



Duncan Aviation Debrief Spring 2012

www.DuncanAviation.aero Spring 2012 Duncan Debrief, a quarterly customer magazine.

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Donald Duncan (1922-1981)



from the chairman

Todd Duncan

At this point in time, business aviation is growing faster outside of the United States than inside. Nearly 60% of new aircraft are delivering internationally to places like Asia, Latin America, Africa, the Middle East and Europe. We have seen proof of the global increase in business aviation in our hangars as well. Roughly 20%, or 34 of the 135 business aircraft we have in-work at our facilities each day, are based outside of the U.S.

In response to this, we are adding to our international support and sales teams, developing more foreign certificates and looking at how we can better serve all of our customers, wherever they happen to live.

Duncan Aviation is proud to be exhibiting at many international trade shows this year, including the Asian Business Aviation Conference & Exhibition (ABACE), the European Business Aviation Convention & Exhibition (EBACE) and the Latin American Business Aviation Conference & Exhibition (LABACE). We are partnering

with Honeywell this fall to educate mutual customers at Duncan Intelligence LIVE events in Sao Paulo, Brazil, and Paris, France. And we will continue to meet with our Customer Advisory Boards from the United States and those we formed in Europe and South America last year.

It is truly an exciting time to be alive as we see technology make a profound impact while the globe shrinks even further, thanks in part to the ease and efficiency of business aviation.

inspector of foreign airworthiness

Chris VanderWeide

Chris VanderWeide's work as
Duncan Aviation's Chief Inspector of
Foreign Airworthiness helps to keep
Duncan Aviation a leader in the world
market. He is the point of contact
for all regulatory matters regarding
Duncan Aviation's foreign certificates
and global customers.

Chris has seen first-hand the demand for quality inspection and maintenance service for aircraft registered in countries besides North America. He works directly with the civil aviation authorities from these countries to secure foreign certificates.

Currently, Duncan Aviation holds foreign return-to-service authorizations from the European Aviation Safety Agency (EASA), as well as the individual countries of Bermuda, Brazil, Cayman Islands, China, Mexico and Venezuela. By this summer, he will add India and South Africa to that list. Chris anticipates that number will continue to grow as corporate aviation activity expands around the world.

Chris's tenure with Duncan Aviation spans 20 years, beginning as an A&P on the hangar floor. He has watched

Duncan Aviation do what is necessary to exceed customer expectations by investing in its number one asset—its people. "In this industry, our product is our people. I'm proud to be a part of a team and culture that places such a high value on every member."

Duncan Aviation's mission is to be the leading provider of business aviation products and services and we are in the perfect position to grow and meet the needs of the world market. Business aviation is changing very quickly and Duncan Aviation is changing with it.









Paint Schemes with Duncan Design

Customers now have the option to work with threedimensional (3D) renderings while collaborating with Duncan Design on their aircraft's exterior paint scheme.







Astra Challenger

"The experience builds confidence that the customer's design will turn out as expected and helps to eliminate any unexpected aspects of a design."

Lori Browning, Aircraft Completions Designer designs provide customers with the same customization and individual customer service that has always been offered by the Duncan Design team. This new design tool now helps customers better visualize how a design will wrap around an aircraft before they actually have the paint scheme applied. Duncan Aviation designers are excited to add it to their design capabilities.

Visualizing Complex Contours

With traditional two-dimensional designs, areas of the aircraft can be difficult to view. "Providing three-dimensional designs gives our customers a visually improved representation of their aircraft's design," says Lori

Browning, Aircraft Completions Designer at Duncan Aviation.

Contours and shaping within the 3D design provide a greater representation for complex areas such as airframe belly, engines, pylons and winglets. This advantage allows Duncan Aviation's completions designers to present a design that can more easily be assessed by customers.

Lori explains that a 3D design for Dassault's Falcon 7X model enhances visual representation. "The three-dimensional design offers visual advantage for how a stripe curves over the side engines and wraps around the top engine's contours," Lori continues. "The experience builds confidence that the customer's design will turn out as expected and helps to eliminate any unexpected aspects of a design."





Citation Embraer Falcon Global Gulfstream Hawker Learjet Phenom

Advantages with the 3D Stripe Layout

An additional advantage of receiving multiple views with the 3D design is being able to see the stripes applied to the entire aircraft. Rachael Weverka, Duncan Aviation Aircraft Completions Designer, explains. "With two-dimensional designs, certain aspects of the paint design are not shown. Such is the case for the visual representation of the stripes and emergency exit markings on the right-hand side of the aircraft."

In a 2D design, only the left-hand side of the aircraft is represented. The 2D drawings show how stripes relate with the entry door markings, but when there is a design that extends through the cabin windows, it is helpful to see how it interacts with the emergency exit markings.

Rachael says, "As a designer, we anticipate how the stripes interact in certain areas on both sides of the aircraft and we want to give the customer the opportunity to see what we envision for them. A 3D design gives a truer representation of the stripe design from both the entry side and right-hand side of the aircraft." This can be beneficial for customers and designers, giving them the freedom to experiment with new and interesting designs before taking the leap of putting paint on an aircraft.

3D Design Process

Once specifications have been determined, through the use of concept sketches and basic 2D designs, completions designers construct two unique 3D representations of a specific design with two different

color schemes. This assists customers with final decisions. The entire design process results in a final choice that is pleasing to both customer and designer.

With each project, a 3D design provides three exterior views of the aircraft, a compact disc of images for the customer, a framed photo of the design and an option to receive a short video representation of the scheme.

The Duncan Design team has 3D capabilities for more than 12 airframes, including Dassault Falcon models, the Gulfstream IV and the Global XRS, with plans to further expand these capabilities in the near future.

As always, Duncan Aviation looks for more innovative and inspiring ways to provide customers all that they need to design their perfect aircraft. 3D interior designs will be that next step.

Duncan Aviation Grows in a Global Market

or nearly six decades, Duncan
Aviation has been a leader in the
business aviation industry, providing
comprehensive business and general
aviation services to aircraft registered
around the world. Aviation customers
are smart and they seek the best value

Every country has just enough unique requirements that each authorization process is different."

for their service dollars when it comes to maintaining their aircraft. That is why they look to the center of the United States. They fly over deserts, across oceans and other maintenance, repair and overhaul (MRO) providers to get to Duncan Aviation.

