

## LSZA - LUGANO

## LSZA AD 2.1 AERODROME LOCATION INDICATOR AND NAME

LSZA - LUGANO

## LSZA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

|   |                                                            |                                                                                                                                                                                                                                                                                                     |
|---|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | ARP coordinates and site at Aerodrome                      | 46 00 13N 008 54 37E<br>RWY midpoint                                                                                                                                                                                                                                                                |
| 2 | Direction and distance from the CITY                       | 4 km W Lugano                                                                                                                                                                                                                                                                                       |
| 3 | Elevation/Reference temperature                            | 915 ft AMSL - 27.0° C                                                                                                                                                                                                                                                                               |
| 4 | MAG VAR/Annual change                                      | 2° E (2016.5) / 0°10' eastwards                                                                                                                                                                                                                                                                     |
| 5 | AD Administration, address, telephone, telefax, telex, AFS | Post: Lugano Airport<br>via Aeroporto<br>CH-6982 Agno<br><br>Phone: +41 (0) 91 610 11 11<br>Fax: +41 (0) 91 610 11 00<br>Email: info@luganoairport.ch<br>URL: www.luganoairport.ch<br><br><b>LSZA-Airport Authority:</b><br>Phone: +41 (0) 79 917 68 01<br>Email: airportauthority@luganoairport.ch |
| 6 | Types of traffic permitted (IFR/VFR)                       | IFR/VFR                                                                                                                                                                                                                                                                                             |
| 7 | Remarks                                                    | Geodetic undulation reference for ARP: 166.7 ft                                                                                                                                                                                                                                                     |

## LSZA AD 2.3 OPERATIONAL HOURS

|    |                            |                                                                                                                                                                                                                                                 |
|----|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | AD Administration          | AD OPR HR:<br>0700-1100 (0600-1000) and 1230-1630 (1130-1530) from MON to FRI.<br>0730-1100 (0630-1000) and 1230-1700 (1130-1600) on SAT, SUN and HOL.                                                                                          |
| 2  | Customs and immigration    | AD OPR HR                                                                                                                                                                                                                                       |
| 3  | Health and sanitation      | NIL                                                                                                                                                                                                                                             |
| 4  | AIS Briefing Office        | AD OPR HR                                                                                                                                                                                                                                       |
| 5  | ATS Reporting Office (ARO) | CTC ARO Zurich;<br>Phone: +41 (0) 43 931 61 61                                                                                                                                                                                                  |
| 6  | MET Briefing Office        | AD OPR HR                                                                                                                                                                                                                                       |
| 7  | ATS                        | AD OPR HR                                                                                                                                                                                                                                       |
| 8  | Fuelling                   | AD OPR HR                                                                                                                                                                                                                                       |
| 9  | Handling                   | AD OPR HR                                                                                                                                                                                                                                       |
| 10 | Security                   | AD OPR HR                                                                                                                                                                                                                                       |
| 11 | De-icing                   | AD OPR HR                                                                                                                                                                                                                                       |
| 12 | Remarks                    | Extension for all FLT's outside of the AD operating hours between 0600-2100 (0500-2000) with PPR minimum 24 HR notice before ETA/ETD. Each request has to be send via email to gahandling@luganoairport.ch between 0730 (0630) and 1600 (1500). |

## LSZA AD 2.4 HANDLING SERVICES AND FACILITIES

|   |                                              |                                                                                                                                                                                                                                                                                                                                         |
|---|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Cargo handling facilities:                   | All modern facilities                                                                                                                                                                                                                                                                                                                   |
| 2 | Fuel/oil types                               | JET A1, AVGAS 100LL                                                                                                                                                                                                                                                                                                                     |
| 3 | Fuelling facilities/capacity                 | No limitations for all types of ACFT permitted at AD                                                                                                                                                                                                                                                                                    |
| 4 | De-icing facilities                          | Lugano Airport - Service available from 01 NOV to 30 APR<br>De-icing fluid available: Type II: Killfrost ABC K-Plus                                                                                                                                                                                                                     |
| 5 | Hangar space available for visiting aircraft | NIL                                                                                                                                                                                                                                                                                                                                     |
| 6 | Repair facilities for visiting aircraft      | Hangar, major aircraft repairs                                                                                                                                                                                                                                                                                                          |
| 7 | Remarks                                      | Airline handling agent:<br>Lugano Airport<br>Phone: +41 (0) 91 610 12 82<br>Fax: +41 (0) 91 610 12 25<br>FREQ: 131.430 MHz<br>SITA: LUGKKXH<br><br>General aviation handling:<br>Lugano Airport<br>Phone: +41 (0) 91 610 11 16<br>Fax: +41 (0) 91 610 11 19<br>FREQ: 131.805 MHz<br>AFS: LSZAYDYH<br>Email: gahandling@luganoairport.ch |

## LSZA AD 2.5 PASSENGER FACILITIES

|   |                      |                                           |
|---|----------------------|-------------------------------------------|
| 1 | Hotels               | In city                                   |
| 2 | Restaurants          | At AD and in city                         |
| 3 | Transportation       | Shuttle buses, trains, taxis, car rentals |
| 4 | Medical facilities   | Ambulance O/R<br>Hospital in city         |
| 5 | Bank and Post Office | In city                                   |
| 6 | Tourist Office       | At AD and in city                         |
| 7 | Remarks              | NIL                                       |

## LSZA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

|   |                                             |                                                                                           |
|---|---------------------------------------------|-------------------------------------------------------------------------------------------|
| 1 | AD category for fire fighting               | Category 3<br>Category 4 O/R 3 HR before ETA/ETD<br>HYR category O/R 24 HR before ETA/ETD |
| 2 | Rescue equipment                            | Hydraulic and outing tools, 2 rescue boats.                                               |
| 3 | Capability for removal of disabled aircraft | No limitations for all type of ACFT admitted at AD                                        |
| 4 | Remarks                                     | NIL                                                                                       |

**LSZA AD 2.7 SEASONAL AVAILABILITY - CLEARING**

|   |                               |                                                                                             |
|---|-------------------------------|---------------------------------------------------------------------------------------------|
| 1 | Type(s) of clearing equipment | Snow removal vehicles: 1 RWY de-icer, 1 ACFT de-icer                                        |
| 2 | Clearance priorities          | RWY, TWY, then apron                                                                        |
| 3 | Remarks                       | All seasons:<br>RWY / TWY / apron: De-iced / Anti-iced with KFOR (potassium formate fluids) |

**LSZA AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA**

|   |                                     |                                                                          |
|---|-------------------------------------|--------------------------------------------------------------------------|
| 1 | Apron surface and strength          | ASPH - PCN 30/F/B/W/T                                                    |
| 2 | Taxiway width, surface and strength | TWY M and N: MNM 18.6 m (DH8D OPS); TWY L: 15 m<br>ASPH - PCN 30/F/B/W/T |
| 3 | ACL location and elevation          | Apron 902 ft (275 m)                                                     |
| 4 | VOR/INS checkpoints                 | NIL                                                                      |
| 5 | Remarks                             | Slopes on Apron partially exceeding 1%                                   |

**LSZA AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM, MARKINGS**

|   |                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | ACFT stand identification markings:<br>Lead-in, stop and lead-out lines. Apron safety lines.<br>Taxiing and parking procedures: see <a href="#">LSZA AD 2.24.2 - 1</a>                                                                                                                                                                                                                                                                                                                                                                          |
| 2 | RWY/TWY markings and LGT                                                                                      | RWY markings: D-THR, designation, aiming point, touchdown zone and centre line.<br>RWY LGT: see <a href="#">LSZA AD 2.14</a><br>TWY markings: Centre line and intermediate holding positions;<br>RWY holding position, enhanced TWY centre line and mandatory instruction at all intersections with RWY.<br>TWY LGT: Edge lights on TWY L, M and N. Runway guard lights on TWY M and N.<br>Mandatory instruction signs at all RWY holding positions.<br>Information signs on the movement area.<br>No RWY turn pad centre line lights provided. |
| 3 | Stop bars                                                                                                     | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4 | Remarks                                                                                                       | NIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

