

# **Düsseldorf RG Airports**

Note: Not for real navigation!

## Köln-Bonn / Cologne-Bonn (EDDK / CGN)

Elevation 301 ft

Effective: 02 MAR 2017

Quelle:DFS GmbH

(Changes are marked yellow)

**NAVAIDS: Communication: Transponder: KBO** 112.15 Station Freq. 2220 - 2237

**ILS 14L** 110.90 / 139° (IKES) ATIS 124.100 **ILS 24** 109.10 / 244° (IKOW) Delivery 121.850 ILS 32R 109.70 / 319° (IKEN) (FSim) Ground 121.720 111.10 / 319° (IKEN)<sup>1</sup> 124.970 Tower

LJ 365 Arrival 135.350 (Arrival) LV 327 121.050 (Director)

135.650 (Langen Radar [PADH]) LW 300.5 Center

### **GPS / FMS RNAV Transitions**

	RWY 06			
	GULKO 06	GULKO-DK729- DK718-DK717- <mark>DK705-DK755</mark> -BEBSA		
	KOPAG 06	KOPAG-DK719-DK717- <mark>DK705-DK755</mark> -BEBSA		
RWY 14L/14R				
	GULKO 14	GULKO-WYP-DK417-DK416-DK415-DK455-LEGDU/ROKAK		
	KOPAG 14	KOPAG-DK418-WYP-DK417-DK416-DK415-DK454-LEGDU/ROKAK		
	NVO 14	NVO-DK437-DK435-DK455-LEGDU/ROKAK		
	<b>RWY 24</b>			
	GULKO 24	GULKO-DK527-DK515-DK554-KUKIT		
	KOPAG 24	KOPAG-DK554-KUKIT		
	NVO 24 A	NVO-DK537-DK536-DK535-DK554-KUKIT		
	NVO 24 B	NVO-DK547-DK546-DK545-DK554-KUKIT		
	RWY 32L/32R			

GULKO 32 GULKO-DK627-DK615-DK654-RARIX/LIRMU KOPAG-DK617- DK616-DK615-DK654-RARIX/LIRMU KOPAG 32 NVO-DK637-DK636-DK635-DK654-RARIX/LIRMU **NVO 32** 

#### **Standard Instrument Arrival Routes**

#### RWY 14/32 RWY 06/24

KOPAG 2V	(KOPAG TWO VICTOR)	KOPAG (Δ) - R352 COL - WYP (Δ)	<ol> <li>BRNAV and NON-RNAV aircraft expect radar vectors to final approach.</li> </ol>
KOPAG 2C	(KOPAG TWO CHARLIE)	KOPAG (Δ) - COL (Δ)	2. GPS/FMS aircraft expect KOPAG Transition.
GULKO 2C	(GULKO TWO CHARLIE)	<u>GULKO (Δ) - COL (Δ)</u>	BRNAV and NON-RNAV aircraft expect radar vectors to final approach.     GPS/FMS-aircraft expect GULKO Transition.
GULKO 2V	(GULKO TWO VICTOR)	GULKO (Δ) - KOGIT (Δ) - WYP (Δ)	Between GULKO and KOGIT BRNAV equipment necessary.     BRNAV and NON-RNAV aircraft expect radar vectors to final approach.     GPS/FMS-aircraft expect GULKO Transition.
ERNEP 1V	(ERNEP ONE VICTOR)	ERNEP (Δ) - R352 - WYP (Δ)	<ol> <li>BRNAV and NON-RNAV aircraft expect radar vectors to final approach.</li> <li>GPS/FMS aircraft expect KOPAG or GULKO Transition</li> </ol>
ERNEP 1C	(ERNEP ONE CHARLIE)	ERNEP (Δ) - COL (Δ)	BRNAV and NON-RNAV aircraft expect radar vectors to final approach.
DEPOK 1C	(DEPOK ONE CHARLY)	DEPOK (Δ) - KBO (Δ) - COL (Δ)	BRNAV and NON-RNAV aircraft expect radar

Reallife eff. 17OCT2013. FSX scenery update (for Default and German Airports) is available here. Rev. 02 MAR 2017 v.1 1



**DEPOK 1V** 

(DEPOK ONE VICTOR)

DEPOK ( $\Delta$ ) - KBO ( $\Delta$ ) - WYP ( $\Delta$ )

BRNAV and NON-RNAV aircraft expect radar vectors to final approach.

