Contact
Post: Sakaeronavigatsia Ltd.
Aeronautical Information Service
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: + 995 32 274 42 37
AFS: UGTBYOYX
Email: ais@airnav.ge
URL: https://ais.airnav.ge

AIP GEORGIA

SAKAERONAVIGATSIA

AIRAC AIP AMENDMENT

05/25

Effective date: 07 AUG 2025
Publication date: 26 JUN 2025

AIRAC AMDT 05/2025

1 Significant information and changes:

AIP Georgia is reissued due to the transition to a new system. The following changes are introduced:

- New section GEN 3.7 Information Services added in accordance with ICAO Doc 10066;
- ENR 2.1 TMA-related change: coordinates are now presented for TMA Parts only (ref. ICAO DOC 8126);
- ENR 3.1: Route tables updated in accordance with ICAO Doc 10066 and ICAO DOC 8126;
- ENR 3.2: Route tables updated in accordance with ICAO Doc 10066 and ICAO DOC 8126, new data on waypoints defining area navigation routes (identification of the reference VOR/DME, bearing and distance from the reference VOR/DME, elevation of DME antenna) added, geodesic distance between defined end-points added;
- Sections ENR 3.5 Other routes and ENR 3.6 En-route holding moved to ENR 3.3 and ENR 3.4 respectively;
- AD 2.2 and AD 2.3: “AD Administration” changed to “AD Operator”;
- AD 2.8: change in data presentation;
- AD 2.9: table headings updated in accordance with ICAO Doc 10066;
- AD 2.17: “Hours of applicability” added in accordance with ICAO Doc 10066;
- AD 2.19: table updated in accordance with ICAO Doc 10066, ILS components grouped accordingly;
- General formatting and styling updates;
- All the charts are reissued with no change to content.

This amendment is issued together with:

- AIRAC AIP SUP 04/25 (replacing AIRAC AIP SUP 02/2025 dated 20 MAR 2025) and
- AIRAC AIP SUP 05/25 (replacing AIRAC AIP SUP 03/2025 dated 10 JUL 2025).

2 NOTAM incorporated in this Amendment:

NIL

3 AIP SUP incorporated in this Amendment:

NIL

AMENDED PAGES

All pages.

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GEN Part 1 – General

GEN 0

GEN 0.1 Preface

1 Name of the publishing authority

The AIP of Georgia is published by Sakaeronavigatsia Ltd under authority of the Civil Aviation Agency of Georgia.

2 Applicable ICAO documents

The AIP is prepared in accordance with the Standards and Recommended Practices (SARPs) of Annex 15 to the Chicago Convention and the Aeronautical Information Services Manual (ICAO Doc 8126). Charts contained in the AIP are produced in accordance with Annex 4 to the Chicago Convention and the Aeronautical Chart Manual (ICAO Doc 8697). Differences from ICAO Standards, Recommended Practices and Procedures are given in subsection GEN 1.7.

3 The AIP structure and established regular amendment interval

3.1 The AIP structure

The AIP forms part of the Integrated Aeronautical Information Package, details of that are given in subsection GEN 3.1. The principal AIP structure is shown in graphic form on page GEN 0.1-3.

The AIP is made up of three Parts, General (GEN), En-route (ENR) and Aerodromes (AD), each divided into sections and subsections as applicable, containing various types of information subjects.

3.1.1 Part 1 — General (GEN)

Part 1 consists of five sections containing information as briefly described hereafter.

GEN 0 — Preface; Record of AIP Amendments; Record of AIP Supplements; Checklist of AIP pages; List of hand amendments to the AIP; and the Table of Contents to Part 1.

GEN 1 — National Regulations and Requirements - Designated authorities; Entry, transit and departure of aircraft; Entry, transit and departure of passengers and crew; Entry, transit and departure of cargo; Aircraft instruments, equipment and flight documents; Summary of national regulations and international agreements/conventions; and Differences from ICAO Standards, Recommended Practices and Procedures.

GEN 2 — Tables and Codes - Measuring system, aircraft markings, holidays; Abbreviations used in AIS publications; Chart symbols; Location indicators; List of radio navigation aids; Conversion tables; and Sunrise/Sunset tables.

GEN 3 — Services - Aeronautical Information Services (AIS); Aeronautical charts; Air Traffic Services (ATS); Communication services; Meteorological services; and Search and rescue.

GEN 4 — Charges for aerodromes and air navigation services - Aerodrome charges; and Air navigation services charges.

3.1.2 Part 2 — En-route (ENR)

Part 2 consists of seven sections containing information as briefly described hereafter.

ENR 0 — Table of Contents to Part 2.

ENR 1 — General Rules and Procedures - General rules; Visual Flight Rules (VFR); Instrument Flight Rules (IFR); ATS airspace classification; Holding, approach and departure procedures; Radar services and procedures; Altimeter setting procedures; Regional supplementary procedures; Air Traffic Flow Management (ATFM); Flight planning; Addressing of flight plan messages; Interception of civil aircraft; Unlawful interference; and Air traffic incidents.

ENR 2 — Air Traffic Services Airspace - Detailed description of Flight Information Region (FIR); Control Area (CTA); Terminal control areas (TMA); and Other regulated airspace.

ENR 3 — ATS Routes - Detailed description of conventional ATS routes; Area navigation routes; Other routes; and En-route holding.

Note: Other types of routes which are specified in connection with procedures for traffic to and from aerodromes are described in the relevant sections and subsections of Part 3 – Aerodromes.

ENR 4 — Radio Navigation Aids/Systems - Radio navigation aids — En-route; Special navigation systems; Name-code designators for significant points; and Aeronautical ground lights — En-route.

ENR 5 — Navigation Warnings - Prohibited, restricted and danger areas; Military exercise and training areas; other activities of a dangerous nature; Air navigation obstacles — En-route; Aerial sporting and recreational activities; and Bird migration and areas with sensitive fauna.

ENR 6 — En-Route Charts— En-route Chart - ICAO and index charts.

3.1.3 Part 3 — Aerodromes (AD)

Part 3 consists of three sections containing information as briefly described hereafter.

AD 0 — Table of Contents to Part 3.

AD 1 — Aerodromes/Heliports — Introduction - Aerodrome availability; Rescue and fire fighting services and Snow plan; Index to aerodromes and heliports; and Grouping of aerodromes.

AD 2 — Aerodromes - Detailed information about aerodromes, including helicopter-landing areas, if located at the aerodromes, listed under 24 subsections.

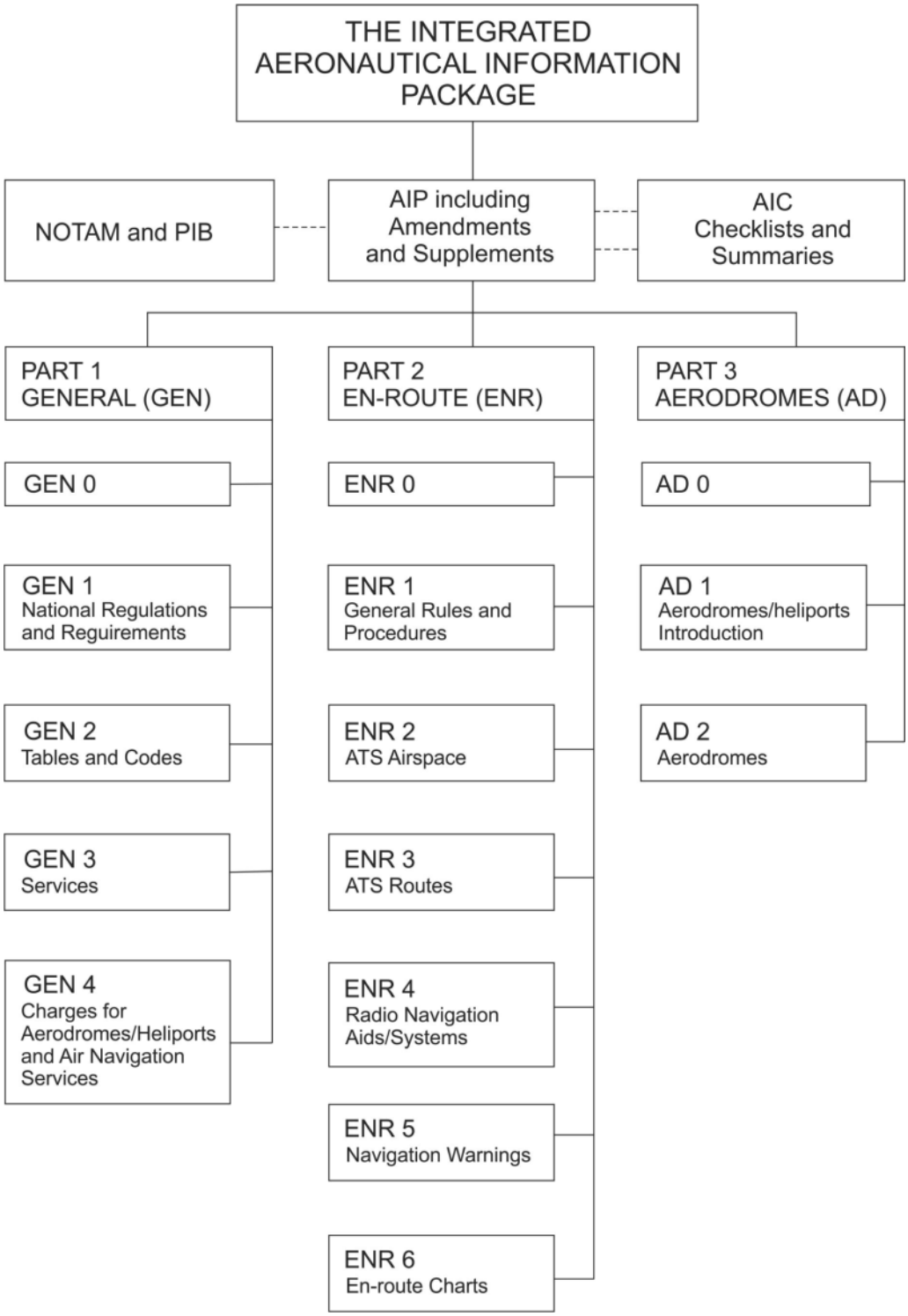
3.2 Regular amendment interval

Regular amendment interval is not applied. AIP AIRAC amendments are issued when required.

4 Service to contact in case of detected AIP errors or omissions

In the compilation of the AIP, care has been taken to ensure that the information contained therein is accurate and complete. Any errors and omissions which may nevertheless be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to:

Post:	**Sakaeronavigatsia Ltd.** Aeronautical Information Service TBILISI/Tbilisi Airport 01 9 8 Tbilisi, Georgia
Tel:	+995322744295
Tel:	+995322744237
AFS:	UGTBYOYX
E-mail:	ais@airnav.ge


THE INTEGRATED AERONAUTICAL INFORMATION PACKAGE
NOTAM and PIB
AIP including Amendments and Supplements
AIC Checklists and Summaries
PART 1 GENERAL (GEN)
PART 2 EN-ROUTE (ENR)
PART 3 AERODROMES (AD)
GEN 0
GEN 1 National Regulations and Reguirements
GEN 2 Tables and Codes
GEN 3 Services
GEN 4 Charges for Aerodromes/Heliports and Air Navigation Services
ENR 0
ENR 1 General Rules and Procedures
ENR 2 ATS Airspace
ENR 3 ATS Routes
ENR 4 Radio Navigation Aids/Systems
ENR 5 Navigation Warnings
ENR 6 En-route Charts
AD 0
AD 1 Aerodromes/heliports Introduction
AD 2 Aerodromes

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GEN 0.2 Record of AIP Amendments

AIRAC AIP AMENDMENT

NR/Year	Publication Date	Effective date	Inserted by
03/25	03 APR 2025	15 MAY 2025	
04/25	29 MAY 2025	10 JUL 2025	
05/25	26 JUN 2025	07 AUG 2025	

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GEN 0.3 Record of AIP Supplements

NR/Year	Subject	AIP section(s) affected	Period of Validity	Cancellation record
04/25	Temporary prohibited area	**ENR**	From 07 AUG 2025 UFN	
05/25	Temporary restricted area	**ENR**	From 07 AUG 2025 to 10 JUL 2028	

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GEN 0.4 Checklist of AIP pages

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GEN 2.3-1	07 AUG 2025
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GEN 2.3-3	07 AUG 2025
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GEN 2.4-1	07 AUG 2025
GEN 2.5-1	07 AUG 2025
GEN 2.6-1	07 AUG 2025
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GEN 2.7-5	07 AUG 2025
GEN 2.7-6	07 AUG 2025
GEN 2.7-7	07 AUG 2025
GEN 2.7-8	07 AUG 2025
GEN 2.7-9	07 AUG 2025
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GEN 3.1-3	07 AUG 2025
GEN 3.1-4	07 AUG 2025
GEN 3.1-5	07 AUG 2025
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GEN 3.2-5	07 AUG 2025
GEN 3.2-6	07 AUG 2025
GEN 3.2-7	07 AUG 2025
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GEN 3.3-2	07 AUG 2025
GEN 3.4-1	07 AUG 2025
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ENR 1.4-2	07 AUG 2025
ENR 1.5-1	07 AUG 2025
ENR 1.6-1	07 AUG 2025
ENR 1.6-2	07 AUG 2025
ENR 1.6-3	07 AUG 2025
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ENR 1.6-7	07 AUG 2025
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ENR 1.6-11	07 AUG 2025
ENR 1.7-1	07 AUG 2025
ENR 1.7-2	07 AUG 2025
ENR 1.7-3	07 AUG 2025
ENR 1.8-1	07 AUG 2025
ENR 1.8-2	07 AUG 2025
ENR 1.9-1	07 AUG 2025
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ENR 2.1-5	07 AUG 2025
ENR 2.1-6	07 AUG 2025
ENR 2.1-7	07 AUG 2025
ENR 2.1-8	07 AUG 2025
ENR 2.1-9	07 AUG 2025
ENR 2.1-10	07 AUG 2025
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AD 2.UGTB-5	07 AUG 2025
AD 2.UGTB-6	07 AUG 2025
AD 2.UGTB-7	07 AUG 2025
AD 2.UGTB-8	07 AUG 2025
AD 2.UGTB-9	07 AUG 2025
AD 2.UGTB-10	07 AUG 2025
AD 2.UGTB-11	07 AUG 2025
AD 2.UGTB-12	07 AUG 2025
AD 2.UGTB-13	07 AUG 2025
AD 2.UGTB-14	07 AUG 2025
AD 2.UGTB-15	07 AUG 2025
AD 2.UGTB-16	07 AUG 2025
AD 2.UGTB-17	07 AUG 2025
AD 2.UGTB-ADC	07 AUG 2025
AD 2.UGTB-APGMC	07 AUG 2025
AD 2.UGTB-AOC-A	07 AUG 2025
AD 2.UGTB-ARC	07 AUG 2025
AD 2.UGTB-SID-RNAV-13R-1	07 AUG 2025
AD 2.UGTB-SID-RNAV-13R-3	07 AUG 2025
AD 2.UGTB-SID-RNAV-13R-5	07 AUG 2025
AD 2.UGTB-SID-RNAV-31L-1	07 AUG 2025
AD 2.UGTB-SID-RNAV-31L-3	07 AUG 2025
AD 2.UGTB-SID-RNAV-31L-5	07 AUG 2025
AD 2.UGTB-SID-RNAV-31L-T-1	07 AUG 2025
AD 2.UGTB-SID-RNAV-31L-T-3	07 AUG 2025
AD 2.UGTB-SID-13R/31L-1	07 AUG 2025
AD 2.UGTB-SID-13R/31L-3	07 AUG 2025
AD 2.UGTB-STAR-RNAV-13R-1	07 AUG 2025
AD 2.UGTB-STAR-RNAV-13R-3	07 AUG 2025
AD 2.UGTB-STAR-RNAV-31L-1	07 AUG 2025
AD 2.UGTB-STAR-RNAV-31L-3	07 AUG 2025
AD 2.UGTB-ATCSMAC-1	07 AUG 2025
AD 2.UGTB-ATCSMAC-3	07 AUG 2025
AD 2.UGTB-IAC-13R-ILSy	07 AUG 2025
AD 2.UGTB-IAC-13R-ILSz-1	07 AUG 2025
AD 2.UGTB-IAC-13R-ILSz-3	07 AUG 2025
AD 2.UGTB-IAC-13R-LOCy	07 AUG 2025
AD 2.UGTB-IAC-13R-LOCz-1	07 AUG 2025
AD 2.UGTB-IAC-13R-LOCz-3	07 AUG 2025
AD 2.UGTB-IAC-31L-ILSy	07 AUG 2025
AD 2.UGTB-IAC-31L-ILSz-1	07 AUG 2025
AD 2.UGTB-IAC-31L-ILSz-3	07 AUG 2025
AD 2.UGTB-IAC-31L-LOCy	07 AUG 2025
AD 2.UGTB-IAC-31L-LOCz-1	07 AUG 2025
AD 2.UGTB-IAC-31L-LOCz-3	07 AUG 2025
AD 2.UGTB-IAC-13R-VOR	07 AUG 2025
AD 2.UGTB-IAC-31L-VOR	07 AUG 2025
AD 2.UGTB-VAC	07 AUG 2025
AD 2.UGTB-BIRD	07 AUG 2025

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GEN 0.5 List of hand amendments to the AIP

NIL.

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GEN 0.6 Table of contents to Part 1

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GEN 1 National regulations and requirements

GEN 1.1 Designated authorities

The addresses of the designated authorities concerned with facilitation of international air navigation are as follows:

1 Civil aviation

Post: Georgian Civil Aviation Agency
Beginning of I Kheivani Street
0114 Tbilisi
Georgia
Tel: +995322948002
Tel: +995322948014
AFS: UGGUDDXX
AFS: UGGGZDZX
E-mail: office@gcaa.ge

2 Meteorology

Post: Georgian Civil Aviation Agency
Beginning of I Kheivani Street
0114 Tbilisi
Georgia
Tel: +995322948027
AFS: UGGUYMYX
E-mail: met@gcaa.ge

3 Customs

Post: TBILISI/Tbilisi Airport
Tbilisi 0158, Georgia
Tel: +995 32 94 74 96
Fax: NIL
AFS: NIL

4 Immigration

Post: TBILISI/Tbilisi Airport
Tbilisi 0158, Georgia
Tel: +99532947240
Tel: +99532947052
Fax: NIL

5 Health

Post: TBILISI/Tbilisi Airport
Tbilisi 0158, Georgia
Tel: +99599479776
Fax: NIL
AFS: NIL

6 En-route and aerodrome/heliport charges

The billing and collection of the aerodrome charges is carried out by the respective aerodrome authority. The billing and collection of the Air Navigation Services charges is carried out by the International Air Transport Association (IATA). Refer to GEN 4 for further details.

7 Agricultural quarantine

Post: TBILISI/Tbilisi Airport
Tbilisi 0158, Georgia
Tel: +99532947391
Fax: NIL
AFS: NIL

8 Aircraft accidents investigation

Post: Ministry of Economy and Sustainable Development of Georgia
Civil Aviation and Maritime Transport
Accident/Incident Investigation Bureau
12 G. Chanturia Str, Tbilisi, 0108
Georgia
Tel: +995322982358
Tel: +995595001847
Fax: +995322982358
AFS: UGTBAIIB
E-mail: georgian-taiib@economy.ge
E-mail: dgiunashvili@economy.ge
URL: http://www.economy.gov.ge

GEN 1.2 Entry, transit and departure of aircraft

1 General

1.1 Any flight on which an aircraft crosses the state border of Georgia and that of another State is deemed to be an international flight.

1.2 International flights of foreign aircraft in the airspace of Georgia shall be carried out on the basis of and in accordance with:

1. International treaties on air service to which Georgia is a party;
2. Special permits for operating single flights issued by Georgian Civil Aviation Agency;
3. Special permits for operating single flights obtained through the Ministry of Foreign Affairs of Georgia.

1.3 All civil aircraft using airspace of Georgia must have an insurance with the following minimum limits:

a. Passenger –
   1. for aircraft with MTOW less than 2700 kg or 2700 kg - 100000 SDR;
   2. for aircraft with MTOW more than 2700 kg - 250000 SDR;
b. Baggage – 1288 SDR;
c. Cargo – 22 SDR per kg;
d. Third party legal liability:

MTOW (kg)	Minimum Insurance Limits (Million SDR)
‹ 500	0.75
‹ 1000	1.5
‹ 2700	3
‹ 6000	7
‹ 12000	18
‹ 25000	80
‹ 50000	150
‹ 200000	300
‹ 500000	500
≥ 500000	700

1.4 Flights of foreign civil aircraft in the airspace of Georgia are carried out on international airways and to airports open for international flights.

1.5 When it is necessary to carry out a flight to a domestic airport not open for international flights, an aircraft should make the first landing and the latest departure at the territory of Georgia from an airport open for international flights.

2 Scheduled flights

2.1 General

2.1.1 Operators of Scheduled flights to be operated to the airports of Georgia should submit their flight schedule to Georgian Civil Aviation Agency according to the attached Form R in four copies or RPL in three copies and the appropriate documents on the right of the specific commercial activities not later than 15 days before the commencing of such flights.

2.1.2 The same procedure is applied if it is necessary to cancel or to make changes in the already approved flight schedule.

2.1.3 Single change of flight schedule should be made on the preliminary request of an airline which should be addressed in Georgian or English to Georgian Civil Aviation Agency not later than 5 working days before the commencing of the flights via the following communication channels:

Post: Georgian Civil Aviation Agency
Beginning of I Kheivani Street
0114 Tbilisi
Georgia
Tel: +995 32 236 40 51
AFS: UGGGZDZX, UGGUPPXX
E-mail: cds@gcaa.ge

and

Post: Sakaeronavigatsia Ltd
Air Traffic Services/ACC
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: +995322744255
Tel: +995322744204
Fax: +995322744334
AFS: UGGGZRZX
E-mail: atfm@airnav.ge

2.1.4 No prior permission is required for scheduled flights carried out in the airspace of Georgia without landing at airports of Georgia.

2.2 Documentary requirements for clearance of aircraft

2.2.1 It is necessary that the below mentioned aircraft documents are submitted by airline operators for clearance on entry and departure of their aircraft to and from Georgia. All documents listed below must follow the ICAO standard format as set forth in the relevant Appendixes to Annex 9 and they are acceptable when furnished in English or Russian and completed in legible handwriting.

2.2.2 Aircraft documents required (arrival/departure)

Required by	General declaration	Passenger manifest (if required)	Cargo manifest
Customs Officer	1	1	1
Immigration Officer	1	1	1
Sanitary-Quarantine Officer	1	1	1

Note: If no passengers are embarking (disembarking) and no articles are laden (unladen), no aircraft documents except copies of the General Declaration need to be submitted to the above mentioned authorities.

3 Non-scheduled flight

3.1 Procedures

3.1.1 No prior permission is required for non-scheduled flights carried out in the airspace of Georgia without landing at airports of Georgia.

3.1.2 If an operator intends to perform non - scheduled flight into the airports of Georgia, it is necessary for operator to apply to Georgian Civil Aviation Agency for permission not later than five working days before the commencing of the flight. The application should be put in order as showed in Para 4.1.3 and submitted to the addresses mentioned in Para 2.1.3.

3.1.3 Georgian Civil Aviation Agency issues a single number of the permission on each request which is valid during 24 hours since the date mentioned in the application. Operators should insert the number of permission in the Item 18 of FPL.

3.2 Documentary requirements for clearance of aircraft

3.2.1 Same requirements as for SCHEDULED FLIGHTS.

4 Flights of state aircraft

4.1 Procedures

4.1.1 Random flights of foreign aircraft connected with conveyance of heads of Foreign States and Governments and delegations headed by them, Ministers of Foreign Affairs and Ministers of Defence, as well as random flights of military and State foreign aircraft are conducted on the basis of permissions received through diplomatic channels from the Ministry of Foreign Affairs of Georgia. Permission for a single flight conducted in accordance with this para should be requested via diplomatic channels to the addresses mentioned in Para 2.1.3 not later than 5 working days before the commencing of the flight.

4.1.2 The application should be put in order as showed in Para 4.1.3.

4.1.3 An application for use of airspace of Georgia shall contain the following information:

a. Name of an airline (three-letter ICAO designator), state of aircraft registration and address;
b. Type and modification of an aircraft, its revenue capacity and maximum take-off weight (MTOW);
c. Registration marks of a main and an alternate aircraft, owner of an aircraft (operator or leaseholder);
d. Surname, name of a pilot-in-command of an aircraft, amount of crew members and their nationality;

e. Purpose of flight, probable organizations (persons) in Georgia interested in the forthcoming flight;
f. Category of flights (governmental, special, charter, technical or other); for governmental flights the rank and the name of a head of the delegation shall be stated;
g. Flight number, radiotelephone or radiotelegraphy aircraft call signs;
h. Aircraft load (number of passengers, weight of cargo and its nature);
i. Date of flight and flight schedule (in UTC) with indication of points of commercial and technical landings, as well as the amount of aviation fuel for fueling in the airports of Georgia;
j. The airways, points and estimated time of entry into/leaving the airspace of Georgia;
k. The name of an insurance Company, its address and the number of the insurance policy and the amount of the liability insurance to the passengers, baggage, cargo and third-party not being transported in the aircraft;
l. Payment for services and State charges indicating the payer's bank and numbers of bank account.

FORM R

APPROVED
Georgian Civil Aviation Agency

_____ _____

AIRLINE _____

AIRLINE AIRCRAFT FLIGHT SCHEDULE IN AIRSPACE OF GEORGIA from _____ till _____

Flight number	Days of the week	ROUTE	Remarks
	time UTC		

№	Segments with commercial right	Stop-over points	Points of technical landings	Aircraft type		
1				LAY-OUT		
2				First class	Business class	Economy class
3						
4						

Agreed Airport _____ _____ Should be forwarded to Georgian Civil Aviation Agency in four copies

Agreed Navigation _____ _____

SEAL

Airline _____ _____

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GEN 1.3 Entry, transit and departure of passengers and crew

1 General

Foreign aircraft, their crew and passengers arriving to or departing from Georgia, as well as their belongings imported in or exported from Georgia by air are subject to relevant passport, customs, monetary, health, agricultural quarantine and other requirements for entry and departure, as well as for importation and exportation of goods (property) and transit through the territory of Georgia.

2 Customs requirements

2.1 Aircraft entering Georgia are subject to customs examination.

2.2 Baggage, cabin-carried articles, currency and valuables of passengers and crews carried across the frontier of Georgia are the subjects to a customs clearance.

2.3 Passengers carried across the frontier of Georgia whose cabin-carried articles and baggage are not exempted from customs examination shall complete a customs declaration.

2.4 Cabin-carried articles and baggage to be in possession of passengers, with the exception of articles prohibited from being taken in or out of Georgia, shall be cleared in quantities needed for personal needs, in accordance with the rules of Customs Control over cabin-carried articles and baggage in possession of persons carried across the frontier of Georgia.

2.5 Customs examination of cabin-carried articles and baggage in possession of passengers is carried out in the presence of the passengers in clearance rooms, storage and directly in transportation facilities.

2.6 Foreign passengers are prohibited to carry, while on flight in the airspace of Georgia, as cargo and/or baggage:

- military supplies or military equipment;
- explosives, toxic agents, radioactive materials, narcotics, as well as articles of contraband;
- animals suffering, or suspected of suffering, of infectious diseases, as well as produce and/or raw material of animal origin and forage that may be carriers of infectious diseases;
- quarantinable materials, soil living plants with soil from countries whose territory is not free from quarantine pests and
- diseases, as well as quarantinable materials, soil or living plants with soil infected by quarantine pests and/or diseases.

2.7 Sporting guns and ammunition for these, as well as fire-arms and ammunition for these and hunters' knives, with the consent of the carrier, may be carried as registered baggage, provided these have been placed in baggage-cargo compartments of the aircraft inaccessible to passengers. At that, sporting guns and/or hand fire arms shall be unloaded and ammunition for these appropriately packed separately.

2.8 Cameras and video cameras shall be kept in suitcases. Photographing from the board of an aircraft is prohibited.

2.9 Radio sets, including those of small dimensions, may be carried only if packed into baggage.

2.10 Jettisoning from aircraft any objects and the use of parachutes in the airspace of Georgia are permitted only in distress. A parachute may be carried on board of an aircraft only if an instruction to this effect is contained in the flight clearance documentation.

3 Immigration requirements

3.1 Entry into and departure from Georgia of passengers is cleared by border control points, provided they are in possession of relevant and valid entry/exit documents.

3.2 Arrived passengers can purchase visa at Tbilisi/Tbilisi Airport.

3.3 When entering or leaving Georgia, every passenger shall be in possession of a valid national passport with a valid Georgian visa or another permission to enter the Georgia, unless international treaties to which Georgia is a party stipulate otherwise.

3.4 If a foreign aircraft has carried to Georgia a passenger without regard to the procedures provided in paras 3.1 and 3.2, the operator of the aircraft shall remove this passenger from territory of Georgia. All costs for re-moving the passenger shall be borne by the operator who has flown this passenger to Georgia.

3.5 Transit of passengers through the territory of Georgia with one stopover shall be carried out in accordance with the provisions of para 3.2.

3.6 Passengers carried through the territory of Georgia in transit are exempted from the need to hold visas for Georgia:

- if they are on a nonstop flight in transit across Georgian territory;
- when being citizens of a State with which Georgia has signed appropriate interstate agreements.

3.7 Disembarkation and/or embarkation of passengers at airport are carried out with the permission of the border control points.

3.8 Arrivals to Georgia and/or departures from Georgia of crew members of foreign aircraft are to be carried out in accordance with the provisions of para 3.3, unless international agreements to which Georgia is a party stipulate otherwise.

4 Public health requirements

4.1 Sanitary-quarantine measures in Georgia are taken in compliance with the regulations of the World Health Organization and the Main Department for Sanitary and Epidemiology within the Ministry of Health and Social Care of Georgia.

4.2 Every passenger arriving in Georgia from quarantine disease infected countries (cholera, plague, yellow fever) shall be furnished with international Certificate of Vaccination against these diseases.

4.3 Certificate of vaccination is deemed as valid if it is in a form and of a term of validity approved by the World Health Organization.

4.4 Any change of the form of Certificate or blankness of one of the necessary items may make the Certificate invalid.

4.5 With regard to passengers arriving from cholera, the following measures shall be taken:

- passengers who are not in possession of a valid international vaccination certificate shall be isolated;
- passengers who are in possession of a valid certificate shall be medically supervised.

The duration of isolation and supervision shall constitute five days from moment of leaving the cholera infected country.

4.6 If an aircraft has been announced by the public health authorities to be infected with cholera or if it has arrived from a cholera infected area and carries non-hermetically packed fish, crabs, shellfish, crawfish, fruit or vegetables eatable uncooked, or beverages, the public health authorities shall have the right to prohibit these from being unloaded or to seize these for disinfection or destruction.

4.7 If a crew member or passengers is/are observed during flight to have one or more of the following symptoms: sickness, diarrhea, rash, jaundice, bleeding (haemorrhage), swelling of the lymph nodes, rise in body temperature to 38 degrees C or higher, the pilot-in-command of the aircraft shall report to ATC and the medical authorities while still in flight or after landing. The same applies if dead rodents have been observed in the aircraft.

4.8 On arriving to the airport, the pilot-in-command (or his confidential agent) must complete and furnish the public section of the general declaration.

4.9 In case of a forced landing of an aircraft on an international flight at an airport that does not handle international traffic or a place other than an airport the pilot-in-command shall take measures preventing the crew and/or passengers from being in contact with the local population. The pilot-in- command shall immediately report the forced landing to the local authorities.

4.10 Passengers showing symptoms of acute diseases shall, on arriving to Georgia, be forwarded without delay to the nearest medical institution.

4.11 Passengers under medical supervision shall enjoy the freedom of movement, but shall notify the public health authorities of their moving on to other places.

4.12 A standard certificate shall be issued to the pilot-in command of an aircraft, attesting any medico-sanitary measures on board the aircraft.

GEN 1.4 Entry, transit and departure of cargo

1 General

Foreign aircraft, their crew and passengers arriving to or departing from Georgia, as well as their belongings imported to or exported from Georgia by air are subject to relevant passport, customs, monetary, health, agricultural quarantine and other requirements for entry and departure, as well as for importation and exportation of goods (property) and transit through the territory of Georgia.

2 Customs requirements concerning cargo and other articles

2.1 Aircraft entering the territory of Georgia are subject to customs examination.

2.2 Cargo, baggage and international mail carried across Georgia frontier are subject to customs clearance.

2.3 Disembarkation of cargo, baggage and international mail from aircraft and their embarkation into aircraft at international airports in Georgia shall be carried out with the permission of a customs office (officer).

2.4 For customs clearance purposes the pilot-in-command of an aircraft must:

- present to a representative of the customs office the general declaration, the cargo manifest complete with bills of parcels, invoices, specifications and bills, as well as air waybills and other documentation for the cargo carried;
- indicate and open for clearance (examination) all aircraft compartments.

2.5 Foreign passengers are prohibited to carry, while on flight in the airspace of Georgia, as cargo and/or baggage:

- military supplies or military equipment;
- explosives, toxic agents, radioactive materials, narcotics, as well as articles of contraband;
- animals suffering, or suspected of suffering, of infectious diseases, as well as produce and/or raw material of animal origin and forage that may be carriers of infectious diseases;
- quarantinable materials, soil living plants with soil from countries whose territory is not free from quarantine pests and diseases, as well as quarantinable materials, soil or living plants with soil infected by quarantine pests and/or diseases.

2.6 Sporting guns and ammunition for these, as well as fire-arms and ammunition for these and hunter's knives, with the consent of the carrier, may be carried as registered baggage, provided these have been placed in baggage-cargo compartments of the aircraft inaccessible to passengers. At that, sporting guns and/or hand firearms shall be unloaded and ammunition for these, appropriately packed separately.

2.7 Radio sets, including those of small dimensions, may be carried only if packed into baggage.

2.8 Jettisoning from an aircraft any object including the use of parachutes in the airspace of Georgia are permitted only in distress. A parachute may be carried on board of an aircraft only if an instruction to this effect is contained in the flight clearance documentation.

3 Phitosanitary quarantine requirements

3.1 Importation of animals from foreign States, as well as produce and/or raw material of animals, forage and/or articles that may be carriers of infectious disease, in Georgia, is only allowed with the permission of the Ministry of Agriculture and Food of Georgia only from the countries without particularly dangerous infectious animal diseases. The animals shall be subject to quarantine and veterinary treatment in the territory of the exporting country.

3.2 Animals, produce and/or raw material of animal origin, as well as forage shall be imported to Georgia only through designated veterinary control points of the Ministry of Agriculture and Food of Georgia if accompanied by veterinary certificates issued by veterinarians employed by the exporting State.

3.3 The certificates shall confirm that animals, fowl, produce and/or raw material origin, forage and places of their origin are free from infection. In addition, the veterinary certificates shall indicate the methods and dates of investigation and treatment of the animals and/or produce of animal origin and the results obtained.

3.4 Animals passing through a veterinary control point shall be subject to a clinical examination, temperature taking and veterinary treatment and, in specific cases, to quarantine of a standard term.

3.5 Raw material of animal origin, raw animal produce and/or forage shall be examined with a view to ascertaining the observance of the rules for importation, carriage and packing of the cargo, as well as the presence of the seal of the animal quarantine authority.

3.6 It is forbidden to import and/or carry in transit through the territory of Georgia animals suspected of a disease and/or animal produce of countries that have been infected in the last twelve months with the following diseases:

- aphthous fever of the CAT 1,2 or 3;
- Asia-1 types and other exotic types;
- African swine fever;
- African horse plague;
- cattle plague and/or
- classical fowl plague.

3.7 If the veterinary and sanitary requirements for importation have been met and the animals, fowl, animal raw material and/or animal raw produce and/or forage have been found free from infection, a veterinary control point shall issue, in exchange for a veterinary certificate, a license to carry on the aforesaid to the place of destination in Georgia.

3.8 If the veterinary-sanitary requirements for importation of animals, produce and/or raw material of animal origin, or forage in Georgia have not been fulfilled, or if an infectious disease has been revealed among the animals, produce and/or raw material of animal origin, or forage have been found to be infected, the cargo may be detained at a veterinary control point, shipped back to the supplier or destroyed.

3.9 The following materials imported into Georgia or in transit through Georgia shall be subject to quarantine examination:

- seeds of crop plants and wild plants;
- living plants and their parts (seedlings, cuttings, tubers, etc);
- bread and fodder grain, fresh fruits, cotton fiber and other fiber crops, as well as raw tobacco and fresh spices;
- all living cultures of fungi, bacteria and viruses, as well as every kind of living entomological objects;
- all kind of collections of insects, plant and seed diseases, as well as herbaria;
- unbaked wood;
- bedding and/or forage accompanying imported animals;
- parcels, cabin-carried articles and baggage of passengers and rations of crew, containing plant ingredients.

3.10 No vegetable produce should be taken from foreign States to the territory of the Georgia, unless it is accompanied by the following:

- Importation quarantine certificate issued by the State Quarantine Inspection of the Ministry of Agriculture and food;
- Certificate issued by the appropriate agricultural authority in the country of origin attesting that the exported vegetable produce indicated in para 3.9 has not been infected with quarantine pests, disease or weeds.

3.11 The procedures and requirements for examination of vegetable cargo at airports are stipulated by the Rules of the State Quarantine Inspection of the Georgian Ministry of Agriculture and Food and are carried out by plant quarantine stations.

3.12 If quarantine pests and diseases are found in vegetable cargo exported to Georgia, these cargo are to be, subject to option by owners, disinfected, destroyed or shipped back to the country of origin.

3.13 The transporting aircraft is subject to disinfection in accordance with the established procedures.

3.14 Plant quarantine officers may take samples for examining the state of the transported cargo.

GEN 1.5 Aircraft instruments, equipment and flight documents

1 General

Commercial air transport aircraft operating in the airspace of Georgia must adhere to the provisions of *Annex 6 — Operation of Aircraft.* Part I — International Commercial Air Transport — Aeroplanes, Chapter 6 (Aeroplane Instruments, Equipment and Flight Documents) and Chapter 7 (Aeroplane Communication and Navigation Equipment).

2 Special equipment to be carried

The carriage of special equipment for flight operations over the territory of Georgia is not required.

3 Equipment to be carried by all types of flights

The civil aviation operating in the airspace of Georgia shall carry devices and navigation equipment according to the provisions of *ICAO Annex 6.*

4 Equipment to be carried on all internal and on certain flights

The civil aviation operating in the airspace of Georgia shall carry devices and navigation equipment according to the provisions of *ICAO Annex 6.*

5 Documentary requirements for aircraft

All foreign airlines aircraft carrying out international flights to/from Georgia shall have the following onboard and flight documents:

- Certificate of Aircraft Registration;
- Certificate of Aircraft Airworthiness;
- Journey logbook;
- License to operate aircraft radio aids, issued by the equipment manufacturer;
- Passenger Manifest;
- Cargo Manifest including special information on the cargo;
- Aircraft Maintenance log;
- Air Operator Certificate;
- Noise Certificate;
- Aircraft Flight Manual;
- Those parts of Flight Operations Manual (FOM) that pertain to the operated flight;
- Minimum Equipment List (MEL);
- Manual on flight operation under meteorological minimum of Category I or Category II, as appropriate;
- Filed ATS flight plan;
- Documentation provided by Briefing (NOTAM);
- Meteorological information documentation;
- Aircraft load and trim sheet;
- VIP passenger name list;
- Charts and route guides to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted;
- Pilot post-flight report forms;
- For international flights – Customs declaration.

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GEN 1.6 Summary of national regulations and international agreements/conventions

1 General

Following is a list of civil aviation legislation, air navigation regulations and other relevant regulations in force in Georgia affecting air navigation. It is essential that persons engaged in air operations be acquainted with relevant regulations. Copies of the documents may be obtained from the CAA website (**www.gcaa.ge**).

1.1 Aviation Act

- *Georgian Air Code*;
- The Law of Georgia *"On the Management and Regulation of the Field of Transport".*

1.2 Civil Air Navigation Regulations

- Georgian CAA Order No 113 *"Rules of the Air in Georgian Airspace";*
- Georgian Government Decree No 660 *"The Structure and design of Airspace of Georgia";*
- Georgian Government Decree No 325 *"Rules of Meteorological Provision of Georgian Civil Aviation";*
- Ministerial Order No 1-1/583 *"The Statute of the Legal Entity of Public Law - Civil Aviation Agency";*
- Georgian Government Decree No 595 *"Rules of the Radio Communication and Phraseology in Aviation";*
- Georgian Government Decree No 471 *"Rules of the Aeronautical Information and Data Origination*";
- Georgian CAA Order No 24 *"Rules of the Aeronautical Information Service*";
- Georgian CAA Order No 22 *"Rules of the Flight procedure Design"*;
- Georgian CAA Order No 3 *"Rules of the Aeronautical Charts*";
- Georgian CAA Order No 47 *"Rules of the Aeronautical Telecommunication*";
- Georgian CAA Order No 72 *"Rules of the Flight Check of Navigation AIDs"*.

1.3 Air Traffic Regulations

- Georgian CAA Order No 52 *"Manual of Air traffic Services in Georgian Airspace";*
- Georgian Government Decree No 514 *"Manual on Flexible Use of Airspace";*
- Georgian CAA Order No 59 *"Aerodrome Flight Information Service Manual"*.

1.4 Safety Regulations

- Georgian CAA Order No 166 *"Manual on Inspection and Supervision of Aviation-related Activities";*
- Georgian CAA Order No 17 *"Occurrence Reporting Rule"*;
- Georgian CAA Order No 206 *"The General Rule of Safety Management System";*
- Georgian CAA Order No 208 *"The Rule of Runway Safety Team";*
- Georgian CAA Order No 185 *"Rules of the Oversight of Changes in ANSP";*
- Georgian Government Decree No 87 *"Technical Norms of Design and Operation of Civil Aerodromes/Heliports".*

1.5 Certification Rules

- Georgian CAA Order No 150 *"Aviation Personnel Certification Rules";*
- Georgian CAA Order No 221 *"Civil Aviation Training Organization Certification Rules";*
- Georgian CAA Order No 202 *"Aviation Personnel Medical Certification Rules";*
- Georgian CAA Order No 119 *"The Rules of Certification of Air traffic Services and Facilities";*
- Georgian CAA Order No 267 *"The Aerodrome Certification Rules";*
- Georgian CAA Order No 81 *"Certification of Refueling Organization";*
- Georgian CAA Order No 262 *"Rules of the Certification of Aviation Technical Maintenance Organization";*
- Georgian CAA Order No 264 *"Rules of the Certification of the Air Cargo Terminals and Forms of Certificates";*
- Georgian CAA Order No 208 *"Rules of the Issuance of Aircraft Radio Station Certificate";*
- Georgian CAA Order No 209 *"Rule of the Issuance of Aircraft Airworthiness and Noise Certificates".*

1.6 International agreements/conventions

- *Convention on International Civil Aviation* (Chicago, December 07, 1944);
- *Protocol on the Authentic Trilingual Text of the Convention on International Civil Aviation* (The Chicago Convention 1968);
- *Protocol relating to an amendment to the Convention on International Civil Aviation*, Article 83 bis (Montreal, October 06, 1980);
- *Protocol relating to an amendment to the Convention on International Civil Aviation*, Article 3 bis (Montreal, May 10, 1984);
- *International Air Services Transit Agreement* (December 07, 1944);
- *Convention on Offences and Certain Other Acts Committed on Board Aircraft* (The Tokyo Convention 1963);
- *Convention for the Suppression of Unlawful Seizure of Aircraft* (October 14, 1971);
- *Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation* (January 26, 1973);
- *Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation* (Montreal 1988);
- *Convention on the Marking of Plastic Explosives for the Purpose of Detection* (Montreal 1991);
- *Convention for the Unification of Certain Rules for International Carriage by Air* (Montreal, May 28, 1999);
- *Common Aviation Area Agreement between the European Union and its Member States and Georgia*;
- *Convention on International Interests in Mobile Equipment* (Cape Town, November 16, 2001);
- *EUROCONTROL International Convention relating to Co-operation for the safety of Air navigation* (December 13,1960);

- *Amended EUROCONTROL Convention and Multilateral Agreement relating to Route Charges* (February 12, 1981);
- *Protocol consolidating the EUROCONTROL Convention* - the "Revised Convention" (June 27, 1997);
- *Protocol on the Accession of the European Community to the EUROCONTROL Convention* (October 8, 2002).

1.7 **Miscellaneous**

- *Regulation on the Application of Charges for the Services Rendered in the Airspace and Airports of Georgia;*
- Georgian CAA Order No 16 *"The Rules on Provision of Assistance to Disabled Persons and Persons with Reduced Mobility when Travelling by Air";*
- Georgian CAA Order No 122 *"The Rules on Compensation and Assistance to Passengers in the Event of Denied Boarding and of Cancellation or Long Delay of Flights";*
- Georgian Government Decree No 196 *"The Rules and Procedures of the Issuance of Aerial Works and/or Non-Regular International Air Transportation Permissions";*
- Georgian Government Decree No 23 *"The Rule on Designation of Air-Carriers Registered in Georgia to carry out Regular International Air Transportation, Approval of Flight Schedules for designated Air-Carriers and Approval of Air-Carriers Designations Carried by Foreign Countries";*
- Georgian CAA Order No 263 *"Dangerous Goods Transportation Rules by Air";*
- Georgian CAA Order No 95 *"Insurance Requirements of the OL Holders";*
- Georgian CAA Order No 96 *"Air Carrier Liability in case of passenger death/injury, delay of passenger or baggage and loose, damage or destroy of the baggage";*
- Georgian Government Decree No 428 *"Rules of the Interception of Aircraft";*
- Georgian Government Decree No 336 *"Rules of the Search and Rescue";*
- Georgian CAA Order No 205 *"The Rule on State Registration of Civil Aircraft of Georgia";*
- Georgian Government Decree No 53 *"The Aviation Technical Maintenance Rule".*

GEN 1.7 Differences from ICAO Standards, Recommended Practices and Procedures

1. ANNEX 1 — PERSONNEL LICENSING, 12th edition (Amendment 175)

No differences.

2. ANNEX 2 — RULES OF THE AIR, 10th edition (Amendment 46)

Chapter 3

3.3.1 *Submission of a flight plan*

3.3.1.4 In Georgian airspace flight plan for IFR flight shall be submitted at least 180 minutes before departure, or, if submitted during flight, at a time which will ensure its receipt by the appropriate air traffic services unit at least ten minutes before the aircraft is estimated to reach:

a) the intended point of entry into a control area or advisory area; or

b) the point of crossing an airway or advisory route.

3. ANNEX 3 — METEOROLOGY, 20th edition

No differences.

4. ANNEX 4 — AERONAUTICAL CHARTS, 11th edition (Amendment 60)

Chapter 4 The Aerodrome Obstacle Chart — ICAO Type B is not published. A demand for this chart has not been identified in Georgia. User requirement is satisfied by the current content of the AIP.

5.1 Aerodrome Terrain and Obstacle Charts — ICAO (Electronic) is not published. Work is currently underway to identify the measures required to achieve compliance with this standard.

6.1 The Precision Approach Terrain Chart — ICAO is not published. Work is currently underway to identify the measures required to achieve compliance with this standard.

16.1 The World Aeronautical Chart — ICAO 1:1000000 is not published. There is no operational requirement for this chart. Aeronautical Chart — ICAO 1:500000 is produced instead.

18.1 The Aeronautical Navigation Chart — ICAO small scale is not published. User requirement is satisfied by the current content of the AIP.

19.1 The Plotting Chart — ICAO is not published. User requirement is satisfied by the current content of the AIP.

20.1 The Electronic Aeronautical Chart Display — ICAO is not published. User requirement is satisfied by the current content of the AIP.

5. ANNEX 5 — UNITS OF MEASUREMENT TO BE USED IN AIR AND GROUND OPERATIONS, 5 th edition

No differences.

6. ANNEX 6 — OPERATION OF AIRCRAFT,

PART I - 11th edition

Chapter 6.15.1 If IFR flights are performed all turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5700 kg or authorized to carry more than nineteen passengers shall be equipped with a ground proximity warning system.

Chapter 6.15.5 All turbine-engined aeroplanes of a maximum certificated take-off mass of 5700 kg or less and authorized to carry more than five but not more than nine passengers shall be equipped with a ground proximity warning system which provides the warnings of 6.15.8 a) and c), warning of unsafe terrain clearance and a forward looking terrain avoidance function. It is not applicable to aircraft performing VFR flights.

Chapter 6.15.6 All piston-engined aeroplanes of a maximum certificated take-off mass in excess of 5700 kg or authorized to carry more than nine passengers shall be equipped with a ground proximity warning system which provides the warnings of 6.15.8 a) and c), warning of unsafe terrain clearance and a forward looking terrain avoidance function. It is not applicable to aircraft performing VFR flights.

Chapter 6.17.1 All aeroplanes shall carry an automatic ELT.

Chapter 6.23 Single pilot night flights shall be performed only for training purposes and only in airport area.

Chapter 9.4.4 In addition to Chapter 9.4.4, an operator shall ensure line check for each flight crew member. It shall be performed once in a period of 12 month.

PART II - 9th edition

PART III - 8th edition

No differences.

7. ANNEX 7 — AIRCRAFT NATIONALITY AND REGISTRATION MARKS, 6th edition

No differences.

8. ANNEX 8 — AIRWORTHINESS OF AIRCRAFT, 12th edition (Amendment 106)

No differences.

9. ANNEX 9 — FACILITATION, 15th edition

No differences.

10. ANNEX 10 — AERONAUTICAL TELECOMMUNICATIONS,

VOLUME I - 6th edition (Amendment 91)

VOLUME II - 7th edition

VOLUME III - 2nd edition (Amendment 90)

VOLUME IV - 5th edition

VOLUME V - 3rd edition

No differences.

11. ANNEX 11 — AIR TRAFFIC SERVICES, 15th edition (Amendment 51)

3.7.1	Transonic Acceleration is forbidden in Georgian Airspace.
3.7.2	Transonic Deceleration is forbidden in Georgian Airspace.

12. ANNEX 12 — SEARCH AND RESCUE, 8th edition (Amendment 18)

No differences.

13. ANNEX 13 — AIRCRAFT ACCIDENT INVESTIGATION, 11th edition

No differences.

14. ANNEX 14 — AERODROMES,

VOLUME I - 8th edition

VOLUME II - 4th edition (Amendment 8)

No differences.

15. ANNEX 15 — AERONAUTICAL INFORMATION SERVICES, 16th edition

No differences.

16. ANNEX 16 — ENVIRONMENTAL PROTECTION,

VOLUME I - 8th edition

VOLUME II - 4th edition

VOLUME III - 1st edition

VOLUME IV - Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) - 1st edition

No differences.

17. ANNEX 17 — SECURITY — SAFEGUARDING INTERNATIONAL CIVIL AVIATION AGAINST ACTS OF UNLAWFUL INTERFERENCE, 10th edition

No differences.

18. ANNEX 18 — THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR, 4th edition (Amendment 12)

No differences.

19. ANNEX 19 — SAFETY MANAGEMENT, 2nd edition

No differences.

GEN 2 Tables and codes

GEN 2.1 Measuring system, aircraft markings, holidays

1 Units of measurement

The following table of units of measurement, which complies the requirements of *ICAO Annex 5*, will be used by aeronautical stations within Tbilisi FIR for air and ground operations.

For measurement of	Units used
Distance used in navigation, position reporting, etc.	Nautical Miles
Relatively short distances such as those relating to aerodromes (e.g. runway lengths)	Metres
Elevations, altitudes, heights and flight levels	Feet
Horizontal speed	Knots
Vertical speed	Feet per minute
Wind direction for landing and taking off	Degrees Magnetic
Visibility	Kilometres or metres
RWY visual range	Metres
Altimeter setting	Millibar, mm Hg
Temperature	Degrees Celsius
Weight	Metric tonnes or Kilogrammes
Time	Hours and minutes, beginning at midnight UTC

2 Time system

Coordinated Universal Time (UTC) is used by air navigation services and in publications issued by the Aeronautical Information Service. Reporting of time is expressed to the nearest minute, e.g. 12:40:35 is reported as 1241.

Local time in Georgia is UTC +4.

3 Horizontal reference system

3.1 Name/designation of datum

All published geographical coordinates indicating latitude and longitude are expressed in terms of the World Geodetic System – 1984 (WGS-84) geodetic reference datum.

3.2 Projection

The projection is expressed in terms of Universal Transverse Mercator (UTM).

3.3 Ellipsoid

The ellipsoid is expressed in terms of World Geodetic System-1984 (WGS-84) ellipsoid.

3.4 Datum

The World Geodetic System-1984 (WGS-84) is used.

3.5 Area of application

Area of application for the published geographical coordinates coincides with the area of responsibility of the Aeronautical Information Service, i.e. the entire territory of Georgia.

3.6 Use of asterisk to identify published geographical coordinates

Not applicable.

4 Vertical reference system

4.1 Name/designation of the reference system

The vertical reference system corresponds to mean sea level (MSL).

4.2 Geoid model

The geoid model used is the Earth Gravitational Model 1996 (EGM-96).

4.3 Use of asterisk to identify published elevations/geoid undulations

Not applicable.

5 Aircraft nationality and registration marks

The nationality mark for aircraft registered in Georgia are the letters 4L. The nationality mark is followed by a hyphen and the aircraft registration number.

6 Public holidays

Name	Date/Day
New Year's Days	January 1, 2
Christmas	January 7
Epiphany	January 19
Mother's Day	March 3
Women's Day	March 8
Easter Friday	Easter Friday
Easter Saturday	Easter Saturday
Easter Sunday	Easter Sunday
Easter Monday	Monday after Easter Sunday
National Heroes Commemoration Day	April 9
Victory Day	May 9
Commemoration Day of Apostle St.Andrey	May 12
Independence Day	May 26
Day of Saint Mary	August 28
Mtskhetoba	October 14
Day of Saint George	November 23

GEN 2.2 Abbreviations used in aeronautical information products

Notes:
Abbreviations marked by an asterisk (*) are either different from or not contained in ICAO Doc 8400.

