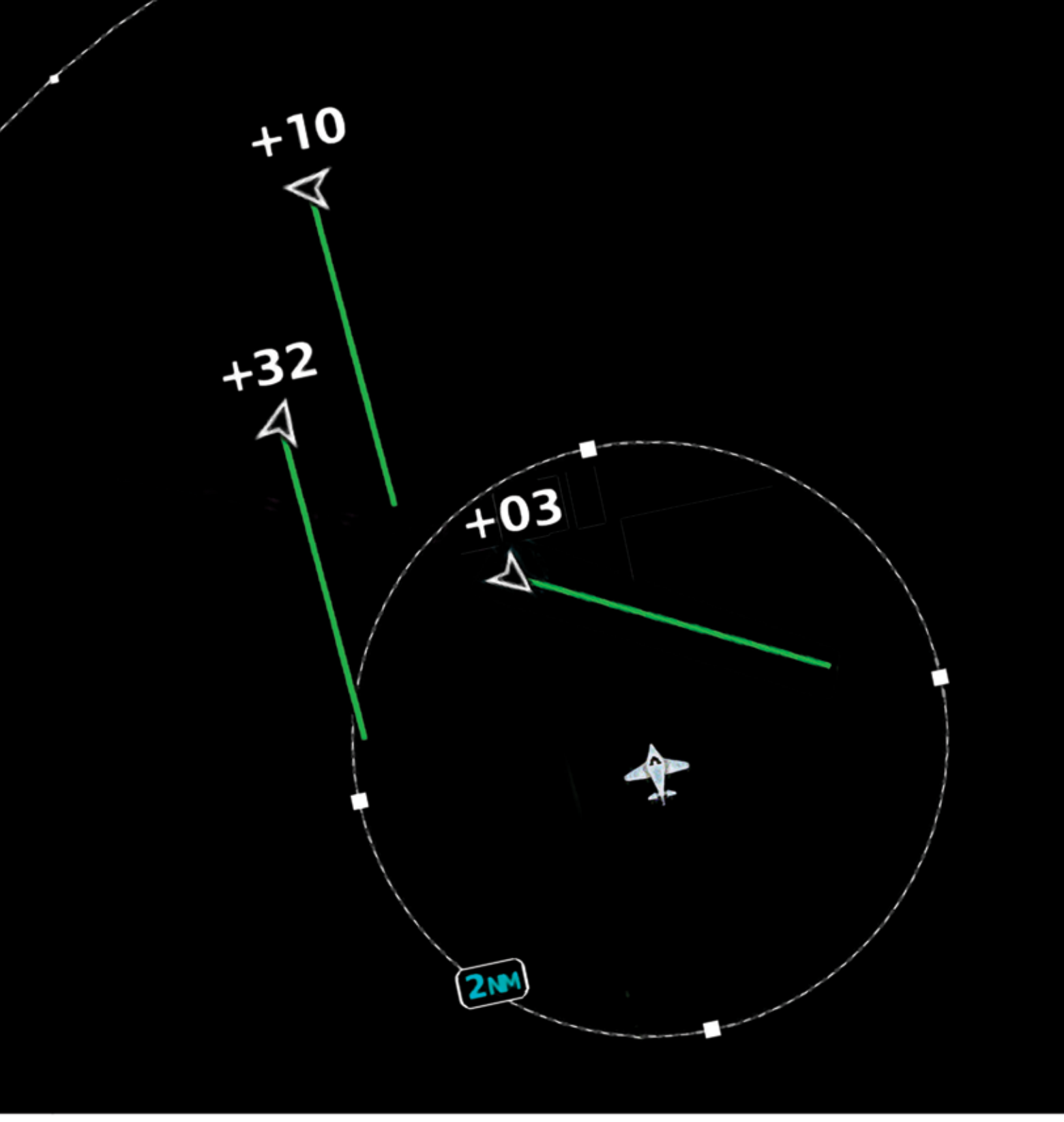
King Air

A MAGAZINE FOR THE OWNER/PILOT OF KING AIR AIRCRAFT

NOVEMBER 2017 • VOLUME 11, NUMBER 11 • $6.50

A Drive to Fly

NASCAR career propels driver into King Air 350 ownership



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NOVEMBER 2017 Volume 11 / Number 11

COVER PHOTO
Photo courtesy of Loy Allen Jr.
(Photo credit: Megan McAuliffe)

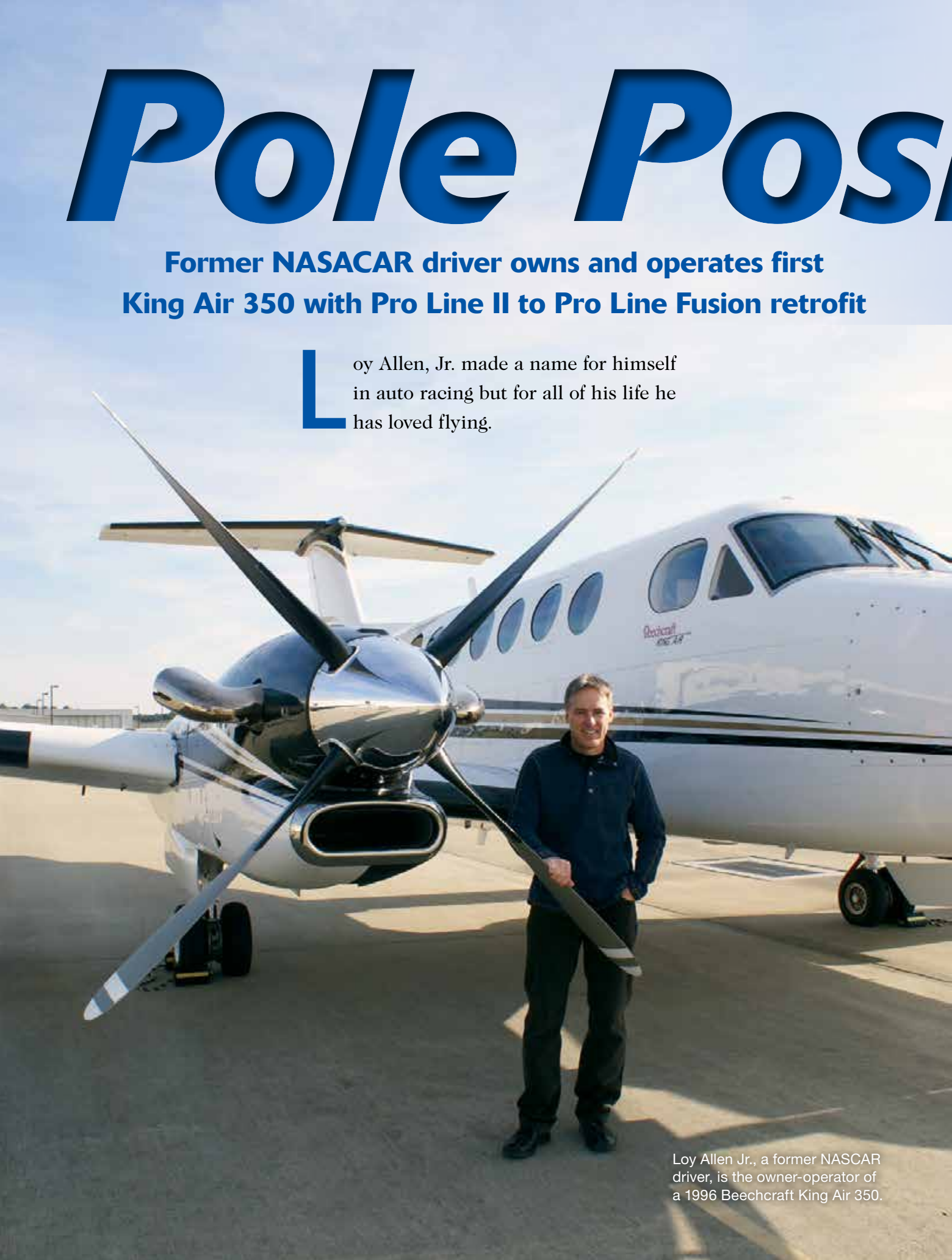
Contents

King Air (ISSN 1938-9361), USPS 16694 is published monthly by Village Press, Inc., 2779 Aero Park Drive, Traverse City, Michigan 49686. Periodicals Postage Paid at Traverse City, MI. POSTMASTER: Send address changes to King Air, Village Press Inc., P.O. Box 1810, Traverse City, MI 49685. Telephone (231) 946-3712. Printed in the United States of America.

Pole Posi

Former NASACAR driver owns and operates first King Air 350 with Pro Line II to Pro Line Fusion retrofit

Loy Allen, Jr. made a name for himself in auto racing but for all of his life he has loved flying.



Loy Allen Jr., a former NASCAR driver, is the owner-operator of a 1996 Beechcraft King Air 350.

ition

by MeLinda Schnyder

Growing up in North Carolina, it's not unusual that Allen started racing go karts as a 5-year-old. By 1982, he had won the World Karting Association championship. He graduated to racing dirt late models at age 15 and not long after that he earned his private pilot's license.

