

INVITATION TO BID - Addendum 01		LSU	BID DUE DATE AND TIME	
BOARD OF SUPERVISORS OF LOUISIANA STATE UNIVERSITY AND AGRICULTURAL & MECHANICAL COLLEGE			07/30/2026 11:00 AM CT	
SOLICITATION RFQ-0000002867 SUPPLIER # SUPPLIER NAME AND ADDRESS 			RETURN BID TO lsubids@lsu.edu Buyer Amy Hill Bourgeois Buyer Phone Buyer Email ahill5@lsu.edu Issue Date 07/08/2026	
TITLE: Particle Image Velocimetry (PIV) System				
Addendum 01: Notice is given to all parties that this solicitation is amended by the University as stated herein. This Addendum is hereby made an official part of this solicitation. See attached addendum – bid due date extended to 7/30/2026 by 11:00 AM CST.				
To Be Completed By Supplier				
1. _____ "No Bid" (sign and return this page only). 2. _____ My Company does not wish to receive future solicitations for this spend category. 3. Specify your Delivery: To be made within _____ days after receipt of order. 4. If applicable, Supplier's Addendum Acknowledgement/Response: As an authorized agent/signatory of the supplier, I/we acknowledge receipt of this Addendum, and _____ submit no alterations/clarifications to our original bid. _____ submit superseding revisions/clarifications to our original bid as written herein or attached hereto.				
General Instructions to Suppliers				
1. Sealed bids for furnishing the items and/or services specified are hereby solicited, and will be received by LSU Procurement at the "Return Bid To" address stated above, until the specified due date and time. 2. Read the entire solicitation, including all terms, conditions and specifications. 3. All bid information and prices must be typed or written in ink. Any corrections, erasures or other forms of alteration to unit price are to be initialed by the supplier. 4. Bid prices are to be quoted FOB LSU/Destination and inclusive of any and all applicable shipping and handling charges unless otherwise specified in the solicitation. Any invoiced delivery charges not quoted and itemized on the LSU purchase order are subject to rejection and non-payment. 5. Payment is to be made within 30 days after receipt of properly executed invoice, or delivery and acceptance, whichever is later. 6. By signing this solicitation, the supplier certifies compliance with all general instructions to suppliers, terms, conditions and specifications; and further certifies that this bid is made without collusion or fraud.				
SUPPLIER NAME			MAILING ADDRESS	
AUTHORIZED SIGNATURE			CITY, STATE ZIP	
PRINTED NAME			PHONE #	
TITLE			FAX #	
E-MAIL			FEDERAL TAX ID #	

RFQ-0000002867

Particle Image Velocimetry (PIV) System

Addendum 01 – see accompanying revised specifications document

Inquiry 1

The specifications for the camera frame rate (625 Hz) + resolution (2mm in a 1-meter FOV)+ 15 minutes of continuous data collection are not possible with standard computers and high-resolution cameras. Please confirm the specifications are correct.

Response 1

2 mm is hereby changed to 10 mm. The revised specification is revised to read as follows:

Measurement Domain and Spatial Resolution Requirements

- Minimum Field of View (FOV): 1.0 m (along wind, or with the flow) × 0.5 m (height, or vertical).
- Maximum Vector spacing: 10 mm for the above FOV.
- The system shall be operational under a turbulent wind flow with an average mean velocity in the range of 5 m/s to 30 m/s.

Inquiry 2

Why have you decided on a field of view of at least 1 x 1 m AND a minimum data rate of 625 Hz?

Response 2

Our pressure measurement system allows 625 Hz, which is the ideal setup for our experiment. We aimed at a consistent flow measurements system to understand the physics at such frequency. However, we realized the current technology capabilities, and specifications are revised.

2 mm is hereby changed to 10 mm. The revised specification is revised to read as follows:

Measurement Domain and Spatial Resolution Requirements

- Minimum Field of View (FOV): 1.0 m (along wind, or with the flow) × 0.5 m (height, or vertical).
- Maximum Vector spacing: 10 mm for the above FOV.
- The system shall be operational under a turbulent wind flow with an average mean velocity in the range of 5 m/s to 30 m/s.

Delivery Requirement and Bid Due Date Extension

Due to funding restrictions, all equipment must be delivered to LSU by October 30, 2026. Bid due date hereby extended to Thursday, July 30, 2026 by 11:00 AM CST.

Technical Specifications for a Particle Image Velocimetry (PIV) System - REVISED

Purpose: The purpose of this solicitation is to obtain competitive bids to obtain a Particle Image Velocimetry (PIV) system for the Open-jet wind lab at Louisiana State University.

This document defines the technical and performance specifications for the procurement of a Particle Image Velocimetry (PIV) system for advanced experimental wind engineering research. The system shall be a complete, integrated solution capable of delivering high-quality, quantitative velocity measurements and flow visualizations under large-scale and open-environment wind testing conditions.

The complete PIV system shall include the following requirements:

1. System Overview

The PIV system shall be a complete, modular and upgradable system capable of performing **two-dimensional, two-component (2D/2C)** velocity measurements.

2. Application-Specific Requirements

The system will be used in a non-conventional open-jet wind lab facility characterized by:

- Open-jet test section exposed to **ambient daylight conditions**.
- High flow velocities (**minimum 30 m/s, turbulence intensity up to 35%**).

The system must therefore be capable of reliable operation under ambient light exposure, while maintaining high measurement fidelity in high-speed turbulent flows.

3. Measurement Requirements

The PIV system shall be capable of providing accurate and repeatable measurements of the following flow quantities:

- Instantaneous and time-averaged velocity fields (two components: $u(t)$, and $v(t)$).
- Turbulence statistics, including:
 - o Turbulence Intensity.
 - o Reynolds stresses.

4. Measurement Domain and Spatial Resolution Requirements

- Minimum Field of View (FOV): 1.0 m (along wind, or with the flow) $\times$ 0.5 m (height, or vertical)
- Maximum Vector spacing: 10 mm for the above FOV.
- The system shall be operational under a turbulent wind flow with an average mean velocity in the range of 5 m/s to 30 m/s.

5. Temporal Resolution Requirements

- Minimum sampling rate required: **625 Hz**.

- A minimum duration of 15 minutes under 625Hz sampling rate, for the domain and spatial resolution mentioned above. The system must have suitable hardware capabilities to acquire and transmit data at a reasonable speed without latency problems (less than 30 s after the experiment is complete).
- A minimum signal-to-noise ratio of 100 under outdoor or semi-outdoor conditions.

6. Software Requirements

- Data acquisition software included.
- Export compatibility of raw data in formats readable by MATLAB (or equivalent), Python (or equivalent), and Tecplot (or equivalent), for the creation of high quality 2D average, minimum, maximum, and root mean square (RMS) velocity contours from measured data, over the mentioned domain ($1.0\text{ m} \times 0.5\text{ m}$).

7. Seeding and Optics

- Suitable seeding system for air flows, consistent with all above requirements.
- Uniform particle distribution capability, consistent with all above requirements.
- Optical mounts and alignment system for large-scale setup, for a fully operational system.

8. Environmental and Safety Requirements

- Compliance with laser safety standards (ANSI Z136.1 and IEC 60825-1).
- Appropriate shielding and safety enclosures.
- Suitable for laboratory and open-environment operations.

9. Documentation and Support

- Complete technical documentation and manuals.
- Supplier must provide onsite installation of equipment and on-site training. Onsite training will be conducted at the Open-jet wind lab at Louisiana State University, for one (1) trainee not to exceed two (2) days.
- Minimum one-year warranty.