

Duncan Aviation Standardizes with Avfuel, Plans Summer Kick-Off Celebration

With nearly 45 years of experience providing line service to corporate aircraft operators, Duncan Aviation offers complete and reliable fuel and pilot services 24 hours a day at its Battle Creek and Kalamazoo, Michigan, and Lincoln, Nebraska, locations. In addition to uncongested skies, long runways and short taxi time, our full-service facilities have now standardized on one fuel provider — Avfuel Corporation.

Effective April 1, all three of Duncan Aviation's line support locations will use the fuel services of Avfuel. Battle Creek and Kalamazoo have used these services since 1992. Now, the Lincoln facility is joining them.

In honor of this conversion, all three locations will celebrate during June, July and August with special programs that include prize drawings, special giveaways and double AVTRIP points for purchases. AVTRIP is Avfuel's Frequent Refueling Program where pilots earn points for each gallon of fuel they take on at participating AVTRIP dealers. The points are credited to individual pilot accounts and accumulate toward U.S. Savings Bonds or international equivalents.

"Changing fuel vendors is not something that we take lightly," says Kris Patrick, Support Services Manager at Duncan Aviation's Lincoln facility. "We have always taken pride in our top-notch quality control procedures. All of our facilities are under Government Fuels Contracts and provide fuel for major airlines, so quality is a big concern for us.

"At our Michigan facilities, Avfuel has been very supportive of our quality-control procedures and equipment needs," Kris continues. "Beyond that, we have been pleased with Avfuel's customer support, which enables us to provide the level of service our customers deserve and expect. We are excited about the greater consistency and level of service this standardization to one fuel supplier will provide."

In addition to high-quality fuel, operators who stop at any Duncan location receive access to several amenities. These include the following:

- Pilot's lounge with entertainment and refreshments
- Snooze/reading rooms
- Quick-turn fueling
- Certified line technicians
- De-ice (Lincoln only)
- Airstart (Lincoln only)
- Preheat
- Detailing and lavatory service
- Free coffee and ice
- Free ramp space (Lincoln & Battle Creek only—with limited ramp space, Kalamazoo does have to charge for overnight parking)
- Free APU starts
- Baggage handling
- On-site car rentals
- Discounted hotel rooms
- Catering service
- Courtesy cars
- Weather-planning radar
- Conference rooms
- Charter service
- Avionics loaners

We accept all major credit cards, including AvCard and MultiService. In addition, AirBP cards will continue to be honored at the Lincoln facility through August 1. For more information about our line services, please contact **Mike Ross** in Battle Creek/ Kalamazoo at **800.525.2376** or **616.969.8400** or **Kris Patrick** in Lincoln at **800.228.4277/402.475.2611**.



MULTIPLE RESOURCES — FLEXIBLE OPTIONS

"A customer just bought a Falcon 900. We need to schedule it for a 2C inspection, a triple MPI, paint, complete interior and EGPWS installation. He needs a quick turn-in in mid-summer. What can we do for him?"

— *Shelley Ewalt*
Completions Marketing Manager,
Duncan Aviation-BTL

"We have the capacity and resources here in Battle Creek for all the work except the avionics installation because our Falcon install teams are already scheduled for other projects. Do you have any ideas, Doug?"

— *Dan Chilla*
Scheduling Manager,
Duncan Aviation-BTL

"Duncan Aviation-Teterboro has performed that installation. Their experience will help cut turn-time. We can also fly some Duncan Aviation-Lincoln Falcon install technicians to Battle Creek for the project. Tell him we can do it."

— *Doug Schmitt*
Scheduling Manager,
Duncan Aviation-LNK



Since 1956, business aircraft operators have turned to Duncan Aviation for reliable, complete support services. Now a network of more than 1,600 aviation experts, we provide complete airframe, engine, avionics installation, paint and completions work. With nose-to-tail support facilities in Battle Creek, Michigan, and Lincoln, Nebraska, and 13 avionics satellite facilities across North America, we offer the best scheduling options and the fastest turn-times available. For your best option, call Duncan Aviation.

Duncan Aviation-BTL
Battle Creek, Michigan
800.525.2376
616.969.8400

Duncan Aviation-LNK
Lincoln, Nebraska
800.228.4277
402.475.2611

www.DuncanAviation.com

UNFORGETTABLE PEOPLE — LEGENDARY SERVICE

Duncan's Fabrication Team Constructs 100th APU

Fifteen years of constructing Auxiliary Power Unit (APU) kits for Falcon, Astra, Citation, and SAAB aircraft brought Duncan Aviation's Fabrication Team to a major milestone late last year. Our September installation of an APU in an Astra SPX marked the 100th kit constructed at our Lincoln facility.

Duncan Aviation owns STCs for installing APUs in Falcon 20s, Astra 1125s, Astra SPXs, Citation 650s and SAAB 340s. In addition, the Duncan-designed APU has received PMA (Parts Manufacturer Approval) Authority, which lets us provide a kit version of the APU to operators who wish to install it themselves. Our APU can be found in 66 Falcons, 27 Astra 1125 and SPXs, five Citation 650s and four Saab 340s.

