

A publication of Duncan Aviation

Duncan Debrief

Fall 2017



Cover: Duncan Aviation welcomes customers from all over the world. Team members like South American Regional Manager Allan Orsi (left) and Project Manager Jason Burhoop (right) strive to make each and every customer feel at home. Argentinian Technician Jose Monascal is a long-time customer of Duncan Aviation. He values the relationships he has developed with our team members and our unmatched service and support.

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www.DuncanAviation.aero
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CHAIRMAN
Todd Duncan

ACTIVE COLLABORATION AND INVOLVEMENT IS VITAL FOR BUSINESS AVIATION

I have learned two very valuable lessons in the 25 years I have been working at Duncan Aviation. The first is that you should surround yourself with the best. The second is that you absolutely must be involved in something bigger than you.

WORKING WITH THE BEST

I work with some phenomenally smart and innovative people. They make me better. The same goes for the company as a whole. Over the last 36 months, Duncan Aviation has conducted business with 79 of the 86 Fortune 100 companies that own aircraft. For a variety of reasons, the exposure to these companies has made Duncan Aviation better.

Let me give you a specific example. Our Continuous Improvement team recently began collaborating with representatives from a large fleet customer to improve aircraft delivery rates for their projects. While researching past deliveries, we discovered that 25% of a project's paperwork was being completed in the last three days of the project. Delays in this paperwork would negatively impact delivery rates. Not to over-simplify the issue, but in essence, when we moved paperwork completion up in the schedule, delivery rates improved. Not only did the lessons learned apply to this customer, but we were able to take them and apply them to other projects and positively impact other customer deliveries.

STAYING INVOLVED IN THE INDUSTRY

Over the years, business aviation has been very good to my family. We love to fly, and the industry has allowed us to not only fly, but to make a living doing what we love. One of the best ways I have found to give back to the industry is to be involved with the NBAA (National Business Aviation Association). In October, I will take over as Chairman of the NBAA Associate Member Advisory Council, a group that was established to advise the NBAA Board of Directors on issues of interest to NBAA's Associate Members and to help support and share goals of the NBAA. Working to prevent ATC (Air Traffic Control) privatization, to raise awareness of business aviation careers for high school and college students, and to ensure ethical business practices are just a few of the industry hot points right now.

In addition to serving on the council, I personally visited our senators in Washington, D.C., this May to discuss concerns over ATC privatization. Duncan Aviation has hosted visits and tours for various elected officials at our hangars in Battle Creek, Michigan; Lincoln, Nebraska; and Provo, Utah. We encourage our team members and customers to be involved and make their voices heard. 🇺🇸

Duncan Aviation Advantages

JUST AS EVERY BUSINESS AIRCRAFT IS DIFFERENT, EVERY CUSTOMER IS DIFFERENT, AND THEY HAVE VARIED SERVICE PREFERENCES. FOR THE MOST PART, THOUGH, WHAT BUSINESS AIRCRAFT OPERATORS TRULY VALUE IN A SERVICE FACILITY CAN BE CATEGORIZED IN FOUR MAIN AREAS: CONVENIENCE, QUALITY, COMMUNICATION, AND ON-TIME DELIVERY.



WWW.DUNCANAVIATION.AERO/ADVANTAGES

DUNCAN AVIATION HAS LONG FOCUSED ON CONVENIENCE, QUALITY, AND ON-TIME DELIVERY. THROUGH THE YEARS, WE HAVE DEVELOPED A COMPANY CULTURE THAT ENCOURAGES TEAM MEMBERS TO CONSISTENTLY PROVIDE THEM TO OUR CLIENTS.



Greg Hamelink and Duncan Aviation Project Manager, Gary Dunn

CONVENIENCE

Making services convenient is a matter of access, responsiveness, and expertise. With more than 2,150 aviation experts located around the world, Duncan Aviation has model-specific and system-specific experts for the most popular business jets in use today.

The majority of these team members are located at our three full-service MRO (Maintenance, Repair and Overhaul) facilities, 26 avionics satellite and workaway locations, and 16 engine Rapid Response launch offices in the United States. That means a Duncan Aviation team is no more than 150 nautical miles from the top 100 busiest business jet airports in the United States. In addition, we have aircraft sales and support service representatives located throughout the world and engine tooling and equipment that are staged and ready to use.

And with airframe, avionics, and parts troubleshooting, Duncan Aviation strives to provide

customers with quick, one-call service to answer their questions.

“My project manager is always a great resource, customer driven and a huge advocate. I’ve worked with members of the sales team, tech reps, airframe, engine, interior, and avionics technicians, and they’re all great people. Duncan Aviation team members treat our aircraft like it was their own. It is reassuring to me when I drop the aircraft off for maintenance that it will be maintained to the same level or better than I would accomplish. I could probably write a book about all of the positive interactions I’ve had with Duncan Aviation representatives.” – Greg Hamelink, Senior Manager of Flight Operations and Maintenance.

QUALITY

Safety is obviously a huge concern for all in business aviation. But quality means so much more than safety. It can mean everything from perfectly straight and carefully

made stitches in a seat upholstery to bundled, clearly marked wires behind an aircraft’s sidewalls.

Ultimately, quality has an effect on the value of an aircraft. In fact, most brokers in the NARA (National Aircraft Resale Association) say the reputation of the MRO signing off an aircraft’s logbook affects its value at resale.

Duncan Aviation is often identified as the maintenance, interior and paint supplier for an aircraft when it goes up for sale. In the August issue of *Executive Controller*, Duncan Aviation was mentioned in 96 advertisements for having completed maintenance, paint, interior, and avionics upgrades. That is twice that of any other MRO facility.

Duncan Aviation also surveys all customers after an aircraft project is delivered. In 2016, Duncan Aviation customers gave us a 98% quality approval rating.

“Duncan Aviation’s quality is second to none. I’ve been using Duncan Aviation since 2002, and



Photo Courtesy of NBAA

A Duncan Aviation Advantage

“IT IS ALWAYS A PLEASURE TO WORK WITH DUNCAN AVIATION, AND NO MATTER WHO I GET TO INTERACT WITH ON A PARTICULAR PROJECT, I KNOW IT WILL BE PROFESSIONAL, OF THE HIGHEST QUALITY, AND MOST OF ALL A GREAT EXPERIENCE. I FEEL OBLIGATED TO SHARE THAT WITH THE REST OF THE AVIATION COMMUNITY.”

Jim Rezich, Rezich & Rezich Aviation



“I’m impressed with the service every time I bring an inspection there. The teams that I have worked with always make me feel that they are just as concerned with my aircraft as I am.” – Scott Kershaw, Chief of Maintenance for Aramark

COMMUNICATION AND PROJECT MANAGEMENT

Based on feedback from customers, they interpret project coordination to include the technical knowledge of their assigned project manager, the communication

the customer received throughout the project, and the use of our online myDuncan project management tool.

Duncan Aviation project managers provide customers with personalized service and aircraft project expertise. Each has a minimum of 15 years of technical experience and an average of 25+ years of aviation experience.

And communication is an area where we have been told we excel. In 2016, customers gave us a 97% approval rating in the category of communication.

That is attributable in part to myDuncan, which lets customers be productive wherever they happen to be. Of the 2,343 aircraft projects completed in 2016, more than half were managed off-site, allowing the aircraft representatives to stay current on project status, item approvals and budget while keeping up on things at work and at home.

“It (myDuncan) makes the squawk approval process seamless. I can be on the hangar floor, in the office, or at home and see all discrepancies on the aircraft. If I have questions on a certain item,

I can submit a question through myDuncan and receive written responses or pictures to better display the issue. myDuncan allows the user to export numerous reports that I use to see progress and calculate budget to actual as the project progresses.” – Wesley Landgraf, Director of Maintenance for Midland Financial Co.

ON-TIME DELIVERY

Duncan Aviation develops project timelines by analyzing a database of past work and the time it previously took to complete tasks.

Collaborating between all areas involved in complicated worksopes, milestones for the entire project are mapped out and the most efficient way to complete work is analyzed.

We routinely push the envelope on schedule and challenge our technicians to push themselves while not sacrificing safety and quality. Customers are pleased with the results, and really like that we meet the out-dates we promise. Nine of 10 report that their aircraft project was completed on time with no budgetary surprises.

“In 14 years, I have never missed an out-date. I believe the Duncan Aviation technicians are as proud of that as I am.” – Scott Kershaw, Chief of Maintenance for Aramark



Photo Courtesy of NBAA

Communication

In 2016, customers gave us a 97% approval rating in the category of communication.



Photo Courtesy of NBAA

EXPERTISE

WHEN YOU NEED IT

WWW.DUNCANAVIATION.AERO/RESOURCES



Finding the answer to almost anything is easy.

Want to know tomorrow's weather? Google it. Check your weather app. Or just ask Alexa, the voice-activated virtual digital assistant welcomed into the homes and offices of the tech-savvy.

Duncan Aviation strives to make answers to your aircraft-related questions just as easy to locate. We provide technical assistance by phone 24/7/365. Our AOG app can quickly get you in contact with live technical experts close to you. And we publish a variety of technical resources accessible on our website at www.DuncanAviation.aero/resources.

Bookmark that page! These are just a few of the things you'll find there.

APPS

Easy access to the four "apps" that Duncan Aviation has available.

- AOG App. Our AOG app gets you in touch with our closest avionics, engine, and parts experts.
- myDuncan App. Helps you communicate with your project manager and manage your project when it is in work at DuncanAviation.
- Aircraft Parts App. Makes searching for parts, inventory and capabilities easy.
- Duncan Debrief. Lets you download the latest *Duncan Debrief* magazine.

