

AD 2 AERODROMES**ESGT 2.1 AERODROME LOCATION INDICATOR AND NAME****ESGT – TROLLHÄTTAN-VÄNERSBORG****ESGT 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

- | | | |
|----|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | ARP coordinates and site at AD | 581905N 0122042E RWY centre point |
| 2. | Direction and distance from (city) | NE 2.9 NM from Trollhättan, S 3.8 NM from Vänersborg |
| 3. | Elevation/Reference temperature | 137 ft/+18.5°C |
| 4. | Geoid undulation at AD ELEV PSN | 114 ft |
| 5. | MAG VAR/Annual change | 3° E 2015/+0.1 increasing |
| 6. | Administration, address, telephone, fax, AFS | Trollhättan flygplats
SE-461 93 Trollhättan
TEL: +46 (0)520 825 00
FAX: +46 (0)520 838 17
E-mail: info@fyrstadsflyget.se
AFS: ESGTZTX
Website: www.fyrstadsflyget.se |
| 7. | Types of traffic permitted (IFR/VFR) | IFR/VFR. Max RWY ref code 3C |
| 8. | Remarks | - |

ESGT 2.3 OPERATIONAL HOURS

- | | | |
|-----|-----------------------------------------|---------------------------------------------|
| 1. | AD Administration
AD Operating hours | As ATS
As ATS |
| 2. | Customs and immigration | MON-SUN 0600-2000 (0500-1900) |
| 3. | Health and sanitation | - |
| 4. | AIS Briefing Office | FPC H24, +46 (0)8 797 63 40, www.lfv.se/fpc |
| 5. | ATS Reporting Office (ARO) | As ATS |
| 6. | MET Briefing Office | FPC H24, +46 (0)8 797 63 40, www.lfv.se/fpc |
| 7. | ATS | Ref AIP SUP/NOTAM |
| 8. | Fuelling | As ATS |
| 9. | Handling | As ATS |
| 10. | Security | As ATS |
| 11. | De-Icing | As ATS |
| 12. | Remarks | Increased charges outside TWR HR of OPS |

ESGT 2.4 HANDLING SERVICES AND FACILITIES

1.	Cargo-handling facilities	Available, forklift
2.	Fuel/oil types	Fuel Jet A1, 91UL Oil -
3.	Fuelling facilities/discharge capacity	Jet A1: 15,000 l in fuelling truck, 100,000 l in store 91UL: 20,000 l
4.	De-icing facilities	Available, Type I and Type II
5.	Hangar space for visiting ACFT	-
6.	Repair facilities for visiting ACFT	Available
7.	Remarks	Fuel supplier Air BP Battery charger: Pipistrel skycharge M20 Portabel charger

ESGT 2.5 PASSENGER FACILITIES

1.	Hotels	In Trollhättan and Vänersborg
2.	Restaurants	In Trollhättan and Vänersborg
3.	Transportation	Taxis
4.	Medical facilities	In Trollhättan and Vänersborg
5.	Bank and Post Office	In Trollhättan and Vänersborg
6.	Tourist Office	In Trollhättan and Vänersborg
7.	Remarks	-

ESGT 2.6 RESCUE AND FIRE FIGHTING SERVICES

1.	AD category for fire fighting	CAT 4 for scheduled traffic requiring, CAT 6 O/R
2.	Rescue equipment	By arrangement, municipal rescue service
3.	Capability for removal of disabled aircraft	Contact +46(0)520 825 00 for arrangements
4.	Remarks	-

ESGT 2.7 SEASONAL AVAILABILITY – CLEARING

1.	Types of clearing equipment	Sweepers/blowers
2.	Clearance priorities	RWY, TWY, Apron
3.	Remarks	Not cleared outside operational hours. RWY 15/33 de-iced with SAND.

