

The following material is provided for informational purposes only and does not constitute legal advice. It is the responsibility of UAS operator and Remote Pilot to comply with all applicable laws and regulations related to UAS operations and privacy, data protection, liability, insurance, security and environmental protection in general. More information is available on the SA "Civil Aviation Agency" website: <u>droni.caa.gov.lv</u>

## LOCAL CONDITIONS

Regulation (EU) 2019/947 and Regulation (EU) 2019/945 set out the framework for unmanned aircraft operations in Europe. In addition, Member States have a legal obligation and/or freedom to define some elements at the national level in accordance with Regulation (EU) 2018/1139, Regulation (EU) 2019/947, and Regulation (EU) 2019/945.

This document compiles the local conditions in Latvia.

Reminder: Please be aware that the regulatory framework or approach of the competent authority might change over time. Always use only the latest up-to-date information.

Minimum age for UAS operators	Minimum age for UAS operators in Latvia: 16 years Regulation of the Cabinet of Ministers No 457 of June 29, 2021: Regulations Regarding the Register of Unmanned Aircraft, Unmanned Aircraft System Operators, Remote Pilots, and Model Aircraft Clubs and Associations
Minimum age for remote pilots	<ul> <li>Open category: 16 years</li> <li>No minimum age for remote pilots shall be required: <ul> <li>when they operate in subcategory A1 as specified in Part A of the Annex to this Regulation, with a UAS Class C0 defined in Part 1 of the Annex to Delegated Regulation (EU) 2019/945 that is a toy within the meaning of Directive 2009/48/EC</li> <li>for privately-built UAS with a maximum take-off mass of less than 250g;</li> <li>when they operate under the direct supervision of a remote pilot that is at least 16 years of age and complies with the competency requirements set in Article 8 of Regulation (EU) 2019/947.</li> </ul> </li> <li>Specific category: 16 years</li> </ul>
UAS Geographical Zones	<ul> <li>Interactive map with UAS geographical zones: <u>https://www.airspace.lv/drones/</u></li> <li>In addition to the UAS Geographical Zones published on the interactive map, the following restrictions/conditions apply: <ul> <li>Flying over people, vehicles in traffic, animals, buildings, and civil engineering structures shall be avoided to the extent possible.</li> <li>When overflying a property owned by third parties, the shortest flight time and the safest flight trajectory shall be selected to the extent possible.</li> </ul> </li> <li>Regulation of the Cabinet of Ministers No 248 of April 23, 2024:</li> </ul>
	Regulation of the Cabinet of Ministers No 248 of April 23, 2024: <u>Regulations Regarding Unmanned Aircraft Operations</u>



# In order to operate UAS in the airspace of the Republic of Latvia, the UAS operator or an owner of unmanned aircraft shall insure his or her general civil liability against losses which might be caused by the UAS to the health, life, or property of a third party, and also to the environment in conformity with at least the following minimum limits of liability:

### Open category:

Subcategory	A1		A2	A3	
C-class marked UAS	C0	C1	C2	C0, C1, C2, C3, C4	C3, C4 (if >20kg)
Maximum take-off mass of UA without C-class marking	<250g	-		<20kg	2025kg
Minimum limit	-	50 000 EUR		-	750000 SDR*

#### Specific category:

Maximum take-off mass of UA	<250g	250g500kg	>500kg
Minimum limit	-	750000 SDR*	See Regulation (EC) No 785/2004

\* - in accordance with the limits specified in Article 7 of Regulation (EC) No 785/2004 of the European Parliament and of the Council of 21 April 2004 on insurance requirements for air carriers and aircraft operators

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Regulation of the Cabinet of Ministers No 447 of June 29, 2021: <u>Regulations Regarding the Mandatory Civil Liability Insurance for Flights with Unmanned Aircrafts</u>

**Emergency** In case of uncontrolled "fly-away" situations, the Remote pilot shall immediately inform **contact details** SJSC "Latvijas gaisa satiksme" (Latvian ANSP) by calling:

+371 67300645; or +371 67300642; or +371 67783761.

The remote pilot shall provide the following information:

- Maximum take-off mass of UA
- The last known coordinate of UA
- The last known altitude of UA and reference (above ground level (AGL) or above mean sea level (AMSL)
- Direction of flight
- Endurance of UA with available fuel or battery charge level
- Maximum flight speed
- Maximum endurance of UA
- Theoretical maximum flight distance
- Altitude ceiling (theoretical maximum possible altitude).

