

RUN-UP



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SPECIAL SPOTLIGHT

Mike Aarestad

This quarter's spotlight is on Co-Founder of Bismarck Aero Center and Mandan Aero Center, Mike Aarestad. With his well-deserved retirement in May, we look back at his achievements over a 48 year career in aircraft maintenance.

Mike grew up in Jamestown, ND. His father was an auto parts and Gopher engine wholesaler. At a young age, his father would let Mike tear into the old engines and see how they worked. It was his first experience really getting his hands dirty and shaped his passion for a maintenance career.

He left Jamestown in 1971 and went to aircraft maintenance school in Fargo, ND, where he also got his private pilot license. After completing school, he came back home for his first aircraft maintenance position at the Jamestown Airport in 1973. "Back then, I started at only \$2 an hour, but did get a \$.50 raise after a week. They were a Cessna and Piper dealer, and there was lots of work to do. Keith Berg and George Huss were excellent mentors to me and taught me how to overhaul engines. I probably overhauled 20 engines before age 25" Mike recalled.



After a great start to his career, in 1978 he had an opportunity to become the Director of Maintenance for OK Aviation in Bismarck, ND. The move seemed big to the young North Dakota man, but Mike's mentor was right there to give him the push he needed. "I remember thinking that I didn't know if I could do it. Keith told me to just lean into it and it will all work out" said Mike. Along with the move to Bismarck, Mike and Shirley also got married that year and started their life in Bismarck.

After six years, OK Aviation was bought out by another aircraft maintenance facility, but Mike stayed on as the Director of Maintenance. Then in 2002, Mike and Bob Simmers got together to expand Aircraft Management Services to opening their own maintenance shop at the Bismarck Airport, now known as Bismarck Aero Center. "Bob is a really fair and honest man, so when he asked me to join at a 50/50 partnership, I was excited to move to the next chapter. I can still remember our first maintenance customers! First was the ND DOT, then Ward Whitman. After that I can't remember, but all our customers over the year have been really appreciated," said Mike.

From there, he recalls hiring Howard Burns as one of the first employee, starting an avionics repairs station, building new hangars, starting aircraft fueling operations and



Mike and the early years of BAC's shop team

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SPECIAL SPOTLIGHT continued

eventually expanding over to the Mandan Airport. "Our move to Mandan has been great. Not only did we have a great opportunity to expand services to our Mandan customers, but it also allowed some of our internal folks to take on new responsibilities and step up. I am really happy to have spent time at the Mandan Airport and grow the many relationships here."

When asked about what his greatest memory was, Mike recalled what it was like to be asked to do the maintenance on the ND DOT aircraft back in 1980. "I was honored to do it for them. I was picked because they knew I was dependable and trusted my high standards. I was really proud they wanted me." exclaimed Mike. "I also really enjoyed a career where I had an opportunity to fly to most states, attend many different factory trainings, and meet a lot of great people."

For the next chapters in Mike and Shirley's book, they are looking to travel around North America. Their two sons, Andrew and Josh, have moved away from Bismarck, so they are looking forward to spending more time with them and their two adorable granddaughters. "You never feel the need to retire. I truly love my job and the work that I did. There does come a point that you need to take advantage of being able to travel while you still feel great. We have sold our house, bought a fifth wheel camper, and it's time for us to hit the road!"

When asked about any final advice that he would give students going for or just obtaining their A&P licenses, Mike



Mike and Shirley with their family

emphasizes the need to be open, and be willing to share and receive tips. "A great shop environment has everyone able to talk and learn from each other. Young or old, everyone can still learn something new. For me, I like to tell stories of my mistakes from over the years. They can be funny at times but can be great learning experiences for the next person."

ON THE MOVE

Mark McCann, Senior A&P Maintenance Technician

As a Sr. A&P Maintenance Technician, Mark's aviation experience is nearly unmatched in the Bis/Man community. Mark has been an important part of our company family for several years. He has provided mentoring to young technicians throughout his years by displaying a calm demeanor and knack for troubleshooting.

Mark will be moving his toolbox to the Mandan Airport to spend more time providing technical guidance to our Jr. Maintenance Technicians at that facility. His almost 40 years of A&P experience will help strengthen our commitment of high-quality aircraft maintenance at the Mandan Airport. He is ready for the new challenges and is excited about this opportunity.

Howard Burns, Director of Maintenance Bismarck/Mandan

As part of the transition during Mike's retirement, Howard will oversee both the Bismarck and Mandan operations. He has been with the company since the beginning of the Maintenance Department and has built a great rapport with customers across North Dakota. Howard is excited for the opportunity to be able to spend more time at the Mandan Airport and make sure Mike's high-quality standards are continued.

At the start of Mike's retirement, Howard will be spending immense time in the Mandan operation. He will be working to better know the customer base and basic operations associated with Mandan Aero Center. During this time, Howard will work to develop parallel operations in Mandan, aiming to increase efficiency and customer confidence.

