

# Düsseldorf RG Airports

Note: Not for real navigation!

## Düsseldorf (EDDL/DUS)

Elevation 138 ft

Effective: **03 MAR 2017**

Quelle: DFS GmbH

### NAVAIDS:

<b>DUS</b>	115.15
<b>ILS 05L</b>	109.50 / 053° (IDNE)
<b>DME IDNE*</b>	(110.95)
<b>ILS 05R</b>	111.50 / 053° (IDSE)
<b>ILS 23L</b>	109.90 / 233° (IDSW)
<b>ILS 23R</b>	109.30 / 233° (IDNW)
<b>DY</b>	284.50
<b>LI</b>	417.00

### Communication:

<b>Station</b>	<b>Freq.</b>
ATIS	123.770
Delivery	121.770
Ground East	121.600
Ground West	121.900
Tower	118.300
Director	128.650
Langen Radar	128.550 (Arrival), 128.500 (Departure North), 121.350 (Departure South), 135.720, 129.170 (HMMM), 135.650 (PADH), 127.620 (TAU), 129.870 (FIS North & West), 130.970 (Special)
Maastricht Radar	133.800 (Münster), 132.620 (Ruhr)

(Changes are marked yellow)

\*only available for FS9/FSX/P3D with free addon "["EDDL additional ILS05L 1413.zip"](#)"

### GPS / FMS RNAV Transitions

#### **RWY 05L/05R**

BIKMU 05	BIKMU-RONAD-DL513-DL514-IBIKO-GAPNU-DL522-RONAD-DL524-DL525-DL530-DL550-DL555-DIKMI/NATOS
DOMUX 05	DOMUX-DOLAV-DL502-DL503-DL504-DL505-DL510-DL550-DL555-DIKMI/NATOS
ELDAR 05	ELDAR-DL501-DL502-DL503-DL504-DL505-DL510-DL550-DL555-DIKMI/NATOS
LMA 05	LMA-IBIKO-GAPNU-DL522-RONAD-DL524-DL525-DL530-DL550-DL555-DIKMI/NATOS
TEBRO 05	TEBRO-DL512-VALSU-GAPNU-DL522-RONAD-DL524-DL525-DL530-DL550-DL555-DIKMI/NATOS
XAMOD 05	XAMOD-BOMBA-DL517-DL518-DL519-GAPNU-DL522-RONAD-DL524-DL525-DL530-DL550-DL555-DIKMI/NATOS

#### **RWY 05L/05R (CDO) ⇒ ALPHA for RWY05L / BRAVO for RWY05R**

ABIGI 1A	ABIGI-DL505-DL555-DIKMI	ABIGI 1B
BABUV 1A	BABUV-DL505-DL555-DIKMI	BABUV 1B
DISIP 1A	DISIP-DL525-DL556-DIKMI	DISIP 1B
EKDUS 1A	EKDUS-DL525-DL556-DIKMI	EKDUS 1B
GOGOG 1A	GOGOG-DL510-DL550-DL556-DIKMI	GOGOG 1B

#### **RWY 23L/23R**

BIKMU 23	BIKMU-DL426-DL428-DL429-DL430-DL450-DL452-DL454-DL455-METMA/REGNO
DOMUX 23	DOMUX-DL402-DL403-DL404-DL405-DL406-DL407-DL408-DL409-DL410-DL450-DL452-DL454-DL455-METMA/REGNO
LMA 23	LMA-DL426-DL428-DL430-DL450-DL452-DL454-DL455-METMA/REGNO
TEBRO 23	TEBRO-AGEDA-XAMOD-DL420-DL421-DL422-DL426-DL428-DL429-DL430-DL450-DL452-DL454-DL455-METMA/REGNO
XAMOD 23	XAMOD-DL420-DL421-DL422-DL426-DL428-DL429-DL430-DL450-DL452-DL454-DL455-METMA/REGNO

#### **RWY 23L/23R (CDO) ⇒ ALPHA for RWY23R / BRAVO for RWY23L**

IBIXI 1A	IBIXI-DL407-DL456-REGNO	IBIXI 1B
LONSO 1A	LONSO-DL456-REGNO	LONSO 1B
NISOX 1A	NISOX-DL456-REGNO	NISOX 1B
OBOMA1A	OBOMA-DL456-REGNO	OBOMA 1B
RUGAP 1A	RUGAP-DL456-REGNO	RUGAP 1B
TIVIM 1A	TIVIM-DL426-REGNO	TIVIM 1B
UNDOG 1A	UNDOG-DL424-DL426-DL456-REGNO	UNDOG 1B

