

## REGIONAL MANAGERS

### Doug Alleman

Phone 402.479.4236  
Cellular 402.432.1952

### Lee Bowes

Phone 402.479.1569  
Cellular 402.730.3786

### Dennis Brewer

Phone 817.472.6113  
Cellular 817.247.1067

### Skip Laney

Phone 402.479.1525  
Cellular 402.440.8396

### Dave Loudenback

Phone 618.467.1802  
Cellular 618.973.5926

### Rick Randall

Phone 269.969.8468  
Cellular 269.317.7098

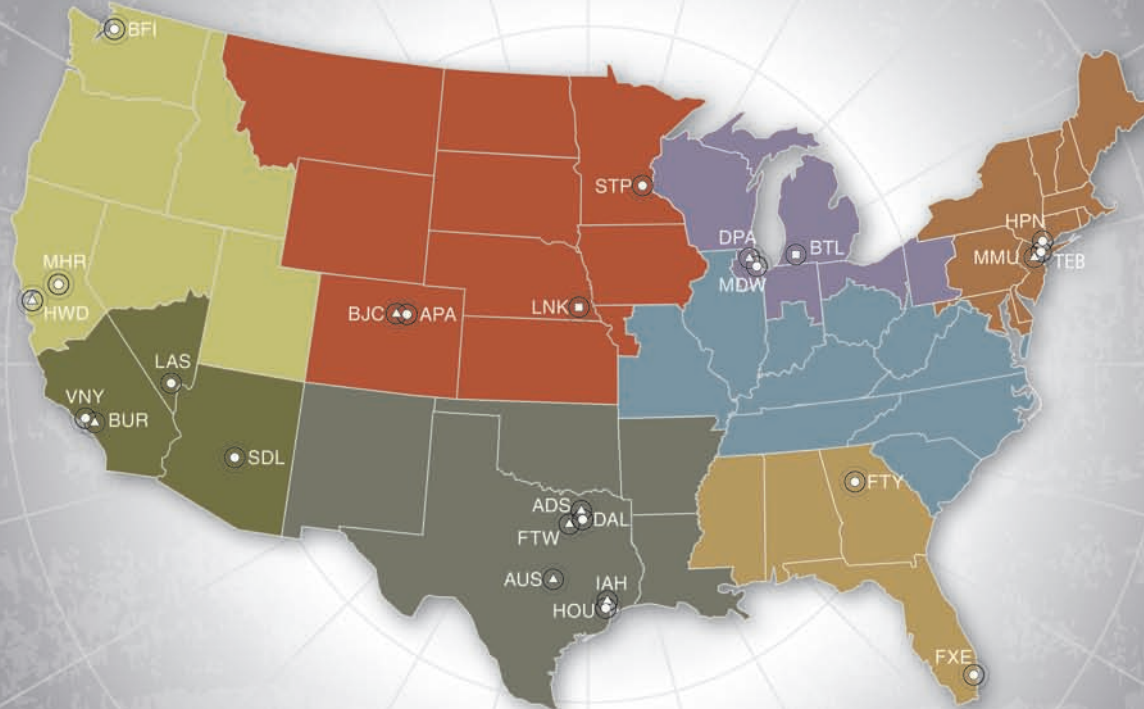
### Bob Brega

Phone 570.759.2759  
Cellular 570.807.6383

### Pete Alves

Phone 205.520.5777  
Cellular 205.317.1008

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## 1 Want Mountains with your Maintenance?

An additional Duncan Aviation nose-to-tail support facility in Provo, Utah, will be open for business in August.

## 3 Shrinking the World for our Customers

Tony Gilbert is relocating to France for the next couple of years in an effort to make him more accessible to our customers in Europe, Russia, India, Asia, the Middle East and North Africa.

## 5 Upgrading to WAAS: Answers from Industry Experts

To really equip your aircraft for the future, you'll want to look at upgrading to WAAS. Duncan Aviation's avionics experts weigh in on the upgrade and the future for WAAS.

## 9 Redefining Customer Expectations

Duncan Aviation has some of the most forward-thinking technicians, able to develop sustainable and repeatable maintenance and testing procedures that are truly different. Read about some of the most recent here.

## 11 Duncan Aviation Has You Covered!

Duncan Aviation has avionics, engine and airframe technicians and equipment strategically positioned throughout the United States to quickly help operators stuck anywhere in the world.

## 13 Creativity. Functionality. Artistry. The Human Elements of Aircraft Design.

Duncan Aviation's professional aircraft interior and paint designers have been setting trends in aircraft paint and completions for years.

## 15 Tech Report

In one spot, we provide the latest in Duncan Aviation news, industry trends and technical updates.

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Winter 2010

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### subscriber services:

Direct all inquiries, address changes, subscription orders, etc., to:

Web: www.DuncanAviation.aero  
E-mail: Debrief@DuncanAviation.com  
Contact: Marketing Communications  
Phone: 1.800.228.4277 or 1.402.475.2611  
Fax: 1.402.479.1657  
Mail: Duncan Aviation  
Marketing Communications  
P.O. Box 81887  
Lincoln, NE 68501

### contributing writers:

Kate Dolan  
Diane Heiserman  
Beth Humble  
Lori Johnson  
Sarah Naehrer

### lead designer & photo director:

Kaela Prochaska

### web developer:

Sarah Naehrer

### 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)

todd duncan download

Positioning Duncan Aviation for Years of Continued Customer Support



2009 was a tough year. No one in business aviation was left unaffected by the negative public perceptions of business aircraft and the fast and furious decline our industry saw. However, having recently attended two industry association meetings (NATA and NBAA) and listening to some of the most knowledgeable and influential individuals in business aviation, I am confident that recovery is possible and real, albeit very slow.

We see tremendous opportunity for the future. But because our industry lags corporate profits by about 12 to 18 months, there won't be significant growth until 2011. So it's a good thing we don't measure our future in one-year intervals. For us, the future is five, 10 and even 20 years out.

Even though we still find ourselves in tough economic conditions, Duncan Aviation has not set out to simply "weather the storm." We continue to move forward being innovative and unique. At a time when many MROs are shuttering their doors, we are pushing forward with the opening of a western U.S. operation in Provo, Utah. The facility will be smaller than initial plans, but because of our great partnerships with Million Air-Provo and several OEMs, it is the right move at the right time. (see page 1)

These times have also given us the opportunity to refocus on what's most

important and get great at where we've always been good—communicating with our customers and delivering each job on time and on budget. I've met with hundreds of customers in 2009. We value their input and get a real sense of where the market is going by listening to what they are saying. Because we are so keenly focused on what flight departments need, we've become great at meeting on-time delivery and on-budget goals. By watching these basic metrics and talking to customers about their experiences, our results have never been better.

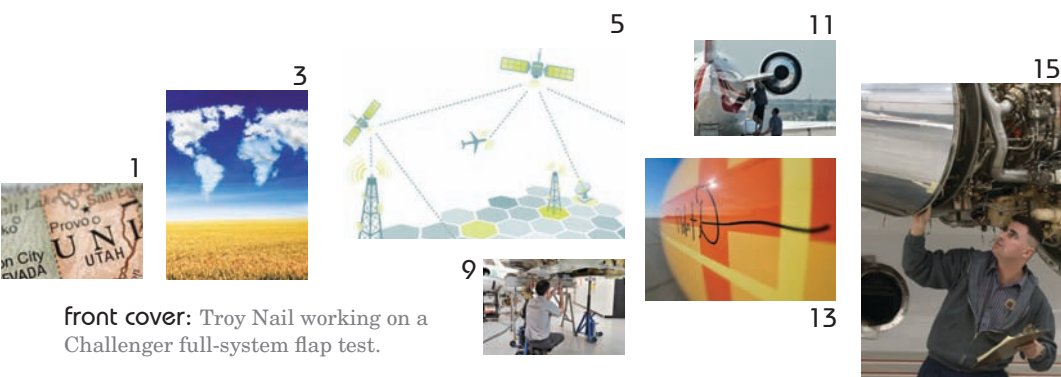
Duncan Aviation has always placed a high priority on also being flexible and responsive to the needs of its team members. A lesson I learned from my grandfather, Duncan Aviation founder Donald Duncan, is that when we take care of our team members, they will take care of our customers. It was true then and it is still true now. Duncan Aviation team members have the latitude to look for things that can improve the customer experience without compromising our integrity or their safety. We have some of the most forward-thinking technicians who have developed sustainable and repeatable maintenance and testing procedures that have added to or

enhanced our already long list of capabilities. For example, in 2009 our Challenger Team developed a full-system flap test that will accurately test and diagnose all electrical or mechanical intermittent flap squawks. This fully portable test bench is an exclusive Duncan Aviation capability. (see page 9)

Firm-fixed pricing, which is available for several of the airframes on which we work, is another Duncan Aviation innovative option that very few competitors are able to offer. Our deep history and unmatched technical knowledge of our products makes us confident in our decisions.

Through strategic partnerships with OEMs and vendors, we continue to experience significant milestones. We were the first facility to perform winglet installations on the Falcon 2000EX and the largest provider of Aircell's wi-fi broadband in the U.S.

