2020 LAANC USS Application
Instructions and Process Overview

Low Altitude Authorization and Notification Capability (LAANC)

March 20, 2020
FAA UAS LOW ALTITUDE AUTHORIZATION AND NOTIFICATION CAPABILITY (LAANC) ONBOARDING

1. Background

The Low Altitude Authorization and Notification Capability (LAANC) is a collaboration between the FAA and Unmanned Aircraft System (UAS) industry partners, referred to as UAS Service Suppliers (USSs). Launched in October 2017, LAANC automates the approval process for airspace authorizations requests made by small UAS (sUAS) operators flying under 14 C.F.R. Part 107 (Part 107) and 49 U.S.C. § 44809 (Section 44809). Part 107 and Section 44809 authorize sUAS operators to fly in controlled airspace near airports provided they have prior authorization from air traffic.

Prior to LAANC, the FAA used a manual approval process that was not scalable. Given that UAS usage was expected to grow, the FAA determined that an automated process, such as LAANC, was necessary to handle the future volume of authorization requests. This UAS growth is expected to continue. Therefore, LAANC will need to continue to expand to handle new volume of authorization requests and potential expansion of UAS activity through LAANC. 2019 saw the expansion of LAANC to include Section 44809 recreational flyers and expansion to Federal Contract Towers. 2020 will see further expansion of LAANC to more Federal Contract Towers and possibly new applications as UAS capability continues to grow.

The FAA is dependent on its partnership with USSs in order to provide sUAS operators a means of access to controlled airspace. To ensure that USSs operate within all legal requirements, LAANC has developed this Onboarding Process to ensure that the USSs comply with all LAANC Performance Rules and clearly communicate legal requirements to sUAS operators.

The FAA is responsible for creating the basic framework of LAANC and the Application Program Interface (API). Through LAANC, USSs access UAS Facility Maps (“UASFM’s”), which provide the maximum altitudes in controlled airspace.
that sUAS operators can receive near real-time airspace authorizations for planned flights. Authorization requests submitted by sUAS operators are checked against the UASFM and if at or below the maximum altitude (and in accordance with all other legal provisions), LAANC will automatically approve the authorization request in near real-time. USSs develop applications (whether web-based or mobile) that enable sUAS operators to make authorization requests, receive responses to such requests, and receive other communication from the FAA regarding planned operations.

The FAA approach is not to just set the requirements necessary to successfully apply and onboard, but to support LAANC USS applicants so that they can successfully complete the Onboarding Process. To that end, all LAANC USS applicants should read this document carefully to understand the minimum requirements for becoming an approved LAANC USS and the FAA’s expectations for each stage of the Onboarding Process from initial submission of the Application Package to the Technical Interview to Formal Onboarding testing. The FAA is business-model agnostic, but does expect that LAANC USS applicants who successfully complete the Onboarding Process and become approved LAANC USSs will provide authorization services to the public flying under Part 107 and/or Section 44809.

This Onboarding Process applies to new LAANC USS applicants. This document provides an overview of the LAANC USS Applicant Onboarding Process as well as the specific requirements LAANC USS applicants must demonstrate. This document’s intent is to provide instructions regarding how to apply to become a LAANC USS, details regarding the process to successfully onboard as a LAANC USS, and what is expected of a LAANC USS applicant at each step in the Onboarding Process.

Questions regarding the LAANC USS Onboarding Process and expectations can be submitted to 9-AJM-USS-Applications@faa.gov

2. Guidelines

LAANC USS applicants are advised that:

2.1. This document should be read in its entirety by all LAANC USS applicants prior to submitting an Application Package.

1 LAANC has a separate Onboarding Process that applies to existing LAANC USSs.
2.2. The LAANC program, and its governing documents, are fluid and subject to change as rules and requirements continue to mature.

2.3. This is not a Screening Information Request (SIR) or Request for Proposal (RFP). The FAA does not intend to release a SIR or RFP for LAANC Services.

2.4. The FAA is not seeking or accepting unsolicited proposals outside of this Onboarding Process.

2.5. The FAA will not pay for any information received or costs incurred at any point in the Onboarding Process.

2.6. Any costs associated with the Onboarding Process, providing LAANC services, or anything related to LAANC are incurred solely at the LAANC USS applicant’s expense.

2.7. FAA Onboarding Process decisions regarding any single LAANC USS applicant are in no way prejudiced by FAA decisions regarding other LAANC USS applicants.

2.8. The FAA’s decision regarding the ability of an applicant to successfully complete the Onboarding Process is final and at FAA’s discretion. FAA decisions regarding the Onboarding Process are not subject to protest.

2.9. LAANC USS Applicants who previously applied for and did not successfully complete the LAANC Onboarding Process are able to apply during any future application period. The FAA does not attach any penalty to LAANC USS applicants who fail to successfully complete the Onboarding Process.

