

SUPPORTING STATEMENT

A. **Justification:** _

1. The Commission is submitting this revision to the Office of Management and Budget (OMB) for approval to update the existing information collection to reflect changes adopted in a *Sixth Report and Order* released on July 17, 2020, in PS Docket 07-114.¹ The goal of this proceeding is to ensure that all Americans using mobile phones – whether they are calling from urban or rural areas, from indoors or outdoors – have technology that is functionally capable of providing accurate location information so that they receive the support they need in times of an emergency. Consistent with that goal, the Commission in the *Fifth Report and Order* adopted a vertical, or z-axis, location accuracy metric that will help to more precisely identify the location of a 911 wireless caller in a multi-story building. This submission seeks to clarify and expand the scope of previously approved information collection requirements to reflect the reporting requirements adopted in the *Sixth Report and Order* and to reflect revision of a previously-approved reporting template for live 911 call data. In this supporting statement, we also update the number of CMRS providers (respondents) to reflect 2012 data from the U.S. Census Bureau.² In addition, we adjust the burden estimate to zero for several one-time reporting requirements that respondents have already satisfied.

In the *Fourth Report and Order*, which was released on February 3, 2015, in PS Docket No. 07-114,³ the Commission adopted requirements for all Commercial Mobile Radio Service (CMRS) providers to improve the accuracy of 911 location information from wireless devices delivered to Public Safety Answering Points (PSAPs), including benchmark dates for CMRS providers to achieve horizontal, or x/y, location accuracy milestones. The *Fourth Report and Order* recognized current trends in mobile wireless usage, particularly that more American households are now “wireless only” than ever before. The need to expeditiously provide accurate 911 location information is made more pressing because of the proliferation of commercial location-based services and consumer expectations that 911 location would be as accurate or more accurate than commercial applications, and because of the crucial role it can

¹ *Wireless E911 Location Accuracy Requirements*, Sixth Report and Order, 35 FCC Rcd 7752 (2020) (*Sixth Report and Order*), corrected by Erratum (rel. Aug. 28, 2020); see also 47 CFR § 9.10(i) et seq.

² U.S. Census Bureau data for 2012 show that in the category Wireless Telecommunications Carriers, there were 967 firms that operated for the entire year. See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

³ See *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259 (2015) (*Fourth Report and Order*), corrected by Erratum (rel. Mar. 3, 2015).

play in protecting life and property. In the *Fifth Report and Order*, released on November 25, 2019, the Commission adopted a vertical, or z-axis, location accuracy metric.⁴

In the *Sixth Report and Order*, the Commission expanded the options for CMRS providers choosing to deploy z-axis technology to meet the April 2021 and April 2023 compliance benchmarks. The Commission also required nationwide CMRS providers to deploy z-axis technology nationwide by April 2025 and required non-nationwide CMRS providers to do the same throughout their service areas by April 2026. In addition, to make the wireless dispatchable location rules consistent with the Commission's dispatchable location rules for other services adopted pursuant to Section 506 of RAY BAUM'S Act, the *Sixth Report and Order* required CMRS providers by January 6, 2022, to provide dispatchable location for wireless 911 calls when it is technically feasible and cost-effective for them to do so. (Non-nationwide providers have an additional year to meet this benchmark.) The *Sixth Report and Order* also included measures allowing CMRS providers flexibility to develop dispatchable location solutions that do not depend on the National Emergency Address Database, (NEAD) which has been discontinued. Finally, the *Sixth Report and Order* addressed implementation issues for dispatchable location solutions that are not based on the NEAD, including (1) privacy and security, and (2) confidence and uncertainty data requirements.

The information collections contained in the adopted rules are necessary and vital to the effective implementation of improved location accuracy, which will enable PSAPs to dispatch to emergencies and first responders to respond to such emergencies. The *Fourth Report and Order* noted that the rule sections containing information collection requirements were subject to Office of Management and Budget (OMB) approval under the Paperwork Reduction Act. OMB approved the information collections associated with the *Fourth Report and Order* in 2015.⁵ OMB approved these revised requirements for a three-year period on March 28, 2018 under ICR Reference No. 201801-3060-010. On Sept. 16, 2020, OMB approved the modified information collections adopted in the *Fifth Report and Order* under ICR Reference No. 202006-3060-005. Based on the continuing public safety need for the information in these collections, the Commission now seeks OMB approval of the modifications adopted in the *Sixth Report and Order* for a three-year period.

The information collections, including the modifications adopted in the *Sixth Report and Order*, are described below.

New or modified collections in the *Sixth Report and Order*:

The Commission's rules at 47 CFR § 9.10(i)(2)(ii) require CMRS providers to deploy dispatchable location or vertical location information according to specific timelines. The *Fifth Report and Order* adopted a z-axis location accuracy metric for CMRS providers under these rules. The *Sixth Report and Order* added another benchmark, April 3, 2025, to the required timeline for implementing vertical location accuracy and provided additional options at all of the benchmark dates for deploying z-axis technology.

⁴ *Wireless E911 Location Accuracy Requirements*, Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, 34 FCC Rcd 11592 (2019) (*Fifth Report and Order*), corrected by Erratum (rel. Jan. 15, 2020).

⁵ See 80 Fed. Reg. 45897 (Aug. 3, 2015).

Dispatchable Location and Z-Axis Data Use Certifications. Under 47 CFR § 9.10(i)(4)(iv), all CMRS providers must certify “that neither they nor any third party they rely on to obtain dispatchable location information will use dispatchable location information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law.” In addition, “[t]he certification must state that CMRS providers and any third party they rely on to obtain dispatchable location information will implement measures sufficient to safeguard the privacy and security of dispatchable location information.” Under 47 CFR § 9.10(i)(4)(v), all CMRS providers must certify “that neither they nor any third party they rely on to obtain z-axis information will use z-axis information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law.” Further, “[t]he certification must state that CMRS providers and any third party they rely on to obtain z-axis information will implement measures sufficient to safeguard the privacy and security of z-axis location information.” The Commission obtained OMB approval for the information collections contained in these certifications after adopting the *Fourth Report and Order* and *Fifth Report and Order*. The *Sixth Report and Order* modified these information collections slightly by deleting references to the NEAD, which has been discontinued and will not be available to CMRS providers. The Commission does not expect these changes to the certification requirements to result in any increase or decrease in the burden estimates for these collections as previously approved by OMB.

