LSZR - ST. GALLEN-ALTENRHEIN

LSZR AD 2.1 AERODROME LOCATION INDICATOR AND NAME

LSZR - ST. GALLEN-ALTENRHEIN

LSZR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	**ARP coordinates and site at Aerodrome**	47 29 06 N 009 33 43 E RWY axis, 788 m from DTHR RWY 10
2	**Direction and distance from the CITY**	14 km ENE St. Gallen
3	**Elevation/Reference temperature**	*1306 ft AMSL* - 23.5º C
4	**Geoid undulation at AD ELEV PSN**	151.2 ft
5	**MAG VAR/Annual change**	2° E (2015.5) / 0°10' eastwards
6	**AD Administration, address, telephone, telefax, telex, AFS**	Post: Airport Altenrhein AG Flughafenstrasse 11 CH-9423 Altenrhein Phone: +41 (0) 71 858 51 65 AFS: LSZRYDYX SITA: ACHKKPE Email: groundservices@peoples.ch URL: http://www.peoples.ch
7	**Types of traffic permitted (IFR/VFR)**	IFR/VFR
8	**Remarks**	NIL

LSZR AD 2.3 OPERATIONAL HOURS

1	**Aerodrome Operator**	**VFR FLT**:		
		MON-FRI:	0600 - 1100 (0500 - 1000)	1230 - 1900 (1130 - 1800)
		SAT:	0700 - 1100 (0600 - 1000)	1230 - 1900 (1130 - 1800)
		SUN+HOL:	0900 - 1100 (0800 - 1000)	1230 - 1900 (1130 - 1800)
		IFR FLT:		
		MON-FRI (incl. HOL):	0530 - 1100 (0430 - 1000)	1230 - 2000 (1130 - 1900)
		SAT:	0630 - 1100 (0530 - 1000)	1230 - 1900 (1130 - 1800)
		SUN:	0900 - 1100 (0800 - 1000)	1230 - 1900 (1130 - 1800)
2	**Customs and immigration**	AD OPR HR		
3	**Health and sanitation**	Ambulance O/R Hospital: St. Gallen		
4	**AIS Briefing Office**	AD OPR HR		
5	**ATS Reporting Office (ARO)**	CTC ARO Zurich; Phone: +41(0) 43 931 61 61		
6	**MET Briefing Office**	AD OPR HR		
7	**ATS**	HX		
8	**Fuelling**	AD OPR HR		
9	**Handling**	AD OPR HR		
10	**Security**	Security screening / critical part O/R		
11	**De-icing**	AD OPR HR		

12	**Remarks**	Outside AD administration hours - OPS and services O/R Special permission is required for flights outside official opening hours and is possible during the following times: MON-FRI (incl. HOL): 0500 - 0529 (0400 - 0429) 1101 - 1229 (1001 - 1129) 2001 - 2100 (1901 - 2000) SAT: 0530 - 0629 (0430 - 0529) 1101 - 1229 (1001 - 1129) 1901 - 2100 (1801 - 2000) SUN: 0630 - 0859 (0530 - 0759) 1101 - 1229 (1001 - 1129) 1901 - 2000 (1801 - 1900) Request needs to be addressed to groundservices@peoples.ch / +41 (0) 71 858 51 65 Exceptions: Special permission possible 24/7 O/R for HOSP FLT, SAR FLT, FLT of the President of the Swiss Confederation and members of the Swiss Government. AD CLSD: New Years Day (JAN 01), Easter SUN, Whit SUN, Christmas Day (DEC 25). Grass RWY: Not available between NOV 01 - FEB 28

LSZR AD 2.4 HANDLING SERVICES AND FACILITIES

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	JET A1, AVGAS 100LL, Fuel Additive,
3	**Fuelling facilities/capacity**	Airport Altenrhein AG - Fuel stations: Jet A1 50000 litres, AVGAS 50000 litres, Jet A1 Fuel Truck 20100 litres, 900 litres/min.
4	**De-icing facilities**	OCT 01 - APR 30: De-icing guaranteed MAY 01 - SEP 30: De-icing O/R Operator: Airport Altenrhein AG De-icing fluids available: Type I Kilfrost DF Plus, Type II Kilfrost ABC K-Plus. Number of de-icing vehicles: 1 On stand de-icing: Apron stands 2 and 3. Clean Aircraft Concept as defined in ICAO Doc 9640 is applied; aircraft are de-iced according to the requirements of SAE AS6285. Airport Authority can intervene in case of non-adherence.
5	**Hangar space for visiting aircraft**	O/R Airport Altenrhein AG Phone: +41 (0) 71 858 51 65 Email: groundservices@peoples.ch
6	**Repair facilities for visiting aircraft**	For Airplane: AAL Ltd. Flughafenstrasse 11 9423 Altenrhein Phone: +41 (0) 71 858 51 85 Email: cs@aal.aero URL: http://www.aal.aero For Helicopter: Heli-Maintenance AG Rütiweg 1340 9423 Altenrhein Phone: +41 (0) 71 855 50 21 URL: http://www.helialpin.ch

7	**Remarks**	Ground handling agent: Airport Altenrhein AG Phone: +41 (0) 71 858 51 65 AFS: LSZRYDYX Email: groundservices@peoples.ch FREQ: 131.505 MHz (St.Gallen Handling)