3. **USS Onboarding Process**

For 2020, the FAA will host an Onboarding Process consisting of four steps (See Figure 1 below) from May 4, 2020 through October 9, 2020.

*Note: As these dates are subject to change, visit [www.faa.gov/go/laanc](http://www.faa.gov/go/laanc) for current application dates and latest announcements.*

![Figure 1. Onboarding Process Timeline](image-url)
3.1. Application Period

Applicants must read the published versions of the following documents prior to applying:

- LAANC Concept of Operations
- LAANC USS Performance Rules v4.0
- Memorandum of Agreement (MOA) v2.2
- USS Onboarding Test Procedure and Report v4.0

The USS Onboarding Application Package must include:

- Complete response to Sections 4.5.3, 4.5.4, and 4.5.5.
- The MOA signed by the LAANC USS applicant
- Proof of registration with System for Award Management (SAM)
- All requirements contained in Section 4 must be followed or the FAA may reject the Application Package

Any additional information about the product or service as provided in Section 4.5.6. (this is provided at discretion of the LAANC USS applicant)

3.2. FAA Submission Review

The FAA will review all complete Application Packages that are submitted by June 3, 2020. During the FAA Submission Review period, the FAA may ask LAANC USS applicants for additional information and applicants are expected to timely provide any requested information. The FAA will not review any Application Packages that are incomplete or submitted past June 3, 2020. Failure to adhere to all Specific Instructions (see Section 4), may result in the LAANC USS applicant not receiving an invitation for a Technical Interview. The FAA will inform all LAANC USS applicants via email if they are invited for a Technical Interview prior to the start of the Technical Interview period.

3.3. Technical Interview

If the LAANC USS applicant submits an Application Package that meets all requirements, the FAA will send an invitation via email to the applicant to participate in a Technical Interview. The email will provide detailed instructions on how to schedule the Technical Interview. Please note that the LAANC USS applicant must select an open interview session within one week of receiving the email. If a LAANC USS applicant fails to schedule

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2 Available at: https://www.faa.gov/uas/programs_partnerships/data_exchange/laanc_for_industry/
a Technical Interview within one week of receiving the invitation, the applicant will be removed from the Onboarding Process.

All LAANC USS applicants will be notified via email before the completion of the Technical Interview period whether or not they have been invited to Formal Onboarding. The FAA will strive to send this email decision within 7 business days of the LAANC USS applicant’s Technical Interview, but this decision could be delayed based on the circumstances specific to the situation. Details regarding scheduling the onboarding sessions in Formal Onboarding are listed in Section 4.7, Formal Onboarding Specifics.

Additional details and requirements for the Technical Interview are listed in Section 4.6, Technical Interview Specifics.

3.4. Formal Onboarding

LAANC USS applicants that receive an invitation to participate in Formal Onboarding will receive instructions on integration with the LAANC Automation Platform (LAANC AP) in a sandbox environment.

To access the sandbox environment, the USS applicant must provide the FAA with the IP address or CIDR block of the system(s) that will originate connections to the FAA. (Acceptable blocks are /8, /16, /24, and /32 IPv4 address ranges and /16, /24, /32, /56, /64, and /128 IPv6 address ranges.) Once provided, the FAA will provide the LAANC USS applicant with a unique three-letter identifier, API documentation, and authentication details. The LAANC USS applicant must be prepared to implement security measures for all connections to LAANC-AP by employing Secure Sockets Layer (SSL) and OAuth 2.0. The Interface Control Documentation (ICD) and related information will be provided to the LAANC USS applicant only after the FAA invites it to Formal Onboarding.

Initial connectivity to the LAANC-AP sandbox environment may be verified using an API test client. The use of an established tool will allow the LAANC USS applicant and FAA to validate network connectivity and test that the authentication token is working correctly independent of the applicant’s developed software. The FAA will provide sample scripts that will assist in setting up the initial tests and demonstrate proper invocation of the LAANC-AP API. The LAANC USS applicant must deploy webhooks to receive messages initiated by the LAANC-AP and a callback URL must be provided to the FAA. The requirements for the webhook receiver are contained in the API documentation. Once initial network connectivity and authentication is complete, the USS applicant may proceed to integrate fully with the sandbox environment.
4. Additional details and requirements for the Technical Interview are listed in Section 4.7, Formal Onboarding Specifics. **Specific Instruction**

4.1. Applicants must submit a complete Application Package (Section 4.5) and signed MOA via email to 9-AJM-USS-Applications@faa.gov during the open Application Period. All Application Packages must be received prior to June 3, 2020.

4.2. The FAA will review all Application Packages received to determine which LAANC USS applicants may be invited to further participate in the Onboarding Process.

