in the HAAT or EIRP of the white space device that results in an increase in the minimum required separation distances from co-channel or adjacent channel TV station contours, it must conduct a new notification.

(F) All notifications required by this section must be in written form (including e-mail). In all cases, the names of persons contacted, and dates of contact should be kept by the white space device operator for its records and supplied to the Commission upon request.

The Commission is requesting a revision of a currently approved information collection from the Office of Management and Budget (OMB) in order to obtain the three-year approval.

This collection of information is authorized under Sections 4(i), 201, 302, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 201, 302a, 303.

This information collection does not affect individuals or households – respondents are limited to applicants, protected entities and licensees using the subject radio frequency (RF) spectrum. Thus, there are no impacts under the Privacy Act and a Privacy Impact Assessment is not required.

2. Indicate how, by whom and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

The Commission's Office of Engineering and Technology has designated parties to collect information from white space devices and to administer the databases of authorized services in the TV bands in order to maximize the use of the white space spectrum.

Protected entities shall submit information to the white space database as follows:

- (a) Parties operating services in the TV bands, 600 MHz service band or on channel 37 that are either not listed in the Commission's databases or are not licensed by specific coordinates shall voluntarily submit information to the white space database in order to seek protection from potential interference.
- (b) In the TV bands, these services include Broadcast Auxiliary Service (BAS) links authorized on a temporary basis, receive sites for TV translators and cable TV systems, and sites where wireless microphones are used regularly and predictably, such as major sporting events.
- (c) In the 600 MHz service band, this information includes the geographic areas where 600 MHz Band licensees have commenced operation as specified in § 15.713(j)(10)
- (d) On channel 37, this information includes the locations where the Wireless Medical Telemetry Service (WMTS) operates as specified in § 15.713(j)(11).

(e) The purpose of this information is to prevent white space devices from causing interference to services that do not appear in the Commission's databases. The submission of such information is strictly voluntary, but services operated by parties that do not submit this information may not be protected against interference from white space devices.

In addition to the information on protected entities listed above, white space database administrators shall collect information submitted from white space devices as follows:

(a) A fixed, Mode II personal/portable or mobile white space device shall submit location and operational information to the database in order to determine and provide the available TV channels at the white space device's location. Available channels are determined based on the interference protection requirements in Section 15.712.

(b) The white space device must make an automated re-check contact and the database shall provide fixed, Mode II personal/portable and mobile white space devices with channel availability information that includes scheduled changes in channel availability over the course of either a two- or 48-hour period, as appropriate for the type of device, beginning at the time the white space device makes a re-check contact.

(c) The above collections of information from white space devices are automated functions of devices as approved under the Commission's equipment authorization program. The transfer of information to the white space database is therefore an operational characteristic of the device, and the burden for collection of this information from the white space device user is insignificant.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

The information submitted for the white space databases shall be collected via electronic means. Information that is not contained in the Commission's databases, such as the location of receive sites and wireless microphones, shall be submitted electronically by the party requesting registration directly to the white space database administrators.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in item 2 above.

The FCC is the only agency believed to require or possess the subject information. Therefore, there is no duplication of effort.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The information that will be submitted to the white space database is necessary to ensure that white space devices operate only on unoccupied channels and do not cause harmful interference to authorized services in the TV bands, the 600 MHz Band or on channel 37. Thus, the same information must be submitted by both large and small businesses. The Commission will work with the database administrators and other interested parties to ensure that information is collected in the least burdensome manner to all businesses, both large and small.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

The Commission provides for the operation of unlicensed radio transmitters in Part 15 of its rules. Operation under Part 15 is subject to the condition that a device does not cause harmful interference to authorized services, and that it must accept any interference received. The rules adopted in the Second Report and Order permit unlicensed devices to operate on TV channels that are not in use in their vicinity, subject to specific technical requirements that are intended to prevent interference to TV broadcasting and other authorized users of the TV bands. The rules adopted in the 2015 White Spaces R&O also permit unlicensed devices to operate in the 600 MHz service band and on channel 37 at locations where these frequencies are not in use by authorized services.

If the required information is not collected from operating white space devices, significant interference could result to broadcast television and other important licensed radio services.

Similarly, if the needed information on registered licensed low power broadcast auxiliary devices, 600 MHz service band operations, WMTS operations on channel 37, and headend receive sites of multiple video program distributors, low power TV stations and TV translator stations is not obtained, those facilities may receive interference.

7. Explain any special circumstances that cause an information collection to be conducted in a manner: requiring respondents to report information to the agency more often than quarterly; requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it; requiring respondents to submit more than an original and two copies of any document; requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can

demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

Fixed, Mode II personal/portable and mobile white space device respondents shall be required to electronically resubmit their location and operating parameters hourly or daily, as appropriate for the type of device, in order to determine channel availability information that includes scheduled changes in channel availability over the course of the re-check period. This shall be an automated process and the burden for submission of information is insignificant.

