REQUEST FOR INFORMATION (RFI)
FOR PROCUREMENT OF AUTOMATIC WEATHER STATION (AWS)

1. The Ministry of Defence, Government of India intends to procure Automatic Weather Station (AWS) along with its associated equipment.

2. The Request for Information (RFI) consists of two parts as indicated below:

   (a) **Part I.** The first part of the RFI incorporates operational characteristics and features that should be met by the equipment. A few important technical parameters of the proposed equipment are also mentioned.

   (b) **Part II.** The second part of the RFI states the methodology of seeking response of vendors. Submission of incomplete response format will render the vendor liable for rejection.

**Part I**

3. **The Intended Use of Equipment.** IAF is intending to procure Automatic Weather Station (AWS) and associated equipment for its Meteorological Sections in order to measure, process, store, present and communicate meteorological data measurements produced by variety of meteorological sensors. This data includes atmospheric pressure, wind direction, wind speed, air temperature, humidity etc; which are of paramount importance for safe flying and Aerospace safety.

4. **Important Technical Parameters and Additional Inputs.** The equipment should meet the minimum requirement at Annexure I. The vendor is to provide para-wise compliance for aspects along with specific comments on non-compliance (if any). The vendor is to provide following additional inputs:

   (a) **Cost Estimate.** The vendor is requested to provide approximate cost estimate for Qty-77 AWS systems. The estimated cost should make consideration for all aspects of supply, installation, integration, warranty, training and life cycle support. The indicative cost should also cater to Comprehensive Annual Maintenance Contract (CAMC). The suggested methodology for AMC should be indicated. Other aspects (if any), may be mentioned specifically. Vendors are requested to provide details that go into determining the cost of the scheme, including factors such as product support package etc.

   (b) **Category of Procurement.** The procurement is planned under any of the five procurement categories as per DPP 2016. The vendors are requested to intimate their capability to offer the product under any one of these categories. They are also requested to clearly state their ability (if any) to indigenously design and develop the required equipment and associated hardware.
(c) Vendors shall mention key technologies and materials required for manufacturing of the Equipment and the extent of their availability or accessibility in case they are not available in India.

(d) Vendors shall mention availability of the Equipment in the Indian market level of indigenization, delivery capability, maintenance support, life-time support etc.

(e) Vendors are to indicate whether they have supplied the same or similar equipment to any other customer. Additionally, vendors are to indicate whether similar equipment is in use in any other Air Forces/Metrological department.

(f) Vendors are to indicate the manpower required to operate and maintain Equipment. Details of training required for such personnel (including time period for operators and maintainers) are also to be indicated.

(g) Vendors may consider RFI as advance information to obtain requisite Government clearances. Formal procurement procedure in accordance with DPP 16 is likely to be commenced in early 2020.

(h) Vendors may offer suggestions for alternatives to meet the same objective as mentioned in this RFI.

(i) **Tentative Delivery Schedule.** The overall time frame of production, delivery with stage wise breakup of the entire project post conclusion of contract is required to be submitted. It is envisaged to commence installation of equipment within 06 months of signing of Contract.

(k) Vendors are to indicate willingness for Option Clause in accordance with DPP 2016 and indicate the duration for which the Option Clause would be valid

(l) **Payment Terms.** Vendors are to indicate acceptability to the terms of payment as per Defence Procurement Procedure-2016.

(m) Technical support for maintenance of the equipment during its service life, including warranty should be specified. Technical documents of the equipment including test equipment and maintenance manuals are to be provided by the vendor. The service life of the facility should be at least 10 years.

(n) Modalities for maintainability including spares, post warranty period. Test equipment required by IAF for having ability to maintain it in its life. Cost of Comprehensive AMC if former model is cost prohibitive.

(p) Vendors are to indicate the provision for upgradeability of equipment to avoid system obsolesces.

(q) Vendors are to indicate restrictions related to export in its country and how long will it take to get clearance.