In case of the occurrence of an accident or serious incident, immediately notify the Latvian State Fire and Rescue Service by calling: **112.** 

Reminder: If any occurrence involving unmanned aircraft resulted in a fatal or serious injury to a person or it involved aircraft other than unmanned aircraft, UAS operator shall report it to the competent authority of the Member State of registration within 72 hours of becoming aware of the occurrence, unless exceptional circumstances prevent this.

### Specific category:

Depending on the complexity of your Emergency Response Plan (ERP), it might be required to update it to meet the local conditions. Please note the relevant Emergency contact details above.



#### Allowed radio frequencies For UAS operations in the airspace of the Republic of Latvia, radio frequencies shall be used in accordance with the laws and regulations regarding the distribution of the bands of radio frequency spectrum according to types of radio communications and division for systems of radio communications, and also general conditions for the use of the bands of radio frequency spectrum in accordance with the National Radio Frequency Plan.

Frequency bands that can be used in the UAS operations without obtaining an individual permit from SJSC "Elektroniskie Sakari" (Electronic Communications Office of Latvia):

Frequency	ERP* (mW)	ERP* (dBm)	EIRP** (mW)	EIRP** (dBm)
5,725–5,875 GHz	15,24	11,83	25	13,98
2,400–2,4835 GHz	60,98	17,85	100	20
869,7–870 MHz	25	13,98	41	16,13
869,4-869,65 MHz	500	26,99	820	29,14
868,7-869,2 MHz	25	13,98	41	16,13
868–868,6 MHz	25	13,98	41	16,13
865–868 MHz	25	13,98	41	16,13
863–865 MHz	25	13,98	41	16,13
434,04–434,79 MHz	10	10	16,4	12,15
433,05–434,04 MHz	10	10	16,4	12,15
40 660–40 990 MHz	100	20	164	22,15
34 995–35 225 MHz	100	20	164	22,15
27 190–27 200 kHz	100	20	164	22,15
27 140–27 150 kHz	100	20	164	22,15
27 090–27 100 kHz	100	20	164	22,15
27 040–27 050 kHz	100	20	164	22,15
26 990–27 000 kHz	100	20	164	22,15

\* - ERP stands for Effective Radiated Power

\*\* - EIRP stands for Effective Isotropic Radiated Power

If it is required to use other frequency bands or exceed allowed transmitting powers, please contact SJSC "Elektroniskie Sakari" (Electronic Communications Office of Latvia) to obtain appropriate approval: <u>https://www.vases.lv/en/content/contacts</u>

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Regulation of the Cabinet of Ministers No 3 of January 10, 2023: <u>Nacionālais radiofrekvenču plāns</u> (National Radio Frequency Plan)

Location of UAS operation for cross- border UAS operations	When applying for a cross-border UAS operation in the <u>Specific category</u> in accordance with Article 13 of Regulation (EU) 2019/947, point 2.3 of the application "Intended location(s) for the operation" shall include the following information:
(CBO)	(a) In the case of "generic" operational authorisation:
	The locations(s) should be expressed in the same way as in the operational authorisation.
	The limitations regarding the operational scenario, the Flight Geography, Contingency Volume, Ground Risk Buffer and containment requirements are defined by the operational authorisation and are expressed in such a way that it is simple for the UAS operator to ensure compliance with those limitations.

As a rule of thumb, "generic" operational authorisations are accepted in relation to operations:



- (a) of unmanned aircraft with maximum characteristic dimensions of < 3 m and typical kinetic energy of < 34 kJ;</li>
- (b) over controlled ground area, or when strategic mitigation measures are applied to claim that the density of population is very low in a way that is not open to interpretation (such mitigation measures shall be clearly defined);
- (c) performed below 120 metres from the closest point of the surface of the earth unless different limitations (or specific conditions) are provided through UAS geographical zones;
- (d) keeping UA:
  - a. in visual line of sight (VLOS) of the remote pilot; or
  - b. beyond visual line of sight (BVLOS) of the remote pilot with visual air risk mitigation:
    - i. <u>If no AOs are employed:</u> the UA is not operated further than 1 km (or other distance defined by the competent authority) from the remote pilot; Note: The remote pilot's workload should allow them to continuously visually scan the airspace (UA executes a pre-programmed flight t'rajectory).
    - ii. <u>If AOs are employed:</u> the range is not limited as long as the UA is not operated further than 1 km (unless a different distance is defined by the competent authority) from the AO who is nearest to the UA; or
  - c. beyond visual line of sight (BVLOS) of the remote pilot in airspace that is reserved or segregated for the purpose of conducting such UAS operations.