LSZR AD 2.5 PASSENGER FACILITIES

1	**Hotels**	Near the AD, Rorschach, St. Gallen
2	**Restaurants**	At AD, Altenrhein and vicinity
3	**Transportation**	Public buses, taxis and car rental agencies at AD
4	**Medical facilities**	Ambulance O/R Hospital: St.Gallen
5	**Bank and Post Office**	Cash machine: Airport Terminal Bank: Rorschach Post Office: Altenrhein, Rorschach
6	**Tourist Office**	Rorschach: Phone: +41 (0) 71 841 61 41 Email: rorschach@st.gallen-bodensee.ch URL: http://www.st.gallen-bodensee.ch St. Gallen: Phone: +41 (0) 71 227 37 37 Email: info@st.gallen-bodensee.ch URL: http://www.st.gallen-bodensee.ch
7	**Remarks**	IATA travel agency at AD: High Life Reisen GmbH Phone: +41 (0) 71 886 60 88 Email: info@highlife.at URL: http://www.highlife.travel

LSZR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	**AD category for fire fighting**	Category 2 Category 3 - 6: O/R 3 HR before ETA/ETD for scheduled traffic according to aircraft type
2	**Rescue equipment**	2 RFF vehicles and 1 RIV (Rapid Intervention Vehicle)
3	**Capability for removal of disabled aircraft**	Crane, lifting bags and hydraulic jacks available
4	**Remarks**	NIL

LSZR AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	**Type(s) of clearing equipment**	3 snow ploughs, 3 jet sweepers, 1 RWY and Apron de-icer, 1 ACFT de-icer
2	**Clearance priorities**	RWY, TWY A/S/N, Apron
3	**Remarks**	RWY 10/28 de-iced / anti-iced with KFOR (potassium formate fluids) or with NAFO (sodium formate solids)

LSZR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	**Designation, surface and strength of Aprons**	Concrete, ASPH: - PCR 295/F/C/Y/U GRASS: 0.25 MPa
2	**Designation, width, surface and strength of Taxiways**	Widths: TWY A: 15.0 m TWY B: 7.5 m TWY M: 10.5 m to Hangar W1 TWY N: 15.0 m on section parallel to APRON EAST, 10.5 m east of APRON EAST to Hangar M1, 7.5 m east of Hangar M1. TWY S: 15.0 m MAX wingspan: TWY B: 12.0 m TWY M: 24.0 m to Hangar W1, 15.0 m from Hangar W1 to Museum TWY N: 24.0 m on section parallel to APRON EAST, 18.0 m east of TWY M to Hangar M1, 15.0 m east of Hangar M1. ASPH - PCR 295/F/C/Y/U
3	**ACL location and elevation**	not designated
4	**Location of VOR checkpoints**	NIL
5	**Location of INS checkpoints**	NIL
6	**Remarks**	NIL

LSZR AD 2.9 SURFACE MOVEMENT GUIDANCE, CONTROL SYSTEM AND MARKINGS

1	**Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands**	Taxi guide lines for parking stands on apron. Apron Safety Lines ACFT stand identification markings
2	**RWY/TWY markings and LGT**	Paved RWY markings: DTHR, designation, aiming point, TDZ and centre line. Grass RWY markings: Beginning, end and edge. TWY markings: Centre line (including on turn pads) and intermediate holding position. Markings at paved intersections with paved RWY: RWY holding position, mandatory instruction and enhanced TWY centre line. Markings at unpaved intersection with grass RWY: RWY holding position. RWY LGT: See LSZR AD 2.14 TWY LGT: See LSZR AD 2.15
3	**Stop bars and RWY guard lights**	Stop bars: NIL RGL: TWY A, N and S. LIH, Y, no LED.
4	**Other RWY protection measures**	NIL
5	**Remarks**	Mandatory instruction signs at all paved RWY holding positions. Information signs on the movement area.

LSZR AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas				In circling area and at aerodrome			
1				2			3
RWY/Area affected	Obstacle type Elevation Markings/LGT		Co-ordinates	Obstacle type Elevation Markings/LGT		Co-ordinates	RMK
a	b		c	a		b	c
		ft			*ft*		
AOC 10 (1)	Pole	*1307*	47 29 05 N 009 34 14 E	Pole LGTD	*1323*	47 29 11 N 009 32 54 E	B0719/06
AOC 10 (2)	Building	*1314*	47 29 00 N 009 34 14 E	Antenna LGTD	*1342*	47 29 06 N 009 33 16 E	B0167/04
AOC 10 (3)	Antenna	*1322*	47 29 00 N 009 34 14 E	Pole marked/LGTD	*1339*	47 29 01 N 009 34 00 E	B1310/13
AOC 10 (4)	Tree/Trees	*1325*	47 29 05 N 009 34 25 E	Control tower LGTD	*1360*	47 29 16 N 009 33 10 E	B0718/06
AOC 10 (5)	Tree/Trees	*1331*	47 28 56 N 009 34 30 E	Crane/Cranes marked/LGTD	*1409*	47 29 07 N 009 32 42 E	B0160/22
AOC 10 (6)	Tree/Trees	*1338*	47 28 57 N 009 34 30 E	Crane/Cranes marked/LGTD	*1384*	47 29 11 N 009 34 02 E	B0377/22
AOC 10 (7)	Tree/Trees	*1405*	47 29 05 N 009 34 37 E	Pole LGTD	*1315*	47 29 06 N 009 33 20 E	B0097/09
AOC 10 (8)	Tree/Trees	*1416*	47 29 04 N 009 34 46 E				
AOC 10 (9)	Tree/Trees	*1426*	47 29 04 N 009 34 47 E				
AOC 28 (1)	Pole	*1313*	47 29 13 N 009 33 59 E				
AOC 28 (2)	Pole	*1315*	47 29 08 N 009 32 58 E				
AOC 28 (3)	Tree/Trees	*1326*	47 29 07 N 009 32 58 E				
AOC 28 (4)	Tree/Trees	*1343*	47 29 08 N 009 32 57 E				
AOC 28 (5)	Antenna	*1347*	47 29 08 N 009 32 49 E				
AOC 28 (6)	Antenna	*1349*	47 29 08 N 009 32 48 E				
AOC 28 (7)	Building	*1350*	47 29 16 N 009 32 43 E				
AOC 28 (8)	Tree/Trees	*1358*	47 29 08 N 009 32 41 E				
AOC 28 (9)	Tree/Trees	*1375*	47 29 09 N 009 32 40 E				
Refer also to LSZR AOC 10/28, LSZR AD 2.24.4 - 1 Number in brackets is equivalent to identification number on AOC							

