



SAMOA AIRPORT AUTHORITY

PROJECT NAME: SAMOA AVIATION AND ROAD INVESTMENT PROJECT (SARIP)

INVITATION TO QUOTE (Goods)

Activity Name: Supply and Installation of Goods for “Automated Weather Station (AWS)”

Ref. No.: SAA/GO/002_1

Country: Samoa

Credit/Loan/Grant No.: IDA-E0080

1. The Government of the Independent State of Samoa acting through and by the SAMOA AIRPORT AUTHORITY (SAA) invites Bids from eligible bidders for the **“Supply and Installation of Goods for Automated Weather Station (AWS)”**.
2. Interested qualified eligible bidders (suppliers) will be issued a complete set of bidding documents in the English language (electronically and/or via hard copy) upon the submission of a written application (in hardcopy or through email) to the address below:

Ms Ausialemanaia Faapusa S. Tovio
SARIP Procurement Officer
SARIP Project Office
Faleolo International Airport Samoa
Email – ftovio@saa.ws
Phone: +685 42973

3. To be considered eligible and qualified, a supplier must satisfy the following:
 - a) The **AWOS supplier** should have a local office within Oceania region or a similar country context to support the supply, installation and support of the offered AWOS.
 - b) The **AWOS supplier** should hold a regional or a similar country context Authorisation (Australian CAR120 or similar) demonstrating their capability to provide equipment, installation, maintenance, and support levels to the highest regional standard.
 - c) The **AWOS supplier** should provide details of 5 Aviation AWOS reference projects supplied within Oceania or a similar country context within the last 10 years;
 - d) The **AWOS supplier** must provide confirmation that technical support and after sales services will be provided;
 - e) The **AWOS supplier** must hold CAA Part 174 Certification or equivalent;
 - f) The **AWOS manufacturer** shall have the approved ISO 9001 Quality Assurance System certified by an accredited authority. The copy of this certificate shall be attached to the technical proposal; and
 - g) The **AWOS supplier and manufacturer** must not be under any notice of suspension or debarment issued by the Government, or the World Bank.

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4. Bids must be delivered to the address given below at or before **Monday 20th of November, 2023@ 11am local Samoan time in hard copy or through Tender link portal https://portal.tenderlink.com/mof_samoa/login**. Late bids will be rejected. Bids will be opened in public immediately thereafter at the address given below in the presence of the Bidders' representatives those are present.
5. The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
6. All bids must be accompanied by a bid securing declaration as described in the bidding documents; any bid not accompanied by one will be rejected as non-compliant
7. The address for bid submission and bid opening is to:

Ms Soteria Noaese
Secretary, Tenders Board
Ministry of Finance
Level 4, CBS Building
Apia, Samoa

(Pls clearly write the Name of the Activity on the top of the envelope: Supply and Installation of Goods for “Automated Weather Station (AWS - SAA/GO/002_1)”

8. The Government of Samoa and/or the World Bank will declare a firm ineligible either indefinitely or for a stated period of time, to be awarded a contract financed by the Government of Samoa and/or the World Bank respectively, if it at any time determines that the firm has engaged in corrupt or fraudulent, coercive or collusive practices in competing for or in executing a contract. Please refer to Attachment 1 ‘The Bank’s Policy on Fraud and Corruption.

Signed,



Silimana'I Ueta Jr. Banse Solomona
GENERAL MANAGER
SAMOA AIRPORT AUTHORITY

SECTION 1. INSTRUCTIONS TO BIDDERS

1. **Goods:** The Samoa Airport Authority, as the Purchaser, invites bids for the “Supply and Installation of Goods for Automated Weather Station (AWS- SAA/GO/002_1)” as described in the Conditions of Contract (CC). The successful bidder will be expected to deliver and install the Goods and provide training to SAA staff within the time allowed under the Conditions of Contract.
2. The Government of Samoa (GoS) has received funding from the World Bank (WB) towards the cost of the Samoa Aviation and Roads Investment Project (SARIP). The Purchaser intends to apply a portion of the proceeds of the funding to eligible payments under the contract(s) for which these Bidding Documents are issued. No payment shall be made to persons or entities for any import of goods, if such payment or import is prohibited by a decision of the United Nation’s Security Council, taken under chapter VII of the Charter of the United Nation.
3. **Eligibility and Qualifications of the Bidder:** Only bidders that meet the following criteria will be eligible for an award of contract:
 - a) The **AWOS supplier** should have a local office within Oceania region or a similar country context to support the supply, installation and support of the offered AWOS.
 - b) The **AWOS supplier** should hold a regional or a similar country context Authorisation (Australian CAR120 or similar) demonstrating their capability to provide equipment, installation, maintenance, and support levels to the highest regional standard.
 - c) The **AWOS supplier** should provide details of 5 Aviation AWOS reference projects supplied within Oceania or a similar country context within the last 10 years;
 - d) The **AWOS supplier** must provide confirmation that technical support and after sales services will be provided;
 - e) The **AWOS supplier** must hold CAA Part 174 Certification or equivalent;
 - f) The **AWOS manufacturer** shall have the approved ISO 9001 Quality Assurance System certified by an accredited authority. The copy of this certificate shall be attached to the technical proposal; and
 - g) The **AWOS supplier and manufacturer** must not be under any notice of suspension or debarment issued by the Government, or the World Bank.

The bidder shall be required to provide documentary evidence with its bid to demonstrate that it meets the above requirements.