"After I obtained my license, I couldn't continue to pursue the additional ratings due to the cost," Allen said. "My short track racing career was starting to take off, and at that stage you're racing 80 to 90 times a year. You don't have money, you're just trying to get ahead in the sport."

He shelved his aviation passion for a few years while he focused on establishing his racing career. In 1983, he started a six-year stretch racing super late models in the National Dirt Racers Association. By 1992, he was competing in the ARCA Racing Series, a feeder series for NASCAR. As a 27-year-old Winston Cup Series rookie in 1994, Allen won the pole for the Daytona 500, NASCAR's most prestigious event.

"In my mid-20s when I started racing in NASCAR, I finally earned enough money to own an airplane," Allen said. "I was in Daytona testing so much in the winter that I had a place there, so I decided to go to Embry Riddle in Daytona to finish all my ratings."

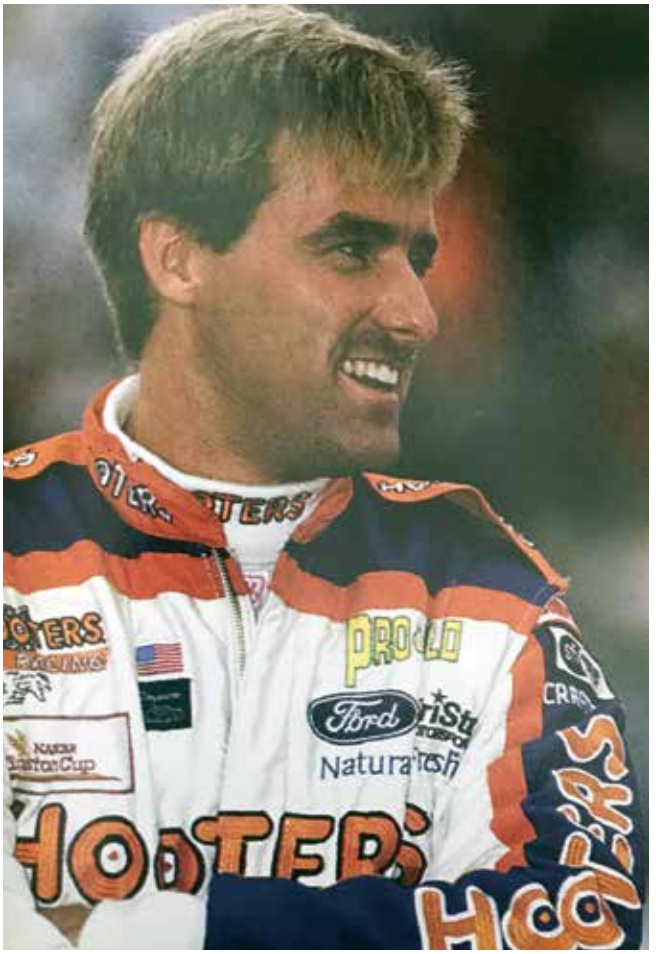
His first purchase was a Cessna 210 single-engine piston, then he moved to a Cessna 340 piston twin and eventually a Cessna 425 Conquest twin turboprop. He would fly his personal aircraft between races and to weekly tire testing sessions. On race weeks, he often flew with his various race teams in their Beechcraft King Air 100 and 200 aircraft, where his preferred view was sitting right seat.

Allen's career slowed after he was injured during a race in the mid-1990s. He worked in motorsports until the early 2000s. In 2008, Allen purchased a King Air 350 as the company business aircraft. Allen had Stevens Aviation Greenville paint the exterior and update the interior of the one-owner 1996 model. Stevens has also installed several exterior modifications for Allen: Raisbeck crown wing lockers and dual aft body strakes along with Frakes exhaust stacks.

"I've flown a lot of different aircraft and I always flew in the team's King Airs throughout my racing career," Allen said. "That's where I really cut my teeth on loving King Airs. I flew in the King Air 200 often. With a full payload we were typically main tanks only with fuel to be at max weight, which cut down on our needed range. The 200 is still an incredible proven aircraft, we just needed more payload and range for our missions. We chose the King Air 350 and it does everything we need. The big wing and almost 60-foot wingspan makes it an incredible climber, payload hauler and a very friendly aircraft to maneuver and fly. For our flight missions, no other aircraft compares to the King Air 350."

The company typically flies the aircraft within a 500-mile radius. The King Air 350 is an ideal business tool to get its customers and team members to their various offices and job sites, oftentimes much closer than a commercial flight could get them. A typical business mission for Allen is an hour to 90-minute flight with six to eight passengers.

Loy Allen Jr.'s 1996 King Air 350 has 3,800 hours and he flies it approximately 150 to 250 hours each year.



Allen Jr. started racing go karts at age five and continued to move up through the racing circuit where he made it to NASCAR in his mid-20s.


Loy Allen Jr. was involved in all phases of testing when Rockwell Collins used his King Air 350 to earn the STC for the Pro Line II to Pro Line Fusion upgrade.

"I've landed and departed many different aircraft onto short runways with sometimes unpredictable crosswinds," Allen said. "With its predictable flying characteristics, cockpit and cabin size and hot and heavy performance, the King Air 350 is by far the friendliest aircraft to land and depart these runways. Something as simple as the dual wheels is a reassuring feeling on the unimproved runways when you're far from home and maintenance support."

In 2010, Allen elected to overhaul the engines with Pratt & Whitney at 3,300 total time since new. "That was early, but I felt that the engines were the only area of the airplane that was an unknown," he said. "I wanted the peace of mind of having the engines overhauled."

In early 2015, Allen partnered with Rockwell Collins and Signature TECHNICAir in Winston-Salem, North Carolina, to become the first King Air 350 with Pro Line II to be retrofitted with Pro Line Fusion. Rockwell Collins used Allen's aircraft to earn the STC, and Allen was involved in all phases of testing.

"I had over 70 hours in the airplane during all the flight testing," Allen said. "It took a lot of my time but it was really educational. I already knew Collins was a great product but I really learned the incredible quality of the Collins product. During many phases of testing we had to think of all the different 350 flight missions, like Coast Guard search and rescue operations and the 350ER military use. We had to consider something as simple as gloves being worn by the flight crew and how the touch displays would react. This all was tested in detail by incredible pilots and engineers."

The upgrade was completed in January 2016. Allen's first flights with Fusion were to short airfields, which get his passengers closer to remote jobsites and gave him further opportunity to test out the improved situational awareness and LPV approach capability in real world flying.

"Fusion allows me to meet the ADS-B Out requirement and gives me LPV approach capability, which we use often," Allen said. "Including testing, I've flown the aircraft with Fusion for two years now and it's been incredible. It's brought our airplane up to a very advanced military grade avionics and a FMS truly open architecture system that will take us into the future. My airplane decreased in weight by 80 pounds and I have all the options. The aircraft is equipped with many enhancements: two 4000S GPS units, TCAS II TTR-4100, TAWS, two DMEs, ADF, a CMU-4000 with VHF-4000 third COMM allowing CPDLC, XMWR1000 graphical weather, search and rescue, 3500 IMS that automatically downloads all the NavData by Wi-Fi or cellular, Airshow 500, RDC-4002 allowing advanced messaging with emergency checklist on the displays eliminating the original annunciators above the throttle quadrant, SVS and GEO Chart extension on all displays. Besides the

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Allen Jr. partnered with Rockwell Collins and Signature TECHNICAir in Winston-Salem, North Carolina, to become the first King Air 350 with Pro Line II to be retrofitted with Pro Line Fusion.

Fusion upgrade, TECHNICAir installed multiple USB charging ports and Airshow 500."

The aircraft has a total of 3,800 hours and Allen flies the King Air 350 approximately 150 to 250 hours each year.

"I can load the 350 and go with 10 people and full fuel," Allen said. "Everyone loves that all the luggage is on the inside of the airplane, making that forgotten item easily retrievable. And whether it's a high-altitude airport or short coastal runway in August, the hot and heavy performance makes it no problem to get in and out of wherever we want to go." KA

"Something as simple as the dual wheels is a reassuring feeling on the unimproved runways when you're far from home and maintenance support," Allen said of the King Air 350.

Correspondence

Note from the Editor

In the September issue of *King Air* magazine, photo credit for the cover photo and the cover story "Perfect Pair" featuring Woodgate Aviation should have been given to Jim McGann Photography.

Our apologies for the omission.

10 Unique Aviation Gift Ideas

by MeLinda Schnyder

Looking for a gift for a fellow pilot or making your own wish list for the holidays? Get inspiration from this collection of unique, aviation-related gifts. Some are Beechcraft or King Air specific, others are just cool gifts any aviation lover would appreciate.