A

A	Amber
A/A	Air-to-air
A/G	Air-to-ground
AAA	(or AAB, AAC...etc., in sequence) Amended meteorological message (message type designator)
AAD	Assigned altitude deviation
AAIM	Aircraft autonomous integrity monitoring
AAL	Above aerodrome level
ABI	Advance boundary information
ABM	Abeam
ABN	Aerodrome beacon
ABT	About
ABV	Above
AC	Altocumulus
ACARS	(to be pronounced "AY-CARS") Aircraft communication addressing and reporting system
ACAS	Airborne Collision Avoidance System
ACC	Area Control Centre or Area Control
ACCID	Notification of an aircraft accident
ACFT	Aircraft
ACK	Acknowledge
ACL	Altimeter Check Location
ACN	Aircraft classification number
ACP	Acceptance (message type designator)
ACPT	Accept or accepted
ACT	Active or activated or activity
AD	Aerodrome
ADA	Advisory Area
ADC	Aerodrome chart
ADDN	Addition or additional
ADF	Automatic Direction Finding Equipment
ADIZ	(to be pronounced "AY-DIZ") Air Defence Identification Zone
ADJ	Adjacent
ADO	Aerodrome office (specify service)
ADR	Advisory route
ADS	Automatic dependent surveillance
ADSU	Automatic dependent surveillance unit
ADVS	Advisory service
ADZ	Advise
AES	Aircraft earth station
AFIL	Flight Plan Filed in the Air
AFIS	Aerodrome Flight Information Service
AFM	Yes or affirm or affirmative or that is correct
AFS	Aeronautical fixed service
AFT...	After...(time or place)
AFTN	Aeronautical Fixed Telecommunication Network
AGA	Aerodrome, air routes and ground aids
AGL	Above ground level
AGN	Again
AIC	Aeronautical information circular
AIDC	Air traffic services inter-facility data communication
AIM *	ATFM Information Message
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIREP	Air-Report
AIRMET	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
AIS	Aeronautical Information Services
ALA	Alighting area
ALERFA	Alert Phase
ALR	Alerting (message type designator)
ALRS	Alerting Service
ALS	Approach lighting system
ALT	Altitude
ALTN	Alternate or alternating (light alternates in colour)
ALTN	Alternate (aerodrome)
AMA	Area minimum altitude
AMD	Amend or amended (used to indicate amended meteorological message; message type designator)
AMDT	Amendment (AIP amendment)
AMS	Aeronautical mobile service
AMSL	Above mean sea level
AMSS	Aerodrome mobile satellite service
ANC...	Aeronautical chart - 1:500 000 (followed by name/title)
ANCS...	Aeronautical navigation chart - small scale (followed by name/title and scale)
ANS	Answer
AOC...	Aerodrome obstacle chart (followed by type and name/title)
AP	Airport
APAPI	(to be pronounced "AY-PAPI") Abbreviated precision approach path indicator
APCH	Approach
APDC...	Aircraft parking/docking chart (followed by name/title)
APN	Apron
APP	Approach control office or approach control or approach control service
APR	April
APRX	Approximate or approximately
APSG	After passing
APV	Approve or approved or approval
ARC	Area chart
ARCC *	Aviation rescue co-ordination centre
ARFOR *	Area forecast (in aeronautical Meteorological code)
ARNG	Arrange
ARO	Air traffic services reporting office
ARP	Aerodrome Reference Point
ARP	Air-report (message type designator)
ARQ	Automatic error correction
ARR	Arrive or arrival
ARR	Arrival (message type designator)
ARS	Special air-report (message type designator)
ARST	Arresting (specify (part of) aircraft arresting equipment)
AS	Altostratus
ASC	Ascent to or ascending to
ASDA	Accelerate stop distance available
ASE	Altimetry system error
ASPEEDG	Airspeed gain
ASPEEDL	Airspeed loss
ASPH	Asphalt
AT...	At (followed by time at which weather change is forecast to occur)
ATA	Actual Time of Arrival
ATC	Air Traffic Control (in general)
ATD	Actual Time of Departure

ATFM	Air Traffic Flow Management
ATIS	Automatic Terminal Information Service
ATM	Air traffic management
ATN	Aeronautical telecommunication network
ATP	At...(time or place)
ATS	Air Traffic Services
ATTN	Attention
AT-VASIS	(to be pronounced "AY-TEE-VASIS") Abbreviated T visual approach slope indicator system
ATZ	Aerodrome Traffic Zone
AUG	August
AUTH	Authorized or authorization
AUW	All up weight
AUX	Auxiliary
AVBL	Available or availability
AVG	Average
AVGAS	Aviation Gasoline
AWTA	Advise at what time able
AWY	Airway
AZM	Azimuth
B	
B	Blue
BA	Braking action
BASE	Cloud Base
BCFG	Fog patches
BCN	Beacon (aeronautical ground light)
BCST	Broadcast
BDRY	Boundary
BECMG	Becoming
BFR	Before
BKN	Broken
BL...	Blowing (followed by DU= dust, SA= sand or SN= snow)
BLDG	Building
BLO	Below clouds
BLW...	Below ...
BOMB	Bombing
BR	Mist
BRF	Short (used to indicate the type of approach desired or required)
BRG	Bearing
BRKG	Braking
BS	Commercial broadcasting station
BTL	Between layers
BTN	Between
C	
C	Centre (preceded by runway designation number to identify a parallel runway)
C	Degrees celsius (Centigrade)
CA	Course to an altitude
CAA *	Civil Aviation Agency
CAT	Category
CAT	Clear air turbulence
CAVOK	(to be pronounced "KAV-OH-KAY") visibility, cloud and present weather better than prescribed values or conditions
CB	(to be pronounced "CEE BEE") Cumulonimbus
CC	Cirrocumulus
CCA	(or CCB, CCC....etc.. in sequence) corrected meteorological message (message type designator)
CD	Candela
CDN	Co-ordination (message type designator)
CF	Change frequency to ...
CF	Course to a fix
CGL	Circling guidance light(s)
CH	Channel
CHG	Modification (message type designator)
CI	Cirrus
CIDIN	Common ICAO data interchange network
CIT	Near or over large towns
CIV	Civil
CK	Check
CL	Centre line
CLA	Clear type of ice formation
CLBR	Calibration
CLD	Cloud
CLG	Calling
CLIMB-OUT	Climb-out area
CLR	Clear(s) or cleared to ... or clearance
CLRD	Runway(s) cleared (used in METAR/SPECI)
CLSD	Close or closed or complete
CM	Centimetre
CMB	Climb to or climbing to
CMPL	Completion or completed or complete
CNL	Cancel or cancelled
CNL	Flight plan cancellation message (message type designator)
CNS	Communication, navigation and surveillance
COM	Communications
CONC	Concrete
COND	Condition
CONS	Continuous
CONST	Construction or constructed
CONT	Continue or continued
COOR	Coordinate or coordination
COORD	Coordinates
COP	Change Over Point
COR	Correct or correction or corrected (used to indicate corrected meteorological message; message type designator)
COT	At the coast
COV	Cover or covered or covering
CPDLC	Controller-pilot data link communications
CPL	Current flight plan (message type designator)
CRC	Cyclic redundancy check
CRP	Compulsory reporting point
CRZ	Cruise
CS	Call sign
CS	Cirrostratus
CTA	Control Area
CTAM	Climb to and maintain
CTC	Contact
CTL	Control
CTN	Caution
CTR	Control Zone
CU	Cumulus
CUF	Cumuliform
CUST	Customs
CVR	Cockpit voice recorder
CW	Continuous wave
CWY	Clearway
D	
D	Downward (tendency in RVR during previous 10 minutes)
D...	Danger area (followed by identification)
DA	Decision altitude
D-ATIS	(to be pronounced "DEE-ATIS") Data link automatic terminal information service
DCD	Double channel duplex
DCKG	Docking
DCP	Datum crossing point
DCPC	Direct controller-pilot communications

DCS	Double channel simplex
DCT	Direct (in relation to flight plan clearances and type of approach)
DEC	December
DECCA *	Navigation system
DEG	Degrees
DEP	Depart or departure
DEP	Departure (message type designator)
DER	Departure end of the runway
DES	Descend to or descending to
DEST	Destination
DETRESFA	Distress Phase
DEV	Deviation or deviating
DF *	Direct to a fix
DFDR	Digital flight data recorder
DFTI	Distances from touch down indicator
DH	Decision height
DIF	Diffuse
DIST	Distance
DIV	Divert or diverting
DLA	Delay (message type designator)
DLA	Delay or delayed
DLIC	Data link initiation capability
DLY	Daily
DME	Distance Measuring Equipment
DNG	Danger or dangerous
DOM	Domestic
DP	Dew point temperature
DPT	Depth
DR	Dead reckoning
DR...	Low drifting (followed by DU= dust, SA= sand or SN = snow)
DRG	During
DS	Duststorm
DSB	Double sideband
DTAM	Descend to and maintain
DTG	Date-time group
DTHR	Displaced runway threshold
DTRT	Deteriorate or deteriorating
DTW	Dual tandem wheels
DU	Dust
DUC	Dense upper cloud
DUR	Duration
D-VOLMET	Data link VOLMET
DVOR	Doppler VOR
DW	Dual wheels
DZ	Drizzle

E

E	East or eastern longitude
EAT	Expected approach time
EB	Eastbound
EDA	Elevation differential area
EET	Estimated elapsed time
EFC	Expect further clearance
EGNOS	(to be pronounced "EGG-NOS") European geostationary navigation overlay service
EHF	Extremely high frequency (30 000 to 300 000 MHz)
ELBA	Emergency location beacon - aircraft
ELEV	Elevation
ELR	Extra long range
ELT	Emergency location transmitter
EM	Emission
EMBD	Embedded in a layer (to indicate cumulonimbus embedded in layers of other clouds)
EMERG	Emergency
EN *	English
END	Stop-end (related to RVR)
ENE	East north east
ENG	Engine
ENR	En-route
ENRC...	Enroute chart (followed by name/time)
EOBT	Estimated Off-Block Time
EQPT	Equipment
ESE	East south east
EST	Estimate or Estimated or Estimate (as message type designator)
ETA	Estimated Time of Arrival or Estimating Arrival
ETD	Estimated Time of Departure or Estimating Departure
ETO	Estimated time over significant point
EV	Every
EXC	Except
EXER	Exercises or exercising or to exercise
EXP	Expect or expected or expecting
EXTD	Extend or extending

F

F	Fixed
FAC	Facilities
FAF	Final approach fix
FAL	Facilitation of international air transport
FAP	Final approach point
FATO	Final approach and take-off area
FAX	Facsimile transmission
FBL	Light (used to indicate the intensity of weather phenomena, interference or static reports, e.g. FBL RA = light rain)
FC	Funnel Cloud (tornado or water spout)
FCST	Forecast
FCT	Friction coefficient
FDPS	Flight data processing system
FEB	February
FEW	Few
FG	Fog
FIC	Flight information centre
FIR	Flight Information Region
FIS	Flight Information Service
FISA	Automated flight information service
FIZ *	Flight information zone
FL	Flight Level
FLD	Field
FLG	Flashing
FLR	Flares
FLT	Flight
FLTCK	Flight check
FLUC	Fluctuating or fluctuation or fluctuated
FLW	Follow(s) or following
FLY	Fly or flying
FM	From
FM...	From (followed by time weather change is forecast to begin)
FMS	Flow Management System
FMU	Flow Management Unit
FNA	Final approach
FPAP	Flight path alignment point
FPL	Filed Flight Plan (message type designator)
FPM	Feet per minute
FPR	Flight plan route
FR	Fuel remaining
FRA *	Free Route Airspace
FRASC *	Free Route Airspace South Caucasus
FREQ	Frequency

FRI	Friday
FRNG	Firing
FRONT	Front (relating to weather)
FRQ	Frequent
FSL	Full stop landing
FSS	Flight service
FST	First
FT	Feet (dimensional unit)
FTP	Fictitious threshold point
FU	Smoke
FZ	Freezing
FZDZ	Freezing Drizzle
FZFG	Freezing Fog
FZRA	Freezing Rain

G

G	Green
G...	Variations from the mean wind speed (gusts) (followed by figures in METAR/SPECI and TAF)
G/A	Ground-to-air
G/A/G	Ground-to-air and air-to-ground
GA	Go ahead, resume sending (to be used in AFS as a procedure signal)
GAGAN	GPS and geostationary earth orbit augmented navigation
GAMET	Area forecast for low-level flights
GARP	GBAS azimuth reference point
GAT *	General Air Traffic
GBAS	(to be pronounced "GEE-BAS") Ground-based augmentation system
GCA	Ground controlled approach system or ground controlled approach
GEN	General
GEO	Geographic or true
GES	Ground earth station
GLD	Glider
GLONASS	(to be pronounced "GLO-NAS") Global orbiting navigation satellite system
GMC...	Ground movement chart (followed by name/title)
GND	Ground
GNDCK	Ground check
GNSS	Global navigation satellite system
GP	Glide path
GPS	Global Positioning System
GR	Hail
GRAS	(to be pronounced "GRASS") Ground-based regional augmentation system
GRASS	Grass landing area
GRIB	Processed meteorological data in the form of grid point values (aeronautical meteorological code)
GRVL	Gravel
GS	Ground speed
GS	Small Hail and/or Snow Pellets
GUND	Geoid undulation

H

H	High pressure area or the centre of high pressure
H24	Continuous Day and Night Service
HAPI	Helicopter approach path indicator
HBN	Hazard beacon
HDF	High frequency direction-finding station
HDG	Heading
HEL	Helicopter
HF	High Frequency (3 000 to 30 000 kHz)
HGT	Height or height above
HIALS *	High-intensity approach lighting system
HJ	Sunrise to sunset
HLDG	Holding
HN	Sunset to sunrise
HO	Service available to meet operational requirements
HOL	Holiday
HOSP	Hospital aircraft
HPA	Hectopascal
HR	Hours
HS	Service Available During Hours of Scheduled Operations
HURCN	Hurricane
HVDF	High and very high frequency direction finding stations (at the same location)
HVY	Heavy
HVY	Heavy (used to indicate the intensity of weather phenomena, e.g. HVY RA = heavy rain)
HX	No specific working hours
HYR	Higher
HZ	Haze
HZ	Hertz (cycle per second)

I

IAC...	Instrument approach chart
IAF	Initial approach fix
IAO	In and out of clouds
IAP	Instrument approach procedure
IAR	Intersection of air routes
IAS	Indicated air speed
IATA *	International Aviation Transport Association
IBN	Identification Beacon
IC	Diamond dust (very small ice crystals in suspension, also known as diamond dust)
ICAO *	International Civil Aviation Organization
ICARD *	ICAO Codes And Routes Designator
ICE	Icing
ID	Identifier or identify
IDENT	Identification
IF	Intermediate approach fix
IFF	Identification friend/foe
IFR	Instrument Flight Rules
IGA	International general aviation
ILS	Instrument Landing System
IM	Inner marker
IMC	Instrument Meteorological Conditions
IMG	Immigration
IMPR	Improve or improving
IMT	Immediate or immediately
INA	Initial approach
INBD	Inbound
INC	In cloud
INCERFA	Uncertainty Phase
INFO	Information
INOP	Inoperative
INP	If not possible
INPR	In progress
INS	Inertial Navigation System
INSTL	Install or installed or installation
INSTR	Instrument
INT	Intersection
INTL	International
INTRG	Interrogator
INTRP	Interrupt or interruption or interrupted
INTSF	intensify or intensifying
INTST	Intensity
IR	Ice on runway
ISA	International standard atmosphere
ISB	Independent sideband
ISOL	Isolated

J	
JAN	January
JTST	Jet stream
JUL	July
JUN	June
K	
KG	Kilograms
KHZ	Kilohertz
KM	Kilometres
KMH	Kilometres per hour
KPA	Kilopascal
KT	Knots
KW	Kilowatts
L	
L	Left (preceded by runway designation number to identify a parallel runway)
L	Locator (see LM, LO)
L	Low pressure area or the centre of low pressure
LAL *	Lowest Available Level
LAM	Logical acknowledgement (message type designator)
LAN	Inland
LAT	Latitude
LDA	Landing distance available
LDAH	Landing distance available, helicopter
LDG	Landing
LDI	Landing Direction Indicator
LEN	Length
LF	Low frequency (30 to 300 kHz)
LGT	Light or Lighting
LGTD	Lighted
LIH	Light intensity high
LIL	Light intensity low
LIM	Light intensity medium
LM	Locator middle
LMT	Local mean time
LNG	Long (used to indicate the type of approach desired or required)
LO	Locator, outer
LOC	Localizer
LONG	Longitude
LORAN	Long Range Air Navigation System
LR	The last message received by me was...(to be used in AFS as procedure signal)
LRG	Long range
LS	The last message sent by me was... or Last message was...(to be used in AFS as procedure signal)
LT *	Local Time
LTD	Limited
LTP	Landing threshold point
LTT	Landline teletypewriter
LV	Light and variable (relating to wind)
LVE	Leave or leaving
LVL	Level
LYR	Layer or layered
M	
M	Metres (preceded by figures)
M ...	Mach number (followed by figures)
M...	Minimum value of runway range (followed by figures in METAR/SPECI)
MAA	Maximum authorized altitude
MAG	Magnetic
MAINT	Maintenance
MAP	Aeronautical maps and charts
MAPT	Missed approach point
MAR	March
MAR	At sea
MAS	Manual A1 simplex
MAX	Maximum
MAY	May
MBST	Microburst
MCA	Minimum crossing altitude
MCW	Modulated continuous wave
MDA	Minimum descent altitude
MDF	Medium frequency direction-finding station
MDH	Minimum descent height
MEA	Minimum en-route altitude
MEHT	Minimum eye height over threshold (for visual approach slope indicator system)
MET	Meteorological or meteorology
METAR	Aviation routine weather report (in aeronautical meteorological code)
MF	Medium frequency (300 kHz to 3 000 kHz)
MHDF	Medium and high frequency direction-finding station (at the same location)
MHVDF	Medium, high and very high frequency direction-finding station (at the same location)
MHZ	Megahertz
MID	Mid-point (related to RVR)
MIFG	Shallow fog
MIL	Military
MIN	Minutes
MIS	Missing... (transmission identification) (to be used in AFS as a procedure signal)
MKR	Marker radio beacon
MLS	Microwave landing system
MM	Middle Marker
MNM	Minimum
MNPS	Minimum navigation performance specifications
MNT	Monitor or monitoring or monitored
MNTN	Maintain
MOA	Military operating area
MOC	Minimum obstacle clearance (required)
MOD	Moderate (used to indicate the intensity of weather phenomena, interference or static reports e.g. MOD RA = Moderate Rain)
MON	Monday
MON	Above mountains
MOPS	Minimum operational performance standards
MOTNE	Meteorological Operational Telecommunications Network Europe
MOV	Move or moving or movement
MPS	Metres per second
MRA	Minimum reception altitude
MRCC *	Maritime Rescue Coordination Center
MRG	Medium range
MRP	ATS/MET reporting point
MS	Minus
MSA	Minimum Sector Altitude
MSAS	(to be pronounced "EM-SAS") Multifunctional transport satellite (MTSAT) satellite-based augmentation system
MSAW	Minimum safe altitude warning
MSG	Message
MSL	Mean sea level
MSSR	Monopulse Secondary Surveillance Radar
MT	Mountain
MTOW *	Maximum Take-off Weight
MTU	Metric units
MTW	Mountain waves
MVDF	Medium and very high frequency direction-finding station (at the same location)

MWO	Meteorological Watch Office
MX	Mixed type of ice formation (white and clear)
N	
N	North or northern latitude
N	No distinct tendency (in RVR during previous 10 minutes)
NASC	National AIS system centre
NAT	North atlantic
NAV	Navigation
NB	North bound
NBFR	Not before
NC	No change
NCD	No cloud detected (used in automated METAR/ SPECI)
NDB	Non-Directional Radio Beacon
NDV	No directional variations available (used in automated METAR/SPECI)
NE	North-east
NEB	North-eastbound
NEG	No or negative or permission not granted or that is not correct
NGT	Night
NIL	None or I have nothing to send to you
NM	Nautical Miles
NML	Normal
NNE	North north east
NNW	North north west
NO	No (negative) (to be used in AFS as a procedure signal)
NOF	International NOTAM office
NOSIG	No Significant Change (used in trend-type landing forecasts)
NOTAM	A notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations
NOV	November
NOZ	Normal operating zone
NR	Number
NRH	No reply heard
NS	Nimbostratus
NSC	Nil significant cloud
NSW	Nil significant weather
NTL	National
NTZ	No transgression zone
NW	North-west
NWB	North-westbound
NXT	Next
O	
O/R	On request
OAC	Oceanic area control centre
OAS	Obstacle assessment surface
OBS	Observe or observed or observation
OBSC	Observe or obscured or obscuring
OBST	Obstacle
OCA	Obstacle clearance altitude
OCA	Oceanic control area
OCC	Occulting (light)
OCH	Obstacle clearance height
OCNL	Occasional or occasionally
OCS	Obstacle clearance surface
OCT	October
OFZ	Obstacle Free Zone
OGN	Originate (to be used in AFS as a procedure signal)
OHD	Overhead
OLDI	On-line data interchange
OM	Out marker
OPA	Opaque, white type of ice formation
OPC	The control indicated is operational control
OPMET	Operational Meteorological (information)
OPN	Open or opening or opened
OPR	Operator or operate or operative or operating or operational
OPS	Operations
ORD	Indication of an order
OSV	Ocean station vessel
OTLK	Outlook (used in SIGMET message for volcanic ash and tropical cyclones)
OTP	On top
OTS	Organized track system
OUBD	Out-bound
OVC	Overcast
P	
P ...	Prohibited area (followed by identification)
P...	Maximum value of wind speed or runway visual range (followed by figures in METAR/SPECI and TAF)
PA	Precision approach
PALS	Precision approach lighting system (specify category)
PANS	Procedures for air navigation services
PAPI	Precision Approach Path Indicator
PAR	Precision Approach Radar
PARL	Parallel
PATC...	Precision approach terrain chart (followed by name/ title)
PAX	Passenger(s)
PCD	Proceed or proceeding
PCL	Pilot-controlled lighting
PCN	Pavement Classification Number
PDC	Pre-departure clearance
PDG	Procedure design gradient
PER	Performance
PERM	Permanent
PIB *	Pre-flight Information Bulletin
PJE	Parachute jumping exercise
PL	Ice pellets
PLA	Practice low approach
PLN	Flight plan
PLVL	Present level
PN	Prior notice required
PNR	Point of no return
PO	Dust devils
POB	Persons on board
POSS	Possible
PPI	Plan position indicator
PPR	Prior permission required
PPSN	Present position
PRFG	Aerodrome partially covered by fog
PRI	Primary
PRKG	Parking
PROB	Probability
PROC	Procedure
PROV	Provisional
PS	Plus
PSG	Passing
PSN	Position
PSP	Pierced steel plank
PSR	Primary surveillance radar
PSYS	Pressure system(s)
PTN	Procedure turn
PTS	Polar track structure

PWR	Power
Q	
QBI *	Compulsory IFR flight
QDL	Do you intend to ask me for series of bearings? or I intend to ask you for series of bearings (to be used in radiotelegraphy as a Q Code)
QDM	Magnetic Heading (zero wind)
QDR	Magnetic bearing
QFE	Atmospheric Pressure at Aerodrome Elevation (or at runway threshold)
QFU	Magnetic orientation of runway
QGE	What is my distance to your station? or Your distance to my station is (distance figures and units) (to be used in radiotelegraphy as a Q Code)
QJH	Shall I run my test tape/a test sentence? or Run your test tape/a test sentence (to be used in AFS as a Q Code)
QNH	Altimeter sub-scale setting to obtain elevation when on the ground
QSP	Will you relay to ... free of charge? or I will relay to ... free of charge (to be used in AFS as a Q Code)
QTA	Shall I cancel telegram number ...? or Cancel telegram number (to be used in AFS as a Q Code)
QTE	True bearing
QTF	Will you give me the position of my station according to the bearings taken by the D/F stations which you control? or The position of your station according to the bearings taken by the D/F stations that I control was … latitude … longitude (or other indication of position), class … at … hours (to be used in radiotelegraphy as a Q Code)
QUAD	Quadrant
QUJ	Will you indicate the TRUE track to reach you? or The TRUE track to reach me is … degrees at … hours (to be used in radiotelegraphy as a Q Code)
R	
R	Right (preceded by runway designation number to identify a parallel runway)
R	Red
R ...	Restricted area (followed by identification)
R...	Runway visual range (followed by figures in METAR/ SPECI)
RA	Rain
RAC	Rules or the air and air traffic services
RAFC *	Regional area forecast centre
RAG	Ragged
RAG	Runway arresting gear
RAI	Runway alignment indicator
RAIM	Receiver autonomous integrity monitoring
RASC	Regional AIS system centre
RASS	Remote altimeter setting source
RB	Rescue boat
RCA	Reach cruising altitude
RCC	Rescue co-ordination centre
RCF	Radiocommunication failure (message type designator
RCH	Reach or reaching
RCL	Runway centre line
RCLL	Runway centre line light(s)
RCLR	Recleared
RDH	Reference datum height (for ILS)
RDL	Radial
RDO	Radio
RE	Recent (used to qualify weather phenomena e.g. RERA = recent rain)
REC	Receive or receiver
REDL	Runway edge light(s)
REF	Reference to ... or refer to ...
REG	Registration
RENL	Runway end light(s)
REP	Report or reporting or reporting point
REQ	Request or requested
RERTE	Re-route
RESA	Runway end safety area
RG	Range (lights)
RHC	Right-hand circuit
RIF	Reclearance in flight
RITE	Right (direction of turn)
RL	Report leaving
RLA	Relay to
RLCE	Request level change en-route
RLLS	Runway lead-in lighting system
RLNA	Requested level not available
RMAC	Radar minimum altitude chart
RMK	Remark
RNAV	(to be pronounced "AR-NAV") Area Navigation
RNG	Radio range
RNP	Required Navigation Performance
ROBEX	Regional OPMET bulletin exchange (scheme)
ROC	Rate of climb
ROD	Rate of descent
ROFOR	Route forecast (in aeronautical meteorological code)
RON	Receiving only
RPI	Radar position indicator
RPL	Repetitive Flight Plan
RPLC	Replace or replaced
RPS	Radar position symbol
RQMNTS	Requirements
RQP	Request flight plan (message type designator)
RQS	Request supplementary flight plan (message type designator)
RR	Report reaching
RRA	(or RRB, RRC....etc in sequence) delayed meteorological message (message type designator)
RSC	Rescue sub-centre
RSCD	Runway surface condition
RSP	Responder beacon
RSR	En-route surveillance radar
RTD	Delayed (used to indicate delayed meteorological message); (message type designator)
RTE	Route
RTF	Radiotelephone
RTG	Radiotelegraph
RTHL	Runway threshold light(s)
RTN	Return or returned or returning
RTODAH	Rejected take-off distance available, helicopter
RTS	Return to service
RTT	Radioteletypewriter
RTZL	Runway touchdown zone light(s)
RU *	Russian
RUT	Standard regional route transmitting frequencies
RV	Rescue vessel
RVR	Runway Visual Range
RVSM	Reduced Vertical Separation Minimum
RWY	Runway
S	
S	South or southern latitude
S...	State of sea (followed by figures in METAR/SPECI)
SA	Sand
SALS	Simple approach lighting system
SAN	Sanitary
SAP	As soon as possible

SAR	Search and rescue
SARPS	Standards and recommended practices (ICAO)
SAT	Saturday
SATCOM	Satellite Communication
SB	Southbound
SBAS	(to be pronounced "ESS-BAS") Satellite-based augmentation system
SC	Stratocumulus
SCT	Scattered
SDBY	Stand by
SDF	Step down fix
SE	South-east
SEA	Sea (used in connection with sea-surface temperature and state of the sea)
SEB	South-eastbound
SEC	Seconds
SECN	Section
SECT	Sector
SELCAL	Selective Calling System
SEP	September
SER	Service or servicing or served
SEV	Severe (used e.g. to qualify icing and turbulence reports)
SFC	Surface
SG	Snow grains
SGL	Signal
SH ...	Showers (followed by RA=rain, SN=snow, PE=ice pellets, GR=hail, GS=small hail and or snow pellets or combinations thereof, e.g. SHRASN=showers of rain and snow)
SHF	Super high frequency (3 000 to 30 000 MHz)
SID	Standard Instrument Departure
SIF	Selective identification feature
SIG	Significant
SIGMET	Information concerning en-route weather phenomena which may affect the safety of operations
SIGWX *	Significant weather
SIMUL	Simultaneous or simultaneously
SIWL	Single isolated wheel load
SKC	Sky clear
SKED	Schedule or scheduled
SLP	Speed limiting point
SLW	Slow
SMC	Surface movement control
SMR	Surface movement radar
SN	Snow
SNOLCO	Aerodrome closed due to snow (used in METAR/ SPECI)
SNOWTAM	A special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area
SPECI	Aviation Selected Special Weather Report (in aeronautical meteorological code)
SPECIAL	Special Meteorological Report (in abbreviated plain language)
SPL	Supplementary flight plan (message type designator)
SPOC	SAR point in contact
SPOT	Spot Wind
SQ	Squall
SQL	Squall line
SR	Sunrise
SRA	Surveillance radar approach
SRE	Surveillance Radar Element of Precision Approach Radar System
SRG	Short range
SRR	Search and rescue region
SRY	Secondary
SS	Sandstorm
SS	Sunset
SSB	Single sideband
SSE	South south east
SSR	Secondary Surveillance Radar
SST	Supersonic transport
SSW	South southwest
ST	Stratus
STA	Straight-in approach
STAR	Standard Instrument Arrival
STD	Standard
STF	Stratiform
STN	Station
STNR	Stationary
STOL	Short take-off and landing
STS	Status
STWL	Stopway light(s)
SUBJ	Subject to
SUN	Sunday
SUP	Supplement (AIP supplement)
SUPPS	Regional supplementary procedures
SVC	Service message
SVCBL	Serviceable
SW	South-west
SWB	South-westbound
SWY	Stopway

T

T	Temperature
TA	Transition altitude
TAA	Terminal arrival altitude
TACAN	UHF Tactical Air Navigation Aid
TAF	Aerodrome Forecast
TAIL	Tail, Wind
TAR	Terminal area surveillance radar
TAS	True airspeed
TAX	Taxiing or taxi
TC	Tropical cyclone
TCAC	Tropical cyclone advisory centre
TCU	Towering cumulus
TDO	Tornado
TDZ	Touchdown zone
TECR	Technical reason
TEL	Telephone
TEMPO	Temporary or Temporarily
TEND *	Trend or tending to
TF	Track to fix
TFC	Traffic
TGL	Touch-and-go Landing
TGS	Taxiing guidance system
THR	Threshold
THRU	Through
THU	Thursday
TIBA	Traffic information broadcast by aircraft
TIL	Until
TIP	Until past...(place)
TKOF	Take off
TL ...	Till (followed by time by which weather change is forecast to end)
TLOF	Touchdown and lift-off area
TMA	Terminal Control Area
TN...	Minimum temperature (followed by figures in TAF)
TNA	Turn altitude

TNH	Turn height
TO...	To...(place)
TOC	Top of climb
TODA	Take-off distance available
TODAH	Take-off distance available, helicopter
TOP	Cloud Top
TORA	Take-off run available
TP	Turning point
TR	Track
TRA	Temporary reserved airspace
TRANS	Transmits or transmitter
TREND	Trend forecast
TRL	Transition level
TROP	Tropopause
TS	Thunderstorm (in aerodrome reports and forecasts, ts used alone means thunder heard but no precipitation at the aerodrome)
TS...	Thunderstorm (followed by RA= RAIN, SN= snow, PE= ice pellets, GR= hail, GS= small hail and/or snow pellets or combinations thereof, e.g. TSRASN= thunderstorm with rain and snow)
TT	Teletypewriter
TUE	Tuesday
TURB	Turbulence
T-VASIS	(to be pronounced "TEE-VASIS") T visual approach slope indicator system
TVOR	Terminal VOR
TWR	Aerodrome Control Tower or Aerodrome Control
TWY	Taxiway
TWYL	Taxiway-link
TX...	Maximum temperature (followed by figures in TAF)
TYP	Type of aircraft
TYPH	Typhoon

U

U	Upward (tendency in rvr during previous 10 minutes)
U/S	Unserviceable
UAB...	Until advised by...
UAC	Upper area control centre
UAR	Upper air route
UDF	Ultra high frequency direction-finding station
UFN	Until further notice
UHDT	Unable higher due traffic
UHF	Ultra High Frequency (300 to 3 000 MHz)
UIC	Upper information centre
UIR	Upper Flight Information Region
ULR	Ultra long range
UNA	Unable
UNAP	Unable to approve
UNL	Unlimited
UNREL	Unreliable
UP	Unidentified precipitation (used in automated METAR/ SPECI)
UTA	Upper control area
UTC	Co-ordinated Universal Time

V

V...	Variations from the mean wind direction (preceded and followed by figures in METAR/SPECI, e.g. 350V070)
VA	Volcanic ash
VAAC	Volcanic ash advisory centre
VAC...	Visual approach chart (followed by name/title)
VAL	In valleys
VAN	Runway control van
VAR	Magnetic variation
VAR	Visual-aural radio range
VASIS	Visual Approach Slope Indicator System
VC...	Vicinity of the aerodrome (followed by FG=fog, FC=funnel cloud, PO=dust-sand whirls, BLDU=blowing dust, BLSA = blowing sand or BLSN=blowing snow, e.g. VC FG = vicinity fog)
VCY	Vicinity
VDF	Very high frequency direction-finding station
VER	Vertical
VFR	Visual Flight Rules
VHF	Very High Frequency (30 to 300 Mhz)
VIP	Very Important Person
VIS	Visibility
VLF	Very low frequency (3 to 30 khz)
VLR	Very long range
VMC	Visual Meteorological Conditions
VOLMET	Meteorological Information for Aircraft in Flight
VOR	VHF Omnidirectional Radio Range
VORTAC	VOR and TACAN Combination
VOT	VOR airborne equipment test facility
VPA	Vertical path angle
VRB	Variable
VSA	By visual reference to the ground
VSP	Vertical speed
VTOL	Vertical take-off and landing
VV...	Vertical visibility (followed by figures in METAR/SPECI and TAF)

W

W	West or western longitude
W	White
W...	Sea-surface temperature (followed by figures in METAR/SPECI)
WAAS	Wide area augmentation system
WAC	World Aeronautical Chart - ICAO 1:1 000 000
WAFC	World Area Forecast Centre
WB	Westbound
WBAR	Wing Bar Lights
WDI	Wind direction indicator
WDSPR	Widespread
WED	Wednesday
WEF	With effect from or effective from
WGS-84	World Geodetic System-84
WI	Within
WID	Width
WIE	With immediate effect or effective immediately
WILCO	Will Comply
WIND	Wind
WINTEM	Forecast upper wind and temperature for aviation
WIP	Work in progress
WKN	Weaken or weakening
WNW	West north west
WO	Without
WPT	Way-point
WRNG	Warning
WS	Wind shear
WSPD	Wind speed
WSW	West south west
WT	Weight
WTSPT	Waterspout
WW	Worldwide web
WX	Weather

X

X	Cross
XBAR	Crossbar (of approach lighting system)
XNG	Crossing
XS	Atmospherics

Y

Y	Yellow
YCZ	Yellow caution zone (runway lighting)
YR	Your
Z	
Z	Co-ordinated universal time (in meteorological messages)

GEN 2.3 Chart symbols

1 Aerodromes

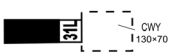
1.1 Charts other than approach charts

Civil Aerodrome (land)	
Military Aerodrome (land)	
Joint civil and military Aerodrome (land)	
Emergency Aerodrome or Aerodrome with no facilities	
Abandoned or closed Aerodrome	

1.2 Approach charts

The Aerodrome on which the procedure is based	
Aerodromes affecting the traffic pattern on the Aerodrome on which the procedures is based	
Profile for runway	
Profile for FAF/FAP	

1.3 Aerodrome charts

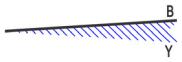
Hard surface runway	
Clearway	

2 Aerodrome installations and lights

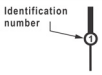
Aerodrome Reference Point (ARP)	
Runway Visual Range (RVR) observation site	
Taxiways and parking areas	
Point light	
Barrette	
Threshold lights	
Wind direction indicator (lighted)	
Aeronautical ground light	
Hotspot	

3 Radio facilities

Basic radionavigation aid symbol	
Non-directional radio beacon (NDB)	
VHF omnidirectional radio range (VOR)	
Distance Measuring Equipment (DME)	

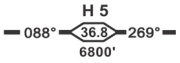
Collocated VOR and DME facility	
Instrument Landing System (ILS)	
Compass rose	
Profiles for radio navigation aids	
Profiles for collocated VOR/DME	
Profiles for ILS	

4 Obstacles

Obstacles (not lighted)	
Lighted obstacles	
Terrain penetrating obstacle plane profile	
Profiles for aerodrome obstacle	

5 Air traffic services

Flight Information Region (FIR)	
Aerodrome Traffic Zone (ATZ)	
Control zone (CTR)	

Terminal Control Area (TMA)	
TMA sector	
Communication sector boundary (CTA)	
Prohibited and restricted areas	
Aerial sporting area	
ATS route (conventional) - designator, magnetic track, distance, minimum cruising level	
ATS route (RNAV) - designator, magnetic track, distance	
Scale break (on ATS route)	
Compulsory reporting point	
Non - compulsory reporting point	
Waypoint compulsory fly-by	
Waypoint on request fly-by	
Waypoint on request flyover	

Procedure altitudes/ flight levels	"window"	FL 090 8500'
	"at or above"	6800'
	"recommended"	7500'
Holding pattern		
Missed approach track		

6 Topography

Contours	4000
Spot elevation	· 6941
Shore line (reliable)	
River	
Lakes	
City	
Buildings	
Railroad	
Primary road	

Boundaries (international)	
Area Minimum Altitude (AMA) Example: 13_2 - 13200 FT	

7 Miscellaneous

Isogonic line or isogonal	

GEN 2.4 Location indicators

The location indicators marked with an asterisk (*) cannot be used in the address component of AFS messages.

1. ENCODE	
Location	**Indicator**
AMBROLAURI	UGAM
BATUMI	UGSB
KUTAISI/KOPITNARI	UGKO
MESTIA	UGMS
NATAKHTARI	UGSA
TBILISI CAA	UGGU
TBILISI FIR	UGGG
TBILISI/TBILISI	UGTB
TELAVI	UGGT*

2. DECODE	
Indicator	**Location**
UGAM	AMBROLAURI
UGGG	TBILISI FIR
UGGT*	TELAVI
UGGU	TBILISI CAA
UGKO	KUTAISI/KOPITNARI
UGMS	MESTIA
UGSA	NATAKHTARI
UGSB	BATUMI
UGTB	TBILISI/TBILISI

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GEN 2.5 List of radio navigation aids

ID	Station Name	Aid	Purpose
BKU	BAKURIANI	DME	E
BT	ALI	NDB	E
BTM	BATUMI	DME	AE
DF	MUKHRANI	NDB	AE
GUD	GUDAURI	DME	E
IKO	KUTAISI/KOPITNARI	ILS/DME	A
IKS	KUTAISI/KOPITNARI	ILS/DME	A
ILU	BATUMI	ILS/DME	A
INA	TBILISI/TBILISI	ILS/DME	A
IVP	TBILISI/TBILISI	ILS/DME	A
KTS	KUTAISI	DVOR/DME	AE
LU	BATUMI	NDB	AE
PTI	POTI	DME	E
TBS	TBILISI	DVOR/DME	AE
TSN	TSNORI	DME	E

Station Name	Aid	ID	Purpose
ALI	NDB	BT	E
BAKURIANI	DME	BKU	E
BATUMI	DME	BTM	AE
BATUMI	ILS/DME	ILU	A
BATUMI	NDB	LU	AE
GUDAURI	DME	GUD	E
KUTAISI	DVOR/DME	KTS	AE
KUTAISI/KOPITNARI	ILS/DME	IKO	A
KUTAISI/KOPITNARI	ILS/DME	IKS	A
MUKHRANI	NDB	DF	AE
POTI	DME	PTI	E
TBILISI	DVOR/DME	TBS	AE
TBILISI/TBILISI	ILS/DME	INA	A
TBILISI/TBILISI	ILS/DME	IVP	A
TSNORI	DME	TSN	E

A = Aerodrome, E = En-route, AE = Both

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GEN 2.6 Conversion of units of measurement

NM to KM (1 NM = 1.852 KM)		KM to NM (1 KM = 0.54 NM)		FT to M (1 FT = 0.3048 M)		M to FT (1 M = 3.281 FT)	
NM	**KM**	**KM**	**NM**	**FT**	**M**	**M**	**FT**
0.1	0.185	0.1	0.05	1	0.305	1	3.28
0.2	0.370	0.2	0.11	2	0.610	2	6.56
0.3	0.556	0.3	0.16	3	0.914	3	9.84
0.4	0.741	0.4	0.22	4	1.219	4	13.12
0.5	0.926	0.5	0.27	5	1.524	5	16.40
0.6	1.111	0.6	0.32	6	1.829	6	19.69
0.7	1.296	0.7	0.38	7	2.134	7	22.97
0.8	1.482	0.8	0.43	8	2.438	8	26.25
0.9	1.667	0.9	0.49	9	2.743	9	29.53
1.0	1.852	1.0	0.54	10	3.048	10	32.81
2.0	3.704	2.0	1.08	20	6.096	20	65.62
3.0	5.556	3.0	1.62	30	9.144	30	98.43
4.0	7.408	4.0	2.16	40	12.192	40	131.23
5.0	9.260	5.0	2.70	50	15.240	50	164.04
6.0	11.112	6.0	3.24	60	18.288	60	196.85
7.0	12.964	7.0	3.78	70	21.336	70	229.66
8.0	14.816	8.0	4.32	80	24.384	80	262.47
9.0	16.668	9.0	4.86	90	27.432	90	295.28
10.0	18.520	10.0	5.40	100	30.480	100	328.08
20.0	37.040	20.0	10.80	200	60.960	200	656.17
30.0	55.560	30.0	16.20	300	91.440	300	984.25
40.0	74.080	40.0	21.60	400	121.920	400	1 312.34
50.0	92.600	50.0	27.00	500	152.400	500	1 640.42
60.0	111.120	60.0	32.40	600	182.880	600	1 968.50
70.0	129.640	70.0	37.80	700	213.360	700	2 296.59
80.0	148.160	80.0	43.20	800	243.840	800	2 624.67
90.0	166.680	90.0	48.60	900	274.320	900	2 952.76
100.0	185.200	100.0	54.00	1 000	304.800	1 000	3 280.84
200.0	370.400	200.0	107.99	2 000	609.600	2 000	6 561.68
300.0	555.600	300.0	161.99	3 000	914.400	3 000	9 842.52
400.0	740.800	400.0	215.98	4 000	1 219.200	4 000	13 123.36
500.0	926.000	500.0	269.98	5 000	1 524.000	5 000	16 404.20
				6 000	1 828.800		
				7 000	2 133.600		
				8 000	2 438.400		
				9 000	2 743.200		
				10 000	3 048.000		

From decimal minutes of an arc to seconds of an arc.

MIN	SEC	MIN	SEC	MIN	SEC	MIN	SEC
0.01	0.6	0.26	15.6	0.51	30.6	0.76	45.6
0.02	1.2	0.27	16.2	0.52	31.2	0.77	46.2
0.03	1.8	0.28	16.8	0.53	31.8	0.78	46.8
0.04	2.4	0.29	17.4	0.54	32.4	0.79	47.4
0.05	3.0	0.30	18.0	0.55	33.0	0.80	48.0
0.06	3.6	0.31	18.6	0.56	33.6	0.81	48.6
0.07	4.2	0.32	19.2	0.57	34.2	0.82	49.2
0.08	4.8	0.33	19.8	0.58	34.8	0.83	49.8
0.09	5.4	0.34	20.4	0.59	35.4	0.84	50.4
0.10	6.0	0.35	21.0	0.60	36.0	0.85	51.0
0.11	6.6	0.36	21.6	0.61	36.6	0.86	51.6
0.12	7.2	0.37	22.2	0.62	37.2	0.87	52.2
0.13	7.8	0.38	22.8	0.63	37.8	0.88	52.8
0.14	8.4	0.39	23.4	0.64	38.4	0.89	53.4
0.15	9.0	0.40	24.0	0.65	39.0	0.90	54.0
0.16	9.6	0.41	24.6	0.66	39.6	0.91	54.6
0.17	10.2	0.42	25.2	0.67	40.2	0.92	55.2
0.18	10.8	0.43	25.8	0.68	40.8	0.93	55.8
0.19	11.4	0.44	26.4	0.69	41.4	0.94	56.4
0.20	12.0	0.45	27.0	0.70	42.0	0.95	57.0
0.21	12.6	0.46	27.6	0.71	42.6	0.96	57.6
0.22	13.2	0.47	28.2	0.72	43.2	0.97	58.2
0.23	13.8	0.48	28.8	0.73	43.8	0.98	58.8
0.24	14.4	0.49	29.4	0.74	44.4	0.99	59.4
0.25	15.0	0.50	30.0	0.75	45.0		

From seconds of an arc to decimal minutes of an arc.

MIN	SEC	MIN	SEC	MIN	SEC	MIN	SEC
1	0.02	16	0.27	31	0.52	46	0.77
2	0.03	17	0.28	32	0.53	47	0.78
3	0.05	18	0.30	33	0.55	48	0.80
4	0.07	19	0.32	34	0.57	49	0.82
5	0.08	20	0.33	35	0.58	50	0.83
6	0.10	21	0.35	36	0.60	51	0.85
7	0.12	22	0.37	37	0.62	52	0.87
8	0.13	23	0.38	38	0.63	53	0.88
9	0.15	24	0.40	39	0.65	54	0.90
10	0.17	25	0.42	40	0.67	55	0.92
11	0.18	26	0.43	41	0.68	56	0.93
12	0.20	27	0.45	42	0.70	57	0.95

MIN	SEC	MIN	SEC	MIN	SEC	MIN	SEC
13	0.22	28	0.47	43	0.72	58	0.97
14	0.23	29	0.48	44	0.73	59	0.98
15	0.25	30	0.50	45	0.75		

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GEN 2.7 Sunrise/sunset

1 The tables include 7 public airports in that part of the High Sea, which is being served by the Georgia air traffic services.

1.1 The times in the tables are given in UTC for beginning of civil morning twilight (TWIL FROM), sunrise (SR), sunset (SS) and end of civil evening twilight (TWIL TO) for the years from 2020 to 2028.

1.2 The time given for the beginning of civil morning twilight and end of civil evening twilight are calculated for an altitude of the sun 6º below the horizon, as commonly used.

1.3 The tables are calculated for the year 2024, which is used as an "average year" for the years from 2020 to 2028. In this period, the times on an arbitrary date and place will deviate less than 2 minutes from the times on the same date and place in the "average year".

2 Alphabetical index

3 Sunrise-Sunset tables

3.1 TBILISI/Tbilisi and NATAKHTARI

TBILISI/Tbilisi **UGTB** **N 41º 40' 09"** **E 044º 57' 17"**	**NATAKHTARI** **UGSA** **N 41º 55' 14"** **E 044º 43' 10"**

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
JAN					FEB					MAR				
1	03:56	04:27	13:40	14:12	1	03:43	04:13	14:15	14:45	1	03:07	03:34	14:51	15:19
2	03:56	04:27	13:41	14:12	2	03:43	04:12	14:17	14:46	2	03:05	03:33	14:52	15:20
3	03:56	04:27	13:42	14:13	3	03:42	04:11	14:18	14:47	3	03:03	03:31	14:54	15:21
4	03:56	04:28	13:43	14:14	4	03:41	04:10	14:19	14:48	4	03:02	03:30	14:55	15:23
5	03:56	04:27	13:44	14:15	5	03:40	04:09	14:20	14:50	5	03:00	03:28	14:56	15:24
6	03:56	04:27	13:45	14:16	6	03:39	04:08	14:22	14:51	6	02:59	03:26	14:57	15:25
7	03:56	04:27	13:46	14:17	7	03:37	04:07	14:23	14:52	7	02:57	03:25	14:58	15:26
8	03:56	04:27	13:47	14:18	8	03:36	04:05	14:24	14:53	8	02:55	03:23	14:59	15:27
9	03:56	04:27	13:48	14:19	9	03:35	04:04	14:25	14:54	9	02:54	03:21	15:01	15:28
10	03:56	04:27	13:49	14:20	10	03:34	04:03	14:27	14:56	10	02:52	03:20	15:02	15:29
11	03:56	04:27	13:50	14:21	11	03:33	04:02	14:28	14:57	11	02:50	03:18	15:03	15:30
12	03:55	04:26	13:51	14:22	12	03:32	04:00	14:29	14:58	12	02:49	03:16	15:04	15:32
13	03:55	04:26	13:52	14:23	13	03:30	03:59	14:30	14:59	13	02:47	03:15	15:05	15:33
14	03:55	04:25	13:53	14:24	14	03:29	03:58	14:32	15:00	14	02:45	03:13	15:06	15:34
15	03:54	04:25	13:54	14:25	15	03:28	03:56	14:33	15:02	15	02:44	03:11	15:07	15:35
16	03:54	04:25	13:56	14:26	16	03:27	03:55	14:34	15:03	16	02:42	03:10	15:08	15:36

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
17	03:54	04:24	13:57	14:27	17	03:25	03:54	14:35	15:04	17	02:40	03:08	15:10	15:37
18	03:53	04:24	13:58	14:28	18	03:24	03:52	14:37	15:05	18	02:39	03:06	15:11	15:38
19	03:53	04:23	13:59	14:29	19	03:23	03:51	14:38	15:06	19	02:37	03:05	15:12	15:40
20	03:52	04:23	14:00	14:31	20	03:21	03:50	14:39	15:07	20	02:35	03:03	15:13	15:41
21	03:52	04:22	14:01	14:32	21	03:20	03:48	14:40	15:09	21	02:33	03:01	15:14	15:42
22	03:51	04:21	14:03	14:33	22	03:18	03:47	14:42	15:10	22	02:32	02:59	15:15	15:43
23	03:51	04:21	14:04	14:34	23	03:17	03:45	14:43	15:11	23	02:30	02:58	15:16	15:44
24	03:50	04:20	14:05	14:35	24	03:16	03:44	14:44	15:12	24	02:28	02:56	15:17	15:45
25	03:49	04:19	14:06	14:36	25	03:14	03:42	14:45	15:13	25	02:27	02:54	15:18	15:46
26	03:48	04:18	14:08	14:38	26	03:13	03:41	14:46	15:14	26	02:25	02:53	15:20	15:47
27	03:48	04:18	14:09	14:39	27	03:11	03:39	14:48	15:16	27	02:23	02:51	15:21	15:48
28	03:47	04:17	14:10	14:40	28	03:10	03:38	14:49	15:17	28	02:21	02:49	15:22	15:50
29	03:46	04:16	14:11	14:41	29	03:08	03:36	14:50	15:18	29	02:20	02:48	15:23	15:51
30	03:45	04:15	14:13	14:42						30	02:18	02:46	15:24	15:52
31	03:44	04:14	14:14	14:43						31	02:16	02:44	15:25	15:53
APR					MAY					JUN				
1	02:14	02:42	15:26	15:54	1	01:26	01:56	15:59	16:29	1	00:55	01:28	16:28	17:02
2	02:13	02:41	15:27	15:55	2	01:25	01:55	16:00	16:30	2	00:54	01:28	16:29	17:03
3	02:11	02:39	15:28	15:56	3	01:23	01:54	16:01	16:31	3	00:54	01:27	16:30	17:04
4	02:09	02:37	15:29	15:58	4	01:22	01:52	16:02	16:33	4	00:53	01:27	16:31	17:04
5	02:08	02:36	15:30	15:59	5	01:20	01:51	16:03	16:34	5	00:53	01:26	16:31	17:05
6	02:06	02:34	15:32	16:00	6	01:19	01:50	16:04	16:35	6	00:52	01:26	16:32	17:06
7	02:04	02:32	15:33	16:01	7	01:18	01:49	16:05	16:36	7	00:52	01:26	16:33	17:06
8	02:02	02:31	15:34	16:02	8	01:17	01:48	16:06	16:37	8	00:52	01:26	16:33	17:07
9	02:01	02:29	15:35	16:03	9	01:15	01:46	16:07	16:38	9	00:52	01:25	16:34	17:08
10	01:59	02:28	15:36	16:04	10	01:14	01:45	16:08	16:40	10	00:51	01:25	16:34	17:08
11	01:57	02:26	15:37	16:06	11	01:13	01:44	16:09	16:41	11	00:51	01:25	16:35	17:09
12	01:56	02:24	15:38	16:07	12	01:12	01:43	16:10	16:42	12	00:51	01:25	16:35	17:09
13	01:54	02:23	15:39	16:08	13	01:11	01:42	16:11	16:43	13	00:51	01:25	16:36	17:10
14	01:52	02:21	15:40	16:09	14	01:09	01:41	16:12	16:44	14	00:51	01:25	16:36	17:10
15	01:51	02:20	15:41	16:10	15	01:08	01:40	16:13	16:45	15	00:51	01:25	16:36	17:11
16	01:49	02:18	15:42	16:11	16	01:07	01:39	16:14	16:46	16	00:51	01:25	16:37	17:11
17	01:47	02:16	15:44	16:13	17	01:06	01:38	16:15	16:47	17	00:51	01:25	16:37	17:11
18	01:46	02:15	15:45	16:14	18	01:05	01:37	16:16	16:48	18	00:51	01:25	16:37	17:12
19	01:44	02:13	15:46	16:15	19	01:04	01:36	16:17	16:50	19	00:51	01:25	16:38	17:12
20	01:43	02:12	15:47	16:16	20	01:03	01:36	16:18	16:51	20	00:51	01:26	16:38	17:12
21	01:41	02:10	15:48	16:17	21	01:02	01:35	16:19	16:52	21	00:52	01:26	16:38	17:12
22	01:39	02:09	15:49	16:18	22	01:02	01:34	16:20	16:53	22	00:52	01:26	16:38	17:13
23	01:38	02:07	15:50	16:20	23	01:01	01:33	16:21	16:54	23	00:52	01:26	16:38	17:13
24	01:36	02:06	15:51	16:21	24	01:00	01:33	16:22	16:55	24	00:53	01:27	16:39	17:13
25	01:35	02:05	15:52	16:22	25	00:59	01:32	16:23	16:56	25	00:53	01:27	16:39	17:13
26	01:33	02:03	15:53	16:23	26	00:58	01:31	16:24	16:57	26	00:53	01:27	16:39	17:13

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
27	01:32	02:02	15:54	16:24	27	00:58	01:31	16:25	16:58	27	00:54	01:28	16:39	17:13
28	01:30	02:00	15:56	16:26	28	00:57	01:30	16:25	16:58	28	00:54	01:28	16:39	17:13
29	01:29	01:59	15:57	16:27	29	00:56	01:29	16:26	16:59	29	00:55	01:29	16:39	17:13
30	01:27	01:58	15:58	16:28	30	00:56	01:29	16:27	17:00	30	00:55	01:29	16:39	17:12
					31	00:55	01:28	16:28	17:01					
JUL					AUG					SEP				
1	00:56	01:30	16:38	17:12	1	01:24	01:55	16:18	16:49	1	01:58	02:26	15:33	16:01
2	00:56	01:30	16:38	17:12	2	01:25	01:56	16:16	16:47	2	01:59	02:28	15:31	16:00
3	00:57	01:31	16:38	17:12	3	01:26	01:57	16:15	16:46	3	02:00	02:29	15:29	15:58
4	00:58	01:31	16:38	17:12	4	01:27	01:58	16:14	16:45	4	02:01	02:30	15:28	15:56
5	00:58	01:32	16:37	17:11	5	01:28	01:59	16:13	16:44	5	02:02	02:31	15:26	15:54
6	00:59	01:33	16:37	17:11	6	01:29	02:00	16:12	16:42	6	02:03	02:32	15:24	15:53
7	01:00	01:33	16:37	17:10	7	01:30	02:01	16:10	16:41	7	02:04	02:33	15:23	15:51
8	01:00	01:34	16:36	17:10	8	01:31	02:02	16:09	16:39	8	02:05	02:34	15:21	15:49
9	01:01	01:35	16:36	17:09	9	01:32	02:03	16:08	16:38	9	02:07	02:35	15:19	15:47
10	01:02	01:35	16:36	17:09	10	01:34	02:04	16:06	16:37	10	02:08	02:36	15:18	15:46
11	01:03	01:36	16:35	17:08	11	01:35	02:05	16:05	16:35	11	02:09	02:37	15:16	15:44
12	01:04	01:37	16:35	17:08	12	01:36	02:06	16:04	16:34	12	02:10	02:38	15:14	15:42
13	01:04	01:38	16:34	17:07	13	01:37	02:07	16:02	16:32	13	02:11	02:39	15:12	15:40
14	01:05	01:38	16:33	17:06	14	01:38	02:08	16:01	16:31	14	02:12	02:40	15:11	15:38
15	01:06	01:39	16:33	17:06	15	01:39	02:09	15:59	16:29	15	02:13	02:41	15:09	15:37
16	01:07	01:40	16:32	17:05	16	01:40	02:10	15:58	16:28	16	02:14	02:42	15:07	15:35
17	01:08	01:41	16:31	17:04	17	01:41	02:11	15:56	16:26	17	02:15	02:43	15:05	15:33
18	01:09	01:42	16:31	17:03	18	01:43	02:12	15:55	16:25	18	02:16	02:44	15:04	15:31
19	01:10	01:43	16:30	17:03	19	01:44	02:13	15:53	16:23	19	02:17	02:45	15:02	15:30
20	01:11	01:43	16:29	17:02	20	01:45	02:14	15:52	16:21	20	02:18	02:46	15:00	15:28
21	01:12	01:44	16:28	17:01	21	01:46	02:15	15:50	16:20	21	02:19	02:47	14:58	15:26
22	01:13	01:45	16:28	17:00	22	01:47	02:16	15:49	16:18	22	02:20	02:48	14:57	15:24
23	01:14	01:46	16:27	16:59	23	01:48	02:17	15:47	16:16	23	02:21	02:49	14:55	15:23
24	01:15	01:47	16:26	16:58	24	01:49	02:18	15:46	16:15	24	02:22	02:50	14:53	15:21
25	01:16	01:48	16:25	16:57	25	01:50	02:19	15:44	16:13	25	02:23	02:51	14:52	15:19
26	01:17	01:49	16:24	16:56	26	01:51	02:20	15:43	16:11	26	02:24	02:52	14:50	15:17
27	01:18	01:50	16:23	16:55	27	01:53	02:21	15:41	16:10	27	02:26	02:53	14:48	15:16
28	01:19	01:51	16:22	16:53	28	01:54	02:22	15:39	16:08	28	02:27	02:54	14:46	15:14
29	01:20	01:52	16:21	16:52	29	01:55	02:23	15:38	16:06	29	02:28	02:55	14:45	15:12
30	01:21	01:53	16:20	16:51	30	01:56	02:24	15:36	16:05	30	02:29	02:56	14:43	15:11
31	01:22	01:54	16:19	16:50	31	01:57	02:25	15:34	16:03					
OCT					NOV					DEC				
1	02:30	02:57	14:41	15:09	1	03:04	03:33	13:54	14:23	1	03:37	04:08	13:31	14:02
2	02:31	02:58	14:40	15:07	2	03:05	03:34	13:53	14:22	2	03:38	04:09	13:30	14:01
3	02:32	03:00	14:38	15:06	3	03:06	03:35	13:52	14:21	3	03:39	04:10	13:30	14:01
4	02:33	03:01	14:36	15:04	4	03:07	03:36	13:51	14:20	4	03:40	04:11	13:30	14:01

