



**A Quarterly Publication Regarding the Maintenance and Operation of Westwind Aircraft**

**September 26, 2003 Volume 1, Issue 5**

**Director's Message**

---

By Greg Miller, Director, Westwind Products

**Westwind Product Support**

Our most recent Westwind Operator Advisory Board meeting was held in Dallas, Texas, on September 17, 2003. It was well attended and very informational. Several issues were discussed and progress to date reviewed. Current items that are being reviewed include the following:

- wiring diagrams for later serial numbered aircraft that had not been incorporated into a manual
- inboard flap actuator inspection requirement changes
- training updates
- tracking the top reliability issues in the fleet.

Jim Young, Manager, Parts Manufacturer Approval (PMA) Program, also continues making excellent progress on developing a source of PMA spares for the fleet, creating value in reduced costs and improved availability.

Two of our charter members have stepped down from their Board positions, due to other commitments. I want to send out a special thank you to Marlin Priest, HealthSouth and Phil Stuky, Ball Corporation for their service on the Board in support of our Westwind community. As a result of these vacancies, we are looking to operators for replacement candidates. If you are interested in serving on the Board or would like to recommend someone, contact me at the e-mail address below or at 920-735-7066.

I want to also let you know that the 2003 National Business Aviation Association (NBAA) Convention is fast approaching. The Westwind Maintenance and Operations session is scheduled for the morning of October 8, between 8 a.m. and 12 noon in Room 205C. I do hope you can join us in Orlando for Westwind Program updates and discussion on current issues in work, as well as for those waiting to be uncovered.

If for nothing else, you may want to attend to be eligible for the door prizes. We have at least one item that any Westwind 1124 operator would be proud to have in their possession. We weren't going to let the cat out of the bag until the meeting as to what it is, but someone has, so you may figure it out beforehand. Hope to see you there and look forward to meeting more of you.

You are always welcome to contact me regarding any issues you may have regarding the operation and support of the Westwind aircraft. Never an expert, I usually know where to go to find the answers. My e-mail address is [greg.miller@gdaviationservices.com](mailto:greg.miller@gdaviationservices.com).

This newsletter has been well received, and special thanks go out everyone involved in getting it out to the fleet with quality material. If you have any other ideas for the Westwind News, please tell us about it. I will consider contributing editors that have good information to share with the fleet.

I hope the remainder of the year is a good one for everyone with plenty of flying, good football, and other activities associated with the time of year. One thing about my home state of Wisconsin though – someone once said we had nine months of winter and three months of poor sledding. Just kidding, it's a great place to live.

**Westwind Parts Update**

---

By Jon Loth, National Sales Manager – Parts

**Stake Tool Rentals**

Replacements to the bearing roll stake tools are now available as rentals. All are set up for a two-week rental period. The part numbers are as follows:

- ST1702-203 for #4 bearing
- ST1702-205 for #5 bearing

WESTWIND NEWS  
SEPTEMBER 26, 2003

ST1702-255 for #6 bearing  
ST1702-215 for #7 bearing  
Please dial 1-866-271-4327 if you require these tools.

**PMA Item of the Quarter**

We have in stock replacement aileron rods (P/N 513506-505) to comply with Service Bulletin 1124-27-144, X-Ray Inspection of Rods. The new rod is stainless steel and eliminates the repetitive inspection previously required for non-stainless rods. They are PMA'd and manufactured in the USA.

Please dial 1-866-271-4327 if you require these new items.

**Check Your Static Ports**

With Reduced Vertical Separation Minimum (RVSM) airspace coming for most of us, it will be necessary to check these ports, as the center hole on the non-heated port has been enlarged to fit the cleco style static adapter. The enlarged hole will make it difficult to qualify the aircraft for RVSM certification. New ports are in work in the USA as PMA'd replacements, and we will update you on the progress of the certification of these items as we receive more information.

**Check Your Hydraulic Lines**

A new service bulletin (1124-29-152) is forthcoming to inspect the hydraulic line for chafing as it passes out of the drain pan under the hydraulic reservoir. Replacement lines (P/N 723589-389) should be available as the bulletin is released.

Comments concerning parts are encouraged and can be sent directly to Jon Loth, National Sales Manager – Parts, at [jon.loth@gdaviationservices.com](mailto:jon.loth@gdaviationservices.com) or via phone at 920-735-7169.

