AmeriCOM
CENTER FOR OPTICS MANUFACTURING

Optics Insider

In this issue:

Student learns laser alignment techniques in their Fundamentals of Light & Lasers course.

Gallatin College Montana State University, in Bozeman, MT, has played a key role in the rapid growth of the photonics and remote sensing industry in the southwest region of the state. A key component of the College's workforce training and development efforts, its Photonics and Laser Technology (PLT) program, provides targeted training in optics, photonics, and electronics and includes courses in geometric and physical optics, DC/AC circuits, electronics and logic design, laser design and operating principles, and laser system component design and characterization. The PLT program currently awards an Associate of Applied Science (AAS) degree and is evaluating plans to also award a one-year certificate.

"Gallatin College is excited to partner with AmeriCOM in this program expansion and in so doing, materially impact the immediate needs of our industry base."
Stephanie Gray, M.P.A., Dean

GALLATIN COLLEGE
MONTANA STATE UNIVERSITY

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In this issue of Optics Insider*, we're launching a new series of spotlight articles on DPOC members, highlighting how these partnerships support AmeriCOM's mission to ensure that the optics industrial base is responsive to the needs of the U.S. military.*

DPOC
DEFENSE PRECISION OPTICS CONSORTIUM

MEMBER SPOTLIGHT

TOC Transformative Optics™

AmeriCOM is proud to partner with **TOC** to develop manufacturing and assembly processes that lead to scalable modular imaging systems. The manufacturing technologies developed under this effort not only drive commercialization of imaging systems with applications in security, media, industrial process control, and scientific imaging, but also improve the capabilities of the defense optics manufacturing industrial base. Optimizing the assembly process for high performance lens and sensor modules provides a path to improved performance at reduced cost, helping secure the U.S. supply chain of mission-critical optical technologies.

Advancing Array Imaging Technology

TOC is pioneering a new generation of integrated imaging systems that blend advanced optics, computational imaging, and modular designs. These innovations are designed to address the limitations of traditional monolithic imaging systems, offering scalable solutions that meet the demands of diverse industries, from defense and aerospace to immersive media and live sports.

- **Defense and Security**: Wide-area imaging capabilities allow for better situational awareness with fewer systems, enhancing mission-critical outcomes.
- **Immersive Media**: Unparalleled depth, resolution, and HDR imaging create lifelike visuals that transform experiences and live content environments.
- **Aerospace and Scientific Imaging**: Compact, lightweight designs enable superior imaging performance in challenging environments, making high-resolution imaging more practical for diverse applications.

P:RCIEV™

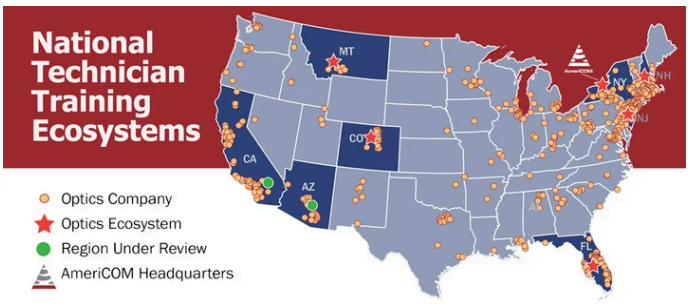
Central to this work is the development of Integrated Imaging Modules (IIMs), represented by the P:RCIEV™ product line (pronounced “perceive”), a compact, high-performance module that integrates lens and sensor technologies to deliver millisecond focus speeds, HDR image capture, and up to 800 mm-equivalent and 35 mm focal length.

Read More

AmeriCOM Brings Momentum to Photonics West

If there are any certainties in this world, one is that Photonics West is jam-packed with activities and opportunities to meet, learn, and get re-invigorated about our shared work in optics and photonics.

The AmeriCOM team is looking forward to updating partners and colleagues about our ever-expanding COM-Lab, a 10,000 sq. ft. manufacturing technologies research facility, and about how industry can support our national network of technician training ecosystems. Not yet a member of our Defense Precision Optics Consortium (DPOC)? We can take care of that with you right on the exhibit floor.



Visit us at Booth 234 and learn how you can support the mission of the American Center for Optics Manufacturing.

FRCC Student, Hannah Scarbrough, Technician and Proud Scholar

AmeriCOM thanks Front Range Community College (FRCC) for shining a light on Hannah Scarbrough, an Optics & Laser Technology student, Metallica Scholar, and apprentice with **Excelitas Technologies Corp**. As part of the apprenticeship program, a partnership between Excelitas and the College, Hannah is building practical skills and experience while completing her degree path. "Once I complete the apprenticeship, I can enter the workforce as a fully trained and skilled optics technician. I can't wait!"

Hannah Scarbrough

FRONT RANGE COMMUNITY COLLEGE

The **All Within My Hands Foundation (Metallica)** Scholars Initiative is helping advance the growing field of optics technology through grant investment in critical workforce programs. Front Range Community College is the only college in Colorado to participate in the prestigious Metallica Scholars Initiative.

Read more about Hannah and her career trajectory on the **FRCC blog feature.** Learn about the **FRCC Optics & Laser Technology program.** Become an **Apprenticeship Partner with FRCC** in the greater Boulder, CO region.

UPCOMING EVENTS

SPIE Photonics West
San Francisco, CA
January 28-30, 2025

American Association of Community Colleges (AACC) Workforce Development Institute
Coronado, CA Jan. 28-31, 2025"

SPIE Defense and Commercial Sensing
Orlando, FL"
"April 13-17, 2025"

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American Center for Optics Manufacturing

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