

King Air

A MAGAZINE FOR THE OWNER/PILOT OF KING AIR AIRCRAFT

NOVEMBER 2021 • VOLUME 15, NUMBER 11 • \$6.50



Equip, Train, Protect

Tactical medical solutions business employs C90GT



FLYING A KING AIR WITH HIGH FLOTATION GEAR? ELIMINATE THE PERFORMANCE PENALTY

Restore your King Air's standard-gear climb and cruise performance that's lost due to high flotation landing gear with Raisbeck's **HIGH FLOTATION GEAR DOORS**. Aerodynamically designed, Raisbeck's High Flotation Gear Doors increase cruise speeds by 4 to 10 knots, extend range and loiter time, while protecting your wheels, tires and brakes from the elements. It's an investment that makes a great airplane even better!

Contact us for more information.

(800) 537-7277 | sales@raisbeck.com | www.raisbeck.com

 **RAISBECK**
ENGINEERING
AN ACORN GROWTH COMPANY



Contents

EDITOR

Kim Blonigen

EDITORIAL OFFICE

2779 Aero Park Dr.,
Traverse City MI 49686
Phone: (316) 652-9495
E-mail: editor@blonigen.net

PUBLISHERS

Dave Moore
Village Publications

GRAPHIC DESIGN

Rachel Wood

PRODUCTION MANAGER

Mike Revard

PUBLICATIONS DIRECTOR

Jason Smith

ADVERTISING DIRECTOR

Jenna Reid
King Air Magazine
2779 Aero Park Drive
Traverse City, MI 49686
Phone: 1-800-773-7798
Fax: (231) 946-9588
E-mail: jenna.reid@vpdcs.com

ADVERTISING ADMINISTRATIVE COORDINATOR AND REPRINT SALES

Betsy Beaudoin
Phone: 1-800-773-7798
E-mail: betsybeaudoin@villagepress.com

SUBSCRIBER SERVICES

Rhonda Kelly, Mgr.
Kelly Adamson
Jessica Meek
Jamie Wilson
P.O. Box 1810
Traverse City, MI 49685
1-800-447-7367

ONLINE ADDRESS

www.kingairmagazine.com

SUBSCRIPTIONS

King Air is distributed at no charge to all registered owners of King Air aircraft. The mailing list is updated bi-monthly. All others may subscribe by writing to: King Air, P.O. Box 1810, Traverse City, MI 49685, or by calling 1-800-447-7367. Rates for one year, 12 issues: United States \$15.00, Canada \$24.00 (U.S. funds), all other foreign \$52.00 (U.S. funds). Single copies: United States \$6.50, Canada/Foreign \$9.00.

COVER PHOTO

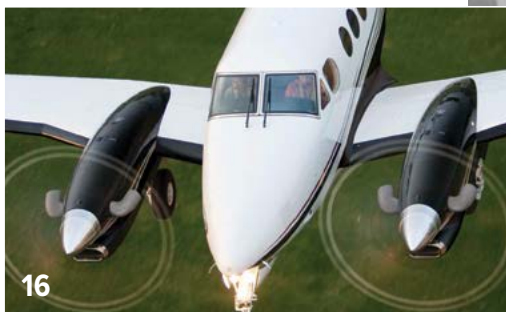
Courtesy of TacMed Solutions

2

Cover Story –
A Better Way
by Melinda Schnyder

14

Aviation Issues –
Streamlined Process for
Part 91 Ops LOA
by Kim Blonigen



16

Ask The Expert –
Losing an Engine
on Takeoff
by Tom Clements

24

In History –
“Popper” Beech Takes Control
(Part One)
by Edward H. Phillips



30

Value Added

32

Advertiser Index

King Air is wholly owned by Village Press, Inc. and is in no way associated with or a product of Textron Aviation.

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. All rights reserved. Copyright 2021, Village Publications.

ADVERTISING: Advertising in King Air does not necessarily imply endorsement. Queries, questions, and requests for media kits should be directed to the Advertising Director, King Air, P.O. Box 1810, Traverse City, Michigan 49685. Telephone 1-800-773-7798.

MANUSCRIPTS: King Air assumes no responsibility for unsolicited manuscripts, photographs, or art work. While unsolicited submissions are welcome, it is best to query first and ask for our Writer's Guidelines. All unassigned submissions must be accompanied by return postage. Address queries and requests for Writer's Guidelines to the editor.



Former Special Forces medic Ross Johnson, here with his 2006 King Air C90GT, says the King Air shares some common traits with special operations soldiers – adaptability, reliability and the ability to operate in harsh and challenging environments.



A Better Way

From reinventing life-saving equipment to using bizav to build a business, this former Special Forces medic fulfills his mission.

by MeLinda Schnyder

When you think about what a Green Beret does in his free time, you likely don't envision him sewing in his garage. But that's exactly where you'd find Ross Johnson in the evenings when he was on active duty as a member of the U.S. Army Special Forces.

While serving three tours in Afghanistan, Johnson found that many of the Army issued medical devices used most often in the field hadn't been updated in decades. He was determined to improve these tools, making fellow soldiers' jobs safer and easier while improving their chances of saving lives.

The tourniquet he designed – and made by hand in his garage after teaching himself to sew – became so popular that the Army let him end his service early after 12 years of active duty so he could keep up with demand and apply his expertise and innovation to other medical devices.

Johnson says the confidence that comes with the King Air's twin engines, ability to get in and out of smaller airports and easy-to-access parts and service won out over the Pilatus and TBM models he also considered.



He formed Tactical Medical Solutions in 2003 and left the military in 2006. The business has grown from a one-man operation with orders fulfilled through all-night sewing sessions to an international business with more than 100 employees, sites in four states and distribution in 70 countries of a line of products used at the point of injury.

Johnson turned to business aviation in 2008 to shorten the drive to a hard-to-reach first factory and in 2018 took delivery of his dream airplane – a 2006 Beechcraft King Air C90GT that he uses to continue growing his businesses and investments, for recreational trips and for philanthropic missions.

“The King Air isn’t the fastest, it doesn’t fly the highest but it’s a workhorse and being able to get in and out of pretty much anywhere, I think it gives you more choices than just about anything else out there,” Johnson said.

Green Beret by day, seamster by night

Johnson said he was always interested in aviation though he had no pilot influences growing up. He considered becoming an Army aviator when he enlisted at age 17, but instead went the special forces route.

He advanced from airborne infantryman to a scout platoon and then sniper school. His “job interview” to join the U.S. Army Special Forces involved three weeks of 24-hour-a-day training. He was selected to be a medical specialist and received two years of training to administer emergency medical care in combat and

humanitarian situations. He completed three tours in Afghanistan as a Green Beret and then volunteered for 1st Special Forces Operational Detachment – Delta, otherwise known as the secretive, elite Delta Force.

It was during his first tour where he saw the need for innovation in the field.

“We had a pretty decent amount of casualties, not a lot of U.S. but mostly civilians or Afghan, and I realized pretty quickly that the items we were issued hadn’t been improved since Vietnam,” Johnson said. “The tourniquet was the same type they issued on D-Day. Bleeding to death was the No. 1 cause of death on the battlefield and we were wasting a lot of time improvising to save a life. I knew there had to be a better way.

“I was in a fire base on the Pakistani border and one night I was up late on radio watch. I drew up the design for a tourniquet, and when I came home, I started making it in my garage, figuring out how to get it to actually function correctly.”

The standard issue tourniquet, he said, was basically a belt. Most Army medics weren’t using it because it took too much improvising to get it to work. He created a durable, reliable and easy-to-use tourniquet that is effective at controlling severe bleeding. It allows you to put it on yourself with one hand, if necessary, and is easier for first responders to tighten, increase pressure and use on different sized limbs. He first gave them to buddies who were deploying, then started getting requests from many others via word-of-mouth. Developing

