

STANDARD INSTRUMENT DEPARTURE
ROUTES (SID)

DUESSELDORF
RWY 23R

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:" and charted in addition on "CHART – INSTRUMENT (OVERLAY)". 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 navigation 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.

Designator	Route	After Take-Off		Remarks
		Climb to	Contact	
1	2	3	4	5
LMA 3H	LIMA THREE HOTEL On runway track to 1.1 DME DUS (1.3 DME IDNE) or 600 ft, whichever is later; RT, on track 295° LMA to LMA(Δ). Climb with 7% (425ft/NM) or more until passing 3000. GPS/FMS RNAV: DL237[A600+; R] - LMA.	5000 ft	Langen Radar 121.355	1. PDG due to airspace structure. If unable to comply, advise Delivery on start-up request. 2. Only for flights to EDLN.
SONEB 4H	SONEB FOUR HOTEL On runway track to 1.0 DME DUS (1.2 DME IDNE) or 600 ft, whichever is later; RT, on heading 001° to intercept and follow R001 NVO to 6.0 DME DUS (5.7 DME IDNE); LT on track 357° to ERKUM(Δ); RT, on track 003° via DL245 to SONEB(Δ). Climb with 7.8% (470ft/NM) or more until passing 2000. GPS/FMS RNAV: DL231[A600+; R] - DL234 - DL246[K190-; L] - DL248[L] - ERKUM[R] - DL245[F140+] - SONEB.			1. After 6.0 DME DUS (5.7 DME IDNE) BRNAV equipment necessary. 2. Only for flights with RFL140 or above via RKN/TENLI. Other flights proceed via MEVEL. Flights must be able to cross DL245 at FL140 or above. If unable advise clearance Delivery upon start-up request. 3. MAX IAS 190 KT until established on R001 NVO. 4. PDG 7.8 Percent (470 FT(NM)) due to navaid coverage.
MEVEL 4H	MEVEL FOUR HOTEL On runway track to 1.0 DME DUS (1.2 DME IDNE) or 600 ft, whichever is later; RT, on heading 001° to intercept and follow R001 NVO to 6.0 DME DUS (5.7 DME IDNE); LT on track 357° to ERKUM(Δ); RT, on track 050° to LUSIX(Δ); on track 051° to MEVEL(Δ). Climb with 7.8% (470ft/NM) or more until passing 2000. GPS/FMS RNAV: DL231[A600+; R] - DL234 - DL246[K190-; L] - DL248[L] - ERKUM[R] - LUSIX - MEVEL.			1. After 6.0 DME DUS (5.7 DME IDNE) BRNAV equipment necessary. 2. MAX IAS 190 KT until established on R001 NVO. 3. PDG 7.8 Percent (470 FT(NM)) due to navaid coverage.
GMH 4H	GERMINGHAUSEN FOUR HOTEL On track 227° DY to 4.5 DME DUS (4.7 DME IDNE); LT, on heading 171° until crossing R268 GMH (21.5 DME NVO); LT, on R263 GMH to GMH(Δ). Climb with 8.2% (495 ft/NM) or more until passing 3000. Pass 4.5 DME DUS (4.7 DME IDNE) at or above 2300. GPS/FMS RNAV: [A600+] - DL240[A3000+; L] - DL241[L] - GMH.			1. PDG due to traffic at EDLN. If unable to comply, advise Delivery on start-up request. 2. Only for flights with RFL 140 or below.
NVO 2U	NÖRVENICH TWO UNIFORM On track 227° DY to 4.5 DME DUS (4.7 DME IDNE); LT on heading 171° to intercept and follow R358 NVO to NVO(Δ). Climb with 8.2% (495 ft/NM) or more until passing 3000. Pass 4.5 DME DUS (4.7 DME IDNE) at or above 2300. GPS/FMS RNAV: [A600+] - DL240[A3000+; L] - DL241[R] - NVO.			1. PDG due to traffic at EDLN. If unable to comply, advise Delivery on start-up request. 2. For flights with RFL 90 and below. Flights with RFL 100 and above shall file via MODRU. 3. Additional available for flights via Q760 (between: 0500 (0400) – 0700 (0600)).
DODEN 4H	DODEN FOUR HOTEL On track 227° DY to 4.5 DME DUS (4.7 DME IDNE); LT, on heading 171° until crossing R268 GMH (21.5 DME NVO); LT, on track 083° to DL242; on track 084° to ELBAL(Δ); RT, on track 133° to BETZO(Δ); RT, on track 145° to DODEN(Δ). Climb with 8.2% (495 ft/NM) or more until passing 3000. Pass 4.5 DME DUS (4.7 DME IDNE) at or above 2300. Cross DL242 at FL150 or above. Cross DODEN at FL250 or above. GPS/FMS RNAV: [A600+] - DL240[A3000+; L] - DL241[L] - DL242[F150+] - ELBAL[R] - BETZO[R] - DODEN[F250+].			1. PDG due to traffic at EDLN. If unable to comply, advise Delivery on start-up request. 2. After crossing R268 GMH (21.5 DME NVO) BRNAV equipment necessary. 3. Only for jet flights with RFL 250 or above. Flights shall cross DODEN at FL 250 or above. Flights unable shall file SID KUMIK. 4. Flights unable to cross DL242 at FL 150 or above shall advise clearance Delivery upon start-up request.
NUDGO 4H	NUDGO FOUR HOTEL On track 227° DY to 4.5 DME DUS (4.7 DME IDNE); LT, on heading 171° until crossing R268 GMH (21.5 DME NVO); LT, on track 083° to ELBAL(Δ); LT, on track 066° via MAMIB(Δ) to KULIX(Δ); LT, on track 060° to NUDGO(Δ). Climb with 8.2% (495 ft/NM) or more until passing 3000. Pass 4.5 DME DUS (4.7 DME IDNE) at or above 2300. GPS/FMS RNAV: [A600+] - DL240[A3000+; L] - DL241[L] - ELBAL[L] - MAMIB - KULIX[L] - NUDGO.			1. PDG due to traffic at EDLN. If unable to comply, advise Delivery on start-up request. 2. Not available for flights into upper airspace. 3. After crossing R268 GMH (21.5 DME NVO) BRNAV equipment necessary.

(Sample: DL231 fly-over way point)

Remain on TWR-Frequency until passing altitude 2000 ft, then contact Langen Radar.