

ICAO RPAS PROGRAMME Update

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Chief, RPAS





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Multiple Streams of Work

**RPAS SARPs,
PANS,
guidance**

UAS guidance

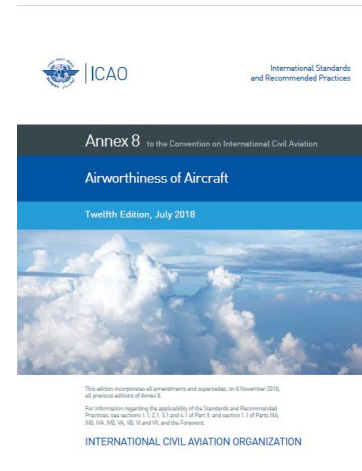
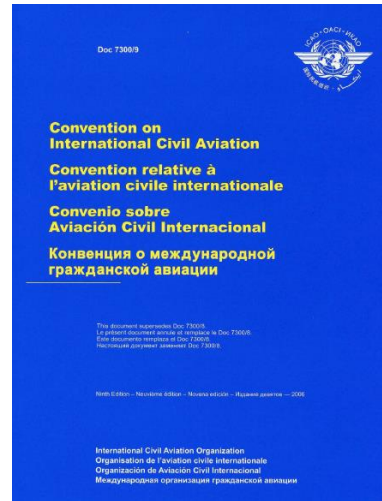
**UAS Traffic
Management
(UTM)
guidance**

**Model UAS
Regulation**

**Humanitarian
Aid &
Emergency
Response
guidance**

RPAS - FULL Regulatory Approach

- International IFR operations
- Requirements to initiate international operations:
 - Certificates
 - Remote pilot licence
 - Registration
 - Airworthiness
 - RPAS Operator



RPAS Workstream

- **RPAS Panel**
 - Developing the regulatory framework for RPAS to conduct IFR operations in controlled non-segregated airspace/aerodromes