ESGT 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

- | | | |
|----|-------------------------------------|----------------------------------------------------------------|
| 1. | Apron surface and strength | Apron ASPH PCN 15 F/C/X/T |
| 2. | Taxiway width, surface and strength | TWY M 15 m ASPH PCN 15 F/C/X/T
TWY S 7 m ASPH PCN 8 F/C/Y/T |
| 3. | ACL, location and elevation | Apron 137 ft |
| 4. | VOR checkpoints | - |
| 5. | INS checkpoints | - |
| 6. | Remarks | - |

ESGT 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

- | | | |
|----|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of ACFT stands | TWY guide lines |
| 2. | RWY and TWY markings and LGT | RWY 15/33: Designator, THR, CL and edges are day marked.
RTHL, REDL, RENL.

TWY M: CL, HLDG day marked. Edge lights and signs, RGL
S: CL, HLDG day marked. RGL |
| 3. | Stop bars | - |
| 4. | Remarks | - |

ESGT 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/Designation	OBST type	OBST position	ELEV/HGT in metres	Markings/ Type, colour	Remarks
a	b	c	d	e	f
ESGT1	Mobile vehicle	581839.1N 0122113.6E	46.7 / -	-	-
ESGT2	Sign	581838.8N 0122115.3E	44.5 / -	-	-
ESGT3	Forest	581805.6N 0122209.6E	62.5 / -	-	-
ESGT4	Forest	581801.0N 0122212.6E	64.8 / -	-	-
ESGT5	Forest	581749.8N 0122242.6E	76.9 / -	-	-
ESGT6	Mobile vehicle	581943.8N 0121950.6E	68.3 / -	-	-
ESGT7	Forest	581950.3N 0121954.4E	51.4 / -	-	-
ESGT8	Forest	581949.1N 0121950.2E	56.5 / -	-	-
ESGT9	Forest	581946.4N 0121941.9E	57.5 / -	-	-
ESGT10	Forest	581948.1N 0121946.4E	58.9 / -	-	-
ESGT11	Forest	581947.4N 0121933.5E	67.1 / -	-	-
ESGT12	Forest	581950.1N 0121932.6E	75.5 / -	-	-
ESGT13	Forest	581952.0N 0121928.8E	78.5 / -	-	-
ESGT14	Forest	582002.7N 0121925.5E	86.0 / -	-	-
ESGT15	Forest	582002.7N 0121921.8E	86.9 / -	-	-

In Area 3					
OBST ID/Designation	OBST type	OBST position	ELEV/HGT	Markings/ Type, colour	Remarks
a	b	c	d	e	f
Not available					

ESGT 2.11 METEOROLOGICAL INFORMATION PROVIDED

- Associated MET Office STOCKHOLM/Arlanda
- Hours of service H24
MET Office outside hours
- Office responsible for TAF preparation STOCKHOLM/Arlanda
Periods of validity, interval of issuance 9 HR, <https://tafplanner.smhi.se/app.php/production-program>
- Type of landing forecast Not issued
Interval of issuance
- Briefing/consultation provided FPC H24, +46 (0)8 797 63 40, www.lfv.se/fpc
- Flight documentation TAF, METAR, SIGMET, Upper air winds
Language(s) used Swedish/English
- Charts and other information available for briefing or consultation SWC, WC, Nordic SIGWX Chart, Low level forecast
- Supplementary equipment available for providing information -
- ATS units provided with information TROLLHÄTTAN-VÄNERSBORG TWR
- Additional information (limitation of service, etc.) Flight planning room available

ESGT 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	True BRG and MAG BRG	Dimensions of RWY (m)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APCH RWY
1	2	3	4	5	6
15	146.07° GEO 143° MAG	1710 x 30	PCN 18 F/C/X/T ASPH	581927.26N 0122011.78E End RWY: 581841.41N 0122110.38E GUND 113 ft	THR 136 ft
33	326.08° GEO 323° MAG	1710 x 30	PCN 18 F/C/X/T ASPH	581847.00N 0122103.24E GUND 113.4 ft	THR 134.8 ft TDZ 135.3 ft

