



SAFE SKIES.
**SUSTAINABLE
FUTURE.**



| ICAO



ICAO ESAF/WACAF Regional Office UAS/RPAS Workshop

Nairobi, Kenya
June, 2025

ICAO UAS Humanitarian Operations Guidance Material (U-AID)

Objectives

- Understand the Purpose of ICAO U-AID Guidance Material;
- Understand the Structure of U-AID;
- Understand the stakeholders' part in implementing and benefiting from the U-AID procedures;
- How to Enable Safe & Legal UAS Humanitarian Operations.

Background & Context

5

INCREASE OF UAS APPLICABILITY IN HUMANITARIAN ENVIRONMENT:

- ✓ Search and Rescue Missions;
- ✓ Disaster Assessment and Monitoring;
- ✓ Delivery of Survival Items (food, water, medicine,...)
- ✓ Flood/Disaster Modelling and Assessment,
- ✓



Background & Context

USED BY DIFFERENT ENTITIES:

- ✓ International Organizations (WFP, OCHA, ...),
- ✓ States` Public Services (Law Enforcement, Firefighters, ...),
- ✓ Non-governmental Organizations (First Responders, Zipline, ...)



Background & Context

7

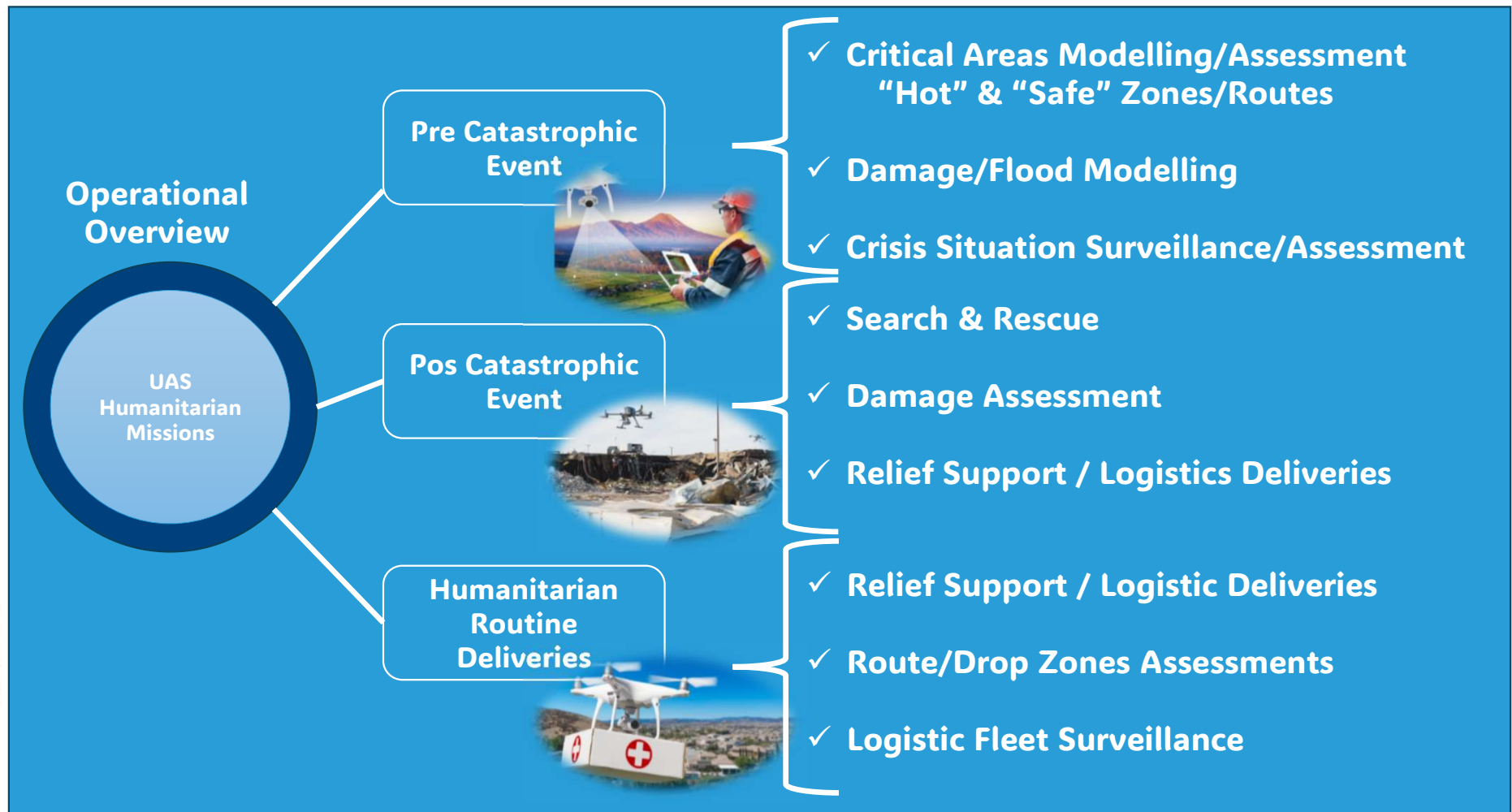


UAS POSITIVE OUTCOMES:

- ✓ Risk Mitigation (e.g., Responders);
- ✓ Different Payloads/Sensors (IR, SAR, Cargo, ...);
- ✓ Persistent Surveillance AOI;
- ✓ Efficiency to Reach Difficult Areas;
- ✓ Flexibility to Operate in Non-Prepared Areas (e.g., No ADOP Necessity);
- ✓ ...