LSZA AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas |                                            |              |                           | In circling area and at aerodrome          |              |                                                          |          |
|------------------------|--------------------------------------------|--------------|---------------------------|--------------------------------------------|--------------|----------------------------------------------------------|----------|
| 1                      |                                            |              |                           | 2                                          |              |                                                          | 3        |
| RWY/Area affected      | Obstacle type<br>Elevation<br>Markings/LGT | Co-ordinates |                           | Obstacle type<br>Elevation<br>Markings/LGT | Co-ordinates |                                                          | RMK      |
| a                      | b                                          | c            |                           | a                                          | b            | c                                                        |          |
|                        |                                            | ft           |                           |                                            | ft           |                                                          |          |
| AOC 01 (1)             | Pole                                       | 934          | 46 00 37 N<br>008 54 46 E | Antenna<br>LGTD                            | 1020         | 46 00 09 N<br>008 54 23 E                                |          |
| AOC 01 (2)             | Pole                                       | 943          | 46 00 37 N<br>008 54 46 E | Crane/Cranes<br>marked/LGTD                | 989          | 46 00 18 N<br>008 54 48 E                                | B1216/21 |
| AOC 01 (3)             | Pole                                       | 954          | 46 00 38 N<br>008 54 45 E | Tower/Mast<br>LGTD                         | 945          | 46 00 03 N<br>008 54 36 E                                |          |
| AOC 01 (4)             | Pole                                       | 970          | 46 00 41 N<br>008 54 46 E | Antenna<br>LGTD                            | 1529         | 46 02 15 N<br>008 56 20 E                                |          |
| AOC 01 (5)             | Building                                   | 980          | 46 00 44 N<br>008 54 47 E | Antenna<br>LGTD                            | 1526         | 46 00 39 N<br>008 55 32 E                                | B0555/01 |
| AOC 01 (6)             | Pole                                       | 983          | 46 00 47 N<br>008 54 49 E | Telephone line                             | 45 m<br>AGL  | 45 59 36 N<br>008 50 13 E -<br>45 59 36 N<br>008 50 06 E | B0016/02 |
| AOC 01 (7)             | Building                                   | 985          | 46 00 48 N<br>008 54 48 E | Tower<br>marked/LGTD                       | 998          | 46 00 16 N<br>008 54 31 E                                | B0121/02 |
| AOC 01 (8)             | Building                                   | 996          | 46 00 49 N<br>008 54 49 E | Tower<br>LGTD                              | 974          | 46 00 43 N<br>008 54 54 E                                | B0043/04 |
| AOC 01 (9)             | Tree/Trees                                 | 1025         | 46 01 08 N<br>008 55 06 E | Silo                                       | 965          | 46 00 53 N<br>008 54 59 E                                | B0480/05 |
| AOC 01 (10)            | Building                                   | 1040         | 46 01 19 N<br>008 55 12 E | Power line                                 | 72 m<br>AGL  | 45 59 18 N<br>008 52 23 E -<br>45 59 18 N<br>008 52 38 E | B0617/05 |
| AOC 01 (11)            | Tree/Trees                                 | 1069         | 46 01 38 N<br>008 55 03 E | Pole<br>LGTD                               | 2366         | 46 02 43 N<br>008 57 44 E                                | B0471/07 |
| AOC 01 (12)            | Power line                                 | 1100         | 46 01 37 N<br>008 55 22 E | Pole<br>LGTD                               | 1752         | 45 57 49 N<br>008 52 56 E                                | B0470/07 |
| AOC 01 (13)            | Power line                                 | 1113         | 46 01 40 N<br>008 55 16 E | Pole<br>LGTD                               | 1886         | 46 02 58 N<br>008 55 54 E                                | B0469/07 |
| AOC 01 (14)            | Power line                                 | 1137         | 46 01 45 N<br>008 55 12 E |                                            |              |                                                          |          |
| AOC 01 (15)            | Power line                                 | 1155         | 46 01 42 N<br>008 55 24 E | Pole<br>marked/LGTD                        | 989          | 46 00 13 N<br>008 54 28 E                                | B0099/09 |
| AOC 01 (16)            | Tree/Trees                                 | 1214         | 46 01 57 N<br>008 56 08 E | Pole<br>LGTD                               | 1825         | 46 01 28 N<br>008 56 46 E                                | B1145/09 |
| AOC 01 (17)            | Tree/Trees                                 | 1228         | 46 02 05 N<br>008 56 11 E | Pole<br>LGTD                               | 1914         | 45 58 27 N<br>008 54 48 E                                | B1144/09 |
| AOC 01 (18)            | Antenna                                    | 1520         | 46 02 15 N<br>008 56 20 E | Power line<br>marked                       | 90 m<br>AGL  | 46 05 32 N<br>009 03 11 E -<br>46 05 33 N<br>009 02 51 E | C0366/05 |
| AOC 01 (19)            | Tree/Trees                                 | 1555         | 46 02 24 N<br>008 56 52 E | Cable<br>CW                                | 80 m<br>AGL  | 46 03 52 N<br>008 55 12 E -<br>46 03 43 N<br>008 54 43 E | B0054/06 |
| AOC 01 (20)            | Tree/Trees                                 | 1660         | 46 02 21 N<br>008 56 58 E | Building                                   | 3m<br>AGL    | 46 00 41 N<br>008 54 49 E                                | B0131/07 |
| AOC 01 (21)            | Building                                   | 1664         | 46 02 19 N<br>008 57 04 E | Chimney<br>LGTD                            | 25 m<br>AGL  | 46 01 15 N<br>008 55 00 E                                | B0130/07 |
| AOC 01 (22)            | Tree/Trees                                 | 1815         | 46 02 19 N<br>008 57 11 E | Antenna<br>marked, LGTD                    | 5414         | 45 55 35 N<br>009 00 54 E                                | B0733/08 |