The UAS operator should have a diligent and documented process to identify/assess the local conditions and their compliance to the limitations given by the operational authorisation (or in the Operations Manual (OM)), including both the flight location and adjacent area/airspace (in relation to the containment requirements). It includes documentation and record keeping of the assessment of locations (e.g. in mission files), so that adherence to this process can be verified by the competent authority on a regular basis.

Note: During the first cross-border UAS operation in the Specific category with a "generic" operational authorisation, the Latvian Civil Aviation Agency might require the applicant to submit an example of local risk assessment that as a minimum identifies:

- (a) Flight Geography,
- (b) Contingency Volume,
- (c) Ground Risk Buffer,
- (d) Adjacent area / airspace (in case the "Enhanced containment" is not met)

### (b) In case of "precise" operational authorisation:

The outer coordinates of Flight Geography, Contingency Volume and Ground Risk Buffer should be provided. These are the external coordinates projected onto the ground.

For easy processing, we require to define the above areas digitally by expressing coordinates in WGS84 format and submitting them electronically, using any of the following file formats: \*.csv, \*.kmz, \*.kml, \*.shp, \*.gdb or \*.GeoJSON.

There are several free tools that can be used to create required files. These include, (among others):

- (a) LVM GEO (<u>https://lvmgeo.lvm.lv/</u>)
- (b) LĢIA (<u>https://kartes.lgia.gov.lv/</u>)
- (c) Google Earth (<u>https://earth.google.com/</u>)
- (d) QGIS (<u>https://qgis.org/</u>)
- (e) geojson.io (<u>https://geojson.io/</u>)
- (f) Any other

The \*.csv, \*.kml and \*.GeoJSON files can also be opened directly with a text editor or spreadsheet program.



It must be ensured that the previously calculated minimum sizes of the Contingency Volume and Ground Risk Buffer are correctly compiled.

File structure	Description
Location #1	Location #1
FG 1 XXXX.kml	Flight Geography (FG)
CV_1_XXXX.kml	Contingency Volume (CV)
GRB 1 XXXX.kml	Ground Risk Buffer (GRB)
Location #2	Location #2
FG 2 XXXX.kml	Flight Geography (FG)
CV_2_XXXX.kml	Contingency Volume (CV)
GRB_2_XXXX.kml	Ground Risk Buffer (GRB)
Location #1, Location #2	All locations
FG_XXXX.kml	Flight Geographies (FG) of all locations
FG_1_XXXX	Flight Geography (FG) of Location #1
FG_2_XXXX	Flight Geography (FG) of Location #2
CV_XXXX.kml	Contingency Volumes (CV) of all locations
OV_1_XXXX	Contingency Volume (CV) of Location #1
OV_2_XXXX	Contingency Volume (CV) of Location #2
GRB_XXXX.kml	Ground Risk Buffers (GRB) of all locations
GRB_1_XXXX	Ground Risk Buffer (GRB) of Location #1
GRB_2_XXXX	Ground Risk Buffer (GRB) of Location #2
Location #1, Location #2	
XXXX.kml	One *kml file containing all locations
1_XXXX	Folder containing all information related to Location #1
FG_1_XXXX	Flight Geography (FG) of Location #1
CV_1_XXXX	Contingency Volume (CV) of Location #1
GRB_1_XXXX	Ground Risk Buffer (GRB) of Location #1
2_XXXX	Folder containing all information related to Location #2
FG_2_XXXX	Flight Geography (FG) of Location #2
CV_2_XXXX	Contingency Volume (CV) of Location #1
GRB_2_XXXX	Ground Risk Buffer (GRB) of Location #2

Examples of file structure to represent location:

If the Contingency Volume and Ground Risk Buffer are drawn manually as a polygon, exact positioning is often difficult. Compliance with the calculated Contingency Volume and Ground Risk Buffer is checked using automatic software tools. Falling short of the calculated sizes will not be tolerated, therefore a conservative approach is recommended when drawing manually.

Population For the purposes of the Specific Operations Risk Assessment (SORA) "populated areas" density (densely populated areas) are published\* at https://data.gov.lv/dati/dataset/bat.

\* - as the information is published based on static information, local and real-time assessment is required to ensure qualitative assessment.

Visualisation of "populated areas" (for reference, not for operational use): https://droni.caa.gov.lv/blivi-apdzivotas-teritorijas/

Note: Local risk assessment can be performed and provided to claim that the density of population is sparsely populated.