



**Federal Aviation
Administration**



FAA UAS Operation

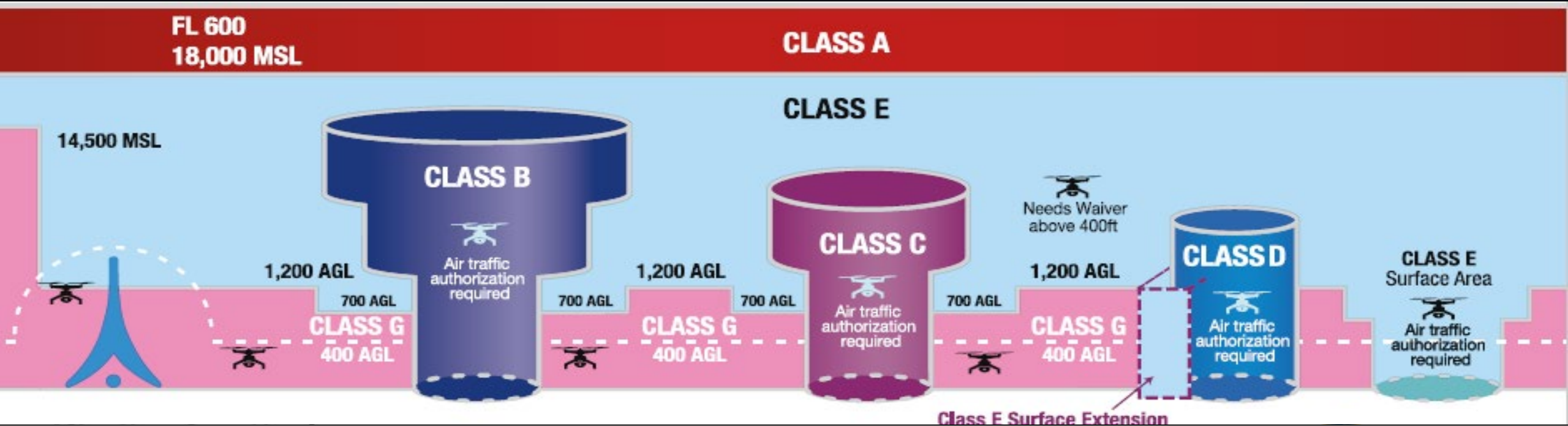
Cross Polar Working Group

March 9-10, 2021

Regulatory Authority	Aircraft Requirements*	Pilot Requirements	Airspace Requirements	Types of Operation Examples
Civil sUAS 14 CFR Part 107	UAS < 55 pounds	Part 107 remote pilot certificate with small UAS rating	Class G 400' and below – No authorization required Airspace authorization or waiver for Class B, C, D, E airspace designated for an airport	VLOS, daytime, Class G, 400 ft., not over people
49 USC § 44807 14 CFR Part 91	As specified in exemption	Part 61 airman certificate	Blanket COA or Standard COA for specific airspace	UAS > 55 lbs. Part 135 operations, package delivery
Experimental Aircraft 14 CFR Part 91	Experimental Special Airworthiness Certificate	Part 61 airman certificate	Standard COA for specific airspace	Research and development, crew training, and market survey
Type Certified Aircraft 14 CFR Part 91	Restricted type or special class certification	Part 61 airman certificate	Part 91 airspace requirements	Specified in operating authorization
Public Aircraft 14 CFR Part 91	Self-certification by public agency	Self-certification by public agency	Blanket COA or Standard COA for specific airspace	Public Aircraft Operations (AC 00-1.1B); UAS Test Site operations
Recreational Aircraft 49 USC § 44809		Pass an aeronautical knowledge and safety test (being developed)	Class G 400' and below – No authorization required Airspace authorization for Class B, C, D, E airspace designated for an airport	Hobby or recreational, VLOS, CBO standards



Small UAS (Part 107)



- Operations in Class G and Class E non-surface do not require ATC authorization
- Operations in Class B, C, D & Class E surface areas designated for an airport require ATC authorization
- Online portal available at the FAA DroneZone and through LAANC



Airspace Access



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Small UAS Rule Methods of Authorization