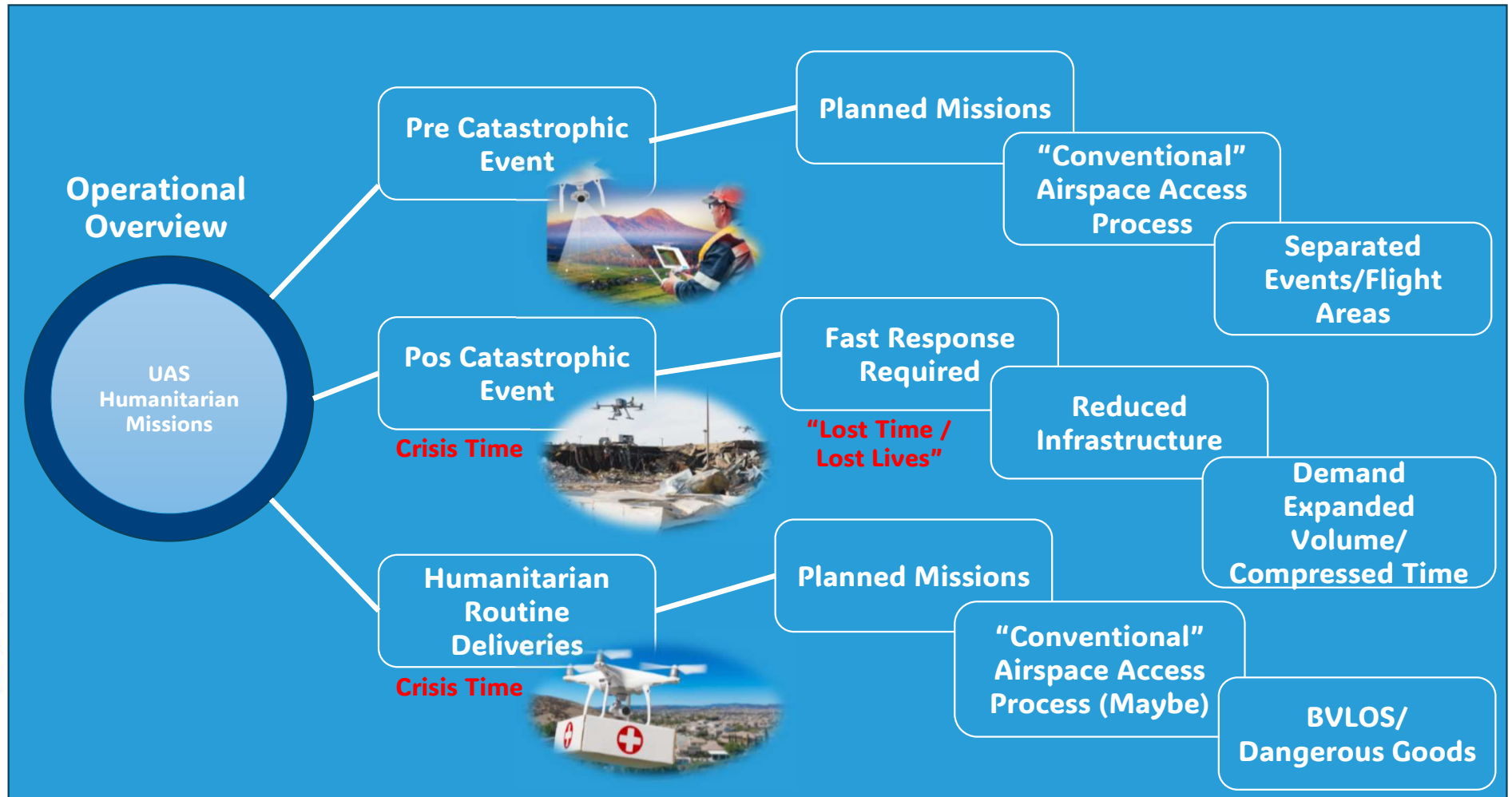
Background & Context

8



Background & Context

9



Background & Context

10

COMMON CONSTRAINTS



Regulatory Hurdles

Varying or unclear national/international drone laws; airspace restrictions



Limited Battery/Range

Drones can't fly far enough or carry large payloads



Data Security/Privacy

Concerns about capturing images of civilians or sensitive areas



Community Acceptance

Fear or misunderstanding of drones among local populations



Weather Dependence

Many drones can't fly safely in high winds, rain, or extreme conditions



Cost and Logistics

High cost of advanced drones, plus transport and maintenance in remote areas

* Key constraints commonly mentioned in sources discussing UAS use in humanitarian contexts, identified across academic, NGO, and regulatory literature.

Background & Context

11

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* Stakeholders Interactions

Background & Context

12



- ✈️ Regulatory Framework;
- ✈️ Coordination of Actions;
- ✈️ Operational Allowances;
- ✈️ Community Acceptances;
- ✈️ Enabling Clauses;
- ✈️ Support for Operations;
- ...



What is ICAO U-AID?



✈️ ICAO U-AID is a resource (guidance material) for States to enable humanitarian aid and emergency response operations using UAS, and to enable an expedited review process for urgent operations.

✈️ Support Aviation Authorities in their review of requests for UAS operational authorizations in response to humanitarian emergencies;

✈️ Non-binding to the status of UAS regulations; &

✈️ Aims to facilitate the deployment of UAS in humanitarian missions in a safe, coordinated and efficient manner.



Unmanned Aircraft Systems (UAS) for
Humanitarian Aid and Emergency
Response Guidance
U-AID

What is ICAO U-AID?