Experience the Benefits of WINGLETS

For the King Air 90, 200 & 300

Certification for King Air E90 and early C90 fleets coming at years end

Price Incentives End December 2021



Improved Certified Runway Performance

Improved High Altitude Performance

Improved Dispatch Reliability

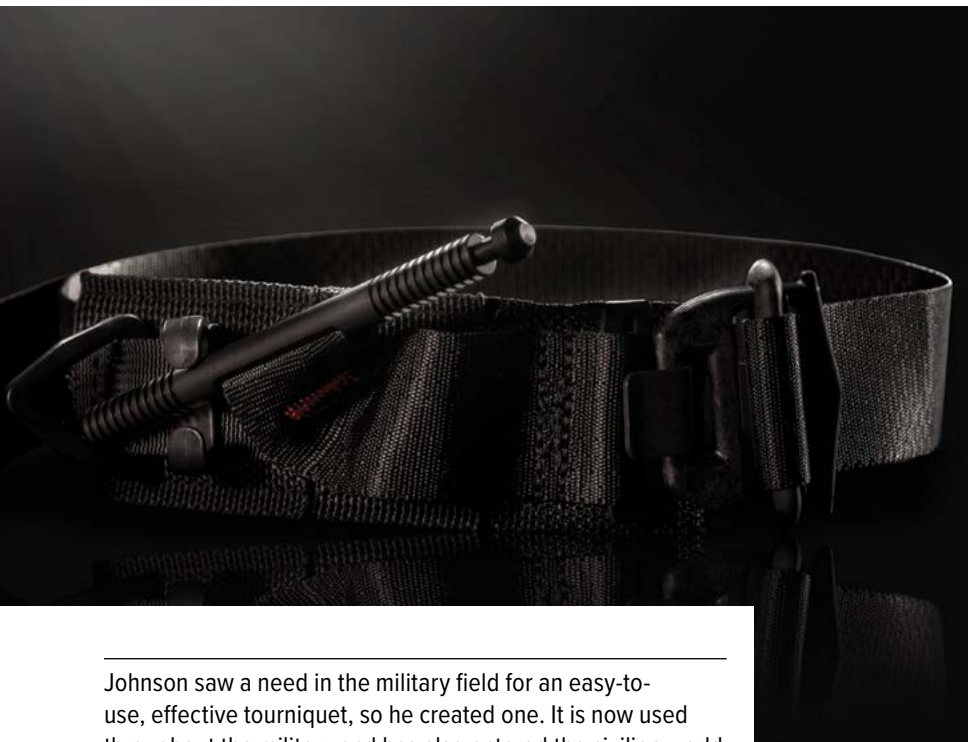
Reduced Time to Climb

Improved OEI Climb

Increased Hull Value

Reduced Fuel Cost

Extended Range



Johnson saw a need in the military field for an easy-to-use, effective tourniquet, so he created one. It is now used throughout the military and has also entered the civilian world with several of the country's top police departments and the American Red Cross using it.

a working tourniquet was a passion project so Johnson's goal wasn't to make money. But as the requests grew, he needed to cover his costs and soon he was able to supplement his income and help provide for his family that included two children by then.

While orders for his tourniquet had steadily increased, he was still making them by hand at home, often sewing all night after a full day at work. While living in a tent in the desert of the Helmand Province during his second Afghanistan tour, he received an order from the Army for 56,000 tourniquets.

"That was a huge order and it wasn't going to happen with me making each one of them," he said. "But I had started the process of setting up a partnership with a manufacturer and was able to put things in motion with just a couple of phone calls to the home office."

The \$1.2 million order came in 2004 and was a turning point for Johnson. He estimates that he personally made the first several thousand of what is now marketed as the S.O.F. Tourniquet (SOF stands for Special Operations Forces). He went from a staff sergeant whose pay qualified him for government assistance to a business owner, setting up Tactical Medical Solutions and working with a manufacturing facility in far western North Carolina.

For three years he tried to do both but by 2006 he realized he needed to focus on the business, so he became a full-time entrepreneur with the Army's blessing. He moved his young family from Fort Bragg, North Carolina, to Anderson, South Carolina, a small town about halfway between Atlanta, Georgia, and Charlotte, North Carolina. Because the factory he worked with was in the mountains, it would take him about three hours to drive there to work on new product design, which he did about once a week.

"I'd always wanted to learn how to fly and it made sense to do it then," Johnson said. "So I went and bought a plane because I figured that would force me to finish the process. I bought a Piper Archer, which took that three-hour drive down to a 30-minute flight. I could be at the factory to work in the morning and then be home at lunchtime."

The business continued to grow in several ways: Johnson and his team that includes fellow former Green Beret, business partner and best friend Alan Hester developed additional products for point of injury uses based on their experiences in the field (a trauma bandage and a surgical airway kit, for example). The small group of investors that owns what is now called TacMed Solutions

E X H A U S T G A S E X T R A C T O R S

HARMONICALLY
BALANCED

...

**VENTURI-
SHAPE
DESIGN**

...

AERODYNAMICALLY
EFFICIENT

10% reduced fuel burn
during cruise flight

Up to 11 knot
increase 1900 RPM

20+ various King Air
STC availability

Our Exhaust Gas Extractors (EGEs) are designed to increase fuel efficiency, improve cruise and climb performance, reduce nacelle sooting, and keep exhaust stack maintenance to a minimum on your King Air 90, 200, or B300 series.

Meta
SPECIAL AIRSPACE

CONTACT US AT

info@msa.meta.aero | meta.aero/msa



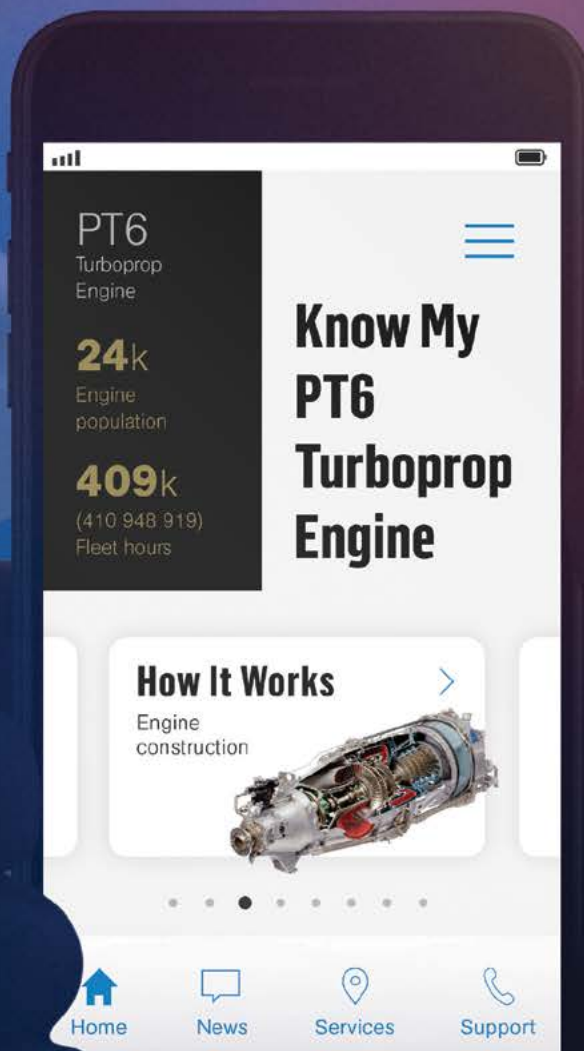
GO BEYOND

KNOW MY PT6 APP

THE INFORMATION YOU NEED
TO KEEP YOU AHEAD

Pratt & Whitney's Know My PT6 app can help you optimize the performance and availability of your turboprop engine with valuable maintenance and power management recommendations. Access key PT6A engine booklet content and excerpts of new Service Information Letters, contact our Customer First Centre directly, find authorized service centers, parts distributors, and more.

DOWNLOAD THE APP TODAY





also bought other businesses in the medical survivability industry, including a company that makes body armor and another that builds high-fidelity manikins that simulate human bodies during trauma situations.

“Everything we do is in the area of equipping, training or protecting,” Johnson said. “Our goal is to improve survivability and minimize preventable death.”

Another way TacMed has grown is through more widespread use.


“We were solely a defense medical contractor for a number of years but it’s really pushed off the battlefield and into the civilian world,” he said. “Seven of the top 10 police departments in the country use our tourniquets; every police officer in the state of New York is issued our tourniquet and they probably save one person a week using our product. We are the primary tourniquet for the American Red Cross; they use our product to train bleeding control.”

Aside from TacMed Solutions, Johnson also invests in other companies and has real estate holdings. His family has expanded to three children – two college age daughters and a toddler son – with a second son due in January.