Slope of RWY-SWY	SWY dimensions (m)	CWY dimensions (m)	Strip dimensions (m)	OFZ	Remarks
7	8	9	10	11	12
15 See ESGT AOC	-	-	1830 x 180	-	See AD chart for non-standard dimensions
33 See ESGT AOC	-	-	1830 x 180	-	THR 33 displaced 209 m. See AD chart for non-standard dimensions

ESGT 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
15	1710	1710	1710	1710	-
33	1710	1710	1710	1501	-

ESGT 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT Type, LEN INTST	THR LGT Colour WBAR	VASIS (MEHT)	TDZ LGT LEN	RWY Centre Line LGT LEN, Spacing Colour INTST	RWY Edge LGT LEN, Spacing Colour INTST	RWY End LGT Colour WBAR	SWY LGT LEN, Colour
1	2	3	4	5	6	7	8	9
15	SALS 420 m LIL/LIH	Green	PAPI Left/3.00° (41.9 ft)	-	-	1710/60 m White Caution zone 600 m yellow LIL/LIH	Red	-
33	Calvert CAT I 900 m LIL/LIH	Green	PAPI Left/3.00° (41.7 ft)	-	-	1710/60 m White Caution zone 600 m yellow LIL/LIH	Red	-

10 Remarks: RWY 15: PCL LIL RWY on channel 122.730 for 5 SEC.
RWY 33: PCL LIL RWY on channel 122.730 for 5 SEC.

ESGT 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1. ABN/IBN location, characteristics and hours of operation -
2. LDI location and LGT
Anemometer location and LGT At RWY THRs. Lighted windsock S apron
At PAPI 15, N TWY S, lighted
3. TWY edge and centre line lighting Edge: TWY M
CL: -
4. Secondary power supply/switch-over time Available/ 1 sec
5. Remarks -

ESGT 2.16 HELICOPTER LANDING AREA

RWY 15/33 to be used

ESGT 2.17 ATS AIRSPACE

- | | | | |
|----|-----------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Designation and lateral limits | TROLLHÄTTAN CTR | 582849N 0121344E - 582440N 0122319E -
582225N 0122829E - 581136N 0123711E -
580828N 0122806E - 581631N 0121206E -
582604N 0120608E - 582849N 0121344E |
| 2. | Vertical limits | TROLLHÄTTAN CTR | 1500 ft AMSL
<u> </u>
GND |
| 3. | Airspace classification | C | |
| 4. | ATS unit call sign
Language(s) | TROLLHÄTTAN TOWER | Swedish/English |
| 5. | Transition altitude | 5000 ft AMSL | |
| 6. | Remarks | CTR established during hours of TWR. | |

ESGT 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Channel/Frequency	Hours of operation	Remarks
1	2	3	4	5
TWR	TROLLHÄTTAN TOWER	122.730	HO	Primary channel
		121.500	HO	-

ESGT 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid CAT of ILS/MLS (for VOR/ILS/MLS give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
L 15	FM	399 kHz	H24	582139.2N 0121724.1E		Range 15 NM
LOC 33 ILS CAT I (3° E 2015)	TRH	111.90 MHz	H24	581935.3N 0122001.5E		300 m beyond THR 15 ILS class I/D/2
GP		331.10 MHz	H24	581851.6N 0122049.2E		Angle 3.0° RDH 40.0 ft 245 m past THR 33 left side
OM				581547.2N 0122452.6E		-
MM				581816.7N 0122141.9E		-
L 33	PG	325 kHz	H24	581547.7N 0122452.2E		Range 15 NM

ESGT 2.20 LOKALA TRAFIKFÖRESKRIFTER

1. PPR gäller för skol- och övningsflygning som innebär upprepade instrumentinflygningar samt TGL.

LOCAL TRAFFIC REGULATIONS

1. PPR applies for school and training flights with repeated instrument approaches and TGL.

2. Restriktioner for skol- och övningsflygning

Start och landningsövningar, TGL, med motorflygplan med MTOM lägre än 2000 kg samt avancerad flygning får endast utföras:

MÅN-FRE 0600-2100 (0500-2000)
LÖR, SÖN och HOL 0800-1600 (0700-1500).

