# DUNCAN AVIATION FACILITIES BDR BTL/AZO MDW LNK ADS FTW

Duncan Aviation has locations across North America, including complete service centers for business jet and turboprop aircraft, avionics installation/line satellites and avionics line facilities.

# FULL SERVICE & SUPPORT FACILITIES

### COMPLETE SERVICE FACILITIES

Lincoln, Nebraska	LNK	800.228.4277	Battle Creek/Kalamazoo, Michigan	BTL/AZO	800.525.2376				
TURBOPROP SUPPORT FACILITIES									
Kalamazoo, Michigan	AZO	877.403.5932	Lincoln, Nebraska	LNK	800.228.4277				

# SATELLITE FACILITIES

Avionics Install/Line Facilities									
Denver, Colorado	APA	303.649.1790	Van Nuys, California	VNY	818.902.9961				
Dallas, Texas	DAL	214.352.3468	Teterboro, New Jersey	TEB	201.288.1550				
Las Vegas, Nevada	LAS	702.262.6142							
AVIONICS LINE FACILITIES									
Addison, Texas	ADS	214.352.3468	Bridgeport, Connecticut	BDR	914.686.8294				
Chicago, Illinois	<b>MDW</b>	773.284.4600	Ft. Lauderdale, Florida	<b>FXE</b>	954.771.6007				
Houston, Texas	HOU	713.644.0352	Long Island, New York	ISP	631.981.1080				
Ft. Worth, Texas	FTW	214.352.3468	Morristown, New Jersey	MMU	973.326.1110				
Scottsdale, Arizona	SDL	480.922.3575	White Plains, New York	HPN	914.686.8294				
Seattle, Washington	BFI	206.764.3962	Houston Intercontinental, Texas	HSI	713.644.0352				
Broomfield, Colorado	BJC	303.649.1790							





### PLAN FOR SUCCESS

Effective planning is key to a successful project. Duncan Aviation provides helpful tips for inspection planning and creative solutions to your downtime requirements.



# Departments



THE CAPTAIN'S LOG

Robert Duncan discusses the giving nature of Duncan Aviation employees and his views on the status of the company and industry.



News Briefs

Brief descriptions of some of the newsworthy events happening at Duncan Aviation facilities



MANAGER PROFILE

Learn why Teterboro's shop manager is a valuable resource for equipment manufacturers, Duncan Aviation and vou



On the Cover

Duncan Aviation's Engine Line employees Russ Haugen and Dave Bogart set up an ACES box for a pre-MPI 5 point JEDA run on a Falcon 900.



Lincoln, Nebraska 800.228.4277 402.475.2611 616.969.8400

Duncan Aviation-LNK MIATION Duncan Aviation-BTL Battle Creek, Michigan 800.525.2376

www.DuncanAviation.com

A COMPANY WITH HEART

With the holiday season upon us, we felt it would be appropriate to share examples of how our employees give from the heart all year round

BACK BY POPULAR DEMAND

Duncan Aviation plans an Intelli-Conference event for the Spring of 2002.

CHALLENGER 601 INTERIOR

Take a photographic tour of this recent project.

DUNCAN AVIATION CAPABILITIES

Complete airframe capabilities for our seven "core" jet airframe models are key to Duncan Aviation's success

Ready or not...here they come! How will they affect your flight department?

Duncan Avionics in New Jersey

Duncan Avionics in Teterboro and Morristown are convenient shops for everything from troubleshooting to major installations. Make these shops your launch pad for Europe.

Honeywell Lighting Products

Duncan Aviation is now an authorized Honeywell Lighting Sales and Service Center for Grimes Lighting

SAY "AH-HA," NOT AOG

Our Accessory Department provides AOG options to get you back in the air — fast.

NAV/COMM TEAM KEEPS CUSTOMERS FLYING

Our nine-person NAV/COMM team turns more than 70 units per week.

NEED A QUICK ADF TURN?

Duncan Aviation's ADF team is extremely versatile. This lets them turn units FAST.

Parts Into Cold Cash

Got parts? Want cash? Think AVPAC consignments.

# "The Giving Season" lasts all year for Duncan Aviation employees

The traditional "Giving Season" around Aviation, we continue to see great promise in the December holidays will soon be here in full force. As a society, we typically spend more time talking about compassion, philanthropy and volunteerism in December than at any other time of the year. Living lives of compassion and giving 12 months out of the year is the norm for many Duncan Aviation employees, though.

During this holiday season, we felt it would be appropriate to share with you some of the activities and causes with which Duncan Aviation and our employees are involved. We are proud of the giving spirit our employees have and felt they deserved some recognition for the efforts they exert in their communities throughout the year.

In addition to their passion for others, Duncan Aviation employees are also passionate about aviation. The industry has certainly changed over the last few months, and will continue to do so during the ongoing aftermath of the September 11 terrorist attacks and subsequent events. At Duncan

business aviation, yet we know that our industry must proceed with caution. After all, business aviation is directly tied to our world economy; the present unrest has many economic experts uncertain about the future.

That uncertainty is why Duncan Aviation will continue its focus on customer service and our employees. Although no major expansion is planned for 2002, we hope to continue our tradition of "no layoffs" and have no reason to think that we will not be able to keep our current employee base busy. In fact, we continue to operate at or near capacity at most of our locations.

In light of all that has happened this year, we have decided not to exhibit at the rescheduled National Business Aviation Association convention in New Orleans. We have talked with many customers and business partners who said they feel the focus of this year's convention is its informational sessions, of which several Duncan Aviation representatives will be attending.

We wish you and your families a joyous holiday season and the best of luck in 2002.

J. Robert Duncan, Chairman





Duncan Aviation NEWS

Duncan Aviation NEWS

#### **Duncan Aviation Earns Several STCs**

New STCs are constantly being issued to Duncan Aviation by the FAA. Every Duncan Aviation STC installation can be performed at any Duncan Aviation installation facility including Lincoln, Battle Creek, Teterboro, Van Nuys, Dallas/Ft. Worth, Denver and Las Vegas. Here are some of the most recent additions to our STC list.

