



TECHNOLOGY DEVELOPMENT FUND (TDF) SCHEME



TITLE: INDIGENOUSLY DESIGNED SMART MULTIFUNCTIONAL DISPLAY FOR FIGHTER AIRCRAFT

1. Objective:

To design and develop an indigenously produced smart multifunctional display (MFD) for fighter aircraft. The MFD will enhance pilot situational awareness, streamline data visualization, and ensure seamless integration with the aircraft's existing avionics.

2. Background:

The fighter aircraft rely on outdated display systems, which limit the pilot's ability to access critical mission data effectively. The introduction of a modern, indigenously designed smart multifunctional display will address operational challenges, reduce dependency on imported systems, and extend the operational life of these aircraft.

3. Problem Statement:

The current cockpit display systems lack modern features, are prone to obsolescence, and do not support the demands of contemporary combat and reconnaissance missions. An advanced, multifunctional display is required to provide a comprehensive, integrated view of flight and mission-critical parameters while ensuring compatibility with legacy systems.

4. Proposed Solution:

1. **Advanced Display Technology:** Develop a high-resolution, smart MFD with touch and non-touch capabilities, compatible with both DARIN I and II configurations.
2. **Data Integration:** Ensure seamless integration of flight, navigation, weapon, and sensor data for streamlined visualization.
3. **Indigenous Development:** Prioritize local design, manufacturing, and assembly to reduce costs and reliance on foreign suppliers.
4. **Modular Architecture:** Design the system to allow for future upgrades and compatibility with evolving mission requirements.

5. Expected Outcome:

1. Enhanced pilot situational awareness and operational efficiency.
2. Reduced maintenance costs and logistics dependencies through indigenous production.
3. Extended operational life and mission effectiveness of Jaguar DARIN I and II aircraft.

6. Key Deliverables:

1. Prototype of the smart multifunctional display tailored to Jaguar aircraft.
2. Validation and testing reports demonstrating compatibility and performance under operational conditions.
3. Training modules and operational manuals for pilots and maintenance teams.
4. Scalable production framework for full fleet deployment.

7. Strategic Relevance:

This project is critical for modernizing the avionics of Jaguar aircraft, ensuring continued operational relevance in evolving combat scenarios. It aligns with the national vision of self-reliance in defense technology, supports cost efficiency, and contributes to the indigenization of critical aviation systems.

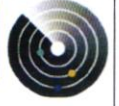
8. Future Expectation:

The smart multifunctional display will significantly enhance pilot situational awareness, streamline mission-critical data, and extend the operational life of Jaguar DARIN I & II aircraft. It will reduce dependence on foreign imports, ensuring cost efficiency and self-reliance in avionics systems. The modular design will enable future upgrades, making the system adaptable to evolving mission needs. Additionally, it opens pathways for indigenously developed avionics systems to be used in other aircraft and defense platforms.

--End of Document--



TECHNOLOGY DEVELOPMENT FUND (TDF) SCHEME



FEASIBILITY CUM RFI RESPONSE FOR THE PROJECT REQUIREMENT UNDER TDF SCHEME (PROFORMA)

1. **Name of the Institute** (Industry/Academia):
2. **Contact details:**
 - a. Email
 - b. PoC
 - c. Address
3. **Title of the project requirement:**
4. **Project Description** (Define broad understanding of the project requirement and proposed solution under the project).
5. **Briefly detail the proposed technical solution in terms of subsystem/submodule levels.**
6. **Road map for achieving the proposed outcome (Development Plan Phase wise -Max 5 phases).**
7. **Development and production Estimates:**
 - i. Estimated time required for development of the proposed technology /product (In Months).
 - ii. Estimated cost required for the for development of the proposed technology /product (BQs of submodules/subsystems if any pls attach).
 - iii. Estimated production cost of the end product after successful development (per unit or batch cost).
 - iv. Whether the industry has already done any Suo moto design and development of the proposed product/technology at Technology Readiness Level – Yes/No
 - v. Details of Suo moto design and development done if marked Yes in previous question (within 250 words).
 - vi. Essential infrastructure required for development of the proposed product/technology for which funding is required.
8. **Technical strength in terms of manpower.**
9. **Relevant Work Experience.**
10. **Any other relevant information**

Queries if any and the reply in PDF FORMAT to be submitted online addressing to;

TO,

THE DIRECTOR TDF, DRDO

DRDO BHAWAN, RAJAJI MARG, NEW DELHI 110011

Email to, arjunk.hqr@gov.in, CC to dir.tdf-drdo@gov.in.