3. MAX IAS 220 KT until established

#### **Standard Instrument Departure Routes**

Pilots of GPS/FMS-RNAV equipped aircraft shall, if possible, use the supplementary GPS/FMS RNAV procedures which are described following the text "GPS / FMS RNAV:". When using these supplementary GPS/FMS RNAV procedures, the pilot shall check and ensure that the underlying conventional flight procedures are adhered to by monitoring the information of the ground-based navigations aids. The ground-based navigation aids required for the use of the respective conventional flight procedure and the associated aircraft equipment shall remain in operation at all times.

RWY 06	(Initial Climb Altit Langen Radar.)	tude 5000 ft. Remain on TWR frequency until passir	ng 2000, then contact
SONEB 3K	(SONEB THREE KILO	) Dct LW - on track 064° LW to 8.0 DME KBO - LT on R155 WYP to WYP ( $\Delta$ ) - LT on track 313° to NOKDU ( $\Delta$ ) - RT on track 358° to ERKUM ( $\Delta$ ) - RT on track 005° to SONEB ( $\Delta$ ). Climb with 5.2% (320ft/NM) or more until passing 900. GPS/FMS: [A900+] - LW - DK070[L] - WYP[L] - NOKDU[R] - ERKUM[R] - SONEB	After WYP BRNAV equipment necessary.     Only for flights with RFL140 or above and flights to EDLE via WYP DCT BAM. Other flights proceed via PODIP.     PDG 5.2% (320 ft/NM) due to obstacles.
SONEB 4U	(SONEB FOUR UNIFORM)	Dct LW - on track 064° LW to 8.0 DME KBO - LT on R155 WYP to WYP ( $\Delta$ ) - LT on track 320° to LI ( $\Delta$ ) - RT on track 011° to NIKOG ( $\Delta$ ) - LT on track 349° to LUSIX( $\Delta$ ) - LT on track 345° to SONEB( $\Delta$ ) Climb with 5.2% (320ft/NM) or more until passing 900. GPS/FMS: [A900+] - LW - DK070[L] - WYP[L] - LI[R] - NIKOG[L] - LUSIX[L] - SONEB	By ATC only.     After WYP BRNAV equipment
WYP 3K	(WIPPER THREE KILO)	Dct LW - on track 064° LW to 8.0 DME KBO - LT on R155 WYP to WYP (Δ).  Climb with 5.2% (320ft/NM) or more until passing 900.  GPS/FMS: [A900+] - LW - DK070[L] - WYP	
PODIP 7K	(PODIP SEVEN KILO)	Dct LW - on track 064° LW to 8.0 DME KBO - RT on track 085° to PODIP (Δ).  Climb with 5.2% (320ft/NM) or more until passing 900.  Climb with 5.1% (310ft/NM) or more until passing 2600.  GPS/FMS:  [A900+] - LW DK071[R] - PODIP	equipment necessary.  2. PDG 5.2% (320 ft/NM) due to obstacles.  3. PDG 5.1% (310 ft/NM) due to airspace structure. If unable to
COL 7K	(COLA SEVEN KILO)	On runway track to LW - RT on R300 COL to COL(Δ). Climb with 5.2% (320ft/NM) or more until passing 900. GPS/FMS: [A900+] - DK073[R] – COL	comply, advise ATC prior startup.  1. Only for local training flights at EDDK and for flights from EDDK to EDDF.  2. PDG 5.2% (320 ft/NM) due to obstacles.
KUMIK 6K	KUMIK SIX KILO)	Dct LW - on track 064° LW to 8.0 DME KBO - RT on track 085° to PODIP ( $\Delta$ ) - RT on track 122° to KUMIK ( $\Delta$ ). Climb with 5.2% (320ft/NM) or more until passing 900. Climb with 5.1% (310ft/NM) or more until passing 2600. GPS/FMS: [A900+] - LW - DK071[R] - PODIP[R] - KUMIK	1. After 8.0 DME KBO BRNAV equipment necessary. 2. PDG 5.2% (320 ft/NM) due to obstacles. 3. PDG 5.1% (310 ft/NM) due to airspace structure. If unable to comply, advise ATC prior startup.
NVO 1K	(NÖRVENICH ONE KILO)	Dct LW - on track 064° LW to 8.0 DME KBO - LT on track 248° via LJ NBD to NVO (Δ) Climb with 5.2% (320ft/NM) or more until passing 900. GPS/FMS: [A900+] - LW - DK070[L] - DK072[L] - LJ - NVO	PDG 5.2% (320 ft/NM) due to obstacles.
RWY 14L	(Initial Climb Altit Langen Radar.)	tude 5000 ft. Remain on TWR frequency until passir	ng 2000, then contact
SONEB 6F	(SONEB SIX FOXTROTT)	On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL inbd COL - at 11.5 DME COL LT on R163 WYP to WYP (Δ) - LT on track 313° to NOKDU (Δ) - RT on track 358° to ERKUM (Δ) - RT on track 005° to SONEB (Δ). GPS/FMS:  [A700+] - DK130[A1500+;L] - DK141[K200-] - DK143[L] - DK144[L]	Only for flights with RFL140 or above and flights to EDLE via WYP DCT BAM. Other flights

