

# *Communique*

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## *Airliner 1900 Series*

Communiqué #71  
June 25, 2004

**TO ALL BEECH 1900 AIRLINER OPERATORS, CHIEF PILOTS, DIRECTORS OF OPERATIONS, DIRECTORS OF MAINTENANCE AND ALL RAYTHEON AVIATION CENTER, SERVICE CENTERS, INTERNATIONAL DISTRIBUTORS AND DEALERS:**

Microbial or fungal contamination is an increasing threat in fuel tanks. '*Hormoconis resinae*' is a virulent acid producing fungus in jet fuel. It has been a problem in Europe and in the Northeast United States, probably as a result of de-fueling transport aircraft from Europe. Recent reports from operators in other parts of the United States indicate the problem has become more widespread. Unlike typical microbial build-ups, *Hormoconis resinae* will build up a "matte" of fibrous material rapidly in areas of condensation, concentrating the acid generating wastes, especially in areas protected from fuel sloshing. The Model 1900D has three (3) such areas in each wing, two (2) immediately adjacent to both sides of the forward spar lower cap and slightly outboard of wing station 124.616 and one (1) in the collector tank area.

Many operators rely on contamination detector kits to determine the cleanliness of the aircraft fuel system. '*Hormoconis resinae*' may not be detectable in many contamination detector kits available in the United States today. Conidia Bio Sciences has developed and markets a 10 minute test kit specifically designed for '*Hormoconis resinae*'. For more information go to [Conidia.com](http://Conidia.com) on the web.

Raytheon Aircraft recommends each operator of Model 1900 series aircraft take the following steps;

1. Immediately sterilize the aircraft fuel system by using BIOBOR JF at a concentration of 270 PPM. Allow the sterilized fuel to remain in the aircraft for a minimum of 24 hours. The aircraft may be operated during this time but any added fuel should also contain the proper amount of BIOBOR JF to maintain the recommended concentration.
2. At an interval not exceed the next scheduled Detail inspection;
  - A. Drain fuel systems.
  - B. Open the collector tanks.
  - C. Gain access to area at main spar WS 124 aft of drain valve. (both wings)
  - D. Clean area of collector tanks and sump area forward of main spar.
  - E. Inspect sealant around main spar area for evidence of deterioration.

F. Inspect for evidence of past or present microbiological contamination or sludge buildup inside the collector tank and forward of the main spar.

- 1) If evidence of microbiological contamination is found or sealant is deteriorated;
  - i. Clean the collector tank and area forward of the main spar.
  - ii. At the initial inspection, remove the tank sealer from the forward flange of the main spar from the inboard bulkhead outboard of WS 124 for approximately 4 inches.
  - iii. Inspect the forward flange of the main spar for evidence of microbiological attack. (see photos)
  - iv. If evidence of microbiological attack is discovered, contact Raytheon Aircraft Airline Technical Support at 316-676-2000 before taking further action.
- 2) If evidence of microbiological attack is not detected, reseal area Refer to the 1900 Structural Repair Manual 51-30-05 for preparation and resealing instructions.

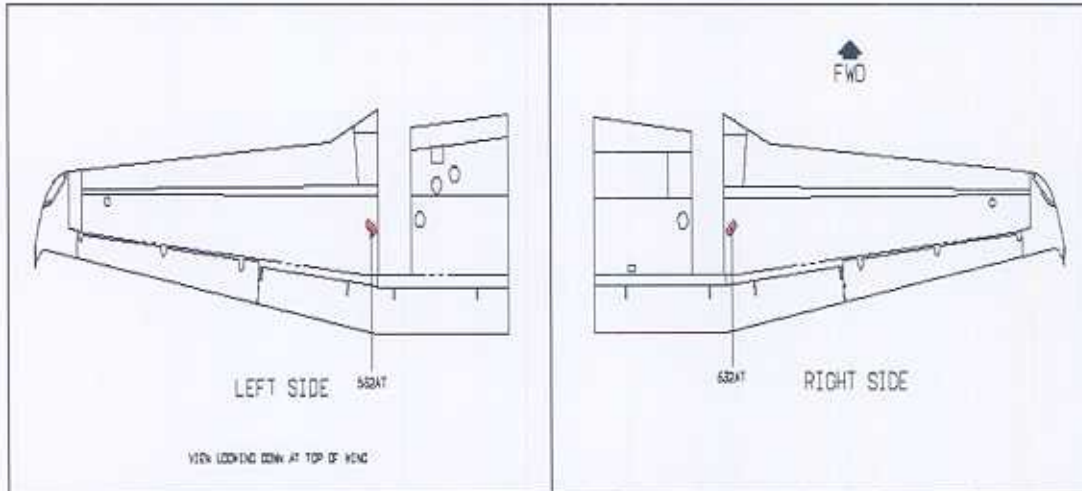
G. Reinstall all panels removed and check for leaks.

