



World Food
Programme



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WFP Aviation Safety Unit UAS team

Hugo du Plessis

March 2023

Purpose of Presentation

1. Brief description of the WFP Aviation Safety Unit: UAS Safety Team
2. Picking up on the previous presentation point on the challenge of regulatory harmonisation
 - i. UAS regulation
 - ii. WFP ASU UAS regulatory framework
3. Quick overview of ASU UAS Team activities

Aviation Safety Unit: UAS Safety Team

The Aviation Safety Unit Team as it stands at the moment:

- Mario Sibrian - Chief: Aviation Safety Unit (CASU)
- **Hugo du Plessis - UAS Operations & Human Factors (Group Lead)**
- **Jo Gillespie - UAS Operations Implementation (Alternate Lead)**
- **Fabien Bonnassie - UAS Airworthiness & Technology**
- Yen Nguyen - UAS SMS Implementation
- Luca Zanutel - UAS Risk Management

** Bold indicates new developments and members for the core group members*

WFP Deputy Executive Director's Directive



World Food Programme
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Deputy Executive Director's Directive

Date: 21 June 2022

Directive No.: DED2022/002

Revises:

Implements: OED2017/006 dated 4 May 2017

Supersedes:

Directive on Operation of Unmanned Aircraft Systems within WFP

Introduction

1. The ED Circular OED2017/006, issued 4 May 2017, formalized the use of Unmanned Aircraft Systems (UAS)¹ within WFP with a view to assigning roles to stakeholder units for effective implementation.
2. The number and variety of UAS used by WFP has significantly increased without clear visibility on operation control, ownership, safety, airworthiness, and reporting.
3. Although UAS operators have to comply with the Rules and Regulations of their State Authorities, and through them with the International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs), differences in national regulations and practices might exist that could potentially generate different standards of UAS aviation safety, hence the requirements for this Directive are to establish the minimum standards for all UAS operations performed by, for, or on behalf of WFP. ICAO SARPs documents can be requested from the WFP Aviation Safety Unit (ASU) by contacting uas.safety@wfp.org.

WFP Deputy Executive Director's Directive



Appendix 7

Category	Type of Operation	MTOM	Operational Limits	Speed Limits	Operation Permits Minimum	Pre-flight Safety Assessment
A1	Data & Connectivity Operations by WFP UAS remote pilots over uninvolved persons but not over assemblies of people	< 250 g	. Max altitude 120 m above ground . No airdrop of any material . No carriage of dangerous goods . Visual line-of-site operation	Operated at ≤ 68 km/h	. Certificate of completion for UAS on-line courses selected by ASU	Performed by WFP UAS remote pilot
A2	Data & Connectivity Operations by WFP UAS remote pilots with reasonable expectation not to overfly uninvolved persons	< 900 g			. Certificate of completion for UAS on-line courses selected by ASU	
A3	Data & Connectivity Operations by WFP UAS remote pilots at a horizontal distance of at least 5 metres from uninvolved persons	< 4 kg			. Valid UAS license issued by CAA . Certificate of completion for UAS on-line courses selected by ASU	
B	Data & Connectivity Operations by WFP UAS remote pilots with separation from people and property through ASU pre-flight safety assessment	< 25 kg		Operated at any speed	. Valid UAS license issued by CAA . Certificate of completion for UAS on-line courses selected by ASU	Performed by WFP UAS remote pilot and assessed by ASU
C	All other UAS operations, as well as all cargo delivery UAS including spraying and airdropping, must be outsourced to external UAS operators	≥ 25 kg	Per operation	Operated at any speed	. UOC issued by CAA . Registration with WFP ASU	Performed by external UAS operator

Basic Aviation Risk Standard (BARS)