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- DK145[K220-] - WYP[L] - NOKDU[R] - ERKUM[R] - SONEB

on R163 WYP.



SONEB 7P	(SONEB SEVEN PAPA)	On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL inbd COL - at 11.5 DME COL LT on R163 WYP to WYP	
	I Al A)	(Δ) - LT on track 320° to LI (Δ) - RT on track 011° to NIKOG (Δ) - LT on track 349° to LUSIX (Δ) - LT on track 345° to SONEB (Δ). <b>GPS/FMS:</b> [A700+] - DK130[A1500+;L] - DK141[K200-] - DK143[L] - DK144[L] - DK145[K220-] - WYP[L] - LI[R] - NIKOG[L] - LUSIX[L] - SONEB	<ul> <li>2. Atel WT British vegupinent necessary.</li> <li>3. Only for flights with RFL140 or above and flights to EDLE via WYP DCT BAM. Other flights proceed via PODIP.</li> <li>4. MAX IAS 220 KT until established</li> </ul>
WYP 4F	(WIPPER FOUR FOXTROTT)	On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL to COL (Δ) - at 11.5 DME COL LT - on R163 WYP to WYP (Δ)., GPS/FMS:[A700+] - DK130[A1500+;L] - DK141[K200-] - DK143[L]	on R163 WYP.  1. By ATC only. 2. MAX IAS 220 KT until established on R163 WYP.
PODIP 7F	(PODIP SEVEN FOXTROTT)	DK144[L] - DK145[K220-] - WYP On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL to COL (Δ) - LT on R040 COL to PODIP (Δ).  GPS/FMS: [A700+] - DK130[A1500+;L] - DK141[K200-] - COL[L] - PODIP	MAX IAS 200 KT until established on R276 COL.
PODIP 2X	(PODIP TWO X-RAY)		<ul><li>aircraft.</li><li>2. PDG 5.4% (330 ft/NM) or more until passing 1200.</li><li>3. MAX IAS 200 KT until established</li></ul>
COL 2F	(COLA TWO FOXTROTT)	On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL to COL (Δ). GPS/FMS: [A700+] - DK130[A1500+;L] - DK141[K200-] - COL	on R276 COL.  1. Only for local training flights at EDDK and for flights from EDDK to EDDF.  2. MAX IAS 220 KT until established
COL 2X	(COLA TWO X-RAY)	On track 137° to 2.5 DME KBO - LT on R276 COL to COL (Δ). Cross 3.2 DME KBO at or above 1200. GPS/FMS: [A700+] - DK140 - [A1200+;L] - COL	on R276 COL.  1. Only for 3-engined HEAVY aircraft.  2. Only for local training flights at EDDK and for flights from EDDK to EDDF.  3. PDG 5.4% (330 ft/NM) or more until passing 1200  4. MAX IAS 200 KT until established
KUMIK 6F	(KUMIK SIX FOXTROTT)	On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL to COL (Δ) - LT on R079 COL to KUMIK (Δ). GPS/FMS: [A700+] - DK130[A1500+;L] - DK141[K200-] - COL[L] - DK150 - KUMIK	Y854 shall intercept as follows: on R079 COL to 14.5 DME COL; RT to intercept. 2. MAX IAS 220 KT until established
KUMIK 2X	(KUMIK TWO X-RAY)	On track 137° to 2.5 DME KBO - LT on R276 COL to COL (Δ) - LT on R079 COL to KUMIK (Δ). Cross 3.2 DME KBO at or above 1200. GPS/FMS: [A700+] - DK140 - [A1200+;L] - COL[L] - DK150 - KUMIK	on R276 COL.  1. Only for 3-engined HEAVY aircraft.  2. Flights intending to proceed via Y854 shall intercept as follows: on R079 COL to 14.5 DME COL; RT to intercept.  3. PDG 5.4% (330 ft/NM) or more until passing 1200.  4. MAX IAS 200 KT until established on R276 COL.
NVO 1W	(NÖRVENICH ONE WHISKEY)	On track 137° to 3.2 DME KBO or 1500, whichever is later - LT on R276 COL inbd COL - at 11.5 DME COL LT on R163 WYP inbd WYP - at crossing R066 NVO LT on R060 NVO to NVO (Δ). GPS/FMS: [A700+] - DK130[A1500+,L] - DK145[L] - DK145[L	
NVO 1F	(NÖRVENICH ONE FOXTROTT)	DK144[L] - DK145[K220-] - DK153[L] - DK154 - NVO On track 137° to 4.8 DME KBO - RT to intercept track 189° LV to 6.8 DME KBO (CAT C and D replace track 189° LV by continuous RT) - RT on R101 NVO to NVO (Δ). Cross 4.8 DME KBO at 4000 or above. MAX IAS 220 KT during tourns. GPS/FMS: [A700+] - DK133[A4000+;R] - DK134[R] - DK135[K220-] - NVO	PDG 15.2%/924 ft/NM due to airspace structure. If unable to comply, file NVO 1P.     MAX IAS 220 KT until established on R101 NVO.
NVO 1P	(NÖRVENICH ONE PAPA)	On track 137° to 4.3 DME KBO - RT on track 170° LV to 12.5 DME KBO - RT on R119 NVO to NVO (Δ) GPS/FMS: [A700+] - DK132[R] - DK146[R] - DK137 - NVO	