- **Other ANC Panels supporting on technical matters**



ADOP	AIGP	AIRP	ATMOPSP	CP	DGP
FLIREC-WG	FLTOPSP	FSMP	SASP	SMP	SP



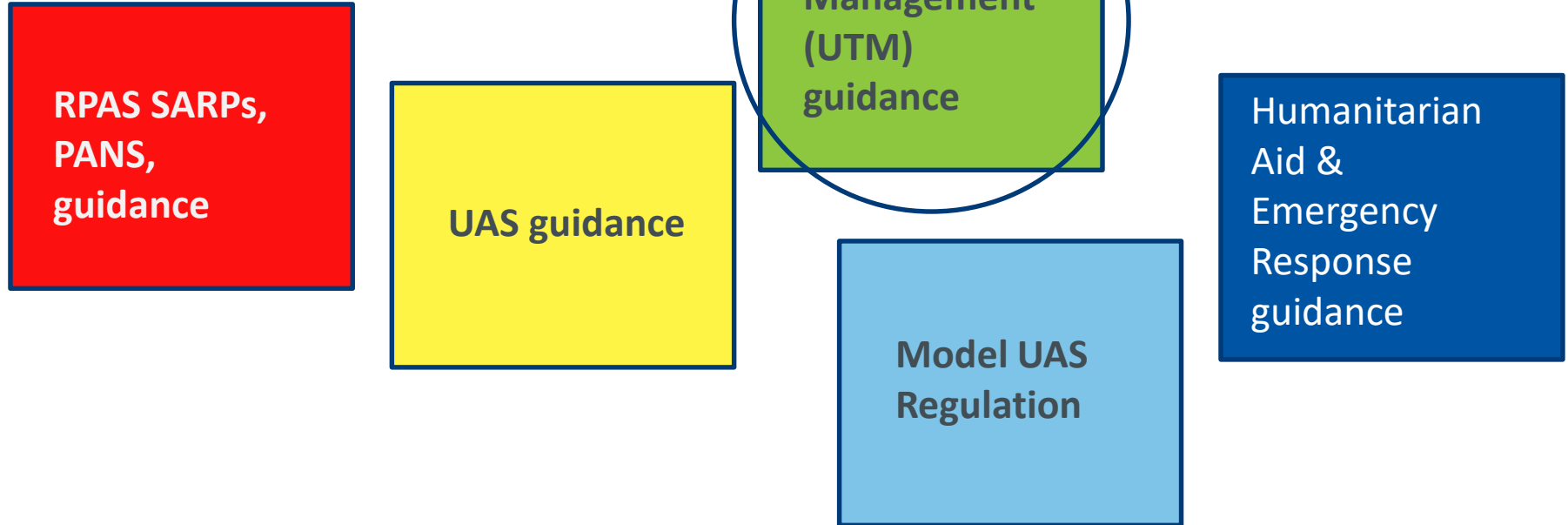
RPAS: Other work within ICAO

- Legal Committee
- Committee on Aviation Environmental Protection (CAEP)
- Aviation Security Panel (AVSECP)





Multiple Streams of Work



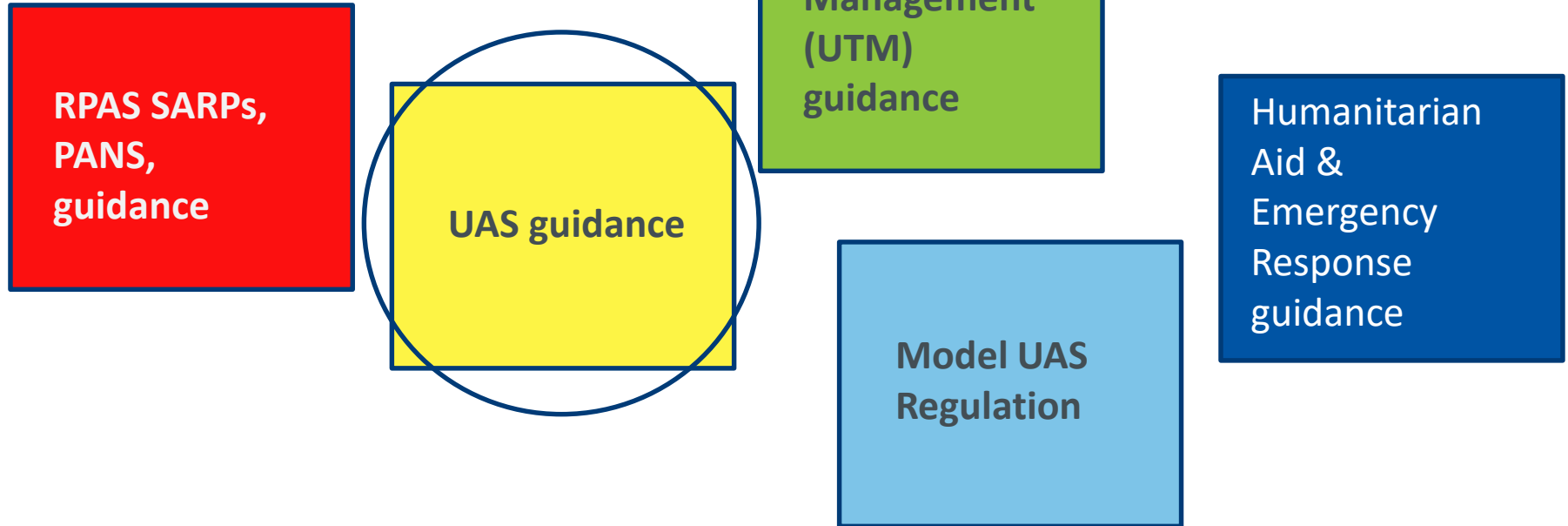
UAS Traffic Management

- **Expanding through DRONE ENABLE**
 - Framework for UTM
 - Registration, ID, tracking systems
 - Communications systems
 - Geo-fencing like systems
 - UTM-ATM Interface
 - Very high altitude operations
 - Aircraft registry network
 - UTM Service Suppliers
 - Deconfliction and Separation Management
 - Risk Assessment and Contingency Operations