Gulfstream II/IIB/III - Honeywell AZ-960 Air Data Unit Duncan Aviation recently installed and certified this ADC, which is RVSM compliant and a key component for one of two solutions in Duncan Aviation's RVSM (Reduced Vertical Separation Minimum) program for the Gulfstream II/IIB and III. It also includes Honeywell/Amtek BA-250 altimeters and a Honeywell AL-861 altitude preselector.

### Gulfstream II/IIB/III - Rockwell Collins FDS-2000 Phase II Software Upgrade

Duncan Aviation recently certified and installed this upgrade, which equips the FDS-2000 with even more features including the advanced capabilities required to support operation within the Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) environment.

### Gulfstream II/IIB/III - Goodrich Aerospace GH-3000 ESIS (Electronic Standby Instrument System)

Duncan Aviation recently certified and installed the Goodrich Aerospace Electronic Standby Instrument System (ESIS), which replaces all three traditional standby instruments with a single, fully digital, LCD display.

Challenger 600 - Rockwell Collins AHS-3000 AHRS Duncan Aviation recently installed and certified this digital Attitude Heading System (AHRS).

## Challenger 600 - Securaplane XL2410 Emergency Battery System

Duncan Aviation recently installed three XL2410s, which provide emergency power for flight instrumentation, lighting and 28VDC bus backup, in a Challenger 600.

Challenger 600 - Goodrich Aerospace GH-3000 ESIS Duncan Aviation recently certified and installed this Electronic Standby Instrument System (ESIS).

# Duncan Aviation's Accessory Overhaul/Repair Can Now Overhaul the Falcon 50 Flow Limiter

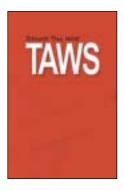
Duncan Aviation's Accessory Shop can now perform the 4,000-hour overhaul on the Falcon 50 flow limiter valve, part number 2725F030100.

According to the Falcon 50 Maintenance Manual, temporary revision dated January 2001, the 2725F030100 flow limiter valve is required to be overhauled every 4,000 hours at the next "B" inspection then every 4,000 hours after that. The Duncan Aviation Accessory Shop is also capable of repairing and function-testing these units.

For more information, contact Chris Gress, Accessory Service Sales Representative, at 800.228.4277, extension 1664.

Duncan Aviation Publishes Several *Straight Talk* Books to Answer Operator Questions About Often-Confusing, Technical Issues





This year, Duncan Aviation has published three *Straight Talk* books to help educate operators about technical, often-confusing issues in the industry.

To receive your free copy of these books, please call Duncan Aviation at 800.228.4277 or 402.475.2611 and ask for Avionics Installations Marketing. Or send your name/address to the applicable e-mail address below.

Straight Talk about TAWS provides information about the Terrain Awareness and Warning System (TAWS) mandate and how it will affect operators and flight departments. For a copy, e-mail TAWS@DuncanAviation.com.

Straight Talk about RVSM explains the upcoming Reduced Vertical Separation Minimum (RVSM) mandate and helps operators understand how they will be affected. For a copy, e-mail RVSM@DuncanAviation.com.

Straight Talk about International Operations answers often-asked technical questions about a variety of topics including security systems. For your free copy, e-mail IntOps@DuncanAviation.com.

#### Duncan Aviation's Morristown, New Jersey, Satellite Facility Now Approved Repair Station

Duncan Aviation's Morristown, New Jersey, avionics satellite location recently received its Air Agency Certificate and is now an Approved Repair Station, CRS# D24R826Y.

Duncan Aviation-MMU is located inside the Signature Flight Support facility on the Morristown Municipal Airport. To reach the shop, call Corey Moos or Dave Pittman at 973.326.1110.

# Mike Witmer Named Structures DER

Mike Witmer, Duncan Aviation-Lincoln's Engineering Structures Team Leader, was recently awarded a Structures Designated Engineering Representative (DER) authorization. He is the third Duncan Aviation engineer to earn this certification.



The authorization complements Duncan's Systems DERs and lets us approve data for structural repairs and modifications. Until now, some structural modifications engineering was sent out-of-house for approval. Mike's authorization lets us keep it in-house and shorten turntimes.

Mike's background includes 14 years as a Lead Stress Analyst for several of Boeing's commercial aircraft models. He joined Duncan Aviation in April 2000.



# Arnold "Arnie" D. Berry Passes Away

Duncan Aviation-Lincoln's Engine Customer Service Specialist, Arnold "Arnie" D. Berry, passed away on October 6 in a motorcycle accident.

Arnie will be remembered for his dedication to

customer support by providing unwavering quality in Engine services. We will remember Arnie's knack for learning new techniques and products quickly and patiently sharing this information with others. We will remember his passion for Harley Davidson motorcycles and his dedication to fellow riders. We will miss his quiet demeanor, his smile and his ability to laugh. Most of all, we will miss his friendship.



#### Hubert Naimer Receives Fourth Annual Duncan Aviation Excellence Award

Robert Duncan (left) recognized Hubert Naimer (left), founder of Universal Navigation Corporation and President of Universal Avionics Systems Corp., for his dedication to the business aviation community by presenting him with Duncan Aviation's Fourth Annual Duncan Aviation Excellence Award.

"Hubert Naimer's ultimate goal has been to increase the safety of flight through increased position accuracy, greater situational awareness and reduced pilot workload," says Aaron Hilkemann, President of Duncan Aviation. "He was instrumental in the development of Global Navigation's VLF/Omega system, Universal's UNS-1, which was the first Flight Management System for business aviation, and Universal's TAWS Terrain Awareness and Warning System. His newest frontier is synthetic vision, which Universal is developing as their Vision-1 System. Mr. Naimer's contributions to the industry have made a significant impact in the safety, reliability and efficiency of the private aircraft as a sound business tool."

