Owensboro, Kentucky is the location of the September 20-23, 2018 Duke Flyers Association Fly-in. Owensboro is location 25 miles SE of Evansville, Indiana, 73 miles SW of Louisville, Kentucky, and 100 miles N of Nashville, Tennessee

MID AMERICA
Aircraft Charter | Management | Maintenance

Pilot Steel, Inc.

Mid America Jet is the host FBO, while Ray and Susan Assmar, and their company, Pilot Steel, Inc. will host the event. Please plan to join us for a record turnout.

President **Vice President**

Robert L. Hoffman **Al Uhalt**

SOME SPARE PARTS FOR YOUR DUKE

(2) Generators	(1) Tach Generator
(2) Starters	(2) Magnetos
(2) Flap Motors	(2) Landing Gear Motors

Above items are located at Aircraft Systems, 5187 Falcon Road, Rockford, IL 61109. They will ship the item to you by Federal Express or UPS. You must give them a credit card to charge the expenses too. They will overhaul your unit and charge your credit card for the repairs and transportation charges. The item then becomes the DFA's part for the next member that needs a quick replacement

The following are located in Sanders, KY. Contact Robert L. Hoffman – BE60pilot@aol.com / call or text: 859-653-2149

Cowl Flap Actuator(s)	A/C Door Actuator
Electric Boost Pump	Turbocharger
Oil Cooler (new)	Nose Gear Uplock Pin

Windshields- Contact Gary Bongard @612-281-5158 (cell) or check DFA web site

*Nose gear up lock pin Beech Part # 60-8200-91. Beech price is $5000.00. Your DFA price for the same new part is $530.00. We reverse engineered this part and it is an owner supplied part.

Welcome New Members SinceOur Last News letter

Jim Roberts	Vacaville, CA	P-405
Kurt Meister	Mesa, AZ	Looking
Ken Gottschall	Santa Paula, CA	P-115
James McKeith	Santa Rosa, CA	Looking
Kuet Kaenatz	Mooresville, NC	Looking
David Williams	Saludo, TX	Looking
Danny Lingerfelt	Hickory, NC	P-408
Robert Ellis	Orange, CA	Flies P-316
John Gamble	Roswell, GA	Looking
Justin Duty	Waco, TX	Looking
Kevin Bunn	Parkersburg, WV	P-454

Presidents Comments

The Numbers Please-

I'm often asked the number of Dukes in active service, and until 2014 my response was conditional owing to FAA's aircraft registration protocol. In 2011, FAA required aircraft owners to re-register their aircraft every three years. We now know with a high degree of certainty the number of US registered aircraft. According to the FAA's aircraft registration website (2/15/2018), 295 Beechcraft model 60 aircraft are currently in US registry. The count by model indicates: 39 model 60's, 52 model A60's, and 205 model B60's remain in US registration. The follow on question is –How many Dukes are flying outside the US? Again, the best guess answer it only a guess. However, with the help of our interconnected website membership, we now have the most accurate worldwide fleet count to date. A recent Duke Flyers website survey conducted 2/01/2018 by John Urquhart, and others, indicates 48 non US registered Dukes are known to exist outside the US. Thus, the most accurate answer to the question: How many Dukes remain in active service? is – 343 of 594 manufactured, or nearly 58% of the fleet remains airworthy and productive. These are excellent numbers considering the first and last aircraft were manufactured forty-eight and thirty-six years ago respectively.

On a related note, in an article written by William Garvey in Aviation Week magazine, the author laments the slow motion demise of private pilot ranks. Garvey reports the active private pilot ranks in 1980 totaled 357,479; in 2016 162,313. The average age of private pilots in 1993, 42.7 years, in 2016, 48.4 years. More than half the pilot population is now 50 or older. The GA traffic count at FAA and non federal control towers from 1990 to 2016 decreased by 30%. Average age of a multi-engine aircraft is 42.5 years. Some pundits believe these declining numbers foretell the demise of recreational aviation. I agree with their assessment.

Business aviation, however, is not in decline. Consider in 1990, according to Ron Knudsen, the typical Duke owner was an experienced aviator and businessman, age 60,and intent upon using the Duke in the furtherance of his business. My personal observation mirrors Ron's observation. The typical 2018 Duke owner is an experienced aviator and business person, younger than 60, and intent upon using the Duke in a business. The Duke has always been a business aircraft, and it is clear the marketplace continues to value the Duke as a business tool. If you own a business; have a business need to fly 200-600 mile trips 75-150 hours per year, the Duke is one of the best tools for the job. The Dukes rugged construction and rakish good looks simply reaffirms our good business judgment.