The United States has been the leader in business aviation for decades, setting standards for aircraft maintenance, safety and training. More and more multi-national companies are recognizing the efficiencies gained from investing in business aircraft and are seeking the same safety and maintenance standards from their own countries like those established by the Federal Aviation Administration (FAA) in the United States.

At Duncan Aviation, we work closely with several global aviation agencies

and currently hold foreign returnto-service authorizations from the European Aviation Safety Agency (EASA), encompassing 31 countries from the European community, as well as the individual countries of Bermuda, Brazil, Cayman Islands, China, Mexico and Venezuela.

Foreign Authorizations

The path to foreign authorization is lengthy, laden with a lot of paperwork and never the same.

"Every country has just enough unique requirements that each authorization process is different," says Chris VanderWeide, Duncan Aviation's Chief Inspector for Foreign Airworthiness. "Some countries are satisfied with our FAA Repair Station Authorization and will issue their authorization based on that. Others have significant differences with regards to repair station and quality manuals, safety procedures, training programs, among other things." As a part of the authorization, most countries will conduct an on-site visit to confirm and verify all the documentation that has been received. No matter how easy or difficult the process, they all want to be reassured that Duncan Aviation can deliver safe maintenance services by highly skilled technicians with the most up-to-date data available.



Here's how we achieve the level of quality our customers have come to expect.

are well-versed in the foreign regulations represented in our hangars.

Training

Duncan Aviation invests annually in many forms of both technical and non-technical training. Training is accomplished at factory training facilities or in-house utilizing Duncan Aviation's staff of professional technical trainers. All engine, airframe and avionics teams have factory-trained technicians performing or overseeing the work.

Quality Inspectors

Duncan Aviation's Quality Assurance system has been accepted by the FAA, EASA and an ever-growing list of countries. All Qualified Inspectors are highly experienced and receive current regulatory and Duncan Aviation quality system training. Inspectors completing

Duncan Aviation's Quality Assurance system has been accepted by the FAA, EASA and an ever-growing list of countries."

> return to service documentation for Duncan Aviation are certificated under the Federal Aviation Regulations. All **Duncan Aviation Qualified Inspectors**

Tooling

Tooling for even the most basic work on a business aircraft is very expensive and many aircraft models often require the use of special tooling during a maintenance event. Duncan Aviation has made significant investments into special tooling according to individual manufacturer service center agreements. This investment gives Duncan Aviation more control over expenses, tool use and availability. Tools required to be calibrated are done so in accordance with the Duncan Aviation Quality Control Manual.

Calibrations

Duncan Aviation has instituted an aircraft tool calibration process to monitor calibration results and adjust calibration intervals to ensure all measuring and test equipment remains in tolerance throughout its calibration cycle. Standards used to calibrate production tools are traceable to the National Institute of Standards and Technology (NIST). When equipment is approaching the end of its calibration cycle, we schedule recalibration. All tools requiring calibration are calibrated and issued a Calibration Certificate before they are able to be used by technicians.

Calibration services are available to all aircraft owners and operators with measuring and test equipment that requires periodic calibration.

Parts

With more than 370,000 line items, including more than \$45 million in rotables, and a huge inventory of avionics, instruments, propellers, parts components and consumables of all kinds, Duncan Aviation has most parts available for any core aircraft serviced. A computer material management system handles all purchasing and replenishment requirements. The system supports multi-warehouse locations and queries the entire organization.

Up-to-Date Maintenance Manuals

Duncan Aviation is a factoryauthorized service facility for 11 airframe and engine OEMs, and has more than 70 OEM authorizations for avionics, instruments, accessories and propeller units. We maintain an up-todate computer library of maintenance manuals easily accessed by the technicians on the hangar floor and at our benches.

Worldwide Service

Although Duncan Aviation is not authorized in all countries around

the world, providing service where it is needed is very important to us. Frequently, we are called to provide aircraft inspections, maintenance and AOG services for operators from countries where we do not

> "Duncan Aviation is a factoryauthorized service facility for 11 airframe and engine OEMs, and has more than 70 OEM authorizations for avionics, instruments, accessories and propeller units.

hold maintenance authorization. In these cases, a special dispensation is requested from that country's aviation authority. Typically, this process takes several days.

Every week, Duncan Aviation technical representatives field multiple requests from customers around the world for aircraft services and information. We are currently in the certification process with India and South Africa and expect to have those authorizations by spring 2012. As business aviation continues to grow internationally, we will be looking to add more international authorizations.



DUNGANAWATION

GOVERNMENT



SPECIAL PROGRAMS

ost people don't think about it much, but there is a very important and not often talked about service that Duncan Aviation provides for those who require it. This special and sensitive work is performed for the United States military, defense contractors and foreign governments. Most of the work is performed under Non-Disclosure Agreements in order to protect the customer's proprietary data. Although there are few details we can share, what we can tell you is that it is exciting and interesting.

Duncan Aviation's Government and Special Programs Office (G&SPO) has been diligently working for several years in the complex world of aircraft systems integration, airframe maintenance and modification

> programs. It is an ISO 9000:2001 compliant

team with the depth of knowledge, years of experience and technical know-how that is consistently called into active duty by some of the leading international aerospace and defense organizations from around the world.

Programs are generally long-term engagements that may contain several aircraft projects with strictly enforced contracts, schedules, guidelines and reporting requirements. Program Managers monitor and control the interdependencies between each aircraft project, overseeing contractual requirements and addressing any escalating issues that could compromise the entire Program. They work closely with Duncan Aviation's team of Project Managers for individual aircraft project oversight. Though each aircraft delivered over the period of the contract is a milestone, the true deliverable is at the completion of the Program when all customer expectations have been met.

Long-term G&SPO contracts provide for all necessary airframe inspections, engine maintenance and full paint and interior services for several makes and model aircraft. Additional support includes components, accessories and avionics overhaul, maintenance tracking, tool control and Foreign Objects and Debris (FOD) programs.

Much of the special systems technology that is integrated into government aircraft is extremely complex. It combines elements from more than one system: electronic, electrical, mechanical and structural; each depending on the other in order to perform at peak proficiency. Flight Inspection System (FIS) is an example of special systems integration.