RWY 14R (Initial Climb Altitude 5000 ft. Remain on TWR frequency until passing 2000, then contact Langen Radar.)

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SONEB 4E	(SONEB FOUR ECHO)		After WYP BRNAV equipment
		COL inbd to COL - at 11.5 DME COL LT on R163 WYP to WYP ( $\Delta$ ) - LT on track 313° to NOKDU ( $\Delta$ ) - RT on track 358° to ERKUM ( $\Delta$ )	necessary.  2 Only for flights with RFI 140 or
		- RT on track 005° to SONEB (Δ).	above and flights to EDLE via
		MAX IAS 220 KT during turns.	WYP DCT BAM. Other flights
		GPS/FMS:	proceed via PODIP.
		[A700+] - DK142[A1500+;K200-;L] - <u>DK143[L]</u> - DK144[L] - DK145[K220-] - WYP[L] - NOKDU[R] - ERKUM[R] - SONEB	3. MAX IAS 220 KT until established on R163 WYP.
SONEB 5C	(SONEB FIVE		1. By ATC only.
SONED SC	CHARLIE)	COL inbd to COL - at 11.5 DME COL LT on R163 WYP to WYP ( $\Delta$ )	
		- LT on track 320° to LI (Δ) - RT on track 011° to NIKOG (Δ) - LT on	necessary.
			3. Only for flights with RFL140 or
		MAX IAS 220 KT during turns. GPS/FMS:	above and flights to EDLE via WYP DCT BAM. Other flights
		[A700+] - DK142[A1500+;K200-;L] - <u>DK143[</u> L] - DK144[L] -	proceed via PODIP.
		DK145[K220-] - WYP[L] - LI[R] - NIKOG[L] - LUSIX[L] - SONEB	4. MAX IAS 220 KT until established
140/D 0E	AMIDDED TUDEE	Inhall Var o 5 DME V/DO 4500 anhigh areas in later I Tark BOZZO	on R163 WYP.
WYP 3E	(WIPPER THREE ECHO)	Inbd LV to 3.5 DME KBO or 1500, whichever is later - LT on R276 COL inbd to COL - at 11.5 DME COL LT on R163 WYP to WYP(Δ)	
	Lono	MAX IAS 220 KT during turns.	on R163 WYP.
		<b>GPS/FMS:</b> [A700+] - DK142[A1500+;K200-;L] - <u>DK143[</u> L] -	
	/·	DK144[L] - DK145[K220-] - WYP[	
PODIP 5E	(PODIP FIVE ECHO)		MAX IAS 200 KT until established
		COL to COL (Δ) - LT on R040 COL to PODIP (Δ)  GPS/FMS: [A700+] - DK142[A1500+;K200-;L] - COL [L]- PODIP	on R276 COL
COL 7E	(COLA SEVEN ECHO)	Inbd LV to 3.5 DME KBO or 1500, whichever is later - LT on R276	Only for local training flights at
002.2	,	COL to COL (Δ)	EDDK and for flights from EDDK
		<b>GPS/FMS</b> : [A700+] - DK142[A1500+;K200-;L] - COL	to EDDF.
			2. MAX IAS 200 KT until established on R276 COL.
KUMIK 4E	(KUMIK FOUR ECHO)	Inbd LV to 3.5 DME KBO or 1500, whichever is later - LT on R276	
rtownt 12	,	COL to COL (Δ) - LT on R079 COL to KUMIK (Δ)	Y854 shall intercept as follows: on
		GPS/FMS:	R079 COL to 14.5 DME COL; RT
		[A700+] - DK142[A1500+;K200-;L] - COL[L] - DK150 - KUMIK	to intercept 2. MAX IAS 200 KT until established
			on R276 COL.
NVO 1V	(NÖRVENICH ONE	Inbd LV to 3.5 DME KBO or 1500, whichever is later - LT on R276	1. By ATC only.
	VICTOR)	COL inbd COL - at 11.5 DME COL LT on R163 WYP inbd WYP - at	