(r) Earliest date, by which Vendors / Original Equipment Manufacturers (OEM) are willing to give a presentation at Air Headquarters, New Delhi is to be intimated in response to this RFI.
5. **Procedure for Response.**

(a) Vendors must fill the form of response as given in Annexure II. Apart from filling details about company, details about the exact product meeting the generic technical specifications should also be carefully filled. Additional literature on the product may be attached. Vendors are to provide para-wise compliance in a tabular format to this RFI, along with reasons for non-compliance, if any to all aspects of this RFI.

(b) The filled form should be dispatched at under mentioned address:-

**Air Commodore C^4ISR**  
**Room No 421**  
**Air HQ (Vayu Bhawan)**  
**Rafi Marg, New Delhi-110106**  
**Tele: 011-23010231-5824/7421**  
**Fax: 011-23014514**  
**General418@nic.in**

(c) Last date of acceptance of filled form is **four weeks** from the date of hosting of RFI on e-procurement website of GoI/IAF. The vendors short listed for issue of RFP would be intimated at appropriate stage. A presentation on the subject may also be sought in case it is felt that certain parameters mentioned in replies to this RFI need further clarification.

6. The Government of India invites responses to this request only from OEMs/Authorised Vendors/Government Sponsored Export Agencies (applicable in case of countries where domestic laws do not permit direct export by OEMs)/Vendors with experience of production and installation of AWS. The end user of the equipment is the IAF.

7. This information is being issued with no financial commitment and the Ministry of Defence reserve the right to change or vary any part thereof at any stage. The GOI also reserves the right to withdraw it should it be so necessary at any stage. The acquisition process would be carried out as per DPP 2016 or any revision thereof.
## ANNEXURE-I
(Refers to Para 4 of RFI)

**BROAD OPERATIONAL REQUIREMENTS AND TECHNICAL PARAMETERS FOR AUTOMATIC WEATHER STATION (AWS) SYSTEM**

<table>
<thead>
<tr>
<th>SI No.</th>
<th>Technical Parameters Envisaged</th>
<th>Description</th>
<th>Vendor to Specify the Following Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Physical Parameters</td>
<td>AWS System</td>
<td>(a) Specify the material, height, weight, dimensions, etc., pertaining to the Meteorological mast.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(b) Specify the material, length, thickness etc., of the guy ropes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(c) Specify the suitability of Mast for camouflaged colour code.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(d) Specify the material, weight, dimensions, etc., pertaining to Solar Panel, Wind Direction Sensor, Wind Speed Sensor, Radiation Shield and Data logger Box.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(e) Specify the material, weight, dimension etc., of Lightning Protection System.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(f) Specify the material, weight, dimension etc., of Battery Box.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(g) Provide information about the types of tools to be provided along with the equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(h) Specify and provide information about the types of test equipment along with the equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(i) Specify and provide information about the environmental condition requirement to house various sensors &amp; field equipment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(k) Provide any other info iro Physical Parameter available in AWS system.</td>
</tr>
<tr>
<td>2. Operational Parameters</td>
<td>(a) Characteristics and Capability of AWS system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i) Specify the number of sensors that are available with the system, describe them and mention the possible future upgrades.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ii) Specify the range, accuracy, resolution and operating temperature of pressure, temperature, relative humidity, wind speed and direction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(iii) Specify the Data Processing capabilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(iv) Specify the functions i.e. Current Data Display, Synoptic Data Display, ATC Display, MET Display.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(v) Specify the capabilities of AWS i.e. quality checking of SYNOP, METAR / SPECI etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(vi) Specify capabilities of generation of graphical display of Met data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(vii) Specify the capabilities of data archival.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(viii) Specify the capabilities to display Diversion Weather.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ix) Specify the functioning of Data Logger and Radio Communication Equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(xi) Specify the architecture allowing expanding from single Aviation Weather Display with basic set of sensors to comprehensive systems for multi-runway including, multiple Observer's Workstations, display consoles and terminals.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(xii) Specify the options of Integrating Clouds, Visibility (Horizontal & Vertical) and Significant weather detection (such as Drizzle, Rain, Shower, Snow, Sleet, Haze, Smoke Haze, Dust Haze, , Fog, Thunderstorm and Dust Strom) equipment to AWS.

