



10 August 2023

SUPPLEMENTAL BID BULLETIN
ADDENDUM NO. 2023-004 R-02

Subject: Supply, Delivery, Installation, Testing, Training and Commissioning of the Automatic Weather Observing System (AWOS) at Mactan-Cebu International Airport and PAGASA-Mactan Station - REBID (Reference: PR No. 2023-02-0090 / IB No. 2023-004 R)

This Bid Bulletin is being issued to all prospective bidders to clarify, amend and/or modify certain provisions in the Bidding Documents and to answer written queries and clarificatory questions during the pre-bid conference by prospective bidders, to wit:

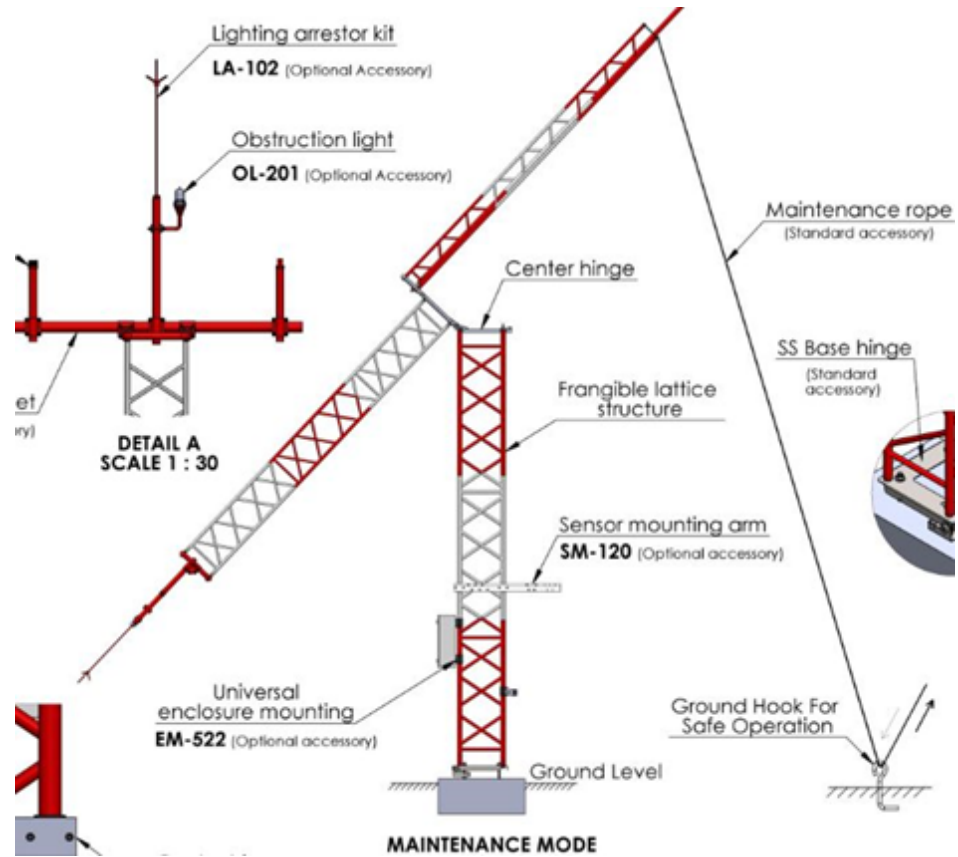
Queries from: **Westpoint Engineering Supplies Incorporated**

Query	Reply
Temperature sensor: Measurement range: -80 to 60°C. Can you accept -40 to 60°C?	Yes, the temperature range of -40 to 60°C for the temperature sensor can be accommodated.
Can the ceilometer be connected via separate logger?	The bidder can adopt other methodologies in gathering meteorological data provided it is transmitted to PAGASA Mactan office in the form of WMO Meteorological Aviation products like METAR/SPECI which can be generated automatically.
For the ceilometer: Is the back-up battery optional?	The said battery is not optional, it is intended to serve the DC circuit of the equipment which is also dependent in the design of the manufacturer.
For visibility, present weather, is this referring to old technology? Transmissometer? Can we offer a newer technology?	The visibility and present weather specifications is only the minimum specifications and the bidder may offer better specifications as long as it is intended for AWOS purposes.
For water film depth estimation for Runway with the following components, can we install a water film sensor instead of estimation software? Is this optional?	The water film depth estimation is not only a processing software, it is supported by a rain gauge or other appropriate devices/sensors installed at the runway strategic locations and send data via radio/wifi to PAGASA Mactan Office and process it with its algorithm/software for operation and functionality.
We would like to request at least a week for the submission of the bid documents ?	From: 18 August 2023 / 10:00 a.m. To: 25 August 2023 / 10:00 a.m. 2 nd Flr. Amihan Conference Room
Maintenance laptop specifications be opened to 14"-15" and nits display of 300-500.	The technical specifications of the maintenance laptop are the minimum technical specifications, however the bidder may be allowed to make an alternative offer that is compliant with and responsive to the specific requirements.