CERTIFICATES

Many customers need to see copies of our aviation authority certificates. To provide that easy access, we place scanned copies of our certification authorizations on the website, organized by location and authority.

DUNCAN DEBRIEF

Although we continue to mail printed copies of the *Duncan Debrief* magazine worldwide, we also provide access to the magazine's content through an online edition, a PDF version, and an iPad edition.

DUNCAN DOWNLOAD BLOG

The Duncan Download blog provides feature articles about company news, recent projects, team member accomplishments, and company culture. We publish new blog articles at least weekly. In addition to accessing the blog through the Resources page, readers can subscribe, and new articles will be emailed to them.

DUNCAN INTELLIGENCE

Duncan Intelligence is a monthly technical email newsletter that provides technical tips for all of the aircraft makes and models we work on, as well as their accessories, components, avionics, and parts. Many Directors of Maintenance tell us this newsletter is required reading for their technicians. Make sure you don't miss an issue by subscribing today.

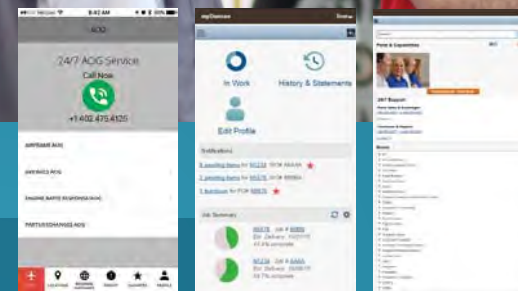
EVENTS LISTING

If you're curious about what industry events Duncan Aviation is sponsoring and attending, check out the Events Calendar. Then look for our booth and representatives at the show.

In addition, we host web pages for two of the largest industry trade shows we attend, EBACE and NBAA. These sites provide Duncan Aviation's booth location,



AOG, MYDUNCAN AND AIRCRAFT PARTS APP



attendees, and current news at www.DuncanAviation.aero/NBAA and www.DuncanAviation.aero/EBACE.

CAPABILITIES FACT SHEETS

These sheets provide a quick look at the extensive capabilities that Duncan Aviation has for our main service areas, which includes aircraft sales, airframe, avionics, completions, engine/APU, engineering, FBO services, OEM services, parts and components, specialized services, and government programs.

FIELD GUIDES

Field guides are technical white pages that provide in-depth information about technical topics in aviation. Examples of field guide topics include corrosion detection, aircraft paint, and cabin entertainment.

GALLERIES

Our gallery section can provide paint and interior inspiration with its stunning photographs of some of our recent and unusual paint and interior completions and refurbishments.

PRESS RELEASES

See all of Duncan Aviation's press releases in the news section. The most recent releases are

DUNCAN AVIATION HAS 22 AIRCRAFT-SPECIFIC TECH REPS WITH AN AVERAGE OF 27 YEARS IN AVIATION. TO HELP CUSTOMERS TROUBLESHOOT AIRCRAFT AND SYSTEMS. THEY REGULARLY PROVIDE TECHNICAL INFORMATION FOR THE COMPANY'S EDUCATIONAL PUBLICATIONS.

posted first and press releases stay on the site for five years before they are archived.

STRAIGHT TALK BOOKS

Our popular Straight Talk series takes complicated topics and gives a broad overview of the topic to help educate and inform those in the industry about important topics. Many, but not all, booklets are about avionics initiatives. You'll find books about certifications, NextGen initiatives, ADS-B, FANS, Cabin Management Systems, Satcom and HSD, WAAS, and RVSM.

In addition to the books, we have developed web pages for upcoming avionics mandates where all news and articles about these topics are collected and grouped. Check out www.DuncanAviation.aero/adsb and www.DuncanAviation.aero/nextgen for information about these important avionics initiatives.

VIDEOS

With all this written information, sometimes you just want to have something explained with video or audio. We provide that option, too. We even show work in process and let you take a virtual tour of our facilities.

Duncan Aviation's videos are available through the videos section of the Resources page.



The First of Many

Honeywell TFE731 Core Zone Inspection

With the most up-to-date industry tooling, training, and equipment, Duncan Aviation engine technicians tackled the first CZIs (Core Zone Inspections) at the Turbine Engine Overhaul Facility in Lincoln, Nebraska.

The engines came off a Bombardier Learjet 45 managed by Jet Linx Omaha. According to Tony Boatwright, Jet Linx Director of Maintenance, it was an easy decision on where to send the engines. “We are very familiar with Duncan Aviation and the level of quality service they consistently deliver. Their technicians are routinely in our hangars working on many of our managed aircraft. Now that they are a Honeywell Heavy Maintenance Service Center, we were totally confident these engines would receive that same level of quality and care. We were right.”

With more than 30 years' experience working on Honeywell engines, Duncan Aviation holds a Major Authorization for the TFE731, a Minor Authorization on Honeywell AS907 (HTF7000) Series, and Line Authorization on CFE738 Engines, GTCP36-100/150, RE100 series and RE220 series APUs.

Duncan Aviation has a Honeywell engine rental pool that includes TFE731 (-2C, -3, -5B, -20, -40, and -60) engines, as well as HTF7000 and HTF7350.

▶ www.DuncanAviation.aero/advantage/heavy

Engine Lead Tech Brian Harms expressed enthusiasm about the whole experience of being able to access, inspect, repair, and rebuild the compressor zone on the TFE731.

“It brings a new capability to the shop that everyone is excited about and with it, growth. Our biggest take-away from this experience is the road map for future work, including expanded Service Bulletins. We’re ready for more. We’re ready to make it even better.”

The return of a safe product is the highest priority for all Duncan Aviation work. And the first TFE731 engines to go through the CZI maintenance in the Duncan Aviation shop were no different. Chris Ulrich, Engine Lead Tech, says, “After completing thousands of TFE731 MPis and managing thousands of CZI events, we were excited to

complete our first heavy event on the TFE731. It might be the first, but it’s the first of many. We have a high level of quality that we strive to deliver, and we won’t ever sacrifice safety.”

To meet the demand for incoming CZI work, the shop is going through some major changes. Chief among them is a facility expansion with a new test cell and control room. The test cell is scheduled to be fully operational by the end of 2017.

Sharon Klose, Turbine Engine Service Sales Rep, says there is no shortage of operators anxious to send their engines to Duncan Aviation for their CZIs when they come due.

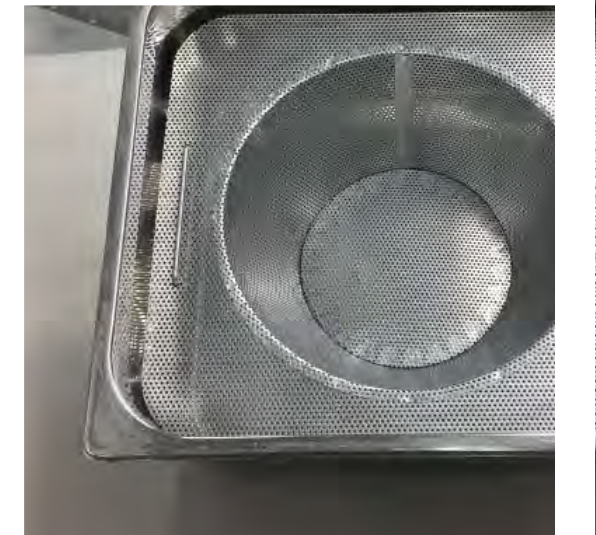
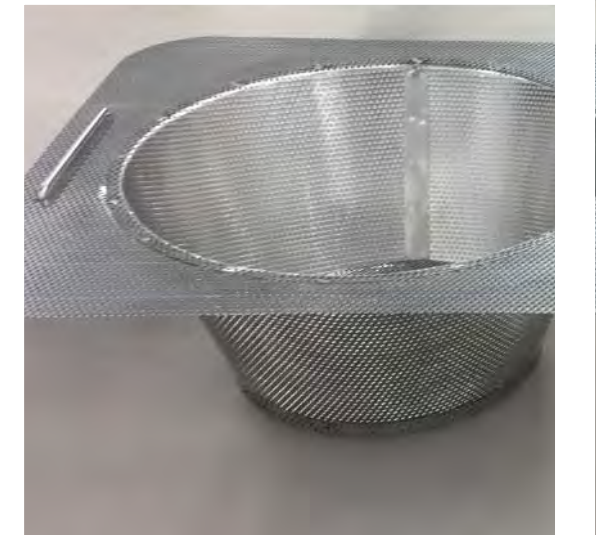
“They are chomping at the bit to send their engines in to us. Knowing we’ve been doing engines for more than 30+ years, they tell me ‘It’s about time. I’ll be calling you first!’”

Duncan Aviation Turbine Engine team members, Brian Harms, Greg Palensky and Chris Ulrich, stand by the finished Honeywell TFE731.



NO DETAIL ESCAPES

THE CREATIVE, EXPERIENCED EYES OF
THE DUNCAN AVIATION DESIGN TEAM



MODIFIED
SINK
STRAINER

The innovative designers in the Duncan Aviation Design Center can fashion a unique interior that's tailored to an operator's personal preferences or a contemporary interior that reflects a company's professional image. Our designers have decades of experience providing exactly the right touches.

Not only will the design team focus on the big picture, they'll also hone in on the smaller details that make the flight experience relaxing and hassle-free.

Better Straining

Earlier this year, a long-time customer from Jakarta, Indonesia, arrived with

his company's Challenger 604. The Senior Financial Advisor for Air Pacific, Muliawan Sutanto, represented his principal, who was fond of an interior he'd seen. Using a photograph, Designer Teri Nekuda replicated the sleek, professional interior, right down to the additional sound-proofing under the carpet.

