

**Department of Transportation
Federal Aviation Administration**

SUPPORTING STATEMENT

Waivers and ATC Authorization in Controlled Airspace under Part 107

2120-0768

INTRODUCTION

This information collection is submitted to the Office of Management and Budget (OMB) to request an emergency approval of a new collection instrument under Information Collection 2120-0768, “ATC Authorization in Controlled Airspace under Part 107.” The emergency request will allow Federal Aviation Administration (FAA) to leverage automated means of collecting and processing airspace and operational authorizations (authorizations) under 14 CFR Part 107 via Low Altitude Authorization and Notification Capability (LAANC) process.

Part A. Justification

1. Circumstances that make collection of information necessary.

In 2012, Congress passed the FAA Modernization and Reform Act of 2012 (Public Law 112-95). Section 333 of Public Law 112-95 directed the Secretary to determine which types of unmanned aircraft systems (UAS), as a result of their size, weight, speed, operational capability, proximity to airports and populated areas, and operation within visual line of sight do not create a hazard to users of the national airspace system (NAS) or the public or pose a threat to national security. Based on such determinations, the statute required the FAA to establish requirements for the safe operation of these systems in the NAS, prior to completion of the UAS comprehensive plan and rulemakings required by section 332 of Public Law 112-95.

Based on its consideration of the comments submitted in response to the notice of proposed rulemaking entitled Operation and Certification of Small Unmanned Aircraft Systems (80 FR 9543, February 23, 2015), and its experience with the certification, exemption, and Certificate of Waiver or Authorization process, the FAA issued the Operation and Certification of Small Unmanned Aircraft Systems final rule to enable certain small UAS operations to commence upon adoption of this rule and accommodate technologies as they evolve and mature (81 FR 42063, June 28, 2016).

The final rule contains section 107.41, which states that:

§ 107.41 Operation in certain airspace.

“No person may operate a small unmanned aircraft in Class B, Class C, or Class D airspace or within the lateral boundaries of the surface area of Class E airspace designated for an airport unless that person has prior authorization from Air Traffic Control (ATC).”

The FAA established the ATC Authorization in Controlled Airspace and Waivers under 14 CFR Part 107 to allow an operator to request FAA authorization for a small unmanned aircraft to operate in Class B, C, D, and the lateral boundaries of the surface area of Class E airspace designated for an airport.

Current Collection Instrument – Web Portal/Drone Zone; Airspace Authorizations and Waivers, and Operational Authorizations.

Information regarding the current collection instrument is provided as background information only to support the emergency request for the new information collection instrument. Changes to the web portal made to enhance customer experience and to refine data elements so that the FAA may provide a better service to the public and its rebranding as DroneZone were approved by OMB as a non-substantive change to this collection on September 27, 2017

The FAA previously established an information collection and web portal to facilitate the collection of information in furtherance of requests for authorizations under part 107. The entity applying for an authorization will submit information through the web portal to the FAA regarding the operation to be conducted. Information will include contact information for the operator, the date and time of the operation, as well as its anticipated duration, and the airspace for which the request is submitted.

New Collection Instrument - Low Altitude Authorization and Notification Capability (LAANC); Part 107 Airspace Authorizations

A recent FAA study (Part 107 Post-Implementation Analysis) showed that the current 60-90 day turnaround time for airspace authorizations is increasing the number of non-compliant UAS operations. Non-compliant operations have resulted in nearly 250 Mandatory Occurrence Reports (MORs) involving a manned aircraft and a UAS every month. The majority of the time these reports are extremely hazardous situations, such as a near mid-air collision or a UAS operation at unsafe altitudes. Most these reports occurred in class B, C, D, and surface E airspace, which are the safety critical areas around the Nation's most congested airports.