## Standard Instrument Arrival Routes

### RWY 05L/05R

BIKMU 1X	(BIKMU ONE X-RAY)	BIKMU - RONAD	BRNAV equipment necessary
DOMUX 2X	(DOMUX TWO X-RAY)	DOMUX - DOLAV - LEBTI	BRNAV equipment necessary
LMA 9X	(LIMA NINE X-RAY)	LMA - IBIKO - GAPNU - RONAD	BRNAV equipment necessary
TEBRO 1X	(TEBRO ONE X-RAY)	TEBRO - VALSU - GAPNO - RONAD	BRNAV equipment necessary
XAMOD 2X	(XAMOD TWO X-RAY)	XAMOD - BOMBA - GAPNU - RONAD	BRNAV equipment necessary

### RWY 23L/23R

BIKMU1G	(BIKMU ONE GOLF)	BIKMU - BOT	BRNAV equipment necessary
DOMUX 2G	(DOMUX TWO GOLF)	DOMUX - BAM	
LMA 8G	(LIMA EIGHT GOLF)	LMA - BOT	
TEBRO 1G	(TEBRO ONE GOLF)	TEBRO - AGEDA - XAMOD - BOT	BRNAV equipment necessary
XAMOD 2G	(XAMOD TWO GOLF)	XAMOD - BOT	

## 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 05L (Initial Climb Altitude 5000 ft. Remain on TWR frequency until passing altitude 2000 ft.)

LMA 6Y	(LIMA SIX YANKEE)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 261° LMA to LMA (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL051[L] - DL052 - LMA	1. Only for flights to EDLN. 2. PDG due to airspace structure. If unable to comply, advise DEL on start-up request.
SONEB 4J	(SONEB FOUR JULIETT)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 008° to 13.5 DME DUS/13.3 DME IDNE - LT on R169 RKN to 28.2 DME RKN - LT on track 346° via DL054 to SONEB (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL053[L] - NIKOG[L] - LUSIX[L] - DL054[F140+] - SONEB	1. PDG due to airspace structure. If unable to comply, advise DEL on start-up request. 2. After 28.2 DME RKN BRNAV equipment necessary. 3. Only for Flights with RFL140 or above via RKN/TENLI. Other flights proceed via MEVEL. Flights must be able to cross DL054 at FL140 or above. If unable to comply, advise DEL on start-up request.
MEVEL 7J	(MEVEL SEVEN JULIETT)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 008° to 13.5 DME DUS/13.3 DME IDNE - LT on R169 RKN to 28.2 DME RKN - RT on track 052° to MEVEL (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL053[L] - NIKOG[L] - LUSIX[R] - MEVEL	1. PDG due to airspace structure. If unable to comply, advise DEL on start-up request. 2. After 28.2 DME RKN BRNAV equipment necessary.
GMH 7Y	(GERMINGHAUSEN SEVEN YANKEE)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - RT on R095 BAM to 6.6 DME BAM - RT on R292 GMH to GMH (Δ). <b>GPS/FMS:</b> [A600+] - DL050[L] - DL058[R] - BAM[L] - ANAVI[R] - GMH	Only for flights with RFL140 or below.
NVO 1Y	(NÖRVENICH ONE YANKEE)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM inbound BAM - at 3.6 DME BAM RT on R213 BAM to NVO (Δ). <b>GPS/FMS:</b> [A600+] - DL050[L] - DL058[R] - BAM[R] - NVO	1. For Flights with RFL 90 and below. Flights with RFL 100 and above shall file via MODRU. 2. Additional available for flights via Q760 (between 0500 (0400) - 0700 (0600)).
DODEN 5J	(DODEN FIVE JULIETT)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - on R134 BAM to 12.9 DME BAM - RT on track 135° to BETZO (Δ) - RT on track 147° to DODEN (Δ). Cross 12.9 DME BAM at FL150 or above. Cross DODEN at FL250 or above. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL058[R] - BAM[R] - ELBAL[F150+;R] - BETZO[R] - DODEN[F250+]	1. After 12.9 DME BAM BRNAV equipment necessary. 2. Only for jet flights with RFL 250 or above. Flights shall cross DODEN at FL250 or above. Flights unable shall file SID KUMIK. Flights unable to cross ELBAL at FL150 or above shall advise DEL on start-up request.

