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ISO 21384-3

**Uncrewed aircraft systems —
Part 3:
Operational procedures**

**Third edition
2026-08**

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This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 16, *Uncrewed aircraft systems*.

This third edition cancels and replaces the second edition (ISO 21384-3:2023), which has been technically revised.

The main changes are as follows:

- harmonization with the three risk-based categories of UAS operations described in Reference [24];
- introduction of new personnel tasks in 9.6 in relation to fleet manager (FM) and visual observers (VO).

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This document outlines requirements for uncrewed aircraft (UA) operational procedures which, when applied together with any other current and future standard on uncrewed aircraft systems (UAS), form a robust UA safety and quality standard.

This document refers to the three risk-based categories of UAS operations introduced by the Joint Authorities for Rulemaking on Unmanned Systems (JARUS)^[21] enshrined by ICAO in Reference [24]. Assigning a UAS operation to a category (or subcategory in jurisdictions where they exist) typically considers the maximum take-off mass (MTOM), the maximum dimensions of the airframe, the type of operations (i.e. VLOS, EVLOS or BVLOS), the risk for third parties on the ground normally driven by the density of population and the risk for third parties in the air, which is also influenced by the airspace classes defined in Reference [25].

The principles of these three risk-based categories are summarized in Table 1 and can be applied also in jurisdictions where the three risk-based categories are not implemented, but the taxonomy is based, for example, on aircraft MTOM and type of operations.

Table 1 — Main features of the three risk-based categories of UAS operations

Category	Open	Specific	Certified
MTOM	In most jurisdictions 25 kg	Unlimited	Unlimited
Risk for third parties on the ground and in the air	Low risk	Medium risk or regulated lower risk	High risk (i.e. comparable to commercial aircraft operations with pilot on board)
Purpose	Recreational Governmental non-military Professional non-commercial Commercial including aerial work or transport of freight	Governmental non-military Professional non-commercial Commercial including aerial work, transport of freight, spraying, releasing substances or objects, one pilot to several aircraft, autonomous operations without pilot	Governmental non-military Professional non-commercial Commercial including aerial work, transport of freight, spraying, releasing substances or objects, but also transporting people on-board for commercial or non-commercial air transport
Type of operations	VLOS	VLOS EVLOS BVLOS	VLOS EVLOS BVLOS International IFR
Registration	Required with possible minor exceptions Depending on the jurisdiction, registration can be required for the UA or for the UAS operator or for both In no jurisdiction registration of the RPS is required	Always required, but depending on jurisdiction as in the open category	Required In most jurisdictions only for the UA
Remote (electronic) identification	Required with possible minor exceptions	Required	Required possibly using conventional aviation equipment (e.g. ADS-B)
Risk assessment by UAS operator	Not required	Required	Required as proactive, predictive and inter-organizational safety management by operator

NOTE The registration process is different from the operational authorization process; and the latter is a regulatory safety approval, different from the administrative approval by the geozone manager, if applicable and from the airspace authorization issued by traffic management services.

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Category	Open	Specific	Certified
Means of evidence of applied mitigations	Not required	Required	Required and including certificates by aviation authorities
Conditions and limitations	Established by regulations	Established case-by-case based on the risk assessment	Established case-by-case based on the risk assessment
Airworthiness of UA	Demonstrated through Declaration of Conformity signed by UAS manufacturer	Demonstrated through Declaration of Conformity signed by UAS manufacturer or, for higher risk, by design verification (DV) or type certificate (TC) and individual certificate of airworthiness (CofA)	TC and individual CofA
UAS pilot licence (UPL)	Required but issuance often delegated to a recognized entity	Required but issuance often delegated to a recognized entity	Required. It may have different denominations, different from UPL and depending on the type of operation in the certified category [e.g. remote pilot licence (RPL) for international RPAS operations under IFR in conformance with ICAO standards].
Operational authorization for one or a series of UA flights	Not applicable	Possible	Not applicable
UAS operator certificate	Not applicable	Voluntary	Mandatory in several jurisdictions
Authorization by geozone manager to enter specific areas	Possible	Possible	Possible
Airspace authorization to enter controlled airspace	The process for airspace authorization is normally not applicable, but in some jurisdictions geozones are established to permit access to some portions of controlled airspace also to the open category	Possible under specified conditions	Required
International (i.e. entering the sovereign airspace of State(s) different from the take-off State)	Not applicable, unless enabled by agreements among States by regionally applicable legislation	Not applicable, unless enabled by agreements among States by regionally applicable legislation	Possible on the basis of the Chicago Convention
Flights above high seas without entering sovereign airspace of a second State	Possible	Possible	Possible
NOTE The registration process is different from the operational authorization process; and the latter is a regulatory safety approval, different from the administrative approval by the geozone manager, if applicable and from the airspace authorization issued by traffic management services.			

This document is structured in a way to provide a logical pathway from core principles to specific requirements, applicable in jurisdictions where the three risk-based categories are implemented or elsewhere.