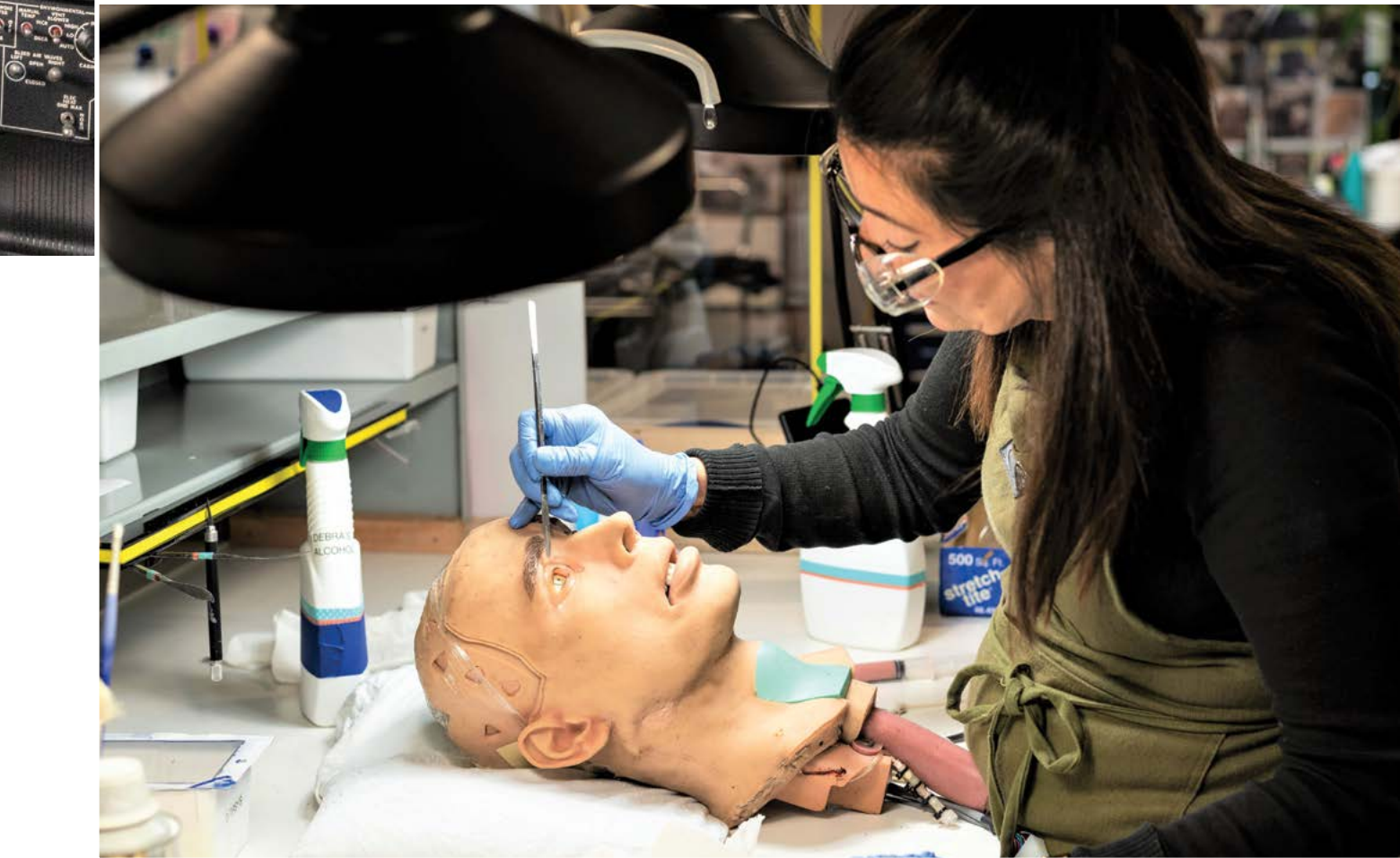
Using business aviation

While making frequent trips to the initial factory was the impetus for Johnson’s entry into business aviation, use of the company aircraft has mirrored the growth of TacMed.

The company, still headquartered in Anderson, South Carolina, now has three other primary operations facilities in Georgia, Texas and California. In addition to transporting employees between locations in the eastern half of the U.S., the company aircraft takes TacMed staff to industry events and meetings with suppliers, distributors and customers; brings critical suppliers on-site when needed; and is used when evaluating potential



Johnson does most of the flying for TacMed which has four primary operations facilities in South Carolina, Georgia, Texas and California. Whether it's transporting employees between locations or for various meetings, bringing critical suppliers on-site when needed or flying products to deploying military when shipping can't make the deadline, he expects to use his C90GT for years to come.



TacMed Solutions owns other medical survivability-related businesses, including one that builds high-fidelity manikins that simulate human bodies during trauma situations for training purposes. Here, an employee details a manikin face.

When possible, Johnson also uses his King Air for charitable flights. Last December he helped transport 30 sea turtles, which had been cold-stunned, from the New England coast to Florida for rehabilitation and is seen here (right) accepting the boxes onboard his aircraft. (Credit: Lauren Owens Lambert)



business acquisitions. Johnson has even been known to fly products to deploying military when shipping can't make the deadline.

"Having the airplane was especially helpful during COVID; we were growing the business at a terrible time in terms of traveling and meeting face-to-face," Johnson said. "But having the airplane and being able to avoid the exposure to others that comes with flying commercially was a huge help, whether it was moving employees between sites, flying in CEO candidates or meeting with critical suppliers."

In 2021, TacMed brought on a CEO to handle day-to-day operations. Johnson's title is founder and co-chairman of the company, and he handles most of the flying. There are several other employees who happen to be instrument-rated pilots and can help out when needed.

Johnson flies the King Air about 200 hours a year, predominantly for TacMed and his own real estate holdings. He also uses the aircraft for occasional family trips and tries to fit in charitable flights when possible.

After reading about the nonprofit Turtles Fly Too in *King Air* magazine last December, Johnson and one of his daughters volunteered to fly 30 Kemp's Ridley and loggerhead sea turtles on Dec. 22. The turtles were rescued after being cold-stunned along the New England coast and needed to be delivered to two Florida rehabilitation facilities (Clearwater Marine Aquarium and SeaWorld), where they could continue to recover and eventually be released into the ocean.

Johnson removed all the seats in the C90GT to make room for the special cargo – which travel in banana boxes – and the mission required 11.5 hours of flying in one day. He's hoping to do more turtle missions this winter, and he's also registered to fly in the June 2022 Special Olympics Airlift (see sidebar on page 12) coordinated by Textron Aviation.

He's having a blast flying the King Air after moving up from a series of Piper aircraft.

"I started with a 1976 Piper Archer and kept stepping up from there," said Johnson, who has amassed 1,500 hours since getting his pilot license in 2008. ➤



Autothrottle with LifeGuard™ Protection

Reduced King Air Pilot Workload with the Ultimate Engine and Airframe Protection

Full Regime Autothrottle with Revolutionary LifeGuard™ providing:

- VMCa protection down to stall warning utilizing maximum safe power on operating engine
- Over-Torque protection
- Over-Temperature protection
- Under & Over air speed protection
- Reduced cabin noise due to smooth changes in engine power and strict adherence to speed targets
- Short installation downtime
- Standard on King Air 260 and 360 and available for retrofit on 200/300 through authorized service centers



Innovative
Solutions & Support
innovative-ss.com

Contact Tom Grunbeck,
Director of Autothrottle Programs
+1 484.502.6658 or
tgrunbeck@innovative-ss.com

Watch the VMCa
protection video



King Air operators invited to fly in 2022 Special Olympics Airlift

Textron Aviation hopes to recruit 228 owners by Feb. 28, 2022, for the Special Olympics Airlift, which would make it one of the largest peacetime airlifts in the world. As we went to print, the company still needs about 120 aircraft to meet that goal.

WHO: Owners of Beechcraft King Air, Premier and Beechjet models; Hawker aircraft; and Cessna Citation business jets

WHAT: Donate the use of your aircraft, pilots and fuel to help transport a portion of the over 4,000 athletes and coaches invited to the 2022 Special Olympics USA Games in Orlando.

WHERE: From airports around the U.S., Caribbean and Puerto Rico to Orlando Executive Airport and back.

WHEN: Arrival day for the USA Games is Saturday, June 4, 2022, and departure day to return passengers to their home bases is Sunday, June 12, 2022. Organizers prefer operators register to fly both days but will work with those who can only fly one leg.

WHY: With your help, children and adults with intellectual disabilities from across the country will compete on the biggest stage and continue to develop their competitive and life skills. Travel is the largest expense for Special Olympics programs, and the Special Olympics Airlift has provided free transportation for nearly 10,000 athletes and coaches dating back to 1987.

All airlift participants will receive a Certificate of Donation to use as your charitable gift documentation when working with your tax advisor.


HOW: Register at txtav.com/airlift as early as possible and no later than Feb. 28.

"I moved up to a Piper 6X and then the Piper Seneca. I had always wanted a King Air, though, and specifically a 90 model. The performance of the plane with the GT model engines and the gross weight increase is unbelievable, especially considering I'm coming from the Seneca. I never have to worry about leaving someone behind because I need more fuel. It's a truly functional business and recreational plane."

Johnson said he likes the look of the 90, plus it suits the missions he regularly flies. He considered Pilatus and TBM models but the confidence that comes with the King Air's twin engines, ability to get in and out of smaller airports and easy-to-access parts and service won out.

The 2006 King Air C90GT he purchased already had a gross weight increase. Raisbeck swept blade propellers were added before he took delivery, and he has also upgraded to Garmin G1000 avionics, which shed several hundred pounds.

He's planning to add wing lockers in January 2022 and, to make his Clemson graduate wife happy, a new paint scheme to cover up the maroon and black that reminds her of SEC-rival University of South Carolina. He expects the C90GT to fit his needs and the company's needs for years to come.

"When I think of common traits amongst special operations soldiers, adaptability, reliability and the ability to operate in harsh and challenging environments all come to mind," Johnson said. "I think the King Air shares these traits. Maybe that's why I picked it to fill our mission and be a part of the TacMed family." 

**All photos provided by TacMed Solutions unless otherwise stated.*



Creative Answers To Unique Requirements

- Camera & Scanner Provisions
- Radomes, Hard Points & Special Mission Mods
- Cargo Doors & Freighter Conversions
- ISR
- Raisbeck Engineering Dealer



Newton City-County Airport
714 North Oliver, Hangar-M
P.O. Box 748
Newton, Kansas 67114
USA

(877) 88-AVCON (Toll Free)
(316) 284-2842 Phone
(316) 284-2844 Fax
sales@avconindustries.com
www.avconindustries.com
FAA CRS #B92R922N



OUR G1000 NXI NUMBERS PROVE WHY WE'RE #1



380+ G1000/G1000 NXI INSTALLS
MORE THAN ALL DEALERS IN THE WORLD **COMBINED**
130+ LEGACY G1000 TO G1000 NXI UPGRADES



**3-WEEK GUARANTEED
DOWNTIME ON STANDALONE
INSTALLATIONS**



**13 YEARS OF
INSTALLATIONS**

50+

SKILLED AVIONICS
TECHNICIANS

WITH OVER 500 YEARS OF COMBINED EXPERIENCE



2

INSTALLATION
LOCATIONS

MOST IMPORTANTLY

WE'RE **#1** BECAUSE OUR
CUSTOMERS ARE OUR **#1**

PRIORITY



TRUST YOUR G1000 NXI TO THE INDUSTRY LEADERS!
ELLIOTTAVIATION.COM 800.447.6711



Streamlined Process for Part 91 Ops LOA

The National Business Aviation Association (NBAA) recently published that Part 91 operators obtaining Letters of Authorization (LOAs) from the Federal Aviation Association (FAA) will have an easier process of doing so, as soon as early 2022.