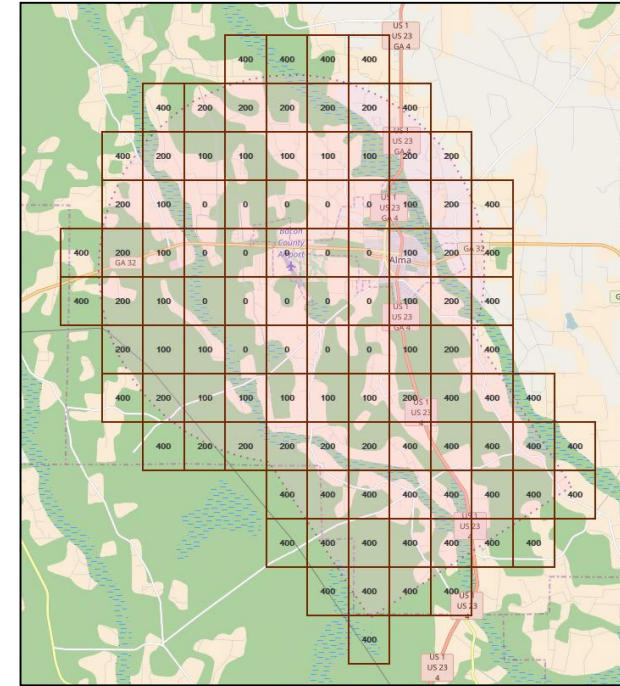
- Under 14 CFR Part 107 there are 2 methods to receive an airspace authorization
 - Manual Process (DroneZone)
 - Began issuing manual airspace authorizations October 24, 2016
 - Statistics (as of January 31, 2021)
 - Over 78,000 approved operations
 - Automated Process Low Altitude Authorization and Notification Capability (LAANC)
 - LAANC roll out began April 30, 2018
 - Statistics (as of January 31, 2021)
 - Over 313,000 approved operations
 - LAANC is available at 726 airports.



UAS Facility Maps (UASFM)

- Both methods are based on UASFM – developed by ATC facility.
- Depict maximum altitudes that FAA staff offices may grant approval without conducting direct coordination with ATC facility.
- Maps do not authorize operations
 - Job aid for airspace authorization requests
 - Assists the FAA in streamlining authorization process
- All maps are available on FAA website

<https://faa.maps.arcgis.com/apps/webappviewer/index.html?id=9c2e4406710048e19806ebf6a06754ad>

