

## AD 2 Aerodromes

## UGTB — TBILISI/TBILISI

## UGTB AD 2.1 Aerodrome location indicator and name

UGTB — TBILISI/TBILISI

## UGTB AD 2.2 Aerodrome geographical and administrative data

1	<b>ARP coordinates and site at AD</b>	414009N 0445717E RWY 13L/31R centre line
2	<b>Direction and distance from city</b>	17 KM SE from Tbilisi
3	<b>Elevation/Reference temperature</b>	1578 FT/25° C
4	<b>Geoid undulation at AD ELEV PSN</b>	46 FT
5	<b>MAG VAR/Annual change</b>	7° E (2020)/NIL
6	<b>AD Administration, address, telephone, telefax, telex, AFS</b>	TAV URBAN GEORGIA LLC  Post: TBILISI/Tbilisi Airport 0158 TBILISI GEORGIA  Tel: +995322310265, +995322310267, +995322310241 Fax: +995322310322, +995322310268 Email: <a href="mailto:tbs.info@tav.aero">tbs.info@tav.aero</a> Email: <a href="mailto:tbsramp.tower@tav.aero">tbsramp.tower@tav.aero</a> AFS: UGGGBFXX SITA: TBSGMXH
7	<b>Types of traffic permitted (IFR/VFR)</b>	IFR/VFR
8	<b>Remarks</b>	APRON FREQ 131.700 MHZ

## UGTB AD 2.3 Operational hours

1	<b>AD Administration</b>	H24
2	<b>Customs and immigration</b>	H24
3	<b>Health and sanitation</b>	Health: H24 Sanitation: H24
4	<b>AIS Briefing Office</b>	H24
5	<b>ATS Reporting Office (ARO)</b>	H24
6	<b>MET Briefing Office</b>	H24
7	<b>ATS</b>	H24
8	<b>Fuelling</b>	LLC GEORGIAN AIRWAYS: H24 LLC GEORGIAN PETROLEUM: H24 LLC PETROCAS FUEL SERVICES GEORGIA: H24
9	<b>Handling</b>	H24
10	<b>Security</b>	H24
11	<b>De-icing</b>	H24
12	<b>Remarks</b>	NIL

## UGTB AD 2.4 Handling services and facilities

1	<b>Cargo-handling facilities</b>	All modern facilities handling weights up to 5 tons
2	<b>Fuel/oil types</b>	LLC GEORGIAN AIRWAYS Kerosene TS-1; LLC GEORGIAN PETROLEUM Kerosene TS-1; LLC PETROCAS FUEL SERVICES GEORGIA Kerosene TS-1, Jet A-1
3	<b>Fuelling facilities/capacity</b>	LLC GEORGIAN PETROLEUM Fuel Storage - 2800 m <sup>3</sup> ; 3 Refueling Trucks (26500; 26500 and 21000 litres), Max flow rate: 800 - 1000 litres/minute Tel: (+995 32) 243 30 00; 243 30 03 Fax: (+995 32) 243 30 02 Email: info@airgp.ge LLC GEORGIAN AIRWAYS Fuel Storage - 3200 m <sup>3</sup> ; 2 Refueling Trucks (51000; 40000 litres), Max flow rate: 800 - 1000 litres/minute Tel: (+995 32) 248 55 98; (+995 77) 51 03 00; (+995 77) 93 93 95 Email: fuel@georgian-airways.com LLC PETROCAS FUEL SERVICES GEORGIA Fuel Storage - 5500 m <sup>3</sup> ; 3 Refueling Trucks (35000; 30000 and 19000 litres), Max flow rate: 1200 litres/minute; Hydrant System, Max flow rate: 2800 - 3000 litres/minute Tel: (+995 32) 214 02 17 Email: info@gulfaviation.ge
4	<b>De-icing facilities</b>	Yes
5	<b>Hangar space for visiting aircraft</b>	Can be requested from Airplane Technics LLC for Boeing 737 CL+NG, Airbus 318/319/320/321 and smaller aircraft
6	<b>Repair facilities for visiting aircraft</b>	Base and line maintenance for Boeing 737 300/400/500/600/700/800/900, Airbus 318/319/320/321 and line maintenance for helicopter Bell 505 is available on request at the hangar of Airplane Technics LLC
7	<b>Remarks</b>	NIL

## UGTB AD 2.5 Passenger facilities

1	<b>Hotels</b>	Available in the city
2	<b>Restaurants</b>	Restaurant, cafe at AD and in the city
3	<b>Transportation</b>	Buses, taxis from the AD
4	<b>Medical facilities</b>	First medical aid at AD, hospitals in the city
5	<b>Bank and Post Office</b>	Banks at AD and in the city Postal Office: H24 Exchange Office: H24
6	<b>Tourist Office</b>	Available in the city
7	<b>Remarks</b>	NIL

## UGTB AD 2.6 Rescue and fire fighting services

1	<b>AD category for fire fighting</b>	CAT 9
2	<b>Rescue equipment</b>	4 Fire fighting trucks, 1 Quick response vehicle, 1 Water tanker truck 20 t
3	<b>Capability for removal of disabled aircraft</b>	Capable to remove disabled aircraft with code C

4	<b>Remarks</b>	Responsible coordinator for removal of disabled aircraft: Tel: +995 577 999 124 Fax: +995 32 231 02 76 E-mail: tbs.ramp.tower@tav.aero
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### UGTB AD 2.7 Seasonal availability - clearing

1	<b>Types of clearing equipment</b>	4 Snow Ploughs MOAZ-549 DE-224, 1 Snow Plough MAZ-5434X3 BS4000-PBA-2R, 1 Auger Wheel Scraper URAL DE-226, 1 Sand Sprinkler GAZ-53 PR-53, 1 Water Sprinkler ZIL-130 KPM-130, 1 JCB, 1 Grader, 1 Dump truck KRAZ, 1 Dump truck KAMAZ, 1 Tractor T-40, 1 Tractor Belarus MTZ892
2	<b>Clearance priorities</b>	1. RWY 13R/31L and the access roads to the airport Rescue Service 2. Acting TWYs and taxiing paths on the apron 3. Aircraft parking stands and vehicles paths on the aprons 4. Runway and taxiways shoulders 5. The remaining sections (areas)
3	<b>Remarks</b>	Information on snow clearance published from November – April in NOTAM/SNOWTAM. See also the snow plan in AD 1.2-2

### UGTB AD 2.8 Aprons, taxiways and check locations/positions data

1	<b>Apron surface and strength</b>	<b>Designation</b>	<b>Surface</b>		<b>Strength</b>
		APRON 1	Concrete and asphalt		53/R/B/W/U
		APRON 3	Concrete and asphalt		12/F/B/X/T
		APRON 4	Concrete		72/R/A/W/T
2	<b>Taxiway width, surface and strength</b>	<b>Designation</b>	<b>Width</b>	<b>Surface</b>	<b>Strength</b>
		TWY A	18 M	Concrete and asphalt	59/R/B/W/U
		TWY B	23 M	Concrete and asphalt	65/R/B/W/U
		TWY C	23 M	Concrete and asphalt	65/R/B/W/U
		TWY D	16 M	Concrete	16/R/C/X/T
		TWY E	23 M	Concrete	65/R/A/W/U
		TWY F	18 M	Concrete and asphalt	12/F/B/X/T
3	<b>ACL location and elevation</b>	Location: THR RWY 13R - Elevation: 1578 FT Location: THR RWY 31L - Elevation: 1513 FT Location: Apron 4 - Elevation: 1560 FT			
4	<b>VOR checkpoints</b>	NIL			
5	<b>INS checkpoints</b>	INS: See Aircraft Parking and Ground Movement Chart			
6	<b>Remarks</b>	Aircraft stands 112, 113, 114, 115, 116 - Concrete - PCN 62/R/A/W/T Aircraft stands 117, 118, 119, 120, 121, 122 - Asphalt - PCN 127/F/C/X/T TWY F is closed			

### UGTB AD 2.9 Surface movement guidance and control system and markings

1	<b>Aircraft stand ID signs TWY guide lines Visual docking/parking guidance system</b>	Sign boards at all intersections with TWY and RWY and at all holding positions. Guide lines at aprons
2	<b>RWY and TWY markings and LGT</b>	RWY Marking: Designation, THR, TDZ, centre line, edge line, RWY end RWY Lighting: THR, TDZ (only 31L), centre line, edge line, RWY end, THR Identification (only 13R) TWY Marking: Holding points, centre line, edge line TWY Lighting: Centre line, edge and RWY guard lights
3	<b>Stop bars</b>	RWY 13R/31L: Stop bars are appropriate at intermediate Holding positions
4	<b>Remarks</b>	NIL

**UGTB AD 2.10 Aerodrome Obstacles***In Area 2*

Designator	Type	Coordinates	ELEV	HGT	Marking/LGT type, colour	Remarks
1	2	3	4	5	6	7
UGTB01	Building	413933.1N 0445739.9E	1591 FT	NIL	NIL	NIL
UGTB02	Building	414036.6N 0445618.9E	1614 FT	NIL	NIL	NIL
UGTB03	Church Shavnabada	413906.8N 0445024.3E	2714 FT	NIL	NIL	NIL
UGTB04	Mast SSR	414533.8N 0445459.4E	3584 FT	NIL	NIL	LGTD
UGTB05	Mast ACR	413959.9N 0445656.2E	1716 FT	NIL	NIL	LGTD
UGTB06	Mast MSSR	414602.6N 0445503.9E	3667 FT	NIL	NIL	LGTD
UGTB07	Building	414126.8N 0445639.4E	1844 FT	NIL	NIL	NIL
UGTB08	Building	414120.6N 0445755.5E	1834 FT	NIL	NIL	NIL
UGTB09	Monument	414130.3N 0445709.9E	2044 FT	NIL	NIL	NIL
UGTB10	Antenna DVOR/DME	414013.7N 0445648.8E	1627 FT	NIL	NIL	LGTD
UGTB11	Antenna GP 31L	413933.1N 0445741.3E	1557 FT	NIL	NIL	LGT
UGTB12	Antenna GP 13R	414030.4N 0445629.6E	1611 FT	NIL	NIL	LGT
UGTB13	Hill Mta Tsmina (antenna TV)	414144.8N 0444707.4E	3304 FT	NIL	NIL	LGT
UGTB14	Hill (mast)	413253.7N 0445714.0E	2550 FT	NIL	NIL	NIL
UGTB42	Building	414116.0N 0445725.7E	1762 FT	NIL	NIL	LGTD
UGTB43	Building	414008.2N 0445650.2E	1584 FT	NIL	Marked NIL	LGTD
UGTB44	Antenna L 13R	414246.3N 0445344.5E	1942 FT	NIL	Marked NIL	LGTD
UGTB45	Building	414202.5N 0445446.3E	1876 FT	NIL	NIL	NIL
UGTB46	Building	414200.9N 0445446.3E	1876 FT	NIL	NIL	NIL
UGTB47	Building	414159.3N 0445446.3E	1876 FT	NIL	NIL	NIL

*In Area 3*

Designator	Type	Coordinates	ELEV	HGT	Marking/LGT type, colour	Remarks
1	2	3	4	5	6	7
UGTB15	Building	414029.9N 0445725.7E	1666.0 FT	NIL	NIL	LGTD
UGTB16	Building	414026.7N 0445730.2E	1697.5 FT	NIL	NIL	LGTD
UGTB17	Light mast	414028.5N 0445725.7E	1670.6 FT	NIL	NIL	LGTD
UGTB18	Light mast	414023.7N 0445732.7E	1660.8 FT	NIL	NIL	LGTD
UGTB19	Light mast	414022.4N 0445734.4E	1642.4 FT	NIL	NIL	LGTD

Designator	Type	Coordinates	ELEV	HGT	Marking/LGT type, colour	Remarks
1	2	3	4	5	6	7
UGTB20	Light mast	414019.1N 0445739.2E	1645.0 FT	NIL	NIL	LGTD
UGTB21	Light mast	414006.6N 0445754.8E	1608.6 FT	NIL	NIL	LGTD
UGTB22	Light mast	414002.7N 0445755.1E	1602.4 FT	NIL	NIL	LGTD
UGTB23	Light mast	413959.1N 0445747.2E	1623.7 FT	NIL	NIL	LGTD
UGTB24	Light mast	413959.9N 0445746.2E	1598.4 FT	NIL	NIL	LGTD
UGTB25	Light mast	414001.0N 0445744.8E	1599.4 FT	NIL	NIL	LGTD
UGTB26	Light mast	414002.0N 0445743.2E	1625.6 FT	NIL	NIL	LGTD
UGTB27	Light mast	414003.1N 0445741.8E	1600.7 FT	NIL	NIL	LGTD
UGTB28	Light mast	414004.1N 0445740.3E	1601.7 FT	NIL	NIL	LGTD
UGTB29	Light mast	414004.7N 0445739.4E	1628.3 FT	NIL	NIL	LGTD
UGTB30	Light mast	414015.9N 0445738.7E	1641.1 FT	NIL	NIL	LGTD
UGTB31	Light mast	414014.9N 0445740.2E	1641.4 FT	NIL	NIL	LGTD
UGTB32	Light mast	414013.9N 0445741.6E	1641.4 FT	NIL	NIL	LGTD
UGTB33	Light mast	414012.9N 0445743.1E	1641.4 FT	NIL	NIL	LGTD
UGTB34	Light mast	414011.8N 0445744.5E	1641.1 FT	NIL	NIL	LGTD
UGTB35	Light mast	414005.8N 0445737.6E	1632.2 FT	NIL	NIL	LGTD
UGTB36	Light mast	414006.9N 0445736.1E	1632.2 FT	NIL	NIL	LGTD
UGTB37	Light mast	414007.9N 0445734.8E	1632.2 FT	NIL	NIL	LGTD
UGTB38	Light mast	414008.8N 0445733.5E	1632.2 FT	NIL	NIL	LGTD
UGTB39	Light mast	414009.7N 0445732.1E	1632.2 FT	NIL	NIL	LGTD
UGTB40	Light mast	414010.7N 0445730.8E	1632.2 FT	NIL	NIL	LGTD
UGTB41	Building	414033.2N 0445717.4E	1692.9 FT	NIL	NIL	LGTD

### UGTB AD 2.11 Meteorological information provided

1	<b>Associated MET Office</b>	TBILISI
2	<b>Hours of service</b> <b>MET Office outside hours</b>	H24 —
3	<b>Office responsible for TAF preparation</b> <b>Periods of validity</b>	TBILISI 24 HR

4	<b>Trend forecast Interval of issuance</b>	TREND  0.5 HR
5	<b>Briefing/consultation provided</b>	MET staff consultation
6	<b>Flight documentation Language(s) used</b>	Charts, tabular form, abbreviated plain language text  English
7	<b>Charts and other information available for briefing or consultation</b>	S, U85, U70, U50, U30, U20, P85, P70, P50, P40, P30, P20, SWH, SWM, T
8	<b>Supplementary equipment available for providing information</b>	SADIS
9	<b>ATS units provided with information</b>	Tbilisi TWR, APP, ACC, FIS
10	<b>Additional information (limitation of service etc.)</b>	NIL

### UGTB AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY	Strength (PCN) and surface of RWY and SWY	THR & RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
13R	136.54°	3000 M x 45 M	66/R/A/W/T Concrete and asphalt	THR: 414040.13N 0445624.39E GUND: 45.8 FT END: 413929.53N 0445753.59E	THR: 1577.8 FT TDZ: NIL
31L	316.56°			THR: 413929.53N 0445753.59E GUND: 45.5 FT END: 414040.13N 0445624.39E	THR: 1512.7 FT TDZ: 1527.1 FT
13L	133.51°	NIL	NIL	NIL	NIL
31R	313.52°			NIL	NIL

Slope of RWY-SWY	SWY dimensions	CWY dimensions	Strip dimensions	RESA dimensions	Arresting System	OFZ	Remarks
7	8	9	10	11	12	13	14
-0.70%	NIL	NIL	3120 M x 300 M	90 M x 90 M	NIL	NIL	RWY shoulders width 7.5 M
0.70%	NIL	200 M x 150 M		160 M x 100 M	NIL	Yes	RWY shoulders width 7.5 M
NIL	NIL	NIL	NIL	NIL	NIL	NIL	RWY is closed for landings and take-offs
NIL	NIL	NIL		NIL	NIL	NIL	RWY is closed for landings and take-offs

### UGTB AD 2.13 Declared distances

RWY Designator	TORA	TODA	ASDA	LDA	Remarks
1	2	3	4	5	6
13R	3000 M	3000 M	3000 M	3000 M	NIL
	1600 M	1600 M	1600 M	Not applicable	FROM TWY A
	2500 M	2500 M	2500 M	Not applicable	FROM TWY B
31L	3000 M	3200 M	3000 M	3000 M	NIL
	1400 M	1600 M	1400 M	Not applicable	FROM TWY A
13L	NIL	NIL	NIL	NIL	NIL
31R	NIL	NIL	NIL	NIL	NIL

### UGTB AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type LEN INTST	RTHL colour WBAR	VASIS (MEHT) PAPI	RTZL LEN	RCLL LEN, spacing, colour, INTST	REDL LEN, spacing, colour, INTST	RENL colour, WBAR	STWL LEN, colour	Remarks
1	2	3	4	5	6	7	8	9	10
13R	SALS 420 M LIH	Green	PAPI Left/3.5° (60 FT)	NIL	3000 M 15 M White; FM 2100 M - 2700 M W/R; FM 2700 M Red; LIH	3000 M 60 M White FM 2400 M Yellow LIH	Red	NIL	RWY THR Identification LGT available
31L	PALSF-II 870 M LIH	Green	PAPI Left/3° (51 FT)	900 M	3000 M 15 M White; FM 2100 M - 2700 M W/R; FM 2700 M Red; LIH	3000 M 60 M White FM 2400 M Yellow LIH	Red	NIL	Flashing LGT 570 M available
31R	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
13L	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

### UGTB AD 2.15 Other lighting and secondary power supply

1	<b>ABN/IBN location, characteristics and hours of operation</b>	ABN: At Tower Building, rotating light beacon, RPM 12, code W / G, SS-SR IBN: NIL
2	<b>LDI location and LGT Anemometer location and LGT</b>	NIL Anemometer: 425 M from THR 31L; 314 M from THR 13R; lighted
3	<b>TWY edge and centre line lighting</b>	Edge and centre line LGT: TWY A, B, C, E
4	<b>Secondary power supply/switch-over time</b>	Secondary power supply to all lighting at AD. Switch-over time: 1 SEC
5	<b>Remarks</b>	RWY 31L/13R Guard LGT at TWY A, B, E

### UGTB AD 2.16 Helicopter landing area

1	<b>Coordinates TLOF or THR of FATO</b>	414030.07N 0445704.21E
	<b>Geoid undulation</b>	46 FT
2	<b>TLOF and/or FATO elevation</b>	1574.0 FT

3	<b>TLOF and FATO area dimensions, surface, strength, marking</b>	30 M x 30 M, Concrete and asphalt, 12/F/B/X/T
4	<b>True BRG of FATO</b>	316.56°/136.54° Direction of TKOF zones: 317° GEO 137° GEO
5	<b>Declared distance available</b>	NIL
6	<b>APP and FATO lighting</b>	NIL
7	<b>Remarks</b>	NIL

### UGTB AD 2.17 Air traffic services airspace

1	<b>Designation, lateral limits, vertical limits</b>	<b>TBILISI CTR</b> 414513N 0444409E - 415002N 0445056E - 414559N 0450149E - 414109N 0450755E - 413249N 0451242E - 412801N 0450555E - 413000N 0445740E - 413651N 0444901E - 414513N 0444409E 4500 FT AMSL GND
2	<b>Airspace classification</b>	C
3	<b>Call sign Languages</b>	TBILISI TOWER English
4	<b>Transition altitude</b>	11000 FT MSL
5	<b>Remarks</b>	NIL

### UGTB AD 2.18 Air traffic services communication facilities

Service designation	Call sign	Channel	SATVOICE	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
APP	TBILISI APPROACH	134.600 MHz	NIL	NIL	H24	NIL
TWR	TBILISI TOWER	119.000 MHz 128.000 MHz	NIL	NIL	H24	Primary FREQ Secondary FREQ
FIS	TBILISI INFORMATION	124.150 MHz	NIL	NIL	H24	NIL
ATIS	TBILISI ATIS	132.800 MHz	NIL	NIL	H24	NIL

### UGTB AD 2.19 Radio navigation and landing aids

Type of aid CAT of ILS/MLS (MAG VAR)	ID	Frequency	Hours of operation	Transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DVOR (7°E/2020)	TBS	113.700 MHz	H24	414013.7N 0445648.8E	Not applicable	NIL	Co-located with DME TBS
DME	TBS	CH 84X	H24	414013.7N 0445648.8E	1700 FT	NIL	Co-located with DVOR TBS Coverage: 108 NM
LOC 31L ILS CAT I (7°E/2020)	INA	108.900 MHz	H24	414045.4N 0445617.7E	Not applicable	NIL	NIL



Type of aid CAT of ILS/MLS (MAG VAR)	ID	Frequency	Hours of operation	Transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from GBAS reference point	Remarks
1	2	3	4	5	6	7	8
GP 31L	—	329.300 MHZ	H24	413933.1N 0445741.3E	Not applicable	NIL	Co-located with DME 31L 3°, RDH=54 FT
DME 31L	INA	CH 26X	H24	413933.2N 0445741.2E	1600 FT	NIL	Omnidirectional Coverage range up to 25 NM Co-located with GP 31L
OM 31L MKR	Dashes	75.000 MHZ	H24	413757.7N 0445949.5E	Not applicable	NIL	NIL
MM 31L MKR	Dot - Dashes	75.000 MHZ	H24	413902.0N 0445828.4E	Not applicable	NIL	NIL
LOC 13R ILS (7° E/2020)	IVP	110.300 MHZ	H24	413926.3N 0445757.7E	Not applicable	NIL	NIL
GP 13R	—	335.000 MHZ	H24	414030.4N 0445629.6E	Not applicable	NIL	Co-located with DME 13R 3.5°, RDH=50 FT
DME 13R	IVP	CH 40X	H24	414030.4N 0445629.6E	1600 FT	NIL	Omnidirectional Coverage range up to 25 NM Co-located with GP 13R
OM 13R MKR	Dashes	75.000 MHZ	H24	414247.0N 0445344.2E	Not applicable	NIL	NIL
MM 13R MKR	Dot - Dashes	75.000 MHZ	H24	414058.4N 0445601.3E	Not applicable	NIL	NIL

## UGTB AD 2.20 Local aerodrome regulations

### 1 Airport regulations

At TBILISI/Tbilisi airport a number of local regulations apply.