4. **Fraud and Corruption.** The World Bank requires that Borrowers or Recipients (including beneficiaries of the funds), as well as bidders, suppliers, contractors and consultants observe the highest standard of ethics during the procurement and execution of contracts. In pursuance of this policy, both the Government of Samoa and the World Bank as details in Attachment 1 ‘World Bank Policy – Corruption and Fraudulent Practices’.
5. **Contents of Bidding Documents:** The set of Bidding documents comprises the

documents listed below:

Invitation to Quote
SECTION 1. INSTRUCTIONS TO BIDDERS
SECTION 2. CONDITIONS OF CONTRACT FOR THE SUPPLY
OF GOODS
SECTION 3. PRICE AND DELIVERY SCHEDULE
SECTION 4. TECHNICAL SPECIFICATIONS
SECTION 5. FORM OF BID
SECTION 6. FORM OF CONTRACT AGREEMENT
SECTION 7. BID AND PERFORMANCE SECURING
DECLARATION

- 6. Documents Comprising the Bid:** The Bid submitted by the Bidder shall comprise the following documents:

Form of Bid
Price and Delivery Schedule
Bid and Performance Securing Declaration

- 7. Bid and Evaluation Criteria:**

“The Bidder must bid for all the required items on lot basis, and the evaluation of bids shall also be lot-wise,”

The Purchaser shall award the Contract to the Bidder whose bid has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

- 8. Bid Price:**

The prices should be quoted in **any currency deemed appropriate, with preference to quotes being in USD (United States Dollar)** for the total CIP price, to the site, at the SAA Premises, Faleolo International Airport, Samoa.

If preferred, the Bidder may quote in the currency of the Purchaser’s Country the portion of the Bid price that corresponds to expenditures incurred in the currency of the Purchaser’s Country in **Samoan Tala (WST)**.

The currency that shall be used for Bid evaluation and comparison purposes to convert at the selling exchange rate all Bid prices expressed in various currencies into a single currency is: **United States Dollar (USD)**.

The source of exchange rate shall be: **Central Bank of Samoa** exchange rates.

The date for the exchange rate shall be: **14 days** prior to the bid submission deadline date.

- 6. Validity of Bid.** The bid shall remain valid for the period of ninety (90) calendar days counted from the deadline for submission of bids specified in Paragraph 12 of these Instructions. The Purchaser may request Bidders to extend the period of validity for a specified additional period. The Purchaser’s request and the Bidder’s responses shall be made in writing or by email. A Bidder may refuse the request for extension of

bid validity in which case he may withdraw his Bid without any penalty. A Bidder agreeing to the request will not be required or permitted to otherwise modify its Bid.

7. **Language of the Bid:** All documents relating to the Bid and contract shall be in the English language.
8. **Preparation and Sealing of Bid:** The Bidder shall prepare one original of the documents comprising the Bid as described in Paragraph 6 of these Instructions, and clearly marked “Original”. In addition, the Bidder shall also submit four copies which shall be clearly marked as “COPY”. In the event of discrepancy between them the original shall prevail. The original and the copy of the Bid shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All the pages of the Bid where entries or amendments or corrections have been made shall be initialed by the person or persons signing the Bid. The Bidder shall seal the original and the copy of the Bid in two inner envelopes and one outer envelope, duly marking the inner envelopes as “ORIGINAL” and “COPY”. The inner and the outer envelopes shall be addressed to the Purchaser at the address provided in paragraph 5 the Invitation to Bid and shall provide a warning “DO NOT OPEN BEFORE THE SPECIFIED TIME AND DATE FOR BID OPENING” as defined in paragraph 12 of these Instructions. The inner envelopes shall indicate the name and full address of the Bidder. If the outer envelope is not sealed and marked as above, the Purchaser will assume no responsibility for the misplacement or premature opening of the Bid. **All hard copies of the bid must include an electronic copy of the bid stored in an appropriate electronic storage device such as a USB flash-drive.**
9. **Place and Deadline for Submission of Bids:** The Bids shall be delivered to the Purchaser NO LATER than **Monday, 20th of November, 2023 at 11:00am** local Samoan time at the address given in paragraph 5 of the Invitation to Quote. Any Bid received by the Purchaser after the deadline prescribed in this clause will be returned unopened to the Bidder.
10. **Bid and Performance Securing Declaration:** The Bid and Performance Securing Declaration should be in accordance with the form included in SECTION 7 BID AND PERFORMANCE SECURING DECLARATION and shall be valid for the warranty period described in paragraph 7 of the Conditions of Contract. Any Bid not accompanied by a Bid and Performance Securing Declaration will be rejected by the Purchaser as non-responsive. The execution of a bid securing declaration will result in the Bidder being held ineligible for all contracts let by the Government irrespective of the funding source for a period of two years from the date of the Purchaser’s execution of this Declaration unless, at a Bidder’s option, the Bidder pays to the Purchaser an administrative penalty of two percent (2%) of the total bid amount to the Purchaser. The Bid Securing and Performance Declaration will be executed:
 - (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form or
 - (b) if the successful Bidder fails within the specified time to sign the Contract:
 - (c) if the successful bidder, once contracted commits a fundamental breach of contract leading to the Purchaser’s termination of the contract for reasons of the successful bidder’s default.
11. **Modification and Withdrawal of Bids:** No Bids shall be modified after the deadline for

submission of Bids specified above in paragraph 5 of these Instructions. Withdrawal of a Bid between the deadline for submission of Bids and the expiration of the validity of the Bids as specified in paragraph 9 of these Instructions above may result in the execution of the Bid and Performance Securing Declaration.

12. Opening of Bids: The Purchaser will open the Bids in the presence of the bidders' representatives who choose to attend, at the time, date and in the place specified in paragraph 5 the Invitation to Bid. The bidders' names, the Bid prices, the total amount of each Bid and any discounts, Bid modifications and withdrawals, the presence or absence of Bid Security or Bid Securing Declaration, and such other details as the Purchaser may consider appropriate, will be read out and recorded at the opening. The minutes shall be signed in original by all those present at the bid opening. Immediately upon conclusion of the bid opening proceedings, copies of the minutes shall be provided to the bidders representatives present at the bid opening.

13. Process to be Confidential: All information relating to the examination, clarification, evaluation and comparison of bids for the contract award shall not be disclosed until the award to the successful Bidder has been announced.

14. Evaluation and Comparison of Bids: The Purchaser will award the Contract to the Bidder whose Bid has been determined to be substantially responsive and compliant to the technical specification and standards therein and who has offered the lowest evaluated Bid and has been determined to be qualified to perform the Contract satisfactorily. In evaluating the Bids, the Purchaser will determine for each Bid the evaluated Bid Price by making any correction for any arithmetic errors as follows:

- a) where there is a discrepancy between amounts in figures and in words, the amount in words will govern;
- b) where is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern;

If a Bidder refuses to accept the correction, his Bid will be rejected.