Start och landningsövningar, TGL, med motorflygplan med MTOM lägre än 2000 kg samt avancerad flygning får inte utföras långfredagen, påskafton, påskdagen, annandag påsk, Kristi himmelfärdsdag, pingstafton, pingstdagen, midsommarafton, midsommardagen, Alla Helgons dag, julafton, juldagen och annandag jul.

3. Högervarv tillämpas till grässtråk 15.

4. Operatörer av kommersiell flygtransport (CAT) vid TROLLHÄTTAN-VÄNERSBORG flygplats med luftfartyg av ICAO kod C skall klassificera flygplatsen som kategori B, ref EASA AMC1 ORO.FC.105 (b) (2);(c), p.g.a. avvikelser från standardmått. Se ESGT 2-1.

2. Restrictions for school and training flights

Take-off and landing exercises, TGL, with aircraft with MTOM below 2000 kg and aerobatic flights are only permitted:

MON-FRI 0600-2100 (0500-2000)
SAT, SUN and HOL 0800-1600 (0700-1500).

Take-off and landing exercises, TGL, with aircraft with MTOM below 2000 kg and aerobatic flights are not permitted on Good Friday, Easter Eve, Easter Day, Easter Monday, Ascension Day, Whitsun Eve, Whitsun Day, Midsummers Eve, Midsummers Day, All Saints Day, Christmas Eve, Christmas Day and Boxing Day.

3. Right-hand traffic circuit applies for grass strip 15.

4. Commercial air transport (CAT) operators at TROLLHÄTTAN-VÄNERSBORG AD with ICAO code letter C aircraft shall classify the aerodrome as category B, ref EASA AMC1 ORO.FC.105 (b) (2);(c). This is due to the non-standard dimensions. See ESGT 2-1.

ESGT 2.21 MINSKNING AV BULLERSTÖRNING**1. Begränsningar för militärt registrerade luftfartyg:**

- Verksamhet är tillåten 0600-1200 (0500-1100), förutom vid oförutsedda händelser.
- PPR skall inhämtas. För annan verksamhet än transportflygningar skall tillstånd inhämtas 14 dagar före flygning.
- Instrumentflygningar utan landning får inte utföras.

**2. Avgångar IFR RWY 15 och 33:
Stig rakt fram till 1500 ft AMSL innan sväng påbörjas.**

3. APU får inte användas vid parkering vid andra tillfällen än då så krävs för motorstart eller för reglering av kabintemperatur. Därvid får APU startas tidigast 15 min före beräknad tid för taxning.

4. Reversering får endast användas med motorerna på tomgång vid landning mellan 2100-0500 (2000-0400) om detta ej krävs av säkerhetsskäl.

5. Provkörning av motorer får endast ske med ett flygplan åt gången.
Provkörning av motorer mellan 2100-0500 (2000-0400) får endast ske i samband med förestående start och inte med mer än ett flygplan åt gången.

NOISE ABATEMENT PROCEDURES**1. Limitations for military registered aircrafts:**

- Operations are permitted 0600-1200 (0500-1100), except for unforeseen events.
- PPR is mandatory. For other than transportation flights PPR shall be issued 14 days ahead of flight.
- Instrument approaches without landing are not permitted.

**2. IFR departures RWY 15 and 33:
Climb straight ahead to 1500 ft AMSL until turn is initiated.**

3. APU must not be used on parking unless required for engine start or adjustment of cabin heat. On these occasions the APU may be started not earlier than 15 min before estimated time for taxiing.

