

Ohio Aerospace Institute's February 2021 Newsletter



A New Opportunity

A new year is upon us and optimism is bountiful. A COVID-19 vaccine brings promise that the travel industry is on its way to a recovery, returning furloughed employees to work. Generally speaking, bringing more normalcy back to our lives.

As we look to aerospace growth, I am excited to say that the Ohio Aerospace Institute (OAI) has been using the past year to grow our membership program and offerings. We have listened to our members, done research, and evolved our program to promote

inclusivity and engagement. OAI's Industry Association brings a member-exclusive supply chain matrix that spans across the state and to global partners. We are connecting our industry, academic and military members with new business opportunities to promote aerospace growth in the state. Membership is now open as we continue to rollout the reconfigured program.

We look forward to continuing contracted research, broadening our global reach and once again seeing you all in person.

John M. Sankovic, Ph.D., P.E.
President & CEO
Ohio Aerospace Institute



Wadsworth, Company Celebrates 50 Years in Aerospace

Clampco Products, Inc., the leading USA manufacturer of engineered joining solutions, is celebrating its' 50th anniversary.

"We are the last remaining family-owned Clamp manufacturer in the U.S.," says Derek Sandborn,

Clampco's National Sales and Marketing Manager, "All others have moved offshore or been acquired by large private equity. Clampco continues to grow due to our ability to produce a high-quality engineered product and the service we provide to our customers. Clampco doubled the size of our facility in 2015 to over 135,000 sq-ft, and we own 30 acres of property for projected future growth."

SpaceX recognized the Ohio Aerospace Institute member for delivering critical Clamp components to support the historic launch of astronauts Robert Behnken and Doug Hurley aboard the Dragon capsule on a Falcon Rocket on the May 30th, 2020 landmark mission. Clampco Products also one of a select few Cummins suppliers to earn the "COVID-19 Outstanding Suppliers Award" recognizing global and national support of essential Cummins products in 2020. Sandborn continues by stating "Clampco is a world class manufacturer of clamp products to over 38 vertical markets. These awards validate our endless commitment to providing industry best products and services across all markets served."

Overall, 235 employees contribute to Clampco's success. Clampco is proud to be registered and operate their Quality Management System under AS9100/ISO 9001 and ISO 14001 Certifications. Certification to these globally recognized standards provide our customers the confidence that Clampco maintains a culture of quality and continuous improvement, while operating in an environmentally responsible manner. Sandborn finishes by stating "With the support of OAI Team, Clampco has made a strong push to grow our Global Aerospace business. Considering there are only a few AS9100 registered Aerospace and Defense clamp manufacturers globally, Clampco is positioned for significant growth that will successfully carry us into the next 50 years."

OAI Member Engineered Products Inc. Wins Military Grant

Engineered Products Incorporated (EPI), a custom Radio Frequency Identification (RFID) manufacture, recently won an Air Force grant of \$150,000 grant because of support and connectivity of the Academic Partnership Engagement Experiment (APEX) Program. EPI was initially linked with the Air Force through its affiliation at Ohio Aerospace Institute (OAI). EPI develops custom RFID tags, and will develop tags and solutions for the military that currently do not exist.

Justine Blank, vice president EPI credited OAI's knowledge with government contracting with their ability to navigate through a military contract for the first time.

"Ohio Aerospace Institute provided coaching and mentoring on how governmental STTR/SBIR processes work," Blank says. "The team also helped to review and give me an opportunity to test my slide decks to an experienced audience before submitting to AFWERX."

Link to <https://www.wfmj.com/clip/15175761/tech-belt-today-epi-and-the-apex-program>



Upcoming OAI Events

The Ohio Aerospace Institute in collaboration with the aerospace team at the International Trade Administration, will offer a program on Aero & Defense opportunities in Australia. We will also offer a program in partnership with our UK partners on opportunities in the Space Sector.

Training on International Traffic in Arms Regulations (ITAR) will take place this spring as well as a UAS Standards webinar.

A Cybersecurity Maturity Model Certification (CMMC) training and evaluation is also upcoming.

Keep watch for event details at www.OAI.org



OAI's Gilland Serves on NAS Space Nuclear Propulsion Committee

James H. Gilland, a senior scientist at the Ohio Aerospace Institute, is one of the 12 members of the NAS Space Nuclear Propulsion Technologies committee, which plans to release report results this Friday.

Gilland has performed and led mission and system studies for solar and nuclear electric propulsion systems throughout his 30-year career and is a fellow of the NASA Institute for Advanced Concepts and an associate fellow of the AIAA.

The National Academies of Sciences, Engineering, and Medicine organized this ad hoc committee to identify primary technical and programmatic challenges, merits, and risks for developing and demonstrating space nuclear propulsion technologies of interest to future exploration missions. The committee formed to support the study on technologies of specific interest include high-performance nuclear thermal propulsion (NTP) and nuclear electric propulsion (NEP) systems. The findings will determine the key milestones and a top-level development and demonstration roadmap for each technology. The committee will identify missions that could be enabled by successful development of each technology.



Kent State University's CAE Continues Adding to its Research Portfolio

The College of Aeronautics and Engineering continues to enjoy a health enrollment and retention rate despite initial concerns COVID-19 may bring.

Additionally, the college continues to expand its research faculty and research topics.

Minimally invasive surgery (MIS) is one of the college's research themes. Robot-assisted MIS is an emerging medical application and appeals to be used in practical surgery with benefits to provide motion scaling, visual immersion and tremor filtration. CAE's research focuses on developing miniature multifunctional robotic manipulator which could change surgical tooltips automatically.

Passive walkers or other existing tools disrupt mobility-impaired users' walking rhythm and increase their metabolic energy consumption. CAE is developing a robotic walker which could not only provide active walking assistance, but also promote intuitive interaction to help the users regain their mobility.

Check back to read about research:
<https://www.kent.edu/cae/research-themes>



Ohio's First Flying Car

Ohio has welcomed its first "flying car." HEXA by LIFT Aircraft is an all-electric vertical takeoff and landing (eVTOL) single-passenger wingless multicopter ultralight. Bringing this flying car to Ohio for continued research and testing was made possible through public and private partnerships, including the U.S. Air Force's AFWERX program, Governor Mike DeWine, and JobsOhio.

Watch Video:
<https://youtu.be/tzRQh92ps9M>



Ohio Aerospace Industry Association

The Ohio Aerospace Institute's Industry Association will launch its supply chain matrix along with other new membership perks this spring.

To join, visit www.oai.org or contact Kim Holizna at: KimHolizna@OAI.org.