Honeywell FMS Update and Navigation Database Procedure Removals

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Agenda

• Recent FMS Updates
  – Unmaintained Procedures
  – “Special” Procedures
  – Procedures With Flight Path Angles (FPA) Greater Than 6.0°

• Procedure Removal Review
  – SIL D201011000003
  – SIL D201108000053

• How to find the Removed Procedures List
  – Aerospace Data Service (ADS)  www.honeywellaes.com
  – Integrated Navigation Data Service (INDS)  www.epicinds.com
  – Finding Removed Procedures
Unmaintained Procedures

- Requests by customers to tailor data was previously accepted
  - Caused confusion amongst users
  - Example case:
    - KASE VOR DME – C vs. VOR DME – 15C
    - Different Waypoints

VOR/DME-C

ASPEN-PITKIN COUNTY/SARDY FIELD (ASE)

ED APPROACH: Climbing right turn to 14000 on heading and I-PKN localizer NW course (303°) to LINDZ INT then VOR/DME R-244 to GLENO 22.7 DME and hold.

GND CON 121.9  CLNC DEL 123.75  UNICOM 122.95
Unmaintained Procedures

AA50 – Point Thomson, Alaska, USA
  - RNAV RWY 04 Approach
  - RNAV RWY 22 Approach

FA54 – Coral Creek, Placida, Florida, USA
  - RNAV RWY 23 Approach

KASE - Aspen-Pitkin Co./Sardy Field, Aspen, Colorado, USA
  - GPS RWY15 Approach
  - GPS RWY 15C Approach
  - RNAV RWY 15R Approach
  - VORDME RWY 15C Approach
  - GLENO1 SID

KDCA – Reagan National, Washington, DC, USA
  - LDA R RWY 19 Approach

KLGA - La Guardia, New York, USA
  - LDA RWY 22 Approach
  - MELFM Arrival
  - SIRFM Arrival

KEGE - Eagle County Regional, Colorado, USA
  - GPS RWY 07 Approach
  - GPS RWY 25 Approach
  - GPS RWY 25C Approach
  - GPS RWY 25L Approach
  - GPS RWY 25R Approach
  - NJ12 Departure

KIAD - Dulles, Washington, DC, USA
  - SEANO Arrival
  - VINNY Arrival

OEAH – al-Ahsa, Hofuf, Saudi Arabia
  - RNAV RWY 16 Approach
  - RNAV RWY 34 Approach

OEBQ – Abqaiq, Saudi Arabia
  - RNAV RWY 15 Approach
  - RNAV RWY 33 Approach

OEDF – Dammam, Saudi Arabia
  - RNAV RWY 18L Approach
  - RNAV RWY 34R Approach

OEHR – Haradh, Saudi Arabia
  - RNAV RWY 16 Approach
  - RNAV RWY 34 Approach

OEHW – Al Hawtah, Hawtah, Saudi Arabia
  - NDB RWY 15 Approach
  - NDB RWY 33 Approach
  - RNAV RWY 15 Approach
  - RNAV RWY 33 Approach

OEKN – Khurais, Saudi Arabia
  - RNAV RWY 16 Approach
  - RNAV RWY 34 Approach

OEPI – Pump Station 9, Saudi Arabia
  - NDB RWY 17 Approach
  - NDB RWY 35 Approach
  - RNAV RWY 17 Approach
  - RNAV RWY 35 Approach

OERT – Ras Tanura, Saudi Arabia
  - ILS RWY 33 Approach
  - NDB RWY 15 Approach
  - NDB RWY 33 Approach
  - NDBDEME RWY 33 Approach
  - RNAV RWY 15 Approach
  - RNAV RWY 33 Approach

OESB – Shaybah, Shaliba, Saudi Arabia
  - NDB RWY 09 Approach
  - NDB RWY 27 Approach
  - RNAV RWY 09 Approach
  - RNAV RWY 27 Approach
  - SHAB09 Departure
  - SHAB27 Departure

OETN – Ras Tanajib, Saudi Arabia
  - ILS RWY 33 Approach
  - NDB RWY 15 Approach
  - NDB RWY 33 Approach
  - RNAV Y RWY 15 Approach
  - RNAV Z RWY 15 Approach
  - RNAV Y RWY 33 Approach
  - RNAV Z RWY 33 Approach

OEUOD – Udaihiyah, Saudi Arabia
  - NDB RWY 18 Approach
  - NDB RWY 36 Approach
  - RNAV RWY 18 Approach
  - RNAV RWY 36 Approach

OKAS - Ali Al Salem AB, Kuwait
  - VORDME RWY 12R Approach
  - ILS RWY 30L Approach

PALP – Alpine, Deadhorse, Alaska, USA
  - RNAV RWY 03 Approach
  - RNAV RWY 21 Approach

PAUM – Umiat, Alaska, USA
  - RNAV 06 Approach
  - RNAV 24 Approach

SBCM – Forquilhainha, Criciúma, Santa Catarina, Brazil
  - GPS RWY 08 Approach
  - GPS RWY 27 Approach

SBJF – Francisco de Assis, Juiz de Fora, Minas Gerais, Brazil
  - GPS RWY 21 Approach
Unmaintained Procedures

- Removal of unmaintained procedures
  - Cycle 1302, Feb 07 2013
  - If you require any procedures listed or any additional information contact the NavDB team

For more information visit:
www.honeywellaes.com or www.epicinds.com
Special Procedures

What is a Special Procedure?