The application process has been inconsistent among FAA offices resulting in “inefficient use of time and resources for both the industry and the FAA.” In response, industry representatives, including several NBAA members, have been working with an FAA working group to find a solution for both operators and the FAA.

The following is more information provided by the NBAA’s *Business Aviation Insider*:

For several years, Part 91 operators have reported that the process for issuing LOAs has varied from one FAA office to another, or even one inspector to another. Also, the process often resulted in a vendor’s aircraft manual or training course being reviewed hundreds of times by different FAA offices after having already been accepted through the agency’s oversight and certification of training centers and manufacturers.

These inconsistent and duplicative processes often led to significant delays, particularly for newly delivered aircraft, making them unable to operate as designed for weeks or months while awaiting the completion of the LOA issuance process following delivery. Essentially, a piece of paper – or lack thereof – was keeping aircraft from operating as efficiently as possible.

Aircraft manufacturers have had a front row view of the frustrating process.

Jens Hennig, vice president of operations at the General Aviation Manufacturers Association, noted, “Following our joint work with NBAA to refine the LOA process for RVSM operations in 2013, several of our OEMs asked that we build on that success and review the 10 most common authorizations needed for today’s communications, navigation and surveillance requirements. FAA’s leadership agreed and three years ago we kicked off a work activity jointly between the agency, representatives from its workforce, operators, training centers and aircraft manufacturers to review the process with the goal of developing a more streamlined approach to authorizing these operations.”

The FAA Reauthorization Bill of 2018 reinforced the activities of the working group and directed the agency to evaluate LOA processes to reduce costs and delays. Subsequently, the working group identified three areas to be evaluated by inspectors and then developed standards to ensure compliance in these areas:

- Aircraft capabilities
- Pilot training
- Operating procedures


“We tried to standardize the process, to take it from a very local, dispersed process to a more consistent process at the national level,” said Paul Scurio, a member



of NBAA's International Operators Committee and the LOA working group. "The bottom line for the operator is a much easier to use process that will allow them to fly a brand-new aircraft as intended, domestically and internationally, as quickly as possible after delivery, substantially minimizing delays."

Justin Maas, industry chair of the working group, says he can't speak highly enough of the collaboration between industry and AFS-400, the FAA office responsible for LOA policy.

The FAA really listened to the industry, then took the feedback and developed a better process, working with industry," said Maas. "It's really about compliance and helping everyone be above board. Now, inspectors can be confident in their authorizations, and operators can be more efficiently ensconced in compliance."

The working group provided its recommendations to the FAA in early 2020. The agency is currently testing the streamlined process. The FAA's new webpage* for the streamlined process features an applicant guidebook, establishing expectations for both the agency and operators. The guide also will serve as a "force multiplier," enabling one inspector to do more, consistently and safely. 

To learn about becoming a member of NBAA, if you aren't already, go to NBAA.org

*Go to faa.gov and search for "streamlined Part 91 operational approval"

Your Beechcraft Parts Source



www.selectairparts.com

SELECT
airparts

New • Overhauled • Used



"Call Us. We Speak Beechcraft!"
1-800-318-0010

Int'l: 540-564-0010
Email: sales@selectairparts.com

P.O. Box 219
Weyers Cave, VA 24486

GET Your Airplane Built Into an Executive Desktop Model



ORDER EASILY
866.580.8727
direct: +1.602.635.4646

FACTORYDIRECTMODELS.COM

Beechcraft King Air 350i

OFFICIAL BEECHCRAFT SUPPLIER

FDM



Losing an Engine on Takeoff

by Tom Clements

There's not going to be anything new in this article. Every pilot who earned his or her multi-engine rating has undergone training in how to handle one-engine-inoperative (OEI) situations whenever they may occur. Yet, in recent years King Airs seem to have been involved in a rash of very serious, usually fatal, accidents during takeoff. Why? Specifically, why has this started occurring more often? The basic King Air of today is very much like its predecessors going back over 50 years. Yes, the 200-series that debuted in 1974 contain vast improvements over the 90- and 100-series that came before and the 300-series is even more advanced. However, the procedures that need to be correctly applied to handle an engine failure on takeoff have not changed in any significant manner. Please indulge me as I don my certificated flight instructor (CFI) jacket and review with you how to successfully handle an engine failure on takeoff.

Which is your preferred choice: Being on the ground wishing you were flying or flying while wishing you were on the ground? Most of us will pick good ol' terra firma every time. If an engine starts acting strange before decision speed, V_1 , abort the takeoff! In my opinion, there is a big difference in planning and mindset when operating on a runway of minimal length compared to the jetliner length strips we usually use. When the runway is short, it's time to pull out the POH and really examine the takeoff numbers thoroughly. Pressure altitude, OAT, wind, known obstacles, runway slope and condition ... all these and more enter the equation. Also, now's the time to make a true short field takeoff: Line up with the longitudinal axis pointed about 10 degrees to the right – since it'll swing left when the brakes are released – and set power while holding the brakes tightly to prevent creeping forward.

One of my past articles presented the concept of “Using Big Numbers.” If the runway is much longer than the minimum required for the conditions you face,

then use the POH charts to calculate your performance at maximum gross weight, with no wind, and with the highest OAT allowed. Do the numbers still look good even in these severe conditions? If so, then does it not follow that our actual takeoff performance numbers will be better than these under any situation not as severe? Hence, how about using the higher V-speeds associated with the maximum weight even when at lighter weights?

In some models the speed difference can be significant: Over 10 knots in V_1 and more than 5 knots in V_2 . On the other hand, some models – the E90 for example – do not vary the speed based on weight.

Since blueline, V_{YSE} , is based on maximum gross weight, if we're lighter than max gross then won't our climb be quite acceptable using that speed even though the actual V_{YSE} will be lower? Of course!

If you abort the takeoff on a short runway, should single-engine reverse thrust be used? In some King Air models the answer is “no,” in others it is “yes.” Study your own POH to learn for sure. (It may be correct to use ground fine in some.)

“... almost always the left side has less friction and will migrate more.”

Our Four Friends: Power, Props, Flaps and Gear

The entire first chapter in my first book was devoted to the four friends. How tremendously useful they can be in many different King Air flying situations! What about takeoff?

Power *should* already be set before a suspected power loss is experienced. But is it? Now is not the time to tweak the last little bit of torque. Needless to say, reverting to the training you received in the Duchess or Seminole is incorrect for the PT6. We cannot “firewall” the power

levers without probably causing significant exceedances of torque and/or ITT limits.

If you have not yet heard of PLM – Power Lever Migration – where have you been?! The PT6 power lever linkage contains a spring that is always trying to retard the power lever toward idle. If the friction knobs are not snugged up sufficiently by clockwise rotation then you have set yourself up for a very dangerous event: A loss of power when the hand moves off the power levers to reach for the landing gear handle! What a bad time to lose power!

As I have written in previous articles, more often than not PLM is a humorous event, not a dangerous one. The pilot observes the power lever(s) sliding back, returns his hand to them, resets the desired takeoff power, and then must figure out a way to tighten the knob while still flying the airplane ... and, finally, getting the gear handle up. **But**, if the aft migration is not observed and if the power step of the Four Friends has already been “checked off” in the pilot’s mind, then tragedy can follow.

Each King Air is different. In some, even with the friction knobs fully backed off by turning the knobs counterclockwise to their limits, the levers do not move. In others, both snap back aggressively. Probably the most common outcome is that both move aft but the left side much more so than the right. Due to the length of the cable and its routing from the cockpit to the fuel control unit (located on the right side of both engines, making


avFAB

COOLER ON THE RAMP!

REGAL™

STC PLEATED WINDOW SHADES

KING AIR 90/200/300 SERIES



5 YEAR WARRANTY

www.avFAB.com

Contact Hayden Lowe at hlowe@avfab.com or 660.885.8317 for details or to order



Main wheel & brake/ Rodas e freios principais
Kit P/N 199-90

Together, we can support all your King Air braking needs, one landing at a time.

Juntos podemos apoiar todas as suas necessidades de freio King Air, um pouso de cada vez.