LSZR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	**Associated MET Office**	MeteoSwiss
2	**Hours of service**	HX
3	**Office responsible for TAF preparation** **Periods of validity**	MeteoSwiss, Zurich 9 hours
4	**Type of landing forecast**	NIL
5	**Briefing/consultation provided**	Self Briefing Service (www.skybriefing.com), WLAN Internet
6	**Flight documentation** **Language(s) used**	Digital and hard copy En, Ge, Fr
7	**Charts and other information available for briefing or consultation**	Self Briefing Service (www.skybriefing.com), WLAN Internet
8	**Supplementary equipment available for providing information**	WLAN Internet
9	**ATS units provided with information**	St. Gallen TWR
10	**Additional information (limitation of service, etc.)**	Ground Services +41 (0) 71 858 51 65 and WLAN Internet

LSZR AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MAG BRG	Dimensions of RWY (m)	Strength (PCR) and surface of RWY and SWY	THR COORD	THR elevation and highest elevation of TDZ of precision APP RWY	Slope of RWY-SWY
1	2	3	4	5	6	7
10	099° GEO 097° MAG	1455 x 30	PCR 295/F/C/Y/U ASPH	47 29 09.57N 009 33 05.74E	*1306 ft*	Refer to: LSZR AOC RWY 10/28
28	279° GEO 277° MAG			47 29 03.04N 009 34 08.31E	*1306 ft*	
10 GRASS	099° GEO 097° MAG	810 x 20	0.25 MPa GRASS	NIL	NIL	NIL
28 GRASS	279° GEO 277° MAG					

Designations RWY NR	SWY dimensions (m)	CWY dimensions (m)	Strip dimensions (m)	OFZ	Remarks
1	8	9	10	11	12
10	NIL	60 x 150	1575 x 80	NIL	RWY Strip and RESA dimensions according to non-instrument RWY criteria. RESA: 30 x 60 m Grooved between DTHR (1325 m)
28		60 x 150			Non-instrument RWY RESA: 30 x 60 m Grooved between DTHR (1325 m)
10 GRASS	NIL	NIL	870 x 60	N/A	NIL
28 GRASS					

LSZR AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
10	1455	1515	1455	1380	Public roads behind RWY (outside airport area)
28	1455	1515	1455	1400	Public roads behind RWY (outside airport area)
10 GRASS	810	810	810	810	NIL
28 GRASS	810	810	810	810	NIL

LSZR AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	ALS type, LEN, INTST	THR LGT colour, INTST, WBAR	VASIS type, PSN, MEHT	RTZL LEN, colour, INTST	RCLL LEN, spacing, colour, INTST	REDL LEN, spacing, colour, INTST	RENL colour, INTST	SWY LGT LEN, colour, INTST	RMK
1	2	3	4	5	6	7	8	9	10
10	RLLS Seq. FLG LGT, 300 m, W, LIH, no LED	RTHL G, LIH, WBAR, no LED; RTIL FLG W, no LED	PAPI 4.0°, L+R, 7.0 m, no LED	Simple TZL* 473 m FM THR 10, W, LIH, LED	NIL	75 m, 50 m, R, LIH; 930 m, 50 m, W, LIH; 450 m, 50 m, Y, LIH, no LED	R, LIH, no LED	NIL	First RLLS LGT is 530 m FM THR10
28	NIL	RTHL G, LIH, WBAR, no LED	PAPI 4.0°, L , 8.5 m, no LED	Simple TZL*, 473 m FM THR 28, W, LIH, LED	NIL	55 m, 50 m, R, LIH; 950 m, 50 m, W, LIH; 450 m, 50 m, Y,LIH, no LED	R, LIH, LED	NIL	NIL

TZL*: The purpose of simple touchdown zone lights is to provide pilots with enhanced situational awareness in all visibility conditions and to help enable pilots to decide whether to commence a go-around if the aircraft has not landed by a certain point on the runway.