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
5	02:34	03:02	14:34	15:02	5	03:08	03:38	13:49	14:19	5	03:41	04:12	13:30	14:01
6	02:35	03:03	14:33	15:01	6	03:10	03:39	13:48	14:18	6	03:42	04:13	13:30	14:01
7	02:36	03:04	14:31	14:59	7	03:11	03:40	13:47	14:17	7	03:43	04:14	13:30	14:01
8	02:37	03:05	14:29	14:57	8	03:12	03:41	13:46	14:16	8	03:44	04:15	13:30	14:01
9	02:38	03:06	14:28	14:56	9	03:13	03:42	13:45	14:15	9	03:44	04:16	13:30	14:01
10	02:39	03:07	14:26	14:54	10	03:14	03:44	13:44	14:14	10	03:45	04:17	13:30	14:01
11	02:40	03:08	14:25	14:52	11	03:15	03:45	13:43	14:13	11	03:46	04:17	13:30	14:01
12	02:41	03:09	14:23	14:51	12	03:17	03:46	13:42	14:12	12	03:47	04:18	13:30	14:02
13	02:43	03:11	14:21	14:49	13	03:18	03:47	13:41	14:11	13	03:48	04:19	13:30	14:02
14	02:44	03:12	14:20	14:48	14	03:19	03:49	13:40	14:10	14	03:48	04:20	13:30	14:02
15	02:45	03:13	14:18	14:46	15	03:20	03:50	13:40	14:09	15	03:49	04:20	13:31	14:02
16	02:46	03:14	14:17	14:45	16	03:21	03:51	13:39	14:09	16	03:50	04:21	13:31	14:03
17	02:47	03:15	14:15	14:43	17	03:22	03:52	13:38	14:08	17	03:50	04:22	13:31	14:03
18	02:48	03:16	14:14	14:42	18	03:23	03:53	13:37	14:07	18	03:51	04:22	13:32	14:03
19	02:49	03:17	14:12	14:40	19	03:24	03:55	13:36	14:07	19	03:51	04:23	13:32	14:04
20	02:50	03:18	14:11	14:39	20	03:26	03:56	13:36	14:06	20	03:52	04:24	13:33	14:04
21	02:51	03:20	14:09	14:37	21	03:27	03:57	13:35	14:05	21	03:52	04:24	13:33	14:05
22	02:53	03:21	14:08	14:36	22	03:28	03:58	13:34	14:05	22	03:53	04:25	13:34	14:05
23	02:54	03:22	14:06	14:35	23	03:29	03:59	13:34	14:04	23	03:53	04:25	13:34	14:06
24	02:55	03:23	14:05	14:33	24	03:30	04:00	13:33	14:04	24	03:54	04:25	13:35	14:06
25	02:56	03:24	14:03	14:32	25	03:31	04:02	13:33	14:03	25	03:54	04:26	13:36	14:07
26	02:57	03:26	14:02	14:31	26	03:32	04:03	13:32	14:03	26	03:55	04:26	13:36	14:08
27	02:58	03:27	14:01	14:29	27	03:33	04:04	13:32	14:03	27	03:55	04:26	13:37	14:08
28	02:59	03:28	13:59	14:28	28	03:34	04:05	13:32	14:02	28	03:55	04:27	13:38	14:09
29	03:00	03:29	13:58	14:27	29	03:35	04:06	13:31	14:02	29	03:55	04:27	13:38	14:10
30	03:02	03:30	13:57	14:26	30	03:36	04:07	13:31	14:02	30	03:56	04:27	13:39	14:11
31	03:03	03:32	13:55	14:24						31	03:56	04:27	13:40	14:11

3.2 KUTAISI/Kopitnari

KUTAISI/Kopitnari
UGKO
N 42º 10' 37"
E 042º 28' 58"

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
JAN					FEB					MAR				
1	04:08	04:41	13:49	14:20	1	03:54	04:24	14:24	14:54	1	03:17	03:45	15:01	15:29
2	04:08	04:41	13:49	14:21	2	03:53	04:23	14:25	14:55	2	03:15	03:43	15:02	15:30
3	04:09	04:41	13:50	14:22	3	03:52	04:22	14:27	14:56	3	03:13	03:42	15:03	15:31
4	04:09	04:41	13:51	14:23	4	03:51	04:21	14:28	14:57	4	03:12	03:40	15:04	15:32
5	04:09	04:41	13:52	14:24	5	03:50	04:20	14:29	14:59	5	03:10	03:38	15:06	15:33
6	04:09	04:41	13:53	14:25	6	03:49	04:19	14:31	15:00	6	03:09	03:37	15:07	15:35
7	04:09	04:41	13:54	14:26	7	03:48	04:17	14:32	15:01	7	03:07	03:35	15:08	15:36

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
8	04:08	04:40	13:55	14:27	8	03:47	04:16	14:33	15:02	8	03:05	03:33	15:09	15:37
9	04:08	04:40	13:56	14:28	9	03:46	04:15	14:34	15:04	9	03:04	03:32	15:10	15:38
10	04:08	04:40	13:57	14:29	10	03:45	04:14	14:36	15:05	10	03:02	03:30	15:11	15:39
11	04:08	04:40	13:58	14:30	11	03:43	04:12	14:37	15:06	11	03:00	03:28	15:13	15:40
12	04:08	04:39	13:59	14:31	12	03:42	04:11	14:38	15:07	12	02:59	03:26	15:14	15:42
13	04:07	04:39	14:01	14:32	13	03:41	04:10	14:40	15:08	13	02:57	03:25	15:15	15:43
14	04:07	04:39	14:02	14:33	14	03:40	04:09	14:41	15:10	14	02:55	03:23	15:16	15:44
15	04:07	04:38	14:03	14:34	15	03:38	04:07	14:42	15:11	15	02:53	03:21	15:17	15:45
16	04:06	04:38	14:04	14:35	16	03:37	04:06	14:43	15:12	16	02:52	03:20	15:18	15:46
17	04:06	04:37	14:05	14:36	17	03:36	04:04	14:45	15:13	17	02:50	03:18	15:19	15:47
18	04:05	04:36	14:06	14:37	18	03:34	04:03	14:46	15:14	18	02:48	03:16	15:21	15:49
19	04:05	04:36	14:08	14:38	19	03:33	04:02	14:47	15:16	19	02:47	03:14	15:22	15:50
20	04:04	04:35	14:09	14:39	20	03:32	04:00	14:48	15:17	20	02:45	03:13	15:23	15:51
21	04:04	04:35	14:10	14:41	21	03:30	03:59	14:50	15:18	21	02:43	03:11	15:24	15:52
22	04:03	04:34	14:11	14:42	22	03:29	03:57	14:51	15:19	22	02:41	03:09	15:25	15:53
23	04:02	04:33	14:13	14:43	23	03:27	03:56	14:52	15:21	23	02:40	03:08	15:26	15:54
24	04:02	04:32	14:14	14:44	24	03:26	03:54	14:53	15:22	24	02:38	03:06	15:27	15:55
25	04:01	04:32	14:15	14:45	25	03:24	03:53	14:55	15:23	25	02:36	03:04	15:28	15:57
26	04:00	04:31	14:16	14:46	26	03:23	03:51	14:56	15:24	26	02:34	03:02	15:30	15:58
27	03:59	04:30	14:18	14:48	27	03:21	03:50	14:57	15:25	27	02:33	03:01	15:31	15:59
28	03:58	04:29	14:19	14:49	28	03:20	03:48	14:58	15:26	28	02:31	02:59	15:32	16:00
29	03:58	04:28	14:20	14:50	29	03:18	03:46	15:00	15:28	29	02:29	02:57	15:33	16:01
30	03:57	04:27	14:21	14:51						30	02:27	02:55	15:34	16:02
31	03:56	04:26	14:23	14:52						31	02:25	02:54	15:35	16:03
APR					MAY					JUN				
1	02:24	02:52	15:36	16:05	1	01:34	02:05	16:10	16:40	1	01:02	01:36	16:40	17:14
2	02:22	02:50	15:37	16:06	2	01:33	02:04	16:11	16:42	2	01:02	01:36	16:41	17:15
3	02:20	02:49	15:39	16:07	3	01:32	02:02	16:12	16:43	3	01:01	01:35	16:42	17:16
4	02:18	02:47	15:40	16:08	4	01:30	02:01	16:13	16:44	4	01:01	01:35	16:42	17:16
5	02:17	02:45	15:41	16:09	5	01:29	02:00	16:14	16:45	5	01:01	01:35	16:43	17:17
6	02:15	02:44	15:42	16:10	6	01:28	01:59	16:15	16:46	6	01:00	01:34	16:44	17:18
7	02:13	02:42	15:43	16:12	7	01:26	01:57	16:16	16:48	7	01:00	01:34	16:44	17:18
8	02:12	02:40	15:44	16:13	8	01:25	01:56	16:17	16:49	8	01:00	01:34	16:45	17:19
9	02:10	02:39	15:45	16:14	9	01:24	01:55	16:18	16:50	9	00:59	01:34	16:45	17:20
10	02:08	02:37	15:46	16:15	10	01:22	01:54	16:19	16:51	10	00:59	01:33	16:46	17:20
11	02:06	02:35	15:47	16:16	11	01:21	01:53	16:21	16:52	11	00:59	01:33	16:46	17:21
12	02:05	02:34	15:49	16:18	12	01:20	01:52	16:22	16:53	12	00:59	01:33	16:47	17:21
13	02:03	02:32	15:50	16:19	13	01:19	01:51	16:23	16:55	13	00:59	01:33	16:47	17:22
14	02:01	02:30	15:51	16:20	14	01:18	01:50	16:24	16:56	14	00:59	01:33	16:48	17:22
15	02:00	02:29	15:52	16:21	15	01:17	01:49	16:25	16:57	15	00:59	01:33	16:48	17:23
16	01:58	02:27	15:53	16:22	16	01:15	01:48	16:26	16:58	16	00:59	01:33	16:49	17:23
17	01:56	02:26	15:54	16:24	17	01:14	01:47	16:27	16:59	17	00:59	01:33	16:49	17:23

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
18	01:55	02:24	15:55	16:25	18	01:13	01:46	16:28	17:00	18	00:59	01:33	16:49	17:24
19	01:53	02:22	15:56	16:26	19	01:12	01:45	16:29	17:01	19	00:59	01:34	16:49	17:24
20	01:51	02:21	15:58	16:27	20	01:11	01:44	16:30	17:02	20	00:59	01:34	16:50	17:24
21	01:50	02:19	15:59	16:28	21	01:10	01:43	16:31	17:03	21	00:59	01:34	16:50	17:25
22	01:48	02:18	16:00	16:30	22	01:10	01:42	16:32	17:04	22	01:00	01:34	16:50	17:25
23	01:47	02:16	16:01	16:31	23	01:09	01:42	16:32	17:05	23	01:00	01:35	16:50	17:25
24	01:45	02:15	16:02	16:32	24	01:08	01:41	16:33	17:06	24	01:00	01:35	16:50	17:25
25	01:43	02:13	16:03	16:33	25	01:07	01:40	16:34	17:07	25	01:01	01:35	16:50	17:25
26	01:42	02:12	16:04	16:34	26	01:06	01:40	16:35	17:08	26	01:01	01:36	16:50	17:25
27	01:40	02:11	16:05	16:36	27	01:06	01:39	16:36	17:09	27	01:01	01:36	16:50	17:25
28	01:39	02:09	16:06	16:37	28	01:05	01:38	16:37	17:10	28	01:02	01:36	16:50	17:25
29	01:37	02:08	16:08	16:38	29	01:04	01:38	16:38	17:11	29	01:02	01:37	16:50	17:25
30	01:36	02:06	16:09	16:39	30	01:04	01:37	16:38	17:12	30	01:03	01:37	16:50	17:25
					31	01:03	01:37	16:39	17:13					
JUL					AUG					SEP				
1	01:03	01:38	16:50	17:24	1	01:32	02:03	16:29	17:00	1	02:07	02:36	15:43	16:12
2	01:04	01:38	16:50	17:24	2	01:33	02:04	16:28	16:59	2	02:08	02:37	15:42	16:10
3	01:05	01:39	16:50	17:24	3	01:34	02:05	16:26	16:58	3	02:09	02:38	15:40	16:08
4	01:05	01:40	16:49	17:24	4	01:35	02:07	16:25	16:56	4	02:10	02:39	15:38	16:07
5	01:06	01:40	16:49	17:23	5	01:36	02:08	16:24	16:55	5	02:11	02:40	15:36	16:05
6	01:07	01:41	16:49	17:23	6	01:38	02:09	16:23	16:54	6	02:13	02:41	15:35	16:03
7	01:07	01:41	16:48	17:22	7	01:39	02:10	16:21	16:52	7	02:14	02:42	15:33	16:01
8	01:08	01:42	16:48	17:22	8	01:40	02:11	16:20	16:51	8	02:15	02:43	15:31	16:00
9	01:09	01:43	16:48	17:21	9	01:41	02:12	16:19	16:49	9	02:16	02:44	15:29	15:58
10	01:10	01:44	16:47	17:21	10	01:42	02:13	16:17	16:48	10	02:17	02:45	15:28	15:56
11	01:11	01:44	16:47	17:20	11	01:43	02:14	16:16	16:46	11	02:18	02:46	15:26	15:54
12	01:11	01:45	16:46	17:20	12	01:44	02:15	16:15	16:45	12	02:19	02:47	15:24	15:52
13	01:12	01:46	16:45	17:19	13	01:46	02:16	16:13	16:43	13	02:20	02:48	15:22	15:51
14	01:13	01:47	16:45	17:18	14	01:47	02:17	16:12	16:42	14	02:21	02:49	15:21	15:49
15	01:14	01:48	16:44	17:18	15	01:48	02:18	16:10	16:40	15	02:22	02:50	15:19	15:47
16	01:15	01:48	16:44	17:17	16	01:49	02:19	16:09	16:39	16	02:23	02:52	15:17	15:45
17	01:16	01:49	16:43	17:16	17	01:50	02:20	16:07	16:37	17	02:25	02:53	15:15	15:43
18	01:17	01:50	16:42	17:15	18	01:51	02:21	16:06	16:36	18	02:26	02:54	15:14	15:42
19	01:18	01:51	16:41	17:14	19	01:52	02:22	16:04	16:34	19	02:27	02:55	15:12	15:40
20	01:19	01:52	16:41	17:13	20	01:54	02:23	16:03	16:32	20	02:28	02:56	15:10	15:38
21	01:20	01:53	16:40	17:12	21	01:55	02:24	16:01	16:31	21	02:29	02:57	15:08	15:36
22	01:21	01:54	16:39	17:12	22	01:56	02:25	16:00	16:29	22	02:30	02:58	15:07	15:35
23	01:22	01:55	16:38	17:11	23	01:57	02:26	15:58	16:27	23	02:31	02:59	15:05	15:33
24	01:23	01:56	16:37	17:09	24	01:58	02:27	15:56	16:26	24	02:32	03:00	15:03	15:31
25	01:24	01:57	16:36	17:08	25	01:59	02:28	15:55	16:24	25	02:33	03:01	15:01	15:29
26	01:25	01:57	16:35	17:07	26	02:00	02:30	15:53	16:22	26	02:34	03:02	15:00	15:27
27	01:26	01:58	16:34	17:06	27	02:01	02:31	15:52	16:21	27	02:35	03:03	14:58	15:26

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
28	01:27	01:59	16:33	17:05	28	02:03	02:32	15:50	16:19	28	02:36	03:04	14:56	15:24
29	01:29	02:00	16:32	17:04	29	02:04	02:33	15:48	16:17	29	02:37	03:05	14:54	15:22
30	01:30	02:01	16:31	17:03	30	02:05	02:34	15:47	16:15	30	02:39	03:06	14:53	15:21
31	01:31	02:02	16:30	17:01	31	02:06	02:35	15:45	16:14					
OCT					NOV					DEC				
1	02:40	03:07	14:51	15:19	1	03:14	03:44	14:03	14:32	1	03:48	04:19	13:39	14:10
2	02:41	03:09	14:49	15:17	2	03:16	03:45	14:02	14:31	2	03:49	04:21	13:39	14:10
3	02:42	03:10	14:47	15:15	3	03:17	03:46	14:01	14:30	3	03:50	04:22	13:38	14:10
4	02:43	03:11	14:46	15:14	4	03:18	03:47	13:59	14:29	4	03:51	04:23	13:38	14:10
5	02:44	03:12	14:44	15:12	5	03:19	03:49	13:58	14:28	5	03:52	04:24	13:38	14:10
6	02:45	03:13	14:42	15:10	6	03:20	03:50	13:57	14:27	6	03:53	04:25	13:38	14:10
7	02:46	03:14	14:41	15:09	7	03:21	03:51	13:56	14:26	7	03:54	04:25	13:38	14:10
8	02:47	03:15	14:39	15:07	8	03:23	03:52	13:55	14:25	8	03:55	04:26	13:38	14:10
9	02:48	03:16	14:37	15:05	9	03:24	03:54	13:54	14:24	9	03:56	04:27	13:38	14:10
10	02:49	03:17	14:36	15:04	10	03:25	03:55	13:53	14:23	10	03:56	04:28	13:38	14:10
11	02:51	03:19	14:34	15:02	11	03:26	03:56	13:52	14:22	11	03:57	04:29	13:38	14:10
12	02:52	03:20	14:32	15:01	12	03:27	03:57	13:51	14:21	12	03:58	04:30	13:38	14:10
13	02:53	03:21	14:31	14:59	13	03:28	03:58	13:50	14:20	13	03:59	04:31	13:39	14:10
14	02:54	03:22	14:29	14:57	14	03:30	04:00	13:49	14:19	14	03:59	04:31	13:39	14:11
15	02:55	03:23	14:28	14:56	15	03:31	04:01	13:48	14:18	15	04:00	04:32	13:39	14:11
16	02:56	03:24	14:26	14:54	16	03:32	04:02	13:47	14:18	16	04:01	04:33	13:39	14:11
17	02:57	03:26	14:24	14:53	17	03:33	04:03	13:46	14:17	17	04:01	04:33	13:40	14:12
18	02:58	03:27	14:23	14:51	18	03:34	04:05	13:46	14:16	18	04:02	04:34	13:40	14:12
19	02:59	03:28	14:21	14:50	19	03:35	04:06	13:45	14:15	19	04:03	04:35	13:40	14:12
20	03:01	03:29	14:20	14:48	20	03:37	04:07	13:44	14:15	20	04:03	04:35	13:41	14:13
21	03:02	03:30	14:18	14:47	21	03:38	04:08	13:44	14:14	21	04:04	04:36	13:41	14:13
22	03:03	03:31	14:17	14:45	22	03:39	04:09	13:43	14:14	22	04:04	04:36	13:42	14:14
23	03:04	03:33	14:15	14:44	23	03:40	04:11	13:42	14:13	23	04:05	04:37	13:43	14:14
24	03:05	03:34	14:14	14:43	24	03:41	04:12	13:42	14:13	24	04:05	04:37	13:43	14:15
25	03:06	03:35	14:13	14:41	25	03:42	04:13	13:41	14:12	25	04:05	04:37	13:44	14:16
26	03:07	03:36	14:11	14:40	26	03:43	04:14	13:41	14:12	26	04:06	04:38	13:44	14:16
27	03:09	03:37	14:10	14:39	27	03:44	04:15	13:40	14:11	27	04:06	04:38	13:45	14:17
28	03:10	03:39	14:08	14:37	28	03:45	04:16	13:40	14:11	28	04:06	04:38	13:46	14:18
29	03:11	03:40	14:07	14:36	29	03:46	04:17	13:40	14:11	29	04:07	04:38	13:47	14:18
30	03:12	03:41	14:06	14:35	30	03:47	04:18	13:39	14:10	30	04:07	04:39	13:47	14:19
31	03:13	03:42	14:04	14:34						31	04:07	04:39	13:48	14:20

3.3 BATUMI

BATUMI
UGSB
N 41º 36' 37"
E 041º 35' 58"

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
JAN					FEB					MAR				
1	04:08	04:41	13:54	14:25	1	03:57	04:26	14:29	14:58	1	03:20	03:48	15:05	15:33
2	04:08	04:41	13:55	14:26	2	03:56	04:25	14:30	14:59	2	03:18	03:46	15:06	15:34
3	04:09	04:41	13:56	14:27	3	03:55	04:24	14:31	15:01	3	03:17	03:45	15:07	15:35
4	04:09	04:41	13:57	14:28	4	03:54	04:23	14:33	15:02	4	03:15	03:43	15:08	15:36
5	04:09	04:41	13:57	14:29	5	03:53	04:22	14:34	15:03	5	03:14	03:41	15:09	15:37
6	04:09	04:41	13:58	14:30	6	03:52	04:21	14:35	15:04	6	03:12	03:40	15:11	15:38
7	04:09	04:41	13:59	14:30	7	03:51	04:20	14:36	15:05	7	03:10	03:38	15:12	15:39
8	04:08	04:40	14:00	14:31	8	03:50	04:19	14:38	15:07	8	03:09	03:36	15:13	15:41
9	04:08	04:40	14:01	14:32	9	03:49	04:17	14:39	15:08	9	03:07	03:35	15:14	15:42
10	04:08	04:40	14:02	14:33	10	03:47	04:16	14:40	15:09	10	03:06	03:33	15:15	15:43
11	04:08	04:40	14:04	14:34	11	03:46	04:15	14:42	15:10	11	03:04	03:32	15:16	15:44
12	04:08	04:39	14:05	14:35	12	03:45	04:14	14:43	15:11	12	03:02	03:30	15:17	15:45
13	04:07	04:39	14:06	14:36	13	03:44	04:12	14:44	15:13	13	03:01	03:28	15:19	15:46
14	04:07	04:39	14:07	14:38	14	03:43	04:11	14:45	15:14	14	02:59	03:26	15:20	15:47
15	04:07	04:38	14:08	14:39	15	03:41	04:10	14:47	15:15	15	02:57	03:25	15:21	15:48
16	04:06	04:38	14:09	14:40	16	03:40	04:08	14:48	15:16	16	02:55	03:23	15:22	15:50
17	04:06	04:37	14:10	14:41	17	03:39	04:07	14:49	15:17	17	02:54	03:21	15:23	15:51
18	04:05	04:36	14:11	14:42	18	03:37	04:06	14:50	15:19	18	02:52	03:20	15:24	15:52
19	04:05	04:36	14:13	14:43	19	03:36	04:04	14:51	15:20	19	02:50	03:18	15:25	15:53
20	04:04	04:35	14:14	14:44	20	03:35	04:03	14:53	15:21	20	02:49	03:16	15:26	15:54
21	04:04	04:35	14:15	14:45	21	03:33	04:01	14:54	15:22	21	02:47	03:15	15:27	15:55
22	04:03	04:34	14:16	14:46	22	03:32	04:00	14:55	15:23	22	02:45	03:13	15:29	15:56
23	04:02	04:33	14:18	14:48	23	03:30	03:59	14:56	15:24	23	02:43	03:11	15:30	15:57
24	04:02	04:32	14:19	14:49	24	03:29	03:57	14:58	15:26	24	02:42	03:10	15:31	15:59
25	04:01	04:32	14:20	14:50	25	03:27	03:56	14:59	15:27	25	02:40	03:08	15:32	16:00
26	04:00	04:31	14:21	14:51	26	03:26	03:54	15:00	15:28	26	02:38	03:06	15:33	16:01
27	03:59	04:30	14:22	14:52	27	03:25	03:52	15:01	15:29	27	02:37	03:04	15:34	16:02
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29	03:58	04:28	14:25	14:55	29	03:21	03:49	15:04	15:31	29	02:33	03:01	15:36	16:04
30	03:57	04:27	14:26	14:56						30	02:31	02:59	15:37	16:05
31	03:56	04:26	14:28	14:57						31	02:30	02:58	15:38	16:06
APR					MAY					JUN				
1	02:28	02:56	15:39	16:08	1	01:40	02:10	16:12	16:42	1	01:08	01:42	16:42	17:15
2	02:26	02:54	15:41	16:09	2	01:38	02:09	16:13	16:44	2	01:08	01:41	16:42	17:16
3	02:24	02:53	15:42	16:10	3	01:37	02:07	16:14	16:45	3	01:07	01:41	16:43	17:17
4	02:23	02:51	15:43	16:11	4	01:35	02:06	16:15	16:46	4	01:07	01:40	16:44	17:17
5	02:21	02:49	15:44	16:12	5	01:34	02:05	16:16	16:47	5	01:06	01:40	16:45	17:18

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
6	02:19	02:48	15:45	16:13	6	01:33	02:04	16:17	16:48	6	01:06	01:40	16:45	17:19
7	02:18	02:46	15:46	16:14	7	01:31	02:02	16:18	16:49	7	01:06	01:40	16:46	17:20
8	02:16	02:44	15:47	16:15	8	01:30	02:01	16:19	16:51	8	01:05	01:39	16:46	17:20
9	02:14	02:43	15:48	16:17	9	01:29	02:00	16:21	16:52	9	01:05	01:39	16:47	17:21
10	02:13	02:41	15:49	16:18	10	01:28	01:59	16:22	16:53	10	01:05	01:39	16:47	17:21
11	02:11	02:39	15:50	16:19	11	01:27	01:58	16:23	16:54	11	01:05	01:39	16:48	17:22
12	02:09	02:38	15:51	16:20	12	01:25	01:57	16:24	16:55	12	01:05	01:39	16:48	17:22
13	02:07	02:36	15:53	16:21	13	01:24	01:56	16:25	16:56	13	01:05	01:39	16:49	17:23
14	02:06	02:35	15:54	16:22	14	01:23	01:55	16:26	16:57	14	01:05	01:39	16:49	17:23
15	02:04	02:33	15:55	16:24	15	01:22	01:54	16:27	16:58	15	01:05	01:39	16:50	17:24
16	02:03	02:31	15:56	16:25	16	01:21	01:53	16:28	17:00	16	01:05	01:39	16:50	17:24
17	02:01	02:30	15:57	16:26	17	01:20	01:52	16:29	17:01	17	01:05	01:39	16:50	17:25
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19	01:58	02:27	15:59	16:28	19	01:18	01:50	16:31	17:03	19	01:05	01:39	16:51	17:25
20	01:56	02:25	16:00	16:29	20	01:17	01:49	16:32	17:04	20	01:05	01:39	16:51	17:25
21	01:55	02:24	16:01	16:31	21	01:16	01:48	16:32	17:05	21	01:05	01:40	16:51	17:26
22	01:53	02:22	16:02	16:32	22	01:15	01:48	16:33	17:06	22	01:06	01:40	16:52	17:26
23	01:51	02:21	16:03	16:33	23	01:14	01:47	16:34	17:07	23	01:06	01:40	16:52	17:26
24	01:50	02:19	16:04	16:34	24	01:14	01:46	16:35	17:08	24	01:06	01:40	16:52	17:26
25	01:48	02:18	16:06	16:35	25	01:13	01:45	16:36	17:09	25	01:07	01:41	16:52	17:26
26	01:47	02:17	16:07	16:36	26	01:12	01:45	16:37	17:10	26	01:07	01:41	16:52	17:26
27	01:45	02:15	16:08	16:38	27	01:11	01:44	16:38	17:11	27	01:07	01:41	16:52	17:26
28	01:44	02:14	16:09	16:39	28	01:11	01:44	16:39	17:12	28	01:08	01:42	16:52	17:26
29	01:42	02:12	16:10	16:40	29	01:10	01:43	16:39	17:13	29	01:08	01:42	16:52	17:26
30	01:41	02:11	16:11	16:41	30	01:09	01:43	16:40	17:13	30	01:09	01:43	16:52	17:26
					31	01:09	01:42	16:41	17:14					
JUL					AUG					SEP				
1	01:09	01:43	16:52	17:25	1	01:37	02:08	16:31	17:02	1	02:11	02:40	15:46	16:15
2	01:10	01:44	16:51	17:25	2	01:38	02:09	16:30	17:01	2	02:13	02:41	15:44	16:13
3	01:11	01:44	16:51	17:25	3	01:39	02:10	16:28	16:59	3	02:14	02:42	15:43	16:11
4	01:11	01:45	16:51	17:25	4	01:40	02:11	16:27	16:58	4	02:15	02:43	15:41	16:09
5	01:12	01:46	16:51	17:24	5	01:42	02:12	16:26	16:57	5	02:16	02:44	15:39	16:08
6	01:13	01:46	16:50	17:24	6	01:43	02:13	16:25	16:55	6	02:17	02:45	15:38	16:06
7	01:13	01:47	16:50	17:24	7	01:44	02:14	16:24	16:54	7	02:18	02:46	15:36	16:04
8	01:14	01:48	16:50	17:23	8	01:45	02:15	16:22	16:53	8	02:19	02:47	15:34	16:02
9	01:15	01:48	16:49	17:23	9	01:46	02:16	16:21	16:51	9	02:20	02:48	15:33	16:01
10	01:16	01:49	16:49	17:22	10	01:47	02:17	16:20	16:50	10	02:21	02:49	15:31	15:59
11	01:16	01:50	16:48	17:22	11	01:48	02:18	16:18	16:48	11	02:22	02:50	15:29	15:57
12	01:17	01:50	16:48	17:21	12	01:49	02:20	16:17	16:47	12	02:23	02:51	15:27	15:55
13	01:18	01:51	16:47	17:20	13	01:51	02:21	16:15	16:45	13	02:24	02:52	15:26	15:54
14	01:19	01:52	16:47	17:20	14	01:52	02:22	16:14	16:44	14	02:25	02:53	15:24	15:52
15	01:20	01:53	16:46	17:19	15	01:53	02:23	16:13	16:42	15	02:26	02:54	15:22	15:50

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
16	01:21	01:54	16:45	17:18	16	01:54	02:24	16:11	16:41	16	02:27	02:55	15:21	15:48
17	01:22	01:54	16:45	17:17	17	01:55	02:25	16:10	16:39	17	02:28	02:56	15:19	15:47
18	01:23	01:55	16:44	17:17	18	01:56	02:26	16:08	16:38	18	02:30	02:57	15:17	15:45
19	01:24	01:56	16:43	17:16	19	01:57	02:27	16:07	16:36	19	02:31	02:58	15:15	15:43
20	01:25	01:57	16:42	17:15	20	01:58	02:28	16:05	16:35	20	02:32	02:59	15:14	15:41
21	01:26	01:58	16:42	17:14	21	01:59	02:29	16:04	16:33	21	02:33	03:00	15:12	15:40
22	01:27	01:59	16:41	17:13	22	02:01	02:30	16:02	16:31	22	02:34	03:01	15:10	15:38
23	01:28	02:00	16:40	17:12	23	02:02	02:31	16:01	16:30	23	02:35	03:02	15:08	15:36
24	01:29	02:01	16:39	17:11	24	02:03	02:32	15:59	16:28	24	02:36	03:03	15:07	15:34
25	01:30	02:02	16:38	17:10	25	02:04	02:33	15:58	16:26	25	02:37	03:05	15:05	15:33
26	01:31	02:03	16:37	17:09	26	02:05	02:34	15:56	16:25	26	02:38	03:06	15:03	15:31
27	01:32	02:04	16:36	17:08	27	02:06	02:35	15:54	16:23	27	02:39	03:07	15:01	15:29
28	01:33	02:04	16:35	17:07	28	02:07	02:36	15:53	16:21	28	02:40	03:08	15:00	15:27
29	01:34	02:05	16:34	17:06	29	02:08	02:37	15:51	16:20	29	02:41	03:09	14:58	15:26
30	01:35	02:06	16:33	17:04	30	02:09	02:38	15:49	16:18	30	02:42	03:10	14:56	15:24
31	01:36	02:07	16:32	17:03	31	02:10	02:39	15:48	16:16					
OCT					NOV					DEC				
1	02:43	03:11	14:55	15:22	1	03:17	03:46	14:08	14:37	1	03:50	04:21	13:44	14:15
2	02:44	03:12	14:53	15:21	2	03:18	03:47	14:07	14:35	2	03:51	04:22	13:44	14:15
3	02:45	03:13	14:51	15:19	3	03:19	03:48	14:05	14:34	3	03:52	04:23	13:44	14:15
4	02:46	03:14	14:50	15:17	4	03:21	03:50	14:04	14:33	4	03:53	04:24	13:44	14:15
5	02:47	03:15	14:48	15:16	5	03:22	03:51	14:03	14:32	5	03:54	04:25	13:43	14:15
6	02:48	03:16	14:46	15:14	6	03:23	03:52	14:02	14:31	6	03:55	04:26	13:43	14:15
7	02:50	03:17	14:45	15:12	7	03:24	03:53	14:01	14:30	7	03:56	04:27	13:43	14:15
8	02:51	03:18	14:43	15:11	8	03:25	03:55	14:00	14:29	8	03:57	04:28	13:43	14:15
9	02:52	03:19	14:41	15:09	9	03:26	03:56	13:59	14:28	9	03:58	04:29	13:43	14:15
10	02:53	03:21	14:40	15:07	10	03:28	03:57	13:58	14:27	10	03:58	04:30	13:43	14:15
11	02:54	03:22	14:38	15:06	11	03:29	03:58	13:57	14:26	11	03:59	04:31	13:44	14:15
12	02:55	03:23	14:36	15:04	12	03:30	03:59	13:56	14:25	12	04:00	04:31	13:44	14:15
13	02:56	03:24	14:35	15:03	13	03:31	04:01	13:55	14:25	13	04:01	04:32	13:44	14:15
14	02:57	03:25	14:33	15:01	14	03:32	04:02	13:54	14:24	14	04:02	04:33	13:44	14:16
15	02:58	03:26	14:32	15:00	15	03:33	04:03	13:53	14:23	15	04:02	04:34	13:44	14:16
16	02:59	03:27	14:30	14:58	16	03:34	04:04	13:52	14:22	16	04:03	04:34	13:45	14:16
17	03:00	03:28	14:29	14:57	17	03:36	04:05	13:51	14:21	17	04:03	04:35	13:45	14:17
18	03:01	03:30	14:27	14:55	18	03:37	04:07	13:51	14:21	18	04:04	04:36	13:45	14:17
19	03:03	03:31	14:26	14:54	19	03:38	04:08	13:50	14:20	19	04:05	04:36	13:46	14:17
20	03:04	03:32	14:24	14:52	20	03:39	04:09	13:49	14:20	20	04:05	04:37	13:46	14:18
21	03:05	03:33	14:23	14:51	21	03:40	04:10	13:49	14:19	21	04:06	04:37	13:47	14:18
22	03:06	03:34	14:21	14:49	22	03:41	04:11	13:48	14:18	22	04:06	04:38	13:47	14:19
23	03:07	03:35	14:20	14:48	23	03:42	04:13	13:47	14:18	23	04:07	04:38	13:48	14:19
24	03:08	03:37	14:18	14:47	24	03:43	04:14	13:47	14:17	24	04:07	04:39	13:48	14:20
25	03:09	03:38	14:17	14:45	25	03:44	04:15	13:46	14:17	25	04:07	04:39	13:49	14:21

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
26	03:10	03:39	14:16	14:44	26	03:45	04:16	13:46	14:17	26	04:08	04:39	13:50	14:21
27	03:12	03:40	14:14	14:43	27	03:46	04:17	13:45	14:16	27	04:08	04:40	13:50	14:22
28	03:13	03:41	14:13	14:42	28	03:47	04:18	13:45	14:16	28	04:08	04:40	13:51	14:23
29	03:14	03:42	14:12	14:40	29	03:48	04:19	13:45	14:16	29	04:09	04:40	13:52	14:23
30	03:15	03:44	14:10	14:39	30	03:49	04:20	13:44	14:15	30	04:09	04:40	13:53	14:24
31	03:16	03:45	14:09	14:38						31	04:09	04:40	13:54	14:25

3.4 MESTIA and AMBROLAURI

MESTIA UGMS N 43º 03' 18" E 042º 45' 01"	AMBROLAURI UGAM N 42º 31' 36" E 043º 08' 10"

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
JAN					FEB					MAR				
1	04:08	04:41	13:45	14:17	1	03:55	04:25	14:21	14:51	1	03:16	03:44	14:59	15:27
2	04:08	04:41	13:45	14:18	2	03:54	04:24	14:22	14:52	2	03:14	03:43	15:00	15:29
3	04:09	04:41	13:46	14:19	3	03:53	04:23	14:24	14:54	3	03:13	03:41	15:01	15:30
4	04:09	04:41	13:47	14:19	4	03:52	04:22	14:25	14:55	4	03:11	03:39	15:03	15:31
5	04:09	04:41	13:48	14:20	5	03:51	04:20	14:26	14:56	5	03:09	03:38	15:04	15:32
6	04:09	04:41	13:49	14:21	6	03:49	04:19	14:28	14:57	6	03:08	03:36	15:05	15:33
7	04:09	04:41	13:50	14:22	7	03:48	04:18	14:29	14:59	7	03:06	03:34	15:06	15:35
8	04:08	04:40	13:51	14:23	8	03:47	04:17	14:30	15:00	8	03:04	03:33	15:08	15:36
9	04:08	04:40	13:52	14:24	9	03:46	04:16	14:32	15:01	9	03:03	03:31	15:09	15:37
10	04:08	04:40	13:53	14:25	10	03:45	04:14	14:33	15:02	10	03:01	03:29	15:10	15:38
11	04:08	04:40	13:55	14:26	11	03:44	04:13	14:34	15:04	11	02:59	03:27	15:11	15:39
12	04:08	04:39	13:56	14:27	12	03:42	04:12	14:36	15:05	12	02:57	03:26	15:12	15:41
13	04:07	04:39	13:57	14:28	13	03:41	04:10	14:37	15:06	13	02:56	03:24	15:14	15:42
14	04:07	04:39	13:58	14:30	14	03:40	04:09	14:38	15:08	14	02:54	03:22	15:15	15:43
15	04:07	04:38	13:59	14:31	15	03:38	04:08	14:40	15:09	15	02:52	03:20	15:16	15:44
16	04:06	04:38	14:00	14:32	16	03:37	04:06	14:41	15:10	16	02:50	03:19	15:17	15:45
17	04:06	04:37	14:02	14:33	17	03:36	04:05	14:42	15:11	17	02:49	03:17	15:18	15:47
18	04:05	04:36	14:03	14:34	18	03:34	04:03	14:44	15:13	18	02:47	03:15	15:20	15:48
19	04:05	04:36	14:04	14:35	19	03:33	04:02	14:45	15:14	19	02:45	03:13	15:21	15:49
20	04:04	04:35	14:05	14:36	20	03:31	04:00	14:46	15:15	20	02:43	03:12	15:22	15:50
21	04:04	04:35	14:07	14:38	21	03:30	03:59	14:47	15:16	21	02:41	03:10	15:23	15:51
22	04:03	04:34	14:08	14:39	22	03:28	03:57	14:49	15:18	22	02:40	03:08	15:24	15:53
23	04:02	04:33	14:09	14:40	23	03:27	03:56	14:50	15:19	23	02:38	03:06	15:25	15:54
24	04:02	04:32	14:10	14:41	24	03:25	03:54	14:51	15:20	24	02:36	03:04	15:27	15:55
25	04:01	04:32	14:12	14:42	25	03:24	03:53	14:53	15:21	25	02:34	03:03	15:28	15:56
26	04:00	04:31	14:13	14:44	26	03:22	03:51	14:54	15:22	26	02:32	03:01	15:29	15:57
27	03:59	04:30	14:14	14:45	27	03:21	03:49	14:55	15:24	27	02:31	02:59	15:30	15:59
28	03:58	04:29	14:16	14:46	28	03:19	03:48	14:56	15:25	28	02:29	02:57	15:31	16:00
29	03:58	04:28	14:17	14:47	29	03:18	03:46	14:58	15:26	29	02:27	02:56	15:32	16:01

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
30	03:57	04:27	14:18	14:49						30	02:25	02:54	15:34	16:02
31	03:56	04:26	14:20	14:50						31	02:23	02:52	15:35	16:03
APR					MAY					JUN				
1	02:22	02:50	15:36	16:05	1	01:31	02:02	16:11	16:42	1	00:58	01:32	16:42	17:17
2	02:20	02:49	15:37	16:06	2	01:29	02:01	16:12	16:43	2	00:57	01:32	16:43	17:17
3	02:18	02:47	15:38	16:07	3	01:28	01:59	16:13	16:44	3	00:57	01:31	16:43	17:18
4	02:16	02:45	15:39	16:08	4	01:27	01:58	16:14	16:46	4	00:56	01:31	16:44	17:19
5	02:14	02:43	15:41	16:09	5	01:25	01:57	16:15	16:47	5	00:56	01:31	16:45	17:20
6	02:13	02:42	15:42	16:11	6	01:24	01:55	16:16	16:48	6	00:55	01:30	16:46	17:20
7	02:11	02:40	15:43	16:12	7	01:22	01:54	16:17	16:49	7	00:55	01:30	16:46	17:21
8	02:09	02:38	15:44	16:13	8	01:21	01:53	16:18	16:50	8	00:55	01:30	16:47	17:22
9	02:07	02:36	15:45	16:14	9	01:20	01:52	16:20	16:52	9	00:54	01:29	16:47	17:22
10	02:06	02:35	15:46	16:16	10	01:18	01:51	16:21	16:53	10	00:54	01:29	16:48	17:23
11	02:04	02:33	15:47	16:17	11	01:17	01:49	16:22	16:54	11	00:54	01:29	16:48	17:24
12	02:02	02:31	15:49	16:18	12	01:16	01:48	16:23	16:55	12	00:54	01:29	16:49	17:24
13	02:00	02:30	15:50	16:19	13	01:15	01:47	16:24	16:57	13	00:54	01:29	16:49	17:25
14	01:59	02:28	15:51	16:21	14	01:14	01:46	16:25	16:58	14	00:54	01:29	16:50	17:25
15	01:57	02:26	15:52	16:22	15	01:12	01:45	16:26	16:59	15	00:54	01:29	16:50	17:26
16	01:55	02:25	15:53	16:23	16	01:11	01:44	16:27	17:00	16	00:54	01:29	16:51	17:26
17	01:53	02:23	15:54	16:24	17	01:10	01:43	16:28	17:01	17	00:54	01:29	16:51	17:26
18	01:52	02:22	15:56	16:25	18	01:09	01:42	16:29	17:02	18	00:54	01:29	16:51	17:27
19	01:50	02:20	15:57	16:27	19	01:08	01:41	16:30	17:03	19	00:54	01:29	16:52	17:27
20	01:48	02:18	15:58	16:28	20	01:07	01:40	16:31	17:05	20	00:54	01:30	16:52	17:27
21	01:47	02:17	15:59	16:29	21	01:06	01:39	16:32	17:06	21	00:54	01:30	16:52	17:27
22	01:45	02:15	16:00	16:30	22	01:05	01:39	16:33	17:07	22	00:55	01:30	16:52	17:28
23	01:43	02:14	16:01	16:32	23	01:04	01:38	16:34	17:08	23	00:55	01:30	16:52	17:28
24	01:42	02:12	16:03	16:33	24	01:03	01:37	16:35	17:09	24	00:55	01:31	16:52	17:28
25	01:40	02:11	16:04	16:34	25	01:02	01:36	16:36	17:10	25	00:56	01:31	16:52	17:28
26	01:39	02:09	16:05	16:36	26	01:02	01:36	16:37	17:11	26	00:56	01:31	16:52	17:28
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28	01:36	02:06	16:07	16:38	28	01:00	01:34	16:39	17:13	28	00:57	01:32	16:52	17:28
29	01:34	02:05	16:08	16:39	29	00:59	01:34	16:40	17:14	29	00:57	01:33	16:52	17:28
30	01:32	02:03	16:09	16:41	30	00:59	01:33	16:40	17:15	30	00:58	01:33	16:52	17:27
					31	00:58	01:33	16:41	17:16					
JUL					AUG					SEP				
1	00:58	01:34	16:52	17:27	1	01:28	02:00	16:30	17:02	1	02:05	02:34	15:43	16:12
2	00:59	01:34	16:52	17:27	2	01:29	02:01	16:29	17:01	2	02:06	02:35	15:41	16:10
3	01:00	01:35	16:52	17:27	3	01:30	02:02	16:27	16:59	3	02:07	02:36	15:40	16:09
4	01:00	01:35	16:51	17:26	4	01:31	02:03	16:26	16:58	4	02:08	02:37	15:38	16:07
5	01:01	01:36	16:51	17:26	5	01:33	02:04	16:25	16:57	5	02:09	02:38	15:36	16:05
6	01:02	01:37	16:51	17:26	6	01:34	02:05	16:24	16:55	6	02:10	02:39	15:34	16:03
7	01:03	01:37	16:50	17:25	7	01:35	02:06	16:22	16:54	7	02:11	02:40	15:33	16:01

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
8	01:03	01:38	16:50	17:25	8	01:36	02:08	16:21	16:52	8	02:13	02:41	15:31	16:00
9	01:04	01:39	16:49	17:24	9	01:37	02:09	16:20	16:51	9	02:14	02:42	15:29	15:58
10	01:05	01:40	16:49	17:23	10	01:39	02:10	16:18	16:49	10	02:15	02:44	15:27	15:56
11	01:06	01:40	16:48	17:23	11	01:40	02:11	16:17	16:48	11	02:16	02:45	15:25	15:54
12	01:07	01:41	16:48	17:22	12	01:41	02:12	16:15	16:46	12	02:17	02:46	15:24	15:52
13	01:08	01:42	16:47	17:22	13	01:42	02:13	16:14	16:45	13	02:18	02:47	15:22	15:50
14	01:09	01:43	16:47	17:21	14	01:43	02:14	16:12	16:43	14	02:19	02:48	15:20	15:49
15	01:10	01:44	16:46	17:20	15	01:45	02:15	16:11	16:41	15	02:20	02:49	15:18	15:47
16	01:10	01:44	16:45	17:19	16	01:46	02:16	16:09	16:40	16	02:22	02:50	15:16	15:45
17	01:11	01:45	16:45	17:18	17	01:47	02:17	16:08	16:38	17	02:23	02:51	15:15	15:43
18	01:12	01:46	16:44	17:18	18	01:48	02:18	16:06	16:37	18	02:24	02:52	15:13	15:41
19	01:13	01:47	16:43	17:17	19	01:49	02:20	16:05	16:35	19	02:25	02:53	15:11	15:39
20	01:15	01:48	16:42	17:16	20	01:50	02:21	16:03	16:33	20	02:26	02:54	15:09	15:38
21	01:16	01:49	16:41	17:15	21	01:52	02:22	16:02	16:32	21	02:27	02:56	15:07	15:36
22	01:17	01:50	16:40	17:14	22	01:53	02:23	16:00	16:30	22	02:28	02:57	15:06	15:34
23	01:18	01:51	16:40	17:13	23	01:54	02:24	15:58	16:28	23	02:29	02:58	15:04	15:32
24	01:19	01:52	16:39	17:12	24	01:55	02:25	15:57	16:26	24	02:31	02:59	15:02	15:30
25	01:20	01:53	16:38	17:11	25	01:56	02:26	15:55	16:25	25	02:32	03:00	15:00	15:28
26	01:21	01:54	16:37	17:09	26	01:58	02:27	15:53	16:23	26	02:33	03:01	14:58	15:27
27	01:22	01:55	16:36	17:08	27	01:59	02:28	15:52	16:21	27	02:34	03:02	14:57	15:25
28	01:23	01:56	16:34	17:07	28	02:00	02:29	15:50	16:19	28	02:35	03:03	14:55	15:23
29	01:24	01:57	16:33	17:06	29	02:01	02:30	15:48	16:18	29	02:36	03:04	14:53	15:21
30	01:26	01:58	16:32	17:05	30	02:02	02:32	15:47	16:16	30	02:37	03:06	14:51	15:20
31	01:27	01:59	16:31	17:03	31	02:03	02:33	15:45	16:14					
OCT					NOV					DEC				
1	02:38	03:07	14:49	15:18	1	03:15	03:44	14:00	14:30	1	03:49	04:21	13:35	14:07
2	02:40	03:08	14:48	15:16	2	03:16	03:45	13:59	14:29	2	03:50	04:22	13:35	14:07
3	02:41	03:09	14:46	15:14	3	03:17	03:47	13:58	14:28	3	03:51	04:23	13:35	14:07
4	02:42	03:10	14:44	15:13	4	03:18	03:48	13:57	14:26	4	03:52	04:24	13:34	14:06
5	02:43	03:11	14:42	15:11	5	03:19	03:49	13:55	14:25	5	03:53	04:25	13:34	14:06
6	02:44	03:12	14:41	15:09	6	03:21	03:51	13:54	14:24	6	03:54	04:26	13:34	14:06
7	02:45	03:14	14:39	15:07	7	03:22	03:52	13:53	14:23	7	03:55	04:27	13:34	14:06
8	02:46	03:15	14:37	15:06	8	03:23	03:53	13:52	14:22	8	03:56	04:28	13:34	14:06
9	02:48	03:16	14:36	15:04	9	03:24	03:54	13:51	14:21	9	03:57	04:29	13:34	14:06
10	02:49	03:17	14:34	15:02	10	03:25	03:56	13:50	14:20	10	03:58	04:30	13:34	14:06
11	02:50	03:18	14:32	15:01	11	03:27	03:57	13:49	14:19	11	03:58	04:31	13:34	14:06
12	02:51	03:19	14:31	14:59	12	03:28	03:58	13:48	14:18	12	03:59	04:32	13:34	14:07
13	02:52	03:21	14:29	14:57	13	03:29	04:00	13:47	14:17	13	04:00	04:32	13:35	14:07
14	02:53	03:22	14:27	14:56	14	03:30	04:01	13:46	14:16	14	04:01	04:33	13:35	14:07
15	02:54	03:23	14:26	14:54	15	03:31	04:02	13:45	14:16	15	04:01	04:34	13:35	14:07
16	02:56	03:24	14:24	14:53	16	03:33	04:03	13:44	14:15	16	04:02	04:35	13:35	14:08
17	02:57	03:25	14:22	14:51	17	03:34	04:05	13:43	14:14	17	04:03	04:35	13:36	14:08

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
18	02:58	03:27	14:21	14:50	18	03:35	04:06	13:42	14:13	18	04:03	04:36	13:36	14:08
19	02:59	03:28	14:19	14:48	19	03:36	04:07	13:42	14:13	19	04:04	04:36	13:36	14:09
20	03:00	03:29	14:18	14:46	20	03:37	04:08	13:41	14:12	20	04:05	04:37	13:37	14:09
21	03:01	03:30	14:16	14:45	21	03:38	04:10	13:40	14:11	21	04:05	04:37	13:37	14:10
22	03:03	03:32	14:15	14:44	22	03:40	04:11	13:39	14:11	22	04:06	04:38	13:38	14:10
23	03:04	03:33	14:13	14:42	23	03:41	04:12	13:39	14:10	23	04:06	04:38	13:38	14:11
24	03:05	03:34	14:12	14:41	24	03:42	04:13	13:38	14:10	24	04:06	04:39	13:39	14:12
25	03:06	03:35	14:10	14:39	25	03:43	04:14	13:38	14:09	25	04:07	04:39	13:40	14:12
26	03:07	03:37	14:09	14:38	26	03:44	04:16	13:37	14:09	26	04:07	04:40	13:40	14:13
27	03:09	03:38	14:07	14:36	27	03:45	04:17	13:37	14:08	27	04:07	04:40	13:41	14:14
28	03:10	03:39	14:06	14:35	28	03:46	04:18	13:36	14:08	28	04:08	04:40	13:42	14:14
29	03:11	03:40	14:04	14:34	29	03:47	04:19	13:36	14:07	29	04:08	04:40	13:43	14:15
30	03:12	03:42	14:03	14:33	30	03:48	04:20	13:35	14:07	30	04:08	04:40	13:43	14:16
31	03:13	03:43	14:02	14:31						31	04:08	04:41	13:44	14:17

3.5 TELAVI

TELAVI
UGGT
N 41º 57' 12"
E 045º 30' 32"

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
JAN					FEB					MAR				
1	03:54	04:26	13:37	14:09	1	03:42	04:11	14:12	14:42	1	03:04	03:32	14:49	15:17
2	03:55	04:26	13:38	14:10	2	03:41	04:10	14:14	14:43	2	03:03	03:31	14:50	15:18
3	03:55	04:26	13:39	14:10	3	03:40	04:09	14:15	14:44	3	03:01	03:29	14:51	15:19
4	03:55	04:26	13:40	14:11	4	03:39	04:08	14:16	14:46	4	03:00	03:28	14:52	15:20
5	03:55	04:26	13:41	14:12	5	03:38	04:07	14:18	14:47	5	02:58	03:26	14:54	15:21
6	03:55	04:26	13:42	14:13	6	03:37	04:06	14:19	14:48	6	02:56	03:24	14:55	15:23
7	03:55	04:26	13:43	14:14	7	03:36	04:05	14:20	14:49	7	02:55	03:23	14:56	15:24
8	03:55	04:26	13:44	14:15	8	03:35	04:04	14:21	14:50	8	02:53	03:21	14:57	15:25
9	03:54	04:26	13:45	14:16	9	03:33	04:02	14:23	14:52	9	02:52	03:19	14:58	15:26
10	03:54	04:25	13:46	14:17	10	03:32	04:01	14:24	14:53	10	02:50	03:18	14:59	15:27
11	03:54	04:25	13:47	14:18	11	03:31	04:00	14:25	14:54	11	02:48	03:16	15:01	15:28
12	03:54	04:25	13:48	14:19	12	03:30	03:59	14:27	14:55	12	02:47	03:14	15:02	15:29
13	03:54	04:25	13:49	14:20	13	03:29	03:57	14:28	14:57	13	02:45	03:13	15:03	15:31
14	03:53	04:24	13:50	14:21	14	03:27	03:56	14:29	14:58	14	02:43	03:11	15:04	15:32
15	03:53	04:24	13:51	14:22	15	03:26	03:55	14:30	14:59	15	02:41	03:09	15:05	15:33
16	03:53	04:23	13:53	14:23	16	03:25	03:53	14:32	15:00	16	02:40	03:08	15:06	15:34
17	03:52	04:23	13:54	14:24	17	03:23	03:52	14:33	15:01	17	02:38	03:06	15:07	15:35
18	03:52	04:22	13:55	14:25	18	03:22	03:51	14:34	15:03	18	02:36	03:04	15:08	15:36
19	03:51	04:22	13:56	14:27	19	03:21	03:49	14:35	15:04	19	02:35	03:02	15:10	15:37
20	03:51	04:21	13:57	14:28	20	03:19	03:48	14:37	15:05	20	02:33	03:01	15:11	15:39

