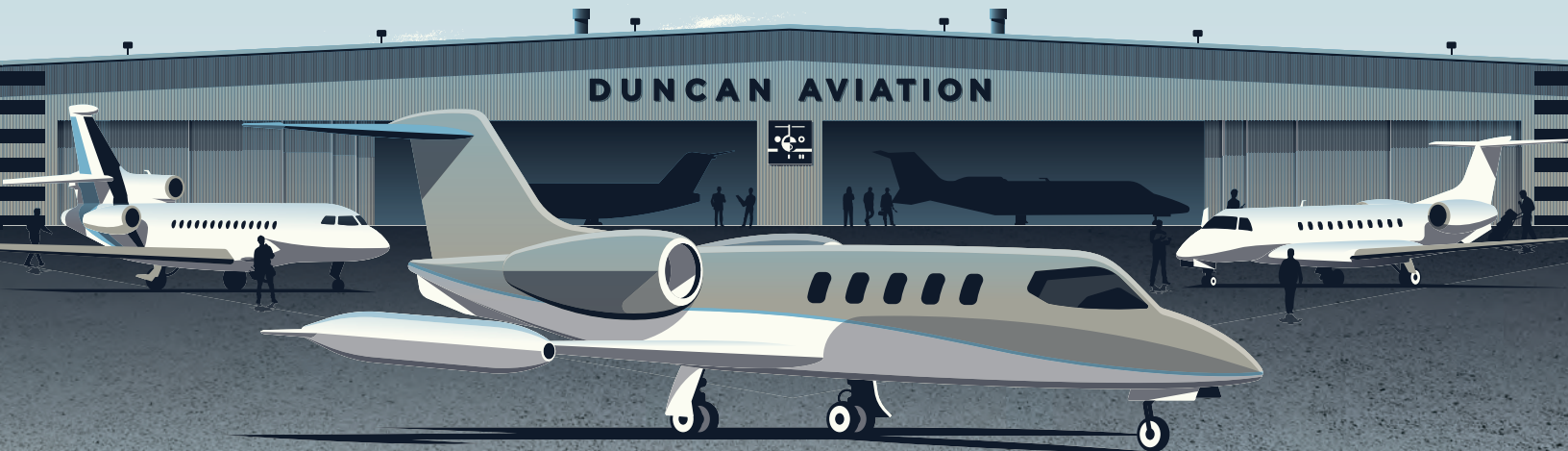


A publication of Duncan Aviation

# Duncan Debrief

Fall 2016



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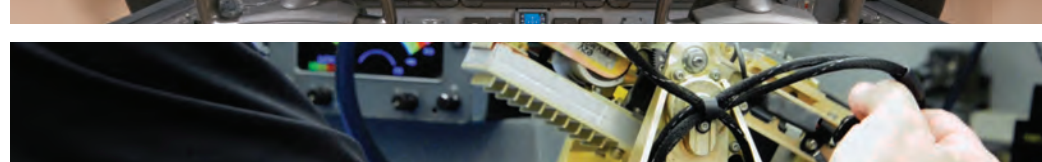
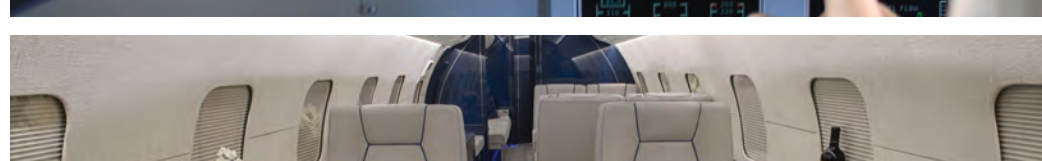
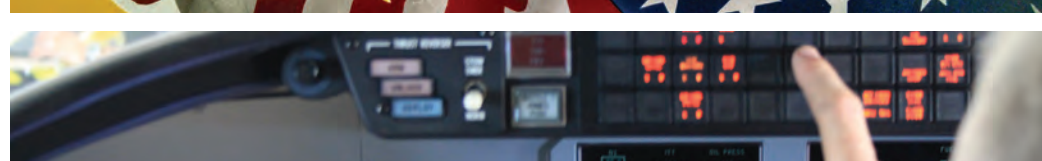
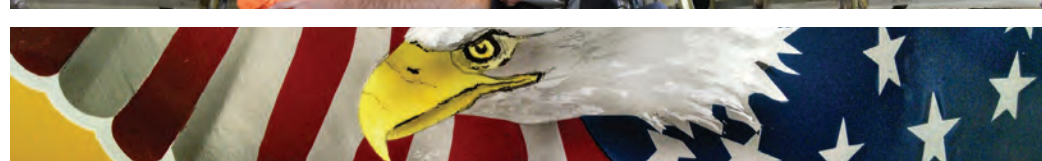
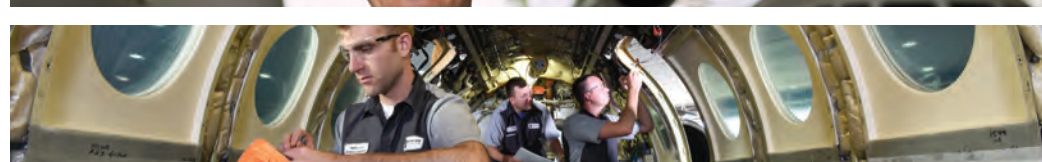
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Web: [www.DuncanAviation.aero](http://www.DuncanAviation.aero)  
E-mail: [Debrief@DuncanAviation.com](mailto:Debrief@DuncanAviation.com)  
Contact: Marketing Communications  
Phone: 800.228.4277 or +1 402.475.2611

contributing writers:  
Kate Dolan  
Diane Heiserman  
Lori Johnson

lead designer & photo director:  
Kaela Paseka

graphic designer:  
Jennifer Heywood

web developer:  
Tad Luedtke

circulation director:  
Kate Dolan

office administrator:  
Brian Ryba

chief editor & manager:  
Lori Johnson

vp marketing:  
Steve Gade

president:  
Aaron Hilkemann

chairman:  
Todd Duncan

company founder:  
Donald Duncan (1922-1981)



ON-TIME DELIVERY • QUALITY • PROJECT COORDINATION

# Todd Duncan

CHAIRMAN

2016 has been a special year. In January, we started celebrating Duncan Aviation's 60th anniversary as a provider of business aviation services. In April, my dad, J. Robert Duncan, was honored with the AEA Lifetime Achievement Award. And in July, we announced our plans to build a new facility at the Duncan Aviation location in Provo, Utah.

It has been satisfying to look back at our roots, to evaluate our growth and innovation and look forward to an exciting future of continued customer support. As a company, Duncan Aviation has always worked to listen to customers and act with their best interests and preferences in mind while continuously improving our service offerings.

Customer wishes and demands have certainly changed over the years. At the core, though, the things that are MOST important to them truly haven't changed much. They tell us they want high quality service, excellent project coordination and communication, and on-time delivery.


We have long focused on these things and measure customer opinions with a brief post-project survey that measures project coordination and communication quality, and on-time delivery.

Based on feedback from customers, they interpret project coordination to include the technical knowledge of the assigned project manager, the planning, the communication the customer received throughout the project, and the use of our online myDuncan project management tool. On this aspect, Duncan Aviation's current rating for the last 14 months is 4.85 out of 5.

When it comes to quality, customers get the opportunity to rate the work of the team leaders and technicians completing the aircraft project. In this area, Duncan Aviation customers give us a rating of 4.78 out of 5.

In the on-time delivery category, the customer chooses from the set options of early, on-time, or late. We don't ask about things that often affect delivery schedules, like work add-ons, parts availability, or unforeseen repairs. And in this area, Duncan Aviation customers give their project timeliness a rating of 4.2 out of 5.

We take these surveys very seriously. We share them with our team members, celebrating good survey results and striving to learn from both great and less-than-great responses. Of course there is room for improvement. Someday, we'd love to have full five-star ratings, but we fully expect and appreciate our customers continuing to raise the bar. We will continue to improve and continue to ask customers for their honest feedback and ideas.

Let me know what you think. 

1958  
The first Beechcraft Travel Air for business use in the US is delivered to the Lundell Manufacturing Company of Cherokee, Iowa. Vernon Lundell (right) takes personal delivery from Donald Duncan (left).

1958  
Robert Duncan begins taking flying lessons. He solos at age 16 and sells his first aircraft for Duncan Aviation while still in high school.

1958  
Donald Duncan, founder of Duncan Aviation.

1963  
Duncan Aviation opens a second operation in Lincoln, Nebraska.

1963  
Duncan Aviation takes delivery of its first Learjet 23, Serial #13.

1966  
Duncan Aviation opens Avionics Install Shop.

1968  
Robert Duncan is elected President of Duncan Aviation at age 26.

1968  
Duncan Aviation begins to paint aircraft exteriors with a full-service paint shop.

1977  
Duncan Aviation started a Research & Development team to design test equipment for avionics and instruments.

1979  
Duncan Aviation started servicing engines.

1981  
Duncan Aviation takes its first parts consignment. This is the start of AVPAC, now Duncan Aviation Parts and Rotables.

1981  
Duncan Aviation starts its Interior Shop and begins refurbishing preowned aircraft.

1985  
Duncan Aviation's first avionics satellite location is opened in Houston at Hobby Airport.

1989  
Duncan Aviation begins its in-house Calibrations Lab.

# A Lifetime of Achievement

## J. Robert Duncan

### Recognized with AEA Award



Duncan Aviation is celebrating 60 years in 2016. Founder Donald Duncan's story—a farm boy from Clarinda, Iowa, whose dream of flying led to his founding of the company that still bears his name—is fairly well-known among business aviation enthusiasts. Less known is the story of how Donald's son, J. Robert Duncan, transitioned the small, family business into a service company with a respected presence around the world.

Chairman Emeritus Robert Duncan was awarded the Lifetime Achievement Award from the Aircraft Electronics Association at the organization's international convention and trade show in Orlando, Florida, for many reasons. Here are a few highlights.

## The Beginning

In 1956, when Duncan Aviation opened its hangar doors, 14-year-old Robert was there.

"I was there doing minor things, working on the line, and I joined the company full-time after graduating from Northwestern in 1965," says Robert. "I was taking flying lessons when I was 15 and soloed at 16. After getting my private license when I was 17, I kept right on flying and got my commercial license at 18. It feels like I've always flown, and I just love it."

Robert has a passion for flight. In addition to enjoying the freedom of actually flying, he also loved the mechanics, avionics, and power of airplanes. Growing up, Robert had helped his father put away, clean, and work on airplanes for as long as he can remember.

In the early days, when Duncan Aviation was a Beech distributor, one of Robert's jobs was to go to Wichita, Kansas, and fly the new planes to Lincoln. He flew Bonanza Barons, Twin Bonanzas, and Beech 18s.

In helping finance Bill Lear's dream of building innovative turbine-powered aircraft, Donald Duncan secured rights for Duncan Aviation to distribute Learjets. Robert then became the youngest certified pilot at 23 years old to fly the aircraft whose name was synonymous with speed, performance, and luxury.

