

ICAO UAS RELATED ACTIVITIES

A hand holding a drone with digital overlays. The background is a blue-toned image of a hand holding a drone, overlaid with various digital graphics including charts, graphs, and data points. The drone is a quadcopter with a camera mounted on the front. The digital overlays include a green circular graphic with a globe, a bar chart, and several circular gauges with percentages like 72%, 54%, 98%, and 82%. The overall theme is technology and aviation.

Update on ICAO UAS Advisory Group

28 September 2021



- ICAO UTM Framework Update
- DRONE ENABLE 2021 Outcomes
- Advance Air Mobility Strategy
- DRONE ENABLE 2022
- ICAO UAS Model Regulations

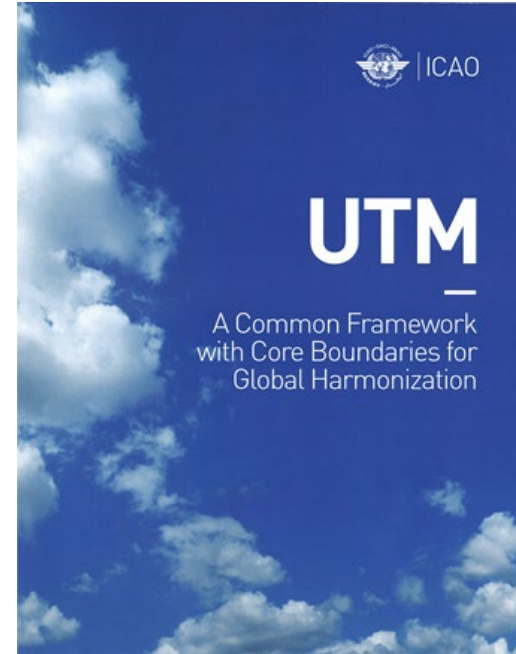


ICAO

SAFETY

UTM Framework – Overview

- A framework and core capabilities of a “typical” UTM system
- High level UTM requirements/considerations
- Not a technical solutions document





ICAO

SAFETY

UTM Framework – Objectives

- Foster common framework and harmonization of core UTM principles
- Maintain safety and minimize disruption to existing aviation system
- Support technological developments in UTM and UAS
- Provide safety-focused recommendations for UTM system development
- Address security and environmental risks
- Enable stakeholders to grow safely and efficiently



EDITION 1 (RELEASED)

- Registration, identification and tracking
- Communications systems
- Geofencing-like systems
- Potential architectures

EDITION 2 (RELEASED)

- UTM-ATM boundaries and transitions
- Information exchange between ATM and UTM

EDITION 3 (RELEASED)

- UTM risk assessment/contingency procedures
- UTM service providers structure
- Separation and deconfliction in UTM

EDITION 4 (DRAFTING)

- UA performance requirements in a UTM environment
- UTM system certification requirements
- UTM in aerodrome environments/activities



ICAO

SAFETY

DRONE ENABLE 2021 Outcomes

- *Facilitating Future Innovation*
- Panels
 - Key Stakeholder
 - UTM Lessons Learned
 - Advanced Air Mobility
- RFI Sessions
 - Results
- Roundtables
- All sessions are available for viewing



- **Activities**
 - UTM Framework Edition 4
 - DRONE ENABLE 2022 Problem Statements
 - Draft DRONE ENABLE 2022 RFI
 - RFI Submission Reviews
- Development of a UTM Toolkit
- Recommendations on Phase 3 activities



Advanced Air Mobility Strategy

- To include:
 - Vision statement
 - Work that needs to be completed
 - Who is best to complete the work
 - Recommendations on a way forward
- Included strategy in the ICAO Global Air Navigation Plan (GANP)



- **DRONE ENABLE 2022 (8–10 November 2022)**
 - Request for Information Sessions and Topic Specific Panels
 - Request for Information
 - Release date – early January 2022
 - Submissions due – mid April 2022
- **RPAS Symposium 2022 (15-17 November 2022)**
 - Topic Specific Panels
 - Updates on ICAO regulatory development activities

Details will be available shortly on the ICAO Event Website

UAS – ICAO Model UAS Regulations





ICAO UAS Model Regulations

➤ Development and background



Sept. 2016

Oct. 2018

Sept. 2019

39th Session of ICAO Assembly

- Leadership role to develop guidance for harmonized UAS regulations;
- Receive industry studies on cyber-resiliency;
- Develop UAS awareness and educational campaigns for users.

13th Air Navigation Conference

- Formulate & implement technical and regulatory solutions for UAS;
- Insure UTM systems interoperable with ATM systems;
- Enable authorization of non-certificated UAS in high-seas airspace.

40th Session of ICAO Assembly

- Accelerate full regulatory framework for UAS and UTM;
- Develop provisions and guidance material for safety risks of unauthorized presence of UA near aerodromes.