The one thing that may go unnoticed to the casual observer, a custom-designed strainer, was a critical addition for Muliawan and the flight crew.

"We eat a lot of dishes with rice," says Muliawan, "and it's nearly impossible to clear the tiny grains from every bowl. Our attendant was careful,

but the drain frequently clogged, rendering the sink unusable."

It's not only inconvenient to have a clogged drain and sink you can't use during your flight, but it's also expensive to put down your aircraft to unclog the drain.

"Aircraft sinks have small strainers that cover only the drain, and they get blocked quickly, especially by small food particles like grains of rice," says Duncan Aviation Cabinet Shop Team Leader Matt Beaudette.

Matt dismissed the strainers that fit over the top of the sink because that wouldn't have helped as the flight

attendant cleared off plates. Instead, he searched for a strainer that would fit inside the sink. He developed a potential solution, and asked Fabrication Shop Team Leader Bryan Hart to come up with a workable design. Bryan and his team crafted a custom strainer.

"We're thrilled with the strainer, and it'll more than pay for itself by preventing even one clogged drain," says Muliawan. "It fits inside the sink, traps the food particles while still letting the sink drain, and lifts out easily for cleaning."

MULIAWAN SUTANTO

Senior Financial Advisor for Air Pacific in Jakarta, Indonesia, says, “We fly to Duncan Aviation for work on our aircraft because we trust the company, we’re pleased with the work that’s been done in the past, and the price is right. That’s why we continue to fly all the way to the United States for service, interior refurbishment, and paint on our fleet.”

Lavatory Solutions

Another customer with four Challenger 650s wanted Duncan Aviation to redesign the lavatory in their aircraft for better ergonomics. Using Senior Completions Designer and Team Leader Mary Lee’s designs, team members from the Interior Shop, Cabinet Shop, and Fabrication Shop extended the size of the vanity and shifted the toilet, making them more accessible to passengers.

Because the vanity moved, the sink no longer fit. The Fabrication Shop designed and machine-crafted a bigger, sleek new sink out of a solid piece of aluminum so it would fit in the redesigned vanity.

“We did all of the engineering up front,” says Project Manager Darrell Miller, “and we now have an STC (Supplemental Type Certificate) for the redesigned lavatory. So far, we have completed four aircraft with this new design. With the experience of the first two under our belt, we were able to deliver the second two Challenger 650s early.” 📺

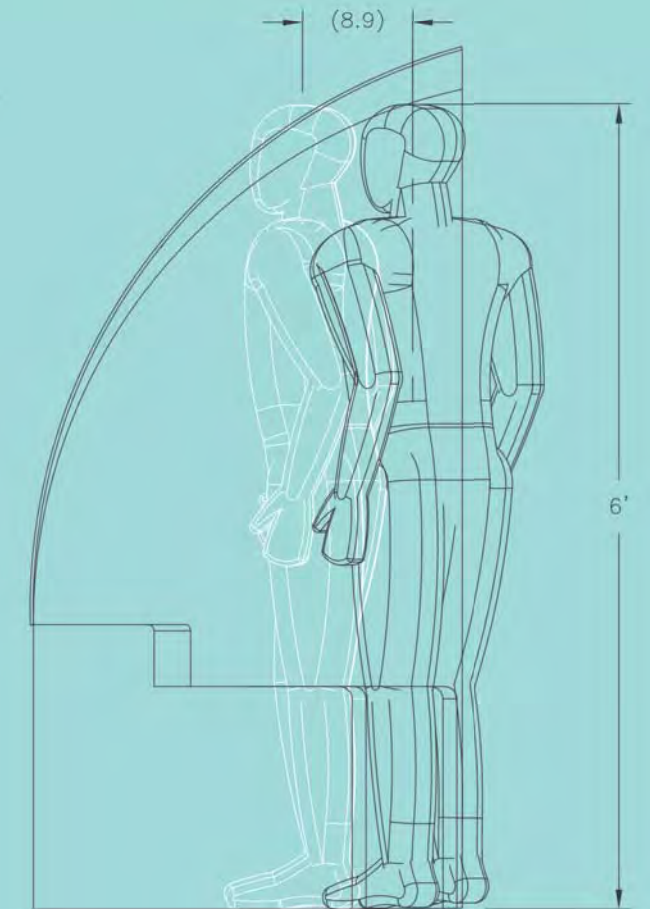
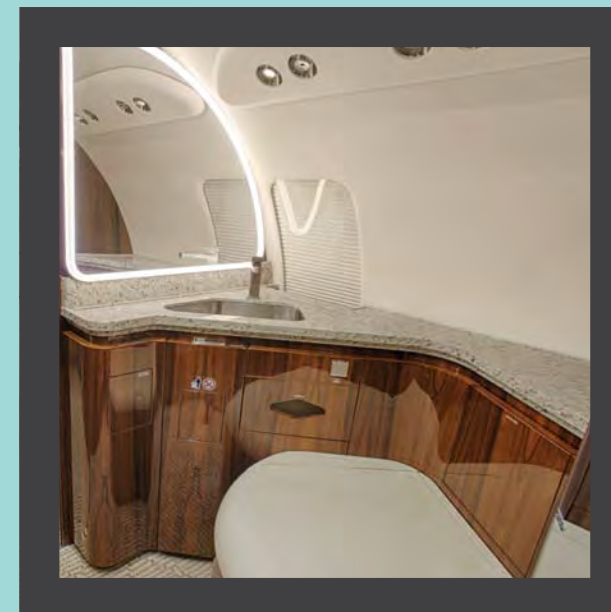
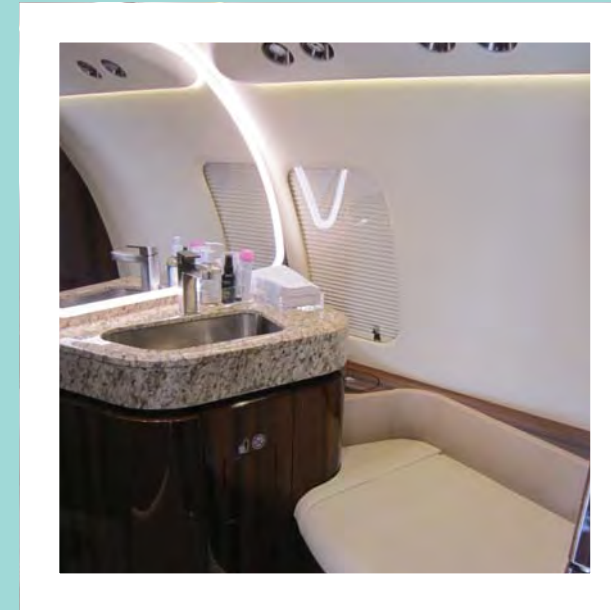
MULTISHOP TALENT

Duncan Aviation has multi-shop capabilities with experts who collaborate to conceive of, design, and craft nearly anything an aircraft operator needs. With experienced in-house engineers and certification experts, Duncan Aviation can also shorten downtimes by producing design data and STCs when necessary.

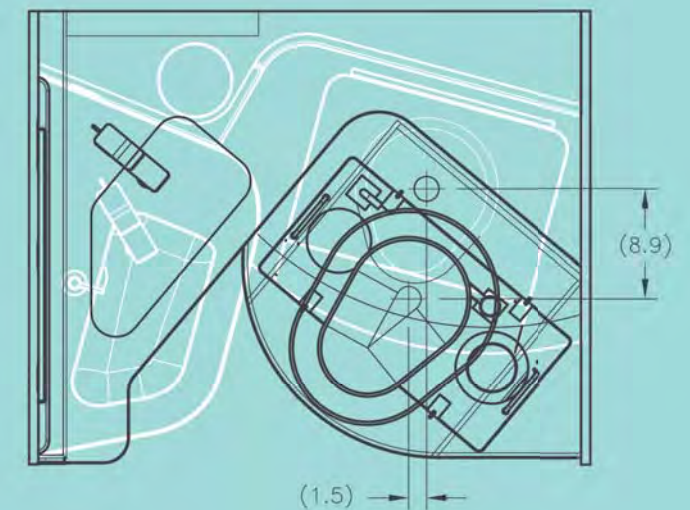


Watch a timelapse of the sink being fabricated from a solid piece of aluminum by Duncan Aviation’s Fabrication Shop:
www.DuncanAviation.aero/lavsink

BEFORE AND AFTER



Existing/New



Duncan Aviation Multimedia Illustrator Ken Reita’s drawings depicted how shifting the placement of the vanity and toilet gave passengers greater access to them; the drawings also gave the customer a virtual-reality look at the new design.

A technician wearing a headlamp and safety glasses is working on a complex array of wires and electronic components inside an aircraft's avionics bay. The scene is dimly lit, with the technician's headlamp providing the primary light source. The background shows more of the aircraft's interior structure and wiring.

Aircraft Internet:

Keeping Customers Connected

26
Satellites

600+
Gogo Installs

Gogo 4G
up to 100
mbps

A connected aircraft lets cabin passengers access the internet in flight. Satellite-based services keep you connected on global flights, and terrestrial-based systems cover your flights throughout the continental United States and in parts of Canada.

“Factors such as where you operate your aircraft, the type of aircraft, and passengers’ internet needs dictate the type of system to install,” says Duncan Aviation’s Avionics Service and Sales Rep Steve Elofson. “When it comes to aircraft connectivity today, you have plenty of options.”

Satellite Connections

Ka-band features upload speeds (sending data from the aircraft) of up to 5mbps (megabits per second) and download speeds (to the aircraft) are up to 49mbps.