At Aircraft stands aircraft major repairs (base maintenance) are prohibited.

Due to transverse slope greater than 1% complete fuelling of aircraft are restricted at the following stands: 1, 2, 3, 4, 5, 5C, 6, 7, 7C, 8, 9, 9D, 10, 10D, 11, 12, 13, 14, 15, 15C, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 25D.

Other regulations are collected in the manual which is available at the AIS Briefing Office.

### 2 Taxiing to and from stands

Arriving aircraft will be allocated a stand number by the TWR.

Ground services can be requested from TBILISI APRON on FREQ 131.700 MHZ.

Assistance from the "FOLLOW ME" vehicle can be:

- requested via the TWR;
- available when visibility is less than 400 M;
- available during night time for C, D and E categories aircraft.

Isolated aircraft stand is located on the TWY E and has the following coordinates: 413947.65N 0445747.13E.

Aircraft engine testing area is located on the TWY E and has the following coordinates: 413947.65N 0445747.13E. Movement to be performed by towing only.

For apron 4 assistance from the "FOLLOW ME" vehicle is required for all categories aircraft.

Departing IFR and VFR flights shall contact TWR to obtain ATC clearance before commencing taxiing. Request for ATC clearance may take place at earliest 10 minutes prior to engine start-up.

After pre-flight preparation, decision to take-off and receiving of ATC clearance for the flight, the pilot-in-command of an aircraft makes a decision whether or not to take off from the aerodrome, fly along the airway and land at the destination aerodrome, and is entirely responsible for the decision taken.

Engine start-up and taxiing shall be carried out by the pilot-in-command only after clearance from the appropriate ATC unit. Taxiing on the aerodrome maneuvering area shall be conducted in accordance with taxi procedures or as directed by the ATC unit. The pilot-in-command is responsible for meeting the norms established for taxiing with this type of aircraft.

While taxiing, the pilot-in-command shall be observing the area in front of him and take measures to avoid collisions with aircraft, motor vehicles and other obstacles. The pilot-in-command may not enter or cross any runway without clearance from the appropriate tower controller.

Taxiing from the holding position to the line-up and take-off shall be performed only after clearance from the tower controller.

The pilot-in-command shall take off within one minute after receiving the clearance from the ATC unit. If a take-off has not been carried out within the above mentioned time interval, the pilot-in-command shall request a new clearance.

TWY B, Apron TWY C and TWY E are used for maneuvering of any type of aircraft.

Aircraft are allowed to make 180 degree turn at the intersection place of RWY 13L/31R and TWY E with coordinates 413947.65N 0445747.13E.

On RWY 13R/31L aircraft with code "D" or higher are allowed to make 180 degree turn at 13R threshold, and at the intersection place of RWY 13L/31R and TWY E.

### **3 Apron during winter conditions**

The aircraft parking stands 100-111; 112-122 are allocated for de-icing treatment of aircraft.

### **4 Regulations for helicopters**

Take-off and landing for all types of helicopters shall be carried out only from/to helicopter pad.

Entrance/exit to/from parking stands 26, 27, 28, and 29 shall be conducted through towing.

### **5 Taxiing – limitations**

Taxiing from aircraft stands 1, 8 is performed by towing only except for aircraft not exceeding the type B code.

Taxiing from aircraft stand 14C is allowed at a low thrust.

TWY A is used for manoeuvring aircraft with code C or less.

The washing area for aircraft is located on the Aircraft Parking stands 105-111; 117-122.

Only at apron taxiway C max taxi speed is 15 kt.

### **6 Removal of disabled aircraft from runway**

When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed as soon as possible. If a wrecked aircraft is not removed from the runway as quickly as possible by the owner or user, the aircraft will be removed by the aerodrome authority at the owner's or user's expense.

## **UGTB AD 2.21 Noise abatement procedures**

Noise abatement procedures are published on the Standard Instrument Departure (SID) charts.

## **UGTB AD 2.22 Flight procedures**

### **1 Procedures for IFR flights within Tbilisi TMA**

#### **1.1 General**

ATS surveillance service within Tbilisi TMA is provided by Tbilisi approach unit (call sign "Tbilisi approach") on frequency 134.6 MHz (or 127.2 MHz).

Horizontal separation minimum applicable within Tbilisi TMA is 5 NM.

Tbilisi ATIS information is available on frequency 132.8 MHZ.

### 1.2 Procedures for arrival flights

Arrival flights shall respect speed limitation of maximum 250 kt IAS below 10 000 ft AMSL unless otherwise instructed by ATC.

Arrival flight capable of RNAV1 (GNSS) will normally be cleared to follow appropriate RNAV STAR or will be given direct routings to the waypoints designated as initial approach fix or intermediate fix of the ILS z (or LOC z) instrument approach procedures. Loss of RNAV1 (GNSS) capability shall be immediately reported to ATC and vectoring for final approach should be expected.

Arrival flights not capable of RNAV1 (GNSS) will normally be vectored for final approach. Alternatively, direct routing to TBS (IAF) may be given, followed by ILS y (or LOC y or VOR) instrument approach procedures. If a flight not capable of RNAV1 (GNSS) receives clearance to follow RNAV STAR or to proceed direct to a waypoint associated with ILS z (or LOC z) instrument approach procedures, the clearance shall be rejected and the reason stated: "UNABLE RNAV1 (GNSS)".

### 1.3 Procedures for departing flights

Departing flights capable of RNAV1 (GNSS) will normally be cleared to follow appropriate RNAV SID or conventional SID in accordance with the filed flight plan. Loss of RNAV1 (GNSS) capability shall be reported to ATC as soon as possible.

If a flight not capable of RNAV1 (GNSS) receives clearance to follow RNAV SID, the clearance shall be rejected and the reason stated: "UNABLE RNAV1 (GNSS)".

When cleared level requires an ACFT to level-off on SID, ATC Surveillance Minimum Altitudes will be respected by controller.

As an alternative to any SID, controller may instruct to "CONTINUE RUNWAY HEADING" or "CLIMB STRAIGHT AHEAD". In such cases climb gradient of 5.4 % or greater shall be maintained up to 7000 FT for departures from RWY 31L. Climb gradient of 3.9 % or greater shall be maintained up to 4500 FT for departure from RWY 13R.

Visual departures are not implemented.

## 2 Procedures for VFR flights within Tbilisi TMA

Two-way radio communication shall be maintained with the Tbilisi Approach on the FRQ 134.600 MHZ (or 127.2). Transfer of VFR flights from/to Tbilisi TMA – Tbilisi tower is conducted when passing altitude 3500 FT, over established entry/exit points shown in the Visual Approach Chart AD2.UGTB-VAC unless otherwise instructed by APP or TWR unit.

## 3 Procedures for VFR flights within Tbilisi CTR

Aircraft shall establish two-way radio communication with Tbilisi tower before conducting flights in Tbilisi CTR. VFR flights that intend to enter Tbilisi CTR from uncontrolled airspace shall establish communication with Tbilisi tower at least 5 minutes before entry to obtain clearance.

VFR flights within Tbilisi CTR shall be conducted at or below 3500 FT AMSL unless otherwise cleared by the TWR unit.

VFR flights shall be conducted with visual reference to the ground.

VFR flights shall enter/exit Tbilisi CTR via the entry/exit points shown on the Visual Approach Chart AD 2.UGTB-VAC, unless otherwise instructed by APP or TWR unit.

Aircraft entering/exiting Tbilisi CTR via points RINGI and URBAN must be at altitude 3500 FT or below.

Aircraft entering/exiting Tbilisi CTR via point GIGOS must be at altitude 3000 FT or below.

Aircraft entering/exiting Tbilisi CTR via point CHIVA must be at altitude 3500 FT or below, unless the aircraft is cleared for CHIVA-R-J route, in which case the altitude over CHIVA must be 2700 FT AMSL or below. The arrival and departure route CHIVA-R-J is established as depicted on the Visual Approach Chart with altitude constraints as follows: CHIVA-R max. 2700 FT AMSL, R-J max. 3700 FT AMSL. The CHIVA-R-J route is only used during daytime and in VMC conditions.

If the traffic situation requires it or the active runway is blocked, aircraft conducting VFR flights may be directed to the visual holding areas established at points N, S and GIGOS.

All VFR reporting points of Tbilisi CTR are described in the following table:

Name	Geographical coordinates	Visual reference
CHIVA	414923N 0445001E	Over the motorway bridge on the Tbilisi bypass road; north-west of Gldani Didi Lake
GIGOS	412801N 0450555E	North of Gardabani town

Name	Geographical coordinates	Visual reference
RINGI	413515N 0445103E	Over Lake Kumisi
URBAN	414408N 0450408E	Over the mining field; east of Saakadze settlement
R (ROMEO)	414820N 0445225E	Over the semicircular segment of the Tbilisi bypass road; 1.5 NM east of Gldani Didi Lake
J (JULIET)	414506N 0450032E	Over the junction of the Lochini and Norioskhevi rivers
N (NOVEMBER)	414205N 0450004E	North of the Lilo marketplace
S (SIERRA)	413750N 0445430E	West of Veli aerodrome on the right bank of the River Mtkvari

## UGTB AD 2.23 Additional information

Intense activity of raven flocks takes place daily from 08:00 to 10:00 (local time) when birds fly from resting area (town) across the approach of RWY 31L to their feeding area, NW of the airport. Their flight height varies from 100 FT (30 M) to 165 FT (50 M) AGL. From 16:00 to 19:00 (local time) the same activity as described above takes place in reverse when the birds return to their resting area.

Because of the permanent character of the bird activity in the vicinity of the airport, pilots are informed of the fact and the estimated heights (AGL), continually by ATIS.

During the above periods pilots of aircraft are advised, where the design limitations of aircraft installations permit, to operate landing lights in flight, during take-off, approach-to-land and climb and descent procedures.

Dispersal activities include occasional playing back of distressed calls from high fidelity weather-resistant speakers, high shooting sound produced of liquid gas cannons and the visual repellents (hunter dummies) allocated near the RWY 13R/31L. Also modifications of the airport environment are under way to reduce, if not eliminate, the wildlife hazard. No landfills in the vicinity and no open waste-bins on the aerodrome. Ground and grass cover is treated properly. No farming activity in the vicinity.

## UGTB AD 2.24 Charts related to an aerodrome

<b>Aerodrome Chart – ICAO</b>	<b>AD 2.UGTB-ADC</b>
<b>Aircraft Parking and Ground Movement Chart - ICAO</b>	<b>AD 2.UGTB-APGMC</b>
<b>Aerodrome Obstacle Chart – ICAO Type A</b>	<b>AD 2.UGTB-AOC-A</b>
<b>Area Chart - ICAO</b>	<b>AD 2.UGTB-ARC</b>
<b>Standard Departure Chart - Instrument –ICAO – RNAV RWY 13R</b>	<b>AD 2.UGTB-SID-RNAV-13R-1</b>
<b>Standard Departure Routes and Coding - Instrument – RNAV RWY 13R (Part 1)</b>	<b>AD 2.UGTB-SID-RNAV-13R-3</b>
<b>Standard Departure Routes and Coding - Instrument – RNAV RWY 13R (Part 2)</b>	<b>AD 2.UGTB-SID-RNAV-13R-5</b>
<b>Standard Departure Chart - Instrument – ICAO - RNAV RWY 31L</b>	<b>AD 2.UGTB-SID-RNAV-31L-1</b>
<b>Standard Departure Routes and Coding - Instrument – RNAV RWY 31L (Part 1)</b>	<b>AD 2.UGTB-SID-RNAV-31L-3</b>
<b>Standard Departure Routes and Coding - Instrument – RNAV RWY 31L (Part 2)</b>	<b>AD 2.UGTB-SID-RNAV-31L-5</b>
<b>Standard Departure Chart - Instrument – ICAO RWY 13R/31L</b>	<b>AD 2.UGTB-SID-13R/31L-1</b>
<b>Standard Departure Routes - Instrument RWY 13R/31L</b>	<b>AD 2.UGTB-SID-13R/31L-3</b>
<b>Standard Arrival Chart - Instrument –ICAO - RNAV RWY 13R</b>	<b>AD 2.UGTB-STAR-RNAV-13R-1</b>
<b>Standard Arrival Routes - Instrument - RNAV RWY 13R</b>	<b>AD 2.UGTB-STAR-RNAV-13R-3</b>

<b>Standard Arrival Chart - Instrument – ICAO - RNAV RWY 31L</b>	<b>AD 2.UGTB-STAR-RNAV-31L-1</b>
<b>Standard Arrival Routes - Instrument - RNAV RWY 31L</b>	<b>AD 2.UGTB-STAR-RNAV-31L-3</b>
<b>ATC Surveillance Minimum Altitude Chart – ICAO</b>	<b>AD 2.UGTB-ATCSMAC-1</b>
<b>ATC Surveillance Minimum Altitude Sectors' Coordinates</b>	<b>AD 2.UGTB-ATCSMAC-3</b>
<b>Instrument Approach Chart – ICAO RWY 13R (ILSy)</b>	<b>AD 2.UGTB-IAC-13R-ILSy</b>
<b>Instrument Approach Chart – ICAO RWY 13R (ILSz)</b>	<b>AD 2.UGTB-IAC-13R-ILSz-1</b>
<b>Instrument Approach Coding RWY 13R (ILSz)</b>	<b>AD 2.UGTB-IAC-13R-ILSz-3</b>
<b>Instrument Approach Chart – ICAO RWY 13R (LOCy)</b>	<b>AD 2.UGTB-IAC-13R-LOCy</b>
<b>Instrument Approach Chart – ICAO RWY 13R (LOCz)</b>	<b>AD 2.UGTB-IAC-13R-LOCz-1</b>
<b>Instrument Approach Coding RWY 13R (LOCz)</b>	<b>AD 2.UGTB-IAC-13R-LOCz-3</b>
<b>Instrument Approach Chart – ICAO RWY 31L (ILSy)</b>	<b>AD 2.UGTB-IAC-31L-ILSy</b>
<b>Instrument Approach Chart – ICAO RWY 31L (ILSz)</b>	<b>AD 2.UGTB-IAC-31L-ILSz-1</b>
<b>Instrument Approach Coding RWY 31L (ILSz)</b>	<b>AD 2.UGTB-IAC-31L-ILSz-3</b>
<b>Instrument Approach Chart – ICAO RWY 31L (LOCy)</b>	<b>AD 2.UGTB-IAC-31L-LOCy</b>
<b>Instrument Approach Chart – ICAO RWY 31L (LOCz)</b>	<b>AD 2.UGTB-IAC-31L-LOCz-1</b>
<b>Instrument Approach Coding RWY 31L (LOCz)</b>	<b>AD 2.UGTB-IAC-31L-LOCz-3</b>
<b>Instrument Approach Chart –ICAO RWY 13R (VOR)</b>	<b>AD 2.UGTB-IAC-13R-VOR</b>
<b>Instrument Approach Chart – ICAO RWY 31L (VOR)</b>	<b>AD 2.UGTB-IAC-31L-VOR</b>
<b>Visual Approach Chart –ICAO</b>	<b>AD 2.UGTB-VAC</b>
<b>Bird Concentrations and Movement</b>	<b>AD 2.UGTB-BIRD</b>

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**AERODROME CHART - ICAO**

41° 40' 09" N  
044° 57' 17" E

ELEV 1578'

TWR 119.000 (Primary)  
128.000 (Secondary)  
APRON 131.700

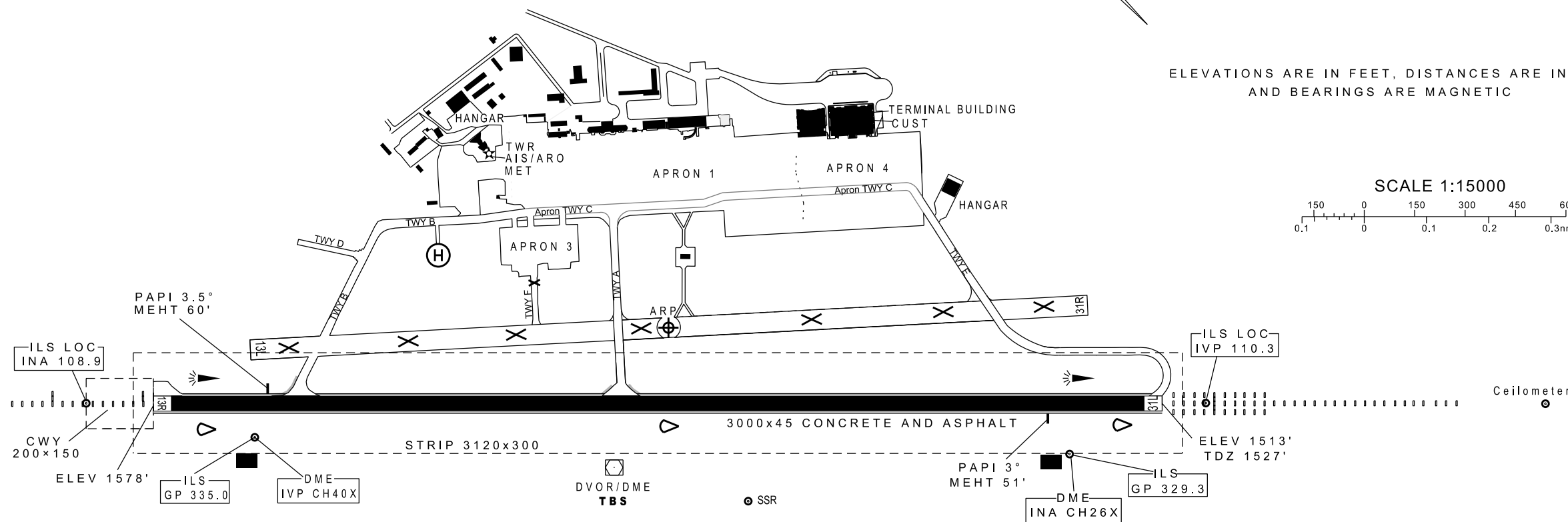
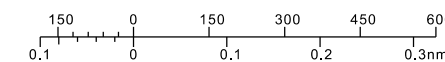
**TBILISI /Tbilisi (UGTB)**

RWY	DIRECTION	THR	BEARING STRENGTH
13R	130°	41° 40' 40.13" N 044° 56' 24.39" E	PCN 66/R/A/W/T
31L	310°	41° 39' 29.53" N 044° 57' 53.59" E	

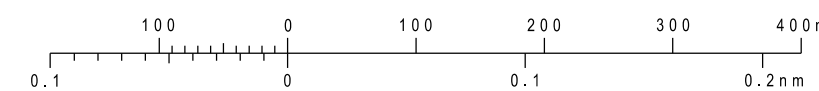
VAR 7° E 2020

ELEVATIONS ARE IN FEET, DISTANCES ARE IN METRES  
AND BEARINGS ARE MAGNETIC

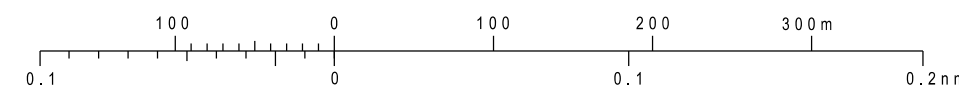
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MARKING AIDS RWY 13R/31L AND EXIT TWY