Multiple Streams of Work



Other UAS

- **Toolkit developed by the UAS Advisory Group**
 - General guidance for national regulations
 - Best practices and lessons learned from many States
 - Practical examples



[ICAO.int/safety/UA/UASToolkit](https://www.icao.int/safety/UA/UASToolkit)





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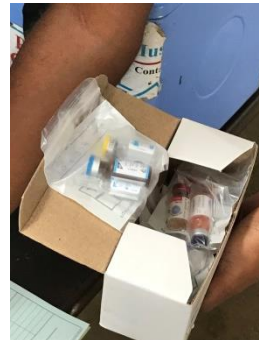
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Humanitarian Aid and Emergency Response

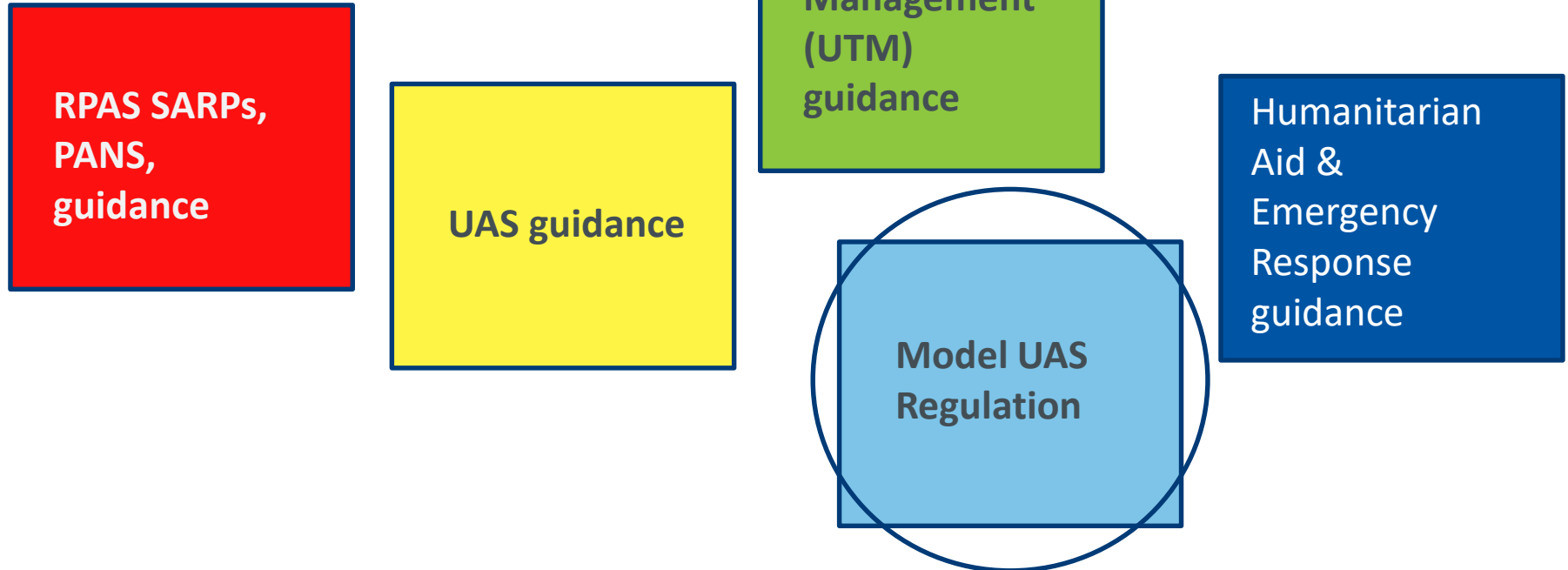


Unmanned Aircraft Systems (UAS) For
Humanitarian Aid and Emergency
Response Guidance

U-AID



Multiple Streams of Work





Model UAS Regulations

ICAO MODEL UAS REGULATIONS

The final version will serve as an example that member States may consider for implementation to regulate the operation of Unmanned Aircraft Systems (UAS).