Airports worldwide use navigation aids or antennae to transmit airport signals to incoming aircraft for safe approaches and departures. It is the airport's responsibility to ensure all transmitted information is accurate and they are required to have the airfields calibrated and measured using aircraft equipped with integrated FIS technology. Duncan Aviation partners with the majority of FIS manufacturers, integrating their technologies aboard several makes and models of aircraft.

SECURITY

Before Duncan Aviation performs any airframe service or complicated integration, we first must prove we meet stringent contractual requirements, such as security. We realize that all our customers value security and we pride ourselves on being discreet and secure. When working for governments and government contractors, however, security is one of the highest priorities and is, understandably, even more stringent than that required for other customers. For this very reason, Duncan Aviation places all G&SPO aircraft in a limited-access area where only a small number of personnel are allowed to have access and knowledge of the sensitive integrated technology. These team

members receive special training and, by signing each Program contract, we submit ourselves to being audited by all the governments we are working for, allowing them free access to the company.



ENGINEERING AND CERTIFICATION SUPPORT

In addition to those performing the work, Duncan Aviation has a full staff of systems and structural engineers that support our Government and Special Programs services. This in-house capability eliminates the time and expense necessary to locate an outside engineering firm that has both the capabilities and clearance required to work on government programs. In addition to the on-site engineering support, Duncan Aviation holds an Organization Designation Authorization (ODA) appointment by the FAA. This allows Duncan Aviation to represent the FAA's final authority and, with a signature, certify the final product to be in compliance according to the law, meeting all safety requirements.

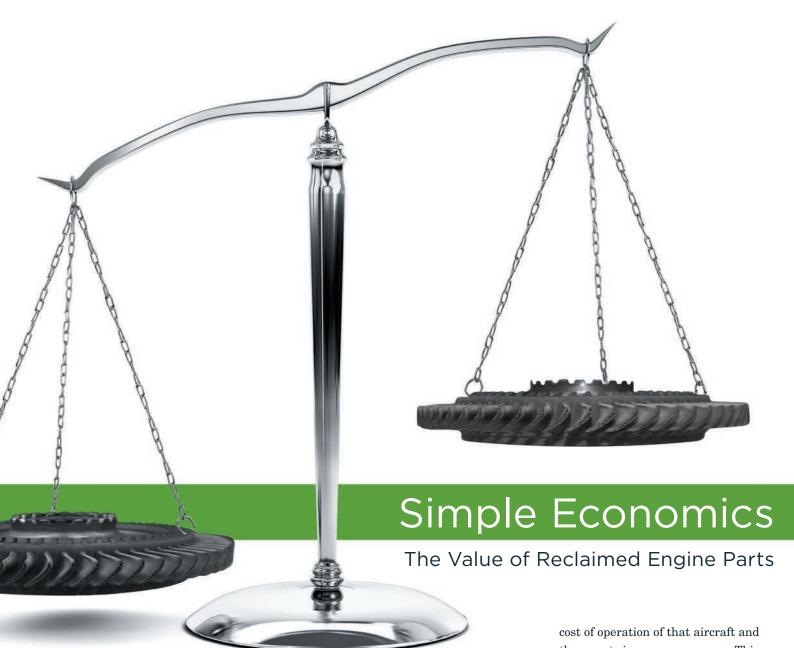
Because of the nature of our work and the number of special equipment manufacturers we contract with, we are in a unique position of having a thorough understanding of several systems. We take that responsibility very seriously and willingly sign all Non-Disclosure Agreements.

We can neither advertise nor publicly celebrate the excellent work performed by Duncan Aviation's Government and Special Programs teams. But true to the Duncan Aviation culture, each team member takes pride in his or her work, meeting all contract requirements to deliver every Program on time and on budget.

G&SPO TEAM: DAVE
SHIPPERBOTTOM, TERRY
STEHLIK, PHILLIP BROOKING,
DARYL BRAUNSROTH, KAY
ZVOLANEK AND ROBB LIERMAN

SITE SURVEYS

Prior to signing a contract with the customer, we conduct a site survey at the aircraft's location, wherever in the world that may be. Site surveys put Duncan Aviation experts in the aircraft and in front of the customers. This team consists of engineers, Program Managers, maintenance technicians and sales representatives who conduct a thorough tip-totail analysis of the aircraft, examining every detail. By the end, they will have a thorough understanding of the customer's expectations and be able to accurately identify and recommend all necessary inspections, services or modifications, including any special mission equipment.



"As an authorized OEM facility, Duncan Aviation has been buying, selling and exchanging engines and APUs for more then 20 years. Duncan Aviation is the only Honeywellauthorized facility to offer this lowercost alternative."

he Honeywell TFE731 engine has been manufactured for more than 30 years. These engines can be found on the latest business aircraft rolling off the line (Falcon 900EX/LX, Learjet 40XR/45XR, Gulfstream G150, Hawker 750/800XP/900XP) as well as many aging aircraft such as Falcon 10 and 50; Learjet 31, 35 and 55; Westwind; Hawker; and Citation 650. It is a workhorse of an engine that delivers solid performance with every flight.

As an aircraft ages, the cost associated with operating and maintaining older TFE731-2 and -3 engines begins to represent a larger portion of the overall

those costs increase every year. This required maintenance can have a direct impact on an operator's decision to pay the cost to maintain operation or trade-in the existing engine for an exchange. An additional alternative is to declare the maintenance cost in excess of the value of the aircraft and sell it for salvage. All of these are stressful decisions for operators to make.

In the past, with a strong economy, budgets were large and everyone wanted new parts for their engines when they were in for a major inspection. As the economy began to slow, operators scrambled to find lowercost alternatives. Now, even though the economy is showing improvement,

people haven't forgotten; they continue to seek the best value available.

That value can be found in reclaimed engine parts. As an engine reaches its life-limit, many parts are still in good condition. The engine still contains good, serviceable hardware that is extracted, reclaimed and reintroduced back into the fleet at significant savings to the operators who need these parts. Reclaimed parts are a lower-cost alternative that allows aging aircraft to continue to provide valuable flight services to their operating companies for longer periods of time.