Live Call Data Reporting. Section 9.10(i)(3)(ii) provides that beginning 18 months from the effective date of the rules, CMRS providers that serve any of the six Test Cities identified by ATIS (Atlanta, Denver/Front Range, San Francisco, Philadelphia, Chicago, and Manhattan Borough of New York City) or portions thereof must collect and report aggregate data on the location technologies used for live 911 calls. Non-nationwide providers that do not provide service in any of the Test Cities may satisfy this requirement by collecting and reporting data based on the largest county within the carrier’s footprint. Nationwide CMRS providers must submit call data on a quarterly basis; non-nationwide CMRS providers need only submit this data every six months. Submissions must be sent to the Commission, the National Emergency Number Association, the Association of Public Safety Communications Officials, and the National Association of State 911 Administrators. CMRS providers shall identify and collect information regarding the location technology or technologies used for each 911 call in the reporting area during the calling period, and how well each technology performs in different morphologies across the region. This reporting requirement is necessary to validate and verify the compliance certifications made by all CMRS providers, and provides the Commission with an effective and objective measurement of real-world 911 performance in the most challenging wireless environments.

Reporting Template for Live 911 Call Data. In 2018, the Commission developed a reporting template to assist CMRS providers in collecting, formatting, and submitting aggregate live 911 call data in accordance with the requirements in the rules. The template helps the Commission to evaluate the progress CMRS providers have made toward meeting the 911 location accuracy benchmarks. The template is an Excel spreadsheet and is available for downloading on the Commission’s website. The Commission may also develop an online filing mechanism for these reports in the future.

The Commission obtained OMB approval for the information collections contained in these live call data reports in 2018. The Commission previously estimated that using the

template to generate and submit the required live call data for horizontal location accuracy would require two hours of time by an in-house engineer at each CMRS provider. After adopting the *Fifth Report and Order*, the Commission indicated that it would modify the live call template to include vertical location. We now propose to modify the form to include z-axis (vertical) location information from live calls in addition to horizontal location information. Specifically, we propose to revise the template to include fields for reporting the percentage of total 911 calls that result in dispatchable location or z-axis location information by morphology and position technology and for reporting z-axis deployment options used for 911 calls. We estimate that CMRS providers will need one hour to provide z-axis information, so we estimate an additional hour of time by an in-house engineer at each CMRS provider to submit the data using the revised template.

Confidence and Uncertainty Data. Under 47 CFR § 9.10(j)(4), CMRS providers must supply confidence and uncertainty (C/U) information with wireless E911 calls that have dispatchable location or z-axis information and must do so in accordance with the timelines for vertical location accuracy compliance. As noted below, OMB previously approved and renewed a C/U data requirement for horizontal location information under OMB Control No. 3060-1204. (See also OMB Control No. 3060-1147.) *The Fifth Report and Order* extended the C/U requirements to include vertical location information, and OMB approved that modification. *The Sixth Report and Order* revised 47 CFR § 9.10(j)(4) to add a requirement that where floor-level information is available to CMRS providers, they must provide C/U data for the z-axis (vertical) information included with such floor-level information. The Commission stated in the *Sixth Report and Order* that it believes further work is needed to develop improved location technology that can deliver floor level information. Accordingly, we estimate that this modification of the information collection will not result in any increase in the burden estimate over the next three years.

Provision of Live 911 Call Data to PSAPs. Under 47 CFR § 9.10(k), CMRS providers must record information on all live 911 calls, including the C/U data that they provide to PSAPs under Section 9.10(j) of the rules. In addition, Section 9.10(k) requires CMRS providers to make this information available to PSAPs upon request and to retain it for a period of two years. The Commission obtained OMB approval for the information collections contained in Section 9.10(k) after adopting the *Fourth Report and Order* under OMB Control No. 3060-1204. *The Sixth Report and Order* amended Section 9.10(k) to make explicit that the requirements in the rule extend to C/U data for dispatchable location and floor-level information, as well as for z-axis information. This eliminated a potential gap in the rule, which previously referred only to z-axis information. We do not believe this modification, which is largely technical in nature, will increase the burden associated with this information collection.

CMRS Provider Notification to Consumers of Z-Axis Technology Availability. The *Sixth Report and Order* added a requirement at 47 CFR § 9.10(i)(2)(ii)(J)(4):

A CMRS provider will be deemed to have met its z-axis technology deployment obligation so long as it either pre-installs or affirmatively pushes the location technology to end users so that they receive a prompt or other notice informing them that the application or service is available and what they need to do to download and enable the technology on their phone. A CMRS provider will be deemed in compliance with its z-

axis deployment obligation if it makes the technology available to the end user in this manner even if the end user declines to use the technology or subsequently disables it.

The requirement to provide end users a prompt or notification informing them that the service is available and how to enable the technology on their phone constitutes a one-time information collection. Sections 9.10(i)(2)(ii)(C)-(F) require CMRS providers to meet this requirement according to a staggered timeline. By April 3, 2021, nationwide CMRS providers must either deploy dispatchable location or z-axis technology in each of the top 25 cellular market areas (CMAs); by April 3, 2023, nationwide CMRS providers must deploy either dispatchable location or z-axis technology in the top 50 CMAs, and by April 3, 2025, nationwide CMRS providers must deploy either dispatchable location or z-axis technology on a nationwide basis. Non-nationwide CMRS providers have an additional year to meet these requirements.

For purposes of this information collection, we anticipate that by the April 3, 2021 compliance date, the four nationwide CMRS providers will update their consumer notifications to inform end-users in the top 25 CMAs that z-axis location technology for 911 calls is available and what they must do to enable it. We estimate that preparing this notification to consumers will take 8 hours for one attorney. We anticipate that by the April 3, 2022 compliance date for non-nationwide CMRS providers, the 963 non-nationwide CMRS providers will also need 8 hours for an attorney to update their consumer notification for end users in the top 25 CMAs. (We anticipate that CMRS providers will use the same notification for consumers to meet the April 3, 2023 deadline and subsequent benchmarks, so the subsequent benchmarks will not create any additional burden.)