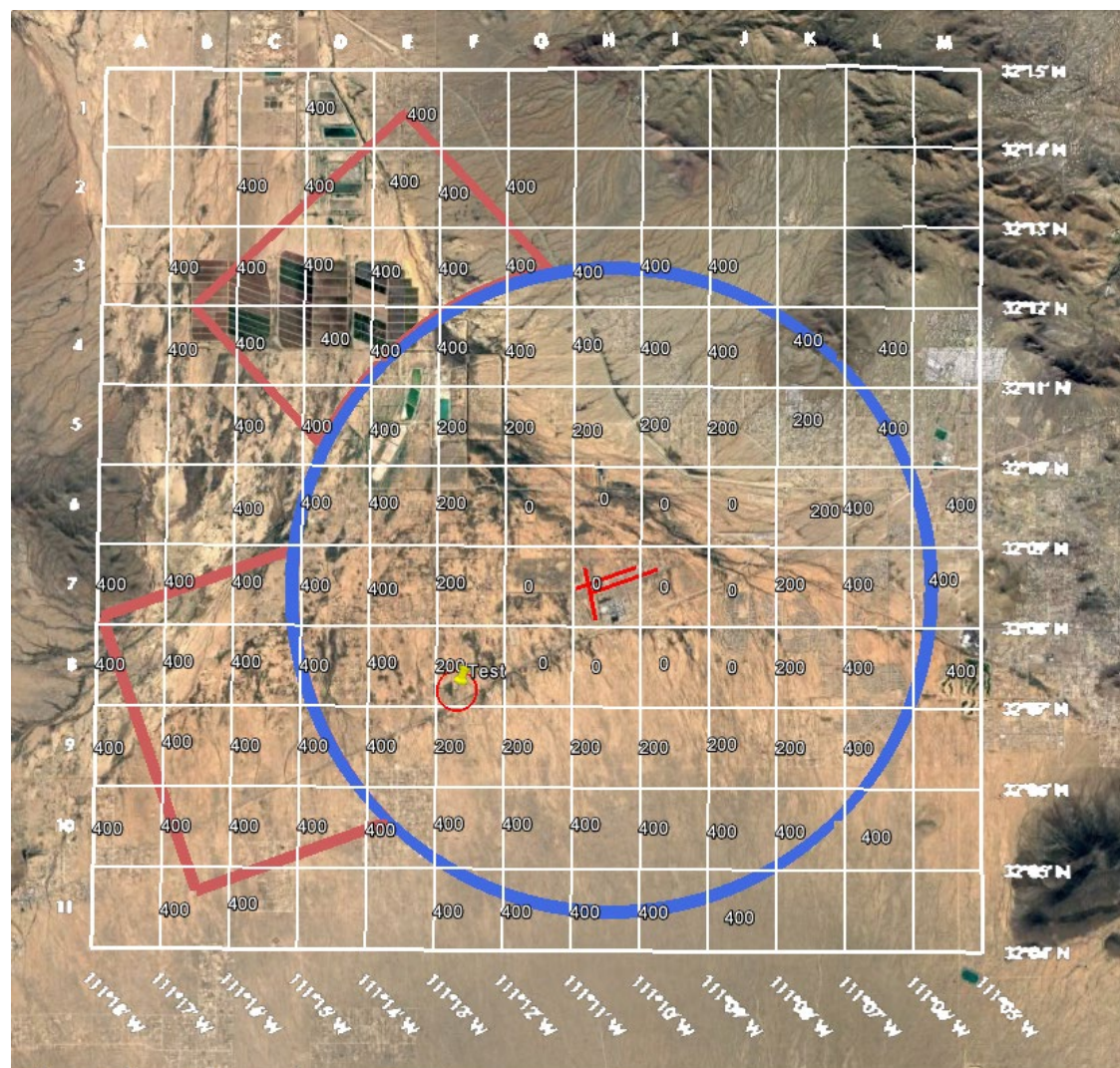


Example Part 107 Application

- Name: Flyer 1
- Location: 32° 7'11.48"N 111°12'41.48"W
- Operational Area: ¼ mile radius
- Altitude Requested: 125' Above Ground Level (AGL)
- Closest Airport: Ryan Field (RYN), Arizona
- Operations Description: Conduct aerial photography above a construction site.



Example Part 107 Application



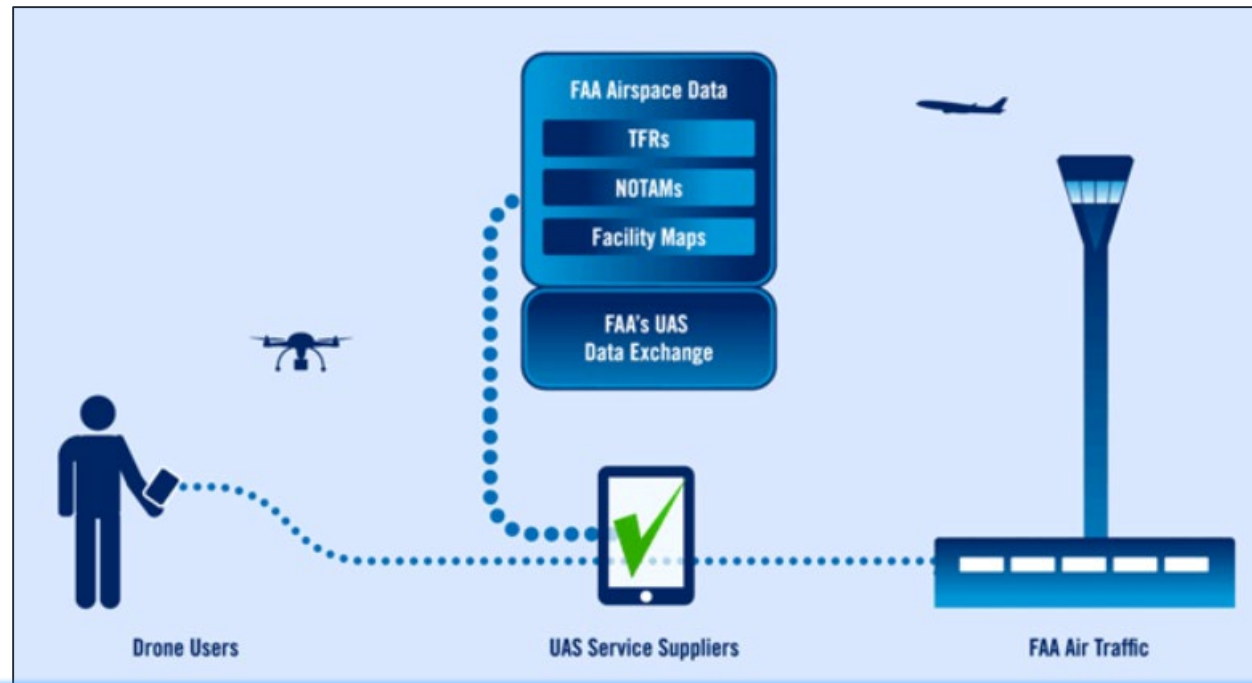
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Example Part 107 Application Cont.



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Low Altitude Authorization and Notification Capability (LAANC)



Goals

- Enable efficient notification and authorization services to small UAS operators
- Provide the data exchange framework for UAS traffic management (UTM)

Key Points

- Incremental approaches to UAS airspace integration are best
 - Example - UAS Facility Maps developed for Small UAS (Part 107) now being used for Part 107, Section 44809 (Recreational Operations) and Part 91 – Under 55 pounds & below 400' above ground level
- Approach must be:
 - Modular
 - Scalable
 - “Add as-you-go” capable
- Integration of legacy users requires planning and prioritization
- Partnering with Industry is important and beneficial to all
 - Example - LAANC