LSZR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	**ABN/IBN location, characteristics and hours of operation**	NIL
2	**LDI location and LGT** **Anemometer location and LGT**	No LDI. Anemometer: RWY 10: 220 m E of THR 10, LGTD. RWY 28: 140 m W of THR 28, LGTD.
3	**TWY edge and centre line lighting**	Edge: TWY A and S partly. Turn pads 10 and 28. LIL, B, no LED. CL: NIL
4	**Secondary power supply/switch-over time**	AVBL / MAX 15 sec; DEP in VIS less than 800m MAX 1 sec.
5	**Remarks**	OBST: Marked and lighted (see LSZR AD 2.24.1 - 1)

LSZR AD 2.16 HELICOPTER LANDING AREA

1	**Coordinates TLOF or THR of FATO**	TLOF: Main Apron: 47 29 13.87N / 009 33 10.73E TLOF: Hangar B2: 47 29 13.74N / 009 33 44.68E
	Geoid undulation	NIL
2	**TLOF and/or FATO elevation**	TLOF: Main Apron: 398 m / *1306 ft* TLOF: Hangar B2: 398 m / *1306 ft*
3	**TLOF and FATO area dimensions, surface, strength, marking**	TLOF: Main Apron: TLOF stand MAX OAL or OAW 15.6 m, ASPH, marked TLOF: Hangar B2: TLOF stand MAX OAL or OAW 13.0 m, ASPH, marked
4	**True BRG of FATO**	RWY 10: GRASS; 099° RWY 28: GRASS; 279°
5	**Declared distance available**	See: LSZR AD 2.13 for RWY 10-28 GRASS
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

LSZR AD 2.17 ATS AIRSPACE

1	**Designation and lateral limits**	**St. Gallen CTR** 47 33 08 N 009 31 28 E - FIR SWITZERLAND/FIR MUNICH - 47 32 31 N 009 33 16 E - German/Austrian border - 47 31 31 N 009 37 50 E - arc of circle radius 1.90 NM on 47 29 40 N 009 37 08 E - 47 27 46 N 009 37 13 E - 47 28 40 N 009 23 09 E - 47 31 13 N 009 23 36 E - 47 33 29 N 009 26 51 E - 47 33 08 N 009 31 28 E
2	**Vertical limits**	*5500 ft AMSL (1700 m)*
3	**Airspace classification**	D
4	**ATS unit call sign Language(s)**	En; En and Ge for Non-Commercial VFR traffic.
5	**Transition altitude**	*5000 ft AMSL*
6	**Remarks**	ACT: HX - ATIS (monitoring compulsory)

LSZR AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of Operation	Remarks
1	2	3	4	5
ATIS		123.780 MHz	H24	Phone Service: +41 (0) 71 858 51 66
APP	ALPS RADAR	119.925 MHz	H24	Language: En; Ge
TWR	St. Gallen Tower	135.430 MHz 119.700 MHz	HX	QDM AVBL O/R ALTN FREQ Language: En; En and Ge for Non-Commercial VFR traffic.
		121.500 MHz		EMERG
GND	St. Gallen Ground	121.805 MHz		According to ATIS INFO Language: En; En and Ge for Non-Commercial VFR traffic.

LSZR AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, supported OPS, classification, MAG VAR, (declination)	ID	FREQ, CH NR, RPI	Hours of operation	Coordinates of transmitting antenna position	ELEV of DME antenna or GBAS; ELEV, ellipsoid HGT of reference point SBAS; ellipsoid HGT of LTP/FTP	SER volume radius from GBAS reference point	RMK
1	2	3	4	5	6	7	8
LOC 10, ILS CAT I, class I/C/2, VAR 2° E	IAL	108.75 MHz	H24	47 29 01.43N 009 34 14.96E	NIL	NIL	LOC PSN: 146 m FM THR 28. RWY 10: LOC course 097° MAG. LOC axis offset 0.78° N. Front course sector width 5.0°. Reduced ICAO coverage: at 10 NM; +/- 15° from CL above *3600 ft AMSL*. Linearly raising to: at 10 NM; +/- 35° from CL above *4500 ft AMSL*. at 18 NM; +/- 10° from CL above *3600 ft AMSL*.
GP 10		330.35 MHz	H24	47 29 05.94N 009 33 15.53E	NIL	NIL	GP angle 4°. PSN: 220 m FM THR 10. GP HGT THR 10: 48 ft / 14.6 m.
DME 10	IAL	24Y	H24	47 29 06.07N 009 33 15.56E	*1333 ft*	NIL	DME co-located with GP. Zero range at DME station. Reduced coverage: at 10 NM; +/- 15° from CL above *3600 ft AMSL*. Linearly raising to: at 10 NM; +/- 35° from CL above *4500 ft AMSL*. at 18 NM; +/- 10° from CL above *3600 ft AMSL*.

LSZR AD 2.20 LOCAL AERODROME REGULATIONS

1. Local flying restrictions and remarks

1.1 APCH

NIL

1.2 DEP

- Start-up CLR: IFR, SVFR and NVFR FLTs on FREQ provided by ATIS

FLT of less than 20 MIN DUR are only admitted at the following times:

MON-FRI:	0700 - 1100, 1230 - 1730 (0600 - 1000, 1130 - 1630)
SAT:	0700 - 1100 (0600 - 1000)

Additionally, the above mentioned FLTs are **prohibited** on the following Swiss and/or Austrian HOL: JAN 06, Good FRI, Easter MON, MAY 01, Ascension Day, Whit MON, Corpus Christi, National HOL (AUG 01), Assumption Day (AUG 15), Austrian National HOL (OCT 26), All Saint's Day (NOV 01), DEC 08 and DEC 26.
PPR for non-Turbofan equipped Jet ACFT (in accordance with ICAO Annex 16, Volume1, Chapter 2)

1.3 RMK

No simultaneous use of ASPH RWY and grass RWY.

1.4 SAFETY RULES

Use of high-visibility jacket which complies with EN 471 standard class 2 or 3 is mandatory for Flight Crews and Aircraft Technicians on Apron West and Apron East. In all other areas of the aerodrome the use of high visibility jackets is recommended.

2. Transponder Mandatory Zone (TMZ NE)

For Airspace information see ENR 2.2.5.