Taxiway light lamp

Sporty's Pilot Shop, known for its catalogs full of aviation products and supplies, has a Wright Bros. Collection catalog full of aviation-themed gift products for aviation enthusiasts. You'll find metal and wooden signs, propellers, aircraft models, clocks and other home décor, like the exclusive taxiway light lamp. Built to FAA specifications, the 16-inch lamp is identical to the taxiway lights used at Sporty's home airport: Clermont County Airport in Batavia, Ohio. The marker cone is made of steel, powder-coated in aviation-approved yellow. *sportys.com/wrightbros*

Taxiway Light Lamp

Metal Sign Example

Personalized Wooden Propeller

Detailed desktop model

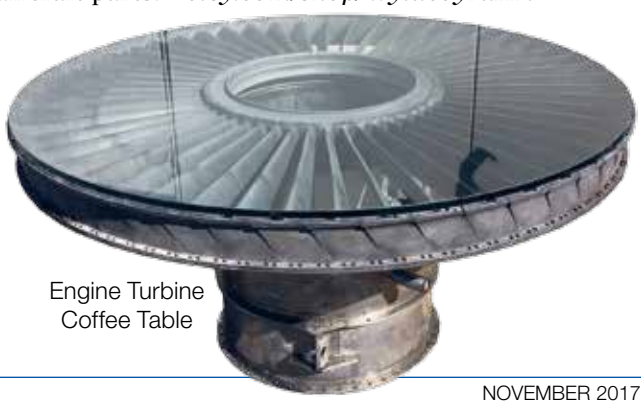
Pilot-owned and operated for over 25 years, Factory Direct Models offers 17-inch custom desktop models using manufacturer blueprints and your photographs of the aircraft to cover every intricate detail. Your model will have your paint scheme and tail number, and there's also an option to get a fully detailed interior that shows your aircraft's instrument panel, seating configuration, colors and other fine details. *factorydirectmodels.com*

Personalized Aircraft Model

Parts turned into art

Lance Lockhart, a captain with Southwest Airlines with history flying the Beech 1900 and Beech 99, uses his pilot perspective to create pieces that capture the emotional connection between art and flight. He turns reclaimed aviation parts into art and functional pieces, from key chains made with sheet metal to a PT6 engine turbine coffee table to a wing turned into a bar on wheels for the home or patio. Lockhart makes American flags using sheet metal from repair skins and can customize the stars to be King Air cutouts. One of his most popular gift items is a 12-inch handcrafted collage featuring any three-letter airport code cut out of fuselage skin mounted on reclaimed wood alongside aircraft parts. *etsy.com/shop/WyldebyrdArt*

Three-letter Airport Code Collage



Engine Turbine Coffee Table

A one-of-a-kind flight

What do you give the person who has everything? A one-of-a-kind flight in a historic aircraft. To stay close to home, search online for flight opportunities in your area or consider these: the 1911 Wright B Flyer lookalike at the Dayton-Wright Brothers Airport (*Wright-B-Flyer.org*) or check the tour schedule for the only two B-29 Superfortresses still flying: Doc (*b-29doc.com*) and FiFi (*cafb29b24.org*).

Stunning fine-art photograph

Paul Bowen, a commercial photographer based in Wichita, Kansas, has been shooting aerial photography since 1972. He has an incredible catalog of beautiful aircraft photographs, most taken while flying in tight formation to achieve his desired shots. He is best known for his vortices aerials, which capture the spinning currents of air produced at the tip of a moving airplane wing. He has King Air 350, B200, C90 and C90B images available for sale as prints and several also available as notecards. *airtoair.net*

Wing or tail desk

MotoArt takes structures from decommissioned airplanes and turns them into functional office and home furniture. The studio's website currently features several desks made from Beech 18 tail assemblies, vertical wing stabilizers and wing flaps. The desks feature glass tops to showcase the vintage pieces, which can either be left raw or polished and powder-coated. *motoart.com*

Desk made from a Beech 18 part (top) and one from a Twin Beech Wing Flap (bottom).

Pratt & Whitney R-2800 radial engine piston made into a clock.

Genuine propeller art

RT D'Onofrio discovered a warehouse with decades worth of scrap airplane parts from the propeller company his father and grandfather ran, and the treasures launched a passion for melding genuine aircraft relics with modern design. Through his company Plane Pieces, he designs and sells propellers and blades polished or custom painted as well as a large selection of home décor and jewelry – all made with parts from once-airworthy airplanes. Besides propellers, his most popular items are desk clocks made using authentic 1940's World War II Pratt & Whitney R-2800 Double Wasp radial engine pistons. *aviationart.com*

The artist behind Plane Pieces blasts King Air blades to bare aluminum, then grounds, sands and polishes them to a gorgeous mirror finish.

Replica vintage propeller décor

A Simpler Time offers budget-friendly replica aviation décor, including a line of exclusive vintage wooden propellers and propeller-themed furniture like wine racks and bar stools. Though not specific to King Airs, the vintage-style general aviation propellers, signs, wall art and gifts are beautifully made. *asimplertime.com*

Accessories and apparel featuring your airplane

Flyboy Toys turns a photo of your airplane into artwork featuring your design, color and tail number. Then, they'll use that custom artwork to personalize a variety of items, from signs to mugs to apparel and pillows. Instead of a generic "Beechcraft Parking Only" sign, your sign will feature artwork of your exact airplane. *flyboytoys.com*

Your airplane detail can be featured on this tumbler, as well as other products.

Personalized Parking Sign

An aviation enthusiast's bucket list trip

If your gift recipient isn't fond of "stuff," then how about organizing a trip that any aviation enthusiast would love? A few destinations to consider: Tullahoma, Tennessee, to visit the Beechcraft Heritage Museum; Dayton, Ohio, to follow in the Wright brothers' footsteps and explore the world's largest military aviation museum; Washington, D.C., to explore the Smithsonian's National Air and Space Museum; Oshkosh, Wisconsin, for EAA AirVenture from July 23-29, 2018. Another idea: keep your eyes open for the location of the King Air Society's next gathering. KA

KAG II

Packed with Knowledge and Enjoyment

by Kim Blonigen

The second King Air Gathering (KAG) held September 29-30, 2017, at Stevens Aviation in Dayton, Ohio (KDAY) was deemed even more successful than the first Gathering. The event not only had information-packed seminars presented by King Air experts, but also provided optional activities of a tour of Hartzell Propeller Inc., which was "outstanding" according to those who attended. They were shown the manufacturing process of the propellers, including those made of composites. On Sunday, those who chose to stay were provided a shuttle to the National Museum of the U.S. Air Force located at the Wright-Patterson Air Force Base.

Attendees felt they learned about a lot of things they weren't aware of that pertained to the King Air or aircraft operation in general. On Friday, Keynote Speaker Dr. David Strahle, Father of Datalink and fellow King Air 200 owner/pilot, discussed *Thunderstorm Avoidance using NEXRAD Radar and Advanced Weather Planning*. He provided a wealth of information and many different website options to dig deeper into the weather to provide a better picture of what your routes currently look like and what they will be in the future.

During the afternoon session, the group was split into two breakout sessions. One that focused on King Air pilotage and the other was owner/pilot maintenance in which a King Air F90 on jacks was part of the presentation and attendees received an up-close and personal

Tom Clements sharing his King Air knowledge during the Gathering.

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look at items. One item in particular was very helpful as one of the owners of a King Air 200 had experienced upon landing the front nose tire skidded for about 2,000 feet before stopping with the nose wheel defected to the right. It was brought up during the maintenance session and when looking at the F90, it was discovered that a clip had a piece missing and potential for the same kind of failure.

Editor's Note: Following the KAG, King Air Academy sent out a PIREP to warn other owners about the issue and about 10 percent who received the report found that the clips on their aircraft were damaged. (If you would like to receive a copy of the PIREP, send an email to *kevin@kingairacademy.com*.)

Some of the sponsors and exhibitors brought aircraft to showcase their products which were in a special

The owner/pilot maintenance breakout session featured a King Air on jacks.

display area right outside the hangar and many took advantage of seeing their offerings Friday during the cocktail reception.

On Saturday, after another day of helpful presentations and breakout sessions, Keynote Speaker Robert "Hoot" Gibson, USN Retired, former fighter pilot, test pilot, and Navy Astronaut presented an uplifting look at *Beechcraft Bonanzas to the Space Shuttle*.

King Air Gathering III is currently being planned for spring 2018 in the Midwest region. More details to come. KA

KAG II attendees' King Airs highlighted in the glow of the setting sun.

Aviation Fabricators (AvFab) showcased their specialty interior work among other sponsors who exhibited their products on King Airs that were all on display.

Keynote Speaker Robert "Hoot" Gibson shared a look into his past as an USN Retired, former fighter pilot, test pilot and Navy Astronaut.

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Ask the Expert

Your Most Dangerous Flight

by Tom Clements

KAG II – the second ***King Air Gathering*** that was held at the Stevens Aviation facility in Dayton, Ohio (KDAY) on September 29-30, 2017 – was a great success with a full complement of King Air pilot attendees, sponsors, and presenters. (*Editor's Note: More details of KAG II on page 11.*)

I was honored to be asked to be the kick-off speaker on Friday morning, a joyful task that I willingly accepted. The topic suggested to me was the one you see here: *Your Most Dangerous Flight*. I am sure our military King Air pilot brethren could provide numerous exciting examples of their own dangerous flights (that would be more dangerous than ours!), but for the average civilian pilot I am quite sure that the most dangerous flight is the first one that takes place after significant maintenance has been performed … such as a phase inspection check, a propeller or engine overhaul, or a major avionics upgrade. I will give a recap of my KAG presentation here in this article. It will include numerous real-world examples of post-maintenance problems and suggestions about how to improve your odds of avoiding similar events.