Please remember that we are available 24/7/52 for your entire Westwind parts requirements. Call toll-free at 866-271-GDAS (4327), or 912-965-4700.

**Technical Update**

---

**(ATA 34): Reminder – Domestic RVSM to Begin January 20, 2005**

This is a reminder that Domestic Reduced Vertical Separation Minimum (DRVSM) airspace is tentatively scheduled to go into effect in U.S. airspace (FL290 to FL410) on January 20, 2005. U.S. airspace is defined as the 48 contiguous states plus Alaska and in the Gulf of Mexico airspace where the Federal Aviation Administration (FAA) provides air traffic services (Houston and Miami Oceanic Flight Information Regions and Jacksonville Offshore Airspace). The FAA has established the North American Approvals Registry and Monitoring Organization (NAARMO) to support implementation and continued safe use of the RVSM airspace. Full DRVSM will provide six additional usable altitudes above flight level (FL) 290 to those available today.

The operational differences in domestic airspace create challenges not experienced thus far in RVSM within the oceanic realm. The domestic U.S. airspace contains a wider variety of aircraft types, higher-density traffic, and an increased percentage of climbing and descending traffic. This, in conjunction with an intricate route structure with numerous major crossing points, ensures that it is a more demanding environment than previous RVSM implementations.

At present, it appears that Part 91 operators who already have a Letter of Authorization (LOA) allowing them to operate in RVSM airspace already meet the requirements of DRVSM. Part 135 operators need to ensure that their Operational Specifications (Ops Specs) show RVSM approval for the areas they expect to operate in.

To learn more about the U.S. DRVSM program, point your browser to <http://www.tc.faa.gov/act-500/niaab/drvsm/Default.asp>. To access registration forms and minimum monitoring requirements associated with DRVSM approval, point your browser to [http://www.tc.faa.gov/act-500/niaab/rvsm/naarmo\\_intro.asp](http://www.tc.faa.gov/act-500/niaab/rvsm/naarmo_intro.asp).

The following sources of RVSM help are available for the Westwind series aircraft:

- **Alternative Avionics** — Contact them at 800-371-9292 (phone), 248-666-4456 (fax), or [rvsm@alternativeavionics.com](mailto:rvsm@alternativeavionics.com) (e-mail). Their website is [www.rvsm.com](http://www.rvsm.com).
- **Duncan Aviation** — Contact Ron Hall at 800-228-4277, ext 1349. Their website is [www.duncanav.com](http://www.duncanav.com).

WESTWIND NEWS  
SEPTEMBER 26, 2003

• **Trimec Aviation Inc.** — Contact John Dunn at 888-303-1124 or 817-626-1376, or send an e-mail to [jdunn@1124.com](mailto:jdunn@1124.com). Their website is [www.1124.com/](http://www.1124.com/).

## **Service Bulletin Update**

---

Here is the Westwind service bulletin update for 3rd Quarter 2003.

### **Released**

• **SB 1123-55-056 Revision 1**, Stabilizers - Rudder - Inspection for Fatigue Cracks, Mandatory at Next 'C' Check, released June 23, 2003. This service bulletin provides instructions for extended inspection of the rudder skin, ribs, front spar, aft spar, lower and upper end caps for cracks from the lower rib station Z=94.400 to Z=174.100.

• **SB 1123-55-054 Revision 1**, Stabilizers - Vertical Stabilizer - Inspection and Repair of Aerodynamic Fairings Due to Loose or Missing Rivets, released September 17, 2003. Part A of this service bulletin, mandatory within 50 flight hours, provides instructions to inspect the aft fuselage-to-vertical stabilizer aerodynamic fairings at fuselage station 521.75 for rivets that are loose/missing or pulled through the skin. Part B of this bulletin, mandatory at next 'C' Check, provides instructions to repair the vertical stabilizer aerodynamic fairing, if rivets are found loose/missing or pulled through the skin.

• **SB 1124-55-150 Revision 1**, Stabilizers - Rudder - Inspection for Fatigue Cracks, Mandatory at Next 'C' Check, released June 23, 2003. This service bulletin provides instructions for extended inspection of the rudder skin, ribs, front spar, aft spar, lower and upper end caps for cracks from the lower rib station Z=94.400 to Z=174.100.