Ku-band offers coverage in populated areas of the world. Its download speeds currently reach about 1mbps, and upgrades are in the works to match Ka-band performance.

Inmarsat’s service, called SwiftBroadband (SBB), has worldwide coverage at speeds of around 500kbps (kilobits per second).

Iridium provides mostly voice and texting services due to its lower connectivity speeds.

Connected Over US Airspace

For flight over the continental United States, Gogo Biz’s 3G ATG (air-to-ground), terrestrial-based network features speeds of up to 3.1mbps and has affordable data plans and STCs (Supplemental Type Certificates) for nearly every make and model of aircraft.

Duncan Aviation’s trained and experienced avionics technicians have installed more than 600 Gogo Air-To-Ground Broadband & WLAN systems. In addition, Duncan Aviation is the exclusive AOG service partner for Gogo Business Aviation, supporting Gogo customers around the clock with LRU serviceable units and spare parts strategically placed at Duncan Aviation’s network of facilities and avionics satellite locations within the United States.

www.DuncanAviation.aero/advantage/connectivity


Future of Connectivity

Duncan Aviation is working closely with Gogo Business Aviation to develop STCs for Gogo's new 4G service and Wi-Fi equipment called AVANCE L5. The leaders in business aircraft connectivity have partnered for years, and mutual customers are excited for Gogo's scheduled launch of 4G service.

The AVANCE L5 in development with Gogo and Duncan Aviation include the following aircraft:

- Bombardier, Inc., CL-600-2B16 (Challenger 604, 605 & 650)
- Bombardier, Inc., BD-100-1A10 (Challenger 300 & 350)
- Bombardier, Inc., BD-700-1A10 & BD-700-1A11 (Global Express and Global 5000)
- Dassault Aviation, Mystere-Falcon 900 & Falcon 900EX
- Dassault Aviation, Falcon 2000 & Falcon 2000EX
- Dassault Aviation, Falcon 7X
- Gulfstream Aerospace Corporation, G-IV & GV

"Duncan Aviation has installed hundreds of Gogo Biz inflight connectivity systems in the last few years and is one of our most valuable partners," said Andy Geist, senior vice president of business aviation solutions for Gogo. "The Duncan Aviation brand is one of the most trusted in the industry and our partnership is critical as we continually look to provide the best inflight connectivity experience possible."

Created specifically for the business aviation market, Gogo's AVANCE L5 system is a specially designed application of Gogo's air-to-ground technology that leverages its existing ground network of more than 250 towers, fiber backhaul, and technology that has already flown hundreds of thousands of hours aboard thousands of business and commercial aircraft. The 4G equipment package will incorporate dual-band 802.11ac Wi-Fi service and a host of other features—all from a single, lightweight box. 

Two NextGen (next-generation), 4G networks will be available later this year and in 2018. Covering the United States and parts of Canada, Gogo Biz's 4G AVANCE L5 download speeds reach between 5-9mbps. SmartSky's network is true 4G LTE and offers performance similar to using smartphones over cellular networks. Service covers most of the continental US in 2018 and will expand to the rest in 2019.

The greater speeds allow live-streaming data, including video conferencing and live TV. You can access the internet with little-to-no latency, send and receive email with attachments, and stay connected to social media apps (Twitter, Instagram, Facebook, etc.).

Ask Our Connectivity Experts

As with our home electronics, new equipment and advancements in technology are fairly typical in the aviation industry, too. Business jet travelers want higher speeds, and service providers comply by upgrading infrastructure and equipment.

Taking advantage of faster speeds usually requires new equipment. STCs are a good idea and often required for this equipment. Find out which makes and models are covered by existing STCs before upgrading to a new service. If your make/model is not covered by an existing STC, one can be developed, which requires additional downtime.

As mentioned, services for some systems are available only in the continental United States, so if you regularly fly outside of the United States, you'll want to invest in a global satellite system.

Service coverage, connection speeds, and costs vary from provider to provider. Usually, the faster the connection speeds, the greater the costs, and satellite-based systems are generally more expensive than terrestrial-based systems.

No Service, No Sale

Owners probably won't escape the whole connectivity issue by selling their aircraft, either.



"...installing internet adds at least 50% of the installation cost to the resale value," says Duncan Aviation Aircraft Sales Rep Doug Roth


"If you're selling your aircraft to a buyer who will put it on a 135 or charter certificate, the buyer definitely wants an internet connection, and that affects the value of the airplane," says Duncan Aviation's Aircraft Sales Representative Doug Roth. "The lack of internet drops the sale price by the cost of the installation. Because the aircraft will have to be removed from service for the duration of the installation, factor in the cost of the downtime, as well."

Roth goes on to say that roughly 75-80% of the buyers of private aircraft want an internet connection, so again, an internet connection adds to the value of the aircraft; conversely, the sale price of an aircraft without a connection will drop by the cost of the equipment and installation, including the downtime.

"Even with the small number of buyers who see zero value for themselves in having a connected aircraft, we point out that installing internet adds at least 50% of the installation cost to the aircraft resale value," says Roth. "The majority of buyers looking for aircraft today want an internet connection."

Combining Wi-Fi with Refurbishment Provides Savings

If you're planning to refurbish your interior, consider adding an internet connection or upgrading your current service to one with faster speeds at the same time. For both jobs—refurbishing an interior and installing/upgrading an internet connection—your interior will need to be removed.

Typically, an aircraft is down for two weeks to install an internet connection, and it usually takes longer to refurbish an interior. Completing the projects simultaneously typically won't add time to the work scope. Combining the two projects will also save on labor costs; otherwise, each project will include the labor costs for removing and reinstalling the interior. 




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Wi-Fi STCs



Customer Testimonial: Dave Lenz

Last summer, Founder and Chairman of The North Central Group, Dave Lenz, brought his CJ3 to Duncan Aviation as the launch customer for the Rockwell Collins Pro Line Fusion. The workscope included installing Gogo Biz's ATG, which provides Wi-Fi for passengers in the cabin.

"Prior to this, the aircraft was still under warranty, so I'd always dealt with the OEM. My experience at Duncan Aviation was the first time I'd been to a family-owned maintenance facility," says Dave. "My experience was first rate. The people were outstanding; at every level, they were interested in doing the best they could. Their communication was excellent, and everything is now working as it should. Duncan Aviation instilled such confidence, I'm going back in December for hot-section work on my engines. You can call me a raving fan of Duncan Aviation." 

www.DuncanAviation.aero/FusionFirstFlight

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SATELLITE AVIONICS CHOICES FOR ADS-B



Duncan Aviation Cincinnati Satellite Manager Bruce Miller (left) with DOM Greg Donegan.

For almost 30 years, Greg Donegan has been working on aircraft at Lunken Field at the Cincinnati Municipal Airport. He was there in 2014 and watched as Manager Bruce Miller set up the Duncan Aviation Satellite Shop.

As a long-time Duncan Aviation customer at the Battle Creek, Michigan, facility, Greg welcomed the new shop, which is right across the ramp from his hangar. He has mechanics on his staff who perform the routine maintenance and inspections on their fleet of six aircraft, but he relies on the Duncan Aviation avionics technicians to

repair, install, upgrade, and otherwise keep operational the equipment in the cockpit.

“Having the Satellite Shop so close is great,” says Greg. “We have an inspection on a G-200 coming up in October, and the tech will come to our hangar and upgrade the equipment for ADS-B (Automatic Dependent Surveillance-Broadcast).”

While Greg’s G-200 is down for several weeks already, the Duncan Aviation tech will upgrade the Rockwell Collins TDR-94Ds, install annunciators, upgrade the GPS sensor and the NAV database, and install TCAS 7.1.

Three of Greg’s six airplanes have had the necessary upgrades for the FAA’s ADS-B mandate, and a fourth is scheduled for later this year. The deadline for compliance is midnight December 31, 2019, and Greg intends to have all of his aircraft completed long before that.

“We aren’t sitting around waiting. We didn’t want to wait until the last minute and get burnt,” says Greg. “The deadline isn’t going to change, and we

don’t want to be on the outside knocking on the door, waiting to get in on Jan. 1. My goal when I took over as DOM last year was to have the entire fleet upgraded at least a year ahead of the deadline.”

Because time is running out and the Duncan Aviation Satellite network currently has capacity and labor resources, the company has been allocating hangar space and labor resources for owner/operators who call now to reserve space through the rest of 2017 and into 2018 and 2019.

The closer the deadline, the less capacity (labor and hangar space) qualified shops are going to have, so Duncan Aviation is taking a proactive approach to these necessary upgrades, and encouraging our customers to schedule now. As Greg says, no one wants to be sitting on the ramp, hoping in vain for hangar space as the New Year dawns on January 1, 2020.

Duncan Aviation’s Battle Creek facility performed an ADS-B

upgrade on one of Greg’s G-200s earlier this year when it was getting a fuel leak repaired.

When Greg and his team were performing a Phase 5 inspection on their Citation Encore Plus, the Duncan Aviation techs from the Cincinnati Satellite Shop came over and upgraded that aircraft for ADS-B. Another one of his G-200s was down for a hot-section inspection, and the Duncan Aviation avionics techs upgraded that aircraft for ADS-B, too, while it was down.

“As I said, we’re long-time Duncan Aviation customers, and they’ve always done a good job for us,” says Greg. “I don’t see any reason to go anywhere else.”



Upgrade To ADS-B Now

Duncan Aviation has its three main facilities and 26 Satellites, any one of which is available to upgrade your aircraft for ADS-B compliance when it’s already getting a new coat of paint, an interior refurbishment, an airframe inspection, an engine overhaul, or avionics line work.

