Federal Aviation Administration
Air Traffic Organization
(FAA ATO)

Low Altitude Authorization and Notification Capability (LAANC) and B4UFLY

LAANC USS New Applicant Onboarding Process and Application Instructions

2024

Companion to
USS LAANC Performance Rules v8.1

1. Background

The Low Altitude Authorization and Notification Capability (LAANC) is a collaboration between the FAA and Unmanned Aircraft System (UAS) Service Suppliers (USSs), which are entities approved by the FAA to provide LAANC services. Launched in October 2017, LAANC automates the approval process for airspace authorization 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 allow sUAS operators to fly in controlled airspace near airports, provided they have prior authorization from air traffic.

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), 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 UASFMs 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 (web-based and/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.

In 2023, the FAA incorporated B4UFLY, a free airspace awareness tool geared toward recreational sUAS operators, into the LAANC MOA and Performance Rules. Offering B4UFLY is optional. However, at minimum, a company must complete the LAANC USS application process and provide LAANC to Section 44809 recreational operators.

LAANC USS applicants are encouraged to read this document carefully to understand the minimum requirements for becoming an approved LAANC USS and the FAA's expectations for each phase of the New Applicant Onboarding Process, from the initial submission of the Application Package to the Technical Interview, Formal Testing and Go-Live period.

This document provides instructions regarding how to apply to become a LAANC USS, details regarding the process to successfully onboard as a LAANC USS, and expectations of a LAANC USS applicant at each step in the New Applicant Onboarding Process.

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

2. Guidelines

LAANC USS applicants are advised that:

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

- The LAANC program and its governing documents are fluid and subject to change as rules and requirements continue to mature.

- 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.

- The FAA is not seeking or accepting unsolicited proposals outside of the New Applicant Onboarding Process.

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

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

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

- The FAA's decision regarding the ability of a LAANC USS applicant to successfully complete the New Applicant Onboarding Process is final and at the FAA's discretion. The FAA decisions regarding the New Applicant Onboarding Process are not subject to protest.

- LAANC USS applicants who previously applied for and did not successfully complete the LAANC New Applicant 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 New Applicant Onboarding Process.

- The New Applicant Onboarding Process and all associated steps apply in their entirety to all LAANC USS applicants. This includes previously approved LAANC USSs, which are re-applying, or previous applicants that began but did not complete the New Applicant Onboarding Process.

3. USS New Applicant Onboarding Process

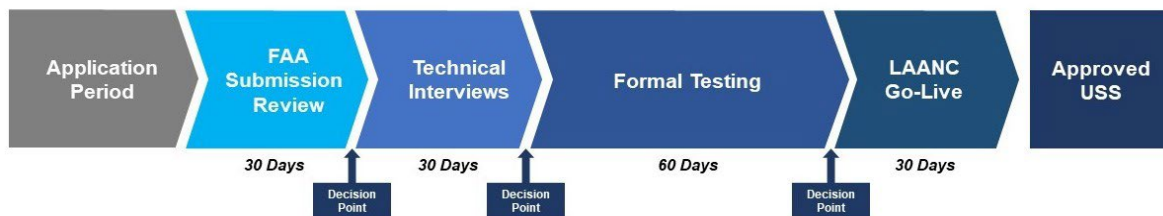The New Applicant Onboarding Process consists of five phases (See Figure 1 below).

Figure 1. New Applicant Onboarding Process Timeline*

*Subject to slight adjustments due to calendar shifts from year to year. Exact dates will be published on the LAANC website.

3.1. Application Period

LAANC USS applicants must read the published current versions of the following documents prior to applying[1]:

- o LAANC Concept of Operations
- o LAANC USS Performance Rules
- o LAANC Memorandum of Agreement (MOA)
- o B4UFLY Addendum to LAANC MOA (if applicable)
- o USS Onboarding Test Procedure and Report

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[1] Available at: https://www.faa.gov/uas/programs_partnerships/data_exchange

The USS Onboarding Application Package must include the following:

- o Complete response to Sections 4.5.3, 4.5.4, and 4.5.5, including which services (see Figure 2) and platforms (e.g., desktop, iOS, Android) will be offered.
- o LAANC MOA signed by the LAANC USS applicant.
- o B4UFLY Addendum to the LAANC MOA signed by the LAANC USS applicant (optional)
- o Proof of registration with System for Award Management (SAM)
- o All requirements contained in Section 4 must be followed, or the FAA may reject the Application Package. This includes, but is not limited to, page limits, spacing requirements, and font size.