• **SB 1124-55-148 Revision 1**, Stabilizers - Vertical Stabilizer - Inspection and Repair of Aerodynamic Fairings Due to Loose or Missing Rivets, released September 17, 2003. Part A of this bulletin, mandatory within 50 flight hours, provides instructions to inspect the aft fuselage-to-vertical stabilizer aerodynamic fairings at fuselage station 521.75 for rivets that are loose/missing or pulled through the skin. Part B of this service bulletin, mandatory at next 'C' Check, provides instructions to repair the vertical stabilizer aerodynamic fairing, if rivets are found loose/missing or pulled through the skin.

### **Pending**

• **Service Bulletins 1123-35-058 and 1124-35-146** provide instructions to perform a visual inspection and leak check oxygen pressure reducer regulator high-pressure inlet boss for possible cracks. These bulletins have not been released to the fleet due to insufficient materials available to support the bulletin. A Technical Evaluation of ten fleet aircraft determined this issue is not a widespread fleet problem; of the sample aircraft inspected, none of them had a cracked pressure reducer regulator high-pressure inlet boss. It has also been determined that the most likely cause of the cracking is the over-tightening of the fitting going into the inlet boss during installation. An adequate supply of pressure reducer regulators is projected to be available during the second quarter of 2003, at which time the service bulletins will be released to the fleet.

• **Service Bulletins 1123-27-057 and 1124-27-144**, Flight Controls - Aileron – X-ray Inspection of Left and Right Aileron Control Rod Assembly, P/Ns 513506-503RD and -503RE. The RD and RE control rods were exempt from previous NDT X-ray inspect because they are supposed to be made of corrosion resistant steel. However, it has been discovered that these control rods can develop corrosion on the inside diameter of the rod and go undetected until the failure of the rod. These service bulletins will provide instructions to perform an x-ray inspection of the aileron control rod assembly, P/Ns 513506-503RD and -503RE, for corrosion. Additionally, this service bulletin provides instructions for replacement of the control rod assembly with a new stainless steel control rod assembly, P/N 513506-505. Incorporation of the -505 control rod assembly terminates the requirement for repeated x-ray inspections.

## **Technical Publications Update**

---

### **Manual Conversion Update**

Our Technical Publications team continues its quality control and cleanup of the 1124 Aircraft Maintenance Manual (AMM). This process is progressing well; however, due to some technical issues, we have had to move

WESTWIND NEWS  
SEPTEMBER 26, 2003

the planned completion date into the 4th Quarter. In addition to the AMM, we also have found it necessary to convert the **Illustrated Parts Catalog, Non-Destructive Testing Manual, Phased Inspection Program, and Structural Inspection Program Manual**, in order to be able to better support them. This increase in scope of the conversion program has extended the time necessary to complete the project. Our plan now is to complete the conversion of all the manuals and to integrate all approved changes (temporary revisions) that have been issued against the manuals prior to releasing them. The 4th Quarter remains our target for release of these new manuals and the CD-ROM.

**NBAA Convention**

Technical Publications is planning again this year to be available to meet with Jet Commander and Westwind customers at the convention and provide an update on what we are doing to better support these product lines. As the publications support for General Dynamics Aviation Services (GDAS), we feel our commitment to the overall improvement of the technical documentation has and will continue to improve the manual suite.

**Publication Change Requests Submittals**

In our efforts for continuous improvement of the manual suites and to make it easier for customers to advise us when they discover an anomaly in a manual, Technical Publications is pleased to announce the addition of an “on-line” Publications Change Request form. This form, which was recently added to all Gulfstream and GDAS websites, enhances the ease and speed of submitting change requests to Technical Publications.

To locate the form, access the GDAS website ([www.gdavservices.com](http://www.gdavservices.com)) and click on Services, Publications, and Change Request Form. Follow the instructions provided. Upon submission of the change request, a tracking number will automatically be assigned for your convenience.

We feel the addition of this form will enhance our ability to receive communications from all of our customers and allow us to continue to accelerate the refinement process for our products.

