

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

STANDARD INSTRUMENT DEPARTURE
ROUTES (SID)

Designator			Route		After Take-Off				Procedure remarks		
					Climb to		Contact				
NVO 3F			NVO THREE FOXTROT		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		1. Cross DK133 at or above 4000 due to airspace structure. If unable to comply file NVO P. 2. Aircraft with RNP-1 and RF-leg functionality shall file QUEBEC-SID. 3. PDG 3.7% (235 ft/NM) due to obstacle.		
Climb on course 134° to 700. Direct DK133. RT direct DK134. To DK135. To NVO. Climb with 3.7% (225 ft/NM) or more until passing 800. Cross DK133 at or above 4000. MAX IAS 220 kts until passing DK135.											
Route Type	Path Terminator	Waypoint Identifier	Coordinates	Fly-over	(True Track) MAG Track (°)	Distance (NM)	Turn Direction	Altitude (ft) Flight Level	Speed Limit (kt IAS)	NAV Specification	Remark
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	220-	RNAV 1	-
Common	DF	DK133	N 50 48 19.46 E 007 14 06.65	Y	-	-	-	A4000+	220-	RNAV 1	-
Common	DF	DK134	N 50 45 50.38 E 007 14 24.81	N	-	-	R	-	220-	RNAV 1	-
Common	TF	DK135	N 50 44 55.81 E 007 10 59.08	N	(T247.3) 244	2.4	-	-	220-	RNAV 1	-
Common	TF	NVO	N 50 49 21.63 E 006 38 11.52	N	(T282.2) 279	21.3	-	-	-	RNAV 1	-

Designator			Route		After Take-Off				Procedure remarks		
					Climb to		Contact				
NVO 3P			NVO THREE PAPA		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		-		
Climb on course 134° to 700. Direct DK132. To DK146. RT direct DK152. To NVO. MAX IAS 250 kts until passing DK152.											
Route Type	Path Terminator	Waypoint Identifier	Coordinates	Fly-over	(True Track) MAG Track (°)	Distance (NM)	Turn Direction	Altitude (ft) Flight Level	Speed Limit (kt IAS)	NAV Specification	Remark
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	250-	RNAV 1	-
Common	DF	DK132	N 50 48 04.63 E 007 14 27.30	N	-	-	-	-	250-	RNAV 1	-
Common	TF	DK146	N 50 40 10.46 E 007 16 19.20	Y	(T171.5) 168	8.0	-	-	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				
NVO 3W			NVO THREE WHISKEY		5000 ft		LANGEN RADAR 135.350 Remain on TWR frequency until passing 2000, then contact Langen Radar.		1. Cross DK130 at or above 1500 to remain in protected airspace. 2. Pass DK145 at or above 4000 due to crossing final approach RWY 24. If unable to comply advise ATC upon start-up. 3. PDG 3.8% (235 ft/NM) due to obstacle. 4. By ATC only.		
Climb on course 134° to 700. Direct DK130. LT direct DK141. On course 094° to DK143. LT direct DK144. To DK145. To DK149. To NVO. Climb with 3.8% (235 ft/NM) or more until passing 1400. Cross DK130 at or above 1500. Pass DK145 at or above 4000. MAX IAS 220 kts until passing DK145. MAX IAS 250 kts until passing DK149.											
Route Type	Path Terminator	Waypoint Identifier	Coordinates	Fly-over	(True Track) MAG Track (°)	Distance (NM)	Turn Direction	Altitude (ft) Flight Level	Speed Limit (kt IAS)	NAV Specification	Remark
Common	CA	-	-	-	(T137.5) 134	-	-	A700+	220-	RNAV 1	-
Common	DF	DK130	N 50 49 30.40 E 007 12 27.72	Y	-	-	-	A1500+	220-	RNAV 1	-
Common	DF	DK141	N 50 48 52.89 E 007 14 18.66	N	-	-	L	-	220-	RNAV 1	-
Common	CF	DK143	N 50 48 35.78 E 007 17 41.52	Y	(T097.6) 094	-	-	-	220-	RNAV 1	-
Common	DF	DK144	N 50 49 22.39 E 007 21 00.27	N	-	-	L	-	220-	RNAV 1	-
Common	TF	DK145	N 50 51 33.36 E 007 21 46.88	N	(T012.7) 010	2.2	-	A4000+	220-	RNAV 1	-
Common	TF	DK149	N 50 55 07.80 E 007 20 13.01	N	(T344.5) 341	3.7	-	-	250-	RNAV 1	-
Common	TF	NVO	N 50 49 21.63 E 006 38 11.52	N	(T258.0) 255	27.2	-	-	-	RNAV 1	-