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

3.2. FAA Submission Review

The FAA will review all complete Application Packages that are submitted by the end of business day on the last day of the Application Period. During the FAA Submission Review period, the FAA may ask LAANC USS applicants for additional information, and applicants are expected to provide, in the designated time frame, any requested information. The FAA will not review any Application Packages that are incomplete or submitted past the last day of the Application Period. 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 or the next phase of onboarding. 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

Upon FAA review of all required material, the FAA will determine if the LAANC USS applicant qualifies to proceed to the next phase and will send an invitation to the LAANC USS applicant to participate in a Technical Interview via email. The email will provide detailed instructions regarding how to schedule the Technical Interview. If a LAANC USS applicant fails to schedule a Technical Interview within one week of receiving the invitation, the applicant may be removed from the New Applicant Onboarding Process. See Section 4.6 below for specific details regarding the Technical Interview.

3.4. Formal Testing

Once the Technical Interview period has ended, all prospective LAANC USSs will be notified via email of the FAA's decision to proceed to Formal Testing. The email will provide detailed instructions on how to schedule the Formal Testing session. LAANC USS applicants who are invited to participate in Formal Testing will also receive instructions on integration with the LAANC Automation Platform (LAANC AP) in the onboarding environment. This process and the requirements to be met by the USS prior to formal testing are described in Section 4.7 below.

Once the LAANC USS applicant is fully integrated with the LAANC onboarding environment, Formal Testing can occur. Formal Testing will follow the latest version of the LAANC USS Onboarding Test Procedure and Report, which will test the LAANC USS applicant's LAANC products as described in section 4.8 Formal Testing Specifics.

3.5. LAANC Go-Live & Approved USS

Once the Formal Testing period closes, the FAA and the LAANC USS applicant each have responsibilities in closing out the onboarding process and confirming the LAANC USS applicant as a LAANC USS. These responsibilities will be outlined in an email to the LAANC USS applicant.

Configuration of the production environment will occur promptly following Formal Testing to allow the LAANC USS to connect to LAANC AP, including whitelisting of IP addresses, obtaining the LAANC USS's webhook URL and providing production authentication credentials.

The LAANC USS applicant must obtain approval of their LAANC webpage by the FAA Office of Communications (AOC). The media kit will be provided to the LAANC USS applicant prior to the start of Formal Testing. If the applicant chooses to issue any formal press announcements, social media, or other public statements, those statements must be reviewed and approved by the FAA Office of Communications, as required in the MOA.

Once all Go-Live steps are complete, the FAA Contracting Officer will send the LAANC USS applicant a fully executed MOA.

4. Application Specific Instructions

4.1. LAANC USS Applicants must submit a complete Application Package (see Section 4.5) and signed LAANC MOA and B4UFLY Addendum to the LAANC MOA (if applicable) via email to 9-AJM-USS-Applications@faa.gov. All Application Packages must be received by 11:59 P.M. Eastern Time Zone by the last day of the published Application Period.

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

4.3. The selection of LAANC USS applicants invited to participate in the New Applicant Onboarding Process 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's decision not to advance a LAANC USS applicant at any point during the New Applicant 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 by directly addressing how it will meet each LAANC USS Performance Rule and by providing as much descriptive detail and implementation strategy as possible. Figure 2 indicates which Performance Rules are required or optional. The LAANC USS applicant does not need to re-state the LAANC USS Performance Rule if it is clear which LAANC USS Performance Rule is being addressed in the response.

Required	Optional
- Part 107	- Part 107 – Further Coordination - 44809 - B4UFLY (requires 44809)

Figure 2. Required and Optional LAANC Services

4.5.4. LAANC USS applicants must demonstrate the capability to meet LAANC USS Performance Rules and other requirements. Applicants who merely affirm their capability to meet LAANC USS Performance Rules 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 Testing phase. If any LAANC USS Performance Rules cannot be met prior to the start of Formal Testing, the LAANC USS applicant must state when it intends to meet the LAANC USS Performance Rule and why it is unable to meet the rule prior to the start of Formal Testing.

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 LAANC MOA, electronically signed by an authorized and responsible agent of the LAANC USS applicant. The terms of the LAANC MOA are identical for all LAANC USS applicants and are non-negotiable. If the LAANC USS applicant chooses to offer B4UFLY services, the B4UFLY Addendum to the LAANC MOA must also be signed.

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 the 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 and will be a virtual meeting. The FAA strongly encourages one of the LAANC USS applicant representatives to be the technical point of contact for the LAANC USS applicant.

