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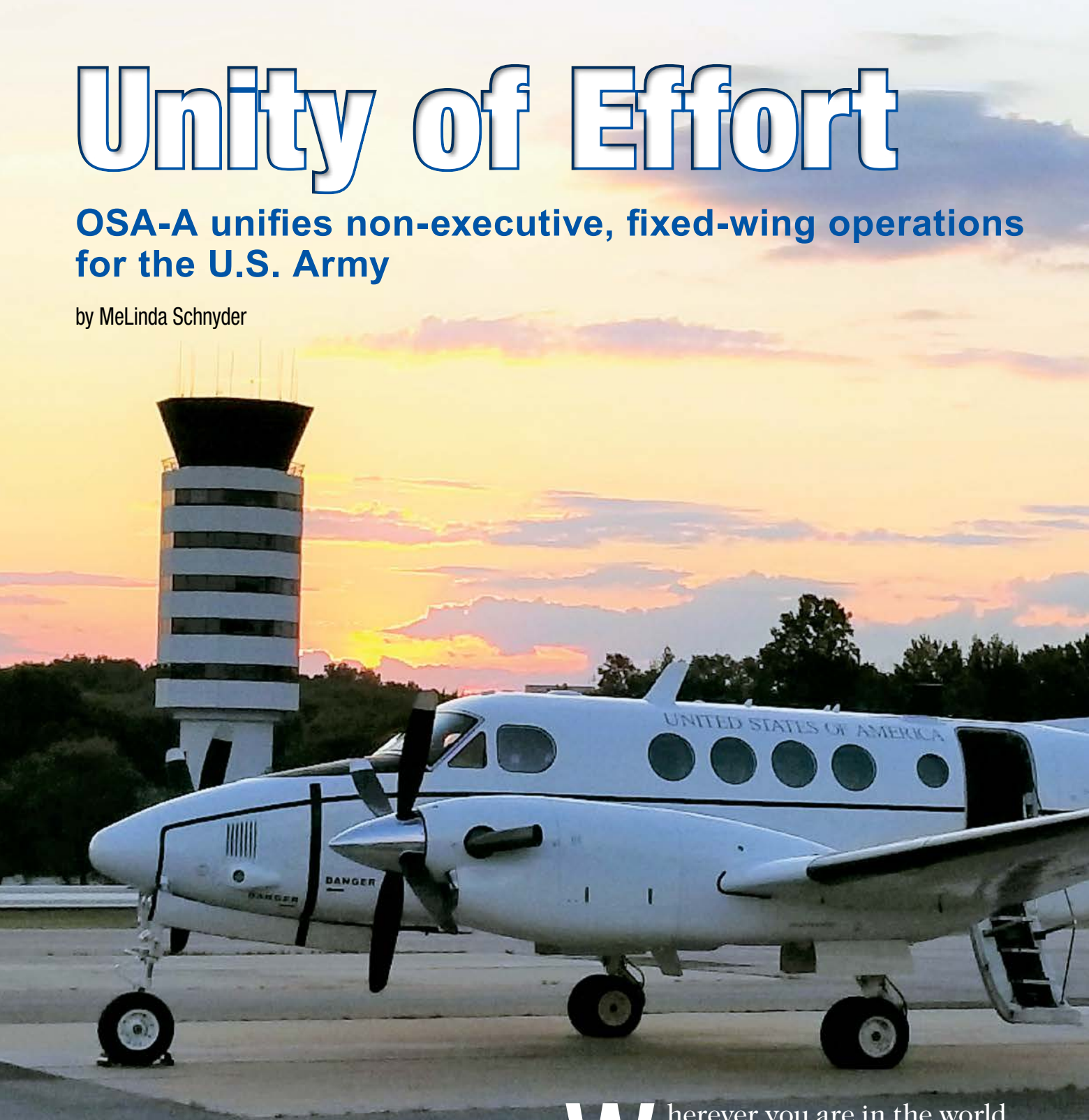
COVER PHOTO
An OSA-A C-12V sits on the ramp at Reykjavik, Iceland. Credit: U.S. Army

Contents

Unity of Effort

OSA-A unifies non-executive, fixed-wing operations for the U.S. Army

by MeLinda Schnyder



The sun rising over one of OSA-A's C-12s at Davison Army Airfield (KDAA) in Fairfax County, Virginia.

Wherever you are in the world, there's likely a Beechcraft King Air near you that is flying under the coordination of the United States Army Operational Support Airlift Activity (OSA-A).

OSA-A plans, coordinates and conducts non-executive airlift for

soldiers, civilians and light cargo for the Army, the Department of Defense and other government agencies. The C-12 Huron is the military designation for the King Air 200, and last year OSA-A coordinated about 22,000 flight hours among 46 dispatched C-12 aircraft.

"The C-12 has been deployed to just about every continent on the planet," said Chief Warrant Officer 3 John Smith, the C-12 standardization instructor pilot for the OSA-A Flight Detachment. "Be it flying high over the mountains of Afghanistan, moving critical people and equipment into and out of Kuwait, providing timely support to remote villages north of the Arctic Circle or the tropics of Asia, across the challenging mountains of Europe to the continent of Africa or remote jungles of Central and South America, chances are there's an OSA C-12 near you providing mission-critical support."

Formation of the OSA-A

The roots of the current day OSA-A formed in the 1990s as a field operating agency of the National Guard Bureau meant to consolidate the myriad of Army King Air aircraft that were executing non-executive fixed-wing travel. The organization enables each state a King Air program through the Air National Guard by a unity of effort in the areas of standardization, budget, maintenance, safety and mission.

OSA-A is an activity within The Army Aviation Brigade (TAAB), which combines the talents, training, equipment and leadership of the Army Reserve, National Guard and the Regular Army into a single aviation brigade. Maj. Ryan Rooks is a King Air pilot, UC-35 Citation instructor pilot and commander of the OSA-A Flight Detachment, or OFD, headquartered at Davison Army Airfield, Fort Belvoir, Virginia.

Rooks oversees training and missions that are executed under the OFD Aircrew Training Program (ATP). Thirty-two pilots are assigned to the program, including several staff aviators from the activity headquarters and TAAB headquarters.

Other supporting roles within operations are noncommissioned officer operation specialists, who deal with military air passenger/cargo requests from the Joint Operational Support Airlift Command and maintain flight records, flight publications, flight schedules and maintenance coordination.

DynCorp International contractors handle maintenance for the assigned King Air aircraft.

"The units in the States provide a tremendous amount of support to domestic operations requirements through the movement of time-sensitive, mission-critical passengers and cargo," said Lt. Col. W. Darrell Rasor, the commander of OSA-A who spent 10 years deploying in the C-23 Sherpa and C-12 Huron. "Oftentimes the only means of transport of goods and passengers in and out of natural disaster relief efforts following hurricanes, fires, floods and earthquakes is on Army National Guard C-12s flown by state flight detachment aviators. Many of these state aircrews are also trained and ready to execute contingency operations in the United States in support of domestic operational requirements for homeland defense."

The average age of the current fleet of 46 C-12 aircraft under the regulatory guidance of the U.S. Army Operational Support Airlift Activity is 32 years, with an average fleet total time of 16,989 hours. Here, two C-12U aircraft sit on the ramp at Fort Lewis, Washington, with Mount Rainier in the background.

Army's history with the King Air

The first C-12A Huron models entered service with the U.S. Army in 1974, according to Rich Roling, one of OSA-A's standardization instructor pilots and a retired Chief Warrant Officer 5 who has worked at OSA-A for more than 10 years. It took several years of acquisition to replace the Army's aging fleet of King Air 90 aircraft designated U-21, which he said had first entered service for the Army in 1964.

The C-12 aircraft is essentially a Super King Air 200, powered by the type's standard Pratt & Whitney PT6A-42 engines, with a commercial, off-the-shelf cargo floor system installed.

Army aviators hold up the American flag in front of their King Air deployed by Operational Support Airlift Activity to Balad, Iraq, in support of Operation Iraqi Freedom.

"The Army King Air has a large pallet accessible cargo door, a heavy-duty floor structure and cabin cargo liner making it an extremely versatile aircraft," Roling said. "Some of those aircraft have been modified with surveillance systems for various non-OSA military missions."