Robert L. Hoffman

President

Regarding the format of this newsletter – This document is organized in five subject areas, Presidents Comments, Maintenance Brief, Training Brief, Operations Brief and finally, Limitations Brief. Please send your comments or contributions to my email address BE60pilot@aol.com .

Robert L. Hoffman, President

Ronald Christian Knudsen

June 16, 1941 – January 16, 2017

Ronald Christian Knudsen was born June 16th, 1941, in Omaha, Nebraska, to parents Helge and Audrey Knudsen. He was baptized into God's family as an infant, and he confirmed his Christian faith in 1956, at Mt. Calvary Lutheran Church, in Denver, Colorado.

Ron and Sharon Rae Knudsen were joined in marriage on September 29th, 1962, by Pastor Hanson at St. John's Lutheran Church in Denver, Colorado. Their marriage was blessed with three children: Kirk, Trent, and Rona.

After a battle with cancer, Ron went to be with his Lord Jesus on January 16th, 2018. He was preceded in death by his parents and his sister, Lola Stockley. He is survived by his loving wife of 55 years, Sherri; his brother, Larry (Dee); his children: Kirk (Theresa), Trent (Molly), and Rona; his niece/daughter, Ali Leaver; his grandchildren: Tim, Michael, Lily, Ben, and Boston; and nine nieces and nephews.

Ron had a passion for aviation, which led him to create his own business as an aircraft salesman, specializing in the Beachcraft Duke. He was owner of Willowbrook Air and Associates.

His hobbies and interests included fishing, golfing, and watching his two favorite teams: the Broncos and the Rockies.

Ron Knudsen was a dedicated Christian. He was well known for his honesty and integrity in all aspects of life.

Owensboro, KY

September 20-23, 2018

Fly-in

The 2018 Duke Flyers Association annual meeting will be held in Owensboro, KY September 20-23, 2018. This event will be hosted by Ray and Susan Assmar, who own Pilot Steel, Inc., a thriving steel fabrication business located on the banks of the Ohio river, near downtown Owensboro.

The host FBO is Mid America Jet, an impressive full service FBO, featuring ample hangar and ramp space, upscale physical facilities and superb service. The host hotel is the Hampton Inn & Suites Downtown Owensboro / Waterfront. This new Hilton property is walking distance from all planned venues.

Ray and Susan have planned a Thursday evening meet and greet with drinks and heavy appetizers at their Owensboro home. Friday activities include a tour of the Bluegrass Museum, followed by an evening dinner with speaker. Saturday will include the annual maintenance and operating forum, followed by a Tour of the OZ Tyler Distillery, evening dinner with speaker, and a Bluegrass Band with dancing.

Owensboro is centrally located on the banks of the scenic Ohio river in western Kentucky, within 600 miles of 75% of the nation's population base. Please plan to join us in western Kentucky where Beech airplanes, Bluegrass music, the world's best BBQ, and Bourbon whisky will be found in abundance.

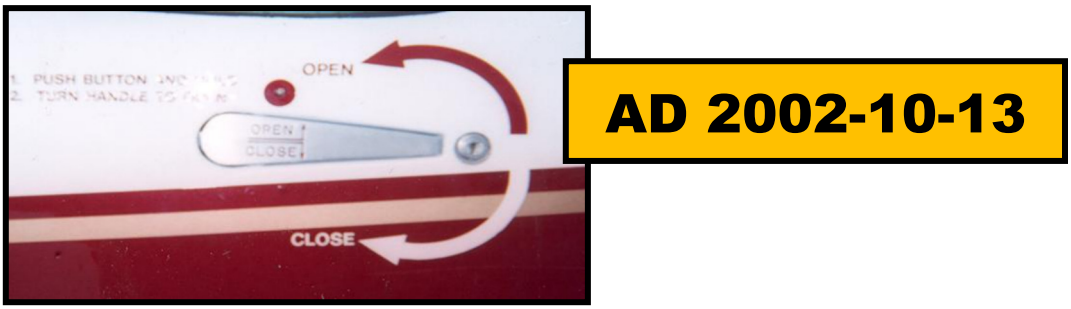
Maintenance Brief

Nose gear retract pin and bushing redux

Every Duke owner should be absolutely certain their aircraft has complied with Beechcraft Optional Service Bulletin No. 2036. The service bulletin is posted on the association web site. The photo below speaks for itself.