The Duncan-designed APU provides 28 VDC power that parallels with the main engine generators and provides bleed air for the airplane environmental system. It is the only APU verified for take-off, in-flight and on-ground operation, providing electrical power and bleed air to 30,000 feet with starts certified to 20,000 feet.

Customers tell us that one of the best features of our APU is its high/low bleed air provisions. This lets operators provide maximum airflow to quickly cool or heat the airplane, and then cut the bleed air by approximately one-half to allow for a more subtle airflow and quieter operation in the cabin. The main engine bleed air cannot be controlled like this and has been a common complaint among operators.

Other benefits of Duncan's APU include considerably quieter operation and an overall lighter installation—up to 90 pounds lighter—than comparable system installs. (This weight reduction is attributable to the use of smaller, lighter batteries, which we can install because the



Scott Stenka, Fabrications Team Leader, constructs an APU enclosure for a Falcon 20.

APU provides additional power for main engine starts.) A Duncan-designed interface computer monitors the APU and generates 32 different "BITE" codes that are displayed on the APU's cockpit control head. In addition, the installation allows for easy APU removal and access through the aft equipment door.

Besides APUs, our Fabrication Team makes baggage compartments, floor warmers, water tanks, ice liners, trash containers and beyond . . . there is little this crafty team of 15 McGuyvers can't do with a sheet of stainless steel. And they're always on the lookout for ways to improve business aircraft safety, operation, profitability and comfort.

If you'd like to share ideas or make product suggestions for our Fabrication Team, call **Spencer McPherrin** at **800.228.4277** or **402.475.2611**. For more information about our APUs, contact **Ron Hall** in Lincoln at **800.228.4277** or **402.475.2611** or **Brad Snowball** in Battle Creek at **800.525.2376** or **616.969.8400**.

Duncan Aviation Debrief

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"Unforgettable People—Legendary Service" Shapes Duncan's Hawker Support

Duncan Aviation's "Unforgettable People—Legendary Service" is not just a great theme for our company, but a way of life at our facilities. That way of life is shaping Duncan's Hawker support both in Lincoln, Nebraska, and Battle Creek, Michigan.

We continue to expand our Hawker expertise and support through our unforgettable people.

In early January, Dan Fuoco joined Duncan Aviation's service sales group as a Hawker Service Sales Specialist, adding experience and depth to the Hawker team. Dan spent 25 years at CAMP Systems in Ronkonkoma, New York, where he was most recently the Raytheon Aircraft Team Leader. He joins Jeff Manion and Pete Kilmartin to provide maintenance scheduling, planning and budgeting services for Hawker customers.



Duncan's new Hawker Service Sales Representative, Dan Fuoco.

"We are pleased to have Duncan Aviation's Battle Creek, Michigan, facility join our network of Raytheon Authorized Hawker Service Centers," says Steve Porte, Manager of Global Service Centers. "Based on our customers' experiences with Duncan

Aviation—Lincoln's comprehensive support and our confirmation that the Battle Creek location is staffed and equipped to deliver the same excellent level of service, this announcement fits well with our strategy of positioning Raytheon Aircraft Company with partners who will offer the best customer support in the industry."

Both full-service Duncan facilities (Battle Creek and Lincoln) are now Authorized Hawker Service Centers. Each receives all of the support services and warranty authorization privileges associated with the

factory service center designation.

"We are honored to receive the Hawker designation for the Battle Creek location," says Aaron Hilkemann, President of Duncan Aviation. "In the last three years, we have focused on offering excellent Hawker service and support by investing in training, tooling, and experienced team members. This announcement confirms that we have been successful. It is also testimony to Raytheon Aircraft's commitment to customer service by being responsive to the feedback of their customers."

Hawker maintenance is not new to Duncan Aviation—Battle Creek. Both the Battle Creek and Lincoln facilities have the in-house capabilities and trained personnel to perform all major inspections on Hawker aircraft. Duncan also offers experience on the TFE731 and P&W 305 engines, as well as complete paint, interior, modifications and avionics work on Hawker aircraft.

For more information about our Hawker services, call **Pete Kilmartin** in Battle Creek at **800.525.2376** or **616.969.8400** or **Jeff Manion** and **Dan Fuoco** in Lincoln at **800.228.4277** or **402.475.2611**.

Duncan Aviation—Lincoln Named Citation 650 Service Center

Duncan Aviation and Cessna Aircraft Company recently signed an agreement designating Duncan Aviation—Lincoln as a Cessna Citation 650-Series Authorized Service Center.

The Lincoln, Nebraska, facility is now the only independent authorized service center in the United States to receive the designation. This authorization will allow Duncan Aviation to work with 650 operators as the only authorized U.S. service center beyond the network of Cessna-owned facilities.

"Designation of Duncan Aviation—Lincoln as a Cessna Citation 650-Series Authorized Service Center rounds out our nose-to-tail support services for Citation 650 operators," says Aaron Hilkemann, president of Duncan Aviation. "We are excited about the announcement, and look forward to continuing our partnership with Cessna as we provide our mutual customers with the best possible service."

As the Lincoln facility will receive all of the warranty authorization privileges associated with the factory service center designation, the new authorization will add the full service approach of Duncan Aviation to the existing Cessna network and help keep valued Cessna customers within that network.

