CDFA – From A Jeppesen Charting Perspective

Monday, March 21st | 9:00 a.m. – 10:00 a.m.

PRESENTED BY:
Ted Thompson – Philosophy and Background
Dan Poplaski – Charting Application of CDFA Information

International Operators Conference | San Diego, CA | March 21 – 24, 2016
CDFA – Jeppesen Charting/NavData

General/Background Information:

• Jeppesen Policy based on ICAO Doc 9365 All Weather Operating Minimums (AWOM).
• New ICAO AWOM built to facilitate the use of the CDFA flight technique.
• Concepts born in JAA/EU-OPS adopted into the ICAO AWOM.
• One of the Largest impacts of the New ICAO AWOM is Landing Visibilities.
• Basic Principals of the new Jeppesen “Standard” Landing Minimums Philosophy.
• Biggest Impact has been to Charting, Almost No Effect to NavData Coding.
Non-Precision Approaches & the use of a DA Maneuver:

- Labelling of Minimum Descent Altitudes, MDA(H) vs DA/MDA(H).
- Application of a Height Loss Adjustment for DA Maneuver.
- Jeppesen Generated DA/MDA(H) Height Loss note.

Jeppesen Chart Profile View:

- Emphasis on Stabilized Descent (CDFA).
- Continued Depiction of the “Dive & Drive”.
- VDA Below the Minimum Descent Altitude.

Implementation Issues:
Jeppesen Charting Applications

Evolution of the CDFA concept:

- EU-OPS & TERPS are Regulatory – ICAO is not.
- Some expectation that ICAO would fully adopt the JAA/EU-OPS CDFA concept.
- Have not seen Countries “Require” the use of the CDFA concept.
- Multiple options available for pilots flying a Non-Precision Approach Procedure.
- Jeppesen Charts also evolving to address the use of the CDFA flight technique.
CDFA Effects on the Chart Profile View

• Jeppesen Acronym for Descent Angle - VDA (Vertical Descent Angle)
• Constant Descent being expanded beyond the typical FAF initiation.
• Use of Step-Down Fixes remains widespread.
• Use of multiple altitudes at a single Navaid/Fix becoming very common.
• Line defining where the Final Approach starts has become very “Fuzzy”.
• Combined Precision & Non-Precision approaches rarely share a VDA.
• Non-Standard use of the CDFA concept (VDA to MDA and or VDP)
• Jeppesen will “emphasize” the CDFA track depiction.
• VDA extended out to the (IF) and at times beyond the (IF).
• Direction of recommended Alt -vs- distance reference band shown.
• Top Of Descent indicated.
• Jeppesen depiction of different Altitudes will remain the same.
• CDFA depiction emphasized.
• VDA crossing altitudes shown Same as GS crossing altitudes.
• Attempt to make altitude differences as clear as possible.
1. CDFA emphasized
   No Dive & Drive
   Altitude next to fix

2. CDFA emphasized
   Dive & Drive shown
   Altitude along track
CDFA Effects on Landing Minimums

• Depiction of DA/MDA(H) with applicable note.
• ICAO Manual of All-Weather Operations (AWO) followed as Jeppesen Standard.
• Based on ICAO RVR visibility usage:
  1. Strictly follow State when visibilities are supplied.
  2. Chart the Jeppesen Standard visibilities when none are published.
• ICAO does not “Require” a visibility penalty for not using the CDFA technique.
• Any visibility adjustments will be charted per State Source.
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<tr>
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<th>STRAIGHT-IN, LANDING</th>
<th>CIRCLE-TO-LAND</th>
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<tbody>
<tr>
<td><strong>LNAV/VNAV</strong></td>
<td><strong>DA(H) 960’ (340’)</strong></td>
<td><strong>LNAV</strong></td>
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<tr>
<td><strong>ALS out</strong></td>
<td><strong>ALS out</strong></td>
<td><strong>Max Kts</strong></td>
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<tr>
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<tr>
<td>D</td>
<td>R2100m</td>
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**1** VNAV DA(H), in lieu of MDA(H), may require height loss adjustment.
Questions?

Ted and Dan will be available in the Jeppesen Hospitality room for further Jeppesen Charting questions/discussion.