

# **COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT OF DGPS STATIONS SERVICING NW1 & NW2**



**Tender Document**  
**No.IWAL/Hy/2(10)2/DGPS-CAMC/2015-16**  
**May 2015**



**INLAND WATERWAYS AUTHORITY OF INDIA,**  
**A-13, Sector-1, NOIDA-201 301**

No. IWAI/Hy/

Date:

To,

Sub: Tender document for Comprehensive Annual Maintenance Contract of DGPS stations servicing NW1 & NW 2-reg.

Sir

The Inland Waterways Authority of India, Noida invites sealed bid in two cover system, from Indian firm for providing CAMC services in the field of aids to navigation and communication - DGPS stations at 7 different locations in National Waterway-1 and 2. The online bid and hard copy of completed bids are to be received in the office of the Hydrographic Chief, IWAI, A-13, Sector-1, Noida not later than 1500 Hours on or before 19<sup>th</sup> June 2015.

Yours faithfully

(Cdr. P.K. Srivastava)  
Hydrographic Chief

Encl: as above.

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TOTAL (60) PAGES

## NIT FOR PUBLICATION IN NEWSPAPER



**INLAND WATERWAYS AUTHORITY OF INDIA,  
A-13, Sector-1, NOIDA-201 301**

### **Tender No.**

IWAI/Hy/2(10)2/DGPS-CAMC/2015-16

e-Tender for Comprehensive Annual  
Maintenance Contract (CAMC) for 7 DGPS  
stations servicing NW-1 & NW-2

Online bids are invited from reputed & experienced firms in the field of aids to navigation/ communication for Comprehensive Annual Maintenance Contract (CAMC) for 7 DGPS stations servicing NW-1 & NW-2

- The details of NIT: - Tender document cost: Rs. 1,000/- Date of download of Tenders is 18.5.2015 to 18.6.15 .
- Pre-bid meeting 26.5.2015 at 1500 hrs.
- Last date of online submission of e-tender:19.6.15 up to 1500 hrs. Date of opening: 19.6.15 at 1530 hrs.
- Detailed eligibility criteria and tender document along with Instruction to the Bidders can be seen at IWAI's website:  
[www.iwai.nic.in](http://www.iwai.nic.in) &  
<https://eprocure.gov.in/eprocure/app>,
- However, online submission will be only through  
<https://eprocure.gov.in/eprocure/app>

**HYDROGRAPHIC CHIEF**

**NOTICE INVITING TENDER**  
**Tender No IWA/Hy/2(10)2/DGPS-CAMC/2015-16**

Bids in two sealed cover system (cover I-Technical bid and cover II- Financial bid) are invited from the interested and eligible tenderers to provide Comprehensive Annual Maintenance Contract (CAMC) for 7 DGPS stations servicing NW-1 & NW-2 for 3 years. The contract shall be initially awarded for one year which will be subsequently renewed subject to satisfactory performance on the terms and conditions prescribed herein. The locations of DGPS Stations are :-

Location	NW	Period (w.e.f)	EMD
Swaroopganj (W Bengal)	NW 1	01.07.2015	Rs.1.1 lakh
Bhagalpur (Bihar)	NW 1	01.07.2015	
Patna (Bihar)	NW 1	01.07.2015	
Dhubri (Assam)	NW 2	01.07.2015	
Jogighopa (Assam)	NW 2	01.07.2015	
Silghat (Assam)	NW 2	01.07.2015	
Dibrugarh (Assam)	NW 2	01.07.2015	

**Terms and Conditions:**

1. Interested bidders may obtain non-transferable tender document by submitting non-refundable Demand draft for Rs. 1000/- (Rupees one thousand only) drawn from any Nationalized / schedule bank in favour of "Inland Waterways Authority of India Fund" payable at Noida/New Delhi.
2. Tender document will be available for sale w.e.f. 18.5.15 to 18.6.15 during working hours from the office of the Hydrographic Chief.
3. The tender document can also be downloaded from the website [www.iwai.nic.in](http://www.iwai.nic.in)  
Detailed information and instructions to the bidders are available in the tender document. Those who are using downloaded tender document from the website may submit the cost of tender document in the form of separate DD along with technical bid, while submitting the bid.

4. A signed declaration stating that no alteration has been made in any form in the downloaded tender document is to be enclosed with the tender by the bidder for downloaded tenders.
5. Pre-bid meeting will be held on 26.5.15 at 1500 hrs. at IWAI, Noida.
6. The completed bids as per terms and conditions mentioned in the tender document should be submitted on the above address latest by 1500 hrs on 19.6.15. and shall be opened on the same day at 1530 hours.
7. The Hard Copy of original instruments in respect of cost of tender document, earnest money, and other documents in original as asked in this tender document must be delivered to the office of Hydrographic Chief on or before bid closing or opening date/time as mentioned in critical date sheet. Bidder shall likely to be liable for rejection for non-submission of original payment instrument like DD, etc., against the submitted bid. The Demand Draft attached/submitted for tender fee shall be non refundable.
8. IWAI reserves the right to accept or reject any or all bids without assigning any reasons and no correspondence shall be entertained in this regard.
9. Other terms and conditions are as per tender document.

Hydrographic Chief  
I.W.A.I.

## **2. INSTRUCTIONS TO THE TENDERER**

1. Inland Waterways Authority of India herein after referred to as “AUTHORITY” wishes to receive sealed tenders for “Comprehensive Annual Maintenance Contract (CAMC) DGPS Stations in NW-1 & NW-2”, which herein after referred as “CAMC ”. The prime objective of the work under this contract consists of providing prompt and efficient 24x7 service for maintenance of Differential Global Positioning Systems reference station established at 7 locations for transmitting position corrections to GPS/DGPS receivers fitted on board the various vessels which ply in the National Waterway -1 and 2.
2. **“TENDER DOCUMENT”**: Tender procedure and contract terms are prescribed in the tender documents. In addition to the invitation for tender, the tender documents include the following:-
  - (a) Notice Inviting Tender
  - (b) Instructions To The Tenderer
  - (c) Details To Accompany Technical Bid
  - (d) General Conditions Of Contract
  - (e) Special Terms And Conditions Of Contract
  - (f) Tender Form
  - (g) Agreement Form
  - (h) Performance Guarantee Form
  - (i) Warranty Form
  - (j) Commercial Bid
  - (k) Questionnaire
  - (l) DGPS Station Instrument Details
3. The Tenderer is expected to examine the tender document carefully including all instructions, conditions, forms, special conditions, etc. The Bidder is advised to visit the site and satisfy himself about the site condition prior to quoting. Failure to furnish all information required by the tender document or submission of a tender not substantially responsive to the tender documents in every respect will result in “REJECTION OF TENDER BID” submitted by the individual Tenderer.
  - a. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the Tenderer who resort to any form of canvassing shall be summarily rejected.
  - b. Those Tenderer(s) whose near relatives are posted in any capacity in the Inland Waterways Authority of India (IWAI) shall not be permitted to bid. The

prospective Tenderer shall also intimate the names of persons who are working with him in any capacity or subsequently employed by him & who are near relative to any officer in the IWAI or in the Ministry of Shipping. Any breach of this condition by the Tenderer shall render him ineligible. By the term 'near relative' is meant wife, husband, parents and grandparents, children & grand children, brothers and sisters, uncles, aunts & corresponding in laws.

- c. No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering Deptt. Of Govt. of India is allowed to work as a contractor for a period of one year after his retirement from Govt. service, without the prior permission of the government of India in writing. The contract is liable to be cancelled if either the contractor or any of his employees is found anytime to be such a person who had not obtained the permission of Govt. of India as aforesaid, before submission of the bid or engagement in the contractor's service.
4. The Chairman, IWAI reserves the right to reject any or all of the tenders received without assigning any reasons what so ever. He also reserves right for himself of accepting the whole or any part of the tender and Tenderer shall be bound to perform the same at the rates quoted. The tender in which, any of the prescribed conditions are not fulfilled or incomplete in any respect are liable to be rejected.
  5. At any time prior to the dead line for submission of tender, the Authority may for any reason, whether by its own initiation or in response to clarification requested by a prospective Tenderer, modify the tender document by amendments.
    - a. Pre-bid meeting will be held on 26.5.15. at 1500 hrs. at IWAI, Noida. The decision taken during pre-bid meeting will replace / add the corresponding clauses / specifications already figured in the tender document and also form part of the specifications / other conditions of this tender document. The amendments shall be part of the tender document described at Clause-2 above and will be notified in writing or by e-mail to all prospective Tenderer, and would be dispatched with the bidding documents and will be binding on them.
    - b. In order to afford prospective Tenderer reasonable time in which to make amendment on this account in their tender document, the Authority may at its discretion fix fresh dead line for submission of bid.
  6. The tender document filled by the Tenderer and all correspondence and documents relating Tender and the bid exchanged by the Tenderer and the Authority shall be



written in ENGLISH. Any document enclosed with the tender that is not in English shall be accompanied by the certified English translation.

## **7. EARNEST MONEY DEPOSIT (EMD)**

The EMD shall be drawn in the form of Crossed Demand Draft (DD) for an amount of Rs.1.10 lakhs from any Nationalized/ Schedule bank (Schedule I & II as per RBI guidelines) in favour of "INLAND WATERWAYS AUTHORITY OF INDIA FUND" payable at NOIDA / NEW DELHI. No other form of payment, e.g. Fixed Deposit, BG etc., shall be accepted for EMD. No bidder shall be exempted from submission of EMD under any circumstances.

7.1 The successful Bidder(s) EMD will be converted into Security Deposit (SD) and the successful Bidder has to remit balance amount of SD in the form of Demand Draft (DD) / Bank Guarantee as per clause 9 of "General Conditions of the Contract". However, the validity of BG shall remain valid for 3 months after expiry of contract period.

Those who are using downloaded tender document from the website shall submit the cost of tender document (Rs. 1000.00) in the form of separate DD along with EMD, while submitting the bid.