Therefore the FAA has developed an automated process that leverages external providers of UAS services (UAS Service Suppliers). The capability, known as Low Altitude Authorization and Notification Capability (LAANC) will reduce the turnaround time for providing authorizations and/ or coordination. The automated LAANC capability uses data provided by external providers of authorization services known as UAS service suppliers (USS).¹ USS, use FAA provided UAS Facility Maps (UASFM) to determine whether a 14 CFR Part 107 operations can be authorized in controlled airspace. The USS collects data from the requestor of the authorization and provides a subset of that data through data exchange with the FAA. The data provided to the FAA for Part 107 operations include aircraft operator name; telephone number of the operator for operational coordination if necessary; regulation for which the operator is operating under; requested date and time operations will commence and conclude under the authorization; duration of the operation, requested altitude applicable to the authorization; description of proposed operation in center/radius or polygon format; identifiers and versions of applicable UASFM(s). In addition, the operator provides registration number optionally. Records provided by LAANC to the FAA are necessary to ensure the safe operation of the NAS, hence the reason for pursuing an emergency PRA. Data elements requested by the FAA are the minimal information required for ATC to know where and when an operation is occurring and contact an operator in the event of either an emergency or if additional coordination needs to take place and are consistent with the data collected from UAS operators who submit authorization requests via the FAA Drone Zone web portal.

¹ USS support for notification processes will be deployed at a later date.

The FAA has provided a letter from its Office of General Counsel further explaining the need for the Emergency request.

2. How, by whom, and for what purpose is the information used.

Operators can use LAANC for authorizations that don't require a waiver; under daylight conditions; and where facility map data has been established by the local ATC. In this method, an operator accesses one of many available USS to plan and implement a Part 107 flight in controlled airspace. Using LAANC, as governed by a set of operating rules, and using the UASFM, the USS's are able to automatically provide authorizations under Part 107. ATC facilities create gridded maps (UASFM) that provide maximum allowable altitudes for safe operation in controlled airspace. UASFM's are then managed (updated and new ones released) on a 56 day cycle. When an operator requests authorization within airspace within the UASFM, the USS will access the UASFM and provide airspace authorizations to the operators using the data contained in the map. The authorization information is provided to the FAA via data exchange, where it is stored and displayed to local ATC facilities. If an authorization request cannot be automatically approved using UASFMs because the request exceeds the altitude threshold, operators may request through the LAANC system that local ATC consider altitudes higher than the stated UASFM map altitude and under the 400 foot maximum height.

If the FAA did not collect this information, the FAA would not be able to grant certificates of authorization for the above mentioned activities, in accordance with 14 CFR § 107. Additionally, the FAA would be unable to control and maintain the consistently high level of civil aviation safety the agency is compelled to guarantee pursuant to its statutory obligations.²

3. Extent of automated information collection.

The FAA proposes to collect authorization information under Part 107 via data exchange with LAANC USS. USS provide an electronic method for operators to enter specific information about a requested authorization. The USS, using UASFM provide a Part 107 authorization to the operator and the resulting approved authorization and other information is sent via an application program interface (API) to the FAA as an electronic record, which is stored in an FAA data repository.

LAANC provides a more efficient and consistent method of providing authorizations for Part 107 operations. In addition, the electronic process ensures consistency in the input of information, which further enables the process for responding to the requests in a consistent, efficient manner.

4. Efforts to identify duplication.

The information collection specific to ATC Authorizations under the final small UAS rule is unique to each operator and not applicable to the operator community at large at this time. Each request is reviewed based on its individual operating needs and capabilities, which could be in various combinations of each, thus creating a unique information profile for every operator requesting access to controlled airspace. Duplicate records for the same authorization request could exist if an operator chooses to use the DroneZone portal and LAANC for the same operation.

² See, e.g., 49 U.S.C. §§ 40103 and 44701; Pub. L. 112-95 § 333.

5. Efforts to minimize the burden on small businesses.

An automated approach to information collection is deliberate and driven by the highly dynamic and short term nature of operations conducted by this community of operators. As described above, the information collection is automated to ensure the collection process as efficient and least burdensome as possible for operators who conduct flight of short duration that are not complex.

