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Minnesota Education Section

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Soaring To New Heights: Women In Aviation

by Northland Community & Technical College

When you think of aviation, what do you think about? Do you think about the Wright brothers and their contributions to modern aviation or possibly the flight of Charles Lindbergh, who spent his childhood in nearby Little Falls, Minnesota? Aviation is so many things to so many people, and a pivotal part of modern day life. A commonly overlooked fact is the huge role that women have played in all aspects of aviation. Pioneers from Amelia Earhart to Rosie the Riveter to Sally Ride have shown the world how women play a huge role in all aspects of aviation.

Rosie the Riveter is a prime example of how women have worked to bring the aviation industry to where it is today. During the time of Rosie and World War II, the aviation industry saw the greatest increase in female workers ever. More than 310,000 women worked in the U.S. aircraft industry in 1943, making up 65 percent of the industry's total workforce (compared to just 1 percent in the pre-war years). Without women in the industry, history might tell a much different story.

One of the lesser-known roles women played in aviation at the same time was the Women's Air Force Service Pilots, or WASPs. These women, each of whom had already obtained their pilot's license prior to service, became the first women to fly American military aircraft. They ferried planes from factories to bases, transporting cargo and participating in simulation strafing and target missions, accumulating more than 60 million miles in flight distances and freeing thousands of male U.S. pilots for active duty in World War II. More than 1,000 WASPs served, and 38 of them lost their

lives during the war.

On June 18, 1983, Sally Ride became the first American woman in space as a crewmember on space shuttle Challenger. With this flight, she became the youngest American to travel to space at the age of 32. If she wouldn't have challenged traditional thinking, she may have never

enabled women to strive for greatness in aviation and aerospace.

Northland Community & Technical College understands the significant role that women play in aviation. Here, women make education happen in our aviation maintenance technician (AMT), unmanned aircraft systems (UAS) maintenance, and geospatial intelligence (GeoInt) programs. They

work on the latest equipment in their industry and are introduced to companies for potential career opportunities. Some have jobs before they graduate! There also are now clubs and organizations dedicated to women in aviation and aviation maintenance. These organizations are seeing membership growing by leaps and bounds. We encourage participation in conferences designed specifically for women interested in and working in aviation.

A former female AMT and UAS student said, "My job will make a difference. People can't get where they need to go if I don't do my job right." She went on, "Women can do it (aviation maintenance) just as well, and we can actually work on a lot of things easier because we are smaller."

With current workforce shortages in the aviation maintenance industry, women are needed to fill these jobs across the country. With a degree from NCTC in one of our aviation programs, you have a ticket to basically work when and where you would like. Starting salaries are generous



**Visit Northland Community and Technical College at www.northlandcollege.edu
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NCTC is an equal opportunity educator and employer.**



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Do you have a desire to have a lasting impact on aviation? Do you want to have a positive impact on the next generation of aviation professionals? The Northland Aerospace Foundation is an IRS non-profit corporation specifically organized to benefit aerospace education at Northland Community & Technical College.

Learn how you can create your legacy to impact the future of Aerospace Education.

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Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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and the ability to move up within your company can occur quickly for those that are motivated.

Historically, men have dominated the aviation workforce, but that is changing. There is no better time than now to get training and launch a new career in the high demand fields of aviation and aerospace.

One female NCTC graduate concluded, "You face challenges in any field and there's always those types of people who doubt your abilities in any field, so keep your head and keep doing what you're taught to do and do it well. You'll go far."

Interested in aviation at Northland? Northland recently

developed a virtual tour so you can check out the aviation campus from the comfort of your home, any time of the day. You can check it out from your phone at: www.tournorthland.com

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NewView Technologies Owner Receives Charles Taylor Award

OSHKOSH, WIS. – Bruce Botterman, owner of NewView Technologies at Wittman Regional Airport, Oshkosh, Wis., has received the "Charles Taylor Master Mechanic Award" for 50 years of continuous aircraft airframe and powerplant (A&P) service. Botterman is a 1966 graduate of Rock County Vocational School, Janesville, Wis., and before he and his wife, Rae, started NewView Technologies, Inc. in 1997, he worked for United Air Lines at O'Hare International Airport; Midwest Aviation in Janesville, Wis.; Basler Flight Service, Oshkosh, Wis.; Maxair, Inc.,



Bruce Botterman

Appleton, Wis.; and Midwest Realty, Oshkosh, Wis.

NewView Technologies, Inc. is a repair station specializing in aircraft window repair and polishing, pitot static altimeter testing, and piston aircraft maintenance. Botterman has been a member of the Wisconsin Aviation Trades Association since 1982, a board member since 1998, and is past president. He is also a member of the National Business Aviation Association, Experimental Aircraft Association, Wisconsin Aviation Hall of Fame, and Oshkosh Chamber of Commerce, and is a former member of the Appleton and Green Bay Chambers of Commerce. In addition, Botterman has been an advisory board member at Fox Valley Technical College since 1985.

The Charles Taylor Master Mechanic Award is named in honor of Charles Taylor, the first aircraft mechanic of powered flight, and the Wright brothers' mechanic. Taylor is credited with designing and building the engine for the Wright brothers' first successful powered aircraft. The award recognizes the lifetime accomplishments of senior mechanics. □

Wag-Aero Launches New Digital Catalog

LYONS, WIS. - Customers can now shop Wag-Aero's entire 124-page catalog electronically using their smart phone, tablet or computer at onlinecatalog.wagaero.com and see an extensive selection of quality aircraft parts and services.

For 55 years, Wag-Aero has been a worldwide manufacturer and distributor of aircraft parts for the general aviation and light sport aircraft industries. The company's digital catalog features a full line of instruments, wheels and brakes, tires, covering materials, engine mounts, exhaust systems, seat belts and shoulder harnesses, consumables,

Emergency Locator Transmitters (ELTs), ground support equipment, lighting, fuel tanks and components, windsocks and frames, and runway lights, along with FAA/PMA replacement parts for Aeronca, Cessna, Piper and Taylorcraft. In addition, Wag-Aero supplies components for three unique homebuilt aircraft: the Sport Trainer, Wag-A-Bond and Sportsman 2+2. Aero Fabricators, a division of the Wag-Aero Group, is a certified repair station for engine mounts, seat belts and exhaust systems.

Call Wag-Aero at **1.800.558.6868** or email wagaero-sales@wagaero.com for additional information and assistance. Wag-Aero offers same day shipping on most items. □

AOPA Announces New Flying Club Benefits

FREDERICK, MD – The Aircraft Owners and Pilots Association (AOPA) announced free scheduling software and other new benefits and tools now available to flying clubs. The software, available exclusively to AOPA Flying Club Network members, allows clubs to schedule up to six "resources," such as aircraft and flight instructors. With an

unlimited number of users and the capability to process credit card payments, and create invoices, the software from Multi Service Technology Solutions, Inc., offers the capability and flexibility to serve clubs of all sizes and types. In addition to the new scheduling software, AOPA is making it easier than ever for pilots to find their ideal flying club (www.aopa.org). □