The Duncan Aviation Excellence Award was presented to Mr. Naimer on October 27 at the company's 45th Anniversary celebration. The award was established in 1998 to recognize an individual for his or her significant commitment and leadership in the business aviation industry. As part of the award, \$2,000 will be donated in the recipient's name to his or her favorite charity. Past recipients include the following: William "Bill" Wagner, Chief Pilot of Townsend Engineering Co. and then-Chief Executive Officer of the NBAA Board of Directors; Albert Lee Ueltschi, Chairman and Chief Executive Officer of FlightSafety International, Inc.; and Peter Ginnochio, former Customer Service Executive with Cessna, Dassault and Canadair.

2 News Briefs 3

# A Company With Heart

n Sunday, September 23, 138 avid bikers, runners and canoers spent the

exercise,

morning navigating an

invigorating team triathlon. More than a fun way to

competed in a 10-kilometer

run, a seven-kilometer canoe

race and a 20 kilometer

bicycle heat all to raise

money for the Strategic Air

& Space Museum located in

Ashland, Nebraska.

participants



Jim Hagon, VP of Mods & Completions, recovers from a pie in the face during a recent United Way fundraising event in Battle Creek. (top)

Kevin Anderson with Lincoln Duncan's Airframe Department helps attendees of Aviation Careers Day.

Ten Duncan Aviation teams (nearly 15% of the participants) competed in the event, the fourth annual Duncan Aviation-Strategic Air & Space Museum Platte River Team Triathlon. Behind the scenes, 90 Duncan Aviation employees volunteered their time to staff water stops, record times, load and unload canoes, staff the registration desk



and provide emergency and first aid help, if needed. Completely underwritten by Duncan Aviation, the event raises about \$10,700 annually for the museum.

The following weekend saw more Duncan Aviation volunteer activities as the company sponsored its first Aviation Careers Day for youth interested in aviation careers. Thirty exhibitors consisting of area trade schools, the military, Civil Air Patrol, Lincoln Airport Authority and Air Traffic Control enlightened 275 students from Nebraska, Iowa, Missouri and Kansas on the various careers available in aviation. Attendees were also treated to tours of the Duncan Aviation facility, a static display of business and military aircraft, lunch and an air show. This event, too, was completely underwritten by Duncan Aviation.

Duncan Aviation's September efforts, while unusual contributions for a business, are only a small part of what the company offers to the communities where it is located.

"Duncan Aviation believes in helping the communities where we are located," explains President Aaron Hilkemann. "As a corporation, we sponsor a huge variety of charitable activities including fundraising informational sessions and volunteerism. We also encourage employees to be active in their community, to get involved in helping others and to follow their hearts."

Employees are encouraged to volunteer time and money in several ways. Duncan Aviation actively promotes charity events, sometimes even picking up entry fees or giving away event T-shirts. For example, Duncan A triathlon participant hurries to the cycling portion of the race while Duncan Aviation volunteers pull his team's canoe from the water.

employees participated this summer in the American Heart Walk, the cancer Relay-For-Life, the Multiple Sclerosis Bike Tour and similar fundraising events throughout the **United States.** 

Duncan Aviation offers employees lots of organized activities that they can participate in as a team, making the activities more social and fun. Paint-A-Thon teams paint homes for the disadvantaged. Nebraska Educational Television (NETV/Public TV) had a "Duncan Aviation night" during its telethon fundraiser where everyone taking pledge calls was a Duncan Aviation employee. Roughly 550 pints of blood have been collected for the Red Cross in the last 18 months, many donated at Duncan Aviation facilities by organized collections from the local blood banks. And many underprivileged children receive Christmas gifts through the Michigan and Nebraska facilities' sponsorship of a Salvation Army Angel Tree. Employees pick a child's name off of the tree and anonymously purchase a gift for him or her. It is also a tradition for Duncan Aviation's Michigan employees to "sponsor" a large, underprivileged family during December by supplying gifts, warm clothes, coats and food for the entire family.



Because support for the community is a value" **Duncan** Aviation's business philosophy, volunteerism is listed as a category on evaluations.

"Although volunteering won't harm an employee's career," Aaron says, "having a space specifically for these

types of activities allows supervisors to recognize this important part of an employee's life."

Besides donating time, Duncan Aviation employees also open their pocketbooks to those in need. This year, Duncan Aviation



Duncan employees Trista Mason (left) and Rick Whitesell (right) race go-karts for the United Way campaign.

More than 275 people attended Duncan Aviation Aviation's Careers Day. (below)



raised more than \$87,000 for local charities in Michigan and Nebraska through the annual United Way campaigns. This money will benefit local groups such as The American Red Cross, Big Brothers/Big Sisters, Charitable Union, The Salvation Army, local Food Banks, and the Community Action Agency. Employees gave \$39,942.83 to help victims of the September 11th tragedy. And "Casual Fridays" are often linked to special fundraising causes; employees who give a small amount to the cause can "dress down" on Friday that week.

These individual gifts follow the company's example. Duncan Aviation donates in excess of \$110,000 of its own funds to employeesuggested charities, often by matching employee contributions.

Additionally, there are countless numbers of charities that employees donate time and money to independent of Duncan Aviation sponsorship. A recently compiled list names 179 charities (besides individual churches) in which Duncan Aviation employees are active. Only 26 of them are sponsored in

- Aaron Hilkemann

"What makes

donations

even more

special is

out of

that they are

spontaneous

and extended

compassion,

obligation.'

not out of

their



But perhaps some of the best stories are about how Duncan Aviation employees help each other during tough times.