**Points of Contact**

Colette Chamser	912-965-4178, Option 4 / Direct line 912-965-4684 <a href="mailto:colette.chamser@gulfstream.com">colette.chamser@gulfstream.com</a>
Cheri McKendrick	912-965-4178, Option 4 / Direct line 912-965-4901 <a href="mailto:cheri.mckendrick@gulfstream.com">cheri.mckendrick@gulfstream.com</a>
David Craig	912-965-4463, Cellular 912-484-0971 <a href="mailto:david.craig@gulfstream.com">david.craig@gulfstream.com</a>

As a reminder, our commitment is to provide you with the finest technical publications services and CD-ROM products available. Our focus continues to be on improving the accuracy and timely delivery of all products. Additionally, we will continue to identify enhancements that benefit all operators. We encourage all Westwind operators who may discover errors with any of the manuals or CD products to submit a change request for our action.

Should you have questions or comments about any initiatives, products, or services, please feel free to contact David Craig, Manager of Technical Information.

**FlightSafety News and Quiz**

---

Submitted by Tom Vail, FlightSafety International (FSI), Wilmington Learning Center

**FSI Offers New Course for 2004**

FlightSafety International is proud to announce the 1124/1124A Westwind Maintenance Manager Course. This 5-day course will provide overviews of the aircraft maintenance/inspection requirements, along with systems familiarizations. Two course dates are planned for 2004 at the Greater Wilmington/Philadelphia Learning Center. In addition, the program may be presented on request at the Learning Center or your facility. Contact Tom Vail at 800-733-7548 for further information.

WESTWIND NEWS  
SEPTEMBER 26, 2003

**(ATA 28): Last Issue's Troubleshooting Quiz – The Rest of the Story**

Your flight crew has called you from a remote location with an apparent failed right alternate fuel boost pump. They would like to know if there is a method to make the main boost pump operate and not scrub the flight. No maintenance services are available at their location. You check the FAA Master Minimum Equipment List (MMEL) and see that dispatch of the aircraft with the failed alternate boost pump is allowed, providing the main boost pump is operable. The problem is the main fuel boost pump won't come on line without fuel pressure in the manifold.

- 1) What action may be taken to "force" the on-side main fuel boost pump to run, even though the boost pump control relay is sensing no fuel pressure?
- 2) Why will this action allow the main fuel boost pump to come on line without fuel pressure present in the engine fuel supply manifold?
- 3) Considering bus configuration, which engine should be started first to ensure the right main boost pump continues to operate during the right engine start cycle?

**Please Note:** Although the aircraft may be dispatched with one boost pump inoperative, the flight crew should review the abnormal procedures found in Section III of the Airplane Flight Manual (AFM) as a precaution, should the remaining pump fail during the flight.

**Fault Findings**

1. The main boost pump can be forced on-line by pulling the alternate boost pump circuit breaker and placing the control switch to main.
2. With the alternate pump circuit breaker tripped, 28 VDC can't energize the boost pump control relay (BPCR). With this relay de-energized, the main boost pump remote circuit breaker now has a path to ground through the BPCR relay and will operate.
3. Because the right main boost pump remote circuit breaker is powered by the #1 main DC bus, the left engine must be started first.

*Congratulations to Chad Kale, Chief Pilot of EBMS, for being the first to answer all the questions correctly.*

**(ATA 27): Troubleshooting Quiz**

Your aircraft has landed at a facility with no maintenance operations. The pilot report is the flaps are full down and the flap unbalance light is illuminated. Dispatch with flaps a 0° is authorized by the Airplane Flight Manual (AFM); however, the flap control system is currently "locked-out" due to the apparent asymmetry detected.

1. What can the crew do to retract the flaps to full up in order to return the aircraft at home base?
2. Once the flaps are retracted, what safety pre-caution must the pilot be aware of and why?
3. When the aircraft is in flight with the unbalance light still on, is it safe to attempt clearing the unbalance fault by cycling the flap unbalance test switch?

E-mail your answer to [tom.vail@flightsafety.com](mailto:tom.vail@flightsafety.com). The technician who submits the correct answer first will receive a FlightSafety polo shirt and ball cap.

**2003 Westwind Maintenance Course Schedule**

**Maintenance Initial Course (10-Days)**

October 6, 2003

**Maintenance Update Course (5-Days)**

November 17, 2003

**Westwind Engine Run & Taxi Course**

Scheduled on Request

WESTWIND NEWS  
SEPTEMBER 26, 2003

For more information or enrollment in any Westwind Maintenance Course, please call either Tom Vail or Joy Buoncuore at 800-733-7548 or 302-221-5100. You may also reach them by e-mail at [Joy.Buoncuore@flightsafety.com](mailto:Joy.Buoncuore@flightsafety.com) or [Tom.Vail@flightsafety.com](mailto:Tom.Vail@flightsafety.com).