7.2 The EMD may be forfeited if ,

- a) Tenderer withdraws his bid in part or in full or modifies his tenderer, during the period of bid validity specified on the bid form, or
- b) Make any modification in terms & conditions of tender, which is not acceptable to the Authority, then the Authority shall, without prejudice to any right or remedy, be at liberty to forfeit the EMD absolutely.
- c) The successful Tenderer fails to furnish in full all the information as required by the tender, withdraws his tender or refuses to sign the contract in accordance with Clause -15 of "Instructions to the Tenderer" on issue of letter of intent, or refuses to provide the Security Deposit in accordance with Clause 9 of "General Conditions of the Contract".

7.3 The EMD will be returned to the unsuccessful Tenderer after finalization of the tender and no interest will be paid on EMD.

8. The bid shall not contain any erasure/over writing except as necessary to correct errors by the Tenderer in which case the person signing the bid shall initial such corrections(s).

8.1 Tender forms are not transferable and its cost is not refundable.

8.2 “Authority” will in no way be responsible for any expenditure incurred by the Tenderer in the preparation and submission of the tender.

## **9. Submission of Bid**

Tender/Bid should be submitted in two covers viz. Envelope-1 (containing technical bid) and Envelope-2 (containing price bid) and both of these covers should be placed online in website <https://eprocure.gov.in/eprocure/app>

The first cover/envelope containing Part-1 shall be submitted online & hard copy along with the following documents (documents should be clearly annexed as per following serial number):-

### **Cover-1**

- a) Scanned copy of Tender cost (Rs. 1,000/-) (Demand Draft in favour of IWAI fund payable at Noida).
- b) Scanned copy of Earnest Money Deposit as per clause 7 above.
- c) Scanned copy of Bank Solvency certificate from any nationalized /scheduled bank (as per clause 9.1.a).

### **Cover-2**

- d) Scanned copy of Letter of Authority for signing and negotiation of bid.
- e) Scanned copy of duly filled “Tender Form”.
- f) Scanned copy of duly filled up and signed tender acceptance letter.
- g) Scanned copy of Original bid document duly filled in and completed in all respects except prices, signed with rubber seal on each page as a proof of acceptance.
- h) Scanned copy of a signed declaration stating that no alteration has been made in any form in the downloaded tender document.
- i) Scanned copy of downloaded Minutes of the pre-bid meeting, sealed and signed as a proof of acceptance.
- j) Scanned copy of a declaration that Bidder have not been banned or de-listed by any Govt. or quasi Govt. agency or Public Sector Undertaking.
- k) Scanned copy of acceptance of payment terms clause 12 of “General Conditions of the Contract”.
- l) Scanned copy of acceptance of “Terms of Reference for Comprehensive Annual Maintenance Contract (CAMC) for NW-1 & NW-2”.
- m) Scanned copy of acceptance of guarantee clause 2 of “Special Conditions of the Contract”.
- n) Scanned copy of acceptance to all tender terms & conditions to be confirmed.

### **Cover-3**

- o) Scanned copy of Bidders Registration Certificate.
- p) Scanned copy of document in the respect of PAN, service tax, VAT number.

- q) Scanned copy of audit report / balance Sheet for the last three financial years (2013-14, 2012-13 and 2011-12). Submitted Audit report / Balance Sheet should be clearly sealed & signed by the Auditor / Directors of the firm.
- r) Scanned copy of average annual financial turnover during last three years ending 31st March of the previous financial year, should be at least Rs. 54.00 lakhs. A statement is to be submitted clearly showing annual financial turnover for the years (2013-14, 2012-13 and 2011-12).

**Cover-4**

- s) Scanned copies of similar work orders and performance certificates / job completion certificates for each individual item for which the bid is submitted, issued by the client during the past 7 years, for evaluation of financial & technical capabilities of the bidders. Work orders and performance certificates / job completion certificates shall be in the name of bidder only, **clearly indicating the value of work**.

**Cover-5**

- t) Scanned copy of support letter from OEM for supplying spares and other technical support.
- u) Scanned copy of dully filled Questionnaire as in annexure-1
- v) Scanned copy of background of the organization with respect to similar experience and brief description of projects recently undertaken in the relevant field and list of the equipment maintained in various reputed Govt. / PSU's / Private sector organizations.

**Cover-6**

- w) Scanned copy of addresses of Office and Service Center in India is to be provided.
- x) Scanned copy of list of any deviation from the enclosed conditions or contract, giving reference to the Article on which the Bidder proposes to deviate.
- y) Scanned copy of any other details which Bidder may feel relevant to carry out the present assignment.

**Cover-7**

- z) Scanned copy of duly filled details of Bank Account for Release of Payment through Electronic Fund Transfer System.

**Note: -**

- 1) The firm must have expertise in preventive on-site maintenance and repair of marine/satellite/networking/telecommunication equipment and shall have about 3 years experience in installation, operation and maintenance of marine /satellite /networking/ telecommunication electronics equipment.
- 2) The Tenderer shall also submit the hard copies & soft copy of Tender in two sealed covers (apart from online copy) marked "Cover 1<sup>st</sup>" and "Cover 2<sup>nd</sup>". The Cover 1<sup>st</sup> shall contain the Earnest Money Deposit and technical bids. The Cover 2<sup>nd</sup> shall

contain the Commercial bids. In case the first cover is not submitted with Earnest Money in a proper form, the second cover shall not be opened and rejected summarily. Both the Cover-1 & Cover-2 are to be placed in a single cover. Duly sealed covers containing the hard copies of technical and financial bids will be put in a separate single cover which should be sealed. The Second cover containing Part-2 shall be submitted along with the following documents:-

Price Bid (BoQ\_XXXXX) as per format provided along with this tender.

In addition to online document, duly sealed covers containing the technical and financial bids will be placed in a separate single cover which should be sealed and super scribed as “Tender for Comprehensive Annual Maintenance Contract(CAMC) for NW-1 & NW-2.” and “Don’t Open before 19.6.15 at 1530 hrs”.

The offer, complete in all respects, should be submitted by 1500 hours IST on 19.6.15 in the office of the Hydrographic Chief, Inland Waterways Authority of India, A-13, Sector-1, Noida-201301 (UP), India.

“Authority” shall not be responsible for delay caused due to postal / courier or any other modes of delivery. Local Tenderer may, if so desire, deposit tenders in the tender box provided in the office for this purpose.

The Authority may at its discretion extend the dead line for the submission of bids in accordance with Clause – 5.b above, in which case all rights and obligation of the Authority and Tenderer previously subjected to the dead line will thereafter be subjected to the dead line as extended.

Late bids will be rejected and returned unopened to the Tenderer. Fax, E-mail and cable offers will not be considered under any circumstances. *SUBMISSION OF HARD COPY OF TENDER IS MANDATORY.*

## **9.1 Technical Bid**

The Envelope containing Technical bid will be sealed and super scribed “Comprehensive Annual Maintenance Contract (CAMC) for NW-1 & NW-2.”.

The Tenderer shall submit the technical proposal keeping in view the operation and Maintenance of DGPS equipments and allied accessories at the venue of DGPS station and its net work. The list of equipments and its arrangement are placed annexure-2. The technical proposal would include the following for evaluation of technical bids:

- a) The Bank Solvency should be in the name of the Tenderer issued by banker with full address of issuing authority with validity. The value of Bank solvency shall not be less than Rs.22 lakhs
- b) Documentary evidence such as valid registration certificate of the firm in the field of maintenance.
- c) The original tender document is to be duly filled in and submitted to the Authority along with technical bid, EMD and other documents in accordance with the instructions to the Tenderer.
- d) It shall be absolutely necessary on the part of the Tenderer to sign the tender documents for all the components, parts. All pages of the bid shall be duly signed by the person/(s) signing the bid. The name of and position held by the person signing the bid must be typed or printed below the signature.
- e) The Tenderer will be required to give in writing a satisfactory assurance of its ability and intention to services pursuant to the contract within the time set forth therein.
- f) The bid shall remain valid for a period of 180 days from the date of opening the tender and contract value remains unchanged during contract period. No hike or revision is permitted.
- g) The firm must have expertise in preventive on-site maintenance and repair of marine/satellite/networking/telecommunication equipment and shall have about 3 years experience in installation, operation and maintenance of marine/satellite/networking/telecommunication electronics equipment.
- h) Copies of similar supply orders / performance certificates / job completion certificates for each individual item for which the bid is submitted, issued by the client during the past 7 years, for evaluation of financial & technical capabilities of the bidders.
- i) Average annual financial turnover during last three years ending 31st March of the previous financial year, should be at least for an amount Rs.54.0 lakhs
- j) Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which this tender is invited should be either of following :
  - (i). Three similar works each costing not less than Rs.21.5 Lakh;or

- (ii). Two similar works each costing not less than Rs. 32.5 Lakh; or
  - (iii). One similar work completed not less than Rs. 43.0 Lakh
- k) The tenderer should provide a list of the equipment installed in various reputed Govt. / PSU's / Private sector organizations or for operation of work.
- l) The work order will be issued initially for one year. Thereafter further extension of contract will be considered only after satisfactory performance of service. The performance certificate will be issued by Engineer In Charges representative in the field (i.e) IWAI Field Directors. The IWAI reserves the right to split the order for each locations and further extension of contract period on same term & conditions.
- m) The period of contract will be considered for the individual stations and would be undertaken by the successful bidder at various locations period as mentioned below:-

Location	Period
Swaroopganj (W Bengal)	July 2015
Bhagalpur (Bihar)	July 2015
Patna (Bihar)	July 2015
Dhubri (Assam)	July 2015
Jogighoppa (Assam)	July 2015
Silghat (Assam)	July 2015
Dibrugarh (Assam)	July 2015

- n) Valid latest Income Tax Return proof / Audit report / Balance Sheet for the last three years and Registration Certificate with attested copies as applicable shall be furnished with the technical bid. Copy of valid PAN Card is also to be submitted.
- p) The Tenderer shall give a declaration that they have not been banned or de-listed by any Govt. or quasi Govt. agency or Public Sector Undertaking.
- q) The firm should have infrastructure repairs and maintenance of **marine/satellite/networking/telecommunication equipment with** sufficient expertise to give back-up support in minor repairs of PCB, modules and units of the equipment. A self declaration, on a non judicial stamp paper of RS 100/, by the contractor shall be given by the firm. The authority reserves the right to verify the veracity of such declaration.