		crossing R066 NVO LT - on R060 NVO to NVO (Δ) MAX IAS 220 KT during initial turns.	on R163 WYP.
		<b>GPS/FMS:</b> [A700+] - DK142[A1500+;K200-;L] - <u>DK143[</u> L] -	
		DK144[L] - DK145[K220-] - <mark>DK153[L]</mark> - <mark>DK154</mark> - NVO	
NVO 1E	(NÖRVENICH ONE	Dct to LV (5.0 DME KBO) - RT on track 200° to 7.2 DME KBO (CAT	
	ECHO)	C and D replace track 200° by continuous RT) - RT on R101 NVO to NVO (Δ).	until passing 4000 due to airspace structure. If unable to comply, file
		Cross LV at 4000 or above.	NOR 1C.
		MAX IAS 220 KT during turns.	2. MAX IAS 220 KT until established
		GPS/FMS:	on R101 NVO.
NOD 40	(NÖRVENICH ONE	[A700+] - <u>LV</u> [4000+;R] - DK148[R] - <u>DK138[K220-]</u> - <u>NVO</u> Inbd LV to 4.5 DME KBO - <u>RT on track 170°</u> LV to 12.5 DME KBO -	
NOR 1C	CHARLIE)	RT on R119 NVO to NVO (Δ)	
	- ,	GPS/FMS:	
		[A700+] - LV[R]- <u>DK146[</u> R] - <mark>DK137 - NVO</mark>	
	4 11 1 411 1 411		
RWY 24	•	ude 5000 ft. Remain on TWR frequency until passin	g 2000, then contact
CONED OD	Langen Radar.)	On DIAIN tree is to 0.0 DIAIE I/DO. LT on tree is 4500 to intercent	4 After MAAD DDNIAN and increase
SONEB 3D	(SONEB THREE DELTA)	On RWY track to 2.0 DME KBO - LT on track 158° to intercept R267 COL inbd COL to 14.0 DME COL - LT on R179 WYP to WYP	<ol> <li>After WYP BRNAV equipment necessary.</li> </ol>
		( $\Delta$ ) - LT on track 313° to NOKDU ( $\Delta$ ) - RT on track 358° to ERKUM	
		$(\Delta)$ - RT on track 005° to SONEB $(\Delta)$ .	above and flights to EDLE via
		GPS/FMS: [A700+] - DK021[L] - DK022[L] - DK023[L] - WYP[L] -	WYP DCT BAM. Other flights
SONED 4V	(SONER FOLIP Y-PAV	NOKDU[R] - ERKUM[R] - SONEB )On RWY track to 2.0 DME KBO - LT on track 158° to intercept	proceed via PODIP.  1. By ATC only.
SONEB 4X	(SOMED FOOK A-KAT	R267 COL inbd COL to 14.0 DME COL - LT on R179 WYP to WYP	
		( $\Delta$ ) - LT on track 320° to LI ( $\Delta$ ) - RT on track 011° to NIKOG - LT on	necessary.
			3. Only for flights with RFL140 or
		<b>GPS/FMS:</b> [A700+] - DK021[L] - DK022[L] - DK023[L] - WYP[L] - LI[R] -	above and flights to EDLE via WYP DCT BAM. Other flights
		NIKOG[L] - LUSIX[L] - SONEB	proceed via PODIP.
WYP 3D	(WIPPER THREE	On RWY track to 2.0 DME KBO - LT on track 158° to intercept	By ATC only.
	DELTA)	R267 COL inbd COL to 14.0 DME COL - LT on R179 WYP to WYP	
		(Δ). <b>GPS/FMS:</b> [A700+] - DK021[L] - DK022[L] - DK023[L] - WYP[L]	
PODIP 5D	(PODIP FIVE DELTA)	On RWY track to 2.0 DME KBO - LT on track 158° to intercept	
יסט ווסט.		R267 COL to COL ( $\Delta$ ) - on R040 COL to PODIP ( $\Delta$ )	
		<b>GPS/FMS</b> : [A700+] - DK021[L] - DK022[L] -COL[L]-PODIP	