Cabin Door Placard Redux

In June of 2001 Raytheon Beechcraft issued a Mandatory Service Bulletin, SB 11-3404 "Requiring door opening placard modifications for all pressurized piston aircraft." The Service Bulletin was/is applicable to all serial number model 60 aircraft. In 2002 FAA issued an Airworthiness Directive, AD 2002-10-13 requiring compliance with SB 11-3404. Compliance with the SB / AD is simple – order the door placard from Raytheon, price $270. Alternately, order from AeroGraphics in Longmont, CO. AeroGraphics' products are high quality, their service is excellent and the price is reasonable at $25. Without the external door placards your aircraft is unairworthy. To some this might seem like a trivial item, however, I assure you the FAA and possibly your insurance underwriter will see the matter differently.



Training Brief

Taxi Speeds & Braking

In the early days of powered flight, new aviators were counseled to taxi at a leisurely pace, usually a brisk walk was advised. Why? Taxiing fast with the little wheel in the back could suddenly induce unwanted aerodynamic forces, and as I recall, my instructor mentioned wing walkers, although I don't believe we had them at or home aerodrome. Now that the little wheel is on the nose, and GPS groundspeed is standard equipment, what is a normal taxi speed? Several years ago, in a quest to define normal taxi speed, I conducted taxi tests in both Beechcraft and Boeing aircraft. I found 15-20 knots the optimal normal taxi speed on dry surfaces. Any faster than 20 knots, in either a Boeing, or Beechcraft, became too sporting for conservative passenger operations. Likewise, I concluded turns should be navigated at no more than 10 knots.

While researching another subject I found Boeing's specific guidance regarding taxi speeds: "Taxi speed should be closely monitored during taxi out, particularly when the runway is some distance from the departure ramp. Normal taxi speed is approximately 20 knots, adjusted for conditions. On long straight taxi routes, speeds up to 30 knots are acceptable. When approaching a turn, speeds should be slowed to an appropriate speed for conditions. On a dry surface, use approximately 10 knots for turn angles greater than those typically required for high speed runway turnoffs."

"If taxi speeds are too high, reduce speed with a steady brake application and then release brakes to allow them to cool. Braking to 10 knots and subsequent release of the brakes results in less heat build-up in the tires and brakes than when brakes are constantly applied." ,

A short review reminds us to slow to 10 knots on dry surfaces for the turns. A normal taxi speed is 20 knots adjusted for conditions. On straight long runs up to 30 knots is acceptable. So there it is: Normal taxi speed is 10, 20, 30 and do not ride the brakes. For those who continue to fly machines with the little wheel in back, disregard all of the above - taxi at a brisk walk so you will not tire your wing walker.

Operations Brief

What is EMAS?

In the late 1990's the FAA required runways at commercial part 39 airports to have a runway safety area (RSA) extending 1,000 feet beyond the end of the runway. Since essentially all commercial airports were constructed prior to the RSA standard, and in many cases the standard was not practical to implement, an alternate compliance method was required. EMA (Engineered Materials Arresting System) was developed to improve safety at commercial airports where it is not possible to provide a standard 1,000 foot RSA. As of late 2017 EMAS is installed on 109 runway ends at 67 commercial airports in the US. Six additional EMAS systems at five US airports are planned.

EMAS standards require the system to stop a large aircraft at 70 knots, under dry conditions, without causing structural damage to the aircraft or injuries to the passengers. Two companies manufacture EMAS systems, each with a different construction method. One is composed of blocks of lightweight crushable cement. The other consists of a bed of foamed recycled silica glass. The material is contained