For example, in 1999, an employee named Shawn found out how much he meant to his Michigan work family when his son was born with heart problems and needed extensive surgery. Shawn and his wife used up their vacation time to be with their son during the first six weeks of his lengthy hospital stay. They were going to take unpaid leave to continue to be with him. When Shawn's coworkers found out, they began a quiet campaign of donating their vacation time to Shawn. They encouraged other co-workers to do the same. Duncan Aviation employees responded in force—99 different people donated a total of more than 14 weeks of vacation time. Shawn and his family were overwhelmed. Their son recovered and things are back to normal, but they will never forget this tremendous gesture of generosity. Similar donations of time have been a long-standing trend at Duncan Aviation. When there is someone in need, there is a response. In the last two years alone, 4,117 hours—more than 514 days—of vacation time have been donated to others.

"I am proud to be part of such a giving company," Aaron says. "The generosity our employees have toward their co-workers and the community is truly heart-warming. Duncan Aviation is made up of special people who do remarkable things. What makes their donations even more special is that they are spontaneous and extended out of compassion, not out of obligation."

Volunteers, athletes and their families relax and enjoy a refreshing lunch after the Duncan Aviation-Strategic Air & Space Museum Platte River Team Triathlon. The run, sponsored and underwritten by Duncan Aviation, raised \$10,700 for the museum.



# Back by Popular Demand

Here's what attendees of last year's Intelli-Conference in Battle Creek had to say. . .

"The information we received in the two days of seminars was very helpful and useful. We were impressed with the hospitality you gave us and also the operation of the facility. We look forward to attending your conference next year. Stephen A. Smith

Marathon Oil Company

"Thank you for inviting Motorola to attend the Intelli-Conference in May. It was very informative and presented professionally. It gave me the opportunity to visit your Battle Creek facility and meet many of the key people we have enjoyed working with. We would highly recommend this conference to all of our aviation business associates."

> Robert Bruhn Motorola

> > Jim Wydeen

Modine Manufacturing Co.

"The subjects presented were outstanding with real-world problems and real-world solutions. I felt it was better than the Citation Operator's Conference!"

Intelli-Conferences include educational sessions about current and technical industry topics. The engine troubleshooting session shown at right was presented in May 2001.



Intelli-Conferences also include chances for attendees to network. Last spring's conference included an evening at Cereal City USA and the chance to meet Kellogg's' Tony the Tiger. Above, Tony poses with Dan Lusk of TRW (left), Duncan's Roger Courey, and Rosemary Leonard.

n May 14 and 15, 2002, Duncan OAviation in Battle Creek, Michigan, will host our fifth Duncan Aviation Intelli-Conference event in an effort to educate flight department personnel about technical issues and upcoming mandates in business aviation.

The Intelli-Conference will consist of two days' worth of seminars featuring a wide variety of important aviation topics including RVSM & TAWS Mandates, Flightdeck Upgrades, Security Issues, International Operations, JT15D and TFE731 Troubleshooting, and other topics suggested by customers. Many of the sessions will count toward IA certification.

Beginning in the morning on Tuesday, May 14, and ending early afternoon on Wednesday, May 15, the event will take place at both McCamly Plaza in downtown Battle Creek and at the Duncan Aviation airport facility. Special activities, tours and shop demonstrations are being planned.

So mark your calendars now for May 14 and 15. Then watch your mail or log onto the Duncan Aviation Internet address at www.DuncanAviation.com/Conference for more information as it becomes available.

As long as you're writing in your calendar, make a note that Duncan Aviation is planning to host a second Intelli-Conference in 2002, most likely in the fall at its Lincoln, Nebraska, location.

Don't forget May 14-15, 2002 Intelli-Conference



Tap into the experience of Duncan Aviation

# Plan for Success

when considering maintenance or scheduling and parts provisioning. And it modifications for your Unfortunately, in the business jet and quality. maintenance and modification industry, downtime extensions and cost overruns For any large project, experience is the key to happen too often. Over the last 45 years, we successful at Duncan Aviation have learned that knowledgeable facility with experience you thorough planning can eliminate these can rely on is crucial in determining an surprises. Preplanning helps both the operator and the service facility get what they want—a quality job done efficiently and on time.

allows you to be in control. It gives you the freedom to choose a convenient downtime. It gives you first choice of service providers. In reputable facility ensures the highest degree the end, you will have a high quality job, delivered on time, for the best value.

 $igchircle{ extstyle ex$ aircraft. allows them to perform at peak efficiency

planning. accurate schedule and pricing estimate. A facility that has performed many successful projects on your model of aircraft will have the ability to foresee items that may arise and prepare for them. If major repairs Consider how preplanning can benefit you. It become necessary, you do not want your aircraft stuck in a facility that is unable to accomplish them. Scheduling with a of reliability and efficiency for your project.

Budgeting is a priority in many flight Consider how preplanning helps the service departments this time of year. Now is the provider. It allows them to dedicate the best time to request quotes for work you are technicians to your aircraft. It allows them to considering for your aircraft in 2002. We put the correct amount of resources on the encourage operators to investigate the experience level and planning techniques of potential service providers. Armed with this information you will obtain accurate, detailed information for budgeting and planning next year's maintenance events.

#### Be Creative!

We have worked closely with customers who need a creative solution to make the most of a minimum downtime. Following are some techniques we have seen work well.

Schedule multiple aircraft for back-toback events. Many Duncan Aviation customers take advantage of the benefits of scheduling two or more aircraft back-to-back. one of the best ways to optimize efficiency and reduce downtime. If the two aircraft are familiar. scheduled to receive identical work, there are obvious savings to be realized in pre-building Consider a split schedule to reduce multiple pieces, the bulk ordering of parts and materials, engineering time savings, and efficiency gains that will be built into the system installations or other major work in proposals. Additionally, operating similarly conjunction with a scheduled airframe outfitted aircraft will increase the efficiency inspection, you may be able to schedule the of your flight and maintenance crew by entire workscope in phases over a shorter

Scheduling your aircraft this way is perhaps simplifying the number of different systems and materials with which they must be

> downtime. If you need to complete exterior paint, interior refurbishment, avionics

During an airframe inspection, corrosion was found on this Falcon 50. A wing demate was required to complete repairs.