15. Purchaser's Right to Accept Any Bids and to Reject any or all Bids: The Purchaser reserves the right to accept or reject any bid, and to cancel the process of competition and reject all bids, at any time prior to the award of the Contract, without thereby incurring any liability to the affected Bidder(s).

16. Notification of Award and Signing of Contract: The Bidder whose Bid has been accepted will be notified of the award by the Purchaser prior to the expiration of the validity period of the Bid. The written notification of award will constitute the formation of the Contract.

17. Debriefing. After the award of contract has been announced an unsuccessful Bidder has the right to request a debriefing to ascertain why its bid was unsuccessful and the Purchaser the obligation to provide it. No commercial confidences will be breached and no detailed information concerning other bids will be disclosed other than the information already read out at bid opening and the reasons for any and all bids rejection.

18. Complaints. Any complaint lodged by the Bidder(s) in connection with this Bid will be resolved following the procedure of K.9 (COMPLAINTS AND APPEALS) of Treasury

19. Publication of Award. The Purchaser shall

- (i) notify in writing all participating bidders of the results of the bid evaluation promptly after the contract has been awarded, and
- (ii) publish on the Ministry of Finance and Samoa Airport Authority websites, promptly at the end of each quarter, a notice informing the general public of the availability of contract awards summary and contract registers in the office of the Purchaser.

SECTION 2. CONDITIONS OF CONTRACT FOR THE SUPPLY OF GOODS

Article 1 General Provisions

1. The Supplier confirms that they have examined, read and understood fully all the Contract Documents, being
 - i. The Form of Contract,
 - ii. the Conditions of Contract,
 - iii. the Special Conditions of Contract
 - iv. the Technical Specifications
 - v. the Form of Bid submitted by the Supplier,
 - vi. the Price and Delivery Schedule,
 - vii. the Purchaser's Notification of Awardtogether form the Contract
2. The Contract shall be amended only by written agreement between the Purchaser and the Supplier.
3. The governing law shall be the law of: *Government of the Independent State of Samoa*. Every effort shall be made to resolve disputes amicably and without recourse or referral to third parties. Any dispute that cannot be resolved amicably shall be referred by either Party to the Chamber of Commerce for adjudication in accordance with the under the Rules of Conciliation and Arbitration of the International Chamber of Commerce.

Article 2 Purchaser's and Supplier's obligations

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4. The Purchaser and the Contractor now agree as follows:
- The prices should be quoted for the total CIP price, to SAA Office, Faleolo International Airport, Samoa.
 - The Contract Price is..... (*insert amount in words and figures*). This amount is for the full delivery and installation and associated training of the **Goods and Related Services** listed in the Price and Delivery Schedule.
 - The Supplier shall supply:
The Automated Weather Station system and all associated products and required testing equipment, together with the associated civil works and installation, and agreed training requirements and after sales support, on or before the delivery date for each line item and at the final destination (***Ref. Schedule of requirements***), as stipulated in the Price and Delivery Schedule, and conforming to the standards as stipulated in the Technical Specifications. The Supplier shall be responsible for fully insuring the Goods against loss or damage from “warehouse to warehouse” (final destination) on “All Risk basis”.
5. The Purchaser has the right to impose the penalty of liquidated damages to the supplier. The applicable rate for liquidated damages for delay shall be 0.5 percent of the Contract Price of the delayed Goods or unperformed Related services for each week of delay until actual delivery or performance. The maximum amount of liquidated damages shall be Ten (10%) percent of the Contract Price, then after the Purchaser may terminate the contract.
6. If war or natural disaster makes completion of the contract impossible, the Supplier may ask the Purchaser to release him from the Contract.
7. The Supplier guarantees that all goods supplied will be new and unused and carry a warranty of 24 months starting from the actual acceptance date of the goods. Throughout this period the Supplier agrees to make good, at its own expense, any defect that appears during that time due to quality of materials or workmanship.
8. Details of Shipping and other Documents to be furnished by the Supplier where applicable, are:
- a) A negotiable bill of lading;
 - b) Commercial invoice showing description, quantity, unit price and total amount;
 - c) Packing list identifying contents of each package;
 - d) Supplier’s factory shipping details;
 - e) All Inspection certificates issued;
 - f) Certificate of Origin;
 - g) Manufacturer’s or Authorized Dealer’s warranty certificate; and
 - h) Insurance certificates (marine and inland transportation).

The above documents shall be received by the Purchaser **before** arrival of the Goods at the port in Samoa and, if not received, **the Supplier will be responsible for any consequent expenses. The bidder is responsible for contacting the Ministry for Customs and Revenue (MCR) in Samoa, to confirm all required customs, duties and any other taxes associated with bringing in goods to Samoa. The bidder shall also include in their cost services for a suitable customs broker to clear goods when they arrive in country.**

Article 3 Payment Provisions

9. Payments will be made according to the schedule and terms and conditions set out below:
- (i) **Advance:** Fifteen (15) percent advance of the Contract Price of the Goods once an Advanced Payment Guarantee has been received by the Client;
 - (ii) **On Shipment:** Sixty (60) percent of the Contract Price of the Goods shipped shall be paid upon receipt of the goods and upon submission of documents specified in Article 2 Clause 8.
 - (iii) **On Commissioning:** Fifteen (15) percent of the Contract Price shall be paid to the Supplier within sixty (60) days from the date of the acceptance certificate for satisfactory commissioning of all Units and fully integrated AWS.
 - (iv) **Upon Completion:** Seven (7) percent of the Contract Price shall be paid to the Supplier within thirty (30) days from the date of acceptance certificate upon successful completion of staff training for the AWS.
 - (v) **After Sales Support:** Three (3) percent of the Contract Price shall be paid to the Supplier within thirty (30) days from the date of the end of the after sales period. One (1) percent may be claimed and paid annually.

Payment of local currency portion shall be made within sixty (60) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.

Local customs duties and related taxes paid by the Supplier for “to be imported” Goods shall be reimbursed by the Purchaser, on receipt of supporting documents.

