

**Ministry of Defence**  
**Department of Defence**  
**[Acquisition Wing Secretariat]**

**Subject: Implementation Framework for Use of Certification in Trials**

1. Reference Paragraphs 44, 45(b) & 75 of Chapter 2 of DAP 2020.
2. The DAP 2020 lays down need for a clear and objective assessment of the extent of trial evaluations including parameters where vendor certification, certification from accredited laboratories (labs) and certification agencies and trials by simulation are accepted. The attributes or parameters, for which Certificate of Conformance (CoC) alongwith test standards and test results from accredited laboratories and certification agencies are acceptable, needs to be clearly spelt out. The DAP 2020 also lays down that, as far as possible, physical evaluation and environmental tests will only be carried out for critical parameters and other parameters will be evaluated based on vendor certification duly supported by accredited laboratories and certification agencies. **This is to avoid duplication of effort to make the FET process time bound.**
3. In the spirit of the provisions of DAP 2020, an implementation framework for use of certification in trial evaluation process of defence equipment is being issued. A group of tests has been identified for acceptance of Certification in Field Evaluation Trials.
4. **Certificate of Conformance (CoC) in Design & Development Projects.** Any parameter evaluated at any stage with user satisfaction should not be repeated. Such trials should be in presence of designated representatives. The provision of Certificate of Conformance (CoC) as provided in DAP 2020 needs to be leveraged.
5. **Order of Precedence of Certification.** Certification can be obtained by vendors after evaluation of the system from a recognized lab/ any other authorized agency. It must be ensured that all certificates are supported by test results attached with them and may be accepted in the following order of precedence:-
  - (a) International/ NABL accredited lab certification and certification agencies.
  - (b) OEM Certification.
  - (c) Vendor Certification.

## **Parameters and Implementation of Certification Based Evaluation**

6. **List of Parameters.** A recommended list of parameters for acceptance by Certification based on analysis of procurement cases is attached as Appendix A. These parameters can be suitably aligned/ interpreted for trials which have not been specifically mentioned in the implementation guidelines.

7. **Other Parameters.** Parameters for evaluation by certification for equipment and weapon systems not covered above need to be evolved by SHQ/ Industry/Acquisition Wing on similar lines based on nature of equipment/ sub systems under trial. Parameters which cannot be verified at the time of trials due to any reason may be accepted based on certification and provision for such parameters may be included in the RFP. **The certifications parameters adopted will further ensure that testing and trial regimes provide level playing field for indigenous industry.**

8. **Implementation.** These guidelines need to be implemented in the following manner:-

(a) RFI needs to be suitably aligned for obtaining requisite inputs from industry and stakeholders to arrive at parameters for certification.

(b) Parameters for evaluation by certification should be spelt out in Trial Methodology as part of RFP and further amplified in Trial Directive. Test Agency may also nominate labs authorized to carry out particular tests in the trial directive as part of RFP.

(c) Trial Team may be authorized to accept or reject the certification documents based on scrutiny by User, **DGQA/DGNAI/ DGAQA** or technical representatives of Trial Team.

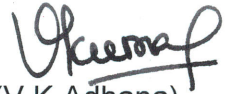
9. **Miscellaneous Issues**

(a) The list of parameters identified for evaluation by certification is not exhaustive and would be decided on case to case basis by SHQ, keeping in mind the integrity of the trial process, technical complexity of equipment, facilities existing for providing certification and the overriding requirement of completing the trials in a time bound manner as enunciated in the DAP 2020.

(b) In order to ensure integrity of trial procedure based on vendor or laboratory based certification, it is imperative that certifications are credible & reliable. Hence, all certifications need to be backed by reliable data to substantiate veracity. In case the Vendor Certification is found to be false, the vendor could be penalized through forfeiture of BGs, financial penalties and/ or blacklisting or suspension and such provisions may be accordingly incorporated in the RFPs.

10. The above mentioned Implementation Framework will be incorporated by SHQs, DGQA/DGAQA/DGNAI and other agencies into the FET methodology.