He added: "The majority of the current C-12 fleet were procured by the military between 1984 and 1986. The fleet has received periodic upgrades with most of them receiving at least two major modifications, particularly pertaining to avionics. The vast majority of our C-12s have a Rockwell Collins FMS-3000 system. The Army National Guard does have five C-12Vs that are the Pro Line 21 suite aircraft. They also serve in the same role as the rest of the fleet providing transport of personnel and limited cargo."

The average age of the C-12 fleet is 32 years, with an average fleet total time of 16,989 hours. The high-time aircraft has more than 22,000 hours with the lowest having about 12,500 hours.

C-12 missions run the gamut

"Primarily within the operational support activity fleet, the King Air is used for non-executive travel while not deployed down range," Smith said. "This means everyone from the lowest private to the highest general has and can continue to travel on our fleet at no cost to their unit. We also fly authorized civilian employees of the government and certain people designated as priority travelers who have time-critical deadlines."

Among the missions that the U.S. Army Operational Support Airlift Activity conducts are light cargo flights like this one. Here, cases of raw blood are being loaded in Colorado Springs, Colorado, before being flown to Fort Bliss, Texas, for processing, then sent to Germany to be used on wounded troops in theater.

Smith added: "Of course, because of the King Air's flexibility, we also can kit aircraft for military intelligence operations providing manned ISR to combatant

commanders down range as well as meeting that critical logistical need of the last 'tactical inch.' Oftentimes, a critical warfighting part needs to arrive at that remote airfield, or a person needs to move within the theater of operations. We do that safely, quickly and with minimal cost to the American people."

The King Air makes up more than 80 percent of the National Guard's operational support airlift fleet. These aircraft are used for liaison and general personnel transport covering various duties, including embassy support, medical evacuation, as well as extensive passenger, VIP and light cargo transport.

During virtually every recent natural disaster in the United States and its territories where the National Guard assets have been mobilized, King Airs have provided personnel and cargo support. They are regularly used to move medical supplies and other critical equipment during state emergencies, and they routinely transport wounded warriors and blood as ongoing Army missions.

"Sometimes the most rewarding experience is bringing Amazon® boxes to a remote airfield in a faraway country to support our soldiers … A small piece of home to a deployed soldier can give them the strength to push on, knowing that when they need something, we'll be there."

– Rich Roling,
OSA-A standardization instructor pilot,
Ret. Chief Warrant Officer 5

"Operational support activity has provided humanitarian and logistical support during national emergencies dating all the way back to the adoption of the C-12 into the fleet," Roling said. "With right around 1,500 pounds of payload and our extended 14,000 MGTOW, you name it, we've probably flown it. We've flown doctors into affected areas; delivered critical leaders, equipment and supplies; and even provided aerial overflights of affected areas so that our leaders can get a full picture of the magnitude of damage."

He added: "Sometimes the most rewarding experience is bringing Amazon boxes to a remote airfield in a faraway country to support our soldiers who are embedded with their host nation counterparts. A small piece of

OSA-A coordinated about 22,000 flight hours last year among its 46 dispatched C-12 aircraft.

The Army National Guard has five C-12Vs that have the Rockwell Collins Pro Line 21 avionics suite, while a majority of the C-12s have the company's FMS-3000 system.

DynCorp International contractors handle all maintenance for the OSA-A fleet of Beechcraft King Air C-12 aircraft. Here, DynCorp's Aaron DeMoss (left) and Doug Kratz (right) conduct a hot section inspection on a C-12U.

home to a deployed soldier can give them the strength to push on, knowing that when they need something, we'll be there."

Another important role for the C-12 is to train Army pilots who initially begin their pilot training flying the various rotary wing aircraft that composes 95 percent of the Army's total aviation fleet. Those pilots that are chosen to fly the Army's fixed-wing aircraft attend an additional fixed-wing qualification course.

"As the Army's go-to aircraft for initial fixed-wing qualification training, the rugged durability and payload capability combined with low operating costs make the King Air an incredibly valuable tool in our capabilities spectrum," Smith said.

"Within the fixed-wing fleet, we provide recurrent training through our contracted ground schools and simulators, as well as short field, mountainous operations, upset recovery and prevention training and international flight training in powered aircraft," he said. "This critical training, as well as the aircrew centric training model, combine to provide a very experienced aviator who is able to not only avoid potential crises, but keep calm and make life-saving decisions if the worst happens. This is why so many commercial operators recognize the value of our military pilots and often directly recruit them to complement their flight departments." KA

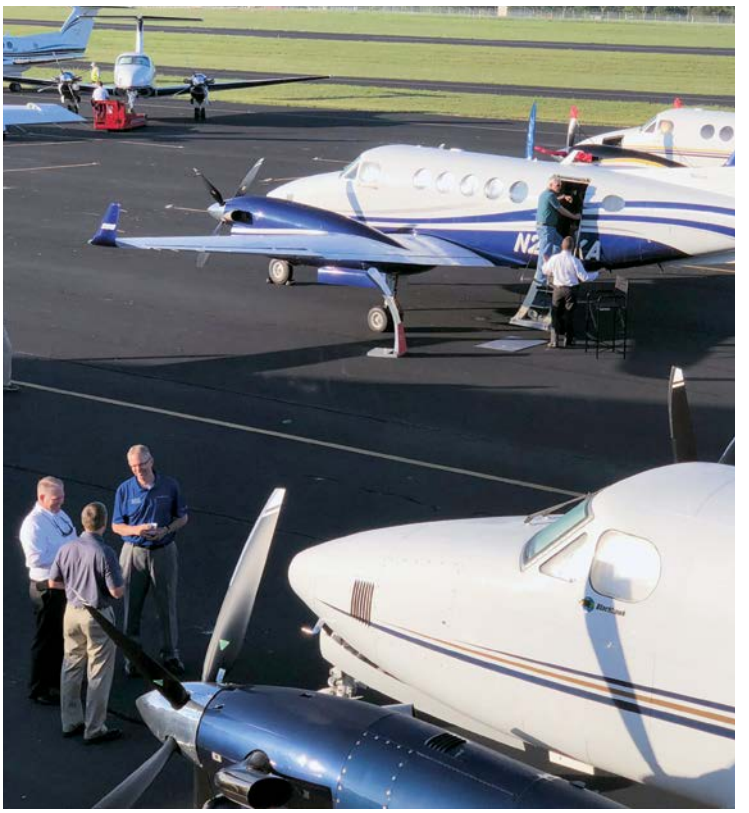
OSA-A installs this shelf cargo floor in all of its C-12 detachments throughout the world. It allows an increase in light cargo carrying abilities, ensures that all cargo is safely secured and keeps the weight properly distributed throughout the aircraft cabin.

King Air Gathering III: Biggest One to Date

by Kim Blonigen

The King Air Academy's third King Air Gathering (KAG) was the largest one yet with 80 people attending and 42 King Airs flying in that filled the ramp at Gillespie County Airport (T82).

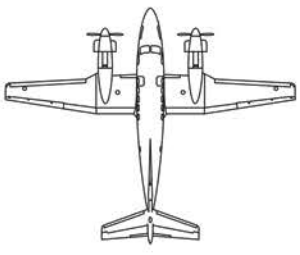
Held Sept. 28-29, 2018, the Hangar Hotel and Conference Center located on T82 at Fredericksburg, Texas, was the perfect setup to hold the event. The King Airs were parked right on the ramp in from of the hotel and conference center, so it was easy to go look at the vendor-improved aircraft on display, as well as the other attendees' King Airs. For those who could arrive early, a golf tournament was held Thursday, Sept. 27 at the Lady Bird Golf Course located near the airport.



Some companies brought King Airs with their products installed so owners/pilots could see them firsthand.

Friday morning started off with a keynote presentation by Dr. David Strahle, Father of Datalink NEXRAD and King Air 200 owner/pilot. Attendees listened intently as Dr. Strahle discussed how to interpret various NEXRAD images and other weather information on specific websites and using it in advanced preflight planning. Friday afternoon, King Air expert and *King Air* magazine columnist Tom Clements presented his keynote talk which included accident reviews of "nonevent results that turn into a catastrophe," King Air best practices, etc. During a break, one of the very few Beechcraft Starships that is still flying surprised everyone by flying by and landing to allow those who were interested to look over.