NUDGO 3J	(NUDGO THREE JULIETT)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - on R095 BAM to 6.6 DME BAM - RT on R292 GMH to 8.7 DME GMH - LT on track 067° to KULIX (Δ) - LT on track 061° to NUDGO (Δ). <b>GPS/FMS:</b> [A600+] - DL050[L] - DL058[R] - BAM[L] - ANAVI[R] - MAMIB[L] - KULIX[L] - NUDGO	1. Not available for flights into upper airspace. 2. After 8.7 DME GMH BRNAV equipment necessary.
MODRU 6J	(MODRU SIX JULIETT)	On R053 DUS to 6 DME DUS/5.8 DME IDNE - LT on track 008° to 12.7 DME DUS/12.4 DME IDNE - LT on track 290° to ORSOV (Δ) - LT on track 242° to VEBAK (Δ) - LT on track 199° via NETEX (Δ) to MODRU (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL053[L] - NIKOG[L] - ORSOV[L] - VEBAK[L] - NETEX - MODRU[F210+]	1. PDG due to airspace structure. 2. Only for flights with RFL 210 and above. Flights have to be able to cross MODRU at FL210 or above. If unable to comply, advise DEL on startup req. 3. Flights intending to continue NETEX - FAMEN or NETEX - DELOW shall file SID MODRU - NETEX - DCT FAMEN or SID MODRU - NETEX - DCT DELOM, also in case of COMM FAIL. 4. After 12.7 DME DUS BRNAV equipment necessary.
NETEX 3J	(NETEX THREE JULIETT)	On R053 DUS to 6 DME DUS/5.8 DME IDNE - LT on track 008° to 12.7 DME DUS/12.4 DME IDNE - LT on track 290° to ORSOV (Δ) - LT on track 242° to VEBAK (Δ) - LT on track 199° to NETEX (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL053[L] - NIKOG[L] - ORSOV[L] - VEBAK[L] - NETEX	1. PDG due to airspace structure. 2. For flights with RFL from 100 to 200 or flights via Z282 DIBIR L179 (if available). 3. After 12.7 DME DUS/12.4 DME IDNE BRNAV equipment necessary.
KUMIK 3J	(KUMIK THREE JULIETT)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - on R095 BAM to 6.6 DME BAM - RT on track 128° to DEGOM (Δ) - RT on track 141° to KUMIK (Δ). Cross DEGOM at FL150 or above. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL058[R] - BAM[L] - ANAVI[R] - DEGOM[F150+;R] - KUMIK	1. Only for flights with RFL150 or above. 2. After 6.6 DME BAM BRNAV equipment necessary. 3. Normally not available for flights above FL250 via BOMB1, except Prop/Turbo Prop type aircraft. Flights unable to cross DEGOM at FL150 or above shall advise ATC.
COL 3J	(COLA THREE JULIETT)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM inbd BAM - at 1.6 DME BAM RT on R163 BAM to 11.4 DME BAM - LT on R327 COL to COL (Δ). Cross 11.4 BAM at FL150 or above. <b>GPS/FMS:</b> [A600+] - DL050[L] - DL058[R] - BAM[L] - LIPMI[F150+;L] - COL	Flights unable to cross LIPMI at FL150 or above shall advise clearance Delivery upon startup request.
<b>RWY 05R (Initial Climb Altitude 5000 ft. Remain on TWR frequency until passing altitude 2000 ft.)</b>			
LMA 1Z	(LIMA ONE ZULU)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 261° LMA to LMA (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL051[L] - DL052 - LMA	1. Only for flights to EDLN. 2. PDG due to airspace structure. If unable to comply, advise DEL.
SONEB 4Z	(SONEB FOUR ZULU)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 008° to 13.5 DME DUS/13.3 DME IDNE - LT on R169 RKN to 28.8 DME RKN - LT on track 346° via DL054 to SONEB (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL053[L] - NIKOG[L] - LUSIX[L] - DL054[F140+] - SONEB	1. PDG due to airspace structure. If unable to comply, advise DEL on start-up request. 2. After 28.2 DME RKN BRNAV equipment necessary. 3. Only for Flights with RFL 140 or above via RKN/TENLI. Other flights proceed via MEVEL. Flights must be able to cross DL054 at FL140 or above. If unable to comply, advise DEL.
<b>MEVEL 8Z</b>	(MEVEL EIGHT ZULU)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 008° to 13.5 DME DUS/13.3 DME IDNE - LT on R169 RKN to 28.2 DME RKN - RT on track 052° to MEVEL (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL053[L] - NIKOG[L] - LUSIX[R] - MEVEL	1. PDG due to airspace structure. If unable to comply, advise DEL on start-up request. 2. After 28.2 DME RKN BRNAV equipment necessary.
GMH 4Z	(GERMINGHAUSEN FOUR ZULU)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - on R095 BAM to 6.6 DME BAM - RT on R292 GMH to GMH (Δ). <b>GPS/FMS:</b> [A600+] - DL050[R] - DL058[R] - BAM[L] - ANAVI[R] - GMH	Only for flights with RFL140 or below.