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
21	03:50	04:21	13:59	14:29	21	03:18	03:46	14:38	15:06	21	02:31	02:59	15:12	15:40
22	03:50	04:20	14:00	14:30	22	03:16	03:45	14:39	15:07	22	02:29	02:57	15:13	15:41
23	03:49	04:19	14:01	14:31	23	03:15	03:43	14:40	15:09	23	02:28	02:56	15:14	15:42
24	03:48	04:18	14:02	14:32	24	03:14	03:42	14:42	15:10	24	02:26	02:54	15:15	15:43
25	03:48	04:18	14:03	14:34	25	03:12	03:40	14:43	15:11	25	02:24	02:52	15:16	15:44
26	03:47	04:17	14:05	14:35	26	03:11	03:39	14:44	15:12	26	02:22	02:50	15:17	15:45
27	03:46	04:16	14:06	14:36	27	03:09	03:37	14:45	15:13	27	02:21	02:49	15:19	15:47
28	03:45	04:15	14:07	14:37	28	03:08	03:36	14:46	15:14	28	02:19	02:47	15:20	15:48
29	03:44	04:14	14:09	14:38	29	03:06	03:34	14:48	15:16	29	02:17	02:45	15:21	15:49
30	03:44	04:13	14:10	14:40						30	02:15	02:43	15:22	15:50
31	03:43	04:12	14:11	14:41						31	02:14	02:42	15:23	15:51
APR					MAY					JUN				
1	02:12	02:40	15:24	15:52	1	01:23	01:53	15:57	16:28	1	00:51	01:25	16:27	17:01
2	02:10	02:38	15:25	15:53	2	01:22	01:52	15:58	16:29	2	00:51	01:24	16:28	17:02
3	02:08	02:37	15:26	15:55	3	01:20	01:51	15:59	16:30	3	00:50	01:24	16:29	17:02
4	02:07	02:35	15:27	15:56	4	01:19	01:50	16:00	16:31	4	00:50	01:24	16:29	17:03
5	02:05	02:33	15:28	15:57	5	01:17	01:48	16:01	16:32	5	00:49	01:23	16:30	17:04
6	02:03	02:32	15:30	15:58	6	01:16	01:47	16:03	16:34	6	00:49	01:23	16:31	17:05
7	02:01	02:30	15:31	15:59	7	01:15	01:46	16:04	16:35	7	00:49	01:23	16:31	17:05
8	02:00	02:28	15:32	16:00	8	01:14	01:45	16:05	16:36	8	00:48	01:23	16:32	17:06
9	01:58	02:27	15:33	16:02	9	01:12	01:44	16:06	16:37	9	00:48	01:22	16:32	17:07
10	01:56	02:25	15:34	16:03	10	01:11	01:42	16:07	16:38	10	00:48	01:22	16:33	17:07
11	01:55	02:23	15:35	16:04	11	01:10	01:41	16:08	16:39	11	00:48	01:22	16:33	17:08
12	01:53	02:22	15:36	16:05	12	01:09	01:40	16:09	16:41	12	00:48	01:22	16:34	17:08
13	01:51	02:20	15:37	16:06	13	01:07	01:39	16:10	16:42	13	00:48	01:22	16:34	17:09
14	01:50	02:19	15:38	16:07	14	01:06	01:38	16:11	16:43	14	00:48	01:22	16:35	17:09
15	01:48	02:17	15:40	16:09	15	01:05	01:37	16:12	16:44	15	00:48	01:22	16:35	17:10
16	01:46	02:15	15:41	16:10	16	01:04	01:36	16:13	16:45	16	00:48	01:22	16:36	17:10
17	01:45	02:14	15:42	16:11	17	01:03	01:35	16:14	16:46	17	00:48	01:22	16:36	17:10
18	01:43	02:12	15:43	16:12	18	01:02	01:34	16:15	16:47	18	00:48	01:22	16:36	17:11
19	01:41	02:11	15:44	16:13	19	01:01	01:33	16:16	16:48	19	00:48	01:22	16:37	17:11
20	01:40	02:09	15:45	16:15	20	01:00	01:33	16:17	16:49	20	00:48	01:22	16:37	17:11
21	01:38	02:08	15:46	16:16	21	00:59	01:32	16:18	16:50	21	00:48	01:23	16:37	17:11
22	01:37	02:06	15:47	16:17	22	00:58	01:31	16:19	16:51	22	00:48	01:23	16:37	17:12
23	01:35	02:05	15:48	16:18	23	00:57	01:30	16:20	16:53	23	00:49	01:23	16:37	17:12
24	01:33	02:03	15:49	16:19	24	00:57	01:29	16:21	16:54	24	00:49	01:24	16:37	17:12
25	01:32	02:02	15:51	16:20	25	00:56	01:29	16:21	16:55	25	00:49	01:24	16:37	17:12
26	01:30	02:00	15:52	16:22	26	00:55	01:28	16:22	16:55	26	00:50	01:24	16:37	17:12
27	01:29	01:59	15:53	16:23	27	00:54	01:27	16:23	16:56	27	00:50	01:25	16:37	17:12
28	01:27	01:58	15:54	16:24	28	00:54	01:27	16:24	16:57	28	00:51	01:25	16:37	17:12
29	01:26	01:56	15:55	16:25	29	00:53	01:26	16:25	16:58	29	00:51	01:26	16:37	17:12
30	01:24	01:55	15:56	16:26	30	00:52	01:26	16:26	16:59	30	00:52	01:26	16:37	17:11

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
					31	00:52	01:25	16:26	17:00					
JUL					AUG					SEP				
1	00:52	01:26	16:37	17:11	1	01:20	01:52	16:16	16:47	1	01:55	02:24	15:31	16:00
2	00:53	01:27	16:37	17:11	2	01:22	01:53	16:15	16:46	2	01:56	02:25	15:29	15:58
3	00:53	01:28	16:37	17:11	3	01:23	01:54	16:14	16:45	3	01:57	02:26	15:28	15:56
4	00:54	01:28	16:36	17:10	4	01:24	01:55	16:12	16:44	4	01:59	02:27	15:26	15:54
5	00:55	01:29	16:36	17:10	5	01:25	01:56	16:11	16:42	5	02:00	02:28	15:24	15:53
6	00:56	01:29	16:36	17:10	6	01:26	01:57	16:10	16:41	6	02:01	02:29	15:22	15:51
7	00:56	01:30	16:36	17:09	7	01:27	01:58	16:09	16:39	7	02:02	02:30	15:21	15:49
8	00:57	01:31	16:35	17:09	8	01:28	01:59	16:07	16:38	8	02:03	02:31	15:19	15:47
9	00:58	01:31	16:35	17:08	9	01:29	02:00	16:06	16:37	9	02:04	02:32	15:17	15:45
10	00:59	01:32	16:34	17:08	10	01:31	02:01	16:05	16:35	10	02:05	02:33	15:15	15:44
11	00:59	01:33	16:34	17:07	11	01:32	02:02	16:03	16:34	11	02:06	02:34	15:14	15:42
12	01:00	01:34	16:33	17:07	12	01:33	02:03	16:02	16:32	12	02:07	02:35	15:12	15:40
13	01:01	01:34	16:33	17:06	13	01:34	02:04	16:01	16:31	13	02:08	02:36	15:10	15:38
14	01:02	01:35	16:32	17:05	14	01:35	02:05	15:59	16:29	14	02:09	02:37	15:09	15:37
15	01:03	01:36	16:31	17:05	15	01:36	02:06	15:58	16:28	15	02:10	02:38	15:07	15:35
16	01:04	01:37	16:31	17:04	16	01:37	02:07	15:56	16:26	16	02:12	02:39	15:05	15:33
17	01:05	01:38	16:30	17:03	17	01:39	02:08	15:55	16:25	17	02:13	02:41	15:03	15:31
18	01:06	01:39	16:29	17:02	18	01:40	02:09	15:53	16:23	18	02:14	02:42	15:02	15:29
19	01:07	01:40	16:29	17:01	19	01:41	02:10	15:52	16:21	19	02:15	02:43	15:00	15:28
20	01:08	01:40	16:28	17:00	20	01:42	02:12	15:50	16:20	20	02:16	02:44	14:58	15:26
21	01:09	01:41	16:27	17:00	21	01:43	02:13	15:49	16:18	21	02:17	02:45	14:56	15:24
22	01:10	01:42	16:26	16:59	22	01:44	02:14	15:47	16:16	22	02:18	02:46	14:55	15:22
23	01:11	01:43	16:25	16:58	23	01:45	02:15	15:46	16:15	23	02:19	02:47	14:53	15:21
24	01:12	01:44	16:24	16:57	24	01:46	02:16	15:44	16:13	24	02:20	02:48	14:51	15:19
25	01:13	01:45	16:23	16:56	25	01:48	02:17	15:42	16:11	25	02:21	02:49	14:49	15:17
26	01:14	01:46	16:22	16:54	26	01:49	02:18	15:41	16:10	26	02:22	02:50	14:48	15:15
27	01:15	01:47	16:21	16:53	27	01:50	02:19	15:39	16:08	27	02:23	02:51	14:46	15:14
28	01:16	01:48	16:20	16:52	28	01:51	02:20	15:38	16:06	28	02:24	02:52	14:44	15:12
29	01:17	01:49	16:19	16:51	29	01:52	02:21	15:36	16:05	29	02:25	02:53	14:42	15:10
30	01:18	01:50	16:18	16:50	30	01:53	02:22	15:34	16:03	30	02:26	02:54	14:41	15:08
31	01:19	01:51	16:17	16:49	31	01:54	02:23	15:33	16:01					
OCT					NOV					DEC				
1	02:27	02:55	14:39	15:07	1	03:02	03:31	13:51	14:21	1	03:36	04:07	13:27	13:59
2	02:29	02:56	14:37	15:05	2	03:03	03:32	13:50	14:19	2	03:37	04:08	13:27	13:58
3	02:30	02:57	14:35	15:03	3	03:04	03:33	13:49	14:18	3	03:38	04:09	13:27	13:58
4	02:31	02:59	14:34	15:02	4	03:06	03:35	13:48	14:17	4	03:38	04:10	13:27	13:58
5	02:32	03:00	14:32	15:00	5	03:07	03:36	13:47	14:16	5	03:39	04:11	13:27	13:58
6	02:33	03:01	14:30	14:58	6	03:08	03:37	13:46	14:15	6	03:40	04:12	13:27	13:58
7	02:34	03:02	14:29	14:57	7	03:09	03:38	13:44	14:14	7	03:41	04:13	13:27	13:58
8	02:35	03:03	14:27	14:55	8	03:10	03:40	13:43	14:13	8	03:42	04:14	13:27	13:58

MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO	MONTH DAY	TWIL FROM	SR	SS	TWIL TO
9	02:36	03:04	14:25	14:53	9	03:11	03:41	13:42	14:12	9	03:43	04:14	13:27	13:58
10	02:37	03:05	14:24	14:52	10	03:12	03:42	13:41	14:11	10	03:44	04:15	13:27	13:58
11	02:38	03:06	14:22	14:50	11	03:14	03:43	13:40	14:10	11	03:45	04:16	13:27	13:58
12	02:39	03:07	14:21	14:49	12	03:15	03:45	13:39	14:09	12	03:45	04:17	13:27	13:59
13	02:41	03:09	14:19	14:47	13	03:16	03:46	13:38	14:08	13	03:46	04:18	13:27	13:59
14	02:42	03:10	14:17	14:45	14	03:17	03:47	13:37	14:07	14	03:47	04:18	13:27	13:59
15	02:43	03:11	14:16	14:44	15	03:18	03:48	13:37	14:07	15	03:47	04:19	13:28	13:59
16	02:44	03:12	14:14	14:42	16	03:19	03:49	13:36	14:06	16	03:48	04:20	13:28	14:00
17	02:45	03:13	14:13	14:41	17	03:21	03:51	13:35	14:05	17	03:49	04:20	13:28	14:00
18	02:46	03:14	14:11	14:39	18	03:22	03:52	13:34	14:04	18	03:49	04:21	13:29	14:00
19	02:47	03:15	14:10	14:38	19	03:23	03:53	13:33	14:04	19	03:50	04:22	13:29	14:01
20	02:48	03:17	14:08	14:36	20	03:24	03:54	13:33	14:03	20	03:50	04:22	13:30	14:01
21	02:49	03:18	14:07	14:35	21	03:25	03:55	13:32	14:03	21	03:51	04:23	13:30	14:02
22	02:51	03:19	14:05	14:34	22	03:26	03:57	13:31	14:02	22	03:51	04:23	13:31	14:02
23	02:52	03:20	14:04	14:32	23	03:27	03:58	13:31	14:02	23	03:52	04:24	13:31	14:03
24	02:53	03:21	14:02	14:31	24	03:28	03:59	13:30	14:01	24	03:52	04:24	13:32	14:03
25	02:54	03:23	14:01	14:29	25	03:29	04:00	13:30	14:01	25	03:53	04:24	13:32	14:04
26	02:55	03:24	13:59	14:28	26	03:30	04:01	13:29	14:00	26	03:53	04:25	13:33	14:05
27	02:56	03:25	13:58	14:27	27	03:32	04:02	13:29	14:00	27	03:53	04:25	13:34	14:05
28	02:57	03:26	13:57	14:25	28	03:33	04:03	13:28	13:59	28	03:54	04:25	13:34	14:06
29	02:59	03:27	13:55	14:24	29	03:34	04:05	13:28	13:59	29	03:54	04:26	13:35	14:07
30	03:00	03:29	13:54	14:23	30	03:35	04:06	13:28	13:59	30	03:54	04:26	13:36	14:08
31	03:01	03:30	13:53	14:22						31	03:54	04:26	13:37	14:08

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GEN 3 Services

GEN 3.1 Aeronautical information services

1 Responsible service

1.1 The Aeronautical Information Service, which forms part of Sakaeronavigatsia Ltd, ensures the flow of information necessary for the safety, regularity and efficiency of international and national air navigation within the area of its responsibility as indicated under subsection GEN 3.1.2 below. It consists of AIS Headquarters, International NOTAM office and Briefing offices integrated with ARO, which are established at certain aerodromes as listed under subsection GEN 3.1.5 below.

Since 2013 AIS has established and maintains a quality management system based on standard ISO 9001 in accordance with the requirements of ICAO Annex 15.

1.2 AIS Headquarters:

Post: **Aeronautical Information Service**
Sakaeronavigatsia Ltd
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: +995322744237
Tel: +995322744295
Fax: +995322744223
E-mail: ais@airnav.ge
AFS: UGTBYOYX
URL: https://ais.airnav.ge
Operational Hours: MON-FRI 05:00 - 14:00 (UTC) (except HOL)

1.3 International NOTAM office and Briefing offices:

Post: **Central Briefing-NOTAM office**
Sakaeronavigatsia Ltd
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: +995322744264 (ARO)
Tel: +995322744358 (NOF)
Fax: +995322744392
E-mail: briefing@airnav.ge
AFS: UGTBZPZX (ARO)
E-mail: notam@airnav.ge
AFS: UGTBYNYX (NOF)
URL: https://ais.airnav.ge
Operational Hours: H24

Post: **Batumi Briefing office**
Sakaeronavigatsia Ltd
Batumi Airport
6013 Batumi, Georgia
Tel: +995322744279
Fax: +995322744371
E-mail: batbrief@airnav.ge
AFS: UGSBZPZX
URL: https://ais.airnav.ge
Operational Hours: H24

Post: **Kutaisi Briefing office**
Sakaeronavigatsia Ltd
KUTAISI/Kopitnari Airport
5400 Tskaltubo, Georgia
Tel: +995322744355
Fax: +995322744341

E-mail: kopbrief@airnav.ge
AFS: UGKOZPZX
URL: https://ais.airnav.ge
Operational Hours: H24

The service is provided in accordance with the provisions contained in the following *ICAO* documents:

- Annex 15 - Aeronautical Information Services;
- Doc 10066 - Procedures for Air Navigation Services - Aeronautical Information Management (PANS-AIM);
- Doc 8126 - Aeronautical Information Services Manual.

Differences from ICAO Annex 15 standards and recommended practices, if any, are listed in GEN 1.7.

2 Area of responsibility

The Aeronautical Information Service is responsible for the collection and dissemination of information for the entire territory of Georgia and for the airspace over the high seas encompassed by the Tbilisi Flight Information Region (FIR).

3 Aeronautical publications

3.1 The aeronautical data and aeronautical information is provided in the form of Aeronautical Information Products including:

- Aeronautical Information Publications (AIP), including Amendments and Supplements;
- Aeronautical Information Circulars (AIC);
- aeronautical charts;
- NOTAM; and
- digital data sets.

AIP, AIP AMDT, AIP SUP and AIC are distributed by air mail (CD) and available on the website https://ais.airnav.ge and in European AIS Database Published AIP Management System (EAD PAMS). Aeronautical Chart - ICAO 1:500 000 can be downloaded as PDF file via https://ais.airnav.ge. NOTAM and related monthly checklists are issued through European AIS Database (EAD) and transmitted via Aeronautical Fixed Service (AFS) according to predetermined distribution list. PIBs are available at Briefing offices.

3.2 Aeronautical Information Publication (AIP)

The AIP is the basic aviation document intended primarily to satisfy international requirements for the exchange of permanent aeronautical information and long duration temporary changes essential for air navigation.

The AIP Georgia is available in electronic form for use in international and domestic operations, whether the flight is a commercial or a private one. The text is in English only.

The electronic AIP (eAIP) is presented in HTML and PDF format.

3.3 Amendment service to the AIP (AIP AMDT)

Amendments to the AIP are published by reissuing eAIP. The type of AIP AMDT produced is AIRAC AIP Amendment (AIRAC AIP AMDT), issued in accordance with the AIRAC system and identified by the acronym – AIRAC. It incorporates operationally significant permanent changes into the AIP on the indicated AIRAC effective date.

A brief description of the subjects affected by the amendment is given on the AIP Amendment cover sheet.

In HTML format added text is highlighted with a light pink background; deleted text is displayed as struck through and highlighted with a dark pink background. A tick box in the top right corner shall be checked in order to see amendments.

In PDF format new information included on the republished AIP pages is marked by a vertical line and/or horizontal arrow in the left margin of the change/addition/deletion.

Each AIP page and each AIP replacement page introduced by an amendment, including the amendment cover sheet, are dated. The date consists of the day, month and year of the AIRAC effective date (AIRAC AIP AMDT) of the information. Each AIP amendment cover sheet includes references to the serial number of the Aeronautical Information Products, if any, which have been incorporated in the AIP by the amendment and are consequently cancelled.

Each AIRAC AIP AMDT is allocated separate serial number, which is consecutive and based on the calendar year. The year, indicated by four digits, is a part of the serial number of the amendment, e.g. AIRAC AIP AMDT 01/2011.

A checklist of AIP pages containing page number/chart title and the effective date (day, month and year) of the information is reissued with each amendment and is an integral part of the AIP.

3.4 Supplement to the AIP (AIP SUP)

Temporary changes of long duration (three months and longer) and information of short duration which consists of extensive text and/or graphics, supplementing the permanent information contained in the AIP, are published as AIP Supplements (AIP SUP). The type of AIP SUP produced is AIRAC AIP Supplement (AIRAC AIP SUP), issued in accordance with the AIRAC system and is identified clearly by the acronym AIRAC AIP SUP.

Each AIP Supplement is allocated a serial number which is consecutive and based on the calendar year, i.e. AIRAC AIP SUP 01/ 2011.

The period of validity of the information contained in the AIP Supplement will normally be given in the supplement itself. Alternatively, NOTAM may be used to indicate changes to the period of validity or cancellation of the supplement.

The checklist of AIP Supplements currently in force is issued in the monthly checklist of valid NOTAM.

3.5 NOTAM and Pre-flight Information Bulletins (PIB)

NOTAM contain the information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential for personnel concerned with flight operations. The text of each NOTAM contains the information in the order shown in the ICAO NOTAM Format and is composed of the significations/uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language. NOTAM are originated and issued for Tbilisi FIR and are distributed in three series identified by the letters G, N, and S. Requests concerning the distribution of NOTAM shall be addressed to UGTBYNYX.

Series G. General rules, en-route navigation and communication facilities, airspace restrictions and activities taking place within Tbilisi FIR and information concerning international aerodromes.

Series N. Information on National Aerodromes.

Series S (SNOWTAM). Information concerning presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area. SNOWTAM is prepared in accordance with *ICAO Doc 10066 - PANS AIM*, Appendix 4. Details are given in the Snow plan in the Aerodrome (AD) Part.

Pre-flight Information Bulletins (PIB), which contain a recapitulation of current NOTAM and other information of urgent character for the operator/flight crews, are available at all Briefing offices.

3.6 Aeronautical Information Circulars (AIC)

The Aeronautical Information Circulars (AIC) contain information on the long-term forecast of any major change in legislation, regulations, procedures or facilities; information of a purely explanatory or advisory nature liable to affect flight safety; and information or notification of an explanatory or advisory nature concerning technical, legislative or purely administrative matters. AICs are divided by subject and are issued in two series (A and B). AIC Series A contains information affecting international civil aviation and is given international distribution, while AIC Series B contains information affecting national aviation only and is given national distribution.

Each AIC is numbered consecutively within each series on a calendar year basis. The year, indicated by four digits, is a part of the serial number of the AIC, e.g. AIC A 01/2011; AIC B 01/2011. A checklist of AIC currently in force is issued as an AIC once a year.

3.7 Checklist and List of valid NOTAM

A checklist of valid NOTAM is issued monthly and refers to the latest AIP AMDT, AIP SUP and AIC, as well as the data sets. Plain language List of valid NOTAM is available on request.

3.8 Aeronautical Charts

Information on available aeronautical charts is given in GEN 3.2.

3.9 Sale of publications

The said publications can be obtained from the Aeronautical Information Service. Purchase prices are published in AIC Series A.

4 AIRAC System

4.1 In order to control and regulate the operationally significant changes requiring amendments to charts, route-manuals etc., such changes, whenever possible, will be issued on predetermined dates according to the AIRAC SYSTEM. This type of information will be published as an AIRAC AIP AMDT or an AIRAC AIP SUP. If an AIRAC AMDT or SUP cannot be produced due to lack of time, NOTAM clearly marked AIRAC will be issued. Such NOTAM will immediately be followed by an AMDT or SUP.

4.2 The table below indicates AIRAC effective dates for the coming years. AIRAC information will be issued so that the information will be received by the user not later than 28 days, and for major changes not later than 56 days, before the effective date. At AIRAC effective date, a trigger NOTAM will be issued giving a brief description of the contents, effective date and reference number of the AIRAC AIP AMDT or AIRAC AIP SUP that will become effective on that date. Trigger NOTAM will remain in force in the PIB during 14 days after the related publication becomes effective.

If no information was submitted for publication at the AIRAC date, a NIL notification will be issued by NOTAM checklist not later than one AIRAC cycle before the AIRAC effective date concerned.

Schedule of AIRAC effective dates

2021	2022	2023	2024*	2025	2026
28 JAN	27 JAN	26 JAN	25 JAN	23 JAN	22 JAN
25 FEB	24 FEB	23 FEB	22 FEB	20 FEB	19 FEB
25 MAR	24 MAR	23 MAR	21 MAR	20 MAR	19 MAR
22 APR	21 APR	20 APR	18 APR	17 APR	16 APR
20 MAY	19 MAY	18 MAY	16 MAY	15 MAY	14 MAY
17 JUN	16 JUN	15 JUN	13 JUN	12 JUN	11 JUN
15 JUL	14 JUL	13 JUL	11 JUL	10 JUL	09 JUL
12 AUG	11 AUG	10 AUG	08 AUG	07 AUG	06 AUG
09 SEP	08 SEP	07 SEP	05 SEP	04 SEP	03 SEP
07 OCT	06 OCT	05 OCT	03 OCT	02 OCT	01 OCT
04 NOV	03 NOV	02 NOV	31 OCT	30 OCT	29 OCT
02 DEC	01 DEC	30 NOV	28 NOV	27 NOV	26 NOV
30 DEC	29 DEC	28 DEC	26 DEC	25 DEC	24 DEC

5 Pre-flight information service at aerodromes/heliports

Pre-flight information service is provided by Briefing offices at each of the international aerodromes as detailed below.

Aerodrome / Heliport	Briefing coverage
TBILISI/Tbilisi	All States within the ICAO EUR region and selected states within AFI and MID regions.
BATUMI	All States within the ICAO EUR region and selected states within AFI and MID regions.
KUTAISI/Kopitnari	All States within the ICAO EUR region and selected states within AFI and MID regions.

Pre-flight Information Bulletins (PIB) — Route, Narrow Route, Area and Aerodrome Bulletins are available at TBILISI/Tbilisi , Kutaisi/Kopitnari, and Batumi Briefing Offices.

Note.- At the national aerodromes Pre-flight information is available on request from Briefing Offices by telephone or email.

6 Digital data sets

Data Set Title	Short Description	Data Subjects Included	Geographical Scope	Usage Limitations/ Remarks
Obstacle Data Set for Area 1 - Georgia	Area 1 Obstacle files in xml (AIXM 5.1) and xls formats	Reported obstacles 100 M AGL or higher	State territory	File does not include obstacles published by NOTAM. Ref. to ENR 5.4

Electronic obstacle data sets, as well as Data Product Specification, are available on the website https://ais.airnav.ge.

Data sets can be obtained from:

Post: **Aeronautical Information Service**
Sakaeronavigatsia Ltd
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: +995322744237
Tel: +995322744295
Fax: +995322744223
E-mail: ais@airnav.ge
AFS: UGTBYOYX
URL: https://ais.airnav.ge
Operational Hours: MON-FRI 05:00 - 14:00 (UTC) (except HOL)

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GEN 3.2 Aeronautical charts

1 Responsible services

Sakaeronavigatsia Ltd provides aeronautical charts for use by all types of civil aviation. The Aeronautical Information Service produces the charts, which are part of the AIP and Aeronautical Chart — ICAO 1:500 000. Charts, suitable for pre-flight planning and briefing, are available for reference at AIS units (the addresses can be found in subsection GEN 3.1.1). The charts are produced in accordance with the provisions contained in *ICAO Annex 4 – Aeronautical Charts* and Georgian CAA Order No 3 "Rules of the Aeronautical Charts". Differences to these provisions are detailed in subsection GEN 1.7.

2 Maintenance of charts

2.1 The aeronautical charts included in the AIP are kept up to date by amendments to the AIP. Corrections to aeronautical charts not contained in the AIP are promulgated by AIP AMDT and are listed under para. 8 of this subsection. Information concerning the planning for or issuance of new aeronautical chart series and maps is notified by AIC.

2.2 If incorrect information detected on published charts is of operational significance, it is corrected by NOTAM.

2.3 Charts which are part of the AIP are renewed when necessary.

2.4 Aeronautical Chart — ICAO 1:500 000. Aeronautical information is revised when necessary, whilst Topographic background - once in 4 years. The latest aeronautical information can be obtained by consulting the AIP and NOTAM as appropriate.

Aeronautical Chart — ICAO 1:500 000 in digital format contains the latest aeronautical information.

3 Purchase arrangements

3.1 The charts as listed under para. 5 of this subsection may be obtained from:

Post: **Aeronautical Information Service**
Georgian Air Navigation —
Sakaeronavigatsia Ltd.
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: (+995 32) 2 74 42 37
Tel: (+995 32) 274 42 95
Fax: (+995 32) 2 74 42 23
AFS: UGTBYOYX
URL: https://ais.airnav.ge
Operational Hours: MON-FRI 05:00 - 14:00 (UTC) (except HOL)

4 Aeronautical chart series available

4.1 The following series of aeronautical charts are produced:

a. Aerodrome/Heliport Chart — ICAO;
b. Aerodrome Ground Movement Chart — ICAO;
c. Aircraft Parking/Docking Chart — ICAO;
d. Aerodrome Obstacle Chart — ICAO – Type A;
e. En-route Chart — ICAO;
f. Area Chart — ICAO (arrival, departure and transit routes);
g. Standard Departure Chart – Instrument (SID) — ICAO;
h. Standard Arrival Chart – Instrument (STAR) — ICAO;
i. ATC Surveillance Minimum Altitude Chart — ICAO;
j. Instrument Approach Chart — ICAO (for each runway and procedure type);
k. Visual Approach Chart — ICAO;
l. Aeronautical Chart — ICAO 1:500 000 (also available in digital format - Geo TIFF, Geospatial PDF);
m. Index Charts:
   – AIRMET/GAMET areas;
   – Radar coverage area;
   – Prohibited, Restricted and Aerial sporting areas;
   – Bird Migration Routes;
   – Bird Concentrations and Movement;
   – Free Route Airspace;

– En-route ATC Surveillance Minimum Altitude Chart;
– Radio communication coverage area.

The charts currently available are listed under para 5 of this subsection.

4.2 General description of each series

a. *Aerodrome Chart — ICAO.* This chart contains detailed aerodrome data to provide flight crews with information that will facilitate the ground movement of aircraft:
   – from the aircraft stand to the runway; and
   – from the runway to the aircraft stand.

It also provides essential operational information at the aerodrome.

b. *Aerodrome Ground Movement Chart — ICAO.* This chart is produced for those aerodromes where, due to congestion of information, details necessary for the ground movement of aircraft along the taxiways to and from the aircraft stands and for the parking/docking of aircraft cannot be shown with sufficient clarity on the Aerodrome Chart — ICAO.
   The chart is produced in combination with the Aircraft Parking/Docking Chart — ICAO for Tbilisi aerodrome.

c. *Aircraft Parking/Docking Chart — ICAO.* This chart is produced for those aerodromes where, due to the complexity of the terminal facilities, the information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands and the parking/docking of aircraft cannot be shown with sufficient clarity on the Aerodrome Chart — ICAO or on the Aerodrome Ground Movement Chart — ICAO.
   The chart is produced in combination with the Aerodrome Ground Movement Chart — ICAO for Tbilisi aerodrome.

d. *Aerodrome Obstacle Chart — ICAO — Type A (operating limitation).* This Chart contains detailed information on obstacles in the take–off flight path areas of aerodromes. It is shown in plan and profile view.

e. *En-route Chart — ICAO.* This chart is produced for the entire TBILISI FIR. The aeronautical data include all aerodromes, prohibited, restricted and danger areas and the ATS system in detail. The chart provides the flight crew with information that will facilitate navigation along ATS routes in compliance with Air traffic services procedures.

f. *Area Chart — ICAO.* This chart is produced when the ATS routes or position reporting requirements are complex and cannot be shown on an En-route Chart — ICAO.
   It shows, in more detail, those aerodromes that affect terminal routings, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will facilitate the following phases of instrument flight:
   – the transition between the en-route phase and the approach to an aerodrome;
   – the transition between the take-off/missed approach and the en-route phase of flight; and
   – flights through areas of complex ATS routes or airspace structure.

g. *Standard Departure Chart — Instrument (SID) — ICAO.* This chart is produced whenever a standard departure route — instrument has been established and cannot be shown with sufficient clarity on the Area Chart — ICAO.
   The aeronautical data shown include the aerodrome of departure, aerodrome(s) which affect the designated standard departure route — instrument, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will enable them to comply with the designated standard departure route — instrument from the take-off phase to the en-route phase.

h. *Standard Arrival Chart — Instrument (STAR) — ICAO.* This chart is produced whenever a standard arrival route — instrument has been established and cannot be shown with sufficient clarity on the Area Chart — ICAO.
   The aeronautical data shown include the aerodrome of landing, aerodrome(s) which affect the designated standard arrival route — instrument, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will enable them to comply with the designated standard arrival route — instrument from the en-route phase to the approach phase.

i. *ATC Surveillance Minimum Altitude Chart — ICAO.* This supplementary chart provides information that will enable flight crews to monitor and cross-check altitudes assigned while under radar control.

j. *Instrument Approach Chart — ICAO.* This chart is produced for all aerodromes used by civil aviation where instrument approach procedures have been established. A separate Instrument Approach Chart — ICAO has been provided for each approach procedure.
   The aeronautical data shown include information on aerodromes, prohibited, restricted and danger areas, radio communication facilities and navigation aids, minimum sector altitude, procedure track portrayed in plan and profile view, etc.
   This chart provides the flight crew with information that will enable them to perform an approved instrument approach procedure to the runway of intended landing including the missed approach procedure and where applicable, associated holding patterns.

k. *Visual Approach Chart — ICAO*. This chart is produced for aerodromes used by civil aviation where:
   – only limited navigation facilities are available; or
   – radio communication facilities are not available; or
   – no adequate aeronautical charts of the aerodrome and its surroundings at 1:500 000 or greater scale are available; or
   – visual approach procedures have been established.

The aeronautical data shown include information on aerodromes, obstacles, designated airspace, visual approach information, radio navigation aids and communication facilities, as appropriate.

l. *Aeronautical Chart — ICAO 1:500 000*. This series is constructed on Transverse Mercator projection. The aeronautical data shown are consistent with the use of short and medium range operations and depict all relevant features. The chart includes a selection of aerodromes, significant obstacles, elements of ATS system, special activities areas, radio navigation aids and etc. The chart provides the information to satisfy visual air navigation and also used as a pre-flight planning chart.

Note – This chart does not form part of the AIP of Georgia.

m. *Index Charts*. Some parts of the AIP of Georgia are supplemented by index charts:
- **AIRMET/GAMET areas – Index Chart** — 1:2 500 000. This chart shows AIRMET sectors in the TBILISI FIR;
- **Radar coverage area – Index Chart** — 1:2 500 000. This chart shows the graphic portrayal of radar coverage area at the different flight levels in the TBILISI FIR;
- **Prohibited, Restricted, Military exercise and Training areas – Index Chart** — 1:2 200 000. This chart is produced for the entire TBILISI FIR. The aeronautical data include in compendious form all Prohibited, Restricted, Military exercise and Training areas as listed under subsections ENR 5.1, ENR 5.2;
- **Bird Migration Routes – Index Chart** — 1:2 500 000. This chart shows the major directions of the bird migration, main migration corridors and bird concentration in the TBILISI FIR and on aerodromes;
- **Bird Concentrations and Movement – Index Chart**. This chart shows the bird concentrations in the vicinity of an aerodrome;
- **Free Route Airspace – Index Chart** — 1:1 500 000. This chart shows South Caucasus cross border Free Route Airspace within TBILISI FIR;
- **En-route ATC Surveillance Minimum Altitude Chart – Index Chart** — 1:1 500 000. This supplementary chart provides information that will enable flight crews to monitor and cross-check altitudes assigned while under radar control within TBILISI CTA;
- **Radio communication coverage area – Index Chart** — 1:1 500 000. This chart shows the graphic portrayal of radio communication coverage area at different heights within TBILISI FIR.

5 List of aeronautical charts available

Title of series	Scale	Name and/or number		Price ($)
Aerodrome Chart – ICAO	1:12 500	**TBILISI/Tbilisi**	AD 2.UGTB-ADC	
	1:15 000	**KUTAISI/Kopitnari**	AD 2.UGKO-ADC	
		BATUMI	AD 2.UGSB-ADC	
	1:6 000	**MESTIA**	AD 2.UGMS-ADC	
		NATAKHTARI	AD 2.UGSA-ADC	
		AMBROLAURI	AD 2.UGAM-ADC	
	1:9 000	**TELAVI**	AD 2.UGGT-ADC	
Aircraft Parking and Ground Movement Chart – ICAO	1:8 000	**TBILISI/Tbilisi**	AD 2.UGTB-APGMC	
Aerodrome Obstacle Chart – ICAO – Type A	1:35 000	**TBILISI/Tbilisi**	AD 2.UGTB-AOC-A	
	1:20 000	**BATUMI**	AD 2.UGSB-AOC-A	
En-route Chart – ICAO	1:1 500 000	**Conventional navigation Routes**	ENR 6-3	
		Area navigation (RNAV) Routes	ENR 6-5	
Prohibited, Restricted and Aerial sporting areas Chart – Index chart	1:1 500 000	**Georgia**	ENR 6-7	
Bird Migration Chart – Index chart	1:2 500 000	**Bird Migration Routes (Spring)**	ENR 6-9	
		Bird Migration Routes (Autumn)	ENR 6-11	
Area Chart – ICAO	1:700 000	**TBILISI/Tbilisi** TMA	AD 2.UGTB-ARC	
	1:650 000	**KUTAISI/Kopitnari** TMA	AD 2.UGKO-ARC	
	1:500 000	**BATUMI** TMA	AD 2.UGSB-ARC	
Standard Departure Chart – Instrument (SID) – ICAO	1:500 000	**TBILISI/Tbilisi**		
		UGTB RNAV RWY13R	AD 2.UGTB-SID-RNAV-13R-1	
		UGTB RNAV RWY31L	AD 2.UGTB-SID-RNAV-31L-1	
		UGTB RNAV RWY31L (TAVRO)	AD 2.UGTB-SID-RNAV-31L-T-1	
		UGTB RWY13R/31L	AD 2.UGTB-SID-13R/31L-1	
	1:650 000	**KUTAISI/Kopitnari**		
		UGKO RWY07	AD 2.UGKO-SID-07-1	
		UGKO RNAV RWY07	AD 2.UGKO-SID-RNAV-07-1	
		UGKO RNAV RWY25	AD 2.UGKO-SID-RNAV-25-1	
	1:700 000	**BATUMI**		
		UGSB RNAV RWY30	AD 2.UGSB-SID-RNAV-30-1	
Standard Arrival Chart – Instrument (STAR) – ICAO	1:550 000	**TBILISI/Tbilisi**		
		UGTB RNAV RWY13R	AD 2.UGTB-STAR-RNAV-13R	
		UGTB RNAV RWY31L	AD 2.UGTB-STAR-RNAV-31L	
	1:650 000	**KUTAISI/Kopitnari**		
		UGKO RNAV RWY07	AD 2.UGKO-STAR-RNAV-07-1	
		UGKO RNAV RWY25	AD 2.UGKO-STAR-RNAV-25-1	
	1:500 000	**BATUMI**		
		UGSB RNAV RWY12	AD 2.UGSB-STAR-RNAV-12-1	

Title of series	Scale	Name and/or number		Price ($)
Instrument Approach Chart – ICAO	1:500 000	**TBILISI/Tbilisi**		
		UGTB ILSy RWY13R	AD 2.UGTB-IAC-13R-ILSy	
		UGTB ILSy RWY31L	AD 2.UGTB-IAC-31L-ILSy	
		UGTB ILSz RWY13R	AD 2.UGTB-IAC-13R-ILSz-1	
		UGTB ILSz RWY31L	AD 2.UGTB-IAC-31L-ILSz-1	
		UGTB LOCy RWY13R	AD 2.UGTB-IAC-13R-LOCy	
		UGTB LOCy RWY31L	AD 2.UGTB-IAC-31L-LOCy	
		UGTB LOCz RWY13R	AD 2.UGTB-IAC-13R-LOCz-1	
		UGTB LOCz RWY31L	AD 2.UGTB-IAC-31L-LOCz-1	
		UGTB VOR RWY13R	AD 2.UGTB-IAC-13R-VOR	
		UGTB VOR RWY31L	AD 2.UGTB-IAC-31L-VOR	
		KUTAISI/Kopitnari		
		UGKO ILSy RWY07	AD 2.UGKO-IAC-07-ILSy	
		UGKO ILSz RWY07	AD 2.UGKO-IAC-07-ILSz-1	
		UGKO LOCy RWY07	AD 2.UGKO-IAC-07-LOCy	
		UGKO LOCz RWY07	AD 2.UGKO-IAC-07-LOCz-1	
		UGKO ILSy RWY25	AD 2.UGKO-IAC-25-ILSy	
		UGKO ILSz RWY25	AD 2.UGKO-IAC-25-ILSz-1	
		UGKO LOCy RWY25	AD 2.UGKO-IAC-25-LOCy	
		UGKO LOCz RWY25	AD 2.UGKO-IAC-25-LOCz-1	
		UGKO VOR RWY07	AD 2.UGKO-IAC-07-VOR	
		UGKO VOR RWY25	AD 2.UGKO-IAC-25-VOR	
	1:250 000	**BATUMI**		
		UGSB ILSy RWY12	AD 2.UGSB-IAC-12-ILSy	
		UGSB ILSz RWY12	AD2.UGSB-IAC-12-ILSz-1	
		UGSB LOCy RWY12	AD2.UGSB-IAC-12-LOCy	
		UGSB LOCz RWY12	AD2.UGSB-IAC-12-LOCz-1	
		UGSB NDB RWY12	AD2.UGSB-IAC-12-NDB	
ATC Surveillance Minimum Altitude Chart – ICAO	1:700 000	**TBILISI/Tbilisi**	AD 2.UGTB-ATCSMAC-1	
	1:650 000	**KUTAISI/Kopitnari**	AD 2.UGKO-ATCSMAC-1	
	1:500 000	**BATUMI**	AD 2.UGSB-ATCSMAC-1	
Visual Approach Chart – ICAO	1:300 000	**TBILISI/Tbilisi**	AD 2.UGTB-VAC	
	1:250 000	**KUTAISI/Kopitnari**	AD 2.UGKO-VAC	
		BATUMI	AD 2.UGSB-VAC	
	1:200 000	**AMBROLAURI**	AD 2.UGAM-VAC	
		MESTIA	AD 2.UGMS-VAC	
		NATAKHTARI	AD 2.UGSA-VAC	
		TELAVI	AD 2.UGGT-VAC	
Aeronautical Chart – ICAO*	1:500 000	**Georgia 2020 Edition**	2324BC2325AD	
Radio communication coverage area – Index Chart	1:1 500 000	**Radio communication coverage area within Tbilisi FIR at 500 FT AGL**	GEN 3.4-5	
		Radio communication coverage area within Tbilisi FIR at 2000 FT AGL	GEN 3.4-7	
AIRMET/GAMET areas – Index Chart	1:2 500 000	**AIRMET/GAMET areas**	GEN 3.5-7	
Radar coverage area – Index Chart	1:2 500 000	**Graphic portrayal of SSR coverage area**	ENR 1.6-5 ENR 1.6-7 ENR 1.6-9 ENR 1.6-11	

Title of series	Scale	Name and/or number		Price ($)
Bird Concentrations and Movement – Index Chart	1: 60 000	**TBILISI/Tbilisi**	AD 2.UGTB-BIRD	
	1: 15 000	**KUTAISI/Kopitnari**	AD 2.UGKO-BIRD	
	1: 20 000	**BATUMI**	AD 2.UGSB-BIRD	
	1: 10 000	**AMBROLAURI**	AD 2.UGAM-BIRD	
Free Route Airspace – Index Chart	1:1 500 000	**Free Route Airspace South Caucasus (FRASC)**	ENR 6-13-1	
En-route ATC Surveillance Minimum Altitude Chart − Index Chart	1:1 500 000	**En-route ATC Surveillance Minimum Altitude Chart**	ENR 6-15-1	

Those chart series marked by an asterisk (*) do not form part of the AIP of Georgia.

6 Index to the Aeronautical Chart — ICAO 1: 500 000

7 Topographical charts

To supplement the aeronautical charts, a wide range of topographical charts is available from:

Post: **Geodesy and Geo Information Department of National Agency of Public Registry**
2, Sanapiro Str.
Tbilisi, Georgia
Tel: (+995 32) 225 15 28
Fax: (+995 32) 225 15 28
AFS: NIL
E-mail: info@napr.gov.ge
URL: https://napr.gov.ge/

8 Corrections to charts not contained in the AIP

Charts	Location	Corrections
Aeronautical Chart – ICAO 1: 500 000 Georgia 2324BC2325AD		2020 Edition WEF 03 DEC 2020 The publication of this issue invalidates the previous issue
	Tbilisi TMA	New TMA
	Tbilisi CTR	New CTR
	Tbilisi UGTB	Tbilisi AD Elevation 1578 FT
	Tbilisi TMA	New significant point BAZIK added 412741.5N 0450335.1E
	Tbilisi TMA	New significant point DANQI added 415611.3N 0443640.5E
	Tbilisi TMA	New significant point GEMNA added 413134.7N 0451503.4E
	Tbilisi TMA	New significant point LATVA added 414900N 0443445E
	Tbilisi TMA	New significant point NAMME added 415308.8N 0444033.6E
	Tbilisi TMA	New significant point NATIP added 413107.6N 0450825.5E
	Tbilisi TMA	New significant point PALLE added 412835N 0441925E
	Tbilisi TMA	New significant point UDVIN added 415717.3N 0444622.9E
	Tbilisi TMA	New significant point ZAGOT added 414706N 0440811E

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GEN 3.3 Air traffic services

1 Responsible service

Sakaeronavigatsia Ltd (Georgian Air Navigation Services) is the responsible authority for the provision of air traffic services within the area indicated under Para 2 below.

Post: **Sakaeronavigatsia Ltd.**
Air Traffic Services
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: +995322744326
Fax: +995322744326
AFS: UGGGGNXX
E-mail: atfm@airnav.ge

The services are provided in accordance with the provisions contained in the following ICAO documents:

- ***Annex 2*** *— Rules of the Air*
- ***Annex 11*** *— Air Traffic Services*
- ***Doc 4444*** *— Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM)*
- ***Doc 8168*** *— Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS)*
- ***Doc 7030*** *— Regional Supplementary Procedures*

Differences to these provisions are detailed in subsection GEN 1.7.

2 Area of responsibility

Air traffic services are provided for the entire territory of Georgia, including its territorial waters as well as the airspace over the high seas within the TBILISI FIR.

3 Types of services

The following types of services are provided:

- Flight Information Service (FIS) and Alerting Service (ALRS);
- Aerodrome Flight Information Service (AFIS) ;
- Area Control (ACC);
- Approach Control (APP);
- Aerodrome Control (TWR).

With the exception of services provided at military air bases, the following types of services are provided at aerodromes:

- Aerodrome Control (TWR);
- Automatic Terminal Information Service (ATIS), at certain aerodromes.

4 Co-ordination between the operator and ATS

Coordination between the operator and air traffic services is effected in accordance with Annex 11, Chapter 2, section 2.17.

5 Minimum flight altitude

The minimum flight altitudes on the ATS routes, as presented in section ENR 3, have been determined so as to ensure a minimum vertical clearance above the controlling obstacle in the area concerned.

6 ATS units address list

Unit name	Postal address	Telephone NR	Telefax NR	Telex NR	AFS address
TBILISI ACC	Sakaeronavigatsia Ltd. Air Traffic Service/ACC TBILISI/Tbilisi Airport 0198 Tbilisi, Georgia	+995322744255 +995322744204	+995322744334	NIL	UGGGZRZX
TBILISI FIS	As ACC	+995322744367	+995322744213	NIL	UGGGZFZX
TBILISI ATIS	As ACC	+995322744394	NIL	NIL	NIL

Unit name	Postal address	Telephone NR	Telefax NR	Telex NR	AFS address
TBILISI APP	As ACC	+995322744217	NIL	NIL	NIL
KUTAISI APP	As ACC	+995322744375	NIL	NIL	NIL
BATUMI APP	As ACC	+995322744290	NIL	NIL	NIL
TBILISI TWR	As ACC	+995322744304 +995322744311	NIL	NIL	UGTBZTZX
KUTAISI TWR	Air Traffic Service/TWR Sakaeronavigatsia Ltd KUTAISI/Kopitnari Airport 5400 Tskaltubo , Georgia	+995322744270 +995577223328	NIL	NIL	UGKOZTZX
BATUMI TWR	Sakaeronavigatsia Ltd. Airport, 6013 Batumi, Georgia	+995322744298 +995577223366	NIL	NIL	UGSBZTZX
AMBROLAURI AFIS	As ACC	+995322744308 +995322744477(701)	+995322744213	NIL	UGAMZFZX
MESTIA AFIS	As ACC	+995322744329 +995322744477(173)	+995322744213	NIL	UGMSZFZX

GEN 3.4 Communication and navigation services

1 Responsible service

The responsible authority for the provision of telecommunication and radio navigation services is Sakaeronavigatsia Ltd.

Post: **Sakaeronavigatsia Ltd.**
TBILISI/Tbilisi Airport
0198 Tbilisi, Georgia
Tel: (+995 32) 2 74 42 35
Fax: (+995 32) 2 74 42 35
AFS: UGGGYTXX

The service is provided in accordance with the provisions contained in the following ICAO documents:

- ***Annex 10*** *— Aeronautical Telecommunications*.
- ***Doc 8400*** *— Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC).
- ***Doc 8585*** *— Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services*.
- ***Doc 7030*** *— Regional Supplementary Procedures*.
- ***Doc 7910*** *— Location Indicators*.

2 Area of responsibility

Communication services are provided within TBILISI FIR.

Inquiries, suggestions or complaints regarding any telecommunication and radio navigation service should be addressed to Sakaeronavigatsia Ltd and to the authority of the airport of landing.

3 Types of service

3.1 Radio navigation services

The following types of radio navigation aids are available for international flights within the area of TBILISI FIR:

a. (NDB) Non-Directional Beacon (which are not included in landing systems);
b. (DVOR) Doppler VHF Omni-directional radio range;
c. (DME) Distance-Measuring Equipment;
d. (ILS) Instrument Landing System;
e. (OM) Outer Marker;
f. (MM) Middle Marker.

In Georgia, there are no stations associated with special navigation systems such as LORAN, DECCA etc.

3.2 Mobile/fixed service

3.2.1 Mobile service

The aeronautical stations maintain a continuous watch on their stated frequencies during the published hours of service.

An aircraft should communicate with the airground radio station that exercises control in the area in which it is flying. Aircraft should maintain a continuous watch on the appropriate frequency of the control station and should not abandon this watch, except in an emergency, without informing the control radio station.

3.2.2 Fixed service

The messages to be transmitted over the Aeronautical Fixed Service (AFS) are accepted only if:

a. They satisfy the requirements of *ICAO Annex 10*, Vol. II, Chapter 3, par.3.3;
b. They are prepared in the form specified in *ICAO Annex 10*; and
c. The text of an individual message does not exceed 200 groups.

General aircraft operating agency messages are only accepted for transmission to countries that have agreed to accept Class “B” traffic.

3.3 Broadcasting service

Meteorological broadcasts are available on HF and VHF for the use of aircraft in flight. Full details are given in subsection GEN 3.5.

3.4 Language used:

English is used in radiotelephony communications between aircraft and Air Traffic Control units.

3.5 Where detailed information can be obtained

Details of the various facilities available for the en-route traffic can be found in the En-route Part 2 (ENR 4).

Details of the facilities available at the individual aerodromes are to be found in the relevant aerodrome section (AD 0.6). In cases where a facility is serving both the en-route traffic and the aerodromes, details are given in both the en-route part and the appropriate aerodrome section.

4 Requirements and conditions

4.1 Aircraft operating within the area of responsibility of ATC services of Georgia shall maintain radio communication in accordance with the ICAO regulations on frequencies specified in the AIP.

4.2 The names of aerodromes and reporting points are transmitted by their geographical designators. In transmitting reporting points marked with NDB it is allowed, in place of the actual names of these reporting points, to transmit the call signs of the NDB.

For reporting points not marked with radio aids the 5-letter name-codes are transmitted.

4.3 The two-word names of populated areas may be transmitted by one of the words.

4.4 For areas with congested air traffic the frequencies of communication and command radio stations may be assigned to particular sectors or directions. If the crew of an aircraft fails to establish contact on the assigned frequencies it may use frequencies assigned to any other sector (direction).

4.5 If the crew of an aircraft fails to establish direct contact with the ACC unit it should make radio contact with one of the stand-by stations of the said ACC unit.

4.6 The radio navigation facilities listed in ENR 4.1 operate during the time indicated in column 4 of the mentioned sub-section.

4.7 Radio stations operating on the 121.500 MHZ emergency channel may use any call signs assigned to radio stations of the appropriate ATC unit.

4.8 The procedures for utilization of radio facilities to transmit distress calls from aircraft in an emergency are listed in section GEN 3.6 of the AIP.

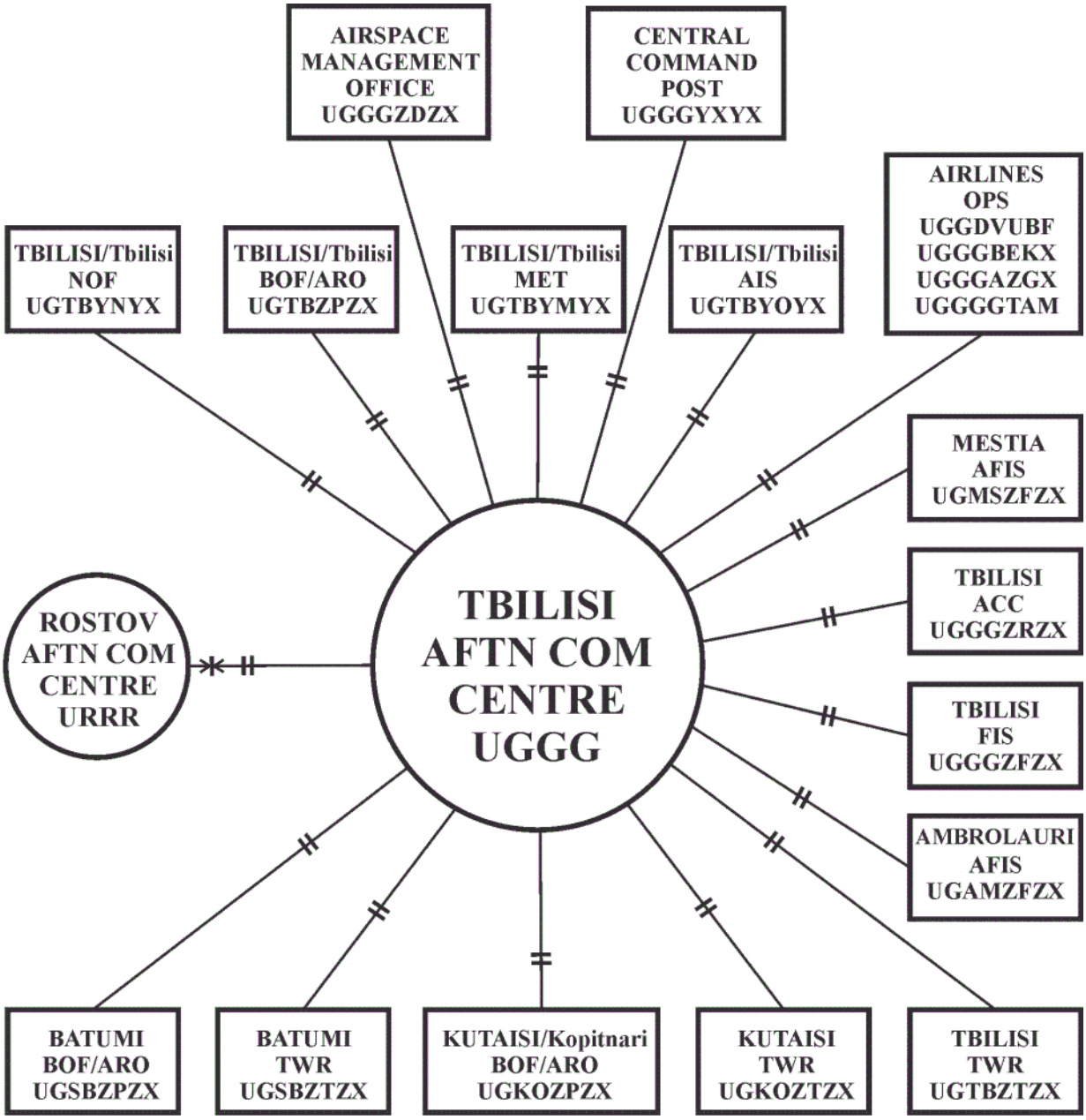
4.9 Should interference occur on primary frequency, the secondary frequency should be used when directed by ATC.

4.10 Due to the mountainous terrain low altitude/level flights may encounter difficulties in establishing and maintaining radio communication with Tbilisi FIS unit. Graphical portrayal of radio communication coverage is available on charts Radio communication coverage area within Tbilisi FIR at 500 FT AGL and Radio communication coverage area within Tbilisi FIR at 2000 FT AGL.