| In approach/TKOF areas                                       |                                            |              |                           | In circling area and at aerodrome          |              |                           |          |
|--------------------------------------------------------------|--------------------------------------------|--------------|---------------------------|--------------------------------------------|--------------|---------------------------|----------|
| 1                                                            |                                            |              |                           | 2                                          |              |                           | 3        |
| RWY/Area affected                                            | Obstacle type<br>Elevation<br>Markings/LGT | Co-ordinates |                           | Obstacle type<br>Elevation<br>Markings/LGT | Co-ordinates |                           | RMK      |
| a                                                            | b                                          | c            |                           | a                                          | b            | c                         |          |
|                                                              |                                            | ft           |                           |                                            | ft           |                           |          |
| AOC 19 (1)                                                   | Pole                                       | 914          | 45 59 54 N<br>008 54 23 E | Pole<br>LGTD                               | 1931         | 46 01 52 N<br>008 54 48 E | B1143/09 |
| AOC 19 (2)                                                   | Pole                                       | 924          | 45 59 51 N<br>008 54 30 E | Pole<br>LGTD                               | 1518         | 46 01 13 N<br>008 57 03 E | B1331/11 |
| AOC 19 (3)                                                   | Pole                                       | 924          | 45 59 52 N<br>008 54 22 E |                                            |              |                           |          |
| AOC 19 (4)                                                   | Tree/Trees                                 | 938          | 45 59 48 N<br>008 54 29 E |                                            |              |                           |          |
| AOC 19 (5)                                                   | Tree/Trees                                 | 947          | 45 59 45 N<br>008 54 27 E |                                            |              |                           |          |
| AOC 19 (6)                                                   | Tree/Trees                                 | 990          | 45 58 51 N<br>008 53 39 E |                                            |              |                           |          |
| AOC 19 (7)                                                   | Tree/Trees                                 | 1009         | 45 58 50 N<br>008 53 39 E |                                            |              |                           |          |
| AOC 19 (8)                                                   | Tree/Trees                                 | 1041         | 45 58 24 N<br>008 54 04 E |                                            |              |                           |          |
| AOC 19 (9)                                                   | Tree/Trees                                 | 1130         | 45 58 21 N<br>008 54 04 E |                                            |              |                           |          |
| AOC 19 (10)                                                  | Tree/Trees                                 | 1142         | 45 58 15 N<br>008 54 02 E |                                            |              |                           |          |
| AOC 19 (11)                                                  | Tree/Trees                                 | 1162         | 45 58 15 N<br>008 54 02 E |                                            |              |                           |          |
| AOC 19 (12)                                                  | Tree/Trees                                 | 1234         | 45 57 47 N<br>008 53 12 E |                                            |              |                           |          |
| AOC 19 (13)                                                  | Tree/Trees                                 | 1289         | 45 57 47 N<br>008 53 11 E |                                            |              |                           |          |
| AOC 19 (14)                                                  | Tree/Trees                                 | 1353         | 45 57 12 N<br>008 53 06 E |                                            |              |                           |          |
| AOC 19 (15)                                                  | Tree/Trees                                 | 1578         | 45 57 10 N<br>008 53 05 E |                                            |              |                           |          |
| AOC 19 (16)                                                  | Tree/Trees                                 | 1641         | 45 56 32 N<br>008 54 22 E |                                            |              |                           |          |
| AOC 19 (17)                                                  | Tree/Trees                                 | 2121         | 45 56 21 N<br>008 54 23 E |                                            |              |                           |          |
| AOC 19 (18)                                                  | Tree/Trees                                 | 2130         | 45 56 17 N<br>008 54 23 E |                                            |              |                           |          |
| AOC 19 (19)                                                  | Tree/Trees                                 | 2161         | 45 56 17 N<br>008 54 23 E |                                            |              |                           |          |
| Refer also to LSZA AOC 01/19, <a href="#">LSZA AD 2.24.4</a> |                                            |              |                           |                                            |              |                           |          |

**LSZA AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

|    |                                                                     |                                                                                               |
|----|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 1  | Associated MET Office                                               | MeteoSwiss                                                                                    |
| 2  | Hours of service                                                    | H24                                                                                           |
| 3  | Office responsible for TAF preparation<br>Periods of validity       | MeteoSwiss, Locarno<br>9 hours                                                                |
| 4  | Type of landing forecast                                            | Trend; issuance: HH+20, HH+50                                                                 |
| 5  | Briefing/consultation provided                                      | Self Briefing Service ( <a href="http://www.skybriefing.com">www.skybriefing.com</a> )        |
| 6  | Flight documentation<br>Language(s) used                            | Digital and hard copy<br>En, Ge, Fr, It                                                       |
| 7  | Charts and other information available for briefing or consultation | All area forecast charts available worldwide                                                  |
| 8  | Supplementary equipment available for providing information         | Internet connection in the briefing room                                                      |
| 9  | ATS units provided with information                                 | Lugano TWR                                                                                    |
| 10 | Additional information (limitation of service, etc.)                | TEL: Weather briefing: 0900 162 737 (Ge),<br>0900 162 767 (Fr); accessible within Switzerland |

**LSZA AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS**

| Designations<br>RWY NR | TRUE &<br>MAG<br>BRG | Dimensions<br>of RWY (m) | Strength (PCN)<br>and surface of<br>RWY and SWY | THR<br>COORD                  | THR elevation<br>and highest<br>elevation of TDZ<br>of precision APP<br>RWY | Slope of<br>RWY-SWY         |
|------------------------|----------------------|--------------------------|-------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------|-----------------------------|
| 1                      | 2                    | 3                        | 4                                               | 5                             | 6                                                                           | 7                           |
| 01 <sup>1)</sup>       | 019°<br>017°         | 1415 x 30                | PCN 40/F/B/W/T<br>ASPH                          | 45 59 58.17N<br>008 54 29.68E | 900 ft                                                                      | Refer to: LSZA<br>AOC 01/19 |
| 19 <sup>1)</sup>       | 199°<br>197°         |                          |                                                 | 46 00 29.60N<br>008 54 45.07E | 915 ft                                                                      |                             |

<sup>1)</sup> Designation changed to avoid mix-up.

| Designations<br>RWY<br>NR | SWY<br>dimensions<br>(m) | CWY<br>dimensions<br>(m) | Strip<br>dimensions<br>(m) | OFZ | Remarks                                                                                                         |
|---------------------------|--------------------------|--------------------------|----------------------------|-----|-----------------------------------------------------------------------------------------------------------------|
| 1                         | 8                        | 9                        | 10                         | 11  | 12                                                                                                              |
| 01 <sup>1)</sup>          | NIL                      | NIL                      | 1535 x 80                  | NIL | Runway strip and RESA dimensions<br>according to non-instrument runway criteria<br>Grooved 1415 m<br>RESA: 30 m |
| 19 <sup>1)</sup>          |                          | 60                       |                            |     | Runway strip and RESA dimensions<br>according to non-instrument runway criteria<br>Grooved 1415 m<br>RESA: 30 m |

<sup>1)</sup> Designation changed to avoid mix-up.

**LSZA AD 2.13 DECLARED DISTANCES**

| RWY<br>Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (m)        | Remarks                                |
|-------------------|----------|----------|----------|----------------|----------------------------------------|
| 1                 | 2        | 3        | 4        | 5              | 6                                      |
| 01                | 1345     | 1345     | 1415     | 1305           | No turn pad at the<br>beginning of RWY |
|                   | 1025     | 1025     | 1095     | Not applicable | Intersection MIKE                      |
| 19                | 1415     | 1475     | 1415     | 1135           | Turn pad at the beginning<br>of RWY    |
|                   | 940      | 1000     | 940      | Not applicable | Intersection ZULU                      |
|                   | 695      | 755      | 695      | Not applicable | Intersection NOVEMBER                  |

DER RWY 01 is located 70 m before runway end respective RENL 01 due to obstacles in the immediate departure area.

**LSZA AD 2.14 APPROACH AND RUNWAY LIGHTING**

| RWY Designator | ALS Type LEN, INTST                       | THR LGT Colour INTST WBAR     | VASIS Type PSN, MEHT                             | RTZL LEN, INTST                      | RCLL LEN, spacing, colour, INTST                                | REDL LEN, spacing, colour, INTST                              | RENL Colour, INTST | SWY LGT LEN, colour | RMK                                                   |
|----------------|-------------------------------------------|-------------------------------|--------------------------------------------------|--------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------|--------------------|---------------------|-------------------------------------------------------|
| 1              | 2                                         | 3                             | 4                                                | 5                                    | 6                                                               | 7                                                             | 8                  | 9                   | 10                                                    |
| 01             | NIL                                       | RTHL G, LIH, WBAR; RTIL FLG W | PAPI 4.17°, L, 6.27 m;<br>PAPI 6.00°, L, 15.54 m | Simple TZL*, 323 m FM THR 01, W, LIH | 740 m, 30 m, W, LIH; 375 m, 30 m, R/W, LIH; 300 m, 30 m, R, LIH | 110 m, 60 m, R, LIH; 830 m, 60 m, W, LIH; 475 m, 60 m, Y, LIH | R, LIH             | NIL                 | PAPI 6.00° only switched on for IGS RWY 01 approaches |
| 19             | RLLS, Seq. FLG LGT W LIH; SALS, 360m, LIH | RTHL G, LIH, WBAR; RTIL FLG W | PAPI 4.17°, L, 6.71 m                            | Simple TZL*, 323 m FM THR 19, W, LIH |                                                                 | 280 m, 60 m, R, LIH; 660 m, 60 m, W, LIH; 475 m, 60 m, Y, LIH | R, LIH             | NIL                 | RLLS follows circling Charlie track                   |

\* 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.