The multi-shop capabilities have allowed our customers to perform 45 upgrades through June 2017 while their aircraft are already in the shop.

In addition to the three main facilities, Duncan Aviation has 26 Satellite facilities and workaway locations at the busiest airports in the United States.

For your convenience, our experienced avionics technicians will come to your hangar and perform the upgrade on your aircraft. Visit our web site (www.DuncanAviation.aero/locations/#satellites) to find a Satellite near you.

“If you’re putting your aircraft down for maintenance during the end-of-the-year holidays or any time before 2020, consider adding an ADS-B upgrade to the workscope so you don’t have to put it down twice,” says Manager of Satellite Operations Matt Nelson.



Location, Location, Location

Duncan Aviation has 26 FAA-approved Satellite facilities and workaway locations at the busiest airports in the United States. Visit a Satellite for short-term avionics work, including ADS-B, or schedule your ADS-B upgrades at one of the main facilities (Lincoln, Nebraska; Battle Creek, Michigan; and Provo, Utah) when your aircraft is in for paint, interior refurbishment, routine airframe, or engine maintenance, etc. Four of the Satellite Shops (Scottsdale, Arizona; Van Nuys, California; Las Vegas, Nevada; and Houston, Texas) have DGAC (Directorate General of Civil Aviation in Mexico) authorization, as well.

V It Takes A age

Early on, when the Duncan Aviation avionics, instrument and accessory component repair shops were established, we recognized that our success wasn't going to come on its own just because we opened our doors. From the beginning, we have developed connections and nurtured relationships with many of our OEM (Original Equipment Manufacturer) industry partners.

Since 1973, we have signed partnering agreements with more than 25 OEMs. These connections are a priority for Duncan Aviation because they lead to a better experience for our mutual customers.

It was important to build those relationships in the 1950s when Founder Donald Duncan was selling aircraft, and it is crucial today as we continue to grow our components repair services.

Duncan Aviation's avionics, instruments and accessories components shops have fostered and sustained more than 25 OEM relationships since 1973. This provides Duncan Aviation with a wide base of capabilities and helps us better support our mutual customers.

www.DuncanAviation.aero/advantage/OEM

ACSS/L3


Dennis McCole
ACSS/L3 Strategic Marketing & Business Development

As a result of their vast experience with and knowledge of legacy instruments and components, L3 Aviation Products was pleased to sign a service agreement with Duncan Aviation, allowing them to provide service and support of legacy mechanical gyros and power supplies.

ACSS and Duncan Aviation also collaborated on the development of the AML STC in support of the ADS-B Out program, providing a turnkey solution for business jet operators.



Dan McKenzie
Duncan Aviation Team Leader

The alliance between L3 and Duncan Aviation spans nearly 45 years. My L3 contacts are quick to answer any questions I have and are committed to making sure we are up-to-date on all the latest repair procedures, offering factory training anytime we request it. When it comes to parts, L3's response time is reliably quick, allowing us to be more responsive to our customers. We see many L3 units in our shop. 

Honeywell

Mike Marcum
Honeywell Sr. Manager

There are many benefits to aligning ourselves with authorized channel partners such as Duncan Aviation. Chief among them is that our mutual customers have a better experience. Duncan Aviation has collaborated with Honeywell for more than 40 years, delivering a consistent message, pricing, and quality component service. The relationship between Honeywell and Duncan Aviation is extremely good regarding our sales and customer business team. Our ability to communicate candidly and work together is remarkable. I credit Duncan Aviation's sales staff and leadership team for helping us grow the partnership.



Rick Conner
Duncan Aviation Team Leader

Having an established, trusted relationship with the OEMs always benefits the end-user. In many cases, we openly collaborate with manufacturers to provide new services or work through problems that result in improved product quality and better customer relations. By giving us access to updated OEM manuals and access to parts for older units, we provide quicker turntimes, higher quality repairs, and a resource that helps keep legacy aircraft flying. 


Rockwell Collins

John Spellmeyer
Rockwell Collins Central US
Regional Sales Manager

Installing and maintaining aircraft avionics and cabin systems is a complicated business. To best serve our mutual customers' needs and wants, Duncan Aviation and Rockwell Collins have forged a 50-year working relationship based on a foundation of trust and effective communication. By sharing our collective knowledge, technical information, and skills, we serve our common customers as a team. To demonstrate this, we recently named Duncan Aviation an authorized service provider for repair, service and modification of the Collins TDR-94 and TDR-94D transponders. They are able to repair, install and upgrade modifications of these units at their main facility in Lincoln, Nebraska, as well as through their satellite avionics facilities located throughout the United States. Together we make the business of maintaining aircraft avionics and cabin systems easier to navigate.



Dustin Johnson
Duncan Aviation Team Leader

As I work with Rockwell Collins, it is easy to see they have the end-customer's best interest in mind. Our authorization to perform the upgrade on the Rockwell Collins TDR94/94D units speaks volumes about the trust they have in our capabilities to support the Rockwell Collins brand. They go out of their way to make sure we have what we need in order to meet the needs of our customers. I would stand by Rockwell Collins all day long. My contact there, Thone Houang, has never failed me. 

Duncan Aviation has a Continuous Improvement team member innovation program that resulted in the implementation of 306 new repair, efficiency, and cost-savings ideas from team members over the last two years.

www.DuncanAviation.aero/advantage/CIP

Innovation Leads to Unique, Quick Trunnion Repairs

Teamwork, ingenuity, and technical know-how...That's how Duncan Aviation removes corrosion in the bores of the main landing gear forward trunnions on the bottom side of the wing. We are also the only MRO with the tooling and capabilities to perform this FAA-accepted repair procedure, and we can do it in less than a week.

How It All Began

Nearly 10 years ago, during a scheduled quick-turn airframe inspection, significant corrosion was found in several areas of the aircraft, including the forward trunnion bores. At the time, there were only two options: Clean the corrosion using a standard hone or remove the wing and have it shipped by truck to the OEM for repair in their fixture. The hone method works by cleaning

slight surface corrosion but can easily create an oval where a concentric bore is required if you're trying to remove extensive corrosion. The second option is more precise, but the downtime is sometimes six months or more.

Duncan Aviation's Machine Shop researched an alternative repair. The team members designed, engineered, and fabricated a fixture in-house to ream the bores. There was just one critical hurdle to overcome: This fixture had to be mounted on the underside of the wing and hold the correct concentricity and axis alignment with no other points of reference but the hole itself. After extensive research and development, Duncan Aviation designed and developed a fixture that met all requirements and successfully removed the corrosion, staying within allowable limits.

Since then, the fixture has been called into service a number of times on other aircraft, all with the same excellent results.

Repairs on the Road

Most recently, Lead Machinist Mark Leppky and Master Machinist Todd Hoffman took the tooling on the road. The end-customer, an air ambulance operator based in South America, needed the quickest repair possible.

In preparation for the road trip, Mark and Todd inspected the kits, made extra pins, and ensured everything was packed, right down

to a cotton swab. On the road, "you don't have the luxury of walking back to the shop and getting what you need," says Mark.

They arrived on a Monday and quickly went to work. Through a series of pins, Mark and Todd slowly removed

Lead Machinist Mark Leppky and Master Machinist Todd Hoffman




the corrosion by hand, layer by layer, .0325 of an inch at a time. The process requires continual communication and several checks and balances

to maintain accuracy. After every cut, the bore's diameter is checked and the depth measured to make sure it remains square to the back. After the final cut, the bore was within .0002 of tolerance.

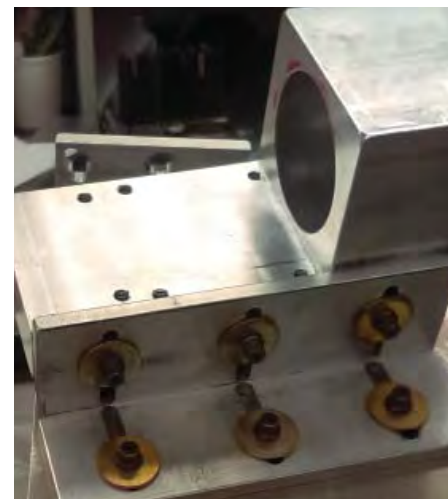
"The tolerances are very tight with no room for error," says Mark. "You get very accurate results following our processes and doing it by hand using sharp tooling, quality fixtures, and being careful."

The final step is to use the cotton swab to alodine and acid etch the bores before installing a custom-fabricated bushing to bring the bore back to correct diameter. By Friday afternoon, Mark and Todd were packing their kits and getting ready to head home with another successful trunnion repair in the books.

The innovation behind the creation of this wing fixture wasn't because Duncan Aviation created new technology. It came about because our team members used manual data and regular tooling to conceive of and develop a new method for repair. That resourcefulness and innovation is what sets Duncan Aviation apart. New ideas and test capabilities are developed by taking a different approach to the same information to meet customer needs and change future expectations. 



Trunnion Repair




Warehouse Duncan Aviation

The need for aircraft parts is typically not a scheduled event. Usually, it comes as a surprise nearly anytime, anywhere, and without any notice. When that happens, you need an aircraft parts warehouse that is open around-the-clock and ready to ship at a moment's notice. The only parts inventory warehouse offering the widest variety of new aircraft make/model parts and open 24 hours a day, every day of the week, is Duncan Aviation.

Duncan Aviation has been stocking airframe OEM parts and other aircraft vendor parts since the company started more than 60 years ago. We have a large selection of new parts inventory on-hand so as operators request them, they can be shipped within hours.