Why would a customer consider reclaimed engine parts? It's simple economics. Many of these aircraft have a limited life left before they are no longer viable. For example: buying a new 10,000-cycle part to put on an aircraft that has only 2,000 cycles remaining would be wasteful.

Reclaimed vs. New?

In an industry that historically has been based on purchasing new parts, many operators are rethinking the need to purchase new over reclaimed. In the past decade, engine part sales have been trending towards reclaimed parts as they provide the same operating service as new parts for a lower cost. This is important because there are more than 1,000 parts in a TFE731 engine and during major inspections, numerous parts are replaced. The reclaimed parts have been inspected, overhauled or repaired and then re-inspected. And finally, the parts are declared viable for operation and tagged for release.

In an effort to drive down the cost of operating older TFE731-2 and -3 engines, Duncan Aviation offers reclaimed parts for sale. As an authorized Original Equipment Manufacturer (OEM) facility,

Duncan Aviation has been buying, selling and exchanging engines and Auxilury Power Units (APUs) for more than 20 years. Duncan Aviation is the only Honeywell-authorized facility to offer this lower-cost alternative.

Duncan Aviation's Reclaimed Engine Parts

All reclaimed engines are brought to Duncan Aviation's engine facility, which is a Honeywell-authorized TFE731 service center, and put through a complete engine tear-down. All parts are cleaned and inspected per Honeywell approved data. Many will immediately receive an FAA 8130 dual release tag, accepted by both the Federal Aviation Administration (FAA) and the European Aviation Safety Agency (EASA), and put into inventory. Some parts are brought back to specs by Duncan Aviation technicians and/ or other approved repair facilities.

All engine parts purchased from Duncan Aviation are ready for installation into an engine. Every operator who comes to Duncan Aviation is always offered new or used parts, when available. With this information, the customer can make the best business decision that fits their needs.

Duncan Aviation has an inventory of serviceable and reconditioned engine parts valued at more than \$10 million. "We always maintain an adequate amount of inventory to meet the world market demand," says Leo Sawatzki, Duncan Aviation's Engine Parts Sales Manager. "The demand for reclaimed Honeywell TFE731 engine parts has always been strong, but with our reclaimed engine parts program, it will only grow and get stronger. We remain ready by continually adding engines to our reclamation and recycling process."

Recycling

"At Its Best"

The environmental impact associated with new aviation manufacturing is significant. Aircraft engine parts are made out of exotic metal alloys such as titanium, waspaloy, hastelloy and inconel. The entire aviation industry (commercial, business and general aviation) relies on these rare metals because they are able to withstand high heat and have the strengthto-weight ratio that is necessary for flight. Because the supply of these limited resources is dwindling and becoming rarer, the cost of the parts is rising significantly.

Reclaiming good, used engine parts and reintroducing them back into service is recycling at its very best. No more precious metals are taken out of the earth and very little, if any, machining or chemical applications are necessary in order to return these parts to service in another engine. In Duncan Aviation's used engine parts business, 75 percent of each engine's parts are reclaimed and recycled. This process, on many levels, significantly lowers the environmental impact.

Reaching Around the World:

Buy or Sell Parts with Duncan Aviation



"Our customers ship parts to us where they are physically sorted, listed on numerous parts listing services, marketed by our team of experts and stored in our warehouse until sold."

Duncan Aviation has the Resources

The challenge that many operators face revolves around having enough facility space to safely store surplus parts and the resources to catalog, market, sell, invoice, package and ship their surplus parts. They may know that they want to sell, but simply can't find the space, man-power or the time to get it sold.

Bob Tooker, Duncan Aviation Consignment Expert with 37 years of aviation parts experience, explains Duncan Aviation's unique solution. "Our customers ship parts to us where they are physically sorted, listed on numerous parts listing services, marketed by our team of experts and stored in our warehouse until sold."

Having the part on-site means better opportunity to sell. "We have access to the part, so we can verify part numbers, take photos and physically inspect the condition of the part," says Bob. This advantage leads to quicker sales and better support for both the consigner and buyer.

"We establish the fair market value of the asset," explains Bob. "The value is based on the documentation provided, physical condition and the availability of the specific part in the current world market."

Physical access also allows for overnight delivery services, something that many of our competitors cannot provide. It truly does take the parts off operators' shelves and helps move items faster.

Proserv currently consigns more than 2.7 million dollars of inventory with Duncan Aviation. "Items will move at a quick pace," attests Dena Wozniak, Business Manager with Proserv.

Dena says that every quarter, Duncan Aviation sells a few hundred line items from their inventory, an inventory that Proserv no longer has to house.

Impressive Customer Base

At Duncan Aviation, our customer base, marketing strategies and history help parts move at a fast pace. A customer base of nearly 35,000, plus an additional 17,000 helicopter contacts through a purchased database subscription, means that if there is a buyer looking for the parts in Duncan Aviation's inventory, they can connect.

Proserv Aviation has been consigning inventories with Duncan Aviation for nearly 10 years. "We initially chose the Duncan Aviation Consignment Program because of their large customer base," says Dena.

And Duncan Aviation's market reach is impressive. Parts are listed in nearly a dozen parts locator services including Parts Base, Parts Inventory Locator Service (ILS) and Controller. These lists are updated daily, creating confidence in a buyer that inventory reports are accurate.

Dieter Griesel with Piper-Germany says Duncan Aviation's customer base extends far beyond what he can reach in Germany. "The German and European markets are small in comparison to the U.S. market," Dieter explains. "Duncan Aviation has the opportunity and ability to sell parts that we cannot."

"International parts shipping doesn't have to be expensive," says Susan Masek, Parts Expert with Duncan Aviation. The team at Duncan Aviation has international shipping experience

and will work with customs agencies to minimize fees. "Before shipping a part or component in for consignment, call us to ensure part classification to minimize import delays," says Susan.

Sell or Buy with **Duncan Aviation**

Whether looking to consign or looking for a scarce part, Duncan Aviation has the experience and contacts to help. Parts experts are always available to support customers around the world, locate parts and get them delivered fast.

Duncan Aviation warehouses nearly \$125 million in inventory of their own and they have Rotable Managers who search daily for new inventories to purchase. Parts support offered around the clock at Duncan Aviation is comprehensive – buy, sell or consign. Our parts and components sales reps are on duty 24 hours a day, seven days a week, including all holidays.