There were two full days of presentations given by King Air experts focusing on upgrades and modifications – avionics, engines, performance, fuel and weight



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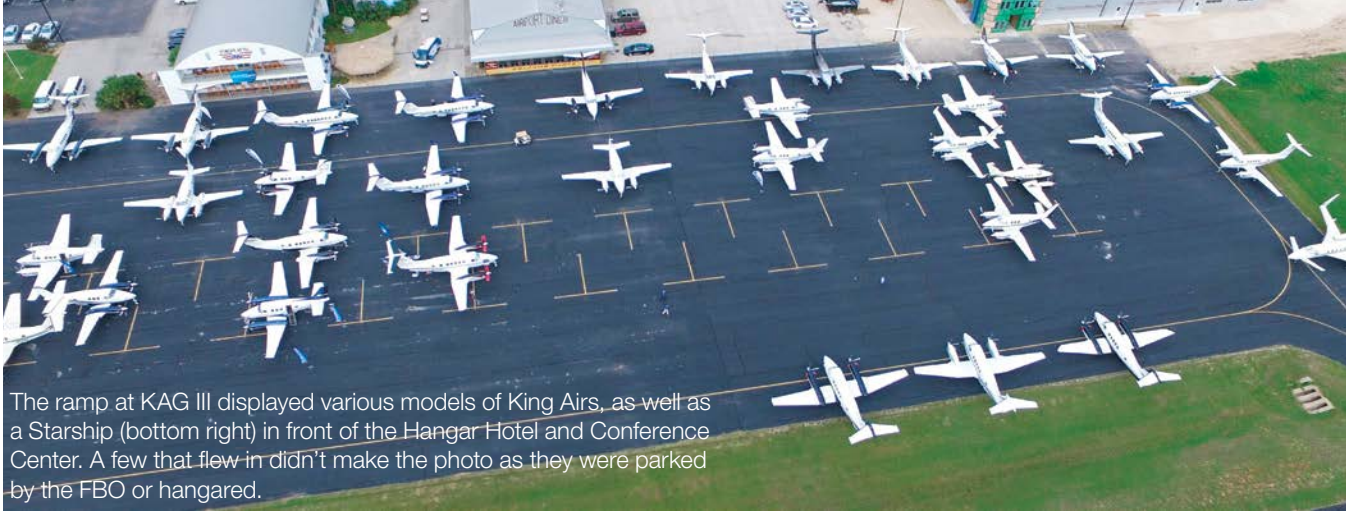

The ramp at KAG III displayed various models of King Airs, as well as a Starship (bottom right) in front of the Hangar Hotel and Conference Center. A few that flew in didn't make the photo as they were parked by the FBO or hangared.

enhancements; a return on investment perspective; planning for cost-effective maintenance; using maintenance consultants; the importance of acceptance inspections and flights – pre-buy, maintenance, etc.; how to efficiently run your engine, and more. King Air owners/pilots also had time to visit the many vendors who exhibited at the event, which provided an extra benefit for attending.

Friday after the seminars, attendees and their spouses had the opportunity to socialize with vendors and other King Air owners at a cocktail party compliments of Blackhawk Modifications (cocktails) and Lee Aerospace (hors d'oeuvres). Hosted in the Pacific Showroom of the Hangar Hotel and Conference Center, it provided the same World War II "feel" as the hotel and presentation room and gave everyone a surreal step back into aviation history.

Saturday ended with Keynote Speaker Captain Chuck "Sly" Magill, retired U.S. Marine Corps, who delivered his experience and insight from being a naval aviator in Desert Storm and Desert Shield to his civilian life of Flight Operations at Southwest Airlines.

This third Gathering provided activities for spouses and guests during the day, and Fredericksburg had a lot to offer. On Friday, a group visited Main Street Fredericksburg that showcased shopping at over 150 boutiques, art galleries, wine tasting rooms, and a lunch at one of the special restaurants. Saturday,

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KAG III attendees were presented with a lot of information from King Air experts through various specialized subjects.

Attendees had time to visit the many King Air product and service providers who had exhibits at the Gathering.

A cocktail party allowed the attending King Air owners/pilots more time to socialize with each other.

guests visited Wildseed Farm, the nation's largest working wildflower farm where visitors saw the blooming fields and plant nursery. After that, they enjoyed a six-course lunch and sample wine pairing at the Woodrose Winery.

Thanks to Platinum sponsors Textron Aviation and Blackhawk Modifications; Freeflight Systems, who sponsored the coffee and pastry bar each morning; Pratt & Whitney who sponsored lunch each day; the many exhibitors who attended, and King Air Academy for setting up and hosting the event.

Stay tuned for details regarding King Air IV or visit the website at *www.KingAirGathering.com*.

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Ask the Expert

War Stories: Part Four

by Tom Clements

I am continuing more of my personal King Air "war stories" for this month's article.

Automatic Unfeathering

We all know how worthwhile the wonderful King Air autofeather system is, right? What you may not realize, however, is that numerous King Airs also have an automatic unfeathering system.

This first came to light for me when we began training on King Airs that had been upgraded with the first examples of the Raisbeck Engineering Inc.'s Quiet Turbofan four-blade propellers. These first appeared on 200s in the early 1980s. A customer of mine had recently replaced his standard three-blade props with the new four-blade ones. During his recurrent flight training session, we shut down one engine to practice single-engine approach and go-around procedures at a safe altitude, more than 5,000 feet AGL. "That's odd," I thought, as I noticed that the feathered propeller never totally stopped rotation, even with the Condition Lever in Fuel Cutoff. I estimated that it was turning about 10-20 RPM.

Later, back on the ground, I phoned my friend and founder of Raisbeck Engineering, James Raisbeck, and asked him about what I had observed. "That's normal," was James' response. "Our propeller blades have such a pronounced twist in them that to actually make them stop turning requires that the outer portion of the blade move past the position that has it exactly facing into the relative wind. In this position, more drag is created than if we simply allow minor rotation."

"OK. That makes sense," I thought. As I continued to come across these props that rotated in flight with a shutdown engine I discovered how little rotation is required to create sufficient prop oil pressure to bring the propeller blades back out of the feathered position. Realize that the oil that operates the propeller is the same oil that lubricates the engine but is not at the same pressure as engine oil. The engine's oil pressure pump must merely move the oil from the oil tank to the inlet to the propeller governor. There, the pump inside the prop governor picks up the oil and boosts it to a much higher pressure, approaching 400 psi.

A common misconception is that the engine oil pressure pump will not be rotating fast enough, with a shutdown engine in flight, to supply the oil up to the prop governor. Depending on altitude and airspeed, N_1 or N_g will still turn between three and 10 percent speed in a shutdown engine with a feathered propeller. It will only have zero speed if the compressor has locked up for some weird reason. That three to 10 percent rotation speed is enough to supply engine oil to and from the governor.

Here is an important step to take when dealing with an engine failure

or shutdown in flight: Even though autofeather has worked perfectly and has feathered the propeller very expeditiously, go ahead and feather it manually yourself. Pull that propeller lever fully aft! Why? Two reasons: First, it reinforces the importance of that critical step when flying King Airs or other propeller-driven twins that do not have the autofeather system. Second, it prevents the propeller from unfeathering itself!

You see, as the "Engine Shutdown in Flight" cleanup checklist is completed, the pilot is directed to turn off the Autofeather switch. Doing that removes power from the Autofeather Dump Solenoid and it goes to its Normally Closed (N.C.) position, shutting off the path through which prop oil has been released back into the engine. That 10-20 RPM rotation is enough to allow the prop governor's oil pump to start refilling the prop dome with oil, bringing the blades out of feather, toward lower pitch and lower blade angles. As soon as the blade begins to move, there is less rotational resistance so the prop starts turning faster and supplying more oil. It is a self-perpetuating event and the blade angle keeps getting smaller at an ever-increasing rate. Before we know it – wham! – the propeller is back at maximum speed!

Where did all this drag suddenly come from?

The same thing will happen if the pilot verifies the suspected dead engine by pulling its power lever back but then fails to push the lever forward again. Remember that both power levers must be well-advanced to activate the autofeather arming switches inside the power quadrant. Pulling either one back turns off autofeather to both sides.

