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NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Attachment 7 – AOM Approach Briefing Guides
(7 Pages)

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
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OPERATIONAL FACTORS

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A. AOM APPROACH BRIEFING GUIDES[1]

1.0 Profile Approach Briefing Guide

04.22.01.09 PROFILE APPROACH BRIEFING GUIDE

PROFILE APPROACH SUMMARY TABLE

TYPE OF APPROACH	APPROACH CHART TITLE	RETRIEVE FROM DATABASE AS	RAW DATA	AFDS ROLL MODE	VNI
RNAV (GPS)	RNAV (GPS) RWY XXX RNAV (GPS) "__" RWY XXX	GPS XXX or RNV XXX	NO	NAV	NAV
RNAV (RNP)	RNAV (RNP) RWY XXX	**NOT AUTHORIZED**			
GPS	GPS RWY XXX	GPS XXX	NO	NAV	NAV
GPS OVERLAY	VOR or GPS RWY XXX VOR DME or GPS RWY XXX	VOR XXX	NO	NAV	NAV
VOR	VOR RWY XXX VOR DME RWY XXX	VOR XXX	YES (PM ARC/ROSE)	NAV	PF-NAV PM-VOR
LOC	LOC RWY XXX LOC DME RWY XXX ILS or LOC RWY XXX ILS or LOC DME RWY XXX	LOC XXX or ILS XXX	YES(PFD)	LOC	ILS
ILS (GS OUT)	ILS RWY XXX ILS DME RWY XXX	ILS XXX	YES(PFD)	LOC	ILS

1. Review PROFILE APPROACH SUMMARY table for approach set-up.
   - Check GPS PRIMARY and GPS PREDICTIVE for GPS approaches.
   - Verify PROG page RNP value (CLR any crew-entered RNP).
   - Verify ECAM FM/GPS POS DISAGREE message not displayed and FMC indicates High Accuracy.
   - Verify approach temperature restrictions. (Profile approaches are prohibited -15°C or below or charted temperature if more restrictive.)
   - VNAV path must be depicted on the approach chart.
   - ILS G/S OTS approaches, the VNAV path is the same as the ILS glideslope.
   - Verify VNAV path clears all step down fixes in the final approach segment.
2. Determine DA or D-DA and set altimeter bugs.
   - A Barometric DA may be utilized on the following approaches:
     - RNAV (GPS) approaches with published LNAV/VNAV minima.
     - ILS (GS out) or approaches titled ILS or LOC RWY XXX, or ILS or LOC DME RWY XXX.
     - All approaches with a VNAV Ball note. The Ball note states: "Only authorized operators may use VNAV DA in lieu of MDA."

[1] Source: UPS A300 AOM.

3. Load approach in FMC and accomplish the following:
    - Enter DA/D-DA on APPROACH page.
    - Verify database Vertical Path Angle agrees with approach chart within .1 degrees.
    - Adjust V_{APP} on Approach page if necessary.
4. Accomplish Approach Briefing.
5. Activate FINAL APPROACH.
6. Select PROFILE and verify P.DES armed. (On ILS G/S OTS approaches or LOC approaches, where the VNAV path crosses the FAF below the FAF minimum altitude, start a 1000 FPM descent at the FAF and immediately select PROFILE to capture path from above.)

2.0 Vertical Speed Approach Briefing Guide

04.22.01.10 VERTICAL SPEED APPROACH BRIEFING GUIDE

VERTICAL SPEED APPROACH SUMMARY TABLE

TYPE OF APPROACH	APPROACH CHART TITLE	RETRIEVE FROM DATABASE AS	RAW DATA	AFDS ROLL MODE	VNI
RNAV (GPS)	RNAV (GPS) RWY XXX RNAV (GPS) "__" RWY XXX	GPS XXX or RNV XXX	NO	NAV	ILS
GPS	GPS RWY XXX	GPS XXX	NO	NAV	ILS
GPS OVERLAY	VOR or GPS RWY XXX VOR DME or GPS RWY XXX	VOR XXX	NO	NAV	ILS
VOR	VOR RWY XXX VOR DME RWY XXX	VOR XXX	YES (PM ARC/RO-SE)	NAV	PF-NAV PM-VOR
LOC	LOC RWY XXX LOC DME RWY XXX ILS or LOC RWY XXX ILS or LOC DME RWY XXX	LOC XXX ILS XXX	YES (PFD)	LOC	ILS
ILS (GS OUT)	ILS RWY XXX ILS DME RWY XXX	ILS XXX	YES (PFD)	LOC	ILS
LDA	LDA RWY XXX LDA DME RWY XXX	N/A	YES (PFD/RMI)	LOC	ILS
LDA WITH GLIDESLOPE	LDA RWY XXX LDA DME RWY XXX	N/A	YES (PFD/RMI)	LAND	ILS
LOC BC	LOC (BACK CRS) RWY XXX LOC (BACK CRS) DME RWY XXX	**NOT AUTHORIZED**			
NDB	NDB RWY XXX NDB or GPS RWY XXX				
VOR DME RNAV	VOR DME RNAV RWY XXX VOR DME RNAV or GPS RWY XXX				
RNAV (RNP)	RNAV (RNP) RWY XXX				

1. Review approach requirements.
    - Review Vertical Speed Approach Summary Table.
    - GPS and RNAV GPS approaches - verify GPS PRIMARY and GPS PREDICTIVE. Verify ECAM FM/GPS POS DISAGREE message not displayed and FMC indicates High Accuracy.
    - Verify PROG page RNP value (CLR any crew-entered RNP).
2. Determine MDA and set altimeter bugs.
3. Accomplish approach briefing to include:
    - Rate of descent to be used during the final approach segment.
    - VDP computation and identification.
4. Use V/S to descend to MDA.
5. Do not descend below MDA until reaching computed VDP and required visual references are established.