Previously Approved Information Collection Requirements:

To implement the 911 location accuracy requirements, the *Fourth Report and Order* and *Fifth Report and Order* imposed the following notification measures that constitute an information collection.

Section 9.10(i)(2)(ii)(A) – *Delivery of uncompensated barometric pressure data.* This rule requires that within three years of the effective date of the rule, CMRS providers subject to this section shall deliver uncompensated barometric pressure data from any device capable of delivering such data to PSAPs. The furnishing of this information to PSAPs is necessary to ensure that PSAPs are receiving all location information possible to be used for dispatch. This requirement is also necessary to ensure that CMRS providers implement a vertical location solution if the proposed dispatchable location solution does not function as intended by the three-year mark and beyond.

Section 9.10(i)(2)(ii)(B) – *Submission of z-axis metric to the Commission.* This rule requires that the four nationwide providers submit to the Commission for review and approval a reasonable metric for z-axis (vertical) location accuracy no later than 3 years from the effective date of rules. The deadline for this one-time reporting requirement has passed, and we are revising the burden estimate for this obligation to zero.

Section 9.10(i)(2)(iii) – *Benchmark compliance certifications.* The Commission requires CMRS providers to certify compliance with the Commission's rules at various benchmarks throughout implementation of improved location accuracy. Certification of meeting the Commission's various location accuracy technology requirements is necessary to ensure that CMRS providers

remain “on track” to reach the location accuracy benchmarks in the rules. The Commission obtained OMB approval for the information collection contained in these certifications after adopting the *Fourth Report and Order* and *Fifth Report and Order*.

Section 9.10(i)(2)(iv) – Enforcement. PSAPs may seek Commission enforcement of the location accuracy requirements within their geographic service area, but only so long as they have implemented policies that are designed to obtain all location information made available by CMRS providers when initiating and delivering 911 calls to the PSAP. Prior to seeking Commission enforcement, a PSAP must provide the CMRS provider with 30 days written notice, and the CMRS provider shall have an opportunity to address the issue informally. If the issue has not been addressed to the PSAP’s satisfaction within 90 days, the PSAP may seek enforcement relief.

Section 9.10(i)(3)(i) – Test bed. Within 12 months of the effective date of this rule, the four nationwide CMRS providers must establish the test bed described in the *Fourth Report and Order*, which will validate technologies intended for indoor location, including dispatchable location technologies and technologies that deliver horizontal and/or vertical coordinates, through an independently administered and transparent process. The test bed must include testing in representative indoor environments, including dense urban, urban, suburban and rural morphologies; test for performance attributes including location accuracy (ground truth), latency, and reliability (yield); and must evaluate each test call as independent from prior calls and as based on the first location delivered after the call is initiated. The test bed is necessary for the compliance certification framework adopted in the *Fourth Report and Order*.

Section 9.10(i)(3)(ii) – Aggregate live call data submissions. Beginning 18 months from the effective date of the rules, CMRS providers providing service in any of the six Test Cities identified by ATIS (Atlanta, Denver/Front Range, San Francisco, Philadelphia, Chicago, and Manhattan Borough of New York City) or portions thereof must collect and report aggregate data on the location technologies used for live 911 calls. Non-nationwide providers that do not provide service in any of the Test Cities may satisfy this requirement by collecting and reporting data based on the largest county within the carrier’s footprint. Nationwide CMRS providers must submit call data on a quarterly basis; non-nationwide CMRS providers need only submit this data every six months. Submissions must be sent to the Commission, the National Emergency Number Association, the Association of Public Safety Communications Officials, and the National Association of State 911 Administrators. CMRS providers shall identify and collect information regarding the location technology or technologies used for each 911 call in the reporting area during the calling period, and how well each technology performs in different morphologies across the region. This reporting requirement is necessary to validate and verify the compliance certifications made by all CMRS providers and provides the Commission with an effective and objective measurement of real-world 911 performance in the most challenging wireless environments.

Reporting Template for Live 911 Call Data. In 2018, the Commission developed a reporting template to assist CMRS providers in collecting, formatting, and submitting aggregate live 911 call data in accordance with the requirements in the rules. The template assists the Commission in evaluating the progress CMRS providers have made toward meeting the 911 location accuracy benchmarks. The template is an Excel spreadsheet and is available for downloading on the Commission’s website. The Commission may also develop an online filing mechanism for these reports in the future.

The first page of the template contains the instructions, as well as the required PRA disclosures. A tab at the bottom of the instructions page opens a separate reporting page for each Test City. Each reporting page, in turn, includes a field for reporting total live 911 call information and any category of 911 calls excluded from the compilation of data. Each reporting page also provides a field for reporting live 911 calls by positioning technology,⁶ as well as morphology.⁷ Within each of these fields, the template provides for reporting the total number of 911 calls, as well as the “Yield %,” which is the percentage of total 911 calls that result in dispatchable location or x/y (horizontal) location information.

The Commission previously estimated that generating and submitting the required live call data with the template would require two hours of time by an in-house engineer at each CMRS provider.

Section 9.10(i)(3)(iii) – Data retention. CMRS providers shall retain testing and live call data gathered pursuant to this section for a period of 2 years.

Section 9.10(i)(4)(i) – Initial implementation plan. This rule mandates that no later than 18 months from the effective date of the adoption of the rule, nationwide CMRS providers shall report to the Commission their initial plans for meeting the indoor location accuracy requirements of paragraph (i)(2) of Section 9.10. Non-nationwide CMRS providers will have an additional 6 months to submit their implementation plan. This initial reporting requirement ensures that the Commission is aware of the CMRS providers’ initial plans to meet the specific location accuracy benchmarks. We are revising the burden estimate for this one-time reporting requirement to zero.