My suggestions therefore are: (1) to continue your "Suspected Power Loss in Flight" memory items all the way to the end, including pulling the propeller lever fully into feather, and (2) leave the dead engine's power lever either fully forward or matched with the other engine's lever. By doing so the system will continue to be dumping prop oil even if we forget to turn the Autofeather switch off. It eliminates the "Where did that drag come from?" surprise … and that's a good thing! Another disadvantage of retarding the dead engine's power lever to Idle is that it will trigger the landing gear warning horn to sound and will illuminate the red lights in the gear handle. Although the horn may be silenced, the red lights will remain on. Hence, there will be no way to ensure that the gear is properly retracted.

If you fly a King Air in which the propeller totally stops rotation when feathered with a shutdown engine in flight, then your prop will not automatically unfeather itself. Nonetheless, I strongly suggest doing exactly the same procedures as I have advocated here. Why not stack the deck in your favor, especially since some day you probably will operate a model that exhibits some propeller rotation when shutdown?

LJ-2 Loses a Wheel

For a few months after I transferred from the Beech factory in Wichita to the Beechcraft West organization in California, I was based out of the facility in Fresno. One of Beechcraft West's customers there ran a charter operation using a King Air 90 and a V35B Bonanza. The King Air was the second one ever built: LJ-2, a 1964 65-90 model, or "Straight 90." By this time (early 1977) LJ-2 had received many upgrades and one of the more significant ones was reversing propellers, something the standard Straight 90 never had. The charter operation was quite busy and the King Air usually flew many times each week. A common charter saw her taking passengers down to KLAX to catch a flight out of that international hub.

The Great Central Valley of California is renowned for the winter presence of "Tule Fog." Most mornings

dawn with this heavy fog that can drop visibility to almost nothing. Taking off, barely able to see the runway centerline, almost always puts you into crystal clear blue skies by 1,000-2,000 feet. As the sun warms the air, usually the fog dissipates by midmorning, leaving lovely clear skies until the ground cools again after midnight.

One not-too-foggy morning, LJ-2 with its single pilot and a load of passengers taxied out for takeoff on their way to Los Angeles. A PSA (Pacific Southwest Airlines) Boeing 727 followed them out and held short of the runway as the King Air departed. "Uh, Fresno Tower, you may want to tell that King Air that his left main tire just fell off as he took off," radioed the 727.

What the … ?! Sure enough, the axle nut had come loose, worked itself off, and allowed the wheel assembly to roll right off the axle. (This design has been changed on later models to decrease the likelihood of this from happening.) LJ-2's pilot received the bad news, canceled the plans to go to LAX, and circled near Fresno in the clear air above the fog. If I am not mistaken, he began crossfeeding fuel from the left tanks to both engines, thinking that having it as light as possible on the side of the main gear "stub" would help in keeping it straight after touchdown. Radio calls were made to the Beechcraft West maintenance department and they, in turn, ran the situation past the Beech support experts in Wichita, seeking any good ideas.

It was decided to land on Runway 29R at KFAT and LJ-2 requested that a section of the runway be foamed – covered with fire-suppression foam, a common procedure back then – in preparation for the landing. Since Fresno has only two parallel runways, 29L and 29R, and both were in use, the tower offered to foam the parallel Taxiway C, which was of equal length to 29R, over 9,000 feet long. The pilot of LJ-2 accepted that offer.

After circling for two or three hours, with the fog now totally gone, LJ-2 made its approach to the foamed portion of Taxiway C. The pilot later told me that his plan was to touch down as far as possible to the right side of the taxiway. In doing so, there would be more available space for the airplane to veer left as the drag of the brake rotor – sans wheel and tire – dug into the concrete. Furthermore, he planned to use Maximum Reverse immediately after touchdown to slow the airplane as quickly as possible.

This proceeded as planned. However, the drag of the left gear stub was so great that the airplane began drifting left and could not be corrected by right rudder and right brake usage. So the pilot began easing the left power lever out of reverse. Just about the time the airplane began rolling straight, the left main stub found the dirt beside the taxiway causing even more left-side drag. So more positive trust was added by pushing the left

power lever forward. The airplane was rolling at a very low speed and everyone was starting to breathe a sigh of relief, when the left main stub hit the concrete pad holding one of the taxiway lights. That impact ripped the gear strut out of the wheel well, the airplane collapsed onto the left wing, and the propeller bit into the dirt under significant positive trust. Obviously, the airplane suffered major damage. No one was injured so it was a successful emergency landing.

In hindsight, it is easy to suggest the following changes: First, go ahead and use runway 29R and take advantage of its width – about three times wider than Taxiway C. Foam? Forget it. It has been proven not to offer much protection anyway. Second, avoid immediate use of reverse. Reverse blanked out a lot of the airflow over the left wing, decreasing lift and causing the stub to dig into the concrete with greater force. Third, as the airplane slowed, if it could not be kept straight with right rudder and brake, then go ahead and use reverse as needed on the right side alone to keep it straight.

Would I or anyone else have thought of these techniques when faced with the problem in real time? I don't know, but I suppose there is a good chance that we would not have the presence of mind to think it through completely. Perhaps this war story will be beneficial if it ever happens to you … which I hope it never does!

As a side note: I just looked at the FAA Registry and LJ-2 is still registered, in the state of Washington. It appears she was repaired successfully. Long may she fly!

FA-5 … RIP

I returned to the Beechcraft Training Center in 1984 to receive training and take the checkride to obtain my BE-300 type rating, the new King Air model that made its appearance that year. Back in those early days, obtaining the type rating on the 300 automatically earned you a BE-1900 type rating and vice versa. That was a nice loophole that has since been eliminated. One of the instructors had been there when I managed the training center and we had remained friends. I heard from him two interesting stories, one just funny and one rather sad. Let me relate both to you. First, the funny one.

As I have written in other articles and discussions, the choice of the letters that precede the serial numbers for various models of Beechcraft has always been a mystery. Why are V-tail Bonanzas "D" numbers? Why is "E" used for the 36 Bonanzas? Why LJ for 90s? Why B for 100s? BB for 200s? There must be someone who makes these choices and there must be reasons for the selection but I'll be darned if I know who and what they are!

Over lunch one day, while we were undergoing the model 300 ground school before beginning the flight phase, my Beech instructor friend told me a secret. "Tom, we have finally decided why they chose FA as the letters for all 300s … because they are so Fantastically Awesome!" Actually, "Fantastically" may not have been the word he used, but his word did start with an F.

Now for the sad story. The company who bought the fifth 300, FA-5, sent their pilot to the Beechcraft Training Center to get typed. The company was moving up from a model 200 and the pilot had lots of experience in that predecessor model. The training went well. On the last day before the type-rating checkride was scheduled, my friend was giving this student a final training session. As was typical, they had flown a few miles northwest of Beech Field and were training at Hutchinson Regional Airport (KHUT).

An ILS to Runway 13 was planned and briefed, with a circle to land on Runway 4 – the runway mostly into the wind. The instructor pulled the flap power circuit breaker before the

approach began and the student correctly identified that malfunction as he selected approach flaps. The proper no flap V_{REF} speed, based on landing weight, was determined and now an extra element of challenge was added since the circle-to-land would be made without flaps.

All was going well as the threshold of Runway 4 was passed. The student failed to reduce power to idle soon enough – compared to the 200 he had been flying, the 300 is quite a floater! – so the 300 overshot the fixed distance markers and floated in ground effect.

With no warning or comment, the pilot reverted to a horrible habit pattern he had developed in flying the 200: He picked up both power levers to ease them back into the Beta range. Although this violates the POH limitation – Do Not lift the Power Levers in Flight – it is a technique that some 200 pilots have found works well when a little extra propeller drag is desired. With the propellers in an underspeed condition, resting on the Low Pitch Stops, the pilot can move the LPS to a flatter angle by pulling the power levers back and the airplane usually settles to the runway nicely.

Don't do this! Someday one prop will respond and the other will not, or you will misjudge the altitude and "fall out of the sky" with a bang, or you'll be so much above the proper V_{REF} that the propellers won't be in an underspeed condition so they will not enter Beta. Like the POH says: Do Not Lift the Power Levers in Flight!

