

**ENR 3.4 HELICOPTER ROUTES****1. Low Flight Network (LFN) ATS Routes**

The operation on this network is subject to specific state authorization and access procedures by the national provider (see [ENR 1.1 - 4 §4.8](#)).

The following tables describe the Low Flight Network for rotary wing aircraft that comply with the required navigational performance of **RNP 0.3**.

For speed restrictions refer to [ENR 6.4 - 1](#).

This network consists of low-level routes (KYxyz) and associated routes (KQxyz) to and from various landing sites and regions. Table of cruising levels ([ENR 1.7 - 3 §5.3](#)) is not applicable to LFN.

**2. Index of ENR 3.4 Route Tables - Low Flight Network (LFN) ATS Routes**

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## 3. Low Flight Network (LFN) ATS Routes

Route Designator {RNP Type} [Route Usage Notes]								
Significant Point Name {RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Remarks  Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ811</b>								
△ LS103 46 43 11.2 N 006 57 39.1 E								
	274°	9.2	<u>FL 195</u> <u>5500 ft</u>	6000 ft				ACC Geneva {C, E} TWR/APP Payerne {D}
△ ETEKI 46 44 10.8 N 006 44 21.4 E								

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ821</b>								
△ ME103	47 07 27.9 N 008 07 05.1 E							
	064°	15.2	<u>FL 195</u> 4500 ft	5000 ft	3675 ft			ACC Zurich {C, E} TWR/APP Emmen {D}
△ RONIX	47 13 34.5 N 008 27 25.2 E							

Route Designator {RNP Type} [Route Usage Notes]								
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ831</b>								
△ DEGES	47 24 45 N 009 12 07 E							
	234° ⊖	9.9	FL 195 5500 ft	6000 ft				ACC Zurich {C, E} TWR/APP Dubendorf, {D}
△ MD503	47 19 16.1 N 009 00 03.8 E							

Route Designator {RNP Type} [Route Usage Notes]							
Significant Point Name {RNP Type}	Significant Point Coordinates						Remarks
	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels ↓      ↑	
<b>KQ832</b>							
△ LS111	47 12 41.6 N 008 57 01.1 E						
	015° ⊖	1.9	FL 195 4500 ft	5000 ft			ACC Zurich {C, E} TWR/APP Dubendorf {D}
△ MD505	47 14 30.6 N 008 57 49.1 E						

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ833</b>								
△ LS110	47 12 26.8 N 008 47 38.1 E							
	308° ⊖	0.9	FL 195 4500 ft	5000 ft				ACC Zurich {C, E} TWR/APP Dubendorf {D}
△ MD516	47 13 02.2 N 008 46 37.2 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ834</b>								
△ VIBAX	47 20 50.0 N 008 52 55.9 E							
	106° ⊕	5.1	FL 195 5500 ft	6000 ft				ACC Zurich {C, E} TWR/APP Dubendorf {D}
△ MD503	47 19 16.1 N 009 00 03.8 E							
	086° ⊕	6.1	FL 195 5500 ft	6000 ft				ACC Zurich {C, E} TWR/APP Dubendorf {D}
△ LS112	47 19 25.5 N 009 09 02.0 E							