The following King Air 90 models are now certified under European approval EASA #10039114 and Brazilian approval ANAC #9210-04:
Os seguintes modelos King Air 90 são agora certificados sob aprovação europeia EASA Nº10039114 e aprovação brasileira ANAC Nº9210-04:

• 65-90	• B90	• C90-1	• C90B	• C90GTi
• 65-A90	• C90	• C90A	• C90GT	• C90GTx

Cleveland
Wheels & Brakes

1-800-BRAKING (1-800-272-5444)
Visit our website to see our full list of King Air conversion kits and more
www.parker.com
www.clevelandwheelsandbrakes.com

Parker Aerospace

the left cable shorter than the right) almost always the left side has less friction and will migrate more.

With the left engine at or near idle due to PLM, with the right engine having lost significant power also, and with autofeather no longer able to operate – remember, BOTH power levers must be well-advanced for either side's propeller to automatically feather – the deck is stacked against the pilot. Holding the normal +10° pitch attitude will lead to speeds well below V_2 , quickly approaching V_{MCA} ! Disaster!

The second of the Four Friends is **Props**. The propeller levers should always be full forward on takeoff, of course. Never, ever, retard them before the airplane is totally clean – flaps and gear up – and at least 400 feet AGL has been attained. Realize that once the prop levers are pulled back, the fuel topping governor is reset to a speed that is usually less than the operating speed of the overspeed governor. The overspeed governor doesn't reduce power; the fuel topping governor does ... usually it reduces it a LOT. When there is any question in your mind, just leave the propeller levers fully forward. There's no time limit for operation at maximum RPM. The only advantage of using less than max RPM is the reduction in noise level.

The third friend: **Flaps**. Most, not all, of the members of the 90-series have no charts that give performance numbers when using flaps for takeoff. The other series

do indeed publish numbers both with and without flaps. Almost always, the accelerate-go distance will be less when using approach flaps so that is the default setting for most shorter runways. They don't get retracted until 400 feet and V_{YSE} have both been attained. Hence, there is nothing to do now in the Flaps challenge of the Four Friends.

Last of the Friends: **Gear**. Yes, we must move the handle to the "up" position now. In the "helmet fire" that tends to occur when a major loss of power is experienced close to the runway during takeoff, it can be easy to fixate on aircraft control and overlook the important step of landing gear retraction. Don't let that happen to you. Complete the drill designated by the Four Friends.

A little sidenote: Shortly after the model 200 emerged, I was giving instruction at the factory in BB-11. Although a lot of our single-engine work was conducted between 6,000 and 10,000 feet MSL, on this day a cloud deck forced us to be near 11,000 feet, minimum. I set up our normal two-engine ILS approach configuration with the student knowing a go-around with an engine failure was going to be given at 200 feet above our make-believe runway. As the student added go-around power I pulled the left condition lever into cutoff. **Power**. Both power levers were advanced properly until the right engine was at its training ITT limit: 700° for the -41s that were on BB-11. **Props**: Both propeller levers were pushed full

ONE STOP, for all your King Air needs.

Yingling, the premier full service MRO/FBO in the Southern Plains. Everything you need in one stop to make your King Air beautiful, current on technology, and wheels-up ready when you are.

Comprehensive support for all areas of your King Air

- ✦ **Paint and interior:** Total and Partial Refurbishment.
- ✦ **Avionics:** G1000 upgrades, Wi-Fi, Text, and Cabin Entertainment
- ✦ **Service Department:** Phase Inspections, Component Overhaul, Mods and Upgrades from Advent, Blackhawk, BLR, and Raisbeck.
- ✦ **Prop Shop:** Overhauls, Exchanges, Repairs, STC Conversions



Contact us for Equally Comprehensive support for Citations



316.943.3246 or toll free: 800.835.0083 [FBO OPEN 24/7]

<http://www.yinglingaviation.com>

LOCATED AT THE DWIGHT D. EISENHOWER NATIONAL AIRPORT 2010 AIRPORT ROAD, WICHITA, KS 67209

aerox[®]

Aviation Oxygen Systems

TSO-Approved Oxygen Masks

**Replace your aging,
obsolete oxygen mask
with a new Aerox[®] Mask**

Perfect for:
Turboprops and Light Jets Including:
King Airs
Conquests
Twin Commanders
Caravans

**Quick-Donning
Comfort Fit Headgear
TSO C89A and TSO C78A
Integrated Electret Mic**



PMA Kevlar and Steel Oxygen Bottles

(239) 405-6117 www.aerox.com
customerservice@aerox.com

forward. By now, autofeather had the left propeller nearly stopped. **Flaps:** Up they came. **Gear?** The poor student overlooked it! Dang!

Before I pointed out the error and chastised my student for overlooking that critical step, it dawned on me that we were still climbing at about 500 fpm! I think that is when it first hit me how “super” the “Super King Air 200” really was, compared to its predecessors. Now, yes, there were only two of us onboard and we had maybe 2,000 pounds of fuel so we certainly were not heavy. But we were also over 11,000 feet! Dang! Love the performance of the 200s ... and 300s even more!

Realize that parasite drag depends on velocity, squared. The drag of the gear at 90 knots is only one-fourth of the drag at 180 knots. It's not hurting you as badly as you may think down at V₂. However, let's remember to retract it!

While performing the steps of the Four Friends drill, we also must “fly the airplane!” The go-around setting of the flight director is usually set for +7°. This is an attitude that will yield very close to V_{YSE} in the old PT6A-20-powered A90s, B90s and C90s. However, the attitude is too low for the 200- and 300-series. The 350 POH is the first and only one that specifies a takeoff pitch attitude of +10°. However, if you're flying a -21 or -135A-powered 90 or any member of the 200- or 300-series, +10° works very well and is what you should be trying to hold now.

Cast an eye on airspeed, of course, but don't over-emphasize it. With proper pitch attitude of +10° and only one operative powerplant and feathered propeller, airspeed cannot be too far away from what you want: V₂. But (and it's a big BUT!) in the case of PLM that cancels autofeather and usually results in lower power on both sides, airspeed will be slow. Now's the time to lower the nose to maintain speed ... even if it means striking the ground. Hitting Mother Earth right-side-up and with some degree of directional control surely increases our survival chances, as compared to an asymmetrical-thrust rollover.

Forget the ball. I know that will be controversial for some of my readers but I am convinced that the rudder pedals should now be used for only one purpose – keeping the nose of the airplane on runway heading. Carry the lower-power engine a few degrees higher and “step on the heading.” If we were departing runway 25 and we see that our heading is now 230, we have not pushed hard enough on the right rudder and have allowed the nose to drift left. Locate 250 on your HSI and push hard on your right foot until that number is again under the lubber line. In fact, you do have the heading marker set there, right? Step on the heading!

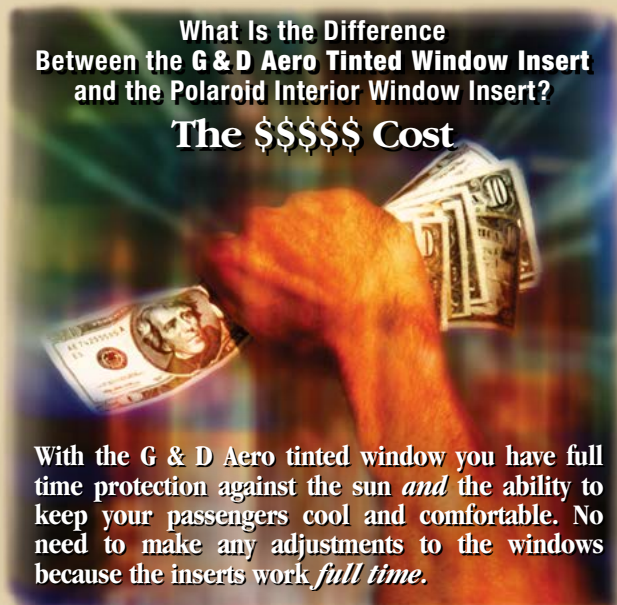
We're not done yet. After the first “Four Friends” part of the drill, the next three steps are **Identify, Verify, Feather**. I strongly suggest you complete them even if your airplane has autofeather! Two reasons for

KING AIR WINDOW INSERTS

STC'D-PMA/FAA APPROVED

**What Is the Difference
Between the G & D Aero Tinted Window Insert
and the Polaroid Interior Window Insert?**

The \$\$\$\$\$ Cost



With the G & D Aero tinted window you have full time protection against the sun *and* the ability to keep your passengers cool and comfortable. No need to make any adjustments to the windows because the inserts work *full time*.

G & D AERO PRODUCTS
951-443-1224

this: First, someday autofeather may malfunction. Not likely, but possible. Second, someday you may be flying an earlier King Air or some other light twin that is not equipped with the wonderful autofeather system. Why not practice for when that day comes?

Identify: Dead foot, dead engine: the old tried-and-true method. Unlike manifold pressure on the Duchess, however, realize that the torque indication is nearly fool-proof for the PT6. Dead torque, dead engine.

Verify: Retard the power lever of the suspected dead engine and make sure nothing happens. Well, something will happen, won't it? The landing gear warning horn will sound. I suggest you then push the power lever up either fully forward or just match it with the other power lever to silence that nuisance and to get rid of the gear handle red lights which would have come on with the horn.