The 300's LPS system is very different from the 200's. The 300 has two Low Pitch Stops, Flight and Ground. The Flight Low Pitch Stop (FLPS) is active in the flare but as soon as the power levers are lifted the Ground Low Pitch Stop (GLPS) is activated and the blade angle flattens by a huge 12-degree amount. This adds tremendous drag!

When the student lifted the power levers, the aircraft basically stopped flying and thudded onto the runway with a vengeance. As they rolled out, the instructor let the student know, in no uncertain terms, that he had just made a major boo-boo and to never, ever use that illegal technique again. Amid nervous laughter – glad the airplane was still operational! – the student said he'd learned his lesson!

A couple of additional takeoffs and another approach were made at KHUT and then they took the short flight back to Beech Field with one last approach there. Only when the props stopped turning at Beech did both pilots discover, in horror, that they now had the only 300 in existence with Q-Tip propellers. Remember those? They were popular for a while on Turbo Commanders as well as some other models. It was where each propeller tip was bent back at a 90-degree angle … somewhat like

a winglet on a prop blade. The engines had sagged so much during the hard landing that all propeller blade tips had dug into the ground! Further investigation by the Beech mechanics and engineers revealed that the engine mounts and firewalls were bent and the main spar was damaged beyond economical repair.

The airplane died before it ever left the factory. Some parts and avionics were salvaged, but FA-5 was no more. May she Rest in Peace.

Please, don't lift the power levers in the flare. Promise?

Another side note: FA-5 also shows up now in the FAA Registry. Either I was given the incorrect serial number or perhaps it was finally repaired successfully?

A Near "Disaster" in Mexico

In 1976, another instructor pilot from the Beechcraft Training Center and I were selected to crew a weekend BE-200 flight to Mazatlán. An oil company in Houston had bought a new 200 but its delivery had been delayed due to a couple of last-minute snags. Since the new airplane was not ready as promised, the King Air salesman in Texas asked the Wichita factory to supply one of their demonstrators for the trip. Although this did not happen often, it was occasionally provided to keep happy customers. Beech was good that way!

The other pilot, Ernie, and I flew from Beech Field to Houston's William P. Hobby Airport (KHOU) to pick up our passengers – three couples, as I recall – then proceeded on this Friday afternoon to Mazatlán. The schedule had us returning to Houston Sunday afternoon. After clearing customs, fueling the plane and getting a ride to the nice beachfront hotel, Ernie and I were looking forward to a day and a half of relaxing and fun beach time.

We found that Hobie Cats – small sailing catamarans – were available for rent and we reserved one for Saturday afternoon. Being a bit paranoid about security on the Mexican beach, Ernie and I carefully placed our wallets, passports, pilot licenses, etc. into a hotel plastic laundry bag, inserted that bag into another one, tied them up so as to be as water-tight as possible, and then tied the whole thing to the boom for the Hobie's sail. Off we went, enjoying the sun, the wind and the sailing. It was easy to keep an eye on our bag of stuff since the boom was just above head height as we sat in the canvas sling between the twin hulls.

Time passed as we sailed, watching the other boats, the bay's shoreline, the resort hotels, drank a cerveza or two … doing the Mexican beach resort thing.

Then, panic! Where's the bag?! Somehow our boom-secured bag wasn't secure anymore! Ernie, much taller than I, grasped the mast and pulled himself up as far as he could to scan the sea around us … especially the wake behind us. Oh Lordy! A white something was bobbing in the waves far in the distance behind. We did a quick turn-about and headed in the direction of the white object. As we got closer we could see that it indeed was our missing bag of valuables. Whew! There were two very happy pilots when we hoisted that aboard. We'd probably *still* be in Mexico if the bag had never been retrieved!

I'll talk to you next month! KA

King Air expert Tom Clements has been flying and instructing in King Airs for over 46 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 editor@blonigen.net

Travel Air's Last Hurrah

Late in 1928 Walter H. Beech authorized development of the four-place Type 10 cabin monoplane, but by 1930 America's deepening economic debacle had almost wiped out the once booming market for new airplanes.

by Edward H. Phillips

Fact: The aviation business is cyclical. Any pilot, mechanic, airframe or engine manufacturer, as well as companies operating under FAR Part 91, Part 121 or Part 135 knows that all too well.

Early in 1929, however, Walter H. Beech and the Travel Air Company were riding a wave of prosperity that Walter and the board of directors hoped would never end. Wall Street was at its zenith, the national economy was growing and people had money to spend, and in some cases, lots of money. Mr. Beech was quick to realize, however, that the stock market, air-minded investors, easy credit and a plethora of ready cash were not fully responsible for the excesses of what would become known as the infamous 'Roarin' Twenties.

Much of Travel Air's stunning sales success during the past two years was, in large part, due to the epic transatlantic solo flight in May 1927, of a former airmail aviator named Charles A. Lindbergh. Soon after he landed at Le Bourget Airport in Paris, France, his 33-hour aerial trek brought aviation and flying to the forefront of the American public.

Upon his return to the United States, "Lucky Lindy" (a newspaper reporter's nickname that Lindbergh hated) was celebrated as America's latest hero. He was feted at dozens of cities across the nation, and the Smithsonian Institution was quick to secure his Ryan monoplane, the "Spirit of St. Louis," and place it on permanent, static display where it continues to inspire visitors 90 years later.

In the wake of Lindbergh's success, a strong case of flying fever soon gripped the nation as thousands and thousands of men and women flocked to airports from coast to coast, eager to learn how to fly. In a rush to meet demand, dozens of flying schools began popping up in almost every state, and those schools needed new airplanes to train their brood of fledglings. Wichita, Kansas, known as "The Air Capital of the World," had the airplanes they needed. By 1929 the "City on the Plains" boasted three major airframe builders – Travel Air, Cessna and Stearman Aircraft – as well as dozens of smaller enterprises hungry for their share of success. Earlier that year Olive Ann Mellor, office manager for Travel Air, reported to president Walter Beech that the company had orders on hand amounting to one airplane per day for the remainder of the year.

The only surviving example of a Travel Air Type 10D is part of the Eagles Mere Air Museum in Pennsylvania. It is serial No. 2011, registered NC418N. The engine is a later version of the Wright J6-7 and is rated at 240 horsepower.
(Nigel Hitchman, courtesy Eagles Mere Air Museum)

View of the cockpit shows throttle, mixture and spark advance/retard controls mounted in a central position similar to that of the larger Type 6000B. Original wood control wheels resembled those of an automobile and were completely circular, not 180 degrees as shown here. (Nigel Hitchman, courtesy Eagles Mere Air Museum)

When the company began in 1925 it had built only 19 airplanes during its first year, but in the summer of 1929 three shifts of workers were struggling to build 25 biplanes and monoplanes per week, so great was the demand. For example, in March of that year so much money was available for loans that buying an airplane was as easy as buying a Model A Ford or Chevrolet three-window coupe. Travel Air broke all sales records that month when orders for $300,000-worth of airplanes were on the books. By comparison, one year earlier total sales for all of 1928 were only $100,000. In addition, one share of company stock worth $100 in 1925 was, after the company's absorption by the giant Curtiss-Wright Corporation in August 1929, suddenly worth a whopping $4,000!

Keeping customers happy and delivering their new Travel Air ship on time was a formidable task as production had to increase to keep pace with demand. Walter Beech's man for that job was the indomitable William "Bill" Snook, factory manager. He had been with the company since its founding late in 1924 and had proved to be an excellent choice for a tough job. Assisting Snook were a team of highly-trained inspectors stationed throughout the factory complex. It was their job to ensure that every part and assembly met blueprint specifications and quality control standards.

Walter Beech once told Wichita reporters that the five-building factory campus had to run like clockwork: "There is no stoppage of materials from the time they come into the plant until they emerge as a completed airplane." He added that "We have no stock of raw materials in storage and stock of airplanes on hand. We are not paying interest on non-motion." By mid-1929 the workforce was increased to about 600 men and women from 350 late in 1928.