**LSZA AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

|   |                                                          |                                          |
|---|----------------------------------------------------------|------------------------------------------|
| 1 | ABN/IBN location, characteristics and hours of operation | NIL                                      |
| 2 | LDI location and LGT<br>Anemometer location and LGT      | NIL                                      |
| 3 | TWY edge and centre line lighting                        | TWY edge lighting                        |
| 4 | Secondary power supply/switch-over time                  | < 1 s                                    |
| 5 | Remarks                                                  | Obstruction marking and lighting: partly |

**LSZA AD 2.16 HELICOPTER LANDING AREA**

|   |                                                           |                                                                                                                                                                                                                                                                                    |
|---|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Coordinates TLOF or THR of FATO                           | FATO: 46 00 12.87 N / 008 54 36.86 E                                                                                                                                                                                                                                               |
| 2 | TLOF and/or FATO elevation M/FT                           | 276 m / 907 ft                                                                                                                                                                                                                                                                     |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | TLOF HEL stands 1 and 2: MAX Overall LEN 17 m, Rotor Diameter 14 m, ASPH, marked and numbered circles with diameter 6.5 m.<br>TLOF HEL stands 3 and 4: MAX Overall LEN 13 m, Rotor Diameter 11 m, ASPH, marked and numbered circles with diameter 6.5 m.<br>FATO: paved RWY 01-19. |
| 4 | True and MAG BRG of FATO                                  | RWY 01: 019° GEO / 017° MAG<br>RWY 19: 199° GEO / 197° MAG                                                                                                                                                                                                                         |
| 5 | Declared distance available                               | See: <a href="#">LSZA AD 2.13</a> for RWY 01/19                                                                                                                                                                                                                                    |
| 6 | APP and FATO lighting                                     | RWY LGT                                                                                                                                                                                                                                                                            |
| 7 | Remarks                                                   | Simultaneous hover operations on HEL stands are not allowed                                                                                                                                                                                                                        |

**LSZA AD 2.17      ATS AIRSPACE**

|   |                                |                                                                                                                                                                                                                                                                                                                     |
|---|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Designation and lateral limits | <b>Lugano CTR</b><br>45 55 51 N 008 46 22 E - 46 03 43 N 008 54 41 E<br>Arc of circle centred on 46 02 26 N 008 57 10 E,<br>Radius 2.16 NM, clockwise<br>46 01 21 N 008 59 51 E - 45 52 54 N 008 52 50 E<br>Arc of circle centred on 45 54 15 N 008 49 29 E,<br>Radius 2.70 NM, clockwise<br>45 55 51 N 008 46 22 E |
| 2 | Vertical limits                | 6500 ft AMSL (2000 m)                                                                                                                                                                                                                                                                                               |
| 3 | Airspace classification        | D                                                                                                                                                                                                                                                                                                                   |
| 4 | ATS unit call sign Language(s) | Lugano TWR<br>It, En                                                                                                                                                                                                                                                                                                |
| 5 | Transition altitude            | 6000 ft AMSL (1800 m)                                                                                                                                                                                                                                                                                               |
| 6 | Remarks                        | ACT: HX                                                                                                                                                                                                                                                                                                             |

**LSZA AD 2.18      ATS COMMUNICATION FACILITIES**

| Service designation | Call sign       | Frequency                  | Hours of Operation | Remarks                          |
|---------------------|-----------------|----------------------------|--------------------|----------------------------------|
| 1                   | 2               | 3                          | 4                  | 5                                |
| ATIS                |                 | 121.175 MHz                | H24                | TEL Service +41 (0) 22 417 40 88 |
| TWR VDF             | Lugano Tower    | 120.250 MHz<br>119.700 MHz | HX<br>do.          | QDM AVBL O/R<br>Reserve FREQ     |
| CLR DEL             | Lugano Delivery | 121.780 MHz                | HX                 |                                  |

**LSZA 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 01-LOC                | ILU | 108.90 MHz | H24                | 46 00 42.15N<br>008 54 51.21E            |                                       | LOC PSN: 409 m FM THR 19.<br><b>RWY 01:</b> LOC course 017° MAG.<br>Front course sector width 5°.<br>Restricted coverage:<br>at 10 NM - 30° W to 30° E from CL<br>above 5000 ft AMSL.            |
| GP 01                     |     | 329.30 MHz | H24                | 46 00 01.28N<br>008 54 34.40E            |                                       | GP Angle 6.65°.<br>PSN: 123 m FM THR 01.<br>GP HGT THR 01: 48 ft / 14.6 m.<br>Restricted coverage:<br>at 8 NM - 8° W to 8° E from CL above<br>5000 ft AMSL.                                      |
| DME 01                    | ILU | 26X        | H24                | 46 00 41.27N<br>008 54 49.04E            | 942 ft                                | DME Co-located with LOC,<br>reads D0.8 at THR 01.<br>Restricted coverage:<br>at 10 NM - 6° W to 14° E from CL<br>above 5000 ft AMSL.<br>at 10 NM - 25° W to 25° E from CL<br>above 5900 ft AMSL. |



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**LSZA AD 2.20      LOCAL TRAFFIC REGULATIONS****1.      Local flying restrictions and remarks****1.1      Commercial and Private traffic**

- DEPs and LDGs may be planned according AD OPR HR.
- If out of NML OPS HR, PPR according to Remarks in LSZA AD 2.3

**1.2      AD circuits only**

- AD circuits can be allowed between 0700-1100 (0600-1000) and 1300- SS [MAX -1700] (1200-SS [MAX -1600]) from Monday to Friday and between 0800-1100 (0700-1000) and 1400-1600 (1300-1500) on Saturday.
- Night VFR flights (circuits) under instruction are allowed from SS to 1900 (1800) from Monday to Friday.
- If out of NML OPS HR, PPR according to Remarks in LSZA AD 2.3

**1.3      Apron - Parking**

- Taxing on the APRON is at the PIC's discretion. No ATC service is provided. TWR will issue ADVS as far as practicable.
- HEL OPS during the night, air taxi via N.
- Embarking and disembarking crew members, passengers, luggage and catering with the engine running is prohibited.
- Refuelling with the engine running is prohibited. Exceptions can be granted by Lugano AP Authority for EMERG reasons.
- For general aviation ACFT, the parking period for arriving ACFT shall be indicated in item 18 of the flight plan.
- "Follow me" SER on request.
- For handling and fuelling, SER priority is given to SKED FLT.
- Refueling on the grass is forbidden. For any fuel request contact TWR for coordination.
- **Safety Rules for Crews and Passengers**  
All persons on the Airside must wear a high-visibility jacket which complies with EN 471 standard class 2 or 3. With the exception of passengers of scheduled and general aviation FLT's accompanied by the handling agent or crew members wearing high-visibility clothing or vests.  
Crew members arriving without high-visibility clothing or vests must be transported by car by the handling agent.
- **Security Rules for Crew Members**  
Crew members holding an Airport ID Card or crew member certificate must ensure it is visible. Departing crew members accessing the movement area must already have filed a FPL or flight notification.

**1.4      Exceptions to local flying restrictions**

Outside of operating HR, special AUTHs can be issued for the Federal Department of Transport, Communications and Energy and for the Swiss Federal Department of Defence, in particular, for State ACFT, and:

- SAR FLT's,
- police and supervision FLT's,
- FLT's carrying sick and injured persons,
- transport of transplant organs,
- relief FLT's in disaster cases.

**2.      Procedure for departure**

Do not start engines before ACFT is ready to LVE parking PSN in order to minimise ground noise.

**2.1      Aircraft**

For IFR or SVFR FLT, a **start-up clearance** shall be requested on the Lugano CLR DEL FREQ.

**3.      De-icing****3.1      Clean Aircraft Concept (CAC)**

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.