I am sure most of you have seen the clever T-shirt that has the "33 Greatest Aviation Lies" stenciled on it. One that always brings a smile to my face is, "What could go wrong? It just came out of the Annual!" Replace "Annual" with "Phase Check" and it would fit King Airs perfectly. Here are some examples of surprises I have personally experienced or of which I have first-hand knowledge from stories told to me by my colleagues and customers.

Static Air Line Drains Left Open

LJ-542, a 1972 C90, was one my company owned and operated throughout the 1990s. Once I was picking it up by myself from a shop we often used after a routine phase inspection. It was a lovely clear morning; I did a thorough preflight inspection, both exterior and interior, and did all the run-up checks before I took off. I lifted off at about 100 KIAS, pitched up to my standard +10° attitude, retracted the landing gear, did a quick scan of the engine gauges, and then returned my scan to the flight instruments. What the … ??? My airspeed was only 80 knots! I rechecked the torque gauges to ensure I was at takeoff power and rechecked my pitch attitude both visually and with the Attitude Indicator … all normal. Knowing "Pitch plus Power equals Performance" I was sure the airspeed indicator was faulty. But – dang! – so was the one on the copilot's side! By now they were decreasing below 60 knots. I reached over and moved the alternate air selector lever to the Alternate position. Nothing happened. I leveled off at 1,500 feet AGL pattern altitude, pulled power back to the middle "magic number" (500 ft-lbs for this C90), and stared in disbelief at the airspeed indicators that now were reading extremely high … since they had decreased so much that the needles were beginning to point to the numbers to the left of zero!

Suspecting the problem, I reached down to the Pressurization Control switch and moved it to the Dump position. The cabin was only about 1,000 feet below the airplane with 0.5 psid differential pressure, so the dumping was not at all drastic. Immediately, the airspeed indicators resumed normal operation. I announced on the Unicom frequency that I was on left downwind for landing, proceeded with a normal landing, and taxied back to the shop's ramp. I knew what was likely wrong and, sure enough, they found the static air line drains were all open. This allowed cabin air to enter the static system since the drains are behind an access panel low on the right sidewall of the cockpit, inside the pressure vessel. The entrance of cabin air, being at a greater pressure than ambient, was what led the airspeed indicators to read low, since they sensed less of a difference between pitot and static pressure. It absolutely blew my mind that a half of a psi error could lead to a negative airspeed indication!

Once the drains were closed, the next takeoff was, of course, normal and I departed on my way. In the shop's defense, I will mention that the drain valve blade "handles" were unusual. When the metal blade was parallel with the drain line, the drain was closed. Vice versa, when the blade was perpendicular to the line, it was open. Strange and unusual! In fact, as we examined the drains we noted that someone previously had used a Sharpie to draw a picture on the back side of the access panel, showing clearly the proper open and closed orientations of the blade. The mechanic this time obviously did not notice that picture.

Could this mistake have been caught before takeoff? I doubt it, except by observing the airspeed indicators during a ground pressurization test. The main takeaway here is the advantage of making that first flight in day, visual conditions. I hope I could have handled this abnormality successfully even at night or departing into a low overcast, but I am thankful that those conditions did not exist. I would encourage strongly that the first post-maintenance flight be VFR.

A 300 in Sad Shape

A customer and friend, an owner-pilot of a sweet later model 300, was in the habit of asking me to help him perform the post-maintenance acceptance flight. I enjoy doing this and was happy to provide my assistance. First, I observed that the threshold and cabin door step lights were inop. The mechanic found a short in the wiring and had it fixed in a relatively short time. Doing the cockpit check I found that the Engine Anti-Ice switches were Off, although it is proper procedure in the 300 to have the ice vanes extended (Engine Anti-Ice On) for all ground operation. When questioned about that, the mechanic stated, "It is easier to re-install the cowling with the vanes up." Okay, that explains it, I thought. But it dawned on me later that either he never did a ground run-up after the cowls were reinstalled or did it with the vanes up … increasing the chance for FOD. Either is unacceptable.

After we reached the run-up area and performed the complete procedure, we found that neither side's propeller autofeather system was functioning correctly. That system is a required, no-go item in all 300s. The RH side had no autofeather action at all, whereas the LH side had everything happening at the higher torque value. (At 17 percent torque, the opposite annunciator should extinguish and actual feathering should occur near 10 percent, but here it was all happening together at 17 percent, indicating a chance of feathering both propellers at the same time!)

Needless to say, the 300 was not picked up that day, but nearly a week later.


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The E90 Flamer

This is a story that happened at the old United Beechcraft facility at the main Wichita airport, then known as Mid-Continent and now known as Dwight D. Eisenhower National. Once United Beech had a horrific accident due to a King Air's engine being started while the airplane was on jacks in the hangar! The plane came off the jacks and ran into other airplanes. What a mess! In reaction to that incident, a shop procedure was implemented requiring the ignitor circuit breakers to be pulled whenever a King Air was in the hangar.

A two-pilot crew came to pick up their E90. After a quick look-over they hit the right Start and Ignition switch to prepare to taxi and depart. As the N_1 stabilized, the condition lever was advanced from Cut-Off. Without the ignitors receiving power due to the tripped CB, no lightoff occurred. Hmmm. "Oh wait, I know!" says the left-seater. "They usually pull the Ignitor CBs here. Check down there on the end of the pedestal." The copilot did as requested, pushed the CBs back in, and the linemen tell of a flame that went nearly the full length of the airplane! Engine damage, burnt deice boot, and scorched paint resulted.

In my opinion, two mistakes were made. First, a more thorough cockpit check should have caught the tripped CBs before start. Second, the pilot was obviously not in the habit of verifying the Ignition annunciator illuminated while waiting for N_1 to stabilize … an important habit to form.

Loose FCU Connection in a 200

Many years ago, I was asked to be PIC on a 200 that had been modified by Commuter Air Technology (CAT) into a 13-seat "Catpass" commuter configuration. High density forward-facing seats, a cargo pod, panel-mounted avionics … these were some of the changes made to convert this executive airplane into a commuter. The CAT marketing department wanted to take some photographs showing this airplane in its element with all seats filled and a professional crew up front. They even provided me with a four-stripe uniform and captain's hat to wear! We taxied out at Scottsdale with the cameras running. Unbeknownst to me, the plane had not flown in some time while the modifications were being made. The preflight checks all proved to be okay so we were cleared for takeoff. Just as power was being set and we started to roll, the right engine spooled back to Low Idle. We idled to the next turnoff, told the tower we were aborting, and requested permission to return to the run-up pad. There, we could duplicate the problem. Power would come up fine for a bit, then abruptly go back to idle even though the Power Lever was still advanced. This had not happened during my earlier run-up. We taxied back to the CAT facility and aborted our photo shoot plans for that day. There, it was found that a safety wire had not been installed and this allowed the connection between the Power Lever and the Fuel Control Unit to slip, leading to the situation we experienced. I was told that the plane had not flown for some time!

Could I have found this malfunction myself, during the preflight? Sadly, I doubt it. Although I had opened the cowling doors to look for general condition, I don't trust that my eyes would have found the missing safety wire. The takeaway here? Had I known before that this was the plane's first flight after the mods, I should have refused to load it with passengers until after a crew-only test. Had the slippage not occurred until a short time later, it could have happened just at or after V_1 – never an experience wished for, but especially not with 13 passengers onboard!

Other Experiences

A common incident that happens on the first post-maintenance flight is to discover that the upper, forward cowling is not secure. As airspeed increases, the cowl will start to lift. On the walk-around, be sure not only to verify that the arrows on the latches point as they should, but also take the palms of both hands and give that cowling piece a really sharp blow, trying to dislodge it upward. If it comes undone, it's time for the mechanic to adjust the latches properly.

What if the upper, forward cowling *does* begin to lift? One, slow down. Two, extend the ice vanes. Both actions will reduce the pressure inside the cowl and decrease the chance for the piece to depart completely as you return for landing.

For all the older King Airs that still have the "chin type" cowling with the electrothermal deice boot, realize that every time the cowling is removed, the electric leads to the boot must be disconnected. Vice versa, they must be reconnected upon cowling installation. Yet it is impossible to verify the connection before takeoff, since this system is prevented from operating on the ground due to squat switch activation. So, you the "test pilot," must turn on the lip boots separately, left and right,

in flight while observing a slight increase in loadmeter readings. Only when that amperage increase is verified do you know that the boots were truly reconnected.

Do you know that in most King Airs the battery box cover can be installed backwards? The air vent louvers need to be at the aft end when installed, not in front. Air cooling is not nearly as important now as it was when NiCad batteries were common. Still, let's orient the cover correctly.

