

Template No.  
CEMILAC\_ACGP\_ACP\_02

# **Airworthiness Certification Plan (ACP) for Integration of Store / System on Aircraft**

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## PART A: Generic Requirement

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	8.8.	Proposed Validation Flight Trials	

## PART-B AIRCRAFT INTEGRATION

### Activities & Documents Linked to Aircraft Integration

SI No.	Major Activity		Compliance Status	Remarks
1.	Scanning, Model Generation, Geometric & Aerodynamic Validation of Aircraft Model			
	Feasibility Study	(Mechanical & Electrical/Avionics/Software)		
2.	Proposed Aircraft Modification / Role Equipment Modification			
3.	Experimental / Developmental Drawings (Mechanical & Electrical/Avionics etc)			
4.	Documents Technical Specification of Store (if any)/ Pylon			
	4.1. Technical Specification of Store			
	4.2. Technical Specification of Pylon			
5.	Preliminary Design Document			
6.	Failure, Modes, Effects & Criticality Analysis / Fault tree Analysis			
7.	System Safety Analysis (SSA)			
8.	Weight & Balance Analysis			
9.	Aerodynamic Loads Analysis			
11.	Inertial Loads Analysis (MIL-STD-8591)			
12.	Stability & Control Analysis			
13.	Jettison Analysis			
14.	Safety of Flight Test Plan (SOFTP) / Limited Qualification Test Plan (LQTP)			
15.	LQT Plan			
	a.	Static Load Test		
	b.	Random Vibration		

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	c.	Shock Test		
	d.	Pit Drop Test		
	e.	GVT Test Plan		
17.		GVT Based Flutter Analysis		
18.		Qualification Test Plan (QTP)		
19.		Electrical loads Analysis		
20.		Integration Design Review (IDR)		
		Safe Separation Analysis Report with results of Pit Drop Tests and Jettison Analysis		
22.		Aircraft Integration Drawings		
23.		Instrumentation and Photogrammetry Scheme		
24.		Flight Readiness Review Board (FRRB)		
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27.		Flight Safety Review Board (FSRB)		
28.		Live Release FCC		
29.		Post Flight Analysis Repot after Live Release followed with PFA meeting		
30.		Project Timelines		
31.		Conclusion		

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## 1. References (Documents referred for certification)

SI No	Document	Description
1	MIL-STD-8591 dtd 12 Dec 2005	Department of Defense Design Criteria Standard “Airborne Stores, Suspension Equipment And Aircraft-Store Interface (Carriage Phase)”
2	MIL-T-7743 dtd 30 Apr 1993	“Testing Store Suspension and Release Equipment, General Specification For”
3	MIL-STD-810 Dtd 01 Jan 2000	Department Of Defense Test Method Standard “Environmental Engineering Considerations and Laboratory Tests For”
4	MIL-A-8870 (AS) dated 25.03.1993	Airplane Strength and Rigidity, Vibration, Flutter and Divergence.
5	IMAP-23	Indian Military Airworthiness Procedures 2023
6	MIL-STD-461	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment
7	MIL-STD-704	Aircraft Electronic Power Characteristics
8	MIL-STD-1289	
9	MIL-STD-1760	
10	MIL-HDBK-1763	
11	DO-178C	

## 2. List of Abbreviations

Abbreviation	Description

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