8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information prior to submission to OMB.

-Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

The Commission published a Federal Register notice on April 4, 2022, (87 FR 19503) soliciting comments from the public on the information collection requirements contained in this supporting statement. No PRA comments were received from the public.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

No payments or gifts are given to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation or agency policy.

The Commission is not requesting respondents to submit confidential information to the Commission. Applicants may request that portions of their applications remain confidential in accordance with Section 0.459 of the Commission's rules.

11. Provide additional justification for any questions of a sensitive nature.

No sensitive information is required for this collection of information

12. Provide estimates of the hour burden of the collection of information. The statement should: indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the

range of estimated hour burden, and explain the reasons for the variance.

Licensed low power broadcast auxiliary devices and receive sites. It is estimated that approximately 1,500 respondents (applicants/licensees) will file registrations with the database administrators for licensed low power broadcast auxiliary devices (wireless microphones), headend receive sites of multiple video program distributors, low power TV stations and TV translator stations.

The respondents are expected to register once annually, and the Commission estimates the burden of registration for both the database administrators and the Commission will be 2 hours for each registration. We expect that respondents will fulfill the requirements of this collection with in-house clerical staff.

Total Number of Respondents: 1,500.

Total Number of Responses Annually: 1,500 registrations.

Total Annual Burden Hours: 1,500 responses x 2 hours/response¹ = 3,000 hours.

600 MHz Band licensees. It is estimated that approximately 10 respondents (600 MHz Band licensees) will register information on the locations where they have commenced operation with a white space database. It is also estimated that each respondent will register 200 locations annually. The respondents are expected to register information on a location once when they commence operations in an area. A respondent must update a previous registration or make an additional registration when it expands the area in which it is operating.

Total Number of Respondents: 10.

Total Number of Responses Annually: 2,000 registrations.

Total Annual Burden Hours: 2,000 registrations x 2 hours/response² = 4,000 hours.

Cumulative Totals:

Total Number of Respondents: 1,500 + 10 = 1,510 (respondents).

Total Number of Responses Annually: 1,500 + 2,000 = 3,500 registrations.

¹ This time period also accounts for the applicants/licensees (respondents) keeping copies/records of their registrations.

² This time period also accounts for the applicants/licensees (respondents) keeping copies/records of their registrations.

Total Annual Burden Hours: $3,000 + 4,000 = 7,000$ hours.

In-House Costs: The Commission estimates at clerical staff paid at \$10.00 per hour will fulfill the requirements. Therefore, the in-house costs are: $\$10.00 \text{ per hour} \times 7,000 \text{ hours} = \mathbf{\$70,000}$.

13. Provide estimates for the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in items 12 and 14).

(a) The capital and start-up costs for manufacturers of white space devices is part of the design, development and manufacture of these devices. As such, this cost is included in the capital and start-up costs for equipment authorization as reported in OMB 3060-0057 (Form 731 Application for Equipment Authorization), OMB 3060-0329 (Equipment Authorization – Verification), and OMB 3060-0636 (Equipment Authorization – Declaration of Conformity). For protected entities, the capital and start-up costs are insignificant as these entities are already doing business, and there would be no preparation costs for reporting of their location and operating parameters to the white space database administrators.

(b) Operation and maintenance costs for white space devices are likewise included in the above-mentioned OMB approvals. Operation and maintenance costs for protected entities is estimated to be \$50 for the reporting of required information to the white space database administrators. Therefore:

Capital and start-up costs:	1,510 respondents X \$ 0	\$ 0
Operation/Maintenance (wireless microphones/receive sites):	1,510 respondents X \$50	\$ 75,500
Operation/Maintenance (600 MHz Band licensees):	1,510 registrations X \$50	<u>\$ 75,500</u>
Total Respondent Cost Estimate:		\$ 151,000

14. Provide estimates of annualized costs to the Federal government. Also provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff) and any other expenses that would not have been incurred without this collection of information.

There is no cost to the Federal government for the database administrator collection of

information. Protected entities deal directly with the white space database administrators, and the cost for white space device information collection has been included in the noted equipment authorization collections.

15. Explain the reasons for any program changes or adjustments to this information collection.

The Commission is reporting a program change to this collection and not an adjustment because it modified section 15.715(l) to reflect changes to the requirements for how white space devices interact with the white space database as a result of FCC 22-6. There are no changes in the total number of respondents, total annual responses and total annual burden hours.

16. For collections of information whose results will be published, outline plans for tabulation and publication.

The information and data will not be published.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

The Commission is seeking OMB approval to request a waiver of displaying the OMB expiration date on the on-line forms. This will alleviate the Commission from having to update the OMB expiration date each time this collection is submitted for OMB review and approval.

The Commission will use an edition date in lieu of an OMB expiration date.

18. Explain any exceptions to the Certification Statement.

There are no exceptions to the certification statement.

B. Collection of Information Employing Statistical Methods:

This collection of information does not employ statistical methods.