Feather: Go ahead and slowly and carefully pull the dead engine's propeller lever all the way aft into its feather detent. Even if you are blessed with autofeather that has already feathered the prop, do this step also! Two reasons: First, it reinforces the habit for when autofeather is not installed. Second, it precludes any chance of the prop slowly unfeathering itself when you turn off the autofeather switch as part of the engine-out, cleanup procedure. If your prop rotates in feather,

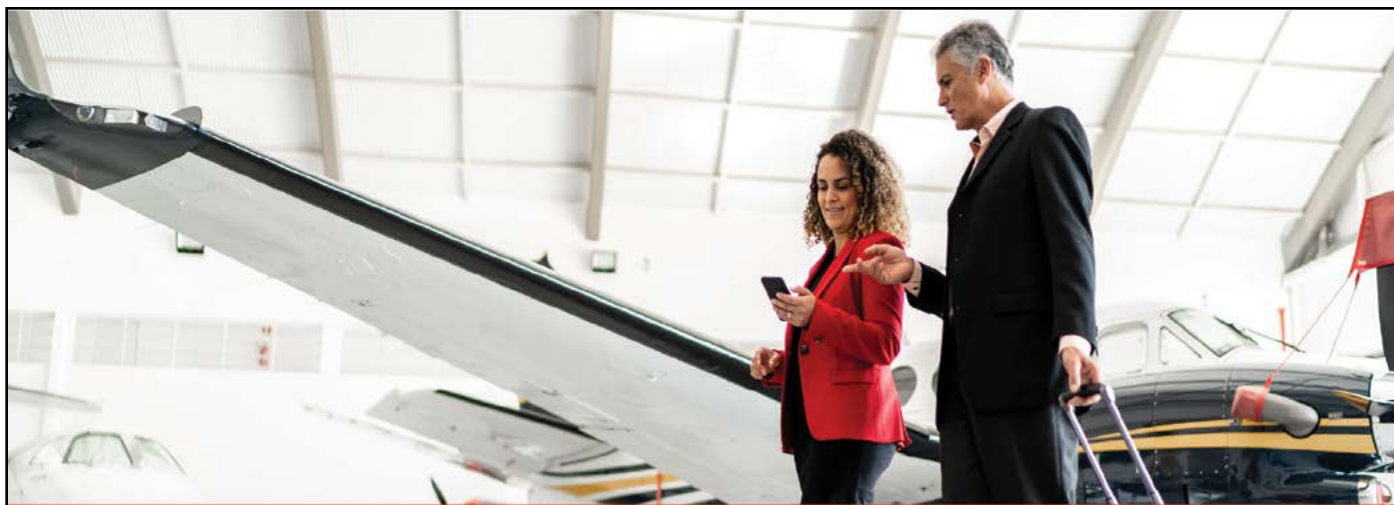
even quite slowly, it will create enough oil pressure to unfeather itself when the autofeather dump valve is no longer open. This is very common with Raisbeck propellers.

Why does it seem that fatal takeoff accidents are happening more often now than in past years? I wish I knew. However, I do have some guesses.

My speculative ideas will reflect negatively on many of my pilot readers. I am sorry if I make you feel bad. In my 53 years of being a flight instructor I have reached the maddening conclusion that the average level of flying skill has noticeably degraded. The older pilots who cut their teeth on Twin Beech 18s, DC-3s and such, knew how to use their feet. I swear when I was doing initial King Air training with a DC-9 airline captain, there wouldn't have been much difference if he was missing his legs from the knees down! Put "Get a tailwheel endorsement" into your wish list of things to do. It will make you a better pilot.

Also, the old-timers were used to engine problems with those old radial motors. They probably logged much, much more OEI time than any recent aviator.

They also didn't have as much automation and instrumentation as we do now. Autopilots? They were relatively rare so much more hand-flying was routinely accomplished. PFDs? MFDs? No such things.



TAKE YOUR BUSINESS HIGHER!

Personalized aircraft financing to meet your needs.
As a market leader with over 35 years of service,
we get businesses on their way!

**Source[®]
1st Bank**

Specialty Finance Group

1stsource.com/aircraft

Member FDIC



Just “steam gauges.” But you know what? They never had to remember whether the plane they were flying today had a turn-and-slip or a skid bar.

Friends, the old “Jenny in the Tree” quote – “Flying is not inherently dangerous but to an even greater extent than the sea it is terribly unforgiving of any carelessness, incapacity or neglect.” – will forever be true. When you are the one in charge of providing safe air transportation for your employer, family or friends, realize that their lives are in your hands. If you are not confident that your skill is sufficient for the task, then it’s not. Take steps to attain the level of skill you want and need before you harm yourself and others. 📺

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” and “The King Air Book II.” 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 books, 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.

“If you are not confident that your skill is sufficient for the task, then it’s not.”



KING AIR ACADEMY

INITIAL, RECURRENT & PERSONALIZED TRAINING

www.kingairacademy.com

G1000/NXi Full Motion Sim
G600TXi/750 Full Motion Sim
EADI/530's Motion Sim
ADI/530's AATD

Host of the King Air Gatherings
Insights by Tom Clements
King Air Training Videos

Model Specific Training
In Aircraft Training
Insurance Approved

“We’ll train you in any aircraft, as long as it is a King Air.”

King Air Academy is home to the most experienced King Air pilots and instructors in the industry. Our mission is to provide efficient, relevant and personalized instruction, specific to the King Air, for today’s flying environment while respecting your time and money.

602-551-8100 info@kingairacademy.com

INCREASE RANGE

FLIGHT PLAN (B350):

KLAS - KTPA

1,724 NM

5h-10m

FUEL: 3,788 LBS

RESERVES: 627 LBS

SADDLE TANKS



KING AIR 90, 200, 250, 260, 300, 350 & 360



— IN GOD WE TRUST —

CENTEX
AEROSPACE INCORPORATED

Flight image courtesy of
FlightAware (flightaware.com)

254-752-4290 | www.centex.aero

“Popper” Beech Takes Control (Part One)

In only five years a Tennessee farm boy transformed Wichita’s Travel Air Manufacturing Company from humble beginnings into one of America’s leading builders of private, business and commercial airplanes.

by Edward H. Phillips



Born near Pulaski, Tennessee, Jan. 30, 1891, Walter Herschel Beech grew up on a farm but relocated to Minneapolis, Minnesota, in 1911 to work as an automobile mechanic and chauffeur. (Edward H. Phillips Collection)

Late October 1926 the Travel Air Manufacturing Company lost its chief engineer, Lloyd Carlton Stearman, who had resigned to start his own company in California. Worse yet, in January 1927 Travel Air’s president and pioneer aviator, Clyde Vernon Cessna, resigned after selling his shares of stock to three business owners in town. He planned to pursue his dream of designing and building a cabin monoplane with a full-cantilever wing, similar to that used on the famous Fokker monoplanes of the late 1920s.



Walter Beech (left) shook hands with Lloyd Stearman (right) and Mac Short at the flying field on East Central Avenue 5 miles from downtown Wichita. The biplane was later sold to Travel Air salesman Fred Day Hoyt and flown to California. (Edward H. Phillips Collection)

That year Cessna had built, on his own time and with his own money (about \$6,000), a proof-of-concept cabin ship powered by a 110-horsepower Anzani air-cooled, static, radial engine. Always a proponent of the monoplane, Clyde's interest centered chiefly in manufacturing airplanes bearing his name. He had built eight different monoplanes since 1911 when he taught himself how to fly in his first ship that he named "Silverwings."

During the hot Kansas summer Walter Beech had made a number of flights in Clyde's cabin monoplane and liked its performance and handling characteristics. Cessna's five-place ship was capable of carrying 1,000 pounds and could land at only 45 mph, but it was fitted with a 300-pound, semi-cantilever wing.

Clyde's creation served as the inspiration for Travel Air's first monoplane – the Type 5000. Construction of a prototype ship was underway by October, and by the middle of December the cabin monoplane was ready for its maiden flight. A few days later Beech flew the airplane to Kansas City where it was evaluated by Egbert P. Lott, chief pilot for National Air Transport (NAT). In January 1927 NAT awarded Travel Air a contract for eight Type 5000 transports, to be delivered in 120 days at a cost of \$128,676.

In the wake of Cessna's sudden departure that month, Walter was temporarily placed in charge of the company's day-to-day operations until elections could be held in February, when Beech was appointed president. One of his first acts was to wire the United States Department of Commerce (DOC) in Washington, D.C., and ask that an inspector be sent to Wichita for the dual purpose of licensing Travel Air's pilots and certifying that the company's airplanes were deemed airworthy.

Walter was well aware that enactment of the Air Commerce Act of 1926 would mandate that the federal government become responsible for establishing standards and regulations governing both licensing of pilots and airplanes. As private and commercial aviation began to grow after the end of World War I, it was inevitable that the "good 'ol days" of unregulated flying and manufacturing would soon disappear. During 1920-1925, dozens of airplane companies had gradually sprung up from coast-to-coast, and an increasing number of aircraft were being built and sold to an ever increasing number of "aviators," many of whom had little or no formal flight training.

Walter's request was answered when the DOC's Director, Clarence M. Young, dispatched Inspector Hosch to Wichita. He certified Beech, Travel Air chief



pilot Clarence Clark and two other airmen. In addition, Hosch inspected the company's manufacturing facility, paying particular attention to materials and processes used to build the Model "A" biplane and the new Model "BW" with its expensive Wright *Whirlwind* radial engine.