- r) All tenderers are cautioned that tenders containing any deviations whatsoever from the terms and conditions, specifications as contained in the tender documents are liable to be rejected as non-responsive
- s) The technical proposal shall not contain any reference to the prices quoted.
- t) Any other details which the Tenderer may feel relevant to carry out the present assignment.
  - u) *If there is any deviation from any condition, it should be clearly mentioned in the technical bid.*

## 9.2 **Financial Bid**

- a) Separate envelope containing financial bids should be sealed and superscribed as “**Price bid for Comprehensive Annual Maintenance Contract (CAMC) for NW-1 & NW-2**”.
- b) **Prices quoted by the Tenderer shall remain firm and fixed and valid till the validity time.**
- c) The rates quoted shall include cost for all essential spares and expertise needed for performing the work. This shall include the cost of all required tools/tackles, plants, machinery and expertise, etc. whatsoever applicable complete.
- d) The Tenderer shall quote rate in figures as well as in words for amount tendered by him. Special care shall be taken to write the rates in figures and in words in such a way that interpolation is not possible. The total amount shall be written both in figures and in words. In case of figures, the word ‘Rs’ shall be written before the figures e.g. ‘Rs 4. 45P’. In case of words the word ‘Rupees’ shall precede and the word ‘Paise’ shall be written at the end unless the rate is in whole rupee. The figures in word shall invariably be followed by the word ‘Only’. It would invariably be up to two decimal places. While quoting the rate in schedule of quantities in price schedule, the word ‘Only’ shall be written closely following the amount and it shall not be written in the next line.
- e) The prices quoted shall be inclusive of service tax, VAT & the expertise needed for attending periodical as well as breakdown maintenance.

- f) The service tax paid by the contractor shall be reimbursed only after submission valid documentary evidence.
- g) The bidder has to quote in the Bill of Quantity for first year. On completion of 1 year period, further extension will be granted by the Authority as per the clause 9.3 below.

9.3 A proposal for Comprehensive Annual Maintenance Contract at each location for a period of 1 year from the date of signing agreement shall form part of the Tender. The work order will be issued initially for one year. Thereafter further extension of contract will be considered only up to a period of further 2 years with 5% hike in the agreement value after satisfactory performance. The performance certificate will be issued by Engineer In Charges representative in the field (i.e) IWAI Field Directors. The IWAI reserves the right to split the order for each locations and further extension of contract period on same term & conditions.

## 10. **Bid Opening and Evaluation**

The Authority shall open the technical bid in the presence of Tenderer representatives who choose to attend, at the opening time at the location prescribed for submission of bid under Clause-9 above.

Technical Bids will be evaluated and compared based on documents furnished as per Clause 9 of “Instructions to the Tenderer” & “Details to accompany tender bid” The Technical Evaluation shall be carried out in following areas to ascertain the quality of bid:-

<b>Sl. No.</b>	<b>Area of Evaluation</b>	<b>Max Marks</b>
1.	Presentation of documents and bid language	05
2.	Financial Capability of the bidder	15
3.	Details of other maintenance contracts in the field of marine/satellite/ networking/telecommunication equipment completed or in hand	20
4.	Technical Facilities, Resources & Project Management	30
5.	Accreditation of any or all the partners by a quality assurance agency	02
6.	Experience in operation and maintenance of DGPS/MF	05



	Transmitter equipment	
7.	OEM Support	20
8.	Any special features which enhances the quality of maintenance	03
	<b>Total</b>	<b>100</b>

Technical evaluation will be done by Technical Evaluation Committee (TEC). The commercial bids of those Tenderer failing to achieve marks less than 70% in technical evaluation shall not be considered and their commercial bids shall not be opened.

Price bids will be opened at a later date after evaluation of technical bids. The opening date for price bids will be informed to the Tenderer whose bids would qualify technically. Price bids will be evaluated and compared based on lowest prices quoted as per Clause 10 of “Instructions to the Tenderer” for individual item. No weightage carry over on technical evaluation shall be there at the time of financial evaluation.

**11. Clarification of Bids**

To assist in the examination, evaluation and comparison of bids, the Authority shall at its discretion call the Tenderer for clarification on its bids including presentation. All responses to request for clarification shall be in writing within two days and no change in price or substance of the bid shall be sought or offered or permitted. The Authority shall not be responsible for expenses for obtaining clarifications.

**12. Integrity pact**

It is a specific requirement for considering the bid that the tenderer should sign and submit and ‘integrity pact’ as per annexure III to be executed between the tenderer and ‘The Authority’ along with the bid in a separate envelop super scribed an “Integrity Pact” in cover – 1. Bids not accompanied by a duly signed integrity pact shall be liable for rejection.

13. The Authority shall not bind itself to accept the lowest bid and reserves the right to split the order if necessary and also to accept or reject any or all bids or part thereof without assigning any reason whatsoever, prior to award of contract without thereby incurring any liability to the affected Tenderer or any obligation to inform the affected Tenderer of the ground for the Authority’s action.

14. The Authority reserves the right at the time of awards of order to split the order location-wise specified in the price schedule without any change in terms and conditions. The successful Tenderer will be bound to provide service at the same rate and terms & conditions.
15. The Authority will notify the successful Tenderer in writing that the bid has been accepted. The successful Tenderer will be required to enter into a contract with the Authority in the form given in these documents and has to submit Performance Guarantee as per Clause 27 of “General Conditions of the Contract”, within 10 days of award of work. Performance Guarantee(s) shall be kept valid till expiry of contract period. However, the successful bidder can give a performance guarantee for each year, if he so desires and it can be renewed every year alongwith renewal of contract.
15. The Authority shall forward a draft contract to the Tenderer along with award of work order. Within 10 days of receipt of such documents, the successful Tenderer shall sign the contract on non-judicial stamp paper of Rs. 100/- under the terms and conditions as indicated in the “DRAFT CONTRACT” forwarded by the Authority. The contract shall be submitted in duplicate.
  - 15.1 One copy of the Contract furnished to the successful Tenderer as aforesaid shall be kept by the successful Tenderer on each site in good order and the same shall at all reasonable time be available for inspection and use by the “Authority” or his representative or by other Inspecting officers of the Authority.
  - 15.2 None of these documents shall be used by the successful Tenderer for any purpose other than that of this contract.

### **3. DETAILS TO ACCOMPANY TECHNICAL BID**

Tenderer must submit his offer under this section with details of organisation of his establishment, registration, certificate, experience, financial capabilities, etc. in evidence of their HR management and legal soundness in labour/staff management. In addition, some other points may also be collected, which may be felt necessary by the Committee including a presentation on various technical aspects at Tenderer cost at Inland Waterways Authority of India, NOIDA.

- a) Tender cost (Rs. 1,000/-) (Demand Draft in favour of IWAI fund payable at Noida).
- b) Earnest Money Deposit as per clause 7 above.
- c) Bank Solvency certificate from any nationalized /scheduled bank (as per clause 9.1.a).
- d) Letter of Authority for signing and negotiation of bid.
- e) duly filled "Tender Form".
- f) duly filled up and signed tender acceptance letter.
- g) Original bid document duly filled in and completed in all respects except prices, signed with rubber seal on each page as a proof of acceptance.
- h) a signed declaration stating that no alteration has been made in any form in the downloaded tender document.
- i) downloaded Minutes of the pre-bid meeting, sealed and signed as a proof of acceptance.
- j) a declaration that Bidder have not been banned or de-listed by any Govt. or quasi Govt. agency or Public Sector Undertaking.
- k) acceptance of payment terms clause 29 of "General Conditions of the Contract".
- l) acceptance of "Terms of Reference for Comprehensive Annual Maintenance Contract (CAMC) on NW-1 & NW-2.
- m) Acceptance of guarantee clause 2 of "Special Conditions of the Contract".
- n) acceptance to all tender terms & conditions to be confirmed.
- o) Bidders Registration Certificate.

- p) copy of document in the respect of PAN, service tax, VAT number.
- q) copy of audit report / balance Sheet for the last three financial years (2013-14, 2012-13 and 2011-12). Submitted Audit report / Balance Sheet should be clearly sealed & signed by the Auditor / Directors of the firm.
- r) Copy of average annual financial turnover during last three years ending 31st March of the previous financial year, should be at least Rs.54.0 lakhs A statement is to be submitted clearly showing annual financial turnover for the years (2013-14, 2012-13 and 2011-12).
- s) similar work orders and performance certificates / job completion certificates for each individual item for which the bid is submitted, issued by the client during the past 7 years, for evaluation of financial & technical capabilities of the bidders. Work orders and performance certificates / job completion certificates shall be in the name of bidder only, **clearly indicating the value of work.**
- t) Scanned copy of support letter from OEM for supplying spares and other technical support.
- u) Dully filled copy of Questionnaire as in annexure-1

## 4.GENERAL CONDITIONS OF CONTRACT

### DEFINITIONS

In the contract, the following words & expressions shall, unless context otherwise requires, have the meaning thereby respectively assigned to them:

- (i) **IWAI/ Authority / Department / Owner** shall mean the Inland Waterways Authority of India, which invites tenders on behalf of the Chairman, IWAI and includes therein-legal representatives, successors and assigns.
- (ii) **Chairman:** means Chairman of Inland Waterways Authority of India.
- (iii) **Employer** means the Chairman, Inland Waterways Authority of India and his successors.
- (iv) **Engineer-In-Charge (EIC)** means the Engineer officer authorized to direct, supervise and be In-charge of the works for the purpose of this contract who shall supervise and be in charge of the work.
- (v) **Engineer-in-charge representative** shall mean any officer of the Authority nominated by the Engineer-in-charge for day to day supervision, checking, taking measurement, checking bills, ensuring quality control, inspecting works and other related works for completion of the project.
- (vi) **Contract:** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the Chairman, Inland Waterways Authority of India and the contractor, together within the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-charge and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.
- (vii) **Contract sum:** means the amount arrived at by multiplying the quantities shown in the schedule of quantities and price by the respective item rates as allowed.
- (viii) **Contractor:** means the successful Tenderer who is awarded the contract to perform the work covered under this tender document and shall be deemed

to include the contractor's successors, executors, representatives or assignees as approved by the Engineer-in-charge.