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## LSZA AD 2.21 NOISE ABATEMENT PROCEDURES

### 1. General

- The following regulations are defined to avoid excessive noise at and in the VCY of Lugano AP.
- Operators UNA to comply with these rules and procedures shall submit for APV to Lugano AP Authority those procedures they intend to apply.
- All ACFT types to be used for regular services at Lugano AP will be subject to an individual noise qualification prior to receiving operational rights.
- In particular cases, Lugano AP Authority can issue differing procedures and rules for noise abatement.

### 2. Aircraft not admitted unless a special authorisation

The following ACFT types are not admitted to operate at Lugano AP unless a special AUTH has been issued by Lugano AP Authority.

The request for a special AUTH must be filed at least 24 HR before the intended ARR.

#### 2.1 Jet aeroplanes

REF: [GEN 4.1.12.](#), class I, II, III, IV.

#### 2.2 Propeller aeroplanes

REF: [GEN 4.1.13.](#), class A and following aeroplanes of class B:

- BE-55 Beech Baron 55
- C 210 Cessna
- C 336/337 Cessna; 336 Skymaster/337 Super Skymaster

#### 2.3 Helicopters

- Bell 204
- Bell 214
- Kamow

### 3. Circling procedure RWY 19

The Circling Foxtrot procedure is the preferential manoeuvre for noise abatement purposes when LDG on RWY 19.

FLTs performing a visual APCH to RWY 19 from a PSN south or east of the AP are requested, if conditions permit, to join the circling Foxtrot pattern at the beginning of the base turn.

### 4. Reverse thrust

For deceleration it is recommended to use the entire RWY LEN AVBL; use of reverse thrust shall be limited to only when safety or particular operational reasons require it.

### 5. Taxi and holding

Aeroplanes shall be operated so as to reduce noise to a MNM during TAX and HLDG operations.

### 6. Auxiliary Power Units (APU)

The following regulations are applicable to the use of APU:

- a MAX of 15 MIN prior to the ACFT DEP,
- a MAX of 5 MIN after the ACFT ARR.

The use of APU for MAINT shall be restricted to a MNM DUR.

### 7. Instruction and qualification flights

Operators are requested to plan introduction flights well in advance. Airport authority should be contacted whenever possible latest 5 days in advance of the planned training.

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**LSZA AD 2.22      FLIGHT PROCEDURES****1.      Special regulations for IFR approach and departure****1.1      IFR procedures**

The use of IFR APCH or DEP procedures in Lugano is limited to pilots, operators and ACFT fulfilling the AP Qualifications in accordance with § 1.2.

Helicopter flight crews are allowed to operate without Lugano Qualification.

**1.1.1      Procedure in case of SRN VOR unavailability**

During SRN VOR unavailability all radial values referred to SRN VOR published for SID, STAR and IAC can be intended as bearings referred to SRN NDB (frequency 330.0 KHz) of the same value.

**1.1.2      IFR departure procedures**

Any departing ACFT must comply with the requirements of Aircraft Certification § 1.2.1, as well as with the relevant procedures published on the SID charts.

**SID** (Standard Instrument Departures):

- a.      Requirements:
  - At least Pilot Qualification type A.Conditions:
  - VIS 3000 m or more and ceiling *2100 ft AAL* or HYR.
- b.      Requirements:
  - At least Pilot Qualification type B.
  - ACFT complying with the climb requirements in accordance with published procedures, or APV Company contingency procedures.
- c.      Conditions:
  - VIS 400 m or more.

### 1.1.3 SID Descriptions

#### 1.1.3.1 SID RNAV 1

##### 1.1.3.1.1 SID RWY 01/19 (see chart LSZA AD 2.24.7 - 1)

| DESIGNATOR                                         | RWY 01/19 - RNAV (GNSS)                                                                                       |                                                                                                                                                              |         |                                                         |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------|
|                                                    | ROUTE                                                                                                         |                                                                                                                                                              | Contact | Remark                                                  |
|                                                    | Lateral                                                                                                       | Vertical                                                                                                                                                     |         |                                                         |
| <b>INITIAL CLIMB RWY 01</b>                        | Climb straight ahead. At D2 ILU turn right (MAX IAS 150kt during turn. MNM bank angle 25°). Proceed to LUGAN. | Maintain visual ground contact up to LUGAN. Cross LUGAN (overhead RWY) at 5000ft or above.                                                                   |         | Average climb gradient to reach LUGAN at 5000ft is 8.1% |
| <b>INITIAL CLIMB RWY 19</b><br>PDG 10.2% to 4100ft | After departure climb on TR201 until receiving MMP. Establish and follow R017 MMP inbound.                    |                                                                                                                                                              |         | HIGH PERFORMANCE SID                                    |
| <b>CANNE 1E</b>                                    | Proceed to PINIK. Proceed via ZA557 and ZA559 to CANNE.                                                       | Cross PINIK at 6000ft or above, ZA557 at FL100 or above, ZA559 at FL120 or above, CANNE at FL140/FL150 or above (depending on QNH).                          |         | by ATC only RNAV applicable when passing PINIK.         |
| <b>OMETO 1E</b>                                    | Proceed to PINIK. Proceed via ZA557, ZA558 and BAVMI to OMETO.                                                | Cross PINIK at 6000ft or above, ZA557 at FL100 or above, ZA558 at FL130 or above, BAVMI at FL150 or above, OMETO at FL180/FL190 or above (depending on QNH). |         | RNAV applicable when passing PINIK.                     |

#### RNAV (GNSS) SID CANNE 1E

| Path terminator | Waypoint | Flyover | Altitude (ft) | Speed limit (kt) | Track          | Distance (NM) |
|-----------------|----------|---------|---------------|------------------|----------------|---------------|
| -               | PINIK    | N       | + 6000        | -                | -              | -             |
| TF              | ZA557    | N       | + FL100       | -                | 232° (234.4°T) | 8.3           |
| TF              | ZA559    | N       | + FL120       | -                | 300° (302.1°T) | 8.0           |
| TF              | CANNE    | N       | + FL140/150   | -                | 037° (039.1°T) | 23.5          |

#### RNAV (GNSS) SID OMETO 1E

| Path terminator | Waypoint | Flyover | Altitude (ft) | Speed limit (kt) | Track          | Distance (NM) |
|-----------------|----------|---------|---------------|------------------|----------------|---------------|
| -               | PINIK    | N       | + 6000        | -                | -              | -             |
| TF              | ZA557    | N       | + FL100       | -                | 232° (234.4°T) | 8.3           |
| TF              | ZA558    | N       | + FL130       | -                | 232° (234.2°T) | 10.0          |
| TF              | BAVMI    | N       | + FL150       | -                | 275° (277.3°T) | 3.7           |
| TF              | OMETO    | N       | + FL180/190   | -                | 275° (277.5°T) | 15.5          |