It is interesting to note that Travel Air, after only two years in the infant airplane business, had achieved sales of \$54,936 (19 airplanes) in 1925 with a net income of \$11,056 after taxes. In 1926 sales (46 airplanes) increased to \$185,169 and profits stood at more than \$25,000. By June 1927 the company had delivered 80 ships since 1925 and the factory's expanding workforce was building almost one airplane per day.

Although Walter Beech was president and an increasing amount of his time was focused on leading the company, he remained an active pilot. In 1926 he was victorious in the Ford Reliability Tour and had competed in a number of local and regional air racing events, winning some and taking second place in others.

In 1927 he reluctantly declined a request from Charles A. Lindbergh for Travel Air to build a monoplane for the airmail pilot's solo flight attempt from New York to Paris, but Beech expressed enough confidence in Lindbergh's flight that he was among the first to send a cablegram of congratulations to Paris hours before the "Spirit of St. Louis" landed at Le Bourget Airport. That same year Walter was chiefly responsible for the decision to build not one but two Type 5000 monoplanes to compete in the Dole Race from Oakland, California, to Honolulu, Territory of Hawaii. The \$25,000 first prize was captured by pilot Arthur Goebel and his navigator, U.S. Navy Lieutenant William Davis, flying the *Woolaroc*. The second ship, dubbed the *Oklahoma*, did not compete in the race.

Another of Walter's important responsibilities was finding real estate for a new factory. The cramped space of the West Douglas site was woefully inadequate for building the large NAT monoplanes. It was imperative that Travel Air build a state-of-the-art facility to manufacture its current product line, as well as and



(Top Left) By 1925 Beech had joined forces with Clyde Cessna, Lloyd Stearman and Walter Innes, Jr. to form the Travel Air Manufacturing Company in Wichita. Here, photographed with the Travel Air B6 *Special* biplane designed chiefly by Lloyd Stearman and Mac Short. (Edward H. Phillips Collection)

(Bottom Left) Aviator Beech (front cockpit) flashes a grin as navigator Brice Goldsborough shakes hands with Clyde Cessna during the 1926 Ford Reliability Tour. The Type BW was equipped with the latest navigation devices. (Edward H. Phillips Collection)

providing for future expansion. During 1926 Beech, in concert with Clyde Cessna, had worked tirelessly to find the necessary financial backing. The two aviators wanted the factory to be built east of the city where the terrain was gentle with little change in elevation and the thick prairie grass was soft and smooth.

Fortunately, a trio of Wichita's business owners and aviation enthusiasts, Walter P. Innes, Sr., Jack Turner and C.L. Henderson, managed to convince the Booster Building Association to sell Travel Air 6 acres of that sought-after land on East Central Avenue for \$30,000. With an eye to the sky and looking to the potential future of aeronautics in Wichita, in 1925 the Association had bought 160 acres at the site, which already served as the city's unofficial airfield.

With financing in place, Walter and Clyde contracted with the architect Glenn A. Thomas to draw up plans in accordance with their vision for the factory. In December 1926 the site was officially surveyed and construction approved. Plans called for a building 275 feet in length and 75 feet in width made of steel and stressed concrete. Working with others, Walter was busy identifying the location of fireproof workshops for handling dope and fabric, engine installation, final assembly, welding and woodworking as well as flight testing.

Meanwhile, construction of the eight Type 5000 transports for NAT was progressing well, and in March 1927 the first ship was completed. Walter, accompanied by NAT's Egbert P. Lott, flew the ship south to Ponca City, Oklahoma, to attend a celebration of inaugural air service by NAT. Always the progressive thinker, Walter was well aware that the day of the open cockpit biplane was slowly drawing to a close, and he had no doubt that demand for the Type 5000 proved that monoplanes were the future.

Between attending meetings, answering correspondence from customers and overseeing progress of the new factory, Beech also kept a tight rein on daily activities at the current factory. By May the payroll had grown to 50 men working day, night and weekend shifts to complete the NAT contract on time and deliver biplanes already on order. It would be another 40 days before the transition to the new factory could begin.

Early in June Beech was informed that the factory on East Central Avenue would be ready for occupancy by the middle of the month. President Beech had already supervised installation of special woodworking machines as soon as floor space became available, but more equipment would be added to fully equip the shop. The new building featured large windows to admit sunlight

The advertisement features a large, high-quality image of a twin-engine turboprop aircraft in flight against a sunset sky. The aircraft is shown from a low angle, emphasizing its wings and engines. The Ice Shield logo is in the top left, and the main headline is in the top right. The bottom section contains contact information and a call to action.

ice shield
de-icing systems

Break through with Ice Shield® Wing De-Ice Boots

**High Quality, Reliable Wing De-Ice Boot. Contact
an authorized Distributor today for purchase!**

IceShield.com • 800-767-6899 • info@iceshield.com



In August 1927, the Travel Air Type 5000 *Woolaroc* won the Dole Race from Oakland, California, to Honolulu, Territory of Hawaii. Beech posed with pilot Arthur Goebel (right) soon after the monoplane was completed that summer.

(Edward H. Phillips Collection)

throughout the facility except for certain areas such as the dope room where special fireproof doors were installed. If a fire broke out, the doors were designed to contain flames within the shop and prevent the fire from spreading to other areas. Travel Air's modern factory had a total floor space of 21,650 square feet and cost the company \$32,000 to construct to original specifications laid down in 1926 by Beech and Cessna. Five offices were included at the west end of the building for Walter, secretary and office manager Olive Ann Mellor and her assistants.

By mid-summer all production had been transferred with only minor interruptions. At that time 11 Type 5000 aircraft were under construction for NAT and other customers. Three had been delivered to NAT and five more scheduled to be completed within the next few months to finish the order. In the wake of Charles A. Lindbergh's solo flight from New York to Paris one month earlier in May, Travel Air was soon inundated with orders for the Type "B" and Type "BW" biplanes as well as the Type 5000 monoplane.

As autumn approached it became obvious to Beech and factory manager William "Bill" Snook that a second factory unit was essential to meet production requirements. A flood of orders for new ships had created a five-month backlog and Beech had to find a solution, and fast! Fortunately, the Henrion Company was able to begin construction of a second building in late September. Although possessing the same dimensions as the first (but without office space), the new unit would be dedicated largely to dope and fabric work. To minimize the danger of a fire spreading to other shops, the large workspace would feature the same fireproof doors as the first unit, now known as Factory "A." In addition, a large concrete ramp area would be poured between "A" and the new unit, separating the structures by 100 feet.

Pilot Arthur Goebel, victor of the Dole Race from California to the Territory of Hawaii in August, flew the *Woolaroc* to Travel Air Field. In a brief ceremony October 5, Beech made a speech commemorating the event, Goebel laid the cornerstone for Factory "B" before

being rushed off to the west side of town to dedicate Clyde Cessna's factory, followed by officiating at the opening of Lloyd Stearman's facility north of the city (Stearman had recently returned to Wichita after a year's absence in California).

To relieve pressure on the production line while the new building was under construction, Walter and the board of directors notified Travel Air dealers and distributors that no new orders would be accepted during September and October. Meanwhile, the Henrion Company worked feverishly and met Walter's deadline of late December for completion.

As 1927 drew to a close, Beech was quietly engaged in discussions with chief engineer Horace Weihmiller about design and construction of a new monoplane tentatively designated as the Type 6000. Walter was convinced that the success of the Type 5000 on NAT's airline passenger routes between Chicago, Dallas and other cities in the Midwest justified producing a cabin monoplane aimed directly at companies and corporations. The business owner who flew was an emerging and potentially lucrative market for airframe manufacturers such as Travel Air. Design work on the monoplane commenced late in 1927 but a prototype would not be ready to fly until April 1928.

With 1927 at its end, Beech could look back on what had been a banner year for a small company that had

been in business for less than three years. The value of stock had skyrocketed to \$150 per share from only \$50 in 1925. Capitalization, too, had increased significant to about \$200,000 from the original \$50,000. Best of all, Ms. Mellor reported to President Beech that the company had an order for every day of 1928!

As of Dec. 31, 1927, Travel Air had built and delivered 200 airplanes since its founding in 1925. These included 162 Type "B" (Curtiss OX-5 or OXX-6), 16 Type BW (200 horsepower Wright J-4), five Type BH (Wright/Hispano-Suiza V-8) and 18 Type 5000 monoplanes (200-225-horsepower Wright J-5 radial). In his first year as president, Walter had demonstrated his ability to manage a profitable company that was expanding rapidly into one of America's highly respected aircraft companies. The next year would prove to be more successful than the farm boy from Tennessee could ever have imagined. **KA**

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, Kansas. 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.



Your King Air Deserves Royal Treatment Choose Banyan for all your King Air Needs

Blackhawk Engine Upgrades • BLR Winglets, Props, LED Lighting • Raisbeck Performance Enhancements
Garmin Glass Panel Retrofits • Inspections • ADS-B Solutions • Acquisitions & Sales • Beechcraft Parts



Visit banyanair.com/kingairmag for more information.