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 Testing within the New Applicant 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 will 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 have a production-ready product by the end of the New Applicant Onboarding Process. 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 access to LAANC-AP API documentation is provided when the LAANC USS applicant is invited to Formal Testing.

4.6.4. The LAANC USS Applicant must also be familiar with the requirements of the LAANC MOA and B4UFLY Addendum to the LAANC MOA, if applicable. LAANC USS Applicants will be expected to demonstrate both awareness and understanding of all Articles of the MOA. Specifically, the FAA strongly recommends that LAANC USS Applicants be prepared to discuss the requirements of Articles 19, 20, 21, and 22 of the LAANC MOA.

4.6.5. 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.

4.6.6. LAANC USS applicants who successfully demonstrate their LAANC solution in the Technical Interview will be invited to Formal Testing. In some cases, there may be development gaps at the time of invitation to Formal Testing. If the FAA identifies such gaps, the LAANC USS applicant must resolve them prior to participating in the Formal Testing phase. If any identified gaps are not resolved, the FAA will rescind the invitation to Formal Testing and invite the LAANC USS applicant to apply during a future Application Period.

4.6.7. Upon completion of the Technical Interview period, the FAA will notify all LAANC USS applicants of the FAA's decision. This email will contain instructions on how to schedule the Formal Testing sessions for those LAANC USS Applicants proceeding to that phase.

4.7. Connecting to LAANC Onboarding Specifics

4.7.1. To access the onboarding environment, the LAANC 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.)

4.7.2. Once provided, the FAA will provide the LAANC USS applicant with a unique three-letter identifier, API documentation, and authentication details.

4.7.3. The LAANC USS applicant must be prepared to implement security measures for all connections to LAANC-AP service through LAANC-AP API by employing Secure Sockets Layer (SSL) and following the guidelines of utilizing the FAA UAS Common Authentication Service developed in accordance with OAuth2 standard. The instructions on how to access the LAANC API documentation and the supporting guidelines and other LAANC-AP API governance documents linked to it will be provided to the LAANC USS applicant only after the FAA extends an invitation to Formal Testing.

4.7.4. Initial connectivity to the LAANC-AP onboarding 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 the network connectivity and test that the authentication token is working correctly independent of the applicant's developed software.

4.7.5. The FAA will provide sample scripts to 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.

4.7.6. Once initial network connectivity and authentication are complete, the LAANC USS applicant may integrate fully with the onboarding environment.

4.8. Formal Testing Specifics

4.8.1. Each LAANC USS applicant invited to Formal Testing will be offered two sessions, each lasting three hours. LAANC USS applicants offering B4UFLY will require an additional one-hour session specific to B4UFLY testing after the completion of the two LAANC testing sessions. Times for testing sessions are limited and are offered on a first come, first-serve basis. As all applicants that advance to Formal Testing will be invited simultaneously, the FAA recommends scheduling early to get preferred time slots.

4.8.2. The testing sessions must be conducted remotely through a web conference of the LAANC USS applicant's choice.

4.8.3. LAANC USS applicants typically need the entirety of both testing sessions to prove they can meet the LAANC USS Performance Rules. The FAA strongly recommends that LAANC USS applicants schedule one session toward the beginning of the Formal Testing period and one toward the end. Most applicants typically require as much time as possible between testing sessions to address any issues identified in the first session.

4.8.4. Formal Testing 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 (e.g., Part 107 automatic authorization, Part 107 Further Coordination, Section 44809 automatic authorization, B4UFLY), the LAANC USS

applicant will be thoroughly tested in accordance with each Test Procedure scenario. LAANC USS applicants are expected to complete every scenario fully and accurately. 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 testing 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.

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

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

4.8.7. If the applicant chooses to provide B4UFLY services, an additional one-hour B4UFLY testing session will be conducted after the successful completion of the two LAANC testing sessions. Successful completion of the B4UFLY testing is not necessary to become a LAANC USS, but B4UFLY services cannot be offered. The LAANC USS can request an off-cycle onboarding of B4UFLY at a future time, subject to FAA resource availability. (See Attachment C of the LAANC Performance Rules for Onboarding Information).

4.8.8. The FAA will provide an Onboarding Test Report to all LAANC USS applicants following the testing sessions. This report will outline how the USS performed in each scenario.

4.8.9. 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.

4.8.10. Applicants who choose to offer additional services (as listed in Figure 2) at a future time can request an off-cycle onboarding subject to FAA resource availability.