Donald shared his dreams for Duncan Aviation with Robert from early in the company's history. He learned to always take advantage of new opportunities, to look for new

products that would serve customers better, and to stay active and involved in the community.

“My father instilled in me an attitude of growth and opportunity,” says Robert. “I was always on the lookout for new adventures, new airplanes, and new opportunities.”

Robert’s son Todd, now Chairman of Duncan Aviation, learned those same lessons.

“Dad and Grandpa said you always had to take care of the fundamentals. We’re a small business, in a small industry. We don’t make the airplanes, but our business is about everything that comes after that,” says Todd. “Create a cooperative environment, don’t create silos, and don’t run things like dictators. We work in an industry that requires collaboration and teamwork, so we have to foster that every day here at Duncan Aviation, too.”

## A Major Transition

In 1981, when Robert was 41 years old, his father died suddenly. Donald’s death shocked the entire company, and especially Robert.

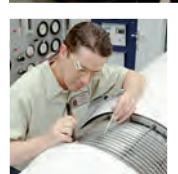
“We were in the midst of pretty tough times; inflation was high, interest rates were astronomical, and our business was weak,” says Robert. “We needed new enterprises and new opportunities for our employees.”

Donald’s focus had been sales, and Robert knew he had to grow the business in other ways. He recruited talented people to run new endeavors, and one of them was the Interior shop. There was no design center or cabinet shop yet, but the small shop fixed broken seats and installed

1992  
Duncan Aviation begins its JetResources aircraft acquisitions service.



1991  
Duncan Aviation introduces the Project Manager concept.



carpet, headliners, and side ledges. Robert envisioned much more, and he recruited Jeannine Falter, to head the shop.

“I had been working for Learjet when my 47-year-old father had a heart attack, so I decided to accept the Duncan Aviation job offer and move back to Nebraska,” says Jeannine. “I gave my notice and said I was going to work for Duncan Aviation, and people at Learjet took me aside and tried to talk me out of it. This was shortly after Donald had died, and they didn’t think the company would survive. They underestimated Robert and his entrepreneurial talent. He’s smart, open to new ideas, and willing to take risks. I’ve never regretted my decision to work for Robert.”

In the years after Robert took over as President, he came up with several big ideas that not only created new avenues of business for Duncan Aviation, but also grew the company and spread its name and reputation around the world. Among those ideas that Robert conceived were a

1996  
Aaron Hilkemann becomes President of Duncan Aviation.



2000  
Engine Rapid Response teams were started.



1998  
Duncan Aviation purchases Kal-Aero in Battle Creek, Michigan.

parts consignment network and the Duncan Aviation satellite avionics facilities.

## Parts Consignment

Robert saw the surplus parts for older prop planes just sitting on shelves, and he surmised that there were probably FBOs around the country that had similar investments in unmoving parts. He envisioned a program where companies would send Duncan Aviation their surplus parts and, based on very new, barely known computer networking—a precursor of today’s internet—Duncan Aviation would create an inventory of the parts and sell them on consignment. This vision became a reality in the early 1980s with a parts and rotables consignment division, then called AVPAC.

“I’ve had the opportunity to work with all four generations. Donald in the early days, then Robert, and now Todd and his sons,” says Project Manager Howard Nitzel. “Robert always had good people to run the day-to-day

Over the last 20 years, Duncan Aviation has invested more than \$218 million in new facilities, aircraft tooling, team member training and research and development. And in 2019, Duncan Aviation will open a \$50 million facility at its Provo, Utah location.

operations for him. He would be looking at the future, always four or five years out there, and willing to try new things. Avpac is a classic example, parts and rotables services. It was kind of a pipe dream, and it really took off into a whole industry. Robert was a true visionary, made the company grow, and took care of everyone and their families. He’s a true businessman in every sense of the word.”

Don Fielder, a 50-year Duncan Aviation team member who recently retired as the company’s Avionics Business Development Manager, explains that Robert’s vision was to establish a network, collect the parts, set fair prices, and ship them out to buyers the day they ordered.

“He wanted to make it easy to find parts and to get a fair price for them,” says Don. “And he wanted to make sure the inventory was meticulously maintained so we never claimed to have parts we didn’t. It was a wonderful thing to work for that man. I’ve always looked up to Robert. I really respect him and like him. The word I most associate with Robert is ‘visionary.’ He surrounded himself with people who could take his ideas and run with them. And, to his credit, although the ideas were his, he always gave us free rein to make his dreams a reality.”

## Satellite Network

Once the parts consignment was off the ground, Robert again approached Don with an idea. This time, Robert told of an experience he and his wife Karen had at a Lincoln’s Hovland-Swanson department store.



Watch Robert accept the AEA Lifetime Achievement Award:  
[www.DuncanAviation.aero/videos/DuncanAEA](http://www.DuncanAviation.aero/videos/DuncanAEA)

“Karen was trying on shoes, and as I waited, I talked to the manager of the shoe department,” says Robert. “He told me he worked for a national shoe company. He said, ‘We specialize in shoes; we just lease this space.’ This got me thinking, ‘How could Duncan Aviation, with our expertise in avionics, expand that around the country?’”

One of Duncan Aviation’s greatest assets has always been its employees. Robert knew there were talented, experienced, knowledgeable technicians in Lincoln, hundreds if not thousands of miles away from where the avionics were that needed servicing.

“We joke that the avionics satellites are Robert’s five-minute idea that exploded,” says Don. “He said, ‘How ‘bout this idea? We lease space at established, respected FBOs around the country and put in two-man avionics shops. We keep it simple—do simple stuff in the field and continue to have the complex stuff sent to Lincoln. And we offer free loaners and free tech support.’ That was it!”

As a result, Duncan Aviation now has more than 20 avionics satellite shops located at busy corporate airports around the country. Not only do our customers drop into these facilities for quick repairs, they can now schedule complex installations, including upgrades to avionics to satisfy the NextGen mandates.

Robert credits Don for the success of the program. “It was my concept, but Don ran with it,” says Robert.

“I couldn’t have done it alone. Everybody out there is doing the work every day—turning the wrenches, fixing the avionics, selling something, or providing support,” says Robert. “It takes everyone to make this company succeed.”

## ■ Recognizing Team Members

As a way to recognize the longtime contributions of team members, Robert and Karen started something called the Silver Wings Club. This exclusive group was created to celebrate team members who have worked at Duncan Aviation for 25 years or more.

“It’s a way to recognize all of the many contributions our steadfast, loyal, dedicated employees have made in their tenure here. Many of them have been here far longer than 25 years. The Silver Wings employees, about 300 of them now, are the core of what Duncan Aviation is about, and they’re the reason so many of our customers can call Duncan Aviation and talk to the same person they’ve dealt with for 25 years or more. It means so much in our industry, and it means so much to us as a company, too.”

Todd Duncan himself is a member of the Silver Wings club, as he has been working at Duncan Aviation for 29 years. He’s been the Chairman since 2007, and he’s seen the company ride the waves, the highs and lows, of the business aviation industry.

“One thing I’ve always admired my Dad for is what he brought to the business every single day, regardless of what we were facing, and that’s his optimistic spirit. He’s always able to look to and find brighter days,” says Todd. “He’s a tremendously forward-looking man, and he’s always so positive. He cares deeply about our team members and our customers. He’s the kind of man who inspires others to do their best, too.”

Todd agrees with what Robert has always said about the immeasurable value of the team members at Duncan Aviation.

“He knew and I know that we are not all things, so we’re both very grateful for the big network of support we have here at Duncan Aviation.” 📺

## You asked. We acted.

By the late 1970s, hundreds of loyal customers had purchased their aircraft from Duncan Aviation and liked having it maintained at the facility. They began to ask for even more capabilities, especially exterior paint and interior refurbishment. In 1979, Duncan Aviation acted, opening a new paint hangar and in 1981, the company began providing comprehensive interior completions.

Decades later, Duncan Aviation still provides operators with beautiful exterior paint and custom interior completions. And we still listen to customer wishes and respond by developing and providing experience, unlike any other.

60  
YEARS



Duncan Aviation’s Fabrication Team created this unique airstair and entryway based on a specific customer request.

# Expanding West:

Provo,  
Utah

The Western part of the United States has an active and persistent base of corporate jet operators. For more than a decade now, they have asked Duncan Aviation to look at expanding our presence in their region.

In reaction to these requests, a team of experts from a variety of disciplines at Duncan Aviation began looking for the right location, a location that was similar in many respects to our Battle Creek, Michigan, and Lincoln, Nebraska, locations. That requirement was paramount because we know that major factors to our success are our people and our company culture. We need a team member base

with similar traits and skills to form a Duncan Aviation location that will provide the experience and expertise for which Duncan Aviation is known.

The site selection team found a site that met our required criteria in Provo, Utah, and on August 1, 2010, we opened the doors to Duncan Aviation's Provo facility with a temporary location in an existing hangar at the airport. Since then, the Duncan Aviation Provo teams have provided major and minor hourly and calendar inspections, line-level engine and avionics support, and interior work for business aircraft from across Europe, the Pacific Rim, and the Americas.

The plan has always been to expand that original footprint and build a facility from the ground up at the Provo Airport. We are pleased to announce that those plans are now underway, and Duncan Aviation is investing in a brand new maintenance, modifications and paint complex in Provo that will be open by the first quarter of 2019.

## The Proposed Facility

Building on nearly 45 acres of land, Duncan Aviation will add nearly 275,000 square feet of buildings with a 222,000-square-foot maintenance and modifications center and a 53,000-square-foot paint facility. The new paint structure will have the latest down-draft air flow technology, including automatic monitoring and alarms, to provide the best paint environment possible for aircraft. To increase efficiency, the hangar is designed to accommodate multiple aircraft at once, utilizing a two-zone airflow system. With this design, Duncan Aviation paint teams can perform stripping, sanding, painting, and detail work on multiple aircraft simultaneously. The paint hangar will allow input of some of the largest business aircraft in use today, including Gulfstream's 550, Bombardier's Global Express, and Dassault's Falcon 7X.

## Continued Operator Support

"We still consistently hear from operators in the Western United States that they would like to see more investment in a Duncan Aviation location closer to


their home base," says Aaron Hilkemann. "The Provo area is the perfect complement to our other full-service facilities. There is much excitement from our team members as well as operators based in the area for us to finally begin work on the infrastructure needed to care for upcoming maintenance and completions demand from in the area and around the world."

Wade Albrecht, Maintenance Supervisor with Landmark Aviation, Inc., currently manages two aircraft, a Falcon 2000 and a Learjet 60. He has taken aircraft to the Provo location for airframe and engine inspections, avionics certification and various squawks.

"Duncan Aviation has a good, solid reputation in our industry," Wade says. "The company supports the customer with honest, straight-forward solutions. Duncan Aviation has been instrumental in the maintenance of my aircraft, which keeps our VIPs, our crew, and me safely flying."

Wade has been bringing aircraft to the Provo facility for more than five years and says he is looking forward to having a full-service Duncan Aviation facility closer to the West Coast and his home base of San Jose, California.