LIGHTING AIDS RWY 13R/31L AND EXIT TWY



Changes: TWY B, Apron TWY C updated

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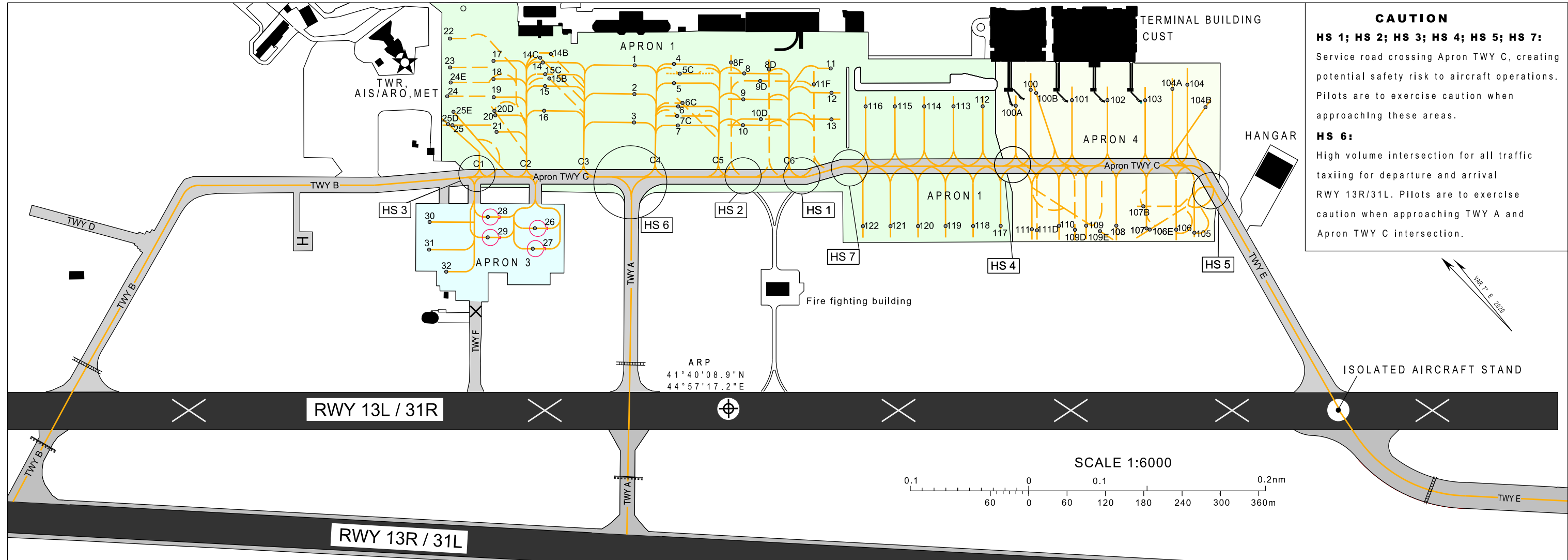


**AIRCRAFT PARKING AND GROUND MOVEMENT  
CHART - ICAO**

APRON 4 ELEV 1560'

TWR 119.000 (Primary)  
128.000 (Secondary)  
APRON 131.700

**TBILISI/Tbilisi (UGTB)**



**CAUTION**  
**HS 1; HS 2; HS 3; HS 4; HS 5; HS 7:**  
Service road crossing Apron TWY C, creating potential safety risk to aircraft operations. Pilots are to exercise caution when approaching these areas.  
**HS 6:**  
High volume intersection for all traffic taxiing for departure and arrival RWY 13R/31L. Pilots are to exercise caution when approaching TWY A and Apron TWY C intersection.

**INS COORDINATES FOR AIRCRAFT STANDS**

POS.	COORDINATES	POS.	COORDINATES	POS.	COORDINATES	POS.	COORDINATES
1	41°40'24.99"N 044°57'28.44"E	13	41°40'16.13"N 044°57'35.60"E	25E	41°40'29.64"N 044°57'17.35"E	107	41°40'01.03"N 044°57'46.06"E
2	41°40'23.95"N 044°57'27.10"E	14	41°40'28.32"N 044°57'24.08"E	26	41°40'22.49"N 044°57'15.90"E	107B	41°40'01.87"N 044°57'47.05"E
3	41°40'22.91"N 044°57'25.75"E	14B	41°40'28.34"N 044°57'24.84"E	27	41°40'21.81"N 044°57'14.84"E	108	41°40'02.10"N 044°57'44.58"E
4	41°40'23.49"N 044°57'30.70"E	14C	41°40'28.26"N 044°57'24.16"E	28	41°40'24.54"N 044°57'14.11"E	109	41°40'03.15"N 044°57'43.09"E
5	41°40'22.80"N 044°57'29.79"E	15	41°40'27.43"N 044°57'22.99"E	29	41°40'23.80"N 044°57'13.15"E	109D	41°40'03.45"N 044°57'42.41"E
5C	41°40'23.14"N 044°57'30.24"E	15B	41°40'27.41"N 044°57'23.64"E	30	41°40'26.39"N 044°57'11.01"E	109E	41°40'02.57"N 044°57'43.63"E
6	41°40'21.96"N 044°57'28.68"E	15C	41°40'27.82"N 044°57'23.61"E	31	41°40'25.39"N 044°57'09.70"E	110	41°40'04.15"N 044°57'41.81"E
6C	41°40'21.83"N 044°57'29.02"E	16	41°40'26.51"N 044°57'21.86"E	32	41°40'23.98"N 044°57'09.52"E	111	41°40'05.10"N 044°57'40.47"E
7	41°40'21.27"N 044°57'27.78"E	17	41°40'30.12"N 044°57'21.70"E	100	41°40'10.24"N 044°57'46.86"E	111D	41°40'04.78"N 044°57'40.54"E
7C	41°40'21.61"N 044°57'28.23"E	18	41°40'29.45"N 044°57'20.85"E	100A	41°40'10.17"N 044°57'45.38"E	112	41°40'11.31"N 044°57'43.72"E
8	41°40'20.88"N 044°57'33.45"E	19	41°40'28.78"N 044°57'20.01"E	100B	41°40'09.94"N 044°57'46.97"E	113	41°40'12.33"N 044°57'42.27"E
8D	41°40'20.08"N 044°57'34.81"E	20	41°40'28.11"N 044°57'19.16"E	101	41°40'08.41"N 044°57'48.42"E	114	41°40'13.35"N 044°57'40.83"E
8F	41°40'21.17"N 044°57'32.63"E	20D	41°40'28.13"N 044°57'19.39"E	102	41°40'07.17"N 044°57'50.16"E	115	41°40'14.38"N 044°57'39.38"E
9	41°40'19.94"N 044°57'32.22"E	21	41°40'27.39"N 044°57'18.53"E	103	41°40'05.84"N 044°57'52.03"E	116	41°40'15.40"N 044°57'37.93"E
9D	41°40'20.02"N 044°57'33.91"E	22	41°40'32.47"N 044°57'20.60"E	104	41°40'04.94"N 044°57'54.84"E	117	41°40'06.13"N 044°57'38.85"E
10	41°40'19.00"N 044°57'30.99"E	23	41°40'31.40"N 044°57'19.25"E	104A	41°40'05.31"N 044°57'53.91"E	118	41°40'07.09"N 044°57'37.49"E
10D	41°40'18.61"N 044°57'32.13"E	24	41°40'30.43"N 044°57'17.76"E	104B	41°40'03.45"N 044°57'54.66"E	119	41°40'08.06"N 044°57'36.13"E
11	41°40'18.01"N 044°57'37.97"E	24E	41°40'30.82"N 044°57'18.58"E	105	41°39'59.31"N 044°57'48.36"E	120	41°40'09.02"N 044°57'34.77"E
11F	41°40'18.05"N 044°57'36.44"E	25	41°40'29.37"N 044°57'16.40"E	106	41°40'00.00"N 044°57'47.53"E	121	41°40'09.99"N 044°57'33.41"E
12	41°40'17.11"N 044°57'36.84"E	25D	41°40'29.36"N 044°57'16.50"E	106E	41°40'00.88"N 044°57'46.16"E	122	41°40'10.95"N 044°57'32.05"E

**APRON SURFACE & STRENGTH**  
APRON 1 - Concrete and asphalt - PCN 53/R/B/W/U  
Aircraft stands № 112,113,114,115,116 - Concrete - PCN 62/R/A/W/T  
Aircraft stands № 117,118,119,120,121,122 - Asphalt - PCN 127/F/C/X/T  
APRON 3 - Concrete and asphalt - PCN 12/F/B/X/T  
APRON 4 - Concrete - PCN 72/R/A/W/T

LEGEND	
HELICOPTER PAD	H
TAXI LANE	C4
AIRCRAFT STAND	○ 23
HELICOPTER STAND	○ 27
RWY-HOLDING POSITION MARKING PATTERN A	▬▬▬▬▬
RWY-HOLDING POSITION MARKING PATTERN B	▬▬▬▬▬▬▬

**TAXIWAYS WIDTH, SURFACE & STRENGTH**  
TWY A :18 M Concrete and asphalt PCN 59/R/B/W/U  
TWY B :23 M Concrete and asphalt PCN 65/R/B/W/U  
Apron TWY C: 23 M Concrete and asphalt PCN 65/R/B/W/U  
TWY D :16 M Concrete PCN 16/R/C/X/T  
TWY E :23 M Concrete PCN 65/R/A/W/U  
TWY F :18 M Concrete and asphalt PCN 12/F/B/X/T

Changes: RWY-holding position marking

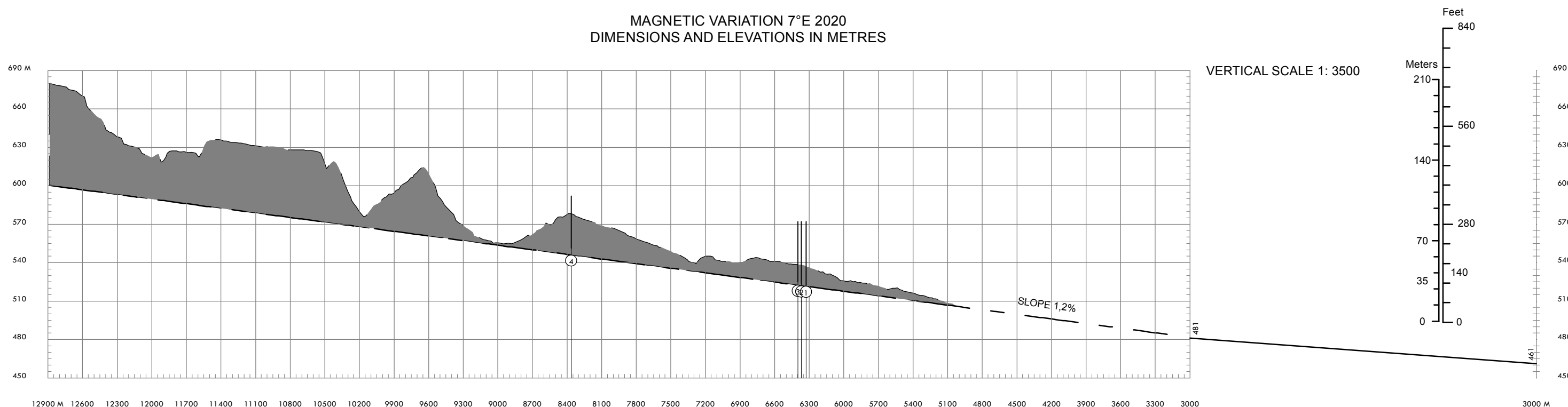
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# AERODROME OBSTACLE CHART - ICAO

**TBILISI/Tbilisi (UGTB)**  
**RWY 13R/31L**

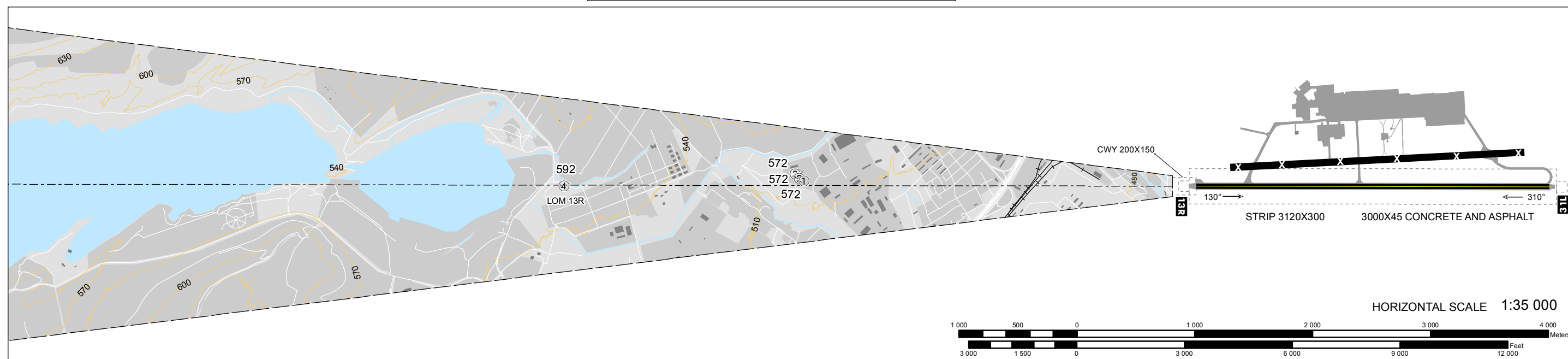
TYPE A (OPERATING LIMITATIONS)

MAGNETIC VARIATION 7°E 2020  
DIMENSIONS AND ELEVATIONS IN METRES



## DECLARED DISTANCES

RWY 13R		RWY 31L	
3000	TAKE-OFF RUN AVAILABLE	3000	
3000	TAKE-OFF DISTANCE AVAILABLE	3200	
3000	ACCELERATE STOP DIST. AVAILABLE	3000	
3000	LANDING DISTANCE AVAILABLE	3000	



Changes: New Obstacles

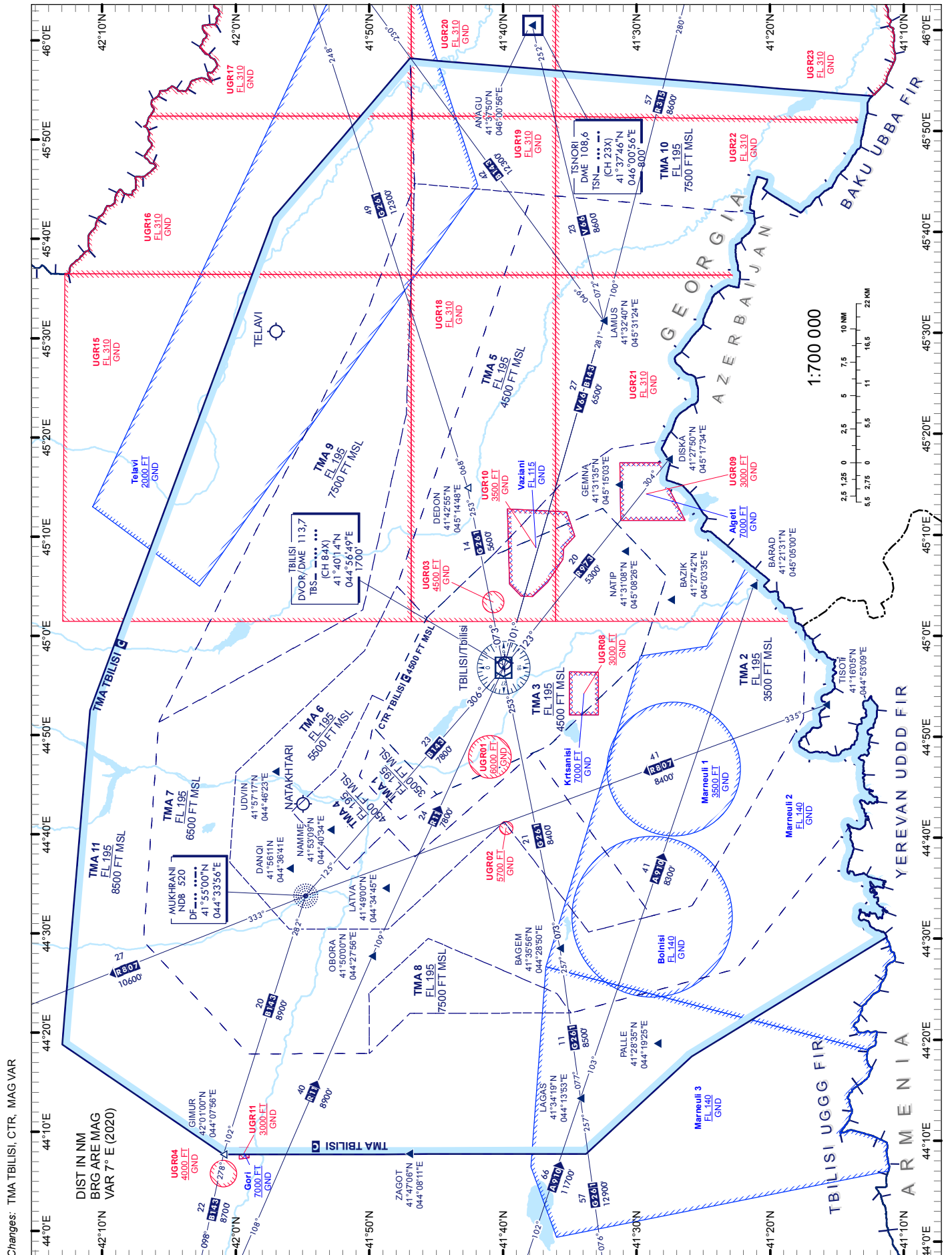
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AREA CHART ICAO

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)

INFO - 124.150  
ATIS - 132.800

TMA TBILISI/Tbilisi (UGTB)



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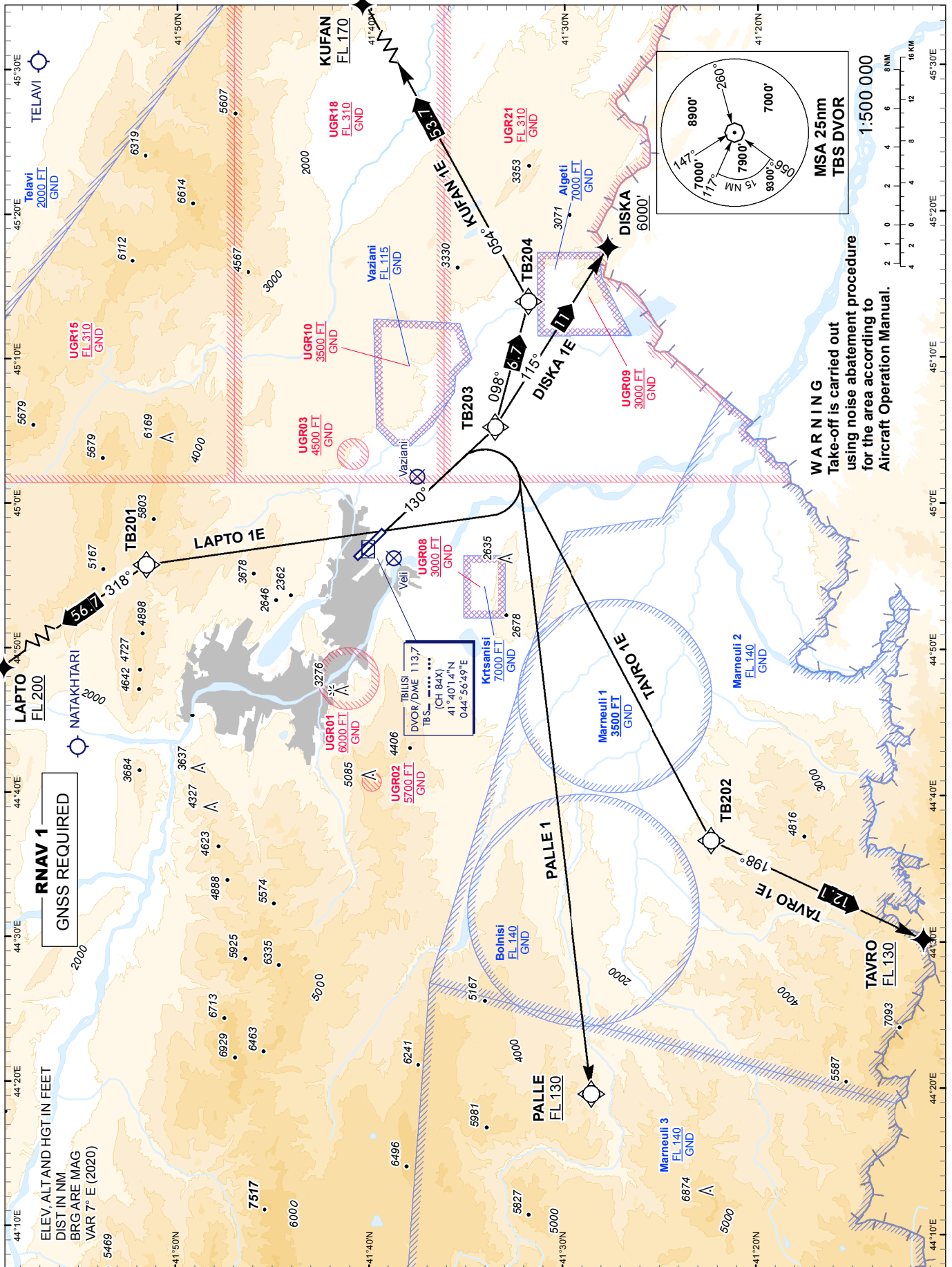
# STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE  
11000'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)

**TBILISI/Tbilisi (UGTB)**  
**RNAV RWY 13R**  
PALLE1 LAPTO1E KUFAN1E  
DISKA1E TAVRO1E

Changes: New Procedures, MSA, Transition ALT, MAG VAR.