(xiii) Provide calibration certification of sensors through national agency i.e IMD, NPL, PRL, etc.

(xiv) Specify the software capabilities conformity to meet METAR & SYNOP generation criteria as per WMO & IMD guidelines.

(xv) Specify the software conformity for generation and display of wind speed data in 02 & 10 minutes average and display the value in Kt, Kmph & m/sec.

(xvi) Specify the software conformity for generation and display of cross wind speed data in Kt, Kmph & m/sec.

(xvii) Specify the software conformity for generation and display of QFE, QNH & QFF data in mm, hPa & inches.

(xviii) Specify the software conformity for generation and display of cloud base data in Feet & Meters.

(xix) Provide information about capabilities for multiple user friendly display, with facility to customise as per user requirement.

(xx) Specify and provide information about future upgrades to higher version of software / hardware and its compatibility issue if any with the existing system.

(xxi) Provide any other info iro sensors
<table>
<thead>
<tr>
<th>aspect</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>available in AWS.</td>
<td>(xxii) provide the calibration certificate for model Nos of sensors and data logger.</td>
</tr>
</tbody>
</table>
|Communication systems| (i) Specify and describe the communication systems that are available with the AWS system and the possible future upgrades.  
(ii) Provide information about the Ethernet LAN interface for online distribution of data on Air Force WAN / LAN.  
(iii) Specify the Radio Frequency Utilisation of the AWS system for two way communications with field and Main system.|
|Power supply equipment| Specify and describe the Power supply equipment that is available with the AWS system and the possible future upgrades.|
|Processing computer systems| Specify and describe the software required (including Operating System) for processing and display of data.|
|Maintenance| (a) Provide info on capabilities that facilitate quick recovery to operational readiness after a repair/maintenance activity.  
(b) Specify the maintenance philosophy followed in your system.  
(c) Specify Mean Time to Repair (MTTR).  
(d) Specify the reliability and MTBF for the offered equipment.  
(e) Provide information about Warranty / AMC for AWS system and associated system.|
<p>|Methodology of Providing Maintenance Services| |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(f) Provide info on provisioning of additional digital sensors, spares and toolkit at field unit which requires frequent replacement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Delivery time frame</td>
<td>Vendor to specify and provide information about expected delivery time frame of AWS system from the effective date of contract.</td>
</tr>
<tr>
<td>5</td>
<td>Documentation</td>
<td>Vendor to specify and provide information about details of documentation that will be provided with regard to system configuration, technical description, operation, installation guide, user hand book &amp; operator manual, technical maintenance manuals and troubleshooting.</td>
</tr>
<tr>
<td>6</td>
<td>Training</td>
<td>Vendor to specify and provide technical information about details of training for operating and system maintenance / troubleshoot.</td>
</tr>
<tr>
<td>7</td>
<td>Operation Life</td>
<td>Vendor to specify and provide technical information about the life of AWS system. Provision of regular updates and upgrades as per latest available technology during life period.</td>
</tr>
<tr>
<td>8</td>
<td>Procurement Category as per DPP 2016</td>
<td>Buy (Indian IDDM)/Buy (Indian)/Buy and Make (Indian)/Buy and Make/Buy (Global) Any One</td>
</tr>
<tr>
<td>9</td>
<td>RoM Cost of the AWS</td>
<td>Equipment cost (Including custom duties and Taxes) Rs-------- AMC Cost (For five years) Rs --------</td>
</tr>
</tbody>
</table>

**Note.** Vendor to provide detailed description of all the parameters mentioned above along with description of additional capabilities/parameters/functionalities of their equipment being offered as response to this RFI.
INFORMATION PROFORMA (INDIAN VENDORS)

1. **Name of the Vendor/Company/Firm:**

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

   (Company profile, in brief, to be attached. In the eventuality of the firm emerging as L1, Contract will be concluded in the name and address of the firm, as indicated here). Vendors are to undertake that any subsequent proposal for change in name of firm or address, will be intimated to IHQ MoD(IAF) at the first available opportunity and supporting documents be furnished accordingly within five working days of their approval by the competent authority.

