Presolicitation Notice (FAR 5.101)

1. Point of Contact: Joseph M. Dellinger
Contracting Officer
Army Contracting Command - APG
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2. Set Asides: None

3. PSC Code: 6640

4. NAICS Code: 334516

5. Description:

The Detonation Science and Modeling Branch (FCDD-RLA-WA) of the Weapons Sciences Division of the Army Research Directorate (ARD) of the Army Research Laboratory (ARL) requires one (1) high-resolution, high-throughput spectrograph.

The spectrograph shall have the following:

1. High-throughput spectrograph shall have intensified camera
2. Shall have a continuous wavelength range from at least 180-1100 nanometer (nm), must be able to see the (carbon) C line at 247 nanometer (nm) and the (oxygen) O line at 777 nanometers (nm)
3. Shall have minimum resolving power ($\lambda/\Delta\lambda$) of at least 4000 under the specified wavelength range using an intensified charge coupled device (ICCD) detector
4. Shall include a Gen II (or at least comparably efficient) ICCD detector with a S25 18-millimeter (mm) photocathode with quartz window for Ultraviolet, visible, Near-infrared (UV/VIS/NIR) sensitivity
5. Shall have an adjustable gate pulse delay from 0 nanosecond (ns) to at least 500 microseconds (μs) in 5 nanosecond (ns) steps
6. Shall have minimum instrument gate width of 50 nanoseconds (ns) or lower
7. Shall have a modular design that enables exchange of grating cassettes (user interchangeable) and detectors to improve resolving power to at least 50,000.
8. Shall include large f-number (at least f/10) on the input collimator for easy coupling to light collection optics.

9. Shall include small f-number (less than f/3) on the detector focusing optics for high throughput.
10. Shall include large spectrograph demagnification factor (0.2x or greater) to enable large slits at the spectrograph input, but small slit images at the spectrograph focus for high throughput and resolving power.
11. Shall include adjusters for changes in focus for best resolution.
12. Shall have ability to trigger the spectrograph using the q-switch signal from a neodymium: yttrium aluminum garnet laser.
13. Shall have solarization resistant fiber optic cable.
14. Shall have all interface software and hardware required to calibrate and control the instrument.
15. Shall have interface software that produces a linearized wavelength spectrum.
16. Shall weigh less than 40 pounds (lbs) including spectrograph and detector.
17. Shall have dimensions less than 20 inches each in width, length, and height (including spectrograph and detector).
18. Shall include all applicable shipping charges and insurance.
19. Shall have minimum one (1) year warranty.

6. This is a notice of a proposed competitive action. The Government intends to issue a formal Request for Quotation (RFQ) in accordance with FAR Part 12, Acquisition of Commercial Products and Commercial Services.

7. The anticipated award date is 31July 2026.

8. All responsible sources may submit a quotation, which will be considered by the agency.

9. Response Date: Friday, 07/01/2026, no later than 3:00pm Eastern Time

Responses to this notice are due on or before 3:00pm Eastern Time on Friday, 07/01/2026 by email to adaleta.dougherty2.civ@army.mil

6/16/2026

X Joseph Dellinger

Contracting Officer (KO)
Signed by: USA