• A special instrument procedure may be public or private
• An operator must specifically request authorization to use these procedures
  – May require a demonstration of aircraft and crew capabilities
• A private special instrument procedure is not generally available to the public, but is developed solely for the requestor
• These special procedures are developed at an operator’s/proponent’s request

FAA Order 8900.1 – vol. 4, Ch2, Sec. 10, 4-421
A list of Special Procedures is available at:
https://nfdc.faa.gov/xwiki/bin/view/NFDC/Flight+Procedures

To obtain authorization contact your POI or FSDO
Flight Path Angle (FPA) Limitation

• In cycle 1210 FMS requirements were updated
  – It was discovered that an FPA greater than 6.0 degrees was not being calculated correctly by the FMS
  – Procedures with an FPA greater than 6.0 degrees were removed

<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>APPROACH</th>
</tr>
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<tbody>
<tr>
<td>3S8</td>
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<td>SPWT</td>
<td>N35</td>
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<tr>
<td>YPEA</td>
<td>T23</td>
</tr>
</tbody>
</table>
Flight Path Angle (FPA) Limitation

Impact on Aspen, CO

- Cycle 1210 Airport Procedure Coding Update
  - Public Procedures
    - LOC DME – E  FPA 6.59°
    - RNAV (GPS) – F  FPA 6.49°
    - VOR DME – C  FPA 9.61°
  - Special Procedures
    - LOC DME Rwy 15  FPA 4.55°
    - RNAV – Z Rwy 15  FPA 6.22°
    - GPS – Z Rwy 15  FPA 6.22°
Flight Path Angle (FPA) Limitation

- Honeywell is aware of the impact on operators
  - Options recently discussed
    - Re-certification of the FMS
    - Changes to procedure coding
  - We will provide an update on the final decision
Navigation Database Procedure Removals
Review of SIL D201011000003

The purpose of this SIL is to advise all affected operators of anomalies that may occur with certain terminal area procedures and Honeywell’s action to prevent them from occurring.

Instructions to find FMS part number:
- Additional help finding your PN
  - [https://inds.epicinds.com/epic/helpFile](https://inds.epicinds.com/epic/helpFile)

Overview of why the procedures were removed for each specific item.

Overall impact to specific part number.

www.honeywell.com/aero/alert
The purpose of this SIL is to provide a configuration table for the operator to understand which database is appropriate for a specific aircraft configuration.

If the operational software has changed or a different database is required, please contact the accounts team with your aircraft configuration to have your subscription changed.

INDS
- INDSD@jeppesen.com

Honeywell
- AISAccountServices@Honeywell.com

Table 3. Gulfstream Aircraft INDs

<table>
<thead>
<tr>
<th>Aircraft Configuration</th>
<th>FMS Model Number</th>
<th>Operational Top Level System PN</th>
<th>NAV DB ID as Indicated on CD ROM YY = Year CC = Cycle RRR = Revision</th>
<th>NAV DB ID Indicated on INDs Website</th>
<th>Most Restrictive Default DB</th>
</tr>
</thead>
<tbody>
<tr>
<td>G350/450 - Cert Delta without RNP AR option</td>
<td>FM57.0</td>
<td>EB7031236-00410</td>
<td>GSD -YYCC-RRR INAV90-3CC</td>
<td>GSD</td>
<td>IN5</td>
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<tr>
<td>G500/550 - Cert Delta without RNP AR option</td>
<td>FM57.0</td>
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<td>GSD</td>
<td>IN5</td>
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<tr>
<td>G350/450 - Echo without RNP AR option</td>
<td>FM57.0</td>
<td>EB7031236-00411</td>
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<td>IN7</td>
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<td>G500/550 - Echo without RNP AR option</td>
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<td>EB7031236-00316</td>
<td>IN7 -YYCC-RRR EPIC V9-3CC</td>
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<tr>
<td>G350/450 - Foretact without RNP AR option</td>
<td>FM57.1</td>
<td>EB7031236-00415</td>
<td>IN8 -YYCC-RRR EPIC3-3CC</td>
<td>IN8</td>
<td>INS</td>
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<td>G500/550 - Foretact without RNP AR option</td>
<td>FM57.1</td>
<td>EB7031236-00320</td>
<td>IN8 -YYCC-RRR EPIC3-3CC</td>
<td>IN8</td>
<td>INS</td>
</tr>
</tbody>
</table>

www.honeywell.com/aero/alert
Finding Your Removed Procedure List

- ADS (Aerospace Data Service) Pre Login
  - www.honeywellaes.com
Finding Your Removed Procedure List