10. Payment shall be made in *USD* and *Samoan Tala (WST\$)* in the proportion specified below.
11. If any payment is delayed for more than 1 calendar month after the due date for Payment, the Purchaser will pay interest to the Supplier at the rate of **1%** of the amount of the payment for the first month and for each subsequent full calendar month during which payments are delayed.
12. If the Contract is cancelled because of the fault of the Supplier, the Purchaser has the right to obtain the goods from another source. The Supplier shall be liable for any purchase costs paid in excess of this Contract’s value.

Article 4 Fraud and Corruption

13. The World Bank requires that Borrowers or Recipients (including beneficiaries of the funds), as well as bidders, suppliers, contractors and consultants observe the highest standard of ethics during the procurement and execution of contracts according to the Attachment 1 ‘World Bank Policy – Corruption and Fraudulent Practices’.

Article 5 Special Conditions

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In witness of what has been agreed above, the signatures of the authorized representatives of the two Parties are affixed below on the date shown.

◆ <i>Purchaser</i>	◆ <i>Supplier</i>
Name : -----	Name : -----
Position : -----	Position : -----
Date : -----	Date : -----

Attachment 1

World Bank Policy - Corrupt and Fraudulent Practices

Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011.

“Fraud and Corruption:

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.¹ In pursuance of this policy, the Bank:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another

¹ In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

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- party;²;
- (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;³
 - (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;⁴
 - (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;⁵
 - (v) "obstructive practice" is:
 - (aa) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or
 - (bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.
- (b) will reject a proposal for award if it determines that the bidder recommended for award, or any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
 - (c) will declare misprocurement and cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement or the implementation of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

² For the purpose of this sub-paragraph, “*another party*” refers to a public official acting in relation to the procurement process or contract execution. In this context, “*public official*” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

³ For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

⁴ For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.

⁵ For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.

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- (d) will sanction a firm or individual, at any time, in accordance with the prevailing Bank's sanctions procedures,⁶ including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated⁷;
 - (e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.”

⁶ A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank's sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

⁷ A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

SECTION 3. PRICE AND DELIVERY SCHEDULE

AWS Supply & Installation SAA/GO/002							
Item N°	Description of Goods	Quantity	Physical unit	Delivery Final Destination (Project Site)	Delivery Date	Unit price per item delivered at Final Destination (Project Site) ¹	Total price per item delivered at Final Destination (Project Site) ¹
1	AWOS System (detail all equipment & prices such as wind sensors, barometers, data collection units, display units, bird cages, mast etc)	1	1	Faleolo International Airport, Samoa	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>
2	Test Equipment for works	1	1	Faleolo International Airport, Samoa	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>
2.1	Fluke multimeter	2	2	Faleolo International Airport, Samoa	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>
2.2	Technician Tool box incl. screw driver set, pliers, side cutter, etc,	2	2	Faleolo International Airport, Samoa	<i>270 days from contract effectiveness or the bidder can propose</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>

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SAA/GO/002

Item N°	Description of Goods	Quantity	Physical unit	Delivery Final Destination (Project Site)	Delivery Date	Unit price per item delivered at Final Destination (Project Site)1	Total price per item delivered at Final Destination (Project Site)1
					<i>and alternative delivery date, with a preference for a faster delivery date</i>		
2.3	<i>cable tracer [probe & toner]</i>	2	2	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>
2.4	<i>Crimping Tool</i>	2	2	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>
2.5	<i>Krone Tool</i>	2	2	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>
2.6	<i>Any other test equipment required</i>	1	<i>n/a</i>	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract</i>	<i>[to be filled by bidder]</i>	<i>[to be filled by bidder]</i>

AWS Supply & Installation SAA/GO/002							
Item N°	Description of Goods	Quantity	Physical unit	Delivery Final Destination (Project Site)	Delivery Date	Unit price per item delivered at Final Destination (Project Site) ¹	Total price per item delivered at Final Destination (Project Site) ¹
					<i>effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>		
3	Height Survey for mast base	1	n/a	Faleolo International Airport, Samoa	90 days from contract effectiveness	[to be filled by bidder]	[to be filled by bidder]
4	Associated Civil Works and installation	1	n/a	Faleolo International Airport, Samoa	90 days after arrival of goods	[to be filled by bidder]	[to be filled by bidder]
5	Factory Acceptance Testing (FAT) - Cost for two (2) SAA staff to attend	1	n/a	Faleolo International Airport, Samoa	90 days after arrival of goods	[to be filled by bidder]	[to be filled by bidder]
6	Training and Site Acceptance Testing (SAT) at Faleolo, Samoa – seven (7) SAA staff	1	n/a	Faleolo International Airport, Samoa	90 days after arrival of goods	[to be filled by bidder]	[to be filled by bidder]
7	After Sales Support Services	1	n/a	Faleolo International Airport, Samoa	36 months after Site Acceptance	[to be filled by bidder]	[to be filled by bidder]
						(A) Subtotal 1	
						(B) Freight	
						(C) Estimated Customs, duties & local transport costs	
						(D) Contract Price	(A) + (B) + (C)

Total Bid Price

In Words.....

Authorized Signature of Bidder.....

1. Currency to be used is USD. The price shall include all customs duties and sales and other taxes already paid or payable, transportation, insurances, and any other local charges for delivery of the goods up to final destination.
2. Incoterm is **CIP**.
3. Customs, duties, and local transport costs will be treated as reimbursables and paid through receipts of actual incurred costs.

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

Additionally, a list of spare parts is requested to be priced separately for information only and may or may not be added to the final contract amount.

