

A close-up photograph of a white drone with black propellers, partially obscured by a large, semi-transparent purple geometric shape that covers the left side of the image.

Part 107 Waivers: How to do all the things you can't do

June 1, 2017

Presenters



Mark McKinnon
Partner, Dentons US



Jim Williams,
Principal, Dentons US

Waivers

- Waivable sections of part 107
 - Operation from a moving vehicle or aircraft (§ 107.25)*
 - Daylight operation (§ 107.29)
 - Visual line of sight aircraft operation (§ 107.31)*
 - Visual observer (§ 107.33)
 - Operation of multiple small unmanned aircraft systems (§ 107.35)
 - Yielding the right of way (§ 107.37(a))
 - Operation over people (§ 107.39)
 - Operation in certain airspace (§ 107.41)
 - Operating limitations for small unmanned aircraft (§ 107.51)

Waivers - Form 7711-2

- Form 7711-2 will be used for Waivers:
 - Name of organization
 - Name of responsible person
 - Permanent house number and street or route number, city, state and ZIP code, telephone number and mailing address
 - FAR section and number to be waived
 - Detailed description of proposed operation (Attach supplement if needed)
 - Beginning (date and hour) and Ending (date and hour)
 - Aircraft make and model
 - Pilot's name
 - Certificate number and rating
 - Certification - I CERTIFY that the foregoing statements are true

Waivers

- 926 issued as of May 30, 2017
- Most are Night Operations and/or Airspace Authorizations
- You must "**provide justification that the operation can be safely conducted by satisfying the performance-based standards**" listed on the FAA UAS office Website.
- You must provide a complete description of the proposed operation and justification for the waiver that meets the specific criteria for that rule

Operations With Less Than 3 Statute Mile Flight Visibility (§ 107.51(c))

- Must use one or more VO
- sUA must not be operated with less than 1 statute miles visibility, as observed from the control station
- sUA must remain 100 feet below clouds
- sUA must be operated within 0.5 nautical miles of the remote PIC
- No higher than 200 feet above ground level (AGL) when within 3 statute miles of any airport
- No higher than 100 feet AGL when within 2 statute miles of any airport
- No operations under this Waiver may be conducted closer than 2 statute miles of any airport when within 30 degrees either side of the extended runway centerline
- Vehicle must use highly visible exterior colors
- Notice to Airmen (NOTAM) must be filed

Operations Higher Than 400 feet AGL (§ 107.51(d))

- sUAS operations may be conducted above 400 feet AGL, not to exceed 600 feet AGL
- The sUAS ground station must be equipped to display sUA altitude, position, attitude, and direction of flight information
- The sUA must be equipped with high visibility markings visible during the daytime from a distance of no less than one statute mile
- Not less than 24 hours prior to conducting operations that are the subject of this Waiver, a Notice to Airmen (NOTAM) must be filed
- Operations conducted under this Waiver are limited to the area described in the waiver application

Operating from a Moving Land Or Water-borne Vehicle (§ 107.25)

- PIC and the driver must have general knowledge of the topography and environment for the planned flight route and have briefed the intended flight to address matters such as vehicle route, speeds, and obstacles
- Vehicle operation must not interfere with the duties and responsibilities of the remote PIC
- The manipulator of the sUAS controls must be the holder of a remote pilot certificate with a sUAS rating
- Any electronic communication conducted by the driver during operations under this Waiver must be by use of a hands-free device
- The lost link procedures and contingency plans must account for the dynamic area of operation
- Plans and procedures must include a safe flight termination method or a safe lost link flight path around all obstacles, non-participating aircraft, persons, or vehicles on the ground

PIC Using First Person View, In Lieu Of Visual Line Of Sight (§ 107.31)

- sUAS operations may be conducted with the remote PIC using first person view, in lieu of visual line of sight, provided:
 - PIC must be able to determine that the Command and Control system and communications equipment have performance capabilities that meet the planned ranges for the proposed operation;
 - PIC must be able to use the cameras for visual navigation, maintain situational awareness to avoid collisions with obstructions and non-participating human beings, or to yield right-of-way in accordance with § 107.37;

sUAS Operations Over Human Beings (§ 107.39)

- The holder of this Waiver has the responsibility to train each new pilot in their operational procedures, as described in the waiver application, including:
 - emergency contingencies and in the special provisions of this Waiver;
 - all training for any individual directly participating in the operation of the sUA must be documented and available to the Administrator upon request;
- PIC must be proficient in the safe operation of the sUA;
- **No operations under this Waiver are permitted after modification to the sUAS design or performance;**
- Repair and replacement of damaged components is allowed with a replacement part that is exactly the same as the original; no substitutions are allowed without FAA approval;
- sUAS must operate no closer than 10 feet from any non-participating human being;

Operation of Multiple sUAS (§ 107.35)

- Prior to conducting operations that are the subject of this Waiver, operational area obstacles and boundaries must be identified so as to avoid collision with, or damage to property;
- An individual system failure must not interfere with the operation of any other sUA or cause incidents, accidents, or loss of control involving any other sUA that are subject to this Waiver;
- Operations are only permitted within a location closed to the general public, with a secured perimeter;
- Operations using multiple sUA are limited to not more than 6 sUA at a time and will not exceed 30 knots groundspeed (35 mph);
- Prior to conducting operations that are the subject of this Waiver, the flight controller and the associated flight control system capability for each aircraft, operate properly;
- Not less than 24 hours prior to conducting operations that are the subject of this Waiver, a Notice to Airmen (NOTAM) must be filed.

Contact Information

For assistance in any issues regarding UAS Operation
or if you have any questions, please contact us:

Mark Dombroff
Dentons US LLP
1676 International Drive, PH
McLean, VA 22102
Phone (703) 336-8700
mark.dombroff@dentons.com

Mark McKinnon
Dentons US LLP
1676 International Drive, PH
McLean, VA 22102
Phone (703) 336-8708
mark.mckinnon@dentons.com

Jim Williams
JHW Unmanned Solutions LLP
1100 Round Pebble Lane
Reston, VA 20194
Phone (703) 439-9648
Jim@jhwunmannedsolutions.com

For UAS News and Analysis, follow us at:

<http://www.planelyspokenblog.com>

Thank you

The logo for Dentons, featuring the word "DENTONS" in white, uppercase letters inside a purple arrow-shaped box pointing to the right.

Dentons US LLP
1676 International Drive
Penthouse
McLean, VA 22102-4832
United States

Dentons is a global law firm driven to provide a competitive edge in an increasingly complex and interconnected world. A top 20 firm on the Acritas 2014 Global Elite Brand Index, Dentons is committed to challenging the status quo in delivering consistent and uncompromising quality in new and inventive ways. Dentons' clients now benefit from 3,000 lawyers and professionals in more than 80 locations spanning 50-plus countries. With a legacy of legal experience that dates back to 1742 and builds on the strengths of our foundational firms—Salans, Fraser Milner Casgrain (FMC), SNR Denton and McKenna Long & Aldridge—the Firm serves the local, regional and global needs of private and public clients. www.dentons.com.