The underlying current in our industry is that there are very positive prospects for years to come. At Duncan Aviation, we have positioned ourselves for growth and innovation to come out of this recession stronger and ready to continue in our goal of supporting customers with the quality and responsiveness they have come to expect from Duncan Aviation. We thank them for their support as well.



front cover: Troy Nail working on a Challenger full-system flap test.



# WANT MOUNTAINS WITH YOUR MAINTENANCE?

## DUNCAN AVIATION-PROVO WILL BE READY TO PROVIDE SUPPORT THIS SUMMER



Mt. Timpanagos is located directly North of the city of Provo and rises to an elevation of 11,749 feet.

Nearly five years ago, Duncan Aviation customers asked for an additional nose-to-tail aircraft support facility in the western part of the United States. A site selection committee was formed and sent forth to find the perfect location, one that emulated the communities and work ethic surrounding our Nebraska and Michigan facilities. In 2007, Duncan Aviation announced that Provo, Utah, was the spot for Duncan Aviation's third full-service aircraft support facility.

A lot has changed since then. The economic plummet seen worldwide over the last 12 months certainly impacted those plans, as the initial vision went from a 125-team-member facility built from the ground up to a 20-team-member leased facility. The original vision is still in place; its timing has just been postponed. For customers looking forward to Duncan Aviation airframe maintenance in the western U.S., the planning and re-planning will culminate in the opening of Duncan Aviation-Provo this August.

### The Facility

Duncan Aviation has an agreement with Million Air-Provo to lease hangar space from Million Air at the Provo Municipal Airport. The leased hangar will give Duncan Aviation 15,000 feet of

space, a hangar footprint that will allow the equivalent of four Learjets or one Challenger and two Lears at a time.

"This lease agreement allows Duncan Aviation to establish a maintenance service presence in Provo by August 2010 without requiring the expense of building a new hangar facility right now," says Todd Duncan, Chairman of Duncan Aviation. "It is still Duncan Aviation's long-term plan and desire to build a nose-to-tail support facility in Provo and we will continue to evaluate the market and the economy and will begin preparation for a larger expansion as soon as we believe the timing to be correct. In the meantime, the lease with Million Air is a perfect solution and we are proud to align with such a respected, forward-thinking company."

Bill Haberstock, CEO of Keystone Aviation, which owns and operates the Million Air-Provo facility, agrees, saying: "This is an opportunity for our operation to partner with one of the country's premier major repair and overhaul facilities and accelerate their entrance into this market. Since our first look at the Provo environment, we have believed in the potential of the airport. In these economic times, this kind of agreement can keep the growth in place and position both our companies positively for the recovery."

### Authorizations & Capabilities

When Duncan Aviation-Provo opens its doors, it will have service center authorizations from both Bombardier and Embraer.

The facility will be a Bombardier Authorized Service Facility (ASF) for Learjet and Challenger aircraft as well as an Aircraft On Ground (AOG) Line Maintenance Facility (LMF) for Global aircraft.

As an Embraer Authorized Service Center, Duncan Aviation-Provo will provide support for the Embraer Legacy 600, Phenom 100 and Phenom 300 aircraft.

The Duncan Aviation team, which will consist of about 25 technicians experienced in Bombardier and Embraer aircraft, will provide full airframe services including major and minor hourly and calendar inspections as well as pre-purchase evaluations. Duncan Aviation-Provo will also offer line-level engine, avionics and interior support.

### The People

In order to ensure that business processes and practices are consistent at all of Duncan Aviation's facilities and that customers have an experience at Duncan Aviation-Provo that is similar to the experience customers

have when they visit Lincoln or Battle Creek, many of the Duncan Aviation-Provo team members will transfer from Nebraska or Michigan to Utah.

Some transfers have already been announced. They include the following:



**Bill Prochazka, Executive VP and General Manager.**

Bill currently holds the same title at Duncan Aviation-Battle Creek and has more than 30 years of experience in aviation, including various positions at Gates Learjet and Cessna Aircraft Company in Wichita. In Provo, his responsibilities will include general oversight of day-to-day operations and repair station requirements.



**Mike Griffiths, Production Team Leader.**

Mike is a native of Wyoming who joined the U.S. Navy after graduating from high school. Upon discharge, he earned his A&P License and joined the Duncan Aviation team in 1983. He began his Duncan Aviation career in the parts department and soon advanced to the airframe



**Matt Cooper, Second Shift Supervisor.**

Matt is currently a Lead Mechanic on our Bombardier team in Battle Creek. He came to Duncan Aviation nearly six years ago from Bombardier Aviation Services in Indianapolis and has 11 years in the industry, with virtually all of that time focused on Lear and Challenger aircraft. Matt holds an associate's degree in aviation technology, is an A&P and has an extensive list of formal training on many of the airframes we will specialize in at Provo.



**Mitch Robson, Weekend Shift Supervisor.**

Mitch is also from our Bombardier team in Battle Creek and has been with Duncan Aviation for nine years. Mitch came to Duncan Aviation from the Navy and has extensive training on Challenger 300s and


600s, including run qualification on the 604. He holds an A&P license and completed significant courses on structures and hydraulics while with the Navy. In addition to Matt's Bombardier background, he brings significant experience in Citations ranging from the 525 through the X.



**James Holmes, Lead Mechanic Engines.**

James has been with Duncan Aviation since his graduation from Colorado Aero Tech in 2001. He has worked in the Engine MPI Shop and the Engine Line area in Lincoln and, most recently, has been with Duncan Aviation's Engine Rapid Response Team based in Florida. With this team, he has had the opportunity to serve customers around the world, traveling to places like Venezuela, the Turks and Caicos.

### Want More Info?

If you would like more information about the Provo facility or would like to be one of the first customers at Duncan Aviation-Provo, please call Alan Huggett in Battle Creek at 269.969.8400 or Brad Homeyer or Brad Lennemann in Lincoln at 402.475.2611. 

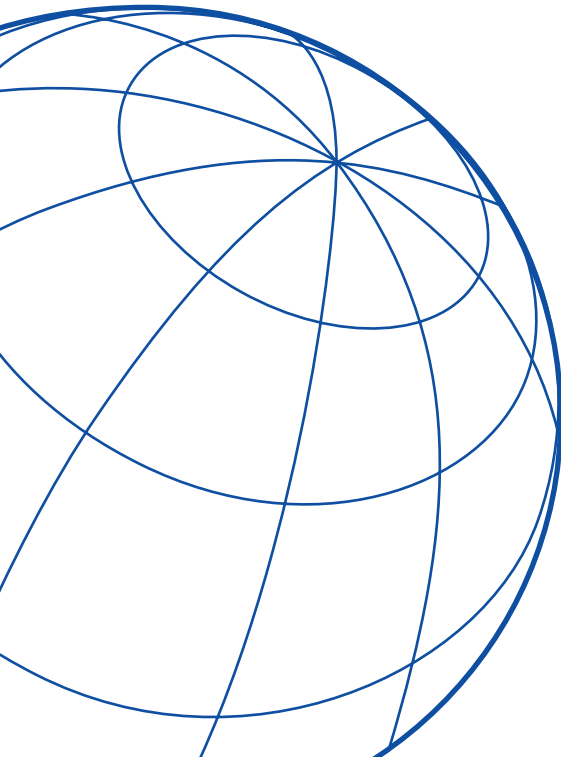




### Tony Gilbert's Contact Information

You may reach Tony through Duncan Aviation's main switchboards in Lincoln (402.475.2611) or Battle Creek (269.969.8400). You may email him at [Tony.Gilbert@DuncanAviation.com](mailto:Tony.Gilbert@DuncanAviation.com) or call him in France at +33.6.3895.9708.

# SHRINKING THE WORLD FOR OUR CUSTOMERS



Duncan Aviation customers are located around the world. As that number continues to skyrocket, we strive to provide greater opportunities for communicating with and offering support worldwide. Toward that end, Vice President of International Business Development Tony Gilbert is relocating to France for the next couple of years in an effort to make him more accessible to our customers in Europe, Russia, India, Asia, the Middle East and North Africa.

Although Tony credits the support he has received from his co-workers for the successes he has enjoyed in his 22 years at Duncan Aviation, he was asked to head up the company's European Initiative

because of his unique talents and abilities. In addition to his native Portuguese, Tony fluently speaks French, Romanian, Spanish and English. He's spent nearly 20 years developing relationships with international customers, helping spread Duncan Aviation's reputation for excellence around the world.

Tony's mission includes not only spreading the word about Duncan Aviation to potential customers, but also strengthening relationships with our already valued customers.

### Brazilian Born

Through Youth For Understanding, a non-profit international education program that matches exchange

students and host families in 64 countries, the then 14-year-old Tony Gilbert first came to the United States. While staying with the Knerl family in tiny Ponca, Nebraska, a serendipitous ride in a Cessna 152 convinced Tony that he was going to be a pilot.

Back home in Sao Paulo, Brazil, Tony had two possible paths to pursue his dream: Pay exorbitant fees for a private pilot's license or join the military. Tony opted for the Brazilian military, attending an Air Force-run high school and college. Graduating with a degree in aeronautical engineering, he served as a pilot in Brazil's military for 15 years and retired from service at the rank of Major.