LSZR AD 2.21 NOISE ABATEMENT PROCEDURES

1. Reverse thrust

For deceleration, it is recommended that the entire RWY LEN AVBL is used; Reverse thrust shall be used for safety or operational reasons only.

2. Taxi and holding

Aeroplanes shall be operated with MNM noise level on ground.

3. Meteo condition

If Meteo condition permits, due to noise restrictions expect RWY 10 for landing and RWY 28 for departure.

LSZR AD 2.22 FLIGHT PROCEDURES

1. Special regulations for IFR approach and departure

1.1 SID Descriptions

1.1.1 SID RWY 10 RNAV 1 (see chart LSZR AD 2.24.7 - 1)

DESIGNATOR	RWY 10 RNAV 1			
	ROUTE			
	Lateral	Vertical	Contact	Remark
ALAGO 5L PDG 6.5% to *1800 ft* due to airspace restrictions only.	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Proceed via ZR501, ENIBI to ALAGO.	Initial climb clearance *5000 ft.* Cross ZR501 at *5000 ft* or above.	NIL	For routing after ALAGO see LSZH AD 2.24.6-1.
BEMKI 3L PDG 6.5% to *1800 ft* due to airspace restrictions only.	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Proceed via ZR502, OKPUS, TUSRO, XASIS, EVTAT to BEMKI.	Initial climb clearance *5000 ft.* Cross ZR502 at *5000 ft* or above, TUSRO at *8500 ft* or above, XASIS at *9000 ft* or above, EVTAT at *9500 ft* or above.	NIL	NIL
KEMPTEN 4L (KPT 4L) PDG 6.5% to *1800 ft* due to airspace restrictions only.	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Proceed via ZR502, OKPUS to KPT.	Initial climb clearance *5000 ft.* Cross ZR502 at *5000 ft* or above.	NIL	NIL
TRASADINGEN 3L (TRA 3L) PDG 6.5% to *1800 ft* due to airspace restrictions only.	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Proceed via ZR501, ENIBI, TINOX to TRA.	Initial climb clearance *5000 ft.* Cross ZR501 at *5000 ft* or above.	NIL	NIL

RNAV 1 SID ALAGO 5L						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	1800	160	097° (098.7°T)	-
DF	ZR501	N	+5000	160	-	-
TF	ENIBI	N	-	-	360° (001.8°T)	4.6
TF	ALAGO	N	-	-	335° (336.9°T)	7.7

RNAV 1 SID BEMKI 3L						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	1800	160	097° (098.7°T)	-
DF	ZR502	N	+5000	160	-	-
TF	OKPUS	N	-	-	072° (073.5°T)	13.7
TF	TUSRO	N	+8500	-	112° (114.1°T)	2.8
TF	XASIS	N	+9000	-	112° (114.1°T)	7.6
TF	EVTAT	N	+9500	-	112° (114.3°T)	3.3
TF	BEMKI	N	-	-	112° (114.3°T)	2.2

RNAV 1 SID KPT 4L						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	1800	160	097° (098.7°T)	-
DF	ZR502	N	+5000	160	-	-
TF	OKPUS	N	-	-	072° (073.5°T)	13.7
TF	KPT	N	-	-	072° (073.7°T)	16.9

RNAV 1 SID TRA 3L						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	1800	160	097° (098.7°T)	-
DF	ZR501	N	+5000	160	-	-
TF	ENIBI	N	-	-	360° (001.8°T)	4.6
TF	TINOX	N	-	-	297° (299.3°T)	19.0
TF	TRA	N	-	-	251° (252.9°T)	29.3

1.1.2 SID RWY 10 RNAV 5 (see chart LSZR AD 2.24.7 - 3)

	RWY 10 RNAV 5			
	ROUTE			
DESIGNATOR	**Lateral**	**Vertical**	**Contact**	**Remark**
ALAGO 1M	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Establish TR255 to intercept LOC IAL outbound. Proceed to SITOR (LOC/D9 IAL). At SITOR turn right (MAX IAS 180 kt). Proceed via ZR500, ZR501, ENIBI to ALAGO.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above.	NIL	RNAV applicable when passing SITOR. MAX IAS 240 kt until ENIBI. For routing after ALAGO see LSZH AD 2.24.6-1.
BEMKI 1M	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Establish TR255 to intercept LOC IAL outbound. Proceed to SITOR (LOC/D9 IAL). At SITOR turn right (MAX IAS 180 kt). Proceed via ZR500, ZR502, OKPUS TUSRO, XASIS, EVTAT to BEMKI.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above, TUSRO at *8500 ft* or above, XASIS at *9000 ft* or above, EVTAT at *9500 ft* or above.	NIL	RNAV applicable when passing SITOR.
TRASADINGEN 1M (TRA 1M)	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Establish TR255 to intercept LOC IAL outbound. Proceed to SITOR (LOC/D9 IAL). At SITOR turn right (MAX IAS 180 kt). Proceed via ZR500, ZR501, ENIBI, TINOX to TRA.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above.	NIL	RNAV applicable when passing SITOR. MAX IAS 240 kt until ENIBI.

RNAV Segment of RNAV 5 SID ALAGO 1M						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
-	SITOR	Y	+5000	180	-	-
DF	ZR500	N	-	180	-	-
TF	ZR501	N	-	240	072° (073.8°T)	4.7
TF	ENIBI	N	-	240	360° (001.8°T)	4.6
TF	ALAGO	N	-	-	335° (336.9°T)	7.7

RNAV Segment of RNAV 5 SID BEMKI 1M						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
-	SITOR	Y	+5000	180	-	-
DF	ZR500	N	-	180	-	-
TF	ZR502	N	-	-	079° (081.2°T)	8.4
TF	OKPUS	N	-	-	072° (073.5°T)	13.7
TF	TUSRO	N	+8500	-	112° (114.1°T)	2.8
TF	XASIS	N	+9000	-	112° (114.1°T)	7.6
TF	EVTAT	N	+9500	-	112° (114.3°T)	3.3
TF	BEMKI	N	-	-	112°(114.3°T)	2.2

RNAV Segment of RNAV 5 SID TRA 1M						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
-	SITOR	Y	+5000	180	-	-
DF	ZR500	N	-	180	-	-
TF	ZR501	N	-	240	072° (073.8°T)	4.7
TF	ENIBI	N	-	240	360° (001.8°T)	4.6
TF	TINOX	N	-	-	297° (299.3°T)	19.0
TF	TRA	N	-	-	251° (252.9°T)	29.3

1.1.3 SID RWY 10 non RNAV (see chart LSZR AD 2.24.7 - 5)

	RWY 10 NON RNAV			
	ROUTE			
DESIGNATOR	**Lateral**	**Vertical**	**Contact**	**Remark**
AMIKI 1M	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Establish TR255 to intercept LOC IAL outbound. Proceed to SITOR (LOC/D9 IAL). At SITOR turn right. Establish TR305 to intercept R095 ZUE. Proceed to AMIKI.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above, AMIKI at *7000 ft* or above.	NIL	NIL
KEMPTEN 1M (KPT 1M)	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Establish TR255 to intercept LOC IAL outbound. Proceed to SITOR (LOC/D9 IAL). At SITOR turn right (MAX IAS 180 kt). Establish TR073 to intercept R252 KPT. Proceed to KPT.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above, D33 KPT at *8000 ft* or above.	NIL	NIL
SITOR 1M	Climb straight ahead. At *1800 ft* turn left (MAX IAS 160 kt, MNM bank angle 20°). Establish TR255 to intercept LOC IAL outbound. Proceed to SITOR (LOC/D9 IAL). Enter SITOR HLDG pattern.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above.	NIL	NIL

1.1.4 SID RWY 28 RNAV 1 (see chart LSZR AD 2.24.7 - 7)

DESIGNATOR	RWY 28 RNAV 1			
	ROUTE			
	Lateral	Vertical	Contact	Remark
ALAGO 5R PDG 7.0% to *5000 ft* due to airspace restrictions only.	Climb straight ahead. At *2300 ft* turn right (MAX IAS 180 kt). Proceed via ZR501, ENIBI to ALAGO.	Initial climb clearance *5000 ft.* Cross ZR501 at *5000 ft* or above.	NIL	For routing after ALAGO see LSZH AD 2.24.6-1.
BEMKI 3R PDG 6.7% to *5000 ft* due to airspace restrictions only.	Climb straight ahead. At *2300 ft* turn right (MAX IAS 180 kt). Proceed via ZR502, OKPUS, TUSRO, XASIS, EVTAT to BEMKI.	Initial climb clearance *5000 ft.* Cross ZR502 at *5000 ft* or above, TUSRO at *8500 ft* or above, XASIS at *9000 ft* or above, EVTAT at *9500 ft* or above.	NIL	NIL
KEMPTEN 4R (KPT 4R) PDG 6.7% to *5000 ft* due to airspace restrictions only.	Climb straight ahead. At *2300 ft* turn right (MAX IAS 180 kt). Proceed via ZR502, OKPUS to KPT.	Initial climb clearance *5000 ft.* Cross ZR502 at *5000 ft* or above.	NIL	NIL
TRASADINGEN 3R (TRA 3R) PDG 7.0% to *5000 ft* due to airspace restrictions only.	Climb straight ahead. At *2300 ft* turn right (MAX IAS 180 kt). Proceed via ZR501, ENIBI, TINOX to TRA.	Initial climb clearance *5000 ft.* Cross ZR501 at *5000 ft* or above.	NIL	NIL

RNAV 1 SID ALAGO 5R						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	2300	180	277° (278.8°T)	-
DF	ZR501	N	+5000	180	-	-
TF	ENIBI	N	-	-	360° (001.8°T)	4.6
TF	ALAGO	N	-	-	335° (336.9°T)	7.7

RNAV 1 SID BEMKI 3R						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	2300	180	277° (278.8°T)	-
DF	ZR502	N	+5000	180	-	-
TF	OKPUS	N	-	-	072° (073.5°T)	13.7
TF	TUSRO	N	+8500	-	112° (114.1°T)	2.8
TF	XASIS	N	+9000	-	112° (114.1°T)	7.6
TF	EVTAT	N	+9500	-	112° (114.3°T)	3.3
TF	BEMKI	N	-	-	112° (114.3°T)	2.2

RNAV 1 SID KPT 4R						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	2300	180	277° (278.8°T)	-
DF	ZR502	N	+5000	180	-	-
TF	OKPUS	N	-	-	072° (073.5°T)	13.7
TF	KPT	N	-	-	072° (073.7°T)	16.9

RNAV 1 SID TRA 3R						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
CA	-	-	2300	180	277° (278.8°T)	-
DF	ZR501	N	+5000	180	-	-
TF	ENIBI	N	-	-	360° (001.8°T)	4.6
TF	TINOX	N	-	-	297° (299.3°T)	19.0
TF	TRA	N	-	-	251° (252.9°T)	29.3

