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Business Aircraft

ADVISORY WIRE

AW 700-31-0140

DATE: April 23, 2004	PAGE: 1 OF 7
ADDRESS TO:	A/C:
FAX NUMBER:	
FROM: Bombardier Business Aviation Services	
ADVISORY WIRE	
REFERENCE NO: AW 700-31-0140	
SUBJECT: IAC (IC-800) Low Battery Annunciation	
EFFECTIVITY: BD700-1A10 (9002 and Subs.)	
ATA: 31-41	
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ADVISORY WIRE

AW 700-31-0140

DATE: April 23, 2004

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1.0 REFERENCE:

1.1 Honeywell Technical Newsletter (TNL) A23-1146-001 (attached)

2.0 INTRODUCTION:

This Advisory Wire is to inform Operators of a Honeywell TNL pertaining to IAC-800 (integrated Avionics Computer) internal battery failure annunciation impacting the aircraft operation and maintenance.

3.0 DESCRIPTION:

Refer to the attached Honeywell TNL reference 1.1 for details.

4.0 ACTION:

Bombardier recommends that Operators familiarize themselves with the TNL and a copy of the AIRCRAFT DB (Smart Perf Database) be kept on board the aircraft for the event of an off-site IAC battery failure. In case of a battery failure, the Smart Perf Database will need to be reloaded per AMM Task 34-62-01-970-801. The Smart Perf Database resides on the same diskette as the monthly FMS Database.

The Fault Isolation Manual (FIM) procedures will be revised in accordance with the content of the TNL.

Note: Correction to Honeywell TNL regarding phone and fax number shown on page 4, area code should read 602 instead of 623.

Technical Newsletter

A23-1146-001**System:** Global Express P-2000XP Integrated Avionics**Product:** IC-800 Integrated Avionics Computer (IAC)**Part No.:** 7017300-6xxxx**Title/Purpose:** IC-800 Low Battery Annunciation and Maintenance**Transmittal Information**

Honeywell Pub. No. A23-1146-001

Summary

This is the initial release of Technical Newsletter Pub. No. A23-1146-001.

Revision History

Technical Newsletter Pub. No. A23-1146-001 has had no revisions as summarized in Table 1.

Table 1. Technical Newsletter Revisions

Revision	Date of Release
Initial Release	5 December 2003

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Honeywell

TECHNICAL NEWSLETTER

1. Introduction

The IC-800 Integrated Avionics Computer, Honeywell Part No. 7017300-6xxxx, has an internal battery, which maintains data stored in Random Access Memory (RAM) when aircraft power is removed from the LRU. The internal battery, which provides maintenance-free operation for years in normal service, provides holdup power for the following functions:

- Auto Flight Control System (AFCS):
 - Integrated Maintenance Test (IMT) RAM
- Electronic Display System (EDS):
 - Integrated Maintenance Test (IMT) RAM
- Fault Warning Computer (FWC):
 - Integrated Maintenance Test (IMT) RAM
 - Fault Warning Trend/Limit Data RAM
 - Fault Warning CAS Message RAM
- Flight Management System (FMS):
 - Last Known "Present Position"
 - Integrated Maintenance Test (IMT) RAM
 - FMS CUSTOM DB RAM (Custom waypoints and stored flight plans)
- FMS AIRCRAFT DB RAM (Smart Perf)

Note: The NAV Database is not affected by loss of the internal battery.

2. Anomaly

In the event the internal battery wears out prior to being changed, the data listed above, sometimes referred to as NVM data, will be lost when power is removed from the LRU. While NVM data including all stored fault history may be lost, the LRU will continue to function properly when power is re-applied.

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TECHNICAL NEWSLETTER

The IC-800 has a battery monitor that detects a low battery voltage condition, which is indicated via CAIMS on the AM-200 PMAT. When a low battery is detected the PMAT will display one of the following active faults:

IAC1 BATTERY FAULT

IAC2 BATTERY FAULT

IAC3 BATTERY FAULT

**Symptom Text: IAC BATTERY VOLTAGE DETECTED
LOW, BATTERY NEEDS TO BE REPLACED**

A low battery condition does not require an immediate maintenance action nor does it limit in any way dispatch of the aircraft. Honeywell recommends the battery be replaced during the next scheduled maintenance, not to exceed 3 weeks, to prevent loss of NVM data.

Note: These faults will only be available on aircraft that have a PMAT loaded with Dove .026 or later LDI.

If battery power is lost the FMS setup options will revert to default settings during the next power-up, and can be reprogrammed before each flight. Other FMS parameters (active flight plan, performance entries, and offside radio commands) are automatically loaded from the cross-side IC-800 when the LRU is powered up and the system comes up in "DUAL" mode. The CUSTOM DB can be manually loaded from the cross-side FMS utilizing the Data Load menu found under Maintenance page 2/2 of the FMS, or re-loaded from diskette if previously saved via the dataloader. The AIRCRAFT DB (Smart Perf) can only be re-loaded via diskette using the Data Load menu found under Maintenance page 2/2 of the FMS.

Note: Honeywell recommends a copy of the AIRCRAFT DB be kept onboard the aircraft in the event this maintenance action is required at an outstation.

3. Corrective Action

Per BD-700 Aircraft Maintenance Manual :

- a) Remove the IC-800 from the aircraft (TASK 31-41-01-000-801).
- b) Replace the IC-800 internal battery (TASK 31-41-01-960-801).
- c) Reinstall the IC-800 into the aircraft (TASK 31-41-01-400-801).

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4. Parts Required

The replacement battery, Honeywell Part No. 7014664-902, is available and can be obtained by contacting Customer Response Center at:

Telephone: +1-623-436-0272

Fax: +1-623-822-7272

Toll Free in the U.S. and Canada

Telephone: +1-877-484-2979

Fax: +1-877-484-2980

For additional information or questions, contact your local Honeywell Field Service Engineer, or the Customer Response Center at +1-602-436-2005.

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TECHNICAL NEWSLETTER

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