<b>NVO 1Z</b>	(NÖRVENICH ONE ZULU)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM inbound BAM - at <b>3.6 DME BAM RT on R213 BAM to NVO (Δ)</b> . <b>GPS/FMS:</b> [A600+] - DL050[R] - DL058[R] - BAM[R] - <b>NVO</b>	<ol style="list-style-type: none"> <li>1. For Flights with RFL90 and below. Flights with RFL100 and above shall file via MODRU.</li> <li>2. Additional available for flights via Q760 (between 0500 (0400) – 0700 (0600)).</li> </ol>
<b>DODEN 5Z</b>	(DODEN FIVE ZULU)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - on R278 BAM to BAM (Δ) - RT on R134 to 12.9 DME BAM - RT on track 135° to BETZO (Δ) - RT on track 147° to DODEN (Δ). Cross 12.9 DME BAM at FL150 or above. Cross DODEN at FL250 or above. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL058[R] - BAM[R] - ELBAL[F150+] - BETZO[R] - DODEN[F250+]	<ol style="list-style-type: none"> <li>1. After 12.9 DME BAM BRNAV equipment necessary.</li> <li>2. Only for jet flights with RFL 250 or above. Flights shall cross DODEN at FL250 or above. Flights unable shall file SID KUMIK. Flights unable to cross ELBAL at FL150 or above shall advise DEL.</li> </ol>
<b>NUDGO3Z</b>	(NUDGO THREE ZULU)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - on R095 BAM to 6.6 DME BAM - RT on R292 GMH to 8.7 DME GMH - LT on track 067° via KULIX (Δ) - LT on track 061° to NUDGO (Δ). <b>GPS/FMS:</b> [A600+] - DL050[R] - DL058[R] - BAM[L] - ANAVI[R] - MAMIB[L] - KULIX[L] - NUDGO	<ol style="list-style-type: none"> <li>1. Not available for flights into upper airspace.</li> <li>2. After 8.7 DME GMH BRNAV equipment necessary.</li> </ol>
<b>MODRU6Z</b>	(MODRU SIX ZULU)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 008° to 12.7 DME DUS/12.4 DME IDNE - LT on track 290° to ORSOV (Δ) - LT on track 242° to VEBAK (Δ) - LT on track 199° via NETEX (Δ) to MODRU (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL053[L] - NIKOG[L] - ORSOV[L] - VEBAK[L] - NETEX - MODRU[F210+]	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure.</li> <li>2. Only for flights with RFL 210 and above. Flights have to be able to cross MODRU at FL 210 or above. If unable to comply, advise DEL. on startup req</li> <li>3. Flights intending to continue NETEX - FAMEN or NETEX - DELOW shall file SID MODRU - NETEX - DCT FAMEN or SID MODRU - NETEX - DCT DELOM, also in case of COMM FAIL.</li> <li>4. After 12.7 DME DUS/12.4 DME IDNE BRNAV equipment necessary.</li> </ol>
<b>NETEX 3Z</b>	(NETEX THREE ZULU)	On R053 DUS to 6.0 DME DUS/5.8 DME IDNE - LT on track 008° to 12.7 DME DUS/12.4 DME IDNE - LT on track 290° to ORSOV (Δ) - LT on track 242° to VEBAK(Δ)-LT on track 199° to NETEX (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> A600+ - DL050[R] - DL053[L] - NIKOG[L] - ORSOV[L] - VEBAK[L] - NETEX	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure.</li> <li>2. For flights with RFL from 100 to 200 or flights via Z282 DIBIR L179 (if available).</li> <li>3. After 12.7 DME DUS BRNAV equipment necessary.</li> </ol>
<b>KUMIK 3Z</b>	(KUMIK THREE ZULU)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM to BAM (Δ) - on R095 BAM to 6.6 DME BAM - RT on track 128° to DEGOM (Δ) - RT on track 141° to KUMIK (Δ). Cross DEGOM at FL150 or above. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL058[R] - BAM[L] - ANAVI[R] - DEGOM[F150+;R] - KUMIK	<ol style="list-style-type: none"> <li>1. Only for flights with RFL150 or above.</li> <li>2. After 6.6 DME BAM BRNAV equipment necessary.</li> <li>3. Normally not available for flights above FL250 via BOMBI, except Prop/Turbo Prop type aircraft. Flights unable to cross DEGOM at FL150 or above shall advise ATC.</li> </ol>
<b>COL 3Z</b>	(COLA THREE ZULU)	On R053 DUS to 6.4 DME DUS/6.2 DME IDNE - RT on R278 BAM inbd BAM - at 1.6 DME BAM RT on R163 BAM to 11.4 DME BAM - LT on R327 COL to COL (Δ). Cross 11.4 BAM at FL150 or above. <b>GPS/FMS:</b> [A600+] - DL050[R] - DL058[R] - BAM[L] - LIPMI[F150+;L] - COL	Flights unable to cross LIPMI at FL150 or above shall advise clearance Delivery upon startup request.
<b>RWY 23L</b>	<b>(Initial Climb Altitude 5000 ft. Remain on TWR frequency until passing altitude 2000 ft.)</b>		
<b>LMA 2T</b>	(LIMA TWO TANGO)	On Rwy track to 1.0 DME DUS/1.2 DME IDNE or 600 ft, whichever is later - RT on track 297° LMA to LMA (Δ). Climb with 7% (425ft/NM) or more until passing 3000. <b>GPS/FMS:</b> <b>DL236[A600+;R]</b> - LMA	<ol style="list-style-type: none"> <li>1. Only for flights to EDLN.</li> <li>2. PDG due to airspace structure. If unable to comply, advise DEL on start-up request.</li> </ol>