All parts that are in the Duncan Aviation New Parts Inventory (NPI) restocking program have

some of the highest visibility in the industry with every Duncan Aviation customer who is in-house in our full-service hangars, visiting one of our Satellite Avionics locations, or listed in our database of more than 43,600 companies. Once aircraft parts are received at Duncan Aviation, they are at the front of the line for use and sale, and their consumption rate within the organization skyrockets.

The Duncan Aviation NPI program gives OEMs another aircraft parts warehouse and distribution center that is open 24/7/365 with live customer service support for international operators. Three years ago, to ensure that inventories didn't get low, Duncan Aviation implemented automatic alerts with each part sale notifying participating NPI aircraft parts companies to send a replacement for the part that was just sold. 

Duncan Aviation's New Parts Inventory Restocking Program includes the following:

- Duncan Aviation's Parts & Rotables Service is open when other aircraft parts vendors are closed
- Duncan Aviation's customer base is larger than that of most vendors and OEMs
- Duncan Aviation provides 100% live customer service coverage around-the-clock for customers worldwide
- Duncan Aviation's parts inventory has considerable market exposure



Duncan Aviation was founded in 1956 as an aircraft sales organization.

Through the years, the company has developed a solid reputation as one of the best nose-to-tail business aircraft service and support organizations in the world. Along the way, we have continued to provide great value in the areas of aircraft sales and acquisitions.

As the aircraft transaction process has evolved over the last few decades, the resources Duncan Aviation has amassed on the service side provide a unique advantage to our aircraft sales clients. Technological advancements in aircraft have accelerated and transaction complexity has increased. Overall,

selling and buying aircraft is more demanding, takes longer, and involves many more moving pieces and potential financial risks than at any other time in history. This means brokerage clients need greater technical and transactional support.

When the time comes to explore the selling or acquisition of an aircraft, think about the following advantages Duncan Aviation can provide.

Aircraft Sales Experience

- Duncan Aviation started as a business aircraft sales company and is a founding

“In today’s business environment, aircraft sales clients deserve more, require more, and expect more from their broker or acquisition agent. I recently joined the Duncan Aviation Aircraft Sales and Acquisitions team because they are backed by all the resources clients expect—and more.”

Dave Coleman, Duncan Aviation Aircraft Sales Rep.



- member of NARA (National Aircraft Resale Association).
- Since 1956, Duncan Aviation has conducted more than 3,500 transactions.
- On average, Duncan Aviation’s Aircraft Sales & Acquisitions team members each have an average of 25 years of experience.

Support Beyond the Transaction

- Duncan Aviation has 2,150 aviation experts, each with an average of 12 years with the company. The aircraft sales team partners with these experts to provide technical support before, during, and after the aircraft transaction.
- Duncan Aviation can offer a combined brokerage and support services offering.
- On any given day, there are 125 aircraft in-house at Duncan Aviation locations, and 175 aviation experts in-the-field, making technical, sales and

- service visits, providing the aircraft sales team more exposure to off-market buying opportunities.
- During the past four years, Duncan Aviation has performed more than 75 aircraft imports, 20 exports, and a multitude of Experimental and Supplemental Type Certifications. Our staff holds both Airworthiness and Manufacturing Unit Member authority and our in-house International Compliance Officer assists ensuring efficiency during complex cross-border transactions.
- Duncan Aviation has Aircraft Sales and Acquisition representation in the United States and in Europe. This helps with international transactions and worldwide representation.
- Duncan Aviation facilities in Battle Creek, Michigan; Lincoln, Nebraska; and Provo, Utah; have conducted more than 100 pre-purchase evaluations for aircraft transactions over the last two

- years. Those experiences help our clients factor in potential pre-purchase and refurbishment costs. We can also oversee prebuys at other locations.
- Duncan Aviation’s technical team provides regular technical advice to other aircraft brokers. We take great pride in collaborating with them to make transactions smooth and efficient. We also enjoy working with other brokers to uncover opportunities that suit requirements for mutual clients.

Customer Satisfaction

- The majority of our Aircraft Sales clients return when it is time for them to sell or purchase an aircraft.
- Most first-time aircraft sales customers are referred by those we have already helped with brokerage or acquisitions services.

To see more about the resources that support Duncan Aviation’s aircraft sales services, watch the video here: www.DuncanAviation.aero/videos/aircraft-sales.

Nelson Foote, Director of Maintenance



Duncan Aviation has performed pre-buy evaluations on nearly every make of business aircraft at our locations in Battle Creek, Michigan; Lincoln, Nebraska; and Provo, Utah. In the last two years, we've completed more than 100 pre-buy evaluations. www.DuncanAviation.aero/advantage/pre-buy

Last year, Director of Maintenance Nelson Foote went through a pre-buy evaluation on a Global.

"It was a great experience. I'd never worked on a Global, so when the maintenance team at Duncan Aviation had it opened up, I learned a great deal about the airplane," says Nelson. "I wanted the Duncan Aviation team to find what they could. Otherwise, during the next inspection, I'd look like an idiot for not having caught those things before we invested all that money in the Global."

Pre-Purchase Evaluations Deliver Peace Of Mind

Kasey Harwick, Duncan Aviation Battle Creek Director of Maintenance

Among the many services Duncan Aviation offers are pre-buy evaluations. During these evaluations, Duncan Aviation team members with experience in the specific airframe being purchased go over the aircraft from nose-to-tail, verifying that the aircraft has been properly maintained and is in a condition that makes it a great investment for a potential buyer.

"The package we offer is dependent on the make and model. Every make and model has its own evaluation guide, and the teams use the guides to assist them in performing a thorough evaluation of the entire aircraft,"

says Kasey Harwick, Director of Maintenance at Duncan Aviation's Battle Creek, Michigan, location. "We look for everything, of course, but we are especially aware of the common findings for specific airframes because we have experience performing heavy maintenance on them."

Among the evaluations the teams perform are function tests on avionics and airframe systems, engine runs, and visual checks of potential failure areas. For instance, there's a known frame station crack in one model, and teams check for that.

"We also evaluate for water leaks; our teams carefully check

galleys and lavs for signs of water damage," says Kasey. "Water leaks inside the cabin of an aircraft can potentially lead to serious and expensive damage."

Techs also review records to make sure the aircraft has been well-maintained and see how it was operated—how many hours of flight it has had in a typical year, for instance.

Managing the Project

Just as important as the technical evaluations is the personal management of the project. "Because buyers and sellers typically have representatives on-site, these

evaluations are sometimes tricky to handle from a personal interaction point of view," says Doug Alleman, Vice President of Customer Service with Duncan Aviation. Duncan Aviation's project managers are trained and experienced in communicating effectively with all the various sides involved in pre-purchase evaluations.

Buyer's Choice


Generally, the buyer chooses the facility where the inspection will be performed, and they often opt for a facility that has not done the maintenance on the aircraft. This ensures sets

of objective eyes are evaluating the condition of the aircraft.

"Because the buyer chooses, and the facility that performs the evaluation is usually not the maintenance facility that has done most of the inspections and work, these evaluations often present us with a great opportunity to develop a relationship with a potential new customer," says Kasey Harwick. "If we are performing a pre-buy evaluation, we more than likely have not done much if any of the routine maintenance. In our experience, potential buyers are usually impressed by how thorough and knowledgeable our airframe

teams are; we often end up performing much of the necessary maintenance on the aircraft, too."

Although Duncan Aviation often gains a new, satisfied customer from the pre-buy evaluations, the customers always gain the peace of mind of knowing they're investing in a sound, safe aircraft.

"The pre-buy evaluations are a great benefit when we are buying an aircraft for a customer," says Duncan Aviation Aircraft Sales Representative Doug Roth. "It helps us verify that the aircraft is in acceptable condition. We always recommend that our clients complete some level of a pre-buy evaluation." 

Hands-off Confidence

HTF Engine MX

Tim Renner, DOM of RLC (Resort Lifestyle Communities), has the utmost confidence in Duncan Aviation. The company's Challenger 300 took off to Iceland within days after the completion of the 4,000 hour inspection and compliance of three Honeywell Service Bulletins on the aircraft's HTF7000 engines. They have been flying squawk-free ever since.

RLC builds and manages luxury lifestyle retirement communities all over the United States. There are currently 15 RLC locations fully operational with 28 more under construction to meet the growing demand for this all-inclusive lifestyle living.

It's understandable then why RLC puts a lot of flight time on its Challenger 300 in order to keep up with the rapidly expanding business. And it is a very demanding flight schedule with very little downtime available for maintenance. So when it becomes necessary, Tim calls Duncan Aviation.

"I have a great relationship with Duncan Aviation," he says. "They perform such high-quality work; I don't need to look elsewhere."

MSP Support

Jamie Wilson, Duncan Aviation Engine Service Sales Rep, represented RLC right away, working hard with MSP to get all of the SBs (Service Bulletins) approved while the engines were down for inspection. In addition to the 4,000 hour inspection, the engine techs changed the combustion chambers (SB 72-9044), W5 wire harness (SB 76-9013), and performed the (SB 72-9064) to prevent bypass duct corrosion.

"I really appreciated her efforts to make that (MSP communication) happen," says Tim.

The results of the borescope required the blades to be sent to Honeywell for three weeks.

Jamie kept RLC flying by securing rental engines from the Duncan Aviation engine rental pool and other industry resources.

"The entire event went really smoothly. It was seamless, because they did all the legwork," says Tim. "Working with MSP, getting rental engines lined up, working with billings, getting parts shipped. It made it very hands-off for me, which made it kind of nice."