In addition to this upcoming expansion in Provo, Duncan Aviation has invested nearly \$200 million in facilities, tooling, and new capabilities, and nearly \$48 million in training over the last 20 years.

Aaron says: "We are dedicated to business aviation, our customers and team members and every decision we make is made with them and the future in mind." 

53,000 sq ft paint facility

222,000 sq ft maintenance and modifications center





CUSTOMER  
ACTIONS  
SPEAK  
LOUDER  
THAN  
WORDS



IN JANUARY, WE VIDEOED THREE HONEYWELL TFE731-60 ENGINES AS THEY UNDERWENT THEIR INITIAL 3,000 HOUR MPI (MAJOR PERIODIC INSPECTION) AT OUR LINCOLN, NEBRASKA, FACILITY. Once the inspection was completed, the engines were re-installed on the aircraft and post-MPI performance runs and fan balances were performed. The customer's aircraft departed with better engine performance than it had when it arrived.

Watch this time-lapse video and follow along as the engines make their way through the Duncan Aviation turbine engine shop for this triple MPI event.

[WWW.DUNCANAVIATION.AERO/VIDEOS/TFE731-ENGINE-MPI](http://WWW.DUNCANAVIATION.AERO/VIDEOS/TFE731-ENGINE-MPI)



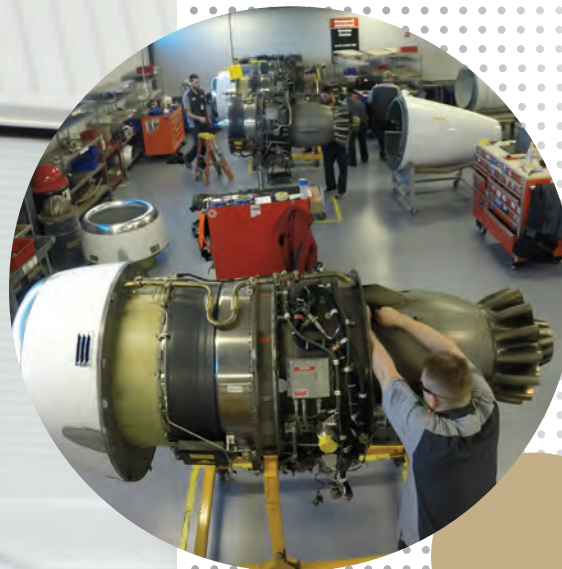
With decades of honed turbine engine skills, there are few surprises at Duncan Aviation when it comes to MPIs. We have performed an average of 192 MPIs a year for the last 15 years. Experience has told us which parts should be ordered in advance, what components need a closer look, and how to put together a team of trained turbine engine technicians ready to get to work for every customer.

### 35+ YEARS

Duncan Aviation began servicing the first generation TFE731-2 engines in the early 1970s. On a weekly basis, a road crew with the necessary tooling and equipment was dispatched to any location whenever the calls came in. They were sent to Iceland as well as the hangar down the ramp. This Duncan Aviation team was the original AOG engine road crew long before such crews became popular.

In 1981, we received two major level authorizations to work on the Honeywell (then AiResearch) TPE331 and TFE731 engines. Over the years, as Honeywell added different TFE731 model engines, each was added to our capabilities. The latest extension to our engine service authorizations came in 2015 when we gained Honeywell HTF 7000 (AS907) Series Minor Maintenance capabilities.

Today, we celebrate 35 years as a Honeywell Authorized Service Center with Major Authorization on TFE731-2,-3,-4,-5,-20,-40,-50,-60 engines, Minor Authorization on HTF 7000 Series, and Line Authorization on CFE738 engines, GTCP36-100/150, RE100 series, and RE220 series APUs.



### ACTIONS SPEAK LOUDER THAN WORDS

After these engines were re-installed on their Falcon 900EX, which delivered on-time from its major C-inspection, the aircraft's first scheduled flight back in rotation was a trip to Europe.

This is significant because, according to Jeff Schwabke, Duncan Aviation Engine Project Manager, most operators fly locally around their home base after MPIs are performed to make sure there are no minor squawks to work through. "This simple action by a long-time Duncan Aviation customer says more about their trust in our work than glowing words of praise," he says.

Here's to another 35 years of dedicated Honeywell service! 🇺🇸





**“WHETHER YOU’RE  
INSTALLING AN ESPRESSO  
MACHINE INTO AN EXISTING  
GALLEY, BUILDING A  
CUSTOM-DESIGNED GALLEY  
FROM SCRATCH, OR  
COMPLETING AN INTERIOR  
MOD, YOUR AIRCRAFT  
WILL NEED TO GO  
THROUGH SOME SORT OF  
CERTIFICATION PROCESS.”**

Aaron Lane, Certification Coordinator



## Certification Straight Talk Book: DEMYSTIFYING THE PROCESS

[www.DuncanAviation.aero/straighttalk/certifications](http://www.DuncanAviation.aero/straighttalk/certifications)

After 60 years of selling and servicing aircraft, Duncan Aviation understands the vital role certification plays in the aviation industry. We also know that our customers in business aviation frequently feel stymied by our requests for documentation and consider the entire certification process to be unnecessarily cumbersome.

Dale Johnson, a retired ASI (Aviation Safety Inspector), and Repair Station PMI (Principle Maintenance Inspector) for the FAA, now an FAA DAR recently guided his client with the recurrent certification of their newly acquired aircraft.

“The certification process was very complex as the aircraft was in the final stages of receiving a completely new interior and paint job,” said Dale.

As work progressed, Duncan Aviation Project Manager Ryan Oestmann, RTS Inspector Wade Johnson, Certification Coordinator Aaron Lane, and QA Tech Document Specialist Brian Thomas kept a continuous flow of documents, drawings, data, and logbook entries going to Dale. All of the documents were then compiled into the certification document package for the certification of the aircraft.

The path to certification (or recertification) can indeed be long and document-intensive. In an effort to make it a little clearer and less frustrating for operators, experts from Duncan Aviation’s Engineering team spent months crafting a book that attempts to demystify certification.

“Many aircraft owners are unaware of how meticulous of a task certification can be,” says Aaron Lane.

“Whether you’re installing an espresso machine into an existing galley or building a custom-designed galley from scratch, everything you do to your aircraft will need to go through some sort of certification process.”


Dale was impressed with Duncan Aviation’s Repair Station procedures process, communication, and quality control systems.

“During my review of the documents, drawings, data, and logbook entries, I found the documents produced by Duncan Aviation to be of a higher level of detail and description for the work performed compared to those of other stations that I audited in my past FAA career,” says Dale.

Our Engineering and Certification teams routinely assist our customers with every step of the certification process, and we know that very few customers have a background like Dale’s that includes actual FAA experience.

Therefore, this new Certification Straight Talk Book explains the process of certifying and documenting repairs and modifications to aircraft. The book includes sections on importing and exporting aircraft, an explanation of the process of obtaining an STC (Supplemental Type Certificate), and the current state of global harmonization for the business aviation industry.

“Our recently released Certification Straight Talk Book explains all of this in terms that everyone can understand,” Aaron says. “Documentation of the modifications that were done to your airplane in the past are just as important as the documentation of the modifications you’re currently having done. The purpose of all this documentation is to show compliance to the airworthiness regulations that prescribe how you can operate and maintain your aircraft. We are certain that our latest Straight Talk Book will shed some light on this sometimes complicated subject.”

To download a free copy of the new Certification Straight Talk Book, go to the Duncan Aviation website at [www.DuncanAviation.aero](http://www.DuncanAviation.aero), click the Resources drop-down menu, and select Publications. From there, click the Straight Talk Books icon, and then click the icon for Straight Talk About Certifications. Or you may go directly there with this URL: [www.DuncanAviation.aero/straighttalk/certifications](http://www.DuncanAviation.aero/straighttalk/certifications). 





## A Collaborative MRO RELATIONSHIP Helps Operators Understand MODIFICATIONS AND AIRCRAFT VALUE

“Right now, an aircraft that has an ADS-B solution installed is valued higher with nearly a dollar-for-dollar add-on for its ADS-B modification. However, the closer we get to the end of 2019, as more and more of the fleet are upgraded, aircraft without the upgrade will see a significant sales price reduction.” - Doug Roth, Aircraft Sales and Acquisitions

In many ways right now, budget is king. Aircraft owners often choose to forgo future modifications. This can have significant consequences, especially when an aircraft is placed on the market. For this reason, keeping an aircraft up-to-date with respect to modifications is one of the easiest ways to protect the value of the asset through a purchase process.

“When modifications become common in a fleet, the decision to not adopt that modification more often than not becomes a ‘pay me now or pay me later’ situation,” says Adrian Chene, Duncan Aviation Avionics Tech Rep. “If you are going to pay for it either way, it starts to make more sense to adopt the modification and enjoy the features and benefits it provides.”

Doug Roth, an Aircraft Sales and Acquisitions expert with Duncan Aviation, knows this well.

“Once the majority of a fleet has a particular upgrade, trying to sell an aircraft without that modification results in a deduction from the aircraft’s value,” he says. “If an upgrade is desirable and implemented sporadically in a fleet, then it adds value to the aircraft, depending of course on the nature of the modification and the preferences of the purchaser.

“ADS-B is a great example,” Doug continues. “Right now, an aircraft that has an ADS-B solution installed is valued higher with nearly a dollar-for-dollar add-on for its ADS-B modification. However, the closer we get to the end of 2019, as more and more of the fleet are upgraded, aircraft without the upgrade will see a significant sales price reduction.”

Not all modifications fall in this category, though, says Doug. That’s why it makes sense for aircraft operators to have an excellent relationship with their aircraft sales representative and their MRO (Maintenance, Repair and Overhaul) provider.


### Sharing Upgrade Information

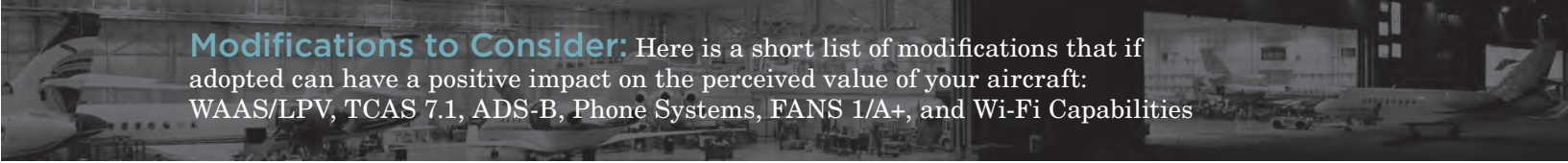
Open discussions between operators and their MRO facility regarding goals for the flight department and each aircraft in that department, changing aircraft missions, business uses and passenger preferences, will all help operators protect the value of their aircraft, Adrian says. Those discussions need to include modifications being adopted by certain airframe segments.

“These discussions are vitally important before an inspection comes due,” Adrian says. “Many modifications are less labor intensive if they are combined with an inspection. That results in cost savings for the operator who upgrades at that time rather than waiting until later, when the aircraft is going on the market.”