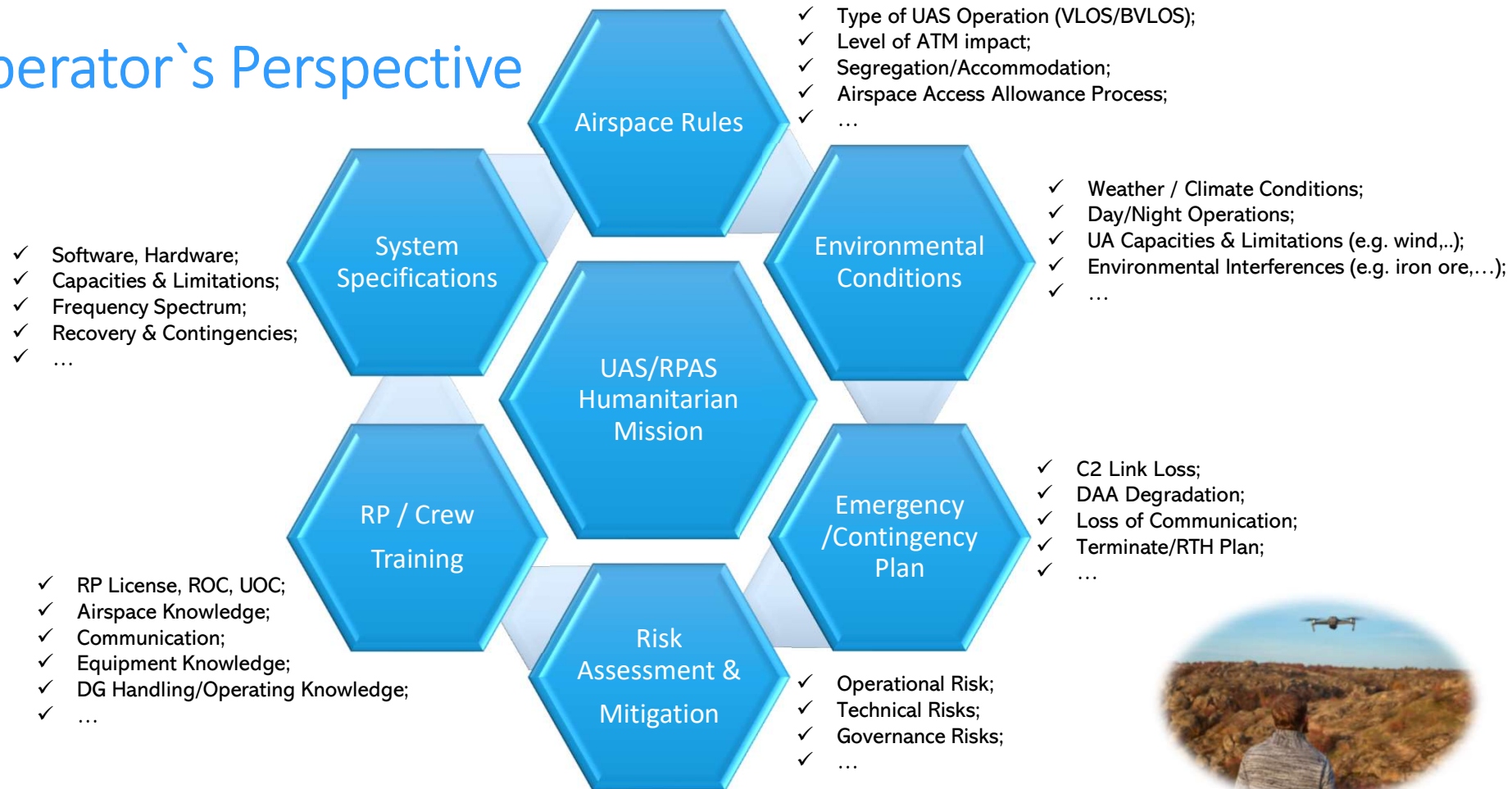
14



ICAO U-AID Operational Overview

15

UAS Operator's Perspective



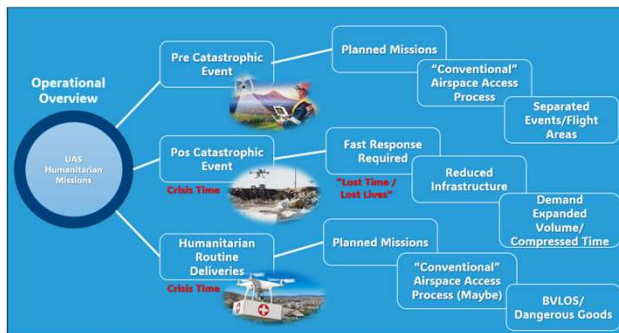
U-AID CONSTRAINTS

16



Regulatory Hurdles

Varying or unclear national/international drone laws; airspace restrictions



- ✓ Establishment of a **Performance-Based Regulatory Framework** for UAS Operations in Emergency/Humanitarian Events;
- ✓ Expediting UAS Operations Approval Process:
 - ✓ Pre-Register of Possible Responders;
 - ✓ Simplified Airspace Access Process; and/or
 - ✓ MoU/Agreement Amongst Stakeholders;
- ✓ Multilateral / Bilateral Agreements for Cross-Border Necessities; &
- ✓ Leverage the Awareness of the UAS Regulatory Framework.

