Regulations on drones in Poland

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1. Airworthiness

2. Requirements for the use

3. Licensing
1. Airworthiness

- All types of drones up to 25kg – no special technical requirements
- Non-recreational or sport purposes drones from 25kg up to 150kg – registration in CAA + permit to fly
- A special registration mark for RPAS above 25 kg: (SP-X...)
2. Requirements for the use

- Main principle – Beyond Visual Line of Sight (BVLOS) operations may be conducted only in prior segregated airspace

- Specified regulation for Visual Line of Sight (VLOS) UAS operations
  - in force since 2013
  - revised 2016 (model & drones)
Regulation 2013 & 2016

- Regulation 2013 - **unmanned aircraft up to 25kg**

- Regulation 2016:

  - unmanned aerial vehicles with a take-off mass of not more than 150 kg, used only in operations within the visual line of sight for recreation or sport purposes - **model aircraft**.

  - unmanned aerial vehicles with a take-off mass of not more than 150 kg, used only in operations within the visual line of sight for non-recreational or sport purposes, hereinafter referred to as **unmanned aircraft**.
VLOS operations up to 150kg MTOM

- Responsibility of an UAV operator

- exercise due caution, avoids any act or omission that could:
  
a) create a safety risk, including the threat to air traffic safety,

b) obstruct air traffic,

c) disrupt peace or public order, and

d) expose anyone to damage;
VLOS operations up to 150kg MTOM

- Operator shall also

2) control the flying model in a way that avoids collision with other aircraft;

3) ensure that the flying model he operates, gives priority to manned aircraft;

4) be responsible for the decision to perform the flight and its correctness, and the appointment and participation of the observer in the performance of flights does not release him responsible for the safety of the operations performed;

5) use a flying model and control devices in accordance with the manufacturer's recommendations and restrictions, if published;

6) check the technical condition of the flying model before the flight;

7) perform flights only with a flying model that is technically efficient.
VLOS operations up to 150kg MTOM

- **Flight Rules - differences**

  - **the unmanned aerial vehicle** shall be only performed maintaining in each flight phase, a safe horizontal distance from persons, property, vehicles, construction works or other airspace users not available or under operator's control in the event of a failure or loss of control of the unmanned aircraft.

  - **the model aircraft** operations shall be only performed maintaining a horizontal distance of not less than **100 m from the boundaries of buildings, towns, settlements or gatherings of people** in the open air and maintaining a horizontal distance of not less than **30 m from persons, vehicles, construction objects** not available or under operator's control. (do not apply to model less than 600 g)
3. Licensing

- General requirement - operator’s certificate of qualifications (UAVO) is required for flights other than sport and recreational

- State certificate issued in accordance with Polish Licensing Requirements by the Civil Aviation Authority of Poland.

- Required for flights other than sport and recreational (commercial).

- Issued after passing the theoretical and practical examinations.
UAV certificate of qualifications
UAV certificate of qualifications

In total: 6173 as for 13.12.2017

- VLOS – 5472 (in 2017: 2103)
- BVLOS – 800 (in 2017: 492)
- INS – 107 (in 2017: 54)
http://latajzglowa.pl
https://www.easa.europa.eu/easa-and-you/civil-drones-rpas

![EASA poster](https://www.easa.europa.eu/easa-and-you/civil-drones-rpas)

### Flying a Drone

**DO**
- Make sure your drone is adequately tested.
- Check your drone before each flight.
- Keep the drone in sight at all times.
- Maintain a safe distance between the drone and people, animals, and other obstacles.
- Operate your drone within the performance limitations defined in the instructions provided by the manufacturer.
- Inform your national aviation authority immediately if your drone is involved in an accident that results in a serious or fatal injury to a person, or if it affects an aeroplane.
- Make sure that any photographs, videos or audio recordings of people without their permission do not infringe people's privacy.