If your airplane has undergone a significant avionics upgrade, it is so very important to do a flight test to verify that it is doing what it is supposed to do. Even the most capable and conscientious avionics shop can't know for sure how an autopilot will track that new LPV glide path, for example, until it is demonstrated in flight. So many, many times I have found rather mind-blowing errors in this arena. One King Air would track its new GTN750 GPS course just fine in the normal Leg mode but it would always go in the exact opposite direction when in OBS mode. Another would never enter a programmed holding pattern. Instead, it would merely turn to the holding course heading and fly that until it ran out of gas!

I have seen a newly-installed GPS unit that never had the HSI's course needle deviate from the center position! And this was far enough back in time that a flight test was required to gain IFR GPS approval … and the flight test had been signed off as satisfactory!

The Killer of Killers … Loose Friction Knobs

Most of my readers have heard me preach on this topic previously but it truly is incredibly important. Many pilots ensure their friction knobs are snugged up properly once and never give them further attention … which is okay. Others fiddle with the friction often, loosening it for taxiing and tightening for flight … and that's also okay. But pity the

pilot who never adjusts them and then *assumes* that they are at the same setting when leaving the shop as they were when entering it. Folks, whenever engine rigging takes place, it is common that the friction controls will be backed off to the totally loose position. This allows the engine-end of the control to be moved freely by hand, with the cockpit-end moving in unison. If the friction has not been reset, and if the pilot does not carefully follow every step of the checklist, it is possible to depart with them still loose. Condition Lever and Propeller Lever friction is not too important, but Power Lever? Oh my goodness! Those levers will spring strongly back toward idle when the pilot's hand moves to the landing gear control.

If the pilot notices what is happening – of course that is usually the case – then the outcome is more comical than anything else as he tries to fly, get the gear up, and tighten the friction while not letting the power be too low. But if the power lever migration is not seen, then disaster can result. With both levers migrating back, but with the left almost always going to a lower power setting than the right, there may not be sufficient power to sustain flight. Also, the differential in power tends to lead the pilot to think that an engine has, in fact, failed. Furthermore, the marvelous autofeather system is rendered inoperative due to the migration of the levers.

Yet it is understandable – although not excusable – for the pilot to never carry out the first step of his "Suspected Power Loss" procedure … advancing *both* Power Levers! Why? Because in his mind that was already done as the takeoff roll began. In other words, the "Power" and "Props" steps are already done in his mind, maybe even the "Flaps" step. So he thinks all he has to do is get the "Gear" step done and watch autofeather do its job. (Or Identity, Verify, and Feather manually if the airplane does not have the system.)

Please, please, please, give proper attention to Power Lever friction before every takeoff!

One Good Shop

I have been very fortunate in having Honest Air conduct most of the maintenance on the C90A that I have managed and flown over the last 10 years for its Phoenix-based owner. This is the maintenance facility that was owned and operated by our own Dean Benedict who writes a bi-monthly column in this magazine. Dean's long-time King Air experience, his product-specific knowledge, his conscientious and caring attitude, the help he gets from his employees and his hard-working wife, Lisa, all contribute to providing King Air maintenance of the very highest caliber. Never have I gone to pick up the C90A without finding it completed, cleaned, and with every nuance attended to perfectly. Never once can I recall finding anything amiss during my lengthy preflight and run-up procedures. Yet I still do it all. And you know what? Dean wants me to! He realizes that we are all human and mistakes can and will be made. Just recently Dean's article commented on those few pilots who showed up at his place, shook his hand and viewed the log books (because Dean insists they do), then walked straight to the cabin door, closed it, started up, taxi'd out, and took to the runway without ever stopping for a run-up. Golly, does that bug him!

Be Thorough

In my opinion, the best way to approach the post-maintenance flight is to do it as slowly and methodically as practicable using the lengthy POH checklists in their entirety. In fact, you should do that twice … taking the airplane to the shop and picking it up from the shop. By doing it before, you can discover any abnormalities that need the shop's attention. Of course, doing it after can uncover the errors that may exist. In addition to the full preflight and run-up procedures, I also recommend an inflight Flow Pack, Leak Rate, and Cabin Altitude annunciator check accomplished before the phase inspection to determine how the aircraft stands in these important areas. These checks are easier to perform in flight than in the shop's hangar.

One more suggestion is to takeoff using Approach flaps if airport conditions permit, as they almost always will. Recall that most, but not all, King Airs have a system that causes the landing gear warning horn to blow

whenever the flaps are extended to a position greater than Approach when all three landing gear legs are not down and locked. I have observed numerous cases in which using flaps on takeoff causes the gear horn to blow as soon as the gear starts retracting. Why? Slight mis-adjustment of the triggering switch attached to the right inboard flap mechanism is the reason. The air loads that the flaps experience in flight usually ensure that the flaps do not extend far enough to trigger the horn. However, when the flaps are extended to Approach while taxiing or in the run-up area, the lack of air load may allow them to extend far enough to trigger the horn … something you don't want during your short field takeoff!

Recording Results

Not long ago, the only way that the pilot could communicate with the mechanic about some discrepancy he found was verbally or in writing. Of course, it is great to encourage the lead mechanic to accompany you on that first flight so that he can observe the same things that you are seeing, but often that is not feasible.

However, now we all carry one of the very best communication devices known to humankind – our smartphones. Having a video of the dancing engine gauge or the autopilot overshooting the ILS localizer capture … wow, what an excellent way of showing what's wrong! Remember to take advantage of this aid.

Closing Thoughts

It is my belief that any appropriately-trained, competent, King Air pilot can successfully serve as the PIC during this most dangerous of common flights. However, I know that some pilots – although meeting all requirements and current in the airplane – lack confidence to do a good job in this unfamiliar area. A couple of suggestions: First, practice complete walk-arounds and run-ups more often until the uncertainty and mystery is removed. Second, if possible, invite a more-experienced, more knowledgeable pilot to go along to help you with the tasks at hand. Even if the available pilot is not as experienced and knowledgeable as you wish, just having another set of eyes and a checklist reader to help you can be very worthwhile. Be careful out there! KA

King Air expert Tom Clements has been flying and instructing in King Airs for over 44 years, and is the author of "The King Air Book." He is a Gold Seal CFI and has over 23,000 total hours with more than 15,000 in King Airs. For information on ordering his book, contact Tom direct at *twcaz@msn.com*. Tom is actively mentoring the instructors at King Air Academy in Phoenix.

If you have a question you'd like Tom to answer, please send it to Editor Kim Blonigen at kblonigen@cox.net.

Walter Beech and the Dole Race to Hawaii

Soon after "Lucky Lindy's" solo flight from New York to Paris in May 1927, Wichita's Travel Air Company was deluged with orders for airplanes capable of flying nonstop to Honolulu. Competing in the trans-Pacific free-for-all would be risky business, but Walter Beech welcomed the challenge.

by Edward H. Phillips

In June 1927, anyone walking past the office of Travel Air President Walter H. Beech would not have been surprised to see him puffing on his ubiquitous pipe as a column of smoke slowly rose to the ceiling. Earlier that year Beech had inherited the top management position from his friend and fellow aviation pioneer, Clyde V. Cessna, following the latter's resignation to establish his own company.

By the summer of 1927, Walter Beech (far left) was leading the Travel Air Manufacturing Company to new heights of success. His decision to build not one, but two, Travel Air Transports for the Dole competition was a bold but risky move. Art Goebel (third from left) had to convince Beech to build the Woolaroc and that he was the best pilot to fly it. (COURTESY MARY LYNN OLIVER)

Walter was busy perusing a pile of 17 telegrams on his desk, slowly sifting through each one in an attempt to digest its message. The local telegraph operator had been busy delivering them during the past few days, and more were anticipated. The telegrams all had one thing in common: How soon can Travel Air build an airplane to compete in the Dole Race?

It is hard for Americans today to understand just how tightly "flying fever" gripped the nation in the wake of Charles Lindbergh's epic crossing of the Atlantic Ocean. To the public, whose generally negative perception of flight stemmed from deadly dogfights during the Great War, aviation was viewed as a new and dangerous activity with little or no future. In 1927, flying to Paris was akin to Apollo 11's flight to the moon in 1969.

In February, the young airmail pilot had sent a telegram to Mr. Beech asking if Travel Air could build an airplane capable of reaching Paris. Yes, the company could design and construct such a ship, but Travel Air also had an obligation to meet existing orders from paying customers. In view of the very tight timeline of less than three months, Beech had no choice but to decline the opportunity. He was aware of the pressure the factory was experiencing as workers struggled to complete a contract for National Air Transport. The airline had ordered eight of Travel Air's Type 5000 cabin monoplanes for service on its Chicago-Dallas route, and only three had been delivered.