2. **Type (Tick the relevant category).**

   Original Equipment Manufacturer (OEM) Yes/No
   Authorised Vendor of foreign Firm Yes/No (attach details, if yes)
   Others (give specific details)
   __________________________________________________________
   __________________________________________________________

3. **Address/Contact Details:**

   Postal Address:
   __________________________________________________________
   __________________________________________________________
   City : ______________________ State: ______________________
   Pin Code: ____________________ Tele: ______________________
   Fax: _________________________ URL/Web Site: ______________________

4. **Local Branch/Liaison Office in Delhi (if any).**

   Name & Address: ___________________________________________
   Pin code: _______________ Tel: __________________ Fax: _______________

5. **Financial Details.**

   (a) Category of Industry (Large/Medium/Small Scale): _______________
   (b) Annual turnover: ______________________ (in INR)
(c) Number of employees in firm: ______________________________

(d) Details of manufacturing infrastructure: ________________________

(e) Earlier contracts with Indian Ministry of Defence/Government agencies:

<table>
<thead>
<tr>
<th>Contract number</th>
<th>Equipment</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. **Certification by Quality Assurance Organisation**

<table>
<thead>
<tr>
<th>Name of agency</th>
<th>Certification</th>
<th>Applicability from (date &amp; year)</th>
<th>Valid till (Date &amp; year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. **Details of Registration.**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Registration Number</th>
<th>Validity(date)</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGS &amp; D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DGQA/DGAQA/DGNAI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRDO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other Government agency</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. **Membership of FICCI/ASSOCHAM/CII or other Industrial Associations.**

Name of Organisation: ______________________________

Membership Number: ______________________________

9. **Equipment/Product Profile (to be submitted for each product separately).**

(a) Name of Product: ______________________________

(IDDM Capability be indicated against the product)
(Should be given category wise for e.g. all products under night vision devices to be mentioned together)

(b) Description (attach technical literature): ______________________________
(c) Whether OEM or Integrator: ________________________________

(d) Name and address of Foreign collaborator (if any):______________

(e) Industrial License Number: ________________________________

(f) Indigenous component of the product (in percentage):___________

(g) Status (in service/design & development stage):_______________

(h) Production capacity per annum: ____________________________

(i) Countries/agencies where equipment supplied earlier (give details of quantity supplied):_______________________________________

(k) Estimated price of the equipment: __________________________

10. Alternatives for meeting the objectives of the equipment set forth in the RFI.

11. Vendor to provide details of IPR documentation/patents/design registration copyrights etc registered with authorized agency with regard to the equipment

12. You are to submit the following information to substantiate your claim under the acquisition category of ‘Buy (Indian-IDDM)’ of DPP 2016 as an Indian Vendor.

   (a) The entity is public limited company, private limited company, partnership firms, limited liability partnership, one person company, sole proprietorship registered as per applicable Indian laws. In addition, such entity shall also possess or be in the process of acquiring a license/development of product if the product under project requires license as per DIPP’s licensing policy.

   (b) The company is owned and controlled by resident Indian citizens.

   (c) The company is registered for minimum five years, three years in the case of MSMEs.

   (d) The company should have a minimum credit rating equivalent to B++, issued by recognized Indian credit rating such as CRISIL / ICRA

   (e) The company needs to be profitable for at least three years out of the last five years, in case of MSMEs, it needs to be profitable for at least one out of the last three years.

13. Any other relevant information_______________________________

(a) It is certified that the above information is true and any changes will be intimated within five (05) working days of occurrence.