**DO NOT**
- Do not make changes or modifications to the drone unless approved by the manufacturer.
- Do not fly higher than 200 feet in air or less than 200 feet off the ground.
- Do not fly near manned aircraft.
- Do not fly in the proximity of airports, heliports, areas affecting public safety or where an emergency response effort is ongoing.
- Do not fly over sensitive or protected areas (e.g., military targets, power plants, etc.)
- Do not fly over large groups of people.
- Do not fly at high speed near people.
REGULATIONS

REGULATION (EU) 2018/1139 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 4 July 2018


(26) Since unmanned aircraft also operate within the airspace alongside manned aircraft, this Regulation should cover unmanned aircraft, regardless of their operating mass. Technologies for unmanned aircraft now make possible a wide range of operations and those operations should be subject to rules that are proportionate to the risk of the particular operation or type of operations.

European Aviation Safety Agency

Opinion No 01/2018

Introduction of a regulatory framework for the operation of unmanned aircraft systems in the ‘open’ and ‘specific’ categories
EASA OPINION 01/2018

**OPEN:**
- Low risk
- Without involvement of Aviation Authority
- Limitations (Visual line of sight, Maximum Altitude, distance from airport and sensitive zones)
- Flight over Populated area is possible if:
  - No overflying of crowds
  - Industry standards (Case of toy of less than 500 g)

**SPECIFIC**
- Increased risk
- Safety risk assessment
- Approved by NAA possibly supported by Qualified Entities unless approved operator with privilege
- Operation Authorisation with operations manual
- Concept of accredited body
- Airworthiness of drone and competence of staff based on risk assessment

**CERTIFIED:**
- Comparable to manned aviation
- Limit between specific and certified is not yet defined
- Pending criteria are defined, EASA accept application in its present remit
- TC, C of A, Noise certificate, Approved Organisations, licences (Case of small drones)
- Command and Control and Detect & Avoid can receive an independent approval
Recommendation 1: The Task Force recommends that an analytical model of the drone threat should be developed that takes into account a more detailed analysis of the construction of drones and an assessment of the dynamic behaviour of drones and their components, (in particular their motors and batteries,) during an impact. To gain confidence in the model, the method should be validated against laboratory tests, in particular to validate the behaviour of specific drone components such as the batteries or the motors during an impact and to confirm the prediction of the overall frangibility of the drone. This validated analytical model could be used for further impact analysis (see Recommendation 3).

Recommendation 2: The Task Force recommends that a specific risk assessment should be conducted to assess the behaviour of lithium batteries on impact with structures and rotating parts, and their possible ingestion by jet engines. The assessment should, if possible, be supported by testing, and should address the risks of explosion, fire and air contamination.

Recommendation 3: The Task Force recommends that further research should be conducted to establish hazard severity thresholds for collisions between drones and manned aircraft. Impact analyses should be performed to determine the effects of a drone threat (as established per Recommendation 1) impacting aircraft critical components, possibly capitalising on existing computing and software capabilities and other particular risk assessments such as those for bird, tyre and engine debris impacts. To gain confidence in the model, the method should be validated against tests on representative aircraft components such as airframe parts, windshields and rotating elements (i.e. rotors, propellers and fan blades).
As expected, large aeroplanes and large rotorcraft are by the nature of their scale and design requirements generally more resilient to collisions with drones and the severity level is limited for the smallest drone categories (‘Small’ and ‘Harmless’). For smaller aeroplanes and light rotorcraft, more components are vulnerable and the severity level is higher.

Lessons learned

- No infringement of airspace was reported when RPAS operation were performed after PANSA approval.

- No infringement of airspace was reported when RPAS operation were performed by licensed operator.

- Number of incidents in Poland (Annual Safety Report 2017)

VLOS ops in CTRs vs BVLOS ops
Global issue

- According to @tvn24 pilots of #EK180 spotted a drone at 5000 feet after departure from Warsaw (9th June)

- Dubai International Airport was closed to aircraft for more than an hour on Saturday (12th June) after a drone incursion.

- Dubai International Airport is one of four drone no-fly zones set up by the General Civil Aviation Authority in April after an incident last year, when a drone caused a 55-minute shutdown.
Thank you

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