U-AID CONSTRAINTS

17



Data Security/Privacy

Concerns about capturing images of civilians or sensitive areas

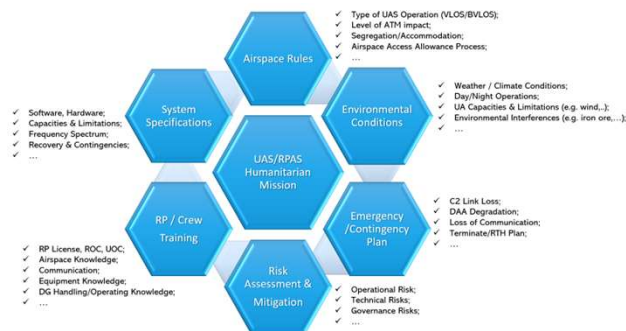


Community Acceptance

Fear or misunderstanding of drones among local populations



- ✓ Reach Out to/ Interact with Local/Community Authorities;
- ✓ Leverage the Awareness of the UAS Regulatory Framework & UAS Operations Features;
- ✓ Coordinate/Explain the UAS Operation Actions With the Local Community (Flyers, Videos, Contacting People,...);
- ✓ Explain the Importance of UAS for the Humanitarian Objectives in the Scenario.



ICAO U-AID Societal Interaction

18

Societal Interaction Long Term Decision Tree

- ✓ Planned Missions;
- ✓ Pre-Coordination Process;
- ✓ Operators / National Authorities Perspective.

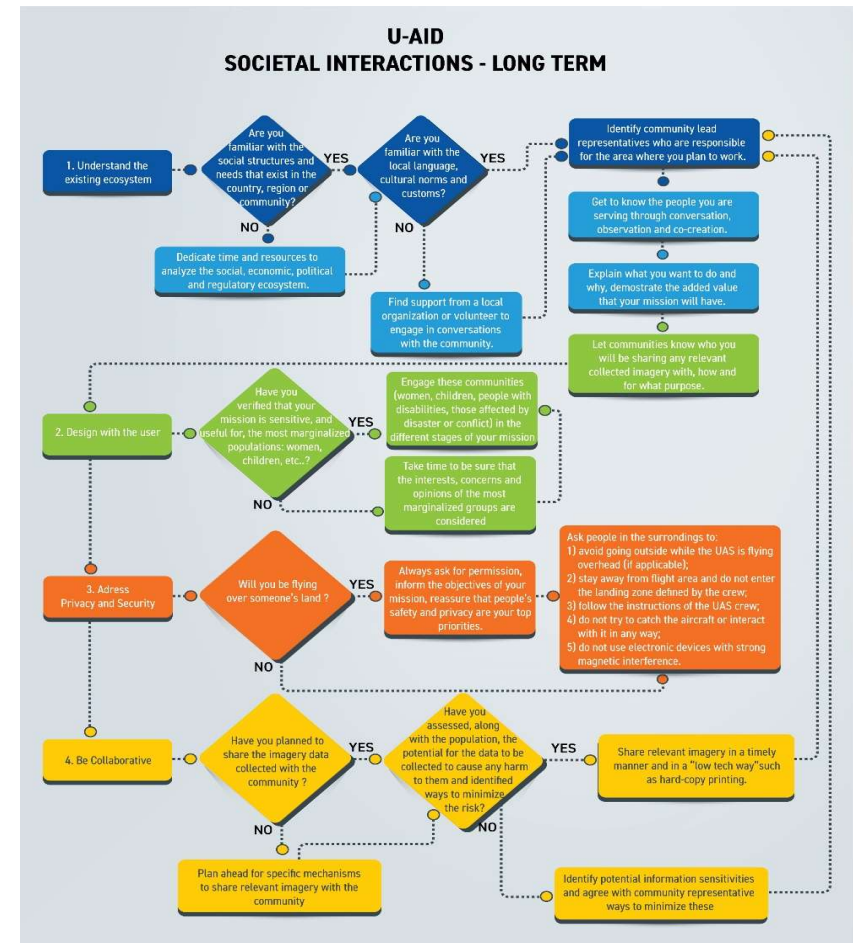


Understand the Existing Ecosystem

Design With the User

Address Privacy and Security

Be Collaborative



ICAO U-AID Societal Interaction

19

Societal Interaction Short Lead Time Decision Tree

- ✓ Planned Missions/Fast-Response;
- ✓ Few Time to Achieve Approval;
- ✓ Operators / National Authorities Perspective.