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**STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY13R**

SID	ROUTING AND ALTITUDES			MIN.CLIMB GRAD.	Comment				
<b>PALLE 1</b>	<b>PALLE ONE</b> Climb on course 130°, when passing 4000 FT turn right direct to PALLE. Cross PALLE at or above FL130.			4.4% to FL130	- From PALLE direct routes (en-route DCTs) are available to NOLGA, TETRO and BARUS. - For RWY 31L expect ZAGOT 1 departure.				
<b>RNAV 1 SID Coding Table of PALLE 1</b>									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	130° (136.6°)	-	-	A4000	-	RNAV1
DF	PALLE	-	41°28'35.0"N 044°19'25.0"E	-	-	R	+FL130	-	RNAV1

SID	ROUTING AND ALTITUDES			MIN.CLIMB GRAD.	Comment				
<b>LAPTO 1E</b>	<b>LAPTO ONE ECHO</b> Climb on course 130°, when passing 4000 FT turn right direct to TB201, track to LAPTO. Cross LAPTO at or above FL200.			4% to FL140	NIL				
<b>RNAV 1 SID Coding Table of LAPTO 1E</b>									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	130° (136.6°)	-	-	A4000	-	RNAV1
DF	TB201	-	41°51'43.0"N 044°55'44.0"E	-	-	R	-	-	RNAV1
TF	LAPTO	-	42°37'53.0"N 044°11'19.0"E	318° (324.7°)	56.7	-	+FL200	-	RNAV1

SID	ROUTING AND ALTITUDES			MIN.CLIMB GRAD.	Comment				
<b>KUFAN 1E</b>	<b>KUFAN ONE ECHO</b> To TB203 on course 130°, to TB204, to KUFAN. Cross KUFAN at or above FL170.			4% to FL150	NIL				
<b>RNAV 1 SID Coding Table of KUFAN 1E</b>									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	TB203	-	41°33'40.0"N 045°05'13.0"E	130° (136.6°)	-	-	-	-	RNAV1
TF	TB204	-	41°31'57.0"N 045°13'51.0"E	098° (104.8°)	6.7	-	-	-	RNAV1
TF	KUFAN	-	41°57'18.0"N 046°17'08.0"E	054° (61.3°)	53.7	-	+FL170	-	RNAV1

SID	ROUTING AND ALTITUDES			MIN.CLIMB GRAD.	Comment				
<b>DISKA 1E</b>	<b>DISKA ONE ECHO</b> To TB203 on course 130°, to DISKA. Cross DISKA at or above 6000FT.			3.9% to 6000 FT	NIL				
<b>RNAV 1 SID Coding Table of DISKA 1E</b>									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	TB203	-	41°33'40.0"N 045°05'13.0"E	130° (136.6°)	-	-	-	-	RNAV1
TF	DISKA	-	41°27'50.0"N 045°17'34.0"E	115° (122.1°)	11	-	+A6000	-	RNAV1

For continuation see AD 2.UGTB-SID-RNAV-13R-5

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**STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY 13R (Continuation)**

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
<b>TAVRO 1E</b>	<p><b>TAVRO ONE ECHO</b> Climb on course 130°, when passing 4000 FT turn right direct to TB202, track to TAVRO. Cross TAVRO at or above FL130.</p>	4.3% to FL130	NIL

**RNAV 1 SID Coding Table of TAVRO 1E**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	130° (136.6°)	-	-	A4000	-	RNAV1
DF	TB202	-	41°22'29.0"N 044°36'51.0"E	-	-	R	-	-	RNAV1
TF	TAVRO	-	41°11'29.0"N 044°30'09.0"E	198° (204.7°)	12.1	-	+FL130	-	RNAV1

**NOTE :**

- When cleared level requires an a/c to level-off on SID, ATC Surveillance Minimum Altitudes will be respected by controller.
- As an alternative to any SID, controller may instruct to "CONTINUE RUNWAY HEADING" or "CLIMB STRAIGHT AHEAD". In such cases climb gradient of 3.9 % or greater shall be maintained up to 4500 FT and direct routing or vectoring should be expected.

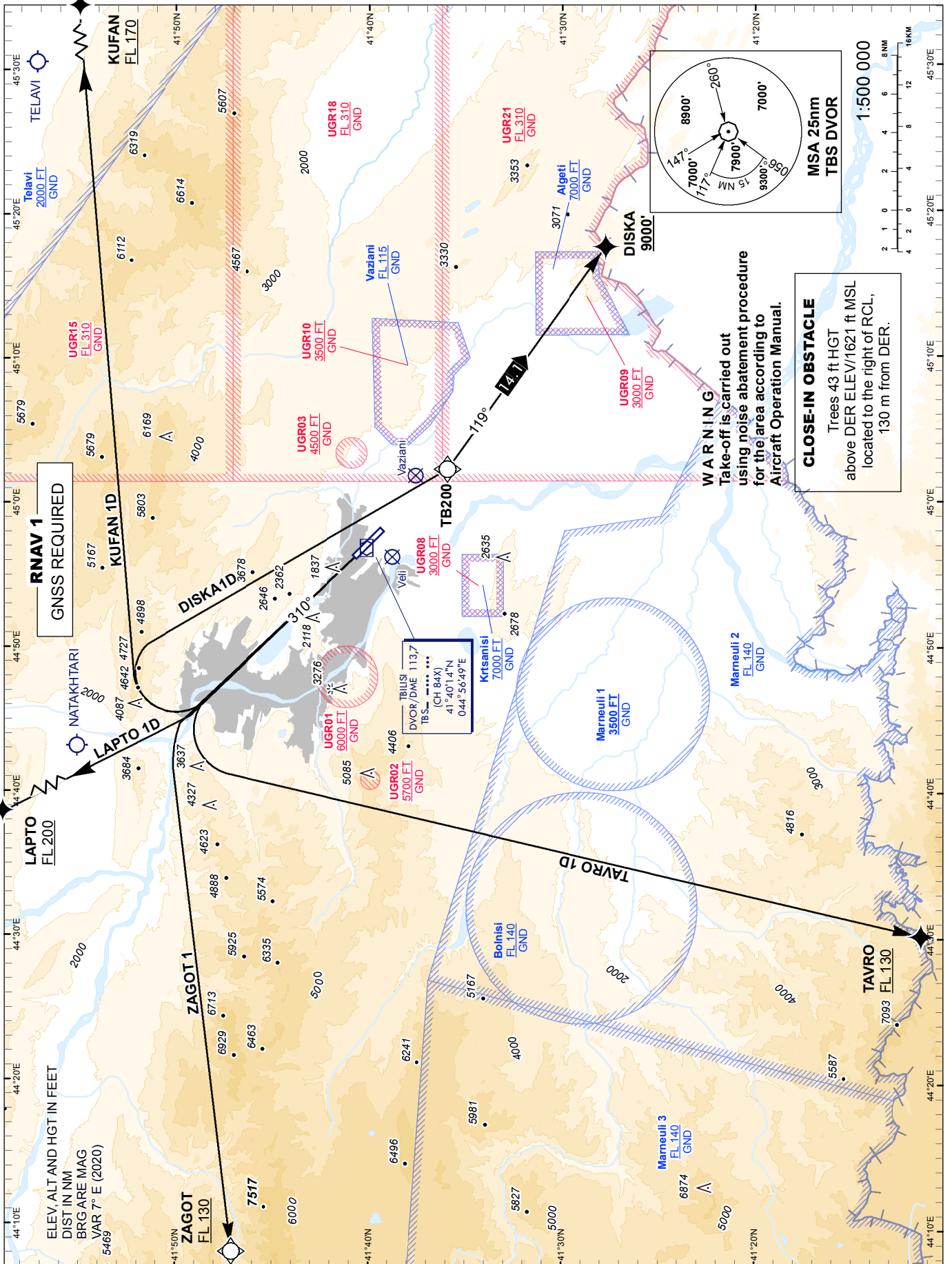
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# STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE  
11000'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)

**TBILISI/Tbilisi (UGTB)**  
**RNAV RWY 31L**  
ZAGOT1 LAPTO1D KUFAN1D  
DISKA1D TAVRO1D



Changes: New Procedures, MSA, Transition ALT, MAG VAR.

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**STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY31L**

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
<b>ZAGOT 1</b>	<b>ZAGOT ONE</b> Climb on course 310°, when passing 7000 FT turn left direct to ZAGOT. Cross ZAGOT at or above FL130.	5.4% to 7000 FT. 4% from 7000 FT to FL130	- From ZAGOT direct routes (en-route DCTs) are available to NOLGA, TETRO and BARUS. - For RWY 13R expect PALLE 1 departure.

**RNAV 1 SID Coding Table of ZAGOT1**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	310° (316.5°)	-	-	A7000	-	RNAV1
DF	ZAGOT	-	41°47'06.0"N 044°08'11.0"E	-	-	L	+FL130	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
<b>LAPTO 1D</b>	<b>LAPTO ONE DELTA</b> Climb on course 310°, when passing 6000 FT turn right direct to LAPTO. Cross LAPTO at or above FL200.	5.4% to 6000 FT. 4.4% from 6000 FT to FL200	NIL

**RNAV 1 SID Coding Table of LAPTO 1D**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	310° (316.5°)	-	-	A6000	-	RNAV1
DF	LAPTO	-	42°37'53.0"N 044°11'19.0"E	-	-	R	+FL200	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
<b>KUFAN 1D</b>	<b>KUFAN ONE DELTA</b> Climb on course 310°, when passing 6500 FT turn right direct to KUFAN. Cross KUFAN at or above FL170.	5.4% to 6500 FT	NIL

**RNAV 1 SID Coding Table of KUFAN 1D**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	310° (316.5°)	-	-	A6500	-	RNAV1
DF	KUFAN	-	41°57'18.0"N 046°17'08.0"E	-	-	R	+FL170	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
<b>DISKA 1D</b>	<b>DISKA ONE DELTA</b> Climb on course 310°, when passing 6500 FT turn right direct to TB200, track to DISKA. Cross DISKA at or above 9000 FT	5.4% to 6500 FT	NIL

**RNAV 1 SID Coding Table of DISKA 1D**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	310° (316.5°)	-	-	A6500	-	RNAV1
DF	TB200	-	41°36'04.0"N 045°02'15.0"E	-	-	R	-	-	RNAV1
TF	DISKA	-	41°27'50.0"N 045°17'34.0"E	119° (125.5°)	14.1	-	+A9000	-	RNAV1

For continuation see AD 2.UGTB-SID-RNAV-31L-5

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**STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY 31L (Continuation)**

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment						
<b>TAVRO 1D</b>	<b>TAVRO ONE DELTA</b> Climb on course 310°, when passing 6000 FT turn left direct to TAVRO. Cross TAVRO at or above FL130.	5.4% to 6000 FT. 3.9% from 6000 FT to 9000 FT	NIL						
RNAV 1 SID Coding Table of TAVRO 1D									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	310° (316.5°)	-	-	A6000	-	RNAV1
DF	TAVRO	-	41°11'29.0"N 044°30'09.0"E	-	-	L	+FL130	-	RNAV1

**NOTE :**

- When cleared level requires an a/c to level-off on SID, ATC Surveillance Minimum Altitudes will be respected by controller.
- As an alternative to any SID, controller may instruct to "CONTINUE RUNWAY HEADING" or "CLIMB STRAIGHT AHEAD". In such cases climb gradient of 5.4 % or greater shall be maintained up to 7000 FT and direct routing or vectoring should be expected.

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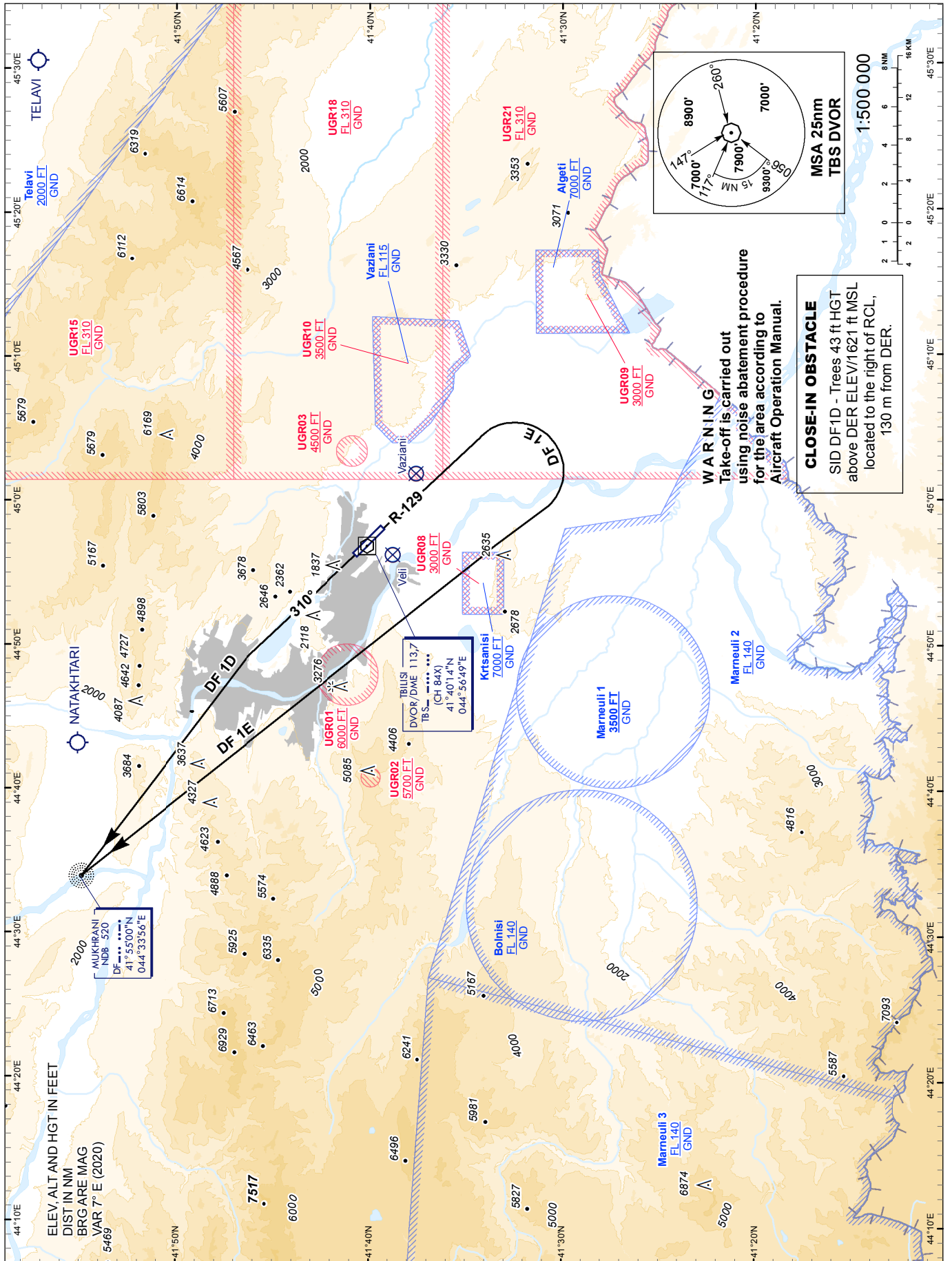
# STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE  
11000'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)

## TBILISI/Tbilisi (UGTB) RWY 13R/31L

DF1D DF1E



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**STANDARD DEPARTURE ROUTES - INSTRUMENT - RWY 13R / 31L**

RWY	SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.
<b>31L</b>	<b>DF 1D</b>	<b>DELTA FOXTROT ONE DELTA</b> Climb on heading 310°, when passing 5000 FT proceed direct to DF. Cross DF at or above 9000 FT.	5.4% to 9000FT
<b>13R</b>	<b>DF 1E</b>	<b>DELTA FOXTROT ONE ECHO</b> Climb on R-129 TBS , when passing 4000 FT turn right direct to DF.	NIL

**NOTE :**

- When cleared level requires an a/c to level-off on SID, ATC Surveillance Minimum Altitudes will be respected by controller.
- As an alternative to any SID, controller may instruct to "CONTINUE RUNWAY HEADING" or "CLIMB STRAIGHT AHEAD".  
In such cases climb gradient of 5.4 % or greater shall be maintained up to 7000 FT for departures from RWY 31L.  
Climb gradient of 3.9 % or greater shall be maintained up to 4500 FT for departures from RWY 13R.  
Expect direct routing or vectoring.

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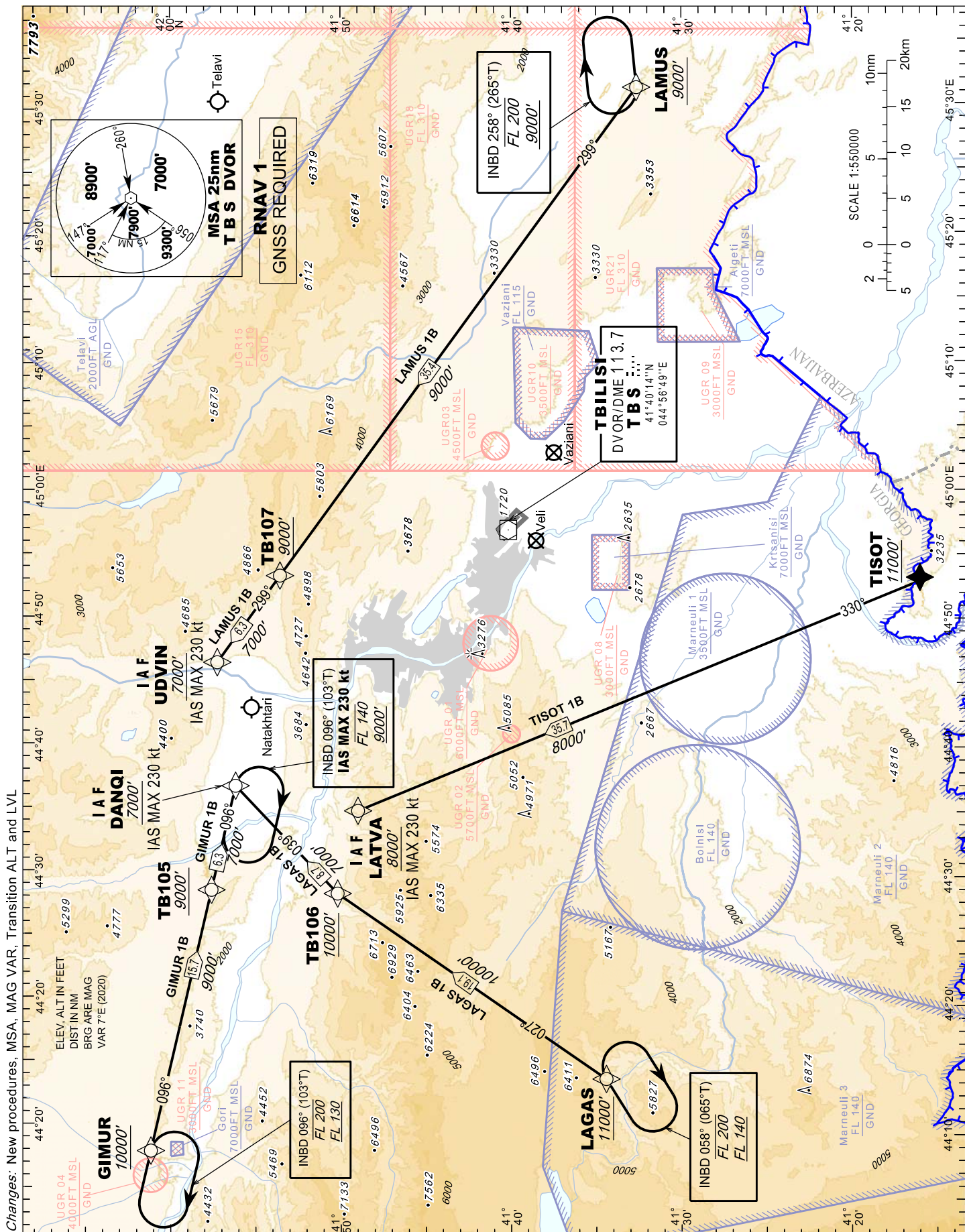
# STANDARD ARRIVAL CHART- INSTRUMENT (STAR) - ICAO

## TBILISI/Tbilisi (UGTB)

TRANSITION LEVEL FL 130	APP 134.600
TRANSITION ALTITUDE 11000'	TWR 119.000 (Primary)
	ATIS 132.800
	128.000 (Secondary)

