ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-146
Name of the item to be scouted:	Sonic Anemometers
State item to be used in:	None
Describe the Item:	
Please describe the item application/the end use of the item.	The National Oceanic and Atmospheric Administration (NOAA), Global Monitoring Lab (GML) operates observatories worldwide that monitor the composition of the atmosphere, solar radiation, and meteorology in remote locations with unpolluted air. GML must purchase 2-D sonic anemometers to replace aging meteorology instruments currently operating at the NOAA Observatories and add additional heights of wind measurements to its observatory research sites.
Supplier Information:	
Type of Supplier Being Sought (select from the list below):	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	
Reason for Scouting Submission (select from the list below)	
2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	x
Other (Please Specify)	
Summary of Technical Specifications and Performance Requirements:	
Describe the manufacturing processes (elaborate to provide as much detail as possible)	mechanical/electronic assembly
Provide dimensions / size / tolerances / performance specifications of the item	? Ultrasonic anemometer, measuring: wind speed, wind direction, wind gust speed ? Wind Direction measurement o Measuring range: 0.1° – 359.9° o Resolution: 0.1° o Accuracy: +/- 2° RMSE >1.0 m/s ? Wind Speed measurement o Principle: Ultrasonic – 2.4 Ghz o Measuring range: 0-75 m/s o Resolution: 0.1 m/s o Accuracy: +/- 2 m/s, or +/- 2% of reading, whichever is greater ? Housing o Anodized aluminum, seawater-proof o Heating to prevent frost and ice ? Operating voltage: 24 VDC, max. 240 VA ? Data output o Digital: ? Interface: RS 485 semi-/full duplex, isolated ? Baud rate: 1200-57600 ? Status: Heating, sensor failure o Analog: ? Semi-duplex mode ? Output signal: 4-20mA, 0-10 frequency ? Resolution: 16 bit ? Durability: o Jarring test according to IEC 60945 o Corrosion test according to MIL-STD-810 Method 509.3 o Ice-free test according to MIL-STD-810F Method 521/2 ? Connection: 8-pin plug ? Mounting diameter: 2”
List required materials needed to make the product, including materials of product components, if applicable	Various. Unknown, except if provided within the attached specifications sheet.
Are there applicable certification requirements?	
Yes	
No	x
Please explain:	
Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	
No	x
Please explain:	
NAICS CODES:	

NAICS 1	334516 Analytical laboratory instrument manufacturing
NAICS 2	
Additional Comments:	
Additional technical comments:	
Volume and Pricing:	
Estimated Potential Business Volume (i.e. #units per day, month, year):	One time purchase of 20 Ventus equivalent wind sensors and 20 Ventus equivalent cable connectors
Estimated Target Price/Unit Cost Information:	Sensors are $2,470.95 per sensor. Connectors are $61.29 per connector.
Delivery Requirements:	
When is it needed by? (Immediate, 30 days, 6 months, etc.)	6 weeks after date of award
Describe packaging requirements (i.e. individually/group packaging, etc.)	Best available. Product must arrive undamaged.
Where will this item be shipped?	Boulder, CO
Additional Comments:	
Is there other information you would like to include?	This is a Simplified Acquisition, which has a shorter lead time to completion than an action over $250,000.00. It is expected that this requirement will be awarded within the next 30-60 days, and any timely scouting (requested completed within 15 days from submission) would be appreciated to align with Simplified Acquisition requirements for posting and the Buy American Act Waiver process.

Extremely precise and maintenance-free measurement of wind speed and wind direction even in the lowest temperature

- **Parameters measured**
  Wind speed, wind direction, virtual temperature, barometric pressure

- **Measurement technology**
  Ultrasonic

- **Product highlights**
  Wind detection with birdproof construction, maintenance-free measurement, suitable for extreme ambient conditions, ice-free operation, vibration and seawater resistant, compatible interfaces

- **Interfaces**
  SDI-12, RS-485 with supported protocols Binary, ASCII, NMEA, Modbus & analogue output

- **Article number**
  8371.UMT

The accurate wind sensor uses the run-time differential method for determining the wind speed and wind direction. It provides output for instantaneous values, vector and scalar means, the maximum gust of wind and wind direction, the maximum/minimum values and the virtual temperature. Data output through serial or analogue interfaces provides compatibility of the Lufft Ventus for commercially available hydrometeorological dataloggers and PLC systems. An automatic heater ensures reliable operation even in harsh environmental conditions.

General	
Dimensions	Ø approx. 150 mm, height approx. 170 mm
Weight	Approx. 1.62 kg
Permissible ambient temperature	-40...60 °C
with heating	24 VDC / 240 VA (140 VA + 100 VA)
Bus operation	Up to 32 devices
Operating voltage electronics	12 - 24 VDC / 1.9 VA, without heating
Electrical connection	8 pole plug
Housing material	Aluminium, seawater - proof
Protection type	IP68
Pole diameter	50 mm/2"
Factory certificate	Yes

Data output digital	
Interface	RS485 semi-/full duplex, isolated
Baud rate	1200 - 57600
Measurement rate instantaneous value	250 ms; 1 - 10 s
Measurement rate Avg (arithmetic, vector), Min, Max	1...10 min
Status	Heating, sensor failure

Data output analog	
Data output analog	Only semi - duplex mode
Output signal	0...20 mA, 4...20 mA, 0...10 V, 2...10 V, 2...2,000 frequency (instantaneous, avg, min, max)
Load	Max. 500 Ohm
Resolution	16 bit
Jarring test	According to IEC 60945
Corrosion test	According to MIL-STD-810 Method 509.3
Ice-free test	According to MIL-STD-810F Method 521.2
HALT	Highly Accelerated Life Test
Maximum operating height	3500 m

Wind direction	
Principle	Ultrasonic
Measuring range	0...359.9 °
Unit	°
Accuracy	±2° RMSE >1.0 m/s
Resolution	0.1 °

Wind speed	
Principle	Ultrasonic
Measuring range	0...90 m/s
Unit	m/s

Accuracy	±0.2 m/s or ±2 % RMS of reading (whichever is greater) for 0...65 m/s - otherwise ±5 %
Resolution	0.1 m/s

Virtual temperature	
Principle	Ultrasonic
Measuring range	-50...70 °C
Unit	°C
Accuracy	±2.0 °C (without heater and without sun exposure or wind > 4 m/s)
Resolution	0.1 °C

Air pressure	
Principle	MEMS capacitive
Measuring range	300...1200 hPa
Unit	hPa
Accuracy	±1.5 hPa
Resolution	0.1 hPa