SPOTTED ON THE RAMP



Helicopter: Bell 206

Since starting production in 1962, there have been over 7,300 Bell 206's built. From law enforcement to military to pipeline monitoring, this aircraft can serve many roles.

BAC is a proud to be an Air Elite FBO & provide great service to all our customers.



COME FLY WITH US Flight Instruction Tip

Summer is every pilot's favorite season, and why wouldn't it be? Fly-ins, vacations, airborne family adventures, North Dakota passport program, Oshkosh and other airshows abound during the summer months. Summer weather is usually pretty good, but there are always those afternoon storms that can catch you off guard. This can put you at the doorstep of shooting an approach in rain and probably a bit of turbulence.

As we all know Density altitude (DA) is pressure altitude (close to altitude above sea level) corrected for nonstandard temperature. A high DA results when hot air makes the density of the air less than what would normally be at a given pressure altitude. A look at aircraft performance charts shows that a noticeable reduction in performance begins to show at DAs as low as about 3,000 feet. That means that an airport at about 1,500 feet MSL becomes a high-DA airport when the outside temperature exceeds about 85 degrees F—which perfectly describes the Midwest on a typical summer afternoon. Even low-altitude airports begin to exhibit high-DA traits during the hottest of summer days. And, of course, higher elevation fields can be high DA almost all year long. Humidity displaces oxygen, so high humidity can negatively affect aircraft performance on a hot day too.

Use aircraft performance calculations conservatively because they assume a new airplane, a new engine, a perfect runway as well as an exemplary pilot technique. They also assume that the measured temperature is correct. Have you ever stood on an asphalt parking lot during a hot summer day? The local temperature may be significantly higher than ambient air nearby as the dark surface absorbs heat and transfers it to the air. DA on the runway, where it matters most, may be even higher than the calculated DA using the official airport temperature. Give yourself a significant margin when applying results from performance calculations.

Happy Flying!
Ray Brooks, Lead CFI

Interested in flight instruction at BAC?
Contact Ray: 701-223-4754 or rayb@bismarckaero.com.



CONGRATULATIONS!

Flight Safety Training



Mark McCann has recently spent a week in Wichita, KS at PT6 Hot Section and Engine Rigging Training. This training, conducted by FlightSafety International, will give Mark the experience to do advanced engine inspections on the PT6 engines

(typically found in turbo prop aircraft such as King Airs, Caravans, Meridians and spray planes). Mark has been with Bismarck Aero Center for the last 9 years and has almost 40 years as an aircraft mechanic.

Diamond Award

For the 5th year in a row, BAC's Maintenance Team was awarded the FAA Diamond Award. All Aircraft Maintenance Technicians have to participate in a minimum of 12 hours of training each year as well as pass an FAA Maintenance Training course.

Air Elite Diamond Difference



Flightline Technicians Lindsay Gerhardt and Trevor Opp were awarded the Diamond Difference Award by World Fuels Services. They earned this recognition for their outstanding performances while helping fellow Air Elite FBO Hill Aircraft (Atlanta, GA) during the Super Bowl.

MAINTENANCE CORNER

As you know, Mike will be headed towards retirement and relaxing, so he is handing the reins to me, Erik Peterson, to be the new author of the Maintenance Corner. Many of you most likely already know me but for those of you that don't, allow me to introduce myself. I received my A&P about 15 years ago and have had my private pilot's license for 18 years – although I don't fly enough to claim to be a very good pilot. I have been with Bismarck Aero Center for over 8 years now, and I have learned an immense amount about general aviation maintenance throughout my tenure here. Prior to BAC, I was in the commercial aviation world which, from a maintenance perspective, is quite different than general aviation.

It is the time of year again where the snow is finally melting, and temperatures are climbing. This can bring pilots out to the skies that might not have flown their aircraft since last fall. If this is you, there are a couple of important items to check before taking that first flight after a long winter. First, pay special attention to sumping the fuel. As aircraft sit, their fuel cap gaskets will eventually dry rot and crack which allows moisture to get into the fuel. If a plane is stored on the ramp, the snow slowly melting makes for a perfect scenario for water to get into the fuel. Neglecting to sump the fuel could allow a water slug to make it to the engine at a very inopportune time; during the initial climb out, for example. Fuel cap gaskets are typically cheap, easy to change and do a lot to keep fuel free from contamination. So, next time the cap is off to check the fuel levels, look at the gasket to make sure it isn't hard and cracked. If it is, I would recommend changing it out with a new one.

Another important check is the condition of the plane's battery. Make sure the battery is charged, serviced and able to hold a charge. This is especially important in retractable gear aircraft. Unfortunately, aircraft batteries are not known for their longevity. Batteries that sit for extended periods of time without use do not last for very long. Weak batteries can cause all sorts of problems during the gear cycle. More importantly, if the charging system is lost, the battery will not have enough capacity to bring the gear down. If the battery shows it has a full charge, and the engine is still not cranking very strongly while starting, then it is best to look at buying a new battery.