Route Designator {RNP Type} [Route Usage Notes]								
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ851</b>								
△ LS214	46 06 32.9 N 008 56 16.8 E							
	$\frac{188^\circ}{008^\circ}$	6.4	$\frac{FL 195}{5500 ft}$	6000 ft				ACC Zurich {C, E} TWR/APP Lugano {D}
△ LUGAN	46 00 13.1 N 008 54 37.0 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ861</b>								
△ LS105	46 55 44.0 N 007 28 44.9 E							
	253° ⊕	5.0	FL 195 5500 ft	6000 ft				ACC Zurich {C, E} TWR/APP Berne {D}
△ LS561	46 54 28.4 N 007 21 41.4 E							
	253° ⊕	4.1	FL 195 4500 ft	5000 ft				ACC Zurich {C, E} TWR/APP Berne {D}
△ ASBER	46 53 25.9 N 007 15 52.8 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ862</b>								
△ FRIBOURG VOR/ DME (FRI)	46 46 39 N 007 13 25 E							
	012° ♾	4.0	FL 195 <u>5500 ft</u>	6000 ft				ACC Geneva {C, E}
△ LS562	46 50 32.0 N 007 14 49.4 E							
	012° ♾	3.0	FL 195 <u>4500 ft</u>	5000 ft				ACC Geneva {C, E} TWR/APP Berne {D}
△ ASBER	46 53 25.9 N 007 15 52.8 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ864</b>								
△ AMRID	46 56 05 N 007 19 33 E							
	$\frac{202^\circ}{022^\circ}$	3.0	$\frac{FL 195}{4200 ft}$	4700 ft				ACC Geneva {C, E} TWR/APP Berne {D}
△ LS564	46 53 21.1 N 007 17 46.1 E							
	$\frac{202^\circ}{022^\circ}$	7.3	$\frac{FL 195}{5000 ft}$	5500 ft				ACC Geneva {C, E}
△ FRIBOURG VOR/ DME (FRI)	46 46 39 N 007 13 25 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ866</b>								
△ UMTOP	47 07 38.9 N 007 49 06.2 E							
	$\frac{252^\circ}{072^\circ}$	8.9	$\frac{FL 195}{5500 ft}$	6000 ft				ACC Zurich {C, E} TWR/APP Berne {D}
△ MEBOX	47 05 10 N 007 36 33 E							
	$\frac{243^\circ}{\text{°}}$	10.5	$\frac{FL 195}{5500 ft}$	6000 ft				ACC Zurich {C, E} TWR/APP Berne {D}
△ BIRKI	47 00 46.6 N 007 22 34.8 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KQ868</b>								
△ RAMOK	47 01 20.2 N 007 41 03.0 E							
	039°	8.4	<u>FL 195</u> 5500 ft	6000 ft				ACC Zurich {C, E} TWR/APP Berne {D}
△ UMTOP	47 07 38.9 N 007 49 06.2 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates							Remarks
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KY251</b>								
△ Gland NDB (GLA) 46 24 31.3 N 006 14 39.3 E								
	044°	4.7	FL 195 3500 ft	4000 ft	3159 ft	Even		ACC Geneva APP Geneva {C, E}
△ LS099 46 27 43.5 N 006 19 33.3 E								
	082°	5.1	FL 195 4000 ft	4000 ft	3655 ft	Even		ACC Geneva APP Geneva {C, E}
△ St-Prex VOR/DME (SPR) 46 28 07.3 N 006 26 53.0 E								
	086° 266°	11.4	FL 195 3500 ft	4000 ft	2530 ft	Even	Even	ACC Geneva {C, E}
△ LS100 46 28 14.5 N 006 43 22.4 E								
	030° 210°	17.9	FL 195 5500 ft	6000 ft	5043 ft	Even	Even	ACC Geneva {C, E}
△ LS103 46 43 11.2 N 006 57 39.1 E								
	069° 249°	11.4	FL 195 5500 ft	6000 ft	5043 ft	Even	Even	ACC Geneva {C, E}
△ FRIBOURG VOR/DME (FRI) 46 46 39.3 N 007 13 24.6 E								
	046° 226°	5.7	FL 195 5500 ft	6000 ft	4141 ft	Even	Even	ACC Geneva, Zurich {C, E}
△ LS104 46 50 23.4 N 007 19 42.2 E								
	046° 226°	8.2	FL 195 5500 ft	6000 ft	4336 ft	Even	Even	ACC Geneva, Zurich {C, E} TWR/APP Berne {D}
△ LS105 46 55 44.0 N 007 28 44.9 E								
	046° 227°	18.3	FL 195 5500 ft	6000 ft	4958 ft	Even	Even	ACC Geneva, Zurich {C, E} TWR/APP Berne {D}
△ UMTOP 47 07 38.9 N 007 49 06.2 E								
	088° 268°	12.3	FL 195 4500 ft	5000 ft	4485 ft	Odd	Odd	ACC Zurich {C, E}
△ ME103 47 07 27.9 N 008 07 05.1 E								
	079° 259°	10.3	FL 195 4500 ft	5000 ft	3734 ft	Odd	Odd	ACC Zurich {C, E} TWR/APP Emmen {D}
△ ME104 47 08 53.5 N 008 22 05.9 E								
	067° 247°	6.8	FL 195 4500 ft	5000 ft	3860 ft	Odd	Odd	ACC Zurich {C, E} TWR/APP Emmen {D}