ICAO

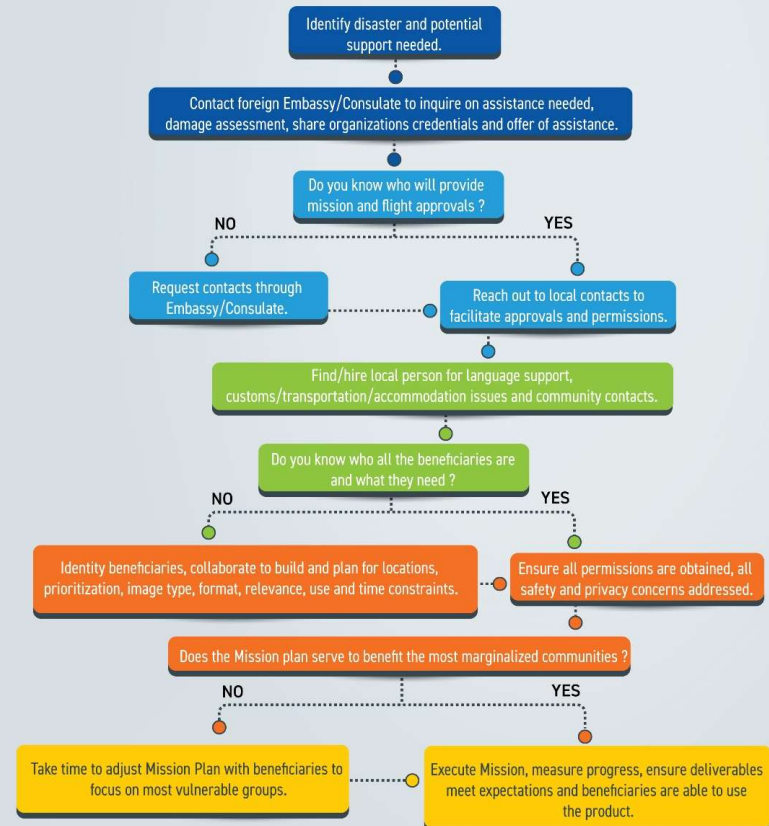
Understand the
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U-AID UA OPERATIONS WITH SHORT LEAD TIME



ICAO U-AID Roles & Responsibilities



Aviation Authorities

- ✈ Establishment of Regulatory Framework;
- ✈ Feasibility for a Previous U-AID Register;
- ✈ Educational Programs for Societal Acceptance;
- ✈ Enable U-AID Operations.



Military /Airspace Managers

- ✈ Airspace Access Analysis & Allowance;
- ✈ Airspace Capacity;
- ✈ Airspace Players Coordination;
- ✈ Oversight of Airspace's Dynamics and Safety Conditions.



Disaster Response Agencies

- ✈ Knowledge About the Regulatory Framework;
- ✈ Reach Out to Aviation Authorities, Local/Community Authorities;
- ✈ Skilled Crews/Pilots/Operators;
- ✈ Establish a CONOP for U-AID Operations;



UAS Operators

- ✈ Knowledge About the Regulatory Framework;
- ✈ Comply with the Rules, Allowances & Coordination;
- ✈ Operate UAS in good conditions of Maintenance;
- ✈ Establish a Risk Assessment Process for the Missions;
- ✈ Report Any Problem to the Adequate Contact.

U-AID Supporting Material

21

Application for U-AID Authorization Form

Expedited Authorization for Urgent UAS Operations Request Form

- ✈ ICAO Fillable Applications are especially useful as they can be uploaded to a State's website for online completion by operators. One of the forms, **Application for U-AID Authorization**, is for U-AID operations and provides a comprehensive CONOPS once completed. The second form, **Expedited Authorization for Urgent UAS Operations**, is for urgent requests seeking an expedited approval.



