

## Step #10 Comprehensive Safety Portfolio

### Compliance matrix for safety requirements

Have all safety requirements been described and met?

 Yes       No

### Ground risk mitigations

Mitigation	Level of robustness				Remarks (e.g. EASA design verification)	Reference to documentation		
	Document name	Page number	Chapter number					
M1 Strategic mitigation for ground risk	<input type="checkbox"/> None	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
M1 Tethered operation <small>(fill in only if tethered operation)</small>	<input type="checkbox"/> None	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
M2 Effects of ground impact are reduced <small>(e.g. parachute)</small>	<input type="checkbox"/> None	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
M3 An emergency response plan (ERP) is in place, the UAS operator is validated and effective	<input type="checkbox"/> None	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				

### Strategic air risk mitigations

Mitigation	ARC reduction		Remarks (e.g. EASA design verification)	Reference to documentation		
	Document name	Page number		Chapter number		
Air Risk Class mitigation	<input type="checkbox"/> ARC-d (AEC 1 or 2) <input type="checkbox"/> ARC-c <input type="checkbox"/> ARC-d (AEC 1 or 2) <input type="checkbox"/> ARC-b <input type="checkbox"/> ARC-d (AEC 3) <input type="checkbox"/> ARC-c <input type="checkbox"/> ARC-d (AEC 3) <input type="checkbox"/> ARC-b <input type="checkbox"/> ARC-c (AEC 4) <input type="checkbox"/> ARC-b <input type="checkbox"/> ARC-c (AEC 5) <input type="checkbox"/> ARC-b <input type="checkbox"/> ARC-c (AEC 6,7,8) <input type="checkbox"/> ARC-b <input type="checkbox"/> ARC-c (AEC 9) <input type="checkbox"/> ARC-b					

### Tactical Mitigations Performance Requirements

	TMPR	Remarks (e.g. EASA design verification)	Reference to documentation		
TMPR-level	<input type="checkbox"/> VLOS <input type="checkbox"/> BVLOS <input type="checkbox"/> No requirement (ARC-a) <input type="checkbox"/> Low requirement (ARC-b) <input type="checkbox"/> Medium requirement (ARC-c) <input type="checkbox"/> High requirement (ARC-d)		Document name	Page number	Chapter number
TMPR-function	Detect				
	Decide				
	Command				
	Execute				
	Feedback loop				
TMPR-robustness	TMPR integrity and assurance objectives				

### Adjacent area/airspace considerations

	Level of containment	Remarks (e.g. EASA design verification)	Reference to documentation		
Safety requirement	<input type="checkbox"/> Basic containment   <input type="checkbox"/> Enhanced containment		Document name	Page number	Chapter number

### Operational Safety Objectives

	Level of containment				Remarks (e.g. EASA design verification)	Reference to documentation		
	Document name	Page number	Chapter number					
OSO #01 Ensure that the UAS operator is competent and/or proven	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #02 UAS manufactured by competent and/or proven entity	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #03 UAS maintained by competent and/or proven entity		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #04 UAS developed to authority recognised design standards	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #05 UAS is designed considering system safety and reliability	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #06 C3 link characteristics are appropriate for the operation	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #07 Inspection of the UAS (product inspection) to ensure consistency with the Co-nOps		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #08 Operational procedures are defined, validated and adhered to		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #09 Remote crew trained and current and able to control the abnormal situation		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				

	Level of containment				Remarks (e.g. EASA design verification)	Reference to documentation		
	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High			Document name	Page number	Chapter number
OSO #10 Safe recovery from a technical issue	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #11 Procedures are in-place to handle the deterioration of external systems supporting UAS operations	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #12 The UAS is designed to manage the de-terioration of external systems support-ing UAS operations	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #13 External services supporting UAS opera-tions are adequate for the operation	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #14 Operational procedures are defined, validated and adhered to	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #15 Remote crew trained and current and able to control the abnormal situation	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #16 Multi-crew coordination	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #17 Remote crew is fit to operate	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High					
OSO #18 Automatic protection of the flight enve-lope from human error	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #19 Safe recovery from human error	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				

	Level of containment				Remarks (e.g. EASA design verification)	Reference to documentation		
	Document name	Page number	Chapter number					
OSO #20 A human factors evaluation has been performed and the human machine interface (HMI) found appropriate for the mission	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #21 Operational procedures are defined, validated and adhered to		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #22 The remote crew is trained to identify critical environmental conditions and to avoid them		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #23 Environmental conditions for safe operations are defined, measurable and adhered to		<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				
OSO #24 UAS is designed and qualified for ad-verse environmental conditions	<input type="checkbox"/> Optional	<input type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High				

### Signature

Date	Place
Printed name	
Signature	