[COMPANY NAME]
RPAS Operations Manual

Foreword

This template manual has been produced to aid remotely piloted aircraft system (RPAS) operators in developing their own operations manuals. The structure of this manual contains the basic items that normally would be important to consider and/or describe when conducting flight operations. The contents of this manual also support an operator in complying with any legal requirements set by the State in which the operations are conducted. For applicable requirements please consult your local authorities.

**Index**

1 Introduction 1

2 Revision status and list of effective pages 1

3 Duties and responsibilities of management and operational personnel 1

4 Description of safety management system 2

5 OM-A General/Basic 3

5.1 Flight operations 3

5.2 Operational control system 3

5.3 Flight and duty time limitations 3

5.4 Weather limitations 3

5.5 Occurrence (accident/incident) reporting 3

5.6 Security procedures 4

5.7 Airworthiness and maintenance 4

5.8 Special operations 4

6 OM-B Aircraft operations — type related 5

6.1 General information 5

6.2 Emergency procedures 5

6.3 Performance and operating limitations 5

6.4 Minimum equipment 5

6.5 Flight data 6

7 OM-C: Areas of operation, routes and charts 7

8 OM-D: Personnel qualifications and training 8

# Introduction

This chapter should contain basic information about the manual and its purpose, as well as the definitions of terms and abbreviations used in the manual.

It should also contain basic information about the operator, including but not limited to:

* Name and address of the operator/organization
* Areas where operations are conducted
* Types of operations, and
* Types and numbers of RPAS used.

# Revision status and list of effective pages

This chapter should contain information about the amendment process and revision status of the manual.

The revision status may include a list of effective pages or similar information. Each page should also contain document identification markings, e.g. name of the document and its revision status.

# Duties and responsibilities of management and operational personnel

This chapter should contain information about the operator’s/organization’s personnel and the person in charge/nominated post holders (if applicable).

The duties and responsibilities of the key personnel should be described, with special emphasis on duties which are significant in terms of operational safety.

For large operators an organization chart may be used.

Instructions for emergencies should also be included. It could be in the form of an emergency response plan (ERP).

# Description of safety management system

This chapter should contain the operator’s safety management procedures. The system and procedures should be proportional to the size and complexity of the operator.

This chapter should, as a minimum, contain:

* Procedures and instructions on how the operator evaluates, in a documented manner, the risks associated with its operations and the need for mitigation measures
* Description on how the operator evaluates its own performance and compliance with relevant requirements
* A written and signed safety policy.

A complete safety management system contains the following items:

* Safety Policy and Objectives
	+ Management commitment and responsibility
	+ Safety accountabilities
	+ Appointment of key staff members
	+ Emergency response planning
	+ SMS documentation
* Safety Risk Management
	+ Hazard identification
	+ Risk assessment and mitigation
* Safety Assurance
	+ Safety performance monitoring and measurement
	+ Management of change
	+ Continuous improvement
* Safety Promotion
	+ Training and education
	+ Safety communication.

# OM-A General/Basic

## Flight operations

This chapter should contain practical instructions on how normal operations are planned and conducted.

It should contain examples of different operational scenarios and how they are performed in practice.

It may include, but is not limited to:

* Checklists
* Rules of the Air
* Communication between remote pilot and RPA observer (including phraseology and callouts, if used)
* Emergency procedures
* Special procedures (e.g. planned destruction of RPAS), and
* Instructions for recording of flights (logbook).

## Operational control system

This chapter should contain instructions on how to ensure the command and control of the RPA.

This chapter should also contain information on how the operator/organization ensures operational control of its aircraft and knows its position at all times.

## Flight and duty time limitations

This chapter should list the applicable flight and duty time limitations as regards the personnel directly or indirectly involved in flight operations or other tasks which have or could have an effect on flight safety.

Always refer to current national rules and regulations of the country in which the operations are conducted.

## Weather limitations

This chapter should contain procedures and information on how to analyse weather information and its effects on the planned operations.

It should contain practical information on where information on current and forecasted weather can be found and how it should be interpreted. A key component should be the practical weather limits which indicate that the operations should be cancelled or delayed.