Technical Proficiency

Just because Tim was hands-off didn't mean he wasn't informed. He kept in close contact with Shawn Schmitz, Duncan Aviation's Honeywell Tech Rep, to talk through any issues and what they were doing about them. "It was very much a team effort on Duncan Aviation's part," says Tim. "Everyone who had hands on my engines was able to talk me through what was happening and what I could expect. I appreciated being able to talk to anyone involved with the project and find out what I needed to know." He went on to say that gives him confidence that everyone was well-trained and capable.

Tim also mentioned that seeing how Duncan Aviation's skilled team of engine technicians handled this inspection raises his confidence level when it comes time to make decisions about larger airframe inspections.

"Duncan Aviation is one of a few MROs that specialize in nearly everything I need for my aircraft. They are a one-stop-shop for airframe, engine, interior, or paint, or ADS-B...they can do it."

And he trusts the Duncan Aviation technicians.

"I just watched our Challenger take off on a flight over the ocean on its first flight out of maintenance," Tim says. "If that's not confidence, I don't know what is." 



Tim Renner, DOM of RLC, meets with Duncan Aviation's Honeywell Tech Rep Shawn Schmitz to discuss his engine inspection.

Duncan Aviation Engine Services Has a Sustained Service Re-Entry Rate Less Than 1%.

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



News & Tech Updates

Fort Lauderdale Satellite Upgrades Challenger 604 for ADS-B

Our Satellite Avionics Shop in Fort Lauderdale, Florida, has upgraded the Rockwell Collins TDR-94D transponders on a Challenger 604, bringing the aircraft into compliance with the FAA's mandate for ADS-B (Automatic Dependent Surveillance-Broadcast) Out.

Using the AML-STC (Approved Model List Supplemental Type Certificate) for Part 25 aircraft developed by CMD Flight Solutions, the team in Fort Lauderdale upgraded the TDR-94D transponders and installed two annunciators and a monitoring box.

Fort Lauderdale Shop Manager Brian Redondo and his team completed the installation in less than a week. Although not a first for Duncan Aviation, it was the first time the solution has been installed at the company's Ft. Lauderdale location.

Straight Talk Book on Cabin Management Systems Updated

We work hard to help make complicated issues a bit more understandable for the business aviation community. Toward that end, a team of our avionics experts has updated the CMS (Cabin Management System) Straight Talk Book, which helps clarify the latest technologies available for wirelessly controlling cabin audio/visual systems, temperature and lighting.

Over the last five years, Duncan Aviation's MRO locations in Battle Creek, Michigan, and Lincoln, Nebraska, have installed more than 20 of the most popular CMS packages, such as Rockwell Collins Venue™ and Honeywell Ovation® Select™, on the following make/model business aircraft:

- Dassault Falcon 900/EX
- Global Express
- Bombardier Challenger 604
- Dassault Falcon 2000
- Dassault Falcon 50
- Gulfstream G550

Visit the Duncan Aviation website and download the latest version of the CMS Straight Talk Book here: www.DuncanAviation.aero/resources/straight-talk/cms.

Upgraded TDR-94Ds Installed in Piaggio P-180

Our Sacramento, California, Satellite recently upgraded a Rockwell Collins TDR-94D for a Piaggio Avanti P-180, bringing the aircraft into ADS-B compliance.

Using the AML-STC for Part 23 aircraft developed by CMD Flight Solutions, the team in Sacramento upgraded the TDR-94D, installed an annunciator, and rewired the inputs for the GPS, replacing the GPS 4000A with the much more accurate GPS 4000S WAAS (Wide-Area Augmentation System) sensor.



Aircraft Delivery ON TIME



Duncan Aviation project managers provide customers with personalized customer service and aircraft project expertise.

Each has a minimum of 15 years of technical experience and an average of 25+ years of aviation experience.

Although Sacramento Satellite Manager Bob Hazy initially planned for a full two weeks, the shop is working on its second Piaggio upgrade now, and they've reduced the turntime. With enough advanced notice, he says the shop can perform the upgrade and installation in a week.

The STC covers the following Part 23 aircraft that have Pro Line 21 equipment: Piaggio, King Air, Beechcraft Premier and Textron (500 series Citations). Some of the earlier P-180s had a single transponder installed, and Duncan Aviation can install a dual transponder upgrade on those aircraft. The dual installation takes slightly longer, so plan on approximately three weeks of downtime for that option. 📡

Citation Excel and 560XLS G5000 Upgrade

Duncan Aviation is looking forward to working with Citation Excel and 560XLS operators who want to upgrade their flight deck to Garmin G5000 avionics.

An STC for the G5000 is targeted for late 2018.

“Duncan Aviation is excited to provide operators with this flight deck upgrade option,” says Dennis Kruse, an Avionics Sales Rep with Duncan Aviation. “Our relationship with Garmin is unique and we have a special connection with an M2 that has Garmin avionics.”

The Garmin 3000 system, announced at NBAA in October 2009, was promoted as the first touchscreen-controlled glass flight deck for light turbine aircraft and was a principle reason Duncan Aviation purchased our M2 aircraft.

“I love everything about flying with that system,” says J. Robert Duncan, Chairman Emeritus of Duncan Aviation and an active pilot in the company’s M2 aircraft. “The high resolution screens, touch controllers and many features of the software are remarkable in that they automate tasks. In my 60 years of flying, I have never experienced a system as full featured as the Garmin 3000. It helps keep me safe and will help extend my years as a pilot.”

For more information about Duncan Aviation’s Garmin 5000 Excel and 560XLS program, visit www.DuncanAviation.aero/services/avionics-installation/citation-560xl-g5000. 📡

Gulfstream 150 Gets ADS-B in KC

Our Satellite Avionics Shop in Kansas City, Missouri, has upgraded the Rockwell Collins TDR-94Ds on a Gulfstream 150, bringing the aircraft into compliance with the FAA’s mandate for ADS-B Out.

The team in Kansas City upgraded the TDR-94Ds, installed an ADS-B fail annunciator, and wired the interface between the transponders and GPS receivers using the AML-

STC for Part 25 aircraft developed by CMD Flight Solutions. Duncan Aviation’s Kansas City Satellite Manager Jeff Aman and his team completed the installation in seven business days, easily meeting the customer’s demanding schedule.

Duncan Aviation’s Avionics Shop in Lincoln, Nebraska, has been authorized to upgrade the Rockwell Collins TDR-94s. The Satellite teams ship the units to Lincoln, and with advanced scheduling, the Lincoln team can turn the units in as little as one day, which dramatically decreases downtime for customers. 📡

CJ3 Pro Line Fusion® Flight Deck Upgrade Program in Full Swing

Since Duncan Aviation delivered the first Citation CJ3 aircraft equipped with the Rockwell Collins Pro Line Fusion® flight deck upgrade, the company has been working to complete others for excited CJ3 owners.

Two additional CJ3 aircraft received the upgrade this summer and a fourth is currently in work at Duncan Aviation. Duncan Aviation has 17 additional CJ3 aircraft scheduled for the upgrade over the next 18 months. Duncan Aviation will be performing the installation at its main facilities in Battle Creek, Lincoln, and select satellite avionics locations in 2018. The system received STC (Supplement Type Certification) from the FAA in April.

“The customers who have received the upgrade tell us that they love their flying experiences and rave about the system and its capabilities,” says Jeff Simmons, Duncan Aviation avionics sales representative. 📡

Las Vegas Satellite Earns Mexican Certification

Our Las Vegas satellite avionics facility located at McCarran International Airport in Las Vegas, Nevada, recently received certification from Mexico’s DGAC (Dirección General de Aeronáutica Civil), which is the civil aviation authority for Mexico.

Located near Atlantic Aviation at Suite 128, 255 East Tropicana Ave., on McCarran International Airport, the certification will allow Duncan Aviation to expand avionics services for our customers based in Mexico.

To see the latest certifications by facility, go to: www.DuncanAviation.aero/resources/certificates. 📡



SOLD

Aircraft Listings

Our inventory is always changing. Visit www.DuncanAviation.aero/aircraftsales for more information on our current aircraft listings.



2006 Gulfstream 450, SN 4055



1995 Falcon 2000, SN 21



1997 Challenger 604, SN 5342

REDUCED PRICE



2006 Hawker 850XP, SN 258793



1998 Citation Excel, SN 560-5015



Austin Satellite Receives FAA Certification

Duncan Aviation is pleased to announce that its Austin, Texas, workaway station is now a full-fledged, FAA-certified, Duncan Aviation Satellite Avionics Shop. Reginald Rutley has accepted the position of Manager of the newly certified shop. In addition to the Austin Satellite Shop, he will also manage the San Antonio workaway station.



Dan Ryba



Multimedia Illustrator Dan Ryba Joins In-House Design Team

Dan Ryba, a multimedia artist specializing in 3D illustrations, recently joined the in-house aircraft interior and paint design team at Duncan Aviation's Lincoln facility. In this position, Dan creates 3D conceptual illustrations for customers looking to make interior and exterior modifications to their business aircraft.



Mobile Engine Services Expand to the Ohio River Valley

We added our 16th engine Rapid Response team, this one located in Columbus, Ohio, at the John Glenn CMH (Columbus International Airport). Area operators now have more convenient access to Duncan Aviation's mobile engine services, scheduled and unscheduled maintenance, AOG support, and engine changes.

Jon Watson, a Duncan Aviation team member since 2011, recently moved to Columbus to provide local support. Watson recognizes a real potential for rapid business growth in the Columbus area. "Columbus, Ohio, is a strategic location. I'm only two hours from Cleveland and Cincinnati, an hour from Dayton, and not too far away from the East Coast. There isn't another similar engine repair service in the area. The truck is packed and I'm ready to go as soon as I get the call."