## **ELCORTA Update**

---

Submitted by Mike Melville, ELCORTA

### **(ATA 32): Checking the Main Landing Gear Wheel**

When checking the main landing gear wheel assembly on the Westwind 1124/1124A during a tire change or other routine maintenance, look closely at the brake keyway liners and reinforcing ring. Attention to these areas will contribute to the longevity of the wheel and many trouble-free landings.

The steel keyway liners are designed to keep the brake tangs from contacting the wheel assembly. A worn liner can allow the tang to damage the wheel, increasing the chance of cracks. This wear is most evident in the corner of the keyway nearest the center of the wheel. Refer to the wheel Component Maintenance Manual (CMM) for the allowable wear limits.

During this check, also ensure the reinforcing ring is securely attached to the keyways. The rivets holding the reinforcing ring can appear to be intact when, in fact, they are broken. If replacement of a fastener is required, don't forget about the washer between the ring and flange. An oversized rivet may be used within the guidelines of the CMM to repair loose or elongated holes.

For more information on ELCORTA, Inc., you can contact them at 302-322-7757 (phone), [info@elcorta.com](mailto:info@elcorta.com) (e-mail), or online at [www.elcorta.com](http://www.elcorta.com) (website).

## **Trimec Update**

---

Submitted by John Dunn, Trimec

As many aircraft in the Westwind fleet approach the 10,000-hour mark, we have gotten numerous calls concerning the requirement to replace the thrust reverser feedback cable assembly. Per Service Bulletin (SB) WW-24-13, this requirement applied to serial numbers 187-199 and 201 only. All other aircraft were delivered with the later dash number assembly.

Another item on the 10,000-hour list is the requirement to replace the flap drive cables with new parts. We have found that several of the new cables we have received failed at the end fitting swedge, within the first 200 hours of service. It seems that the vendor did not properly crimp the fitting to the braided outer housing, allowing the housing to pull out of the fitting. If you have replaced any of these cables recently, re-inspect them to make sure they are still serviceable.

We are still finding a lot of operators who do not realize that compliance with SB 1124-27-136, Horizontal Stabilizer Trim Actuator Jackscrew Replacement, terminated Airworthiness Directive (AD) 98-20-35. As a reminder, please keep track of the life-limit card for this actuator. Lucas gets really testy when you can't provide current cycles and hours on the units.

Concerning the trim actuators—pay close attention to the upper rod end bearings. We still find them being pulled from the rod end housings, due to side-loading. In an effort to eliminate this problem, we are testing, in conjunction with Israel Aircraft Industries International (IAII), a different mounting procedure on an aircraft, and so far, it seems to be working fine.

Please remind your maintenance personnel to make an AIRFRAME logbook entry for the 150 Flight Hour Inspection. It is a Chapter 5 requirement and should be accomplished every engine inspection. Be aware that CAMP SYSTEMS does not track this as a 150 Flight Hour Inspection. I guess they got permission from the FAA and IAII to delete it from their system.

For more information on Trimec Aviation Inc., you can contact them at 888-303-1124 or 817-626-1376, send an e-mail to [jdunn@1124.com](mailto:jdunn@1124.com), or visit their website at [www.1124.com/](http://www.1124.com/).

WESTWIND NEWS  
SEPTEMBER 26, 2003

## Westwind / Commodore Jet Fleet Status

Following is the status of the 1124/A Westwind fleet as of August 31, 2003, based on our records:

- In-service Operations – 1,831,173 hours; 1,406,266 landings
- Fleet Leaders – 28,586 hours; 21,503 landings
- In-service Aircraft – 223 North America, 2 Central America, 3 South America, 4 Middle East, 5 Europe, 8 Australia = 245 total
- Twelve-month Dispatch Reliability Average – 99.88%

Following is the status of the 1123 Westwind fleet as of August 31, 2003, based on our records:

- In-service Operations – 57,570 hours; 29,335 landings
- Fleet Leaders – 28,586 hours; 21,503 landings
- In-service Aircraft – 12 North America, 1 Central America, 3 South America = 16 total

