

RPA Pilot and Equipment requirements in voluntary SAR operations in Finland

The Finnish Association
of
Remotely Piloted Aircraft Systems

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RPAS Finland

- The Association was founded in 2014 as an Industry Association with an objective to
 - look after the interests of the RPAS industry, operators and related service providers and their network partners.
 - to promote networking of companies, research organizations and universities
 - to promote and look for business and research related opportunities.

RPAS Finland

- In 2016 the statutes were amended to allow RPA pilots and RPA observers to become members of the Association. This registration is required by the Finnish Red Cross for all persons wishing to join voluntary SAR activities
- RPAS Finland is a member association of the Finnish Air Rescue Society.

GENERAL OBSERVATIONS

- The Finnish aviation regulations do not stipulate that an RPA pilot must hold a license or certificate
- The following presentation forms a draft proposal for national standards on equipment and pilot requirements
- The requirements are based on VLOS operations (Visual Line of Sight)

GENERAL OBSERVATIONS

- These requirements cover both rotary wing VTOL RPAS (Vertical Take Off and Landing) and fixed wing RPAS
- BVLOS (Beyond Visual Line of Sight) requirements are to be discussed in the future and are closely linked to future regulations on BVLOS operations.

SYSTEMS REQUIREMENTS

- All RPA systems must comply with the requirements set by the aviation authorities
- All systems must have a dedicated emergency logic in case of:
 - loss of GPS signal
 - C2 (command and control) link i.e. data link.

SYSTEMS REQUIREMENTS (2)

- The System must be able to track the flight path and save the flight path
- The limitations set to the System by weather and other flight related conditions must be known and observed in all SAR operations.

REQUIREMENTS FOR REMOTELY PILOTED AIRCRAFT (RPA)

- The minimum flight time per mission must be at least 15 minutes or more
- The RPA is equipped with a still or video camera suitable for the required mission
- The filmed material can be examined and must be surrendered to the authorities in question.

REQUIREMENTS FOR THE REMOTE PILOT STATION (RPS)

- The remote control unit must show the altitude of the flight and distance of the RPA from the remote pilot station
- The remote control unit must show the remaining flight time available
- The RPA pilot has a unit that shows the position of the RPA on a digital map and this feature can be used as a navigational aid.

REQUIREMENTS FOR THE REMOTE PILOT STATION (RPS)

- Remotely Piloted Aircraft (RPA) equipped with a video camera must be able to transmit the picture live to the Remote Pilot Station (RPS).

OPERATIONS AND MAINTENANCE

- Each System in use must have documented evidence describing the personnel to be used, their duties and training requirements
- Each System has a check list according to which the System is operated
- Each System must comply with rapid maintenance requirements (change and recharging of batteries, change of propellers)

OPERATIONS AND MAINTENANCE

- The use of the System in question is always documented by using a flight logbook.

OTHER EQUIPMENT RELATED REQUIREMENTS

- If the same airspace is used by manned aircraft operated either by the authorities or the Finnish Air Rescue Society the RPA pilot must have an airband transceiver i.e. airband radio and have a license to operate it.

REQUIREMENTS RELATED TO RPA PILOTS AND OBSERVERS

- The minimum requirement for any mission is two persons: an RPA pilot and an RPA observer
- The pilot must have verified skills for planning and preparing for the mission and to operate an RPA safely
- The pilot has recorded his lifetime RPA flight history in full in logbooks.

REQUIREMENTS RELATED TO RPA PILOTS AND OBSERVERS

- The RPA observer has been trained for his duties and he has participated in joint training sessions with an RPA pilot
- Personnel assigned to a mission has been fully briefed for the mission in question
- All personnell assigned to a mission has been operating RPA's or participated in RPA training sessions in the past 90 days.

REQUIREMENTS RELATED TO RPA PILOTS AND OBSERVERS

- Each person assigned to an SAR mission knows the confidentiality obligations and deals with all recorded material as required by the authorities.
- Pilots must have at least 20 hours of flying experience prior to their attachment to a mission.

FUNDING OF VOLUNTARY RPAS OPERATIONS

- RPAS Finland and the Finnish Air Rescue Society have submitted a joint application for a grant to the Finnish Slot Machine Association (Raha-automaattiyhdistys, RAY)
- The grant is to cover pilot training, participation in SAR exercises, national coordination and development of processes and documentation

FUNDING OF VOLUNTARY RPAS OPERATIONS

- The Ministry of Social Affairs and Health is to make a decision on all funding applications in January or February 2017.

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