Section 9.10(i)(4)(ii) – Progress reports. This rule requires that no later than 18 months from the effective date of the adoption of this rule, each CMRS provider shall submit to the Commission a report on its progress toward implementing improved indoor location accuracy. Non-nationwide CMRS providers will have an additional 6 months to submit their progress reports. All CMRS providers shall provide an additional progress report no later than 36 months from the effective date of the adoption of this rule. The 36-month reports shall indicate what progress the provider has made consistent with its implementation plan, and the nationwide CMRS providers must include an assessment of their dispatchable location solutions. We are revising the burden estimate for this one-time reporting requirement to zero.

Section 9.10(i)(4)(iii) – NEAD privacy and security plan. Prior to activation of the NEAD but no later than 18 months from the effective date of the adoption of this rule, the nationwide CMRS providers shall file with the Commission and request approval for a security and privacy plan for the administration and operation of the NEAD. The deadline for this one-time reporting requirement has passed, and we are revising the burden estimate for this obligation to zero.

Section 9.10(i)(4)(iv) – Dispatchable location use certification. Under this rule, CMRS providers must certify “that neither they nor any third party they rely on to obtain dispatchable

⁶ The instructions explain that providers should enter each position technology or combination of technologies they used, “e.g., A-GPS, A-GNSS, OTDOA, UTDOA, AFLT, RTT, etc.”

⁷ The four morphologies are dense urban, urban, suburban, and rural. The *Fourth Report and Order* notes that these morphologies represent and are inclusive of the variety of indoor environments in which wireless 911 calls are made. See *Fourth Report and Order*, 30 FCC Rcd at 1307, para. 128.

location information will use dispatchable location information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law.” In addition, “[t]he certification must state that CMRS providers and any third party they rely on to obtain dispatchable location information will implement measures sufficient to safeguard the privacy and security of dispatchable location information.” As noted above, the Commission is revising this requirement to account for the fact that the NEAD has been discontinued. The Commission does not expect these changes to result in any increase or decrease in the burden estimates for this collection as approved by OMB after adoption of the *Fourth Report and Order* and *Fifth Report and Order*.

Section 9.10(i)(4)(v) – z-axis use certification. Section 9.10(i)(4)(v) requires that prior to use of z-axis information to meet the Commission’s location accuracy requirements, CMRS providers must certify “that neither they nor any third party they rely on to obtain z-axis information will use z-axis information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law.” Further, “[t]he certification must state that CMRS providers and any third party they rely on to obtain z-axis information will implement measures sufficient to safeguard the privacy and security of z-axis location information.” This requirement is necessary to ensure the privacy and security of any personally identifiable information that may be collected by the CMRS provider. As noted above, the Commission is revising this requirement to account for the fact that the NEAD has been discontinued. The Commission does not expect these changes to result in any increase or decrease in the burden estimates for this collection as approved by OMB after adoption of the *Fourth Report and Order* and *Fifth Report and Order*.

Section 9.10(j) – Confidence and uncertainty data. This rule requires CMRS providers to provide confidence and uncertainty (C/U) data for all wireless 911 calls, whether from outdoor or indoor locations, on a per-call basis upon the request of a PSAP. Further, the rule requires that all entities responsible for transporting confidence and uncertainty between CMRS providers and PSAPs, including LECs, CLECs, owners of E911 networks, and emergency service providers, must enable the transmission of confidence and uncertainty data provided by CMRS providers to the requesting PSAP.

Section 9.10(k) – Provision of live 911 call data for PSAPs. Notwithstanding the other 911 call data collection and reporting requirements, CMRS providers must record information on all live 911 calls, including, but not limited to, the positioning source method used to provide a location fix associated with the call, as well as confidence and uncertainty data. This information must be made available to PSAPs upon request, as a measure to promote transparency and accountability for this set of rules.

Statutory authority for this collection is contained in Sections 1, 2, 4(i), 7, 10, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), and 332, of the Communications Act of 1934, 47 U.S.C. §§ 151, 152(a), 154(i), 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332; the Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 47 U.S.C. §§ 615 note, 615, 615a, 615b; and Section 106 of the Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 47 U.S.C. § 615c.

This information collection does not affect individuals or households; thus, there are no impacts

under the Privacy Act.

2. The Commission's Public Safety and Homeland Security Bureau (the Bureau) will use the information submitted by the CMRS providers in their initial implementation plans, progress reports, and live call data reports to assess and monitor the implementation of improved location accuracy technologies, including vertical (z-axis) location technologies, in the near term. The Bureau also will use information from the dispatchable location and z-axis use certifications and the benchmark compliance certifications to ensure that licensees comply with our rules as we progress through the indoor location accuracy framework.

The Bureau will not receive or use CMRS provider notifications to consumers of z-axis technology availability because these notifications will be delivered to a third party (CMRS customers). The information collection in this requirement will help to ensure that CMRS end users are aware of the availability of z-axis location accuracy technology, as well as how to enable or opt into this technology on their phone. The Bureau also will not receive or use information collections pertaining to the delivery of uncompensated barometric pressure data and confidence/uncertainty data because that information also will be delivered a third party (relevant PSAPs). The information collection and reporting requirements contained in these rules will facilitate the effective implementation of improved location accuracy by the Commission, public safety entities, and CMRS providers alike. These requirements will provide an objective snapshot of progress and performance of each CMRS provider, and they should simplify the enforcement and complaint process for both PSAPs and CMRS providers.

3. Most records, if not all, will be generated and stored electronically. CMRS providers must submit quarterly live call data to the Commission, the National Emergency Number Association, the Association of Public Safety Communications Officials, and the National Association of State 911 Administrators, and they will mostly likely use automated measures to collect this information. The submission of these reports and all others may be done electronically. Further, the Commission believes that information technology, including electronic mail, will facilitate much of the information collection and significantly reduce the number of estimated burden hours than if such technology were not available.