<b>SONEB 6T</b>	(SONEB SIX TANGO)	<p>On Rwy track to 1.0 DME DUS/1.2 DME IDNE or 600 ft, whichever is later - RT on R003 NVO to 6.0 DME DUS (33.3 DME NVO) - LT on track 359° to ERKUM (Δ) - RT on track 005° via DL245 to SONEB (Δ).</p> <p><b>GPS/FMS:</b> DL230 - [A600+;R] - DL246[K190-] - DL248[L] - ERKUM[R] - DL245[F140+] - SONEB</p>	<ol style="list-style-type: none"> <li>After 6.0 DME DUS (33.3 DME NVO) BRNAV equipment necessary.</li> <li>Only for flights with RFL 140 or above via RKN/TENLI. Other Flights proceed via MEVEL. Flights must be able to cross DL245 at FL140 or above. If unable to comply, advise DEL.</li> <li>MAX IAS 190 KT until established on R003 NVO.</li> </ol>
<b>MEVEL 2T</b>	(MEVEL TWO TANGO)	<p>On Rwy track to 1.0 DME DUS/1.2 DME IDNE or 600 ft, whichever is later - RT on R003 NVO to 6.0 DME DUS (33.3 DME NVO) - LT on track 359° to ERKUM (Δ) - RT on track 052° via LUSIX (Δ) to MEVEL (Δ)</p> <p><b>GPS/FMS:</b> DL230 - [A600+;R] - DL246[K190-] - DL248[L] - ERKUM[R] - LUSIX - MEVEL</p>	<ol style="list-style-type: none"> <li>After 6.0 DME DUS (33.3 DME NVO) BRNAV equipment necessary.</li> <li>MAX IAS 190 KT until established on R003 NVO.</li> </ol>
<b>GMH 8T</b>	(GERMINGHAUSEN EIGHT TANGO)	<p>On track 232° DY to 4.5 DME DUS/4.7 DME IDNE - LT on heading 173° until crossing R270 GMH (21.5 DME NVO) - LT on R265 GMH to GMH (Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p><b>GPS/FMS:</b> [A600+] - DL239[L] - DL241[L] - GMH</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>Only for flights with RFL140 or below.</li> </ol>
<b>NVO 1T</b>	(NÖRVENICH ONE TANGO)	<p>On track 232° DY to 4.5 DME DUS/4.7 DME IDNE - LT heading 173° to intercept and follow R360 NVO to NVO (Δ)</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p><b>GPS/FMS:</b> [A600+] - DL239[L] - DL241[R] - NVO</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>For Flights with RFL 90 and below. Flights with RFL 100 and above shall file via MODRU</li> <li>Additional available for flights via Q760 (between 0500 (0400) – 0700 (0600)).</li> </ol>
<b>DODEN 8T</b>	(DODEN EIGHT TANGO)	<p>On track 232° DY to 4.5 DME DUS/4.7 DME IDNE - LT heading 173° until crossing R270 GMH (21.5 DME NVO) - LT on R265 GMH to 18.6 DME GMH - RT on track 135° to BETZO (Δ) - RT on track 147° to DODEN (Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p>Cross 21.1 DME GMH at FL150 or above.</p> <p>Cross DODEN at FL250 or above.</p> <p><b>GPS/FMS:</b> [A600+] - DL239[L] - DL241[L] - DL242[F150+] - ELBAL[R] - BETZO[R] - DODEN[F250+]</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL on start-up request.</li> <li>After 18.6 DME GMH BRNAV equipment necessary.</li> <li>Only for jet flights with RFL 250 or above. Flights shall cross DODEN at FL250 or above. Flights unable shall file SID KUMIK. Flights unable to cross DL242 at FL150 or above shall advise clearance Delivery upon start-up request.</li> </ol>
<b>NUDGO 4T</b>	(NUDGO FOUR TANGO)	<p>On track 232° DY to 4.5 DME DUS/4.7 DME IDNE - LT heading 173° until crossing R270 GMH (21.5 DME NVO) - LT on R265 GMH to 18.6 DME GMH - LT on track 067° via MAMIB (Δ) to KULIX (Δ) - LT on track 061° to NUDGO(Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p><b>GPS/FMS:</b> [A600+] - DL239[L] - DL241[L] - ELBAL[L] - MAMIB - KULIX[L] - NUDGO</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>Not available for flights into upper airspace.</li> <li>After 18.6 DME GMH BRNAV equipment necessary.</li> </ol>