(b) It is certified that the design and development is indigenous and belong to the ________ (vendor) and /or ________ (its Indian Sub Vendor). The Indigenous Content in the said equipment is _____ % as on date and is likely to be raised to _____ % by _____(date). The certification for the same is enclosed.

(c) It is certified that the complete set of design and production drawings are available and source code for all software applications/programmes are also available with the _____ (vendor) and that these would be produced for verification when required.

Note: Certification for 12 (b) and (c) is required if vendor is claiming the IDDM category.

(a) It is certified that in the past that ________ (name of the firm) has never been banned /debarred for doing business dealings with MoD/GoI/any other Government organization and that there is no enquiry going on by CBI/ED/any other Government agency against the firm.

Note: Para 44 and Appendix F to Chapter II of DPP 2016 may be referred.

(Authorised Signatory)
INFORMATION PROFORMA
(FOREIGN VENDORS)

1. **Name, Address and Unique ID (if any) of the Vendor/Company/Firm.**

   (Company profile, in brief, to be attached. In the eventuality of the firm emerging as L1, Contract will be concluded in the name and address of the firm, as indicated here). Vendors are to undertake that any subsequent proposal for change in name of firm or address, will be intimated to IHQ MoD (IAF) at the first available opportunity and supporting documents be furnished accordingly within five working days of their approval by the competent authority.

2. **Type (Tick the relevant category).**

   - Original Equipment Manufacturer (OEM)  Yes/No
   - Government sponsored Export Agency  Yes/No (Details of registration to be provided)
   - Authorised Vendor of OEM  Yes/No (give specific details)
   - Others (give specific details) __________________________________________

3. **Contact Details.**

   Postal Address:
   ____________________________
   ____________________________
   ____________________________
   ____________________________

   City: ______________________ Province: ______________________
   Country: ________________ Pin/Zip Code: ________________
   Tele: ________________ Fax: ________________
   URL/Web Site: ____________________________

4. **Local Branch/Liaison Office/Authorised Representatives, in India (if any).**

   Name & Address: ____________________________
   City : ______________________ Province : ______________________
   Pin code : ________________ Tel : ________________ Fax : ______________________
5. **Financial Details.**

(a) Annual turnover: _______________________ USD

(b) Number of Employees in firm _______________________

(c) Details of manufacturing infrastructure available _______________

(d) Earlier contracts with Indian Ministry of Defence/Government agencies:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Contract Number</th>
<th>Equipment</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. **Certification by Quality Assurance Organisation (If Applicable).**

<table>
<thead>
<tr>
<th>Name of Agency</th>
<th>Certification</th>
<th>Applicable from (date &amp; year)</th>
<th>Valid till (date &amp; year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. **Equipment/Product Profile (to be submitted for each product separately)**

(a) Name of Product: ______________________
(Should be given category wise for e.g. all products under night vision devices to be mentioned together).

(b) Description (attach technical literature): ______________________

(c) Whether OEM or Integrator: ______________________

(d) Status (in service /Design development stage): ______________________

(e) Production capacity per annum: ______________________

(f) Countries where equipment is in service: ______________________

(g) Whether export clearance is required from respective Government: ______________________
(h) Any collaboration/joint venture/co production/ authorised dealer with Indian Industry (give details):

Name & Address: ________________________________________________
Tel: __________________ Fax: ________________________________

(i) Estimated price of the equipment ______________________________

8. Alternatives for meeting the objectives of the equipment set forth in the RFI.

9. Any other relevant information. ________________________________

10. Declaration. It is certified that:-

   (a) The above information is true and any changes will be intimated within five (05) working days of occurrence.

   (b) The ________________________ (name of firm) has been never been banned/debarred for doing business dealing with MoD/GOI/ any other Government Organisation and that there is no inquiry going on by CBI/ ED/ any other Government agency against the firm.

   Note: Para 44 and Appendix F to Chapter II of DPP 2016 may be referred.

   (Authorised Signatory)