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Vertiports — Infrastructure and equipment for vertical take-off and landing (VTOL) of electrically powered cargo unmanned aircraft systems (UAS)

Vertiports — Infrastructure et équipements pour le décollage et l'atterrissage vertical (VTOL) des aéronefs cargo sans pilote (UAS) à propulsion électrique



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	3
5 Requirements for the vertiport, under the responsibility of the manufacturer	4
5.1 Design.....	4
5.1.1 Functional requirements.....	4
5.1.2 System reliability and conditions.....	5
5.1.3 Accommodation of the cargo.....	5
5.2 Ensuring safety.....	6
5.2.1 System reliability.....	6
5.3 Communication.....	6
5.4 Log.....	7
5.5 Quality control.....	8
5.6 Instruction manual.....	8
5.7 Ensuring safety.....	9
6 Requirement for the VIS under the responsibility of the VIS SP	9
6.1 Design.....	9
6.1.1 General.....	9
6.1.2 Departure.....	10
6.1.3 Approach.....	10
6.1.4 Accommodation.....	10
6.2 Ensuring safety.....	10
6.3 Communication.....	11
6.4 Instruction manual.....	11

Foreword

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Introduction

The demand for unmanned aircraft has been increasing in recent years for a variety of applications, including military and civilian [personal (hobby) and commercial] applications.

Particular focus has been placed on the logistics sector. The most difficult part of these operations is the departure and approach of the unmanned aircraft; and a vertiport is a device to support this. This document defines the requirements for constructing a vertiport. The components of the vertiport are assumed to be the following.

A vertiport system consists of two elements: a vertiport and a vertiport information system. The vertiport is connected to the vertiport information system; the vertiport information system is connected to the external system, and external system is connected to the unmanned aircraft system. In some cases, the unmanned aircraft system is directly connected to the vertiport to ensure safety during approach. The vertiport consists of software and hardware. The external system is responsible for assisting the unmanned aircraft system operator in making decisions and communicating with the vertiport information system and the unmanned aircraft system.

The vertiport communicates only with the vertiport information system and does not communicate directly with the external system; but it transmits information via the vertiport information system.

In addition, the use cases covered in this document are assumed to be logistics based on automatic navigation by non-visual flight; and where the cargo is stored at the landing site. However, this does not imply that the document cannot be applied to other use cases. This document does not cover vertiport operations and services covered by ISO 5015-2, developed by ISO/TC 20/SC 16 (UAS), which includes ground handling, interface with external systems, such as unmanned aircraft system traffic management service providers, and safety and quality of vertiport operators.