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(COLA SIX DELTA) On RWY track to 2.0 DME KBO - LT on track 158° to intercept Only for local training flights at COL 6D R267 COL to COL (Δ) EDDK and for flights from EDDK to GPS/FMS: [A700+] - DK021[L] - DK022[L] - COL
On RWY track to 2.0 DME KBO - LT on track 158° to intercept EDDF. (KUMIK FIVE DELTA) Flights intending to proceed via **KUMIK 5D** R267 COL to COL ( $\Delta$ ) - LT on R079 COL to KUMIK ( $\Delta$ ) Y854 shall intercept as follows: on R079 COL to 14.5 DME COL; RT to GPS/FMS [A700+] - DK021[L] - DK022[L] - COL[L] - DK150 - KUMIK intercept (NÖRVENICH ONE On RWY track to 2.6 DME KBO - RT on R085 NVO to NVO (Δ) NVO 1D GPS/FMS: DELTA) p[A700+] - DK020[R] - NVO **RWY 32L** (Initial Climb Altitude 5000 ft. Remain on TWR frequency until passing 2000, then contact Langen Radar.) (SONEB THREE MIKE)Inbd LJ to 1.7 DME KBO or 700, whichever is later - RT on track 1. MAX IAS 220 kts until established SONEB 3M 024° to 3.9 DME KBO - RT on R242 GMH inbd GMH to intercept on R242 GMH. R195 WYP to WYP (Δ) - LT on track 313° to NOKDU (Δ) - RT on 2. After WYP BRNAV equipment track 358° to ERKUM ( $\Delta$ ) - RT on track 005° to SONEB ( $\Delta$ ). necessary. GPS/FMS: 3. Only for flights with RFL140 or [A700+] - DK033[R] - DK035[K220-] - DK036[L] - WYP[L] above and flights to EDLE via NOKDU[R] - ERKUM[R] - SONEB WYP DCT BAM. Other flights proceed via PODIP. (SONEB FOUR Inbd LJ to 1.7 DME KBO or 700, whichever is later - RT on track 1. MAX IAS 220 kts until established SONEB 4V 024° to 3.9 DME KBO - RT on R242 GMH inbd GMH to intercept VICTOR) on R242 GMH. R195 WYP to WYP ( $\Delta$ ) - LT on track 320° to LI ( $\Delta$ ) - RT on track 2. By ATC only. 011° to NIKOG (Δ) - LT on track 349° to LUSIX (Δ) - LT on track 3. After WYP BRNAV equipment <mark>345°</mark> to SONEB (Δ) necessary. GPS/FMS: [A700+] - DK033[R] - DK035[K220-] - DK036[L] -4. Only for flights with RFL140 or WYP[L] - LI[R] - NIKOG[L] - LUSIX[L] - SONEB above and flights to EDLE via WYP DCT BAM. Other flights proceed via PODIP (WIPPER TWO MIKE) Inbd LJ to 1.7 DME KBO or 700, whichever is later - RT on track 1. MAX IAS 220 kts until established WYP 2M 024° to 3.9 DME KBO - RT on R242 GMH inbd GMH to intercept on R242 GMH. R195 WYP to WYP ( $\Delta$ ). 2. By ATC only. GPS/FMS: [A700+] - DK033[R] - DK035[K220-] - DK036[L] - WYP (PODIP FIVE MIKE) Inbd LJ to 1.7 DME KBO or 700, whichever is later - RT on track 1. MAX IAS 220 KT until established PODIP 5M 024° to 3.9 DME KBO - RT on R242 GMH inbd GMH to 21.1 DME on R242 GMH. GMH - RT on R106 WYP to PODIP (Δ) 2. Daytime only: climb with 6,6% GPS/FMS: (401 ft/NM) until passing 5000 due [A700+] - DK033[R] - DK035[K220-] - DK038[R] - PODIP to airspace structure. If unable advise ATC upon startup. (COLA SEVEN MIKE) Inbd LJ to 1.7 DME KBO or 700, whichever is later - RT on track COL 7M 1. Only for local training flights at 024° to 3.9 DME KBO - RT on R242 GMH inbd GMH to 25.7 DME EDDK and for flights from EDDK GMH - RT on R318 COL to COL (Δ) to EDDF. GPS/FMS-2. MAX IAS 220 KT until [A700+] - DK033[R] - DK035[K220-] - DK037[R] - COL established on R242 GMH. 3. Daytime only: climb with 6,6% (401 ft/NM) until passing 5000 due to airspace structure. If unable advise ATC upon startup.