Route Designator {RNP Type} [Route Usage Notes]								
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
△ ZC700	47 11 14.6 N 008 31 23.3 E							
	$\frac{081^\circ}{261^\circ}$	4.3	$\frac{FL 195}{4500 ft}$	5000 ft	4095 ft	Odd	Odd	ACC Zurich {C, E}
△ OSNOG	47 11 42.5 N 008 37 36.1 E							
	$\frac{081^\circ}{261^\circ}$	6.9	$\frac{FL 195}{4838 ft}$	5000 ft	4838 ft	Odd	Odd	ACC Zurich {C, E}
△ LS110	47 12 26.8 N 008 47 38.1 E							
	$\frac{085^\circ}{265^\circ}$	6.4	$\frac{FL 195}{4838 ft}$	5000 ft	4838 ft	Odd	Odd	ACC Zurich {C, E}
△ LS111	47 12 41.6 N 008 57 01.1 E							
	$\frac{047^\circ}{228^\circ}$	10.6	$\frac{FL 195}{5500 ft}$	6000 ft	4973 ft	Even	Even	ACC Zurich {C, E}
△ LS112	47 19 25.5 N 009 09 02.0 E							
	$\frac{018^\circ}{198^\circ}$	5.7	$\frac{FL 195}{5500 ft}$	6000 ft	4973 ft	Even	Even	ACC Zurich {C, E}
△ DEGES	47 24 45.0 N 009 12 07.0 E							
	$\frac{040^\circ}{220^\circ}$	8.0	$\frac{FL 195}{4500 ft}$	5000 ft	4134 ft	Odd	Odd	ACC Zurich {C, E} TWR/APP St. Gallen Altenrhein {D}
△ SITOR	47 30 36.7 N 009 20 10.5 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates							Remarks
	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
{RNP Type}						↓	↑	
<b>KY252</b>								
△ ME104	47 08 53.5 N 008 22 05.9 E							
	$\frac{124^\circ}{304^\circ}$	3.1	$\frac{FL 195}{5500 ft}$	6000 ft	5668 ft			ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS702	47 07 06.3N 008 25 45.1 E							
	$\frac{123^\circ}{303^\circ}$	8.4	$\frac{FL 195}{5500 ft}$	6000 ft				ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS201	47 02 15.9 N 008 35 42.6 E							
	$\frac{174^\circ}{354^\circ}$	6.3	$\frac{FL 195}{6500 ft}$	7000 ft				ACC Zurich {C, E}
△ LS202	46 56 00.8 N 008 36 23.1 E							
	$\frac{174^\circ}{354^\circ}$	3.0	$\frac{FL 195}{7500 ft}$	8000 ft				ACC Zurich {C, E}
△ LS203	46 53 01.4 N 008 36 42.4 E							
	$\frac{157^\circ}{337^\circ}$	3.6	$\frac{FL 195}{7500 ft}$	8000 ft				ACC Zurich {C, E}
△ LS204	46 49 40.6 N 008 38 37.5 E							
	$\frac{168^\circ}{348^\circ}$	3.0	$\frac{FL 195}{8500 ft}$	9000 ft				ACC Zurich {C, E}
△ LS205	46 46 45.0N 008 39 20.8 E							
	$\frac{203^\circ}{023^\circ}$	5.4	$\frac{FL 195}{9500 ft}$	10000 ft				ACC Zurich {C, E}
△ LS206	46 41 51.5 N 008 36 05.3 E							
	$\frac{187^\circ}{007^\circ}$	2.9	$\frac{FL 195}{9500 ft}$	10000 ft				ACC Zurich {C, E}
△ LS207	46 38 59.9 N 008 35 25.1 E							
	$\frac{209^\circ}{029^\circ}$	4.1	$\frac{FL 195}{10500 ft}$	11000 ft				ACC Zurich {C, E}
△ LS208	46 35 30.7 N 008 32 22.2 E							
	$\frac{154^\circ}{334^\circ}$	2.9	$\frac{FL 195}{11500 ft}$	12000 ft				ACC Zurich {C, E}
△ LS209	46 32 52.6 N 008 34 03.6 E							
	$\frac{112^\circ}{292^\circ}$	3.1	$\frac{FL 195}{11500 ft}$	12000 ft				ACC Zurich {C, E}
△ LS210	46 31 37.9 N 008 38 10.8 E							
	$\frac{112^\circ}{292^\circ}$	7.6	$\frac{FL 195}{10500 ft}$	11000 ft				ACC Zurich {C, E}
△ LS211	46 28 33.8 N 008 48 17.4 E							
	$\frac{138^\circ}{318^\circ}$	9.0	$\frac{FL 195}{8500 ft}$	9000 ft				ACC Zurich {C, E}