Index chart Radio Communication Coverage Area within Tbilisi FIR at 500 FT AGL on page GEN 3.4-5

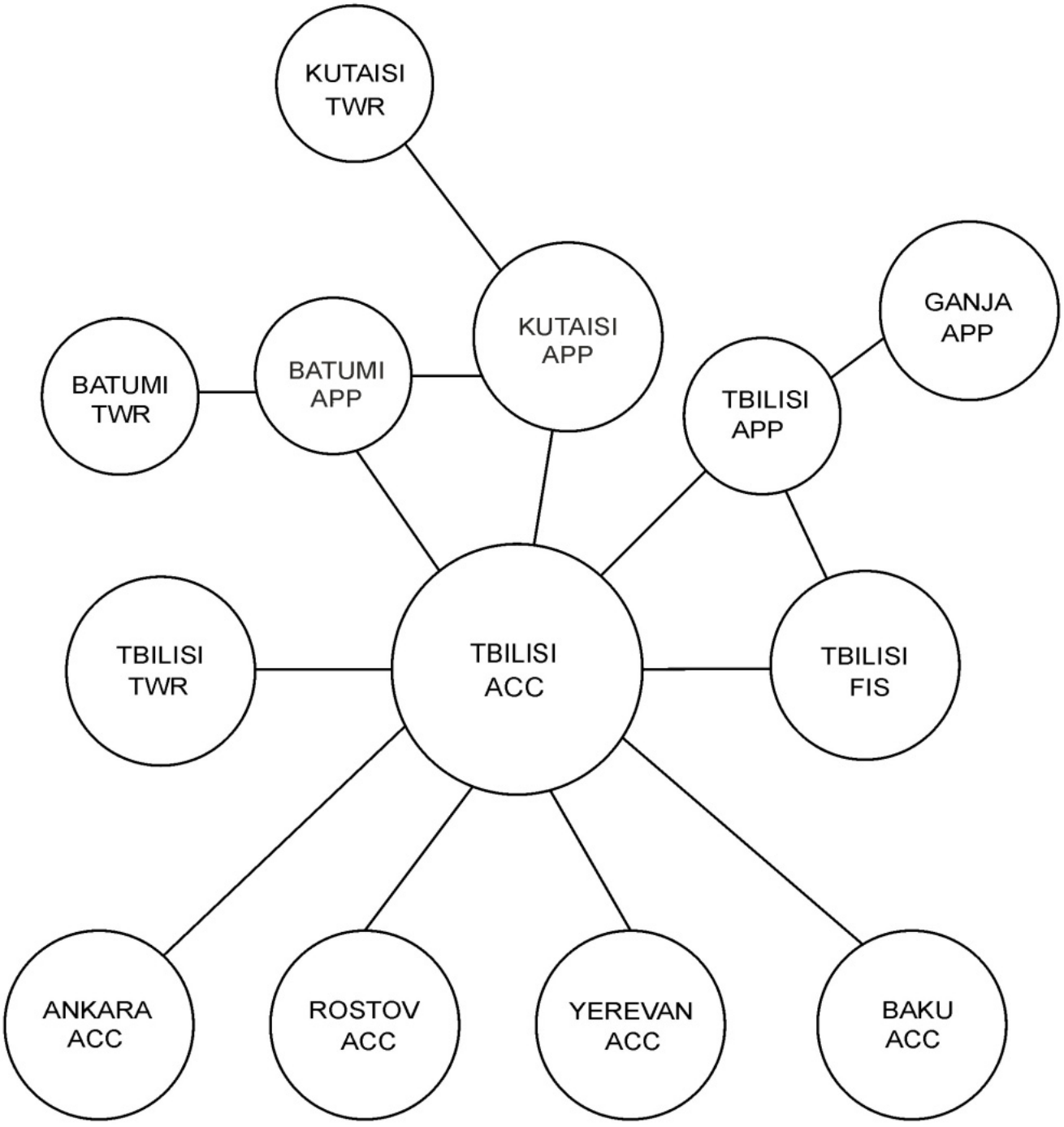
Index chart Radio Communication Coverage Area within Tbilisi FIR at 2000 FT AGL on page GEN 3.4-7

Aeronautical Fixed services: Telegraph

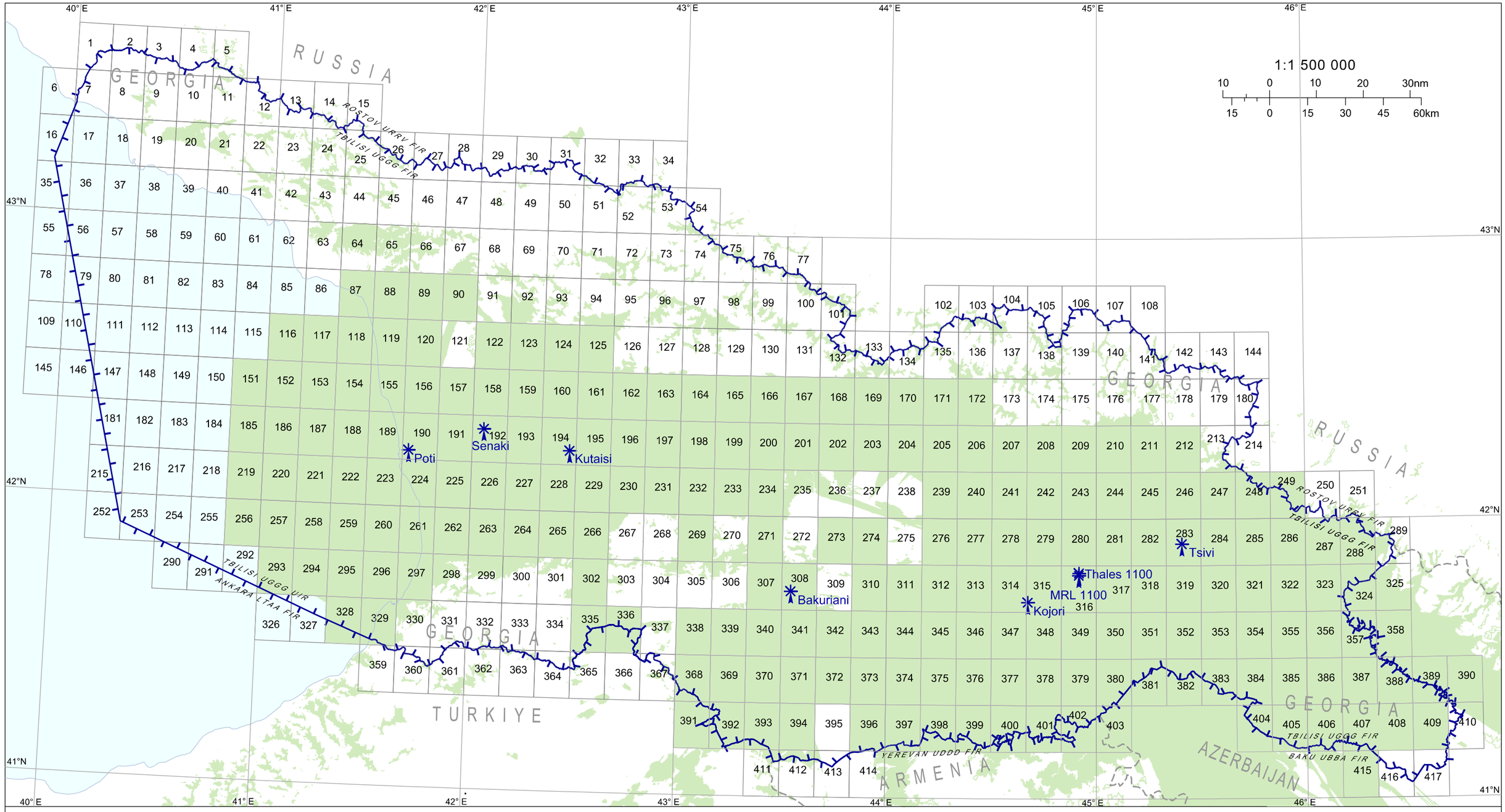


LEGEND	
Landline teletypewriter circuit (LTT)	———
Simplex circuit	I
Duplex circuit	II
International circuit	>I<

Aeronautical Fixed services: Telephone



RADIO COMMUNICATION COVERAGE AREA WITHIN TBILISI FIR AT 500 FT AGL (INDEX CHART)



LEGEND

Radio Coverage

301 — Grid interval of 10 minutes

MRL 1100 — View shed transmitter

FIR

Boundaries (international)

FREQUENCY RANGE: 118.000 MHz -137.000 MHz

Changes: Chart reissued

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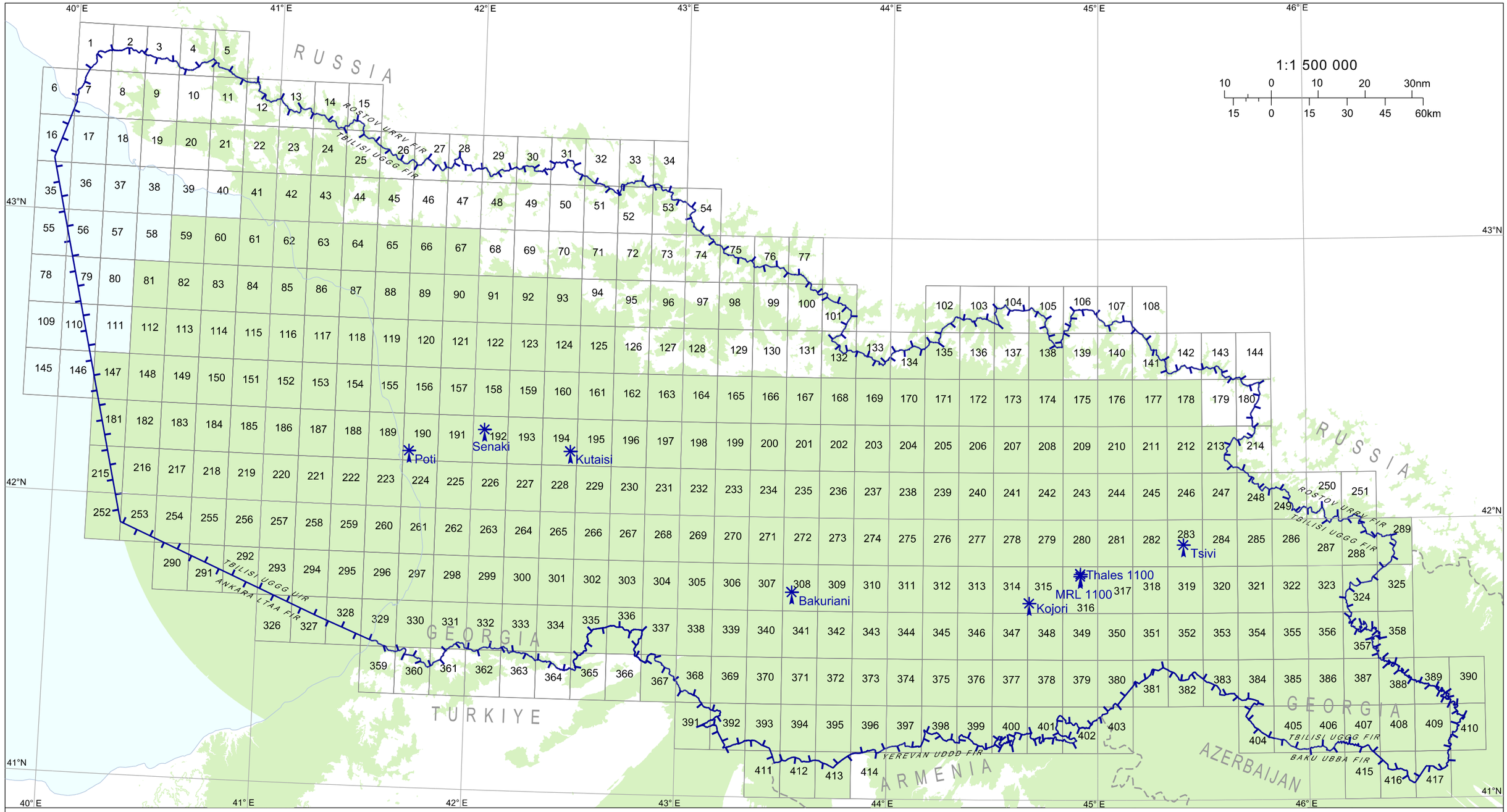
RADIO COMMUNICATION COVERAGE AREA WITHIN TBILISI FIR AT 2000 FT AGL (INDEX CHART)



LEGEND

Radio Coverage

301 — Grid interval of 10 minutes

MRL 1100 — View shed transmitter

FIR

Boundaries (international)

FREQUENCY RANGE: 118.000 MHz -137.000 MHz

Changes: Chart reissued

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GEN 3.5 Meteorological services

1 Responsible service

The designated meteorological authority is Civil Aviation Agency.

Post: Georgian Civil Aviation Agency
Beginning of I Kheivani Street
0114 Tbilisi
Georgia
Tel: +995 32 294 80 27
AFS: UGGUYMYX
E-mail: met@gcaa.ge

The meteorological services for civil aviation are provided by SAKAERONAVIGATSIA Ltd.

Post: SAKAERONAVIGATSIA Ltd
Meteorological Service
TBILISI/Tbilisi Airport
01 9 8 Tbilisi, Georgia
Tel: +995 32 2 74 43 10
Tel: +995 5 77 11 44 43
Fax: +995 32 2 74 43 10
AFS: UGTBYMYX
E-mail: metoffice.tbilisi@airnav.ge

The service is provided in accordance with the provisions contained in the following ICAO documents:

- ***Annex 3*** *— Meteorological Service for International Air Navigation.*
- ***Doc 7030*** *— Regional Supplementary Procedures*, EUR Region, Part 3 – Meteorology.

2 Area of responsibility

Area meteorological observation is provided for TBILISI FIR.

3 Meteorological observations and reports

Table GEN 3.5.3 Meteorological observations and reports

Name of station/ Location indicator	Type & frequency of observation / automatic observing equipment	Types of MET reports & Supplementary Information included	Observation System & Site(s)	Hours of operation	Climatological information
1	2	3	4	5	6
BATUMI **UGSB**	Half hourly routine Special obs/ Vaisala	METAR, SPECIAL, TREND, TAF	*1	H24	AVBL**
KUTAISI/ Kopitnari **UGKO**	Half hourly routine Special obs/ Telvent	METAR, SPECIAL, TREND, TAF	*1	H24	AVBL**
TBILISI/ Tbilisi **UGTB**	Half hourly routine Special obs/ Vaisala	METAR, SPECIAL, TREND, TAF, GAMET, SIGMET, AIRMET	*1	H24	AVBL**
MESTIA **UGMS**	Half hourly routine Special obs/ Telvent	METAR	*1	From HR 05:00 - until HR 13:00	AVBL**
AMBROLAURI **UGAM**	Half hourly routine Special obs/ Telvent	METAR	*1	From HR 05:00 - until HR 13:00	AVBL**

** Climatological Summary of Georgian Airports is available on the official website of Sakaeronavigatsia Ltd **www.airnav.ge** on MET-Office page, under Climatological Characteristics tab.

* 1 The main meteorological elements:

At BATUMI aerodrome:

- Cloud Base Sensor – RWY 12, near the landing markers;
- Wind Sensor – RWY 12 TDZ area;
- Visibility Sensor – RWY 12 TDZ area;
- Pressure Sensor – RWY 12 TDZ area;
- Temperature/Humidity Sensor – RWY 12 TDZ area;
- Thunderstorm Sensor – RWY 12 TDZ area;
- Rain Gage – RWY 12 TDZ area;
- Wind Sensor – RWY 12/30 Middle area;
- Visibility/Present Weather Sensor – RWY 12/30 Middle area;
- Wind Sensor – RWY 30 TDZ area.

Meteorological observations at the aerodrome and on the RWY are transmitted via AFTN during 24 hours.

At KUTAISI/Kopitnari aerodrome:

- Cloud Base Sensor – RWY 07 TDZ area;
- Wind Sensor – RWY 07 TDZ area;
- Visibility Sensor – RWY 07 TDZ area;
- Wind Sensor – RWY 07/25 Middle area;
- Visibility Sensor – RWY 07/25 Middle area;
- Pressure Sensor – RWY 07/25 Middle area;
- Present Weather Sensor – RWY 07/25 Middle area;
- Temperature/Humidity Sensor – RWY 07/25 Middle area;
- Thunderstorm Sensor – RWY 07/25 Middle area;
- Rain Gage – RWY 07/25 Middle area;
- Wind Sensor – RWY 25 TDZ area;
- Visibility Sensor – RWY 25 TDZ area;
- Cloud Base Sensor – RWY 25 TDZ area.

Meteorological observations at the aerodrome and on the RWY are transmitted via AFTN during 24 hours.

At TBILISI/Tbilisi aerodrome:

- Cloud Base Sensor – RWY 13R, at Middle Marker 13R;
- Wind Sensor – RWY 13R TDZ area;
- Visibility Sensor – RWY 13R TDZ area;
- Wind Sensor – RWY 13R/31L Middle area;
- Visibility Sensor – RWY 13R/31L Middle area;
- Present Weather Sensor – RWY 13R/31L Middle area;
- Wind Sensor – RWY 31L TDZ area;
- Visibility Sensor – RWY 31L TDZ area;
- Pressure Sensor – RWY 31L TDZ area;
- Temperature/Humidity Sensor – RWY 31L TDZ area;
- Thunderstorm Sensor – RWY 31L TDZ area;
- Rain Gage – RWY 31L TDZ area;
- Cloud Base Sensor – RWY 31L, at Middle Marker 31L.

Meteorological observations at the aerodrome and on the RWY are transmitted via AFTN during 24 hours.

At MESTIA aerodrome:

- Wind Sensor – RWY Middle area;
- Pressure Sensor – RWY Middle area;
- Temperature/Humidity Sensor – RWY Middle area;
- Rain Gage – RWY Middle area;
- Visibility – visual observation only;
- Cloud Base – visual observation only.

Meteorological observation at the aerodrome and on the RWY are transmitted via AFTN during 24 hours. Full METAR is available in daytime (from HR05:00 - until HR13:00), at night will be transmitted AUTOMETAR without the VISIBILITY, CLOUDS and WEATHER PHENOMENA groups.

At AMBROLAURI aerodrome:

- Wind Sensor – RWY Middle area;
- Pressure Sensor – RWY Middle area;
- Temperature/Humidity Sensor – RWY Middle area;
- Rain Gage – RWY Middle area;
- Visibility – visual observation only;
- Cloud Base – visual observation only.

Meteorological observation at the aerodrome and on the RWY are transmitted via AFTN during 24 hours. Full METAR is available in daytime (from HR05:00 - until HR13:00), at night will be transmitted AUTOMETAR without the VISIBILITY, CLOUDS and WEATHER PHENOMENA groups.

4 Types of services

Meteorological Service of SAKAERONAVIGATSIA Ltd provides the following types of service:

- Briefing;
- Consultations for aircraft crews;
- Flight meteorological documentation for different kinds of flights (completed according to the user's request);
- Landing/take-off meteorological service.

Details of meteorological briefing at the aerodromes are given in the individual aerodrome subsection AD 2.

SAKAERONAVIGATSIA Ltd provides meteorological service at the TBILISI/Tbilisi, KUTAISI/Kopitnari, BATUMI, MESTIA and AMBROLAURI aerodromes.

Meteorological Office	Telephone	E-mail
1	2	3
TBILISI	(+995 32) 274 43 10	sinoptik.tbilisi@airnav.ge
KUTAISI	(+995 32) 274 43 37 (+995 32) 274 44 77 (303)	meteo.kopitnari@airnav.ge
BATUMI	(+995 577) 11 44 92	meteo.batumi@airnav.ge
MESTIA	(+995 32) 274 43 29 (+995 32) 274 44 77 (173)	meteo.mestia@airnav.ge
AMBROLAURI	(+995 32) 274 43 08 (+995 32) 274 44 77 (701)	meteo.ambrolauri@airnav.ge

Meteorological Office at TBILISI/Tbilisi aerodrome provides consultations for crews in English. Flight meteorological documentation is provided for international and domestic flights. The documentation comprises Significant Weather Chart, Upper Wind and Upper Air Temperature Chart, latest available aerodrome forecasts for the destination and for the alternate aerodromes, latest current weather for the destination and for the alternate aerodromes, and such additional meteorological information as SIGMET and AIRMET. All WAFS products, VAACs and TCACs are available from SADIS receiving system and available from secured meteorological web-site https://www.aviationweather.gov/.

Meteorological Office at KUTAISI/Kopitnari aerodrome provides consultations for crews in Russian. Flight meteorological documentation is provided for international and domestic flights. The documentation comprises Significant Weather Chart, Upper Wind and Upper Air Temperature Chart, latest available aerodrome forecasts for the destination and for the alternate aerodromes, latest current weather for the destination and for the alternate aerodromes, and such additional meteorological information as SIGMET and AIRMET. All WAFS products, VAACs and TCACs are available from SADIS receiving system and available from secured meteorological web-site https://www.aviationweather.gov/.

Meteorological Office at BATUMI aerodrome provides consultations for crews in English. Flight meteorological documentation is provided for international and domestic flights. The documentation comprises Significant Weather Chart, Upper Wind and Upper Air Temperature Chart, latest available aerodrome forecasts for the destination and for the alternate aerodromes, latest current weather for the destination and for the alternate aerodromes, and such additional meteorological information as SIGMET and AIRMET. All WAFS products, VAACs and TCACs are available from SADIS receiving system and available from secured meteorological web-site https://www.aviationweather.gov/.

5 Notification required from operators

Notifications from operators in respect of briefing consultation, flight documentation and other meteorological information needed by them *(ref. ICAO Annex 3, 2.3)* is normally required for intercontinental flights of more than 3500 KM. Such notifications should be received at least 6 hours before the estimated time of departure.

6 Aircraft reports

Observations and aircraft reports are conducted in accordance with *ICAO Appendix I Doc 4444 RAC /501/12*.

7 VOLMET service

NIL.

8 SIGMET and AIRMET service

Table GEN 3.5.8 SIGMET service

Name of MWO/ location indicators	Hours	FIR or CTA served	Validity	Specific SIGMET procedures	AIRMET procedures	ATS unit served	Additional information
1	2	3	4	5	6	7	8
TBILISI UGTB	H24	TBILISI FIR	SIGMET/4 HR AIRMET/4 HR	SIGMET VA/TC: Validity 6 HR	Issued during daytime only	TBILISI TWR, APP, ACC, BATUMI TWR, APP KUTAISI TWR, APP	NIL

8.1 Area meteorological watch service

8.1.1 SIGMET

Information is issued in the form of SIGMET messages about occurrence or possible occurrence of one of several of the following significant meteorological phenomena:

a. thunderstorm:
   – obscured;
   – embedded;
   – frequent;
   – line squall;
   – obscured with heavy hail;
   – embedded with heavy hail;
   – frequent with heavy hail;
   – line squall with heavy hail.
b. turbulence:
   – severe turbulence.
c. icing:
   – severe icing;
   – severe icing due to freezing rain.

SIGMETs are issued in English in abbreviated plain language and are numbered consecutively for each day commencing at 0001. Their period of validity is generally limited to less than 4 hours from the time of issuance.

8.1.2 AIRMET

AIRMET is prepared relating to the TBILISI FIR (one or more from 5 different areas: A1, A2, A3, A4, and A5. See chart AIRMET/ GAMET AREAS which is available on the Sakaeronavigatsia Ltd official website **www.airnav.ge** on MET-OFFICE page) from surface up to FL150, concerning the occurrence and/or expected occurrence of specified weather phenomena as follows:

- strong surface wind and gusts above 30 KT;
- surface visibility to less than 5000 M on the widespread areas;
- thunderstorms: ISOL TS, OCNL TS, ISOL TSGR, OCNL TSGR;
- cloud:
  – widespread areas of broken or overcast cloud with height of base less than 1000 FT;
  – ISOL, OCNL or FRQ cumulonimbus (CB) or towering cumulus (TCU);
- moderate turbulence - MOD TURB;
- moderate icing - MOD ICE;
- moderate mountain wave - MOD MTW.

AIRMETs are issued in English in abbreviated plain language and are numbered consecutively for each day commencing at 0001. Their period of validity is generally limited to less than 4 hours from the time of issuance.

8.1.3 GAMET

GAMET area forecasts contain two sections: *Section I* related to information on en-route weather phenomena hazardous to low-level flights (below FL150), prepared in support of the issuance of AIRMET information, and *Section II* related to additional information required by low-level flights. The content and order of elements in a GAMET area forecast are in accordance with the template shown in Table A5-3 of ICAO Annex 3. Elements which are already covered by a SIGMET message are omitted from GAMET area forecast.

Section I

1. Surface wind speed - SFC WSPD group.
2. Horizontal surface visibility - SFC VIS group.
3. Significant weather phenomena - SIGWX group.
4. Mountain obscuration - MT OBSC group.
5. Cloud - SIG CLD group.
6. Icing - ICE group.
7. Turbulence - TURB group.
8. Mountain wave - MTW group.
9. SIGMET - SIGMET applicable.
10. AIRMET - AIRMET applicable.

The numbers of SIGMET messages applicable to the Tbilisi FIR, for which a GAMET forecast is valid.
The numbers of AIRMET messages applicable to the Tbilisi FIR, for which a GAMET forecast is valid.

Section II

11. Pressure centres and fronts - PSYS group.
12. Surface wind - SFC WIND group.
13. Upper winds and temperatures - WIND/T group. Mean values of wind direction and speed are provided.
14. Cloud - CLD group.
15. Freezing level - FZLVL group.
16. Sea surface temperature - SEA group.

All heights in forecasts are expressed as altitudes above mean sea level (AMSL) or in flight levels (FL).

The validity period of GAMET forecasts is 6 hours (from 06:00 till 12:00; from 12:00 till 18:00 UTC), these forecasts are prepared and published twice per day for the following areas: A1, A2, A3, A4, A5 (according to chart AIRMET/GAMET AREAS which is available on the Sakaeronavigatsia Ltd official web-site **www.airnav.ge** on MET-OFFICE page).

Amendments to GAMET

When a weather phenomenon hazardous to low-level flights has been included in the GAMET area forecast and the phenomenon forecast does not occur, or is no longer forecast, a GAMET AMD is issued, amending only the weather element concerned.

8.2 Aerodrome Warning service

Aerodrome warning is provided by all MET offices at the aerodromes. Warnings for the protection of parked and fastened aircraft or other equipment at the aerodrome will be issued by all MET offices, if one or several of the following phenomena are expected to occur at the local aerodrome:

- tropical cyclone (to be included if the 10-minute mean surface wind speed at the aerodrome is expected to be 34 KT or more);
- thunderstorms;
- squall;
- freezing precipitation;
- hail;
- snow (including the expected or observed snow accumulation);
- rime;
- sandstorm;
- duststorm;
- rising sand or dust;
- strong surface wind and gust;
- frost;
- volcanic ash;
- volcanic ash deposition;
- toxic chemicals;
- other phenomena as agreed locally.

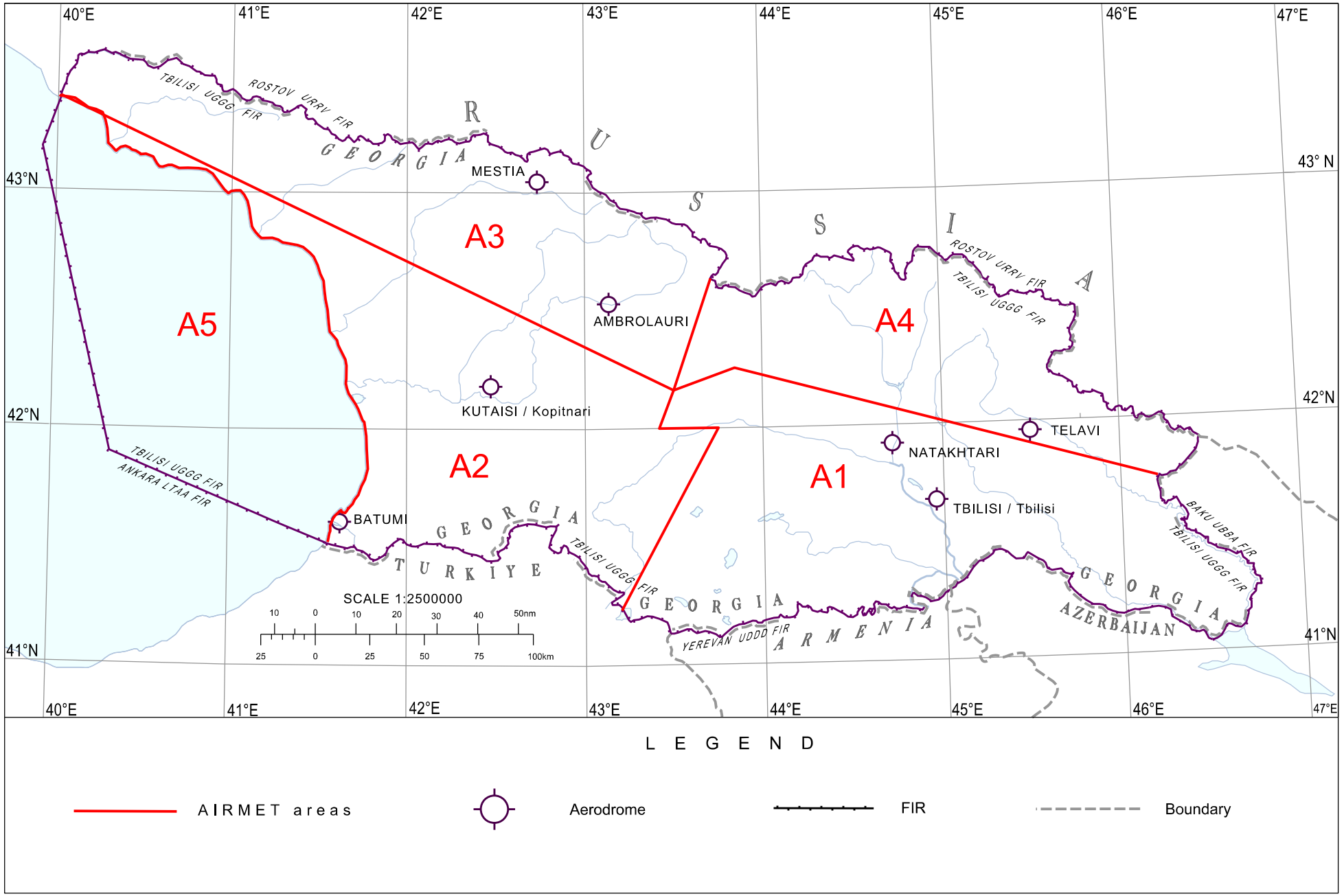
9 Other automated meteorological services

NIL.

Index chart AIRMET/ GAMET areas on page GEN 3.5-7

AIRMET / GAMET AREAS

Changes: Chart reissued



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GEN 3.6 Search and rescue

1 Responsible service

The search and rescue service in Georgia is provided by the Ministry of Internal Affairs and Ministry of Defense. Coordination Centers are established by the Maritime Agency (MRCC) and the Civil Aviation Agency in collaboration with "Sakaeronavigatsia" Ltd (ARCC).

All search and rescue operations over land are coordinated by ARCC. Search and rescue operations over sea are coordinated by MRCC in cooperation with ARCC. All search and rescue operations are carried out by the Ministry of Internal Affairs and Ministry of Defense.

When SAR operations are needed, Aviation Rescue Co-ordination Centre is established; the address is as follows:

Post:	**Sakaeronavigatsia Ltd.** Rescue Co-ordination Centre TBILISI/Tbilisi Airport 0198 Tbilisi, Georgia
Tel:	(+995 32) 274 43 12
Fax:	(+995 32) 274 44 77 150
AFS:	UGGGYCYX
E-mail:	resc@airnav.ge arcc@airnav.ge

The service is provided in accordance with the provisions contained in *ICAO Annex 12 — Search and Rescue*.

2 Area of responsibility

SAR operations are provided within TBILISI FIR.

3 Types of service

3.1 Details of related rescue units are given in Table 3.6.3 Search and Rescue Units. In addition, various elements of the State Police organization, the marine and the armed forces are also available for search and rescue missions, when required. The aeronautical, maritime and public telecommunication services are also available to the search and rescue organization.

3.2 All aircraft carry survival equipment, capable of being dropped, consisting of inflatable rubber dinghies equipped with medical supplies, emergency rations and survival radio equipment. Aircraft and marine craft are equipped to communicate on 121.500 MHZ, 123.100 MHZ, 500 KHZ, 2182 KHZ and 8364 KHZ. Ground rescue teams are equipped to communicate on 121.500 MHZ, 500 KHZ and 8364 KHZ. SAR aircraft and marine craft are equipped with direction-finding equipment.

Table 3.6.3 Search and Rescue Units

Name	Location	Facilities	Remarks
a	b	c	d
BATUMI	–	RV/RB	Cutters are equipped with inflatable life preservers and jackets
TBILISI	–	SRG, HEL	Take-off readiness 30 min in summer and 45 min in winter

4 SAR agreements

MRCC has been designated a search and rescue point of contact (SPOC) for the receipt of COSPAS – SARSAT distress data.

5 Conditions of availability

5.1 Organisation and conduct of search and rescue for aircraft in distress or for survivors of aircraft accidents in the Air Traffic Control (ATC) areas and on the territory of Georgia and the States regardless of the nationality of such aircraft and survivors are conducted by the aviation search and rescue service.

5.2 All facilities and service are specialised in search and rescue operations.

6 Procedures and signals used

6.1 Procedures and signals used by aircraft

Procedures for pilots-in-command observing an accident or intercepting a distress call and/or message are outlined in *ICAO Annex 12, Chapter 5*.

6.2 Communications

Transmission and reception of distress messages within the Search and Rescue Area are handled in accordance with *ICAO Annex 10, Volume II, Chapter 5, and para 5.3*.

For communications during search and rescue operations, the codes and abbreviations published in *ICAO Abbreviations and Codes (Doc 8400)* are used.

The frequency 121.500 MHZ is guarded continuously during the hours of service at all area control centres and flight information centres. It is also available at TBILISI/Tbilisi approach control and aerodrome control offices.

Rescue aircraft belonging to permanent Search and Rescue Units use both the call sign RESCUE and additional identification marks (ALFA, BRAVO, CHARLIE, etc.) during rescue operations.

6.3 Search and rescue signals

The search and rescue signals to be used are those prescribed in *ICAO Annex 12, Chapter 5, para 5.10*.

Ground/air visual signal codes for use by survivors

NR	Message	Code symbol
1	Require assistance	
2	Require medical assistance	
3	No or Negative	
4	Yes or Affirmative	
5	Proceeding in this direction	

Instructions for use:

1. Make signals not less than 8 FT (2.5 M).
2. Take care to lay out signals exactly as shown.
3. Provide as much colour contrast as possible between signals and background.
4. Make every effort to attract attention by other means such as radio, flares, smoke, reflected light.

GEN 3.7 Information services

NIL.

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GEN 4 Charges for aerodromes/heliports and air navigation services

GEN 4.1 Aerodrome/heliport charges

Tariff regulations applying to the use of Georgian international aerodromes can be found in AIC GEORGIA, series A.

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GEN 4.2 Air navigation services charges

Tariff regulations applying to air navigation services can be found in AIC GEORGIA, series A.

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ENR Part 2 - En-Route

ENR 0

ENR 0.1 Preface - NOT APPLICABLE

NIL

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ENR 0.2 Record of AIP Amendments - NOT APPLICABLE

NIL

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ENR 0.3 Record of AIP Supplements - NOT APPLICABLE

NIL

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ENR 0.4 Checklist of AIP pages - NOT APPLICABLE

NIL

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ENR 0.5 List of hand amendments to the AIP - NOT APPLICABLE

NIL

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ENR 0.6 Table of Contents to Part 2

ENR 1 General rules and procedures

ENR 1.1 General rules

The air traffic rules and procedures applicable to air traffic territory of Georgia conform to Annexes 2 and 11 to the Convention on International Civil Aviation and to those portions of the *Procedures for Air Navigation Services — Rules of the Air and Air Traffic Services* applicable to aircraft and of the *Regional Supplementary Procedures*, except for the differences listed in GEN 1.7.

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ENR 1.2 Visual flight rules

1 Visual meteorological conditions (VMC)

Except when operating as a special VFR flight, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in the Table 1.

2 VFR flights within control zone and aerodrome traffic zone

Except when a clearance is obtained from an air traffic control unit, VFR flights shall not take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or traffic pattern:

a. when the ceiling is less than1500 FT (450 M); or
b. when the ground visibility is less than 5 KM.

Special VFR flights are authorised to operate within a control zone and is subject to an ATC clearance. Except when permitted by the competent authority for helicopters in special cases such as, medical flights, search and rescue operations, fire-fighting and training flights concerning to them, special VFR flights may be conducted during day only and the following additional conditions shall be applied:

1. By pilot:
   – clear of cloud and with the surface in sight;
   – the flight visibility is not less than 1 500m (5000 ft);
   – fly at a speed of 140 kts IAS or less to give adequate opportunity to observe other traffic and any obstacles in time to avoid a collision; and
2. By ATC:
   – the ground visibility is not less than 1 500 m (5000 ft) or, for helicopters, not less than 800 m (2500 ft);
   – the ceiling is less than 180 m (600 ft).

3 VFR flights at night

VFR flights at night are permitted under the following conditions:

a. the ceiling shall not be less than 450 m (1500 ft);
b. in airspace classes B, C, D, E, F and G, at and below 900 m (3 000 ft) above MSL or 300 m (1 000 ft) above terrain, whichever is the higher, the pilot shall maintain continuous sight of the surface;
c. for helicopters in airspace classes F and G at and below 900 m (3 000 ft) above MSL or 300 m (1 000 ft) above terrain, whichever is the higher, flight visibility shall not be less than 3 km, provided that the pilot maintains continuous sight of the surface and if manoeuvred at a speed that will give adequate opportunity to observe other traffic or obstacles in time to avoid collision.

Except when necessary for take-off or landing, or except when specifically authorised by the competent authority, VFR flight at night shall be flown at a level which is not below the established minimum flight altitude, or

- over high terrain or in mountainous areas, at a level which is at least 600 m (2 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft;
- elsewhere than as specified above, at a level which is at least 300 m (1 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft.

VFR flights at night are not permitted from unprepared airfield, except when:

a. landing was during day, pilot is prepared and has defined safe direction and airfield has appropriate lighting, or
b. helicopter is equipped with night vision imaging systems and pilot is permitted/trained for such flights.

VFR flights at night are not permitted for one pilot aircraft and class III type of helicopter, except training flights at aerodrome area.

4 VFR flights above flight level 195

Unless authorized by the appropriate ATS authority, VFR flights shall not be operated:

a. above FL 200;
b. at transonic and supersonic speeds.

VFR flight above flight level 195, up to and including flight level 285, may also be authorised by the responsible air traffic services unit in accordance with the authorisation procedures.

Authorisation for VFR flights to operate above FL 290 shall not be granted in areas where a vertical separation minimum of 300 M (1000 FT) is applied above FL 290.

5 Minimum heights for VFR flights

Except when necessary for take-off or landing, or except by permission from the appropriate authority, a VFR flight shall not be flown:

a. over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 1000 FT (300 M) above the highest obstacle within a radius of 600 M from the aircraft;
b. in any other areas at a height less than 500 FT (150 M) above the ground or water.

6 VFR cruising levels

Except where otherwise indicated in air traffic control clearances or specified by the appropriate ATS authority, VFR flights in level cruising flight when operated above 3000 FT (900M) from the ground or water shall be conducted at a flight level appropriate to the track as specified in the *Tables of cruising level.*

7 Air traffic control service on VFR flights

VFR flights shall comply with the provisions of 3.6 of *ICAO Annex 2*:

a. when operated within Class C airspace;
b. when forming part of aerodrome traffic at controlled aerodromes; or
c. when operated as special VFR flights.

8 Radio communication on VFR flights

A VFR flight operating within, or along routes, designated by the appropriate ATS authority shall maintain continuous air-ground voice communication watch on the appropriate communication channel of, and report its position as necessary to, the air traffic services unit providing flight information service.

9 Change from VFR to IFR

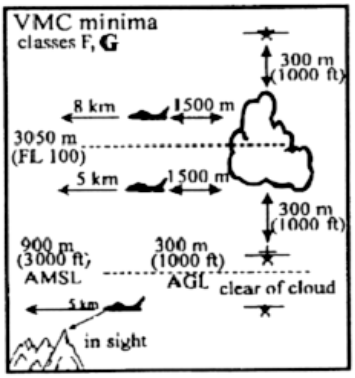
An aircraft operated in accordance with the visual flight rules which intends to change to compliance with the instrument flight rules shall:

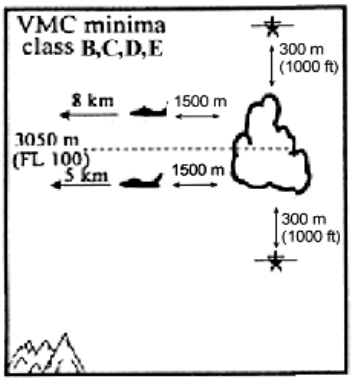
a. if a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan, or
b. when so required by ENR 1.10 of Georgian AIP, submit a flight plan to the appropriate air traffic services unit and obtain a clearance prior to proceeding IFR when in controlled airspace.

Table 1.

<table>
<tr><th>Altitude band</th><th>Airspace class</th><th>Flight visibility</th><th>Distance from cloud</th></tr>
<tr><td>At and above 3050 m (10000 ft) AMSL</td><td>A B C D E F G</td><td>8 km</td><td>1500 m horizontally
300 m (1000 ft) vertically</td></tr>
<tr><td>Below 3050 m (10000 ft) AMSL and above 900 m (3000 ft) AMSL, or above 300 m (1000 ft) above terrain, whichever is the higher</td><td>A B C D E F G</td><td>5 km</td><td>1500 m horizontally
300 m (1000 ft) vertically</td></tr>
<tr><td rowspan="3">At and above 900 m (3000 ft) AMSL, or 300 m (1000 ft) above terrain, whichever is the higher</td><td>A B C D E</td><td>5 km</td><td>1500 m horizontally
300 m (1000 ft) vertically</td></tr>
<tr><td rowspan="2">F G</td><td>At night 5 km</td><td rowspan="2">Clear of cloud and with the surface in sight</td></tr>
<tr><td>At day 3 km</td></tr>
</table>

When the height of the translation altitude is lower than 3050 m (10000 ft) AMSL, FL 100 should be used in lieu of 10000 ft.


VMC minima
classes F, G
300 m
(1000 ft)
8 km
1500 m
3050 m
(FL 100)
5 km
1500 m
300 m
(1000 ft)
900 m
(3000 ft)
AMSL
300 m
(1000 ft)
AGL
clear of cloud
5 km
in sight


VMC minima
class B,C,D,E
300 m
(1000 ft)
8 km
1500 m
3050 m
(FL 100)
5 km
1500 m
300 m
(1000 ft)

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ENR 1.3 Instrument flight rules

1 Rules applicable to all IFR flights

1.1 Aircraft equipment

Aircraft shall be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown.

1.2 Minimum levels

Except when necessary for take-off or landing, or except when specifically authorized by the appropriate authority, an IFR flight shall be flown at a level which is not below the minimum flight altitude established by the State whose territory is over flown, or, where no such minimum flight altitude has been established:

a. over high terrain or in mountainous areas, at a level which is at least 2 000 FT (600 M) above the highest obstacle located within 8 KM of the estimated position of the aircraft;
b. elsewhere than as specified in a), at a level which is at least 1000 FT (300 M) above the highest obstacle located within 8 KM of the estimated position of the aircraft.

Note 1.– The estimated position of the aircraft will take account of the navigational accuracy which can be achieved on the relevant route segment, having regard to the navigational facilities available on the ground and in the aircraft.

1.3 Change from IFR flight to VFR flight

1.3.1 An aircraft electing to change the conduct of its flight from compliance with the instrument flight rules to compliance with the visual flight rules shall, if a flight plan was submitted, notify the appropriate air traffic services unit specifically that the IFR flight is cancelled and communicate thereto the changes to be made to its current flight plan.

1.3.2 When an aircraft operating under the instrument flight rules is flown in or encounters visual meteorological conditions it shall not cancel its IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

2 Rules applicable to IFR flights within controlled airspace

2.1 IFR flights shall comply with the provisions of 3.6 of *ICAO Annex 2* when operated in controlled airspace.

2.2 An IFR flight operating in cruising flight in controlled airspace shall be flown at a cruising level, or, if authorized to employ cruise climb techniques, between two levels or above a level, selected from *the Tables of cruising levels* (see ENR 1.7.2.7), except that the correlation of levels to track prescribed therein shall not apply whenever otherwise indicated in air traffic control clearance or specified by the appropriate ATS authority in Georgian AIP.

3 Rules applicable to IFR flights outside controlled airspace

3.1 Cruising levels

An IFR flight operating outside of controlled airspace shall be flown at a cruising level appropriate to its track as specified in *the Tables of cruising levels* (see ENR 1.7.2.7).

Note. – This provision does not preclude the use of cruise climb techniques by aircraft in supersonic flight.

3.2 Communications

An IFR flight operating outside controlled airspace but within or into areas, or along routes, shall maintain a listening watch on the appropriate radio frequency and establish two-way communication, as necessary, with the air traffic services unit providing flight information service.

3.3 Position reports

An IFR flight operating outside controlled airspace shall report position as specified in 3.6.3 of *ICAO Annex 2* for controlled flights.

4 Free Route Airspace - General Procedures

4.1 Area of Application

4.1.1 FRA within the lateral limits of Tbilisi FIR is available H24 from Lowest Available Level (LAL) to FL660, where the Lowest Available Level (LAL) is the lowest cruising level allowed for FRA operations within Tbilisi FIR. LAL is determined in accordance with the item 4.2.1.7.

4.1.2 FRASC encompasses the FRAs within Tbilisi FIR and Yerevan FIR. For Cross-Border operations planning within FRASC see item 4.2.4.

4.2 FRA Procedures

4.2.1 General

4.2.1.1 For FRA operations within Tbilisi FIR the requirements of RNAV 5 specification for en-route operations are applied to all IFR flights other than state aircraft. State ACFT not approved for RNAV 5 or any other ACFT with loss of RNAV 5 capability shall inform ATC and should expect routing via conventional navigation aids or vectoring until the ACFT is capable of resuming its own navigation.

4.2.1.2 Within FRA, airspace users are able to plan user-preferred trajectories through the use of significant points included in ENR 4.1 and ENR 4.4 under special conditions and rules laid down in AIP and RAD (see also ENR 1.10, item 5).

4.2.1.3 Within FRA, significant points are considered as FRA Horizontal Entry (E), FRA Horizontal Exit (X), FRA Intermediate (I), FRA Arrival (A) and/or FRA Departure (D) points. FRA relevance of each significant point is indicated in the column “Remarks” in ENR 4.1 and ENR 4.4.

4.2.1.4 For flight planning of route portions between FRA relevant points “DCT” shall be used in accordance with ICAO DOC 4444 PANS-ATM.

4.2.1.5 There is no restriction on the maximum DCT distance.

4.2.1.6 The use of unpublished points, defined by geographical coordinates or by bearing and distance are not allowed.

4.2.1.7 For determination of the lowest cruising level to be planned on a DCT segment within the limits of Tbilisi FIR, ENR 6.13 shall be referred with depicted Lowest Available Levels (LALs) for FRA operations. Flight plans will be rejected by IFPS if requested cruising level at any DCT segment is detected to be lower than LAL.

4.2.2 Overflying Traffic

4.2.2.1 Within FRA, traffic overflying Tbilisi FIR shall plan DCT between FRA Horizontal Entry, FRA Horizontal Exit and FRA Intermediate points. There is no restriction on the number of FRA Intermediate points used.

4.2.2.2 Availability of DCT segments within the FRA are affected by restrictions described in paragraph 4.2.4.

4.2.3 Arrivals and Departures

4.2.3.1 Flights arriving to or departing from local airports (UG**) are free route eligible flights.

4.2.3.2 Available routing options for flight planning to / from UGTB using FRA is presented in UGTB AD 2.22 Flight procedures, item 1.4.

4.2.3.3 Available routing options for flight planning to / from UGKO using FRA is presented in UGKO AD 2.22 Flight procedures, item 1.4.

4.2.3.4 Available routing options for flight planning to / from UGSB using FRA is presented in UGSB AD 2.22 Flight procedures, item 2.4.

4.2.4 Cross-Border Applications

4.2.4.1 Planning DCTs across Tbilisi FIR boundary (cross-border DCTs) are allowed only within FRASC. Entry and exit from FRASC shall be planned over the published FRA Horizontal Entry and FRA Horizontal Exit points only. Cross-border DCTs are not allowed for arrivals and departures of UG** airports.

4.2.4.2 Planning DCT segments that are partially outside the lateral limits of FRASC (multiple re-entries segments) are not allowed.

4.2.4.3 Planning DCT segments closer than 2.5 NM of the FRASC boundary are not allowed.

4.2.4.4 All details and exceptions from the rules in items 4.2.4.1 - 4.2.4.3 are published in RAD.

4.3 Airspace Reservation – Special Areas

4.3.1 Flights within FRASC shall be planned outside active **P**rohibited areas as published in AIP Georgia using valid FRA Intermediate points.

4.3.2 Tactical radar vectoring might be applied in order to ensure additional safety margin from temporarily active **R**estricted areas. The expected route extension in these cases is 10NM or less.

4.4 Additional FRA Procedures

4.4.1 Flight Level Orientation Scheme

4.4.1.1 Cruising levels shall be planned in accordance with the information provided in the column “Remarks” in ENR 4.4. The direction of cruising levels (EVEN or ODD) shall be chosen depending on the direction of flight level required over the FRA entry and FRA exit points as described in the following table:

Direction of Cruising levels within Tbilisi FIR and FRASC		
FLs over FRA entry point	**FLs over FRA exit point**	**FLs inside FRA**
EVEN	EVEN	EVEN FLs for all DCT segments
ODD	ODD	ODD FLs for all DCT segments
EVEN	ODD	A change from EVEN to ODD FLs must be planned inside FRA
ODD	EVEN	A change from ODD to EVEN FLs must be planned inside FRA

Note: ODD is the direction of IFR cruising levels with a magnetic track between 000° and 179° while EVEN is the direction of IFR cruising levels with a magnetic track between 180° and 359° as described in the table of cruising levels in ENR 1.7.

4.4.1.2 Cruising levels shall also be planned in accordance with Flight Level Orientation Scheme of adjacent ATS route network and/or FRA.

5 Flight within RVSM airspace

Flight operating as General Air Traffic (GAT) within RVSM airspace shall be conducted in accordance with IFR unless otherwise authorized by the Georgian Civil Aviation Agency within a temporarily reserved area not available to IFR flights

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ENR 1.4 ATS airspace classification and description

1 ATS Airspace classification

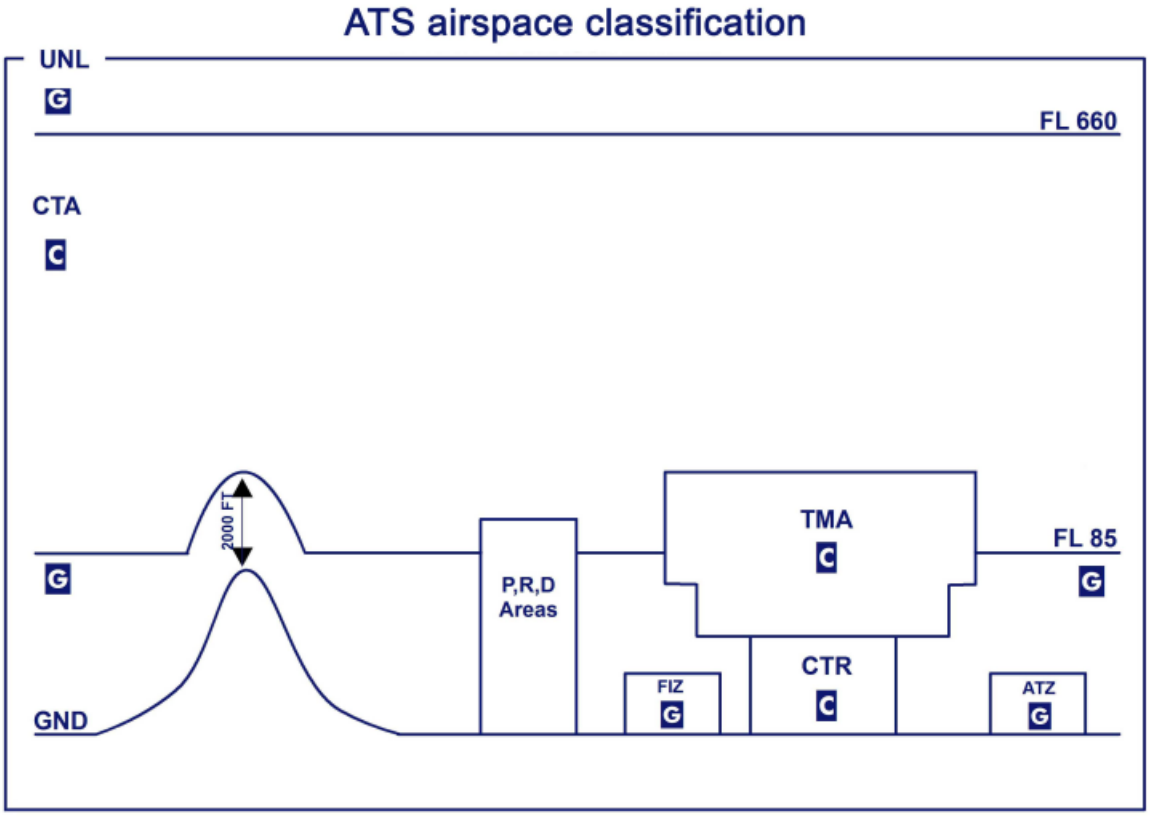
ATS Airspace classes C and G are applicable within Tbilisi FIR.

Class C. IFR and VFR flights are permitted, all flights are subject to air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

Class G. IFR and VFR flights are permitted and receive flight information service if requested.

Services provided and flight requirements within each class of airspace are shown in the following table:

Class	Type of flight	Separation provided	Service provided	Speed limitation *	Radio communication requirements	Subject to an ATC clearance
C	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	VFR from IFR	1) Air traffic control service for separation from IFR 2) VFR/VFR traffic information (and traffic avoidance advice on request)	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	Yes
G	IFR	Nil	Flight Information Service	250 KT IAS below 3050 M (10000 FT) AMSL	Continuous two-way	No
	VFR	Nil	Flight Information Service	250 KT IAS below 3050 M (10000 FT) AMSL	Two-way communication by radio and/or other means	No
* When the height of the transition altitude is lower than 3 050 M (10 000 FT) AMSL, FL 100 should be used in lieu of 10 000 FT.						



2 ATS Airspace description

NIL

ENR 1.5 Holding, approach and departure procedures

1 General

1.1 The holding, approach and departure procedures in use are based on those contained in the latest edition of *ICAO Doc 8168 — OPS / 611 (PANS-OPS).*

1.2 Air traffic control clearances shall contain positive and concise data and shall, as far as practicable, be phrased in a standard manner.

1.3 Clearances shall contain the following in the order listed:

a. aircraft identification;
b. clearance limit;
c. route of flight;
d. level(s) of flight for the entire route or part thereof and changes of levels if required;
   Note.– If the clearance for the levels covers only part of the route, it is important for the air traffic control unit to specify a point to which the part of the clearance regarding levels applies.
e. any necessary instructions or information on other matters such as approach or departure maneuvers, communications and the time of expiry of the clearance.
   Note.– The time of expiry of the clearance indicates the time after which the clearance will be automatically cancelled if the flight has not been started.

1.4 The clearance limit may be the aerodrome of destination, or reporting point, or the boundary of controlled airspace.

1.5 Details of holding, approach and departure procedures, as well as further information on application of Rules of the Air and Air Traffic Services at particular airports, are published in the part AD.

2 Arriving flights

2.1 When it becomes evident that delays in holding will be encountered by arriving aircraft, the operator or a designated representative shall be notified and kept currently informed of any changes in such expected delays, in order that diversionary action may be planned as far in advance as possible.

2.2 Arriving aircraft may be required to report when leaving or passing a reporting point, or when starting procedure turn or base turn, or to provide other information required by the controller to expedite departing aircraft.

2.3 An IFR flight shall not be cleared for an initial approach below the appropriate minimum altitude nor to descend below that altitude unless:

a. the pilot has reported passing an appropriate point defined by a radio aid;
b. the pilot reports that the aerodrome is and can be maintained in sight;
c. the aircraft is conducting a visual approach;
d. the aircraft's position has been positively determined by the use of radar.

3 Departing flights

3.1 IFR flights departing from controlled aerodromes will receive initial ATC clearance from the local Aerodrome Control Tower. The clearance limit will normally be the aerodrome of destination. IFR flights departing from non-controlled aerodromes will not depart without prior arrangements with the Area Control Centre concerned.

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ENR 1.6 ATS surveillance services and procedures

1 Primary radar

1.1 Supplementary services

1.1.1 Radar service is provided in areas of sufficient radar coverage. The radar service is based on the information received by Primary Surveillance Radar (PSR) and Monopulse Secondary Surveillance Radars (MSSR).

1.1.2 The following call signs of the ATC units used by the air traffic controllers indicate to the pilot that radar services are being provided:

a. Aircraft under Area control - "Tbilisi Control";
b. Aircraft under Tbilisi Approach -"Tbilisi Approach";
c. Aircraft under Kutaisi Approach - "Kutaisi Approach";
d. Aircraft under Batumi Approach - "Batumi Approach".

1.1.3 Tbilisi area control service operates the following radar stations:

a. MSSR – station at Tbilisi position, range 250 NM;
b. PSR/ MSSR – station at Tbilisi position, range 80 NM/250 NM;
c. MSSR – station at Senaki position, range 250 NM;
d. MSSR – station at Poti position, range 250 NM.

1.1.4 Tbilisi approach control service operates:

a. MSSR – station at Tbilisi position, range 250 NM;
b. PSR/MSSR – station at Tbilisi position, range 80 NM/250 NM.

1.1.5 Kutaisi approach control service operates:

a. MSSR – station at Senaki position, range 250 NM;
b. MSSR – station at Poti position, range 250 NM.

1.1.6 Batumi approach control service operates:

a. MSSR – station at Senaki position, range 250 NM;
b. MSSR – station at Poti position, range 250 NM.

1.2 The application of radar control service

1.2.1 Radar identification is achieved according to the provisions specified by ICAO.

1.2.2 Radar control service is provided in controlled airspace to aircraft operating within Tbilisi TMA (above 4500 FT MSL), Kutaisi TMA (above 1500 FT MSL), and Batumi TMA (above 1500 FT MSL). This service may include:

a. radar separation of arriving, departing and en-route traffic;
b. radar monitoring of arriving, departing and en-route traffic to provide information on any significant deviation from normal flight path;
c. radar vectoring when required;
d. assistance to aircraft in emergency;
e. assistance to aircraft crossing controlled airspace;
f. warnings and position information on other aircraft considered to constitute a hazard;
g. information to assist in the navigation of aircraft.

Note: Radar vectoring for CB avoidance is not provided.

1.2.3 The minimum horizontal radar separations are:

a. in TBILISI, KUTAISI and BATUMI TMA – 5 NM;
b. in TBILISI FIR – 10 NM.

1.3 Radar and radio failure procedures

1.3.1 Radar failure

1.3.1.1 In the event of complete failure of the radar equipment the radar controller shall:

a. fix the positions of all aircraft already identified and, in conjunction with the non-radar controller when applicable, take the necessary action to establish non-radar separation between the aircraft; and when relevant;
b. request the appropriate non-radar controller to assume control of the traffic affected.

1.3.1.2 As an emergency measure, use of flight levels spaced by half the applicable vertical separation minimum may be resorted to temporarily if standard non-radar reparation cannot be provided immediately.