#### Ask Questions When Selecting A Service Provider

Duncan Aviation has developed a **Guide to Inspection Planning** to assist you in choosing a service facility. This guide provides potential questions, requests and other helpful information you'll want to consider when soliciting bids. Asking some key questions will help fully disclose what is included in the estimates and what costs extra. For example:

- → What technical expertise do providers have on the airframe?
- → What is their warranty policy?
- What about taxes and other charges?
- How much downtime will be required?
- What is the flat rate for the inspection?
- Can you get references?

To receive this free brochure, please call a Duncan Aviation Airframe Sales Representative at 800.228.4277 or 800.525.2376.





A major inspection is good time to consider avionics upgrades such as RVSM, TAWS, TCAS or an integrated flat panel display like the Pro Line 21.

Aviation can create options you may not have considered. For example, you might complete the inspection, exterior paint, provisioning for the avionics and preplanning for the interior

during the first phase. A great deal of work can continue while you fly the aircraft. This work would include prebuilding and engineering. Once the prebuilding is completE, you would then return for the installation of the interior and avionics systems to complete the job.

Schedule required maintenance with other upgrades. Consider scheduling your required maintenance in conjunction with other desired upgrades. The downtime for completing all of your required and desired work at once will be much shorter than completing them separately.

split downtime. The plan- Schedule well in advance. Your ability to ning experts at Duncan schedule several weeks or even months in advance allows the service provider to do more preplanning and prebuilding. This minimizes overtime and other extra charges related to expediting your project. Another benefit of advance scheduling is the ability to anticipate and plan the travel requirements of your company with a high degree of reliability, avoiding last-minute scrambles for alternate travel arrangements.

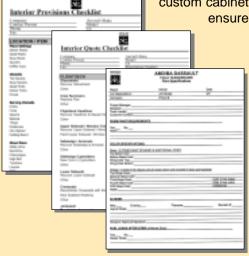
#### Enjoy the Results

Perhaps the largest benefit for the flight department that plans effectively is the comfort and peace of mind members enjoy in knowing that there will be few last-minute decisions to make. When the service provider is approaching the project with a high degree of confidence and organization, you are likely to have a finished product that will be done right and on time. \*

#### **Work With Duncan Design To Plan Perfection**

Duncan Design has developed a comprehensive checklist system to cover all of the planning details of your interior and exterior refurbishment. These forms are used by the customer and the project designer to plan everything from paint stripe color and layout to

custom cabinet design. The checklist system and customer sign off process ensure that the final product matches the initial sign concept.









### Seven "Core" Airframes Provide the Focus of

# **Duncan Aviation Capabilities**

When the decision was made to pursue these models, Duncan Aviation gathered all the tooling and accomplished the necessary training to become a full service center for these aircraft. We did not seek simply to be *another* choice for service needs but to be the *best* choice.

Our commitment begins with our employees. We invest heavily in training and create an environment where they can excel. In fact, Duncan Aviation earlier this year was named one of the "Top 100 Companies to Work For" by FORTUNE magazine. The pride of our employees shows in their workmanship. It is for that reason Duncan Aviation has been named the #1 Maintenance Facility by readers of *Professional Pilot* for 14 of the last 15 years.

The addition of a new 123,000-square-foot facility in Lincoln, Nebraska, furthers our commitment to being the one-stop-shop for an entire aircraft. Service includes interior refurbishment, paint, avionics installation and modification, engine maintenance, APUs, avionics, instrument and accessory repair/overhaul and parts support. From sales staff and technical representatives to inspectors and technicians, our core airframe teams are the experts for *your* model. Here, we provide a brief overview of these seven airframe models and some of our capabilities on each.



The Duncan Aviation Structures Team removes a wing from a Falcon 50 in order to repair corrosion found during an inspection.

#### Gulfstream

- → Major maintenance facilities in Battle Creek and Lincoln.
- **→** We perform 24 month, 72 month and 5,000 landing inspections.
- → Duncan Aviation's Gulfstream technical representatives Jim Overheul and Eddie Fincher provide answers for your technical questions.
- → Duncan Aviation holds Gulfstream STCs including: FDS-2000, RVSM, AHS-3000A AHRS, EGPWS/TAWS and TCAS II.

#### **Falcon**

- → Authorized Falcon Service Centers in Lincoln and Battle Creek.
- → In three years, more than 600 major inspections on 10s, 20s, 200s, 50s, 900s and 2000s have been performed.
- → Corrosion repairs, some including wing removal, have been performed.
- → Duncan Aviation's Falcon technical representatives Ron Grose, Kevin Bornhorst and Mark Goertzen have 71 years of combined experience to answer maintenance-related questions.
- → Duncan Aviation holds Falcon STCs including: ProLine 21 (Falcon 50), EGPWS, Aero-I SATCOM (Falcon 900), AHS-3000A AHRS (Falcon 50), TCAS II, CVR-120 (Falcon 900) and BFG-3000A Standby attitude indicator (Falcon 50).

#### Westwind

- → Factory Authorized Service Centers in Lincoln and Battle Creek.
- → We perform major inspections including A, B
   & C Checks, 4800 Hour and 5000 Hour.
- → Duncan Aviation's Westwind technical representatives Tim Garity and Jim Overheul answer your technical questions.
- → Authorized Honeywell TFE731 Major Service Center.
- ightarrow TFE731-2/-3 rental engines available to support CZIs and MPIs.
- → Duncan Aviation holds Westwind STCs including: TCAS II, EGPWS, DFDR and CVR-120.