Basic Aviation Risk Standard Remotely Piloted Aircraft Systems

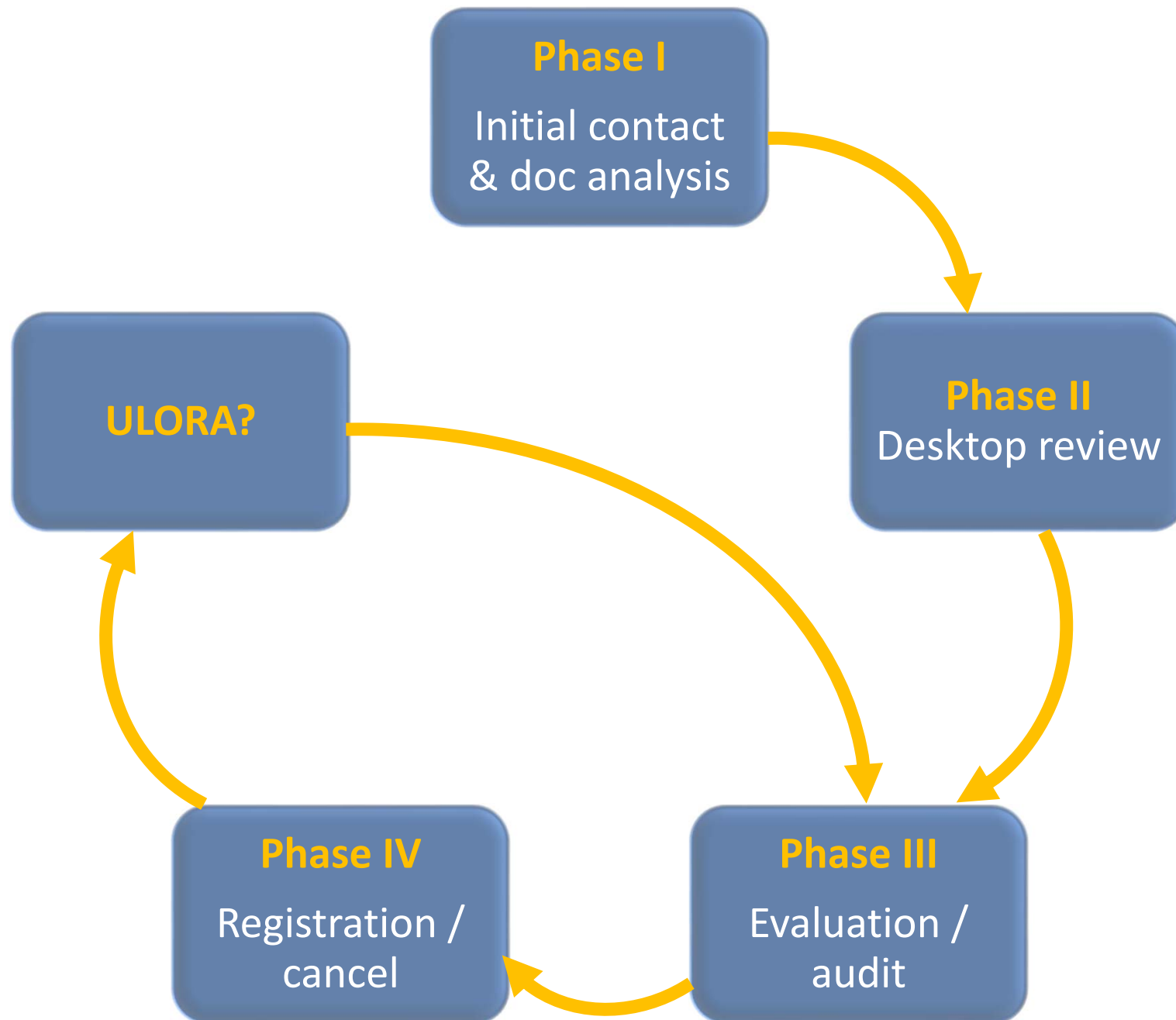


Version 3, October 2020

BARS Checklist

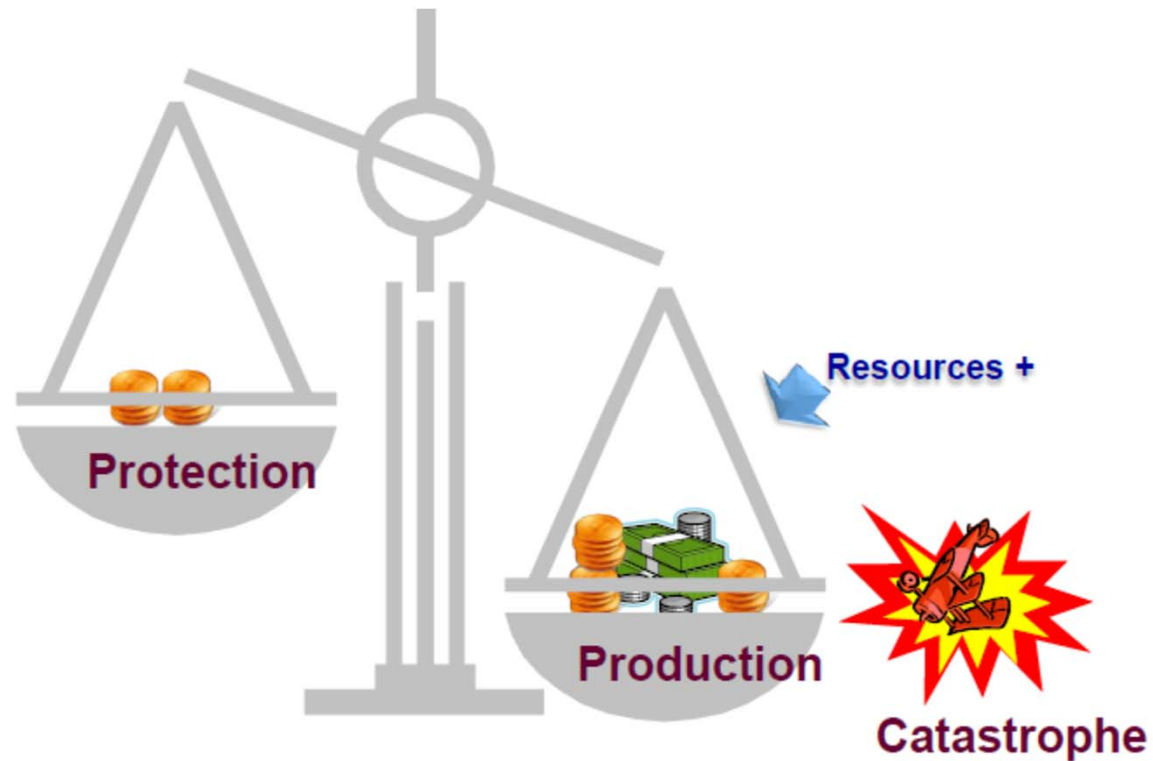
Seq	P	Ref	BARS RPAS Audit Question	Due Date (dd mmm yyyy)	Aircraft Operator Internal Document Reference	C	NC	N/A	Objective Evidence
1									
2	1	ORG 1	OPERATOR APPROVALS						
3	2	ORG 1.01	INSTRUMENTS OF REGULATORY APPROVAL						
4	3	P1 RORG 1.01.01	The RPAS Operator shall hold an approval issued by the responsible regulatory authority to operate the contracted RPA. If the RPA is to be operated outside of conventional airspace then the RPA Operator shall hold a form of approval acceptable to the BPO.						
5	4	ORG 1.02	OPERATING CERTIFICATE (ROC)						
6	5	P1 RORG 1.02.01	The RPAS Operator shall have a valid and approved Remote Operating Certificate (ROC) under the following situations: a) Very small and small RPA activities conducted under non-Standard Operating Conditions; b) All medium and heavy RPA activities;						
7	6	P2 RORG 1.02.02	The associated RPAS Operations Specifications (or equivalent) should indicate: a) The RPA types (classes or models) operated; b) The types of operations/specific approvals authorized.						
8	7	P2 RORG 1.02.03	If required by the regulatory authority, the RPAS Operator shall ensure applicable RPA are issued with a current certificate of airworthiness. Regardless of size and type, the RPAS Operator should have a system of airworthiness control in place that ensures the RPA can meet minimum safety performance standards.						
9	8	P3 RORG 1.02.04	If the RPAS Operator carries Dangerous Goods as cargo, it should hold approval from the responsible regulatory authority for the type and classes of DG carried.						
10	9	P1 RORG 1.02.05	If required by the regulatory authority, the RPAS Operator shall ensure applicable RPA are registered in accordance with the requirements of the authority.						
11	10	ORG 1.03	APPROVED MAINTENANCE ORGANIZATIONS						
12	11	P2 RORG 1.03.01	The RPAS Operator should have a documented System of Inspections and Maintenance in place for the RPAS that follows regulatory requirements, manufacturer's recommendations and sound engineering and maintenance						