Only four days after "Lindy" plunked down his Ryan monoplane on Le Bourget Field in Paris, half a world away in Hawaii a banner headline appeared in Honolulu's *Star Bulletin* newspaper. James D. Dole, a prominent pineapple tycoon, was offering $25,000 to the first pilot to fly nonstop from the North American continent to Honolulu "within one year after the year beginning August 12, 1927." The second place pilot would receive $10,000. As Dole Race historian Lesley Forden wrote, "And thus it was that James Dole, in his admiration for Charles Lindbergh and his enthusiasm to hasten air transportation to the Hawaiian Islands, launched the greatest air race of the time – a spectacular if ill-advised transoceanic marathon that would result for many flyers in financial frustration, hardship, and for others, death."[1]

Although Dole's contest was aimed at aviators flying commercial aircraft, the U.S. Army made the first nonstop flight to the Territory of Hawaii in the summer of 1927. On June 28, Lieutenants Lester Maitland and Albert Hegenberger took off from Oakland airport in their specially-prepared Fokker C-2 monoplane *Bird of Paradise* powered by a trio of Wright *Whirlwind* static, air-cooled radial engines. After a flight that lasted more than 25 hours, the C-2 landed at the Army's Wheeler Field near Honolulu, Territory of Hawaii.[2]

Woolaroc's sister ship was the *Oklahoma*, also sponsored by oilman Frank Phillips of the Phillips Petroleum Company. Pilot Benny Griffin faced an uphill battle convincing Beech to construct a second Travel Air for the race.
(FRANK PHILLIPS MUSEUM)

Meanwhile, back at Santa Monica's Clover Field, H.C. Lippiatt looked up from his desk and greeted his friend Arthur C. Goebel, Jr. Lippiatt was a dealer for Travel Air and was considered by Walter Beech to be an important part of its West Coast sales and marketing organization, along with D.C Warren in the Oakland area. Both Lippiatt and Warren were among the company's earliest agents and the airplane business was good for both men thanks to California's wealthy residents, particularly those who made their fortunes in film.

Goebel and Lippiatt soon found themselves talking about the upcoming Dole competition. Art was well known within the tight-knit aviation community as an excellent pilot. He had been flying since 1920 and was sometimes employed temporarily as one of many "stunt" pilots for National Pictures, Inc. Art was a member of the famous "Thirteen Black Cats" – a group of local airmen who flew a motley assortment of colorful but old Curtiss *Jennies*. The "Cats" performed various stunts at local events and July Fourth celebrations as well as creating aerial scenes for Hollywood movie camera crews.

Their most spectacular stunt was the intentional (and carefully-executed) mid-air collision between two biplanes (a $1,500 deposit in advance was required). In addition, Goebel also operated a small aviation repair shop on Clover Field and proved to be a successful businessman.

Goebel told Lippiatt that he wanted to enter the Dole race and was considering a Type 5000 *Travel Air Transport* for the flight. The big monoplane would be well suited to such a task and possessed more than enough space in its broad wings and voluminous cabin to mount multiple fuel tanks – tanks that would have to carry at least 450 gallons (including a 15 percent reserve) of aviation gasoline to make the 2,400-mile flight to Honolulu.

Lippiatt was quick to inform Art that Walter Beech already had 16 potential orders in hand for Type 5000 ships to be built expressly for the race, and the chance that his order would be accepted were, at best, very slim. He made it clear that Walter Beech and Travel Air's board of directors would be looking closely at every order, paying particular attention to who would be flying and navigating the airplanes. The final decision would be heavily influenced by Mr. Beech.

Undaunted, Goebel set about acquiring two things as quickly as possible: A $5,000 deposit and a financial supporter with deep pockets who could afford to pay off the balance due on a Travel Air racer. He would have to work fast. It was already early June and less than two months remained before the race was scheduled to take place.

Goebel celebrates being the first to land and claim the $25,000 prize money. He was, however, quick to recognize Davis's navigation skills as a major factor in the victory. Walter Beech's great gamble had paid off.
(FRANK PHILLIPS MUSEUM)

Fortunately for Art, four of his best friends agreed to provide the $5,000 down payment he desperately needed in hope of securing a Travel Air. Of these four friends, Mr. and Mrs. Alvin Knechtel resided in Hollywood where Mr. Knechtel worked as a movie camera man. The other couple, Mr. and Mrs. Cal Chandler, lived in the up-and-coming posh neighborhood of Beverly Hills where Mr. Chandler operated real estate and publishing businesses.

By June 17, 1927, Beech had received Goebel's order along with the deposit. The 31-year old pilot now faced the toughest part of his dream to fly in the race to Hawaii: interrogation. Art was summoned to the Travel Air factory in Wichita, Kansas, where he met Beech and other company officials. For the next five days Goebel was subjected to a barrage of questions about flying, navigation, engine operation, preparation for the race and who would be his navigator. A navigator was required for every entrant because an error of only two or three degrees across 2,400 miles of ocean could spell the difference between victory and death. It was serious business, and James Dole had given the National Aeronautic Association complete responsibility to oversee the race to ensure it would be conducted in the safest manner possible.

After grilling Goebel for five days, Beech announced that the company agreed to build Art a Type 5000 for the race. Relieved, he returned to California and began to make further preparations. He chose Cal Chandler as his manager, and Beech promised support from Travel Air throughout the preparation phase. At the same time Goebel was under scrutiny by Beech, two other fliers who managed to plunk down $5,000 were receiving the same in-depth examination by Beech and other officials.

Bennett H. Griffin and Al Henley were a year older than Art and both were experienced pilots. Griffin was a flight instructor during the Great War and later flew bombers over the Italian front. Henley had been flying for 10 years and learned the science of aerial and celestial navigation from the U.S. Army. Both men eventually passed muster with Mr. Beech and set about making their preparations to enter the competition. Griffin and Henley had secured their down payment from friends and businessmen in Oklahoma, namely George Henshaw, Fred Copshaw, William Armstrong and James Wilson.

Beech quickly authorized construction of the two monoplanes and hand-picked work crews began a race against time to build, test and deliver the airplanes to Goebel and Griffin in a matter of weeks, not months. Engineer Horace Weihmiller was in charge of designing and installing the fuel tanks (manufactured locally) in both ships. Although both monoplanes were identical, important modifications had to be made for the race.

Beech did not agree with some of the modifications stipulated by Griffin, who insisted that the airplane be stripped of everything but its essential airframe structure in order to accommodate as much fuel as possible. The airplane featured a different window arrangement below the cockpit and the Wright *Whirlwind* radial engine used a standard exhaust manifold.

In addition, the standard cupola-type cockpit canopy was lengthened to cover the aft navigator station. As construction progressed, Beech and his engineers

The *Woolaroc* was photographed after landing at Wheeler Field, Territory of Hawaii. Goebel and Davis had been in the air more than 23 hours since departing Oakland. The painted stripes on the horizontal stabilizer and elevators allowed Davis to give Goebel course corrections (based on wind drift) during daylight hours. (FRANK PHILLIPS MUSEUM)

continued to make suggestions to both Goebel and Griffin, some of which were accepted while others were rejected. By comparison, Goebel's ship was a standard Type 5000 modified to accommodate additional fuel and oil tanks and a navigator's station.

As both airplanes neared completion, Mr. Beech inquired as to when the money would arrive to pay off the balance owed, which amounted to about $15,000 for each aircraft. Until it was paid the airplanes would not be delivered and that would prove disastrous for Goebel and Griffin, but business was business and Beech had no intention of relenting. He was taking a big risk building not one but two transports for the race, and his first obligation was to investors.

Fortunately for both pilots, they found an important ally and friend in Billy Parker. Only 28 years of age, Parker was a highly respected, no-nonsense aviator who had known Walter Beech for a long time. In years past, the two had often flown barnstorming tours together throughout the Midwest region. Billy also had an engineering background that helped him in his job developing aviation fuels for the Phillips Petroleum Company based in Bartlesville, Oklahoma.

His boss, oilman Frank Phillips, had introduced a new blend called *Nu-Aviation* gasoline that was in use by pilots and airlines across the United States. Parker had been busy evaluating the fuel using his Travel Air Type 4000 biplane when he met Bennett Griffin and Al Henley. They convinced Billy to approach Phillips about paying off the balance due for the Travel Air. After much discussion Phillips agreed and cut a check for $15,000. Shortly thereafter, Art Goebel sought the same backing from Phillips who paid off another Travel Air and suddenly had two airplanes in the dash to Hawaii.

After weeks of nearly around the clock shifts, Griffin and Henley's monoplane was completed on July 29 and flown by Travel Air's chief pilot, Clarence Clark. Emblazoned on each side of the fuselage in large letters was the name *OKLAHOMA* in honor of his financial backers. A few days later, Goebel's ship emerged from the factory and carefully evaluated by Clark, who deemed both ships ready for delivery. Art's transport was named

Davis (left) and Goebel were feted as heroes for a week after their flight, and more honors awaited them upon their return to the mainland. The *Woolaroc* was disassembled and shipped back to California.