MODRU 1T	(MODRU ONE TANGO)	<p>On track 232° DY to 3.4 DME DUS/3.6 DME IDNE - RT on track 320° to UBORO (Δ) - LT via NETEX (Δ) on track 199° to MODRU (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL243[K210-;R] - <u>UBORO[L]</u> - NETEX[K250-] - MODRU[F210+]</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. Only for flights with RFL 210 and above. Flights have to be able to cross MODRU at FL 210 or above. If unable to comply, advise DEL on start-up request.</li> <li>3. Flights intending to continue NETEX DCT FAMEN or NETEX DCT DELOW shall file SID MODRU - NETEX - DCT FAMEN or SID MODRU - NETEX - DCT - DELOM. These flights shall leave SID MORDU at NETEX to proceed NETEX DCT FAMEN or NETEX DCT DELOM, also in case of COMM FAIL.</li> <li>4. After passing 3.4 DME DUS BRNAV equipment necessary.</li> <li>5. MAX IAS 210 KT until established on track 320°.</li> <li>6. MAX IAS 250 KT until established on track 199°.</li> </ol>
<b>NETEX 5T</b>	(NETEX FIVE TANGO)	<p>On Rwy track to 1.0 DME DUS/1.2 DME IDNE or 600 ft, whichever is later - RT on track 297° LMA to 13.4 DME DUS/13.3 DME IDNE - LT on track 240° LMA to NETEX(Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> DL236 - [A600+;R] - LMA[L] - NETEX</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. For flights with RFL from 100 to 200 or flights via Z282 DIBIR L179 (if available).</li> <li>3. Not available for flights with further routing via NETEX DCT FAMEN or NETEX DCT DELOM.</li> </ol>
<b>KUMIK 5T</b>	(KUMIK FIVE TANGO)	<p>On track 232° DY to 4.5 DME DUS/4.7 DME IDNE - <b>LT on heading 173° until crossing R270 GMH (21.5 DME NVO)</b> - LT on R265 GMH to 10.0 DME GMH - RT on track 141° to KUMIK (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. Cross 10.0 DME GMH at FL150 or above. <b>GPS/FMS:</b> [A600+] - DL239[L] - DL241[L] - ELBAL - DEGOM[F150+; R] - KUMIK</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. Only for flights with RFL150 or above.</li> <li>3. After <b>10.0 DME GMH</b> BRNAV equipment necessary.</li> <li>4. Normally not available for flights above FL250 via BOMBI, except Prop/Turbo Prop type aircraft. Flights unable to cross DEGOM at FL150 or above shall advise DEL.</li> </ol>
<b>COL 4T</b>	(COLA FOUR TANGO)	<p>On track 232° DY to 4.5 DME DUS/4.7 DME IDNE - <b>LT on heading 173° until crossing R270 GMH (21.5 DME NVO)</b> - LT on R265 GMH to 32.0 DME GMH - RT on R103 MHV to 20.3 DME DUS/20.4 DME IDNE - RT on R327 COL to COL (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. Cross 20.3 DME DUS/20.4 DME IDNE at FL150 or above <b>GPS/FMS:</b> [A600+] - DL239[L] - DL241[L] - DL244[R] - LIPMI[F150+; R] - COL</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. Flights unable to cross LIPMI at FL150 or above shall advise DEL.</li> </ol>
<b>RWY 23R LMA 2H</b>	(LIMA TWO HOTEL)	<p>On Rwy track to 1.1 DME DUS/1.3 DME IDNE or 600 ft, whichever is later - RT on track 297° LMA to LMA (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> DL237 - [A600+;R] - LMA</p>	<ol style="list-style-type: none"> <li>1. Only for flights to EDLN.</li> <li>2. PDG due to airspace structure. If unable to comply, advise DEL on start-up request.</li> </ol>