Route Designator {RNP Type} [Route Usage Notes]								
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
△ LS212	46 21 39.2 N 008 56 39.3 E							
	152° 333°	9.2	FL 195 6500 ft	7000 ft				ACC Zurich {C, E}
△ LS213	46 13 22.8 N 009 02 21.2 E							
	210° 030°	8.0	FL 195 6500 ft	7000 ft				ACC Zurich {C, E}
△ LS214	46 06 32.9 N 008 56 16.8 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KY253</b>								
△ LS201	47 02 15.9 N 008 35 42.6 E							
	$\frac{217^\circ}{037^\circ}$	7.6	$\frac{FL 195}{6500 ft}$	7000 ft	5903 ft			ACC Zurich {C, E}
△ LS301	47 08 14.0 N 008 42 41.3 E							
	$\frac{217^\circ}{037^\circ}$	4.1	$\frac{FL 195}{5500 ft}$	6000 ft	4950 ft			ACC Zurich APP Zurich {C, E}
△ LS302	47 11 25.4 N 008 46 25.9 E							
	$\frac{217^\circ}{037^\circ}$	1.3	$\frac{FL 195}{4500 ft}$	5000 ft	4950 ft			ACC Zurich APP Zurich {C, E}
△ LS110	47 12 26.8 N 008 47 38.1 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KY256</b>								
△ UMTOP	47 07 38.9 N 00749 06.2 E							
	$\frac{051^\circ}{231^\circ}$	12.3	$\frac{FL\ 195}{4500\ ft}$	5000 ft				ACC Zurich {C, E}
△ LS601	47 15 04.1 N 008 03 26.0 E							
	$\frac{077^\circ}{257^\circ}$	4.6	$\frac{FL\ 195}{4500\ ft}$	5000 ft				ACC Zurich {C, E}
△ LS602	47 15 56.6 N 008 10 06.8 E							
	$\frac{072^\circ}{252^\circ}$	4.8	$\frac{FL\ 195}{4500\ ft}$	5000 ft				ACC Zurich {C, E}
△ LS603	47 17 16.4 N 008 16 48.8 E							
	$\frac{115^\circ}{295^\circ}$	8.1	$\frac{FL\ 195}{4500\ ft}$	5000 ft	3744 ft			ACC Zurich {C, E}
△ RONIX	47 13 34.5 N 008 27 25.2 E							
	$\frac{129^\circ}{309^\circ}$	3.6	$\frac{FL\ 195}{4500\ ft}$	5000 ft	2970 ft			ACC Zurich {C, E} TWR/APP Emmen {D}
△ ZC700	47 11 14.6 N 008 31 23.3 E							

Route Designator {RNP Type}		[Route Usage Notes]						
Significant Point Name	Significant Point Coordinates						Remarks	
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Controlling unit {Airspace class} Remarks
						↓	↑	
<b>KY257</b>								
△ ME103	47 07 27.9 N 008 07 05.1 E							
	$\frac{102^\circ}{282^\circ}$	10.2	$\frac{FL 195}{4500 ft}$	5000 ft				ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS701	47 04 58.1 N 008 21 31.0 E							
	$\frac{051^\circ}{232^\circ}$	3.6	$\frac{FL 195}{4500 ft}$	5000 ft				ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS702	47 07 06.3 N 008 25 45.1 E							
	$\frac{052^\circ}{232^\circ}$	4.9	$\frac{FL 195}{4500 ft}$	5000 ft				ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS703	47 10 00.7 N 008 31 31.7 E							
	$\frac{066^\circ}{246^\circ}$	4.5	$\frac{FL 195}{4500 ft}$	5000 ft				ACC Zurich {C, E}
△ OSNOG	47 11 42.5 N 008 37 36.1 E							

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