4.3. The selection of LAANC USS applicants invited to participate in the other Onboarding Process steps described in this document will be at the sole discretion and judgment of the FAA. All LAANC USS applicants are subject to the same standard and requirements.

4.4. The FAA will provide an explanation of any decision to the LAANC USS applicant. The FAA decision to not advance a LAANC USS applicant at any point during the Onboarding Process will not affect the applicant’s ability to resubmit an Application Package during any future application period.

4.5. Application Package Specifics

4.5.1. LAANC USS applicants must provide a response that meets the requirements contained in these instructions. No standard format exists for a response other than the formatting requirements contained in Section 4.5.2.

4.5.2. The response to Sections 4.5.3, 4.5.4, and 4.5.5 must not exceed 20 written pages. The format of the response must be as follows:

- Time New Roman typeface
- No smaller than standard 12-point font
- 1-inch margins on all sides of text
- Double-spacing on all text
- Tables of Information may be included; text can be no smaller than standard 10-point font
- Written response must be provided in machine-readable form (e.g., searchable PDF, MS word)

4.5.3. The LAANC USS applicant must address its approach to meet each of the LAANC USS Performance Rules v.4.0 by directly addressing how it will meet each LAANC USS Performance Rule and by providing as much descriptive detail as possible. The LAANC USS applicant does not need to
re-state the LAANC USS Performance Rule as long as it is clear which LAANC USS Performance Rule is being addressed in the response. For a set of related LAANC USS Performance Rules, the LAANC USS applicant may provide additional information as necessary.

4.5.4. LAANC USS applicants must demonstrate capability to meet LAANC USS Performance Rules and other requirements. Applicants who merely affirm their capability will not be invited to a Technical Interview. For example, the response must go beyond statements such as “XYZ company can provide O&M support” or “XYZ company can meet Performance Rule 3.6”. The response must substantively describe how the LAANC USS Performance Rules will be met.

4.5.5. For each LAANC USS Performance Rule, the LAANC USS applicant must state whether its product can meet the LAANC USS Performance Rule at the time of application submission. For any LAANC USS Performance Rule that the LAANC USS applicant cannot meet at the time its Application Package is submitted, the applicant must include a description of how it will meet the LAANC USS Performance Rule prior to the start of the Formal Onboarding stage (which begins on August 10, 2020). If any LAANC USS Performance Rule cannot be met prior to the start of Formal Onboarding, the LAANC USS applicant must state when it intends on meeting the LAANC USS Performance Rule and why it is unable to meet the rule prior to the start of Formal Onboarding.

4.5.6. A LAANC USS applicant may provide, at its discretion, additional information to support its application. This additional information cannot exceed 5 pages and if any embedded video material is provided it may not be any longer than two minutes. This additional information is provided at the discretion of the LAANC USS applicant and the FAA neither requires nor expects applicants to supply this additional information.

4.5.7. The LAANC USS applicant must provide the MOA, electronically signed by an authorized and responsible agent of the LAANC USS applicant. The terms of the MOA are identical for all LAANC USS applicants and are non-negotiable.

4.5.8. The FAA may seek additional clarification on any aspect of the Application Package. If the FAA requests additional information, the LAANC USS applicant must supply the requested information within the designated time frame.

4.5.9. All LAANC USS applicants must register with SAM. SAM is an official website of the U.S. government. All LAANC USS applicants must provide
proof of registration with SAM when the Application Package is submitted.

4.5.10. LAANC USS Applicants who submit Application Packages that meet the above requirements and meet FAA expectations will be invited to a Technical Interview to further discuss the proposed product.

4.6. Technical Interview Specifics

4.6.1. The Technical Interview will last one (1) hour. At least one LAANC USS applicant representative must attend in-person. Other representatives may attend remotely/virtually to support the in-person representative.

4.6.2. During the Technical Interview, the LAANC USS applicant is expected to demonstrate a completely working product or mature prototype. This can be accomplished through a live demo of the solution (recommended), recorded video, or screenshots of the product. If screenshots are used, the LAANC USS applicant will be expected to address the current status and maturity of its product so the FAA can determine if the applicant will be ready to complete Formal Onboarding within the Onboarding Process time period.

4.6.3. The Technical Interview is not intended to be a test, but the LAANC USS applicant must meet the requirements of Section 4.6.2 above. While it is not expected that the LAANC USS applicant demonstrate a production-ready product during the Technical Interview, the FAA expects a product that has at least some functionality and demonstrates that the applicant will likely have a production-ready product by the end of Onboarding Process time period.

4.6.4. The Technical Interview also provides the opportunity for the LAANC USS applicant to have a discussion with the FAA regarding the current status of the applicant’s product, to ask questions to the FAA, and to identify areas that will need improvement. The FAA desires LAANC USS applicants to be successful and will provide the guidance and support that it reasonably can to applicants.

