

**BRIEF FOR PRE EXPLORATORY SCAN FOR DESIGN AND DEVELOPMENT OF
LIGHTER THAN AIR PLATFORM WITH HYDROGEN BASED PROPULSION**

1. **Name of the Proposal.** *Design and Development of Lighter than Air Platform with Hydrogen based Propulsion.*
2. **User Dte.** *Dte of Ops (Remote).*
3. **Operational Necessity.** *The surveillance mission currently depends on the availability and endurance of ISR platform. There is a need for a capability to be developed that can provide persistent ISR with multiple types of payloads like communication, data transfer, ISR and surveillance radar payloads in the areas of interest. The platform should also be capable of supporting other types of payloads also. IAF is looking for a Hydrogen propulsion based airship capable of operating from minimum 10,000 feet and ideally above 30000 feet and should be able to lift payload weight of minimum 2000 kg desirable upto 5000 kg. The airship should work with Hydrogen gas as both lifting gas and for propulsion / energy generation. The platform should be able to provide an endurance of minimum 10 days with such payloads and be able to attain TAS greater than 100 Kts at 30,000 feet to move as well as to overcome jet stream. Detail specifications will be shared with prospective Development Agencies.*
4. **Following is sought from Indian Industry as part of Pre Exploratory Scan.**
 - (a) *Industry Capability to undertake D&D of proposed system.*
 - (b) *Broad Technical Specifications of proposed system.*
 - (c) *Tentative D&D Cost.*
 - (d) *Tentative Production Cost.*
 - (e) *Broad Timelines for D&D of proposed system.*
 - (f) *Technologies involved.*
 - (g) *Comparison of technologies owned by Foreign Companies vis-a-vis Indian companies.*
 - (h) *Prospective vendors.*
 - (i) *Proposed Make category as per Chap-III of DAP-2020 along with justification.*
5. **Any other relevant information.** *Any additional information, if required.*
6. **Contact Details.**

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