WOOLAROC at the behest of Frank Phillips. The word stood for "woods, lakes and rocks" that described the topography around the Phillips ranch near Bartlesville.[3]

During the first week of August both Travel Airs were winging their way west toward Oakland, California. Billy Parker arrived to supervise fueling of both ships with Nu-Aviation fuel, 20 barrels of which had been shipped out West to top off the tanks of both the *Oklahoma* and the *Woolaroc*. Griffin and Henley were all set to go, but Goebel still lacked a navigator. His good friend D.W. Tomlinson, a lieutenant in U.S. Navy, strongly recommended Lieutenant William V. Davis, Jr. A graduate of the U.S. Naval Academy in Annapolis (class of 1924), Davis served on the U.S.S. Idaho and the grandfather of all American aircraft carriers, the U.S.S. Langley. He was trained on celestial and marine navigation and was familiar with the latest in radio communication equipment. Placed on temporary leave, Davis joined Goebel in time to make the necessary preparations for the race.

As August 16 approached, a total of 15 airplanes had been entered in the Dole race. Of these, a few withdrew because they could not meet all requirements to participate, three had been wrecked and another was disqualified. The eight remaining pilots drew lots to determine takeoff position. Griffin held the number one slot and Goebel drew number seven.

On August 7, Walter Beech arrived in a Type 4000 and made final plans to personally oversee every facet of final preparations of the two modified transports, particularly servicing and maintenance. Billy Parker was there, too, carefully monitoring the fueling process on race day as both ships were filled to the brim with Phillips aviation gasoline.

At noon on August 16, the starter flag dropped and the *Oklahoma* staggered forward as men pushed on the life struts to help the ship gain momentum. After a takeoff run of 3,000 feet, the Travel Air was airborne and heading west toward the vast Pacific Ocean. The *Woolaroc* also took off without incident. At last, Goebel and Davis were on their way westward. Other entrants that made a safe departure included the Lockheed Vega *Golden Eagle*, Buhl Air Sedan *Miss Doran,* Swallow

James Dole (center) met with first-place winners Goebel and Davis (left). Pilot Martin Jensen (right) and navigator Paul Schluter, placed second in their Breese monoplane *Aloha*. Of the eight contestants in the race only two reached the islands. (FRANK PHILLIPS MUSEUM)

Dallas Spirit and the Breese monoplane *Aloha*. Of the remaining entrants, the *Pabco Pacific Flyer* crashed on takeoff, as did the *El Encanto*.

Less than one hour after taking off, the *Oklahoma* returned to the airport and landed. Beech wanted to know exactly what the problem was, and Griffin complained that the *Whirlwind's* cylinder head temperatures were too high. Having lost confidence in the engine, Griffin withdrew from the contest, leaving the *Woolaroc* to soldier on westward. So far, Beech's gamble that two Travel Airs would reach Hawaii was off to a bad start.

High above the Pacific Ocean, however, the *Woolaroc* and her two companions were winging their way across the waves without incident. Goebel landed the Type 5000 on Wheeler Field, Territory of Hawaii, on August 17 after flying for 26 hours, 17 minutes, 33 seconds. His careful management of the precious fuel supply paid off – the monoplane still had sufficient fuel for another five hours of flight. Two hours later the *Aloha* landed with very little fuel remaining in its tanks. Pilot Martin Jensen and navigator Paul Schulter were immensely relieved to be on terra firma once again.

Walter Beech's great gamble had paid off. Travel Air would bask in the success of the *Woolaroc's* victory for weeks after the race, and orders for the company's airplanes kept piling up on the desk of office manager and chief secretary, Olive Ann Mellor. Art Goebel would go on to more fame and fortune in the years ahead and after World War II became a successful Beechcraft dealer. In 1928, William Davis became a member of the Navy's Three Sea Hawks aerobatic team and in the "Jet Age" flew the Douglas D-558-2 *Skyrocket* at speeds above Mach 1. He retired as a vice admiral and eventually became Executive Director of the battleship *Alabama* (BB-60) permanently moored at Battleship Park in Mobile, Alabama. As for the legacy of the Dole race itself, 10 people died, five airplanes were wrecked and three were lost at sea. Of the 15 airplanes originally entered in the contest, only the *Woolaroc* survives. KA

NOTES:

1. Forden, Lesley: *"Glory Gamblers—The Story of the Dole Race."* Nottingham Press, Alameda, California, 1986.
2. The C-2 is on display as part of the National Air and Space Museum collection in Washington, D.C.
3. The fully restored *Woolaroc* and its achievement lives on in the Frank Phillips Museum. The monoplane hangs suspended from the ceiling in a special gallery dedicated to the Travel Air and her crew. The airplane's nose is aligned on a heading for Honolulu.

Ed Phillips, now retired and living in the South, has researched and written eight books on the unique and rich aviation history that belongs to Wichita, Kan. His writings have focused on the evolution of the airplanes, companies and people that have made Wichita the "Air Capital of the World" for more than 80 years.

BLR Aerospace Names Four New Fixed-Wing Dealers

BLR Aerospace has four new additions to its fixed-wing dealer network for King Air and piston aircraft upgrades. The new dealers include AMK Aviation of Ontario, Canada; Rose Aircraft Services of Mena, Arkansas; Tiffin Aire of Tiffin, Ohio; and Upper Valley Aviation of British Columbia, Canada.

BLR's Winglet System is an aluminum wing tip, carbon fiber winglet with integrated position, recognition and strobe LED lighting. The Winglet System increases overall wingspan and wing aspect ratio to reduce induced drag for faster flight on less fuel. More than 1,000 Winglet Systems are installed on King Air 90, 200, and 300 models and Duke aircraft operating worldwide.

Also available for King Air 90, 200 and 300 Series aircraft, the BLR Whisper Prop is a carbon fiber propeller with a natural composite core that delivers unprecedented reductions in noise (up to 50 percent dB), vibration and weight, among other benefits.

Straight Flight Joins Raisbeck Engineering's Network of Dealers

Raisbeck Engineering has named Straight Flight, a subsidiary of Sierra Nevada Corporation, as an authorized Raisbeck dealer in a move to strengthen and provide added value to Beechcraft King Air owners and operators.

Located in Englewood, Colo. at Centennial Airport, Straight Flight has spent nearly 30 years in the aviation industry performing major repairs and modifications on all types of general aviation, corporate and military aircraft. The company specializes in heavy structural repair, inspections, modifications, paint, composite repair and fabrication, among some of the services the company provides worldwide.

Increased Gross Weight Now Available for King Air 350

Aftermarket manufacturer CenTex Aerospace announced an addition to their line of STC-approved increased gross weight conversions called the Halo 350. With final approval expected December 2017, this new conversion for the Beechcraft King Air 350 increases the maximum takeoff weight from 15,000 to 15,950 pounds. King Air 350 operators will be able to load an additional 950 pounds of payload, which can be more passengers, baggage, cargo, fuel, or any combination thereof. An extra 950 pounds of fuel provides an additional 560 miles of range or operators can chose to utilize higher cruise power for faster true airspeed

Two new safety systems come with the conversion: A takeoff trim warning system provides an aural warning to the pilot when the elevator trim is not set within the takeoff range. Secondly, an ice mode for the stall warning system increases the accuracy of the stall warning when flying in icing conditions. The Halo 350 conversion transforms your Super King Air 350 by allowing it to fly farther, faster, and safer.

The perfect complement to the Halo 350 conversion are the CenTex Saddle Tanks. There are three models of Saddle Tanks and all are approved for the King Air 350. The ST190 (190 gallons), the ST120 (120 gallons of fuel plus storage), and the ST72 (72 gallons of fuel plus more storage capacity). With the Halo 350 and the ST190 Saddle Tanks, a King Air 350 can fly 2,400 nautical miles nonstop while carrying a pilot, six passengers, and their baggage.

CenTex is well known for the Halo 250 and Halo 275 conversions that increase the gross weight for King Air 200 series airplanes. For King Air 200, A200, B200 and B250 series airplanes with high flotation gear, the Halo 275 conversion provides a maximum takeoff weight of 14,000 pounds, a 1,000-pound increase in the landing weight, and for model year 1993 and after, a 500-pound increase in the maximum zero fuel weight. For those models equipped with standard landing gear, the maximum takeoff weight is increased to 13,420 pounds, with landing weight remaining the same. Saddle Tanks can be installed on King Air 200 and 250 series airplanes as well for increased range and utilization.

Please contact CenTex Aerospace by phone at (254) 752-4290 or on the web (*www.centex.aero)* for more information.

MT-Propeller 5-blade Receives Acceptance from INAC Venezuela for Beech King Air 350

MT-Propeller Entwicklung GmbH has received the Letter of Acceptance of the FAA STC #SA03525NY for the next generation 5-blade scimitar composite propeller on the Beech King Air 300/350 Series powered by the P&WC PT6A-60A engines.

The installation is also certified by EASA, Transport Canada and ANAC Brazil.

The new 5-blade MT-Propellers provide a performance improvement of approximately eight percent in takeoff and climb and four to five knots in cruise on this aircraft type. There are no propeller speed restrictions on ground while operating in low idle. The ITTs are lower during

start-up for less engine wear. Due to the smaller diameter of the 5-blade construction, it has more ground clearance for less FODs.