Another consideration that requires collaboration between the MRO and the operator, is the possibility of preparing and provisioning the aircraft for a future upgrade during an inspection while not completing the upgrade.

“This includes preparing the aircraft and wiring it for a future, desirable modification,” explains Adrian. “That makes the actual upgrade much easier and less time-consuming to complete when it is time to do so.”

Even when an aircraft fits its mission for its operator perfectly, it’s a good idea to consult with an MRO and an aircraft sales representative periodically. That way you have all the information and a better understanding of what is right for you, your aircraft, and its future value. After all, Adrian says, if you are going to pay for someone else to enjoy a state-of-the-art aircraft at its sale, you might as well adopt common modifications now and enjoy the convenience and safety that those modifications bring for you and your passengers. 



**Modifications to Consider:** Here is a short list of modifications that if adopted can have a positive impact on the perceived value of your aircraft: WAAS/LPV, TCAS 7.1, ADS-B, Phone Systems, FANS 1/A+, and Wi-Fi Capabilities



stone flooring

Dr. David Samani  
- hand-painted  
nose art

stainless steel  
step treads

## A Duncan Aviation Specialty: **CUSTOMIZATION**

The word so far this year for Duncan Aviation's Interior Shop, Paint Shop, and Design Center has been customization. Our customers have asked, and we have answered in a big way.

We started the year with a Global customer who wanted stainless steel stairs, similar to some he had seen on another aircraft. From the picture of the stairs, Team Leader of Fabrications Bryan Hart created a unique stainless design that our customer thought was even sharper-looking than the stairs he had seen.

We've since built those stairs for another Global customer who saw them and thought the clean, contemporary, industrial look would provide the perfect complement to his new interior.

"Stairs are a big deal," says Matt Spain, Senior Sales Rep in Completions and Modifications. "Look at the entryway for any aircraft; it's the first thing you see. Every aircraft entryway should be perfect and have attractive steps. And because these steps are stainless steel, they're eye-catching day or night because they pick up any available light and shine!"

Because of our on-site Design Center and the skill of our technical teams, we can handle just about any customization request we're asked to do.



digital rendering



completed interior

"We have fleet operators who want a unique design feature that they can carry through all of their aircraft," says Matt, "Regardless of whether it's a fleet or an individually owned aircraft, our customers know we'll work with them on the design and execution."

### Detailed Artwork

Former United States Air Force pilot Dr. David Samani, who is a Lincoln, Nebraska, orthopedic surgeon, remembers the nose art on the aircraft he flew in Desert Storm in Iraq. He mentioned to Project Manager Howard Nitzel that he'd like something similar for his aircraft.

Howard found a design and turned it over to Master Paint Specialists Stacy Finch and Troy Rienke, and they hand-painted the design onto the plane.

"Howard found an eagle that reminded me of the nose art," says Dr. Samani, "and I couldn't be happier with it."

Customers often tell us that when they come to us with a concept, they're confident they'll leave with exactly what they wanted.

"I repeatedly hear that our ability to carry through on the level of customization our customers want is what differentiates us from the competition," says Doug Alleman, Vice President of Customer Service. "They also tell me they can go home—and continue working where they're near their families—and know that the work here will happen exactly as they've asked it to be done."

### Reconfigurations Galore

Doing exactly what customers want can be exciting, if a bit challenging. Suzanne Hawes, Senior Sales Representative for Completions

and Modifications in Battle Creek, Michigan, had just such an opportunity earlier this year.

During a pre-buy inspection, one of Suzanne's customers told her he wanted the cabin seating reconfigured from 14 seats to 17. He also wanted to drop the overall weight of the aircraft so the round-trip customer flights he was planning could be completed with no fuel stops.

The reconfiguration required an STC (Supplemental Type Certificate), and Suzanne says team members from Engineering, Airframe, and Interior met with her, Project Manager Rich Jones, and Designer Ken Reita almost daily to compare notes and ideas after the initial meeting with the customer, his wife, and his aviation department.

"We had spreadsheets that we updated regularly with the weight of every single item, including coffee containers and life rafts, on that aircraft. We even took out the carpet and weighed it!" says Suzanne. "We pored over that interior, coming up with savings, ounce by ounce."

The team worked with Skandia, Inc., for the sound-proofing materials, saving 50 pounds by swapping out a different vendor's insulation in the headliner. By removing a pocket door, switching the seat and divan frames for lighter-weight versions, and replacing the stone countertops in the galley cabinet with sleek lightweight laminate, the team ultimately fit 17 seats comfortably in the cabin and shaved 374 pounds from the aircraft's weight! 🛩️



## To Avoid Flight Disruptions, Schedule NextGen Upgrades Now

Ed Hillman has spent his career in aviation either maintaining or managing the maintenance of various aircraft. Currently the Director of Maintenance for two Citations, Ed was recently at Duncan Aviation's Battle Creek, Michigan, facility with his company's Citation 560XL while it was in for scheduled maintenance.

The owner, Ed's boss, sees the Citation as a tool that's integral to the success of their business, and as such, he wants it available when the company needs to fly in clients from all over the United States. Downtime costs the company money, and no one is happy about that, least of all Ed.

"If we're AOG, I hear about it," says Ed. "Because the aircraft usually flies 400 hours each year, there aren't many days it's not needed for flying. And we work hard to keep it that way."

The need to keep that 560XL airborne is precisely why Ed opted to lock in time now

for the first quarter of 2017 when Duncan Aviation's Battle Creek facility will complete the ADS-B Out upgrade on the Citation. That way the aircraft will be compliant well before the Jan. 1, 2020, deadline.

"That deadline is coming fast, and we can't afford to have our aircraft AOG," says Ed. "It seems that everyone in the industry has been putting off getting these upgrades. So,

in our opinion, there'll be a rush of operators trying to get their aircraft in compliance at the last minute, and there won't be hangar space available or enough qualified technicians to do the work."

**"That deadline is coming fast, and we can't afford to have our aircraft AOG!"**

- Ed Hillman

During the three and a half weeks Ed spent in Battle Creek, engine techs removed the loaner engines from his 560XL, reinstalled the overhauled engines, and performed a Phase 5 maintenance inspection. While it was already down, Ed opted to lay the groundwork for the full ADS-B Out upgrade in the first quarter of 2017.

Duncan Aviation's Engineering Services has been developing numerous NextGen STCs (Supplemental Type Certificates). Our Engineering services team has more than 30 years of experience providing approved design changes for interiors and airframe modifications, avionics system installations, and system upgrades.

The company currently holds (or has access to) 37 STCs for ADS-B, which allows us to perform upgrades on more than 100 aircraft models. Duncan Aviation also holds or has access to FANS (Future Air Navigation System) STCs for 17 aircraft models. On a situational basis, Duncan Aviation plans to seek foreign validations for any NextGen STC solutions we hold. Visit the Duncan Aviation NextGen landing page ([www.DuncanAviation.aero/nextgen](http://www.DuncanAviation.aero/nextgen)) to see the mandate deadlines and a searchable database that lists STCs available by aircraft make/model.

Duncan Aviation holds an ODA (Organization Designation Authorization) from the FAA for developing STCs, MRA (Major Repairs and Alterations), and PMA (Parts Manufacturer Approval). As a result of this delegated authority, we're able to decrease the downtime waiting for approvals and diminish the costs associated with outsourcing the development of some STCs.

## STCs By The Numbers

When Ed asked about the downtime for the ADS-B install, the Avionics Sales Reps in Battle Creek encouraged him to get the initial upgrades—Dual WAAS (Wide Area Augmentation System) LPV (Localizer Performance with Vertical guidance) and new FMSes (Flight Management Systems)—while the Citation was there for its scheduled maintenance.

Based on the 560XL's current cockpit configuration, it would need upgrades to the dual WAAS and LPV prior to installing the ADS-B Out equipment. The two upgrades typically take 10-12 days, which was well within the three-and-a-half-week timeframe for the workscope.


While the cockpit was already opened for the scheduled maintenance, avionics installation techs upgraded the FMSes to be WAAS-capable, which also entailed updating the GPS antennas for accurate position data for all phases of flight.

Additionally, the analog screens on the RMU-850 were faulty and needed to

be replaced; however, due to equipment obsolescence, there are no replacements available. Because Ed's aircraft is on ProParts, the upgrade from the RMU-850 to RMU-855s was covered by the parts program.

Ed's Citation is on the ProParts program, and the RMU had been deemed defective by the OEM. The program saved Ed and his company a significant amount of money. To put it in perspective, the savings is comparable to the entire installation cost for ADS-B Out.

Ed has been bringing his company's aircraft to Duncan Aviation since 1998. Back then, Ed worked with Doug Kvassay, Sales Representative for Duncan Aviation's Aircraft Sales in Lincoln, Nebraska, to buy a Citation II.

"We take our aircraft to Duncan Aviation because the company has the expertise to get the job done," says Ed. "We're not willing to gamble with our aircraft, either. We also manage a 550, and we've schedule time for that aircraft's ADS-B upgrades, as well. Why wait until there's no space available?" 

In May, Duncan Aviation updated its NextGen Straight Talk book. Written by a team of avionics experts, the book clarifies the FAA's avionics upgrades known collectively as the NextGen initiatives. To find out what you need to know to make sure your aircraft is in compliance with the FAA's NextGen mandates, go to [www.DuncanAviation.aero/straighttalk/nextgen](http://www.DuncanAviation.aero/straighttalk/nextgen).

## NextGen Straight Talk

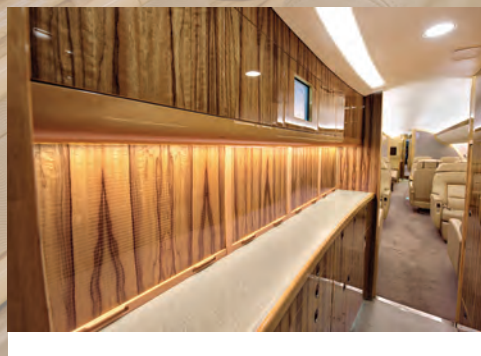
## BOMBARDIER GLOBAL EXPRESS

# BEFORE & AFTER

Inspired by the owner's love of sports cars, Duncan Aviation Lead Designer Mary Lee transformed the interior of a Bombardier Global Express from its safe neutral scheme to a thrilling mixture of eye-popping materials, textures, and colors. Blue carbon fiber, an color you don't often see in a business jet interior, served as the unifying hue throughout the cabin. Mary was judicious in her choices, opting to use the blue to draw subtle attention to the lighted cup holders in the drink rails, as accent lights along the floors, and as more of a focal point on the bulkhead dividers.

Up. Down. All-around!