Although Travel Air offered buyers a stable of nine robust biplanes, it could offer only two monoplanes – the highly successful and popular Type 6000B and the rare Type A6000A. Walter Beech, however, gradually became aware that the company's product line needed a smaller and less expensive cabin monoplane than the Type 6000, of which more than 100 had been built since 1928.[1]

The engineering department had a promising design in mind, and by late 1928 preliminary drafting work

The Eagles Mere Air Museum flies the Travel Air Type 10D about 15-20 hours each year to exercise the Wright R-760 radial engine, but the monoplane spends a majority of its time on static display inside the museum facility.
(Nigel Hitchman, courtesy Eagles Mere Air Museum)

was well underway. Designated the Type 10, a prototype would be built and flown to work out any problems with the airframe and engine before proceeding with full-scale production in mid-1929. The Type 10 bore a close resemblance to its larger sibling, the Type 6000B, but would accommodate only four occupants.

Construction was typical for the era with the fuselage and empennage framework of welded steel tubing. The two wing panels featured box-type, laminated spruce spars that were routed out to reduce weight, then glued together under 20 tons of pressure and allowed to cure for 12 hours. Each wing panel was supported externally by two metal lift struts. The fuselage, wings and empennage were covered in cotton cloth, stitched and spray painted with six coats of clear, cellulose nitrate dope. A base color coat was applied and sanded before two

Rear, oblique view of NC418N shows the non-steerable tailwheel and shock air/oil shock strut, fuel tank caps above the wing roots and conventional Travel Air empennage design.
(Nigel Hitchman, courtesy Eagles Mere Air Museum)

final color coats were sprayed, the last using a 70/30 thinner/color to give the fabric a shiny appearance. Three different color schemes were available: Black fuselage with an orange stripe and orange wing panels; green fuselage with orange wings; blue fuselage with orange wings.

The Type 10's wings used the popular Gottingen 593 airfoil section that provided lots of lift for slow landings at 55 mph but offered a decent cruise speed of 115 mph. Wingspan was a generous 43 feet 6 inches with a total area of 239 square feet. Height was 8 feet 8 inches and overall length was 27 feet 4.5 inches. Maximum gross weight was set at 3,400 pounds with a payload of 510 and a useful load of 1,145 pounds. The gravity-fed fuel system included a 70-gallon tank in each wing root. The fixed, conventional landing gear featured 30 x 5-inch wheels equipped with 32 x 6-inch tires with Bendix mechanically-operated brakes controlled by pedals in the cockpit. A non-steerable tailwheel was standard (tailskids were still the norm for many airplanes of that era, but the increase in paved runways gradually led to installation of tailwheels).

Two engine choices were offered. The most expensive option was the nine-cylinder Wright Whirlwind J6-9 static, air-cooled radial rated at 300 horsepower. It powered the Type 10 to a maximum speed of 140 mph with a rate of climb exceeding 1,100 feet per minute. Service ceiling was 17,000 feet. The other engine option was the seven-cylinder Wright J6-7 radial that produced 225 horsepower, but performance decreased slightly in every category. Because of its ties with parent company Curtiss-Wright, Travel Air also planned to offer the Type 10 powered by a six-cylinder, static, air-cooled radial known as the Curtiss Challenger. Rated at only 185 horsepower, the engine was fitted to a Type 10B for certification but no production airplanes were built with that powerplant because performance suffered unacceptably.[2]

The standard cabin configuration included four (removable) wicker chairs upholstered to match the interior sidewalls and headliner. Four plate glass windows could be rolled up or down using hand cranks on the sidewalls. The cockpit layout was similar to that of the Type 6000B with dual Deperdussin-type control wheels that activated cable controls for the primary control surfaces. The horizontal stabilizer could be moved up or down via a trim device to reduce elevator forces during climb, cruise and landing.

The prototype airplane (Type 10B serial No. 1008, licensed 8844) was powered by a Wright J6-9 engine before it was replaced for tests with the Curtiss Challenger. First flown early in 1929 under the command of company chief pilot, Clarence Clark, tests with the Wright J6-7 were also conducted. The U.S. Department of Commerce, Aeronautics Division, granted the Type 10B Approved Type Certificate No. 278 in December 1929. The Type 10B was eventually replaced on the assembly line by the Type 10D, which featured a redesigned front windshield that afforded the pilot and front seat passenger increased outside visibility.

The new Travel Air was introduced to the market in March 1929. Customer interest was weak, not because of any fault of the Type 10, but chiefly because of fears surrounding the growing financial instability on Wall Street. Priced at more than $12,000 for a standard Type 10B with the Wright J6-9 engine or $11,000 if the J6-7 was installed, the airplane should have become an excellent stablemate to the Type 6000B. Existing Travel Air records, however, indicate that only 11 airplanes were built before production was terminated due to a sagging market for new or used airplanes. By June 1930 the company's finances were in a tailspin. Sales of all Travel Air ships plummeted, as did those of Cessna Aircraft, Stearman Aircraft and many other manufacturers in Wichita as well as across the nation. During 1930 Walter Beech was forced to lay off hundreds of workers, despite major price reductions across the product line, and as the economy sank to new depths of depression, Curtiss-Wright management ordered the factory to be closed and locked.[3]

By 1931 Curtiss-Wright had transferred all production of Travel Air airplanes from Wichita to its facilities in St. Louis, Missouri. In addition to airplanes the relocation included Walter Beech, who served as a company president and sales manager.

As of 2018 only one example of the four-place Travel Air exists – a Type 10D on static display at the Eagles Mere Air Museum located at Merritt Field near Eagles Mere, Pennsylvania. According to the airplane's current owner, George Jenkins, the Travel Air was originally registered as NC418 (currently NC418N). The original buyer opted for the Wright J6-7 radial engine that was rated at 225 horsepower.

After a search of Travel Air production records kept by factory manager William Snook, the last Type 10D recorded in his notes (serial No. 10-2008) was built in March 1930, and NC418 (serial No. 10-2011) probably was built in April or May and sold sometime later that year. It was originally based in Illinois until 1945 when it was sold to a buyer in Boise, Idaho. The monoplane was flown in Idaho until 1955 when it was removed from service. The owner intended to perform a total rebuild and restoration of the rare Travel Air, but the ship languished until 1963 when it was sold to its next owner in Southern California, where it was stored in a hangar. In 2004 the ship was acquired by the Eagles Mere Air Museum and transported to North Florida. During the next three years it was rebuilt, inspected and declared airworthy. First flight since restoration occurred July 25, 2006.

For more information about the Eagles Mere Air Museum, which houses a collection of more than 20 vintage and classic airplanes, engines and related artifacts representing aviation from 1908-1935, go to *www.eaglesmereairmuseum.org*. KA

NOTES:

1. Industrywide, by 1929 an increasing number of orders for cabin ships were being received by Travel Air, Cessna Aircraft, Boeing, Curtiss-Wright and other manufacturers. One important reason was that an increasing number of businessmen were ready to trade open cockpits, fur-lined flying suits, leather helmets and goggles for the shirt-sleeve comfort of an enclosed cabin.
2. The Cessna Aircraft Company, which also had ties with Curtiss-Wright, initially offered its Model DC-6 cabin monoplane with the Curtiss Challenger engine, but it was quickly discarded in favor of the Wright J6-7 radial of 225 horsepower.
3. The factory remained empty except for storage of leftover airframes. In 1932 Clyde Cessna and his son Eldon leased one building to construct the CR-1, CR-2, CR-2A and the CR-3 racing monoplanes. Finally, in 1934 Walter and Olive Ann Beech acquired the former Travel Air campus and transformed it into the home of the Beech Aircraft Company.

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.

CenTex Offers King Air 200 HST Package

CenTex Aerospace is offering a King Air 200 HST package that combines the Halo 275 and ST120 saddle tank conversion kits. The package is priced at $260,000 (not including installation) which the company says provides a savings of $25,500.

The HST package supports the King Air 200 with high-flotation landing gear with an MTOW of 14,000 pounds and a maximum landing weight of 13,500 pounds. CenTex says with the package installed, the airplane can fly up to 2,200 nm or an endurance of nine hours. The ST120 saddle tanks can hold 120 gallons of fuel while providing more than nine cubic feet of storage in the wing. Also, for King Air 200s with serial numbers BB-1444 or later, the maximum zero fuel weight is increased to 11,500 pounds with the addition of the HST package.

CenTex also offers ST190 saddle tanks which adds 1,273 pounds (190 gallons) of usable fuel, increasing loiter time by three hours or range by 700 nm. The company says its saddle tank systems do not rely on valves or pumps and work seamlessly with the existing fuel system to integrate the additional fuel.