1.1.5 SID RWY 28 RNAV 5 (see chart LSZR AD 2.24.7 - 9)

	RWY 28 RNAV 5			
	ROUTE			
DESIGNATOR	**Lateral**	**Vertical**	**Contact**	**Remark**
ALAGO 4V	Climb straight ahead. Use LOC IAL outbound for track guidance. At SITOR (LOC/D9 IAL) turn right (MAX IAS 180 kt). Proceed via ZR500, ZR501, ENIBI to ALAGO.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above.	NIL	RNAV applicable when passing SITOR. MAX IAS 240 kt until ENIBI. For routing after ALAGO see LSZH AD 2.24.6-1.
BEMKI 2V	Climb straight ahead. Use LOC IAL outbound for track guidance. At SITOR (LOC/D9 IAL) turn right (MAX IAS 180 kt). Proceed via ZR500, ZR502, OKPUS, TUSRO, XASIS, EVTAT to BEMKI.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above, TUSRO at *8500 ft* or above, XASIS at *9000 ft* or above, EVTAT at *9500 ft* or above.	NIL	RNAV applicable when passing SITOR.
TRASADINGEN 2V (TRA 2V)	Climb straight ahead. Use LOC IAL outbound for track guidance. At SITOR (LOC/D9 IAL) turn right (MAX IAS 180 kt). Proceed via ZR500, ZR501, ENIBI, TINOX to TRA.	Initial climb clearance *5000 ft.* Cross SITOR at *5000 ft* or above.	NIL	RNAV applicable when passing SITOR. MAX IAS 240 kt until ENIBI.

RNAV 5 SID ALAGO 4V						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
-	SITOR	Y	+5000	180	-	-
DF	ZR500	N	-	180	-	-
TF	ZR501	N	-	240	072° (073.8°T)	4.7
TF	ENIBI	N	-	240	360° (001.8°T)	4.6
TF	ALAGO	N	-	-	335° (336.9°T)	7.7

RNAV 5 SID BEMKI 2V						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
-	SITOR	Y	+5000	180	-	-
DF	ZR500	N	-	180	-	-
TF	ZR502	N	-	-	079° (081.2°T)	8.4
TF	OKPUS	N	-	-	072° (073.5°T)	13.7
TF	TUSRO	N	+8500	-	112° (114.1°T)	2.8
TF	XASIS	N	+9000	-	112° (114.1°T)	7.6
TF	EVTAT	N	+9500	-	112° (114.3°T)	3.3
TF	BEMKI	N	-	-	112° (114.3°T)	2.2

RNAV 5 SID TRA 2V						
Path terminator	**Waypoint**	**Flyover**	**Altitude (ft)**	**Speed limit (kt)**	**Track**	**Distance (NM)**
-	SITOR	Y	+5000	180	-	-
DF	ZR500	N	-	180	-	-
TF	ZR501	N	-	240	072° (073.8°T)	4.7
TF	ENIBI	N	-	240	360° (001.8°T)	4.6
TF	TINOX	N	-	-	297° (299.3°T)	19.0
TF	TRA	N	-	-	251° (252.9°T)	29.3

1.1.6 SID RWY 28 non RNAV (see chart LSZR AD 2.24.7 - 11)

	RWY 28 NON RNAV			
	ROUTE			
DESIGNATOR	**Lateral**	**Vertical**	**Contact**	**Remark**
AMIKI 2V	Climb straight ahead. Use LOC IAL outbound for track guidance. At SITOR (LOC/D9 IAL) turn right. Establish TR305 to intercept R095 ZUE. Proceed to AMIKI.	Initial climb clearance *5000 ft*. Cross SITOR at *5000 ft* or above, AMIKI at *7000 ft* or above.	NIL	NIL
KEMPTEN 3V (KPT 3V)	Climb straight ahead. Use LOC IAL outbound for track guidance. At SITOR (LOC/D9 IAL) turn right (MAX IAS 180 kt). Establish TR073 to intercept R252 KPT. Proceed to KPT.	Initial climb clearance *5000 ft*. Cross SITOR at *5000 ft* or above, D33 KPT at *8000 ft* or above.	NIL	NIL
SITOR 2V	Climb straight ahead. Use LOC IAL outbound for track guidance. Proceed to SITOR (LOC/D9 IAL). Enter SITOR HLDG pattern.	Initial climb clearance *5000 ft*. Cross SITOR at *5000 ft* or above.	NIL	NIL

1.2 STAR Descriptions

1.2.1 STAR TO SITOR - RNAV 1 (see chart LSZR AD 2.24.9 - 1)

DESIGNATOR	STAR TO SITOR - RNAV 1		
	ROUTE		
	Lateral	Vertical	Remark
KEMPTEN 4H (KPT 4H)	From KPT proceed via ZR612, LAGOS, AMRIS to SITOR.	Cross ZR612 at 7000 or above, LAGOS at 6000 or above, SITOR at 5000 or above.	NIL

RNAV 1 STAR KPT 1H						
Path terminator	Waypoint	Flyover	Altitude (ft)	Speed limit (kt)	Track	Distance (NM)
-IF	KPT	N	-	-	-	-
TF	ZR612	N	+7000	-	248° (250.0°T)	17.0
TF	LAGOS	N	+6000	-	247° (249.7°T)	18.4
TF	AMRIS	N	-	-	248° (250.0°T)	6.4
TF	SITOR	N	+5000	-	277° (279.4°T)	2.0

1.2.2 STAR TO SITOR - RNAV 5 (see chart LSZR AD 2.24.9 - 3)

DESIGNATOR	STAR TO SITOR - RNAV 5		
	ROUTE		
	Lateral	Vertical	Remark
GARMO 1H	From GARMO proceed via ENIBI, LAGOS, AMRIS to SITOR.	Refer to chart	NIL
ROLSA 3H	From ROLSA (MAX IAS 240kt) proceed via ZR675 to SITOR.	Refer to chart	Note: For descent planning expect to cross ROLSA at or below FL130.