#### Learjet

- **→** Authorized Learjet Service Center in Lincoln.
- → We perform all Learjet major/minor airframe inspections and structural repairs.
- → Technical representative Bill Schroeder, known worldwide for his Learjet knowledge, leads our teams.
- → Our engine technicians are experts in the support of CJ-610, TFE-731 and PW-305 power plants.
- → Duncan Aviation is authorized by Hamilton/Sundstrand to repair and inspect APS 500 APUs.
- → Duncan Aviation holds Learjet STCs including: EGPWS/TAWS, TCAS II and DFDR

#### Citation

- **→** Authorized Citation Service Centers in Battle Creek and Lincoln.
- **→** We perform major Phase Inspections on all 500 and 650 series models.
- → Citation technical representatives Joe Austin and Ed Johnson anchor our teams. Ed also serves on the 500 series technical committee for Cessna.
- → Duncan Aviation is authorized for Pratt & Whitney engine service.
- → Duncan Aviation holds Citation STCs including: EGPWS/TAWS, Aero-I SATCOM (Citation X), DFDR and TCAS II.

#### Hawker

- → Authorized Hawker Service Centers in Battle Creek and Lincoln.
- → Duncan Aviation performs all major (24 and 48 month) and minor Hawker inspections.
- → Technical representatives Roy Olson and Dick Hyde are your source for FREE advice for Hawker maintenance issues and troubleshooting.
- → Full capabilities exist for landing gear inspections, repairs and overhaul.
- → Duncan Aviation holds Hawker STCs including: EGPWS, TCAS II, DFDR and CVR-120.

Tom Burke, a Duncan Aviation Airframe Structures Technician, completes a shear web modification on a Learjet 35.

# Duncan Aviation Has Authorized Service Centers for:

Falcons Hawkers Learjets Citations G100s/Westwinds

#### We have Major Maintenance Facilities for:

Gulfstreams Challengers Jetstars Turboprops

#### Challenger

- → Major Maintenance Facility in Lincoln.
- **→** Line Service Center in Battle Creek.
- → Full capabilities for 120-month gear restoration.
- **→** GE CF34 Hot Section Inspections and repairs.
- → Duncan Aviation's Challenger technical representative Eddie Fincher provides answers for your technical questions.
- → Duncan Aviation holds Challenger STCs including: FDS-2000, RVSM, BFG-3000 standby attitude indicator, AHS-3000A AHRS, DFDR, EGPWS/TAWS and TCAS II.

Duncan Aviation's Structures Technicians replace this Hawker fuselage's top skin, which was damaged by hail.



14 AIRFRAME MAINTENANCE 800.228.4277 15



# mandates ready or not...here they come

North American Airspace

Active RVSM • Canada (above 57 degrees) FL 290-390.

> **RVSM** • Pacific (Hawaiian Tracks) FL290-390.

**RVSM** • WATRS FL 310-390.

2002 RVSM • Canada (above 57 degrees) FL 290-410 - April.

2004 RVSM • U.S. FL290-390 (proposed) - December.

> **ELT** • All U.S. jet aircraft involved in nonscheduled operations are required to have ELTs. - January.

2005 TAWS • U.S. - March.

2006 RVSM • U.S. FL290-410 (proposed) - December.

over 33,069 lb. MTOW or

2002 RVSM • FL290-410 - January.

2003 Mode S • All IFR flights must downlink

2005 TCAS • Turbine-powered aircraft than 19 passengers.

- January.

European Airspace

Active TCAS • Turbine-powered aircraft more than 29 passengers.

2001 TAWS • Applies only to aircraft manufactured after 2001.

registration number.

over 12,500 MTOW or more - January.

Mode S • All aircraft must downlink registration number.

Other Airspace

Active RVSM • NAT (North Atlantic Track System) FL 290-390.

**RVSM** • Pacific (Oakland and Anchorage FIRs) FL 290-390.

RVSM • Australia FL 290- 410.

2002 RVSM • NAT (North Atlantic Track System) FL 290-410 - January.

> **RVSM** • EUR/SAM Corridor (South Atlantic) FL 290-410 - January.

TAWS - The Terrain Awareness and Warning System (TAWS) mandate requires aircraft entering mandated airspace to operate TAWS or Enhanced Ground Proximity Warning System (EGPWS) equipment. Though Class B systems will suffice for some operations, research reveals the advantages of the Class A system are well worth the investment. For more information about this mandate, call or e-mail TAWS@DuncanAviation.com for your free copy of Straight Talk about TAWS.

RVSM - The Reduced Vertical Separation Minimums (RVSM) mandate increases the sky's capacity by decreasing vertical space between aircraft. This mandate will be the largest challenge for legacy aircraft operators as it requires two STCs (equipment and operational) and flight testing to prove the aircraft can operate within the mandate's stringent tolerances. For more information about this mandate, call or e-mail RVSM@DuncanAviation.com for your free copy of Straight Talk about RVSM.

TCAS - The Traffic Alert Collision Avoidance System (TCAS — known as ACAS in Europe) mandate requires aircraft entering mandated airspace to use ACAS or TCAS II (TCAS with MOPS 7 or Change 7 software) equipment.

Mode S - The Mode S Transponder relays all the information of existing Mode C transponders in addition to a digital data stream that includes. among other things, the aircraft registration number.

**ELT** - The ELT mandate will require all corporate aircraft (including previously excluded jet aircraft) to install ELTs. In 2004, 121.5Mhz and 406Mhz will be monitored. In 2009, 406Mhz wil be the only frequency monitored. The benefits of the 406Mhz equipment include the ability to transmit registration number, location, altitude and aircraft owner.

### The Crunch

Our industry is becoming increasingly aware of the approaching mandates. What is less obvious is the effect that putting off the mandated systems installations and training will have.