View the interior in 360: [www.da.aero/videos/global-360](http://www.da.aero/videos/global-360)

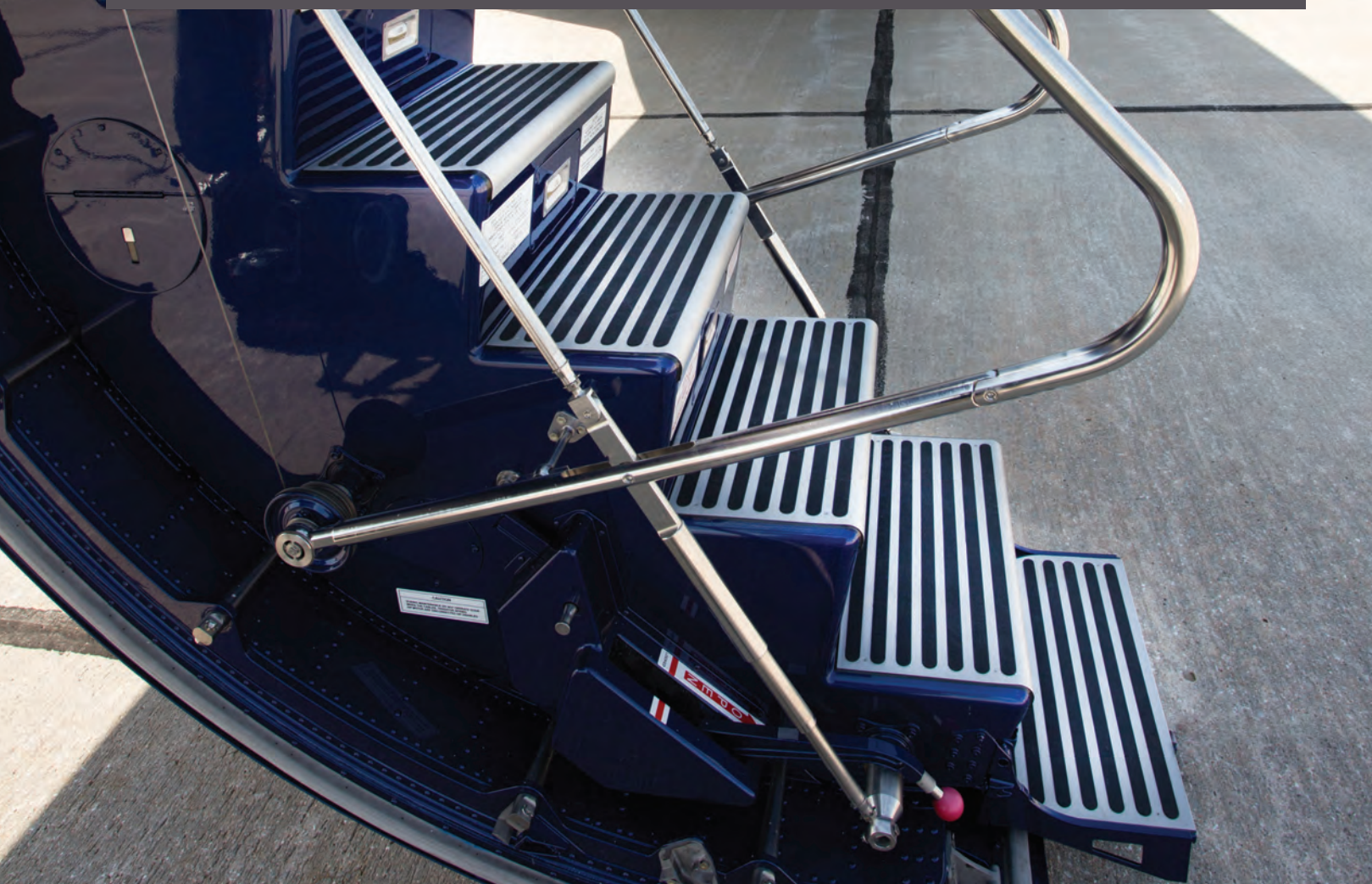


## Entryway & Galley



"As you walk up the new stainless with neoprene steps, the stunning blue illuminated wine rack serves as a preview of what's to come with the rest of the interior of the aircraft," says Senior Completions & Modifications Sales Rep Tracey Boesch.

"The galley function and look was especially important to our client," says Lead Designer Mary Lee. "His passion for fine wines and gourmet cooking became an inspiration for the final design."



## Sleek, Modern Interior

"It was important to incorporate the owner's preference for a sleek, modern interior with a flare that was unique to his tastes and had the feel of a high-end automobile," says Lead Designer Mary. "This was accomplished by using non-traditional finishes such as blue carbon fiber, brushed aluminum mixed with highly polished chrome, silver metallic painted cabinetry, and granite.

"It was fun to do, but it was challenging and stretched our minds, for sure," says Cabinet Shop Team Lead Steve Rosenow. "All of us, Design, Production, and Engineering, had to come together and figure this out!"



## Drinkrails

"No detail was overlooked. We paid special attention to the blue accent lighting at the floor, the lighted cupholders, the polished chrome details on the drinkrail that highlighted the touch-screen passenger control displays, says Mary. "We fought for the lighted cupholders. The owner wanted the high-end automobile feel in his Global, and no one made certified lighted cupholders for aircraft. Our Fabrication team worked with the Engineering team to make this happen."



## A Mix of Materials

"The owner loved the mix of textures and materials, and we worked hard to achieve a balance," says Mary. "He was passionate about the look and feel of the interior, and because everyone has veneer in his aircraft, he did not want any veneer anywhere."



# CJ3 Receives Pro Line Fusion® Flight Deck Upgrade



To see video of the flight deck transformation in progress, visit [www.DuncanAviation.aero/videos/cj3](http://www.DuncanAviation.aero/videos/cj3)



To learn more about the upgrade, visit [www.DuncanAviation.aero/cj3prolinefusion](http://www.DuncanAviation.aero/cj3prolinefusion)

Duncan Aviation has been working with Rockwell Collins to retrofit and certify the Pro Line Fusion® flight deck upgrade in a Citation CJ3. The aircraft will be on static display at the National Business Aviation Association (NBAA's) annual convention November 1-3 in Orlando.

Announced at last fall's NBAA show, Duncan Aviation will complete certification on the CJ3 by the end of 2016, providing operators with a new aftermarket option for meeting NextGen mandates while enhancing their ownership and flying experience. The upgrade replaces the factory-installed portrait displays with larger 14.1-inch landscape touchscreen primary flight displays. The new system includes intuitive, touch-interactive maps, and easy-to-use icons, giving the pilot the ability to control items on the screen through touch. Also, it eliminates the need for FMS (Flight Management System) control display units originally installed in the pedestal.

Duncan Aviation Captain Jon Kroesche flew second-in-command this summer during the CJ3's first test flight. He has this to say

about the experience, "The Pro Line Fusion® upgrade is a joy to fly. There is a wealth of information right at your fingertips. The three large touchscreens allow for easily changing flight plans. This will be a great product to see at the NBAA Conference in Orlando."


Jeff Simmons, Duncan Aviation's Avionics Sales Rep agrees. "The Pro Line Fusion® flight deck upgrade has been met with much enthusiasm from CJ3 operators. They are excited about transforming their aircraft and their flight experience while meeting the upcoming NextGen mandates."

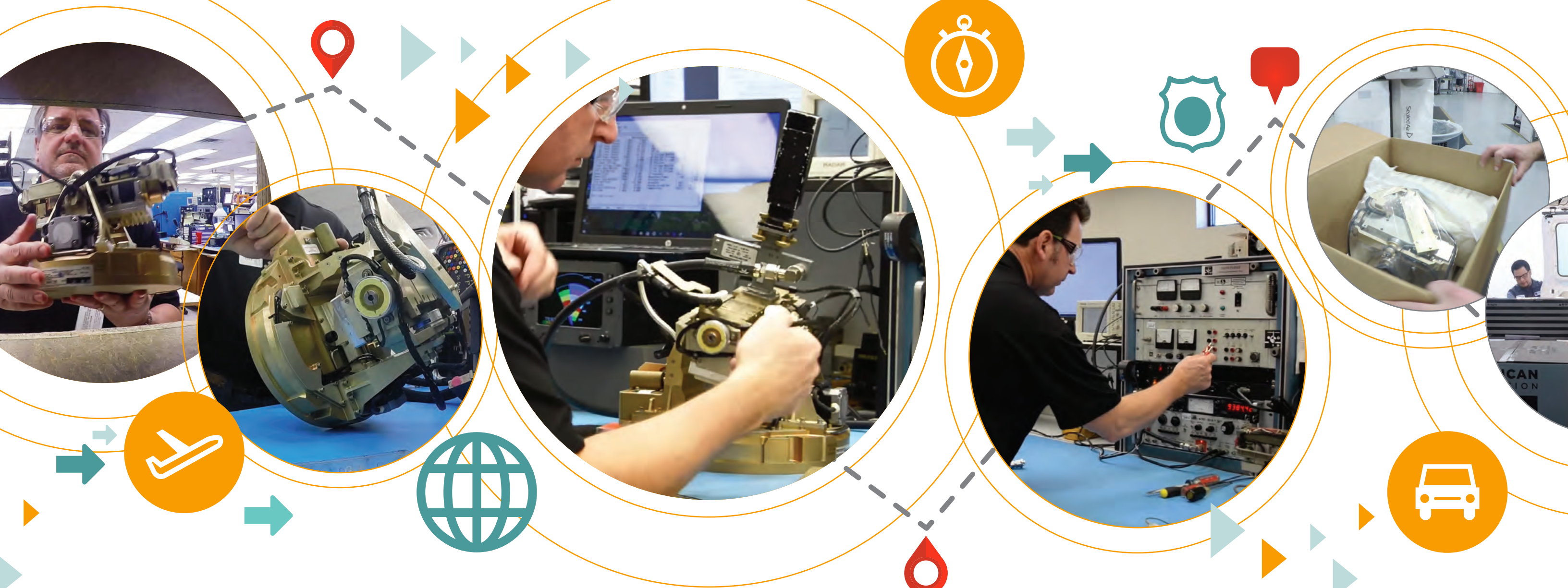
Rockwell Collins' Pro Line Fusion® has the following powerful baseline features:

- ADS-B Out compliance including the latest DO-260B standard
- Better landing minima with WAAS and LPV approaches
- RF (Radius to Fix) legs to access efficient curved routes
- Synthetic Vision System with terrain, obstacles and airport highlighting
- High-resolution topographical maps
- Touch-screen primary displays
- Graphical flight planning
- Memorized flight deck formats

- Terminal charts and enhanced maps
- Automatic display and sensor reversion

As a full-service MRO (Maintenance, Repair and Overhaul) facility, Duncan Aviation prides itself on the timely and efficient management of multi-shop projects. This allows operators to take full advantage of their aircraft's downtime by adding other necessary and desired work to the project. In addition to the Fusion flight deck upgrade, operators may request additional work, including the following:

- Airframe maintenance and inspections
- Engine maintenance and inspections
- Other avionics upgrades
- Paint
- Interior
- Accessories 



# IN A MATTER OF HOURS

## Duncan Aviation Avionics & Instruments

On March 15, 2016, a Honeywell WU-880 radar unit arrived at Duncan Aviation for a routine inspection and overhaul. Three days later, it was on its way home. Watch this video and follow along as it makes its way through the Duncan Aviation Avionics and Instruments shop in Lincoln, Nebraska.