RNAV 5 STAR GARMO 1H						
Path terminator	Waypoint	Flyover	Altitude (ft)	Speed limit (kt)	Track	Distance (NM)
-	GARMO	N	-	-	-	-
TF	ENIBI	N	-	-	123° (124.8°T)	11.7
TF	LAGOS	N	+6000	-	180° (181.7°T)	8.4
TF	AMRIS	N	-	-	248° (250.0°T)	6.4
TF	SITOR	N	+5000	-	277° (279.4°T)	2.0

RNAV 5 STAR ROLSA 3H						
Path terminator	Waypoint	Flyover	Altitude (ft)	Speed limit (kt)	Track	Distance (NM)
-	ROLSA	N	-FL130	240	-	-
TF	ZR675	N	+8000	-	052° (053.9°T)	14.7
TF	SITOR	N	+6000	-	052° (054.0°T)	7.8

1.2.3 STAR TO SITOR - non RNAV (see chart LSZR AD 2.24.9 - 5)

DESIGNATOR	STAR TO SITOR - NON RNAV			
	ROUTE			
	Lateral	Vertical	Contact	Remark
ZURICH EAST 3H (ZUE 3H)	At ZUE intercept R103 ZUE. Proceed to ZR685. At ZR685 intercept LOC IAL. Proceed to SITOR.	Refer to chart	NIL	NIL

1.3 Approach procedures:

1.3.1 Procedure description of RNP RWY 10 (see chart LSZR AD 2.24.10 - 5)

From SITOR						
Path terminator	Waypoint	Flyover	Altitude (ft)	Speed limit (kt)	Track	Distance (NM)
IF	SITOR	N	+5000	-	-	-
TF	ZR700	N	+5000	-	097° (099.4°T)	0.3
TF	ZR701	Y	-	-	097° (099.4°T)	8.3
DF	ZR702	Y	-	160	098° (099.5°T)	1.9
DF	LAGOS	N	+4000	160	-	-
TF	ZR703	N	-	-	255° (256.9°T)	5.8
TF	SITOR	N	+5000	-	255° (256.8°T)	2.4

1.4 VFR procedure

Refer to VFR Manual, AD INFO.

1.5 Supplementary provisions regarding VFR-flights

Refer to VFR Manual, AD INFO.

2. Minima for IFR departures (TKOF minima)

RWY	ACFT CAT	VIS (m) / Ceiling (ft AGL)			RMK
		No LGT AVBL	REDL or RCLL AVBL	REDL and RCLL AVBL	
All	A	800/---	400/---	---	NIL
	B	800/---	400/---	---	NIL
	C	800/---	400/---	---	NIL

LSZR AD 2.23 ADDITIONAL INFORMATION

1. List of significant points

NAV point	COORD WGS84		Purpose
	LAT	LONG	
1	2		3
AMRIS	N 47 30 17.2	E 009 23 05.2	STAR LSZR
BEMKI	N 47 33 33.8	E 010 18 20.1	SID LSZR
ENIBI	N 47 40 52.4	E 009 32 16.0	SID/STAR LSZR
EVTAT	N 47 34 28.9	E 010 15 19.9	SID LSZR
LAGOS	N 47 32 28.1	E 009 31 53.4	STAR LSZR
OKPUS	N 47 40 03.4	E 009 56 58.6	SID LSZR
TUSRO	N 47 38 55.6	E 010 00 43.1	SID LSZR
XASIS	N 47 35 49.6	E 010 10 55.7	SID LSZR
ZR500	N 47 34 56.0	E 009 25 20.8	SID LSZR
ZR501	N 47 36 15.1	E 009 32 03.4	SID LSZR
ZR502	N 47 36 12.1	E 009 37 36.2	SID LSZR
ZR612	N 47 38 54.0	E 009 57 22.0	STAR LSZR
ZR675	N 47 26 02.0	E 009 10 51.0	STAR LSZR
ZR685	N 47 31 56.2	E 009 08 14.2	STAR LSZR
ZR695	N 47 31 05.9	E 009 15 48.5	IAC LSZR
ZR700	N 47 30 33.8	E 009 20 36.7	IAC LSZR
ZR701	N 47 29 12.4	E 009 32 38.2	IAC LSZR
ZR702	N 47 28 53.3	E 009 35 26.4	IAC LSZR
ZR703	N 47 31 09.4	E 009 23 35.7	IAC LSZR

2. Classification of the Instrument Landing System (ILS)

The ILS on RWY 10 is classified as an ILS Category I with “NIL facilities”, in accordance with JAR-OPS 1 Subpart E.
Due to the following facts, a classification as ILS Category I with ”full facilities” in accordance with JAR-OPS 1 Subpart E, is not possible:

a. No ALS is AVBL;
b. The APCH angle is steeper (4°) than the ICAO standard (MAX 3.5°);
c. The RWY THR crossing HGT is less than 50 ft.

LSZR AD 2.24 AERONAUTICAL CHARTS RELATED TO AN AERODROME

LSZR AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

The Information on visual segment surface penetration is published on the respective instrument approach chart.
See LSZR AD 2.24 for details.