For example, let's examine the FAA's TAWS mandate. For aircraft manufactured prior to March 29, 2002, the compliance date is March 29, 2005. This rule affects over 11,000 U.S. registered corporate aircraft. The simple math of TAWS compliance dictates that approximately 2,500 systems must be installed per year. These installations will be done by an estimated 40 major installation centers such as Duncan Aviation and the OEM shops. They will be supplemented by about 50 smaller installation shops.

To avoid being caught in the crunch, we suggest you schedule the TAWS installation during your next major maintenance event which includes inspection, interior refurbishment or modifications.

\*\* Excerpt from Straight Talk about TAWS. The Straight Talk series delivers straight answers to confusing issues in our industry. Call today for your free copy.

 $16^{\circ}$  Avionics Modifications DuncanAviation.com | 800.228.4277 17

### **Duncan Avionics in New Jersey**

Lights Things Up

Thomas Edison made New Jersey famous for lighting things up. Today, the two Duncan Avionics shops in New Jersey are keeping the tradition alive. Thomas Edison knew that maintaining the lead in any

industry requires exceptional effort every day and Duncan Aviation's satellite shops in New Jersey are no exception. Their continued efforts raise the bar daily for avionics line and installations performance standards.

Duncan Avionics in Teterboro, New
Jersey, is a fine example of what topquality avionics installations can be.
The largest Duncan Avionics shop,
TEB is managed by Terry Markovich and
staffed by his hand-selected team of 20
technicians. One current project is a
Universal TAWS installation on a G-II
using an existing Duncan Aviation STC.
This install is one of many major
installations performed in TEB
this year. In addition, the team's
renowned troubleshooting skills have

been utilized frequently. From GPS NAV database upgrades to full-blown TCAS-II and EGPWS system installations, Teterboro has what it takes to do it right.

The many upcoming mandates have kept the TEB team busy. TAWS and EGPWS systems, "Change 7" TCAS software upgrades and European-mandated COMM and NAV radio modifications have prepared many of Teterboro's customers for international operations. Teterboro recently installed one of the first Bendix/King IHAS-8000 systems with full MFD display. Terry worked with the vendor to obtain the system in advance. This allowed the TEB team to work with Duncan Aviation's engineers to earn the STC and perform the challenging installation ahead of schedule.

As with every Duncan Avionics shop, Teterboro's location is a tremendous asset. TEB is especially convenient for customers headed to Europe. A European customer recently contacted us after the install facilities he uses regularly for his Falcon 50 were not able to meet his schedule for a new Collins TCAS-94 install before the European mandate. Terry and his team were able to add the aircraft to TEB's schedule and install the system before the mandate deadline. When service is worth a trip across the ocean, you know you've got a good thing going. Stories like these are a testimony to the level of talent at Duncan Avionics in Teterboro.

Teterboro, NJ 201.288.1550



**Morristown, NJ** 973.326.1110



### International Operations Installations

Q. I'll be traveling to Europe soon and need to get my aircraft compliant with all the new regulations. Can Duncan Avionics in Teterboro handle the upgrades?

A. Yes, Teterboro is a great place to put the aircraft down for the necessary upgrades prior to leaving the country. Teterboro, is right on the way and, like every Duncan Avionics shop is able to get you in shape to make the trip across the Atlantic.

Q. I'm a European operator, and my aircraft is not N-registered. Can I have your shop work on my aircraft while it is here in the U.S.?

A. Yes. The Teterboro shop is fully JAA certified to troubleshoot, upgrade and install avionics in your aircraft, regardless of where it is registered. In fact, much of our business is from overseas operators who plan business trips to the U.S. in conjunction with service from Duncan Avionics in Teterboro. The shop is truly world class.

Q. I need TCAS Change 7 and VHF Radio modifications to be legal in Europe. Can you help me?

A. Of course! Duncan Avionics—Teterboro is the perfect place to stop to have your TCAS upgraded and get your radios ready for European airspace.

Q. What about installations that require an STC?

A. Duncan Aviation has one of the largest STC pools in the world and most systems for which we have developed STCs can be installed and certified by any Duncan Avionics shop. In fact, no matter what install you are considering, there's a good chance the Teterboro team has experience installing it in your airframe type.

Q. I don't know if I'm legal to fly across the ocean with my current equipment. Can Teterboro help?

A. Yes. We've got the knowledge and experience to evaluate your existing systems for MNPS regulation compatibility. Once that's established, we're fully equipped to install and certify the equipment you need to go anywhere your flight operations require. You'll travel every mile knowing that your navigational systems exceed every requirement, here and abroad.

Like Thomas Edison, Terry Markovich and Duncan Avionics light things up in New Jersey.

### terry **MARKOVICH**

Terry Markovich is the braintrust behind Duncan Avionics in Teterboro, New Jersey. He has been with Duncan Aviation since 1985 and is no stranger to the Duncan Avionics concept. In fact, he managed our very first Duncan Avionics shop at Houston's Hobby International. A Texas native, Terry learned early to do things big. Three years after starting the now-famous Duncan Avionics Satellite Shop network, he took the concept to Washington, D.C., and three years later moved that shop to Long Island. Finally, in 1995, Terry and six teammates began the Teterboro, New Jersey, shop. Today, with more than 20 hand-picked technicians, Duncan Avionics in Teterboro is at the top of its game.

Terry is more than a shop starter. He is a masterful technician, capable of diagnosing and repairing almost any aircraft system. He is also an expert interface engineer and has designed and installed countless avionics systems from the simple to the complex.

Many operators find Terry and his team's services indispensable and even manufacturers turn to them for answers. Besides being a resource

for external customers, Terry's technical knowledge is highly valued within Duncan Aviation. When problems arise with an aircraft, we know Terry and the rest of the Duncan Aviation team probably have prior experience with the scenario and a fix for it. This free-flowing exchange of knowledge throughout Duncan Aviation helps streamline repairs, minimize turntimes and get our customers back in the air quicker than ever.