### Cows & Corn

Throughout his school and military experience, Tony kept in touch with Phil and Pat Knerl, his "Mom and Dad" in Nebraska. He visited them in Ponca as often as he could, amid what Tony laughingly refers to as "the cows and corn." Having never seen snow prior to his first trip to Nebraska, Tony looked forward to vacationing in the town of 1,000 in northeast Nebraska during the coldest, snowiest times of the year.

Over the years, he made many friends in Nebraska, including then Secretary of State Allen J. Beerman. Through his friendship with Beerman, Tony met then Governor J. J. Exxon, who made Tony an Honorary Citizen of the State of Nebraska. On one of those visits to the blustery plains, Tony asked Allen if he knew of any aviation companies in Nebraska. Tony wanted to immigrate to the United States, and he knew having a job lined up would make the process a bit easier.


Beerman suggested Duncan Aviation, and Tony applied for a position as a pilot. Duncan Aviation immediately recognized Tony's talents and offered him the job on the spot. Despite having landed a job, it still took two years for the paperwork to come through. Tony was back in Sao Paulo when he received word from the United States Embassy that his paperwork had been processed. He and his family packed up and moved to Lincoln, Nebraska, in 1988.

### Welcome Aboard

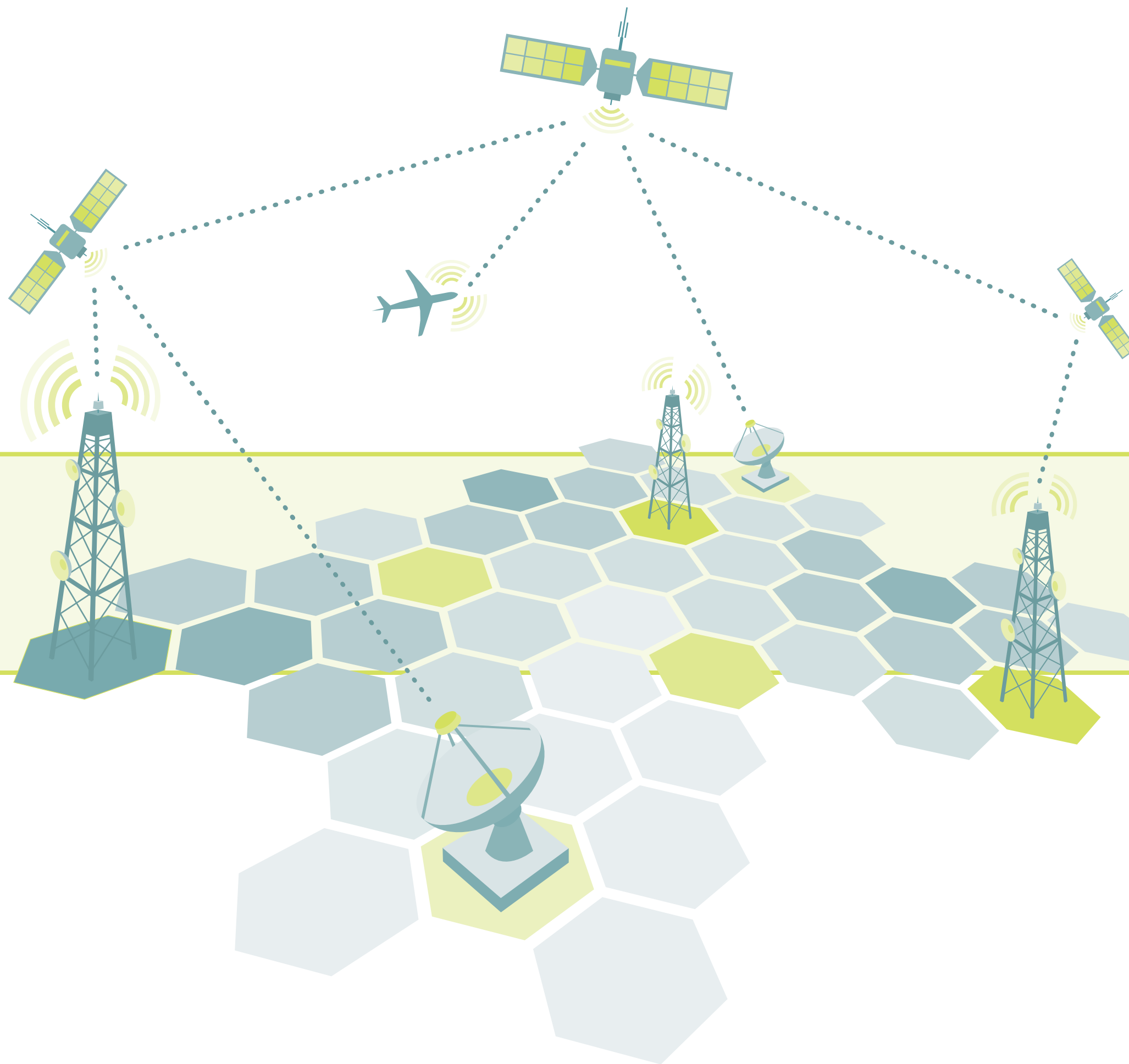
Hired as a pilot, Tony shuttled employees and honored guests for six months. During that time, Tony says he couldn't help but notice the special relationship between Duncan Aviation and its customers. He realized there were pilots and flight directors the world over who had never heard of Duncan Aviation, and he made it his mission to spread the word. He began traveling to

countries throughout South America to build relationships with customers. Eventually, Tony's territory included Mexico, South and Central America, France, Italy, Portugal and Spain.

As the customer relationships grew, Duncan Aviation realized that regardless of how talented Tony was, he could not be in more than one country at a time. In an effort to better serve customers in countries outside of the United States, Tony began recruiting representatives, or "agents." Duncan Aviation wanted the best-qualified reps to establish working relationships with customers. There are now 26 agents in the field working in 24 countries, and they work with Tony Gilbert and Duncan Aviation to provide customers with access to Duncan Aviation's full range of aircraft support services.

In 2010 and beyond with Tony's able assistance, Duncan Aviation will help an even greater number of customers who operate outside of the U.S. 





Is now the time to upgrade to WAAS? What is the difference between an STC and field approval process? Industry experts answer some of the common questions and confusion surrounding these upgrades as operators consider the future of aviation navigation.

## Upgrading to WAAS: Answers from Industry Experts

### ILS Approach Cancellations

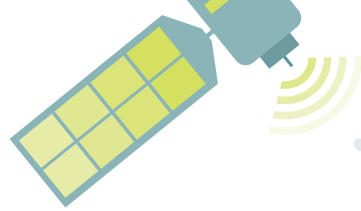
One can almost feel the clock ticking for the 60-year-old Instrument Landing System (ILS) approaches and their expensive annual maintenance costs. The Federal Aviation Administration (FAA) has been cancelling redundant instrument ground-based approaches for several years, shifting its focus toward developing more satellite-based approaches with ground references.

This effort was reaffirmed by the FAA's cancellation of more than 130 redundant ILS approaches in mid-December last year, as reported by the Aircraft Owners and Pilots

Association (AOPA). However, no hard mandate for satellite-based Wide Area Augmentation System/Localizer Performance with Vertical Guidance (WAAS/LPV) approaches is expected by industry experts... yet.

While the focus may be shifting away from ILS approaches, budgets are tight and many questions still surround WAAS/LPV upgrades. Industry experts explain some of the common questions and confusion surrounding these upgrades as operators consider the future of aviation navigation.





### Meeting the Needs of the Future

Gary Harpster is a long-time member of the Aircraft Electronics Association (AEA) Advisory Board and an Avionics Installation Sales Rep at Duncan Aviation-Lincoln with 40 years of industry experience. He's well-known for his avionics expertise.

When someone asks him if now is the time to upgrade to WAAS, he responds "Does your aircraft meet the needs of the future?" If an aircraft isn't equipped with WAAS/LPV, the answer is probably no.

"Now is the time to begin researching to determine if an aircraft qualifies for a WAAS upgrade," says Gary. "Some aircraft may not qualify because of compatibility with the existing systems."

The chief compatibility issue is the age of an aircraft's Flight Management System (FMS). Many FMSs currently in operation were installed in the 1990s. These 20-something-year-old computers, or more specifically their processors and memory, simply weren't designed to handle the increasing amounts of data required by today's technology.

"Aircraft built in the last 20 years have a lot to gain from an upgrade," says Joe Spring, an Avionics Installation Sales Rep at Duncan Aviation-Battle Creek.

Although they still function, the systems in these aircraft are slower, less efficient and sadly lacking in features, and sometimes aren't compatible with modern upgrades, which can complicate an installation. They're also aging.

Steve Elofson is the Avionics Installation Sales Manager at Duncan Aviation-Lincoln. He explains that these old FMSs are due to be updated anyway.

"When operators start looking at the additional features, an upgrade really starts to make sense," says Steve.