### RNAV RWY 13R

GIMUR 1B LAMUS 1B  
TISOT 1B LAGAS 1B



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**STANDARD ARRIVAL ROUTES - RNAV (GNSS) INSTRUMENT - RWY 13R****RNAV 1 STAR Coding Table of GIMUR 1B**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	GIMUR	-	42°01'00.0"N 044°07'56.0"E	-	-	-	+A10000	-	RNAV1
TF	TB105	-	41°57'34.0"N 044°28'29.0"E	96° (102.5°)	15.7	-	+A9000	-	RNAV1
TF	DANQI	-	41°56'11.3"N 044°36'40.5"E	96° (102.7°)	6.3	-	+A7000	-230	RNAV1

**RNAV 1 STAR Coding Table of LAMUS 1B**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	LAMUS	-	41°32'40.0"N 045°31'24.0"E	-	-	-	+A9000	-	RNAV1
TF	TB107	-	41°53'37.0"N 044°53'11.0"E	299° (306.4°)	35.4	-	+A9000	-	RNAV1
TF	UDVIN	-	41°57'17.3"N 044°46'22.9"E	299° (305.9°)	6.3	-	+A7000	-230	RNAV1

**RNAV 1 STAR Coding Table of TISOT 1B**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	TISOT	-	41°16'05.0"N 044°53'09.0"E	-	-	-	+A11000	-	RNAV1
TF	LATVA	-	41°49'00.0"N 044°34'45.0"E	330° (337.3°)	35.7	-	+A8000	-230	RNAV1

**RNAV 1 STAR Coding Table of LAGAS 1B**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	LAGAS	-	41°34'19.0"N 044°13'53.0"E	-	-	-	+A11000	-	RNAV1
TF	TB106	-	41°50'10.0"N 044°28'15.0"E	27° (34.1°)	19.1	-	+A10000	-	RNAV1
TF	DANQI	-	41°56'11.3"N 044°36'40.5"E	39° (46.2°)	8.7	-	+A7000	-230	RNAV1

**RNAV Holding Coding Tables**

Fix Identifier	Inbound course °MAG(°True)	Time (min)	Turn Direction	Min alt.	Max alt.	Speed limit (kt)	Mag. VAR	Navigation Specification
GIMUR	96° (103.0°)	1.5*	R	FL130	FL200	280	-7°	RNAV1
LAGAS	58° (65.0°)	1.5*	R	FL140	FL200	280	-7°	RNAV1
LAMUS	258° (265.0°)	1.5*	R	A9000	FL200	280	-7°	RNAV1
DANQI	96° (103.0°)	1.0	R	A9000	FL140	230	-7°	RNAV1

\* 1.0 min at or below FL140

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**STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO**

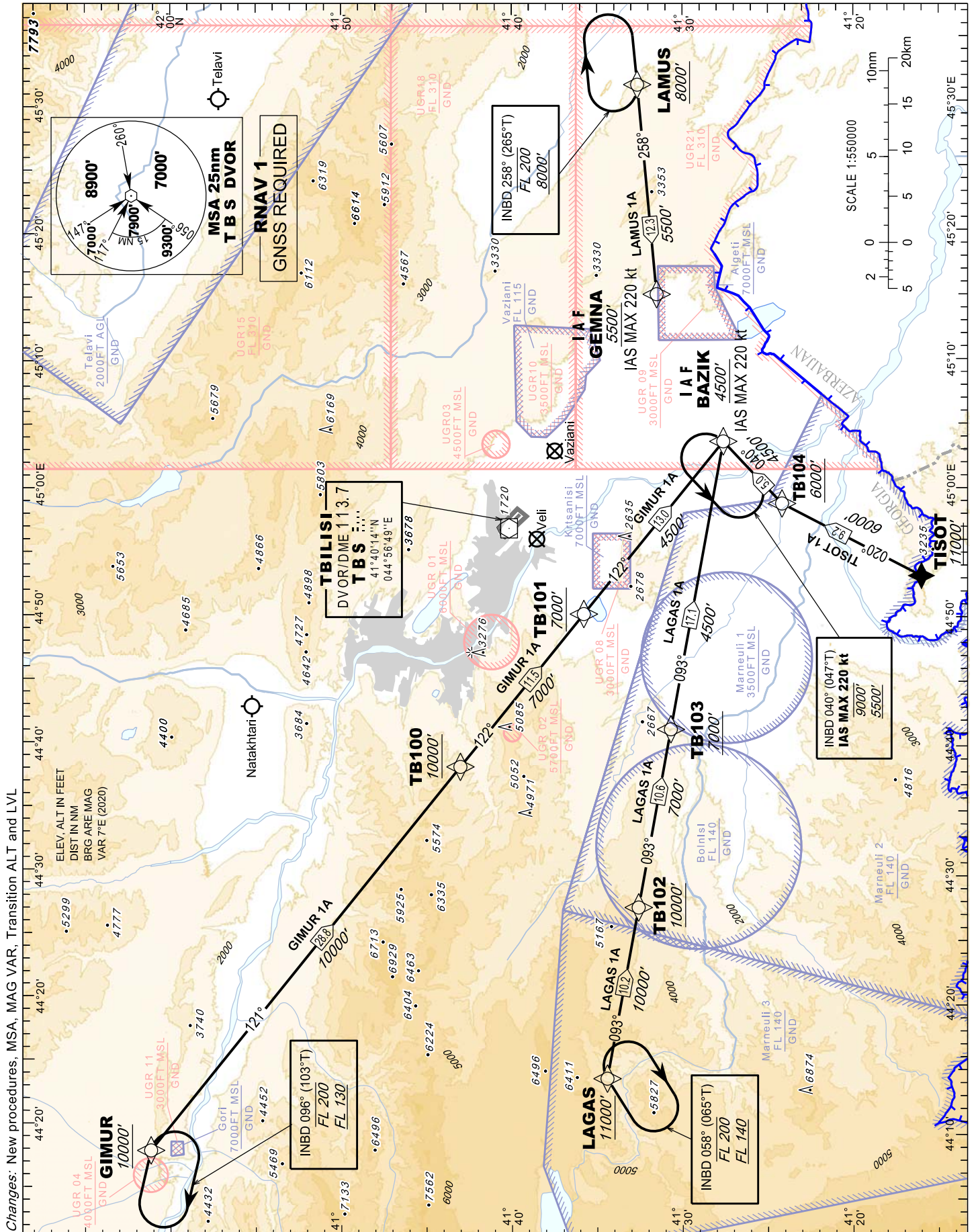
**TBILISI/Tbilisi (UGTB)**

TRANSITION LEVEL FL 130  
TRANSITION ALTITUDE 11000'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

**RNAV RWY 31L**

GIMUR 1A LAMUS 1A  
TISOT 1A LAGAS 1A



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**STANDARD ARRIVAL ROUTES - RNAV (GNSS) INSTRUMENT - RWY 31L****RNAV 1 STAR Coding Table of GIMUR 1A**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	GIMUR	-	42°01'00.0"N 044°07'56.0"E	-	-	-	+A10000	-	RNAV1
TF	TB100	-	41°43'03.0"N 044°38'09.0"E	121° (128.3°)	28.8	-	+A10000	-	RNAV1
TF	TB101	-	41°35'51.0"N 044°50'07.0"E	122° (128.7°)	11.5	-	+A7000	-	RNAV1
TF	BAZIK	-	41°27'41.5"N 045°03'35.1"E	122° (128.8°)	13	-	+A4500	-220	RNAV1

**RNAV 1 STAR Coding Table of LAMUS 1A**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	LAMUS	-	41°32'40.0"N 045°31'24.0"E	-	-	-	+A8000	-	RNAV1
TF	GEMNA	-	41°31'34.7"N 045°15'03.4"E	258° (265.0°)	12.3	-	+A5500	-220	RNAV1

**RNAV 1 STAR Coding Table of TISOT 1A**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	TISOT	-	41°16'05.0"N 044°53'09.0"E	-	-	-	+A11000	-	RNAV1
TF	TB104	-	41°24'15.0"N 044°58'45.0"E	20° (27.3°)	9.2	-	+A6000	-	RNAV1
TF	BAZIK	-	41°27'41.5"N 045°03'35.1"E	40° (46.6°)	5	-	+A4500	-220	RNAV1

**RNAV 1 STAR Coding Table of LAGAS 1A**

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	LAGAS	-	41°34'19.0"N 044°13'53.0"E	-	-	-	+A11000	-	RNAV1
TF	TB102	-	41°32'34.0"N 044°27'15.0"E	93° (99.8°)	10.2	-	+A10000	-	RNAV1
TF	TB103	-	41°30'44.0"N 044°41'09.0"E	93° (99.9°)	10.6	-	+A7000	-	RNAV1
TF	BAZIK	-	41°27'41.5"N 045°03'35.1"E	93° (100.1°)	17.1	-	+A4500	-220	RNAV1

**RNAV Holding Coding Tables**

Fix Identifier	Inbound course M °MAG(°True)	Time (min)	Turn Direction	Min alt.	Max alt.	Speed limit (kt)	Mag. VAR	Navigation Specification
GIMUR	96° (103.0°)	1.5*	R	FL130	FL200	280	-7°	RNAV1
LAGAS	58° (65.0°)	1.5*	R	FL140	FL200	280	-7°	RNAV1
LAMUS	258° (265.0°)	1.5*	R	A8000	FL200	280	-7°	RNAV1
BAZIK	40° (47.0°)	1.0	L	A5500	A9000	220	-7°	RNAV1

\* 1.0 min at or below FL140

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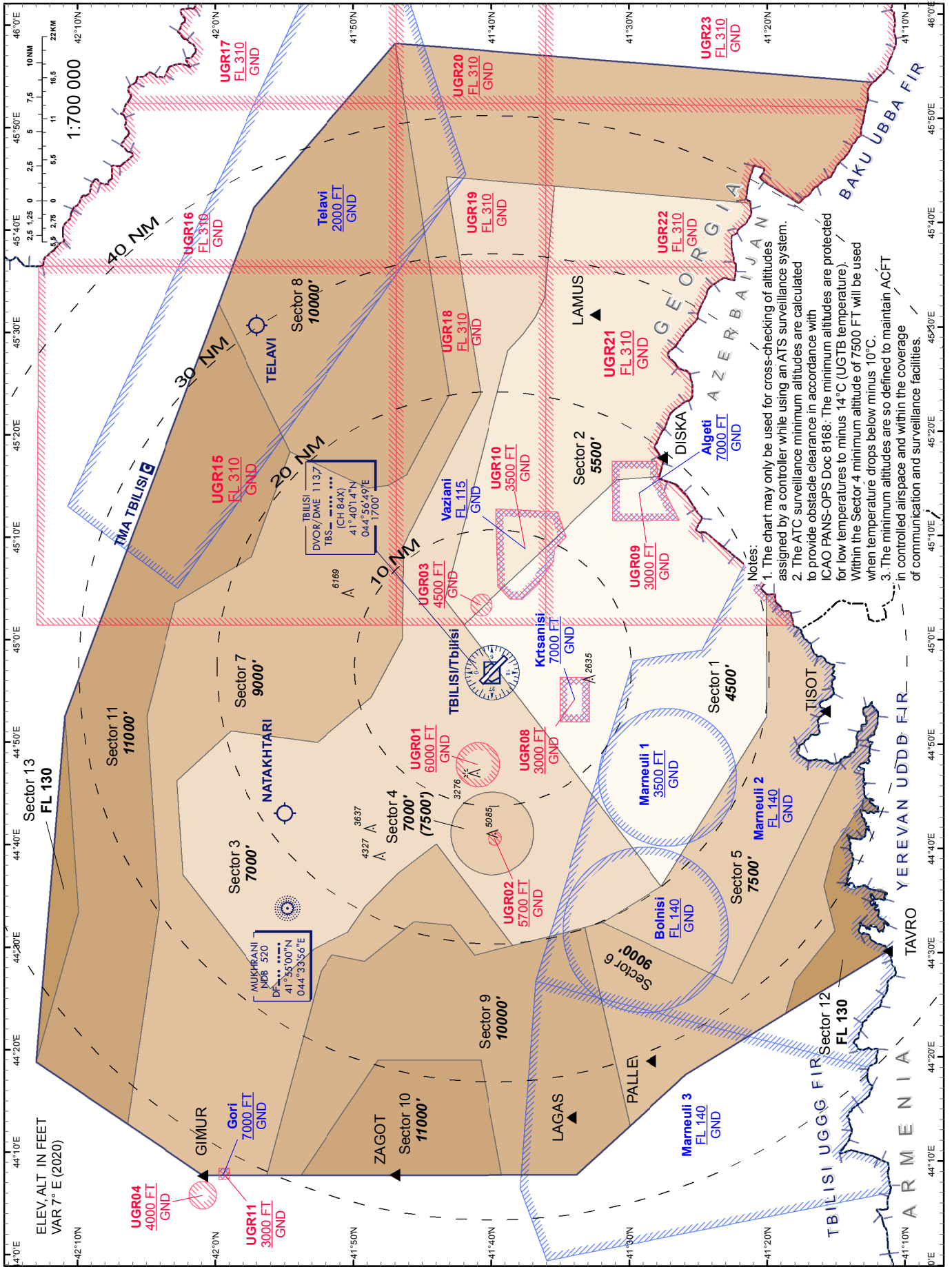
# ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AERODROME ELEV 1578'  
TRANSITION ALT 11000'

APP	134.600
TWR	119.000 (Primary)
	128.000 (Secondary)

## TBILISI/Tbilisi (UGTB)

Changes: TMA, Sectors, AD ELEV, MAG VAR, Transition ALT



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**ATC Surveillance Minimum Altitude Sectors' Coordinates**

<b>Sector</b>	<b>Lateral Limits</b>
Sector 1	412755N 0443615E - 414217N 0450126E - 413110N 0451526E - 412804N 0451543E - then along the state border - 412022N 0450423E - 412018N 0445238E - 412755N 0443615E
Sector 2	414217N 0450126E - 414340N 0450353E - 413901N 0452757E - 413756N 0452930E - 413701N 0453109E - 413622N 0453301E - 413535N 0454349E - 412122N 0454200E - then along the state border - 412804N 0451543E - 413110N 0451526E - 414217N 0450126E
Sector 3	415611N 0442606E - 420234N 0443708E - 420303N 0444617E - 415909N 0445109E - 415253N 0445003E - 414900N 0445425E - 414643N 0450005E - 414638N 0450910E - 414102N 0452348E - 414325N 0454449E - 413535N 0454349E - 413622N 0453301E - 413701N 0453109E - 413756N 0452930E - 413901N 0452757E - 414340N 0450353E - 414217N 0450126E - 412755N 0443615E - 413210N 0443242E - 413327N 0443213E - 413840N 0443026E - 414414N 0444014E - 414700N 0443723E - 414921N 0443411E - 415037N 0443138E - 415302N 0443003E - 415611N 0442606E
Sector 4	Circle with radius 3 NM, centered at 414012N 0444117E
Sector 5	413210N 0443242E - 412755N 0443615E - 412018N 0445238E - 412022N 0450423E - then along the state border - 411450N 0444830E - 412244N 0442654E - 413210N 0443242E
Sector 6	413004N 0441306E - 413327N 0443213E - 413210N 0443242E - 412244N 0442654E - 411450N 0444830E - then along the state border - 411308N 0444451E - 411525N 0444005E - 411608N 0443620E - 411518N 0443201E - 411810N 0442714E - 411852N 0442404E - 412602N 0441808E - 413004N 0441306E
Sector 7	420100N 0440756E - 420630N 0441251E - 420420N 0443356E - 420517N 0445232E - 420312N 0450336E - 415739N 0450804E - 415450N 0451815E - 414912N 0451442E - 414745N 0451457E - 414625N 0451558E - 414317N 0452342E - 414700N 0455746E - 411225N 0455332E - then along the state border - 412122N 0454200E - 413535N 0454349E - 414325N 0454449E - 414102N 0452348E - 414638N 0450910E - 414643N 0450005E - 414900N 0445425E - 415253N 0445003E - 415909N 0445109E - 420303N 0444617E - 420234N 0443708E - 415611N 0442606E - 415302N 0443003E - 415037N 0443138E - 414921N 0443411E - 414700N 0443723E - 414414N 0444014E - 413840N 0443026E - 414127N 0442929E - 414310N 0443222E - 414550N 0443242E - 414924N 0442849E - 415144N 0442927E - 415233N 0442752E - 415620N 0440800E - 420100N 0440756E
Sector 8	415959N 0453237E - 415720N 0454158E - 414700N 0455746E - 414317N 0452342E - 414625N 0451558E - 414745N 0451457E - 414912N 0451442E - 415450N 0451815E - 415959N 0453237E
Sector 9	415620N 0440800E - 415233N 0442752E - 415144N 0442927E - 414924N 0442849E - 414550N 0443242E - 414310N 0443222E - 414127N 0442929E - 413840N 0443026E - 413327N 0443213E - 413004N 0441306E - 413353N 0440821E - 413920N 0440816E - 414056N 0441922E - 414820N 0441917E - 415352N 0440803E - 415620N 0440800E
Sector 10	415352N 0440803E - 414820N 0441917E - 414056N 0441922E - 413920N 0440816E - 415352N 0440803E
Sector 11	421309N 0441850E - 421008N 0443329E - 421111N 0445232E - 415959N 0453237E - 415450N 0451815E - 415739N 0450804E - 420312N 0450336E - 420517N 0445232E - 420420N 0443356E - 420630N 0441251E - 421309N 0441850E
Sector 12	411852N 0442404E - 411810N 0442714E - 411518N 0443201E - 411608N 0443620E - 411525N 0444005E - 411308N 0444451E - then along the state border - 411130N 0443008E - 411852N 0442404E
Sector 13	421309N 0441850E - 421111N 0445232E - 421008N 0443329E - 421309N 0441850E

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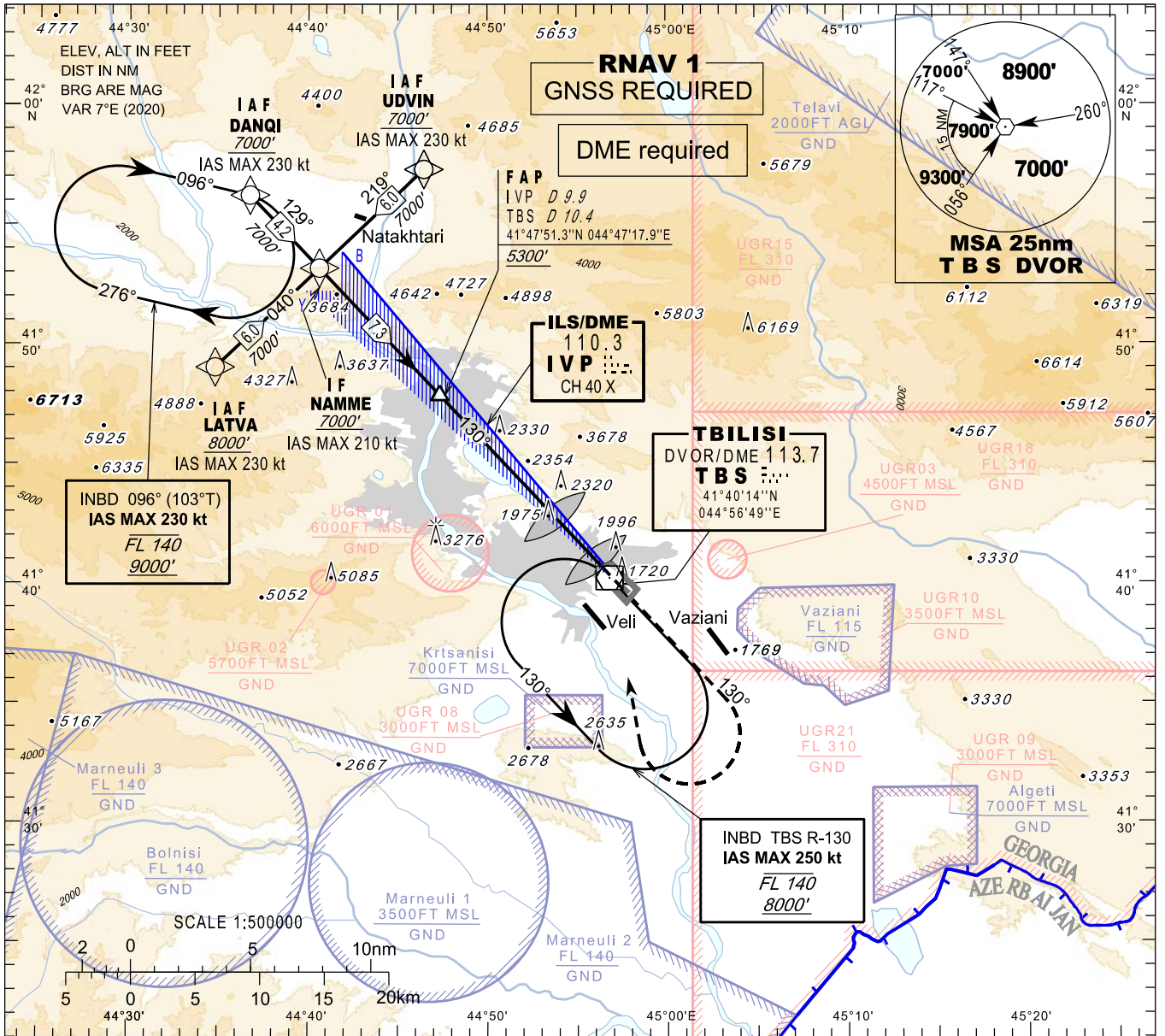
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
ILS z  
RWY 13R**

HEIGHTS RELATED TO  
THR RWY 13R - ELEV 1578'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'

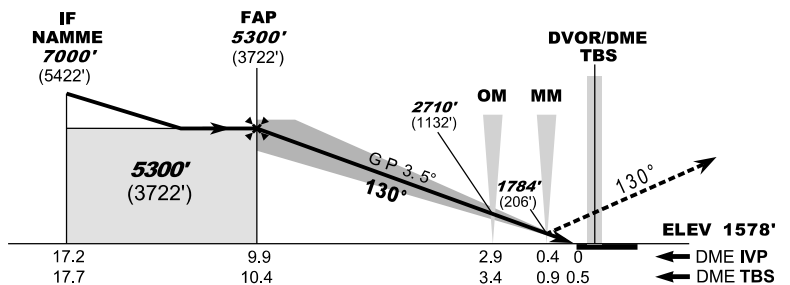


**MISSED APPROACH**

**Normal:**  
Climb straight ahead to 7000', when passing 4500' turn right to TBS, then as directed by ATC.

**TBS DVOR Unserviceable:**  
Climb straight ahead to 7000', after passing 4500' expect vectoring.

**Radio Communication Failure:**  
Climb straight ahead to 8000', when passing 4500' turn right to TBS, hold as published, when ready make new approach (ILS y or LOC y or VOR).