SPARE PARTS (FOR INFORMATION)							
Item N°	Description of Goods	Quantity	Physical unit	Delivery Final Destination (Project Site)	Delivery Date	Unit price per item delivered at Final Destination (Project Site)1	Total price per item delivered at Final Destination (Project Site)1
1	Interface UHF/VHF radio	1	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date		-
2	Ultrasonic wind sensor	2	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date		-
3	Barometer	1	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date		-
4	Obstruction Light	2	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date		-
5	Sensor Support Top, one wind sensor (Red colour)	2	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date		-
6	Radio Modem Enclosure for Central Site B1FINNBA	1	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date		-
7	Interface for 2 radio modems	1	1	Faleolo International Airport, Samoa	270 days from contract effectiveness or the bidder		-

SPARE PARTS (FOR INFORMATION)

Item N°	Description of Goods	Quantity	Physical unit	Delivery Final Destination (Project Site)	Delivery Date	Unit price per item delivered at Final Destination (Project Site)1	Total price per item delivered at Final Destination (Project Site)1
					<i>can propose and alternative delivery date, with a preference for a faster delivery date</i>		
8	<i>Device Server</i>	1	1	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>		-
9	<i>Ethernet Surge Protector</i>	2	1	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>		-
10	<i>Wind Panel Display</i>	1	1	<i>Faleolo International Airport, Samoa</i>	<i>270 days from contract effectiveness or the bidder can propose and alternative delivery date, with a preference for a faster delivery date</i>		-

SECTION 4. TECHNICAL SPECIFICATIONS

Item	Specification	<p>Statement of Compliance Bidders must state here either “Comply” or “Not Comply” against each of the individual parameter of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” of must be supported by evidence in a bidder’s bid and cross- referenced to that evidence.</p> <p>A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection. A statement either in the bidder’s statement of compliance or the supporting evidence that is found to be false either during evaluation or the execution of the contract may be regarded as fraudulent and render the bidder or supplier liable for prosecution.</p>
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1. General Requirements

This document describes general requirements for an airport weather observation system based on Automated Weather Observing System (AWOS). As AWOS is the basis of the required airport weather system, in the remainder of this document *the term AWOS (or system) covers both the AWOS system and its additional weather modules.*

2. Design Criteria

The Automated Weather Observing System (AWOS) shall meet the requirements of different interest groups of the airport and be compliant with recommendations that generally guide the civil aviation operations. Additionally the system design and performance shall match the operational requirements of the airport in question.

Local special conditions of the airport shall be taken into account in the system configuration, let it be due to extreme weather conditions or any other external phenomena that will affect the flight operations at the airport.

The design criteria for an AWOS system are:

- i. The system shall be specifically designed for aviation meteorology use.*
- ii. The system shall be compliant with all relevant International Civil Aviation Organization (ICAO) standards and recommendations, including the latest amendments.*
- iii. System configuration shall enable accurate and reliable observations in all local weather conditions. Especially operation in low visibility and low cloud high conditions as well as other demanding weather conditions shall be ensured and proven.*
- iv. System configuration shall maximize the safety of the airport operations.*
- v. System ergonomics shall facilitate easiest possible operation, maintenance and management of the AWOS. To achieve this, the AWOS software and the main sensors (optical sensors, barometric pressure sensors, temperature and humidity sensors as well as wind sensors) shall be manufactured by the one and same vendor.*

3. Performance Criteria

The performance and reliability shall be according to the requirements for the appropriate ICAO operating category. **At a minimum**, the design philosophy, calculation routines and practices implemented in AWOS must follow the latest standards issued by the International Civil Aviation Organization and World Meteorological Organization (WMO). Particularly, recommendations published by ICAO in Annex 3, Annex 10 and Annex 14 as well as guidance documents 8896, 9328 and 9837 should be well considered in the design of the AWOS system. ***Therefore, the AWOS shall be fully compliant with the following publications:***

- ICAO Annex 3: Meteorological Service for International Air Navigation
- ICAO Annex 10: Aeronautical Telecommunications
- ICAO Annex 11: Air Traffic Services

- ICAO Annex 14: Aerodromes
- ICAO DOC 8896: Manual of Aeronautical Meteorological Practice
- ICAO DOC 9837: Manual on Automatic Meteorological Observing Systems
- NZ CAA Part 171: Aeronautical Telecommunication Services (or similar)
- NZ CAA Part 172: Air Traffic Service Organizations Certification
- WMO No. 306: Manual on Codes
- EN 60950: European standard for electric safety
- ISO9001:2000 based quality management system
- ISO14001 based environmental management system.

4. Bidder's Qualification

This proposed project is a "Turnkey" project, where besides the supply of all components of the AWOS system, the integration, installation and training of all installed AWOS systems are also considered. For such reasons, the selected Vendor must provide in an integrated manner all components and constitute each AWOS system and services described in this document, as no partial proposals will be accepted.

To guarantee the successful execution of the project the AWOS manufacturer must apply ISO standards in its processes.

- a) The **AWOS manufacturer** shall have the approved ISO 9001 Quality Assurance System certified by an accredited authority. The copy of this certificate shall be attached to the technical proposal.
- b) The **AWOS supplier** should have a local office within Oceania region or a similar country context to support the supply, installation and support of the offered AWOS.
- c) The **AWOS supplier** should hold a regional or a similar country context Authorisation (Australian CAR120 or similar) demonstrating their capability to provide equipment, installation, maintenance, and support levels to the highest regional standard.
- d) The **AWOS supplier** should provide details of 5 Aviation AWOS reference projects supplied within Oceania or a similar country context within the last 10 years;
- e) The **AWOS supplier** must provide confirmation that technical support and after sales services will be provided;
- f) The **AWOS supplier** must hold CAA Part 174 Certification or equivalent; and
- g) The **AWOS supplier and manufacturer** must not be under any notice of suspension or debarment issued by the Government, or the World Bank;

5. General Specifications

The system shall provide accurate and reliable weather information to air traffic controllers, pilots and other users at the airport and beyond. It shall collect, process and display

meteorological data to be used as basis for meteorological reports and forecasts, and for precision and non-precision approaches.