4. IDLE REVERSE shall only be used for landing between 2100-0500 (2000-0400) unless otherwise is required for flight safety reasons.

5. Test running of engines may only be carried out with one aircraft at the same time.
Test running of engines between 2100-0500 (2000-0400) may only be carried out in connection with take-off and with no more than one aircraft at the same time.

ESGT 2.22 FLYGPROCEDURER

FLIGHT PROCEDURES

1. Startprocedurer, omnidirectional

1. Omnidirectional departure procedures

RWY	Procedure	Significant obstacle		
		Obstacle	Elevation (ft)	Direction (GEO)/Dist (m) from THR
15	Climb straight ahead to MNM turning ALT 900 ft. Continue climb to appropriate MSA.	(CIO) Road	171	146°/1780
		Pylon	660	121°/6300
33	Climb straight ahead with MNM 350 ft/NM (5.7%) to MNM turning ALT 600 ft. Continue climb to appropriate MSA.	Terrain	312	320°/2700

2. Lågsiktsprocedurer (LVP) etablerade

2. Low visibility procedures (LVP) established

LVP träder i kraft när bansynvidden (RVR) är lägre än 600 m eller när molntäckeshöjden eller vertikalsikten är lägre än 200 ft.

LVP will be in force when RVR is below 600 m or when ceiling or vertical visibility is below 200 ft.

Meddelande om att LVP är i kraft lämnas av ATS.

The application of LVP will be announced by ATS.

Lägsta RVR för avgående trafik är 400 m. Lägsta RVR för avgående trafik är 300 m för operatörer med särskilt LVTO-tillstånd från behörig myndighet.

Minimum RVR for departing traffic is 400 m. Minimum RVR for departing traffic is 300 m with LVTO approval from competent authority.

När LVP tillämpas tillåts endast ett luftfartyg alternativt fordon inom manöverområdet.

When LVP is applied only one aircraft or vehicles are allowed in the manoeuvring area.

3. VFR-flygning inom Trollhättan TMA/CTR

3. VFR flight within Trollhättan TMA/CTR

Normala in- och utpasseringspunkter
Se ESGT 6-1

Normal entry and exit points
See ESGT 6-1

Väntlägen
Se ESGT 6-1

Holdings
See ESGT 6-1

Avbrott i radioförbindelse
Se ESGT 6-1

Communication failure
See ESGT 6-1

ESGT 2.23 ÖVRIG INFORMATION

ADDITIONAL INFORMATION

1. Reducerad banseparation

1. Reduced runway separation

Reducerad banseparation tillämpas för luftfartyg med MTOM 2000 kg enligt AIP AD 1.1 mom 10.

Reduced runway separation is applied to aircraft with MTOM 2000 kg in accordance with AIP AD 1.1 para 10.

2. Medgivanden från krav i CS-ADR-DSN:

2. Granted exemptions from requirement in CS-ADR-DSN:

- Delar av stråket uppfyller inte kravställd stråkbredd.
- RDH RWY 15: 42 ft / RDH RWY 33: 40 ft.
- Centrumlinjeljus finns ej.

- Parts of runway strip is non standard.
- RDH RWY 15: 42 ft / RDH RWY 33: 40 ft.
- No runway centre line lights.

ESGT 2.24 TILLHÖRANDE KARTOR**RELATED CHARTS**

AD chart		ESGT 2-1
AOC	RWY 15/33	ESGT-3-1
List of waypoints and significant points		ESGT 4-3
ATC Surveillance		ESGT 4-91
Minimum ALT chart		
IAC	ILS RWY 33	ESGT 5-1
IAC	NDB RWY 33	ESGT 5-2
IAC	NDB RWY 15	ESGT 5-3
IAC	RNP RWY 15	ESGT 5-5
IAC	RNP RWY 33	ESGT 5-9
VAC		ESGT 6-1