- (ix) **Hydrographic Chief:** means the Hydrographic Chief of the Authority.
- (x) **Director** means the Director of the Authority, as the case may be.
- (xi) **Work Order** means a letter from the Authority conveying the acceptance of the tender/offer subject to such reservations as may have been stated therein.
- (xii) **Day:** means a calendar day beginning and ending at mid-night.
- (xiii) **Week:** means seven consecutive calendar days.
- (xiv) **Month:** means the one Calendar month.
- (xv) **Site** means the waterway and location as indicated in the document through which the works are to be executed.
- (xvi) **Work/works:** means work / works to be executed in accordance with the contract.
- (xviii) Schedules referred to in these conditions shall mean the relevant schedules annexed to the tender papers or the standard schedule of rates of the govt. mentioned with the amendments thereto issued up to the date of receipt of the tender.
- (xix) **District specifications** mean the specifications followed by the State Government in the area where the work is to be executed.
- (xx) **Tendered value** means the value of the entire work as stipulated in the letter of award.

## **INTERPRETATIONS**

- a) Words imparting the singular only shall also include the plural; he includes she and vice-versa unless this is repugnant to the context.
- b) Heading and marginal notes in these General Conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation of construction thereof of the contract.

1. **General**

- (i) The successful Tenderer (herein after called 'Contractor') shall satisfy himself in regard to the nature of service to be made, its scope, the conditions of contract, specifications, etc., included in the tender papers.
- (ii) The Tenderer (s) are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, in respect of the site conditions including but not restricting to the following which may influence or affect the work or cost thereof under the contract:
  - a) Source of extent of availability of expertise required for work.
  - b) Geological, meteorological, topographical, hydrological, morphological and other general features of the site and its surroundings as are pertaining to and needed for the performance of the work.
  - c) All other information pertaining to and needed for the work including information as to the risks, contingencies and other circumstances which may influence or affect the work or the cost thereof under this contract.
- (iii) The Tenderer shall note that information, if any in regard to the work site and local conditions as contained in these tender documents has been given merely to assist the Tenderer and is not warranted to be complete.
- (iv) For any item of work, the tendered rate shall be held to include all items as are clearly necessary for the proper execution of the work, notwithstanding the fact that any special items may not have been included in the specifications or shown on the drawings.
- (v) **DUTIES AND POWERS OF THE ENGINEER-IN-CHARGE REPRESENTATIVE**
  - (a). The Engineer-in-Charge may, from time to time in writing, delegate to his representative any of the powers and authorities, vested in the Engineer-in-Charge and shall furnish to the Contractor a copy of all such written delegation of powers and authorities. Any written instruction or written approval given by the representative of the Engineer-in-Charge to the Contractor within the terms of such delegation shall bind the Contractor and the Authority as though it has been given by the Engineer-in-Charge.

- (b) If the Contractor is dissatisfied with any decision of the representative of the Engineer-in-Charge, he will be entitled to refer the matter to the Engineer-in-Charge who shall thereupon confirm, reverse or vary such decision and the decision of the Engineer-in-Charge in this regard shall be final and binding on the Contractor.
- (c) **URGENT WORKS:** If any urgent work (in respect where the decision of the Engineer-in-Charge shall be final and binding) becomes necessary, the contractor shall execute the same as may be directed, provided the directions are in accordance and confirmatory with provisions in contract.
- (d) **INSTRUCTION AND NOTICE:**
  - (i) Except as otherwise provided in this contract, all notices to be given on behalf of the Authority and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions duties and powers of the Engineer-in-Charge.
  - (ii) All instructions, notices and communications etc. under the contract shall be given in writing and any such oral orders / instructions given shall be confirmed in writing and no such communication which is not given or confirmed in writing shall be invalid.
  - (iii) All instructions, notices and communications shall be deemed to have been duly given or sent to the contractor, if delivered to the contractor, his authorized agent, or left at, or posted to, the address given by the contractor or his authorized agent or to the last known place of abode or business of the contractor or his agent of services by post shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him and in other cases on the day on which the same were so delivered or left.

## 2. **Subletting:**

The contract shall not be assigned or sublet the work to 3<sup>rd</sup> party, which strictly not permitted under this contract. This shall be treated that the contractor is fail to complete the work and the work will be terminated with immediate effect with approval of Chairman, IWAI.

- 3. The contractor shall furnish adequate proof (along with the tender) to the effect to prove his capability in executing the work under the contract.



#### 4. ARBITRATION

- 4.1 Except as otherwise provided herein before, all questions, disputes or difference in respect of which the decision has not been final and conclusive arising between the contractor and the authority in relating to or in connection with contract shall be referred for arbitration in the manner provided a under and to the sole arbitrator appointed as follows:
- (i) Either of the parties may give to the other notice in writing of the existence of such question dispute or difference.
  - (ii) Within thirty (30) days of receipts of such notice from either party the Director / Dy. Director in charge of work at the time of such dispute shall send to the contractor a panel of three persons and there after the contractor within fifteen (15) days of receipt of such panel communicate to the Director / Dy. Director in charge the name of one of the person from such panel and such a person shall then be appointed a sole arbitrator by the Chairman "Authority". However, the arbitrator so appointed shall not be an officer or the employee of the Inland Waterways Authority of India.
  - (iii) Provided that if the contractor fails to communicate the selection of a name out of the panel so forwarded to him the Director / Dy. Director in charge than after the expiry at the aforesaid stipulated period the Chairman "Authority" shall without delay select one person from the aforesaid panel and appoint him as the sole arbitrator.
- 4.2 In the event of the arbitrator to whom the dispute is originally referred being transferred or vacating his office or being unable to act for any reason, then the Chairman shall appoint another person to act as sole arbitrator, such person shall be entitled to proceed with the reference from the stage at which, it was left by the predecessor.
- 4.3 The award of the arbitrator shall be final and binding the arbitrator shall decide in what proportion the arbitrator's fees, as well as the cost of Arbitration proceeding shall be borne by either party.
- 4.4 The arbitrator with the consent of the parties can enlarge the time, from time to time to make and publish his award.
- 4.5 The arbitrator shall give reasons for the award
- 4.6 The work under this contract shall continue during arbitration proceedings and no valid payments due from or payment by the authority shall be

withheld on account of such proceedings except to the extent, which may be in dispute.

4.7 The Arbitration and Conciliation Act 1996 together with any statutory modifications or re-enactment thereof and the rules made there under for being in force shall apply to the arbitration proceeding under this Clause.

4.8 Arbitration proceedings shall be held at New Delhi.

NOTE: In case of contract with another public sector undertaking the Clause 4.1 to 4.8 shall stand deleted and the following arbitration Clause shall apply:

“Except as otherwise provided in case of a contract with a Public Sector Undertaking if at any time any question dispute or difference whatsoever arises between the parties upon or in relation to, or in connection with this agreement, the same shall be settled by arbitration in term of the Ministry of Industry, department of Public/enterprises O.M. No. 3/5/93-PMA dated 30.06.93 or any modification / amendments thereof.”

The Arbitrator shall have the power to enlarge the term to rate the award with the consent of the parties provided always that the commencement or continuation of the arbitration proceeding shall not result in cessation or suspension of any of other rights and obligations of the parties of any payments due to them hereunder.

The venue of the arbitration proceedings shall be at NOIDA/New Delhi. It is further clarified that both the parties to this agreement hereby undertake not to have recourse to civil to solve any of their dispute whatsoever, arising out of this agreement except through arbitration.

## **5. LAWS GOVERNING THE CONTRACT**

- a) This contract shall be governed by, the laws of India for the time being in force.
- b) Irrespective of the place of delivery, the place of performance or place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued.
- c) Jurisdiction of Courts the courts of the place (New Delhi / NOIDA) from where the acceptance of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of contract.

## **6. APPEAL**

If the contractor desires to appeal against the decision of the Inspector against the rejection of any work as not being in accordance with the contract, he shall appeal to the Chairman within fourteen days after the Inspector's decision and if an appeal is so

preferred, the decision of the Chairman on behalf of Authority shall be final and conclusive.

## 7. CHAIRMAN'S CERTIFICATE TO BE FINAL

Wherever in this contract provision is made for any question, arrangement, amount matter or things being settled, decided, certified or determined by the Chairman or by the Inspecting Authority or officer or by the representative or resting upon or being governed or controlled by or submitted to the judgment or opinion of them/him or any or them/their/his assessment, decision, certificate, determination judgment or opinion shall unless otherwise stated therein be final and conclusive for all purposes and shall be binding on the Authority and the contractor notwithstanding anything contained in this contract.

## 8. AUTHORITY AND THEIR STAFF NOT TO BE PERSONALLY LIABLE:

Nothing in these ports shall be deemed to or shall impose any personal liability of the Authority or their staff.

## 9. SECURITY DEPOSIT

9.1 Security Deposit including EMD already submitted will be 5% (five percent) of the contract value of the work. The EMD received from successful Tenderer will be converted as Security Deposit on signing of the agreement. **Balance Security Deposit (i.e. Total 5% SD deducting EMD submitted with technical bid) shall be paid in the form of Demand Draft before signing of Agreement.** Bank guarantee will not be accepted as security deposit

9.2 In addition, the Performance Guarantee shall be submitted in the form of DD/BG from a Nationalized within 10 days of award of work for an amount equal to 5% (five percent) of the contract value of the work. Performance Guarantee(s) shall be kept valid till expiry of contract period. However, the successful bidder can give a performance guarantee for each year, if he so desires and it can be renewed every year alongwith renewal of contract.

- a) There shall not be any additional payment to the contractor for obtaining bank guarantees.
- b) No claim shall lie against the purchase either in respect of interest or any depreciation in value of any security.

9.3 If the contractor fails or neglects to observe or perform any of his obligations under the contract, it shall be lawful for the Chairman or his duly authorized

representative to forfeit either in whole or in part, the security deposit/encash the Performance Guarantee furnished by the contractor. If the contractor duly performs and completes the contract in all respect and presents in absolute “**NO DEMAND CERTIFICATE**” in the prescribed form, the Chairman on behalf of authority shall refund the Performance Guarantee(s) and security deposit to the contractor after deducting all costs and other expenses that the purchaser may have incurred and all dues and other money including all losses and damages which the purchaser which is entitled to recover from the contractor.

**10. (a) Prices**

The prices quoted by the Tenderer and accepted by the “AUTHORITY” shall remain firm and hold good till the completion of the works and no additional claims will be admissible on the account of any price variation of fluctuation in the market rates.