For Dena and Dieter, consigning through Duncan Aviation has meant big things for their companies. Dieter says over the years he has enjoyed sharing in the profits of the sales of his consignment stock and says, "I could not have generated this money in sales in Europe. After many years, I find Duncan Aviation to be an excellent partner, serious and fair with everything."

Dieter wants operators to know that through Duncan Aviation's consignment program, operators have a chance to profit from items that they would otherwise consider scrap. Dieter's advice, "Take your surplus inventory, put it in a box and send it to Duncan Aviation today!" 🔀

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A 10 or more worldwide charter company is also FOR SALE!



- EASy II Synthetic Vision.
- Honeywell EASy Communications Management Function (CMF) with AFIS/SATAFIS.
- Collins Airshow 4000 System.
- Swift Wireless Broadband.
- 802.11g Wi-Fi.
- Collins Tailwind Sat TV (Domestic/European/ Middle East).
- Baker Audio Amplifiers (3EA).

APU: 280 (MSP Gold.)

- 13 Passenger Interior with 3 Crew Members.
- Forward Lav and Right Hand Forward Galley.
- 4 Forward Place Cabin Conference Club Seats with Electric Tilt and Recline Functions.
- 2 Three-place Belted Divans (Right Hand Divan Certified to Carry Two Passengers at Take-off and Landing.





Business Aircraft For Sale





2000 Gulfstream 200

s/n 31 • 4,600 Total Time

- JSSI Engine Program.
- Nine Passenger Executive Configuration Interior.
- Right Hand Forward Full Executive Galley.





1985 Falcon 50

s/n 145 • 9,225 Total Time

- MSP Gold.
- 3D Engines.
- Collins EFIS 86.
- Dual UNS-1K.
- 2C Inspection c/w July 2010 by Duncan Aviation.





1984 Falcon 50

s/n 146 • 9,560 Total Time

- Dash 3D.
- MSP Gold.
- Nine Passenger Interior.
- 2011 Paint by Duncan Aviation.
- Jump Seat.





1985 Falcon 50

s/n 153 • 12,900 Total Time

- Two Fortune 500 Owners Since New.
- JSSI Engine Program.
- New AMP Series 900 Seats.





1996 Astra SPX

s/n 85 • 4,423 Total Time

- 2,783 Landings.
- (2) UNS-1C+ FMS.
- Eight Passenger Double Club Interior.
- Forward Right Hand Refreshment Center.

See complete specs and more listings at www.DuncanAviation.aero/aircraftsales.

DUNCAN AVIATION



WORLDWIDE SUPPORT



REGIONAL MANAGERS

Phone 801.342.5518 Cellular 801.372.4635

Lee Bowes

Phone 402.479.1569 Cellular 402.730.3786

Rick Randall

Phone 903.778.2827 Cellular 817.472.6113

Skip Laney

Phone 402.479.1525 Cellular 402.440.8396

Bill Otte

Phone 614.245.8812 Cellular 440.413.8259

Dan Arrick

Phone 269.969.8460 Cellular 269.998.4052

Bob Brega

Phone 570.759.2759 Cellular 570.807.6383

Phone 334.834.5207 Cellular 205.317.1008

FACILITIES SERVICE

LNK (Complete)	Lincoln, Nebraska	800.228.4277
BTL (Complete)	Battle Creek, Michigan	800.525.2376
PVU (Maintenance/Install)	Provo, Utah	877.771.2788

AVIONICS INSTALL & LINE FACILITIES

4.0.4	Samuel Control	202 610 1700
APA	Denver, Colorado	303.649.1790
BFI	Seattle, Washington	206.764.3962
B D R	Bridgeport, Connecticut	203.386.0111
DAL	Dallas, Texas	214.352.3468
FTY	Atlanta, Georgia	404.227.9766
FXE	Ft. Lauderdale, Florida	954.771.6007
нои \	Houston, Texas	713.644.0352
LAS	Las Vegas, Nevada	702.262.6142
MDW	Chicago, Illinois	773.284.4600
M H R	Sacramento, California	916.231.0943
M K C	Kansas City, Missouri	816.421.1836
SDL	Scottsdale, Arizona	480.922.3575
STP	St. Paul, Minnesota	651.209.8430
TEB	Teterboro, New Jersey	201.288.1550
VNY	Van Nuys, California	818.902.9961

WORK AWAY FROM STATION CONTACTS

Mile tomoto and three, contra		AND AND SERVE BY AND AND AND SERVED BY
ADS	Addison, Texas	214.352.3468
AUS	Austin, Texas	512.530.7050
BJC	Broomfield, Colorado	303.410.7053
BUR	Burbank, California	818.955.8413
FTW	Ft. Worth, Texas	817.740.9266
HPN	White Plains, New York	914.686.8294
HWD	Hayward, California	510.780.1640
IAH	Houston, Texas	281.821.2689
MMU	Morristown, New Jersey	973.326.1110
SUS	Chesterfield, Missouri	636.536.7090

DUNCAN AVIATION COMPONENTS

Instruments, Accessories, Propellers & Parts Support

800.228.1836

800.562.6377



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RAPID RESPONSE AOG SERVICES

Expert In-Field Technicians, Fast 24/7 Dispatch, Airframe, Engine,

877.522.0111



Duncan Contacts Go Mobile

Yes, We Have an App for That

From the cockpit to the field, wherever you go, a dynamic list of Duncan Aviation's key contacts can now go with you. It's the company's first mobile application, and it was created at the request of customers to improve access to company contact information.

The app itself is very unassuming, providing simple and easy access to a list of service locations, contact information and department listings.

"It's the most user friendly app I have seen," says Mark Tillman of Discount Tire. "It gives you the info you need to contact Duncan Aviation or one of their service techs."

An interactive map can be filtered by service capabilities, and locations can also be added to a list of favorites or saved to contacts for quick access. A recent app update includes contact information for technical representatives, shop managers and sales reps.

"If you can reach one of our locations, we can get you the services you need," says Matt Nelson, Satellite Network Manager. "We support avionics maintenance and installations at any of our shop locations, and we have road teams available for emergency airframe and engine services."