ILS RDH 50'

Straight in Approach	A	B	C	D							
<b>OCA(H)</b>	<b>1768</b> (190)	<b>1778</b> (200)	<b>1788</b> (210)								
DME IVP NM			9	8	7	6	5	4	3	2	1
DME TBS NM			9.5	8.5	7.5	6.5	5.5	4.5	3.5	2.5	1.5
ALT (HGT) ft			<b>4973</b> (3395)	<b>4601</b> (3023)	<b>4230</b> (2652)	<b>3858</b> (2280)	<b>3486</b> (1908)	<b>3115</b> (1537)	<b>2743</b> (1165)	<b>2371</b> (793)	<b>2000</b> (422)

Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

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**RNAV Transition Coding Tables - RWY 13R (ILS)**

LATVA transition										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	LATVA	-	41°49'00.0"N 044°34'45.0"E	-	-	-	+A8000	-230	RNAV1	
TF	NAMME	-	41°53'08.8"N 044°40'33.6"E	40° (46.6°)	6	-	+A7000	-210	RNAV1	

DANQI transition										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	DANQI	-	41°56'11.3"N 044°36'40.5"E	-	-	-	+A7000	-230	RNAV1	
TF	NAMME	-	41°53'08.8"N 044°40'33.6"E	129° (135.8°)	4.2	-	+A7000	-210	RNAV1	

UDVIN transition										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	UDVIN	-	41°57'17.3"N 044°46'22.9"E	-	-	-	+A7000	-230	RNAV1	
TF	NAMME	-	41°53'08.8"N 044°40'33.6"E	219° (226.2°)	6	-	+A7000	-210	RNAV1	

RNAV Holding Coding Table								
Fix Identifier	Inbound course °MAG(°True)	Time (min)	Turn Direction	Min alt.	Max alt.	Speed limit (kt)	Mag. VAR	Navigation Specification
DANQI	96° (103.0°)	1.0	R	A9000	FL140	230	-7°	RNAV1

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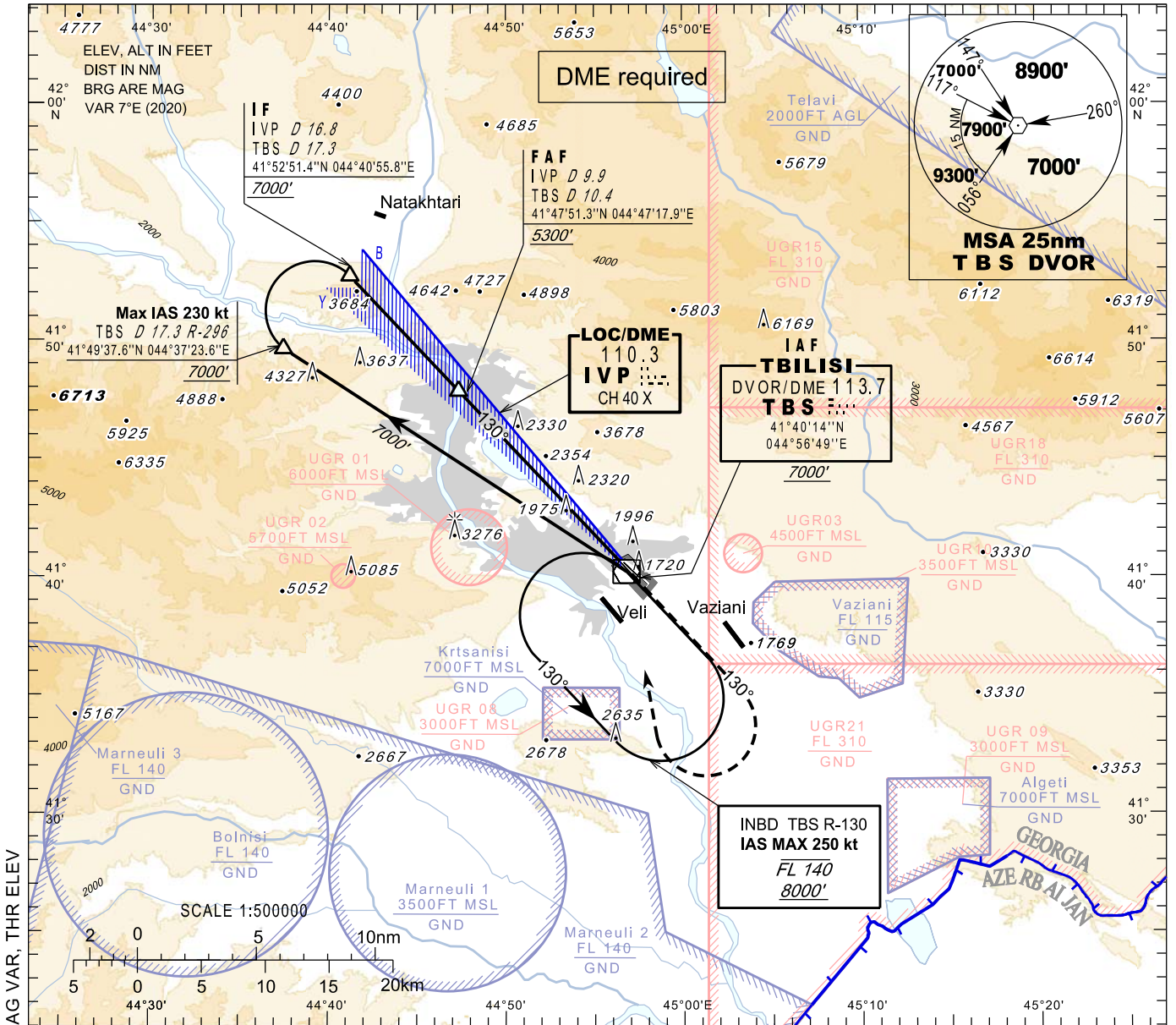
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
LOC y  
RWY 13R**

HEIGHTS RELATED TO  
THR RWY 13R - ELEV 1578'

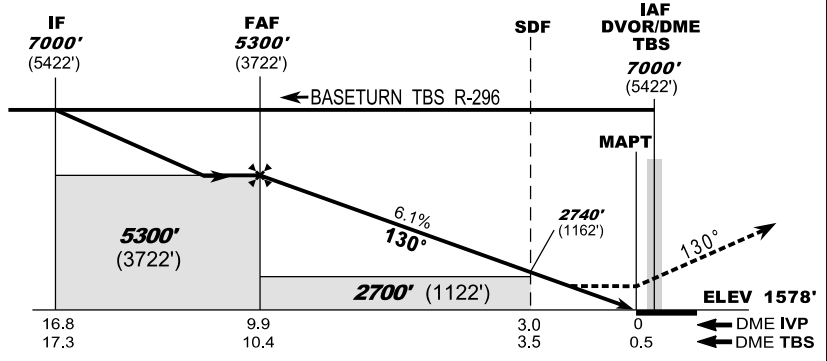
APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'



Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

**MISSED APPROACH**  
**Normal:**  
Climb straight ahead to 7000', when passing 4500' turn right to TBS, then as directed by ATC.  
**TBS DVOR Unserviceable:**  
Climb straight ahead to 7000', after passing 4500' expect vectoring.  
**Radio Communication Failure:**  
Climb straight ahead to 8000', when passing 4500' turn right to TBS, hold as published, when ready make new approach.



Straight in Approach	A B C D
<b>OCA(H)</b>	<b>2280 (700)</b>

		9	8	7	6	5	4	3	2	1
DME IVP NM		9.5	8.5	7.5	6.5	5.5	4.5	3.5	2.5	1.5
DME TBS NM		16.8 (5422')	17.3 (5422')	9.9 (3722')	10.4 (3722')	3.0 (5422')	3.5 (5422')	0.5 (5422')		
ALT (HGT) ft		4966 (3388)	4595 (3017)	4224 (2646)	3853 (2275)	3482 (1904)	3111 (1533)	2740 (1162)	2369 (791)	1998 (420)

Timing is not authorised for defining the MAPT

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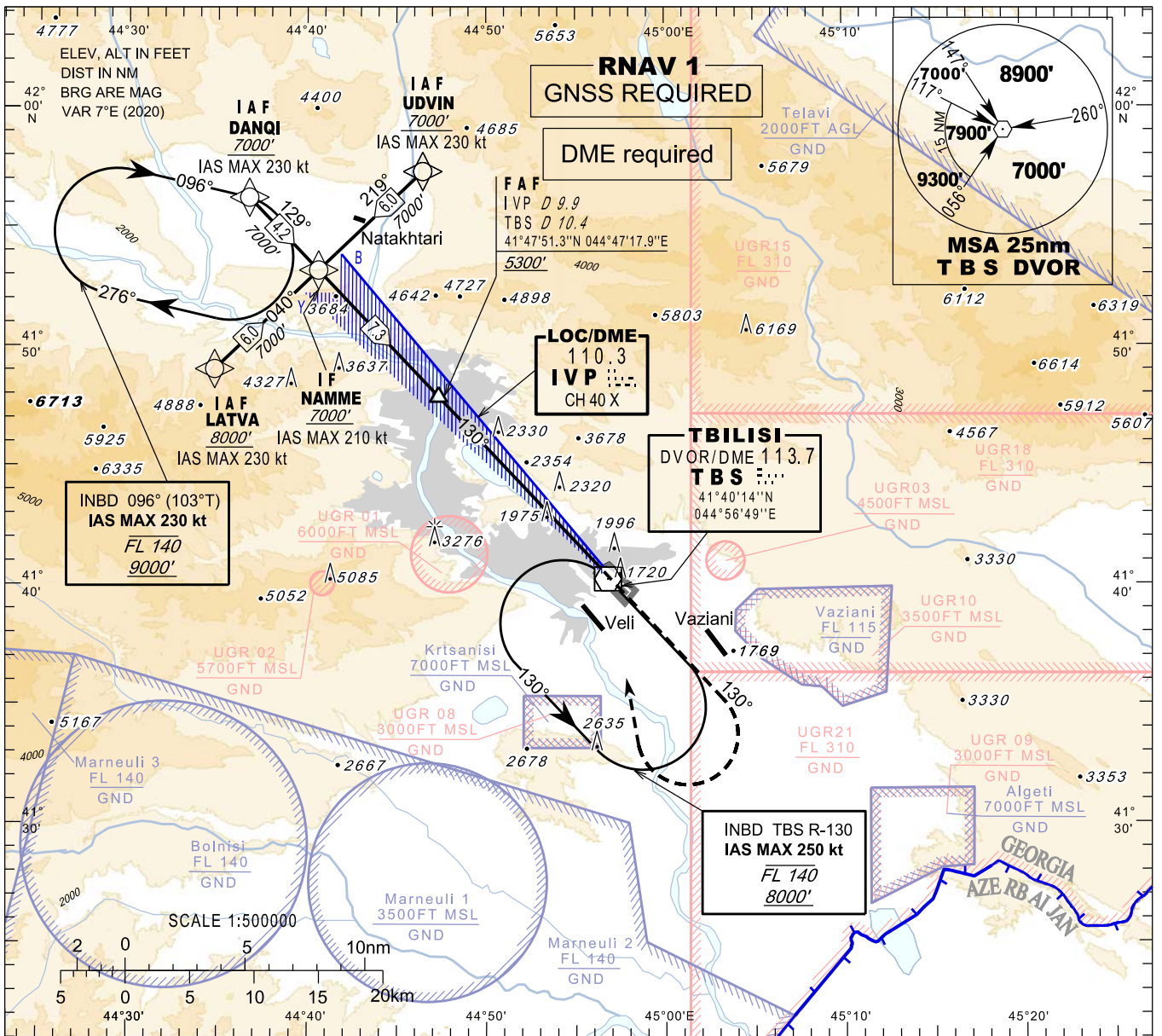
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
LOC z  
RWY 13R**

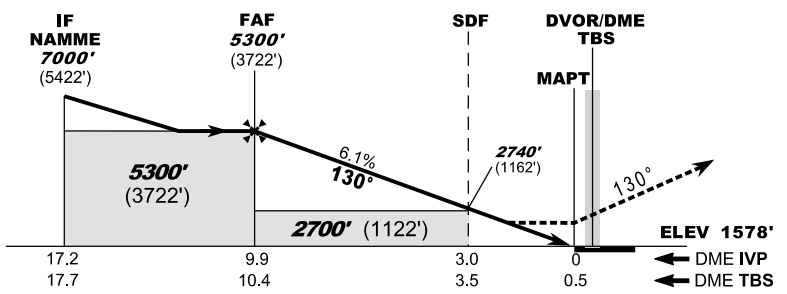
HEIGHTS RELATED TO  
THR RWY 13R - ELEV 1578'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'



**MISSED APPROACH**  
**Normal:**  
Climb straight ahead to 7000', when passing 4500' turn right to TBS, then as directed by ATC.  
**TBS DVOR Unserviceable:**  
Climb straight ahead to 7000', after passing 4500' expect vectoring.  
**Radio Communication Failure:**  
Climb straight ahead to 8000', when passing 4500' turn right to TBS, hold as published, when ready make new approach (ILS y or LOC y or VOR).



Straight in Approach	A B C D
<b>OCA(H)</b>	<b>2280 (700)</b>
DME IVP NM	9 8 7 6 5 4 3 2 1
DME TBS NM	9.5 8.5 7.5 6.5 5.5 4.5 3.5 2.5 1.5
ALT (HGT) ft	4966 (3388) 4595 (3017) 4224 (2646) 3853 (2275) 3482 (1904) 3111 (1533) 2740 (1162) 2369 (791) 1998 (420)

Timing is not authorised for defining the MAPT

Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

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**RNAV Transition Coding Tables - RWY 13R (LOCz)**

<b>LATVA transition</b>										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	LATVA	-	41°49'00.0"N 044°34'45.0"E	-	-	-	+A8000	-230	RNAV1	
TF	NAMME	-	41°53'08.8"N 044°40'33.6"E	40° (46.6°)	6	-	+A7000	-210	RNAV1	

<b>DANQI transition</b>										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	DANQI	-	41°56'11.3"N 044°36'40.5"E	-	-	-	+A7000	-230	RNAV1	
TF	NAMME	-	41°53'08.8"N 044°40'33.6"E	129° (135.8°)	4.2	-	+A7000	-210	RNAV1	

<b>UDVIN transition</b>										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	UDVIN	-	41°57'17.3"N 044°46'22.9"E	-	-	-	+A7000	-230	RNAV1	
TF	NAMME	-	41°53'08.8"N 044°40'33.6"E	219° (226.2°)	6	-	+A7000	-210	RNAV1	

<b>RNAV Holding Coding Table</b>								
Fix Identifier	Inbound course °MAG(°True)	Time (min)	Turn Direction	Min alt.	Max alt.	Speed limit (kt)	Mag. VAR	Navigation Specification
DANQI	96° (103.0°)	1.0	R	A9000	FL140	230	-7°	RNAV1

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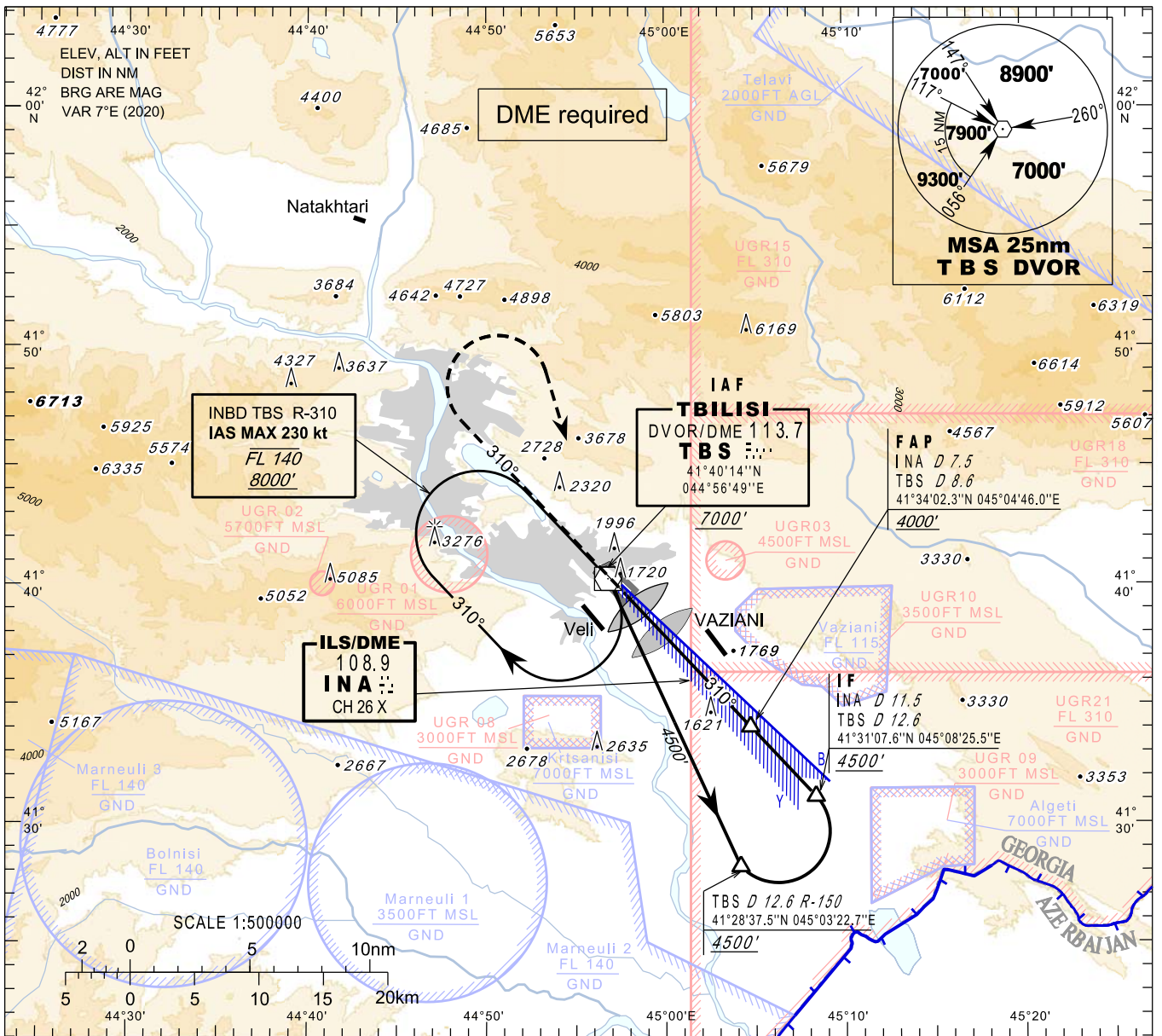
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
ILS y  
RWY 31L**

HEIGHTS RELATED TO  
THR RWY 31L - ELEV 1513'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

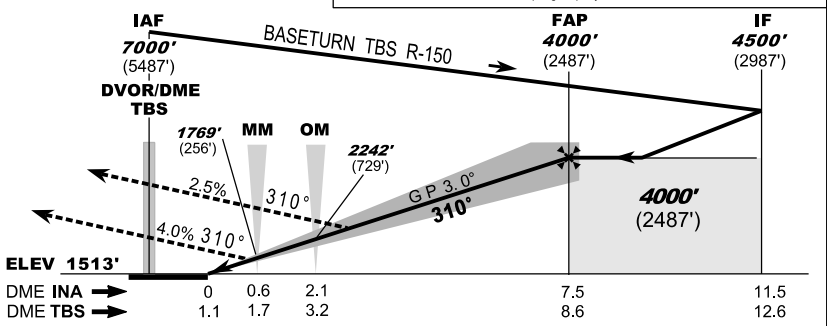
TRANSITION ALTITUDE 11000'



**MISSED APPROACH**  
**Normal:**  
Climb straight ahead to **7000'**, when passing **6000'** turn right to **TBS**, then as directed by **ATC**.  
**TBS DVOR Unserviceable:**  
Climb straight ahead to **7000'**, when passing **6000'** turn right heading **170°**, expect vectoring.  
**Radio Communication Failure:**  
Climb straight ahead to **8000'**, when passing **6000'** turn right to **TBS**, hold as published, when ready make new approach.