Part 101 and Part 102

ICAO MODEL UAS REGULATIONS

This version will serve as an example that member States may consider for implementation to regulate the operation of Unmanned Aircraft Systems (UAS).

Part 149

Advisory Circular (AC) 102-1

Unmanned Aircraft System Operations – Certification

General

Civil Aviation Authority (CAA) Advisory Circulars (AC) contains information advisory in nature to provide guidance about standards, practices, and procedures resulting from rules promulgated by the CAA. This AC is not mandatory and does not constitute a regulation. This AC does not change, add to, or delete regulatory requirements or authorize deviations from regulatory requirements.

Purpose

This advisory circular provides guidance for meeting the requirements for an unmanned aircraft system (UAS) authorization or an unmanned aircraft system (UAS) operator certificate (UOC) under Part 102 *Unmanned Aircraft System Operations – Certification*.

This AC is not intended to cover every provision of Part 102. Rather, this AC is intended to provide guidance on those provisions where additional information may be helpful. Persons subject to Part 102 are responsible for complying with every applicable provision of Part 102, regardless of whether the provision is discussed in this AC.

Related Rules

This advisory circular relates specifically to Civil Aviation Rule Part 102 but also refers to requirements in operating rule Part 101.

Change Notice

This document is the initial issue of this advisory circular.

Application for issue, renewal or amendment of an Approved Aviation Organization Certificate, [ICAO Part 149]
(Note: The Civil Aviation Rule hourly charge applies.)

1. Organization Details

(1) Legal name of organization: _____ The certificate will be issued in this name

(2) Trading name (if any): _____

(3) Client No. (if known): _____

(4) Address for service (applicant to provide an address for service in applicant's country, a physical address) and to promptly notify the CAA of any change: _____

(5) Fax: _____ Email: _____

(6) Postal Address (if different from Address for Service): _____

(7) Fax: _____ Email: _____

(8) Your reference: _____ (Order number/contact person or other reference)

2. Reason for Application - Mark appropriate box

Initial Issue Renewal Amendment

3. Questionnaire

The following questions must be answered for initial issue and for renewal:

(a) Has the organization been convicted for any transport safety offence in the last 120 days or is the organization presently facing charges for a transport safety offence? Yes No

(b) Has the organization previously had an application for an aviation document rejected or has an aviation document held by the organization been suspended or revoked? Yes No

* If answering "Yes", please provide details on separate sheets.

4. Privileges applied for (ref Rule Part 149.3)

Personnel Certificate (149.3)(1) Aviation Events (149.3)(2)

Other Privileges (149.3)(3)

5. Brief Summary of Scope of Work to be carried out

Provide references to the Organization Submission (Ref CAR Part 149.35(a)(ii))

www.icao.int/Safety/UA

Protection from UAS

- **Education**
- **Preventing / disrupting UAS**
 - Use of technology
- **Contingency procedures**





Outreach activities

- Workshops
- Courses



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Fundamentals of Unmanned Aviation course

Covering the breadth of unmanned aviation implications for the Civil Aviation Authority (CAA)

- UAS / RPAS types, configurations, operations
- Legal implications
- Need for regulations
- Organizational structure
- Oversight responsibilities
- Online module followed by 5-day classroom course
- *Targeting delivery 2nd Qtr 2020*



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Humanitarian Aid & Emergency Response workshop

- Streamline special authorization process for urgent operations
- Consistent with national regulations
 - Model UAS regulations
- *Targeting 2nd Qtr 2020*



Outreach activities

- Workshops
- Courses
- **Partners and Sponsors - needed**



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Questions / Comments:

RPAS@ICAO.INT



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and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok

