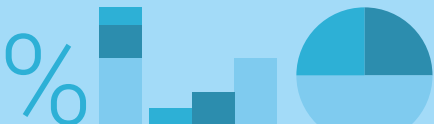


2021



11

Mobility and
transport

Neuchâtel 2022

Swiss civil aviation 2021



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1 Aviation infrastructure

Civil aerodromes: overview 2021

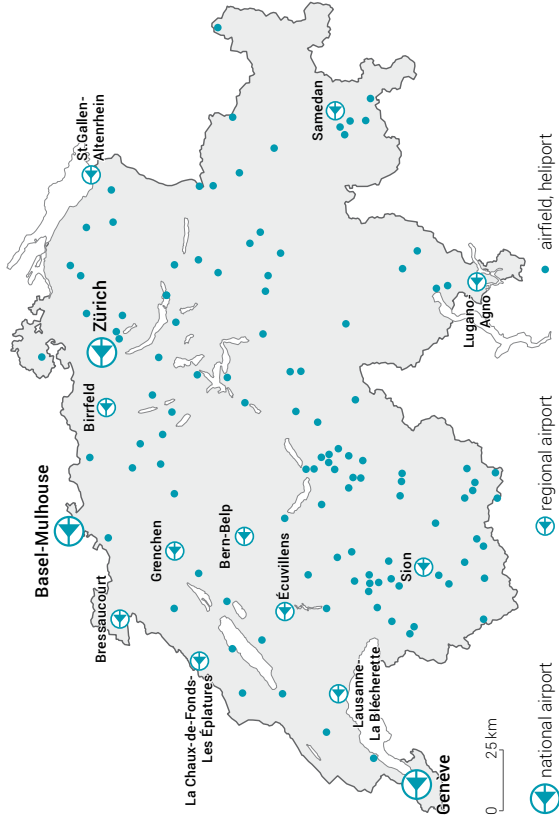
T1

	Foundation Year	Longest runway Metres	Paved runways (concrete/ asphalt) Number	Instrument Flight Rules (IFR) Procedures (yes/no)
Total airports and airfields with paved runways			33	
Total national airports			6	
Zurich	1948	3 700	3	yes
Geneva	1922	3 900	1	yes
Basel-Mulhouse	1946	3 900	2	yes
Total regional airports			11	
Bern-Belp	1929	1 730	1	yes
Lugano-Agno	1947	1 350	1	yes
Sion	1935	2 000	1	yes
St.Gallen-Altenrhein	1926	1 500	1	yes
Birrfeld	1937	725	1	no
Bressaucourt	2011	800	1	no
Écuvillens	1953	800	1	no
Grenchen	1931	1 000	1	yes
La Chaux-de-Fonds- Les Éplatures	1912	1 130	1	yes
Lausanne- La Blécherette	1910	875	1	no
Samedan	1937	1 800	1	no
Total airfields with paved runways			16	

Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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Civil aerodromes, 2021



2 Aircraft

Registered aircraft

T.2.1

	1990	2000	2010	2019	2020	2021
Total aircraft	3 653	4 048	3 705	3 211	3 181	3 132
Total aeroplanes	1 952	2 014	1 913	1 730	1 723	1 698
< 2 250 kg MTOM	...	1 572	1 413	1 324	1 309	1 296
2 250–5 700 kg MTOM	...	157	197	146	150	140
> 5 700 kg MTOM	...	285	303	260	264	262
Helicopters	199	254	327	345	345	348
Gliders	1 035	1 024	824	579	554	540
Powered gliders	131	246	251	241	240	237
Airships	1	6	9	8	8	8
Free balloons	335	504	381	308	311	301

MTOM = Maximum Take Off Mass

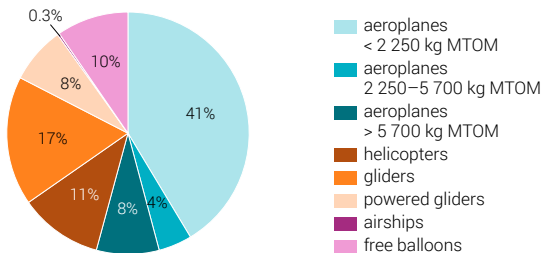
Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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Registered aircraft, 2021