Operators choosing to use LAANC will access authorization services through an external USS. USS will manage and maintain accounts operators who wish to access authorization services under 14 CFR Part 107. The information the USS will collect for these purpose is the minimal information determined by the FAA to be required to decide to approve/deny the operation. In the event the operator wants to fly above the approved altitudes they will be asked to provide additional safety mitigations applied to the operations. The relationship with operators through USS is anticipated to increase efficiency and reduce the burden on businesses.

6. Impact of less frequent collection of information.

An applicant is required to request authorization prior to operating in controlled airspace. If the frequency of the collection of information is reduced such that an applicant does not submit the request for authorization prior to operating, that person will have no means by which to obtain authorization to operate pursuant to 14 CFR at 107.41 in controlled airspace.

7. Special circumstances.

There are no special circumstances for this information collection.

8. Compliance with 5 CFR 1320.8.

This is an emergency request. The FAA has published a notice informing the public of this emergency request. See 82 FR 47289 (October 11, 2017).

9. Payments or gifts to respondents.

No gifts or payments are provided for the processing of authorizations.

10. Assurance of confidentiality.

There is no confidentiality requested or provided.

11. Justification for collection of sensitive information.

The only information collected that may be considered “sensitive in nature” is the personal information associated with an operation (aircraft operator name, telephone number, and optionally provided registration number). This personal information is limited to what is necessary for ATC to contact UAS operators in the event of a hazardous condition or if they require additional coordination to approve an operation. Any records collected under the LAANC process covered by the Privacy Act will be managed in accordance with the Department of Transportation system of records notice (SORN) DOT/FAA 854 - Requests for Waivers and Authorizations under 14 CFR Part 107, (81 FR 50789, Aug. 2, 2016). The FAA is in the

process of developing a Privacy Impact Assessment (PIA) for LAANC for approval and publication by the Departmental Chief Privacy Officer.

12. Estimate of burden hours for information requested.

Authorization Requests Using Web Portal/Drone Zone:

From September 2016 to July 2017, the FAA received 19,978 authorization requests.³ Using the current monthly growth rate of authorizations (35%) the FAA estimates it will receive 26,970 authorization requests in 2018 and 36,410 requests in 2019. The total number of respondents over three years would total 83,358, for an average annual response rate of 27,786 or 13,893 for the span of the emergency request. The FAA estimates that completion the authorization form on the portal will take 0.5 hour to complete. Therefore, the FAA estimates the annual time burden for using the FAA’s electronic portal to be approximately 9,589 hours for authorizations in 2017, 13,485 hours in 2018, and 18,205 hours in 2019 totaling 41,279 hours over a 3-year period. On an annual basis, this burden is calculated at 13,760 or 6,880 for the span of the emergency request.

Period	Respondents	Respondents Calculation	Burden (hours)	Burden Calculation
Year 1 (2017)	19,978	19,978 (baseline)	9,989	Year 1 Respondents * .5 hours 19,978 * .5
Year 2 (2018)	26,970	Year 1 +35%(Year 1) 19,978 + 6992	13,485	Year 2 Respondents *.5 hours 26,970 *.5
Year 3 (2018)	36,410	Year 2 + 35%(Year 2) 26,970 + 9,440	18,205	Year 3 Respondents *.5 hours 36,410 *.5
Total	83,358	Year 1 + Year 2 + Year 3 19,978 + 26,970 + 36,410	41,679	Year 1 + Year 2 + Year 3 (Burden Hours) 9,989 + 13,485 + 18,205
Annual	27,786	Total / 3 years	13,893	Total (Burden Hours) / 3 41,679/ 3
Emergency (6 months)	13,893	Annual / 2	6,947	Annual (Burden Hours) / 2 13,893/ 2

³ The 30-day notice for emergency processing (82 FR 47290) states that the FAA has received 20,566 authorization requests from September 2016 thru July 2017. This number reflects both authorizations and waivers under Part 107 and the most recent analysis of respondent demand. This emergency processing request applies only to authorizations to be processed via the LAANC deployment. The FAA recognizes that the number of authorizations and waivers currently received by the FAA exceeds the current approved collection and had anticipated submitting a revised package for 2120-0768. In consultation with the Department it was determined that the FAA should seek emergency approval of the LAANC deployment to support safety improvements and address the overage in the full approval package.

