

RPAS Operations within Canadian Airspace

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Today's Focus

CAR Part 9 RPAS VLOS rules

SFOC- RPAS Risk Based approval process

Heavy RPAS operations (above 25kgs.)

Short Range BVLOS operations (elementary level)

Surveillance activities

Next set of RPAS Regulations



Canadian Aviation Regulations Part 9

came into force summer 2019.

250g to 25kgs.

VLOS operations – basic/advanced.

RPAS Safety Assurance process.

Flight Reviewer – Advanced RPAS Pilot Certificate
skill evaluation process.

SFOC-RPAS the process for operations outside of
Part 901 rules.



SFOC-RPAS have a Risk Based approval process (AC 903-001 RPAS ORA)

Based off the JARUS SORA criteria.

Concept of operation (ConOps) is submitted and the operational risk assessment (ORA) process is utilized to support or deny a SFOC-RPAS.

It assesses ground risk, air risk, defines a system assurance integrity level, determines criteria for operation safety objectives and the robustness required of the DAA. Also addresses adjacent airspace concerns, detection volume



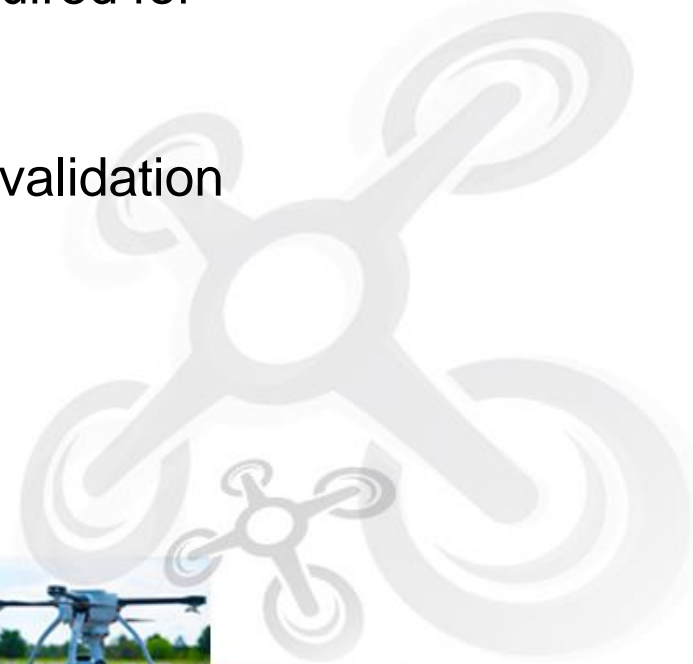
Heavy RPAS Operations

Manufacture Declaration (MD) process required for RPAS above 25kgs.

Establish an elementary design standard.

safe design, redundancies, evaluation/validation

Transport Canada MD requirements



Heavy RPAS Operations

Traditional (manned) pilot licence competence will be required.

25-150 kg RPAS once operations are above 400' AGL.

150-600kg RPAS once operations are at or within 5nm of a airport, heliport or aerodrome in the CFS regardless of altitude being below 400' AGL and the operation being within uncontrolled airspace.



Short range BVLOS utilizing human visual observer (VO) detect and avoid (DAA)

RPA distance to the pilot at ground control station (GCS) max 4nm,

RPA distance to the VO max 2nm,

Cloud ceiling of 1000' AGL and visibility at the VO's location must be a minimum of 3nm,

Distance of the RPA to the GCS can't exceed 50% of the C2 link,

Etc. see Appendix B of AC 903-001



Surveillance activities

RPAS Flight Reviewer surveillance.
SFOC-RPAS surveillance.
Continued compliance oversight is supported by
local law enforcement agencies.



Next set of RPAS Regulations

Current IPB identifying manned pilot licence qualifications for higher risk RPAS operation
More enhanced written exams for operations beyond CAR Part 901
VLOS 25kg to 150kgs
BVLOS – low risk 250 g to 150kgs
GC1 later this year
GC2 late 2023



Questions

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Canada