"Cessna could not be more pleased to build upon our long-time relationship with Duncan Aviation," says Ron Chapman, Cessna Senior Vice President of Customer Service. "Over the past 27 years, Duncan Aviation has consistently provided world-class service to 500-Series operators. Duncan's added 650-Series capabilities will clearly provide numerous benefits to the customers operating the 350 Citation 650-Series aircraft worldwide."

Citation maintenance is not new to Duncan Aviation. Both Duncan Aviation's Lincoln and Battle Creek facilities have been Cessna 500-Series Authorized for many years. Each facility has the in-house capabilities and trained personnel to perform major or minor Citation aircraft maintenance.

Duncan Receives Hamilton Sundstrand APU Service Center Authorization

Duncan has also been named an authorized Hamilton Sundstrand Line Maintenance Service Center for T-62T-39 and T-62T-40C Series APUs. With the August 1999 agreement, our facilities in Lincoln and Battle Creek are authorized to perform APU Line maintenance, including installed operational tests after repair or overhaul.

Our experienced three-person APU repair and overhaul team is led by John Kennedy, who came to Lincoln in 1998 after spending several years in the APU program of another major independent service center. His experience is comprised of APU maintenance and overhauls, APU shop inspection, APU technician training, APU test cell operation and logbook research.

In addition to Hamilton Sundstrand APUs, we are Line authorized to work on all Honeywell APU products and have experience servicing these products from on-site aircraft as well as send-in units.

Please join us at the following trade shows:

AS3 - Tampa, FL May 9-11 Booth #922	AEA - Reno, NV May 7-10 Booth #400/402
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A Message From The Tower

Over the last few years, Duncan Aviation has created an unbelievable synergy and growth momentum in the number of facilities we have, the number of people we employ, the variety of services we offer and the number of customers we serve. This growth has been especially exciting for those of us who have been with the company for decades. We have tempered



"I have always believed that excellence and individual personal service are compatible with a large corporation."

that excitement, however, with a healthy dose of caution for one main reason: We want to be sure that our growth positively impacts our employees, customers and services.

I have always believed that excellence and individual personal service are compatible with a large corporation. As Chairman of a company that now employs more than 1,600 people, I know this to be true.

Duncan Aviation has more than doubled in size over the last three years. However, we have improved employee and customer satisfaction. That is one reason so many airframe, engine and avionics manufacturers have partnered with us by making us one of their authorized service centers. Over the last six months, our facilities have added several authorizations, including Raytheon Hawker in Battle Creek, Cessna Citation 650 in Lincoln, Hamilton Sundstrand APU Line for the T-62T-39 and T-62T-40C Series at both facilities and Rockwell Collins at our Dallas avionics satellite shop. We provide details of these additional authorizations in this issue of the *Duncan Debrief*.

This issue also keeps you up to speed with some of our important changes and service enhancements. By reading this issue, you will learn more about the construction of a new hangar at our Lincoln location, the completion of a new finish area in Battle Creek, and the addition of a weekend shift for our accessory and avionics line services. We tell you about the continuing education of our employees and how we share our technical knowledge through special customer classes and industry internet conferences. We explain how we ensure NESHAP and EPA compliance in our paint facilities and how our fabrication team installed its 100th APU. We also introduce you to Gene Maddux, who has taken over the reins at AVPAC for recently retired Wayne Matthes.

By perusing through this newsletter, we hope that you will get a sense of the activity occurring at all of Duncan Aviation's locations. As you can see, the momentum started over the last few years continues in 2000. We can assure you that the outstanding personal service and excellent quality we have practiced for nearly 45 years will continue as well.

J. Robert Duncan

Readers of
Professional Pilot
Magazine...



- Best Maintenance Shop**
- #1 Duncan Aviation - Lincoln
 - #2 Duncan Aviation - Battle Creek
- Best Avionics Shop**
- #1 Duncan Aviation - Lincoln
 - #4 Duncan Aviation - Battle Creek
 - #6 Duncan Aviation - Teterboro

...Give Duncan Aviation
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News

Duncan Contracts with FlightSafety

As part of our ongoing commitment to employee training, we recently signed a full-service maintenance training contract with FlightSafety. The contract, in excess of \$1 million for a three-year period, includes training for employees in Lincoln, Battle Creek, Kalamazoo and the satellite shops. It is the largest corporate aviation maintenance training contract in the history of both Duncan Aviation and FlightSafety.

Duncan Cal Lab is Fast, Accurate

In 1999, Duncan Aviation calibrated more than 3,200 units and repaired about 890. Average turntimes were 3.8 days for calibrations and less than 10 days for repairs. With the capability to calibrate more than 2,200 different pieces of equipment—including micrometers, calipers, scales, torque wrenches and oscilloscopes—we hope to introduce our maintenance, components and completions customers to Duncan service for calibrations, too.