The MTV-27 Propeller has also bonded on nickel alloy leading edges for superior erosion protection of the blades. Natural composite blades provide best vibration damping characteristics for almost vibration free propeller operation and a significant cabin noise reduction. These special blades are repairable in case of FOD.

MT-Propellers have no life limitation, their construction provides maximum durability and reliability and they are suitable for all weather operation.

All models comply with the strict German noise regulations 2010 – "Landeplatz Lärmschutz Verordnung" for unrestricted airport operations in Germany and other European countries.

Nextant Aerospace Completes Certification Testing on G90XT

Nextant Aerospace has completed certification trials for the King Air G90XT's new single-lever engine control system, which should lead to FAA certification – expected in November with EASA accreditation following soon after. The system allows each engine to be controlled with one lever, leaving pitch control to the Fadec.

The G90XT also offers a 20-knot increase in speed at altitude and an all-new cabin and environmental system.

Garmin® Announces New Connext® Packages Offering Expanded Value and Increased Flexibility for Customers

Garmin International, Inc. recently announced expanded Connext weather and data service packages that provide additional cost-effective pricing tiers offering all-inclusive rate plans designed to suit operational needs for global weather and connectivity. Aircraft equipped with the GSR 56 satellite datalink transceiver and compatible avionics can take advantage of these

new rate plans starting as low as $79.99 per month. Additionally, qualifying customers with a GSR 56 installed in their aircraft that do not currently have an active subscription are eligible for a complimentary three-month promotional service plan.

A new, "Get Acquainted" promotional rate plan provides qualified customers with complimentary access to text and weather services for the first three months. Once the promotional period expires, customers are automatically enrolled into the Connext 150 service plan. For customers who do not currently have active service, this new incentive offers an even more cost-effective path to subscribing to the Connext weather and data service packages via the GSR 56.

For new and existing customers, cost-effective rate plans that are applicable to a wide range of operators around the world[1] are available. Voice calling and text messaging accompany worldwide weather data in three packages, which are tailored to how frequent customers fly. Recreational and corporate operators with a GSR 56 can take advantage of the all-inclusive plans below:

- Garmin Connext Weather 150 $79.99 monthly[2]
- Garmin Connext Weather 400 $174.99 monthly[2]
- Garmin Connext Weather 800 (new rate plan) $249.99 monthly[2]

Each plan is tailored to the number of hours that pilots typically operate throughout the year. For example, Connext Weather 150 is ideal for customers that operate 150 hours or less per year and provides worldwide weather updates at 10-minute intervals. This package also includes 30 minutes of voice per month and unlimited text messaging. Connext Weather 800 offers customers averaging 800 flight hours per year, access to worldwide weather updates at five-minute intervals. Connext Weather 800 also includes 180 minutes of voice and 500 text messages per month.

With a compatible G1000® NXi integrated flight deck or GTN™ 650/750 touchscreen navigator and the Flight Stream 510, customers receive additional Connext service benefits. Flight Stream 510 is a small MultiMediaCard (MMC) that enables communication between the G1000 NXi or GTN 650/750 and up to two compatible Apple mobile devices operating Garmin Pilot™. With Flight Stream 510, customers can pair an Apple mobile device operating Garmin Pilot to the G1000 NXi or GTN to access text and voice services enabled by a GSR 56 satellite datalink[3]. While in-flight and on the ground, pilots can quickly send and receive text messages with a mobile device and conveniently utilize the phone's existing contact database. Similarly, customers can initiate phone calls on an Apple mobile device within Garmin Pilot, so it's easier to complete phone calls over a headset while in flight.

Connext service plans for the GSR 56 datalink transceiver are available immediately. To subscribe to any one of these plans, visit: *https://fly.garmin.com/fly-garmin/connext/satellite-services/sign-up/*. For additional information, contact Garmin Aviation Services at +1 (866) 739-5687 or *FlightDataServices@garmin.com*.

1 Customers in Brazil, please contact Garmin for plan information

2 One-year subscription contract required, cancellation fees apply

3 Requires a GSR 56 Iridium datalink and a Connext service plan

Raisbeck Engineering to Acquire Butterfield Industries

Last month Raisbeck Engineering Inc. announced its decision to sign a definitive acquisition agreement with Butterfield Industries for all of its products and STCs. The deal was anticipated to close on or before October 31, 2017.

Butterfield Industries produces FAA approved replacement parts for numerous King Air models. Key products include: PMA Direct Replacement Floorboards, Fuel Point Pans, Oil Residue Collection Systems, Air/Oil Separator Systems and Flow-Through Anti-Ice Kits.

Raisbeck said that Butterfield's products are a natural fit with Raisbeck's King Air offerings, and many of the aircraft that carry Raisbeck modifications also carry Butterfield systems. KA

King Air Technically...

RECENT SERVICE BULLETINS, ADVISORY DIRECTIVES AND SAFETY COMMUNICATIONS

Service Letter MTL-27-01: Flight Controls – Control Column Master Link Aileron Interconnect Chain Inspection

Issued: September 20, 2017

Effectivity: King Air Models – C90GTi, Serial Numbers LJ-2100 through LJ-2135; B200GT, Serial Numbers BY-203 through BY-277; B200, Serial Numbers BB-2020 through BB-2021; B200C, Serial Number BL-171; B200CGT, Serial Number BZ-1; B300C, Serial Numbers FM-56 through FM-69; B300, Serial Numbers FL-911 through FL-923, FL-925 through FL-1085, FL-1087 through FL-1095

Compliance – Mandatory: This service document must be accomplished within 200 flight hours or 12 months from the date of receipt, whichever occurs first.

Reason: Master link clips may not be fully seated on the control column wheel interconnect chain assembly. Improperly installed master links could lead to loss of co-pilot aileron control.

Description: This service document provides parts and instructions to inspect for proper seating of master link clips on the control column wheel interconnect chain assembly. Replace master links if clips are not fully seated.

Service Letter MTL-27-01 REVISION (to above)

Issued: October 3, 2017

Reason: This sheet transmits Revision 1 to MTL-27-01, which:

A. Clarifies that the inspection is accomplished on the control column, comprising two upper and two lower control wheel interconnects per side.
B. Clarifies that the inspection does not apply to the primary aileron control cable.

Revision Compliance: No further action is necessary if the original issue of this service document was accomplished.

Service Bulletin MTB-32-01: Landing Gear – Safety Switch Improvement

Issued: September 25, 2017

Effectivity: King Air Model B300, Serial Numbers FL-493, FL-500 through FL-1124

Compliance – Optional: This service document can be accomplished at the discretion of the owner.

Reason: This service document incorporates circuit changes so that the pressurization system will not dump unless both the left and right landing gear safety switches show that the airplane is on the ground.

Description: This service document provides parts and instructions to modify the pressurization circuit.

The above information is abbreviated for space purposes. For the entire communication, go to www.txtavsupport.com.

Statement of Ownership, Management and Monthly Circulation of

King Air Magazine

PUBLISHER: Village Press, Inc.; EDITOR: Kim Blonigen; HEADQUARTERS OF PUBLISHER & PUBLICATION: 2779 Aero Park Dr., Traverse City, Grand Traverse County, Michigan 49686; OWNER: Village Press, Inc.; STOCKHOLDERS: David B. Moore, J. Scott Lizenby; BONDHOLDERS, MORTGAGEES, OTHER SECURITY HOLDERS: Fifth Third Bank.

CIRCULATION: Average No. Copies each issue during preceding 12 months: A. Total Copies Printed (Net press run), 5,048; B. Paid Circulation: 1. Mail subscriptions, 3,239; 2. Paid In-County, 0; 3. Sales through Dealers, 0; 4. Other classes mailed through the USPS, 5; C. Total Paid Distribution, 3,244; D. Free Circulation: 1. Nonrequested Distribution, 1,629; 2. Nonrequested Distribution In-County, 0; 3. Other classes mailed through the USPS, 0; 4. Outside the mail, 0; E. Total Nonrequested Distribution, 1,629; F. Total Distribution (Sum of C and E), 4,873; G. Copies Not Distributed, 175; H. TOTAL (Sum of F and G), 5,048; Percent Paid Circulation, 66.57. CIRCULATION: Single Issue nearest filing date: A. Total Copies Printed (Net press run), 4,850; B. Paid Circulation: 1. Mail subscriptions, 2,898; 2. Paid In-County, 0; 3. Sales through Dealers, 0; 4. Other classes mailed through the USPS, 4; C. Total Paid Distribution, 2,902; D. Free Circulation: 1. Nonrequested Distribution, 1,797; 2. Nonrequested Distribution In-County, 0; 3. Other classes mailed through the USPS, 0; 4. Outside the mail, 0; E. Total Nonrequested Distribution, 1,797; F. Total Distribution (Sum of C and E), 4,699; G. Copies Not Distributed, 151; H. TOTAL (Sum of F and G), 4,850; Percent Paid Circulation, 61.76.

J. Scott Lizenby, Chief Financial Officer

ADVERTISING INDEX

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