The FAA estimates that using the USS, LAANC based method for authorizations will require five minutes per transaction. If all operators seeking authorizations use the LAANC process, the burden would be 1,598 for 2017, 2,158 for 2018, and 2,613 for 2018. The total and annual burden for the collection would be 6,669 and 2,223 hours respectively and 1,112 hours for the span of the emergency request.

Period	Respondents	Respondents Calculation	Burden (hours)	Burden Calculation
Year 1 (2017)	19,978	19,978 (baseline)	1,598	Year 1 Respondents * 5 minutes (.08 hours) 19,978 * .08
Year 2 (2018)	26,970	Year 1 +35%(Year 1) 19,978 + 6992	2,158	Year 2 Respondents * 5 minutes (.08 hours) 26,970 * .08
Year 3 (2018)	36,412	Year 2 + 35%(Year 2) 26,970 + 9,440	2,913	Year 3 Respondents * 5 minutes (.08 hours) 36,410 * .08
Total	83,358	Year 1 + Year 2 + Year 3 19,978 + 26,970 + 36,410	6,669	Year 1 + Year 2 + Year 3 (Burden Hours) 1,598 + 2,158 + 2,913
Annual Average	27,786	Total / 3 years	2,223	Total (Burden Hours) / 3 6,669 / 3 years
Emergency (6 months)	13,893	Annual / 2	1,112	Annual (Burden Hours) / 2 1,112 / 2

The Burden Savings for using LAANC over the Web Portal/Drone Zone, assuming 100% usage of LAANC is 8,381 hours in 2017, 11, 327 hours in 2018, and 16, 607 hours in 2019. Over a three year period this equates to a savings of 36,325 hours or 12,108 hours annually, and 6,054 hours for the period of the emergency request.

Savings Calculation

Period	Burden Savings	Burden Calculation
Year 1 (2017)	8,391	Year 1 Web – Year 1 LAANC 9,989 - 1598
Year 2 (2018)	11,327	Year 2 Web – Year 2 LAANC 13,485- 2,158
Year 3 (2018)	16,607	Year 3 Web – Year 3 LAANC 18,205- 1598
Total	36,325	Year 1 + Year 2 + Year 3 (Burden Savings) 8,391 + 11,327 + 16,607

Annual Average	12,108	Total (Burden Savings) / 3 years 36,325 / 3
Emergency (6 months)	6,054	Annual (Burden Savings) / 2 12,108 / 2

The FAA will use the six months of the emergency collection to determine accurate rates of usage and adjust its burden calculations as appropriate in the renewal package for the collection expiring June 30, 2018. The FAA is currently approved for 9,500 hours for collections via the web/DroneZone instrument. The FAA has created a burden of 12 respondents at 5 minutes in ROCIS, resulting in a total burden increase of 1 hour in support of the emergency processing request for the LAANC instrument, bringing the total burden for the information collection to 9,501 hours.

13. Estimate of total annual costs to respondents.

We estimate that there will be no additional start-up costs for this collection. No special equipment is required for persons to submit air traffic control (ATC) authorization or waiver requests under 14 CFR Part 107. The cost to access a USS to seek authorizations is determined by the USS provider. The FAA will gather information regarding USS provider fees over the emergency collection period and identify such costs in the renewal package

14. Estimate of cost to the Federal government.

System Sustainment and Maintenance

The LAANC shares system architecture and resources, allowing the FAA to save money on cloud hosting fees and other sustainment costs. Due to both systems being deployed in FY 2018 there were no relevant hosting or sustainment fees. The estimated cost of both systems is captured in table 1 below. The cost reflected below is solely for LAANC and does not include other costs associated with the other collection instrument in 2120-0768.