G2.1

Total: 3 132 aircraft



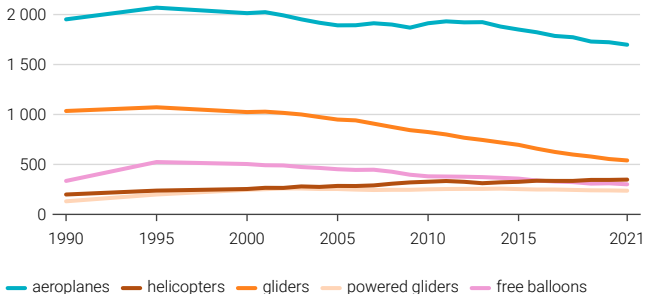
MTOM = Maximum Take Off Mass

Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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Registered aircraft

G2.2



Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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3 Companies and employment

Swiss aviation companies

T3.1

	1990	2000	2010	2019	2020	2021
Total companies	340	420	322	252	248	249
Companies with scheduled traffic	4	5	9	5	5	5
Other companies with commercial traffic	120	172	81	38	37	35
Maintenance companies	83	94	90	80	78	81
Flying schools	133	149	142	129	128	128

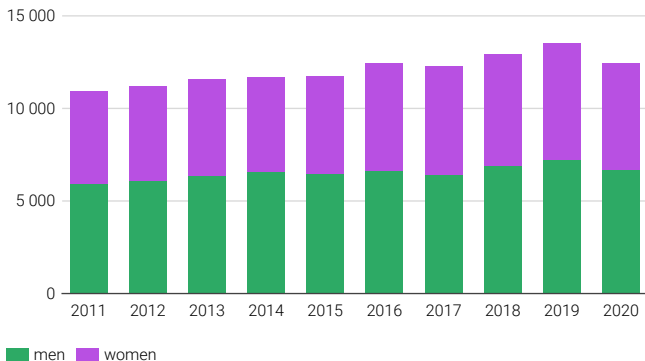
Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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Jobs in aviation by gender

G3.1

Number of jobs



Source: FSO – Structural business statistics (STATENT)

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Flight personnel

Licence holders

T3.2

	1990	2000	2010	2019	2020	2021
Private pilots	8 179	6 792	5 581	4 422	4 369	4 363
Commercial pilots	1 526	1 421	952	1 096	1 076	1 086
Airline transport pilots	886	2 223	2 266	2 508	2 397	2 406
Multi-Crew pilots	0	0	46	22	14	11
Helicopter pilots ¹	779	1 036	1 168	1 072	1 099	1 126
Glider pilots	3 188	3 145	2 617	1 761	2 196	2 218
Free balloon pilots	360	449	340	211	208	195
Validations ²	443	420	8	7	7	5
Flight engineers	217	14	2	0	0	0
Radio navigators	89	30	10	3	1	1

¹ including Air Transport Pilot Licence ATPL (H)

² recognition of foreign licences (Validation)

Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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4 Aircraft movements

Aircraft movements: scheduled and charter traffic

Takeoffs and landings

T4.1

	1990	2000	2010	2019	2020	2021
Total airports	335 777	537 813	416 111	469 667	166 758	191 219
Total national airports	312 712	509 584	404 921	465 030	165 882	190 114
Zurich	172 471	291 044	227 815	243 115	83 081	96 253
Geneva	91 481	118 950	123 173	145 527	53 854	57 711
Basel-Mulhouse ¹	48 760	99 590	53 933	76 388	28 947	36 150
Total regional airports	23 065	28 229	11 190	4 637	876	1 105
Bern-Belp	6 677	12 489	3 486	326	95	239
Lugano-Agno	16 304	12 017	5 479	2 107	40	65
Sion	84	530	92	129	113	182
St.Gallen-Altenrhein	0	3 193	2 133	2 075	628	619

¹ Swiss and French traffic

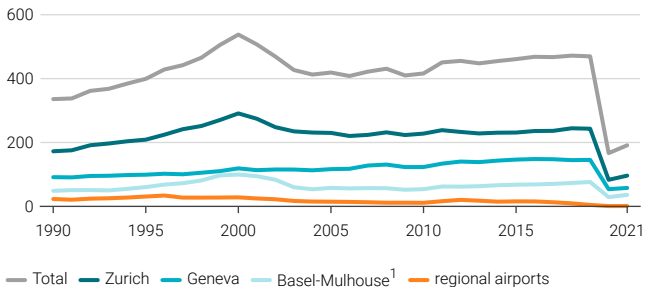
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Aircraft movements: scheduled and charter traffic