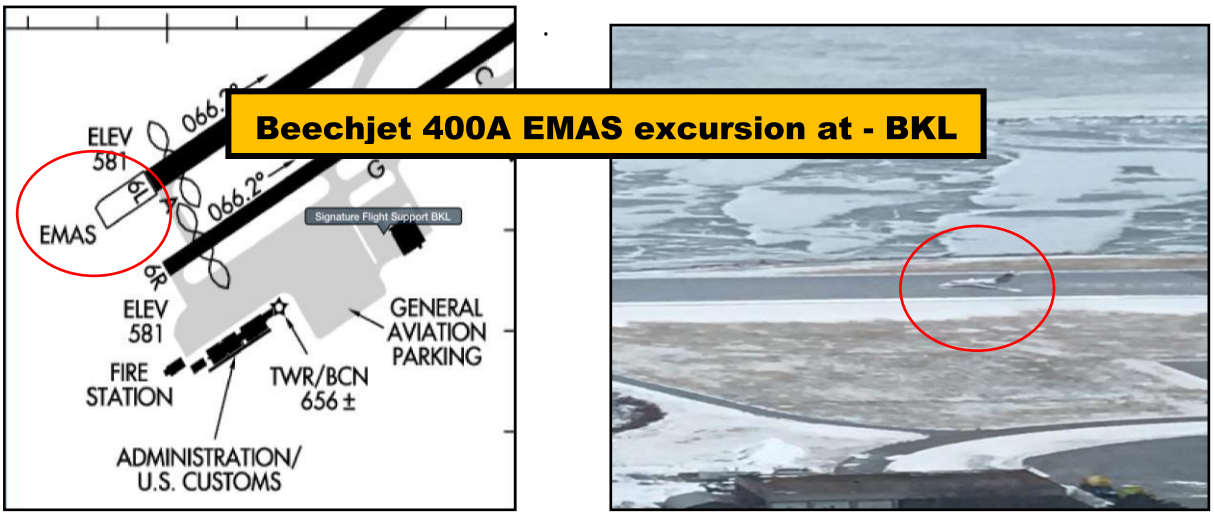
within a high strength plastic mesh which is anchored to the pavement. It is then covered with a thin layer of cement and then sealed.

To date there have been 13 incidents where EMAS has safely stopped overrunning aircraft. The largest aircraft being a B747, the smallest and most recent incident, a Beechjet 400A at Cleveland-Burke Lakefront Airport on February 4, 2018.

Crews should be aware of EMAS and include the possible use of EMAS during departure and approach briefings. If a runway excursion is inevitable:

- Unload the nose and apply maximum braking
- Attempt to engage the EMAS bed on the centerline
- Once stopped, conduct a normal shut down, do not attempt to taxi.
- If an evacuation is necessary, follow standard emergency egress procedures

EMAS is depicted at Cleveland-Burke Lakefront KBKL:



Limitations Brief

Oil Temperature

According to the Lycoming TIO-541 Operators Manual engine oil temperatures should not decrease below 60 degrees centigrade during continuous operation. The Lycoming Flyer Key Reprints relates - The desired oil temperature for all Lycoming engines is 74-104 degrees centigrade. The desired minimum oil temperature is 71 degrees centigrade when average ambient temperatures are below -12 degrees centigrade. Finally, Lycoming Service Instruction No. 1094D advises: For maximum service life, maintain the following recommended limits for continuous operation: Oil temperature 74-104 degrees centigrade.

Oil Cooler Baffles

Lycoming Service Instruction No. 1094D advises: For maximum service life, maintain the following recommended limits for continuous operation: Oil temperature 74-104 degrees centigrade. Consider installing oil cooler baffles when oil temperatures in cruise do not meet these values. Consider removing oil cooler baffles when oil temperatures approach 100 degrees centigrade in cruise, or when outside air temperatures are above +20 centigrade.

Driggs, Idaho Event

The 2017 fly-in was held in Driggs, Idaho located in the lovely Teton Valley. Fifteen aircraft and nearly sixty Duke owners and guest attended the four day meeting held September 17 – 20, 2017.

A special thank you to Steve and Michelle Wade for their assistance and hospitality in hosting a hangar party and cook out at their hangar on Thursday evening. Once again, Al and Debbie Uhalt, and Ab and Wendy Fuoss were on hand to make certain behind the scene details and transportation issues were cared for. And finally, a thank you goes out to my brother, Michael, "The Ice Man" of Jackson, WY for the impressive ice carvings. Michael also assisted Ab Fuoss with the van service.

The event began with a hangar party at Steve and Michelle Wade's home and hangar on the Driggs airport. Friday evening a dinner was held at the War Bird Café located at the Teton Aviation Center. A Saturday evening banquet was held at the Teton Springs Lodge where Jack Braly, past president of Beech Aircraft Corporation provided an exceptionally entertaining and informative talk titled - The day Beech was sold. Weather was VFR for Thursday arrivals, however, cold and rainy IFR settled into the valley Friday and Saturday. Sunday mornings weather improved providing clear skies and tailwinds for our eastbound guests.

Graham & Felicity Rutter

Alena Michenko & Jack Webster

Ladies day in Jackson, WY included shopping, lunch at The Local and a visit to the National Wildlife Air Museum