Customers Race For Duncan

Duncan's on-site maintenance and completions customers in Lincoln are given special certificates for redemption at Speed Indoor Racing, a Lincoln establishment that is one of America's largest indoor racing facilities. Each certificate is good for one "Arrive & Drive" session in go-karts that can reach speeds of 47 miles per hour. Here is a list of some customers who participated in this fun activity and their record lap times:

Billy Dennis, Blastco Services Inc., 26.24 sec
Craig Wollmerhauser, TAG Aviation, 26.53 sec
Dave Colbert, ACM Aviation Inc., 26.80 sec
Ken Bowen, TAG Aviation, 26.81 sec
Tom Ward, Pacific Marine Management, 26.88 sec
Pat Silveus, TAG Aviation, 27.06 sec
Dave Moll, Hotel Aviation, 27.53 sec
Dave Smith, U.S. Filter Corp., 27.74 sec
Ralph Gentile, U.S. Filter Corp., 27.95 sec
Jim McCrosky, Exxon, 29.39 sec
Butch Wunderlin, Hill Air Corp., 30.47 sec
Joe Voskhal, CTC of Dayton, 31.80 sec

Duncan-BTL Adds Authorizations

Late last year, our Battle Creek facility was designated an Authorized Service Center for Line maintenance on the CFE738 engine, which powers the Falcon 2000 aircraft. In addition, Duncan-BTL and Honeywell added Line Authorization for the TFE731-20/-40 and -60 engines and renewed Authorization for TFE731 Line and TPE331 Major. The facility is also authorized to work on the Hamilton Sundstrand line of APUs and Pratt & Whitney's PT6 and JT15D engines.

Customers Rely On Nomadic Expertise

Duncan engine technicians spent more time on the road last year than they ever have before. One and two-technician teams helped 87 customers with in-the-field service. Destinations included the east and west coasts and several trips to Canada. This more than doubled the number of trips taken the previous year. So far, we have provided several off-site engine service calls in 2000, including a project in Manila, Philippines.

Duncan Receives STC for Interior Kit

We were recently awarded an STC for an executive interior for Galaxy Aerospace SPX aircraft. The interior kit, which was based on Galaxy Aerospace conceptual design and features four floor plan options, was developed for SPX s/n 111 and subsequent new aircraft. Over the next two years, Duncan will produce one kit approximately every four weeks.

Interior SWAT Team Hits Bull's Eye

Duncan's Interior SWAT team added value to more than 200 customer visits this year by performing seat and cabinet repairs, replacing worn carpet and other coverings on short notice. The SWAT Team was developed in 1998 to provide non-scheduled interior repair needs and ensure that every aircraft we see—even those scheduling maintenance-only work—leaves looking better than it did when it came in. The SWAT concept is incorporated at both our Lincoln and Battle Creek facilities. Your project manager is the best point of contact for further information.

Today's Aircraft Cabinetry—Much More than Boxes with Doors

Defining the leading edge of aircraft cabinet technology requires exceptional effort every day. Duncan Aviation's cabinet and finish teams meet this challenge with proven processes and machinery. Our dedication and expertise allow us to offer the latest finishes and some of the most aggressive turntimes in the industry.

While many factors contribute to our success, our people make the biggest difference. Every year we spend nearly \$125,000 training our cabinet technicians on the latest production and finish techniques. In addition to training, we keep them on the leading edge by equipping them with the finest facilities and machinery.

The planned purchase of a CNC (Computer Numeric Controlled) machine later this year will help make our cabinet artisans even more precise. This cutting machine will be accurate to within thousandths of an inch for every cut, allowing us to focus efforts on fits, not cuts. The \$230,000 investment will also let us enter a previously untapped cabinet production market.

Today's business aircraft cabinets are lighter and stronger than those made just a few years ago. Honeycomb composites and veneers comprise contoured cabinetry while faux and high-gloss, real wood veneer finishes transform stale cabins into stylish dwellings that define their owners. Increased labor rates and hours are required to produce today's flashiest designs. Our team understands that today's aircraft cabinets are much more than storage spaces. They are works of art that require meticulous attention to detail, rigorous certifications and craftsmanship rivaling that of traditional artists.



The custom galley and lavatory cabinetry found in this Challenger 601 aircraft show how honeycomb composites and veneers can be shaped to create beautiful contoured cabinets with the ability to transform an aircraft interior.



Eddie Todd, Finish Specialist, applies a high-gloss finish to an aircraft cabinet. Duncan Aviation's Finish Team applies exotic woods, finish processes and meticulous faux painting to create beautiful aircraft cabinetry.



Duncan Aviation Adds New Finish Facilities

Duncan Aviation's Battle Creek, Michigan, facility recently completed an additional 3,000-square-foot finish area that will allow the six-member team to double in size by the end of the year. The new area includes a "prep station" and a finish booth, both of which offer 365 square feet of floor space and feature 100% downdraft airflow to ensure the finest finish—every time.

The prep station affords an ideal environment for applying sealer, paint and faux finishes. In addition to downdraft, the finish booth also offers 100% climate control with a 150-degree "full bake" cycle, which can reduce curing time by half without sacrificing quality. Brad Hewitt, BTL Finish Team Leader, says the new area could reduce total finish turntime by as much as a third on large projects.

Our Lincoln facility anticipates growth in the finish area as a result of construction as well. The new hangar (see the article entitled "Under Construction" on pages 4 and 5) will create additional workspace and enable us to nearly double the Lincoln Finish Team—and its output—during the next five years. The new facility will also increase efficiency. Ergonomic projections suggest as much as a 10% productivity increase for individual Finish Team members.