**(b) Bid Prices**

Tenderer may quote in Indian Rupees. The payment to bidder will be made only in Indian Rupees. No provision exists for payments of foreign exchange to Tenderer.

The Tenderer shall indicate on the commercial bid the unit price and the total unit price of the service under this contract in the following manner:

- Unit rate of CAMC charge
- Service charge
- Total cost of 7 station

Any notified change in the service Tax (both increase and decrease) shall be to the “AUTHORITY” account. For such claims of variations, the Government notification as documentary evidence shall be produced by the Tenderer. Price variation due to any other cause shall be on contractor account.

**11 . PAYMENT FOR COMPREHENSIVE ANNUAL MAINTENANCE COST OF DGPS REFERENCE STATION:-**

50% amount of the total contract value of item of each site shall be paid after six month of award of work and periodical visit of engineers and balance 50% shall be paid after one year. In other words the payment shall be paid half yearly. Payment on account for admissibility shall be certified by the Engineer in Charge.

12. TAX DEDUCTIOIN AT SOURCE

TDS at the applicable rate as per Income Tax Act / Rules shall be deducted from all the payment / advance made against the contract.

13. **SYSTEM OF PAYMENT**

Unless otherwise agreed in writing between Chairman on behalf of the Authority and the Contractor payment for the works shall be made by Chairman on behalf of Authority, through RTGS mode for the work completion. The contractor must submit the bills and necessary documents allowing 30 days from the date of submission for the payment.

14. **Penalty / Liquidated Damages**

- i) The "AUTHORITY" may, without prejudice to any other method of recovery, deduct the amount of such damages from any money in his hands, due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the works or from any other of his obligations and liability under the contract.
- ii) The Contractor shall pay a sum equal to 0.05% of the cost of the value of the work for the station for each day, if the station remains unavailable as per details given clause 5.2(vi) , provided that such sum will not exceed 10% of the Contract value for the site. If the contractor fails to ensure the availability of the station for more than 15 days, no payment shall be allowed for that quarter.

15. Force Majeure

(i) **Definition of Force Majeure**

"Force Majeure" means an exceptional event or circumstances:

- a) Which is beyond a Party's control,
- b) Which such Party could not reasonably have provided against before entering into the Contract.
- c) Which, having arisen, such Party could not reasonably have avoided or overcome, and
- d) Which is not substantially attributable to the other Party?

Force Majeure shall include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- a) War, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- b) Rebellion, terrorism, revolution, insurrection, military or usurped, or civil war,
- c) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel and other employees of the Contractor and Sub-Contractors.
- d) Munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosive, radiation or radio-activity, and
- e) Natural catastrophes such as unprecedented rain, earthquake, hurricane, typhoon or volcanic activity.
- f) Change in the Government licensing policy
- g) Any unforeseen event.

**(ii) Notice of Force Majeure**

If the Contractor is prevented from performing any of its obligations under the Contract by Force Majeure, then he shall give notice to the "AUTHORITY" of the event or circumstances constituting the Force Majeure and shall specify the obligation, the performance of which is or will be prevented. The notice shall be given within 15 days after the Contractor became aware, or should have become aware, of the relevant event or circumstances constituting Force Majeure.

The Contractor shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them.

NOTWITHSTANDING ANY OTHER PROVISION OF THIS CLAUSE, FORCE MAJEURE SHALL NOT APPLY TO OBLIGATIONS TO EITHER PARTY TO MAKE PAYMENTS TO THE OTHER PARTY UNDER THE CONTRACT.

**16. WITHHOLDING AND LIEN IN RESPECT OF SUM CLAIMED**

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the Contractor, the purchase shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, deposited by the Contractor and for the purpose aforesaid the purchase shall be entitled to withhold the said security deposit furnished and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the purchase shall be entitled of the such claimed amount or amounts referred to supra, from any sum or sums found payable or which at any time thereafter may become payable to the Contractor under the same contract or any other contract with the purchase or the government or any person contracting through the Chairman pending finalization adjudication of

any such money so withheld or retained under the lien referred to above, by the purchaser will claim arising out of or under the contract is determined by the arbitrator.

## **17. OVER PAYMENTS AND UNDER PAYMENTS**

- 17.1 Whenever any claim whatsoever for the payments of a sum of money to the Authority arises out of or under this contract against the contractor, the same may be deducted by the Authority from any sum then due or which at anytime thereafter may become due to the contractor under this contract and failing that under any other contract with the Authority or from any other sum whatsoever due to the contractor from the Authority or from the Authority or from his security deposit, or he shall pay the claim on demand.
- 17.2 The Authority reserves the right to carry out post – payment audit and technical examination of the final bill including all supporting vouchers, abstracts etc. The authority further reserves the right to enforce recovery of any over payment when detected not – withstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an arbitrator appointed under clause 4 of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.
- 17.3 If as a result of such audit and technical examination any over payment is discovered in respect of any work done by the contractor or alleged to have been done by him under contract, it shall be recovered by the Authority from the contractor by any of all of the methods prescribed above, and if any under payment is discovered, the amount shall be duly paid to the contractor by the Authority.
- 17.4 Provided that the aforesaid right of the Authority to adjust over-payment against amount due to the contractor under any other contract with the Authority shall not extend beyond the period of two years from the date of payment of the final bill or in case the final bill is a MINUS bill, from the date the amount payable by the Contractor under the MINUS final bill is communicated to the contractor.
- 17.5 Any sum of money due and payable to the Contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or Authority against any claim of the Authority or such other person or persons in respect or payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or Authority or with such other person or persons. The sum of money so withheld or retained under this clause by the Engineer-in-Charge or Authority will be kept withheld or retained as such contract or any

other contract is either mutually settled or determined by the arbitrator, if the contract is governed by the arbitration clause under the clause 22 or by the competent court hereinafter provided, as the case may be, and the contractor shall have no claim for interest or damages whatsoever on this account or any other ground in respect of any sum of money withheld or retained under this clause.

## **18. CONTRACT MATTERS TO BE TREATED AS CONFIDENTIAL**

18.1 All documents, correspondence, decisions and orders concerning the contract shall be considered as confidential and/or restricted in nature by the contractor and he shall not divulge or allow access to them by any un-authorized person.

18.2 The contractor shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noted that the Indian Official Secrets Act, 1923 (XIX of 1923) applies to them and shall continue so to apply even after the execution of such under the contract.

## **19. Insurance:**

The contractor shall provide necessary insurance coverage against the transshipment loss, damage, etc to the authority's property taken for repairs. The contractor has also paid necessary road permit charge for repairing/replacement of defective parts or equipments.

## **20. INDEMNITY**

(i) The Contractor shall not be liable for payment of any royalty, license fee or other expenses in respect of for making use of patents or designs with respect to which he is according to the terms of the contract, to be treated as an agent of the Government for the purpose of making use of the patent of trade mark for fulfillment of the contract.

## **21. CORRUPT PRACTICE**

(i) The Contractor shall not offer or to give to any person in the employment of the purchaser or working under the orders of the Chairman any gift of consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or favour or disfavor to any person in relation to the contract or any other contract with the purchaser.



Any breach of the aforesaid condition by the contract, or any one employed, by him or acting on his behalf (whether with or without the knowledge of the Contractor) or the commission of any offence by the Contractor or by any one employed by him or acting on his behalf under chapter IX of the Indian Penal Code, 1860 or the preservation of Corporation Act, 1947 or any other Act enacted for the prevention of corruption by public servants shall entitle the Chairman on behalf of authority to cancel the contract and all or any other contracts with the Contractor and to recover from the Contractor the amount of any loss arising from such cancellation in accordance with the provisions of special condition and general condition.

**(ii)** Any dispute or difference in respect of either the interpretation effect or application of the above conditions or of the amount recoverable there under by the purchaser from the Contractor, shall be decided by the Chairman on behalf of authority.

**(iii) Integrity pact**

It is a specific requirement for considering the bid that the tenderer should sign and submit an 'integrity pact' as per clause 2.12

## **5. SPECIAL TERMS AND CONDITIONS OF CONTRACT**

### 1. General

- (i) All the future correspondences in this connection shall be addressed to the:

The Hydrographic Chief  
Inland Waterways Authority of India  
A-13, Sector – 1, NOIDA – 201 301 (U.P.)  
Tel :0120) 2543931, 2522969,2527667  
Fax (0120) 254 3973, 2544041, 2544005

- (ii) The “Authority” may terminate this contract at any time for unsatisfactory performance by the Contractor (s), for which “AUTHORITY” shall inform in writing and a proportionate amount, if any, shall be payable for that part of the supply only.

### 2. DECLARATION FOR THE SERVICE PROVIDED AND AVAILABILITY OF SERVICE

- (i) The Contractor shall declare to the Authority, on a 100/ non judicial stamp paper, that the services supplied under the contract will comply strictly with the contract and shall be first class and free from defects in every case. The Contractor shall further declare to the Authority that all services by the Contractor for the purpose of the CAMC will be of the most suitable grade, and for their intended purposes. The Contractor shall also declare that the services to be carried out under this contract will conform with generally accepted professional standards.
- (ii) In the event of occurrence of a fault, and onsite personnel not in a position to overcome the fault, the on duty person shall inform the CAMC Contractor by phone/email as well as to the Engineer-in Charge and HQ Office Noida giving nature and details of fault (including the date of occurrence) as well as details of attempt made to overcome the fault. On receipt of such notice, the Contractor shall promptly depute their most experienced engineer for the repair or, if required, replace the defective equipment or parts thereof.
- (iii) If the Contractor, having been notified, fails to remedy the defects (s) in accordance with the contract, the Authority may proceed to take such remedial action as may be necessary at the Contractor expense. The Contractor warranty

pursuant to this clause is without prejudice to any other rights or remedies, which the Authority may have against the Contractor under the contract.

