

KOELN/BONN  
RNAV (GPS, DME/DME/IRU) RWY 13R

STANDARD INSTRUMENT DEPARTURE  
ROUTES (SID)

Designator			Route		After Take-Off				Procedure remarks		
					Climb to		Contact				
<b>COL 9E</b>			<b>COL NINE ECHO</b>		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		1. Pass DK142 at or above 1500 to remain in protected airspace. 2. PDG 3.8% (235 ft/NM) due to obstacle.		
<b>Route Type</b>	<b>Path Terminator</b>	<b>Waypoint Identifier</b>	<b>Coordinates</b>	<b>Fly- over</b>	<b>(True Track) MAG Track (°)</b>	<b>Distance (NM)</b>	<b>Turn Direction</b>	<b>Altitude (ft) Flight Level</b>	<b>Speed Limit (kt IAS)</b>	<b>NAV Specification</b>	<b>Remark</b>
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	220-	RNAV 1	-
Common	DF	DK142	N 50 49 00.44 E 007 13 01.17	N	-	-	-	A1500+	220-	RNAV 1	-
Common	TF	COL	N 50 47 00.88 E 007 35 38.29	N	(T097.8) 095	14.5	-	-	-	RNAV 1	-

Designator			Route		After Take-Off				Procedure remarks		
					Climb to		Contact				
<b>KUMIK 6E</b>			<b>KUMIK SIX ECHO</b>		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		1. Pass DK142 at or above 1500 to remain in protected airspace. 2. PDG 3.8% (235 ft/NM) due to obstacle.		
<b>Route Type</b>	<b>Path Terminator</b>	<b>Waypoint Identifier</b>	<b>Coordinates</b>	<b>Fly- over</b>	<b>(True Track) MAG Track (°)</b>	<b>Distance (NM)</b>	<b>Turn Direction</b>	<b>Altitude (ft) Flight Level</b>	<b>Speed Limit (kt IAS)</b>	<b>NAV Specification</b>	<b>Remark</b>
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	220-	RNAV 1	-
Common	DF	DK142	N 50 49 00.44 E 007 13 01.17	N	-	-	-	A1500+	220-	RNAV 1	-
Common	TF	COL	N 50 47 00.88 E 007 35 38.29	N	(T097.8) 095	14.5	-	-	-	RNAV 1	-
Common	TF	KUMIK	N 50 50 11.71 E 008 04 23.97	N	(T079.9) 077	18.5	-	-	-	RNAV 1	-

Designator			Route		After Take-Off				Procedure remarks		
					Climb to		Contact				
<b>NVO 3C</b>			<b>NVO THREE CHARLIE</b>		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		PDG 3.8% (235 ft/NM) due to obstacle.		
<b>Route Type</b>	<b>Path Terminator</b>	<b>Waypoint Identifier</b>	<b>Coordinates</b>	<b>Fly- over</b>	<b>(True Track) MAG Track (°)</b>	<b>Distance (NM)</b>	<b>Turn Direction</b>	<b>Altitude (ft) Flight Level</b>	<b>Speed Limit (kt IAS)</b>	<b>NAV Specification</b>	<b>Remark</b>
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	250-	RNAV 1	-
Common	DF	DK147	N 50 48 15.18 E 007 14 24.81	N	-	-	-	-	250-	RNAV 1	-
Common	TF	DK146	N 50 40 10.46 E 007 16 19.20	Y	(T171.5) 168	8.2	-	-	250-	RNAV 1	-
Common	DF	DK152	N 50 39 09.06 E 007 06 21.80	N	-	-	-	-	250-	RNAV 1	-
Common	TF	NVO	N 50 49 21.63 E 006 38 11.52	N	(T299.9) 297	20.6	-	-	-	RNAV 1	-

Designator			Route		After Take-Off				Procedure remarks		
					Climb to		Contact				
<b>NVO 3E</b>			<b>NVO THREE ECHO</b>		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		1. Cross DK147 at or above 4000 due to airspace structure. If unable to comply file NVO C. 2. PDG 3.8% (235 ft/NM) due to obstacle.		
<b>Route Type</b>	<b>Path Terminator</b>	<b>Waypoint Identifier</b>	<b>Coordinates</b>	<b>Fly- over</b>	<b>(True Track) MAG Track (°)</b>	<b>Distance (NM)</b>	<b>Turn Direction</b>	<b>Altitude (ft) Flight Level</b>	<b>Speed Limit (kt IAS)</b>	<b>NAV Specification</b>	<b>Remark</b>
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	-	RNAV 1	-
Common	DF	DK147	N 50 48 15.18 E 007 14 24.81	Y	-	-	-	A4000+	220-	RNAV 1	-
Common	DF	DK148	N 50 45 43.39 E 007 14 47.40	N	-	-	R	-	220-	RNAV 1	-
Common	TF	DK138	N 50 44 47.36 E 007 11 17.40	N	(T247.2) 244	2.4	-	-	220-	RNAV 1	-
Common	TF	NVO	N 50 49 21.63 E 006 38 11.52	N	(T282.5) 279	21.5	-	-	-	RNAV 1	-