4. The Commission has not previously required any information collections related to wireless indoor location accuracy, but it does currently require the delivery of confidence and uncertainty data (see OMB Control No. 3060-1147). A standardized confidence level requirement for confidence/uncertainty data was adopted in the *Fourth Report and Order*. The existing approval for the collection of confidence/uncertainty data under IC 3060-1147 is not broad enough to capture this new required confidence level, but otherwise sufficiently addresses the delivery of this information. Accordingly, the approval sought herein for the collection of confidence/uncertainty data pertains only to the burden hours required to modify existing confidence/uncertainty data delivery systems to include confidence and uncertainty information for vertical location accuracy; the existing approval for OMB Control No. 3060-1147 already covers the delivery of this information to the PSAP.

5. In order to minimize the impact on small businesses, non-nationwide CMRS providers need only report live 911 call data every six months, as opposed the quarterly frequency imposed on nationwide providers. In addition, the nationwide CMRS providers are required to share certain information about deployments of technology evaluated in the test bed with non-nationwide

providers in order to facilitate the certification process. These steps were taken to ease the burden on small entities.

6. The information collected will assist the Commission in ensuring public safety and will help PSAPs throughout the nation to receive improved information location with wireless 911 calls. If the information such as the quarterly live call data is not collected, the Commission's ability to monitor compliance and enforce its rules would be diminished or even eliminated. In addition, the rules adopted by the Commission include other information collections that must be disseminated to third parties in order to properly implement improved location accuracy, including submission of live call data to public safety organizations other than the Commission and to requesting PSAPs. These submissions are essential to ensure transparency in the enforcement process and to enable all stakeholders the ability monitor E911 performance, something that the Commission has deemed essential for the successful implementation of improved indoor location accuracy.

7. No special circumstances exist at this time that would cause this data collection to be conducted in any manner inconsistent with the guidelines in 5 CFR § 1320.

8. The Commission published a notice in the *Federal Register* on November 30, 2020 (85 FR 76569) to solicit comments from the public on the proposed information collection requirements contained in this collection. No comments were received in response to the 60-day notice.

9. No payment or gift to respondents has been or will be made.

10. The Commission is requesting that respondents submit confidential information to the Commission in the context of the test bed. Nationwide CMRS providers must make data from the test bed available to small and regional CMRS providers such that the smaller providers can deploy technology throughout their networks that is consistent with a deployment that was successfully tested in the test bed. The information collections pursuant to the *Sixth Report and Order* would not impact or modify any of the existing confidentiality procedures.

CMRS providers may request confidential treatment of the live 911 call data reports, but the Commission reserves the right to release aggregate or anonymized data on a limited basis in order to facilitate compliance with its rules. State and local 911 agencies also have the authority to publish 911 call data to the extent authorized under state or local law. The Commission will work with respondents to ensure that their concerns regarding the confidentiality of any proprietary, business-sensitive, or security-sensitive information are resolved in a manner consistent with the Commission's rules.

Any personally identifiable information that might be included in the live call data collected and furnished by CMRS providers to PSAPs, specified public safety organizations, and the Commission should be protected to the extent that it is considered Customer Proprietary Network Information (CPNI), pursuant to 47 U.S.C. § 222(h)(1)(A) and 47 CFR. § 64.2001 *et seq.*

11. This information collection does not ask questions of a sensitive nature.

12. In this modified information collection, we are updating the estimated number of CMRS providers to 967 firms based on 2012 data from the U.S. Census Bureau. For the

confidence/uncertainty data requirements, the Commission has estimated that there are 3,500 System Service Providers (SSPs), for a total of 4,467 respondents. For enforcement, the Commission has estimated that approximately 100 public safety answering points (PSAPs) would be respondents. The Commission therefore estimates that this information collection will have 4,567 unique respondents. These estimates were based on Commission staff's knowledge and familiarity with the availability of the data required. As noted above, we also are reducing to zero the burden estimate for certain one-time reporting requirements that have already been satisfied by respondents. Estimates of the burden hours for the collection of information are as follows:

a. Delivery of Uncompensated Barometric Pressure Data – 9.10(i)(2)(ii)(A): The Commission requires that at three years from the effective date of the rule, CMRS providers must begin delivering uncompensated barometric pressure data to PSAPs from any device that is capable of delivering such data. For this information collection, the Commission estimates that all 967 CMRS providers will be respondents. We assume that to provide this data to PSAPs, the respondents will need to modify their location information systems to support this capability. The Commission estimates that it will take 40 hours for two engineers and one attorney to successfully implement this capability.

Total Number of Respondents: 967

Frequency of Response: 1

Total Number of Responses:

967 CMRS providers x 1 modification to location information system = **967 responses**

Total Annual Burden Hours:

967 CMRS providers x 1 modification x 40 hours/modification = **38,680 hours**

The requirement to deliver uncompensated barometric pressure data will only be triggered by a valid PSAP request for such data. The Commission estimates that each provider will receive 10 requests per year for the delivery of uncompensated barometric pressure data, and it will take a clerical employee 2 hours to review, respond, and process each such request.

Total Number of Respondents: 967

Frequency of Response: 10

Total Number of Responses:

967 CMRS providers x 10 responses to PSAP requests = **9,670 responses**

Total Annual Burden Hours:

967 CMRS providers x 10 responses x 2 hours/response = **19,340 hours**

b. Submission of Z-Axis Metric to the Commission – 9.10(i)(2)(ii)(B): The Commission is revising the burden estimate for this one-time requirement, which respondents have already met, to zero.

c. CMRS Provider Notification to Consumers of Z-Axis Technology Availability – 9.10(i)(2)(ii)(J)(4): CMRS providers will be deemed to have met their z-axis deployment obligation if they either pre-install or affirmatively push the location technology to end users so that they receive a prompt or other notice informing them that the application or service is available and what they need to do to download and enable the technology on their phone. The requirement to provide end users a prompt or notification informing them that the service is available and how to enable the technology on their phone constitutes a one-time information collection. Sections 9.10(i)(2)(ii)(C)-(F) require CMRS providers to meet this requirement according to a staggered timeline. By April 3, 2021, nationwide CMRS providers must either deploy dispatchable location or z-axis technology in each of the top 25 cellular market areas (CMAs); by April 3, 2023, nationwide CMRS providers must deploy either dispatchable location or z-axis technology in the top 50 CMAs, and by April 3, 2025, nationwide CMRS providers must deploy either dispatchable location or z-axis technology on a nationwide basis. Non-nationwide CMRS providers have an additional year to meet these requirements. We estimate that preparing this notification to consumers will require eight hours for one attorney.