**WATCH THE VIDEO HERE**

[www.DuncanAviation.aero/videos/radar-roadtrip](http://www.DuncanAviation.aero/videos/radar-roadtrip)

In an average month, 1,570 different units arrive at Duncan Aviation's Avionics and Instrument shop in Lincoln, for routine inspection, overhaul, service, or repair. They arrive from all over the world and represent virtually every type of equipment an aircraft or helicopter might have, or need to have, aboard.

With more than 2,900 square feet of test bench space and 231 test sets, a unit can be turned in as little as a few hours to a few days, depending on the squawk and the required repair or overhaul. When it is returned, it is tagged with


a Duncan Aviation 8130 and a guarantee of the highest quality workmanship available.

The Avionics & Instrument shop employs 89 bench technicians specializing in the following areas:

- Autopilot/Flight Director Systems
- Radar Systems
- Navigation/Communication Systems
- ADF Receivers/DME Transceivers
- Flight Management Systems
- Transponders
- ADI (Attitude Direction Indicators)
- HSI (Horizontal Situation Indicators)
- Pitot Static Instruments
- Gyros
- Calibration Services

Each area operates multiple shifts to provide the fastest turntimes and expedited AOG services.

The Duncan Aviation Avionics and Instrument shop also offers these unique service capabilities:

- Collins TDR-94/94D Transponder
- Universal FMS/TAWS/DCVR
- Authorized Artex ELT (Emergency Locator Transmitter) Service Center
- Honeywell Primus II Navigation and Communication Radios
- King KFC-400 Autopilot
- NAT Audio and Radio Systems
- Chelton Avionics Systems
- Honeywell Authorized Gyro Service Center
- Authorized Avidyne Legacy MFDs Service Center (FlightMax and EX-500) 

# What is Value Worth? DUNCAN AVIATION LANDING GEAR

Landing gear overhauls and inspections are a necessary part of aircraft ownership. During an event—in the simplest of terms—the gear set or subassembly is torn down to its most basic parts. They are cleaned, inspected, and when necessary, repaired or replaced. When repair isn't possible, new parts replace the old and damaged. Then the process is reversed. Components are painted and assembled; sets are built and tested, and then returned to the aircraft for the final installation. Sounds simple, right? If it were, then everyone would be doing it.

Although not everyone from coast-to-coast is working on landing gear, landing gear overhaul and repair services are often viewed as a commodity in the business aviation industry. There are almost too many choices on where to send your gear when it comes time for inspection. Although it makes sense to think with FAA regulations, Chapter 5 requirements, and access to the same maintenance manuals, that all facilities are equal. You would be wrong.

In reality, landing gear overhauls are not created equal, and there are often many differences among the maintenance facilities and the quality of work performed, and out-the-door price.

So how do you decide?

## Downtime

No one looks forward to having their aircraft down for inspection. Time is money and your

aircraft needs to be available at all times. That is why meeting your time requirement is one of our requirements. We are always examining our processes to find more efficient avenues to deliver landing gear faster. However, we will never sacrifice quality or safety for the sake of time.

In 2015, Duncan Aviation's landing gear shop proved we meet quoted turn times a nearly perfect 98% of the time on scheduled, complete landing gear sets. In 2016, we are on track to improve that number even further thanks to a more efficient process and interactive calendar.

## Experience

Duncan Aviation has been overhauling, inspecting, and repairing landing gear assemblies and subassemblies since 1978. The shop started out as a bench at the back of our main hangar but has since grown to a 6,000-square-foot facility equipped with an overhead crane, dedicated paint booth, and cure room.

Are we the largest landing gear shop in the industry? Possibly not, but to the nearly 500 operators who rely upon us each year, we are big enough. With capabilities on more than 50 different make/model aircraft and 3,143 unique landing gear parts, we're confident we're able to meet your needs, too.

**Because we stand firmly behind our work, our warranties cover everything. Parts, labor, and not just our work, but the work of others...covered.**

## Promise

Our customer service does not end when the project is over. It is a continuous commitment to make things right long after the landing gear leaves our shop. Because we stand firmly behind our work, our warranties cover everything. Parts, labor, and not just our work, but the work of others...covered. I know what you're thinking! How can Duncan Aviation possibly offer a warranty on work we didn't perform? It's simple. Through our experience, we've been able to identify high-failure parts and will take the extra time during overhaul to make sure those parts are able to last.

We think we've done a pretty good job at it because our warranty claim rate in 2015 was less than 1%, 0.6% to be exact.

## Pricing

Although price is likely not the most important factor in your buying decision, it still is an important one. That is why we offer three different pricing structures to fit your budget requirements.

**Firm Fixed.** Before your gear gets to Duncan Aviation, you will know what you are paying. Firm Fixed guarantees one price with no bill-back, regardless of the condition of the gear. We have heard from several operators who chose a lower-cost provider that with additional billing based on the gear's condition, their final invoice was higher than our Firm Fixed quote.

**NTE (Not To Exceed).** With NTE, we will provide you with the maximum quote. Your final bill will not exceed that quote. It could even be

less. There will be no additional billing that will drive the invoice over the NTE maximum price.

There could be some exceptions to the above pricing structures of which you will need to be aware. These include additional customer requests, optional Service Bulletins, missing or abused parts, and replacement of life-limited parts and engineering fees, if required.

**Standard Pricing.** Standard Pricing includes all labor required to perform the normal inspection or overhaul, and required parts. Any discrepancies found during the inspection that may require additional parts and labor, will be quoted over and above.

Each pricing structure has its advantages. We will work with you to identify which makes sense for you.


We realize that you have a lot of choices when it comes to servicing your landing gear. We know you want more than the minimum required. If...

- You expect your downtime requirements to be respected.
- You require quality and experience.
- You demand a guarantee of a job well done.
- You want flexible pricing options to meet your budget.


You need Duncan Aviation. 

Watch a Challenger 604 192-month Inspection:  
[www.DuncanAviation.aero/videos/192-month-inspection](http://www.DuncanAviation.aero/videos/192-month-inspection)





# OPERATORS CAN TURN SPARE PARTS INTO SERIOUS CASH



For the past three years, Duncan Aviation's Parts & Rotables Sales has paid more than \$7 million to customers who have let us sell their excess inventory of aircraft parts, accessories, and rotatable units. With three programs to choose from, aircraft operators can turn unneeded parts and rotables into revenue. Whether you are selling your avionics units outright or want to become a consignor, we will partner with you to help you recycle your idle components and turn them into cash.

## **Avionics Buy Back**

We have been paying cash for surplus inventories of avionics units for more than 45 years with an average annual company payout totaling more than \$1 million. We seek out good, serviceable, documented, avionics and instrument parts for all makes of business aircraft, including modifications packages removed for avionics upgrades.

When you provide us your list, we will quickly evaluate the part numbers and will have a reply back to you within days. Simply email us your inventory list, with part numbers, preferably in an Excel spreadsheet, to [WeBuyAvionics@DuncanAviation.com](mailto:WeBuyAvionics@DuncanAviation.com).

## **Parts and Acquisition Consignment**

The Duncan Aviation Consignment program was started in 1984. Since 2010, we helped 1,652 operators clean their hangar shelves and line their pockets with consignment payouts totaling \$3.5 million dollars.

Operators from around the world ship us their excess parts inventories, where they

remain until sold. Having this physical access allows us to offer overnight delivery, which is often required by customers across the globe. Yet operators retain ownership of the parts until they are sold.


"Instead of an operator storing, insuring, cataloging, advertising, selling, invoicing, collecting payment, packaging, and shipping parts themselves, we help them convert their surplus inventory into cash and free up storage space," says Susan Masek, Duncan Aviation's Senior Consignment Manager.

## **Managed Rotable Inventory**

Duncan Aviation's MRI (Managed Rotable Inventory) program allows customers, parts brokers, aircraft operators, aircraft sales organizations and/or vendors to stock their rotatable inventory with us, maintaining full ownership while we manage every aspect of exchange sales.

We will warehouse, market, exchange, and ship your rotables anywhere in the world, anytime, day or night, while overseeing all the details of getting cores returned and tagged to be received back into your stock to sell again.

Your inventory is included in all of our marketing efforts, including locator services. The parts receive exposure to more than 21,500 companies, 32,607 aircraft, and 65,000 customers in 192 countries, all from the Duncan Aviation customer database.

No matter what program you choose, Duncan Aviation's Parts & Rotables Sales Reps will be working around the clock to put money in your pockets. 

# News & Tech Updates

Duncan Aviation strives to keep you up-to-date on the continually changing aviation industry.

## Duncan Aviation Named Dealer/Install Center for Avionics

Duncan Aviation was recently named a dealer and installation center for all Avionics, Inc., products, including FDM (flight data management) services, FOQA (flight operational quality assurance) data, and Satcom products in the business aviation segment.

“Avionics has been an industry leader in innovation and Duncan Aviation is proud to offer their products,” says Mark Francetic, Duncan Aviation’s Regional Avionics Sales Manager. “Their quick-access recorder (miniQAR) has been certified in many general aviation aircraft. Avionics also has projects and systems available for FANS 1/A+ solutions using FOI (FANS Over Iridium).”

With headquarters in Miami, Avionics is the world’s leading manufacturer of aircraft data collection and satellite communication data transmission equipment. Founded in 1992 by two computer engineers with \$500 in start-up capital, Avionics has grown to 60 employees and a customer list of airlines from around the world.

“Avionics is proud to be associated with Duncan Aviation, which is a premier completion and modification center serving the business aviation market. Duncan Aviation’s vast experience in this market allows business jet operators to easily access our leading edge technologies

for automated flight data collection and global wireless delivery that support valuable safety programs, including Flight Operations Quality Assurance. Furthermore, the addition of Avionics’s FANS-1/A+ approved satellite communications equipment to Duncan Aviation’s portfolio allows operators a one-stop solution for complete FANS-1/A+ compliance well ahead of the 2020 mandate deadline,” said Anthony Rios, Vice President of Sales at Avionics.

For more information about Avionics products, contact Duncan Aviation’s avionics installations sales team at +1 402.475.2611 or +1 269.969.8400. 📞

## Duncan Aviation Schedules Eight Falcon 7X 1C Inspections

In April, we delivered our first Falcon 7X 1C inspection, with added interior refurbishment and complete paint, two full days ahead of schedule. This inspection was quickly followed up with three more at both our Lincoln and Battle Creek facilities. We have an additional three aircraft scheduled for this milestone inspection, two yet in 2016 and one in early 2017.

According to Project Manager Doyle Garrett, the first 7X we inspected

has been flying without issue ever since. “The customer expressed what a pleasure it is to work with our team. They said working with their friends at Duncan Aviation makes dealing with any issue not such a big task. The pilot also commented that this was the very best post maintenance test flight he has ever flown.”

In addition to this milestone inspection, the aircraft received an interior refresh with a nose-to-tail

soft goods refurbishment, including new Avonite counters in the galley and lavatory, new plating on all hardware, and cabinet repair/touch-up. The aircraft also went home with a complete exterior paint, with new color and design scheme.