Operator Registration Process



Production v.s. Protection

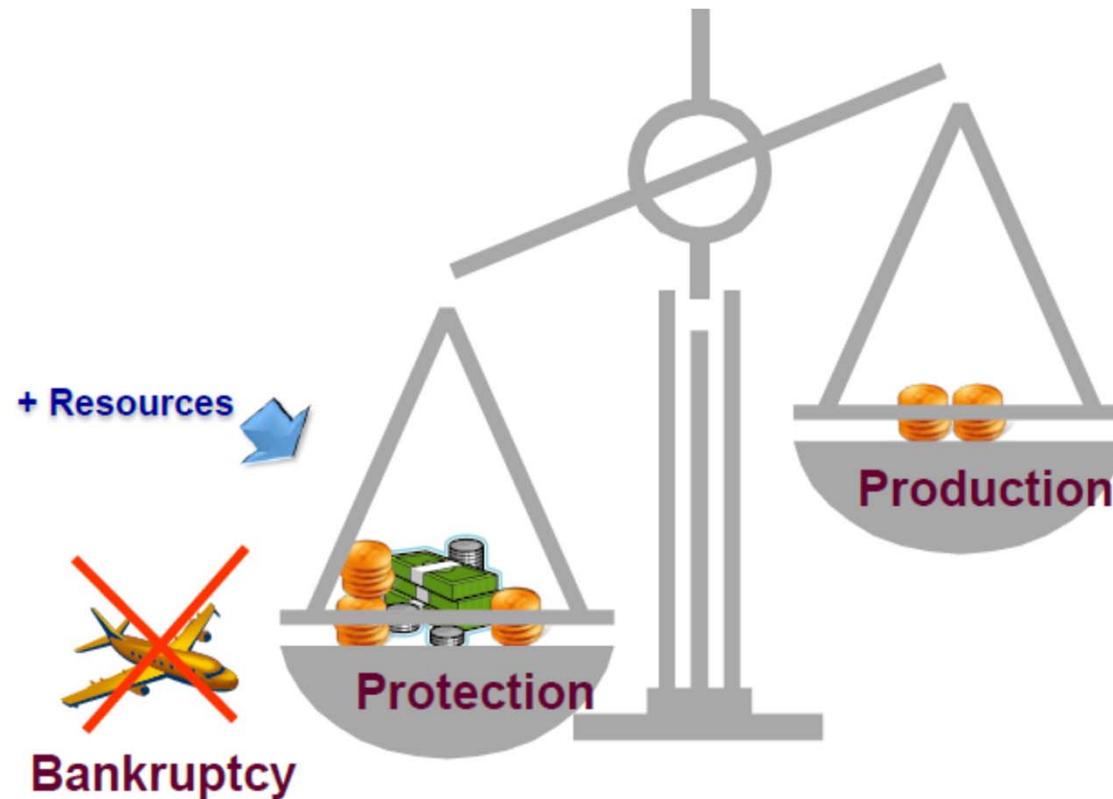
Source: ICAO Doc 9859 2nd edition



All production, no protection

Production v.s. Protection

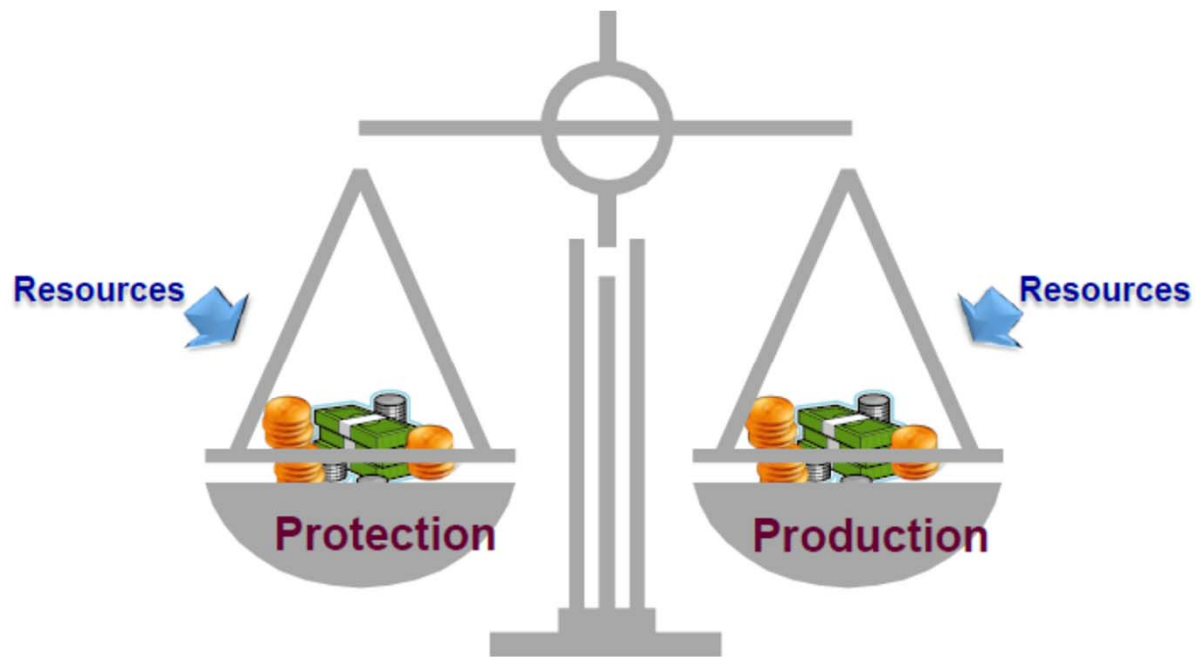
Source: ICAO Doc 9859 2nd edition



All protection, no production

Production v.s. Protection

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Ideal

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Australian Operator
UAS Q&A document
41st ICAO General Assembly
BARS for RPAS Version 4
ASU Basic Requirements
Lifesaving Shuttle Project