## 1.1.3.2 SID NON RNAV

## 1.1.3.2.1 SID RWY 01 (see chart LSZA AD 2.24.7 - 3)

## SID RWY 19 (see chart LSZA AD 2.24.7 - 5)

| DESIGNATOR                                         | RWY 01/19                                                                                                                    |                                                                                                                                                                 |         |                                                         |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------------------|
|                                                    | ROUTE                                                                                                                        |                                                                                                                                                                 |         |                                                         |
|                                                    | Lateral                                                                                                                      | Vertical                                                                                                                                                        | Contact | Remark                                                  |
| <b>INITIAL CLIMB RWY 01</b>                        | Climb straight ahead. At D2 ILU turn right (MAX IAS 150kt during turn. MNM bank angle 25°). Proceed to LUGAN.                | Maintain visual ground contact up to LUGAN. Cross LUGAN (overhead RWY) at 5000ft or above.                                                                      |         | Average climb gradient to reach LUGAN at 5000ft is 8.1% |
| <b>INITIAL CLIMB RWY 19</b><br>PDG 10.2% to 4100ft | After departure climb on TR201 until receiving MMP. Establish and follow R017 MMP inbound.                                   |                                                                                                                                                                 |         | HIGH PERFORMANCE SID                                    |
| <b>CANNE 2U</b>                                    | At 5000ft turn left (MAX IAS 165kt, MNM bank angle 25°). Intercept R347 SRN to CANNE.                                        | Cross ZA505 at FL090 or above, ZA506 at FL130 or above, CANNE at FL140/FL150 or above (depending on QNH).                                                       |         |                                                         |
|                                                    |                                                                                                                              |                                                                                                                                                                 |         |                                                         |
| <b>CANNE 1Z</b>                                    | Proceed to PINIK. At PINIK turn right, intercept R009 MMP to CANNE.                                                          | Cross PINIK at 6000ft or above, D20 MMP at FL090 or above, CANNE at FL140/FL150 or above (depending on QNH).                                                    |         |                                                         |
| <b>OMETO 1F</b>                                    | Follow R017 MMP inbound MMP. At D4.3 MMP turn right, intercept R276 SRN to ZA558. Proceed via BAVMI to OMETO                 | Cross PINIK at 6000ft or above, D4.3 MMP at FL100 or above, ZA558 at FL130 or above, BAVMI at FL150 or above, OMETO at FL180/FL190 or above (depending on QNH). |         |                                                         |
| <b>ORIO 1U</b><br>(ORI 1U)                         | Proceed to PINIK. At PINIK intercept R330 SRN. inbound to SULUR. At SULUR intercept R277 BEG inbound to BEG. Proceed to ORI. | Cross PINIK at 6000ft or above, SULUR at FL080 or above, BEG at FL120 or above.                                                                                 |         |                                                         |
| <b>ORIO 1W</b><br>(ORI 1W)                         | Proceed to PINIK, At PINIK intercept R287 BEG inbound to BEG. Proceed to ORI.                                                | Cross PINIK at 6000ft or above, ZA526 at FL080 or above (depending on TL), ZA527 at FL100 or above, BEG at FL120 or above.                                      |         | by ATC only                                             |
| <b>PINIK 1A</b>                                    | Proceed to PINIK. Enter PINIK HLDG.                                                                                          | Climb to and maintain 6000ft to reach 6000ft at PINIK or before.                                                                                                |         |                                                         |
| <b>SARONNO 1W</b><br>(SRN 1W)                      | Proceed to PINIK. At PINIK intercept R330 SRN inbound to SRN.                                                                | Cross PINIK at 6000ft or above, SRN MCA according to next AWY segment.                                                                                          |         |                                                         |
| <b>VOGHERA 1W</b><br>(VOG 1W)                      | Follow R017 MMP inbound to MMP. At MMP intercept R344 VOG inbound to VOG.                                                    | Cross PINIK at 6000ft or above, MMP at FL080 or above, VOG at FL110 or above.                                                                                   |         |                                                         |

(Tracks and radials calculated with VAR 2° East)

### 1.1.4 IFR approach procedures

Any approaching ACFT must comply with the requirements of Aircraft Certification § 1.2.1, as well as with the relevant procedures published on the APCH charts.

The following instrument APCH procedures, with the corresponding requirements, are AVBL:

1. **LOC-DME RWY 01 for CIRCLING FOXTROT RWY 19**
  - Requirements:  
At least Pilot Qualification type A.  
Approach can be flown during the day only.
2. **LOC-DME RWY 01 for CIRCLING CHARLIE RWY 19**
  - Requirements:  
At least Pilot Qualification type B.  
An Approved contingency procedure RWY 19 may be required according to § 1.1.10
3. **IGS RWY 01** (steep APCH procedure)
  - Requirements:  
Pilot Qualification type C.  
ACFT certification in accordance with § 1.2.1, for steep APCH of 6° or higher.

### 1.1.5 Approach to RWY 01

#### 1.1.5.1 IGS RWY 01 steep approach 6.65°

Instruction of crews using the IGS 01 APCH procedure must satisfy the rules of the "Training Requirements Application Manual" (TRAM) for Lugano AP.

The IGS APCH may only be used by qualified crew and certified ACFT for a "steep APCH" of 6° or HYR.

For ACFT certified for steep APCHs of 6.65° or more, the instrument APCH procedure IGS 01 may be used with an angle of 6.65° during the entire APCH until LDG.

For ACFT certified for steep APCHs with an angle between 6° and 6.64°, the use of the instrument APCH procedure IGS 01 is subject to the following regulations:

- a. The APCH for LDG will be performed at an angle of 6.65° (phase 1). The following LDG phase (phase 2) has to be performed at a MAX angle of 6° with the help of the PAPI set to this value.
- b. The ACFT must be established (with the correspondent Vref) along the portion with an APCH angle of 6° at latest, at a HGT of 500 ft AAL; in any other case, the APCH procedure must be interrupted and a go-around procedure must be initiated.
- c. The APCH may be performed only if, at the given time, the tailwind component, which results from the values measured at the LDG on the AP, does not exceed half of the value of the MAX tailwind component permitted, in accordance with the Aircraft Flight Manual (AFM), for steep APCH procedures.
- d. The MAX permitted difference above the descent path must correspond to half-scale on the glide-slope indicator (generally 1 dot). In the case where this limit is exceeded, a go-around procedure must be immediately initiated.

#### 1.1.5.2 PAPI RWY 01

For all APCHs, only one PAPI shall be illuminated and operative.

The use of the 6° PAPI on RWY 01 is limited to certified ACFT and to FLT crews qualified for steep APCHs and LDGs of 6° or HYR.

The 6° PAPI on RWY 01 will only be in use for IFR traffic performing an IGS APCH. For all other APCHs, the 4.17° PAPI on RWY 01 will be in use.

If on an IGS APCH, IFR is CNL, or if a visual APCH is requested after having passed CALDO (INBD), then the LDG procedure on RWY 01 must be complete following (and not undershooting) the 6° PAPI until LDG on RWY 01, or a circling procedure for LDG on RWY 19 is initiated. Under these circumstances, the ACFT may descend onto the 6.0° PAPI earlier than MDA or Visual Descent Point (VDP) but not before PSG 3.7 DME ILU.

### 1.1.6 Approach to RWY 19

#### 1.1.6.1 LOC-DME approach for circling RWY 19

The LOC-DME APCH shall be flown on a continuous descent angle or gradient.

The break-off points on the APCH will always remain at the same PSN, but it will be overflown at the applicable ALT.

**1.1.6.2 Circling procedures RWY 19**

There are two circling procedures AVBL:

1. **CIRCLING FOXTROT RWY 19** (see chart [LSZA AD 2.24.10 - 5](#))

Requirements:

- At least Pilot Qualification type A.

Conditions:

- VIS 5000 m or more, day only and ceiling 3100 ft AAL or HYR.

2. **CIRCLING CHARLIE RWY 19** (see chart [LSZA AD 2.24.10 - 7](#))

a. Requirements:

- At least Pilot Qualification type A or B depending on weather minima's as required in § 1.1.10

Conditions:

- VIS 5000 m or more, day only and ceiling 3100 ft AAL or HYR.

b. Requirements:

- At least Pilot Qualification type B.
- Contingency procedure APV by the respective National Aviation Authority (including APCH LDG climb gross gradient table and 2.0 NM THR 01 TP definition).
- Specific FLT training associated with the afore mentioned contingency procedure.

Conditions:

- VIS 3000 m or more during the day / VIS 5000 m or more at night, and ceiling 1700 ft AAL or HYR.

**1.1.7 Missed approach**

During all IFR APCHs the applicable MDA and the corresponding MNM visibility shall be predefined by the operator and the FLT crew reflecting the daily PER limits of the corresponding ACFT given by mass, temperature, density, and wind conditions (including, where applicable, the Company contingency procedures).