Advent Aircraft Systems Granted STC for Reduced Take-Off Field Length for King Air B300/B300C

Advent Aircraft Systems has received FAA approval of a revision to the Aircraft Flight Manual (AFM) for King Air B300/B300C aircraft equipped with the Advent eABS™.

The revision offers up to seven percent reduction in Take-Off Field Length (TOFL) at higher, hotter and/or heavier conditions due to improvements in accelerate-stop performance. This reduction can equate to use of shorter runways for departure or departing with additional fuel or payload from currently used runways. The STC also offers a modest reduction in landing distance (up to four percent) again at higher, hotter and /or heavier conditions.

The AFM Supplement will be an option for new or current operators of B300/B300Cs equipped with eABS. It may be ordered from Textron Aviation service centers, Advent-authorized dealers or Advent Aircraft Systems. The price for the supplement is $2,500; order Advent Aircraft Systems document T103106A.

Advent recently added to its worldwide dealer network with Sundt Air AS of Gardemon, Norway, Turbo Air, Inc. of Boise, Idaho, and Yingling Aviation, Inc. of Wichita, Kansas. The company currently has 37 service centers spanning North America, Europe and Australia.

Aircraft Belts Inc. Now Offers King Air 350/350i Replacement Restraints

Aircraft Belts, Inc. (ABI) is now offering complete OEM substitute four-point crew and three-point passenger restraints for the King Air 350 and 350i series aircraft. The ABI restraints are TSO-approved and considered functionally similar substitute equipment sufficient to replace the original equipment as a minor alteration.

ABI offers:

- Custom Design – length, color*, fittings and hardware to fit specific aircraft needs.
- Safety – each restraint is certified to FAA TSO C22(g) and C114, following FAA procedures and standards.
- Quality – every restraint is manufactured to stringent FAA TSO requirements in an AS9100D certified facility. Every belt is hand inspected during the manufacturing process and hardware is manufactured from durable 17-4-PH Stainless Steel.
- FAA certified Part 145 Repair Station YB1R632K is approved for the re-webbing repair of any ABI belt.
- Airbag systems through Aviation Occupant Safety (AOS) for forward facing three-point airbag harnesses and side-facing divans to meet new FAA/EASA regulations.

* King Air 350/350i restraints are available in black, tan and gray.

Call (919) 956-4395, *email info@airbelts.com* or visit *www.aircraftbelts.com* for a quote or to place an order.

Rockwell Collins Offers FlightAware's Aireon℠ Space-based ADS-B Flight Tracking

Rockwell Collins is now offering Aireon℠ space-based Automatic Dependent Surveillance – Broadcast (ADS-B) flight tracking to its business aviation customers,

a first for the company. The flight tracking solution is the result of integrating Rockwell Collins' ARINCDirect℠ solution and FlightAware's terrestrial ADS-B network.

The Aireon network is hosted on the Iridium NEXT constellation of satellites, which consists of 66 low-earth-orbit satellites that each carry an Aireon ADS-B receiver. The constellation provides truly global coverage with once-per-minute position updates as the standard rate of reporting anywhere in the world. Since ADS-B out will be required in many countries throughout the world by 2020, aircraft operators typically do not need to install additional equipment to take advantage of Aireon coverage.

FlyRight Announces Partnership with Blackhawk Modifications, and New Crew Training

FlyRight, an FAA-approved Part-142 pilot Training Center has partnered with Blackhawk Modifications to provide simulator-based training services for owners and operators of aircraft equipped with industry-leading Blackhawk Engine+ Upgrades. FlyRight currently provides initial and recurrent pilot training for the Beechcraft King Air 90 through 350 series.

FlyRight has incorporated Blackhawk's performance advantages into their simulator training program, so owners and operators of aircraft equipped with Blackhawk upgrades can now have customized training that incorporates performance and operational differences specific to their aircraft. Blackhawk will be offering vouchers for discounted recurrent training with each Engine+ Upgrade. Training will be conducted using full motion Level-C and D simulators.

FlyRight has also recently received FAA approval for its King Air 200 Crew Training Programs. The Initial Crew course is six days of training and the Recurrent Crew course is three days. Pilots attending the course will focus on best CRM practices while also obtaining endorsements for Flight Review, Landing Recency and Instrument Proficiency.

The Crew Training Programs for additional models of the King Air series will be available later this year.

FlyRight (*www.FlyRightInc.com*) is based in Charlotte, North Carolina, at the Concord Regional Airport, just minutes from Charlotte-Douglas International Airport.

PWI LED Lighting Now Available Through AvFab

Aviation Fabricators (AvFab) has officially become an Authorized PWI Products Distributor for the entire line of LED lighting products. PWI is excited to join forces with AvFab, an FAA/CRS and FAA/PMA authorized company.

AvFab offers customers a variety of products ranging from Special Missions upgrades and aftermarket seating upgrades to their famous pleated window shades. They have over 150 unique Supplemental Type Certificate (STC) products and Foreign Approvals to provide customers with a wide variety of upgrade options for the King Air.

AvFab has access to all of PWI's products so they can order anything a customer may want. They can be reached by phone at (600) 885-8317 or by email at *sales@avfab.com*.

Garmin® Begins Integration between FltPlan.com and Garmin Pilot

Garmin International, Inc. announced the initial phase of integration between the Garmin Pilot™ app and the FltPlan.com web portal. As a result of Garmin's acquisition of FltPlan.com in August, both companies have made rapid progress in merging portfolios. Beginning in mid-October, pilots can use *FltPlan.com* for pre-flight planning and filing, and automatically view the same flight plan within the Garmin Pilot app on Apple® mobile devices. This is the first of a series of cohesive enhancements between the FltPlan.com website and the Garmin product line.

The company says that FltPlan.com and Garmin Pilot customers can now experience a seamless transition between the FltPlan.com website and the Garmin Pilot application within the United States, Canada, Mexico, the Caribbean, Central America, Venezuela and Colombia. The initial phase of this integration allows customers to create a flight plan on the FltPlan.com website and automatically view the same flight plan information within the Trip Planning section of the Garmin Pilot app.

Within the app, customers can also view recent and future trips that have been created on the website. Once the flight plan populates in the app, pilots can transfer it wirelessly to compatible Garmin avionics or a Garmin integrated flight deck. Additionally, the popular navigation log found on the *FltPlan.com* website can also be viewed within Garmin Pilot under the NavLog tab in Trip Planning.

Pilots can create a free FltPlan.com account to take advantage of web-based flight planning and flight management services, which includes access to weather, airport information, fuel prices, printable navigation logs, aircraft performance data and more. To learn more and to create a free FltPlan.com account, visit *www.fltplan.com*.

For new customers, Garmin Pilot is available from the Apple App Store as a free download for the first 30 days. After the 30-day trial period, customers may purchase an annual subscription of Garmin Pilot starting at $74.99. Visit *www.garmin.com/aviation* for additional information. KA

King Air Technically...

RECENT SERVICE BULLETINS, ADVISORY DIRECTIVES AND SAFETY COMMUNICATIONS

From Beechcraft Service Bulletin # MTB-52-01 Revision

Date: October 8, 2018

Date of Original: April 12, 2018

Revision Purpose: To expand Effectivity.

Revision Compliance: NO EFFECT. Airplanes previously modified by this service bulletin are not affected by this revision.