Cabinet specialists Eric Walter, Ryan Laws and Tony Francis work in the new finish area at Duncan Aviation—BTL.

Educating Our Employees

Duncan Receives FAA's Diamond Award for Training

Duncan Aviation has always believed that the quality of a company's work is directly related to the quality of its technicians and employees. That is why we have always hired the best in the industry and invested heavily in their continued training.

Recently, the FAA rewarded these efforts by presenting Duncan Aviation's Lincoln, Nebraska, facility with the Diamond Award for Aircraft Maintenance Technician Training. Although not yet presented, Duncan's Battle Creek facility met the requirement for the Ruby Award.

"Continued employee training has always been something that Duncan Aviation has focused on and invested in," says Duncan President Aaron Hilkemann. "In 1999, Duncan Aviation spent more than \$2 million to expand in-house and outside training programs. We feel that continued education is an important investment in the future of our employees, the growth of our services and the safety of our customers."

The Diamond Award is the top award in an annual FAA program that recognizes technicians and their employers. For technicians to qualify for an award, they must attend a specified number of hours of training over one calendar year. Company awards are given according to how many technicians qualify for the individual

Duncan's Monetary Investment in Training in Millions of Dollars



* Figures do not include cost of travel and lodging, where applicable. In 1999, these expenses pushed the training expenditure above \$2 million.
** Some informal, on-the-job training is not included in these figures.

awards. In order to qualify for the Diamond Award, at least 25% of a company's technicians must receive an individual award.

Duncan's Lincoln facility surpassed the Diamond participation level with 144 technicians receiving awards. Duncan Aviation's Michigan facilities had a total of 53 technicians receive awards. All in all, three Duncan technicians received the individual Diamond Award, 49 received the Ruby Award, 50 attained the Gold level, 56 received the Silver Award and 39 met the Bronze Award requirements. To receive an individual Diamond Award, a

technician must attend 100 hours of training. The other award plateaus are: Ruby, 60 hours; Gold, 26 hours; Silver, 12 hours; and Bronze, 6 hours.

Duncan Aviation sponsored hundreds of training classes during 1999, including contract maintenance for various models of the Falcon, Citation, Learjet, Hawker and Astra airframes, various engine models and a variety of avionics including ProLine 4 and Primus II. Additional training included composites, air conditioning, troubleshooting, aircraft systems, electrical wiring, sheet metal and print reading.

Educating Our Customers

Duncan Aviation's Curt Campbell Leaves An Unforgettable Impression

Curt Campbell is one of Duncan Aviation's many Unforgettable People who loves to talk about and work on avionics systems. And true to Duncan Aviation's Legendary Service, he knows about more than one operating system. He holds an associate degree in electrical engineering, has an additional two years of electrical engineering studies, and has studied at virtually every manufacturer's avionics school. Curt's familiarity with Collins, Honeywell, JET, King, ARC, Edo, Bendix and a multitude of other OEMs makes his expertise highly sought after by other Duncan employees and customers alike.

For years, Curt has taught Duncan technicians at Duncan's Lincoln, Battle Creek and avionics satellite locations the subtle nuances of avionics. He has also conducted seminars at PAMA conventions and, most importantly, has traveled to customer locations in order to keep them up-to-date concerning the latest in avionics. He keeps classes small with six to 10 participants and discussions have included theory of operation, system integration, system utilization, flight control system diagnostics, introduction to EFIS and artificial intelligence. Classes are confined to lecture and note-taking and usually require a minimal charge for traveling expenses.

Curt is also a history teacher, of sorts. With 25 years of experience, he routinely receives calls from customers and troubleshoots old avionic units that few other companies know anything about. Maintaining a systematic approach to troubleshooting is Curt's teaching method for helping customers and students alike understand these older units.

Keeping up-to-date with the rapid pace of electronics is a challenge for Curt.



Curt Campbell, a Components Technical Representative with Duncan Aviation, teaches classes to keep Duncan employees and customers up-to-date on their avionics.

However, he maintains close contact with Duncan technicians and helps them with really tough problems, which helps him keep his problem-solving skills sharp. Curt also gets extremely difficult problems from Duncan customers. Some of the toughest involve intermittent failures, which usually take several phone calls and sometimes a couple of weeks to solve.

If you feel you need to go back to school about your avionics, Curt's the person with whom you should speak. Give him a call at 800.LOANERS (800.562.6377) or 402.475.2611, extension 4220.

Duncan Intelli-Conferences Educate Customers Through the Internet

Through the Internet, Duncan Aviation now has the ability to communicate directly with customers to provide more timely and convenient education, regardless of location. "Internet conferencing" is a way for customers to simultaneously watch educational presentations while we answer questions as they are asked. We call these mini-seminars Duncan *Intelli-Conferences*.

In January, we shared our first live *Intelli-Conference* on Duncan Aviation's technical tips and guidance for planning a Challenger 120-month landing gear restoration. It included information on turntimes, scheduling, and staying under the cap.