Total Number of Respondents: 967

Frequency of Response: 1

Total Number of Responses:

967 CMRS providers x 1 notification to consumers = **967 responses**

Total Annual Burden Hours:

967 CMRS providers x 1 notification x 8 hours/notification = **7,736 hours**

d. Benchmark Compliance Certifications – 9.10(i)(2)(iii): At 24 months, nationwide and non-nationwide CMRS providers must certify that they are providing either dispatchable location or x/y (horizontal) location within 50 meters for 40 percent of all 911 wireless calls; that the indoor location technology used in their network is deployed in the same manner they were tested in the test bed; and that any devices on their network operating with foreign A-GNSS signals for 911 location accuracy have proper authorizations in place to permit such use.

In 2021, nationwide providers must certify that they are providing either dispatchable location or x/y (horizontal) location within 50 meters for 80 percent of all wireless 911 calls. Non-nationwide providers must achieve the 80 percent call threshold described above by this date or within 1 year of the provider's deployment of a commercially-operating VoLTE platform in the provider's network, whichever is later. Nationwide CMRS providers also must certify that they have deployed either dispatchable location or z-axis (vertical) location technology in the top 25 CMAs. In 2022, all CMRS providers must certify that they are providing dispatchable location with wireless E911 calls if it is technically feasible for them to do so. There are additional compliance benchmarks in 2022 and 2023. (Application of some of the benchmarks to a particular provider may depend on the geographic area served by the provider.) Thus, we estimate that between 2021 and 2023, each CMRS provider will file at least three certifications relating to compliance with the 911 location accuracy benchmarks (i.e. the April 3, 2021; January 6, 2022; and April 3, 2023 benchmarks).

The Commission has not developed, and does not envision developing, a certification form; rather, the Commission believes CMRS providers themselves are in the best position to provide certification to the Commission that is both fully transparent, and the least burdensome. The Commission estimates that a CMRS provider will need one attorney and one engineer for 1 hour each (total of 2 hours) to draft, edit, and submit the certification to the Commission.

Total Number of Respondents: 967

Frequency of response: 3 times during period of OMB approval

Total Number of Responses:

967 CMRS providers x 3 certifications = 2,901 **responses**

Total Burden Hours:

967 CMRS providers x 3 certifications x 2 hours/certification = **5,802 hours**

e. Enforcement - Section 9.10(i)(2)(iv): PSAPs may seek Commission enforcement of location accuracy requirements within their geographic service area, but only if they have implemented policies that are designed to obtain all location information made available by CMRS providers when initiating and delivering 911 calls to the PSAP. Prior to seeking Commission enforcement, a PSAP must provide the CMRS provider with 30 days written notice, and the CMRS provider shall have an opportunity to address the issue informally. If the issue has not been addressed to the PSAP's satisfaction within 90 days, the PSAP may seek enforcement relief. The Commission estimates that approximately 100 PSAPs will send such a notice each year, and that it will require one clerical worker and one engineer for a total of 1 hour to draft, edit, and submit the notice to a CMRS provider.

Total Number of Respondents: 100

Frequency of Response: 1

Total Number of Responses:

100 PSAPs x 1 notice = **100 responses**

Total Burden Hours:

100 PSAPs x 1 notice x 1 hour/report = **100 hours**

f. Test Bed Information - Section 9.10(i)(3)(i): CMRS providers must establish the test bed described in this section within 12 months of the effective date of this rule. CMRS providers must validate technologies intended for indoor location, including dispatchable location technologies and technologies that deliver horizontal and/or vertical coordinates, through an independently administered and transparent test bed process, for such technologies to be presumed to comply with the location accuracy requirements. The Commission estimates that two engineers and one attorney will be necessary to work on the development of the test bed in conjunction with other CMRS providers. The Commission estimates that it will require 1,000 hours from each nationwide CMRS provider.

Total Number of Respondents: 4, filing jointly

Frequency of Response: 1

Total Number of Responses:

4 nationwide CMRS providers x 1 report = **4 responses**

Total Burden Hours:

4 nationwide CMRS providers x 1 report x 1,000 hours/report = **4,000 hours**

g. Live 911 Call Data Submissions – Section 9.10(i)(3)(ii): will vary based on the CMRS provider's coverage footprint:

- (1) *Nationwide CMRS providers* – CMRS providers offering nationwide coverage must submit aggregate live 911 call data on a quarterly basis to the Commission, NENA, APCO, and NASNA. This information will be necessary to validate the compliance certifications made by CMRS providers. Beginning in 2021, nationwide CMRS providers will report vertical location live call information. The Commission envisions that nationwide CMRS providers will supply vertical location live call data together with horizontal location live call data. The Commission estimates that it will require 2 hours by an engineer for the generation of aggregate live call data (horizontal or x/y data) and any necessary formatting. The Commission estimates that it will require an additional hour by an engineer for the generation of vertical (z-axis) live call data and any necessary formatting.

Total Number of Respondents (x/y data) on an Annual Basis: 4

Frequency of Response: 4

Total Number of Responses Annually:

4 nationwide CMRS providers x 4 reports/annually = **16 responses**

Total Annual Burden Hours:

4 nationwide CMRS providers x 4 reports/annually x 2 hours/report = **32 hours**

Total Number of Respondents (z-axis data) on an Annual Basis: 4

Frequency of Response: 4

Total Number of Responses Annually:

4 nationwide CMRS providers x 4 reports/annually = **16 responses**

Total Annual Burden Hours:

4 nationwide CMRS providers x 4 reports/annually x 1 hour/report = **16 hours**

- (2) *Non-nationwide CMRS providers* – CMRS providers that do not offer nationwide coverage must submit aggregate live 911 call data every six months to the Commission, NENA, APCO, and NASNA. Beginning in 2022, nationwide CMRS providers will report vertical location live call information. The Commission envisions that non-nationwide CMRS providers will supply vertical location live call data together with horizontal location live call data. The Commission estimates that it will require 2 hours by an engineer for the generation of aggregate horizontal (x/y) live call data and any necessary formatting, and that it will require an additional hour by an engineer for the generation and formatting of vertical (z-axis) location information.