- (iv) Notwithstanding the above, the availability of the system shall not be affected. The contractor is required to maintain minimum 98 % availability of the system. The availability shall be defined as per IALA Manual. If the services is not available to the water users for continuous 48 hours, the services shall be considered not available.
- (v) Should it appear to the "AUTHORITY" at any time during the execution of the work that the maintenance /workmanship is unsatisfactory, the AUTHORITY shall have full powers to get the work done through some other contractor/firm as he may consider necessary for the proper execution of the work and shall debit the cost of such/expenses to the contractor which shall be the first charge upon the bill of the contractor.
- (vi) The Contractor shall pay a sum equal to 0.05% of the cost of the CAMC of the system remains unavailable for each day beyond the stated period of 48 hours on every such occasion provided that such sum will not exceed 10% of the Contract value for the site. In case the Contractor fails to perform the preventive maintenance, which is to be carried out every quarter, the amount to be deducted as penalty shall be Rs.1,00,000/- for each quarter for the concerned station. If the contractor does not make visit to a particular site for the two consecutive quarters, no payment in respect of that shall be allowed.

### **3. Schedule of Work**

- (i) Comprehensive Annual Maintenance Contract consists of (a) preventive maintenance and (b) corrective maintenance of all the parts of the DGPS system and includes the supply and replacement of all the parts/component of main & hot standby system.
- (ii) In addition to the DGPS equipment this contract includes the repair and maintenance of the computer hardware, software, complete DGPS/IM/Beacon Rx , antenna systems including Antenna Tuning Unit, Whip/T Antenna, UPSs, DG Sets, etc.
- (iii) The contractor shall supply free of cost the future updated version of the broadcast station controller software and any other software essential for the smooth operation of the systems.

- (iv) The contractor should be ready to provide maintenance/repair support on all the days irrespective of any type of holidays.
- (v) The contractor shall provide all types of preventive maintenance with tools and plants.. It shall include checking of healthiness and regulation of the power supplies, the electrical connections, and various voltages on the PCBs, to run standard test programme /software and diagnostics for each system.
- (vi) Physical cleaning of the interior of the cabinet, checking of any over heating of the components on the PCBs and physical checking of socket mounted ICs connectors and cables for any loose connections shall form the part of preventive maintenance.
- (vii) The Contractor shall have own test and repair center facility with all special test instruments required for repairs. Also the contractor shall have trained and experienced engineers for repairs of PCB containing Surface Mounted Devices fitted in the system. The contractor shall furnish documentary evidence to the above, which shall, if required, be verified by the Authority.
- (viii) The Contractor shall stock all spares and complete spare system having configuration equivalent or better than the configuration of the respective system being maintained for immediate replacement at the site. The authority, at its desecration, may visit and verify such facilities.
- (ix) The contractor's engineer shall visit the sites, once every three month, for checking the health of the system and for carrying out the preventive maintenance. However, the breakdown maintenance shall be carried out immediately, but not later than 48 hours from the time of reporting.
- (x) During the CAMC period, no escalation clause shall be entertained.

**4. Key Dates**

Sl. No.	Items	Period
1.	Award of work order	Zero date
2.	Submission of Performance Guarantee (5% of Contract Value)	Within ten days from the date of issuance of awarded of work order.
3.	Signing of agreement	Within ten days from the date of issuance of awarded of work order.

## 6. TENDER FORM

To, .....

The Hydrographic Chief  
Inland Waterways Authority of India  
A-13, Sector – 1,  
NOIDA – 201 301  
U.P. India.

I/We have read the examined the following documents relating to .....as specified, of  
Inland Waterways Authority of India, Noida (IWAI):

- i.** Tender notice
- ii.** Instructions to the Tenderer
- iii.** Details to Accompany Technical Bid
- iv.** General Conditions of Contract
- v.** Special Terms and Conditions of Contract
- vi.** Tender Form
- vii.** Warranty Form
- viii.** Agreement Form
- ix.** Performance Guarantee Form

1. I/We hereby tender for the execution of the works referred to in the aforesaid document upon the terms and conditions contained or referred to therein and in accordance in all respects, with the specifications other terms and conditions of the contract and within the period of completion as stipulated in the tender document.

2. I/We agree to keep the tender open for acceptance for 180 days counted from the last date specified for the submission thereof and not to make any modifications in its terms and conditions, which are not acceptable to “Authority”. We also agree that any terms or conditions in the tender at variance with the above stipulation will render the tender liable to rejection summarily.

3. Rs.....  
.....(Rupees.....  
..... (or ..... ) only as the case  
may be is attached herewith as Earnest Money.

4. If, after the tender is accepted, we fail to execute the contract deed within 10 days of the receipt of the order to do so, we agree that "Authority" shall without prejudice to any terms and conditions of the tender, forfeit the earnest money absolutely.
  
1. I/We undertake to commence the work within 7 days from the date of signing of agreement and fulfill all the terms and conditions and provisions of the aforesaid documents or in default thereof to forfeit the security at the hands of "Authority" the liquidated damages in terms of the contract.
  
2. Until a formal contract is prepared and executed this bid, together with your written acceptance thereof in your notifications of award shall constitute a part of the contract between us.
  
3. I/We understand that you are not bound to accept the lowest priced or any bid that you may receive.

Signature.....

In the capacity of

.....  
 Duly authorized to sign the

Tender on behalf of (in block

Capitals).....

.....

Witness.....

Date.....

Address.....

Postal Address.....

.....

Telephone No.....

Telegraphic address.....

E-mail.....

## **7. AGREEMENT FORM**

This agreement made on \_\_\_\_\_day\_\_\_\_year\_\_\_between the Inland Waterways Authority of India (hereinafter called the `IWAI which expression shall unless excluded by or repugnant, to the context, be deemed to include heir, successors in office) on one part and M/S\_\_\_ (hereinafter called the CONTRACTOR which expression, shall unless excluded by repugnant to the context be deemed to include his heirs, executors, Administrators, representatives and assigns of successors in office) on the other part.

WHEREAS THE IWAI desirous of undertaking the works of

---

WHEREAS the contractor has offered to execute and complete such works and whereas IWAI has accepted the tender of the contractor and WHEREAS the contractor has furnished

---

as security for the due fulfilment for all the conditions of this contract.

NOW IN THIS AGREEMENT WITNESSTH AS FOLLOWS

In this agreement words and expression shall have the same meaning as are respectively as assigned to them in the conditions of contract hereinafter referred to:

The following documents shall be deemed to form and be read and construed as part of this agreement VIZ.

1. Notice Inviting Tender
2. Instructions To The Tenderer
3. Details To Accompany Technical Bid
4. General Conditions Of Contract
5. Special Terms And Conditions Of Contract
6. Tender Form
7. Agreement Form
8. Performance Guarantee Form
9. Warranty Form
10. Commercial Bid
11. Questionnaire
12. DGPS Station Instrument Details

The contract agreement has been compiled by the IWAI from the original tender documents and all the correspondences from the tendering stage till acceptance. In the event of any difference arising from the completion of the contract, the original tender documents, contractors offer, minutes of meetings and correspondence between the party ended vide letter No. \_\_\_\_\_ may be referred to by either party. These documents shall take precedence over the compiled documents.

The contractor hereby covenants with the IWAI to complete and maintain the “Works” in

conformity in all respect, with the provisions of the agreement.

The IWAI hereby covenants to pay the contractor in consideration of such completion of works, the contract price at the time and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties hereunto have set their hands and seals on the day year first written.

For and on behalf of

For and on behalf of

*(Inland Waterways Authority of India)*

*Contractor*

*Signature* \_\_\_\_\_

*Signature* \_\_\_\_\_

*Name & Designation* \_\_\_\_\_

*Name & Designation* \_\_\_\_\_

*Stamp*

*Stamp*

Witness:

Witness:

1) Signature \_\_\_\_\_

1) Signature \_\_\_\_\_

2) Name & Designation \_\_\_\_\_

2) Name & Designation \_\_\_\_\_



## **8. Performance Guarantee Form**

### **BANK GUARANTEE PROFORMA FOR FURNISHING PERFORMANCE GURANTEE**

To

**The Chairman  
Inland Waterways Authority of India  
A-13, Sector-1  
Noida- 201301**

In consideration for the Chairman, Inland Waterways Authority of India hereinafter called „the Authority” having agreed, under the terms and conditions of the Agreement dated ..... made between..... and ...for the due fulfilment of the said Agreement by the Contractor of the terms and conditions contained in the said Agreement, on production of Bank Guarantee for Rs..... (Rupees.....) at the request of..... Contractor(s), We (Bank) do hereby undertake to pay to the Authority an amount not exceeding Rs..... against any loss or damage caused to or suffered, or would be caused to or suffered by the Authority by reason of any breach of the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We..... do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Authority stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the authority by reason of breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the contractor(s)“s failure to perform the said Agreement,. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....

3. We undertake to pay the authority any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) / suppliers(s) in any suit or proceeding pending before any court or Tribunal relating thereto liability under this present being absolute and unequivocal.

The payment so made by us under this Bond shall be valid discharge of our liability for payment there under and the contractor(s) / supplier(s) shall have no claim against us for making such payment.

4. We, ..... further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Authority under or by virtue of the said Agreement have been fully and its claim satisfied or discharge or till..... Certify that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contactor(s) and accordingly discharges this Guarantee after..... years from the date of completion of the said contract unless a demand or

claim under this Guarantee is served in writing on the bank but before the expiry of the said period of ..... years in which case it shall be enforceable against the bank notwithstanding the fact that the same is enforced after the expiry of the said period of .....years.

5. We,.....further agree with the Authority that the Authority shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Authority against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for the provision, have effect of so relieving us.

6. It shall not be necessary for the Authority to proceed against the Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the Authority may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

7. Notwithstanding anything contained herein above our liability under the guarantee is restricted to Rs..... and shall remain in force until.....Unless a claim or suit under this guarantee is filed with us on or before..... **ALL OUR RIGHTS UNDER THE GUARANTEE SHALL BE FORFEITED** and the bank shall be relieved and discharged from all liabilities therein.

8. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s) / supplier(s).

9. We,..... lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing.

Dated the .....date of.....200... for..... (indicate the name of Bank)

Signature.....

Name of the Officer..... (in Block Capitals) Designation of

Code No.....

Name of the Bank and Branch.

With complete address ,Phone, fax and e-mail.

## **9. WARRANTY FORM**

M/s ..... (hereinafter referred to as the tenderer) having carefully studied all the tender documents pertaining to the contract for “CAMC of DGPS Equipment on NW 1 & NW 2 ” and the local conditions having undertaken to execute the said works.