1. MAX IAS 220 KT until Inbd LJ to 1.7 DME KBO or 700, whichever is later - RT on track **KUMIK 5M** (KUMIK FIVE MIKE) 024° to 3.9 DME KBO - RT on R242 GMH inbd GMH to 21.1 DME established on R242 GMH. GMH - RT on R106 WYP to PODIP; RT on track 122° to KUMIK(Δ) 2. After PODIP BRNAV equipment GPS/FMS: necessary. [A700+] - DK033[R] - DK035[K220-] - DK038[R] - PODIP[R] -3. Daytime only: climb with 6,6% KUMIK (401 ft/NM) until passing 5000 due to airspace structure. If unable advise ATC upon startup. 1. MAX IAS 195 KT until established (NÖRVENICH ONE Inbd LJ to 2.8 DME KBO or 700, whichever is later - LT on R070 **NVO 1M** NVO to NVO (Δ) MIKE) on R070 NVO. GPS/FMS: [A700+] - DK030[K195-;L] - NVO **RWY 32R** (Initial Climb Altitude 5000 ft. Remain on TWR frequency until passing 2000, then contact Langen Radar.) (SONEB FOUR **SONEB 4B** Inbd LJ to 1.6 DME KBO or 700, whichever is later - RT on track 1. MAX IAS 210 kts until BRAVO) 011° to 3.4 DME KBO - RT on R242 GMH inbd GMH to intercept established on R242 GMH. R195 WYP to WYP (Δ) - LT on track 313° to NOKDU (Δ) - RT on 2. After WYP BRNAV equipment track 358° to ERKUM ( $\Delta$ ) - RT on track 005° to SONEB ( $\Delta$ ). necessary. GPS/FMS: 3. Only for flights with RFL140 or A700+] - DK034[R] - DK039[R] -DK035[K210-;R] - DK036[L] above and flights to EDLE via WYP DCT BAM. Other flights

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proceed via PODIP.