1.3.1.3 Except when there is assurance that the complete radar equipment failure will be of a very limited duration, steps should be taken to limit the number of aircraft permitted to enter the area to that which can be safely handled without the use of radar.

1.3.2 Radio failure

1.3.2.1 The radar controller will establish whether the aircraft radio receiver is functioning by instructing the pilot to carry out a turn or turns. If the turns are observed the radar controller will continue to provide radar service to the aircraft. Also IDENT mode or change of code can be used.

1.3.2.2 If the aircraft radio is completely unserviceable, the pilot should carry out the procedures for radio failure in accordance with ICAO provisions.

If radar identification has already been established, the radar controller will vector other identified aircraft clear of its track until the time the aircraft leaves radar cover.

1.4 Graphic portrayal of radar coverage area

To be developed.

2 Secondary surveillance radar (SSR)

2.1 Emergency procedures

2.1.1 Except when encountering a state of emergency, pilots shall operate transponder and select modes and codes in accordance with ATC instructions. In particular, when entering Tbilisi FIR pilots who having already received specific instructions from ATC to set transponder, shall maintain that setting until otherwise instructed.

2.1.2 Pilots of aircraft about to enter Tbilisi FIR who have not received specific instructions from ATC concerning the setting of the transponder shall operate the transponder on mode A+C code 20 (or 2000) before the entry and maintain that code setting until otherwise instructed.

2.1.3 If the pilot of the aircraft encountering a state of emergency has previously been directed by ATC to operate the transponder on a specific code, this code setting shall be maintained until otherwise advised. In all other circumstances, the transponder shall be set to mode A+C code 77 (or 7700).

2.1.4 Despite the procedure set out in paragraph 2.1.1 above, a pilot may select mode A+C code 77 (or 7700) whenever the nature of the emergency is such that this appears to him to be the most suitable course of action.

Note: Continuous monitoring of responses on mode A+C code 77 is provided.

2.2 Radio communication failure and unlawful interference procedures

2.2.1 Radio communication failure procedure

Radio communication failure procedures are prescribed in ICAO Annex 2 paragraph 3.6.5 and Doc 7030/4-EUR, Part 1 (see AIP ENR-1.8.3).

2.2.2 Unlawful interference procedure

Pilots of aircraft in flight subjected to unlawful interference shall endeavor to set the transponder to mode A Code 7500 to give indication of the situation, unless circumstances warrant the use of A+C code 77 (or 7700).

Note: Mode A Code 7500 is permanently monitored in the Tbilisi FIR.

2.3 System of SSR Code assignment

2.3.1 The following SSR mode A/3 codes are assigned to international flights: 6740 - 6777

2.3.2 The following SSR mode A/3 codes are assigned to local flights: 7040 - 7057

2.3.3 The following SSR mode A/3 codes are assigned to search and rescue flights: 7711 - 7717, 7721 - 7723

2.3.4 The following SSR mode A/3 codes are assigned to VFR flights: 0060 - 0077

2.4 Graphic portrayal of radar coverage area

The charts portray SSR coverage area at the following flight levels: FL90, FL195, FL290, and FL410.

Index chart Graphic portrayal of SSR coverage area at FL 090 on page ENR 1.6-5

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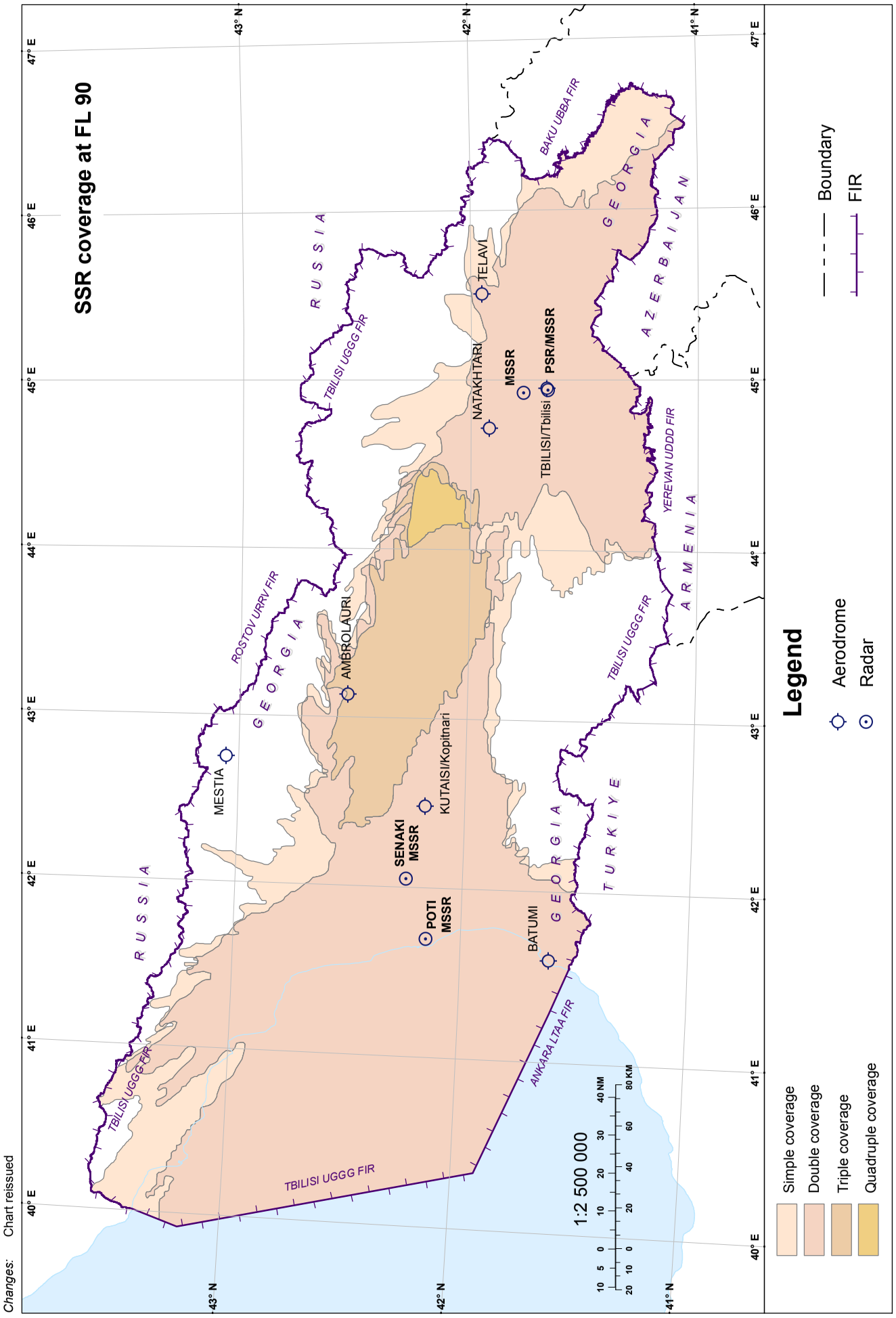
GRAPHIC PORTRAYAL OF SSR COVERAGE AREA



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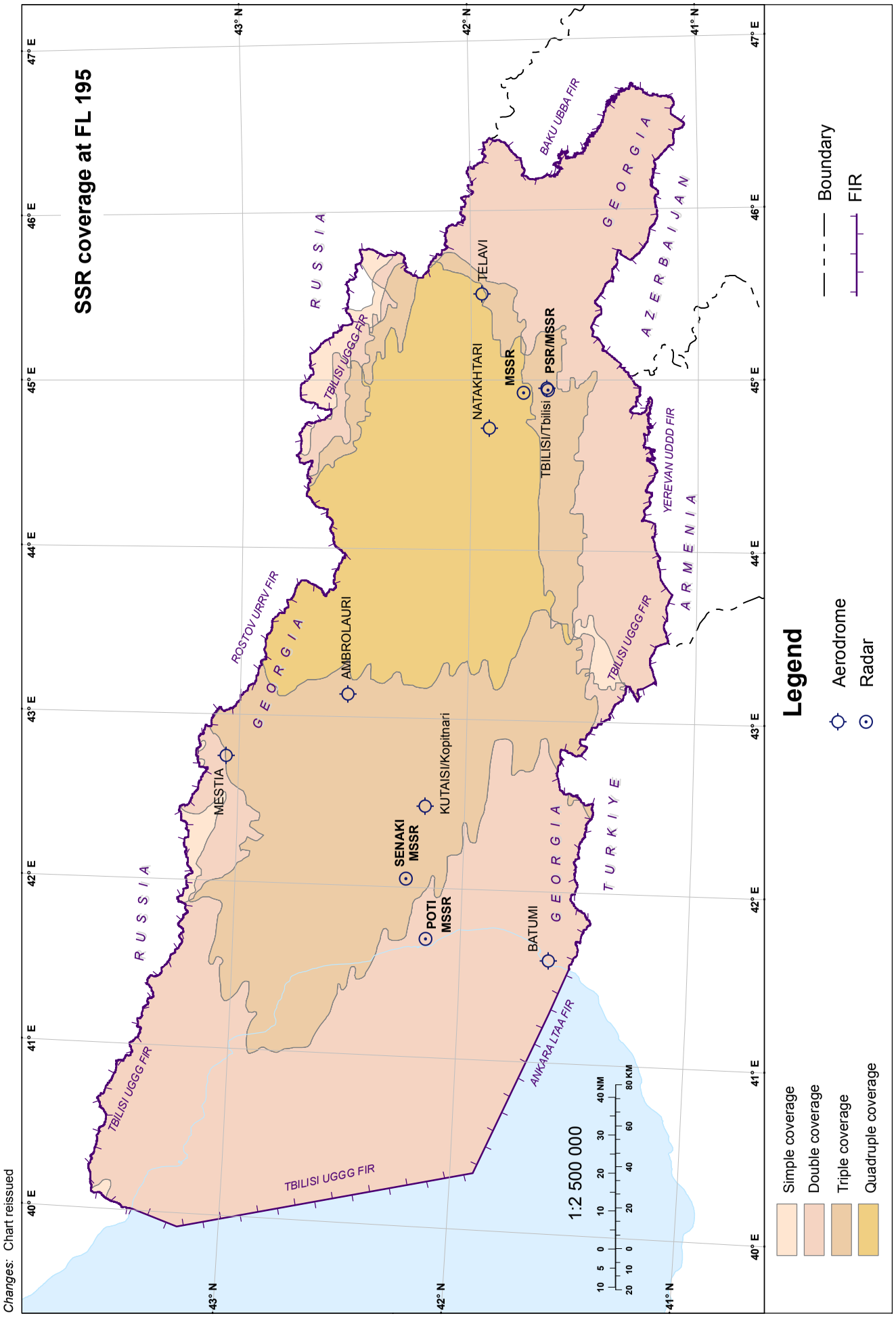

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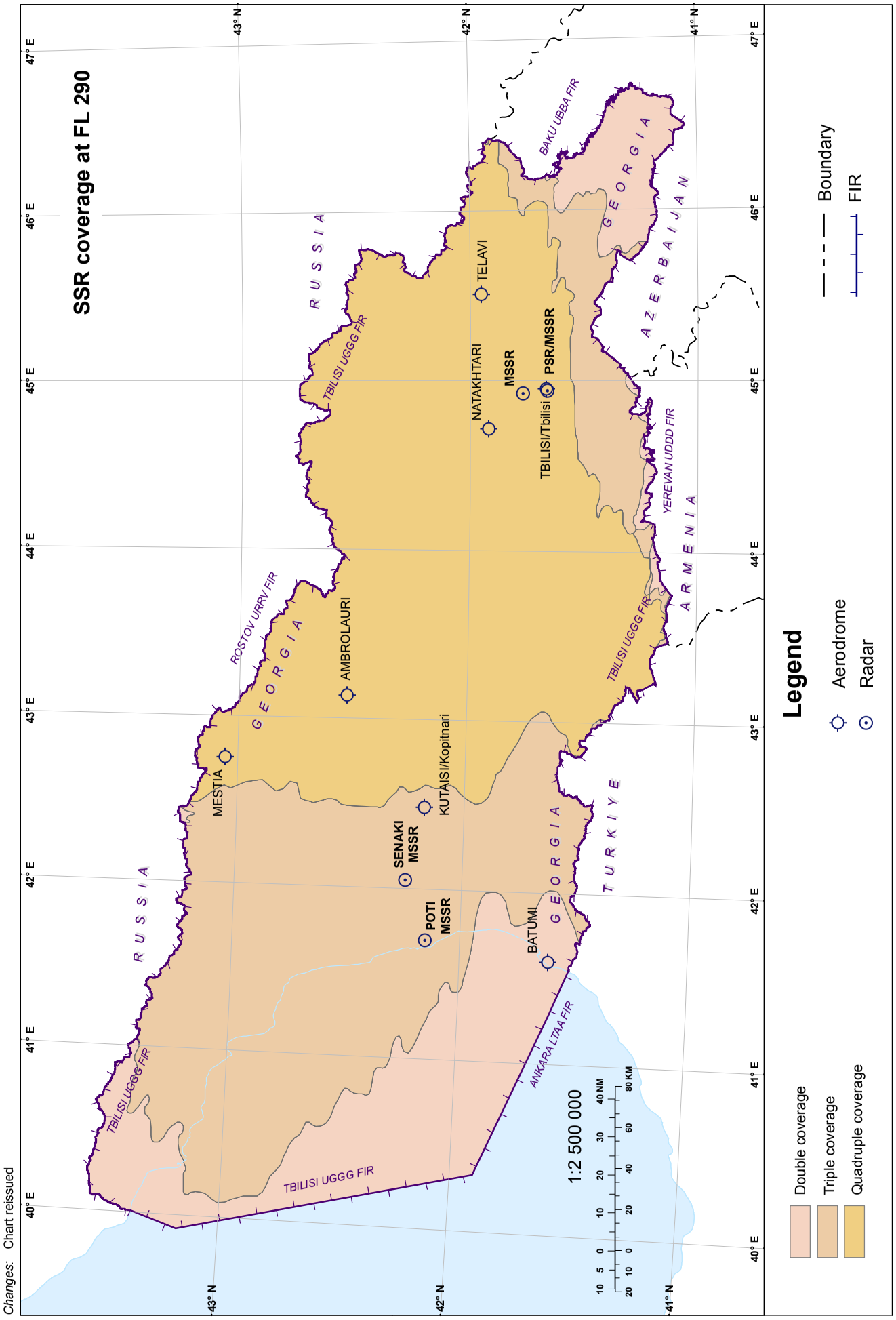

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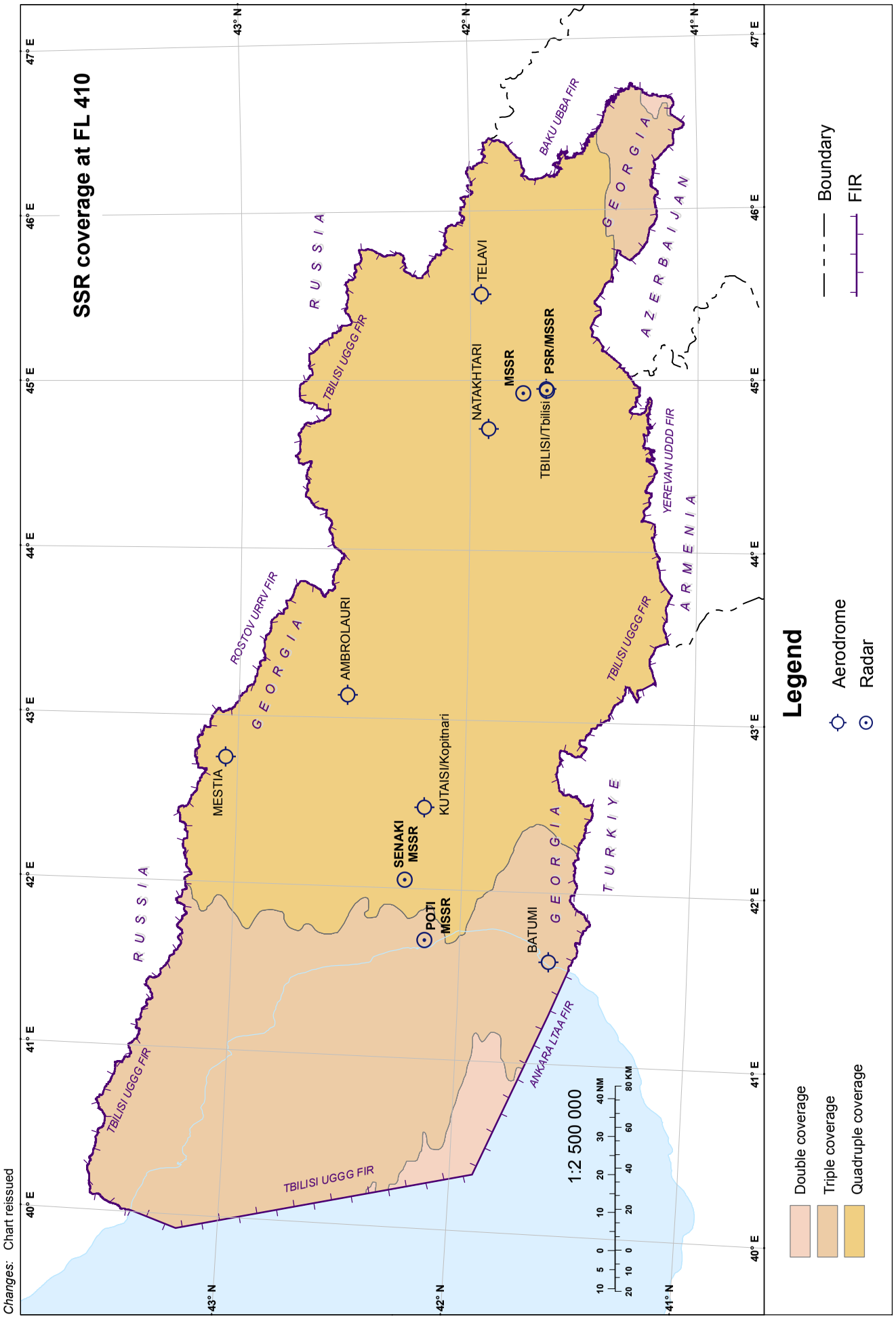

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ENR 1.7 Altimeter setting procedures

1 Introduction

Altimeter setting procedures based on *ICAO Doc 8168, Vol. III, Section 2* are given below together with associated procedures and information.

2 Basic procedures

2.1 General

Information on altimeter settings (QNH or QFE on request) and on transition level will be given on routine basis by the appropriate air traffic services unit to meet operational requirements during take-off, climb out, approach and landing.

2.2 Altimeter setting region

There are three altimeter setting regions in Georgia:

a. Tbilisi TMA with transition altitude at 11000 FT and fixed transition level at FL130;
b. Kutaisi TMA with transition altitude at 7000 FT and fixed transition level at FL90;
c. Batumi TMA with transition altitude at 7000 FT and fixed transition level at FL90.

2.3 Terrain Clearance-Information on QNH values

To determine terrain clearance the QNH values from the reporting station nearest to the position of the aircraft shall be used. For this purpose QNH values are available from all controlled aerodromes.

Note. – Information mentioned above will not necessarily be available on a 24 hours basis. This depends on the hours of service for the unit providing such information.

2.4 Altimeter setting procedure for flights conducted outside controlled airspace

The vertical position of aircraft outside controlled airspace shall be expressed:

a. for IFR flights: in terms of flight levels according to the magnetic track (see Table of cruising levels - Para 2.7);
b. for VFR flights:

– when conducted above 3000 FT MSL or 1000 FT AGL, whichever value is greater, in terms of flight levels according of the magnetic track (see Table of cruising levels - Para 2.7);
– when conducted at 3000 FT MSL or below 1000 FT AGL, whichever value is greater, in terms of altitude in which case the QNH altimeter setting value of the region considered shall be used.

2.5 Altimeter setting procedure for flights conducted within controlled airspace

2.5.1 IFR flights

Transition from flight levels to altitudes and vice versa. The vertical position of aircraft when at or below the transition attitude shall be expressed in terms of altitude, whereas such position at or above the transition level shall be expressed in terms of flight levels. While passing through the transition layer, vertical position shall be expressed in terms of flight levels when climbing and in terms of altitude when descending.

2.5.2 QNH

The QNH will be transmitted unasked to arriving and departing aircraft.

2.5.3 En-route

While flying on international airways within the airspace in which Georgia bears the responsibility of ATS, vertical separation is provided in accordance with the requirements given in Para 2.2 and Para 2.7.

2.5.4 Missed approach

The procedures in Para 2.5.1 shall be applied in the event of a missed approach.

2.6 VFR flights

When the flights are conducted within a terminal control area or a control zone, the vertical position of aircraft shall be expressed:

- in terms of altitudes at or below the transition altitude;
- at and above the transition level, in terms of flight levels corresponding to the magnetic track (see Table of cruising levels - Para 2.7).

When the flights are conducted on an airway, the vertical position of aircraft shall be expressed:

- in terms of altitude at 3000 FT MSL or below 1000 FT AGL, whichever value is greater;
- above 3000 FT MSL or 1000 FT AGL, whichever value is greater, in terms of flight levels corresponding to the magnetic track (see Table of cruising levels - Para 2.7).

2.7 Tables of cruising levels

MAGNETIC TRACK							
000° — 179°				**180° — 359°**			
IFR Flights		**VFR Flights**		**IFR Flights**		**VFR Flights**	
FL	Feet	FL	Feet	FL	Feet	FL	Feet
30	3000	35	3500	40	4000	45	4500
50	5000	55	5500	60	6000	65	6500
70	7000	75	7500	80	8000	85	8500
90	9000	95	9500	100	10000	105	10500
110	11000	115	11500	120	12000	125	12500
130	13000	135	13500	140	14000	145	14500
150	15000	155	15500	160	16000	165	16500
170	17000	175	17500	180	18000	185	18500
190	19000	195	19500	200	20000	205	20500
210	21000	215	21500	220	22000	225	22500
230	23000	235	23500	240	24000	245	24500
250	25000	255	25500	260	26000	265	26500
270	27000	275	27500	280	28000	285	28500
290	29000			300	30000		
310	31000			320	32000		
330	33000			340	34000		
350	35000			360	36000		
370	37000			380	38000		
390	39000			400	40000		
410	41000			430	43000		
450	45000			470	47000		
490	49000			510	51000		
530	53000			550	55000		
etc.				etc.			

3 Procedures applicable to operators (including pilots)

3.1 Flight planning

The levels at which a flight is to be conducted shall be specified in the flight plan. The flight level on route section in which responsibility for air traffic service rests with Georgia shall be expressed in the following manner:

- in terms of flight levels if the flight is to be conducted at or above the transition level, and
- in terms of altitude if the flight is to be conducted in the terminal area or the control zone at or below the transition altitude.

4 Special procedures regarding departures with military fighter aircraft

Military fighter aircraft taking off in formation under instrument meteorological conditions shall change the altimeter setting from the QNH value of the aerodrome to 1013.2 HPA (760 mm mercury) as soon as possible after passing the transition altitude provided such change will not constitute a risk for loss of visual contact between the elements in the formation. In case when an altimeter with the feet-scale is not installed on board a military fighter aircraft, a table for converting feet into meters shall be available in the cockpit.

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ENR 1.8 Regional supplementary procedures

1 RVSM

1.1 The airspace within Tbilisi FIR between FL 290 and FL 410 inclusive, as described in ENR 2.1, is EUR RVSM airspace.

Within this airspace, the vertical separation minimum shall be:

a. 1000 FT (300 M) between RVSM approved aircraft;
b. 2000 FT (600 M) in the following cases:
   1. between **non-RVSM approved State aircraft** and any other aircraft operating within the EUR RVSM airspace;
   2. between formation flights of State aircraft and any other aircraft operating within the EUR RVSM airspace;
   3. an aircraft experiencing a communications failure in flight and any other aircraft, when both aircraft are operating within the EUR RVSM airspace.

2 RNAV 5

2.1 Within Tbilisi FIR requirements of RNAV 5 (B-RNAV) specification for en-route operations are applied to all IFR flights other than state aircraft on the entire ATS route network published in ENR 3.2 and for FRA operations as well.

2.2 State aircraft not approved for RNAV 5 or any other ACFT with loss of RNAV 5 capability shall inform ATC and should expect routing via conventional navigation aids or vectoring until the ACFT is capable of resuming its own navigation.

3 Action in the event of Air-Ground Communication Failure

3.1 As soon as it is known that two-way communication has failed, ATC shall maintain separation between the aircraft having the communication failure and other aircraft based on the assumption that the aircraft will operate in accordance with 3.2 or 3.3.

3.2 Visual meteorological conditions (VMC)

A controlled flight experiencing communication failure in VMC shall:

a. set transponder to Code 7600;
b. continue to fly in VMC;
c. land at the nearest suitable aerodrome; and
d. report its arrival time by the most expeditious means to the appropriate ATS unit.

3.3 Instrument meteorological conditions (IMC)

Controlled IFR flight experiencing communication failure in IMC, or where it does not appear feasible to continue in accordance with 3.2 shall:

a. set transponder to Code 7600;
b. maintain for a period of 7 minutes the last assigned speed and level or the minimum flight altitude, if the minimum flight altitude is higher than the last assigned level. The period of 7 minutes commences:
   1. if operating on a route without compulsory reporting points or if instructions have been received to omit position reports:
      – at the time the last assigned level or minimum flight altitude is reached, or
      – at the time the transponder is set to Code 7600, whichever is later; or
   2. if operating on a route with compulsory reporting points and no instruction to omit position reports has been received:
      – at the time assigned level or minimum flight altitude is reached, or
      – at the previously reported pilot estimate for the compulsory reporting point, or
      – at the time of a failed report of position over a compulsory reporting point, whichever is later;

   Note. The period of 7 minutes is to allow the necessary air traffic control and coordination measures.
c. thereafter, adjust level and speed in accordance with the filed flight plan;

   Note. With regard to changes to levels and speed, the filed flight plan, which is the flight plan as filed with an ATS unit by the pilot or a designated representative without any subsequent changes, will be used.
d. if being radar vectored or proceeding off set according to RNAV without a specified limit, proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

   Note. With regard to the route to be flown or the time to begin descent to the arrival aerodrome, the current flight plan, which is the flight plan, including changes, if any, brought about by subsequent clearances, will be used.
e. proceed according to the current flight plan route to the appropriate designated navigation aid serving the destination aerodrome and, when required to ensure compliance with 3.3 f), hold over this aid until commencement of descent;
f. commence descent from the navigation aid specified in 3.3 e) at, or as close as possible to, the expected approach time last received and acknowledged or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;

g. complete a normal instrument approach procedure as specified for the designated navigation aid; and
h. land, if possible, within thirty minutes after the estimated time of arrival specified in 3.3 f) or the last acknowledged expected approach time, whichever is later.

Note. Pilots are reminded that the aircraft may not be in an area of secondary surveillance radar coverage.

ENR 1.9 Air traffic flow management and airspace management

1 General

1.1 Air Traffic Flow Management is a service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring ACC capacity is utilised to the maximum extent possible and the traffic volume is compatible with the declared ATS capacity.

1.2 A centralised Air Traffic Flow Management (ATFM) service is established within the ICAO (EUR) Region to optimise the use of air traffic system capacity. The EUROCONTROL Network Manager (NM) in Brussels provides this service in conjunction with Flow Management Positions (FMPs) established at Tbilisi ACC.

1.3 The Network Manager through its Network Manager Operations Centre (NMOC) is responsible for the planning co-ordination and implementation of Air Traffic Flow and Capacity Management (ATFCM) measures within the ATFCM area and for collecting, maintaining and providing data on all flight operations and the air navigation infrastructure within this area. A description of the ATFCM area and information on the NM systems can be found in the Network Operations Handbook.

1.4 The overall authority for the provision of Air Traffic Flow Management within the Tbilisi FIR is delegated to EUROCONTROL (Network Manager).

1.5 Decisions concerning ATFCM measures within the Tbilisi FIR will be co-ordinated between the EUROCONTROL Network Manager Operations Centre (NMOC) and Tbilisi FMP.

1.6 NMOC applies ATFCM procedures, which are published in the corresponding ICAO and EUROCONTROL (Network Manager) documentation. For more details see para 2.

2 ATFCM documentation

2.1 The general ATFCM procedures which apply throughout the ICAO European region are published in the following ICAO documents:

- *Doc 7030 – Regional Supplementary Procedures (Europe);*
- *Doc 003 – ATFM Handbook (EUR);*
- *Doc 7754 – Air Navigation Plan, European Region (EUR ANP).*

2.2 Detailed EUROCONTROL (Network Manager) Procedures could be found in the Network Operations Handbook
http://www.eurocontrol.int/network-operations/library

3 Application and provision of ATFCM procedures

3.1 ATFCM procedures are applied to IFR/GAT flights.

3.2 ATFCM Measures are applied by the Network Manager Operations Centre to flights which:

a. take place within Tbilisi FIR;
b. depart from Tbilisi FIR;
c. enter Tbilisi FIR after departing from FIR which is part of the ATFCM Area or ATFCM Adjacent Areas of the EUROCONTROL (Network Manager).

3.3 The list of current and planned ATFCM measures is published daily, together with any updates, by the NMOC via the **ATFCM Notification Messages (ANMs)**.

Information of a more general nature concerning events or items of interest which may have an impact on ATFCM operations are published by the NMOC via **ATFCM Information Message (AIM)**.

3.4 The ANM and AIM messages are published via SITA and AFTN and are available via the Network Operations Portal at:
http://www.cfmu.eurocontrol.int/
https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html

Information relating to the application of ATFCM measures can also be obtained from the Tbilisi FMP.

4 Responsibilities of the aircraft operators

4.1 Aircraft Operators who wish to ensure that they are correctly defined within the EUROCONTROL (Network Manager) database and/or willing to provide the address where they should receive slot related messages, AIM (ATFCM Information Message) and ANM (ATFCM Notification Message) may send their details to the following email address: nm.airspace.data.supervisor@eurocontrol.int

4.2 The slot related messages for Aircraft Operators who have not been defined within the EUROCONTROL (Network Manager) database or who cannot be identified from the flight plan will, by default, be sent to the ARO at the departure aerodrome.

Note: *ARO function within Tbilisi FIR is performed by as described in GEN 3.1*

5 Flight plan requirements

5.1 Flight plan and associated messages for flights departing from Tbilisi FIR to the Integrated Flight Planning (IFPS) Zone are addressed to both IFPS addresses and to relevant ATS Units outside IFPS Zone. IFPS addresses are:

IFPU1	IFPU2
Brussels, Belgium	Bretigny, France
AFTN : EUCHZMFP	AFTN : EUCBZMFP
SITA : BRUEP7X	SITA : PAREP7X

5.2 Non-repetitive (ICAO) IFR flight plans for flights which may be subject to ATFCM Measures shall be submitted by Aircraft Operators (AOs) to the appropriate ARO or directly to IFPS at least 3 hours before Estimated Off-Block Time (EOBT).

5.3 The **Eurocontrol** requirement is that all controlled flights departing, arriving or overflying Europe or a Eurocontrol-member state subject to a change in an EOBT of more than +/- 15 minutes and/or cancellation of both repetitive and non-repetitive flight plans, Aircraft Operators (AOs) shall immediately notify the changes to the appropriate ARO or directly to IFPS.

5.4 IFPS responds to the originator of the FPL by one of the following Operational Reply Messages (ORMs):

- **ACK – IFPS Acknowledgement Message.** Indicates that the message has been successfully processed and accepted by IFPS.
- **MAN – IFPS Manual Message.** Indicates that errors have been detected and that the message has been referred for manual processing by an IFPS Operator. If the IFPS Operator is successful in correcting the error, the MAN will be followed by an ACK message, if unsuccessful the MAN may be followed by a REJ message.
- **REJ – IFPS Rejection Message.** Indicates that the message was invalid and has been rejected by the IFPS. The AO or flight plan originator should re-submit a valid flight plan.

5.5 **Aircraft Operators (AOs) should be aware that late filing of a flight plan may lead to a disproportionate delay.**

6 ATFM Slot allocations

6.1 When a regulation is applied by NMOC, departure times will be issued in the form of a Calculated Take-Off Time (CTOT). This is facilitated by Computer Assisted Slot Allocation (CASA) algorithm within the Enhanced Tactical Flow Management Systems (ETFMS).

6.2 The CASA system is largely automatic and centralised, and functions from an Aircraft Operators point of view in passive mode.

6.3 A slot is assigned time (CTOT - Calculated Take-Off Time) with a tolerance of -5 to +10 minutes during which the aircraft shall take-off.

6.4 Flights departing from Tbilisi FIR and which are subject to ATFCM measures will automatically be allocated a departure slot in the form of Calculated Take-Off Time (CTOT). The CTOT will be provided to the Aircraft Operator in the form of Slot Allocation Message (SAM) not more than 2 hours before the EOBT.

6.5 Aircraft Operators are required to comply with the Departure slot parameters. Request for amendments to issued slot is to be made using the ATFCM message exchange mechanisms published in the Network Operations Handbook.

6.6 Full details of the Slot Allocation Process are published in the ATFCM Users Manual section of the Network Operations Handbook.

7 Modification of estimated off-block time (EOBT)

7.1 It is a prime requirement for both ATC and ATFM, that the EOBT of a flight shall be an accurate EOBT. This applies to all flights, whether subject to ATFM or not.

7.2 AO should note that an EOBT should not be modified simply in response to any possible delay due to an ATFM slot. The EOBT is changed only if the original EOBT established by the AO cannot be met by the AO.

7.3 There are two categories of flights concerned: those, which have an ATFM slot, issued by the NMOC, and those who have not.

7.3.1 **Procedure for modifying the EOBT of a flight not having received an ATFM SLOT from the NMOC**

To amend the EOBT to a later time, a DLA (or CHG) message shall be sent to IFPS.

To amend the EOBT to an earlier time, a CNL message shall be sent to IFPS followed five minutes later by a new flight plan with the new EOBT indicated.

The replacement flight plan procedure shall not be used.

7.3.2 **Procedure for modifying the EOBT of a flight, which has received an ATFM SLOT from the NMOC**

- If a flight has an ATFM slot (CTOT) which cannot be met, then the AO shall send a DLA (or CHG) message to IFPS with the new EOBT of the flight. This may trigger a revised CTOT.
- If a flight has an ATFM slot (CTOT) with some delay and the AO is aware that the original EOBT cannot be met but the existing CTOT is acceptable then a DLA (or CHG) message shall be sent to IFPS with the new EOBT of the flight. However, in order not to trigger a new CTOT with a worse delay, the following formula shall be used:
  Take the current CTOT, minus the taxi time, minus 10 minutes and send the new EOBT, which must not be after this time e.g. EOBT 10:00, CTOT 11:00, but the flight cannot go off blocks until 10:25. The taxi time is say 15 minutes. 11:00 minus 15min and minus 10min = 10:35. The new EOBT must be earlier than 10:35. If it is so, then this action will not trigger a revised CTOT.
  However, as NMOC systems are continuously seeking to give zero delay, the CTOT of the flight will never be earlier than the new EOBT plus the taxi time.
- If a flight has had an ATFM slot (CTOT) and now receives an SLC (Slot Cancellation Message) but the original EOBT can no longer be met, then the AO shall communicate the new EOBT by use of a DLA (or CHG) message. ATC/ATFM will now have the “true” EOBT of the flight.

8 Responsibilities of the air traffic services

8.1 Flow Management Position (FMP) is established in Tbilisi ACC to ensure the liaison between ATC, AOs and NMOC.

8.2 Location of Unit

Post: Sakaeronavigatsia
Airport Tbilisi
0198 Georgia
Tel: Tbilisi ACC +995 32 2744255
Fax: Tbilisi ACC +995 32 2744334
AFS: UGGGZRZX
E-mail: atfm@airnav.ge

8.3 The hours of operation are: H24.

8.4 ATS at aerodromes will ensure that flights adhere to departure slots issued by the NMOC.

8.5 **Flights which do not adhere to the slot will be denied ATC clearance.**

9 Exemptions from ATFM slot allocation

9.1 Status (STS) indicators will be recognised by the EUROCONTROL (Network Manager) systems as qualifying for exemption from flow regulation.

9.2 The following flights are exempted from ATFM slot allocation:

a. flights carrying Head of State or equivalent status [‘STS/HEAD’];
b. flights authorised by the relevant States Authorities to include in the flight plan [‘STS/ATFMX’];
c. flights conducting search and rescue operations [‘STS/SAR’];
d. flights carrying a life-critical emergency evacuation [STS/MEDEVAC];
e. flights engaged in fire-fighting [STS/FFR].

Note: *More detailed information concerning the ATFCM implications of STS/indicator is available in the Network Operations Handbook, part* ***ATFCM User Manual****, which is available via the Network Operations library at: http://www.eurocontrol.int/network-operations/library*

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ENR 1.10 Flight planning

1 Restriction, limitation and advisory information

1.1 Submission of a flight plan

Information relative to an intended flight or portion of a flight, to be provided to air traffic service units, shall be in the form of a flight plan.

1.1.1 A flight plan shall be submitted prior to operating:

a. any flight or portion thereof to be provided with air traffic control service;
b. any IFR flight within advisory airspace;
c. any flight within or in to designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services;
d. any flight within or into designated areas, or along designated routes when so required by the appropriate ATS authority to facilitate co-ordination with appropriate military units or with air traffic services units in adjacent States in order to avoid possible need for interception for the purpose of identification;
e. any flights across international borders.

Note. — The term "flight plan" is used to mean variously, full information on all items comprised in the flight plan description, covering the whole route of a flight, or limited information required when the purpose is to obtain a clearance for a minor portion of a flight such as to cross an airway, to take off from, or to land at a controlled aerodrome.

1.1.2 Time of submission

A flight plan shall be submitted before departure to an air traffic service reporting office, transmitted to the appropriate air traffic service unit, unless arrangements have been made for submission of repetitive flight plans. Unless otherwise prescribed by the appropriate ATS authority, a flight plan for a flight to be provided to air traffic control service or air traffic advisory service shall be submitted at least 180 minutes before departure, or, if submitted during flight, at a time which ensures its receipt by the appropriate air traffic service unit at least 10 minutes before the aircraft is estimated to reach:

a. the intended point of entry into a control area or advisory area; or
b. the point of crossing an airway or advisory route.

1.1.3 Place of submission

a. Flight plans shall be submitted at the Air Traffic Services Reporting Office (ARO) at the departure aerodrome.
b. In the absence of such an office at the departure aerodrome, or when operational necessity dictates, a flight plan shall be submitted by telephone, internet, AFTN or fax to the ARO as listed bellow:

ARO Tbilisi

Tel: +995 32 2 74 42 64
Fax: +995 32 2 74 43 92
E-mail: briefing@airnav.ge
AFS: UGTBZPZX
URL: https://ais.airnav.ge

Operational Hours: H24

ARO Batumi

Tel: +995 32 2 74 42 79
Fax: +995 32 2 74 43 71
E-mail: batbrief@airnav.ge
AFS: UGSBZPZX
URL: https://ais.airnav.ge

Operational Hours: H24

ARO Kutaisi

Tel: +995 32 274 43 55
Fax: +995 32 274 43 41
E-mail: kopbrief@airnav.ge
AFS: UGKOZPZX
URL: https://ais.airnav.ge

Operational Hours: H24

If the flight plan is submitted via internet or fax, it has to be confirmed via telephone with ARO by the submitter of the flight plan immediately after transmission.

1.2 Contents of a flight plan

A flight plan shall comprise information regarding such of the following items as are considered relevant by the appropriate ATS authority:

- Aircraft identification;
- Flight rules and type of flight;
- Number and type(s) of aircraft and wake, turbulence category;
- Equipment;
- Departure aerodrome (see Note 1);
- Estimated off-block time (see Note 2);
- Cruising speed(s);
- Cruising level(s);
- Route to be followed;
- Destination aerodrome and total estimated elapsed time;
- Alternate aerodrome(s);
- Fuel endurance;
- Total number of persons on board;
- Emergency and survival equipment;
- Other information.

Note 1. — For flight plans submitted during flight, the information provided in respect of this item will be an indication of the location from which supplementary information concerning the flight may be obtained, if required.

Note 2. — For flight plans submitted during flight, the information to be provided in respect of this item will be the time over the first point of the route to which the flight plan relates.

Note 3. — The term "aerodrome" where used in the flight plan is intended to cover also sites other than aerodromes which may be used by certain types of aircraft, e.g. helicopters or balloons.

Note 4. — In case when a flight plan is submitted more than 24 hours prior to the estimated off-block time the flight plan shall contain the date of flight.

1.3 Completion of a flight plan

1.3.1 Whatever the purpose for which it is submitted, a flight plan shall contain information, as applicable, on relevant items up to and including "Alternate aerodrome(s)" regarding the whole route or portion thereof for which the flight plan is submitted.

1.3.2 It shall, in addition, contain information, as applicable, on all the other items when so prescribed by the appropriate ATS authority or when otherwise deemed necessary by the person submitted the flight plan.

1.3.3 A flight plan submitted for conducting an international flight shall contain information for the entire flight up to the aerodrome of intended landing and the date of flight.

1.4 Changes to a flight plan

Subject to the provisions of *Annex 2 Para 3.6.2.2* all changes to a flight plan submitted for IFR flight, or a VFR flight operated as a controlled flight shall be reported as soon as practicable to the appropriate air traffic service unit. For other VFR flights, significant changes to a flight plan shall be reported as soon as practicable to the appropriate air traffic services unit.

Note. — Information submitted prior to departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change to the flight plan and as such must be reported.

1.5 Closing a flight plan

1.5.1 Unless otherwise prescribed by the appropriate ATS authority, a report of arrival shall be made in person, or by radiotelephony at the earliest possible moment after landing, to the appropriate air traffic services unit at the arrival aerodrome, by any flight for which flight plan has been submitted covering the entire flight or the remaining portion of a flight to the destination aerodrome.

Note. — A report of arrival is not necessary after landing at an aerodrome where ATS service is provided if is evident from the radio communication or a light signal that the landing has been observed.

1.5.2 When a flight plan has been submitted only in respect of a portion of a flight, other than the remaining portion of a flight to destination, it shall, when required, be closed by an appropriate report to the relevant air traffic service unit.

1.5.3 When no air traffic service unit exists at the arrival aerodrome, the arrival report, when required, shall be made as soon as practicable after landing and by the quickest means available to the nearest air traffic service unit. In case the arrival report cannot be expected to reach the appropriate ATS unit within 30 minutes from the estimated time of arrival, the time by which the arrival report is expected to be submitted shall be included in the flight plan.

1.5.4 When communication facilities at the arrival aerodrome are known to be inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the following action shall be taken: immediately prior to landing the aircraft shall, if practicable, transmit to the appropriate air traffic service unit, a message comparable to an arrival report, where such report is required. Such information may be transmitted to the appropriate air traffic service unit via other air traffic service units or other aircraft.

1.5.5 Arrival reports made by aircraft shall contain the following information:

a. aircraft identification;
b. departure aerodrome;
c. destination aerodrome;
d. arrival aerodrome (only in the case of a diversionary landing);
e. time of arrival.

Note. — Whenever an arrival report is required, failure to comply with the provisions of 1.5 may cause serious disruption in the air traffic service and incur great expense in carrying out unnecessary search and rescue operations.

2 Operation of repetitive flight plan

2.1 Operators carrying out scheduled international flights in the airports or transit flights through the airspace of Georgia using RPLs shall present their RPLs at least 15 days prior to beginning flights under a new schedule.

2.2 Repetitive flight plan (RPL) listing forms submitted to the relevant ATC units shall be completed in accordance with the recommendations of *ICAO DOC 4444-RAC 501/12*. The estimated time of entry into the airspace controlled by ATC units shall be inserted into item Q (Remarks).

Note. — If it is necessary to cancel or to make changes in the already approved flight schedule see GEN 1.2 para 2.1.2.

3 Changes to the submitted FPL

All changes to a flight plan submitted for an IFR flight or controlled VFR flight shall be reported as soon as possible to the appropriate air traffic service unit. In the event of delay in departure of 15 minutes or more for a flight for which flight plan has been submitted, the flight plan shall be amended or new flight plan shall be submitted after the old plan has been cancelled.

4 Flight in RVSM airspace

The EUR RVSM flight planning requirements for the completion of the ICAO Flight Plan Form and the Repetitive Flight Plan are contained in the ICAO EUR Regional Supplementary Procedures (*DOC 7030/4 – EUR*).

5 Adherence to Airspace Utilisation Rules and Availability

No flight plans shall be filed via the airspace of Tbilisi FIR deviating from the State restrictions defined within the Route Availability Document (RAD). This common European reference document contains all airspace utilization rules and availability for Tbilisi FIR and any reference to them shall be made via https://www.nm.eurocontrol.int/RAD/index.html

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ENR 1.11 Addressing of flight plan messages

Flight movement messages relating to traffic into or via the TBILISI FIR shall be addressed as stated below in order to warrant correct relay and delivery.

Note. – Flight movement messages in this context comprise flight plan messages, amendment messages relating thereto and flight plan cancellation messages (ICAO DOC 4444 PANS-ATM, Network Operations Handbook and User Guides refers).

Category of flight (IFR, VFR or Mixed)	Route (into or via FIR and/or TMA)	Message address
1	2	3
IFR/GAT flights	within, into, via or from TBILISI FIR	EUCHZMFP, EUCBZMFP
VFR/GAT flights	within, into, via or from TBILISI FIR and in addition for flights: – into or via TBILISI TMA/CTR – into or via KUTAISI TMA/CTR – into or via BATUMI TMA/CTR – into or via MESTIA FIZ – into or via AMBROLAURI FIZ	UGGGZDZX, UGGGYXYX UGGGZRZX, UGGGZFZX UGTBZPZX UGKOZPZX, UGKOZTZX UGSBZPZX, UGSBZTZX UGMSZFZX UGAMZFZX
Mixed IFR/VFR GAT flights	within, into, via or from TBILISI FIR	The IFR portion of a mixed mode (IFR/VFR) flight plan is to be addressed as for IFR flights; the VFR portion is to be addressed as for VFR flights.

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ENR 1.12 Interception of civil aircraft

1 Interception procedures

Interception of civil aircraft shall be governed by present Rules, appropriate regulations and administrative directives issued by appropriate authority and Georgian Ministry of Defence.

Note 1. – The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress, in accordance with the ICAO Search and Rescue Manual (Doc 7333).

Note 2. – The term "interception" means determining the identity of an aircraft by another aircraft and directing its flight in a mode that is deemed necessary or to require that aircraft to land.

1.1 The pilot-in-command of a civil aircraft, when intercepted, shall comply with the Standards in Appendix 2 of Annex 2, Sections 2 and 3, interpreting and responding to visual signals as specified in Table 2.

1.2 Principles to be observed by Georgia:

a. Interception of civil aircraft will be undertaken only as last resort;
b. If undertaken, an interception will be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of Georgian airspace, guide it away from a prohibited, restricted, or danger area or instruct it to effect a landing at a designated aerodrome;
c. Practice interception of civil aircraft will not be undertaken;
d. Navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established; and
e. In the case where an intercepted civil aircraft is required to land in the territory overflow, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned.

2 Actions by intercepted aircraft

2.1 An aircraft which is intercepted by another aircraft shall immediately:

a. follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications of item in Table 2;
b. notify, if possible, the appropriate air traffic services unit;
c. attempt to establish radiocommunication with the intercepting aircraft or with the appropriate intercepting control unit, by making a general call on the emergency frequency 121.500 MHZ, giving the identity of the intercepted aircraft and the nature of the flight;
d. if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic service unit.

2.2 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

2.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

3 Radio communication during interception

If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table 1 and transmitting each phrase twice.

4 PHRASES FOR USE BY INTERCEPTING AND INTERCEPTED AIRCRAFT

Table 1

Phrases for use by INTERCEPTING aircraft			Phrases for use by INTERCEPTED aircraft		
Phrase	**Pronunciation[1]**	**Meaning**	**Phrase**	**Pronunciation[1]**	**Meaning**
CALL SIGN	***KOL*** SA-IN	What is your call sign?	CALL SIGN (call sign)[2]	***KOL*** SA-IN (call sign)	My call sign is (call sign)
FOLLOW	***FOL***-LO	Follow me	WILCO	***VILL***-KO	Understood. Will comply
DESCEND	DEE-***SEND***	Descend for landing	CAN NOT	***KANN*** NOTT	Unable to comply
YOU LAND	***YOU LAAND***	Land at this aerodrome	REPEAT	REE-***PEET***	Repeat your instruction

Phrases for use by INTERCEPTING aircraft			Phrases for use by INTERCEPTED aircraft		
Phrase	**Pronunciation[1]**	**Meaning**	**Phrase**	**Pronunciation[1]**	**Meaning**
PROCEED	PRO-***SEED***	You may proceed	AM LOST	***AM LOSST***	Position unknown
			MAYDAY	***MAYDAY***	I am in distress
			HIJACK[3]	***HI-JACK***	I have been hijacked
			LAND (place name)	***LAAND*** (place name)	I request to land at (place name)
			DESCEND	DEE-***SEND***	I require descent

[1] Syllables to be emphasized are printed in ***bold*** letters.

[2] The call sign required to be given is that used in radiotelephony communications with air traffic services units and corresponding to the aircraft identification in the flight plan.

[3] Circumstances may not always permit, nor make desirable, the use of the phrase “HIJACK”.

5 SIGNALS FOR USE IN THE EVENT OF INTERCEPTION

Table 2

Signals initiated by intercepting aircraft and responses by intercepted aircraft

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	DAY or NIGHT – Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading.	You have been intercepted. Follow me.	DAY or NIGHT – Rocking aircraft, flashing navigational lights at irregular intervals and following. ***Note. –*** Additional action required be taken by intercepted aircraft is prescribed in *Annex 2 Chapter 3, 3.8*	Understood, will comply.
2	DAY or NIGHT – An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft. ***Note 1. –*** Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1. ***Note 2. –*** If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.	You may proceed.	DAY or NIGHT – Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.

Signals initiated by intercepted aircraft and responses by intercepting aircraft

Series	INTERCEPTED Aircraft Signals	Meaning	INTERCEPTING Aircraft Responds	Meaning
4	DAY or NIGHT – Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 1000 FT (300 M) but not exceeding 2000 FT (600 M) (in the case of a helicopter, at a height exceeding 170 FT (50 M) but not exceeding 330 FT (100 M)) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT – If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft.	Understood, follow me.
			If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood, you may proceed.
5	DAY or NIGHT – Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.
6	DAY or NIGHT – Irregular flashing of all available lights.	In distress.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood.

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ENR 1.13 Unlawful interference

1 General

An aircraft which is being subjected to unlawful interference shall endeavor to notify the appropriate ATS unit of this fact, any significant circumstances associated therewith and any deviation from the current flight plan necessitated by the circumstances, in order to enable the ATS unit to give priority to the aircraft and to minimize conflict with other aircraft.

2 Procedures

When an aircraft is unable to notify an appropriate ATS unit about the unlawful interference:

1. Unless considerations aboard the aircraft dictate otherwise, the pilot-in-command should attempt to continue flying on the assigned track and at the assigned cruising level at least until able to notify to an ATS unit or within radar coverage.
2. When an aircraft subjected to an act of unlawful interference must depart from its assigned track or its assigned cruising level without being able to make radiotelephony contact with ATS, the pilot-in-command should, whenever possible:
   - attempt to broadcast warnings on the VHF emergency frequency and other appropriate frequencies, unless considerations aboard the aircraft dictate otherwise. Other equipment such as on-board transponders, data links, etc. should also be used when it is advantageous to do so and circumstances permit.

Note 1. — Action to be taken by an aircraft which is intercepted while being subject to an act of unlawful interference is prescribed in ENR 1.12.

Note 2. — SSR-equipped aircraft select Mode A, Code 7500 to notify an ATS units of this fact.

Note 3. — Responsibility of ATS units in situations of unlawful interference is contained in ATS Manual.

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ENR 1.14 Air traffic incidents

1 Definition of air traffic incidents

1.1 "Air traffic incident" is used to mean a serious occurrence related to the provision of ATS, such as:

a. aircraft proximity (AIRPROX);

b. serious difficulty resulting in a hazard to aircraft caused, for example, by:

   1. faulty procedures,
   2. non-compliance with procedures,
   3. failure of ground facilities, or
   4. any other event.

1.1.1 Definitions for aircraft proximity and AIRPROX.

Aircraft proximity. A situation in which, in the opinion of the pilot or the air traffic services personnel, the distance between aircraft, as well as their relative positions and speed, has been such that the safety of the aircraft involved may have been compromised. Aircraft proximity is classified as follows:

Risk of collision. The risk classification of aircraft proximity in which serious risk of collision has existed.

Safety not assured. The risk classification of aircraft proximity in which the safety of the aircraft may have been compromised.

No risk of collision. The risk classification of aircraft proximity in which no risk of collision has existed.

Risk not determined. The risk classification of aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

AIRPROX. The code word used in an air traffic incident report to designate aircraft proximity.

1.2 Air traffic incidents are designated and identified in reports as follows:

Type	Designation
Air traffic incident	Incident
as a) above	AIRPROX (aircraft proximity)
as b) 1) and 2) above	Procedure
as b) 3) above	Facility

2 Use of the Air Traffic Incident Report Form

The Air Traffic Incident Report Form is intended for use:

a. by a pilot for filing a report on an air traffic incident after arrival or for confirming a report made initially by radio during flight.
   Note. — The form, if available on board, may also be of use in providing a pattern for making the initial report in flight.

b. by an ATS unit for recording an air traffic incident report received by radio, telephone or teleprinter.
   Note. — The form may be used as the format for the text of a message to be transmitted over the AFS network.

3 Reporting procedures (including in-flight procedures)

3.1 The following are the procedures to be followed by a pilot who is or has been involved in an occurrence:

a. during flight, use the appropriate air/ground frequency for reporting an occurrence, particularly if it involves other aircraft, so as to permit the facts to be ascertained immediately;

b. as promptly as possible after landing, but not later than 72HR after the occurrence, submit a completed Air Traffic Incident Report Form:

   1. for confirming a report of an occurrence made initially as in a) above, or for making the initial report on such an occurrence if it had not been possible to report it by radio;
   2. for reporting an occurrence which did not require immediate notification at the time of occurrence.

3.2 An initial report made by radio should contain the following information:

a. aircraft identification;

b. type of incident, e.g. aircraft proximity;

c. the occurrence; 1. a) and b); 2. a), b), c), d), i); 4. a), b);

d. miscellaneous: 1. e).

3.3 The report on an occurrence initially reported by radio or the initial report on any other occurrence shall be submitted to:

1. Ministry of Economy and Sustainable Development of Georgia
Civil Aviation and Maritime Transport Accident/Incident Investigation Bureau

Tel: +995 595 00 18 47

AFS: UGTBAIIB
E-mail: georgian-taiib@moesd.gov.ge
E-mail: dgiunashvili@moesd.gov.ge

and

2. Georgian Civil Aviation Agency
Tel: +995 32 236 40 51
E-mail: safety@gcaa.ge

or to the ATS Reporting Office of the aerodrome of first landing for submission to Georgian Civil Aviation Agency. The pilot should complete the Air Traffic Incident Report Form, supplementing the details of the initial reports as necessary.

Note. — Where there is no ATS Reporting Office, the report may be submitted to another ATS unit.

4 Purpose of reporting and handling of the form

4.1 The purpose of the reporting of aircraft proximity incidents and their investigation is to promote the safety of aircraft. The degree of risk involved in an aircraft proximity incident should be determined in the incident investigation and classified as "risk of collision", "safety not assured", "no risk of collision" or "risk not determined".

4.2 The purpose of the form is to provide investigator authorities with as complete information on an air traffic incident as possible and to enable them to report back, with the least possible delay to the pilot or operator concerned, the result of the investigation of the incident and, if appropriate, the remedial action taken.

Instructions for the completion of the Air Traffic Incident Report Form

Item	
A	Aircraft identification of the aircraft filing the report.
B	An AIRPROX report should be filed immediately by radio.
C1	Date/time UTC and position in bearing and distance from a navigational aid or in LAT/LONG.
C2	Information regarding aircraft filing the report, tick as necessary.
C2 c)	E.g. FL350/ 1013 HPA or 2500 FT/QNH 1007 HPA or 1200 FT/QFE 998 HPA.
C3	Information regarding the other aircraft involved.
C4	Passing distance - state units used.
C6	Attach additional papers as required. The diagrams may be used to show aircraft's positions.
D1 f)	State name of ATS unit and date/time in UTC.
D1 g)	Date and time in UTC.
E2	Include details of ATS unit such as service provided, radiotelephony frequency, SSR codes assigned and altimeter setting. Use diagram to show the aircraft's position and attach additional papers as required.

AIR TRAFFIC INCIDENT REPORT FORM

For use when submitting and receiving reports on air traffic incidents. In an initial report by radio, shaded items should be included.

A — AIRCRAFT IDENTIFICATION	**B — TYPE OF INCIDENT**
	AIRPROX/PROCEDURE/FACILITY*

C — THE INCIDENT

1. General

a) Date/time of incident .....UTC

b) Position .....