DO HEREBY WARRANT THAT:-

1. The Tenderer is familiar with all the requirements of the Contract.
2. The Tenderer has investigated the work site & also visited IWAI office and satisfied himself regarding the nature of work, and local conditions that may affect the work or its performance.
3. The Tenderer shall mobilize the necessary equipment, qualified & experienced manpower as per tender conditions.
4. The Tenderer is satisfied that the work may be performed and completed as required in the Contract.
5. The Tenderer accepts all risks directly or indirectly connected with the performance of the Contract.
6. The Tenderer has/had/have no collusion with other Tenderer, with any of the men of the Engineer-in-Charge or with any other person in Authority to execute. The said works according to the terms and conditions of the said Contract.
7. The Tenderer has not been influenced by any statement of promise of the Authority or E-I-C but only the Contract Documents.
8. The Tenderer is financially solvent.
9. The Tenderer is experienced and competent to perform the Contract to the satisfaction of the E-I-C.
10. The Tenderer is familiar with all General and Special Laws, Acts, Ordinances, Rules and Regulations of the Municipalities, District, State and Central Govt., that may affect the work, its performance or personnel employed therein.
11. I/We hereby give undertaking that the information, certificates and documents furnished by me/us with my/our offer and subsequently regarding works mentioned are true, correct, valid and complete to the best of my/us knowledge and nothing has been concealed/distorted any material as mentioned above I/We am/are agreeable for termination of Contract between me/us an Inland Waterways Authority of India regarding works mentioned in the tender without any notice, reason or compensation and non-issue of tender documents in future.

For and on behalf of the Tenderer

### 11. Commercial Bid.

Comprehensive Annual Maintenance Contract of DGPS Reference Stations at Swaroopganj, Bhagalpur, Patna (N.W.-1) & at Dhubri, Jogighopa, Silghat, Dibrugarh(N.W.-2)

Sr. No.	Description	Unit	Qty	Basic Cost (in INR)	Service Tax (in INR)	Total (in INR)
1	CAMC cost of DGPS stations for one year	station	7			
				Total Contract Value		

(Rs. In word)

**Questionnaire**  
**Detailed Information on Contractors Experience and Financial viability**

**General :**

1. Name & Address of the firm :
  
2. Status of the firm: (Private/Govt/Public Undertaking)
  
3. Registered office address:

Telephone..... Fax.....

4. Director's/Owners Name:

5. No. of employees working in the office :      Skilled              Unskilled
 

Permanent	.....	.....
Temporary	.....	.....

6. Qualifications & experience of the Director and other key staff proposed to engaged for above survey
  
7. Authorised capital of the company (in Rs. .... Lakhs only)
  
8. Have you been registered with any Govt. /Public Sector Organisation. (Yes/No), if so furnish the details .....

**Technical :**

Give details in a statement form of the work carried out by the firm during last 7 years.

- a) Type of similar Work done.
- b) Cost of each work done.
- c) Furnish details regarding target dates and actual dates of completion of works with names and address of clients.

d) Please indicate the field of specialization of the firm/company in brief.

**Relevant Experience :**

- a) Details of personnel.
- b) Detailed bio data of personnel proposed to be deployed and state if they are presently employed in your firm.
- c) Furnish list of similar job on hand along with deployment schedule

**DGPS STATION INSTRUMENT DETAILS****A. Qualitative Specifications for Differential Global Positioning System (DGPS)****1. Preamble.**

The Specifications pertain to the design of existing reference DGPS base stations and service as per RTCM SC-104 V 2.3 standard for differential NAVSTAR Satellites. Also the specifications pertain to a DGPS reference station and Integrity Monitor with PC using Marine MF DGPS data link to broadcast differential corrections. The DGPS system is used for requirements in marine and land application as mentioned below.

**2. Configuration.**

- 2.1 The DGPS Reference stations are consisting of two parallel systems each consisting of GPS receiver with antenna, a computerized data processor with computer, Modulator and interfacing equipment. The configuration is operating in service/main and standby mode shall automatically takeover. In addition, the configuration will select either main or standby transmitter depending on their serviceability status.
- 2.2 The DGPS reference station configuration is having Receiver Autonomous Integrity Monitor to provide timely warning to users, when the system falls out of tolerance limits. The Integrity monitor is consisting of DGPS Beacon Receiver, Navigator Receiver similar to reference station i.e. switchable to reference station, integrity monitor PC with monitor and system software. In addition, a local audio/visual alarm will be provided to alert the operator on duty in case of failure as mentioned above.
- 2.3 The Beacon control software at reference station will be able to log system performance data, which can be accessed remotely, if required from remote control and monitoring station.
- 2.4 The base station control software should have facility to generate reports at user definable intervals like week, month of user-defined parameters like logs, alarms, failures, etc. A provision for storing these data on hard disk for a period of three months is to be made. This is required to evaluate the performance of the system at a later date.
- 2.5 The engineering services shall form the part of this tender .
- 2.6 A provision at each reference station is existing to interface the system with a Central Remote Control and Monitor station.
- 2.7 If, due to any reason(s) the system is not performing within tolerance limits and beacon control system is not to bring the system back to normal operating state, an audio/visual warning will be relayed to operator on duty for attracting his attention.

- 2.8 Each DGPS reference station transmits correction via DGPS Beacon. A built in integrity monitor will continuously monitor the quality and reliability of transmission.
- 2.9. The public mains supply and stand by Diesel Alternator (DA) sets will be provided by the “Authority” at the station. The DGPS Reference Station shall be in continuous service (i.e. 24 hrs. Per day) throughout the life span of equipment.

The broadcast reliability is required to be better than 99%. The broadcast coverage is considered as area where the mariner gets DGPS service. In the coverage area, the broadcast signal level shall give better than 99.5% availability over 1 year, 99.85% continuity over a period of 3 hours and accuracy of better than 5m.

#### 2.10 Equipment Details

SL NO	ITEM-DESCRIPTION	DETAILS
1.	WHIP ANTENNA	74' self radiating antenna for transmission of DGPS Signals (MAKE:VALCOM) except Bhagalpur where 30' high “T” Antenna System is established.
2.	ATU (ANTENNA TUNING UNIT)	Matching system between transmitter and antenna (MAKE NAUTEL)
3.	Reference Stations in hot standby mode consisting of :	(a) 3 no GPS receiver for receiving and generating correction factor for corrected GPS signal.(MX 9525R)(RS1, RS2, IM) (b) 3 no choke ring antenna for receiving GPS signal from Satellite. (MX-Marine) (c) 2 no Modulator for modulating the signal and send the corrected signal to transmitter. (MX 9525M) (d) 1 no Beacon receiver for receiving what signal is sending.(MX 41R) (e) 1 no Tx controller which activate or deactivate RS1/RS2. (f) 1 no desktop computer for controlling and monitoring the whole operation with BSC Software. (g) 1 no DMP Type Printer.
4.	Transmitter	1 no transmitter, working as real time data link, for transmission of DGPS corrections (MAKE Nautel, VDR 750 with ATU)
5.	POWER BACKUP	(a) 1 no 5 KVA UPS (10no, 26 AH batteries) for transmitter and ATU Unit. (b) 1 no 3KVA UPS (6 no, 26AH batteries) for backup of DGPS Reference Unit (MAKE Hykon)
6.	AC unit	(a) 1.5 ton AC for cooling the instrument room. (b) 1 ton AC for cooling the Accommodation room. (MAKE LG)
7.	DG Sets	2 nos. (15KVA, 3 phase) DG set for Supply of Power to DGPS Station (MAKE Escort)



## **Technical Information**

### **1. Delivered System**

The delivered DGPS Beacon System contains enhanced control and monitoring capabilities. The equipment at the DGPS Broadcasting Station site consists of Beacon Reference Stations, Beacon Integrity Monitor, Beacon Station Controller. (BSC), Whip Antenna/T Antenna , Diesel Generator Set, UPS and other ancillary equipment. The function of the DGPS Broadcast station is:

- Computation and broadcast of the DGPS correction information.
- Broadcast of beacon almanac and reference station status information
- Detection of equipment failure of either the DGPS or the transmitter equipment (or both), with automatic changes over to hot stand by.
- Monitoring and logging of performance data (statistics). If any tolerance situation occurs, the system will issue a user warning locally

### **2. Redundancy**

To allow system operation to continue uninterrupted in the event of hardware failure, each BSC site contains two MX 9525 Beacon Reference Stations (RS), one MX 9525 Beacon Integrity Monitor (IM) and Broadcast Station Controller (BSC). Each Beacon Reference Station is connected to a transmitter which , when selected, transmits the modulated corrections to the beacon transmitter. The MX 9525 Beacon Integrity Monitor continually monitors the quality of the DGPS broadcast by analyzing the broadcast DGPS corrections and comparing the resulting fix position. IM also continually monitors DGPS and transmitter performance, GPS availability and geometry, DGPS data correctness and quality, signal presence, and power level. When any alarm condition is detected, an alarm message is immediately sent to the BSC.

Both RS are fully functional with the exception that only one of the two is actually transmitting the modulated DGPS corrections. The equipment set, which is actually transmitting the corrections, is referred to as the active unit and the other is the backup. The second set of hardware operates as a hot backup, which can be activated at any time. (Furthermore, if for any reason the DGPS broadcast becomes unhealthy; the backup unit will be activated automatically or manually from the BSC).

Any failure resulting in a loss of signal to the beacon transmitter or a significant decrease in the output power of the beacon will cause the system to automatically

switch from main to standby system. Since the BSC controls and monitors the RSs, IMs and modulators, a failure occurring in any of the equipment is automatically detected.

The DGPS system is powered through an Uninterruptible Power Supply (UPS).

### 3. **Broadcast Station**

The Broadcast Station (BS) is the location where the Beacon Reference Station, Beacon Integrity Monitor, and Broadcast Station Controller are located. Each BS broadcasts continuous DGPS corrections in addition to related user information. Complete equipment redundancy is integrated at each BS site. Any single equipment failure will not preclude a healthy broadcast. In general, the Broadcast Station will operate autonomously if a fault or out-of-tolerance condition occurs.