**WARNING:**  
1. **DO NOT CONFUSE** TBILISI/Tbilisi airport with VAZIANI military aerodrome located 4 nm south-east of TBILISI/Tbilisi airport.  
2. Possibility of **WIND SHEAR** and **TURBULENCE** on final (including short final) should be considered during strong winds due to local topography.

ILS RDH 54'



Missed APCH climb gradient	Straight in Approach				DME INA →	DME TBS →	DME INA NM	DME TBS NM	ALT (HGT) ft
	OCA(H)								
	A	B	C	D					
2.5%	2376	(863)	2394	(881)	2403	(890)	7	8.1	3839 (2326)
4.0%	1703	(190)	1713	(200)	1723	(210)	6	7.1	3510 (1997)
							5	6.1	3181 (1668)
							4	5.1	2855 (1342)
							3	4.1	2530 (1017)
							2	3.1	2208 (695)
							1	2.1	1886 (373)

Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

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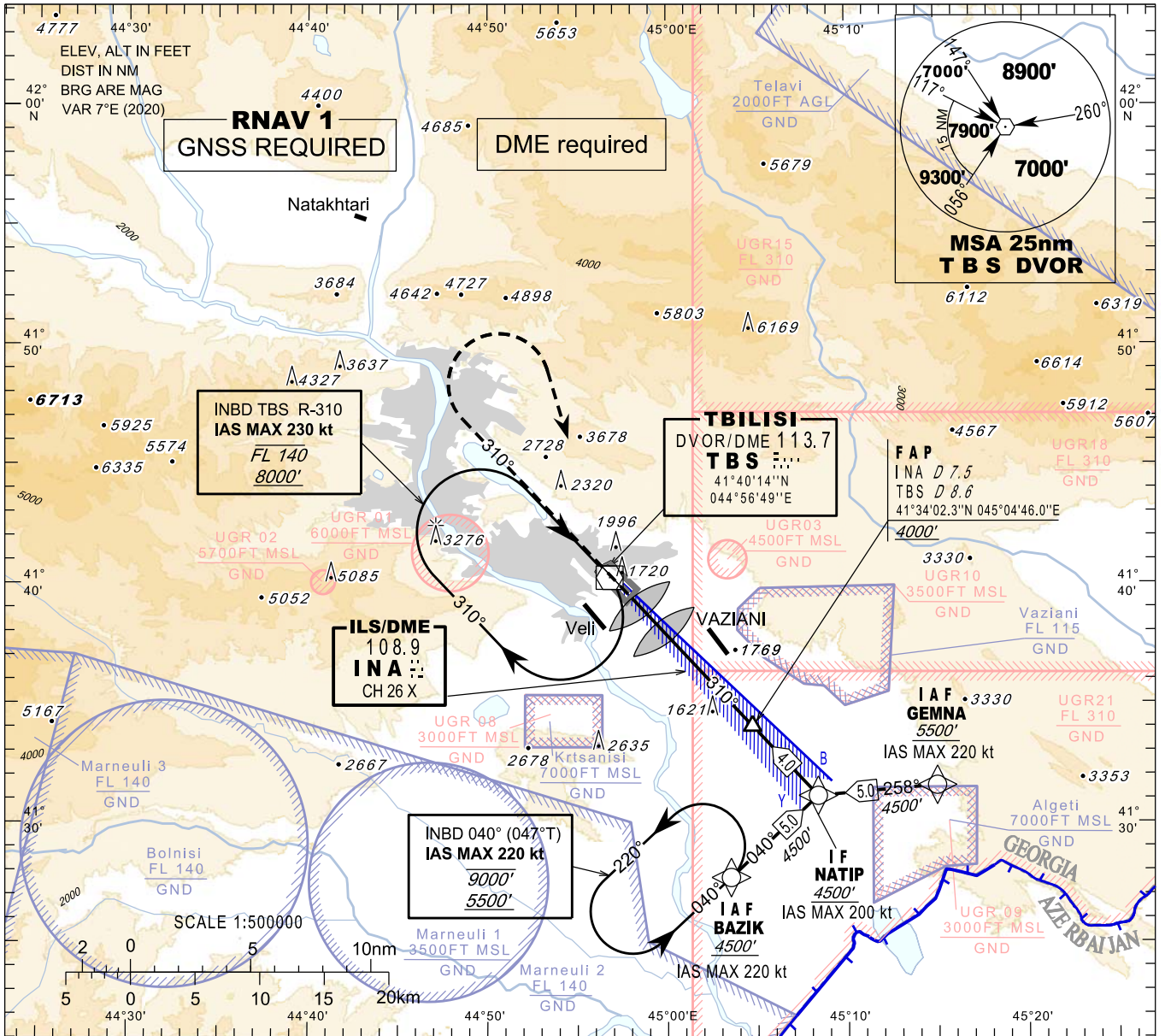
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
ILS z  
RWY 31L**

HEIGHTS RELATED TO  
THR RWY 31L - ELEV 1513'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'

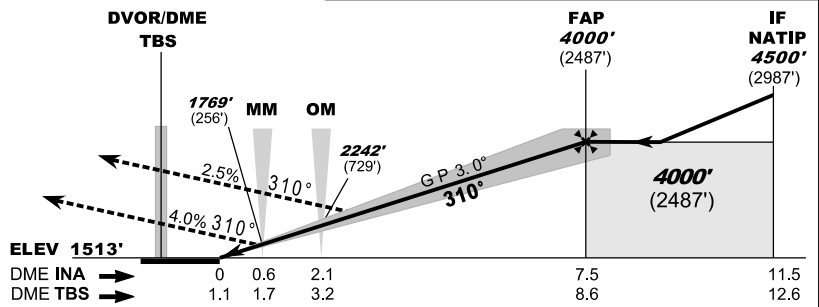


**MISSED APPROACH**

- Normal:**  
Climb straight ahead to **7000'**, when passing **6000'** turn right to **TBS**, then as directed by **ATC**.
- TBS DVOR Unserviceable:**  
Climb straight ahead to **7000'**, when passing **6000'** turn right heading **170°**, expect vectoring.
- Radio Communication Failure:**  
Climb straight ahead to **8000'**, when passing **6000'** turn right to **TBS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).

ILS RDH 54'

- WARNING:**
1. **DO NOT CONFUSE** TBILISI/Tbilisi airport with VAZIANI military aerodrome located 4 nm south-east of TBILISI/Tbilisi airport.
  2. Possibility of **WIND SHEAR** and **TURBULENCE** on final (including short final) should be considered during strong winds due to local topography.



Missed APCH climb gradient	OCA(H)		
	A	B	C
2.5%	2376 (863)	2394 (881)	2403 (890)
4.0%	1703 (190)	1713 (200)	1723 (210)

	7	6	5	4	3	2	1
DME INA NM							
DME TBS NM	8.1	7.1	6.1	5.1	4.1	3.1	2.1
ALT (HGT) ft	3839 (2326)	3510 (1997)	3181 (1668)	2855 (1342)	2530 (1017)	2208 (695)	1886 (373)

Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

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**RNAV Transition Coding Tables - RWY 31L (ILS)**

BAZIK transition										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	BAZIK	-	41°27'41.5"N 045°03'35.1"E	-	-	-	+A4500	-220	RNAV1	
TF	NATIP	-	41°31'07.6"N 045°08'25.5"E	40° (46.5°)	5	-	+A4500	-200	RNAV1	

GEMNA transition										
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification	
	Identifier	Flyover	Coordinates				Level	Speed kt		
IF	GEMNA	-	41°31'34.7"N 045°15'03.4"E	-	-	-	+A5500	-220	RNAV1	
TF	NATIP	-	41°31'07.6"N 045°08'25.5"E	258° (264.9°)	5	-	+A4500	-200	RNAV1	

RNAV Holding Coding Table								
Fix Identifier	Inbound course °MAG(°True)	Time (min)	Turn Direction	Min alt.	Max alt.	Speed limit (kt)	Mag. VAR	Navigation Specification
BAZIK	40° (47.0°)	1.0	L	A5500	A9000	220	-7°	RNAV1

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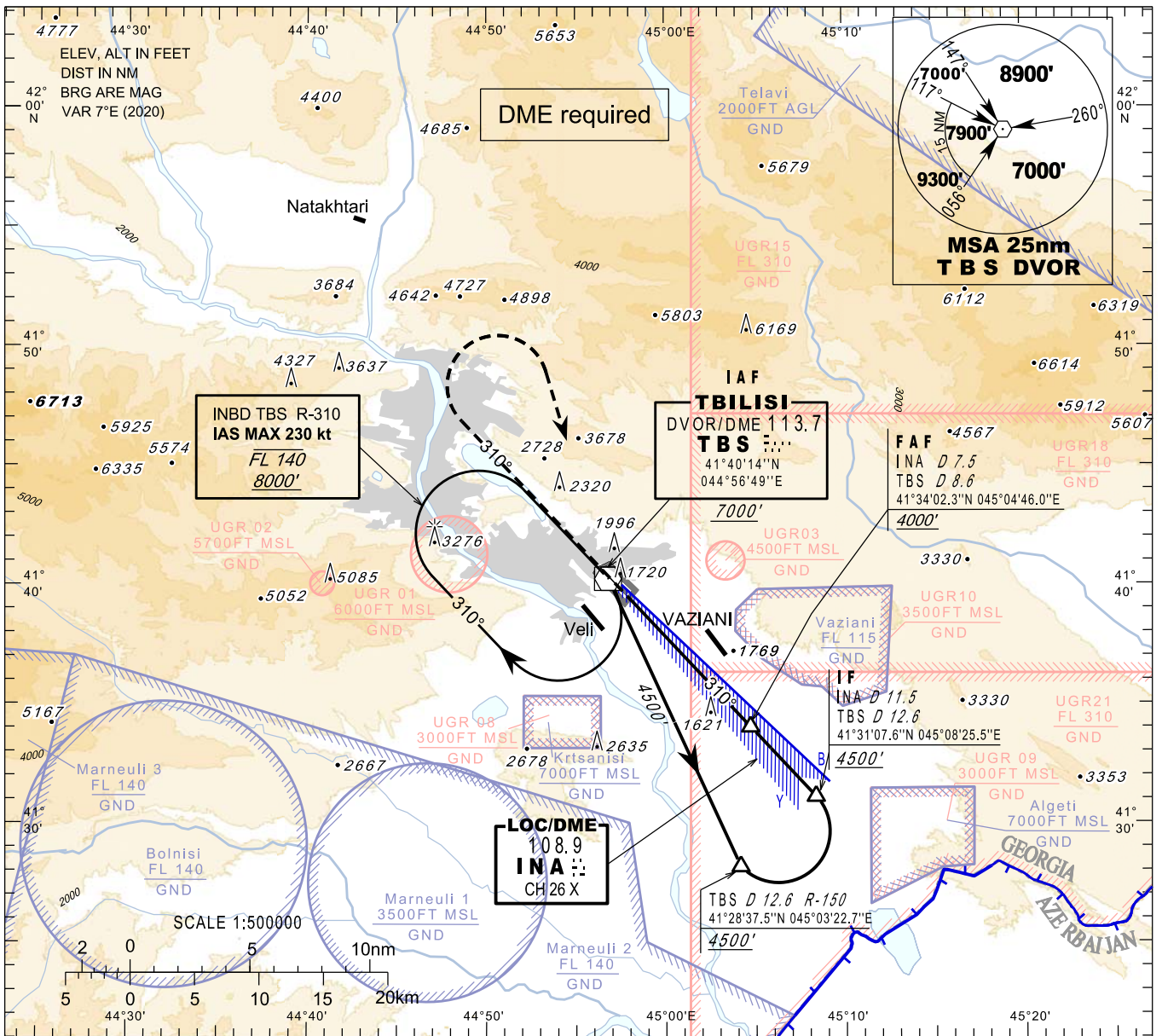
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
LOC y  
RWY 31L**

HEIGHTS RELATED TO  
THR RWY 31L - ELEV 1513'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'



Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

**MISSED APPROACH**

**Normal:**  
Climb straight ahead to 7000', when passing 6000' turn right to TBS, then as directed by ATC.

**TBS DVOR Unserviceable:**  
Climb straight ahead to 7000', when passing 6000' turn right heading 170, expect vectoring.

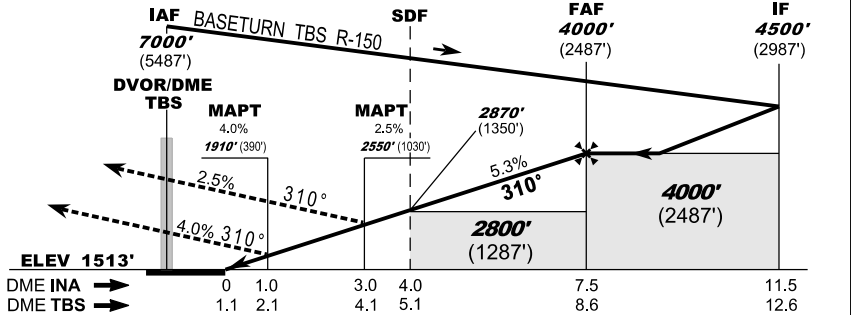
**Radio Communication Failure:**  
Climb straight ahead to 8000', when passing 6000' turn right to TBS, hold as published, when ready make new approach.

Timing is not authorised for defining the MAPT

**WARNING:**

- DO NOT CONFUSE TBILISI/Tbilisi airport with VAZIANI military aerodrome located 4 nm south-east of TBILISI/Tbilisi airport.
- Possibility of **WIND SHEAR** and **TURBULENCE** on final (including short final) should be considered during strong winds due to local topography.

Straight in Approach	
Missed APCH climb gradient	OCA(H)
	A B C D
2.5%	2550 (1030)
4.0%	1910 (390)



	DME INA NM	DME TBS NM	ALT (HGT) ft			
7	6	5	4	3	2	1
8.1	7.1	6.1	5.1	4.1	3.1	2.1
3837 (2324)	3512 (1999)	3187 (1674)	2862 (1349)	2537 (1024)	2212 (699)	1887 (374)

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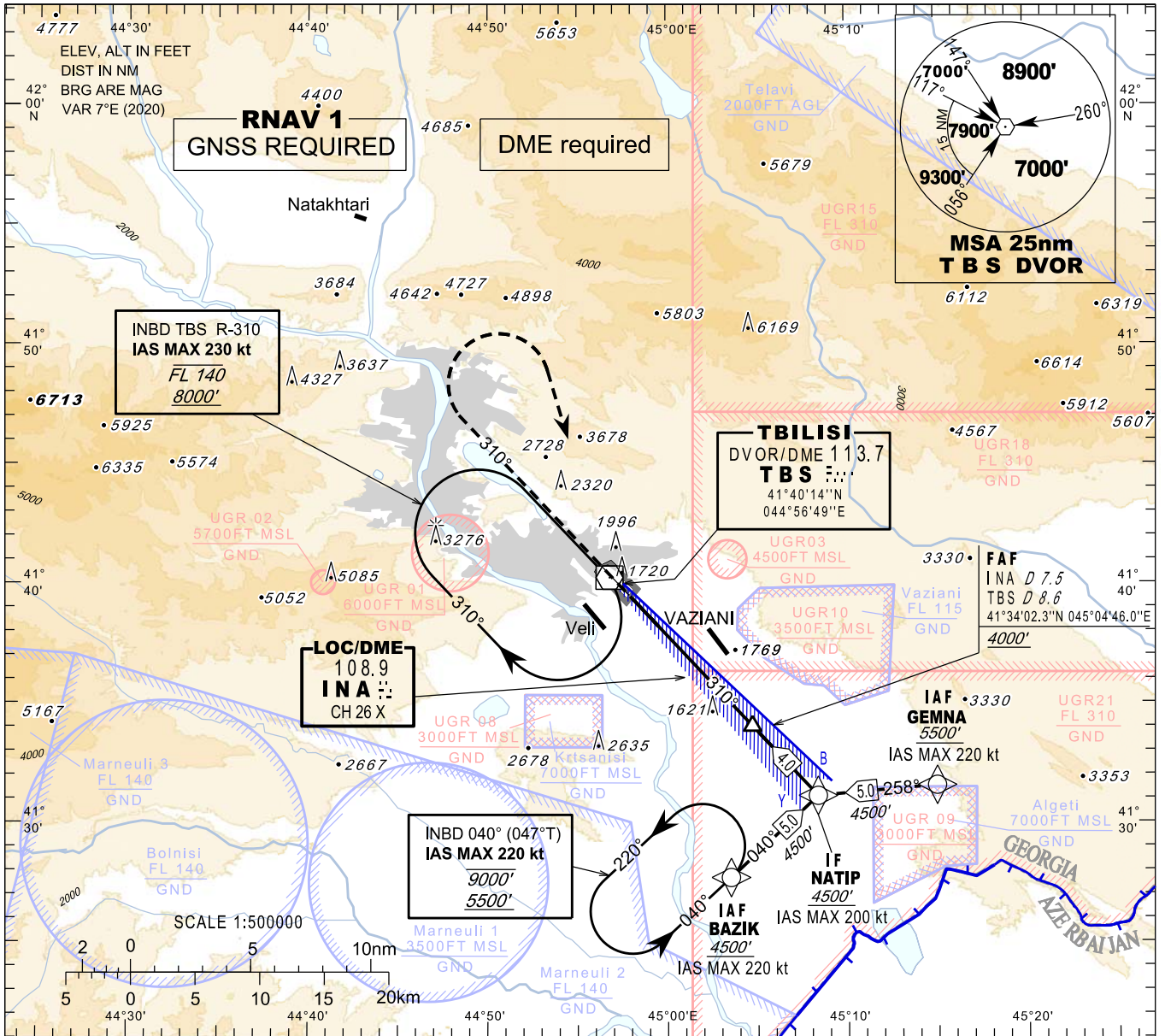
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
LOC z  
RWY 31L**

HEIGHTS RELATED TO  
THR RWY 31L - ELEV 1513'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'



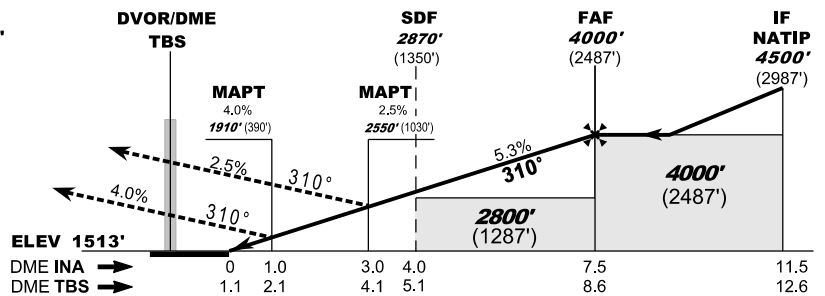
Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

**MISSED APPROACH**  
**Normal:**  
Climb straight ahead to **7000'**, when passing **6000'** turn right to **TBS**, then as directed by **ATC**.  
**TBS DVOR Unserviceable:**  
Climb straight ahead to **7000'**, when passing **6000'** turn right heading **170**, expect vectoring.  
**Radio Communication Failure:**  
Climb straight ahead to **8000'**, when passing **6000'** turn right to **TBS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).

Timing is not authorised for defining the MAPT

- WARNING:**
- DO NOT CONFUSE Tbilisi/Tbilisi airport with VAZIANI military aerodrome located 4 nm south-east of Tbilisi/Tbilisi airport.
  - Possibility of **WIND SHEAR** and **TURBULENCE** on final (including short final) should be considered during strong winds due to local topography.