G4.1

Thousand takeoffs and landings



¹ Swiss and French traffic

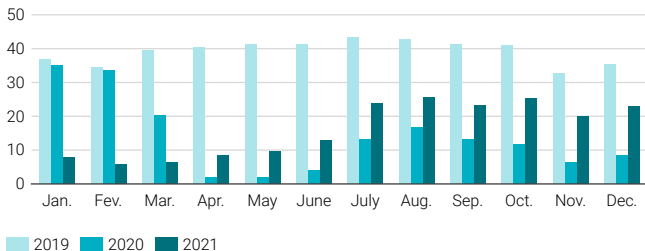
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Aircraft movements by month, 2019–2021: scheduled and charter traffic

G4.2

Thousand takeoffs and landings; change as %



Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Total aircraft movements in civil aviation, 2021

Takeoffs and landings, including general aviation

T4.2

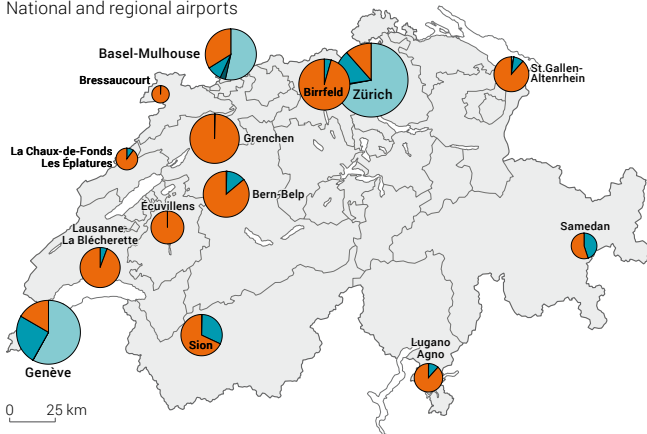
	Commercial flights		Non commercial flights	Total
	Aeroplane ²	Helicopter		
Total airports and airfields	262 462	104 465	823 633	1 190 560
Total national airports	238 224	3 872	53 342	295 438
Zurich	116 951	360	15 293	132 604
Geneva	81 475	1 258	16 515	99 248
Basel-Mulhouse ¹	39 798	2 254	21 534	63 586
Total regional airports	17 062	22 698	324 984	364 744
Bern-Belp	3 055	4 081	44 125	51 261
Lugano-Agno	1 718	587	17 433	19 738
Sion	4 565	8 708	28 243	41 516
St.Gallen-Altenrhein	3 382	35	26 134	29 551
Birrfeld	540	2 222	60 454	63 216
Bressaucourt	19	15	7 317	7 351
Écuvillens	0	0	26 324	26 324
Grenchen	97	125	58 937	59 159
La Chaux-de-Fonds- Les Éplatures	1 061	121	10 312	11 494
Lausanne- La Blécherette	746	1 464	36 864	39 074
Samedan	1 879	5 340	8 841	16 060
Total airfields	7 176	77 895	445 307	530 378

¹ Swiss and French traffic

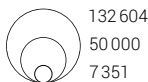
² powered planes (without powered glider)

Aircraft movements in civil aviation, 2021

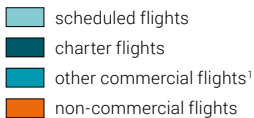
National and regional airports



Number of takeoffs and landings



Type of traffic



¹ excluding commercial pleasure flights

Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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5 Passengers

Air passengers: scheduled and charter traffic

Passengers¹ arriving and departing

T5.1

	1990	2000	2010
Total airports	19 944 463	34 426 801	39 009 046
Zurich	12 278 088	22 450 494	22 854 358
Geneva	5 488 703	7 677 763	11 748 972
Basel-Mulhouse ²	1 776 784	3 699 194	4 087 931
Bern-Belp	88 584	205 314	85 981
Lugano-Agno	310 240	286 507	159 497
Sion	2 064	8 760	3 912
St.Gallen-Altenrhein	0	98 769	68 395
	2019	2020	2021
Total airports	58 561 919	16 457 821	19 667 667
Zurich	31 478 748	8 305 066	10 189 371
Geneva	17 826 513	5 536 435	5 830 770
Basel-Mulhouse ²	9 068 206	2 586 340	3 610 270
Bern-Belp	22 233	5 618	11 236
Lugano-Agno	56 201	275	647
Sion	2 381	1 673	903
St.Gallen-Altenrhein	107 637	22 414	24 470

¹ local and transfer passengers

² Swiss and French traffic

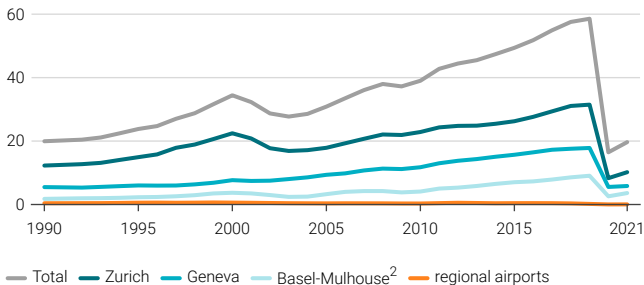
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Air passengers: scheduled and charter traffic