To prevent contamination from occurring or returning, Raytheon Aircraft recommends;

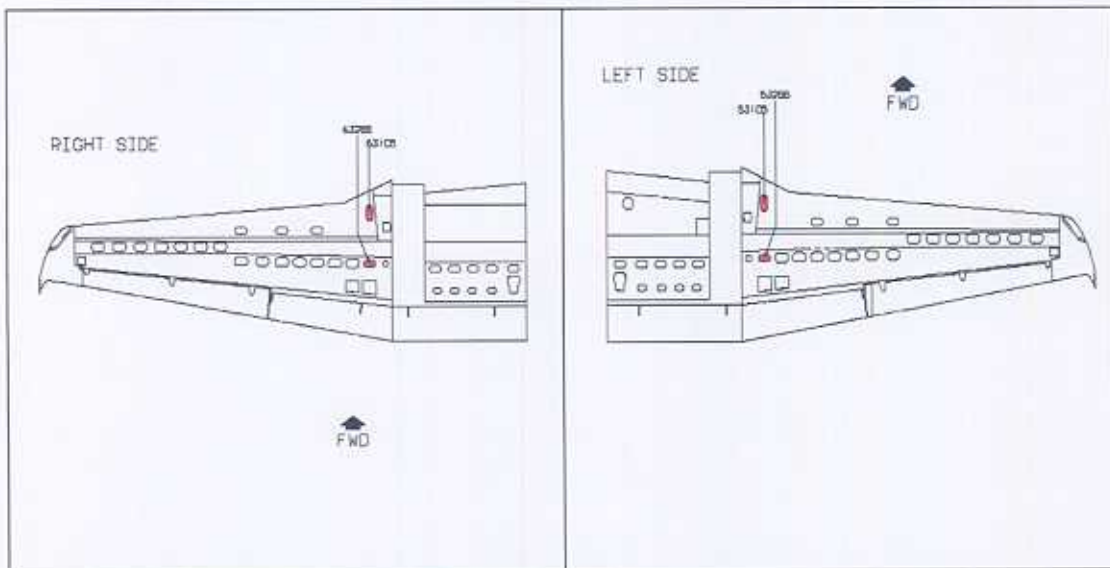
1. Draining fuel sumps daily.
2. Periodically sterilizing the aircraft fuel system every 90 days if evidence of microbiological contamination is detected; annually if no evidence is detected.
3. Annually, open collector tanks and access wing are at WS 124, clean and inspect for evidence of microbial attack or sealant deterioration.

**Raytheon Aircraft will incorporate this inspection procedure into Chapter 5 of the 1900 Maintenance Manuals to be performed annually.**

The collector tank area may be accessed from the top by removing panels 532AT and 623AT,

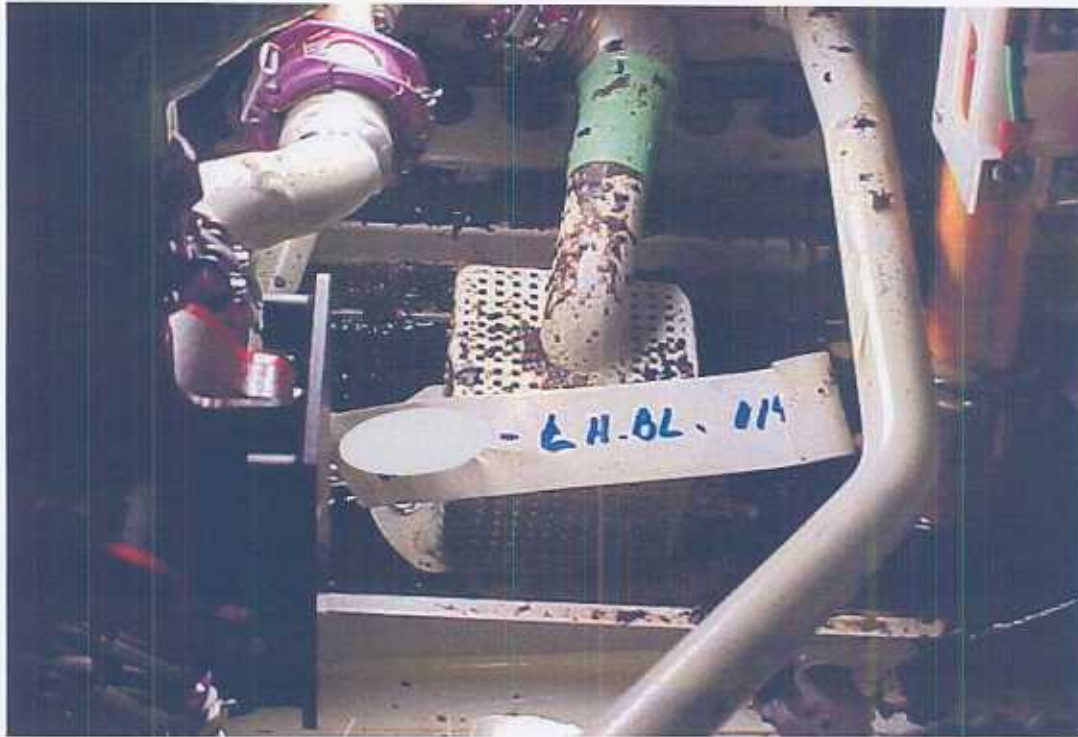


and from the bottom by removing panels 531CB/6321CB and 532BB/632BB.





Evidence of microbiological growth.



Note location of drain hole



Evidence of microbiological attack



Note damage to spar flange