18 Duncan Avionics 19

# For Honeywell



**Lighting** 

Products, Call



Duncan



Aviation



uncan Aviation is an Authorized Honeywell Lighting Sales and Service Center for Grimes Lighting products. Access to the complete line of Honeywell lighting products (strobe power supplies, battery power supplies, rotating beacons and navigational lights) and parts distribution is now available direct from Duncan Aviation. Duncan Aviation is also authorized to repair Grimes equipment in addition to providing replacement parts such as flash tubes, bulbs, lenses, internal gears and more.

Most lighting products do not have a mandated inspection interval, so these components often fail at unexpected times. Duncan Aviation's Accessory Electronic Team repairs strobe power supplies and strobe light assemblies, and our Accessory Electro/Mechanical Team repairs retractable landing lights, rotation beacons and navigation lights.

To find out more about Duncan Aviation's Grimes capabilities, please contact Chris Gress, Duncan Aviation Component Service Sales & Marketing Representative. You can reach him by phone at 800.228.4277 ext. 1664, direct at 402.479.1664 or cell at

> 402.450.5216. You can also e-mail him at chris gress@duncanaviation.com. \*

**Duncan Aviation's** award-winning Accessory Shop is open seven days a **Duncan** Aviation, vour unit is usually on its way back to you by Monday.

# Say "AH-HA," Not AOG Duncan Aviation's Accessory Department can help

# operators quickly overcome AOG situations

uncan Aviation's **L**Accessory Department has provided fast, quality service for years, but did you that know Electronic Team repairs a variety of generator control units and voltage regulators? These units do not have an inspection interval and typically fail without notice, thrusting operators into an AOG situation. Because



Duncan Aviation knows how critical AOGs are, we provide options that get you back in the air-fast.

#### These options are:

- 1) Duncan Aviation's Accessory Time and Material Exchange Program. With this program we'll send you a fresh unit. Then you send us your core. We'll complete the requirement on your core and bill you once for an exchange fee, the flat labor rate and any required parts. There's no waiting for your unit to come back from overhaul and less time spent AOG.
- 2) Duncan Aviation's Accessory AOG Service. With this service, we can repair your unit seven days a week.

Duncan Aviation also recognizes the urgency of AOGs caused by an engine accessory with

'Duncan Aviation's accessory overhaul/ repair capabilities are so extensive that we can handle nearly any situation that a customer is in. The best way to know how we can help you is to either call me or check our capabilities on our nternet page."

-Chris Gress

typical inspection/ overhaul intervals, be it a starter, generator starter/ generator. We provide the fastest turntimes in the industry for these units because we understand the urgency that AOG brings to an operator. Duncan Aviation's Accessory **Department** developed FAAapproved repair procedures and repair processes to reduce

the cost of repairs and to expedite unit repairs. We offer our Accessory Time and Material Exchange on most of these components for situations where the operator has "no downtime" available.

Emergency equipment such as emergency power supplies have such frequent inspection intervals that Duncan Aviation provides free loaner units on many different types. Our battery shop repairs power supplies in addition to the main Ni-Cad/lead acid batteries and emergency exit & lighting power supplies.

To find out more about how Duncan Aviation can keep you out of an AOG situation, please contact Chris Gress, Duncan Aviation Component Service Sales & Marketing Rep. at 800.228.4277 ext. 1664, direct at 402.479.1664, cell at 402.450.5216 or e-mail at chris\_gress@DuncanAviation.com. \*

20 ACCESSORIES Duncan Aviation.com | 800.228.4277 21

# NAV/COMM Team **Keeps Customers Flying**

**Customers trust Duncan Aviation's NAV/COMM team fo** quality service every day.

We do thousands of units; we do them quick and we do them right.

# Need a Quick ADF Turn? Think Duncan Aviation.

uncan Aviation is the place to send your NAV/COMM work. Our specialized NAV/COMM team works together perfecting the skills required for this intricate work. That's because at Duncan Aviation, teams are never simply put together; they're carefully built together, one individual at a time.

With Duncan Aviation's reputation for excellence, it should come as no surprise that we provide quality repairs and overhauls on many different types of manufacturers units such as Rockwell/Collins, Honeywell, Gables, Motorola, JetCal, SigmaTec, Cessna and Wulfsberg. Led by Dale Nitzel, Duncan Aviation's nine-man NAV/COMM team has more than 72 years of collective experience at troubleshooting, inspecting and servicing units. Working on NAV/COMMs, HF, FliteFone, Selcal, GPS, Loran, FMS and all associated control heads, the team turns more than 70 units per week.

To find out what Duncan Aviation's NAV/COMM team can do for you, please contact any Duncan Aviation Technical 800.LOANERS Representative at (562.6377)or visit us www.DuncanComponents.com. \*



Commitment to quality service and fast turntimes is the cornerstone customers expect rom Duncan Aviation's busy Avionics &

panel-mount.

Duncan Aviation's highly experienced team of ADF professionals knows what customers need and want. That's why customers sent this team

uncan Aviation's ADF area is much more than repairing ADFs. We work on radio altimeters, indicators for radio altimeters, cockpit voice recorders (including Fairchild, B & D and Collins), mechanical and digital control heads, audio controls and panels, passenger address units, power converters, parallel-to-serial adapters and automatic direction finders, both remote and

The ADF team is made up of 10 technicians with more than 107 years of aviation experience. Technicians in the area learn to work on all the different units that the team services, which makes them extremely versatile and able to adapt to our changing workload. This versatility helps keep turntimes down because we can take units in the order they are received, not by what type of equipment they are.

In 2000, Duncan Aviation's ADF team repaired 2,352 units. By the third quarter of 2001, we had repaired 1,875. With a new computerized scheduling program and a focus on new capabilities, we plan to increase these results for 2002.

To learn more about Duncan Aviation's ADF capabilities, please contact a Duncan Aviation Technical Representative at 800.LOANERS (562.6377) or visit us at www.DuncanComponents.com. \*