If you would like to see a replay of this or any of our live *Intelli-Conferences*, we provide links to these archived conferences at our website, found at www.DuncanAviation.com in the "News & Information" section under "Intelli-Conferences." In order to view a past conference, click on the conference title of your choice. It will link you directly to the archive. (In order to listen to the archived audio, however, you must have a sound card and "Real Player" installed on your computer. Real Player is available for free download at www.real.com. To download the player, follow the step-by-step instructions provided at the www.real.com website.)

Upcoming *Intelli-Conference* topics include TFE731 tips and information about aircraft acquisition. Be on the lookout for invitations to these conferences.

TECHNICAL EXPERTS — PRECISE SOLUTIONS

"You have oil pressure following the throttle. The problem is a regulator or possibly a leaking mainline carbon seal. I'll e-mail some things for you to check. Or we can send a technician to help. I'll also put you on the list to receive our next *Duncan Intelligence* fax."

— Doug Alleman
Engine Shop Supervisor
Duncan Aviation-LNK



By fax, over the phone, through the Internet, on the road or on-site at our service centers, Duncan Aviation has technical experts who can work wonders. With quick responses, we answer technical questions about unexpected performance dilemmas, MPIs, APU work, and much more. Through our "Tech Tip" *Duncan Intelligence* newsletters, over Internet *Intelli-Conferences* and our engine symposiums, many know us as the industry's "technical experts." We'd love to fix your engine problem and enlighten you. To speak with one of our technical experts, contact Doug Alleman in Lincoln, Nebraska, Ken Kuchenreuther in Battle Creek, Michigan, or look us up on the Internet at www.DuncanAviation.com.

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UNFORGETTABLE PEOPLE — LEGENDARY SERVICE

AT-A-GLANCE

More Duncan Engineers Named DERs

Dan Buzz and Joe Huffman, engineers at our Lincoln facility, recently received Systems & Equipment and Flight Analyst Designated Engineering Representative (DER) credentials from the FAA. They join the ranks of three existing DER's located at our Battle Creek facility.

Making Aircraft Europe-Ready

As of January 1, 2000, all civil, fixed-wing, turbine-engine aircraft with a maximum certificated take-off mass exceeding 15,000 kg (33,000 lbs), or a seating configuration for more than 30 passengers, must be equipped with ACAS II (Change 7) or obtain an extension from Eurocontrol to fly in European airspace. We can answer questions about this requirement, fill out a Eurocontrol ACAS extension or schedule your TCAS II installation and ACAS upgrade. Check out the information at www.DuncanAviation.com/news/intops.html or call Dave Pleskac in Lincoln (800.228.4277) or Dennis DeCook in Battle Creek (800.525.2376).

Satcom STC and Phone Info

We recently completed the first STC for the installation of a Honeywell Aero-I MCS 3000i Satcom system on the Citation X. The Honeywell Aero-I MCS-3000i provides digital, multi-channel telephone and data coverage using the INMARSAT III satellite system and a fuselage-mounted antenna. The STC was completed by Duncan's Battle Creek Designated Alteration Station (DAS). If you would like information about in-flight telephone options, check out our website at www.DuncanAviation.com/phones.

EGPWS STC

We were recently awarded one of the first STCs for the installation of a Honeywell Enhanced GPWS with display in the Falcon 900EX. The EGPWS with display uses GPS position and air data information to provide warning of impending terrain

far in advance of the Falcon 900EX's existing MK-V GPWS system. The EGPWS was wired into the existing MK-V I/Os and has additional interfaces to the FMS and EFIS.

Challenger Landing Gear Overhaul

We have been performing the new 120-month landing gear inspection and restoration requirements for Canadair Challenger aircraft. Duncan technicians have been completing a range of landing gear services and repairs since 1979. Our capabilities also include Learjets, Astras, Westwinds, King Airs, Citations, Jetstars and Hawkers. Recognized by Bombardier Aerospace and Messier-Dowty as a qualified and reputable provider of these services, Challenger gear can be removed from an aircraft on-site in Lincoln or Battle Creek, or can be shipped to us by the operator. For more information, log on to www.DuncanAviation.com/news/intellicon.html

Duncan-DAL Collins Service Center

Our Dallas avionics satellite facility was recently named a Rockwell Collins Authorized Service Center. With this designation, Duncan-DAL is factory authorized to repair and service Collins avionic equipment, including warranty work. With this addition, Duncan Aviation has 12 facilities that are factory-authorized for Collins avionics repairs and overhauls. The other authorized Duncan facilities include Lincoln, Battle Creek, Denver, Ft. Lauderdale, Las Vegas, Long Island, Santa Ana, Scottsdale, Seattle, Teterboro, Van Nuys, White Plains.

Duncan-FXE, Other Satellites On Move

Duncan Aviation's Ft. Lauderdale satellite shop has moved to a new location—inside Personal Jet—at Ft. Lauderdale Executive Airport (FXE). Under the leadership of Dave Molsberry, former manager of Duncan's Santa Ana satellite shop, the FXE facility will perform repairs and overhauls of avionics units and will soon join Duncan's growing list of avionics installation locations. In addition to Dave, the shop has four techs and an administrative assistant.

Other satellite shop changes include the opening of a subsatellite in AVJET at Burbank Airport (BUR) and the relocation of the Chicago satellite shop to Atlantic Aviation at MDW.

