

# INLAND WATERWAYS AUTHORITY OF INDIA

(Ministry of Shipping, Government of India)

A-13, Sector-1, Gautam Budh Nagar, NOIDA, U.P. -201301

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No. IWAI/HY/SEAPORT/2018/1

## NOTICE INVITING E-TENDER

**a) Introduction:**

Inland Waterways Authority of India (IWAI) invites online Tenders/Bids from reputed Consulting firms in two cover systems (Cover – I: Technical Bid and Cover – II: Financial Bid) for “DETAILED HYDROGRAPHIC SURVEYS FOR WATER AERODROME PROJECTS”

**b) Critical Data sheet:**

Interested parties may download the Tender document online from the website <https://eprocure.gov.in/eprocure/app> and IWAI’s website “[www.iwai.nic.in](http://www.iwai.nic.in)” and are advised to pay INR 5900/- (Rupees Five thousand nine only) as the cost of Bid document deposited to IWAI fund.

Document download start date	09.05.2020 at 1700 hrs
Bid Submission Last Date	30.05.2020 up to 1800 hours
Bid Opening date	01.06.2020 at 1400 hrs
Cost of tender document	Rs 5000/- + 18 % GST = Rs 5900/-

**c) Scope of the work:**

IWAI plans to *Selection of Hydrographic Survey Consultant for carrying out Hydrographic Survey* to conduct Bathymetric Survey and alignment for Water Aerodromes by Ministry of Civil Aviation:

The detail scope of work shall be as below:

- a)** The firm shall carry out Hydrographic Survey viz: Longitudinal & Cross-Sectional as per the requirement based on GIHS and International Hydrographic Organization (IHO) Special Publication(SP) 44, edition 2008 ([https://www.iho.int/iho\\_pubs/standard/S-44\\_5E.pdf](https://www.iho.int/iho_pubs/standard/S-44_5E.pdf)) for survey under Special Order as specified with full sea floor insonification. The detailed Hydrographic survey is to be carried out by using Automated

Hydrographic Survey System (using digital Multi beam Echo sounder for depth measurement and insonification or with single beam with side scan deployment and disproving search as discussed /specified, DGPS Beacons Receivers for position fixing and Hypack max or equivalent software for data logging). The survey is to be conducted on WGS-84 datum.

- b)** The horizontal control is to be made from either one of the following methods:-
  - i.) Transfer of positions from GTS Bench Marks or position established at bridges, barrages, Railway Stations etc.
  - ii.) Using RTK GPS with minimum 24 hours observations at some permanent platform/base.
  - iii.) DGPS receiving direct Satellite corrections or receiving DGPS corrections from Beacons.
  - iv.) Further the positioning has to be refined with Very Long Baseline Interferometry(VLBI)
- c)** The vertical control is to be established with respect to the chart datum / sounding datum from the following methods
  - i.) Chart datum/ sounding datum already established by Port Authorities, Central Water Commission/ State Irrigation Department and at their gauge stations along the river/canal.
  - ii.) Standard method shall be adopted for transfer of datum in rivers. For tidal reaches standard transfer of datum as per Admiralty Manual shall be adopted.
  - iii.) Other Terms of Reference for the survey work are as given below: -
- d)** To set up BENCH MARK PILLARS as per SOI standard
- e)** Establishment of AUTOMATED WATER LEVEL GAUGES
- f)** CURRENT VELOCITY AND DISCHARGE MEASUREMENT The current velocity and discharge to be measured with the help of ADCP and is to be observed once a day during the survey period.
- g)** SURVEY CHART AND REPORT PREPARATION : The survey chart is to be prepared on a scale of 1: 500
- h)** The chart shall also be suitably updated with prominent land features from the Topo-sheets/site.
- i)** After processing of data in all respect and after preparation of charts, Consultant has to prepare the navigability report of waterway in respect of availability of depths, available in the stretch,. Navigability report of waterway would be part of the draft and final report.
- j)** DATA SUBMISSION: All raw data and processed data of Automatic Hydrographic Survey System are required to be submitted along with bills and reports.
- k)** All position data of ground features, waterway structures are to be submitted in both hard copies and soft copies. In addition, the OLS survey been conducted by AAI is to be matched with existing hydrographic survey for necessary alignment.

1) The firm should have adequate inhouse inventory of hydrographic survey equipments (detailed list as a proof has to be enclosed/ specified) comprising of following:

- Single Beam Echosounder
- Multi Beam Echosounder
- DGPS RTK
- Side Scan Sonar
- ATG
- ADCP
- Sub Bottom Profiler
- Current Meter Profiler
- Sound Velocity Profiler
- Data Acquisition and Processing Software e.g. HYPACK, HYSWEEP, Hydropro, Qinsy, PDS, EIVA etc.

The detailed Terms of Reference (ToR) / scope of the work shall be as in the Section-VI of this document.

**d) Method of Selection:**

Bidder will be selected under Quality and Cost Based Selection (QCBS) and procedures described in this Tender document.

**e) Clarifications:**

Clarification / Query if any on the Tender document shall be obtained from the following address:

**The Hydrographic Chief**

**Inland Waterways Authority of India**

**A-13, Sector – 1,**

**Noida-201301**

**Tel: (0120) 2527667, 2522969 Fax (0120) 2522969**

**Website: [www.iwai.nic.in](http://www.iwai.nic.in) Email: [hc@iwai.gov.in](mailto:hc@iwai.gov.in),**

f) IWAI reserves the right to accept or reject any or all Tenders without assigning any reason and no correspondence shall be entertained in this regard.

**Hy. Chief  
IWAI, Noida**