**1.1.8 STAR Descriptions****1.1.8.1 STAR RWY 01/19 (see chart LSZA AD 2.24.9 - 1)**

| DESIGNATOR                    | RWY 01/19                                                                                                                                |                                                                                                                              |                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                               | ROUTE                                                                                                                                    |                                                                                                                              | Remark                       |
|                               | Lateral                                                                                                                                  | Vertical                                                                                                                     |                              |
| <b>ORIO 7L</b><br>(ORI 7L)    | At ORI intercept R103 BEG. Proceed to BEG. At BEG intercept R299 BEG. Proceed to LUGAN. At LUGAN intercept R017 MMP. Proceed to PINIK.   | Cross BEG at FL120 or above, LUGAN at FL100/FL110 or above (depending on QNH).                                               | Expect base turn over CALDO. |
| <b>LUSIL 7L</b>               | At LUSIL intercept R035 BEG. Proceed to BEG. At BEG intercept R299 BEG. Proceed to LUGAN. At LUGAN intercept R017 MMP. Proceed to PINIK. | Cross LUSIL at FL140 or above, BEG at FL120 or above, LUGAN at FL100/FL110 or above (depending on QNH).                      | Expect base turn over CALDO. |
| <b>ORIO 7P</b><br>(ORI 7P)    | At ORI intercept R103 BEG. Proceed to BEG. At BEG intercept R287 BEG. Proceed to PINIK.                                                  | Cross BEG at FL120 or above, ZA631 at FL100 or above, ZA632 at FL080/TL or above (depending on TL).                          |                              |
| <b>LUSIL 7P</b>               | At LUSIL intercept R035 BEG. Proceed to BEG. At BEG intercept R287 BEG. Proceed to PINIK.                                                | Cross LUSIL at FL140 or above, BEG at FL120 or above, ZA631 at FL100 or above, ZA632 at FL080/TL or above (depending on TL). |                              |
| <b>SARONNO 6L</b><br>(SRN 6L) | At SRN intercept R330 SRN. Proceed via SULUR to PINIK.                                                                                   | Cross SRN at 6000ft or above.                                                                                                |                              |
| <b>VOGHERA 6L</b><br>(VOG 6L) | At VOG intercept R344 VOG. Proceed to MMP. At MMP intercept R017 MMP. Proceed to PINIK.                                                  | Cross VOG at FL090 or above, MMP at 6000ft or above.                                                                         |                              |
| <b>TORINO 6L</b><br>(TOP 6L)  | At TOP intercept R085 TOP. Proceed to VOG. At VOG intercept R344 VOG. Proceed to MMP. At MMP intercept R017 MMP. Proceed to PINIK.       | Cross TOP at FL090 or above, VOG at FL090 or above, MMP at 6000ft or above.                                                  |                              |
| <b>ODINA 7L</b>               | At ODINA intercept R299 BEG. Proceed to LUGAN. At LUGAN intercept R017 MMP. Proceed to PINIK.                                            | Cross ODINA at FL140/FL150 or above (depending on QNH), LUGAN at FL100/FL110 or above (depending on QNH).                    | Expect base turn over CALDO. |

(Tracks and radials calculated with VAR 2° East)

## 1.1.9 ATC

### 1.1.9.1 Communication with ATC

FLT crews entering Lugano CTR under IFR shall make contact with ATC, requesting the type of APCH they intend to execute.

### 1.1.9.2 ATC flight plan

Operators holding an AP Qualification in accordance with § 1.2 shall insert "THE TYPE OF QUALIFICATION" in item 18 of ATC flight plan.

### 1.1.10 Requirements overview

| Flight Procedure     | Flight Operation                                                                                                                                                  | Pilot Qualification | Operator Qualification Procedures                                    | Aircraft Performances                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------|---------------------------------------|
| Approach and landing | - VFR commercial<br>- IFR Visual APP<br>- LOC DME Circling C (VIS 5000 m or more and ceiling 3100 ft AAL or higher / Day only)<br>- LOC DME Circling F (Day only) | minimum type A      | NIL                                                                  | NIL                                   |
|                      | - LOC DME Circling C (VIS 3000 m or more day / VIS 5000 m or more night / ceiling 1700 ft AAL or higher)                                                          | minimum Type B      | Approved contingency procedure for circling missed approach required | NIL                                   |
|                      | - IGS                                                                                                                                                             | minimum Type C      | NIL                                                                  | glide > 6°<br>See Explanation § 3.1.4 |
| Departure            | IFR departure                                                                                                                                                     | minimum Type A      | NIL                                                                  | NIL                                   |
|                      | Take-off (VIS 400 m - 3000 m)                                                                                                                                     | minimum Type B      | Approved contingency procedure take-off RWY 19 and/or 01 required    | NIL                                   |

## 1.2 Airport qualification

To operate at Lugano under IFR, the following AP requirements must be fulfilled:

- The ACFT must meet the PER requirements in accordance with the ACFT certification, including (where necessary) a steep APCH and LDG certification.
- Operator's contingency procedures (if required by the type of FLT operation) must be calculated and AVBL.
- The FLT crew must hold a valid Pilot Qualification for the applicable type of operation and FLT procedures.

The application shall contain:

- A letter of Endorsement from the National Aviation Authority (NAA) approving Training Syllabus and the operation into Lugano and confirming conformity with the requirements of § 1.2.1 and 1.2.2
- The APV, given by the respective NAA, of the operator's contingency procedures.

### 1.2.1 Aircraft certification

Any ACFT to be operated under IFR at Lugano AP shall be able to comply with the published IFR procedures § 1.1 or with approved company contingency procedures.

The MAX IAS, as published on the relevant charts, shall not be exceeded during the corresponding FLT manoeuvres.

### For ACFT certified for steep APCHs with an angle of 6.65° or more

The ACFT Certification of compliancy for the AP Qualification shall contain:

- Type, REG and Serial Number (S/N) of the ACFT;
- Mass, AP and Temperature (MAT) PER table calculated and published for the operation in Lugano and for the Individual Runway Tables including:
  - MTOM table for all applicable SID, covering One Engine Inoperative (OEI) conditions,
  - MAX Landing Mass (MLM) for the APCH covering the speed requirements,
  - table of the applicable minima covering the requirements for the APCH gross climb gradient,
  - if required, contingency procedures covering the entire MAT items above.
- If required for the operation, a copy of the "steep APCH" certificate, or equivalent steep APCH and LDG capabilities for the applicable S/N AFM.

### For ACFT certified for steep APCHs between 6° and 6.64°

A "Letter of non objection" is needed. The "Letter of non objection" proves, from a technical/operational point of view, that in the certification already obtained by an ACFT, it also includes an "INA" of 6.65° until the published Minimum Descent Altitude (MDA), and a further "steep APCH to LDG", starting at 500 ft AAL, at the latest, with an angle of 6°. The manufacturer shall prove that this special procedure is supported by tests and equipment used for the AVBL certification.



Furthermore, the manufacturer, in the "Letter of non objection", shall clearly state the PER requirements in a such manner that they shall be properly covered in case an ACFT is certified for 6° (tolerance of +/-2° included); for instance, the "handling qualities", the Flight Guidance Systems and Autopilot until the published Minimum Descent Altitude (MDA) and the PER.

### 1.2.2 Pilot qualification

MNM training requirements for the AP Qualification are included in a so-called "Training Requirements Application Manual (TRAM)"

Pilots intending to operate under IFR conditions at Lugano AP shall hold a valid Pilot Qualification, in accordance with the requirements of IFR Procedures § 1.1.10

#### 1.2.2.1 Pilot qualification type A

The Pilot Qualification type A is directly controlled by the Lugano AP Authority and includes:

- a. A theoretical self-instruction on:
  - Lugano general operational requirements (FOCA & Lugano AP Authority),
  - Local weather phenomena and dangers,
  - Lugano orographic and topographic situation, including all relevant obstacles,
  - APCH and DEP procedures (VFR and IFR),
  - Noise abatement and communication procedures,
  - ACFT PER (All Engines Operating (AEO) and OEI), including calculations of MTOM, MLM gradients and applicable minima,
  - EMERG procedures.