WYP[L] - NOKDU[R] - ERKUM[R] - SONEB



SONEB 5\	(SONEB FIVE WHISKEY)	Inbd LJ to 1.6 DME KBO or 700, whichever is later - RT on track 011° to 3.4 DME KBO - RT on R242 GMH inbd GMH to intercept R195 WYP to WYP ( $\Delta$ ) - LT on track 320° to LI ( $\Delta$ ) - RT on track 011° to NIKOG ( $\Delta$ )- LT on track 349° to LUSIX( $\Delta$ ) - LT on track 345 to SONEB ( $\Delta$ ) GPS/FMS: [A700+] - DK034[R] - DK039[R] - DK035[K210-;R] - DK036[L] - WYP[L] - LI[R] - NIKOG[L] - LUSIX[L] - SONEB	<ol> <li>MAX IAS 210 kts until established on R242 GMH.</li> <li>By ATC only.</li> <li>After WYP BRNAV equipment necessary.</li> <li>Only for flights with RFL140 or above and flights to EDLE via WYP DCT BAM. Other flights proceed via PODIP.</li> </ol>
WYP 3B	(WIPPER THREE BRAVO)	Inbd LJ to 1.6 DME KBO or 700, whichever is later - RT on track 011° to 3.4 DME KBO - RT on R242 GMH inbd GMH to intercept R195 WYP to WYP ( $\Delta$ ). GPS/FMS: [A700+] - DK034[R] - DK039[R] - DK035[K210-;R] - DK036[L] - WYP	MAX IAS 210 kts until established on R242 GMH.     By ATC only.
PODIP 6B	(PODIP SIX BRAVO)	Inbd LJ to 1.6 DME KBO or 700, whichever is later - RT on track 011° to 3.4 DME KBO - RT on R242 GMH inbd GMH to 21.1 DME GMH - RT on R106 WYP to PODIP (Δ) GPS/FMS: A700+] - DK034[R] - DK039[R] - DK035[K210-;R] - DK038[R] - PODIP	1. MAX IAS 210 KT until established on R242 GMH. 2. Daytime only: climb with 7% (425 ft/NM) until passing 5000 due to airspace structure. If unable advise ATC upon startup.
COL 1B	(COLA ONE BRAVO)	Inbd LJ to 1.6 DME KBO or 700, whichever is later - RT on track 011° to 3.4 DME KBO - RT on R242 GMH inbd GMH to 25.7 DME GMH - RT on R318 COL to COL (Δ) GPS/FMS: [A700+] - DK034[R] - DK039[R] - DK035[K210-;R] - DK037[R] - COL	1. Only for local training flights at
KUMIK 7B	(KUMIK SEVEN BRAVO)	Inbd LJ to 1.6 DME KBO or 700, whichever is later - RT on track 011° to 3.4 DME KBO - RT on R242 GMH inbd GMH to 21.1 DME GMH - RT on R106 WYP to PODIP; RT on track 122° to KUMIK (\( \Delta GPS/FMS: \[ [A700+] - \frac{DK034}{R} \] - DK039[R] - DK035[K210-;R] - DK038[R] - PODIP[R] - KUMIK	1. MAX IAS 210 KT until established on R242 GMH.
NVO 1B	(NÖRVENICH ONE BRAVO)	Inbd LJ to <mark>2.8 DME</mark> KBO - <mark>LT on R070 NVO to NVO (Δ)</mark> GPS/FMS: [A700+] - <mark>DK040</mark> [K195-;L] - <mark>NVO</mark>	MAX IAS 195 KT until established on R070 NVO.
	<u>ry / Exit Points</u>		
NOVEMBE		MAX 2500 MSL - track 175° to CHARLIE / track 020° from airport	(N 50° 57,2' E007° 10,9')
CHARLIE	east of airport	MAY 0500 MCI areal 0050 to OHABI IS (total 4050 for	(N 50° 52,7' E007° 11,5')
ECHO	east of airport	MAX 2500 MSL - track 295° to CHARLIE / track 105° from airport	(N 50° 50,6' E007° 20,1')
SIERRA	south of airport	MAX 2500 MSL - track 040° to airport / track 220° from airport	(N 50° 46,2' E007° 04,5')

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WHISKEY

west of airport

MAX 1500 MSL - track 105° to airport / track 285° from airport

(N 50° 53,0' E006° 58,2')