4.6.5. LAANC USS applicants that pass the Technical Interview will be invited to Formal Onboarding. In some cases, there may be some development gaps that exist at the time of invitation to Formal Onboarding. If such gaps are identified by the FAA, the LAANC USS applicant must resolve such gaps prior to participating in the Formal Onboarding phase. If any identified gaps are not resolved, the FAA will rescind the invitation to Formal Onboarding and invite the LAANC USS applicant to apply during a future Onboarding Process period.
4.6.6. Following the last Technical Interview, the FAA will send an email to all LAANC USS applicants that passed the Technical Interview at the same time. This email will contain instructions on how to schedule the Formal Onboarding sessions. See Section 4.7.1 for more information.

4.6.7. Any aspect of data-exchange interaction with the government should be simulated during the product demonstration, if applicable. (See Attachment A of the LAANC USS Performance Rules for the LAANC High-Level Exchange Model). The ICD is provided at the time the LAANC USS applicant is invited to Formal Onboarding.

4.7. Formal Onboarding Specifics

4.7.1. The onboarding sessions must be conducted remotely through a web-conference of the LAANC USS applicant’s choice. All onboarding sessions must be remote; no in-person onboarding sessions are allowed.

4.7.2. Each LAANC USS applicant invited to Formal Onboarding will be offered two onboarding sessions, which each last three hours. Times for onboarding sessions are limited and are offered on a first-come, first-serve basis. As all applicants that advance to Formal Onboarding will be invited at the same time, the FAA recommends scheduling early to get preferred time slots.

4.7.3. Applicants typically need the full-time of both onboarding sessions to prove that they can meet the LAANC Performance Rules. The FAA strongly recommends that LAANC USS applicants schedule one session toward the beginning of the Formal Onboarding period and one toward the end. Most applicants have typically required as much time between onboarding sessions as possible to address any issues identified in the first session.

4.7.4. Formal Onboarding will consist of the FAA taking LAANC USS applicants through the USS Onboarding Test Procedure and Report (“Test Procedure”), which is available on the FAA website. For each service offering (i.e., Part 107 automatic authorization, Part 107 Further Coordination, Section 44809 automatic authorization) the LAANC USS applicant will be thoroughly tested with each applicable Test Procedure scenario. LAANC USS applicants are expected to fully and accurately complete every applicable scenario. No exceptions will be provided. The FAA strongly recommends that all LAANC USS applicants be familiar with each scenario and be prepared to successfully complete each scenario prior to their onboarding sessions with the FAA. The FAA strongly
recommends that LAANC USS applicants not underestimate either the
time it will take or the difficulty in completing the Test Procedure.

4.7.5. In between the onboarding sessions, the FAA, if requested, will provide
general feedback to the LAANC USS applicant regarding the applicant’s
performance in the first onboarding session. This feedback will be limited
in nature and may include only which test scenarios were completed
successfully and which were not.

4.7.6. The FAA reserves the right to make the determination after the first
onboarding session that the LAANC USS applicant will be unable to
successfully complete the Test Procedure in the second onboarding
session and remove the LAANC USS applicant from Formal Onboarding. If
that occurs, the LAANC USS applicant will not become an approved
LAANC USS and will be encouraged to apply during a future Onboarding
Process period.

4.7.7. The FAA will provide an Onboarding Test Report to all LAANC USS
applicants following the two onboarding sessions. This report will outline
how the USS performed for each scenario.

4.7.8. LAANC USS Applicants who successfully complete all scenarios in the Test
Procedure and meet all other requirements will be invited to be an
approved LAANC USS.

5. FAA Approval

After the LAANC USS applicant successfully completes the Onboarding Process, the FAA will
sign the MOA and grant production credential enabling the now approved LAANC USS to
provide LAANC services. The FAA will communicate specific directions regarding public
communication, press releases, and other services provided at the time of approval.
Configuration of the production environment will occur to allow the LAANC USS to connect
including the whitelisting of applicant server(s), webhook URL, and production
authentication credentials. The FAA will provide all necessary instructions to the approved
LAANC USS after approval in order for the LAANC USS to begin to provide authorization
services.

Approved LAANC USS applicants are expected to have a production-ready product. The FAA
expects the approved LAANC USS to promptly begin offering LAANC services within its
planned business model. Any deployment delay beyond a reasonable time required for
minor fixes, if required, and coordinated public announcements by the government may
result in the FAA rescinding approval and asking the approved LAANC USS to apply during a
future Onboarding Process period. Participation in the LAANC program is expected to
result in LAANC services provided to sUAS operators. Any failure to promptly deploy a
product may result in suspension of the approved LAANC USS’s participation in the LAANC
program.