### What Is LPV?

Many operators are struggling to make sense of the distinction between WAAS and LPV. WAAS increases the accuracy of the Global Positioning System (GPS). LPV is the certification that enables an aircraft to fly GPS approaches to a lower minimum.

Chad Ostertag, an Avionics Sales Rep at Duncan Aviation-Battle Creek, works with operators to determine what level of functionality they're looking for when they ask for WAAS. Often it takes a few questions to determine what they're really interested in is LPV.

"Most customers are looking for a solution that will get them the LPV approaches," Chad explains. "If we install a system that is WAAS capable, it is also LPV capable, but without a proper certification path the LPV portion can't be activated."

### A Significant Installation Event

Upgrading to WAAS/LPV sounds deceptively simple: it's just a matter of plugging in a new unit, right? Not for Part 25 aircraft.

"Customers will call and ask for a price quote, expecting this type of an upgrade to cost \$10-20,000," says Joe. "When they hear the quote, it's much more expensive than they expect, but this is the future of aircraft navigation. The upgrade will give them significant value, which offsets the initial cost."

The pricing confusion seems to stem from smaller WAAS-enabled GPS units, Garmin units in particular. They offer similar features as their more expensive counterparts and are installed at a fraction of the cost with minimal

downtime. However, "these units are not certified for Part 25 aircraft," says Steve. "They are only certified and designed for Part 23 aircraft, which are mostly piston and turboprop aircraft."

The upgrade path for Part 25 aircraft is more complicated. An installation requires units to be integrated with an aircraft's flight control and autopilot systems, making an upgrade a very significant installation event.

Older FMSs aren't coupled to an aircraft's autopilot as completely as newer generation systems, says Steve, and modifying the wiring can be somewhat like brain surgery. Operators considering upgrading to a system that is different from the OEM configuration should be prepared to replace most, if not all, of the existing wiring.

### Unique System Configurations

For LPV to be possible, all system components must communicate with each other and function according to manufacturer specifications. "Flight guidance, primary flight displays and the autopilot all have to react correctly," says Gary.

There are a multitude of different combinations of makes, models and system configurations among business aircraft operating today. Each unique combination must be thoroughly researched, a new configuration engineered and the new systems installed. Gary explains that it is the responsibility of the installing agency to make sure a unit works with an aircraft's onboard systems, making experience and manufacturer relationships crucial in a service provider.

"There is a lot of research that takes place on the front end," says Gary. "We make sure a solution we present will

work in an operator's aircraft with the existing avionics system configuration. We minimize risk."

Duncan Aviation's teams also collaborate with FMS manufacturers to troubleshoot discrepancies with new devices and find solutions.

### Maximizing An Upgrade

No matter how an operator approaches a WAAS/LPV upgrade, the proposition may be expensive in terms of both money and downtime.

An upgrade can be maximized by performing major and minor inspections and maintenance during the installation. Coordinating an upgrade with service events requires some advance planning, but can save valuable downtime.

Shorter downtimes can be achieved by upgrading from an older to a newer generation system. For an installation to be done correctly, "customers should expect downtimes of no less than two weeks," says Steve. However, upgrade paths aren't available for all systems, particularly older aircraft models.

### Field Approvals vs. STCs

Once a Supplemental Type Certificate (STC) is developed for an installation, the upgrade involves a more straightforward process with more easily anticipated downtimes. However, WAAS/LPV is still relatively new to the industry and not many STCs have been created.

Universal Avionics recognized this problem early on and approached the FAA for help to make the upgrade process easier. The FAA agreed, and the Engineering Assisted Field Approval Process for Universal Avionics WAAS/LPV FMS products was announced on Sept. 21, 2009.

This unique FAA field approval process saves operators time and

money by providing an alternative to the intensive STC process. "It requires that the existing Universal FMS be 3D coupled for it to be eligible for the engineering assisted field approval," says Joe. The process requires that the vertical and lateral coupling for Universal's FMS units fully integrate with the aircraft's flight director or autopilot. This allows aircraft to depart with a certified WAAS/LPV system.

STCs are required for Rockwell Collins, Honeywell and non-3D coupled Universal Avionics FMS WAAS/LPV upgrades.

### The Future of WAAS


Although the AOPA reports that the FAA is collaborating with them to ensure that adequate guidance is available to meet the needs of operators, the clock is ticking for ILS approaches. These antiquated ground-based approaches have large annual maintenance costs. WAAS/LPV approaches, by contrast, are significantly less expensive to implement and maintain while offering much more functionality to operators.

"WAAS/LPV upgrade solutions are now becoming available at a rapid pace," says Joe, who recently attended a Rockwell-Collins Dealer Advisory Board meeting.

"Rockwell-Collins is developing a road map for all Collins FMS-equipped aircraft for 2010. Now is the time to budget and plan."

Duncan Aviation recently completed engineering assisted field approvals for Universal Avionics WAAS/LPV upgrades in a Citation 550B and a Hawker 800XP. In addition, the company is currently working with Honeywell on a NZ-2000 FMS 6.1 software upgrade in a Challenger 601-3A.



Despite the ILS approach cancellations, Steve doesn't expect a hard mandate for WAAS/LPV any time in the near future. However, with aging computer systems, increasing amounts of data to process and steadily increasing air traffic, he speculates that the upgrade may soon offer some distinct flying advantages that will necessitate an upgrade for operation in certain airspaces. 

### WAAS Flight Management Systems for Part 25 Aircraft as of January 2010

Manufacturer	WAAS FMSs
Universal Avionics	UNS-1Lw
	UNS-1Fw
	UNS-1Ew
Rockwell Collins	AMS-5000
	FMS-3000
	FMS-4200
	FMS-5000
Honeywell	FMS-6000
	NZ-2000

# Redefining Customer Expectations

According to Albert Einstein, it is insane to do the same thing over and over again but continue to expect different results. Yet that is what many aircraft operators see when they schedule maintenance events. Over and over again, they receive the same average results delivered with uninspired effort.



"Duncan Aviation's victory is not won by a competitor's failure... It's by winning a customer because we are the solution to their needs," Scott Shefke, Duncan Aviation Challenger Tech Rep



Industry First: Challenger full-system flap test that will accurately test and diagnose all electrical or mechanical intermittent flap squawks on the Bombardier Challenger 600 model series.

Duncan Aviation team members never shy away from a challenge and average results are never just good enough. Everyone is given the latitude to explore ways that can improve the customer experience without compromising integrity or their safety. Duncan Aviation has some of the most forward-thinking technicians in business aviation who have developed sustainable and repeatable maintenance and testing procedures that have added to or enhanced an already long list of capabilities.

In doing so, Duncan Aviation is redefining customers' expectations by taking a new approach and delivering something unexpected.

This innovative spirit is at the very core of Duncan Aviation's culture, helping to produce an ongoing list of "industry firsts."

## Innovating a New Flap Test

One of these firsts is a new Challenger full-system flap test that will accurately test and diagnose all electrical or mechanical intermittent flap squawks on the Bombardier Challenger 600 model series.

These intermittent squawks are the most expensive to solve and the most frustrating to diagnose.

Customers are often frustrated by the time they reach the doors of Duncan Aviation for a flap system squawk. They have been battling this squawk for a long time, having to deal with unexpected downtime and loads of expenses only to be further frustrated because the squawk still isn't fixed. They are mad and skeptical of our abilities to effectively solve it.

"We share in their frustrations," says Scott Shefke, Duncan Aviation Challenger Tech Rep. "During our testing procedures, we've experienced the same intermittent failures with no clear solution. Because there are a myriad of things that can and do cause these squawks—mechanical and electrical, the list of culprits is endless. In order for us to develop an action plan for repair, we could not just begin with the current frustration of the customer; we had to start at the beginning, set the stage and systematically test all scenarios."

Motivated to find a solution, Scott set out to become more knowledgeable about the system, visiting the OEM and vendor repair facilities. It was while watching a vendor overhaul a Challenger actuator that he immediately knew, "we can do this." Taking his knowledge

of the system and applying and interpreting the information in a new and different manner, a plan for a new test bench was created.

This new testing capability is fully portable and able to narrow down the system failure to an individual part or series of parts. It gives the Challenger team and customer a very specific remedy and plan that they can act upon. Gone are the vague statements such as, "it could be..." or "I think it's..." Duncan Aviation technicians now can confidently stand behind their recommendations of a course of action with an accurate estimate of downtime and price, because they have solid data to stand behind their words. Producing 100% accuracy in its diagnosis, there hasn't been a customer return to Duncan Aviation demanding something different.

## Innovation Out on a Wing

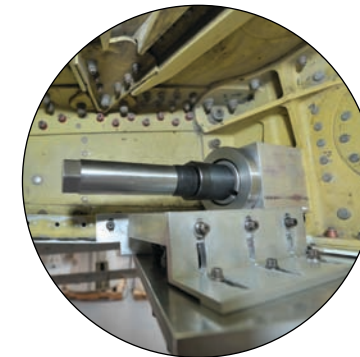
During a scheduled quick-turn inspection on a Learjet 55C, significant corrosion was found in several areas of the aircraft, including the sockets for the main landing gear forward trunnion pins on the bottom side of the wing. Working with Learjet, Dave Schiver, Duncan Aviation Learjet Tech Rep, was given two options. Clean the corrosion using a standard hone or remove the wing and have it shipped by truck to Learjet for repair in their fixture. The hone method works by cleaning the surface, but is inaccurate and can easily create an oval where a concentric bore is required. And because there were already two other wings waiting in line for repair at Learjet, the wing would have had to wait its turn; the downtime before any repair could even begin was at least six months. No one was thrilled with the options and frustration began to set in.