Banyan Technical Sales • 954.491.3170 • Fort Lauderdale Executive Airport

FAA Grants TSO Approval on AvFab STOWAWAY Medical Stretcher

Aviation Fabricators (AvFab) recently announced they have received Technical Standard Orders (TSO) approval for the installation of their multi-airframe STOWAWAY medical stretcher for use in all Beechcraft King Air models. Several models of STOWAWAY are available, including one version that adjusts to fit in all four aircraft approved for the installation. – besides the King Air, the Cessna Caravan, Pilatus PC-12 and Kodiak 100 were included.

AvFab's STOWAWAY Medical Stretcher kit provides an operator with the option of transporting an ill or injured, non-critical patient. These stretchers are ideal as an economical alternative to complete medevac systems for the operator who doesn't need critical care medical equipment. The company says the STOWAWAY will allow charter, corporate and private operators to realize more utility from their aircraft fleet. And, it is ideal for humanitarian and disaster relief missions since no airframe modifications are required other than removing existing seats and furnishings from the desired location and setting the new STOWAWAY stretcher assembly in the existing seat track. When not in use, STOWAWAY conveniently folds in half allowing it to be stored in the aircraft's wing locker (shown right), cargo pod or baggage area.

The AvFab STOWAWAY stretcher will fit both left-hand and right-hand installations of all four airframes. The kit includes the stretcher, Ferno model 12-2A portable aero (folding) litter with recline headrest, mounting support assemblies, safety restraint system, storage carry case, installation instructions, diagrams and Continued Airworthiness data.

For more information on this or any other product or service offered by AvFab, please visit their website at www.avfab.com or call (660) 885-8317.

Certification Coming Soon for BLR products on King Air E90, early C90s and the 100

BLR Aerospace recently announced that their winglet system for the King Air E90 and early C90 fleets, as well as the 5-bladed Whisper Prop® system for the King Air 100, are all scheduled to be Federal Aviation Administration (FAA) certified by the end of 2021. Increasing demand has created limited availability for both popular upgrades so the company encourages those interested to contact them or one of its authorized dealers regarding availability.

The modern BLR/MT 5-bladed Whisper Prop is constructed with a highly engineered structural resin-



infused wood core that is wrapped in carbon-fiberglass skins. Each blade is finished with a nickel-cobalt leading edge providing three times more damage resistance than aluminum. BLR says the Whisper Prop has the smallest diameter, is the quietest and most cutting-edge composite propeller on the market. The short diameter protects the aircraft from foreign object damage (FOD) occurrence where the nickel-cobalt leading edge drastically reduces damage and blade erosion. The highly engineered wood core eliminates vibration by more than 50% and decreases the overall wear and cost of operation, including repairs, compared to the foam core composite propeller that comes standard on the aircraft. The Whisper Prop delivers unlimited blade life, field repairable and replaceable blades allowing for superior return to service capabilities and best overhaul schedule. Additionally, it improves takeoff performance by 4.3%, has lower Vmca, has no ground RPM limitation and requires no FAA imposed regular inspections.

BLR's winglet system is an aluminum wing tip, carbon fiber winglet with integrated position, recognition and strobe LED lighting. The company says it increases overall wingspan and wing aspect ratio to reduce induced drag for faster flight on less fuel as well as improved handling qualities.

For more information, contact Director of Sales Chip Kiehn at Chip@blraerospace.com

Textron Aviation expands King Air service capabilities in Germany

Textron Aviation recently announced additional investments in its European service network, with an expansion of its Stuttgart line station facility becoming a satellite service center. The company is expanding its factory-direct service options at Stuttgart Airport delivering shorter downtime and increased flexibility to its customers with twice the amount of hangar space and the expert engineer team set to double in size. This added footprint and expertise at Stuttgart will now add service capabilities for the Beechcraft King Air series this fall, further enhancing its service offerings for more than 100 operators in Germany.


As a satellite service center, Stuttgart can provide the same scope of work as factory-direct service centers but in a smaller capacity. In addition to Stuttgart, Textron Aviation continues to operate two additional line stations in Cannes and Geneva and five company-owned service centers located in Düsseldorf, Paris Le Bourget, Prague, Valencia and Zürich.

Garmin offering new pilot training opportunities

Garmin® International, Inc. is pleased to announce new training opportunities that will benefit novice and seasoned pilots alike.

Through multiple free videos, the **Aviation Risk Management** series will provide pilots with the opportunity to review common safety hazards and traditional risk mitigation strategies. Pilots will also learn how the features and capabilities on Garmin avionics, such as Garmin Autoland, SafeTaxi, SurfaceWatch, traffic displays and other hazard awareness features can contribute to managing risk.

Developed in conjunction with SiriusXM Aviation, **Sirius XM Weather** is a free 15-video series which offers an overview of the SiriusXM setup on compatible Garmin units and highlights common uses of SiriusXM weather products. Featuring several operational scenarios, the SiriusXM Weather Video series will cover challenges and hazards pilots might experience during flight and highlight the value of onboard weather products to help increase a pilot's situational awareness and aid in decision making.

For all Garmin aviation training needs, please visit www.fly.garmin.com/training. For additional information, please contact aviation.training@garmin.com. 



TRACE INNOVATES

Who you trust your
King Air Landing Gear
inspection and
overhaul with makes
all the difference.



FAMILY OWNED & OPERATED
FAA & EASA CERTIFIED

WWW.TRACEAVIATION.COM
601-936-3599

1st Source Bank..... 21	Cleveland Wheels & Brakes 18	Raisbeck Engineering..... Inside Front Cover
Aerox Aviation Oxygen Systems 20	Elliott Aviation..... 13	Select Airparts 15
Avcon..... 12	Factory Direct Models..... 15	Short-N-Numbers..... 32
AvFab 18	G & D Aero Products 20	Trace Aviation..... 31
Avidyne Corporation Inside Back Cover	Ice Shield/SMR Technologies..... 27	Yingling Aviation 19
Banyan..... 29	Innovative Solutions & Support..... 11	
Beech Medic LLC 32	King Air Academy 22	
Blackhawk Modifications..... Back Cover	Meta Special Aerospace LLC 6	
BLR Aerospace..... 5	More Company..... 32	
Centex Aerospace 23	Pratt & Whitney 7	

BEECHMEDIC LLC



TROUBLE-SHOOTING KING AIR MAINTENANCE + OPERATIONAL ISSUES
PRE-BUYS ♦ MAINTENANCE MANAGEMENT ♦ EXPERT WITNESS

DEAN BENEDICT A&P, AI, CONSULTANT
 TEL: 702-773-1800 DR.DEAN@BEECHMEDIC.COM

= MORE =

Maintenance On Reliable Engines

EXTEND PT6A ENGINE

TBO TO 8000 HOURS

www.morecompany.net

Short-N-Numbers.com

Aircraft registration numbers with 3-digits or less

1 Number + 1 Letter	2 Numbers + 1 Letter	1 Number + 2 Letters
1K	10H	3AB
1V	10P	5AB
2C	10W	6AC
2E	10Z	3AD
2R	11F	9AD
2S	11G	1AE
3C	11P	4AE
3E	11Q	6AE
3Q	12A	3AF
4B	12B	5AF
4H	12E	6AG
4J	12H	9AG
4K	12K	4AJ
4X	12T	7AJ
4Z	12X	6AK
5A	13F	8AK
5T	13G	4AL
5X	13J	8AL
6A	13P	7AH
6C	13Q	3AN
6E	13R	4AN
6H	13S	7AN
6N	13V	8AN
6P	13Y	9AN
7G	14D	4AP
7E	14E	6AP
7N	14F	1AQ
7Q	14G	4AQ
7T	14N	7AQ
7V	14Y	2AR
7Y	14Z	8AR
7Z	15G	9AG
8B	15H	6AT
8C	15Q	8AT
8G	15R	2AU
8J	15Z	3AU
8N	16D	6AU
8P	16H	7AU
8Q	16J	8AU
8R	16K	9AU
6HV	2HW	6HW
6HX	2HY	4HY
5H2	7H2	8H2
9H2	5H2	6H2
5JA	6JA	9JA
3JB	4JB	6JB
9JC	5JD	3JE
9JE	2JF	3JG
6JG	7JG	8JG
3JH	4JH	6JH
8JH	3JL	5JM
4JN	6JN	8JN
6JP	7JP	2JQ
3JQ	4JQ	6SL
7SL	9SL	5SL
6SL	7SL	9SL

Over 1,800 available



FMS/LPV AVIONICS **UPGRADE** SOLUTION FOR **KING AIR** FLIGHT DECKS.

Upgrading your King Air with Avidyne's FMS/LPV upgrade solution will not only improve your aircraft's flight deck capabilities with more features and simplicity of operation, Avidyne's flight management system with LPV installs simply and easily, saving you downtime and installation costs. If your aircraft has a GNS Navigator then it's a simple slide-in replacement.

To learn more visit: avidyne.com/king-air

AVIDYNE®

JET-LIKE SPEEDS KING AIR COSTS



XP67A ENGINE+ UPGRADE
for the King Air 350



+1 (844) 832-4456 + info@blackhawk.aero + blackhawk.aero