Once installed, the app only updates information if it's launched with a data connection, which makes information more accessible in the field. When information is refreshed, it's snappy. There's little, if any, noticeable delay.

"I think it's great," says John Gibson of Latitude 45 Aviation Consulting Services. "All the information I need is right there, and it's easy to use."

The app was designed for tablets and smart phones. Unlike apps that are designed exclusively for smartphones, the Duncan app is supported for both devices and effectively uses the entire screen resolution in portrait or landscape mode.

The Duncan Aviation app is available for iPads® and iPhones® through iTunes® (search for Duncan Aviation). AndroidTM versions for tablets and smartphones are planned for later this year.

"If you can reach one of our locations, we can get you the service you need."

Matt Nelson, Satellite Network Manager

Locations can be sorted by service type, and saved to a list of personal favorites.



Listings include main office and department contact information.



Driving directions are estimated by device location.



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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.



Rich Kastl, Accessory Master Tech, performing the extension-force test.

DUNCAN AVIATION CAN NOW PERFORM FALCON 7X 48-MONTH TELESCOPIC DUCT INSPECTION

Duncan Aviation has successfully engineered and machined special tooling necessary to complete the 48-Month Telescopic Duct inspection for the Falcon 7X. This is one of the first calendar inspections and requires the leak testing, deflection-force testing and extension-force testing of the three telescoping tubes found in each wing of the 7X.

J. ROBERT DUNCAN HONORED WITH LIFETIME AVIATION ENTREPRENEUR AWARD

J. Robert Duncan, Duncan Aviation's Chairman Emeritus, was honored in January with the Lifetime Aviation Entrepreneur Award at the 9th Annual Living Legends of Aviation Awards banquet. Every year, attendees of this



complete at the end of 2011 and is on schedule to open this spring.

The exterior of the new paint facility was February 13, 2012 - Waste treatment room. The paint stripping waste is treated through a system of evaporators to minimize the amount of hazardous waste.

February 27, 2012 - Window into the downdraft bay.

NEW DUNCAN AVIATION PAINT FACTLITY NEARLY COMPLETE

Duncan Aviation's newest expansion, a 45,000-squarefoot paint facility at its Lincoln, Nebraska, location, is on schedule to open this spring.

The new facility will allow input of some of the largest business aircraft in use today, including Gulfstream's 650, Bombardier's Global Express and Dassault's Falcon 7X.

Announced in March 2011,

the facility will have the latest in down-draft air flow technology, including automatic monitoring and alarms. This new facility along with Duncan Aviation's new "chrome-free" paint process and recent FAA-Approved Paint Process proves Duncan Aviation's commitment to

n. (down-draft air flow technology): the most advanced green paint hangar design in the industry. the balanced dual-flow down-draft design creates optimal laminar air flow allowing the highest quality painting environment.

the environment, customers and team members.

"All of Duncan Aviation is excited for the upcoming paint facility to open," says Jeff Lake, Chief Operating Officer in Lincoln. "The expansion means that we will have even better opportunity to serve operators looking for the paint craftsmanship and attention to

detail that our customers have come to respect."

For more information about the construction of Duncan Aviation's paint facility, please visit www.DuncanAviation.aero/ paint or to learn more about Duncan Aviation's "chrome free" paint process, visit www.DuncanAviation.aero/fieldguides.



J. Robert Duncan accepting the Lifetime

awards event describe the evening as a "WOW" event akin to the Academy Awards for aviation. Defined as aviation entrepreneurs, innovators, record breakers, industry leaders, astronauts,

pilots who have become celebrities and celebrities who have become pilots, the Living Legends of Aviation meet in Beverly Hills the third Friday of every January to recognize and honor individuals who have made significant contributions in aviation. Members and past recipients include names like Harrison Ford, Morgan Freeman, Bob Hoover, Tom Cruise, Buzz Aldrin and Clay Lacy.

"I very much appreciate this honor," Robert says. "It brings a spotlight on all of the almost 2,000 team members at Duncan Aviation. I have always

believed in people and delegated easily, resulting in a team of extremely capable individuals. They take care of our customers, our vendors and each other. It is their success that this award recognizes and I thank them all. Together, we have built an innovative aviation company where team members can make a difference. My aviation career has been a great ride and the best is yet to come for Duncan Aviation!"

To see the video shown before Robert accepted his award and hear his acceptance speech, go to www.youtube.com/DuncanAviation56. 🕰

DUNCAN AVIATION-PROVO WILL KEEP GROWING

Duncan Aviation's Provo, Utah, location has been taking care of customers and delivering aircraft for more than 16 months. The facility is seeing regular repeat business from many operators, so much so that Duncan Aviation recently purchased the building next door to the hangar. The space will soon be converted into shop space for sheet metal, install and some interior work.

"The construction to this building should be completed in late April," says Bill Prochazka, Executive Vice President and General Manager of Duncan Aviation-Provo. "This will add some limited interior services to our capabilities here. In addition, we are evaluating the addition of some avionics installation services at our Provo facility."

During its first 16 months in operation, the Duncan Aviation-Provo team has earned original equipment manufacturer (OEM) authorizations to perform warranty work on the Embraer Legacy & Phenom and Bombardier's Learjet and Challenger 300 & 600 series, as well as line support for Bombardier Global series aircraft.

Since the hangar doors opened on August 2, 2010, team members have completed more than 100 work orders for 88 core aircraft. These projects have flown to Provo from across the United States, London, Hong Kong, Australia and the Cayman Islands. Following are a few project specifics:

Learjet

- Letter check inspections (11)
- 12-year inspection (1)

• 6,000 landing gear inspection (1)

Challenger

- Letter check inspections (8)
- 240-month (1)
- 96-month (2)
- 196-month (1)
- Landing gear overhaul / major inspections (3)
- Challenger 300 AOG road trip to Idaho (1)

Global Express

• AOG / SB road trip (4)

Embraer

- Area support road trips (6)
- 4L inspection on a Legacy (1)

Falcon

• 7X AOG rescue to Las Vegas (1)

Astra

• Letter check inspections (4)

Other

• Pre-purchase evaluations (3)

"Things are progressing nicely at our Provo facility," Bill says. "We have a steady growth plan in place for the next two years and will continue to monitor the health of our industry, the economy and demand for our services. When the time is right, we still plan to break ground on a new facility in Provo to offer tip-to-tail capabilities."