Duncan Aviation is not known to quit on a project just because it is hard or the solution doesn't present itself

with the first inspection or test and frustration can be highly motivating. Knowing there had to be another option, the Duncan Aviation Machine Shop, led by Rich Capps, came up with the idea of fabricating a fixture in-house to ream the bores instead. Although this had never been attempted in-the-field by the OEM or any other MRO, Learjet gave them the green light to try.

There was just one critical hurdle to overcome: building a fixture that could 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. Not many MROs would allow a team the time and expense to take such a risk without a guarantee of a successful outcome. It is a testament to Duncan Aviation managers and leaders to recognize this innovative passion among the workforce, and step aside and get out of the way to allow it to happen.

With teamwork, ingenuity and superior technical know-how on their side, Rich and his team fabricated a fixture that met all requirements and successfully removed all corrosion, staying within allowable limits. Since



Teamwork, ingenuity and technical know-how allowed Duncan Aviation to fabricate an on-wing fixture to ream the bores of a Lear 55C found to have extensive corrosion.

the development of this new fixture, it has been called into service two more times, all with the same results.

## Taking a Different Approach

The innovation behind the creation of the Challenger flap test and the Learjet wing fixture wasn't because Duncan Aviation created new technology. Everyone in the industry has access to the same information from the same manuals, with similar



A unique Duncan Aviation solution saves the customer more than six months of downtime and a significant amount of money.

tooling. What sets Duncan Aviation apart from other MROs is its ability to remain innovative. These new ideas and test capabilities are developed by taking a different approach to the same information to meet a customer need and change future expectations.

Therefore, true innovation isn't a new fixture or tooling. It's the skilled technicians with specific

knowledge of their craft, able to troubleshoot, diagnose and accurately interpret the data and apply the "we can do this" attitude.

Scott Shefke summed up the innovative spirit at Duncan Aviation in few words.

"Duncan Aviation's victory is not won by a competitor's failure to accurately fulfill a customer's need," Scott says. "It is by winning a customer because we are the solution to their needs. We want to be a solution to all of our customers' needs." 



# Duncan Aviation Has You Covered!

There's no such thing as being too far away from a trained, experienced Duncan Aviation technician. Although Duncan Aviation houses many of its techs and support staff in Lincoln, Nebraska, and Battle Creek, Michigan, it has an extensive network of Satellite teams who are staffed, tooled and ready to make repairs at all times, whether your aircraft is at one of our facilities or on the ground miles from the nearest Duncan Aviation. For the last 11 years, our avionics, engine and airframe techs and their equipment have been mobile and ready to make repairs where you are when you need them.

Matt Nelson, Satellite Operations Manager, says, "There's nowhere in the

continental United States that is more than three-to-four hours away from one of our teams of qualified avionics technicians. . . .And although these work-away-from stations are located throughout the United States, we regularly respond to calls worldwide."

Last year, a loyal Duncan Aviation customer called with an "Aircraft on Ground" (AOG) in Italy, and the aircraft needed a new flight-management system. A tech from the Scottsdale facility traveled to Italy, shipping the necessary tools and equipment. After waiting a couple of days for his tools to clear customs, the Duncan Aviation tech had the new flight-management system installed within eight days; the aircraft was on the ground for only 12 days.

## Fully Trained & Licensed

All of the technicians at the work-away-from stations are licensed repairmen and women and at least one tech at every location has his or her A&P license. More than 75% of all calls to the Satellite teams are for unscheduled work, and nearly 100% of them are mobile, meaning the techs can go where the aircraft is to make repairs. According to Nelson, "Duncan Aviation has a Satellite presence at nine of the 10 busiest General Aviation airports in the country, and we have highly qualified technicians within an hour of the 15 busiest airports." So, you're never out of the quick reach of a Duncan Aviation avionics technician.

In addition to Avionics techs, Duncan Aviation has teams trained and licensed to diagnose and repair engine problems in the field.

## Rapid Response Teams

The Rapid Response teams, which include a team leader and a tech, all have their A&P licenses and a minimum of five years' experience working on engines. Per the Repair Station General Operating Manual (RSGOM) in Lincoln, the Satellite locations have either QI or RII certification, so they can inspect their own work, too, which leads to faster return-to-service times.

Duncan Aviation Rapid Response Team (RRT) engine techs also pursue on-going training, often attending OEM training so they're licensed to work on a variety of engine models. Among other types, techs are trained and certified to repair TFE-731s and various Pratt & Whitney engines.

The Rapid Response teams each operate in a roughly 400-mile radius of one of Duncan Aviation's Satellite avionics locations, and they have vans or crew trucks outfitted with their diagnostic equipment and tools. The vehicles are fully equipped with engine stands, ladders and slings so the techs are ready to get to work on the engine as soon as they arrive at the remote location.


The teams perform diagnostics, as well as repair work. The teams are also backed by Duncan Aviation's extensive resources in Lincoln and Battle Creek. For example, if an aircraft is grounded, the pilot is unsure of the problem, and the tech isn't able to ascertain the problem based on the descriptions coming in from the field, there's a team of tech reps in Lincoln or Battle Creek who will troubleshoot problems with the customer and field technician

in order to identify the issue while the tech is in transit. Then, when the tech arrives at the aircraft, he or she is ready to perform repairs immediately, helping the operator miss as little flight time as possible.

## Keep The Bird In The Air

Sometimes, the tech heads into the field to pull an engine for a Core Zone Inspection (CZI). Rather than have the aircraft grounded during the three- to four-week procedure, the Duncan Aviation RRT technician installs a rental engine so our customer can continue flying. (Duncan Aviation has access to between 30 and 50 rental engines for customers who need them.)

Because the Rapid Response teams are located at seven busy airports, including Scottsdale, Denver, Dallas/Addison, Chicago, Atlanta and Fort Lauderdale, the techs rarely have to travel more than 400 miles to reach any destination in the continental United States.

Regardless of the problem you're experiencing with your engines or avionics equipment, Duncan Aviation has experienced and mobile technicians ready and able to travel to you and your aircraft at a moment's notice. Our goal is to keep you flying, and our techs work as quickly as possible, anywhere in the world, to make that happen. 

Duncan Aviation technicians are ready to make repairs where you are when you need them.

## Quick Response Also Available for Airframe and Parts/Components Needs

### Airframe Services

In addition to avionics and engine in-field support, Duncan Aviation has long offered airframe support in the field. Duncan Aviation technicians will assist operators with serious AOG airframe issues as well as help operators complete airframe inspections and repairs at their own location.

### Scheduled Off-Site Inspections

Duncan Aviation Airframe technicians are available for small-phase inspections at an operator's location when scheduled in advance. These services are scheduled through the airframe services team.

### AOG

Regardless of whether an aircraft is disabled on the road or in its home hangar, the Duncan Aviation technicians will pack up their tools and come to you, wherever you are.

Airframe techs are typically dispatched from Lincoln or Battle Creek, and we'll tailor the techs and equipment to your situation. James Prater, LNK Airframe

Manager, says, "Techs have responded to repair flight-control or landing-gear problems, diagnose fault indications in the cockpit, and change tires that were damaged by debris on a runway."



Technicians travel from Battle Creek or Lincoln, depending on the type of expertise needed as well as the availability of the techs. In addition to the 48-contiguous United States and Anchorage, AK, Duncan Aviation airframe techs have traveled as far as Bahrain. They've also recently traveled to Canada, Brazil, Mexico, and the Cayman Islands.

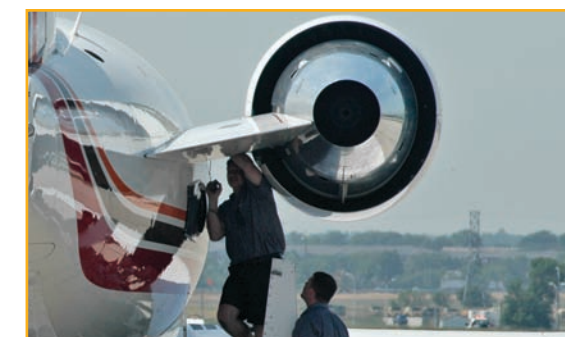
In 2009, Duncan Aviation-BTL technicians racked up 2,500 hours in 104 road trips. Technicians from Duncan Aviation-LNK averaged about the same number of road trips, but had as many as five trips on the schedule some weeks.

## Parts & Components Support

Duncan Aviation also provides customers with parts and rotables support on a 24/7/365 basis. We stock thousands of parts, loaners and exchanges and will ship units counter-to-counter, door-to-door or UPS/FedEx as required. One call can take care of your parts needs anytime day or night, weekend or holiday. We can also coordinate AOG loaner or exchange installations with the avionics Satellite shops.