The following key elements of the offered system should all be manufactured by the bidder

- Wind Sensors, Barometers, Temperature / humidity sensors
 - Data collection units
 - Data display units
- i. The offered system should utilise Frangible 10 m masts for the field sites or provide an option for a tilt down guided mast if available, with a clear indication of the best workable option.
 - ii. The offered system should utilise compact Tower display units no larger than 144 x 144 mm
 - iii. For wind sensors, ultrasonic wind sensors are the preferred option, and the supplier shall also provide any bird protection cages to protect the sensors.
 - iv. Note that there is an existing PTB220 barometer at the Faleolo Tower which will need replacement. The offered system should propose a like for like replacement with a current generation of the existing PTB220.
 - v. The offered system must also provide all test equipment required to install and maintain the system. These will also remain as SAA assets after SAT.
 - vi. The system should not only offer the capability of making the required observations but also enable maximal system reliability and safety. This can be achieved with the following requirements:
 - a. *The sensors shall be of high quality, high reliability and high accuracy.*
 - b. *The sensor data validity is checked either by the (intelligent) sensor itself or the data logger to which the sensors are connected.*
 - c. *The barometers shall have three pressure transducers to facilitate validation of sensor values inside the barometer itself.*
 - d. *The wind mast(s) shall be frangible pole masts complying to ICAO frangibility requirements (ICAO Aerodrome Design Manual, Doc 9157, Part 6: Frangibility).*
 - e. *The maximum tolerable wind load for the wind mast shall be 60 m/s (for wind gusts). Documentation for wind mast frangibility and wind load shall be included in the technical proposal.*

6. Additional Requirements

- i. The AWOS supplier must also price for **all on-site civil works** required for the installation. The AWOS supplier is responsible for managing any local subcontractors that will be engaged for the civil works. Notwithstanding this, all workers will be subject to all airside safety and security rules implemented at the Faleolo International Airport.

- ii. The AWOS supplier must specify and price the spare parts **separately** from the total price.
- iii. To enhance training of SAA staff, the AWOS supplier must also price for any overtime hours that SAA staff will need to be paid, during the system installation and acceptance testing days.
- iv. The AWOS supplier must also provide all onsite training requirements and must price for the attendance of **two (2)** SAA staff to travel from Samoa to the location of the Factory Acceptance Testing, and must also price for sufficient training of **seven (7)** SAA staff at Faleolo, during and after the Site Acceptance Testing (SAT).
- v. Training Requirements for the technical staff at SAA include the **operation and maintenance** of the following:
 - a. *AWOS system operation;*
 - b. *System installation;*
 - c. *System maintenance;*
 - d. *System configuration; and*
 - e. *Power system.*
- vi. The AWOS supplier must account for all required customs, duties and applicable taxes for the delivery and installation of the offered system.
- vii. **Note** – the bidder should account for an appropriate contingency to their cost to account for any unforeseen circumstances.

7. After Sales Service & Support

- i. The AWOS Supplier must provide support to SAA for **36 months** from the **date of Site Acceptance** for the equipment.
- ii. The AWOS Supplier must have a local office within the Oceania region or a similar country context, and nominated a focal person that SAA are able to contact for any support and additional spare parts if and when required.

8. Other Parameters that will be considered

A. Measured Variables

The AWOS must have the capability to be set up to interface with a large number of different meteorological sensors. The measured and derived weather variables are listed in the table below:

Variable	Derived variables
Wind	<ul style="list-style-type: none"> • Maximum wind gust speed and direction • 2 minute and 10 minute average, minimum and maximum wind speed and direction • Variation • <i>Reports in m/s or kt</i>

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Variable	Derived variables
Temperature and humidity	<ul style="list-style-type: none"> • Temperature • Relative Humidity • Dew point temperature • <i>Reports in °C</i>
Pressure	<ul style="list-style-type: none"> • QFF • QNH • QFE for each threshold • Transition Level • 3 hour (3h) pressure tendency • <i>Reports in hPa or inHg</i>

B. Wind

The wind sensor shall use **ultrasound** to determine horizontal wind speed and direction. The sensor shall be installed on the frangible instrument mast parallel to the runway at the touchdown zone of the runway. The observation height shall be 10 meters.

The measurement principle shall be based on transit time, the time it takes for ultrasound to travel from one transducer to another, depending on the wind speed along the ultrasonic path.

Ultrasonic Wind Sensor	
Feature	Specification
<u>Measurement range</u> Wind speed Wind direction	0...75 m/s 0...360°
<u>Starting threshold</u> Wind speed Wind direction	0.01 m/s 0.1 m/s
<u>Resolution</u> Wind speed Wind direction	0.1 m/s 1°
<u>Accuracy</u> Wind speed Wind direction	± 0.1 m/s or ± 2 % of reading, whichever is greater ± 2°
<u>Operating temperature</u> Non-heated (standard) Heated	- 40...+ 60 °C - 55...+ 70 °C
<u>Power</u> Operating Heating	9 ... 36 VDC, max. 40 VDC 24 ... 36 VDC, max. 40VDC

C. Atmospheric Pressure

Atmospheric pressure shall be measured by Digital Barometer using solid state digital pressure transducers. The sensor shall consist of 3 independent transducers, sampled, processed and monitored by the sensor electronics.

The Digital Barometer shall be located in the Automatic Weather Station (AWS) enclosure.

The sensor must have excellent hysteresis and repeatability characteristics and outstanding temperature and long-term stability.

The sensor shall be delivered with factory calibration certificate.

Following table briefly summarizes the required sensor physical characteristics and performance.

Atmospheric Pressure	
Feature	Specification
Sensor type	Silicon capacitive, absolute pressure sensor
Operating range	500..1100 hPa
Resolution	0.01 hPa
Total Accuracy - 40...+ 55 °C	±0.15 hPa
Output type	RS-232, RS-422 and RS-485 serial interfaces
Operating temperature	- 40...+ 60 °C
Housing	G AISi10 Mg (DIN 1725)
Housing classification	IP66

D. Air Temperature and Humidity

Both sensors shall be installed in naturally ventilated solar radiation shield, protecting measurement result from effect of direct solar radiation. The radiation shield shall be made of fiber glass type of non-heat conductive material. Underside of the shield plates has to be black colored to ensure that any heat is emitted off the radiation shield.

The following table briefly summarizes the required sensor physical characteristics and performance of the Temperature and Humidity Sensor.

Feature, Temperature	Specification
Sensor	Pt100 RTD 1/3 Class B IEC 751 or equivalent
Accuracy	± 0.1 °C at 0 °C
Output signal	Resistive four-wire connection
Operating temperature	- 80...+ 60 °C
Housing	PC plastic, IP66

Feature, Humidity	Specification
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Measurement range	0...100 %RH
<u>Accuracy</u> + 15...+ 25 °C	± 1 % (0...90 %RH) ± 1.7 % (90...100 %RH)
Operating temperature	- 80...+ 60 °C

Temperature and humidity sensors shall be installed inside a naturally vented radiation shield at 1.5 - 2 meters above the ground level, protecting measurement result from effect of direct solar radiation.