G5.1

Million passengers¹ arriving and departing



¹ local and transfer passengers

² Swiss and French traffic

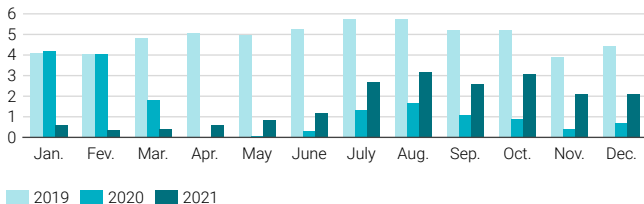
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Air passengers by month, 2019–2021: scheduled and charter traffic

G5.2

Million passengers¹ arriving and departing; change as %



¹ local and transfer passengers

Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Air passengers by continent of final destination, 2021

Departing local passengers in scheduled and charter traffic

T5.2

	Europe	Africa	Asia	Oceania
Total airports	7 386 689	369 596	442 003	4 561
Zurich	3 111 671	158 261	282 144	3 609
Geneva	2 488 639	172 560	153 760	952
Basel-Mulhouse ¹	1 767 409	38 775	6 099	0
Bern-Belp	5 629	0	0	0
Lugano-Agno	346	0	0	0
Sion	472	0	0	0
St.Gallen-Altenrhein	12 523	0	0	0

	North America	Central America	South America	Total all continents
Total airports	318 604	89 390	100 198	8 711 041
Zurich	231 711	71 871	77 148	3 936 415
Geneva	86 893	17 519	23 050	2 943 373
Basel-Mulhouse ¹	0	0	0	1 812 283
Bern-Belp	0	0	0	5 629
Lugano-Agno	0	0	0	346
Sion	0	0	0	472
St.Gallen-Altenrhein	0	0	0	12 523

¹ Swiss and French traffic

Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

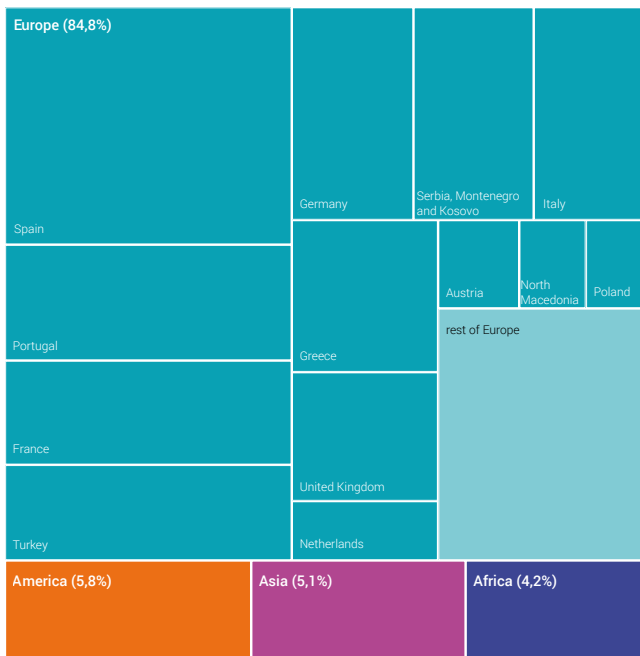
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Air passengers by final destination, 2021

Departing local passengers from Swiss airports
in scheduled and charter traffic

G5.3

Total 8 711 041 passengers



Oceania: 0,1%

Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA_LC)

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Transport performance by airport

Incoming and outgoing scheduled and charter traffic

T5.3

	Scheduled traffic: Passenger-km performed, in millions			Charter traffic: Passenger-km performed, in millions		
	2019	2020	2021	2019	2020	2021
Total	111 475	28 185	32 311	940	271	437
Zurich	79 743	18 824	20 970	379	95	127
Geneva	22 316	6 543	7 259	125	40	7
Basel-Mulhouse ¹	9 335	2 803	4 059	420	128	292
Bern-Belp	7	1	4	15	8	10
Lugano-Agno	5	0	0	0	0	0
Sion	1	1	0	1	0	0
St.Gallen-Altenrhein	68	13	19	0	0	0

¹ Swiss and French traffic

Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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Transport performance and seat load factor by continent