Tom Lieser-St. Paul, one of Duncan Aviation's many fully trained and licensed satellite technicians.



Rapid Response teams are fully equipped to work on your engine as soon as they arrive at the remote location.





Functionality.



## The Human Elements of Design.

Duncan Aviation has always been a leader in business aviation. Recognized for unique culture of responsiveness to customers, innovation in design and passion for excellence, Duncan Aviation has been setting trends in aircraft maintenance, avionics installations, interior completions and paint for many decades.

A large part of the company's success is due to the people who make up the Duncan Aviation team. Over the years, customers have developed deep relationships with Duncan Aviation airframe technicians, project managers, technical sales team members and, of course, designers.

The Duncan Design team is made up of nine talented design professionals with extensive backgrounds in commercial design, architecture, residential design, engineering, industrial design and aerospace. Recognized with various design awards for their achievements, this team has brought some really unique solutions to the corporate aircraft world, including Duncan Aviation-engineered sidewall solutions for certain airframes, beautiful seating solutions and unusual finishing effects.

The creativity, functionality and artistry required to be an aviation designer speaks to the irreplaceable human element—the fundamentals that are innate to great designers and the skills that lead to turning an aircraft into a functional work of art. That's something in which the Duncan Design team takes great pride. 📖



Artistry.



Creativity.

Check out our Galleries at  
[www.DuncanAviation.aero/interior](http://www.DuncanAviation.aero/interior).



# Duncan 411

NEWS & TECH UPDATES

n. (duncan aviation): the most comprehensive, family-owned aircraft support organization with a history of trying new ideas and an ability to innovate and transition itself into emerging trends.

The “Duncan 411” addition to the *Duncan Debrief* is meant to keep you up-to-date on the continually changing aviation industry. In it, you will find Duncan Aviation news and technical updates that may affect you or your aircraft.

## DUNCAN AVIATION'S COMPONENT SOLUTIONS ADDS NEW AVIONICS REPAIR AND OVERHAUL CAPABILITIES

With more than 41,000 items on its expanding capabilities list, Duncan Aviation's Components Solutions is the single source for more avionics, instruments and accessories than ever before. Over the last 12 months, the team has added many services previously offered only by the equipment OEMs. In most cases, the Duncan Aviation avionics repair and overhaul option is faster and less expensive.

In addition to its Extended Protection Program (EPP), which enhances performance and reliability while extending warranty for many avionics and instruments Duncan Aviation services, Duncan Aviation is pleased to announce agreements with industry-leading OEMs. Besides underscoring their trust in

Duncan Aviation, these agreements demonstrate each company's dedication to service their customers with another option to support their products.

**Garmin:** Duncan Aviation is now a Garmin Service Center. This agreement allows the company to perform most repairs, including warranty work on units up to and including the Garmin 600 series.

**Rockwell Collins:** Duncan Aviation has partnered with Rockwell Collins to offer PSB (Performance Solutions Bulletins). This program increases performance and the warranty for many for instruments including *Rockwell Collins ADI-85* altitude direction indicators (ADIs), radio magnetic indicators (RMIs) and bearing-distance indicators (BDIs).

**Thales:** Duncan Aviation is now a Thales Sales and Service Center. This agreement is especially important to operators of Aerospatiale AS-350, AS-355 and AS-365 helicopters and fixed-wing operators with Thales units.

**Ultra Electronics (Flightline Systems/Horizon Aerospace/Lewis Engineering & Aero Mechanism):** Duncan Aviation has been designated an authorized service facility for Ultra Electronics Flightline Systems,

n. (Extended Protection Program (EPP)): enhances performance and reliability while extending warranty for many avionics and instruments Duncan Aviation services.



*Rockwell Collins ADI-85*

a division of Ultra Electronics PLC and manufacturer of aircraft instrumentation. This allows Duncan Aviation to offer superior pricing, increased capabilities, better turntimes and unparalleled technical support in the service and repair of Flightline Systems' electromechanical (formerly Lewis Engineering) and mechanical (formerly Aero Mechanism) line of products for both fixed- and rotor-winged aircraft. Using the latest technical data and component maintenance manuals, Duncan Aviation is able to repair Flightline

Systems' products in accordance with their specifications.

**Universal Avionics:** Duncan Aviation now has even more capabilities with Universal FMSs, including more



*Universal FMSs*

models and more software upgrades. Also, Duncan Aviation now has the ability to perform WAAS updates.

For more information, visit Duncan Aviation's Components Solutions at [www.DuncanAviation.aero/parts](http://www.DuncanAviation.aero/parts).

## DUNCAN AVIATION RECEIVES ODA DESIGNATION

Duncan Aviation recently achieved the next level of FAA delegated authority with its recent approval as a Supplemental Type Certificate (STC) and Major Repair and Alterations (MRA) Organization Designation Authorization (ODA) for its Lincoln, Nebraska, and Battle Creek, Michigan, locations.

This designation will allow Duncan Aviation to issue STCs for aircraft alterations on behalf of the Federal Aviation Administration. This includes the authority to approve design data, tests and analysis, as well as make a finding of compliance to the regulations. To support its ODA authorization, Duncan Aviation has a team of experienced avionics, structural, aeronautical engineers and flight test pilots dedicated to government and special programs

projects. The approval allows Duncan Aviation to complete STCs for interior and airframe modifications and avionics system upgrades that support Glass Cockpits, cabin entertainment systems and other major avionics upgrades.

The ODA delegation will allow Duncan Aviation to be a self-approving entity, not only for the approval of data and the issuance of STCs but also for the delegated authority given to the Unit Members

(UMs) on their team. By this delegation, the FAA takes on more of an oversight role and is less involved in day-to-day activities, explains Mike Chick, Duncan Aviation's Lead ODA Administrator.

“This is a huge responsibility for Duncan Aviation,” Mike continues. “With the robust processes being put in place, Duncan Aviation should be able to offer considerably shorter STC certification times, which equates to shorter downtimes for customers.”





## DUNCAN AVIATION COMPLETES AVIATION PARTNERS' BLENDED WINGLETS INSTALLS ON FALCON 2000EXS AND HAWKER 800S




*Falcon 2000 Winglet.*

Duncan Aviation has completed many installations of after-market winglets for the Falcon 2000EX. Last summer, Duncan Aviation became the first North American center to install the High-Mach Blended Winglets for the Falcon 2000 series. Installed and certified in the second quarter of 2009, Aviation Partners (API) Blended Winglets are now available to all Falcon 2000/2000EX operators.

"Operators are telling us that they have noticed a significant fuel savings within the first few hours after installation," says Dale Hawkins, Aircraft Service Sales Representative with Duncan Aviation-Battle Creek.

Duncan Aviation is also an installation center for the Hawker 800 series Blended Winglet program.

Seattle, Washington-based Aviation Partners, Inc. is the world leader in advanced Winglet technology. API's patented Performance Enhancing Blended Winglets have been designed and certified for a number of commercial and business aircraft; applications include Boeing, Falcon, Hawker and Gulfstream airframes. Over 3,500 in-service aircraft have saved an estimated 1.7 billion gallons of fuel. In addition to the 5-7% improvement in fuel burn, Blended Winglets have reduced global CO2 emissions by almost 19 million tons. Additional airframe programs are in development for existing Blended Winglet technology, and future Winglet designs will lead to greater incremental improvements in performance, fuel savings and emissions reduction. 

For more information on blended winglets, please contact any of our Falcon Service Sales Representatives:



Dale Hawkins  
269.969.8463  
Dale.Hawkins@  
DuncanAviation.com



Pete Hubbard  
402.479.4164  
Pete.Hubbard@  
DuncanAviation.com



Tim Klenke  
402.479.1674  
Tim.Klenke@  
DuncanAviation.com


## DUNCAN AVIATION EXAMINING ITS "GREEN" INITIATIVES


There has been much talk lately of global warming, carbon footprints and "greening" business aviation. It is

much more than talk. . . it is a powerful worldwide movement, and is one that Duncan Aviation has embraced.

Over the years, Duncan Aviation has implemented many policies and practices that have moved the company toward more environmentally friendly practices. The company has cut emissions, updated old-style and high-energy-consuming lighting, implemented

recycling programs, and continuously looked for ways to reduce our impact on the environment.

In an effort to expand these practices, Duncan Aviation has formed a "Green Committee" whose objective is: "To help Duncan Aviation develop and incorporate environmentally sustainable and socially responsible practices and resources when economically possible." 

The focus is to Reduce, Reuse and Recycle. We want to reduce our consumption, waste and pollution, reuse what we have whenever we can, and recycle everything we can. We will look at environmental concerns when we purchase, develop, produce and provide products and services and explore long-term, cost/benefit assessments to potential "greener" alternatives. 

## COMPONENT SOLUTIONS FOR JETS, TURBOPROPS AND HELICOPTERS



## DUNCAN AVIATION PROVIDES:

- World-class service and turntimes that "gotta-go" operators require every day.
- Free loaners.
- 24/7/365 service.
- Repair capabilities for more than 40,000 part numbers.
- A network of more than 20 satellite avionics shops across the United States.