The radiation shield (stacked plate structure) shall be made of a UV stabilized thermoplastic material with white outside finishing. Shields made of metal are not allowed.

The underside of the shield plates shall be black colored to ensure that any heat is emitted off the radiation shield.

E. Automatic Weather Station (AWOS)

The Automatic Weather Station samples data from the sensors connected to it, performs first level quality checks for data from the sensors without built-in quality control capabilities, performs other sensor data processing as applicable and forwards the processed and quality checked data further to the Central Data Unit (CDU) of the AWOS system.

Automatic Weather Stations (AWS) shall be used for interfacing sensors which meet one or more of the following criteria:

- 1) Sensor is not mains powered
- 2) Sensor has analog interface based on measurement of voltage output, resistance or frequency
- 3) Sensor is not capable of performing first level data quality checks on its own
- 4) AWS is needed as a data mediator/converter/concentrator from the sensor towards the CDU
- 5) Sensor needs to be environmentally protected by the AWS enclosure

Typically, at least humidity & temperature, wind, pressure and rain sensor data is processed and forwarded through the AWS.

The AWS system shall have a minimum four (4) serial I/O ports (RS-232 and/or RS-485) available for connecting intelligent sensors, telemetry and optional devices.

The AWS shall support analog sensor interfaces based on voltage, resistance and frequency measurements in addition to serial interfaces to enable the full selection of meteorological sensors to be connected to the AWS.

Each sensor interface shall have internal over voltage and ESD protection against induced transients, minimum 5 kV per pin.

The AWS shall include a data logger unit for intelligent processing of sensor data. The data logger unit shall be based on minimum 32-bit microprocessor architecture and take data from both serial (RS-232, RS-485, SDI-12) and analog sensor interfaces of the AWS. ***The unit shall measure the sensors with minimum of 24-bit A/D accuracy from analog sensor inputs. The frequency sensor interfaces shall have a minimum of 16-bit A/D conversion.***

The data logger unit shall also provide automatic calibration of A/D converter and the measuring electronics for analog sensor interfaces. This calibration shall be based on an onboard temperature measurement: self-calibration shall be initiated automatically whenever there is a change of more than 1° C of the onboard temperature or at every 20 minute interval. The full ADC calibration shall be made every 10th calibration time, i.e. at least every 150 minute interval.

The AWS system shall meet the following requirements for its analog sensor interfaces:

- The accuracy of voltage measurements shall be better than 0.10 % of FR (Full Range) over the full temperature range of -40 to + 60-degree C.
- The accuracy of resistance measurements (e.g. Pt100) shall be better than 0.05 % of FS (Full Scale) over the full temperature range of -40 to +60-degree C.
- ***The measurement intervals shall be freely configurable from 1 second to 24 hours in one (1) second intervals independently and separately for each measurement channel.***
- Each analog sensor input shall have independently configurable gain, scaling factors and calibration coefficients and data quality validation parameters.
- The AWS system shall include the following quality control check for analog sensor inputs, as minimum:
 - i. *For each measured parameter there shall be upper and lower climatological limits that corresponds to the normal operating limits of the sensor in order to prevent the reporting of possibly false values. These parameters must be user configurable to adjust them to the local climatological conditions.*
 - ii. *For each parameter there shall be a 'step change' validation. If the sensor output value changes more than the set maximum value between two consecutive measurements, the value shall be set 'invalid' (e.g. erroneous). This parameter must be user configurable to adjust it to the local climatological conditions.*
 - iii. *For each statistical calculation, there shall be the user configurable parameter for minimum number of the samples available for computing statistical values. If the number of samples is less than the user set value, the value shall be set 'invalid' (e.g. erroneous).*
 - iv. *If the data from any sensor is erroneous or missing (e.g. the sensor loses power), the parameter shall be reported as 'invalid'.*

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- The AWS system shall have an internal Real Time Clock with the accuracy better than twenty (20) seconds per month. It shall be possible to synchronize the RTC automatically by the AWOS system.
- The AWS enclosure shall be made of stainless steel (AISI316) and painted white to regulate heating from sun radiation. The enclosure shall have as well adequate radiation weather shield to protect the enclosure at least from two sides and top. The radiation shield shall be painted white and made of the same material and as the actual AWS enclosure.
- For the pressure sensor there shall be a static pressure head for minimizing the error caused by the wind turbulence at the pressure outlet.
- The AWS system shall be powered from the mains power or from solar panel. The AWS system shall be equipped with a back-up battery. The battery shall have the capacity to supply energy for the system during 72 hours without any recharging, excluding the connected optical sensors (visibility sensor, ceilometer, present weather sensor) and mains powered sensors in general.
- The enclosure shall be properly vented with a device, which will not allow humidity to enter into the enclosure.
- The AWS system shall be standard fully tested product, environmental and electrical test documentation shall be available by request.

The following table briefly summarizes the minimum required physical characteristics and performance of the Automatic Weather Station (AWS):

Automatic Weather Station (AWS) General Specifications	
Feature	Specification
Processor	33 MHz, 32 bit Motorola
A/D conversion	24 bit
Memory	4 MB RAM and 4 MB program flash
Data logging memory	3.3 MB internal flash memory Up to 2 GB on optional Compact Flash memory card
Sensor inputs	10 Analog inputs (20 single ended inputs) 2 counter / frequency inputs Internal channel for optional pressure transducer inside the data logger unit.
Serial communication	One RS-232, one RS-485 (two-wire) and SDI-12 Two (2) optional plug-in slots for communication modules for increasing the number of serial I/O channels up to 6 pieces 300 ... 38400 bit/s Configurable speed, start bits, data bits, stop bits, parity, XON/XOFF, and checksum
Standard	
Optional	
Speed	
Parameters	
Voltage (external powering)	8 ... 30 VDC
Power consumption	< 10 mA/12 V (typically with basic 5 sensors)
Solar panel options	70 W/12 V