Incoming and outgoing scheduled and charter traffic

T5.4

	Passenger-km performed, in millions			Seat load factor		
	2019	2020	2021	2019	2020	2021
Total	112 415	28 456	32 748	81%	60%	59%
Europe	45 231	14 028	18 772	81%	67%	69%
Africa	6 185	1 785	2 054	77%	62%	58%
Asia	32 648	6 924	4 653	78%	50%	37%
Oceania ¹	0	4	0	*	24%	*
North America	23 215	4 214	5 123	83%	52%	55%
Central America	1 877	598	788	89%	81%	73%
South America	3 259	904	1 358	89%	64%	63%

¹ In 2019 and in 2021 no direct flights from/to Switzerland

* not indicated because data was not applicable

Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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6 Energy consumption and emissions

Fuel consumption and main greenhouse gas and pollutant emissions from civil aviation

Including general aviation

T6.1

	2000	2010	2019	2020	2021
Fuel consumption, in million tonnes					
filled up in Switzerland	1.54	1.39	1.85	0.68	0.76
consumed in the Swiss airspace	0.51	0.58	0.62	0.22	0.27
Greenhouse gas emissions, in million tonnes²					
Carbon dioxide (CO ₂) ¹	4.85	4.38	5.81	2.13	2.38
Pollutant emissions, in tonnes²					
Nitrogen oxides (NO _x)	18 470	17 635	28 368	12 153	13 551
of which impacting the climate ³	...	...	...	8 903	9 997
Sulphur dioxide (SO ₂)	1 540	1 386	1 847	676	756
Volatile organic compounds (VOC)	905	734	810	274	288
Particulate emissions²					
Particulate matter (PM), in tonnes	...	...	44	34	36
Soot particles impacting the climate ³ , number	...	...	...	4,3*10 ²³	5,1*10 ²³

¹ fossil CO₂, i. e. without CO₂ emissions from climate-neutral fuels

² International and domestic flights. The calculation is based on the fuel quantity actually filled up in Switzerland (sales principle).

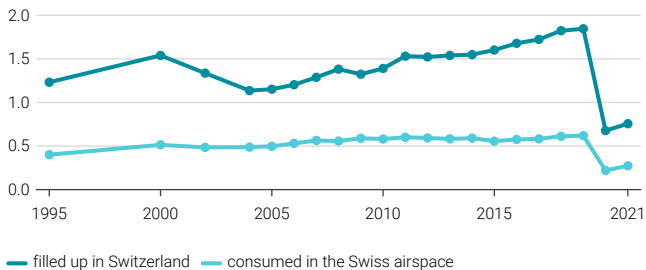
³ emissions from a flight altitude higher than 8000 m above sea level

Fuel consumption of civil aviation

Including general aviation

G6.1

Million tonnes



Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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CO₂ emissions of civil aviation

Including general aviation

G6.2

Million tonnes



Source: FSO, FOCA – Civil aviation statistics (AVIA_ZL)

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7 Accidents

Accidents and serious incidents¹ of Swiss registered aircraft

At home and abroad

T7.1

	2000	2010	2019	2020	2021
Total	80	45	56^r	62^r	58

¹ Serious incidents are events that have nearly resulted in an aviation accident such as the unintentional convergence of two aircraft with a high risk of collision (Airprox).

^r revised

Source: STSB – Aviation accident statistics

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Fatalities in Swiss registered aircraft

At home and abroad

T7.2

	2000	2010	2019	2020	2021
Total	51	8	5	10	8
Total aeroplanes	36	5	4	8	8
< 2 250 kg MTOM	4	5	4	8	8
2 250–5 700 kg MTOM	1	0	0	0	0
> 5 700 kg MTOM	31	0	0	0	0
Helicopters	12	0	1	0	0
Powered gliders and gliders	3	3	0	2	0
Free balloons and airships	0	0	0	0	0

MTOM = Maximum Take Off Mass

Source: STSB – Aviation accident statistics

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Severely injured persons¹ by Swiss registered aircraft

At home and abroad

T7.3

	2000	2010	2019	2020	2021
Total	23	7	5	5	3
Total aeroplanes	18	3	2	4	3
< 2 250 kg MTOM	5	1	2	2	3
2 250–5 700 kg MTOM	0	2	0	2	0
> 5 700 kg MTOM	13	0	0	0	0
Helicopters	3	4	2	0	0
Powered gliders and gliders	2	0	1	1	0
Free balloons and airships	0	0	0	0	0

¹ Severely injured persons whose treatment requires a hospital stay of more than 48 hours.

MTOM = Maximum Take Off Mass

Source: STSB – Aviation accident statistics

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The MONET 2030 indicator system

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