## NEW SOLUTIONS DELIVER BROADBAND TECHNOLOGY, INTERNET AND E-MAIL TO BUSINESS JETS

Duncan Aviation was among the first to install a broadband system in a business jet, allowing passengers to use their laptops to access the internet and e-mail. Since that first installation in early 2009, Duncan Aviation has installed many more systems in seven aircraft models.

“Broadband capability has been in demand for a long time, and it has just recently become a reality for business jet owners,” says Joe Spring, Avionics Sales Representative. “These systems are the most requested upgrade at the moment. Although Wi-Fi capability has only been certified in a few aircraft, we are on the path with our OEM partners to make in-flight Wi-Fi a reality for most major business aircraft models in the near future.”

Duncan Aviation has recently delivered these solutions for broadband:

- Aircell Axxess and ATG 4000 High Speed Internet System in a Falcon 50, Falcon 50EX, a Falcon 900, a Falcon 2000, a Gulfstream GIV, a Challenger 601 and Hawker 800 and a Citation 560 Ultra. The Axxess system coupled with the ATG 4000 provide worldwide Iridium voice telephone service and broadband data in the continental United States.

n. (broadband technology): a vehicle that allows speedy connections coupled with always-on access for Wi-Fi devices like notebook computers, BlackBerry devices, iPhones and other popular data communications tools.



- EMS eNFusion HSD-400 SatCom in a Bombardier Challenger 601-3R. This installation provides one of the first Challenger 601s to be upgraded with true Inmarsat SwiftBroadband capability with Wi-Fi in the cabin, allowing passengers to use their personal Wi-Fi devices, including notebook computers, BlackBerry devices, iPhones and other popular data communications tools, in the cabin during flight. This upgrade is also available for the Gulfstream GIV and GV.

Going forward, Duncan Aviation plans to install broadband solutions for even more of the most popular models of business jets. For the most up to date information on Duncan Aviation’s

certified broadband solutions and answers to your questions about broadband, SatCom and high speed data for your aircraft, please visit [www.DuncanAviation.aero/broadband](http://www.DuncanAviation.aero/broadband).

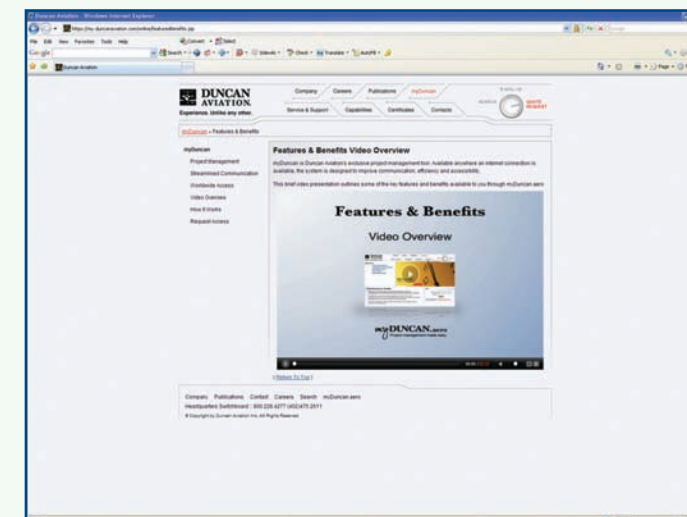
## MYDUNCAN CELEBRATES THREE YEARS OF KEEPING CUSTOMERS INFORMED

myDuncan, Duncan Aviation’s exclusive project management system, is marking its third year with a new look and improvements designed to make it easier to use.

This unique system is available to customers with projects in-work. It includes paperless approvals, the ability to post questions prior to approval, histories, and custom viewing rights for aircraft prebuy evaluations, to name a few. myDuncan was designed to make information more accessible to customers and streamline communication at all levels of the project.

“Communication is a critical part of any service event, and sets the stage for a project to be done right and on time,” says Ryan Oestmann, Duncan Aviation Engineering Manager and an integral member of the myDuncan planning team. “myDuncan streamlines communication with all of a project’s key contacts from the aircraft owner/CFO and DOM to Duncan Aviation’s Project Manager and Team Leaders. It facilitates the kind of communication that helps keep a job on schedule. When you consider the scope of information involved in working a major service event, myDuncan can make all the difference in the world.”

n. (paperless approvals): manage project events via the internet anywhere internet access is available.



The system is available on the web, allowing customers of Duncan Aviation to manage their projects anywhere they have internet access. Customers have used this to their advantage when they are unable to be on-site during a project.

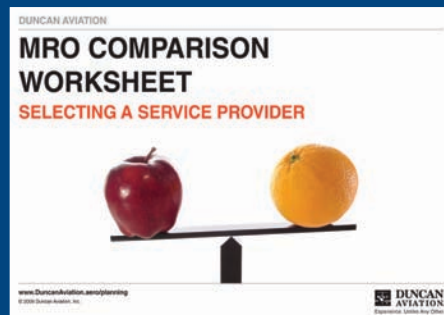
myDuncan, available at [www.myDuncan.aero](http://www.myDuncan.aero), launched in mid-September of 2006 with aircraft project management

tools. Since then, myDuncan has continued to develop as customers, Project Managers and technicians found ways to make it better. It has come to include parts and component teardowns, item photos, status reports, project teamsheets, and homepage customization, among

others. A features and benefits video is available at [www.myDuncan.aero](http://www.myDuncan.aero).

myDuncan will continue to evolve and grow.

## MRO COMPARISON WORKSHEET HELPS YOU FIND THE VALUE BEHIND THE BIDS



In these tough economic times, it is very tempting to get proposals and go with the maintenance facility that provides the lowest price—period. However, without fully understanding exactly what each bid includes, or more importantly, does not include, going with the lowest number may have the highest cost when the final bill arrives.

Going beyond the bid number and properly comparing each MRO’s offer is the most important step in the maintenance event planning process. It requires an operator to identify priorities by asking tough questions. After weighing the hard costs of the project and making sure the quotes provided are comparing like products and services, you will need to evaluate other variables

like quality, downtime expectations, customer service and factors like warranty, labor rates and extra charges.

At Duncan Aviation, we want you to get the best value available and are willing to help you find it. The Duncan Aviation MRO Comparison Worksheet, available for download at [www.DuncanAviation.aero/planning](http://www.DuncanAviation.aero/planning), is a tool that quickly compares up to three MROs side-by-side;

identifying the strengths and weaknesses of each in areas such as financial, quality control, project communication and adding discretionary work.

With all the meaningful and accurate information formatted in an easy to read layout, you will be able to communicate the real value behind the bids to the financial decision-makers in your organization.



## NEW ADDITIONS TO A LONG LIST OF SUPPLEMENTAL TYPE CERTIFICATIONS

Duncan Aviation has long been known for its ability to work with customers, partners and the FAA to integrate new avionics systems for business class aircraft through Supplemental Type Certifications (STC). The following are some STCs recently completed by Duncan Aviation.

- Duncan Aviation's Glass Box Program added to its extensive lineup with the certification of Honeywell's latest Advanced File Graphics Server (AFGS) upgrade for the Hawker 800 and the Hawker 1000. The AFGS is a computing platform bringing advanced graphics generation capabilities, such as electronic charts and uplinked weather, together with mass data storage to allow for the operation of flight display applications.
- Duncan Aviation recently equipped a Hawker 1000 with Honeywell's Primus Epic CDS/R solution, a three-display major panel retrofit. This aircraft is one of many CDS/R

installations Duncan Aviation has completed. Duncan Aviation has certified the Epic system in the following aircraft models: Hawker 800A, Hawker 1000, Gulfstream GIII and Falcon 900B.

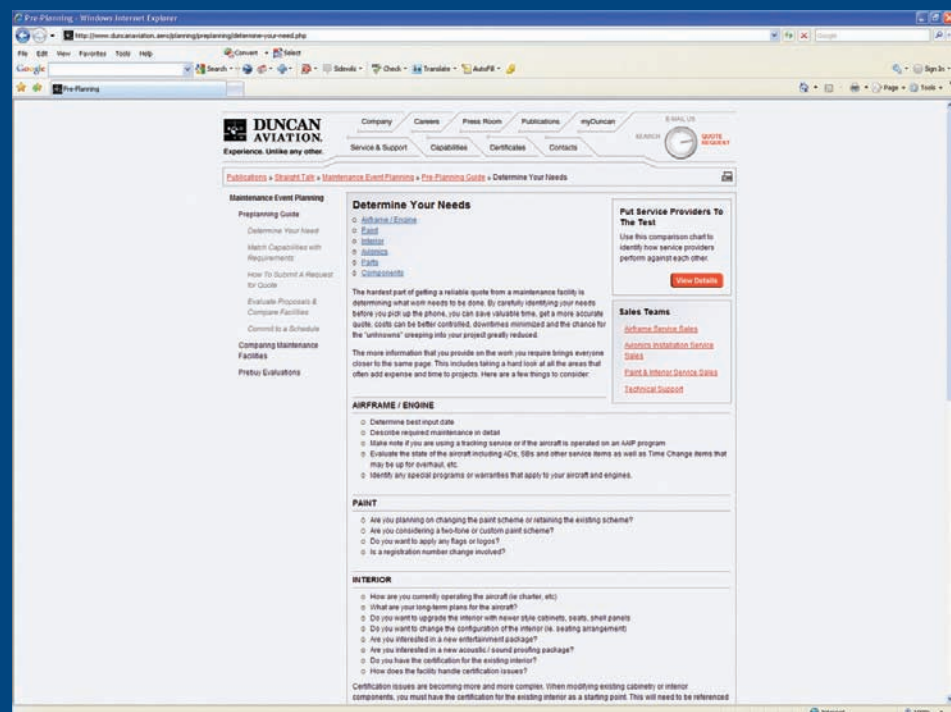
- Duncan Aviation was the first to certify Rockwell Collins Pro Line 4 to a full Pro Line 21 solution for the Falcon 50EX. This Pro Line solution uses existing equipment to upgrade the Pro Line system to full Pro Line 21 functionality.
- The upgrade interfaces with the existing Pro Line 4 architecture, utilizing existing sensors, radios and autopilots. The upgrade provides full Pro Line 21 functionality, including: high resolution LCDs; graphical weather; electronic charting with SIDs, STARs, NOTAMs, approaches and airport diagrams; enhanced maps of geographical and political boundaries, airspace restrictions and terrain features; display capability for TAWS, radar, TCAS, EVS and Airshow.