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NGOS

Collaboration with

- ☐ FSF
- ☐ ICAO
- ☐ FAA
- ☐ EASA
- ☐ FCDO
- ☐ UNDOS
- ☐ INGD
- ☐ BNGRC

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WFP Remote Pilot Registration

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**Artificial Intelligence
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UAS Q & A document

**Risk Management for UAS
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BARS for RPAS Version 4

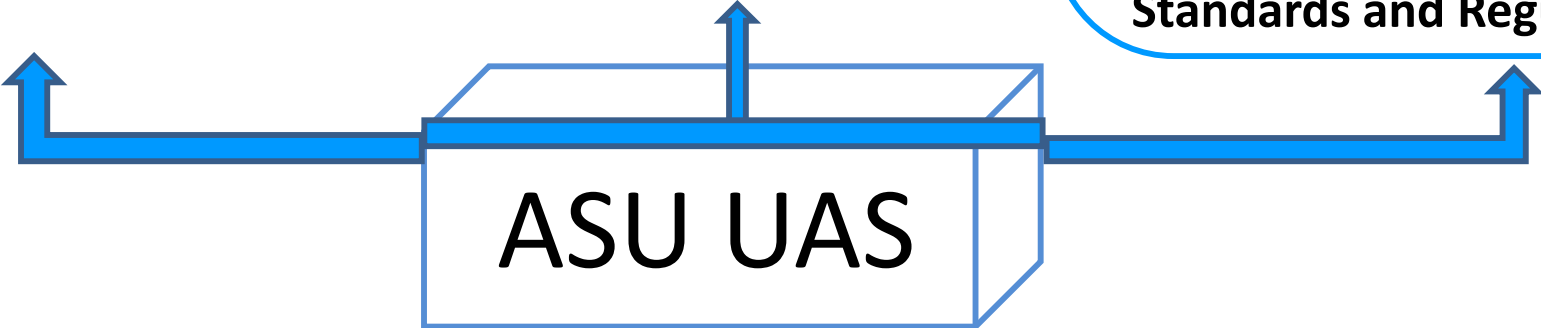
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5-Part Webinar series