	2017	2018	2019
LAANC Sustainment	\$0	\$800,000	\$800,000
LAANC Cloud Hosting Fees	\$0	\$500,000	\$500,000
Total	\$0	1,300,000	\$1,300,000

Table 1. Estimated System Sustainment and Maintenance Costs

The following information is here for background purposes to demonstrate the level of effort required in terms of staff (employees and contractors) to process authorizations not processed via LAANC. The FAA will use the six months of the emergency collection to determine impact on FAA staffing and will adjust cost calculations as appropriate in the renewal package for the collection expiring June 30, 2018.

ATO FTE Analysts

The Air Traffic Organization (ATO) will add full-time equivalent (FTE) employees to analyze the authorizations. As the FAA DroneZone and LAANC are introduced, the FAA anticipates a slight reduction in FTE to analyze authorizations (both LAANC and DroneZone). Table 2 identifies the expected FTE’s required in Fiscal Year 2017, 2018, and 2019.

ATO	2017	2018	2019
Temporary Support Specialist	16	16	14
Support Specialists	15	20	18
Total	31	36	32

Table 2: ATO FTE Employees Supporting the Airspace Authorizations and Waiver Request Process

ATO FTE Analysts Costs – Total Wage Costs

To provide a conservative cost estimate for the FAA to add additional ATO FTEs to support the Part 107 rulemaking, including Authorizations and Waivers, the FAA uses wages that are at the top of the pay for the applicable job series. Table 3 identifies the expected hourly wage for support personnel.

	Hourly Wage
Support Specialists	\$84.98

Table 3: Wage for ATO FTEs by Job Series

ATO FTE Analysts Costs – Additional Support

Presented in Table 4 below are the FAA’s costs to add FTEs employees in support of the Part 107 final rule over the 3-year analysis period. The costs are calculated by multiplying the number of FTEs by job series shown in Table 2 by the column labeled “Total Compensation” in Table 3.

ATO	2017	2018	2019	Total
Temporary Support Specialists	\$2,828,134	\$2,828,134	\$2,474,618	\$8,130,886
Facility Support Specialists	\$2,651,376	\$3,535,168	\$3,181,651	\$9,368,195
Total	\$5,479,510	\$6,363,302	\$5,656,269	\$17,499,082

Table 4: ATO Costs to Hire Full-Time Equivalent Employees

15. Explanation of program changes or adjustments.

The program change is changing due to agency discretion in the way Part 107 authorization requests are processed. A complete description of the change can be found in the response to Question 1. The FAA collects this information in accordance with the Operation and Certification of Small Unmanned Aircraft Systems Final Rule, 81 FR 42064 (June 28, 2016) from operators wishing to conduct small unmanned aircraft operations in Class B, C, D, and the lateral surfaces of Class E airspace and/or request a waiver of a regulation listed in 14 CFR § 107.205. The FAA uses the information it collects to approve or disapprove requests for airspace authorizations. The information will be collected via LAANC is substantively similar to information collected for authorization processing via the FAA web portal/Drone Zone.

Since the promulgation of Part 107, the FAA has received an extremely high volume of airspace authorization requests for UAS operations. Requests have steadily increased over time and the volume of these authorization requests has dramatically increased the time between submission and approval of the same. Currently, airspace authorization requests may be in queue sixty to ninety days before receiving a response. Using the LAANC system, the FAA will be able to grant near-real time authorizations for the vast majority of operations.

16. Publication of results of data collection.

The FAA, however, posts online the waiver decisions, as described in DOT/FAA System of Records Notice 854 (Requests for Waivers and Authorizations under 14 CFR Part 107), 81 FR 50789 (Aug. 2, 2016).

17. Approval for not displaying the expiration date of OMB approval.

The FAA is not seeking approval not to display the date of expiration of this information collection.

18. Exceptions to certification statement.

There are no exceptions to the certification statement for this information collection.