- Duncan Aviation has certified Pro Line 21 systems in the following aircraft models: Falcon 50, Falcon 50EX, Hawker 800 and Astra 1125. Duncan Aviation also plans to complete the Pro Line 4 to 21 upgrade package on a Falcon 2000. Duncan Aviation recently amended its STC for the Universal EFI-890 retrofit for the Challenger 600/601 to include Duncan Aviation RVSM-Equipped aircraft. During that certification effort, Duncan Aviation developed a Universal FMS WAAS/LPV STC certification for the same aircraft.

For more information on all of our solutions, please visit [www.DuncanAviation.aero/gbp](http://www.DuncanAviation.aero/gbp).



## DUNCAN AVIATION'S WEB MAINTENANCE EVENT PLANNER



Surprises are not what you want when considering maintenance or modifications for your aircraft. Unfortunately, in the business jet maintenance and modification industry, downtime extensions and cost overruns happen too often. Preplanning helps both the operator and the MRO get what they want: a quality job done efficiently and on time.

Duncan Aviation recently unveiled a Maintenance Event Planning web resource to help make your task of planning for a major inspection easier. The Preplanning Guide takes a hard look at areas that often add expense and time to projects and provides information to help you to identify all of your maintenance event needs,

create a short list of MROs equipped to provide the service and expertise you require and effectively evaluate proposals and MROs using our MRO Comparison Worksheet.

By carefully identifying your needs before you pick up the phone, you can save valuable time, get a more accurate quote, better control costs, minimize downtimes and reduce the chance for "unknowns" creeping into your project.

Every maintenance event is an opportunity to achieve maximum results with minimum downtime at the best economic value. Learn how to leverage scheduled and unscheduled events to your advantage with our on-line guide to Maintenance Event Planning at [www.DuncanAviation.aero/planning](http://www.DuncanAviation.aero/planning).

## DUNCAN'S INTELLIGENCE OUR EXPERTS. YOUR TEAM.



AVIONICS INSTALLATIONS • PAINT & INTERIOR • AIRFRAME MAINTENANCE  
ENGINE & APU • PARTS & COMPONENTS • AOG ASSISTANCE

LNK 800.228.4277 • WWW.DUNCANAVIATION.AERO • BTL 800.525.2376



## SOCIALLY ACCEPTABLE

Duncan Aviation

Search

Duncan Aviation has been involved with social media since 2008. We started with a small presence on Facebook and expanded into Twitter, LinkedIn and YouTube in 2009. We now have hundreds of fans and followers who connect with us daily through these tools.

We got involved because we recognized that people in our industry were using social media to talk about the things that are important to them. We are listening and communicating with tools like Facebook and Twitter in addition to communicating in all of the ways we always have—in person, on the phone, via e-mail as well as through our publications, our website and industry events. By listening, we know what is important to our customers and can focus on how we can best serve them.

We know that our involvement with social media has had a positive impact on our marketing efforts. We have been tracking increased traffic to our website, increased coverage in industry press and blogs, improved search rankings for industry keywords and one-on-one interaction with customers that can't be measured in dollars.

In 2009, for the first time, we used Twitter to monitor and comment on NBAA show buzz. We, along with many other industry leaders, used Twitter to listen to what others were

saying in the weeks leading up to the show. During the show, we continued to listen and communicate via our established networks on Facebook and Twitter. This was a great new way to deepen our engagement with our aviation community during the most exciting industry event of the year.

The advantages of social media far outweigh any disadvantage. Some may say time is a barrier or may be concerned about negative comments on social media channels. Our marketing team has been doing a great job monitoring our brand and engaging with the industry with these new tools, and the comments have all been positive. Even if there were

an issue that was discovered through social media, we would handle it the same way we always have—by doing the right thing for our customer. The benefit in a case like this is that everyone who follows us would see how we take care of our customers, even when things don't go perfectly. We are using these new tools to listen, engage and communicate with people in our industry in a new way. We are excited to be out in front with

the innovators, learning and growing along with our industry.

We invite our industry partners to get out there with us. Connect with us on Facebook, Twitter, YouTube and LinkedIn. When you do, you will join the ongoing social media conversation about business aviation. 

n. (tweeting): a post or status update on Twitter, which only allows messages of 140 characters or less, providing a quick update about your life on the home pages of all the users who are following you.



### Join us here:



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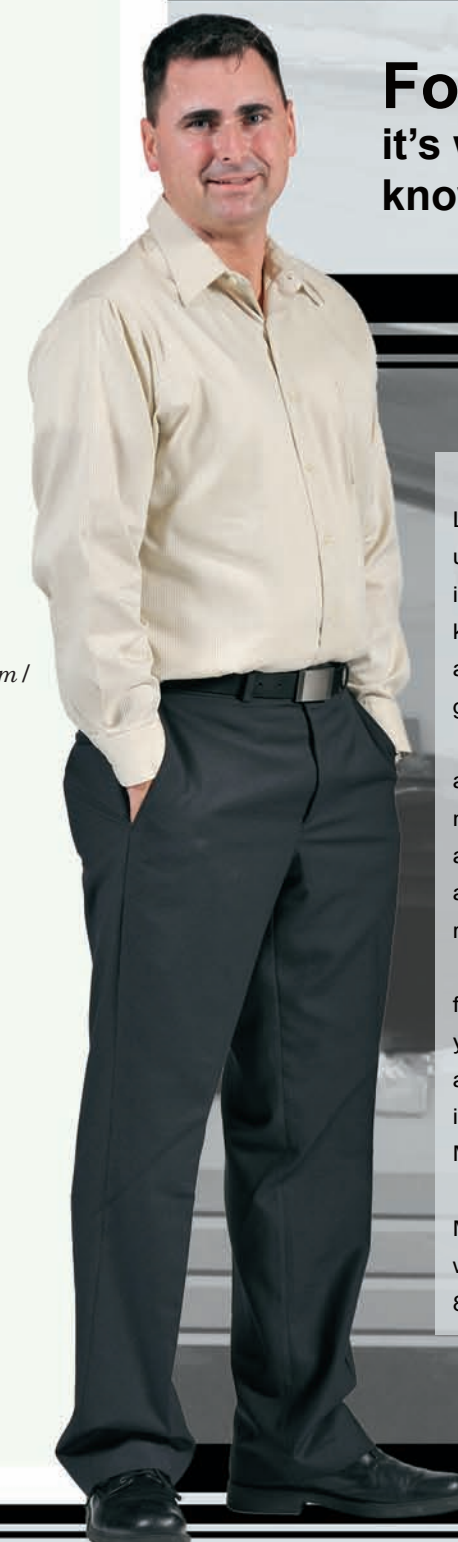


<http://www.youtube.com/duncanaviation56>



LinkedIn.com – search for the group Duncan Aviation.

# For Marc McKenzie, it's what you know, who you know and how you know it.



Marc McKenzie, Duncan Aviation's Lead Market Analyst for Aircraft Sales, understands the after-market aircraft industry. He networks among the most knowledgeable and influential preowned aircraft market insiders around the world, gathering the latest in market intelligence.

His intimate knowledge in and around business aircraft as an airframe maintenance tech gives him the practical and hands-on experience to accurately assess current market trends and aircraft resale value.

Whether you are buying or selling your first aircraft, upgrading or adding to a fleet, you will be armed with the latest market assessments and most relevant industry information to make an informed decision. Marc will see to it.

Marc.McKenzie@DuncanAviation.com  
www.DuncanAviation.aero  
800.228.4277

## Aircraft Listings

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



1998 Challenger 604, SN 5395



1981 Westwind I, SN 310



1996 Citation Ultra, SN 560-0363



1997 Gulfstream IV-SP, SN 1318



1980 Falcon 20F-5, SN 158