ICAO UAS Model Regulations

- ICAO's UAS mandate:
 - Harmonization of regulations
 - Safe and coordinated integration of UAS activities
 - Assistance to ICAO Member States

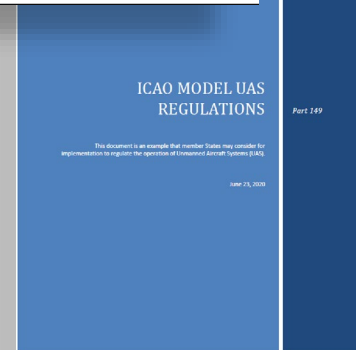
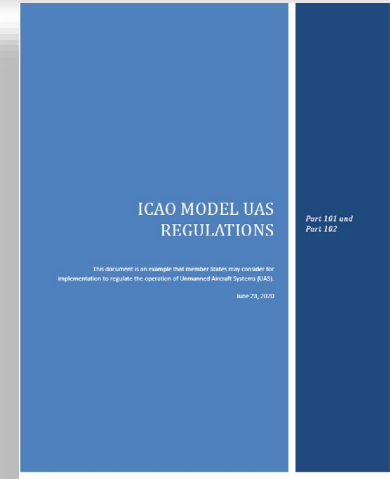




ICAO UAS Model Regulations

Establish scope of unmanned aviation

- Categorization:
 - Open category: **Part 101**
 - Specific category: **Part 102**
 - Certified category: **ICAO Annexes**
- Approved Aviation Organizations (AAO): **Part 149**
- Advisory Circulars (acceptable means of compliance):
 - **AC 101-1**
 - **AC 102-1**
 - **AC 102-37: Dangerous Goods**
- Guidance Materials:
 - **U-AID**
 - **UTM**



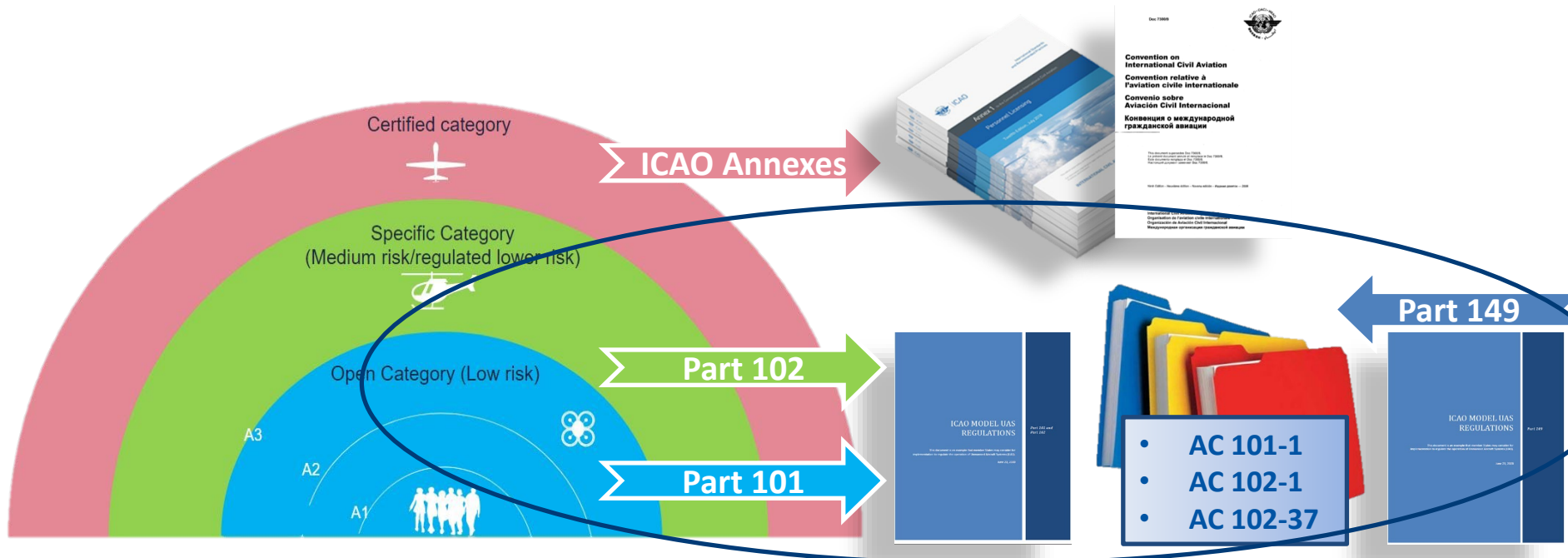


ICAO

SAFETY

ICAO UAS Model Regulations

- Establish scope of unmanned aviation





How to use

- Living documents evolving with UAS technologies;
- Flexibility:
 - Use in the current form, or;
 - Supplement existing national UAS regulations.
- Prescriptive and Performance-based regulations;
- Operation-centric risk-based approach.



ICAO UAS Model Regulations

Elements NOT addressed in the UAS Model Regulations

- States will need to address the following to insure alignment with existing national policy/law:
 - Privacy, insurance, economic authority;
 - Environmental requirements (noise and emissions);
 - Law Enforcement requirements and/or guidance;
 - Cyber Security Issues.



- Model UAS Regulations*
- Humanitarian Aid & Emergency Response Guidance*
- UTM Guidance Edition 3*
- UAS Toolkit*

English | Français | ICAO Store

Search...

About ICAO | Global Priorities | Meetings and Events | Information Resources | Careers | Uniting Aviation | Subscribe

ICAO / Safety / Unmanned Aviation

Guidance

- Model UAS Regulations
- Humanitarian Aid & Emergency Response Guidance
- UTM Guidance, Edition 2
- UAS Toolkit
- RPAS CONOPS
- UAS for Humanitarian Aid and Emergency Response Guidance or U-AID**

Expert Groups

- Remotely Piloted Aircraft Systems Panel (RPASP)
- Task Force on Unmanned Aircraft Systems for Humanitarian Aid and Development (TF-UHAD)
- Unmanned Aircraft Systems Advisory Group (UAS-AG)

Unmanned Aviation Bulletin

- ICAO's upcoming Meetings and Events page**
- RPAS Workshops

Unmanned Aviation

This website has been designed to showcase ICAO's ongoing developments related to the full breadth of unmanned aviation.

This site also facilitates the exchange of unmanned aviation related information, meetings and resources.

Share this page:

[f](#) [t](#) [in](#) [g+](#)

<https://www.icao.int/sa>

Questions/Discussion