## Occurrence (accident/incident) reporting

This chapter should contain procedures and instructions on how any occurrences (accidents, serious incidents and incidents) should be reported within the operator’s organization and to the competent local authority.

The instructions should contain practical procedures for reporting, and guidance on how to classify different incidents.

## Security procedures

This chapter should contain the applicable security procedures to prevent unlawful interference in the operations at all times.

The instructions should take account of the areas where operations are conducted, and any need for security checks and/or surveillance.

## Airworthiness and maintenance

This chapter should contain procedures and instructions on the airworthiness of the aircraft and any other equipment which have or may have an effect on the safety of operations.

This information should contain but is not limited to:

* Instructions for pre-flight inspection(before every operation)
* Periodic inspections (e.g. daily, weekly, monthly…)
* Inspections after abnormal situations, and
* Guidance for assessing when the system or part should be maintained or withdrawn from service.

The instructions and intervals should always respect the manufactures instructions and limits.

## Special operations

This chapter should contain any instructions and procedures related to special operations, which are not covered in any other part of this manual.

# OM-B Aircraft operations — type related

## General information

This chapter should contain general information on the aircraft used (e.g. manufacturer, type, number of aircraft, dimensions).

## Emergency procedures

This chapter should contain procedures and instructions for emergency situations. It may contain emergency checklists or guidance for abnormal situations.

## Performance and operating limitations

This chapter should contain procedures and guidance for operational personnel concerning the aircraft performance and operating limitations, which should be taken into account in different types of operations.

This information should contain, but is not limited to:

* Mass and balance of the aircraft
	+ Mass and shape of external cargo
	+ Maximum take-off mass of the aircraft
	+ Performance limitations
	+ Power supply and its limitations
	+ Weather limitations
	+ Temperature limitations
	+ Wind limitations
	+ Visibility
	+ Precipitation
	+ Icing conditions
	+ Thunderstorms
* Area of operation
	+ Airspace limitations
	+ Altitude restrictions
	+ Obstacle limitations
	+ Flying over congested areas or assemblies of persons
* Communication and control limitations.

## Minimum equipment

This chapter should contain information on the minimum equipment needed for normal operations, as well as guidance for making decisions in case of unserviceable equipment. It should cover different types of operations and their respective requirements.

The minimum equipment information should take into account, but is not limited to:

* Examples of different types of operations (e.g. photography, surveying, etc.)
* Visual line of sight (VLOS) / Beyond visual line of sight (BVLOS)
* Radio range and radio line of sight
* Type related equipment, and
* Emergency equipment (First aid, fire extinguishing, parachutes, etc.,)

## Flight data

This chapter should contain procedures on how any data recorded by the RPAS is secured in case of an incident, serious incident or accident, in particular if it had or could have had an effect on:

* Safety of other aircraft
* Safety of persons on the ground, and
* Safety of third parties.

These instructions should clearly state the intent of securing this information. They should contain practical instructions, for example a checklist for operational personnel to be used in any safety related incident. These procedures should exclude the possibility of any vital information being deleted or lost without the consent of the accident investigation authorities.

# OM-C: Areas of operation, routes and charts

This chapter should contain practical procedures and instructions concerning the areas of operation, information on routes used, and the necessary charts.

The procedures should cover the following factors, as applicable to the particular operator and its operations:

* Prohibited and restricted areas
* Danger areas
* Temporarily segregated areas
* Airspace classification (uncontrolled/controlled)
* Vicinity of aerodromes/heliports, and
* Congested areas or assemblies of persons.

The guidance should describe and/or list the sources of necessary information concerning the areas of operation, routes and charts (e.g. Aeronautical Information Publication (AIP) or any other relevant source).

# OM-D: Personnel qualifications and training

This chapter should contain relevant qualification and training requirements for operational personnel. The chapter should cover initial as well as recurrent training. The type of operations shall be taken into account when determining the appropriate training requirements.

The chapter may contain the syllabi and/or basic content for each type of training and instructions on how training records should be kept.

Disclaimer

This template manual is not a regulatory provision or legislative act. The Finnish Transport Safety Agency (Trafi) is not to be held responsible for any damage or harm caused to a third party or any outside persons or entities from the use of this manual.