The BS is configured to automatically recover from a failure. Each station has continuous, real-time monitoring of its own broadcast via the Beacon Integrity Monitor. Monitor-detected faults or out-of-tolerance conditions may cause the broadcast health to be modified, notification to the DGPS user and recovery, if required. If all on-air monitoring is lost, the station will continue to broadcast in an unmonitored mode, informing the user of this state.

### 4. **Broadcast Station Configuration**

The DGPS Beacon Reference Station consists of the following equipment

Table below indicates Beacon Broadcast Station Components

Description	Qty/Sys.
(i) Broadcast Station Control Rack:	1
(ii) MX 9525 Reference Station for receiving and generating correction factor for corrected GPS signal	2
(iii) MX 9525M Modulator for modulating the signal and send the corrected signal to	2

transmitter	
(iv) MX 9525 Integrity Monitor	1
(v) MX 52 R – Beacon Receiver	1
(vi) Choke ring antenna for receiving GPS signal from Satellite. (MX-Marine)	3
(vii) Tx controller which activate or deactivate RS1/RS2.	1
(viii) Loop H-Field Beacon Antenna	1
(ix) Desktop computer for controlling and monitoring the whole operation with BSC Software.	1
(x) ..... Type Printer.	1
(xi) .....Compatible PC with associated RSIM Software	
(xi) UPS	
(xii) DG Set	
(xiii) Antenna	
Cables, Associated Interface ,etc	1 set

A block schematic diagram is given below. The Reference Station (MX 9525), Integrity Monitor (MX 9525), Tx Controller, and Broadcast Station Controller (BSC) are located in the BSC Rack. The BSC talks to the reference stations and integrity monitor, using standard RSIM messages during normal operation. Refer to the RTCM Recommended Standards for Differential NAVSTAR GPS Reference Stations and Integrity Monitors for the proper RSIM message formats. Understanding the proper format of these messages is a good aid in troubleshooting the system's performance, particularly if the system is having communication problems. This document is also referred to as RTCM /SC104- 3.

The CDU program (Control Display Unit program) supplied by MX Marine can also be used to troubleshoot any of the reference station or the integrity monitor receivers. When the CDU program is opened or launched from Windows, the normal Beacon Station software will continue to run in the background communicating with the Central Station and the GPS receivers and logging any data or alarms. This is possible because the BSC PC runs on a Windows NT platform, which allows for multiple PC tasking. However, when the CDU program is running, the BSC port cable must be removed from

the MX 9310 or MX 9320 that is to be operated by the CDU program. A “maintenance cable” will need to be connected between Communication port 2 and the BSC port.

The BSC PC software controls the Tx Controller. When the BSC PC detects a fault in one of the reference stations, it commands the Beacon Modulator Cross-over Relay to select the standby reference station. Figure 2, below, provides the relay box’s Block Diagram. Figure 3 provides the schematic of the Beacon Modulator Cross-Over Relay operational concept.

5. SPECIFICATIONS of DGPS

- (i) **Number of Channels** : 2
- (ii) **Frequency Range** : 283.5-325.0 KHz
- (iii) **Tuning Resolution** : 1 Hz
- (iv) **Minimum Signal Strength** : <5 uV/m @ 100bps
- (v) **Dynamic Range** : >100 dB
- (vi) **Adjacent Channel Rejection** : >50 dB at 1KHz.
- (vii) **Acquisition Time** : <5 seconds, manual command
- (viii) **Noise Blinker** : <15 seconds, automatic warm start
- (ix) **Signal Detection** : <15 minutes, automatic cold start

6. Transmitter

Dual DGPS Transmitter

1.	Frequency	283.5 to 325 kHz
2.	Power Output	50 to 500 Watts continuously variable.
3.	Spurious Emission	70dB below carrier.
4.	Output impedance	50Ω
5.	Type of emission	N0N, G1D
6.	Noise & hum level	>40dB below carrier.
7.	Input Power	230 V ±10%
8.	Metering	Forward power, reflected power, PA voltage, current, etc
9.	Mode of operation	Continuous
10.	Operating temperature	-40° C to + 70°C
11.	Relative humidity	0- 95% non-condensing at 40° C

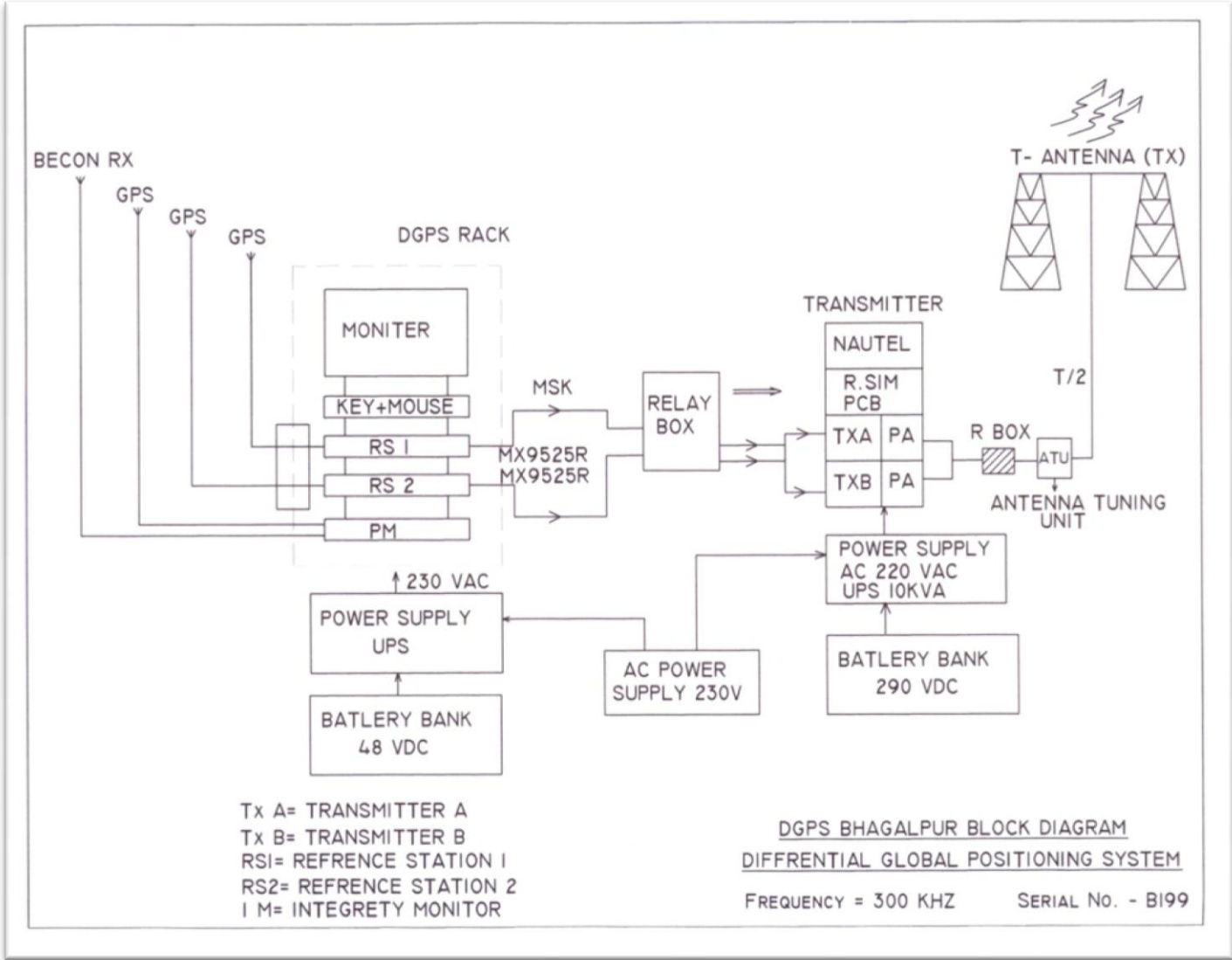
## UUPS

	Hykon Make	Hykon KVA
Type	R 1075 On Line	On line
Input voltage	160-265V Single Phase	190-260 V Single phase
Charging mode		Float/Boost
Voltage regulation	±1% (Typical)	±1% digitally controlled
Power factor	0.6 to unity	0.75% on full load
Efficiency	Better than 85%	90%
Inverter Type	PWM (IGBT)	MOSFET PWM
Type of Wave form	Pure sine wave, THD ≤2%	Sinusoidal 50Hz ±0.01%
Temperature	0-45° C (50° C peak)	0-50° C

\_\_\_\_\_

\_\_\_\_\_

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**TYPICAL DGPS STATION BLOCK DIAGRAM**

**To be signed by the bidders' and same signatory competent/  
authorized to sign the relevant contract on behalf of IWAI.**

**INTEGRITY AGREEMENT**

This Integrity Agreement is made at ..... on this ..... day of ..... 20.....

BETWEEN

Chairperson, Inland Waterways Authority of India represented through Chief Engineer, Inland Waterways Authority of India, A - 13, Sec. – 1, Noida.

IWAI, (Hereinafter referred as the 'Principal/ Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....  
(Name and Address of the Individual/firm/Company)  
through .....(Hereinafter referred to as the  
(Details of duly authorized signatory)  
"Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No. IWAI/PR/Bldg/42/2011) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for "Operation and maintenance of DGPS stations for round the clock service including security to the Campus in NW-1 and NW-2. " hereinafter referred to as the "Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

## **Article 1: Commitment of the Principal/Owner**

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

## **Article 2: Commitment of the Bidder(s)/Contractor(s)**

1. It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the IWAI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
2. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
  - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the tender process or execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the contract.
  - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary



contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
  - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
3. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
  4. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
  5. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

### **Article 3: Consequences of Breach**

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the bidder/contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

1. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
2. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the tender process prior to the award of the contract or terminated/determined the contract or has accrued the right to terminate/determine the contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
3. Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a bidder or Contractor, or of an employee or a representative or an associate of a bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

#### **Article 4: Previous Transgression**

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

#### **Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors**

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/ sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

#### **Article 6: Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, IWAI.

#### **Article 7: Other Provisions**

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

#### **Article 8: LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....  
(For and on behalf of Principal/Owner)

.....  
(For and on behalf of Bidder/Contractor)

1. ....  
(signature, name and address)

2. ....  
(signature, name and address)

WITNESSES:

Place:

Date :