<b>SONEB 2H</b>	(SONEB TWO HOTEL)	<p>On Rwy track to 1.0 DME DUS/1.2 DME IDNE or 600 ft, whichever is later - RT on R003 NVO to 6.0 DME DUS (33.3 DME NVO) - LT on track 359° to ERKUM (Δ) - RT on track 005° via DL245 to SONEB (Δ).</p> <p><b>GPS/FMS:</b> DL231 - [A600+;R] - DL246[K190-] - DL248[L] - ERKUM[R] - DL245[F140+] - SONEB</p>	<ol style="list-style-type: none"> <li>After 6.0 DME DUS (33.3 DME NVO) BRNAV equipment necessary.</li> <li>Only for flights with RFL 140 or above via RKN/TENLI. Other flights proceed via MEVEL. Flights must be able to cross DL245 at FL140 or above. If unable to comply, advise DEL.</li> <li>MAX IAS 190 KT until established on R003 NVO.</li> </ol>
<b>MEVEL 2H</b>	(MEVEL TWO HOTEL)	<p>On Rwy track to 1.0 DME DUS/1.2 DME IDNE or 600 ft, whichever is later - RT on R003 NVO to 6.0 DME DUS (33.3 DME NVO) - LT on track 359° to ERKUM (Δ) - RT on track 052° via LUSIX (Δ) to MEVEL(Δ).</p> <p><b>GPS/FMS:</b> DL231 - [A600+;R] - DL246[K190-] - DL248[L] - ERKUM[R] - LUSIX - MEVEL</p>	<ol style="list-style-type: none"> <li>After 6.0 DME DUS (33.3 DME NVO) BRNAV equipment necessary.</li> <li>MAX IAS 190 KT until established on R003 NVO.</li> </ol>
<b>GMH 2H</b>	(GERMINGHAUSEN TWO HOTEL)	<p>On track 229° DY to 4.5 DME DUS/4.7 DME IDNE – LT on heading 173° until crossing R270 GMH (21.5 DME NVO) - LT on R265 GMH to GMH (Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p><b>GPS/FMS:</b> [A600+] - DL240[L] - DL241[L] - GMH</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>Only for flights with RFL140 or below.</li> </ol>
<b>NVO 1U</b>	(NÖRVENICH ONE UNIFORM)	<p>On track 229° DY to 4.5 DME DUS/4.7 DME IDNE – LT on heading 173° to intercept and follow R360 NVO to NVO (Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p><b>GPS/FMS:</b> [A600+] - DL240[L] - DL241[R] - NVO</p>	<ol style="list-style-type: none"> <li>For Flights with RFL 90 and below. Flights with RFL 100 and above shall file via MODRU.</li> <li>PDG due to airspace structure. If unable to comply, advise DEL on start-up request.</li> <li>Additional available for flights via Q760 (between 0500 (0400) – 0700 (0600)).</li> </ol>
<b>DODEN 2H</b>	(DODEN TWO HOTEL)	<p>On track 229° DY to 4.5 DME DUS/4.7 DME IDNE - LT on heading 173° until crossing R270 GMH (21.5 DME NVO) - LT on R265 GMH to 18.6 DME GMH - RT on track 135° to BETZO (Δ) - RT on track 147° to DODEN (Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p>Cross 21.1 DME GMH at FL150 or above.</p> <p>Cross DODEN at FL250 or above.</p> <p><b>GPS/FMS:</b> [A600+] - DL240[L] - DL241[L] - DL242[F150+] - ELBAL[R] - BETZO[R] - DODEN[F250+]</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL on start-up request.</li> <li>After 18.6 DME GMH BRNAV equipment necessary.</li> <li>Only for jet flights with RFL 250 or above. Flights shall cross DODEN at FL250 or above. Flights unable shall file SID KUMIK. Flights unable to cross DL242 at FL150 or above shall advise DEL on start-up request.</li> </ol>
<b>NUDGO 2H</b>	(NUDGO TWO HOTEL)	<p>On track 229° DY to 4.5 DME DUS/4.7 DME IDNE - LT on heading 173° until crossing R270 GMH (21.5 DME NVO) - LT on R265 GMH to 18.6 DME GMH - LT on track 067° via MAMIB (Δ) to KULIX (Δ) - LT on track 061° to NUDGO (Δ).</p> <p>Climb with 7% (425 ft/NM) or more until passing 3000.</p> <p><b>GPS/FMS:</b> [A600+] - DL240[L] - DL241[L] - ELBAL[L] - MAMIB - KULIX[L] - NUDGO</p>	<ol style="list-style-type: none"> <li>PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>Not available for flights into upper airspace.</li> <li>After 18.6 DME GMH BRNAV equipment necessary.</li> </ol>