2. Own aircraft

a) Heading and route .....

b) True airspeed ..... measured in ( ) kt _____ ( ) km/h _____

c) Level and altimeter setting .....

d) Aircraft climbing or descending

( ) Level flight ( ) Climbing ( ) Descending

e) Aircraft bank angle

( ) Wings level ( ) Slight bank ( ) Moderate bank

( ) Steep bank ( ) Inverted ( ) Unknown

f) Aircraft direction of bank

( ) Left ( ) Right ( ) Unknown

g) Restrictions to visibility (select as many as required)

( ) Sunglare ( ) Windscreen pillar ( ) Dirty windscreen

( ) Other cockpit structure ( ) None

h) Use of aircraft lighting (select as many as required)

( ) Navigation lights ( ) Strobe Lights ( ) Cabin lights

( ) Red anti-collision lights ( ) Landing/taxi lights ( ) Logo (tail fin) lights

( ) Other ( ) None

i) Traffic avoidance advice issued by ATS

( ) Yes, based on radar ( ) Yes, based on visual sighting information ( ) Yes, based on other

( ) No

j) Traffic information issued

( ) Yes, based on radar ( ) Yes, based on visual sighting information ( ) Yes, based on other

( ) No

k) Airborne collision avoidance system- ACAS

( ) Not carried ( ) Type ( ) Traffic advisory issued

( ) Resolution advisory issued ( ) Traffic advisory or resolution advisory not issued

* Delete as appropriate

l) Radar identification

( ) No radar available ( ) Radar identification ( ) No radar identification

m) Other aircraft sighted

( ) Yes ( ) No ( ) Wrong aircraft sighted

n) Avoiding action taken

( ) Yes ( ) No

o) Type of flight plan IFR/VFR/none*

3. Other aircraft

a) Type and call sign/registration (if known)

……..

b) If a) above not known, describe below

( ) High wing ( ) Mid wing ( ) Low wing

( ) Rotorcraft

( ) 1 engine ( ) 2 engines ( ) 3 engines

( ) 4 engines ( ) More than 4 engines

Marking, color or other available details

_____

_____

_____

_____

c) Aircraft climbing or descending

( ) Level flight ( ) Climbing ( ) Descending

( ) Unknown

d) Aircraft bank angle

( ) Wings level ( ) Slight bank ( ) Moderate bank

( ) Steep bank ( ) Inverted ( ) Unknown

e) Aircraft direction of bank

( ) Left ( ) Right ( ) Unknown

f) Lights displayed

( ) Navigation lights ( ) Strobe lights ( ) Cabin lights

( ) Red anti--collision lights ( ) Landing/taxi lights ( ) Logo (tail fin) lights

( ) Other ( ) None ( ) Unknown

g) Traffic avoidance advice issued by ATS

( ) Yes, based on radar ( ) Yes, based on visual sighting information ( ) Yes, based on other

( ) No ( ) Unknown

h) Traffic information issued

( ) Yes, based on radar ( ) Yes, based on visual sighting information ( ) Yes, based on other

( ) No ( ) Unknown

i) Avoiding action taken

( ) Yes ( ) No ( ) Unknown

*Delete as appropriate

4. Distance

a) Closest horizontal distance
……

b) Closest vertical distance
……

5. Flight weather conditions

a) IMC/VMC*

b) Above/below* clouds / fog / haze or between layers*

c) Distance vertically from cloud _____ m/ft* below _____ m/ft* above

d) In cloud / rain / snow / sleet / fog / haze*

e) Flying into/out of* sun

f) Flight visibility _____ m/km*

6. Any other information considered important by the pilot-in-command

_____

_____

_____

_____

_____

_____

D — MISCELLANEOUS

1. Information regarding reporting aircraft

a) Aircraft registration ……

b) Aircraft type ……

c) Operator ……

d) Aerodrome of departure ……

e) Aerodrome of first landing …… destination ……..

f) Reported by radio or other means to …… (name of ATS unit) at time ……UTC

g) Date / time / place of completion of the form ……..

2. Function, address and signature of person submitting report

a) Function ……

b) Address ……

c) Signature ……

d) Telephone number ……..

3. Function and signature of person receiving report

a) Function …… b) Signature ……

*Delete as appropriate

E — SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

1. Receipt of report

a) Report received via AFTN / radio / telephone / other (specify)*
……

b) Report received by …….. (name of ATS unit)

2. Details of ATS action

Clearance, incident seen (radar / visually, warning given, result of local enquiry, etc.)

_____

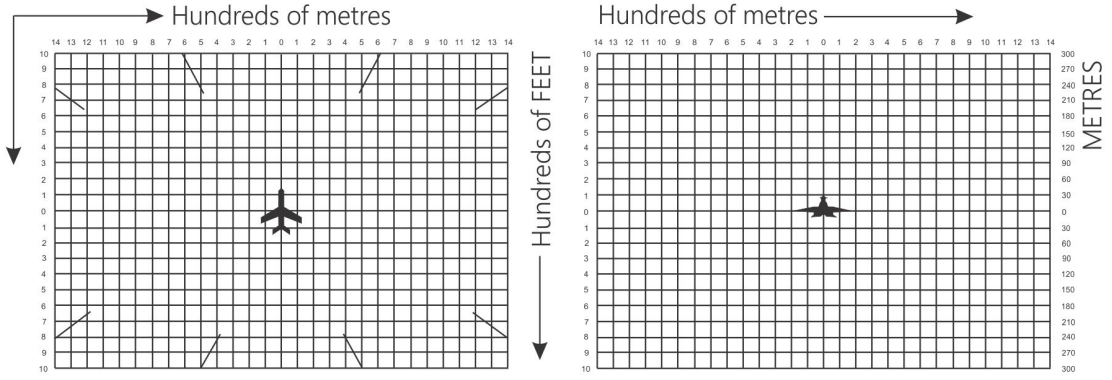
_____

_____

_____

DIAGRAMS OF AIRPROX

Mark passage of other aircraft relative to you, in plan the left and in elevation on the right, assuming YOU are at the centre of each diagram. Include first sighting and passing distance.



VIEW FROM ABOVE

VIEW FROM ASTERN

*Delete as appropriate

ENR 2 ATS airspace

ENR 2.1 FIR, UIR, TMA and CTA

1 FIR

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
TBILISI FIR 4118N 04501E - along the state border with Armenia - 4107N 04328E - along the state border with Turkiye - 4131N 04133E - 4136N 04117E - 4154N 04020E - 4311N 03955E - 4323N 04001E - along the state border with Russia - 4155N 04625E - along the state border with Azerbaijan - 4118N 04501E UNL GND Class of airspace: – G UNL/ FL 660 – C FL 660/ FL 85 or 2000 FT AGL whichever is higher – G FL 85 or 2000 FT AGL whichever is higher/ GND	TBILISI ACC	TBILISI RADAR EN H24	125.125 MHz (Primary) 133.500 MHz (Primary) 133.400 MHz (Primary) 134.450 MHz (Primary) 135.125 MHz (Secondary) 135.350 MHz (Secondary) 135.625 MHz (Secondary) 135.750 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	NIL
	TBILISI FIS	TBILISI INFORMATION EN H24	124.150 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

2 UIR

NIL

3 TMA

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
BATUMI TMA				Operation of pressure-altitude reporting transponders is mandatory for civil ACFT
BATUMI TMA 1 414757N 0403923E - 415708N 0404938E - 420635N 0410015E - 421137N 0410602E - 420432N 0414144E - 415803N 0414801E - 415248N 0415606E - 415214N 0415434E - 414320N 0414522E - 414149N 0414316E - 413413N 0413429E - 413450N 0413319E - 413406N 0412939E - 413318N 0412539E - 413600N 0411700E - 414757N 0403923E FL 195 1500 FT AMSL Class of airspace: C	BATUMI APP	BATUMI APPROACH EN H24	124.425 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
BATUMI TMA 2 413318N 0412539E - 413406N 0412939E - 413450N 0413319E - 413413N 0413429E - 414149N 0414316E - 414320N 0414522E - 415214N 0415434E - 415248N 0415606E - 415132N 0415817E - 414002N 0414600E - 413335N 0414117E - 413239N 0413727E - 413118N 0413202E - 413318N 0412539E FL 195 3500 FT AMSL Class of airspace: C	BATUMI APP	BATUMI APPROACH EN H24	124.425 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
BATUMI TMA 3 413118N 0413202E - 413239N 0413727E - 413335N 0414117E - 414002N 0414600E - 415132N 0415817E - 414908N 0420227E - 414245N 0415326E - 413133N 0414459E - 412942N 0413727E - along the state border with Turkiye - 413100N 0413300E - 413118N 0413202E FL 195 5500 FT AMSL Class of airspace: C	BATUMI APP	BATUMI APPROACH EN H24	124.425 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
BATUMI TMA 4 413133N 0414459E - 414245N 0415326E - 414908N 0420227E - 414721N 0420533E - 414317N 0420540E - 413037N 0420506E - along the state border with Turkiye - 412942N 0413727E - 413133N 0414459E FL 195 FL 085 Class of airspace: C	BATUMI APP	BATUMI APPROACH EN H24	124.425 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
KUTAISI TMA				Operation of pressure-altitude reporting transponders is mandatory for civil ACFT
KUTAISI TMA 1 421451N 0420624E - 421731N 0422724E - 421532N 0422751E - 421615N 0423335E - 421651N 0423824E - 421609N 0424318E - 421436N 0424504E - 421251N 0424704E - 420702N 0424821E - 420623N 0423548E - 420540N 0423005E - 420457N 0422420E - 420557N 0422005E - 420534N 0421710E - 420444N 0420844E - 421451N 0420624E FL 195 1500 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 2 421436N 0424504E - 421519N 0425057E - 420733N 0425239E - 420702N 0424821E - 421251N 0424704E - 421436N 0424504E FL 195 2000 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 3 422413N 0413700E - 422817N 0420808E - 421937N 0423348E - 422025N 0424011E - 421519N 0425057E - 421436N 0424504E - 421609N 0424318E - 421651N 0423824E - 421615N 0423335E - 421532N 0422751E - 421731N 0422724E - 421451N 0420624E - 420444N 0420844E - 415848N 0421006E - 415248N 0415606E - 415803N 0414801E - 420432N 0414144E - 422413N 0413700E FL 195 2500 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 4 420540N 0423005E - 420623N 0423548E - 420702N 0424821E - 420733N 0425239E - 420520N 0425308E - 420235N 0423046E - 420540N 0423005E FL 195 2500 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
KUTAISI TMA 5 420444N 0420844E - 420534N 0421710E - 420557N 0422005E - 420457N 0422420E - 420540N 0423005E - 420235N 0423046E - 420155N 0422217E - 420108N 0421606E - 415848N 0421006E - 420444N 0420844E FL 195 3000 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 6 422025N 0424011E - 422151N 0425201E - 422050N 0425435E - 421612N 0425536E - 421715N 0430419E - 420704N 0430617E - 420520N 0425308E - 420733N 0425239E - 421519N 0425057E - 422025N 0424011E FL 195 3500 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 7 422932N 0421804E - 422356N 0423440E - 422532N 0424935E - 422017N 0430246E - 422144N 0431500E - 421622N 0431621E - 420445N 0431849E - 420046N 0424543E - 415737N 0422024E - 414908N 0420227E - 415248N 0415606E - 415848N 0421006E - 420108N 0421606E - 420155N 0422217E - 420235N 0423046E - 420520N 0425308E - 420704N 0430617E - 421715N 0430419E - 421612N 0425536E - 422050N 0425435E - 422151N 0425201E - 422025N 0424011E - 421937N 0423348E - 422817N 0420808E - 422932N 0421804E FL 195 5500 FT AMSL Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 8 422932N 0421804E - 423602N 0431122E - 422144N 0431500E - 422017N 0430246E - 422532N 0424935E - 422356N 0423440E - 422932N 0421804E FL 195 FL 085 Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
KUTAISI TMA 9 420046N 0424543E - 420445N 0431849E - 415748N 0432018E - 415900N 0430747E - 415752N 0425438E - 420046N 0424543E FL 195 FL 085 Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 10 414908N 0420227E - 415737N 0422024E - 420046N 0424543E - 415752N 0425438E - 415900N 0430747E - 415748N 0432018E - 415414N 0425030E - 415252N 0424123E - 415516N 0424051E - 415242N 0422024E - 414821N 0421201E - 414721N 0420533E - 414908N 0420227E FL 195 FL 095 Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
KUTAISI TMA 11 414821N 0421201E - 415242N 0422024E - 415516N 0424051E - 415252N 0424123E - 414821N 0421201E FL 195 FL 105 Class of airspace: C	KUTAISI APP	KUTAISI APPROACH EN H24	127.100 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
TBILISI TMA				Operation of pressure-altitude reporting transponders is mandatory for civil ACFT
TBILISI TMA 1 414756N 0444138E - 415100N 0444558E - 415019N 0444839E - 415002N 0445056E - 414513N 0444409E - 414756N 0444138E FL 195 3500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 2 411747N 0445143E - 412604N 0443309E - 412906N 0443207E - 413759N 0444821E - 413651N 0444901E - 413000N 0445740E - 412801N 0450555E - 413249N 0451242E - 414109N 0450755E - 413554N 0451509E - 413207N 0451839E - 412804N 0451928E - along the state border with Azerbaijan - 411750N 0450055E - along the state border with Armenia - 411740N 0450017E - 411747N 0445143E FL 195 3500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 3 414513N 0444409E - 415002N 0445056E - 414907N 0445325E - 414559N 0450149E - 414109N 0450755E - 413249N 0451242E - 412801N 0450555E - 413000N 0445740E - 413651N 0444901E - 413759N 0444821E - 414513N 0444409E FL 195 4500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
TBILISI TMA 4 415155N 0443634E - 415604N 0444223E - 415240N 0444644E - 415003N 0445403E - 414907N 0445325E - 415002N 0445056E - 415019N 0444839E - 415100N 0444558E - 414756N 0444138E - 414513N 0444409E - 413759N 0444821E - 414650N 0443753E - 414849N 0444042E - 415155N 0443634E FL 195 4500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 5 413207N 0451839E - 413554N 0451509E - 414109N 0450755E - 414559N 0450149E - 414813N 0450459E - 413757N 0454407E - 412121N 0454159E - along the state border with Azerbaijan - 412804N 0451928E - 413207N 0451839E FL 195 4500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 6 415613N 0443036E - 420042N 0443715E - 420015N 0444619E - 415039N 0445830E - 414813N 0450459E - 414559N 0450149E - 414907N 0445325E - 415003N 0445403E - 415240N 0444644E - 415604N 0444223E - 415155N 0443634E - 414849N 0444042E - 414650N 0443753E - 413759N 0444821E - 412906N 0443207E - 413348N 0443029E - 414011N 0444127E - 414849N 0443038E - 415613N 0443036E FL 195 5500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
TBILISI TMA 7 412244N 0442654E - 413505N 0442223E - 413608N 0442419E - 414548N 0442945E - 415013N 0442413E - 415010N 0441811E - 415913N 0441803E - 420708N 0442917E - 420603N 0445118E - 415046N 0450236E - 414729N 0452210E - 414645N 0454515E - 413757N 0454407E - 414813N 0450459E - 415039N 0445830E - 420015N 0444619E - 420042N 0443715E - 415613N 0443036E - 414849N 0443038E - 414011N 0444127E - 413348N 0443029E - 412906N 0443207E - 412604N 0443309E - 411747N 0445143E - 411740N 0450017E - along the state border with Armenia - 411424N 0444054E - 412244N 0442654E FL 195 6500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 8 415010N 0441811E - 415013N 0442413E - 414548N 0442945E - 413608N 0442419E - 413505N 0442223E - 414708N 0442215E - 415010N 0441811E FL 195 7500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 9 420603N 0445118E - 415018N 0453239E - 414645N 0454515E - 414729N 0452210E - 415046N 0450236E - 420603N 0445118E FL 195 7500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL
TBILISI TMA 10 413757N 0454407E - 414645N 0454515E - 414700N 0455746E - 411228N 0455332E - along the state border with Azerbaijan - 412121N 0454159E - 413757N 0454407E FL 195 7500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
TBILISI TMA 11 412602N 0441808E - 413353N 0440821E - 420100N 0440756E - 421309N 0441850E - 421111N 0445232E - 415720N 0454158E - 414700N 0455746E - 414645N 0454515E - 415018N 0453239E - 420603N 0445118E - 420708N 0442917E - 415913N 0441803E - 415010N 0441811E - 414708N 0442215E - 413505N 0442223E - 412244N 0442654E - 411424N 0444054E - along the state border with Armenia - 411130N 0443008E - 412602N 0441808E FL 195 8500 FT AMSL Class of airspace: C	TBILISI APP	TBILISI APPROACH EN H24	134.600 MHz 121.500 MHz (Emergency) SATVOICE: NIL	NIL

4 CTA

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
CTA EAST 412958N 0425216E - 415414N 0425030E - 421054N 0430626E - 421700N 0430400E - 431043N 0424243E - along the state border with Russia - 415449N 0462529E - along the state border with Azerbaijan - 411750N 0450055E - along the state border with Armenia - 410724N 0432824E - along the state border with Turkiye - 412958N 0425216E FL 660 FL 085 or 2000 FT AGL whichever is higher Class of airspace: C	TBILISI ACC	TBILISI RADAR EN H24	125.125 MHz (Primary) 135.125 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	Decision on the splitting of the CTA EAST into the upper and lower sectors and the duration of their operation is made by the ATS unit
		TBILISI RADAR EN HO	125.125 MHz (Primary) 135.125 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	The upper limit of the EAST LOWER Sector is established on ATS unit decision and can be: FL345/ FL355/ FL365/ FL375. The lower limit of the EAST LOWER Sector is FL85 or 2000 FT AGL whichever is higher
		TBILISI RADAR EN HO	133.500 MHz (Primary) 135.350 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	The upper limit of the EAST UPPER Sector is FL660. The lower limit of the EAST UPPER Sector is established on ATS unit decision and can be: FL345/ FL355/ FL365/ FL375

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency / SATVOICE number (Purpose)	Remarks
1	2	3	4	5
CTA WEST 415414N 0425030E - 412958N 0425216E - along the state border with Turkiye - 413114N 0413249E - 413600N 0411700E - 415400N 0402000E - 431100N 0395500E - 432311N 0400037E - along the state border with Russia - 431043N 0424243E - 421700N 0430400E - 421054N 0430626E - 415414N 0425030E FL 660 FL 085 or 2000 FT AGL whichever is higher Class of airspace: C	TBILISI ACC	TBILISI RADAR EN H24	133.400 MHz (Primary) 135.625 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	Decision on the splitting of the CTA WEST into the upper and lower sectors and the duration of their operation is made by the ATS unit
		TBILISI RADAR EN HO	133.400 MHz (Primary) 135.625 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	The upper limit of the WEST LOWER Sector is established on ATS unit decision and can be: FL345/ FL355/ FL365/ FL375. The lower limit of the WEST LOWER Sector is FL85 or 2000 FT AGL whichever is higher.
		TBILISI RADAR EN HO	134.450 MHz (Primary) 135.750 MHz (Secondary) 121.500 MHz (Emergency) SATVOICE: NIL	The upper limit of the WEST UPPER Sector is FL660. The lower limit of the WEST UPPER Sector is established on ATS unit decision and can be: FL345/ FL355/ FL365/ FL375

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ENR 2.2 Other regulated airspace

NIL

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ENR 3 ATS routes

ENR 3.1 Conventional navigation routes

Route designator Name of significant points Coordinates RCP/RSP specification	Track MAG ↓/↑ VOR RDL DIST (COP)	Upper limits Lower limits MEA Airspace classification	Lateral limits MOCA	Direction of cruising levels		Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification(s) limitations
				Odd	Even	
1	2	3	4	5		6
H5						
△ BATUMI NDB (LU) 413605N 0413651E						
	014° 194° 23.5 NM	FL 660 7000 FT AMSL 6400 FT AMSL Class C	5 NM	↓	↑	BATUMI APP FREQ: 124.425 MHz TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary)
△KUSSA 415803N 0414801E						
	061° 241° 33.0 NM	FL 660 7000 FT AMSL 5100 FT AMSL Class C	5 NM	↓	↑	KUTAISI APP FREQ: 127.100 MHz TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary)
△ KUTAISI DVOR/DME (KTS) 421033N 0422905E						
	088° 269° 36.8 NM	FL 660 7000 FT AMSL 6800 FT AMSL Class C	5 NM	↓	↑	KUTAISI APP FREQ: 127.100 MHz TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.400 MHz (Primary) 135.625 MHz (Secondary)
△VIZRO 420709N 0431819E						
	089° 270° 15.5 NM	FL 660 FL 085 7400 FT AMSL Class C	5 NM	↓	↑	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary)
△ ALI NDB (BT) 420523N 0433901E						
	097° 278° 42.2 NM	FL 660 FL 085 8200 FT AMSL Class C	5 NM	↓	↑	TBILISI APP FREQ: 134.600 MHz TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary)

Route designator Name of significant points Coordinates RCP/RSP specification	Track MAG ↓/↑ VOR RDL DIST (COP)	Upper limits Lower limits MEA Airspace classification	Lateral limits MOCA	Direction of cruising levels		Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification(s) limitations
				Odd	Even	
1	2	3	4	5		6
△ MUKHRANI NDB (DF) 415500N 0443356E						
	124° 304° 22.6 NM	FL 660 FL 085 7400 FT AMSL Class C	5 NM	↓	↑	TBILISI APP FREQ: 134.600 MHz TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary)
△ TBILISI DVOR/DME (TBS) 414014N 0445649E						

Route designator Name of significant points Coordinates RCP/RSP specification	Track MAG ↓/↑ VOR RDL DIST (COP)	Upper limits Lower limits MEA Airspace classification	Lateral limits MOCA	Direction of cruising levels		Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification(s) limitations
				Odd	Even	
1	2	3	4	5		6
H7						
△ ALI NDB (BT) 420523N 0433901E						
	291° - 18.6 NM	FL 660 FL 085 8400 FT AMSL Class C	5 NM		↓	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary)
△EMBUS 421406N 0431650E						
	258° - 35.6 NM	FL 660 FL 085 8400 FT AMSL Class C	5 NM		↓	KUTAISI APP FREQ: 127.100 MHz TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.400 MHz (Primary) 135.625 MHz (Secondary)
△ KUTAISI DVOR/DME (KTS) 421033N 0422905E						

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ENR 3.2 Area navigation routes

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing / Geodesic DIST	Upper limits / Lower limits / Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
L125 (RNAV 5)		109.3 NM					
▲**OGEVI** (FIR boundary) 410805N 0434713E	TBS 232° 61.4 NM 1700 FT	For continuation, see AIP Armenia.					
		347° 167° 57.6 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**ALI NDB (BT)** 420523N 0433901E							
		- 156° 30.3 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**BASKA** 423459N 0432655E	KTS 053° 49.3 NM 200 FT						
		- 153° 21.4 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲**GUSLI** (FIR boundary) 425506N 0431702E	KTS 031° 56.9 NM 200 FT	For continuation, see AIP Russia.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
L850 (RNAV 5)		318.4 NM					
▲**ADEKI** (FIR boundary) 411748N 0464500E	TBS 098° 84.3 NM 1700 FT	For continuation, see AIP Azerbaijan.					
		284° 103° 72.2 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**DEDON** 414255N 0451448E	TBS 072° 13.7 NM 1700 FT						
		283° 101° 103.1 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲**TAGAR** 421642N 0430410E	KTS 070° 26.8 NM 200 FT						
		281° 099° 143.1 NM	FL 660 FL 285 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
▲**BANUT** (FIR boundary) 425923N 0395907E	KTS 288° 121.1 NM 200 FT	For continuation, see AIP Russia.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
M10 (RNAV 5)		63.9 NM					
△**TETRO** 414021N 0425135E	KTS 144° 34.5 NM 200 FT						
		257° - 63.9 NM	FL 660 FL 195 Class C		↓	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
▲**SARPI** (FIR boundary) 413256N 0412659E	KTS 224° 59.7 NM 200 FT	For continuation, see AIP Turkiye.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
M54 (RNAV 5)		117.0 NM					
▲**TAVRO** (FIR boundary) 411129N 0443009E		For continuation, see AIP Armenia.					
		- 145° 25.9 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**LAGAS** 413419N 0441353E	TBS 253° 32.7 NM 1700 FT						
		- 145° 91.1 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲**GUSLI** (FIR boundary) 425506N 0431702E	KTS 031° 56.9 NM 200 FT	For continuation, see AIP Russia.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
M747 (RNAV 5)		231.3 NM					
▲**BARAD** (FIR boundary) 412131N 0450500E	TBS 155° 19.7 NM 1700 FT	For continuation, see AIP Azerbaijan.					
		- 101° 40.5 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**LAGAS** 413419N 0441353E	TBS 253° 32.7 NM 1700 FT						
		- 100° 65.5 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**BARUS** 415414N 0425030E	KTS 128° 22.8 NM 200 FT						
		- 100° 52.4 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
△**IBERI** 420939N 0414318E	KTS 262° 34.1 NM 200 FT						
		- 098° 72.9 NM	FL 660 FL 195 Class C	↑		+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
▲**IDLER** (FIR boundary) 422925N 0400845E	KTS 274° 105.8 NM 200 FT	For continuation, see AIP Russia.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
N11 (RNAV 5)		253.0 NM					
▲ROLIN (FIR boundary) 414757N 0403923E	KTS 248° 84.9 NM 200 FT						
		079° 260° 98.4 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
▲BARUS 415414N 0425030E	KTS 128° 22.8 NM 200 FT						
		082° 263° 77.4 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△MUKHRANI NDB (DF) 415500N 0443356E							
		081° 262° 77.2 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲KUFAN (FIR boundary) 415718N 0461708E	TBS 067° 62.4 NM 1700 FT						

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
N37 (RNAV 5)		200.5 NM					
▲**SARPI** (FIR boundary) 413256N 0412659E	KTS 224° 59.7 NM 200 FT	For continuation, see AIP Turkiye.					
		060° 240° 8.0 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
△**BATUMI NDB (LU)** 413605N 0413651E							
		064° 245° 22.8 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
△**ODILI** 414317N 0420540E	KTS 206° 32.4 NM 200 FT						
		065° 245° 35.3 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
△**BARUS** 415414N 0425030E	KTS 128° 22.8 NM 200 FT						
		066° 246° 38.0 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**ALI NDB (BT)** 420523N 0433901E							
		070° 252° 96.4 NM	FL 660 FL 225 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲**LURIS** 422525N 0454607E	TBS 032° 58.2 NM 1700 FT	For continuation, see AIP Russia.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
N61 (RNAV 5)		152.3 NM					
▲**NOLGA** (FIR boundary) 412541N 0425844E	KTS 147° 50.0 NM 200 FT	For continuation, see AIP Turkiye.					
		074° 255° 57.1 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲**LAGAS** 413419N 0441353E	TBS 253° 32.7 NM 1700 FT						
		075° 255° 11.3 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**BAGEM** 413556N 0442850E	TBS 252° 21.4 NM 1700 FT						
		071° 252° 21.4 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**TBILISI DVOR/DME (TBS)** 414014N 0445649E							
		072° 252° 13.7 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**DEDON** 414255N 0451448E	TBS 072° 13.7 NM 1700 FT						
		066° 246° 48.8 NM	FL 660 FL 195 Class C	↓	↑	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels		Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
				Odd	Even		
1	2	3	4	5		6	7
▲**KUFAN** (FIR boundary) 415718N 0461708E	TBS 067° 62.4 NM 1700 FT	For Continuation see AIP Russia					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
N82 (RNAV 5)		87.5 NM					
▲**TISOT** (FIR boundary) 411605N 0445309E	TBS 180° 24.3 NM 1700 FT	For continuation, see AIP Armenia.					
		333° - 41.5 NM	FL 660 FL 195 Class C		↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**MUKHRANI NDB (DF)** 415500N 0443356E							
		331° - 37.7 NM	FL 660 FL 195 Class C		↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**TAVSA** 423000N 0441456E	TBS 321° 58.7 NM 1700 FT						
		334° - 8.3 NM	FL 660 FL 195 Class C		↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
▲**LAPTO** (FIR boundary) 423753N 0441119E	TBS 323° 66.8 NM 1700 FT	For continuation, see AIP Russia.					

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels Odd	Direction of cruising levels Even	Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
1	2	3	4	5		6	7
N644 (RNAV 5)		276.2 NM					
▲**ADEKI** (FIR boundary) 411748N 0464500E	TBS 098° 84.3 NM 1700 FT	For continuation, see AIP Azerbaijan.					
		274° 093° 63.6 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**BADIR** 412900N 0452200E	TBS 114° 22.0 NM 1700 FT						
		269° 089° 51.5 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**LAGAS** 413419N 0441353E	TBS 253° 32.7 NM 1700 FT						
		269° 089° 33.2 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**AGISO** 413740N 0432945E	KTS 119° 56.0 NM 200 FT						
		269° 088° 28.7 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 125.125 MHz (Primary) 135.125 MHz (Secondary) 133.500 MHz (Primary) 135.350 MHz (Secondary)
△**TETRO** 414021N 0425135E	KTS 144° 34.5 NM 200 FT						
		268° 088° 34.5 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)

Route designator (RNP/RNAV) Name of significant points Coordinates NAV/RCP/RSP specification	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	Magnetic bearing Geodesic DIST	Upper limits Lower limits Airspace classification	Direction of cruising levels		Navigation accuracy requirement	Remarks Controlling unit, Channel Logon address SATVOICE number NAV/RCP/RSP specification limitations
				Odd	Even		
1	2	3	4	5		6	7
△**ODILI** 414317N 0420540E	KTS 206° 32.4 NM 200 FT						
		268° 087° 64.7 NM	FL 660 FL 195 Class C	↑	↓	+/-5 NM	TBILISI ACC FREQ: 133.400 MHz (Primary) 135.625 MHz (Secondary) 134.450 MHz (Primary) 135.750 MHz (Secondary)
▲**ROLIN** (FIR boundary) 414757N 0403923E	KTS 248° 84.9 NM 200 FT	For continuation, see AIP Turkiye.					

ENR 3.3 Other Routes

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ENR 3.4 En-route holding

To be developed.

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ENR 4 Radio navigation aids/systems

ENR 4.1 Radio navigation aids - en-route

Legend for FRA relevance:
(E) = “Horizontal Entry point”
(X) = “Horizontal Exit point”
(I) = “Intermediate point”
(A) = “Arrival Connecting point”
(D) = “Departure Connecting point”

Name of station (VOR/VAR)	ID	Frequency (CH)	Hours of operation	Coordinates	ELEV DME antenna	Remarks
1	2	3	4	5	6	7
ALI NDB	BT	353 KHz	H24	420523N 0433901E	Not applicable	FRA(I)
BAKURIANI DME	BKU	110.600 MHz (CH 43X)	H24	414141N 0433236E	9000 FT	Coverage 108 NM.
BATUMI DME	BTM	108.400 MHz (CH 21X)	H24	413623N 0413606E	100 FT	Coverage 108 NM. Omnidirectional.
BATUMI NDB (7° E)	LU	430 KHz	H24	413605N 0413651E	Not applicable	FRA(I)
GUDAURI DME	GUD	110.800 MHz (CH 45X)	H24	422930N 0442946E	8900 FT	Coverage 108 NM.
KUTAISI DVOR/DME (7° E)	KTS	113.600 MHz (CH 83X)	H24	421033N 0422905E	200 FT	Coverage 108 NM. FRA(I)
MUKHRANI NDB (7° E)	DF	520 KHz	H24	415500N 0443356E	Not applicable	FRA(ID)
POTI DME	PTI	111.000 MHz (CH 47X)	H24	420942N 0414150E	100 FT	Coverage 108 NM.
TBILISI DVOR/DME (7° E)	TBS	113.700 MHz (CH 84X)	H24	414014N 0445649E	1700 FT	Coverage 108 NM. FRA(I)
TSNORI DME	TSN	108.600 MHz (CH 23X)	H24	413746N 0460056E	800 FT	Coverage 108 NM.

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ENR 4.2 Special navigation systems

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ENR 4.3 Global navigation satellite system (GNSS)

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ENR 4.4 Name-code designators for significant points

Legend for FRA relevance:
(E) = “Horizontal Entry point”
(X) = “Horizontal Exit point”
(I) = “Intermediate point”
(A) = “Arrival Connecting point”
(D) = “Departure Connecting point”

Name-code designator	Coordinates	ATS route or other route	Remarks
1	2	3	4
ADEKI	411748N 0464500E	L850, N644	FRA(EX) EVEN FLs for all entering aircraft ODD FLs for all exiting aircraft CRP
AGISO	413740N 0432945E	N644	FRA(I) O/R
ANAGU	413750N 0460056E		FRA(I) O/R
BADIR	412900N 0452200E	N644	FRA(I) O/R
BAGEM	413556N 0442850E	N61	FRA(I) O/R
BANUT	425923N 0395907E	L850	FRA(EX) ODD FLs for all entering aircraft EVEN FLs for all exiting aircraft CRP
BARAD	412131N 0450500E	M747	FRA(X) ODD FLs for all exiting aircraft CRP
BARUS	415414N 0425030E	M747, N11, N37	FRA(I) O/R
BASKA	423459N 0432655E	L125	FRA(IA) STAR (UGKO) O/R
DEDON	414255N 0451448E	L850, N61	FRA(I) O/R
DISKA	412750N 0451734E		FRA(X) ODD FLs for all exiting aircraft SID (UGTB) CRP
EMBUS	421406N 0431650E	H7	FRA(IA) STAR (UGKO) O/R

Name-code designator	Coordinates	ATS route or other route	Remarks
1	2	3	4
FIBBE	420034N 0431943E		FRA(D) SID (UGSB) O/R
GIMUR	420100N 0440756E		FRA(IA) STAR (UGTB) O/R
GUSLI	425506N 0431702E	L125, M54	FRA(E) ODD FLs for all entering aircraft CRP
IBERI	420939N 0414318E	M747	FRA(I) O/R
IDLER	422925N 0400845E	M747	FRA(EX) ODD FLs for all entering aircraft EVEN FLs for all exiting aircraft CRP
IZERO	413921N 0410632E		FRA(X) EVEN FLs for all exiting aircraft SID (UGSB) CRP
KADZE	421822N 0413825E		FRA(ID) SID (UGKO) O/R
KOTAN	412248N 0462724E		FRA(I) O/R
KUFAN	415718N 0461708E	N11, N61	FRA(EX) EVEN FLs for all entering aircraft ODD FLs for all exiting aircraft SID (UGTB) CRP
KUSSA	415803N 0414801E	H5	FRA(AD) SID (UGKO) STAR (UGSB) O/R
LAGAS	413419N 0441353E	M54, M747, N61, N644	FRA(IA) STAR (UGTB) O/R
LAMUS	413240N 0453124E		FRA(IA) STAR (UGTB) O/R

Name-code designator	Coordinates	ATS route or other route	Remarks
1	2	3	4
LAPTO	423753N 0441119E	N82	FRA(X) EVEN FLs for all exiting aircraft SID (UGTB) CRP
LURIS	422525N 0454607E	N37	FRA(EX) FL225 - FL660 EVEN FLs for all entering aircraft ODD FLs for all exiting aircraft CRP
MAQQO	420432N 0414144E		FRA(A) STAR (UGKO) O/R
NOLGA	412541N 0425844E	N61	FRA(EX) ODD FLs for all entering aircraft EVEN FLs for all exiting aircraft CRP
ODILI	414317N 0420540E	N37, N644	FRA(IA) STAR (UGSB) O/R
OGEVI	410805N 0434713E	L125	FRA(I) CRP
PALLE	412835N 0441925E		FRA(D) SID (UGTB) O/R
PORZA	415708N 0404938E		FRA(D) SID (UGSB) O/R
ROLIN	414757N 0403923E	N11, N644	FRA(EX) ODD FLs for all entering aircraft EVEN FLs for all exiting aircraft CRP
SARPI	413256N 0412659E	M10, N37	FRA(EX) ODD FLs for all entering aircraft EVEN FLs for all exiting aircraft CRP
SOSED	420635N 0410015E		FRA(IA) STAR (UGSB) O/R
TAGAR	421642N 0430410E	L850	FRA(I) O/R
TAVRO	411129N 0443009E	M54	FRA(I) SID (UGTB) CRP

Name-code designator	Coordinates	ATS route or other route	Remarks
1	2	3	4
TAVSA	423000N 0441456E	N82	FRA(I) O/R
TETRO	414021N 0425135E	M10, N644	FRA(I) O/R
TISOT	411605N 0445309E	N82	FRA(I) STAR (UGTB) CRP
TUZZA	415248N 0415606E		FRA(A) STAR (UGKO) O/R
VIZRO	420709N 0431819E	H5	FRA(D) SID (UGKO) O/R
ZAGOT	414706N 0440811E		FRA(D) SID (UGTB) O/R

ENR 4.5 Aeronautical ground lights - en-route

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ENR 5 Navigation warnings

ENR 5.1 Prohibited, Restricted and Danger Areas

1 Prohibited Areas

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGP1 **SUPSA** Circle: radius 2 NM, centred at: 420124N 0414607E	1000 FT AGL GND	H24 Prohibited for all flights

2 Restricted Areas

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGR1 **SOLOLAKI** Circle: radius 1.6 NM, centred at: 414115N 0444755E	6000 FT AMSL GND	H24 Flights can be allowed by appropriate ATS authority
UGR2 **KOJORI** Circle: radius 0.5 NM, centred at: 414001N 0444049E	5700 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR3 **VAZIANI 1** Circle: radius 0.8 NM, centred at: 414100N 0450322E	4500 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR4 **GORI 1** Circle: radius 0.7 NM, centred at: 420033N 0440557E	4000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR5 **SENAKI** Circle: radius 1 NM, centred at: 421434N 0420256E	2000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR6 **KHONI** Circle: radius 1 NM, centred at: 421844N 0422258E	2500 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR7 **KOBULETI** Circle: radius 0.7 NM, centred at: 415026N 0414759E	2000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR8 **KRTSANISI 1** 413519N 0445206E - 413519N 0445624E - 413308N 0445624E - 413308N 0445206E - 413519N 0445206E	3000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGR9 **ALGETI 1** 413128N 0451129E - 413130N 0451715E - 412815N 0451714E - 412809N 0451531E - 412638N 0451130E - 413128N 0451129E	3000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR10 **VAZIANI 2** 413948N 0450509E - 413956N 0451240E - 413530N 0451221E - 413454N 0450955E - 413543N 0450845E - 413548N 0450738E - 413656N 0450520E - 413803N 0450355E - 413856N 0450357E - 413948N 0450509E	3500 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR11 **GORI 2** 415949N 0440730E - 415949N 0440839E - 415908N 0440839E - 415905N 0440738E - 415949N 0440730E	3000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR12 **SIMONETI 1** 421609N 0425139E - 421613N 0425418E - 421444N 0425422E - 421442N 0425143E - 421609N 0425139E	3000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR13 **ORPOLO 1** 413837N 0430313E - 413931N 0430658E - 413933N 0430942E - 413831N 0430945E - 413819N 0430700E - 413805N 0430310E - 413837N 0430313E	5000 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post
UGR14 **KAKHETI ZONE 1** 421315N 0450127E - 421300N 0453628E - 414704N 0453606E - 414710N 0450126E - 421315N 0450127E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR15 **KAKHETI ZONE 2** 414704N 0453606E - 421300N 0453628E - along the state border with Russia - 420631N 0455215E - 414658N 0455200E - 414704N 0453606E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR16 **KAKHETI ZONE 3** 414658N 0455200E - 420631N 0455215E - along the state border with Russia - 415449N 0462529E - along the state border with Azerbaijan - 414642N 0461818E - 414658N 0455200E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR17 **KAKHETI ZONE 4** 414710N 0450126E - 414704N 0453606E - 413614N 0453600E - 413620N 0450126E - 414710N 0450126E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGR18 **KAKHETI ZONE 5** 414704N 0453606E - 414658N 0455200E - 413609N 0455150E - 413614N 0453600E - 414704N 0453606E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR19 **KAKHETI ZONE 6** 414658N 0455200E - 414642N 0461818E - along the state border with Azerbaijan - 413552N 0461947E - 413609N 0455150E - 414658N 0455200E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR20 **KAKHETI ZONE 7** 413620N 0450126E - 413614N 0453600E - 412226N 0453553E - along the state border with Azerbaijan - 411824N 0450126E - 413620N 0450126E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR21 **KAKHETI ZONE 8** 413614N 0453600E - 413609N 0455150E - 411257N 0455108E - along the state border with Azerbaijan - 412226N 0453553E - 413614N 0453600E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR22 **KAKHETI ZONE 9** 413609N 0455150E - 413552N 0461947E - along the state border with Azerbaijan - 410941N 0463913E - 410958N 0461809E - along the state border with Azerbaijan - 411257N 0455108E - 413609N 0455150E	FL 310 GND	HX no specific hours Anti-hail Rocket Firing. Flights from April till the end of October can be restricted by appropriate ATS unit on the basis of prior information
UGR24 **ATOTSI** 421217N 0433651E - 420559N 0433950E - 420332N 0435603E - 421048N 0435643E - 421217N 0433651E	FL 135 GND	H24 VFR flights are restricted. Restriction does not apply to state aircraft
UGR25 **DIGOMI** 414716N 0444628E - 414728N 0444627E - 414727N 0444634E - 414724N 0444637E - 414716N 0444637E - 414716N 0444628E	1000 FT AGL GND	H24 Unmanned aircraft flights are not allowed
UGR26 **KUTAISI** 421107N 0422415E - 421125N 0422632E - Clockwise arc, radius 1.1 NM, centered at 421043N 0422739E - 421147N 0422724E - 421206N 0422955E - Clockwise arc, radius 1.1 NM, centered at 421102N 0423009E - 421157N 0423055E - 421214N 0423312E - 421006N 0423341E - 420949N 0423124E - Clockwise arc, radius 1.1 NM, centered at 421030N 0423017E - 420926N 0423031E - 420907N 0422801E - Clockwise arc, radius 1.1 NM, centered at 421011N 0422746E - 420916N 0422700E - 420859N 0422444E - 421107N 0422415E	400 FT AGL GND	H24 Unmanned aircraft flight restriction zone for open and specific categories. Unmanned aircraft flights are allowed only by permission from Aerodrome operator

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGR27 **BATUMI** 413936N 0413333E - 413821N 0413529E - Clockwise arc, radius 1.1 NM, centered at 413716N 0413530E - 413805N 0413627E - 413659N 0413809E - Clockwise arc, radius 1.1 NM, centered at 413610N 0413712E - 413619N 0413838E - 413511N 0414021E - 413333N 0413828E - 413441N 0413645E - Clockwise arc, radius 1.1 NM, centered at 413545N 0413644E - 413456N 0413547E - 413603N 0413405E - Clockwise arc, radius 1.1 NM, centered at 413652N 0413502E - 413643N 0413336E - 413758N 0413140E - 413936N 0413333E	400 FT AGL GND	H24 Unmanned aircraft flight restriction zone for open and specific categories. Unmanned aircraft flights are allowed only by permission from Aerodrome operator
UGR28 **MESTIA** Circle: radius 0.6 NM, centred at: 430318N 0424501E	400 FT AGL GND	H24 Unmanned aircraft flight restriction zone for open and specific categories. Unmanned aircraft flights are allowed only by permission from Aerodrome operator
UGR29 **NATAKHTARI** Circle: radius 0.6 NM, centred at: 415517N 0444250E	400 FT AGL GND	H24 Unmanned aircraft flight restriction zone for open and specific categories. Unmanned aircraft flights are allowed only by permission from Aerodrome operator
UGR30 **TELAVI** Circle: radius 0.6 NM, centred at: 415712N 0453032E	400 FT AGL GND	H24 Unmanned aircraft flight restriction zone for open and specific categories. Unmanned aircraft flights are allowed only by permission from Aerodrome operator
UGR31 **TBILISI** 414322N 0445458E - 414208N 0445633E - Clockwise arc, radius 1.1 NM, centered at 414103N 0445625E - 414148N 0445728E - 414013N 0445927E - Clockwise arc, radius 1.1 NM, centered at 413929N 0445824E - 413931N 0445951E - 413816N 0450125E - 413647N 0445919E - 413802N 0445745E - Clockwise arc, radius 1.1 NM, centered at 413907N 0445753E - 413822N 0445650E - 413956N 0445451E - Clockwise arc, radius 1.1 NM, centered at 414041N 0445554E - 414038N 0445427E - 414153N 0445253E - 414322N 0445458E	400 FT AGL GND	H24 Unmanned aircraft flight restriction zone for open and specific categories. Unmanned aircraft flights are allowed only by permission from Aerodrome operator
UGR32 **MARNEULI 1** Circle: radius 5 NM, centred at: 412715N 0444646E	FL 140 GND	HX no specific hours Activated on the basis of prior agreement between Ministry of Defense and appropriate ATS unit of Air Navigation Service Provider

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGR33 **MARNEULI 2** 413700N 0442700E - 413000N 0445800E - 412500N 0445900E - 412155N 0450714E - along the state border with Azerbaijan - 411750N 0450055E - along the state border with Armenia - 411249N 0441856E - 413700N 0442700E	FL 250 GND	HX no specific hours Activated on the basis of prior agreement between Ministry of Defense and appropriate ATS unit of Air Navigation Service Provider
UGR34 **MARNEULI 3** 413800N 0440700E - 413700N 0442700E - 411249N 0441856E - along the state border with Armenia - 411113N 0440656E - 413600N 0440000E - 413800N 0440700E	FL 250 GND	HX no specific hours Activated on the basis of prior agreement between Ministry of Defense and appropriate ATS unit of Air Navigation Service Provider
UGR35 **GORI 3** 415949N 0440730E - 415949N 0440839E - 415908N 0440839E - 415905N 0440738E - 415949N 0440730E	7000 FT AMSL GND	Activated by NOTAM. For use of Ministry of Defense
UGR36 **KRTSANISI 2** 413519N 0445206E - 413519N 0445624E - 413308N 0445624E - 413308N 0445206E - 413519N 0445206E	7000 FT AMSL GND	Activated by NOTAM. For use of Ministry of Defense
UGR37 **ALGETI 2** 413128N 0451129E - 413130N 0451715E - 412815N 0451714E - 412809N 0451531E - 412638N 0451130E - 413128N 0451129E	7000 FT AMSL GND	Activated by NOTAM. For use of Ministry of Defense
UGR38 **ORPOLO 2** 413837N 0430313E - 413931N 0430658E - 413933N 0430942E - 413831N 0430945E - 413819N 0430700E - 413805N 0430310E - 413837N 0430313E	7000 FT AMSL GND	Activated by NOTAM. For use of Ministry of Defense
UGR39 **SIMONETI 2** 421609N 0425139E - 421613N 0425418E - 421444N 0425422E - 421442N 0425143E - 421609N 0425139E	7000 FT AMSL GND	Activated by NOTAM. For use of Ministry of Defense
UGR40 **VAZIANI 3** 413948N 0450509E - 413956N 0451240E - 413530N 0451221E - 413454N 0450955E - 413543N 0450845E - 413548N 0450738E - 413656N 0450520E - 413803N 0450355E - 413856N 0450357E - 413948N 0450509E	FL 115 GND	Activated by NOTAM. For use of Ministry of Defense
UGR41 **BOLNISI** Circle: radius 6 NM, centred at: 412904N 0443202E	FL 140 GND	HX no specific hours Activated on the basis of prior agreement between Ministry of Defense and appropriate ATS unit of Air Navigation Service Provider

Identification, Name and Lateral Limits	Upper Limit Lower Limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
UGR42 **MARNEULI 4** Circle: radius 1.2 NM, centred at: 412745N 0444706E	3500 FT AMSL GND	H24 For use of Ministry of Defense. Flights are allowed only by permission from central command post

3 Danger Areas

NIL

ENR 5.2 Military exercise and training areas and air defence identification zone (ADIZ)

NIL

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ENR 5.3 Other activities of a dangerous nature and other potential hazards

NIL

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ENR 5.4 Air navigation obstacles

(Height 100 M AGL or higher)

Designation	Type	Coordinates	ELEV / HGT (FT)	Lighting type / colour	Remarks
1	2	3	4	5	6
DEDOPLIS TSKARO	TV Antenna	412800N 0460810E	3702/722	Red	NIL
DMANISI	Antenna	412239N 0440940E	5775/820	Red	NIL
GORI	TV Antenna	420423N 0435916E	3500/610	Red	NIL
GORI1	Wind Turbine Generator	420150N 0440250E	3365/486	Red LIM	NIL
GORI2	Wind Turbine Generator	420141N 0440251E	3232/486	Red LIM	NIL
GORI3	Wind Turbine Generator	420131N 0440242E	3180/486	Red LIM	NIL
GORI4	Wind Turbine Generator	420117N 0440250E	3180/486	Red LIM	NIL
GORI5	Wind Turbine Generator	420058N 0440304E	3137/486	Red LIM	NIL
GORI6	Wind Turbine Generator	420047N 0440258E	3120/486	Red LIM	NIL
KUTAISI	TV Antenna	421628N 0424410E	1136/394	Red	NIL
POTI	TV Antenna	421125N 0414146E	427/427	Red	NIL
RUSTAVI1	Chimney	413210N 0450158E	1598/492	NIL	NIL
RUSTAVI2	Chimney	413210N 0450201E	1594/492	NIL	NIL
RUSTAVI3	Chimney	413153N 0450138E	1451/341	NIL	NIL
TBILISI	TV Antenna	414145N 0444708E	3304/901	Red	NIL

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ENR 5.5 Aerial sporting and recreational activities

Designation and lateral limits	Vertical limits	Operator/User Tel Nr.	Remarks and time of ACT
1	2	3	4
UGA1 **KAZANIANI** 414133N 0451410E - 413928N 0451553E - 414034N 0452259E - 414145N 0451922E - 414133N 0451410E	4200 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA2 **SIGNAGI** 413741N 0455511E - 413744N 0455643E - 413706N 0455714E - 413704N 0455548E - 413741N 0455511E	3000 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA3 **TBILISI SEA** 414546N 0445441E - 414546N 0445546E - 414458N 0445546E - 414458N 0445441E - 414546N 0445441E	3500 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA4 **ANANURI** 421129N 0444026E - 420923N 0444211E - 420916N 0444720E - 421352N 0445040E - 421129N 0444026E	7500 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA5 **BAKURIANI** 414141N 0433005E - 414254N 0432832E - 414435N 0432810E - 414618N 0433105E - 414553N 0433258E - 414253N 0433439E - 414148N 0433318E - 414141N 0433005E	8200 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA6 **BAKHMARO** 414951N 0421746E - 415159N 0421909E - 415107N 0422211E - 414853N 0422059E - 414951N 0421746E	8120 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA7 **GODERDZI** 414235N 0422935E - 414000N 0423122E - 413803N 0423112E - 413602N 0423118E - 413557N 0423002E - 414115N 0422739E - 414235N 0422935E	7200 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed

Designation and lateral limits	Vertical limits	Operator/User Tel Nr.	Remarks and time of ACT
1	2	3	4
UGA8 **GUDAURI** 423049N 0443033E - 422531N 0443412E - 422528N 0443104E - 422628N 0442847E - 423037N 0442500E - 423117N 0442532E - 423049N 0443033E	10500 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA9 **TETNULDI** 430203N 0424909E - 430258N 0425020E - 430207N 0425539E - 430112N 0425428E - 430203N 0424909E	10200 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA10 **HATSVALI** 430100N 0424348E - 430152N 0424346E - 430153N 0424437E - 430101N 0424439E - 430100N 0424348E	7900 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA11 **BECHO** 430446N 0423555E - 430542N 0423607E - 430545N 0423851E - 430449N 0423839E - 430446N 0423555E	9200 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA12 **LATALI** 430048N 0423626E - 430130N 0423624E - 430131N 0423716E - 430049N 0423717E - 430048N 0423626E	5900 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed
UGA13 **KORULDI** 430216N 0424219E - 430358N 0424250E - 430355N 0424341E - 430216N 0424235E - 430216N 0424219E	7900 FT AMSL GND	GEORGIAN PARAGLIDING FEDERATION- Tel: +995593466744 Tel: +995599575506	HJ Paragliding activities. For use of Paragliding federation. Only VFR flights are allowed

ENR 5.6 Bird migration and areas with sensitive fauna

1 Bird migration

1.1 As of January 1st, 2008 the number of bird species on the territory of Georgia is known as 355. From these at least 320 species are regular elements in Georgian avifauna – year-round resident breeders, migratory breeders, transit migrants, winter visitors and year-round non-breeding visitors. About 35 species are vagrants or occasional elements in Georgian avifauna. Structure of Georgian avifauna undergoes essential changes during the seasons of a year. Not less than 215 species or more than half of bird species of Georgia are migratory birds, which are absent in the winter. For the majority of the birds an active period is limited by 6-7 months in the year, for a number of migratory birds the active period is shortened till 4-5 months. The breeding species in Georgia appear in the spring and dominate at the beginning of the summer. Transit migrants dominate during the periods of the seasonal migrations. Duration of their presence on the territory of Georgia is short especially in the spring for some species it can not be longer than a few days.

Bird migration and nomadic movements take place in Georgia during the whole year. However, there are sharply seen two migratory periods – spring and autumn passage.

The important Euro-African and Euro-Asian migratory fly-ways of many bird species cross the territory of Georgia, from areas of their nesting sites to the wintering areas and back. Not less than 230 species are regularly noted at the period of seasonal migrations in the spring and autumn. Also, about 40 species are irregular migrants. On the whole, the birds' migratory fly-ways on the territory of Georgia are linked with natural "guiding" lines. Mainly, they are linked with outline of the Black Sea coast line and with valleys of the large rivers, first of all - Rioni, Mtkvari and with their tributaries. Also, they are linked with mountain ranges, mainly with the Greater Caucasus Chain and its spurs, and less with the Surami ridge and with ranges of the Lesser Caucasus. There are known primary, secondary and additional flyways, as well as concentration places of migratory flocks, so-called "migratory bottle-necks" and stop-over sites (places of their stay for the resting).

The most important bottle-necks are located in south-western part of Kolkhida Lowland on the coastal lowlands of Ajara (Adzharia), on the passes of the Great Caucasus, in valleys of large rivers – Mtkvari, Rioni, Tergi (Terek), and Alazani.

1.2 Spring migration

Spring (second decade of March – first decade of May)

General direction of the migration is from the South to the North. There are using all suitable valleys of the rivers and the coast of the Black Sea. Part of the flocks flies above the sea surface in few kilometres off the coastline. In the part of the river Mtkvari valley, which is latitudinally located (from Khashuri town to the border with Azerbaijan), birds are flying from the west to the east (from Khashuri town to Tbilisi city) and from south-east to north-west (from the border to the mouth of Aragvi river). Transit migrants are dominating. Their species composition and numbers vary to a great extent, sometimes in a very short time. For one species migration is begun, for the others the passage is reaching the peak and for the third it ends, the amount of birds is changing every day.

One can see four waves of the birds' migration on the territory of Georgia in the spring:

- **First wave** – from the beginning of March till the middle of March;
- **Second wave** – second half of March. In this time, there are dominating some of the birds-of-prey, waterfowls, rails (waders and gulls), and crovids (*Corvidae*);
- **Third wave** – from the first decade of April till the third decade of April. That is the most intensive migration wave as well in quality as in quantity. More than half of the spring migrants migrate in this time;
- **Fourth wave** – from the end of April till the first decade of May. This is a time of migration of the latest migrants (cuckoo, oriole, swift and some other species of small passerines).

Arrivals of the migrant birds, which are nesting in Georgia, continue from 5-10 May to 20-25 May, with peak between 10 and 20 May.

The most important factors of intensification of spring migration are the meteorological conditions on the plains of the North Caucasus and the existence of the good warmed grounds in Transcaucasia. The soaring birds (e.g. large birds of prey) are in need of such places with the ascending flows of air.

Trans-migration is going in the daytime and in the night. Diurnal activity of different species is considerably varying each from other during the period of the spring migration. 4 peaks are noted in diurnal activity of the migrants. Main peak of the migration usually comes in the time between 9.00 and 12.00 (more than 60 percent of the total migrants between the 9.00 and 11.00 AM). The intensity of migration sharply decreases to the noon and then resume after 16.00. At dusk, there is noted the third peak of the migration of small flocks of passerines, waders, and some species of the waterfowls and birds of prey.

The fourth peak have place at night, when some species of ducks, geese, waders, and cranes are migrating.

Main flight altitude for most of the migrants is around 20-50 M; some of the small bird species (*Passeriformes*) prefer the 5-20 M. The large bird species (waterfowl, birds of prey, cranes, gulls, etc) on the contrary usually fly higher (100-250 M). The maximal flight altitudes do not exceed 800 meters above the ground level (AGL) in Georgia. However, considering a mountain terrain and the fact that birds are flying through mountain passes, an absolute flight altitude can reach 2500 M above sea level. The collisions with flocks of the large birds (cranes) and with separate birds (vultures) are possible till 4000 M above the sea level and even over it.