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ASU UAS



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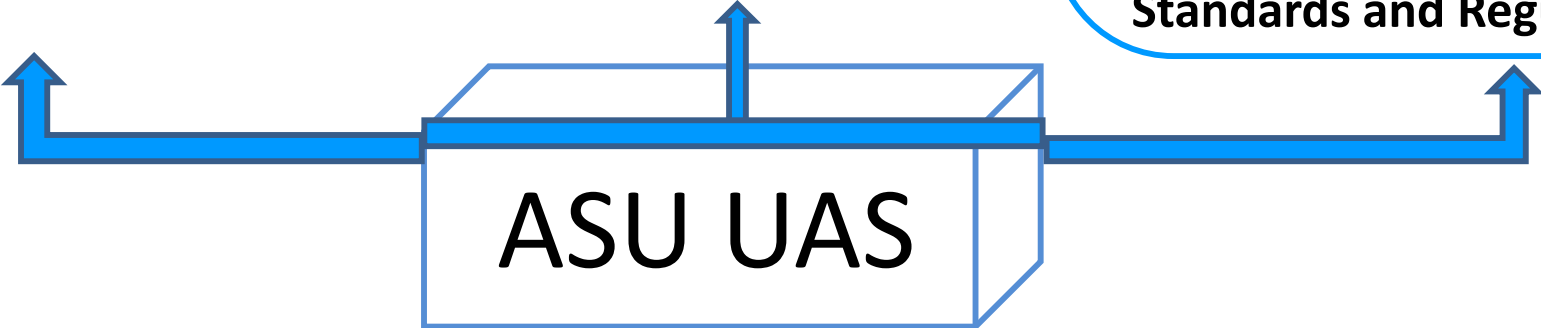
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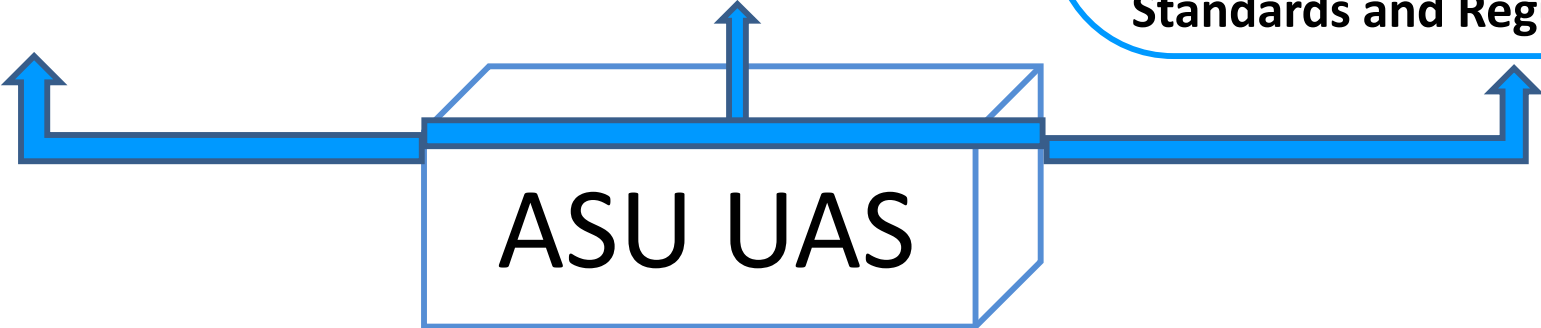
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Questions?