

## 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 - 23.5° 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	<b>VFR FLT:</b>		
		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)
		<b>IFR FLT:</b>		
		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	<b>Remarks</b>	<p>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:</p> <p>MON-FRI (incl. HOL): 0500 - 0530 (0400 - 0430) 1100 - 1230 (1000 - 1130) 2000 - 2100 (1900 - 2000)</p> <p>SAT: 0530 - 0630 (0430 - 0530) 1100 - 1230 (1000 - 1130) 1900 - 2100 (1800 - 2000)</p> <p>SUN: 0630 - 0900 (0530 - 0800) 1100 - 1230 (1000 - 1130) 1900 - 2000 (1800 - 1900)</p> <p>Request needs to be addressed to <a href="mailto:groundservices@peoples.ch">groundservices@peoples.ch</a> / +41 (0) 71 858 51 65</p> <p>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.</p> <p>AD CLSD: New Years Day (JAN 01), Easter SUN, Whit SUN, Christmas Day (DEC 25). Grass RWY: Not available between NOV 01 - FEB 28</p>
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#### LSZR AD 2.4 HANDLING SERVICES AND FACILITIES

1	<b>Cargo-handling facilities</b>	NIL
2	<b>Fuel/oil types</b>	JET A1, AVGAS 100LL, Fuel Additive,
3	<b>Fuelling facilities/capacity</b>	Airport Altenrhein AG - Fuel stations: Jet A1 50000 litres, AVGAS 50000 litres, Jet A1 Fuel Truck 20100 litres, 900 litres/min.
4	<b>De-icing facilities</b>	<p>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.</p>
5	<b>Hangar space for visiting aircraft</b>	<p>O/R Airport Altenrhein AG Phone: +41 (0) 71 858 51 65  Email: <a href="mailto:groundservices@peoples.ch">groundservices@peoples.ch</a></p>
6	<b>Repair facilities for visiting aircraft</b>	<p>For Airplane: AAL Ltd. Flughafenstrasse 11 9423 Altenrhein Phone: +41 (0) 71 858 51 85 Fax: +41 (0) 71 858 51 95 Email: <a href="mailto:info@aal.aero">info@aal.aero</a> URL: <a href="http://www.aal.aero">http://www.aal.aero</a></p> <p>For Helicopter: Heli-Maintenance AG Rütiweg 1340 9423 Altenrhein Phone: +41 (0) 71 422 50 50 Email: <a href="mailto:info@helimaintenance.ch">info@helimaintenance.ch</a> URL: <a href="http://www.heli-maintenance.ch">http://www.heli-maintenance.ch</a></p>

7	<b>Remarks</b>	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)
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**LSZR AD 2.5 PASSENGER FACILITIES**

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

**LSZR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

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

**LSZR AD 2.7 SEASONAL AVAILABILITY - CLEARING**

1	<b>Type(s) of clearing equipment</b>	3 snow ploughs, 3 jet sweepers, 1 RWY and Apron de-icer, 1 ACFT de-icer
2	<b>Clearance priorities</b>	RWY, TWY A/S/N, Apron
3	<b>Remarks</b>	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: - PCN 30/F/C/Y/T GRASS: 0.25 MPa
2	Designation, width, surface and strength of Taxiways	Widths: TWY A: 15.0 m TWY M: 7.5 m TWY N: 15.0 m on section parallel to APRON EAST, 10.0 m east of APRON EAST to Hangar M1, 7.5 m east of Hangar M1. TWY S: 15.0 m MAX wingspan: TWY M: 12.0 m TWY N: 24.0 m on section parallel to APRON EAST, 18.0 m east of APRON EAST to Hangar M1, 15.0 m east of Hangar M1 ASPH - PCN 30/F/C/Y/T
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 Centre lines on TWY
2	RWY/TWY markings and LGT	RWY designation, DTHR, aiming point, touchdown zone and centre line, TWY centre lines, RWY holding and intermediate holding position markings, enhanced TWY centre line markings and mandatory instruction signs at all intersections with RWY. Information signs on the movement area LGT: THR, simple touchdown zone, RGL, RWY edges, RWY end, TWY edges A+S (partly)
3	Stop bars and RWY guard lights	NIL
4	Other RWY protection measures	NIL
5	Remarks	NIL

## LSZR AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas				In circling area and at aerodrome		3	
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 (PCN) 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	PCN 30/F/C/Y/T 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, length, intensity	THR LGT Colour, intensity, WBAR	VASIS (MEHT)	RTZL LEN, INTST	RCLL Length, spacing, colour, intensity	REDL Length, spacing, colour, intensity	RENL Colour	SWY LGT Length, colour	RMK
1	2	3	4	5	6	7	8	9	10
10	RLLS Seq. FLG LGT, 300 m, W, LIH	RTHL G, LIH, WBAR, RTIL, FLG W	PAPI 4.0° L+R (7.0 m)	Simple TZL* 473 m FM THR 10, W, LIH	NIL	75 m, 50 m, R, LIH; 930 m, 50 m, W, LIH; 450 m, 50 m, Y, LIH	R	NIL	First RLLS LGT is 530 m FM THR10
28	NIL	RTHL G, LIH, WBAR	PAPI 4.0° L (8.5 m)	Simple TZL* 473 m FM THR 28, W, LIH	NIL	55 m, 50 m, R, LIH; 950 m, 50 m, W, LIH; 450 m, 50 m, Y, LIH	R	NIL	NIL

\* 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	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: LIL, B; TWY A and S partly, Turn pads 10/28 Centre line: NIL RGL: A,S,N
4	Secondary power supply/switch-over time	Yes / max 15s; DEP VIS less than 800m < 1s
5	Remarks	Apron flood lights. Obstacles marked and LGTD (partly)