DUNCAN AVIATION
RECEIVES
RECOGNITION
FROM BOMBARDIER
AS TOP
AUTHORIZED
SERVICE
FACILITY

Duncan Aviation's Lincoln, Nebraska, facility recently received recognition from Bombardier as a top authorized service facility for its support of Bombardier customers in 2011. Judged on a set of criteria that included quality, compliance and customer influence, Duncan Aviation was named the winner of the Overall and North America categories of the first-ever Bombardier Authorized Service Facility Excellence Awards.

"We are pleased to be recognized by Bombardier as an excellent service provider and collaborator in the support of Bombardier products," says John Slieter, Duncan Aviation Vice President of Sales. "Duncan Aviation has a long history with Learjet and its products dating back more than 45 years. We have built on this history and continue to have a great collaboration with Bombardier for their entire line of products. We are pleased with Bombardier's continued confidence in the quality and reliability of our services and find that this is a confidence shared by our mutual customers."

Business Aviation Resources

Available for Download

Field Guides

Straight Talk Books

Videos

Duncan Debrief

Duncan Intelligence

Duncan Download Blog

Virtual Tours

Brochures

Capability Facts Sheets

To make the most of your time, Duncan Aviation has a variety of resources available at your fingertips in one spot – DuncanAviation.aero/resources. Find capabilities lists for various airframes, engines, and components, white paper field guides and "Straight Talk" books that explain difficult topics as well as videos and brochures. While you're there, sign up for our Duncan Intelligence newsletter and our Duncan Download blog. Doing so will ensure you will receive timely, technical information right in your Inbox.



Topics:

Duncan Intelligence

The Duncan Intelligence is a free, technical newsletter. Written in-house by Duncan Aviation's technical representatives, each edition includes technical tips and advice on topics and trends in business aviation.

Read More

Straight Talk Books

Duncan Aviation's free Straight Talk books are an aircraft operator's source for easy-to-understand information about important topics in business aviation today written by Duncan Aviation's very own aviation experts.

Read More

Field Guides

Duncan Aviation's field guides address topics of importance to business aircraft operators around the globe and are written by our very own technical experts.

Read More

Duncan Debrief

The Duncan Debrief is an award-winning business aviation magazine for aircraft owners and operators. Written in-house, each edition includes articles on topics and trends in business aviation.

Read More

DUNCAN AVIATION PLANS DUNCAN INTELLIGENCE LIVE EVENTS IN 2015

n. (duncan intelligence live

events): duncan aviation

world providing face-to-

industry experts on hot

industry topics.

seminars hosted around the

face forum discussion with

Continuing in its goal to partner with customers and help educate the business aviation industry about often-confusing

topics on aircraft maintenance, completions and operations, Duncan Aviation will host several seminar events around the world this year.

Duncan Intelligence LIVE events will provide face-to-face forum discussion with industry experts on hot industry topics. Some events will be lunch or dinner presentations and others will be a half or full day

of classes with the potential of up to eight hours of Inspector Authorization (IA) renewal credit.

The LIVE events will provide class offerings that adjust to the requests of operators in each area. The

> symposiums will be modeled after many successful conferences that hundreds of Duncan Aviation customers and contacts have attended over the last decade. Seminar classes will include

topics like the following: The 731 Oil System, Aircraft Paint: A Primer, Getting Your Business Aircraft Online, Failure to Follow

> Procedures, Aviation Maintenance Model Code of Conduct and Future Air Navigation System (FANS). Many of the classes are approved for IA renewal credit. There will be no charge for the events.

Duncan Intelligence LIVE seminars will be held in the following cities and dates:

Battle Creek, Michigan - May 24 (8 Hours IA) Sao Paulo, Brazil - August 14 Van Nuys, California – September 12 (8 Hours IA) Paris, France – September (TBD) Chesterfield, Missouri - October 4 Des Moines, Iowa – November (TBD)

More information, including IA Renewal opportunities and registration information, will be released at www.DuncanAviation.aero/events as it becomes available.





DUNCAN AVIATION'S AIRCRAFT CORROSION DETECTION PROGRAM IN HIGH DEMAND

In 2011, Duncan Aviation performed 16 out-of-sequence paint removals to accommodate early detection of surface corrosion on business aircraft prior to inspection, and demand for the service is increasing. Eight

aircraft are already scheduled to receive out-of-sequence strip and paint events in 2012, with more commitments pending.

Stripping an aircraft prior to maintenance is a proactive approach to corrosion detection that buys extra time for repairs. Duncan Aviation refers to this method of interrupting the paint cycle as an "out-of-sequence" strip and paint event.

"Business aircraft fleets are aging, and with age comes a higher risk of corrosion," says Suzanne Hawes, Paint Completions Representative at Duncan Aviation's Battle Creek, Michigan facility. "This program helps





JOE TULOWITZKI AND JOE LACORTE JOIN DUNCAN AVTATTON'S TURBINE ENGINE SERVICE SALES TEAM

n. (engine services):

Duncan Aviation offers

for a wide variety of

professionals, and are

quickly and efficiently.

near-comprehensive services

business aircraft engines.

Our teams are experienced

equipped with the training,

tooling, documentation, and

support to resolve an event

Duncan Aviation is pleased to announce the addition of Joe Tulowitzki and Giuseppe (Joe) LaCorte to the Turbine Engine Service Sales Team.

Tulowitzki will focus on developing business relationships in new markets on the East Coast. He will be focusing on TFE731

and Pratt & Whitney engine services, introducing new customers to Duncan Aviation and the scheduled and unscheduled turbine engine services offered by Duncan Aviation's teams.

Tulowitzki joins Duncan Aviation after spending nearly 12 years with Dallas Airmotive, Inc. He has additional experience as an engine shop supervisor working for MCI Flight Ops, 12 years with Garrett Aviation and four years serving in the United States Air Force.

"Joe Tulowitzki comes to Duncan

Aviation with a wealth of experience," says Doug Alleman, Manager of Regional and Service Sales. "He has a real desire to provide operators with top-notch customer service. I am confident that he will become an instrumental part of our engine support service, nationwide."