Watch a time-lapse video of the first Falcon 7X 1C inspection performed by Duncan Aviation at [www.DuncanAviation.aero/videos/7X-C](http://www.DuncanAviation.aero/videos/7X-C). 📺



Duncan Aviation’s President, Aaron Hilkemann (right) spoke at the GAMA Michigan Jobs Rally on June 17, 2016.



## Duncan Aviation’s BTL Facility Hosts GAMA Rally

Hundreds turned out for the GAMA (General Aviation Manufacturers Association) Michigan Jobs Rally held June 17 at Duncan Aviation in Battle Creek, Michigan, to recognize the importance of aviation and its contributions to our communities.

Duncan Aviation’s President, Aaron Hilkemann, along with US Senator Gary Peters from Michigan and other aviation business leaders from Avfuel Corporation, L-3 Communications, and Williams International, spoke in front of those gathered.

Each speaker addressed the crowd, giving examples of how the aviation industry has positively impacted the economy of the state of Michigan, as well as the benefits to their communities, employees and families.

Below are a few comments from the speech Aaron gave before several Duncan Aviation employees, aviation industry leaders, and students from Western Michigan University.

• In Battle Creek today we employ more than 600 people and we are

currently hiring and expanding the team. These are interesting, career-inspiring jobs at many levels that include good health insurance, vacation time, 401(k) opportunities, a wellness culture and many other benefits.

• This is a place where people want to work. We see that in the number of job applicants who have been recommended by current team members, many of them family members. 96 Duncan Aviation team members have a family member working here in BTL, with more than 40 different families represented. One example is the Slee family. The Sleees have had three generations who have worked here. Four Sleees are currently employed by Duncan Aviation.

• Our company and general aviation as a whole offer a broad range of career progression opportunities. One example would be Tom Burt, the Chief Operating Officer at Duncan Aviation-BTL. Tom worked his way

through college as a flight instructor and then started at Duncan Aviation as a beginning airframe mechanic. He progressed through customer service, sales, sales management and eventually into senior management.

• This is also an industry that provides long, solid careers for many team members. At our Battle Creek facility, we have 24 team members who have been working in the company for more than 30 years.

• Our industry is also well-known for providing opportunities to veterans and those transitioning from the military. At Duncan Aviation, we have hundreds of team members who have served or are serving in the military. In Michigan, nearly 22% of our team members have military experience.

• General aviation companies and aviation jobs are good for our communities and states and we must be sure they continue to be properly supported and recognized for their contributions. 📺

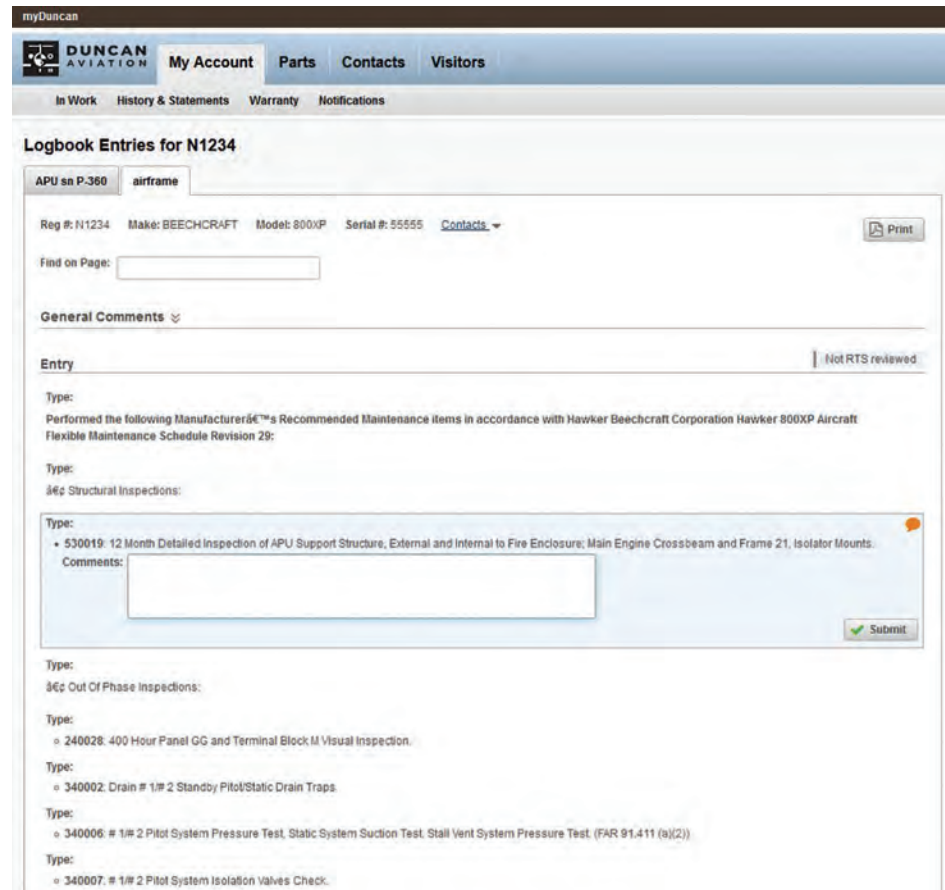
## New myDuncan Logbook Entries Feature Launched

We recently added an electronic logbook feature to our web-based project management system, myDuncan. Customers are now able to view their logbook entries in real-time, categorized by airframe or engine, while at the same time communicate directly with inspectors through the system.

Duncan Aviation Quality Inspector Jerome Sveeggen says allowing customers to have access to logbook entries through myDuncan gets conversations started sooner, saving time later. "Often, customers will have questions or issues surrounding logbook entries," he says. "Being able to address those early means they are not left until delivery day and helps to ensure an on-time and high-quality delivery of the project."

myDuncan, launched in 2006, allows customers to monitor progress of any maintenance or upgrade event, giving them greater access and better control of their projects from anywhere in the world.

Customers receive email alerts, job status reports, and updates from their Project Manager with hour and




cost estimates for all phases of the project. Through myDuncan, they are aware of items that needed attention and approval and are able to view and comment on reports and photos.

Two other myDuncan enhancements are in work:

- A quote review and approval feature allowing customers to view sales quotes, including options to compare quotes, see

revisions, and electronically approve an agreement.

- A flowchart/calendar feature that will give customers the ability to watch as their aircraft progresses through project milestones.

myDuncan is available to all Duncan Aviation customers with aircraft projects in work at a Duncan Aviation facility. 

## Duncan Aviation Alliance Program Provides EMEA Support

Duncan Aviation is pleased to announce the formation of the Duncan Aviation Alliance Program. The goal of the Alliance Program is to enhance market presence and customer service levels for corporate jet operators in EMEA (Europe, Middle East, and Africa) by developing long-term relationships with highly respected service providers throughout the continent.


The essence of the Duncan Aviation Alliance Program is to support the customers of Duncan Aviation and its Alliance Program members. To this end, Duncan Aviation's EMEA customers will benefit from having support in their respective regions for warranty work and AOG services and for potential participation in future maintenance programs. Duncan Aviation and the Alliance Program members are currently exploring complementary services to determine the best offerings for customers, which could include providing maintenance, modifications, repair capabilities, parts and material availability in the region and the sharing of industry and organization best practices and training opportunities.

The Alliance Program will also explore the potential inclusion of Duncan Aviation Tech Rep support for airframe, engine, APU, avionics,

accessories, components, and troubleshooting to further enhance the customer experience.

Program development has begun between Duncan Aviation, Air Alsie, and JetSupport. Air Alsie is an aircraft management, charter service and maintenance company based in Denmark, and JetSupport is a maintenance and aircraft support company based in The Netherlands.

"Right now, the three companies have agreed that there are distinct synergies, and we are committed to explore these various opportunities and develop specific programs to provide even better ongoing support and service for business jet operators in Europe, Middle East, and Africa," says Steve Gade, Vice President of Aircraft Sales and Business Development for Duncan Aviation. "We are extremely selective in our choice of Duncan Aviation Alliance Program members. Selection criteria is based on market coverage requirements, capabilities and character of the prospective partners."

Watch for more information as the Duncan Aviation Alliance Program continues to develop. 



"We are extremely selective in our choice of Duncan Aviation Alliance Program members. Selection criteria is based on market coverage requirements, capabilities, and character of the prospective partners."

- Steve Gade, VP of Aircraft Sales and Business Development

## Aircraft Listings

Our inventory is always changing. Visit [www.DuncanAviation.aero/aircraftsales](http://www.DuncanAviation.aero/aircraftsales) for more information on our current aircraft listings.



## Duncan Aviation & ACSS to Develop Transponders for ADS-B Mandates

We are proud to partner with ACSS to participate in the launch of the NXT-700 transponder and the development of the AML (Approved Model List) STC (Supplemental Type Certificate). The NXT-700 is a Mode S transponder that satisfies the DO-260B mandate for ADS-B (Automatic Dependent Surveillance-Broadcast), and the AML STC will include more than a dozen legacy aircraft models. Those models include:

- Beechcraft Hawker 125-400, 600, and 700
- Beechcraft Hawker 400 SP/ Beechjet, Early 400 Series
- Gulfstream IIB, III, and V
- IAI Westwind 1124
- Textron Aviation CitationJet, Ultra, V, VII, and 550
- Learjet 31A, 35, 35A, 36, and 36A
- Dassault Aviation Falcon 10, 20, 50, 200, 900, and 900B
- Bombardier CL-6013A, and 3R

In August, Duncan Aviation's Kansas City avionics shop completed several pairings on the NXT-700 on a Learjet 31A. ACSS expects the AML

STC to be completed yet this fall.

"Duncan Aviation's Kansas City Shop Manager Jeff Aman and his team completed the three pairings with ACSS and their engineering team in record time under some very difficult conditions," says Mark Francetic, Duncan Aviation's Regional Avionics Sales Manager. "There is one more additional pairing to be completed by the end of the year, on a Honeywell GNSSU. The success of this endeavor so far has a lot to do with the professionalism and expertise of the Duncan Aviation and ACSS technicians, engineers, and program managers. Their commitment to the program, the launch customer, and the legacy aircraft operators who need this ADS-B solution is commendable."

The ACSS NXT-700 transponder will help legacy aircraft operators by providing avionics equipment that meets the NextGen ADS-B mandates. The NXT-700 will save owner/operators costs and downtime because it is form-fit compatible with



current retrofit TCAS II (Traffic Collision Avoidance System II) 7.1 systems and may be able to use the existing mounting rack and connectors for a quick installation. Since there are no additional control heads needed, the cockpit configurations will remain the same as well.

Once the AML STC is completed with the FAA, approval will be sought with TCCA (Transport Canada Civil Aviation) and EASA (European Aviation Safety Agency) authorities.

For more information about the NXT-700, contact Mark Francetic, Duncan Aviation's Regional Avionics Sales Manager, at +1 702.303.4888 or Mark.Francetic@DuncanAviation.com. 