Method A - You know the three character NavDB Ident
• Place the cursor in the selection box, as you start typing the list will shrink
Finding Your Removed Procedure List

### Content / Procedures

**Method A**
- Please start typing ident, the list will shrink as you type.
- **NavDB Id:** BX7

**Method B**
- **Platform:** [Select One]
- **Part No:** [Select One]

**Misc Info Display**
- **Data Supplier:** [Select One]
- **Web Description:** [Select One]

Note: Tailored NavDBs are only available after login.

Click on the columns with blue color headers for sorting the results.

<table>
<thead>
<tr>
<th>NAVDB</th>
<th>WEB DESC</th>
<th>OEM</th>
<th>PLATFORM</th>
<th>COMMENT</th>
<th>CONTENT LETTER</th>
<th>REPORT</th>
<th>SUPPLIER</th>
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<tr>
<td>BX7</td>
<td>P2SWEST</td>
<td>FMZ-2000</td>
<td>NZ4.X</td>
<td></td>
<td>BX70713001.pdf</td>
<td></td>
<td>Jeppesen</td>
</tr>
</tbody>
</table>
Finding Your Removed Procedure List

Method B – You know the platform and the part number

• Select the platform from the first dropdown box
• Select the part number from the reduced list in the second dropdown box
Finding Your Removed Procedure List

Method C – You know the OEM and the part number

• Select the OEM from the first dropdown box
• Select the part number from the reduced list in the second dropdown box
Finding Your Removed Procedure List

- INDS (Integrated Navigation Data Service) **Pre Login**
  - [www.epicinds.com](http://www.epicinds.com)
Finding Your Removed Procedure List

- Select the color of disc that you receive
  - Find your NavDB Ident
  - Download the removed procedures list

<table>
<thead>
<tr>
<th>NavDB</th>
<th>Content Letter</th>
<th>Removed Procedures</th>
<th>Notice</th>
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<tbody>
<tr>
<td>BTC (B1C)</td>
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<tr>
<td>CS2 (CS2)</td>
<td>CS21265001</td>
<td>CS2121001</td>
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<tr>
<td>D15 (D15)</td>
<td>D151166001</td>
<td>D15121001</td>
<td></td>
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<tr>
<td>EL1 (EL1)</td>
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</tr>
</tbody>
</table>

- EPIC NavDB
  - click here to view the documents
- APEX NavDB
  - click here to view the documents
- EPIC NavDB with RNP - AR
  - click here to view the documents

Honeywell FMS Update and Navigation Database Procedure Removals – November 13, 2012
Finding Your Removed Procedure List

The INDS website will be updated soon!
- Select your color
  - OEM
  - NavDB
  - Download the removed procedures list
Finding Your Removed Procedure List

- Once you have downloaded the removed procedure list
  - Utilize a filter or search function to find the affected airports
  - The procedure type and Ident removed will be listed
    - The Safety of Flight Action column will provide the reason
    - Reference the SIL D201011000003 Item H in this case

<table>
<thead>
<tr>
<th>AIRPOI</th>
<th>PRCD TYPE</th>
<th>IDENT</th>
<th>TRANS</th>
<th>SIL</th>
<th>SAFETY OF FLIGHT ACTION</th>
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<tr>
<td>CYOW</td>
<td>APP TRANS</td>
<td>ILS 07</td>
<td>OW</td>
<td>D201011000003</td>
<td>Remove procedure segment with procedure turn less than 10nm (H)</td>
<td>CANADA</td>
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<td>YRR</td>
<td>D201011000003</td>
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<td>CANADA</td>
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</table>
Finding Your Removed Procedure List

Take the removed procedure list with you

• Save the .xls file to your personal device for mobile access
  – Remember to keep the file up to date – the database changes every 28 days

Honeywell FMS Update and Navigation Database Procedure Removals – November 13, 2012
Summary

• Recent FMS Updates
  – Unmaintained Procedures
  – “Special” Procedures
  – Procedures With Flight Path Angles (FPA) Greater Than 6.0°

• Procedure Removal
  – Review of SIL D201011000003
  – Review of SIL D201108000053

• How to find the Removed Procedures List
  – Aerospace Data Service (ADS) www.honeywellaes.com
  – Integrated Navigation Data Service (INDS) www.epicinds.com
  – Finding Removed Procedures
Questions and Answers

???