Happy Flying! Erik Peterson, Lead Maintenance Technician

Planes and Pancakes Sunday June 9, 2019

8:00-11:30 AM

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Find this event on Facebook at [EAA Chapter 1008 – Bismarck & Mandan, ND](#)



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National Air Tour of Historic World War II Aircraft

COMMEMORATIVE AIR FORCE

Arriving in Bismarck August 15-18



"FIFI"
B-29 Superfortress

GUNFIGHTER
P-51 Mustang

plus other classic warbirds



C-45
Expeditor



T-6
Texan



PT-13
Stearman

Location

Bismarck Municipal Airport / Bismarck WWII Hangar
2301 University Drive, Bldg. 22
Bismarck, ND 58504

Schedule

Thursday, August 15	9:00 a.m. to 5:00 p.m.
Friday, August 16	9:00 a.m. to 5:00 p.m.
Saturday, August 17	9:00 a.m. to 5:00 p.m.
Sunday, August 18	9:00 a.m. to 5:00 p.m.

Sat-Sun B-29 flies 9:00 a.m./10:30 a.m.

Aircraft tours start at 9:00 a.m. Wed-Fri and 12:00 p.m. on Sat-Sun.

Cost

Adults \$10
Youth 10-18 \$5
Children 9 and under FREE
*Price includes FREE B-29 tour

Rides

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NEW FACES

George Pfaltzgraff, A&P Maintenance Technician Apprentice



Please help us welcome George to our BAC/MAC family!

George started his aviation passion in the summer of 2011 when he received his FAA Private Pilot's license. He also has experience programming, building and operating Unmanned Aerial Vehicles (UAV's). This UAV operational experience required him to work directly with the FAA for approvals. In his spare time, George applies his inquisitive nature by experimenting with old cars, ag equipment, livestock and even has his own CNC machine.

As a Maintenance Technician Apprentice, George will receive "on the job training" that will go toward the required hours for receiving his FAA Airframe and Powerplant (A&P) license.

George will have the benefit of learning under several seasoned professionals, starting in Bismarck and transitioning to Mandan to learn with Mike Aarestad. George is ready to jump in and do what it takes to help BAC/MAC during Mike's retirement transition.

PRODUCT SPOTLIGHT

Garmin GNX 375

Last March, I was fortunate to be able to attend the 62nd Annual AEA International Convention & Trade Show in Palm Springs, FL. The AEA (or Aircraft Electronics Association) continues to grow each year and every day of the convention, more new and exciting technology gets released. Along with seeing demonstrations of new products, attendees get to learn from electronic experts and see how the industry will change in the coming years. In the avionics world, there really is nothing quite like it. Hands down, it is my favorite convention!



While at this year's convention, I was fortunate to spend some time at the Garmin booth and learned more about the newly announced GNX 375. This innovative technology comes in a slim touchscreen unit for small personalized aircraft or experimental/amateur-built aircraft. It combines your aircraft's need for ADS-B with a state of the art IFR GPS navigator.

The GNX 375 has a built in 1090 MHz ES transponder that meets the ADS-B Out requirements for January 1st 2020. If you are a person that likes more information, this unit also has a dual-link ADS-B In receiver that will display traffic and subscription-free weather. Combine that with a WAAS GPS navigation with LPV approaches, you will be able to greatly expand your operation capability. As a pilot, you will be able to visualize your entire flight plan, weather, and traffic on a rich more dynamic global moving map. After you have your flight plan set and everything is ready to go, wirelessly transfer your information to your Garmin Pilot app with the Connex wireless technology built right into your unit.

The GNX 375 is affordable all-in-one technology can be the perfect fit for your ADS-B install or GPS upgrade. Give me a call to talk more about its features and see if the GNX 375 could be right for your aircraft!

The Tech Guy, Kris Hexom



UPCOMING EVENTS

May 8th	Aviation Career Day (Bismarck)
June 9th	Mandan Fly-In & Pancake Breakfast
Aug. 14-18th	B-29 FIFI & Friends (Bismarck)
Aug. 19th	National Aviation Day
Sep. 8th	Bismarck Fly-In & Pancake Breakfast
Oct. 3rd	Props & Hops (Mandan Aero Center)

TRIVIA

Coming this August, BAC will be hosting FIFI, the WWII B-29 Superfortress. FIFI, along with a P-51 Mustang, C-45, T-6, and a Boeing Stearman, will be available for tours and rides for five days. The B-29 was put into service in 1944 to replace the older B-17s and B-24s and was a staple in the U.S. Air Force until the late 1950s. Why did the B-29 replace the B-17s and B-24s?

- A. It was a lot faster
- B. It had a longer range and greater bomb capacity

- C. It was a much more fuel efficient aircraft
- D. The name "B-29" had a better ring to it.

Submit your answer by 5/25 for a chance to win a \$25 gift card! Contact Shae Helling at shaeh@bismarckaero.com. The answer to our last trivia question is D. The FAA will not be extending the ADS-B timeline mandate. Jan 1 2020 is a firm date to have ADS-B Out in your aircraft. Congrats to Harley for being this quarter's lucky trivia winner!

Keep up to date with events, aviation news & cool aircraft! Follow us at:



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