Doors – Inside Airstair Door Handle Snap Ring Modification

Effectivity:

King Air 90 (applicable variants within defined LJ serial range), LJ-1 thru LJ-2150;
King Air E90, LW-1 thru LW-347;
King Air F90, LA-2 thru LA-236;
King Air 100 and A100, B-1 thru B-94, B-100 thru B-204, B-206 thru B-247; B100, BE-1 thru BE-137;
King Air B200GT, BY-1 thru BY-323;
King Air B200CGT, BZ-1;
King Air B300C, FM-1 thru FM-76;
King Air B300, FL-1 thru FL-1145;
King Air 300, FA-1 thru FA-230, FF-1 thru FF-19;
King Air 200/B200, BB-2, BB-6 thru BB-185, BB-187 thru BB-202, BB-204 thru BB-269, BB-271 thru BB-407, BB-409 thru BB-468, BB-470 thru BB-488, BB-490 thru BB-509, BB-511 thru BB-529, BB-531 thru BB-550, BB-552 thru BB-562, BB-564 thru BB-572, BB-574 thru BB-590, BB-592 thru BB-608, BB-610 thru BB-626, BB-628 thru BB-646, BB-648 thru BB-664, BB-666 thru BB-694, BB-696 thru BB-797, BB-799 thru BB-822, BB-824 thru BB-870, BB-872 thru BB-894, BB-896 thru BB-990, BB-992 thru BB-1051, BB-1053 thru BB-1092, BB-1094, BB-1095, BB-1099 thru BB-1104, BB-1106 thru BB-1116, BB-1118 thru BB-1184, BB-1186 thru BB-1263, BB-1265 thru BB-1288, BB-1290 thru BB-1300, BB-1302 thru BB-1384, BB-1389 thru BB-1425, BB-1427 thru BB-1447, BB-1449, BB-1450, BB-1452, BB-1453, BB-1455, BB-1456, BB-1458 thru BB-1683, BB-1685 thru BB-1716, BB-1718 thru BB-1720, BB-1722, BB-1723, BB-1725, BB-1726, BB-1728 thru BB-2021;
King Air 200C/B200C, BL-1 thru BL-23, BL-25 thru BL-57, BL-61 thru BL-72, BL-124 thru BL-170;
King Air 200CT/B200CT, BN-1 thru BN-4;
King Air 200T/B200T, BT-1 thru BT-38;
A100 (U-21F), B-95 thru B-99;

A100-1 (U-21J), BB-3 thru BB-5;
A200 (C-12A/C-12C), BC-1 thru BC-75, BD-1 thru BD-30;
A200C (UC-12B), BJ-1 thru BJ-66;
A200CT (C-12D, FWC-12D, C-12F), BP-1, BP-7 thru BP-11, BP-19, BP-22, BP-24 thru BP-71;
A200CT (RC-12D, RC12H), GR-1 thru CR-12, GR14 thru GR-19;
A200CT (RC-12G), FC-1 thru FC-3;
A200CT (RC-12K, RC-12P, RC-12Q), FE-1 thru FE-9, FE-25 thru FE-36;
B200C (C-12F), BP-64 thru BP-71; BL-73 thru BL-112, BL-118 thru BL-123;
B200C (UC-12F), BU-1 thru BU-12;
B200C (UC-12M), BV-1 thru BV-12;
B200C (C-12R), BW-1 thru BW-29

Reason: This service document is being issued to modify the inside airstair door handle installation.

Compliance – Recommended: This service document should be accomplished at a scheduled maintenance period or inspection.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

The mechanic must complete all the instructions in the service document, including the intent therein.

1. The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
2. The mechanic or airplane owner must use the technical data in the service document only as approved and published.
3. The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
4. The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

From Service Letter MTL-57-01 Revision

Date: September 19, 2018

Date of Original: July 19, 2018

Revision Purpose: Clarifies that Kit 90-4077 only applies to 65-90, 65-A90, 65-A90-1, 65-A90-2, 65-A90-3, 65-A90-4, B90, C90, E90 Airplanes. Updates Figure 1.

Revision Compliance: NO EFFECT. Airplanes previously modified by this service bulletin are not affected by this revision.

Wings – Lower Forward Wing Bolt Crush Washer Inspection/Replacement

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

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

The mechanic must complete all of the instructions in the service document, including the intent therein.

1. The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
2. The mechanic or airplane owner must use the technical data in the service document only as approved and published.
3. The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
4. The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

Effectivity:

F90, LA-1 thru LA-225 with Kit 101-4024-3 installed;

H90 (T44A), LL-1 thru LL-61 with Kit 101-4024-3 installed;

C99, U-50, U-165 and on, with Kit 101-4024-3 installed;

65-90, 65-A90, 65-A90-1, 65-A90-2, 65-A90-3, 65-A90-4, B90, C90, E90, All serials with Kit 90-4077 and Kit 101-4024-3 installed;

99, 99A, 99A (FACH), A99, A99A, B99, All serials with Kit 101-4024-3 installed;

100, A100 (U-21F), A100A, A100C, B100, All serials with Kit 101-4024-3 installed

Reason: Alternate 90-380058-1 Washer Assembly has been determined to provide premature torque indication. This could lead to cracking of the wing fitting. This washer assembly may have been installed during incorporation of Kit 101-4024-3.

The above information may be abbreviated for space purposes. For the entire document, go to www.txtavsupport.com. KA

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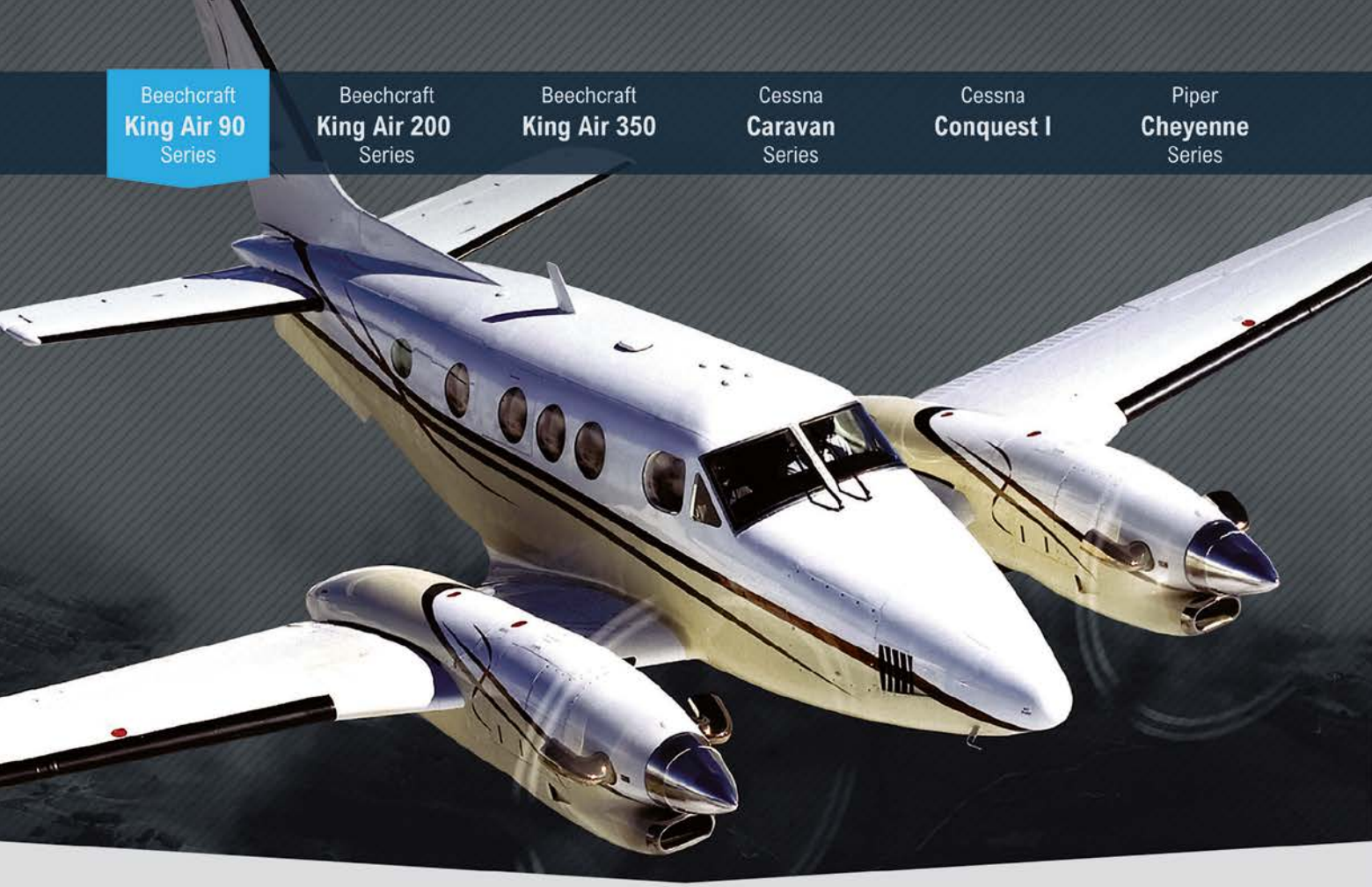

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