Rotable Exchange Pool Additions

Our Accessory Time & Material Exchange Rotable Pool has added Astra/Westwind Bleed Switching Valve part numbers 3213894-4-1 and 3213894-5-1 to its already extensive list of rotatables. The addition of these two parts will help -4-1 operators control the costs that were formally associated with upgrades to -5-1s. For more information about Duncan's Accessory Time & Material Exchange program, please contact Chris Gress at 800.228.4277.

Additional Accessory Capability

Our Accessory shop can now repair and overhaul the Crane Hydro-Aire Hydraulic Anti-Skid Control Valve found on various business aircraft, including Learjets. The unit, part number 39-309-1, is used in the hydraulic system. For more information, call Chris Gress at 800.228.4277.

Components Pricing On Internet

Our Internet Components Services Directory, which includes capability and part number listings for the avionics, instruments and accessories that we overhaul and repair, has been updated to include pricing information. To access this list, go to www.DuncanComponents.com.

Cessna 650 STCs

We recently obtained three safety system STCs pertaining to the Cessna 650 Series aircraft. Honeywell TCAS 2000 with EFIS display, Honeywell Enhanced GPWS with EFIS display and Honeywell NZ-2000 Flight Management System with 5.2 software approved for GPS Primary Means of Navigation. These certifications, which enhance the safety of the aircraft and reduce pilot workload, were completed at our Lincoln, Nebraska, facility.

UNDER CONSTRUCTION



Demolition of the former General Aviation building began in early September 1999. (Above)

The site was prepared for the foundation footings in late September 1999. It reflects the removal of nearly 18,000 cubic yards of dirt—1,800 dump truck loads. (Right)

The hangar foundation and the basement area walls were poured in early December 1999. They contain 296,363 pounds of reinforcing steel and 19,440,000 pounds (9,720 tons) of concrete. (Right)



Duncan Aviation's Lincoln, Nebraska, facility is in the middle of its biggest construction project ever—a 123,000-square-foot facility consisting of a 60,000-square-foot hangar (Duncan's largest yet) and 63,000 square feet of additional shop space. The new three-level shop area will house the sheetmetal, completions, installations, upholstery, finish and cabinet shops as well as engineering and design. The hangar is scheduled for completion this fall. Watch future editions of the *Duncan Debrief* for more information.

Steel for the hangar and shop space structures began arriving in early January 2000. The metal weighs 2,818,000 pounds (1,406 tons) and was delivered in 75 truckloads. (Left and Bottom)

The magnitude of the project becomes more apparent as the steel superstructure begins to take shape. The steel structure should be completed by springtime. (Right)



Duncan's Paint Scientists Experiment to Find Effective Products That are Easy on the Environment

Another experiment was underway. The specimen: A Learjet 55 dripping with six different chemical strippers, bathed in sterile tungsten light. The scientists: Four nervous paint representatives silently cheering for their products while paint teams, ours and those of other business aircraft paint facilities, looked on critically. The experiment: A 26-millimeter race from the paint surface to the metal below.

Conducted more than a year ago, this experiment was just one of countless tests run by Duncan Aviation's paint teams over the past 20 years to identify the best products and techniques for our customers. The scenario described above focused on paint strippers. Additional tests have been conducted on paints, application technology, and other paint removal methods.

Duncan Aviation's Dan Svoboda has always tried to think far ahead of the spray patterns. His foresight revealed regulatory changes looming on the aircraft paint industry horizon and prompted searches for environmentally friendly strippers, primers and paints long before they were required. Having paint facilities in two parts of the country—Nebraska and Michigan—allows these teams to form and test hypotheses independently. The paint teams in Lincoln and in Battle Creek tweak and challenge their respective theories until the technique or chemical earns a page in Duncan's FAA-approved Standard Operating Procedures manual, shared by both facilities.

Testing new products is a lengthy process involving EPA-approved products and several experiments under various conditions. It often takes a month from the time we order a product until we get to test it. Changes also require constant experimentation. Often, changing one component in the paint process requires changing three or four others to maintain equilibrium.



This Learjet 55 was the center of a chemical stripping experiment to find products that are safe for the environment yet provide the results the corporate aviation industry demands.

One example is the management of the drafts required to eliminate paint overspray. Left unchecked, these drafts cause a phenomenon we call "hangar turbulence," which adversely affects paint finishes. Experimenting with airflow systems and aircraft positioning, we have learned to control hangar turbulence and avoid its adverse affects. Another example revolves around the use of HSPs (High Solids Paint). These paints and primers create fewer HAPs (Hazardous Air Pollutants). However, they require radically different application techniques to accomplish the same high-quality finish as conventional paint.

The most time-consuming step in an aircraft repaint is stripping of the old paint coat, or coats. To complicate matters, today's EPA-compliant strippers are milder and require up to twice the working time as those used five years ago. To combat this problem, we now apply stripper on Friday afternoon and allow it to work over the weekend when fewer employees are on hand. This keeps labor hours to a minimum and stripping quality to a maximum.