Straight in Approach		OCA (H)			
Missed APCH	climb gradient	A	B	C	D
2.5%		2550			(1030)
4.0%		1910			(390)



DME INA NM	7	6	5	4	3	2	1
DME TBS NM	8.1	7.1	6.1	5.1	4.1	3.1	2.1
ALT (HGT) ft	3837 (2324)	3512 (1999)	3187 (1674)	2862 (1349)	2537 (1024)	2212 (699)	1887 (374)

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**RNAV Transition Coding Tables - RWY 31L (LOCz)**

BAZIK transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	BAZIK	-	41°27'41.5"N 045°03'35.1"E	-	-	-	+A4500	-220	RNAV1
TF	NATIP	-	41°31'07.6"N 045°08'25.5"E	40° (46.5°)	5	-	+A4500	-200	RNAV1

GEMNA transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	GEMNA	-	41°31'34.7"N 045°15'03.4"E	-	-	-	+A5500	-220	RNAV1
TF	NATIP	-	41°31'07.6"N 045°08'25.5"E	258° (264.9°)	5	-	+A4500	-200	RNAV1

RNAV Holding Coding Table								
Fix Identifier	Inbound course °MAG(°True)	Time (min)	Turn Direction	Min alt.	Max alt.	Speed limit (kt)	Mag. VAR	Navigation Specification
BAZIK	40° (47.0°)	1.0	L	A5500	A9000	220	-7°	RNAV1

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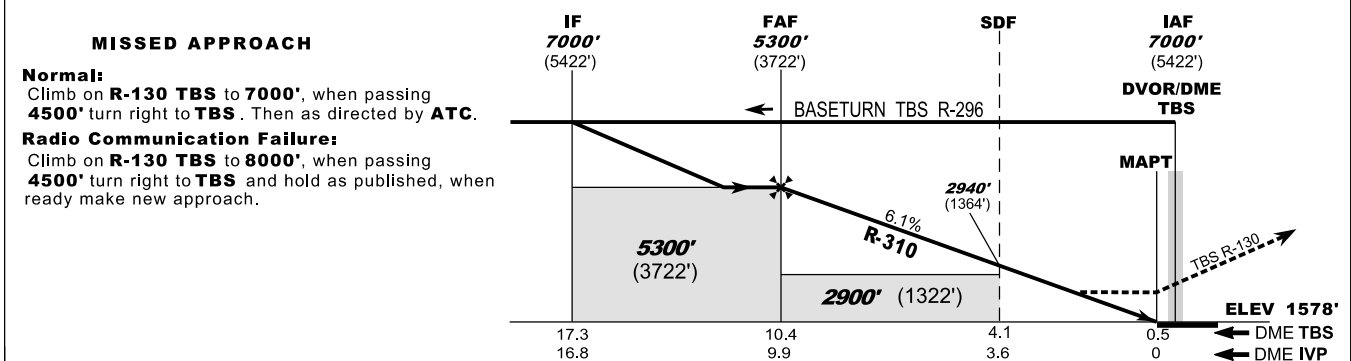
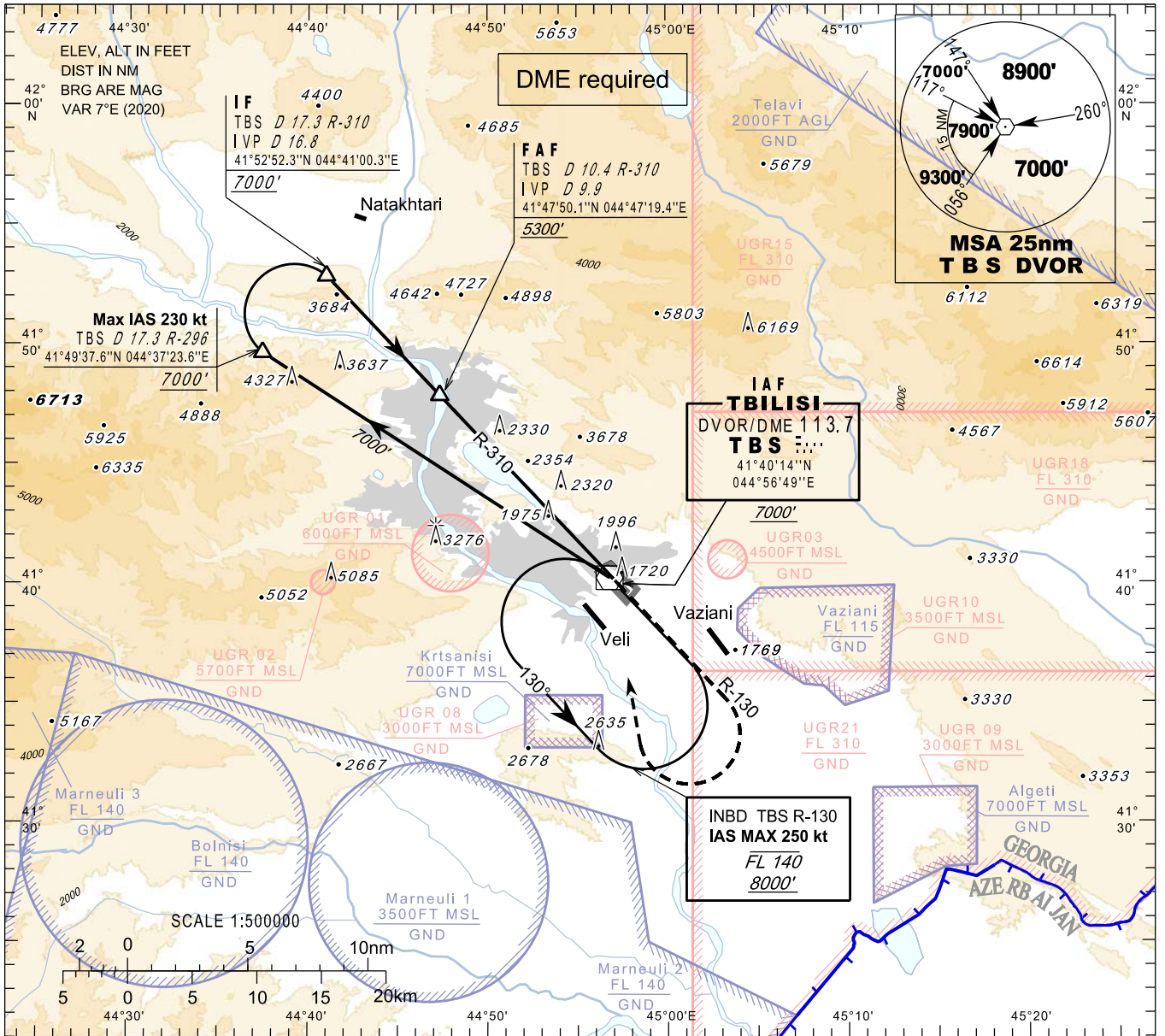
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
VOR  
RWY 13R**

HEIGHTS RELATED TO  
THR RWY 13R - ELEV 1578'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'



Straight-in Approach	A B C D									
	<b>OCA(H)</b>	<b>2580 (1000)</b>								
DME TBS NM	10	9	8	7	6	5	4	3	2	1
DME IVP NM	9.5	8.5	7.5	6.5	5.5	4.5	3.5	2.5	1.5	0.5
ALT (HGT) ft	<b>5142 (3564)</b>	<b>4771 (3193)</b>	<b>4400 (2822)</b>	<b>4029 (2451)</b>	<b>3658 (2080)</b>	<b>3287 (1709)</b>	<b>2916 (1338)</b>	<b>2545 (967)</b>	<b>2174 (596)</b>	<b>1802 (224)</b>

Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

Timing is not authorised for defining the MAPT

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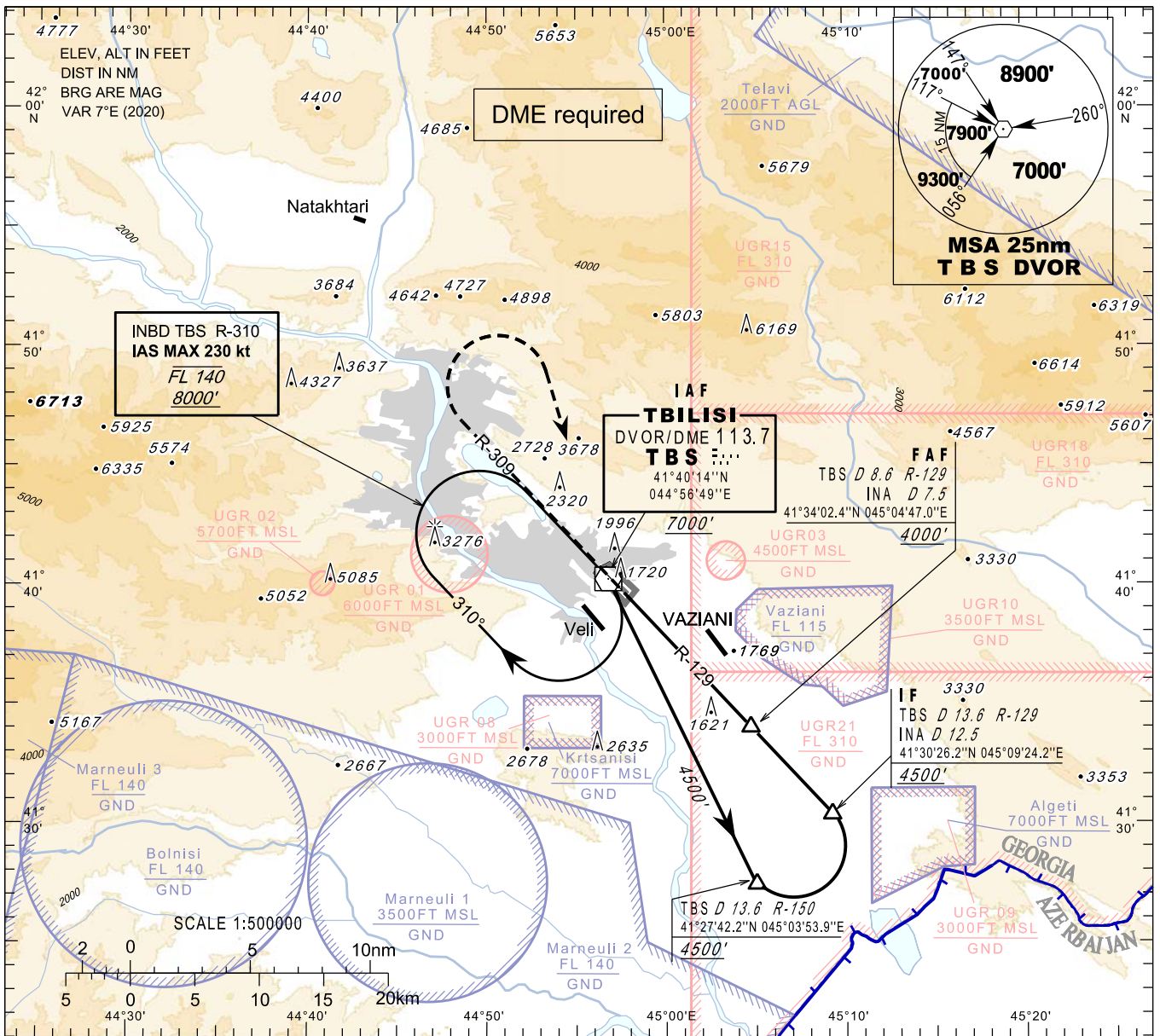
**INSTRUMENT  
APPROACH  
CHART - ICAO**

**TBILISI/Tbilisi (UGTB)  
VOR  
RWY 31L**

HEIGHTS RELATED TO  
THR RWY 31L - ELEV 1513'

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)  
ATIS 132.800

TRANSITION ALTITUDE 11000'



Changes: New procedures, MSA, Transition ALT, MAG VAR, THR ELEV

**MISSED APPROACH**

**Normal:**  
Climb on **R-309 TBS** to **7000'**, when passing **6000'** turn right to **TBS**, then as directed by **ATC**.

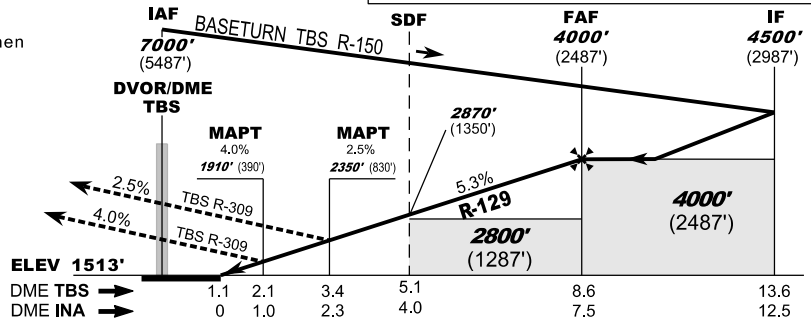
**Radio Communication Failure:**  
Climb on **R-309 TBS** to **8000'**, when passing **6000'** turn right to **TBS** and hold as published, when ready make new approach.

Timing is not authorised for defining the MAPT

**WARNING:**

1. **DO NOT CONFUSE** TBILISI/Tbilisi airport with VAZIANI military aerodrome located 4 nm south-east of TBILISI/Tbilisi airport.
2. Possibility of **WIND SHEAR** and **TURBULENCE** on final (including short final) should be considered during strong winds due to local topography.

Straight in Approach		OCA (H)			
Missed APCH climb gradient		A	B	C	D
2.5%		2350		(830)	
4.0%		1910		(390)	



DME TBS NM	8	7	6	5	4	3	2
DME INA NM	6.9	5.9	4.9	3.9	2.9	1.9	0.9
ALT (HGT) ft	3807 (2294)	3482 (1969)	3157 (1644)	2832 (1319)	2507 (994)	2182 (669)	1857 (344)

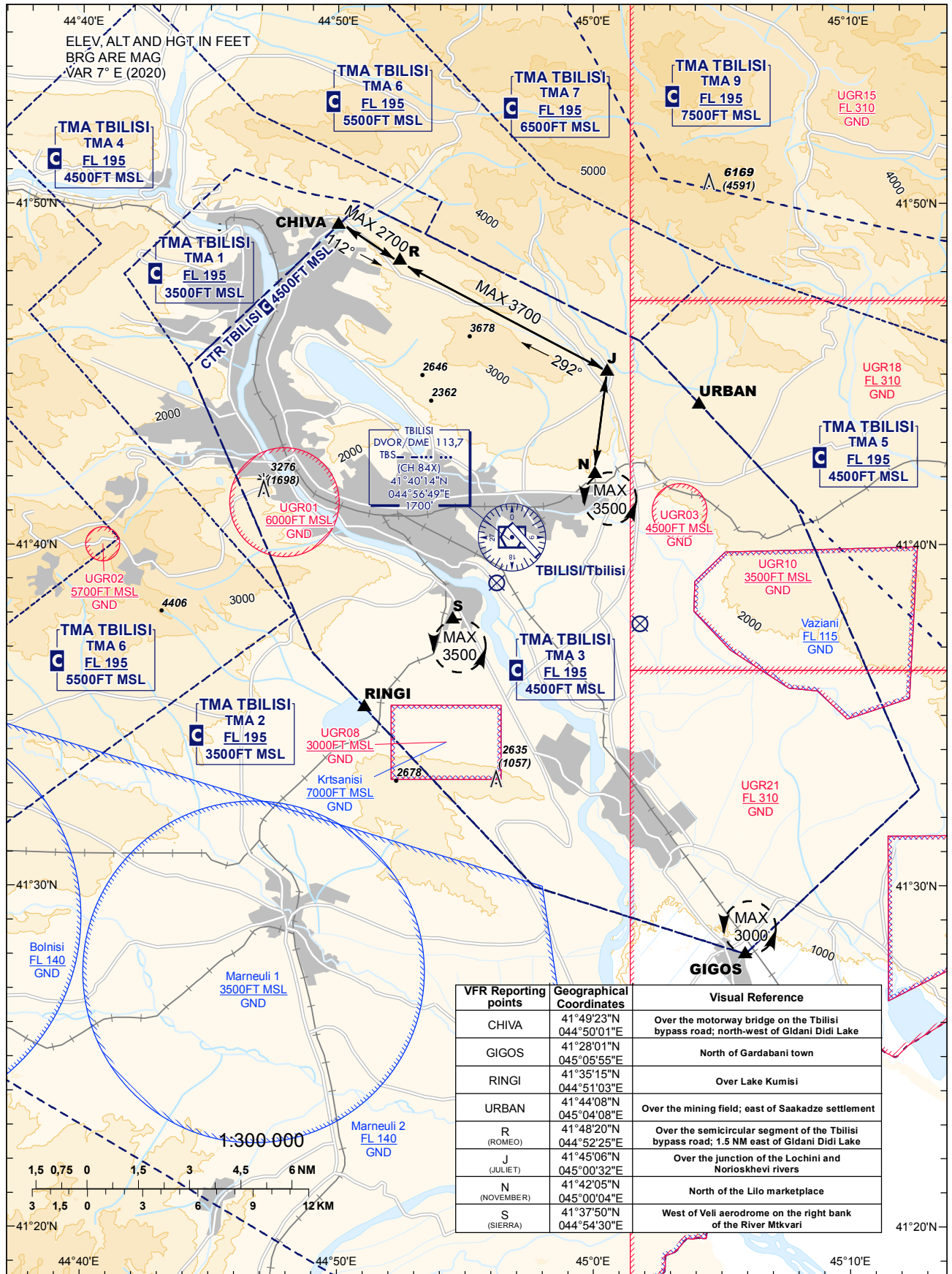
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**VISUAL APPROACH CHART - ICAO**

**TBILISI/Tbilisi (UGTB)**

AERODROME ELEV. 1578'  
HEIGHTS RELATED TO AD ELEV

APP 134.600  
TWR 119.000 (Primary)  
128.000 (Secondary)



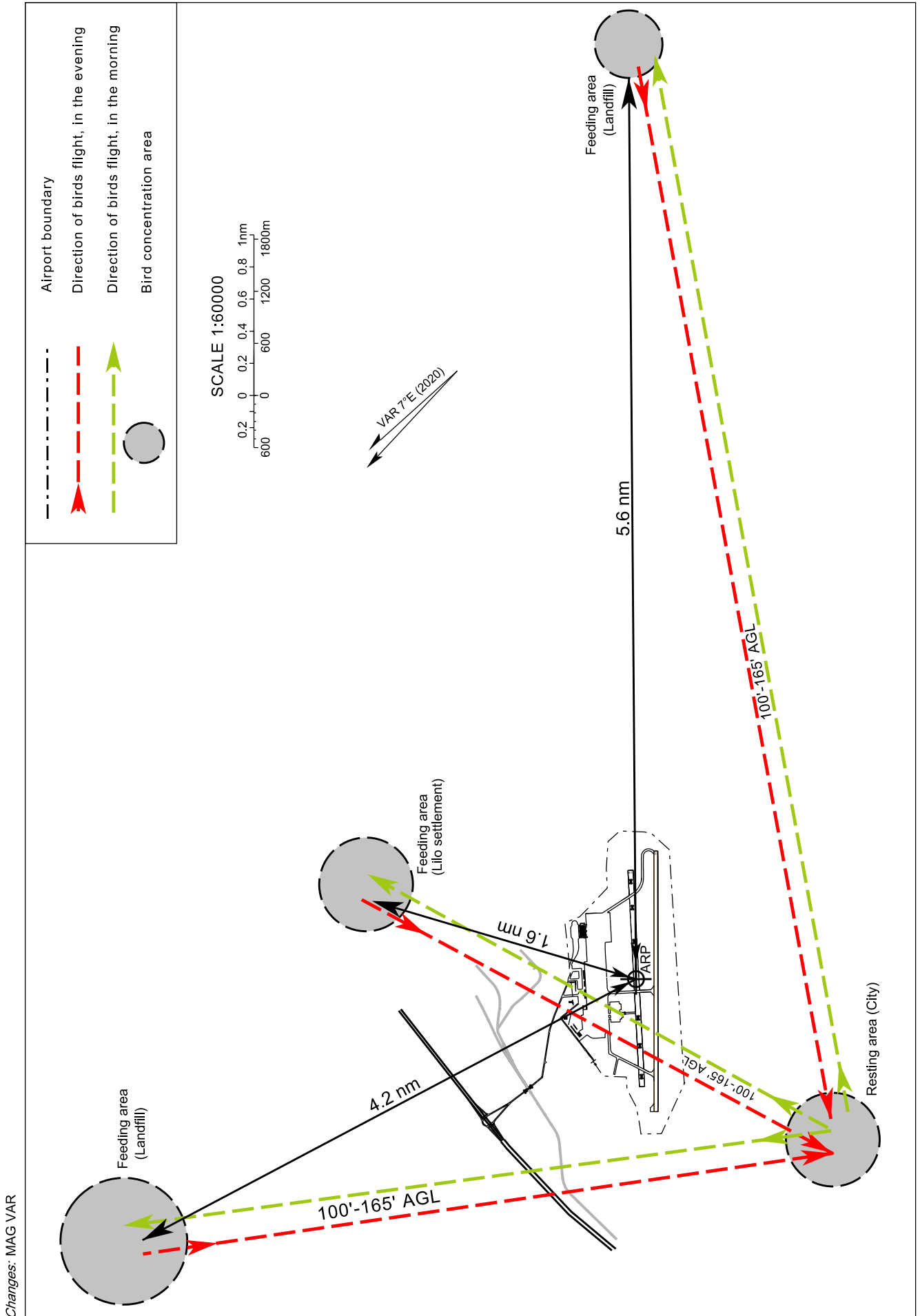
Changes: TBILISI TMA, CTR, MAG VAR, AD ELEV

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# BIRD CONCENTRATIONS AND MOVEMENT

# TBILISI/Tbilisi (UGTB)



Changes: MAG VAR

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