Joe LaCorte joins the sales team after spending 10 years leading Duncan Aviation's Chicago, Illinois-based Engine Rapid Response Team. He earned a Bachelors of Science degree in Aviation Management and an Associates degree in Aviation Maintenance

Technology from the University of Southern Illinois. He joined Duncan Aviation in 2002 after a combined 14 years as a field service representative for GE Aircraft Engine Group and Pratt & Whitney Canada.

In his new role, LaCorte will be supporting all engine makes.

However, he will specialize in Pratt & Whitney products. This focus will support Duncan Aviation's newest addition in Battle Creek, the Pratt & Whitney Canada Hot Section Inspection (HSI) Repair facility, which opened in the fall of 2011.

"Joe LaCorte has been developing great working relationships in the field for years and has a wealth of knowledge when it comes to Duncan Aviation's engine services," says Phil Suglia, Service Sales Manager. "He has always enjoyed face-to-face

interactions with operators and I am confident that he will play a key role in expanding our engine support services."

Joe Tulowitzki is based in the Washington, D.C. area and can be reached by calling 540.349.3142 (office) or 540.272.2656 (cell) or by email at Joe.Tulowitzki@DuncanAviation.com.

Joe LaCorte is based in the Chicago area and can be reached by calling 847.833.1183 or by email at Joseph.LaCorte@ DuncanAviation.com.

detect aircraft corrosion before a major inspection begins, which can save operators a month or more of downtime if major repairs are required."

Duncan Aviation has long offered paint removal prior to inspection as a service option for its customers. Now as more business aircraft are approaching 12 years of age, Duncan Aviation's maintenance teams are observing more instances of corrosion across

many aircraft makes and models. If an operator is concerned about corrosion on their aircraft, they may want to consider stripping the aircraft prior to inspection.

"With an out-of-sequence event, we can address the corrosion and minimize the impact to the customer. It can really save downtime in the long run," says Suzanne.

There will be limited out-of-sequence events in 2012. Out-of-sequence events

can be performed for any aircraft, and should be scheduled four to six months in advance.

For more information about Duncan Aviation's out-of-sequence strip and paint program, please contact Suzanne Hawes at 269.969.8451, or read the "Corrosion Detection: How to Prevent Scheduling Disruptions on Major Airframe Inspections" field guide at www.DuncanAviation.aero/fieldguides. 🕰



DUNCAN AVIATION OBTAINS EVEN MORE WI-FI STCS

When it comes to Wi-Fi capability and the Supplemental Type Certification (STC) process required to make an aircraft Wi-Fi capable, Duncan Aviation is an industry leader. As such, we are pleased to announce that we recently received an additional Wi-Fi STC, this one for in-flight Wi-

Fi operations in Falcon 2000 and 2000EX aircraft equipped with Thrane and Thrane equipment.

This certification allows
SwiftBroadband aircraft WiFi service in the cabin by
upgrading the Thrane and Thrane
Swift 64 Aero HSD+ Satellite
Communication System to the
SwiftBroadband Aviation 700
Satellite Communication System.

The SwiftBroadband service provides

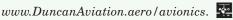
high-speed in-flight internet connectivity, allowing passengers to use their iPads®, laptops, BlackBerrys, iPhones® and other Wi-Fi devices at connection speeds that provide an experience similar to that of ground-based Wi-Fi connections.

This aircraft was completed using a Duncan Aviationowned STC created and certified under our Organization Designation Authorization (ODA). Duncan Aviation is the industry leader in aircraft Wi-Fi equipment installations and holds STCs for in-flight Wi-Fi operation in a wide variety of business aircraft models,

including the
Hawker 800A,
800XP/850XP and
900XP, the Falcon
2000, 2000EX, 2000EX
EASy, Falcon 900EX and
900EX EASy, the Cessna 680
and 750, the Challenger 300,
the Gulfstream IV and the
Gulfstream V. We are also in
the process of developing
solutions for Citation

XL/XLS, Embraer 135, Learjet 40/45/45XR and Challenger 604/605 aircraft.

For more information, contact a member of Duncan Aviation's Avionics Installations Sales team at 402.475.2611, 269.969.8400 or



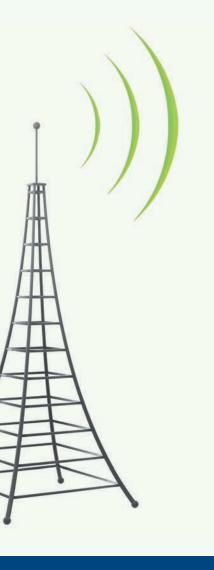
n. (SwiftBroadband):
provides high-speed inflight internet connectivity,
allowing passengers to
use thier Wi-Fi devices at
connection speeds similar to
that of ground-based Wi-Fi
connections.

DUNCAN AVIATION DEVELOPS ROLLAROUND HAWKER LANDING GEAR

Duncan Aviation recently developed new, roll-around Hawker landing gear, adding them to its arsenal of Hawker services. The gear will allow aircraft to be moved through all phases of maintenance at the same time the aircraft's landing gear is being overhauled at a Duncan Aviation facility. As a result, customers will experience reduced downtime and, in many cases, the advantages of keeping the original landing gear with the aircraft without having to arrange for an exchange.

Dan Fuoco, Hawker Airframe Service Sales Rep, estimates that customers will be able to shave at least two weeks, if not more, off of their downtime when a Hawker landing gear overhaul is added to scheduled maintenance, such as a 12-year inspection and paint. "When the aircraft arrives at Duncan Aviation, the gear is immediately removed and sent to our authorized Hawker landing gear overhaul specialists in our Accessories Department and the roll-around gear is installed, keeping the aircraft mobile," Fuoco says. "Because the 12-year inspection will be completed ahead of the landing gear overhaul, the roll-around allows the aircraft to go directly to paint without any delay."

Prior to this new tooling, the aircraft would have remained idle



two weeks or more in the hangar while waiting for the landing gear. Now when the aircraft comes out of paint, the original landing gear has been freshly overhauled and is ready for installation.

Duncan Aviation's Lincoln, Nebraska, headquarters has been an Authorized Hawker Service Center since 1998. For more information about Duncan Aviation's Hawker services, please contact Dan Fuoco at 402.479.1502, or visit www.DuncanAviation.aero/capabilities.