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Automatic Weather Station (AWS) General Specifications	
Back-up battery options	26 or 52 Ah rechargeable sealed lead acid, maintenance free
Mains power	Optional ADC modules 90 ... 264 VAC
Temperature (operating)	-40 ... +60 °C
Temperature (storage)	-60 ... +70 °C
Humidity	0 ... 100 % RH

Automatic Weather Station (AWS) Accuracy Specifications	
Feature	Specification
Temperature measurement (PT100 Sensor with analog interface)	
Uncertainty over -60 ... +70 °C	< ±0.02 °C, typically
Maximum error over -50 ... +60 °C	< ±0.04 °C
Maximum error over -60 ... +60 °C	< ±0.04 °C
Maximum error at 0 °C	Less than ± 0.02 °C
Voltage measurement for sensors with analog voltage output	Without special factory calibration:
±5.0V range	Better than 0.06 % of reading ± 100 µV
±2.5V range	Better than 0.04 % of reading ± 50 µV
±250mV range	Better than 0.06 % of reading ± 6 µV
±25mV range	Better than 0.06 % of reading ± 5 µV
Frequency measurements for sensors with frequency output	Uncertainty over temperature range: -60 ... +70 °C: 20 Hz ... 20000 Hz < 0.04 % of reading
Common mode range for voltage measurement	+7 V / -3 V
Real-time-clock	
Standard	Better than 20 s/month
Back-up time	5 years minimum

Automatic Weather Station (AWS) Regulatory Compliances	
Feature	Specification
Emissions	CISPR 22 class B (EN55022)
ESD immunity	IEC 61000-4-2
RF field immunity	IEC 61000-4-3
EFT immunity	IEC 61000-4-4

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Automatic Weather Station (AWS) Regulatory Compliances	
Surge (lightning pulse)	IEC 61000-4-5
Conducted RF immunity	IEC 61000-4-6

SECTION 5. 1. FORM OF BID

_____ (Date)

To: _____ (Purchaser's Name)

_____ (Purchaser's Address)

We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified therein, the following Goods [*insert a brief description of the Goods*]. The total price of our Bid, including any discounts offered, is [*insert amount in words and figures*].

We are not a Government owned entity or enterprise (or we are a government owned entity that is legally, commercially and managerially autonomous and not bidding for a contract to our supervising agency)

We are not suspended or debarred by the World Bank or other multilateral financial institution

This Bid and your written acceptance will constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We hereby confirm that this Bid will remain valid for 60 days after then Deadline for Submission of Bids.

We note and accept without reservation the Government's and the World Bank's (when other than the Government) right to audit and inspect any and all records relating both to the preparation of our Bid, and if our Bid is successful, the execution of the resulting contract according to the Attachment 1 – 'World Bank Policy – Corruption and Fraudulent Practices'.

Authorized Signature: _____

Name and Title of Signatory _____

Name of Bidder: _____

Address: _____

Phone Number _____

Fax Number, if any _____

SECTION 6. FORM OF CONTRACT AGREEMENT

AGREEMENT

This Agreement, made the _____ day of _____ 20.__, by and between

[insert name and address of Purchaser] (hereinafter called “the Purchaser”) and

[insert name and address of Supplier] (hereinafter called “the Supplier”).

Whereas the Purchaser invited bids for certain Goods viz., *[insert brief description of Goods]* and has accepted a Bid by the Supplier for the supply of those Goods in the sum of *[insert Contract Price in words and figures]* (hereinafter called “the Contract Price”).

Now this Agreement witnessed as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
 - (a) The Form of Contract,
 - (b) the Conditions of Contract,
 - (c) the Special Conditions of Contract
 - (d) the Technical Specifications
 - (e) the Form of Bid submitted by the Supplier,
 - (f) the Price and Delivery Schedule,
 - (g) the Purchaser’s Notification of Award
3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Contractor hereby covenants with the Purchaser to execute and complete the Contract in conformity in all respects with the provisions of the Contract.

5. The Purchaser hereby covenants to pay the Supplier in consideration of the execution and completion of the Contract the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties thereto have caused this Agreement to be executed the days and year first before written

The Common Seal of

was hereunto affixed in the presence of:

Signed, Sealed, and Delivered by the
said

in the presence of :

Binding Signature of Purchaser: _____

Binding Signature of Supplier: _____

SECTION 7. BID AND PERFORMANCE SECURING DECLARATION

[The Bidder shall fill in this form in accordance with the instructions indicated in brackets and submit it with the Bid.]

Date: *[insert date]*

Name of contract: *[insert name]*

Contract Identification N^o: *[insert number]*

Invitation to Quote No.: *[insert number]*

To: _____

We, the undersigned, declare that:

1. We understand that, according to your conditions, bids must be supported by a bid and performance securing declaration.
2. We accept that we shall be suspended from being eligible for bidding in any contract with the Purchaser and the Government of for the period of time of two years starting on the date of the Purchaser's execution of this Declaration or pay 2% of the contract price as a penalty, if we are in breach of our obligation(s) under the bid conditions and contract conditions, because we:
 - a) have withdrawn our Bid during the period of bid validity specified by us in the Bid Submission Sheet; or
 - b) do not accept the correction of errors in accordance with the Instructions to Bidders of the Bidding Documents, or
 - c) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, fail or refuse to execute the Contract Form, if required, or
 - d) committed a fundamental breach of contract leading to the Purchaser's termination of the contract for reasons of our default.
3. We understand this bid securing declaration shall expire if we are not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification that we were unsuccessful; or (ii) 30 (thirty) days after the expiration of our bid, or in the event that our bid is successful and we are awarded a contract we understand that this bid and performance securing declaration will expire upon successful completion of the warranty period specified in paragraph 7 of the Conditions of Contract.
4. We understand that if we are a JV, the Bid and Performance Securing Declaration must be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed *[insert signature(s) of authorized representative]* In the Capacity of *[insert title]*

Name *[insert printed or typed name]*

Duly authorized to sign the bid for and on behalf of *[insert authorizing entity]*

Dated on *[insert day]* day of *[insert month]*, *[insert year]*