During the past five years, Duncan—LNK has used EPA-approved strippers to cut HAPs waste by more than half while painting 20 additional aircraft each year! Stripper use has been reduced from 12 drums to 4 drums per month. Our Battle Creek facility has experienced similar success.

The research Dan has performed over the years has profound benefits to our customers. First, it means high quality. We experiment with different products to find those that will provide the best results. That's probably why we have the reputation of providing the best paint in the industry. Second, it means reduced turntimes. Our exhaustive experimentation leads us to products and techniques that let us offer the most aggressive paint turntimes in the industry while protecting our environment.

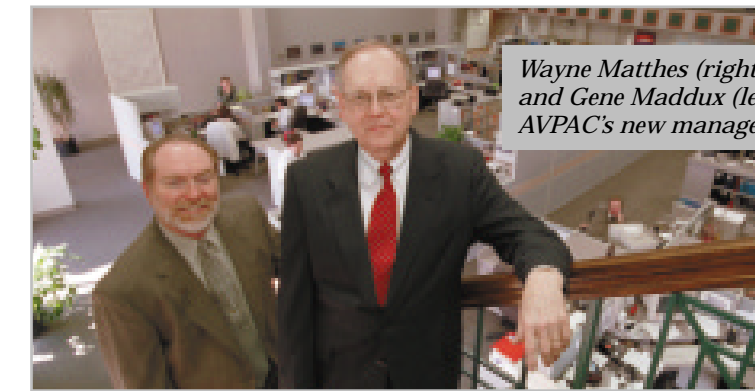
For more information about our paint services, call **Tracey Boesch** in Lincoln at **800.228.4277** or **402.475.2611** or **Shelley Ewalt** in Battle Creek at **800.525.2376** or **616.969.8400**.

Gene Maddux Takes Over AVPAC Reins Upon Retirement of Wayne Matthes

People who know how to fly, know about the aircraft parts world and have played semi-pro baseball are rare; however, the new manager of AVPAC is one such person. Gene Maddux learned to fly an S2A aircraft and pitch a mean knuckle ball during his Navy days in the late 1960s. After leaving the Navy, and baseball, Gene learned even more about aircraft parts, holding positions with both Aviall and Cessna before ultimately coming to the former Kal-Aero in 1996.

Because of Duncan's purchase of Kal-Aero in 1998 and the retirement of AVPAC Vice President Wayne Matthes, an opportunity soon arose for Gene to assume leadership of Duncan Aviation's AVPAC parts division. Gene spent the last few months of 1999 learning about AVPAC from Wayne, who spent nearly 20 years with Duncan Aviation and was on the ground floor when AVPAC was started in 1984. Wayne's dedication to AVPAC has left Gene in a strong position going forward. And Wayne believes that Gene will continue AVPAC's momentum.

"Gene has an extensive background in aviation parts and his work experience puts him in a favorable position to lead AVPAC into the future," Wayne says.



Wayne Matthes (right) bids AVPAC "goodbye" and Gene Maddux (left) comes to Lincoln as AVPAC's new manager.

Being an aviation parts professional for more than 25 years, Gene has studied the progressive success of AVPAC as an outsider. Now, as AVPAC's manager, he is amazed at the scope of customer commitment he sees in AVPAC's parts experts.

"I had no idea that AVPAC had such a world class inventory of avionics and rotables until I got here," he says. "What's even more amazing is that the extensive inventory is backed by excellent customer service and parts experts with the knowledge to find what our customers need—even if it's not in our inventory."

Gene sees many challenges and oppor-

tunities on the horizon for AVPAC. In one development, AVPAC has begun listing its \$90 million inventory with PartsBase.com, the largest search engine for aircraft parts on the Internet. Other ideas the new manager of AVPAC is exploring include OEM partnerships, increased business with regional airlines and new distribution lines.

Gene is a 1979 graduate of Oklahoma State University. He is married with three children and enjoys golfing and fishing. AVPAC welcomes **Gene Maddux**. Please feel free to give **Gene** a call at **402.479.4200** or **800.228.1836** and see what AVPAC can do for you.

Duncan Aviation Makes Your Weekends More Productive

When you're AOG, does your calendar seem to have only Saturday and Sunday printed on it? Do you have trouble sleeping on Friday nights knowing that your aircraft has an unfortunate tendency to go AOG only on the weekends? Do other accessory shops constantly say, "We'll talk to you on Monday," and then hang up the phone?

If these types of weekend problems seem to haunt you, then you need to take a closer look at Duncan Aviation's total commitment to customer satisfaction and



our can-do attitude. Our accessory technicians are available to serve you seven days a week, including 10 a.m. to 10 p.m. every Saturday and Sunday. We can take your unit counter-to-counter immediately on Saturday or Sunday or you may ship your late Friday afternoon problems

Federal Express for Saturday delivery.

By utilizing two shifts during the week and our special weekend team, Duncan Aviation not only provides you with the most capabilities on the units you need, but also the best turntimes in the industry.

Quality is not a five-day-a-week option at Duncan Aviation. It's a seven-day-a-week reality for customers who not only demand quality service, but demand it every day.

For more information about Duncan Aviation's weekend accessory team or to schedule in your AOG unit, call **Chris Gress** at **800.228.4277** or **402.479.1664**.