U-AID Supporting Material

Application for U-AID Authorization Form

- ✓ Planned Missions;
- ✓ Concept of Operation (CONOP);



Application for U-AID Authorization	
By completing this application, the Concept of Operation (CONOPS) is produced.	
Section I: Introduction	
Provide a brief description of the proposed operation (e.g. emergency health delivery, damage assessment, search and rescue, public welfare, media coverage, etc.)	
Section II: Applicant/Operator Information	
Company Name	
Address	
City	
Postal code	
Company phone number	
Company email address	
Country	
Point of contact (POC) last first name	
POC direct mobile phone number	
POC email address	
Section III: Airspace & Services	
1) Define geographic location and boundaries (provide geographic information in readable exchange format (i.e. CSV)	
2) List proposed class(es) of airspace	
3) Describe airspace characteristics (controlled, uncontrolled, special use, etc.)	
4) Will segregated airspace be requested?	
Section IV: Unmanned Aircraft Specifications	
1) Attach drawings or photographs of the unmanned aircraft	
2) Attach specifications	
a) UA length, diameter, wingspan	
b) Gross weight	
c) Aircraft type	
d) Payload carriage capability	
e) Thrust system: electric, battery, reciprocating piston or turbine	
f) Motor or engine specification	
g) Propeller specifications	
h) Maximum operating altitude	
i) Maximum cruise speed	
j) Fuel type	
k) Battery system and backup	
l) Unique features/appliances/termination system such as parachute	
m) Endurance (time)	
n) Range (distance)	

U-AID Supporting Material

Expedited Authorization for Urgent UAS Operations Request Form

- ✓ Urgent Circumstances/Fast-Response;
- ✓ Adapted Approval Process;
- ✓ UAS Operator must possess UAS Authorization, UOC or RPL.



Expedited Authorization for Urgent UAS Operations Request Form
Basic Qualifications
<input checked="" type="checkbox"/> The requesting operator must possess a current UAS Authorization, a UAS Operator Certificate or a remote pilot licence
<input checked="" type="checkbox"/> The UAS operation must support an emergency response or other effort being conducted to address urgent circumstances and that will benefit the public
<input checked="" type="checkbox"/> The requested CAA approval cannot be secured via normal processes in time to meet urgent operational needs
Operator Information
Mandatory entry
Operator Organization (e.g., agency or company)
Operator Address
Operator Point-of-Contact (including name, office and mobile phone numbers and email)
Remote Pilot and UA Observers (including names, mobile phone numbers, and emails)
Type of UAS
Documentation
If the requested UAS operation will be flown under a pre-existing authorization, attach it and provide the authorization number below.
If the requested UAS operation is in accordance with Part 102, please provide the remote pilot licence number below.
Requested Flight Details
Enter the date(s) of the proposed UAS operation (e.g., 18/03/2019 or 18/03/2019 to 28/03/2019)
Enter the times of the proposed UAS operation (be sure to confirm time zone; e.g., 1200L-1400L daily)
Enter the location of the proposed flight (reference the nearest city or town, province or region)
Enter the distance and direction from the nearest airport and its CAA identification (e.g., 5 NM W of XXX)
Identify the class(es) of airspace in which the flight will be conducted (e.g., Class G/FE/D/C/B/A)
Requested altitude of UA flight:

U-AID Supporting Material

24

UA Accident Reporting Form

- ✓ Urgent Circumstances/Fast-Response;
- ✓ Adapted Approval Process;
- ✓ UAS Operator must possess UAS Authorization, UOC or RPL.

Incident/Accident Report - Unmanned Aircraft

The purpose of submitting incident/accident information is to improve aviation safety. The data from these reports help to determine areas of risk, trends over time and assists with how to reduce incidents and accidents.

This form is for operators of unmanned aircraft to ensure that relevant information is captured and to assist in identifying causal factors and lessons learned from incidents or accidents.

If dangerous goods are involved, provide a description of the dangerous goods carried by the UA. Notification to the (specify govt entity) is required. Contact information (specify contact information).

