

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.

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3. Low Flight Network (LFN) ATS Routes

Route Designator {RNP Type} [Route Usage Notes]								
Significant Point Name {RNP Type}	Significant Point Coordinates					Direction of cruising levels		Remarks Controlling unit {Airspace class} Remarks
	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	↓	↑	
KQ811								
△ LS103	46 43 11.2 N 006 57 39.1 E							
	274°	9.2	FL 195 5500 ft	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
						↓	↑	
KQ821								
△ 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
						↓	↑	
KQ831								
△ 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	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
						↓	↑	
KQ832								
△ 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
						↓	↑	
KQ833								
△ 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
						↓	↑	
KQ834								
△ 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
						↓	↑	
KQ861								
△ LS105		46 55 44.0 N 007 28 44.9 E						
	253°	5.0	FL 195 <u>5500 ft</u>	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 <u>4500 ft</u>	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
						↓	↑	
KQ862								
△ FRIBOURG VOR/ DME (FRI)	46 46 39.3 N 007 13 24.6 E							
	$\frac{011^\circ}{191^\circ}$	4.0	$\frac{FL 195}{5500 ft}$	6000 ft	4141 ft	Even	Even	ACC Geneva {C, E}
△ LS562	46 50 32.0 N 007 14 49.4 E							
	$\frac{011^\circ}{191^\circ}$	3.0	$\frac{FL 195}{4500 ft}$	5000 ft	3908 ft	Odd	Odd	ACC Geneva {C, E} TWR/APP Berne {D}
△ ASBER	46 53 25.9 N 007 15 52.8 E							
	$\frac{040^\circ}{220^\circ}$	3.7	$\frac{FL 195}{4500 ft}$	5000 ft	3908 ft	Odd	Odd	ACC Geneva {C, E} TWR/APP Berne {D}
△ AMRID	46 56 05.4 N 007 19 32.8 E							
	$\frac{021^\circ}{201^\circ}$	5.1	$\frac{FL 195}{4500 ft}$	5000 ft	4075 ft	Odd	Odd	ACC Zurich {C, E} TWR/APP Berne {D}
△ BIRKI	47 00 46.6 N 007 22 34.8 E							
	$\frac{062^\circ}{242^\circ}$	10.5	$\frac{FL 195}{5500 ft}$	6000 ft	4075 ft	Even	Even	ACC Zurich {C, E} TWR/APP Berne {D}
△ MEBOX	47 05 10.4 N 007 36 33.5 E							
	$\frac{071^\circ}{251^\circ}$	8.9	$\frac{FL 195}{5500 ft}$	6000 ft	4387 ft	Even	Even	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
						↓	↑	
KQ868								
△ RAMOK	47 01 20.2 N 007 41 03.0 E							
	039°	8.4	FL 195 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
						↓	↑	
KY251								
△ 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	FL195 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 {RNP Type}	Significant Point Coordinates		Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	Direction of cruising levels		Remarks Controlling unit {Airspace class} Remarks
	Track MAG	Dist (NM)				↓	↑	
KY252								
△ ME104	47 08 53.5 N 008 22 05.9 E							
	123° 303°	3.1	FL 195 5500 ft	6000 ft	4000 ft	Even	Even	ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS702	47 07 06.3 N 008 25 45.1 E							
	122° 302°	8.4	FL 195 5704 ft	6000 ft	5704 ft	Even	Even	ACC Zurich {C, E} TWR/APP Emmen {D}
△ LS201	47 02 15.9 N 008 35 42.6 E							
	173° 353°	6.3	FL 195 6632 ft	7000 ft	6632 ft	Odd	Odd	ACC Zurich {C, E}
△ LS202	46 56 00.8 N 008 36 23.1 E							
	173° 353°	3.0	FL 195 7928 ft	8000 ft	7928 ft	Even	Even	ACC Zurich {C, E}
△ LS203	46 53 01.4 N 008 36 42.4 E							
	156° 336°	3.6	FL 195 7960 ft	8000 ft	7960 ft	Even	Even	ACC Zurich {C, E}
△ LS204	46 49 40.6 N 008 38 37.5 E							
	167° 347°	3.0	FL 195 8598 ft	9000 ft	8598 ft	Odd	Odd	ACC Zurich {C, E}
△ LS205	46 46 45.0 N 008 39 20.8 E							
	202° 022°	5.4	FL 195 9632 ft	10000 ft	9632 ft	Even	Even	ACC Zurich {C, E}
△ LS206	46 41 51.5 N 008 36 05.3 E							
	186° 006°	2.9	FL 195 9782 ft	10000 ft	9782 ft	Even	Even	ACC Zurich {C, E}
△ LS207	46 38 59.9 N 008 35 25.1 E							
	208° 028°	4.1	FL 195 10500 ft	11000 ft	10465 ft	Odd	Odd	ACC Zurich {C, E}
△ LS208	46 35 30.7 N 008 32 22.2 E							
	153° 333°	2.9	FL 195 11500 ft	12000 ft	10673 ft	Even	Even	ACC Zurich {C, E}
△ LS209	46 32 52.6 N 008 34 03.6 E							
	111° 291°	3.1	FL 195 11500 ft	12000 ft	10495 ft	Even	Even	ACC Zurich {C, E}
△ LS210	46 31 37.9 N 008 38 10.8 E							
	111° 291°	7.6	FL 195 10500 ft	11000 ft	9350 ft	Odd	Odd	ACC Zurich {C, E}
△ LS211	46 28 33.8 N 008 48 17.4 E							
	137° 317°	9.0	FL 195 8500 ft	9000 ft	8351 ft	Odd	Odd	ACC Zurich {C, E}

Route Designator {RNP Type} [Route Usage Notes]									
Significant Point Name		Significant Point Coordinates					Direction of cruising levels		Remarks
{RNP Type}	Track MAG	Dist (NM)	Upper limit / Lower limit	Minimum enroute altitude	Lateral limits (NM) / MOCA	↓	↑	Controlling unit {Airspace class} Remarks	
△ LS212	46 21 39.2 N 008 56 39.3 E								
	$\frac{151^\circ}{332^\circ}$	9.2	$\frac{FL 195}{6982 ft}$	7000 ft	6982 ft	Odd	Odd	ACC Zurich {C, E}	
△ LS213	46 13 22.8 N 009 02 21.2 E								
	$\frac{209^\circ}{029^\circ}$	8.0	$\frac{FL 195}{6500 ft}$	7000 ft	5692 ft	Odd	Odd	ACC Zurich {C, E} TWR/APP Locarno {D}	
△ LS214	46 06 32.9 N 008 56 16.8 E								
	$\frac{187^\circ}{007^\circ}$	6.4	$\frac{FL 195}{5500 ft}$	6000 ft	5153 ft	Even	Even	ACC Zurich {C, E} TWR/APP Locarno {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
						↓	↑	
KY253								
△ 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
						↓	↑	
KY256								
△ 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
						↓	↑	
KY257								
△ 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							