Call Jon at +1 302.332.8391 to schedule service in the Columbus, OH, region.

Rolls-Royce Authorization

Duncan Aviation recently received a new authorization from Rolls-Royce. Duncan Aviation is now approved for CorporateCare® and new engine warranty work on aircraft at all Duncan Aviation facilities and remote work locations. Duncan Aviation is authorized, trained, and equipped to perform engine removals and installations, line level inspections, maintenance and repair, and service bulletins.

Now, Duncan Aviation representatives file warranty claims directly on behalf of its customers. This saves the customer the inconvenience of making a cash outlay and waiting for a reimbursement. In addition, Duncan Aviation is authorized for Nacelle Warranty, which covers items such as the thrust reverser, engine cowlings, and inlet.

Duncan Aviation has inventory and tooling to support the Rolls-Royce Tay, BR710 and AE3007A engine models. These engines are installed on Bombardier Global and Global Express aircraft, Gulfstream (GV, GVSP, GIV, G300, G350, G450, G400, G500, and G550 models) and Embraer Legacy 600/650 and Legacy 135BJ models.



Mobile NDT Services in Salt Lake City Area

We are now able to provide aircraft owners and operators in the Salt Lake City, Utah, area with mobile NDT (Non-Destructive Testing) services. A certified NDT team is located in the area to provide eddy current, fluorescent penetrant, ultrasonic, magnetic particle, and optical prism inspections.

Ray Vieselmeyer, NDT Mastertech, is the contact for the mobile unit located in Provo. He has 19 years of aerospace experience, with 17 years in NDT. He holds Level 2 certifications in all the NDT



Quality
MEANS VALUE




98% of brokers in the NARA (National Aircraft Resale Association) say the reputation of the MRO signing off an aircraft's logbook affects its value at resale.

In the August issue of *Executive Controller*, Duncan Aviation was mentioned in 96 advertisements for having completed paint, interior and avionics upgrades. That is twice that of any other MRO facility.

In 2016, Duncan Aviation customers gave us a 98% quality approval rating.

www.DuncanAviation.aero
Experience. Unlike any other.

methods performed by Duncan Aviation. His NDT experience includes a variety of airframes from Air Tractors to Global Express aircraft. He also has special certifications for Dassault Falcon inspections.

To schedule Duncan Aviation NDT services in Utah or the surrounding area, including Nevada, Idaho, and New Mexico, call Jason Kinnan, Project Manager and Assistant Scheduler at Duncan Aviation's Provo facility, at +1 801.342.5554. 



Aircraft Sales Celebrates 25 Years of Acquisitions

Our Aircraft Sales team is celebrating the 25th anniversary of its aircraft acquisition service. Founded 61 years ago as an aircraft sales organization, Duncan Aviation was known for selling aircraft, many of which were inventoried through the years. In 1992, Duncan Aviation added acquisition services to the mix.

Duncan Aviation is now most known for its MRO (Maintenance, Repair and Overhaul) capabilities. Yet the company still has a vibrant, seven-member aircraft sales team that provides preowned aircraft sales, acquisition and consignment services. Each team member has an average of 25 years of aviation experience. 


David Coleman joins Aircraft Sales & Acquisitions Team

David Coleman, who has 27 years of aviation experience, has joined Duncan Aviation's Aircraft Sales & Acquisitions team. With an office at the Chicago Executive Airport in Wheeling, Illinois, David specializes in complex cross-border transactions, including distress and inventory acquisitions. He and the rest of the Duncan Aviation Aircraft Sales & Acquisitions team take pride in locating the best aircraft that meet their clients' requirements.


David may be contacted at +1 773.425.2498 or Dave.Coleman@DuncanAviation.com. 

Susie Corn Joins Turbine Engine Service Sales

Susie Corn recently joined our Turbine Engine Service Sales team. In this role, she will focus on developing business relationships and introducing potential customers in the South Central Region, which includes Texas, Oklahoma, and Arkansas, to Duncan Aviation's Engine Services. Susie brings 17 years of aviation experience that includes accounting, customer service, and regional sales. She has a great love for the aviation community and is looking forward to expanding her experiences in her new role with Duncan Aviation.

"I am confident that by joining Duncan Aviation, I will have the opportunity to utilize my existing skills while experiencing some exciting new challenges," she says. 


Kasey Harwick Director Of Maintenance in Battle Creek

Kasey Harwick is now the DOM (Director of Maintenance) at our Battle Creek facility. In this position, Kasey leads the airframe, engine, and accessory departments. The goal of this newly created position is to unite Duncan Aviation team members who perform maintenance, repairs and overhauls on aircraft, engines, and components. 



Tiffany Griffin

Tiffany Griffin Joins Paint & Interior Modification Sales

Tiffany Griffin has joined the Paint and Interior Modification Sales Team at the company's Battle Creek facility. Tiffany first joined the Duncan Aviation team in Lincoln as a Design Intern in 2001, while attending the UNL (University of Nebraska-Lincoln). As an intern, Tiffany Griffin found the work of designing aircraft interiors fascinating. In 2004, she joined the Duncan Aviation Design Team in Lincoln as a full-time Designer. Taking on the responsibilities of the Design Team Leader in Battle Creek prompted Tiffany to move there in 2007, and she was simultaneously working on a Master's in Business Administration at Bellevue University in Nebraska. After earning her MBA, she accepted the role of Project Manager for the Dassault Falcon 7X completions program, and in 2014, she took on her most recent role as Battle Creek's NetJets Program Coordinator. 



Scott McKenzie

Scott McKenzie Administrator for Aftermarket Warranty Programs

Scott McKenzie will be taking over the administration of all OEM aftermarket warranty programs. In addition to his current responsibilities as an Avionics Tech Rep for Duncan Aviation Components Services, Scott will assume the duties as Aftermarket Warranty Program Administrator, overseeing contract sales, organization and administration of the company's HAPP (Honeywell Avionics Protection Plan), Honeywell MPP (Mechanical Protection Plan), Rockwell Collins CASP (Corporate Aircraft Service Program), and Universal Avionics Flight Assure aftermarket warranty programs.

Although Scott is the company's point of contact for all questions and concerns, these warranty programs can be purchased at any Duncan Aviation location, including the three full-service MRO (maintenance, repair and overhaul) facilities and any of the 26 avionics satellite and workaway locations across the United States.


For more information about Duncan Aviation's Aftermarket Warranty Program, visit: www.DuncanAviation.aero/services/aftermarket-warranties. 

Nate Darlington Named Paint Manager

This spring, Nate Darlington was named Paint Department Manager at our Battle Creek facility. The Paint Shop at Battle Creek paints roughly 100 aircraft per year, ranging from Citation to Global airframes.

As a leader in paint services for business aviation, Duncan Aviation is capable of painting up to 200 aircraft per year. The company's locations in Battle Creek and Lincoln have downdraft paint facilities capable of painting every size of business aircraft in use today, from Citation 525, Citation 560XL, Learjet 45 and Challenger 300 aircraft to Gulfstream's 550, Bombardier's Global Express and Dassault's Falcon 7X. The facilities are designed with multiple bays that allow stripping, sanding, painting, and detail work on multiple aircraft simultaneously.

Duncan Aviation announced last year that it will be expanding its services in Provo. Building on nearly 45 acres of land at the Provo Municipal Airport, Duncan Aviation will add nearly 220,000-square-foot of buildings with its 166,000-square-foot maintenance and modifications center and its 53,000-square-foot paint facility. The new facility is slated to open in 2019.

"One of my goals in this position is to serve as a mentor to current employees, and I'd like to help prepare interested team members for the opening of the new hangars in Provo," says Nate. "We're expecting that some team members from the Battle Creek and Lincoln Paint Shops will transition to Provo to help get the new shop up and running." 



Dave Coleman



Susie Corn



Kasey Harwick



Nate Darlington



Gulfstream and FlightSafety International Line Service Training

Duncan Aviation line service team members from Battle Creek and Kalamazoo, Michigan, and Lincoln, Nebraska, recently completed specialized training from Gulfstream and FlightSafety International. The training they received included Gulfstream aircraft parking, fueling, towing and mooring, water servicing, lavatory servicing, window cleaning, and snow and ice removal for the Gulfstream G150, G200, G280, G450, G550, and G650 models.

According to statistics from Gulfstream, Duncan Aviation is one of only eight worldwide FBOs to receive this mid-cabin qualification and one of only 53 to receive the large cabin qualification.



Flight Department Earns Safety Rating

After an audit by the IS-BAO (International Standard for Business Aircraft Operations) earlier this year, Duncan Aviation's Flight Department received its Stage III SMS (Safety Management System) Certification.

For the purposes of SMS, the company has to apply for two different certifications: One for the flight department, which schedules and flies in-house business flights and charter flights and provides pilot services, and one for the repair station side of the business, which involves maintenance, paint, avionics, engines, etc.

Duncan Aviation is currently implementing an SMS on the repair station side of the business.

myDuncan Offers New Enhancements

Duncan Aviation customers are now able to review, compare, and approve sales quotes via the myDuncan portal. They can ask questions and provide feedback as they compare revisions, and electronically approve an agreement. Although they will still need to print, sign, and send in a hard copy, this enhancement streamlines the quoting process by always having the latest quote or approved agreement available to both the customer and the sales team.

The second feature added to myDuncan gives customers the ability to view project workflow schedules and history of approved work while monitoring their aircraft as it progresses through project milestones.

The final myDuncan feature added allows customers to view their invoices, waybills, and other documents online, as well as select the preferred method of delivery and frequency.

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