## Quick Turntimes on TDR-94 Transponders

The Duncan Aviation avionics and instrument performs TDR-94 and TDR-94D transponder service that includes repairs and upgrades. In light of the increased volume of TDR-94 modifications, Duncan Aviation has developed a TDR-94 Quick Turn Team that provides same-day evaluation and three-day turntimes, with AOG options available when needed.

These technicians, having serviced the -003 TDR-94 units for the last several years, have developed a highly efficient repair process that will even allow a one-day repair with proper scheduling.



We offer the repair and service of these units at our main avionics and instrument shop in Lincoln, Nebraska, as well as through our satellite avionics facilities located throughout the United States.

We are also able to modify earlier transponders to the -500-501 series, which will meet the ADS-B mandate for 2020 when the unit is properly installed and certified.

The Rockwell Collins TDR-94/ TDR-94D transponder is a solid-state, crystal-controlled receiver/transmitter specifically designed for TCAS-II-equipped business aircraft. Duncan Aviation is authorized to repair and service transponders with the Rockwell Collins part numbers of 622-9352-002 through -008; -108; -207; -308-311; -408-411; -500-501 and 622-9210-002 through -008; -108; -207; -308-311; -408-411; -500-501. 

## Duncan Aviation Provides San Antonio Avionics Support


We are pleased to announce the opening of our new San Antonio, Texas, avionics work-away location, which gives customers one more option when they need skilled technicians in a timely manner.

Manager of Satellite Operations Matt Nelson says, "Numerous customers have asked us to establish a presence in San Antonio, and after assessing the city and the airport, we agree that it's a great place for Duncan Aviation to

establish service options. San Antonio is one of the few airports in the country with an aircraft mix that matches our business model, and it's especially attractive because the city has such a strong and diverse economic base."

On the southeast side of the San Antonio International Airport on Wetmore Road, the work-away office is ideally located for Duncan Aviation technicians to quickly respond to customer needs. Greg Ashpaugh, who

began his career at Duncan Aviation as a Crew Lead at the Dallas Satellite facility 13 years ago, will be working in San Antonio and traveling to customer aircraft to facilitate avionics repairs and installations as needed.

Greg can be reached at: Duncan Aviation San Antonio 9023 Wetmore Road, 2nd Floor, Room B San Antonio, Texas 78216 +1 210.267.9644 


## NextGen Straight Talk Book Updated

In the often confusing, acronym-happy aviation industry, Duncan Aviation continuously strives to be the voice of clarity. We aim to provide the industry with thorough information in clear, concise, no-nonsense language.

Toward that end, Duncan Aviation is pleased to announce the release of its most recent version of the NextGen Straight Talk book. The book, updated in May 2016 by a team of avionics experts at Duncan Aviation, clarifies the FAA's (Federal Aviation Administration) avionics upgrades known collectively as the NextGen initiatives.

To find out what you need to know to make sure your aircraft is in compliance with the NextGen mandates, go to the Resources drop-down menu and select Publications from the Duncan Aviation website to download your free copy of the most recent version of the NextGen Straight Talk book or follow this link: [www.DuncanAviation.aero/straighttalk/nextgen](http://www.DuncanAviation.aero/straighttalk/nextgen).

Duncan Aviation has access to or holds 37 solutions for ADS-B, which allows the company to perform upgrades on more than 100 aircraft

models. We are authorized by Rockwell Collins to perform the ADS-B modifications on their line of TDR-94 and TDR-94D transponders. Duncan Aviation also has access to FANS solutions for 17 aircraft models. On a situational basis, Duncan Aviation plans to seek foreign validations for any NextGen STC solutions the company holds. Visit the Duncan Aviation NextGen landing page at [www.DuncanAviation.aero/nextgen](http://www.DuncanAviation.aero/nextgen) to see the mandate deadlines and a searchable database that lists STCs available by aircraft make/model. 

## The Duncan Family Trust Supports Team Members, Communities

In 2016, the Duncan Family Trust has continued its strong history of supporting Duncan Aviation team members and the communities in which we live by focusing efforts on social welfare and education. The Karen K. Duncan Scholarship Program has now awarded \$1.48 million in the form of 241 individual gifts. The Philanthropy Committee has expanded this endeavor with a recent announcement that we will now also be funding scholarships for children of employees to gain real-world experience and earn college credit at the same time. In Lincoln, Nebraska, they will do this through The Career Academy, a program formed through a partnership between Southeast Community College and Lincoln Public Schools, which welcomed its first group of students in 2015.

Duncan Aviation is continuing to enrich local communities by growing partnerships with special education students. There is an established relationship in Battle Creek with a program called Project Search, and the

company recently launched a similar program in Lincoln with Vocational Opportunity in Community Experience (VOICE). As part of these programs, students and teachers work at the Duncan Aviation facility, which teaches the students vocational skills that will help them transition into adult living.

The Duncan Family Trust has also continued to partner with and support many local organizations including the following:

- Boys & Girls Club
- Food Bank of Lincoln
- United Way of Lincoln
- and Lancaster County
- Habitat for Humanities
- Child Advocacy Center
- Lincoln Literacy
- United Way of Battle Creek
- Salt Lake Community
- College AMT Club
- Special Olympics
- Junior Achievement
- Boy Scouts
- YMCA
- Foundation for LPS

- Nebraska Children and Families Friendship Home
- Make a Wish Foundation
- NET Foundation for Radio
- Autism Family Network
- Guardians of Freedom Air Show
- Western Michigan Public Radio

Duncan Aviation's Soaring to Serve Committee has continued to provide opportunities for team members to go out and serve our communities through action. In June and July, the Duncan Family Trust sponsored a 60 Days of Giving volunteer drive in which the team members who logged the most volunteer hours won a cash prize for the non-profit of their choice. Employees have also collected donations of school supplies and food and volunteered with the following organizations:

- American Red Cross
- Lincoln Children's Zoo
- Lincoln Children's Museum
- Salvation Army Soup Kitchen
- Charitable Union
- Food Bank of South Central Michigan

The mission of the Duncan Family Trust is to enhance the quality of education, create positive change in the community, increase awareness, and interest in the aviation industry and support the arts.

Visit the Duncan Family Trust website to learn more: [www.duncanfamilytrust.org](http://www.duncanfamilytrust.org).

The Soaring to Serve committee also partners with Duncan Aviation's Green Team to organize various recycling and conservation educational efforts, the Adopt-a-Highway roadside cleanup, a clothing drive,

and a coat drive. Employees are also encouraged to take their pop tabs off cans and collect them in custom-made Ronald McDonald houses for recycling and donation to this national charity. These initiatives

help reduce waste, promote and increase recycling and other forms of green disposal, and simplify sustainable living while facilitating a passion that will protect our planet for future generations. ♻️



Tractors, Trucks, Trains & Planes



United Way Pancake Feed



Backpack Program



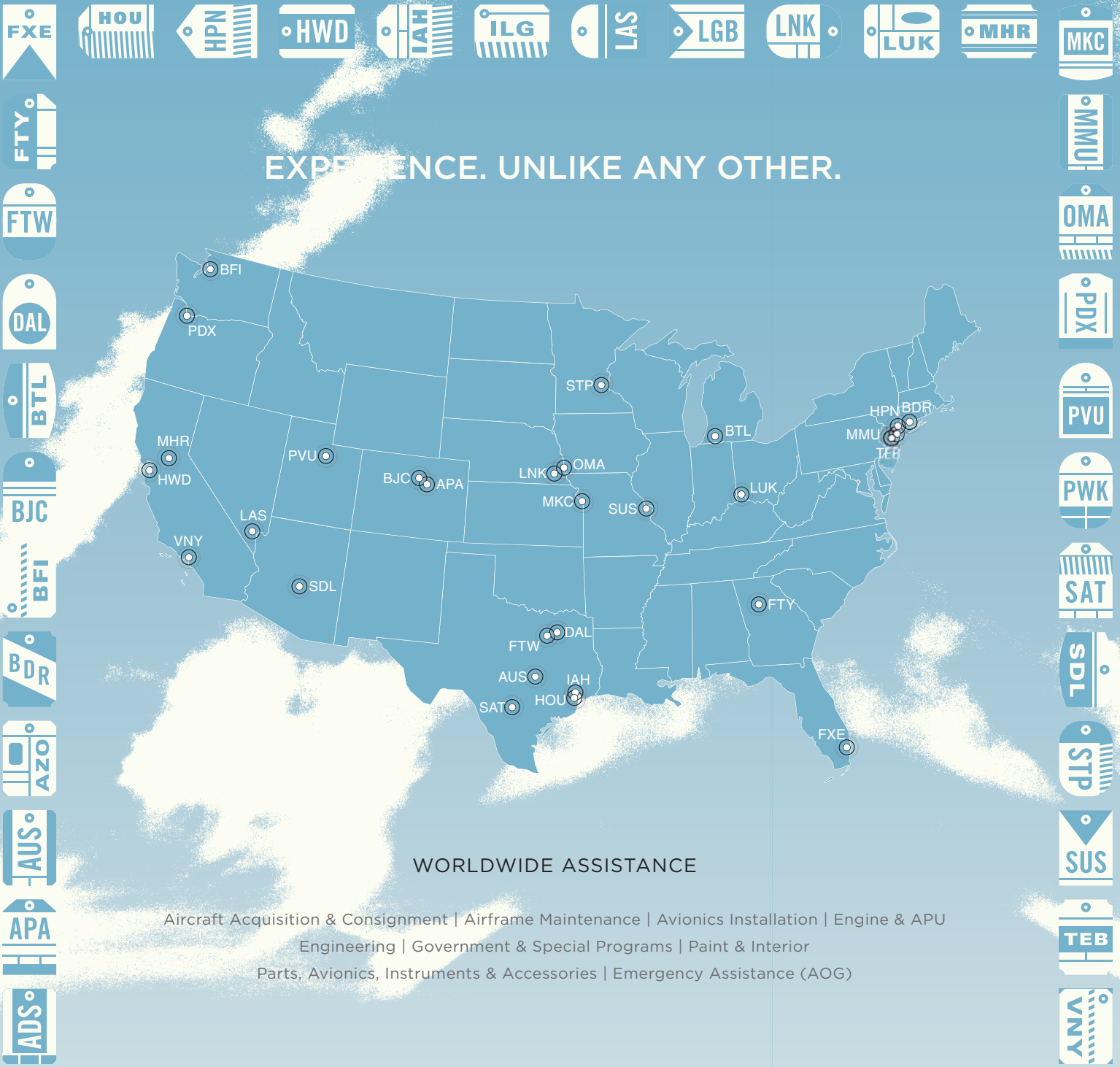
United Day of Caring



Adopt-A-Highway



Ronald McDonald Pop Tab House



EXPERIENCE. UNLIKE ANY OTHER.

WORLDWIDE ASSISTANCE

Aircraft Acquisition & Consignment | Airframe Maintenance | Avionics Installation | Engine & APU  
 Engineering | Government & Special Programs | Paint & Interior  
 Parts, Avionics, Instruments & Accessories | Emergency Assistance (AOG)