Total Number of Respondents (x/y data) on an Annual Basis: 963

Frequency of Response: 2

Total Number of Responses Annually:

963 non-nationwide CMRS providers x 2 reports/annually = **1,926 responses**

Total Annual Burden Hours:

963 non-nationwide CMRS providers x 2 reports/annually x 2 hours/report = **3,852 hours**

Total Number of Respondents (z-axis) on an Annual Basis: 963

Frequency of Response: 2

Total Number of Responses Annually:

963 non-nationwide CMRS providers x 2 reports/annually = **1,926 responses**

Total Annual Burden Hours:

963 non-nationwide CMRS providers x 2 reports/annually x 1 hour/report = **1,926 hours**

h. Data Retention - Section 9.10(i)(3)(iii): CMRS providers must retain testing and live call data gathered pursuant to this section for a period of 2 years. The Commission estimates that it will take one engineer one hour to install this capability and two hours to monitor the performance of servers storing the data.

Total Number of Respondents: 967

Frequency of Response: 1

Total Number of Responses:

967 CMRS providers x 1 retention = **967 responses**

Total Burden Hours:

967 CMRS providers x 1 retention x 3 hours/retention = **2,901 hours**

i. Initial Implementation Plans – Section 9.10(i)(4)(i): This one-time initial reporting requirement ensures that the Commission is aware of the CMRS providers' initial plans to meet the specific accuracy benchmark timeframes. We are revising the burden estimate for this one-time reporting obligation, which respondents have satisfied, to zero.

j. Progress Reports – Section 9.10(i)(4)(ii): Respondents have satisfied these one-time reporting requirements, so we are revising the burden estimate to zero.

k. NEAD Privacy and Security Plan – Section 9.10(i)(4)(iii): Respondents have met this one-time reporting requirement, so we are revising the burden estimate to zero.

l. Dispatchable Location and Z-Axis Data Use Certifications – Section 9.10(i)(4)(iv) and (v): Prior to use of the dispatchable location information to meet the Commission's location accuracy

requirements, CMRS providers must certify that neither they nor any third party they rely on to obtain dispatchable location information will use dispatchable location information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law. The certification also must state that CMRS providers and any third party they rely on to obtain dispatchable location information will implement measures sufficient to safeguard the privacy and security of dispatchable location information. Prior to use of z-axis information to meet the Commission's location accuracy requirements, CMRS providers must certify that neither they nor any third party they rely on to obtain z-axis information will use z-axis information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law. The certification also must state that CMRS providers and any third party they rely on to obtain z-axis information will implement measures sufficient to safeguard the privacy and security of z-axis location information.

The Commission estimates that each CMRS provider will need one hour for an attorney to draft, edit, and submit this certification.

Total Number of Respondents: 967

Frequency of Response: 1

Total Number of Responses: 967

Total Burden Hours:

967 CMRS providers x 1 hour = **967 hours**

m. Confidence and Uncertainty Data – Section 9.10(j)(4)(iii) and (j)(4)(iv): This rule requires that CMRS providers and Systems Service Providers (SSPs) must deliver confidence and uncertainty data (C/U data) for all wireless 911 calls – whether placed from indoors or outdoors – at the request of a PSAP, on a per-call basis, with a uniform confidence level of 90 percent. Beginning in 2021 and 2022, nationwide CMRS providers and non-nationwide CMRS providers will report C/U data for vertical location, respectively. The Commission envisions that all CMRS providers will supply vertical location live call data together with horizontal location live call data. The burden estimates are in addition to the current existing information collection requirements for transmitting C/U data pursuant OMB Control No. 3060-1147. The Commission estimates that the implementing, testing for, and delivering C/U data at a uniform level will take one engineer 8 hours to deploy in response to a PSAP request.

Total Number of Respondents:

967 CMRS providers + 3,500 SSPs = **4,467 respondents**

Frequency of Response: 1.

Total Number of Responses:

4,467 respondents x 1 response = **4,467 responses**

Total Burden Hours:

4,467 respondents x 1 response x 8 hours/response = **35,736 hours**

In addition, upon meeting the 3-year timeframe for the location accuracy metrics, CMRS providers shall provide with wireless 911 calls that have a dispatchable location the confidence/uncertainty data for the x- and y-axis (latitude, longitude). The Commission estimates that it will take one engineer 4 hours to implement, test, and deploy this capability.

Total Number of Respondents: 967

Frequency of Response: 1

Total Number of Responses:

967 CMRS providers x 1 response = **967 responses**

Total Burden Hours:

967 CMRS providers x 1 response x 4 hours/response = **3,868 hours**

n. Provision of live 911 call data for PSAPs – Section 9.10(k): Notwithstanding the other 911 call data collection and reporting requirements, CMRS providers must record information on all live 911 calls, including, but not limited to, the positioning source method used to provide a location fix associated with the call, as well as confidence and uncertainty data. This information must be made available to PSAPs upon request, and data must be retained for a period of two years. The Commission estimates that it will take one clerical worker 1.5 hours to process PSAP requests and submit such information. The Commission estimates that 10 PSAPs will make this request on an annual basis.