11. This issues with approval of Raksha Mantri.



(V K Adhana)

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**Appendix A**  
(Refers to Para 6 of  
Implementation Framework for  
Use of Certification in Trials)

### TESTS IDENTIFIED FOR CERTIFICATION

<u>S No</u>	<u>Parameters</u>	<u>Sub Parameters</u>
<b><u>Quantifiable</u></b>		
1.	Physical Attributes	<ul style="list-style-type: none"> <li>• Ground Clearance</li> <li>• Caliber</li> <li>• Barrel Length</li> <li>• Combat weight</li> <li>• Height &amp; similar parameters</li> </ul>
2.	Strategic Mobility	<ul style="list-style-type: none"> <li>• Railways</li> <li>• Air</li> <li>• Naval Ship</li> </ul>
3.	Tactical Transportability	<ul style="list-style-type: none"> <li>• Man Pack</li> <li>• All Vehicles</li> <li>• Para Dropped</li> </ul>
<b><u>Non Mission Critical Parameters</u></b>		
4.	Maintenance & Reliability	<ul style="list-style-type: none"> <li>• MTBF / MTTR</li> <li>• Maintainability Aspects</li> <li>• Modular design and construction</li> <li>• Durability (no major OH for xx yrs)</li> <li>• <b>MIL HDBK for airborne platforms</b></li> </ul>
5.	Environmental & Climatic Conditions	<ul style="list-style-type: none"> <li>• Requirement of System</li> <li>• Operation in terrain / weather conditions</li> <li>• Equipment operation under JSS-55555</li> <li>• Operational Temperature range</li> <li>• <b>MIL STD 461 for airborne platforms</b></li> </ul>
6.	Camouflage	<ul style="list-style-type: none"> <li>• Surface Colour</li> <li>• Shape</li> </ul>
7.	Packaging Standards	As per specified parameters
<b><u>COTS Equipment/Technologies</u></b>		
8.	Emission Norms	As per CMVR norms prevalent at the time of trials
9.	Braking System	<ul style="list-style-type: none"> <li>• Anti lock braking system (ABS)</li> <li>• Parking brakes</li> </ul>
10.	Gradeability & Side Slope Capability	<ul style="list-style-type: none"> <li>• Specified gradient and Cant angle</li> <li>• Angle of approach and departure</li> </ul>

<u>Ser No</u>	<u>Parameters</u>	<u>Sub Parameters</u>
<b><u>Std Protocols in Electronic/Communication Equipment</u></b>		
11.	Operation Range	A/B Vehicle Endurance
12.	EMI / EMC Compatibility	<ul style="list-style-type: none"> <li>• As per JSG-0261 &amp; Mil Std 464C</li> <li>• Military grade equipment</li> <li>• Cots Equipment</li> <li>• Electrical / Electronic systems</li> <li>• Sub system assemblies &amp; Sub-assemblies</li> </ul>
13.	Communication	<ul style="list-style-type: none"> <li>• Modes of operations</li> <li>• Redundancy of communication equipment</li> <li>• Data/Fax/ Modem Characteristics</li> <li>• Standard Protocols</li> <li>• Traffic policing &amp; traffic shaping</li> <li>• Prioritization and congestion management</li> <li>• Safety Features</li> </ul>
14.	Power Supply	<ul style="list-style-type: none"> <li>• Maintainable / Inaudible</li> <li>• Use mains as power source</li> </ul>
<b><u>Lack of Labs/Facilities with Testing Agencies</u></b>		
15.	Shelf Life	<ul style="list-style-type: none"> <li>• As per specified conditions of manufacturer</li> <li>• Explosives / Missiles / Ammunition</li> </ul>
16.	NBC Protection	As per in-service equipment
17.	Firing Related Parameters	Type of mechanism electric / mechanical
18.	Non Verifiable Parameters	That can't be verified during FET and certification as per trial directive
19.	<b>Air Bone Stores</b>	<b>DGAQA certification</b>
20.	<b>Airworthiness Certification</b>	<b>Certification based on FAR 23/EASA or certification by respective National Airworthiness Certification Agency</b>
<b><u>In Service Equipment / Equipment Related</u></b>		
21.	In service Equipment	Ordinance capable to fire in-service ammunition
22.	Target Seeker	Active / Passive
23.	Sight System	Day / Night
24.	Engine Configuration	GT, Petrol, Diesel, Multi-Fuel