**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: <a href="#">LSZR AD 2.13</a> 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	<b>St. Gallen CTR</b> 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 Category (Variation)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
ILS 10-LOC CAT I	IAL	108.75 MHz	H24	47 29 01.43N 009 34 14.96E		LOC PSN: 146 m FM THR 28. <b>RWY 10:</b> LOC course 097° MAG. LOC axis offset 0.78° N. Front course sector width 5°. Reduced ICAO coverage: at 10 NM; +/- 15° from CL above <i>3600 ft AMSL</i> . Linearly raising to: at 10 NM; +/- 35° from CL above <i>4500 ft AMSL</i> . at 18 NM; +/- 10° from CL above <i>3600 ft AMSL</i> .
GP 10		330.35 MHz	H24	47 29 05.94N 009 33 15.53E		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	<i>1333 ft</i>	DME Co-located with GP. Zero range at DME station. Reduced coverage: at 10 NM; +/- 15° from CL above <i>3600 ft AMSL</i> . Linearly raising to: at 10 NM; +/- 35° from CL above <i>4500 ft AMSL</i> . at 18 NM; +/- 10° from CL above <i>3600 ft AMSL</i> .

## 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			Contact	Remark
	Lateral	Vertical			
<b>ALAGO 5L</b> 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.	
<b>BEMKI 3L</b> 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	
<b>KEMPTEN 4L</b> (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	
<b>TRASADINGEN 3L</b> (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)

DESIGNATOR	RWY 10 RNAV 5				
	ROUTE			Contact	Remark
	Lateral	Vertical			
<b>ALAGO 1M</b>	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.	
<b>BEMKI 1M</b>	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.	
<b>TRASADINGEN 1M (TRA 1M)</b>	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)

DESIGNATOR	RWY 10 NON RNAV				
	ROUTE			Contact	Remark
	Lateral	Vertical			
<b>AMIKI 1M</b>	Climb straight ahead. At <i>1800 ft</i> 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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> or above, AMIKI at <i>7000 ft</i> or above.	NIL	NIL	
<b>KEMPTEN 1M</b> (KPT 1M)	Climb straight ahead. At <i>1800 ft</i> 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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> or above, D33 KPT at <i>8000 ft</i> or above.	NIL	NIL	
<b>SITOR 1M</b>	Climb straight ahead. At <i>1800 ft</i> 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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> 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			Contact	Remark
	Lateral	Vertical			
<b>ALAGO 5R</b> 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.	
<b>BEMKI 3R</b> 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	
<b>KEMPTEN 4R</b> (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	
<b>TRASADINGEN 3R</b> (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)

DESIGNATOR	RWY 28 RNAV 5				
	ROUTE			Contact	Remark
	Lateral	Vertical			
<b>ALAGO 4V</b>	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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> 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.	
<b>BEMKI 2V</b>	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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> or above, TUSRO at <i>8500 ft</i> or above, XASIS at <i>9000 ft</i> or above, EVTAT at <i>9500 ft</i> or above.	NIL	RNAV applicable when passing SITOR.	
<b>TRASADINGEN 2V</b> (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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> 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)

DESIGNATOR	RWY 28 NON RNAV			
	ROUTE		Contact	Remark
	Lateral	Vertical		
<b>AMIKI 2V</b>	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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> or above, AMIKI at <i>7000 ft</i> or above.	NIL	NIL
<b>KEMPTEN 3V</b> (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 <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> or above, D33 KPT at <i>8000 ft</i> or above.	NIL	NIL
<b>SITOR 2V</b>	Climb straight ahead. Use LOC IAL outbound for track guidance. Proceed to SITOR (LOC/D9 IAL). Enter SITOR HLDG pattern.	Initial climb clearance <i>5000 ft</i> . Cross SITOR at <i>5000 ft</i> 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
<b>KEMPTEN 4H</b> (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
<b>GARMO 1H</b>	From GARMO proceed via ENIBI, LAGOS, AMRIS to SITOR.	Refer to chart	NIL
<b>ROLSA 3H</b>	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			Contact	Remark
	Lateral	Vertical			
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**

Name	Page
Aerodrome Chart	LSZR AD 2.24.1 - 1
Aerodrome Obstacle Chart - Type A - ICAO RWY 10/28	LSZR AD 2.24.4 - 1
SID RWY 10 - RNAV 1	LSZR AD 2.24.7 - 1
SID RWY 10 - RNAV 5	LSZR AD 2.24.7 - 3
SID RWY 10 - NON RNAV	LSZR AD 2.24.7 - 5
SID RWY 28 - RNAV 1	LSZR AD 2.24.7 - 7
SID RWY 28 - RNAV 5	LSZR AD 2.24.7 - 9
SID RWY 28 - NON RNAV	LSZR AD 2.24.7 - 11
STAR to SITOR - RNAV 1	LSZR AD 2.24.9 - 1
STAR to SITOR - RNAV 5	LSZR AD 2.24.9 - 3
STAR to SITOR - NON RNAV	LSZR AD 2.24.9 - 5
IAC ILS RWY 10 CAT A/B/C	LSZR AD 2.24.10 - 1
IAC LOC RWY 10 CAT A/B/C	LSZR AD 2.24.10 - 3
IAC RNP RWY 10 CAT A/B/C	LSZR AD 2.24.10 - 5
ATC Surveillance Minimum Altitude Chart	LSZR AD 2.24.13 - 1

**LSZR AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION**

To be completed. See relevant approach charts for details.