Following is the status of the 1121/B Commodore Jet fleet as of August 31, 2003, based on our records:

- In-service Operations – 248,124 hours; 86,462 landings
- Fleet Leaders – 11,169 hours; 10,609 landings
- In-service Aircraft – 35 North America, 3 Central America, 2 South America, 3 Africa, 1 Caribbean = 44 total

## General Information

- **In-Service Difficulty Reporting** — The In-Service Difficulty Report (ISDR) form is posted on the [www.gdavservices.com](http://www.gdavservices.com) website for your convenience. Use this document to submit detailed information about any difficulties you experience and unscheduled parts replacements on your Westwind aircraft (all 11XX series). To download the form, point your browser to [www.gdavservices.com](http://www.gdavservices.com), click "News" and "Westwind News", and scroll down to the ISDR form. Send the completed form to Curtis Stringfellow, Reliability/Maintainability Engineer at Gulfstream – Dallas/Love Field; fax – 214-902-7797; e-mail – [curtis.stringfellow@gulfstream.com](mailto:curtis.stringfellow@gulfstream.com).

- **www.gdaviationservices.com** — Westwind operators can find additional information about available products and services at the [www.gdaviationservices.com](http://www.gdaviationservices.com) website.

- **Westwind News Distribution** — Distribution of the *Westwind News* has been via e-mail to Westwind operators with that capability and fax to those who do not have e-mail. If you prefer to receive this publication via e-mail, please notify Gary Arms at 912-965-4827 or [gary.arms@gulfstream.com](mailto:gary.arms@gulfstream.com). E-mail is the preferred distribution method due to the clarity of graphics and the ability to retrieve the document from any location with web access.

## MOLs

The following Maintenance and Operations Letters (MOLs) have been released since the update in the last issue:

- **Westwind-MOL-03-0014**, 7/11/03, Customer Support Automated Call Distribution Center
- **Westwind-MOL-03-0015**, 7/21/03, Customer Support Call Distribution Center (Update)

## SBs

The following Alert/Service Bulletins (ASBs/SBs) have been released since the update in the last issue:

- **SB 1123-55-054 Revision 1**, 9/17/03, Stabilizers - Vertical Stabilizer - Inspection and Repair of Aerodynamic Fairings Due to Loose or Missing Rivets; Effectivity: Model 1123 Westwind, all serial numbers

WESTWIND NEWS  
SEPTEMBER 26, 2003

- **SB 1124-55-148 Revision 1**, 9/17/03, Stabilizers - Vertical Stabilizer - Inspection and Repair of Aerodynamic Fairings Due to Loose or Missing Rivets; Effectivity: Models 1124 and 1124A Westwind, all serial numbers



**Senior Editor** – Gary Arms

**Contributors** – David Craig, John Dunn (Trimec), Larry Hastings, Jon Loth, Mike Melville (Elcorta), Greg Miller, Jennifer Miller, Charles Spurlock, Curtis Stringfellow, and Tom Vail (FSI).

The *Westwind News* is intended to provide quarterly updates on technical and product support, service, training, publications, events, and operational insights for the Westwind aircraft.

**Copyright 2003** by General Dynamics Aviation Services, P.O. Box 2206, M/S D-25, Savannah, GA 31402-2206.

**Contact Information** – General Dynamics Aviation Services welcomes your questions, comments, or ideas about this publication. Send them by phone: 920-735-7066; fax: 920-735-7178; or e-mail: [greg.miller@gulfstream.com](mailto:greg.miller@gulfstream.com). The mailing address is Westwind News, c/o Greg Miller, Gulfstream Aerospace Corporation, W6365 Discovery Drive, Appleton, Wisconsin 54914-9190.

**Disclaimer** – This document is intended to provide Westwind operators an update on current safety/technical issues affecting their aircraft. **It is for information purposes only.** Any technical content in this publication, where so noted, will be submitted for inclusion in the next possible revision of a related technical publication, i.e., Maintenance Manual, Wiring Diagram Manual, Illustrated Parts Catalog, Computerized Maintenance Program Work Cards, Airplane Flight Manual, etc. (Technical Publications are recognized as the only official publications for maintenance and service of Westwind aircraft.)