MODRU 1H	(MODRU ONE HOTEL)	<p>On track 229° to 3.3 DME DUS/3.5 DME IDNE - RT on track 320° to UBORO (Δ) - LT via NETEX (Δ) on track 199° to MODRU (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> [A600+] - DL247[K210-;R] - <u>UBORO[L]</u> - NETEX[K250-] - MODRU[F210+]</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. Only for flights with RFL 210 and above. Flights have to be able to cross MODRU at FL 210 or above. If unable to comply advise DEL on start-up request.</li> <li>3. Flights intending to continue NETEX DCT FAMEN or NETEX DCT DELOW shall file SID MODRU - NETEX - DCT FAMEN or SID MODRU - NETEX - DCT - DELOM. These flights shall leave SID MODRU at NETEX to proceed NETEX DCT FAMEN or NETEX DCT DELOM, also in case of COMM FAIL.</li> <li>4. After passing 3.3 DME DUS/3.5 DME IDNE BRNAV equipment necessary.</li> <li>5. MAX IAS 210 KT until established on track 320°.</li> <li>6. MAX IAS 250 KT until established on track 199°.</li> </ol>
<b>NETEX 2H</b>	(NETEX TWO HOTEL)	<p>On Rwy track to 1.1 DME DUS/1.3 DME IDNE or 600 ft, whichever is later - RT on track 297° LMA to 13.4 DME DUS/13.3 DME IDNE - LT on track 240° LMA to NETEX(Δ). Climb with 7% (425 ft/NM) or more until passing 3000. <b>GPS/FMS:</b> DL237 - [A600+;R] - LMA[L] - NETEX</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. For flights with RFL from 100 to 200 or flights via Z282 DIBIR L179 (if avail.).</li> <li>3. Not available for flights with further routing via NETEX DCT FAMEN or NETEX DCT DELOM.</li> </ol>
<b>KUMIK 2H</b>	(KUMIK TWO HOTEL)	<p>On track 229° DY to 4.5 DME DUS/4.7 DME IDNE - <b>LT on heading 173° until crossing R270 GMH (21.5 DME NVO)</b> - LT on R265 GMH to 10.0 DME GMH - RT on track 141° to KUMIK (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. Cross 10 DME GMH at FL150 or above <b>GPS/FMS:</b> [A600+] - DL240[L] - DL241[L] - ELBAL - DEGOM[F150+; R] - KUMIK</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. Only for flights with RFL150 or above.</li> <li>3. After <b>10.0 DME GMH</b> BRNAV equipment necessary.</li> <li>4. Normally not available for flights above FL250 via BOMBI, except Prop/Turbo Prop type aircraft. Flights unable to cross DEGOM at FL150 or above shall advise DEL.</li> </ol>
<b>COL 2H</b>	(COLA TWO HOTEL)	<p>On track 229° DY to 4.5 DME DUS/4.7 DME IDNE - <b>LT on heading 173° until crossing R270 GMH (21.5 DME NVO)</b> - LT on R265 GMH to 32.0 DME GMH - RT on R103 MHV to 20.3 DME DUS/20.4 DME IDNE - RT on R327 COL to COL (Δ). Climb with 7% (425 ft/NM) or more until passing 3000. Cross 20.3 DME DUS/20.4 DME IDNE at FL150 or above <b>GPS/FMS:</b> [A600+] - DL240[L] - DL241[L] - DL244[R] - LIPMI[F150+; R] - COL <b>Remark:</b> Underlined RNAV-Waypoints are fly-over waypoints (Δ)</p>	<ol style="list-style-type: none"> <li>1. PDG due to airspace structure. If unable to comply, advise DEL.</li> <li>2. Flights unable to cross LIPMI at FL150 or above shall advise DEL.</li> </ol>

### VFR Entry / Exit Points

NOVEMBER	north of airport	MAX 2500 MSL - track 175° to / track 355° from airport	(N 51° 24,3' E006° 44,8')
ECHO	east of airport	MAX 2500 MSL - track 315° to / track 135° from airport	(N 51° 11,4' E006° 56,5')
SIERRA	south of airport	MAX 2500 MSL - track 335°→030° to / track 210°→155° from airport	(N 51° 08,4' E006° 47,2')