Other information for the Bidders:

1) For the supply and installation of the 10-M Frangible AWOS tower it is recommended that it is foldable at the mid-section using stainless steel or aluminum alloy center hinge for easy maintenance in the replacement of obstruction light, wind vane UHF directional antenna and other works that needs to access the tower. Other specifications of the tower mentioned in the TOR remain the same.

Below is the sample picture of the 10-M Frangible Tower, for easy reference:



2) The bidder may opt to transmit water film depth data through repeater antenna/relays installed at the 10-M Frangible Tower of Runway 04 & 22, should direct transmission of data from the runway to PAGASA-Mactan office could not be attained due to unexpected circumstances/obstruction. Hence, the bidder must carefully study the transmission of water film data set-up or methodologies, for consideration in their bid offer.

3) For emphasis, below are the detailed technical specifications of the UHF radio antenna, lightning air terminal and wifi point to point communication.

- **UHF Directional Radio Antenna (4 sets)**

UHF Directional Radio Antenna with modem (400-470MHz), wiring, brackets/fittings and other components for wireless transmission and reception of data (Runway 04 & 22 to PAGASA Mactan Office)

- **Lightning copper rod air terminal with grounding system (2 sets)**

Lightning copper rod air terminal, 1m x 15mm dia. with thread on one end, threaded copper base, 38 sq.mm. (15 meters) insulated THHN stranded copper wire for down wire and connected to a solid copper grounding rod (15mm dia. x 3M) system drive to ground using hammer or appropriate tools, with clamp or solderless connector. Grounding resistance must be 10 ohms or lesser.

- **Wifi point-to-point Radio Communication (1 Set - Transmitter and Receiver)**

Wifi /Radio Communication Link from PAGASA Office to CAAP Control Tower. Wifi point to point radio, 5GHz, range not less than 10kms with wirings, fittings and other accessories (transmission of AWOS data & Water film depth data from PAGASA to CAAP Control Tower).

- **UHF Directional Radio Antenna or Wifi point to point for the Water Film depth data (Transmitter and Receiver sets)**

UHF Directional Radio Antenna with modem (400-470MHz), wiring, brackets/fittings and other components or Wifi point to point radio, 5GHz, range not less than 10kms with wirings, fittings and other accessories for wireless transmission and reception of data for water film depth equipment from Runway 04 & 22 to PAGASA Mactan Office.

4) Under Section II of the Technical Specifications, PAGASA-Mactan Office components must include the following:

- a) UHF Directional Radio Antenna with modem, wiring, brackets/fittings, and other components for wireless reception of data from Runway 04 & 22 to PAGASA Mactan Office.
- b) Wifi /Radio Communication Link from PAGASA-Mactan Office to CAAP Control Tower. Wifi point to point radio, 5GHz, range not less than 10kms with wirings, fittings and other accessories (transmission and reception of AWOS & Water Film depth data from PAGASA-Mactan Office to CAAP Control Tower).
- c) UHF Directional Radio Communication link or Wifi-point-to-point from Water-film depth instrument at Runway 04 & 22 to PAGASA-Mactan Office for the transmission and reception of water film depth data.

5) As mentioned in Section VII of the Water Film Depth Estimation equipment, the bidder must provide the power source like the solar power system to run the equipment and send data to PAGASA-Mactan office via directional radio antenna or Wifi. Since, the strategic location of the said instrument may be away or quite far from the commercial power source.

This shall form an integral part of the Bid Documents.

For guidance and information of all participating bidders.

(sgd.)

BONIFACIO G. PAJUELAS, Ph.D.

Chairperson, PAGASA-BAC