To apply for the Pilot Qualification type A, the pilot shall contact Lugano AP Authority or consult Lugano AP's website.

URL: <http://www.lugano-qualification.ch/>

#### 1.2.2.2 Pilot qualification type B and C

Initial and recurrence training for Pilot Qualification types B and C are to be conducted under the jurisdiction of the respective NAA.

#### 1.2.2.3 Procedures to obtain the qualification

Qualification A:

The pilot applies for the Pilot qualification type A to the Lugano Airport Authority on : [www.lugano-qualification.ch](http://www.lugano-qualification.ch). The qualification consist in a familiarization briefing and a test with multiple-choice questions. The Lugano Airport Authority verifies the validity of the application and updates the Type A qualified pilots list.

Qualification B:

The operator submits its training syllabus with the related approved contingency procedure to the respective NAA for approval and transmits the approval confirmation to the Lugano Airport Authority.

The pilot in command performs the training according to the training syllabus approved by the respective NAA. Once done, the operator transmits an updated list of pilots who obtained the Type B qualification to the Lugano Airport Authority which will update the list of qualified pilots accordingly.

Qualification C:

The operator submits its training syllabus to the respective NAA for approval and transmits the approval confirmation to the Lugano Airport Authority.

The operator presents the corresponding AFM supplements or a "Letter of non-objection" (described in chapter 2.3.4) to the Lugano Airport Authority.

The pilot in command performs the training according to the training syllabus approved by the respective NAA. Once done, the operator transmits an updated list of pilots who obtained the Type C qualification to the Lugano Airport Authority which will update the list of qualified pilots accordingly.

#### 1.2.2.4 Airport qualification validity

Qualification Type A:

Airport qualification type A is valid for two years.

Qualification Type B and C:

Pilots must hold a valid qualification type A.

The pilot in command shall fly at least 1 IFR approach into and 1 IFR departure from LSZA within a 12 months period.

In case of an interruption of the recency of 12 months and more, the applicable minima for the first 3 APP shall be augmented by 500 feet for Ceiling and the applicable visibility by 1000 meters.

In case of an interruption of the recency of 24 months and more, a new qualification B or C is required.

### 1.3 Charts

- 1.3.1 Procedures to be followed by arriving and departing ACFT are contained on the charts STAR/SID and IAC.
- 1.3.2 The MNM vectoring levels chart for CTR/TMA Lugano is AVBL under AIP Italy, ENR 2.1.

### 1.4 VFR procedure

Private OPS refer to VFR Manual, LSZA AD INFO. Commercial OPS see also 1.1.10.

### 1.5 Description of Instrument Guidance System (IGS)

Non-precision APCH with ILS components.

DEV are: Angle HYR than standard (6.65°) and the definition of a MAPT.

#### 1.5.1 IGS components

- ILS (LOC/GP/DME) for line-up and final APCH
- SRN VOR/DME

#### 1.5.2 Procedure

The IGS procedure is a steep APCH of 6.65° GP reference.

IGS PROC may be flown as an ILS PROC.

The published ALT at D5.3 ILU and D3.7 ILU are to be strictly OBS without undershooting.

After MAPT, PCD to RWY maintaining visual ground contact and by following the PAPI of 6.0° reference angle. LOC track is aligned with RWY 01 axis.

### 1.6 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 |     |
| 01  | A        | 1500/---                   | 1500/---          | 1500/---           |     |
|     | B        | 1500/---                   | 1500/---          | 1500/---           |     |
|     | C        | 1500/---                   | 1500/---          | 1500/---           |     |
| 19  | A        | 800/---                    | 400/---           | 400/---            |     |
|     | B        | 800/---                    | 400/---           | 400/---            |     |
|     | C        | 800/---                    | 400/---           | 400/---            |     |

**LSZA AD 2.23      ADDITIONAL INFORMATION****1.      List of significant points**

| NAV point | COORD WGS84 |             | Back-up Definition |      |     | Purpose             |
|-----------|-------------|-------------|--------------------|------|-----|---------------------|
|           | N LAT       | E LONG      | Radial             | DME  | NAV |                     |
| 1         | 2           |             | 3                  |      |     | 4                   |
| BAVMI     | 45 42 13    | 008 24 28   | 276                | 26   | SRN | SID LSZA            |
| CALDO     | 45 54 33.2  | 008 51 50.9 | 017                | ---  | MMP | STAR LSZA           |
| LUSIL     | 46 02 35    | 010 07 00   | ---                | 6.5  | ILU |                     |
| OMETO     | 45 44 12.0  | 008 02 34.0 | 035                | 28.2 | BEG | STAR LSZA           |
| PINIK     | 45 52 26.8  | 008 50 55.9 | 276                | 42   | SRN | SID LSZA            |
|           |             |             | 017                | 14.8 | MMP | STAR/SID LSZA, HLDG |
|           |             |             | ---                | 8.7  | ILU |                     |
| SULUR     | 45 44 57    | 008 56 36   | 330                | 7    | SRN | SID LSZA            |
| ZA505     | 46 00 16    | 008 55 29   | 347                | 22   | SRN | SID LSZA            |
| ZA506     | 46 05 14    | 008 54 09   | 347                | 27   | SRN | SID LSZA            |
| ZA526     | 45 50 31    | 008 59 11   | 287                | 32.1 | BEG | SID LSZA            |
|           |             |             | 351                | ---  | SRN |                     |
| ZA527     | 45 48 18    | 009 08 41   | 287                | 25.1 | BEG | SID LSZA            |
|           |             |             | 026                | ---  | SRN |                     |
| ZA552     | 45 46 17    | 008 47 49   | 017                | 8    | MMP | SID LSZA            |
| ZA557     | 45 47 35.8  | 008 41 16.7 | 300                | 16.6 | SRN | SID LSZA            |
| ZA558     | 45 41 45.0  | 008 29 42.8 | 276                | 22.4 | SRN | SID LSZA            |
| ZA559     | 45 51 50.0  | 008 31 35.6 | 300                | 24.6 | SRN | SID LSZA            |
| ZA631     | 45 48 18    | 009 08 41   | 287                | 25.1 | BEG | STAR LSZA           |
|           |             |             | 026                | ---  | SRN |                     |
| ZA632     | 45 50 31    | 008 59 11   | 287                | 32.1 | BEG | STAR LSZA           |
|           |             |             | 351                | ---  | SRN |                     |

(Tracks and radials calculated with VAR 2° East)

**LSZA AD 2.24 CHARTS RELATED TO AN AERODROME**

| <b>Name</b>                                | <b>Page</b>         |
|--------------------------------------------|---------------------|
| Aerodrome Chart                            | LSZA AD 2.24.1 - 1  |
| ACFT Parking Chart                         | LSZA AD 2.24.2 - 1  |
| Aerodrome Obstacle Chart - Type A - RWY 01 | LSZA AD 2.24.4 - 1  |
| Aerodrome Obstacle Chart - Type A - RWY 19 | LSZA AD 2.24.4 - 3  |
| SID RWY 01/19 - RNAV 1                     | LSZA AD 2.24.7 - 1  |
| SID RWY 01                                 | LSZA AD 2.24.7 - 3  |
| SID RWY 19 HIGH PERFORMANCE                | LSZA AD 2.24.7 - 5  |
| STAR RWY 01/19                             | LSZA AD 2.24.9 - 1  |
| IAC IGS RWY 01 STEEP APPROACH 6.65°        | LSZA AD 2.24.10 - 1 |
| IAC LOC RWY 01 / CIRCLING RWY 19           | LSZA AD 2.24.10 - 3 |
| IAC DAY ONLY / CIRCLING FOXTROT RWY 19     | LSZA AD 2.24.10 - 5 |
| IAC CIRCLING CHARLIE RWY 19                | LSZA AD 2.24.10 - 7 |