Total Number of Respondents: 967

Frequency of Response: 10

Total Number of Responses:

967 CMRS providers x 10 response = 9,670 **responses**

Total Burden Hours:

967 CMRS providers x 10 response x 1.5 hours/response = **14,505 hours**

Annual Estimated Burden Hours to the Respondents:

a.	(1) Modification to enable delivery of uncompensated barometric data	=	38,680
	hours		
	(2) Reviewing, responding, and processing requests for such data	=	19,340
	hours		
b.	Submission of Z-Axis Metric to the Commission	=	0 hours
c.	CMRS Provider Notification to Consumers re Z-Axis Technology	=	7,736
	hours		
d.	Benchmark Compliance Certifications	=	5,802
	hours		

e.	Enforcement by PSAPs	=	100
hours			
f.	Test Bed	=	4,000
hours			
g.	(1) Live 911 Call Data - Nationwide CMRS Providers	=	48
hours			
	(2) Live 911 Call Data - Non-nationwide CMRS Providers	=	5,778
hours			
h.	Retention of Live 911 Call Data	=	2,901
hours			
i.	Implementation plans	=	0 hours
j.	Progress Reports	=	0 hours
k.	NEAD Privacy and Security Plan	=	0 hours
l.	Dispatchable Location and Z-Axis Use Certifications	=	967
hours			
m.	(1) Standardization of confidence/uncertainty data reporting	=	35,736
hours			
	(2) Delivery of confidence/uncertainty data with dispatchable location	=	3,868
hours			
n.	Provision of live 911 call data for PSAPs	=	14,505
hours			

139,461 hours

Total Number of Respondents: [967 CMRS providers + 100 PSAPs + 3,500 SSPs] = 4,567

Total Number of Responses: [967 + 9,670 + 967 + 2,901 + 100 + 4 + 32 + 3,852 + 967 + 967 + 4,467 + 967 + 9,670] = 35,531 Responses

Total Annual Burden Hours: [38,680 + 19,340 + 7,736 + 5,802 + 100 + 4,000 + 48 + 5,778 + 2,901 + 967 + 35,736 + 3,868 + 14,505] = 139,461 hours

IN-HOUSE COSTS TO RESPONDENTS:

The Commission estimates that the hourly wage of a full-time, in-house attorney who will be involved in developing, drafting, and reviewing the CMRS provider z-axis notification to consumers will be \$150.00/hour. Also, the Commission estimates the hourly wage of a similar full-time, in-house engineer to perform the necessary work to deliver the C/U data with a uniform confidence to be \$150.00/hour. The Commission estimates that two engineers and one attorney will be necessary to work on the delivery of uncompensated barometric pressure data and development of the test bed. The Commission estimates that one attorney and one engineer will be necessary for benchmark compliance certifications. The Commission also estimates that one attorney will be necessary for the dispatchable location and z-axis use certifications. Finally, the Commission estimates that one engineer will be necessary for the live 911 call data, the

standardization of C/U data, and the inclusion of C/U data with calls delivered with dispatchable location. Therefore, the in-house costs to the respondents are as follows:

- a. (1) *Modification of location systems to deliver uncompensated barometric pressure data:*
 $38,680 \text{ hours} \times \$300 = \mathbf{\$11,604,000}$
 (2) *Reviewing, responding, and processing PSAP requests for barometric data:*
 $19,340 \text{ hours} \times \$50 = \mathbf{\$967,000}$
- b. *Submission of Z-Axis Metric to the Commission: = \$0*
- c. *CMRS Provider Z-Axis Notification to Consumers:*
 $7,736 \text{ hours} \times \$150 = \mathbf{\$1,160,400}$
- d. *Benchmark Compliance Certifications: 5,802 hours x \$150 = \$870,300*
- e. *Enforcement: 100 hours x \$200 = \$20,000*
- f. *Test Bed: 4,000 hours x \$450 = \$1,800,000*
- g. (1) *Live 911 Call Data – Nationwide Providers: 48 hours x \$150 = \$7,200*
 (2) *Live 911 Call Data – Non-nationwide Providers: 5,778 hours x \$150 = \$866,700*
- h. *Live 911 Call Data Retention: 2,901 hours x \$150 = \$435,150*
- i. *Initial Implementation Plans: \$0*
- j. *Progress reports: – \$0*
- k. *NEAD Privacy and Security Plan: \$0*
- l. *Dispatchable Location and Z-Axis Use Certification: 967 hours x \$150 = \$145,050*
- m. (1) *Standardization of C/U data reporting: 35,736 hours x \$150 = \$5,360,400*
 (2) *Delivery of C/U data with dispatchable location: 3,868 hours x \$150 = \$580,200*
- n. *Provision of live 911 call data for PSAPs: 14,505 hours x \$50 = \$725,250*

Total Annual “In-House” Costs: [$\$11,604,000 + \$967,000 + \$0 + \$1,160,400 + \$870,300 + \$20,000 + \$1,800,000 + \$7,200 + \$866,700 + \$435,150 + \$0 + \$0 + \$0 + \$145,050 + \$5,360,400 + \$580,200 + \$725,250$] = **\$24,541,650.**

13. There may be costs to the respondents to modify their confidence and uncertainty data reporting systems. Respondents may incur fewer costs to record aggregate live 911 call data, as many providers are already doing so. There may also be differing costs for enforcement, as the number of PSAPs seeking enforcement may be different than estimated herein once improved location accuracy is implemented.

14. There are no costs to the Commission beyond what we consider to be part of the FCC’s normal operating costs.

15. The program changes and adjustments to this collection arise out of the adoption in the *Sixth Report and Order* of a requirement for CMRS providers to notify customers of the availability of z-axis technology, 47 CFR § 9.10(i)(2)(ii)(J)(4). In addition, the Commission has revised the reporting template for live 911 call data submissions under 47 CFR § 9.10(i)(3)(ii) to facilitate the reporting of vertical (z-axis) information. Further, the Commission has adopted an additional compliance benchmark that will apply during the period covered by this modification request. 47 CFR § 9.10(i)(2)(ii)(G). This additional benchmark will increase the number of compliance certifications filed by CMRS providers under 47 CFR § 9.10(i)(2)(iii). In this supporting statement, we also update the number of CMRS providers (respondents) to reflect 2012 data from the U.S. Census Bureau (+ 173 respondents). In addition, we adjust the burden estimate to zero for several one-time reporting requirements that respondents have already satisfied. In sum, the program changes result in an increase in total responses due (+ 6,503) and decrease in total burdens (- 3,677).

16. The Commission has reserved the right to publish any or all of the aggregate live 911 call data and otherwise permits state and local 911 authorities to publish data made available to them within the extent of relevant state and local laws.

17. We do not seek approval not to display the expiration date for OMB approval of the information collection.

18. There are no exceptions to the Certification Statement.

B. Collections of Information Employing Statistical Methods:

No statistical methods are employed.