Occurrence Date	Location of Event	Time
UAS Make/Model	Operator Name	Departure Point
CAA ID (if applicable)	Altitude (ft AGL)	Destination
		Registration ID

Operational Details

Nature of Flight	Real Estate	Agricultural	Survey	Inspection
	Photography/Filming	Private/Recreational	Delivery	Other

Phase of Flight	On Ground	Takeoff	Climb	Cruise
	Hover	Approach	Landing	Operational
	Other			

Reported Injuries	Description
Reported Damage to UA	Description
Reported Damage to Property	Description

Type of Occurrence

Collision/strike object	Component or system failure or malfunction	Loss of control
Power loss	Airspace incident (e.g. proximity to aircraft, etc.)	Ballistic chute operation
Other		

Description of the Occurrence

Causal factors and action taken

Global Initiatives

25

ICAO TV

U-AID

Humanitarian Operations Using UAS 2020



This webinar will present ICAO's guidance material for humanitarian aid and emergency response (U-AID) using UAS. Following an overview of this material and best practices, UA Operators who perform humanitarian operations (**Drone Delivery Canada and GlobalMedic**) will share their experiences. Additionally, the efforts by a new organization (**UPDWG**) who is intent on progressing "drone delivery data" collection will present their method to inform the efficacy of safe UAS operations, in a free access platform.

Global Initiatives

26



Global Initiatives

27

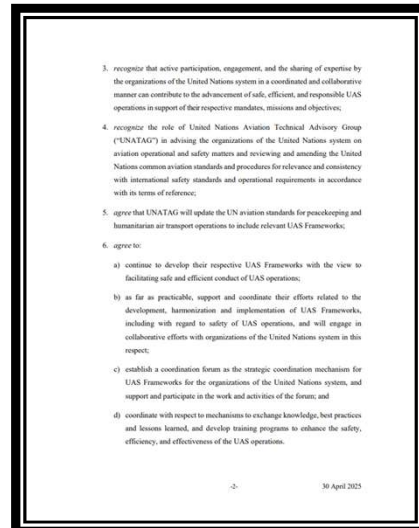
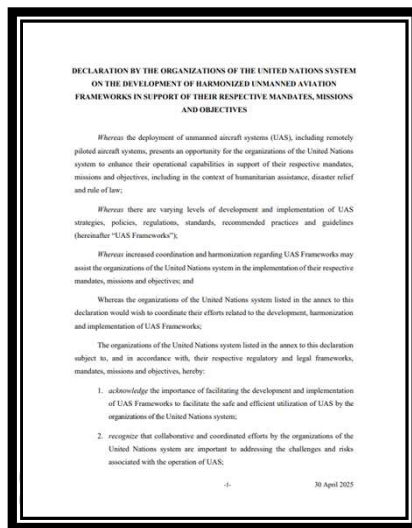
UN Unmanned Aviation Coordination FORUM

- UAS operations should be conducted **safely and efficiently** across the UN system,
- Adequate **strategies, policies, governance, and oversight** should be established in the UN System to facilitate UAS employment
- Frameworks (*inter alia*: **regulatory, standards, operational guidelines, etc.**) should be **harmonized**, as far as practical, to **facilitate UAS employment** across the UN System
- **Exchange of knowledge** should be established through the necessary mechanisms to **share best practices and lessons learned** through UN System entities,
- States should receive the appropriate support to **develop and implement unmanned aviation regulatory frameworks** to enable such UAS employment
- Comprehensive customized training programs for personnel should be implemented and shared among the partner entities
- Collaborative partnerships should be fostered and executed to promote the development and implementation of a harmonized Unmanned Aviation regulatory framework.



Global Initiatives

**DECLARATION BY THE ORGANIZATIONS OF THE UNITED NATIONS SYSTEM ON THE
DEVELOPMENT OF HARMONIZED UNMANNED AVIATION FRAMEWORKS IN SUPPORT OF THEIR
RESPECTIVE MANDATES, MISSIONS AND OBJECTIVES**



[Scan here](#)
[Access Declaration and](#)
[Videos](#)

Conclusion

29

“Preparedness enables speed, and speed saves lives.”



Thank You