Heights of flight are depending on meteorological conditions and usually are maximal in clear (sunny) windless days. During strong head winds the birds usually select lower heights. Rainy weather and frost lower height of the flight. However, light rains have a lower impact on the height of the flight than the strong cloudbursts.

1.3 Autumn migration

Autumn (September – end of October)

General direction of the migration is from the South to the North. The birds' flocks cross the Main Caucasus Ridge through the passes in the gorges of the main rivers and go down to the intermountain plains. They do not follow to the bends of these riverbeds. The main part of the birds flies along the coastline of the Black Sea. The other part flies above the sea along the line, which connects the Crimea peninsula with the Kolkhida Lowlands (at the Poti town). The lesser part flies above the sea to Batumi town. In the part of the river Mtkvari valley, which is latitudinally located (from Khashuri town to the border with Azerbaijan) birds fly form the East to the West. However, a part of them flies downstream of the Mtkvari river (from Tbilisi city), from northwest to south-east.

Birds gather in large flocks in the Kolkhida/Colkhic Lowlands.

Transit migrants are dominating, their species composition and numbers vary to a great extent, sometimes in a very short time.

Autumn passage is longer and more active than the spring passage. The first autumn migrants appear even at the beginning of August. The autumn passage ends at the turn of November.

There are shown three waves of the autumn migration:

- **First wave** – at the beginning of September;
- **Second wave** – from the third decade of September till the first decade of October;
- **Third wave** – at the end of October.

Amount of the migrants varies noticeably from year to year. One of the most numerous groups are passerines (*Passeriformes*), waders (*Charadriformes*), birds of prey (*Falconiformes*), geese (*Anseriformes*), pigeons (*Columbiformes*).

The cold snaps on Russia territory, as well as also weather conditions (direction and force of winds, intensity and character of precipitation, height and density of the cloudiness) in some regions of Georgia and in adjacent regions of Russia and Turkey influence the intensity of the autumn passage.

Trans-migration is going in the daytime and in the night. Diurnal activity of different species is considerably varying each from other during the period of the spring migration. 4 peaks are noted in diurnal activity of the migrants. Main peak of the migration usually comes in the time between 9.00 and 12.00 (more than 60 percent of the total migrants between the 9.00 and 11.00 AM). The intensity of migration sharply decreases to the noon and then resume after 16.00. At dusk, there is noted the third peak of the migration of small flocks of passerines, waders, and some species of the waterfowls and birds of prey.

The fourth peak have place at night, when some species of ducks, geese, waders, and cranes are migrating.

Main flight altitude for most of the migrants is around 20-50 M; some of the small bird species (*Passeriformes*) prefer the 5-20 M. The large bird species (waterfowl, birds of prey, cranes, gulls, etc) on the contrary usually fly higher (100-250 M). The maximal flight altitudes do not exceed 800 meters above the ground level (AGL) in Georgia. However, considering a mountain terrain and the fact that birds are flying through mountain passes, an absolute flight altitude can reach 2500 M above sea level. The collisions with flocks of the large birds (cranes) and with separate birds (vultures) are possible till 4000 M above the sea level and even over it.

Heights of flight are depending on meteorological conditions and usually are maximal in clear (sunny) windless days. During strong head winds the birds usually select lower heights. Rainy weather and frost lower height of the flight. However, light rains have a lower impact on the height of the flight than the strong cloudbursts.

1.4 Wintering

Winter (December – February)

This period is characterized by poor species structure, by limited territorial distribution of large aggregations of birds, by high numbers of some wintering species' and by essential fluctuations of birds number from year to year.

At the later period of the winter (the last decade of February) it is noted increasing of the diurnal activity of all species and some revival of activity in the movements of both flocks of wintering species and resident breeders. This revival is linked with changes of weather conditions on plains of Northern Caucasus and, usually is short-term. Sometimes, in cold years, it can't occur at all.

The territory of Georgia is of important significance for wintering birds. More than 130 species are wintering there and more than 40 of them are gathered in numerous flocks. Birds are distributed irregularly in the places of wintering. Mostly, they prefer the open and semi-open areas on the plains in the regions with generally warm and snowless winters. The basic places of concentration of birds on the wintering are situated in mosaic habitat, on the open sites, alternated by forest, bushes, and reed beds. All those are used as overnights sites and as shelters from a bad weather. During the warm and snowless winters, birds are spread wider on the wintering areas, than during the cold winters, when they are concentrated on the small sites and are less mobile.

The most important wintering areas are situated:

- In Western Georgia - at Kolkhida (Colchic) Lowland, at coastal lowlands, in flood-plains of lower parts of large rivers of Black Sea basin (Chorokhi, Kintrishi, Natanebi, Rioni, Khobi, Inguri, Galidzga, Kodoti, Kelasuri, Gumista, Bzipi, Psou) and of their inflows;

- In Eastern Georgia - in lower and pre-mountain parts of the flood-plains of the large rivers of Caspian Sea basin (Mtkvari, Alazani, Khrami, Iori and their inflows), in semi-deserts of Iori Table-land, at lowlands, hills and belt of low mountains, around of large non-freezing lakes. The most part of the birds are wintering in the anthropogenic landscapes, including cities, where food resources and conditions of foraging are more acceptable in comparison with natural landscapes.

Number of birds changes during the wintering season, reaching maximum usually in the middle of 1st – the beginning of 2nd decades of February.

The greatest aggregation of wintering birds occurs on Kolkhida Lowland, where up to 60 % of birds from the total of those wintering in Georgia are recorded during the some years. Seaside lowlands also play the important role as wintering habitat, here are recorded up to 10-25% of the birds wintering in Georgia in different years. Up to 15-20 % of birds, wintering in Georgia, are recorded in semi-desert landscapes of the Iori Table-land.

The wintering rooks, gulls and small passerines form large flocks in the eastern Georgia and, particularly, along the valley of the Mtkvari River from the town Tbilisi to the border with Azerbaijan. Sometimes, other birds - waders, cormorants, and pigeons can form large flocks, too.

1.5 Number of birds

Number of the migrants varies noticeably from year to year. Unfortunately, the available data, does not allow defining an exact number of the birds, which are flying during the seasonal migrations through the territory of Georgia. More or less accurate numerical data were gathered just for separate groups of birds (birds of prey, some waterfowl species, cranes, storks, some other birds). At the period of seasonal migrations in Georgia the most numerous groups are passerines (*Passeriformes*), waders (*Charadriformes*), birds of prey (*Falconiformes*), geese and ducks (*Anseriformes*) and pigeons (*Columbiformes*).

General estimations of the number of the migratory and wintering birds are:

- About 250 bird species - from 25 up to 40 millions of individuals, (depends of the weather conditions) migrate along the Black Sea coast;
- More than 120 species (about 1 million of individuals) migrate into the both sides along the valley of the Mtkvari river, within the limits of Georgia.

2 Areas with sensitive fauna

The sites with more sensitive fauna are allocated in the following places:

1. River mouth of the Chorokhi River and the water bodies on the Kakhaberi plain – from the autumn till the spring there is a large aggregation of gulls, which are feeding at the landfill on the river bank. At the end of winter, large flocks of the grebes (*Podicipedidae*) and coots (*Rallidae*) gather in the river mouth. In summer, gulls are nesting on the islands in the river mouth;
2. Surroundings of the town Poti – dozen thousand of waterfowl birds (coots, grebes, ducks and etc.) sit in some hundred meters far from the shore in the sea whole winter in daytime. In the evening dusk, they fly to the swamps of the Kolkhida (Colkhic) Lowland for feeding (to the East from Poti town) and then at the early morning they fly back to the sea;
3. Wintering rooks, which spend the night on high trees along the river and roads, and gulls that spend the night on river shallows are fed on the landfills in the Tbilisi surroundings. The large flocks of rooks and crows fly every day in the late autumn and in the winter - in the morning from the southeast to the northwest and in the evening back.

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ENR 6 En-route Charts

ENR 6.1

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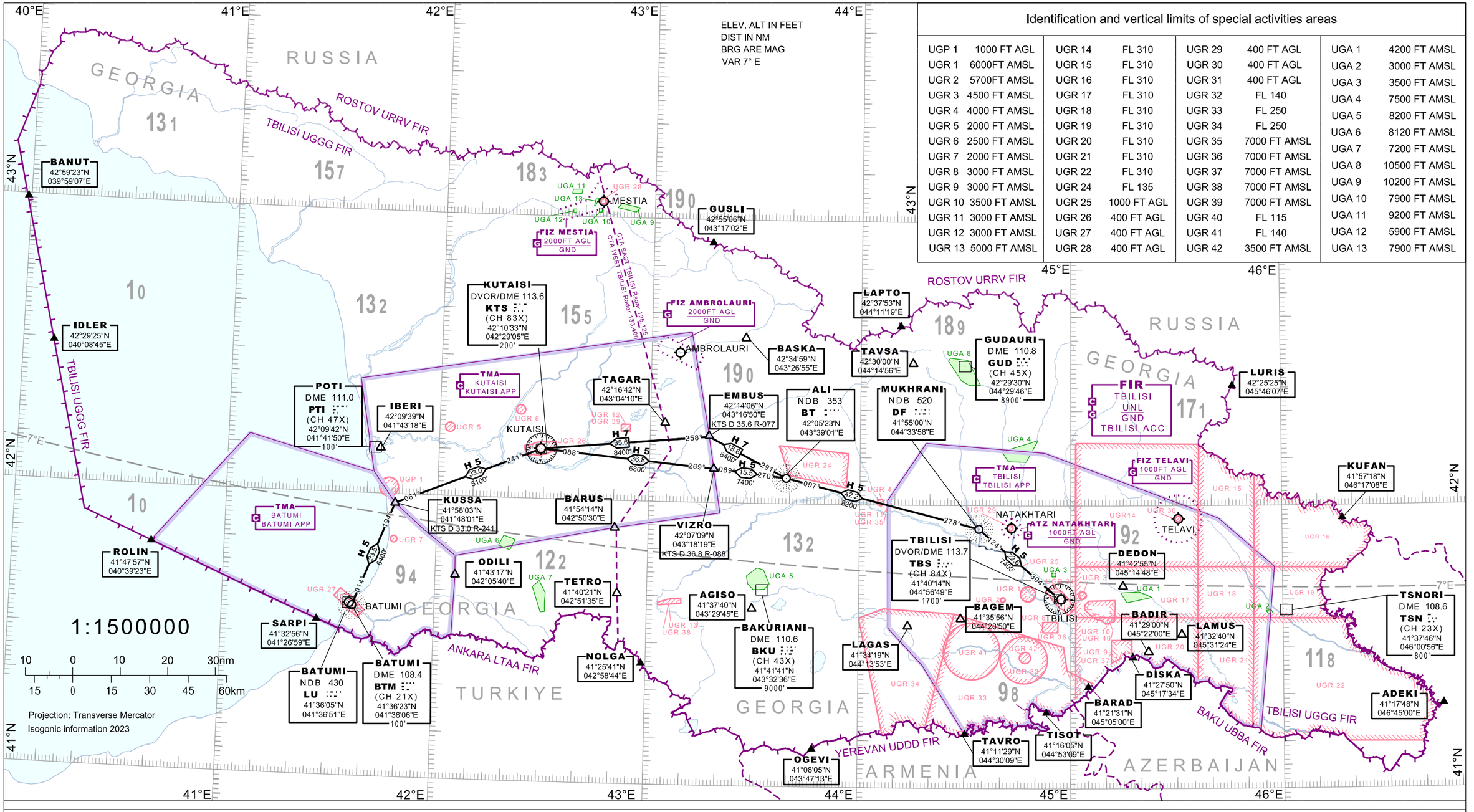
ENROUTE CHART - ICAO (Conventional navigation routes)



Identification and vertical limits of special activities areas

UGP 1	1000 FT AGL	UGR 14	FL 310	UGR 29	400 FT AGL	UGA 1	4200 FT AMSL
UGR 1	6000FT AMSL	UGR 15	FL 310	UGR 30	400 FT AGL	UGA 2	3000 FT AMSL
UGR 2	5700FT AMSL	UGR 16	FL 310	UGR 31	400 FT AGL	UGA 3	3500 FT AMSL
UGR 3	4500 FT AMSL	UGR 17	FL 310	UGR 32	FL 140	UGA 4	7500 FT AMSL
UGR 4	4000 FT AMSL	UGR 18	FL 310	UGR 33	FL 250	UGA 5	8200 FT AMSL
UGR 5	2000 FT AMSL	UGR 19	FL 310	UGR 34	FL 250	UGA 6	8120 FT AMSL
UGR 6	2500 FT AMSL	UGR 20	FL 310	UGR 35	7000 FT AMSL	UGA 7	7200 FT AMSL
UGR 7	2000 FT AMSL	UGR 21	FL 310	UGR 36	7000 FT AMSL	UGA 8	10500 FT AMSL
UGR 8	3000 FT AMSL	UGR 22	FL 310	UGR 37	7000 FT AMSL	UGA 9	10200 FT AMSL
UGR 9	3000 FT AMSL	UGR 24	FL 135	UGR 38	7000 FT AMSL	UGA 10	7900 FT AMSL
UGR 10	3500 FT AMSL	UGR 25	1000 FT AGL	UGR 39	7000 FT AMSL	UGA 11	9200 FT AMSL
UGR 11	3000 FT AMSL	UGR 26	400 FT AGL	UGR 40	FL 115	UGA 12	5900 FT AMSL
UGR 12	3000 FT AMSL	UGR 27	400 FT AGL	UGR 41	FL 140	UGA 13	7900 FT AMSL
UGR 13	5000 FT AMSL	UGR 28	400 FT AGL	UGR 42	3500 FT AMSL		

COMMUNICATION FACILITIES

TBILISI ACC Tbilisi Radar CTA EAST Primary-125.125 Secondary-135.125 CTA WEST Primary-133.400 Secondary-135.625	EAST UPPER Sector FL 660 FL345/FL355/FL365/FL375 Primary-133.500 Secondary-135.350	EAST LOWER Sector FL345/FL355/FL365/FL375 FL85 or 2000FT AGL whichever is higher Primary-125.125 Secondary-135.125	WEST UPPER Sector FL 660 FL345/FL355/FL365/FL375 Primary-134.450 Secondary-135.750	WEST LOWER Sector FL345/FL355/FL365/FL375 FL85 or 2000FT AGL whichever is higher Primary-133.400 Secondary-135.625	TBILISI APP-134.600 TWR Primary-119.000 TWR Secondary-128.000 INFO-124.150 ATIS-132.800	KUTAISI APP-127.100 TWR-125.500	BATUMI APP-124.425 TWR-118.600	MESTIA INFO-121.100	AMBROLAURI INFO-119.850	NATAKHTARI 131.750	TELAVI TWR-120.000

Changes: Chart reissued

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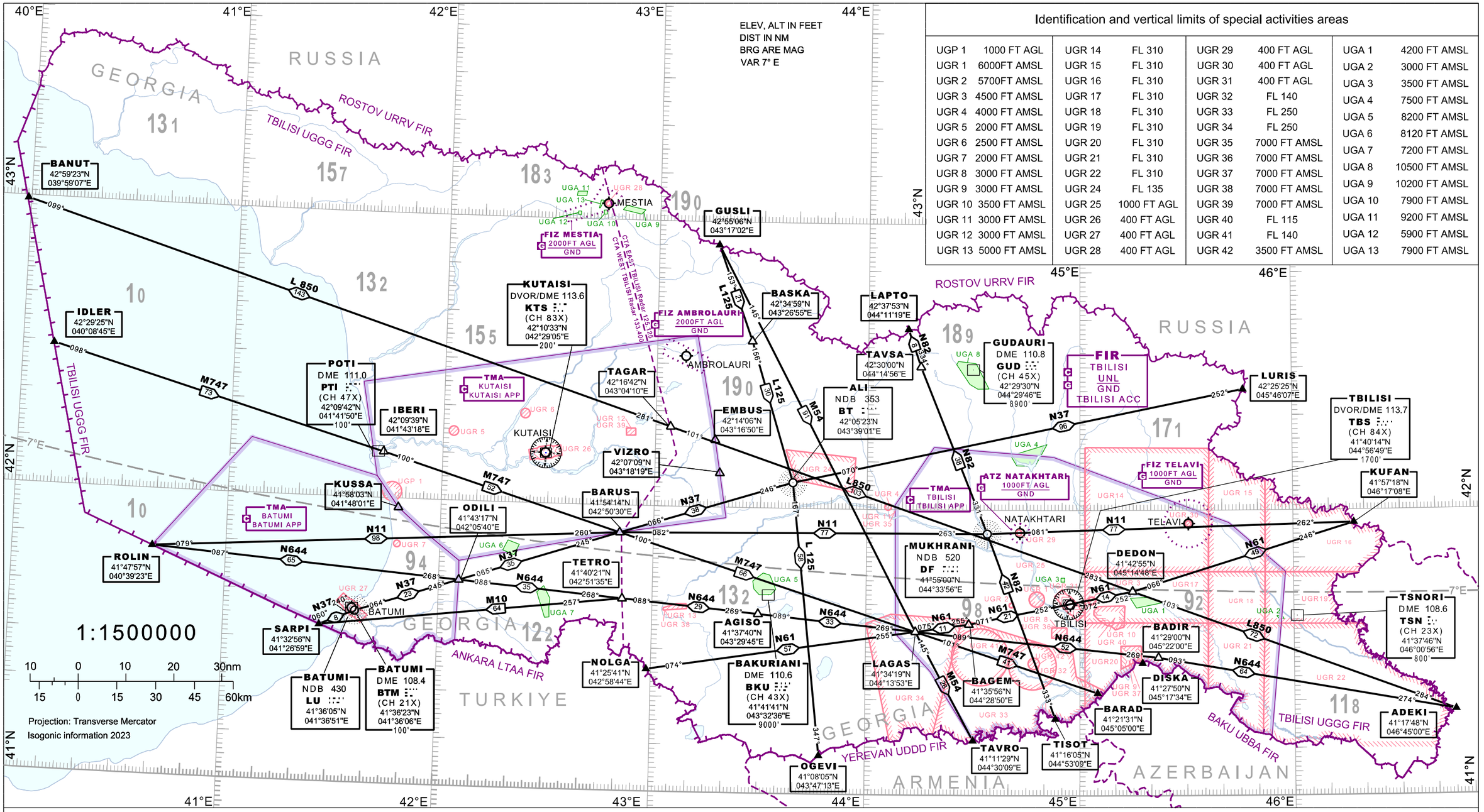
ENROUTE CHART - ICAO (Area navigation (RNAV) routes)



Identification and vertical limits of special activities areas

UGP 1	1000 FT AGL	UGR 14	FL 310	UGR 29	400 FT AGL	UGA 1	4200 FT AMSL
UGR 1	6000FT AMSL	UGR 15	FL 310	UGR 30	400 FT AGL	UGA 2	3000 FT AMSL
UGR 2	5700FT AMSL	UGR 16	FL 310	UGR 31	400 FT AGL	UGA 3	3500 FT AMSL
UGR 3	4500 FT AMSL	UGR 17	FL 310	UGR 32	FL 140	UGA 4	7500 FT AMSL
UGR 4	4000 FT AMSL	UGR 18	FL 310	UGR 33	FL 250	UGA 5	8200 FT AMSL
UGR 5	2000 FT AMSL	UGR 19	FL 310	UGR 34	FL 250	UGA 6	8120 FT AMSL
UGR 6	2500 FT AMSL	UGR 20	FL 310	UGR 35	7000 FT AMSL	UGA 7	7200 FT AMSL
UGR 7	2000 FT AMSL	UGR 21	FL 310	UGR 36	7000 FT AMSL	UGA 8	10500 FT AMSL
UGR 8	3000 FT AMSL	UGR 22	FL 310	UGR 37	7000 FT AMSL	UGA 9	10200 FT AMSL
UGR 9	3000 FT AMSL	UGR 24	FL 135	UGR 38	7000 FT AMSL	UGA 10	7900 FT AMSL
UGR 10	3500 FT AMSL	UGR 25	1000 FT AGL	UGR 39	7000 FT AMSL	UGA 11	9200 FT AMSL
UGR 11	3000 FT AMSL	UGR 26	400 FT AGL	UGR 40	FL 115	UGA 12	5900 FT AMSL
UGR 12	3000 FT AMSL	UGR 27	400 FT AGL	UGR 41	FL 140	UGA 13	7900 FT AMSL
UGR 13	5000 FT AMSL	UGR 28	400 FT AGL	UGR 42	3500 FT AMSL		

COMMUNICATION FACILITIES

TBILISI ACC Tbilisi Radar CTA EAST / CTA WEST	EAST UPPER Sector	EAST LOWER Sector	WEST UPPER Sector	WEST LOWER Sector	TBILISI	KUTAISI	BATUMI	MESTIA	AMBROLAURI	NATAKHTARI	TELAVI
Primary-125.125 Secondary-135.125 / Primary-133.400 Secondary-135.625	FL 660 FL345/FL355/FL365/FL375 Primary-133.500 Secondary-135.350	FL345/FL355/FL365/FL375 FL85 or 2000FT AGL whichever is higher Primary-125.125 Secondary-135.125	FL 660 FL345/FL355/FL365/FL375 Primary-134.450 Secondary-135.750	FL345/FL355/FL365/FL375 FL85 or 2000FT AGL whichever is higher Primary-133.400 Secondary-135.625	APP-134.600 TWR Primary-119.000 TWR Secondary-128.000 INFO-124.150 ATIS-132.800	APP-127.100 TWR-125.500	APP-124.425 TWR-118.600	INFO-121.100	INFO-119.850	131.750	TWR-120.000

Changes: Chart reissued

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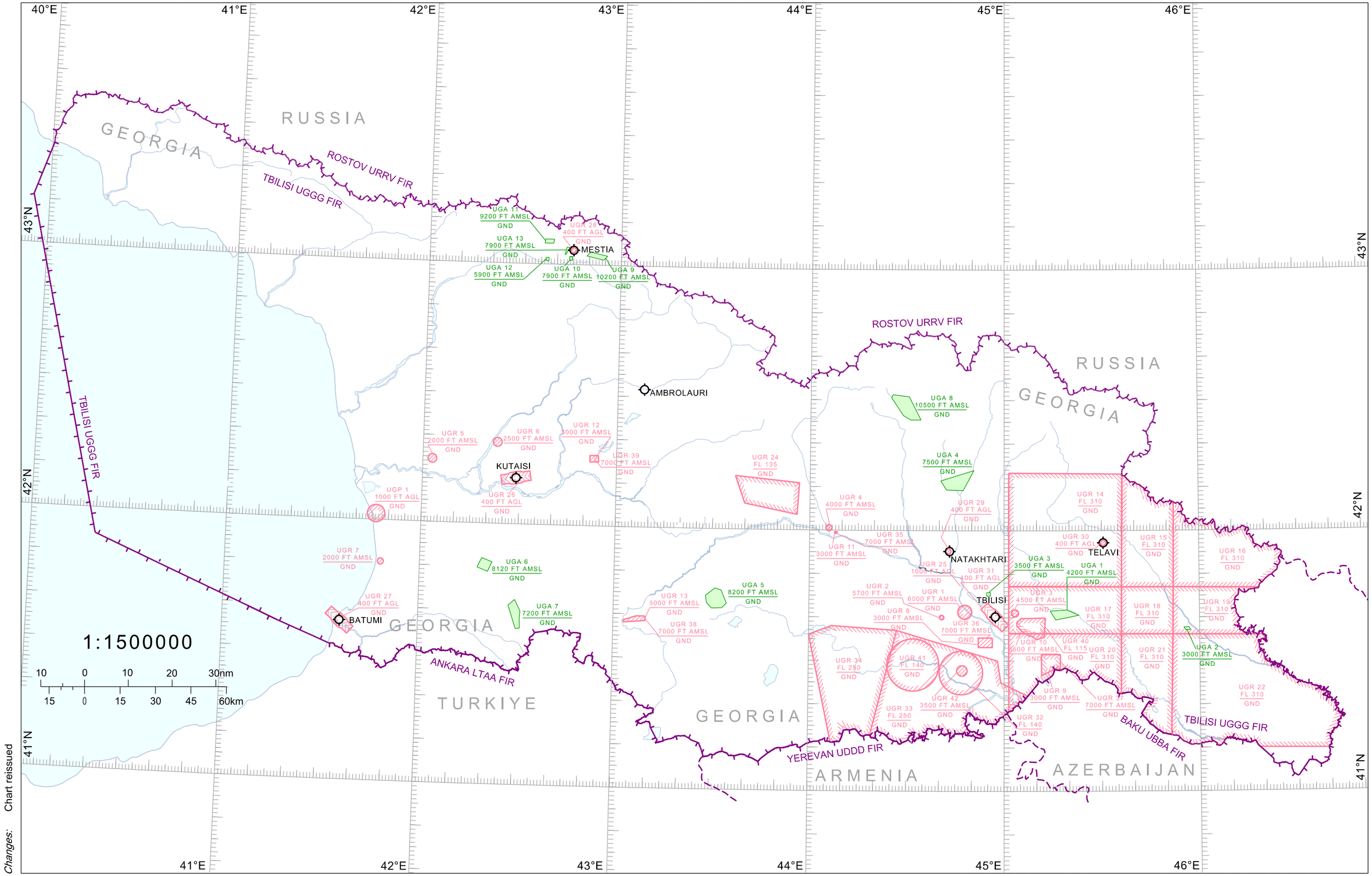
PROHIBITED, RESTRICTED AND AERIAL SPORTING AREAS CHART - INDEX CHART



Changes: Chart reissued

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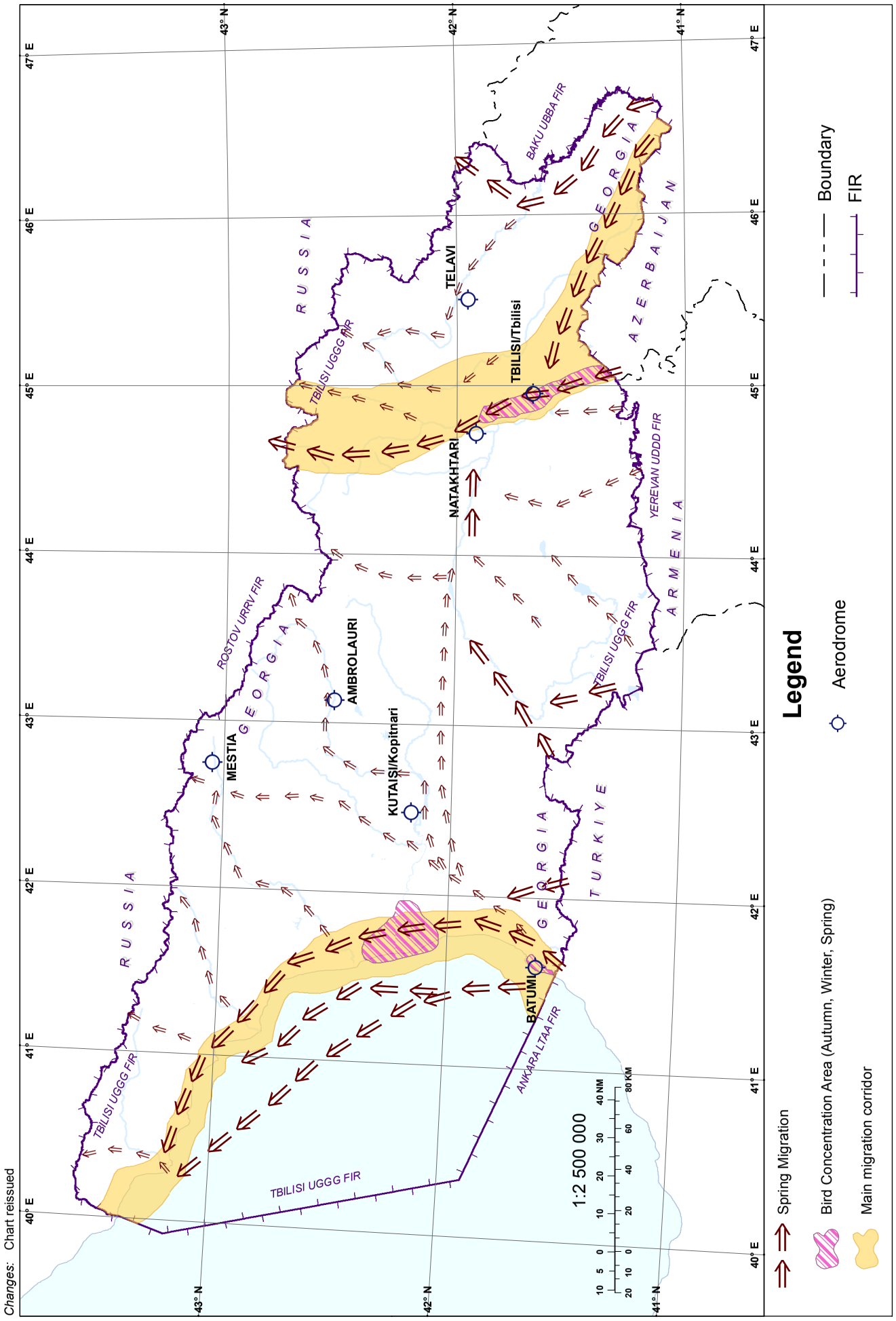
BIRD MIGRATION ROUTES (SPRING)



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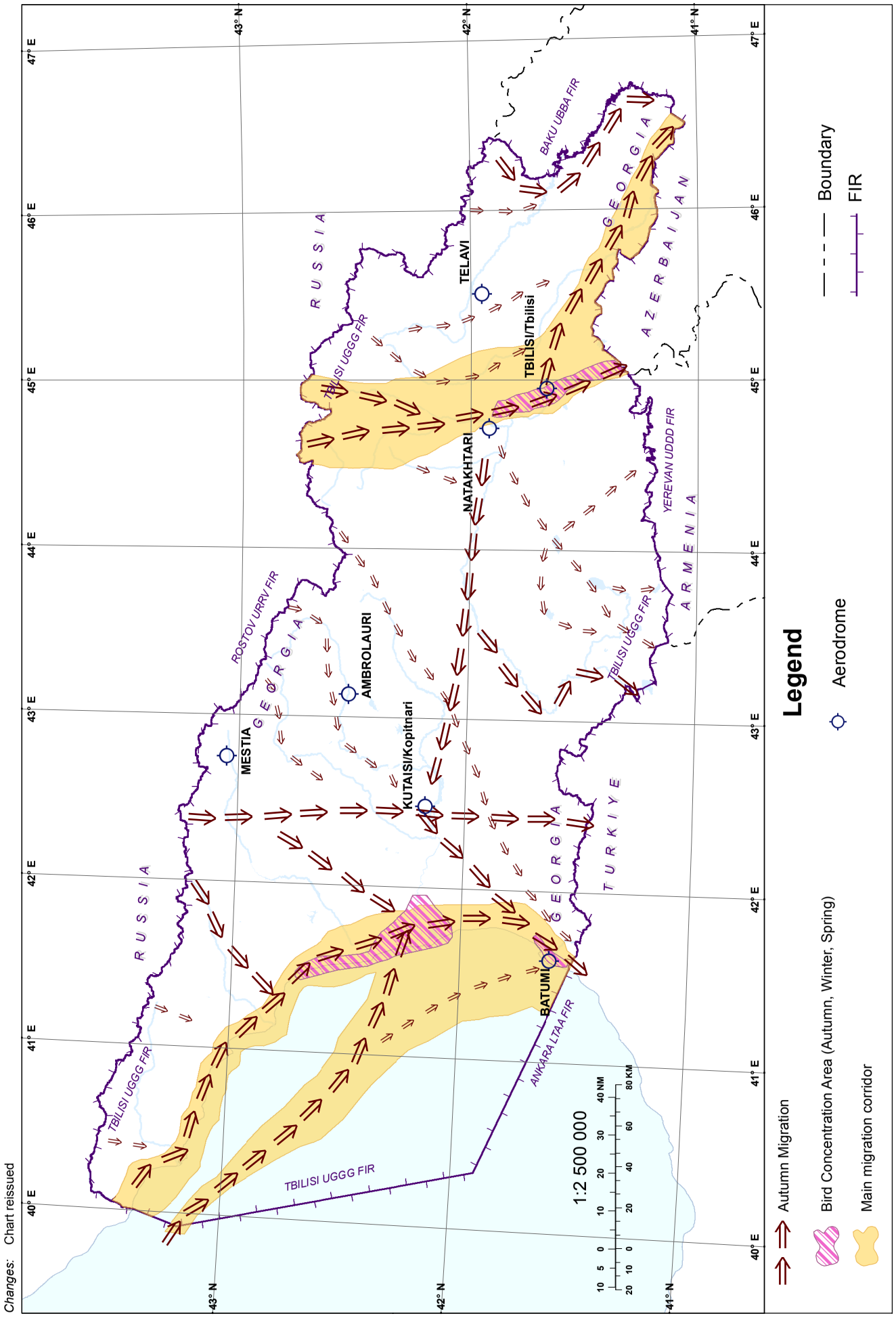
BIRD MIGRATION ROUTES (AUTUMN)



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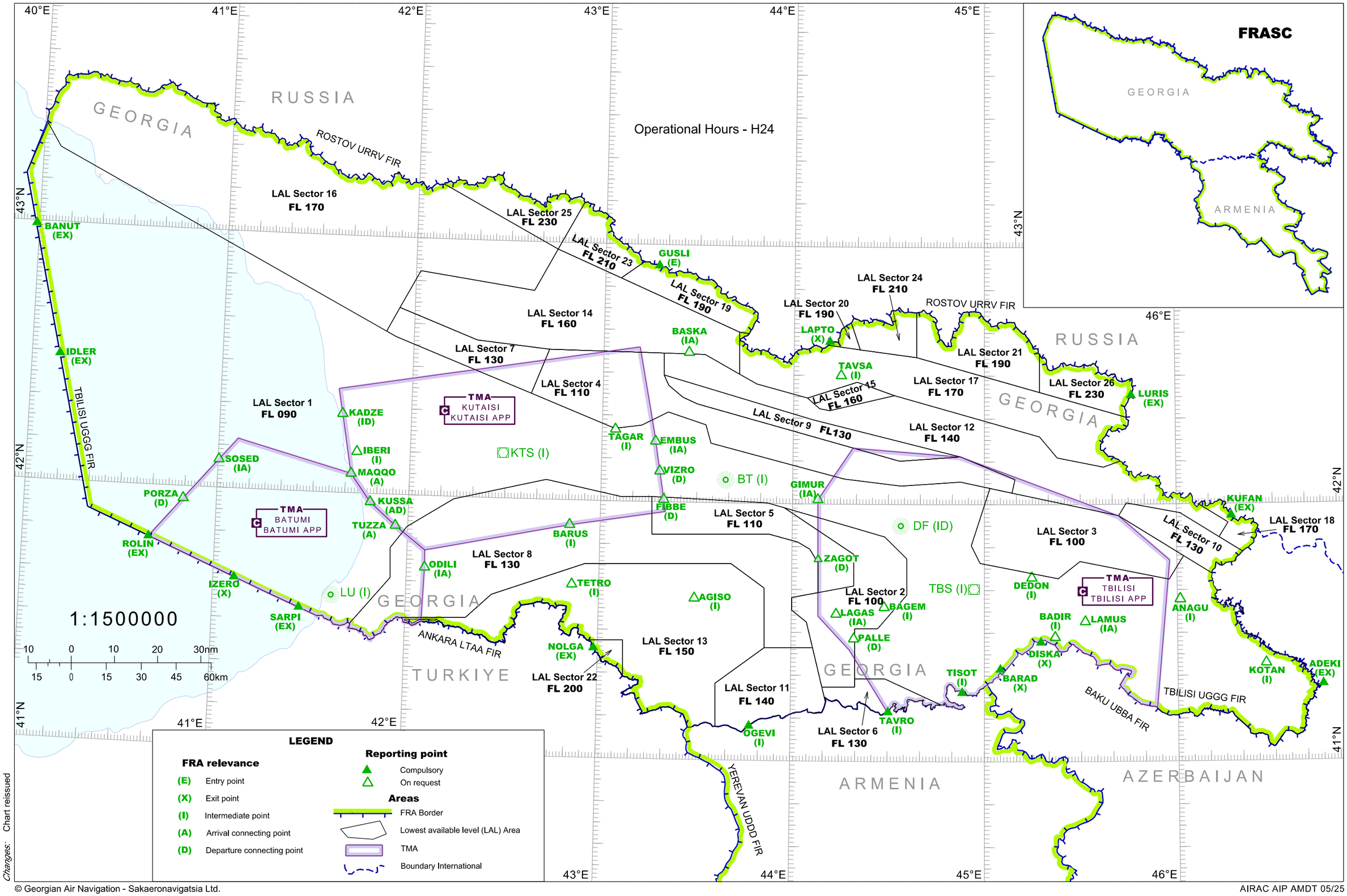
FREE ROUTE AIRSPACE SOUTH CAUCASUS (FRASC)



Changes: Chart reissued

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FRASC Lowest Available Level (LAL) Sectors' Coordinates

Sector	Lateral limits
LAL Sector 1	413100N 0413300E - 413600N 0411700E - 415400N 0402000E - 431100N 0395500E - 432236N 0400048E - 431723N 0400517E - 423757N 0415113E - 423646N 0415418E - 422435N 0423724E - 421653N 0430357E - 421747N 0431222E - 422058N 0432040E - 421809N 0433231E - 421352N 0433413E - 420553N 0441607E - 420420N 0443356E - 420517N 0445232E - 420349N 0450147E - 415027N 0445556E - 414618N 0445842E - 414242N 0452300E - 414642N 0452950E - 414226N 0455734E - 414754N 0460208E - 414346N 0461053E - then along the state border with Azerbaijan to - 4118N 04501E -then along the state border with Armenia to - 411320N 0444622E - 411918N 0442911E - 411915N 0441950E - 413057N 0441943E - 413059N 0442651E - 413853N 0443554E - 414721N 0443551E - 415226N 0442856E - 415430N 0441913E - 415903N 0435727E - 420008N 0435210E - 420110N 0431601E - 420101N 0430617E - 420436N 0424253E - 415925N 0421406E - 415236N 0415949E - 414731N 0415445E - 414034N 0415505E - 412933N 0414259E -then along the state border with Turkiye - 413100N 0413300E
LAL Sector 2	415903N 0435727E - 415430N 0441913E - 415226N 0442856E - 414721N 0443551E - 413853N 0443554E - 413059N 0442651E - 413057N 0441943E - 411915N 0441950E - 411721N 0441951E - 411717N 0440943E - 412627N 0440643E - 413227N 0440444E - 413510N 0440008E - 413809N 0440005E - 413920N 0440816E - 414056N 0441922E - 414820N 0441917E - 415903N 0435727E
LAL Sector 3	420349N 0450147E - 420244N 0450841E - 415720N 0454158E - 414754N 0460208E - 414226N 0455734E - 414642N 0452950E - 414242N 0452300E - 414618N 0445842E - 415027N 0445556E - 420349N 0450147E
LAL Sector 4	423458N 0424250E - 423441N 0431857E - 422935N 0431905E - 422711N 0432036E - 422429N 0432506E - 422257N 0432944E - 421008N 0443329E - 421111N 0445232E - 420553N 0450936E - 420244N 0450841E - 420349N 0450147E - 420517N 0445232E - 420420N 0443356E - 420553N 0441607E - 421352N 0433413E - 421809N 0433231E - 422058N 0432040E - 421747N 0431222E - 421653N 0430357E - 422435N 0423724E - 423458N 0424250E
LAL Sector 5	420110N 0431601E - 420008N 0435210E - 415903N 0435727E - 414820N 0441917E - 414056N 0441922E - 413920N 0440816E - 414617N 0440811E - 414927N 0440532E - 415104N 0440145E - 415250N 0435255E - 415223N 0431615E - 420110N 0431601E
LAL Sector 6	411344N 0441053E - 411717N 0440943E - 411721N 0441951E - 411915N 0441950E - 411918N 0442911E - 411320N 0444622E - then along the state border with Armenia to - 411344N 0441053E
LAL Sector 7	424334N 0415510E - 423637N 0421958E - 423458N 0424250E - 422435N 0423724E - 423646N 0415418E - 423757N 0415113E - 424334N 0415510E
LAL Sector 8	412933N 0414259E - 414034N 0415505E - 414731N 0415445E - 415236N 0415949E - 415925N 0421406E - 420436N 0424253E - 420101N 0430617E - 420110N 0431601E - 415223N 0431615E - 415250N 0435255E - 415104N 0440145E - 414927N 0440532E - 414617N 0440811E - 413920N 0440816E - 413809N 0440005E - 413510N 0440008E - 413227N 0440444E - 412627N 0440643E - 412619N 0435141E - 414016N 0435126E - 414552N 0434101E - 414511N 0425535E - 413727N 0422643E - 413151N 0421851E - 413122N 0415858E - then along the state border with Turkiye - 412933N 0414259E
LAL Sector 9	422935N 0431905E - 421939N 0440608E - 421111N 0445232E - 421008N 0443329E - 422257N 0432944E - 422429N 0432506E - 422711N 0432036E - 422935N 0431905E
LAL Sector 10	414346N 0461053E - 414754N 0460208E - 415720N 0454158E - 420018N 0454426E - 415755N 0460110E - 415213N 0461316E - 414847N 0462030E - then along the state border with Azerbaijan to - 414346N 0461053E
LAL Sector 11	410752N 0433651E - 411752N 0433639E - 412619N 0435141E - 412627N 0440643E - 411717N 0440943E - 411344N 0441053E - then along the state border with Armenia - 410752N 0433651E

For continuation see ENR 6-13-5

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FRASC Lowest Available Level (LAL) Sectors' Coordinates (Continuation)

Sector	Lateral limits
LAL Sector 12	415952N 0460704E - 415536N 0461608E - 415213N 0461316E - 415755N 0460110E - 420018N 0454426E - 415720N 0454158E - 420244N 0450841E - 420553N 0450936E - 421111N 0445232E - 421939N 0440608E - 422935N 0431905E - 423441N 0431857E - 423432N 0433156E - 423004N 0434253E - 422751N 0434818E - 422443N 0440421E - 422214N 0440813E - 422149N 0441126E - 422526N 0443143E - 421550N 0451719E - 421054N 0452252E - 420843N 0453720E - 421005N 0454230E - then along the state border with Russia - 415952N 0460704E
LAL Sector 13	413122N 0415858E - 413151N 0421851E - 413727N 0422643E - 414511N 0425535E - 414552N 0434101E - 414016N 0435126E - 412619N 0435141E - 411752N 0433639E - 410752N 0433651E - then along the state border with Armenia to - 4107N 04328E - then along the state border with Turkiye to - 411915N 0430803E - 412738N 0430749E - 412727N 0425641E - then along the state border with Turkiye to - 413122N 0415858E
LAL Sector 14	425821N 0424441E - 425201N 0430454E - 423953N 0434241E - 423004N 0434253E - 423432N 0433156E - 423441N 0431857E - 423458N 0424250E - 423637N 0421958E - 424334N 0415510E - 425220N 0420123E - 424835N 0423733E - 425821N 0424441E
LAL Sector 15	422443N 0440421E - 422829N 0442001E - 422526N 0443143E - 422149N 0441126E - 422214N 0440813E - 422443N 0440421E
LAL Sector 16	431243N 0420754E - 425821N 0424441E - 424835N 0423733E - 425220N 0420123E - 424334N 0415510E - 423757N 0415113E - 431723N 0400517E - 432236N 0400048E - 432300N 0400100E - then along the state border with Russia to - 431243N 0420754E
LAL Sector 17	423705N 0441046E - 423602N 0442052E - 423418N 0443843E - 422610N 0451722E - 422017N 0454433E - then along the state border with Russia to - 421005N 0454230E - 420843N 0453720E - 421054N 0452252E - 421550N 0451719E - 422526N 0443143E - 422829N 0442001E - 422443N 0440421E - 422751N 0434818E - 423004N 0434253E - 423953N 0434241E - 423935N 0434543E - then along the state border with Russia to - 423705N 0441046E
LAL Sector 18	414847N 0462030E - 415213N 0461316E - 415536N 0461608E - 415952N 0460704E - then along the state border with Russia to - 4155N 04625E - then along the state border with Azerbaijan - 414847N 0462030E
LAL Sector 19	423935N 0434543E - 423953N 0434241E - 425201N 0430454E - 425554N 0431214E - then along the state border with Russia to - 423935N 0434543E
LAL Sector 20	424223N 0441758E - 423602N 0442052E - 423705N 0441046E - then along the state border with Russia to - 424223N 0441758E
LAL Sector 21	423505N 0451725E - 422610N 0451722E - 423418N 0443843E - 424446N 0443840E - then along the state border with Russia to - 423505N 0451725E
LAL Sector 22	412727N 0425641E - 412738N 0430749E - 411915N 0430803E - then along the state border with Turkiye to - 412727N 0425641E
LAL Sector 23	430923N 0425248E - 425821N 0424441E - 425201N 0430454E - 425554N 0431214E - then along the state border with Russia to - 430923N 0425248E
LAL Sector 24	424446N 0443840E - 423418N 0443843E - 423602N 0442052E - 424223N 0441758E - then along the state border with Russia to - 424446N 0443840E
LAL Sector 25	430923N 0425248E - 425821N 0424441E - 431243N 0420754E - then along the state border with Russia to - 430923N 0425248E
LAL Sector 26	422017N 0454433E - 422610N 0451722E - 423505N 0451725E - then along the state border with Russia to - 422017N 0454433E

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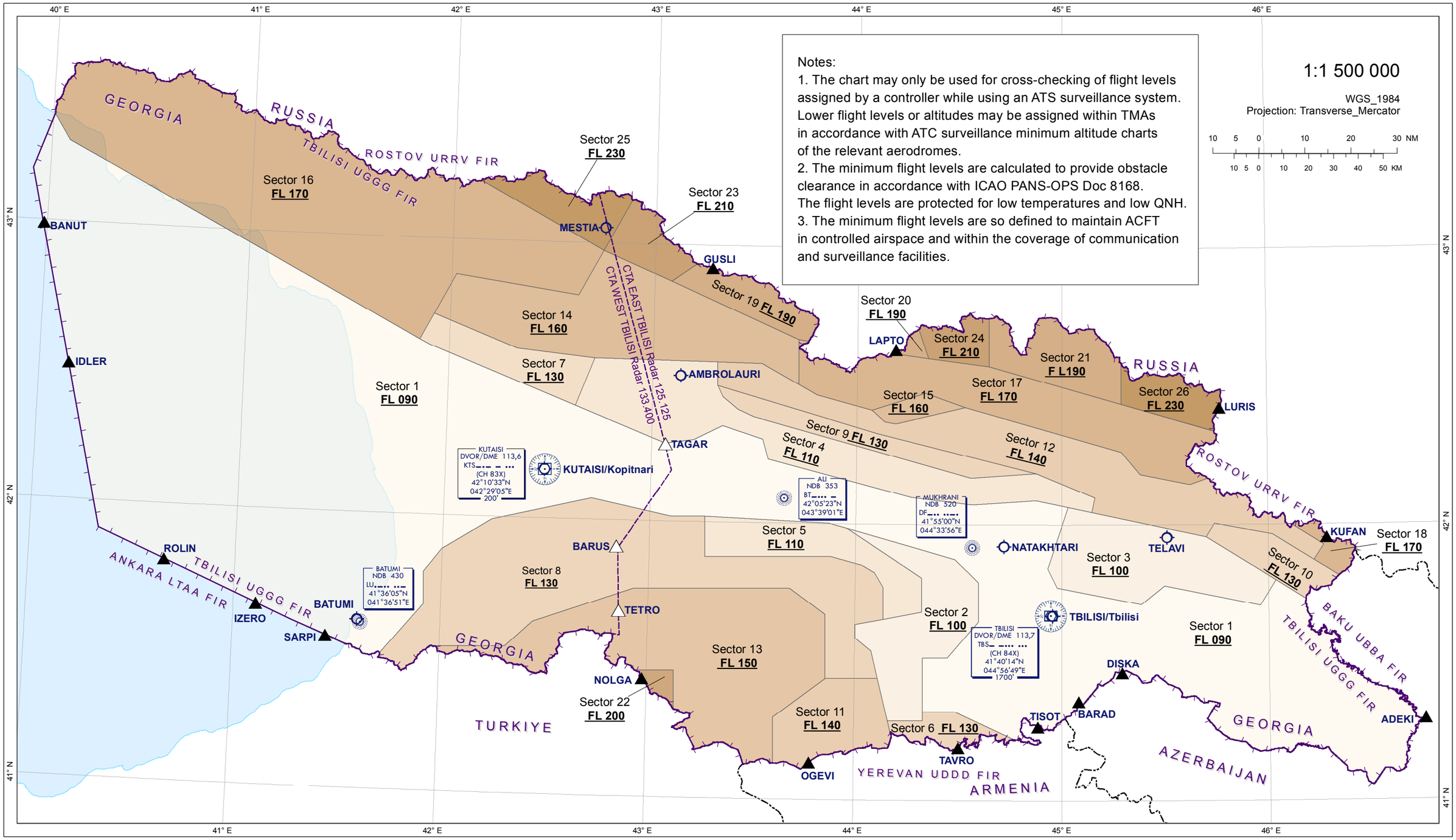
ENROUTE ATC SURVEILLANCE MINIMUM ALTITUDE CHART

G E O R G I A



LEGEND

- Aerodrome
- NDB
- VOR/DME
- FIR
- Compulsory Reporting point
- On request Reporting point
- Communication sector boundary
- Boundary (International)

Changes: Chart reissued

COMMUNICATION FACILITIES

TBILISI ACC Tbilisi Radar	EAST UPPER Sector FL660	WEST UPPER Sector FL660	TBILISI	KUTAISI	MESTIA
CTA EAST Primary - 125.125 Secondary - 135.125 CTA WEST Primary - 133.400 Secondary - 135.625	FL345/FL355/FL365/FL375 Primary - 133.500 Secondary - 135.350 EAST LOWER Sector FL345/FL355/FL365/FL375 FL85 or 2000FT AGL whichever is higher Primary - 125.125 Secondary - 135.125	FL345/FL355/FL365/FL375 Primary - 134.450 Secondary - 135.750 WEST LOWER Sector FL345/FL355/FL365/FL375 FL85 or 2000FT AGL whichever is higher Primary - 133.400 Secondary - 135.625	APP - 134.600 TWR Primary - 119.000 TWR Secondary - 128.000 INFO - 124.150 ATIS - 132.800	APP - 127.100 TWR - 125.500 BATUMI APP - 124.425 TWR - 118.600	INFO - 121.100 AMBROLAURI INFO - 119.850 NATAKHTARI 131.750 TELAVI TWR-120.000

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ENROUTE ATCSMAC Sectors' Coordinates

Sector	Lateral limits
Sector 1	413100N 0413300E - 413600N 0411700E - 415400N 0402000E - 431100N 0395500E - 432236N 0400048E - 431723N 0400517E - 423757N 0415113E - 423646N 0415418E - 422435N 0423724E - 421653N 0430357E - 421747N 0431222E - 422058N 0432040E - 421809N 0433231E - 421352N 0433413E - 420553N 0441607E - 420420N 0443356E - 420517N 0445232E - 420349N 0450147E - 415027N 0445556E - 414618N 0445842E - 414242N 0452300E - 414642N 0452950E - 414226N 0455734E - 414754N 0460208E - 414346N 0461053E - then along the state border with Azerbaijan to - 4118N 04501E -then along the state border with Armenia to - 411320N 0444622E - 411918N 0442911E - 411915N 0441950E - 413057N 0441943E - 413059N 0442651E - 413853N 0443554E - 414721N 0443551E - 415226N 0442856E - 415430N 0441913E - 415903N 0435727E - 420008N 0435210E - 420110N 0431601E - 420101N 0430617E - 420436N 0424253E - 415925N 0421406E - 415236N 0415949E - 414731N 0415445E - 414034N 0415505E - 412933N 0414259E -then along the state border with Turkiye - 413100N 0413300E
Sector 2	415903N 0435727E - 415430N 0441913E - 415226N 0442856E - 414721N 0443551E - 413853N 0443554E - 413059N 0442651E - 413057N 0441943E - 411915N 0441950E - 411721N 0441951E - 411717N 0440943E - 412627N 0440643E - 413227N 0440444E - 413510N 0440008E - 413809N 0440005E - 413920N 0440816E - 414056N 0441922E - 414820N 0441917E - 415903N 0435727E
Sector 3	420349N 0450147E - 420244N 0450841E - 415720N 0454158E - 414754N 0460208E - 414226N 0455734E - 414642N 0452950E - 414242N 0452300E - 414618N 0445842E - 415027N 0445556E - 420349N 0450147E
Sector 4	423458N 0424250E - 423441N 0431857E - 422935N 0431905E - 422711N 0432036E - 422429N 0432506E - 422257N 0432944E - 421008N 0443329E - 421111N 0445232E - 420553N 0450936E - 420244N 0450841E - 420349N 0450147E - 420517N 0445232E - 420420N 0443356E - 420553N 0441607E - 421352N 0433413E - 421809N 0433231E - 422058N 0432040E - 421747N 0431222E - 421653N 0430357E - 422435N 0423724E - 423458N 0424250E
Sector 5	420110N 0431601E - 420008N 0435210E - 415903N 0435727E - 414820N 0441917E - 414056N 0441922E - 413920N 0440816E - 414617N 0440811E - 414927N 0440532E - 415104N 0440145E - 415250N 0435255E - 415223N 0431615E - 420110N 0431601E
Sector 6	411344N 0441053E - 411717N 0440943E - 411721N 0441951E - 411915N 0441950E - 411918N 0442911E - 411320N 0444622E - then along the state border with Armenia to - 411344N 0441053E
Sector 7	424334N 0415510E - 423637N 0421958E - 423458N 0424250E - 422435N 0423724E - 423646N 0415418E - 423757N 0415113E - 424334N 0415510E
Sector 8	412933N 0414259E - 414034N 0415505E - 414731N 0415445E - 415236N 0415949E - 415925N 0421406E - 420436N 0424253E - 420101N 0430617E - 420110N 0431601E - 415223N 0431615E - 415250N 0435255E - 415104N 0440145E - 414927N 0440532E - 414617N 0440811E - 413920N 0440816E - 413809N 0440005E - 413510N 0440008E - 413227N 0440444E - 412627N 0440643E - 412619N 0435141E - 414016N 0435126E - 414552N 0434101E - 414511N 0425535E - 413727N 0422643E - 413151N 0421851E - 413122N 0415858E - then along the state border with Turkiye - 412933N 0414259E
Sector 9	422935N 0431905E - 421939N 0440608E - 421111N 0445232E - 421008N 0443329E - 422257N 0432944E - 422429N 0432506E - 422711N 0432036E - 422935N 0431905E
Sector 10	414346N 0461053E - 414754N 0460208E - 415720N 0454158E - 420018N 0454426E - 415755N 0460110E - 415213N 0461316E - 414847N 0462030E - then along the state border with Azerbaijan to - 414346N 0461053E
Sector 11	410752N 0433651E - 411752N 0433639E - 412619N 0435141E - 412627N 0440643E - 411717N 0440943E - 411344N 0441053E - then along the state border with Armenia - 410752N 0433651E

For continuation see ENR 6-15-5

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ENROUTE ATCSMAC Sectors' Coordinates (Continuation)

Sector	Lateral limits
Sector 12	415952N 0460704E - 415536N 0461608E - 415213N 0461316E - 415755N 0460110E - 420018N 0454426E - 415720N 0454158E - 420244N 0450841E - 420553N 0450936E - 421111N 0445232E - 421939N 0440608E - 422935N 0431905E - 423441N 0431857E - 423432N 0433156E - 423004N 0434253E - 422751N 0434818E - 422443N 0440421E - 422214N 0440813E - 422149N 0441126E - 422526N 0443143E - 421550N 0451719E - 421054N 0452252E - 420843N 0453720E - 421005N 0454230E - then along the state border with Russia - 415952N 0460704E
Sector 13	413122N 0415858E - 413151N 0421851E - 413727N 0422643E - 414511N 0425535E - 414552N 0434101E - 414016N 0435126E - 412619N 0435141E - 411752N 0433639E - 410752N 0433651E - then along the state border with Armenia to - 4107N 04328E - then along the state border with Turkiye to - 411915N 0430803E - 412738N 0430749E - 412727N 0425641E - then along the state border with Turkiye to - 413122N 0415858E
Sector 14	425821N 0424441E - 425201N 0430454E - 423953N 0434241E - 423004N 0434253E - 423432N 0433156E - 423441N 0431857E - 423458N 0424250E - 423637N 0421958E - 424334N 0415510E - 425220N 0420123E - 424835N 0423733E - 425821N 0424441E
Sector 15	422443N 0440421E - 422829N 0442001E - 422526N 0443143E - 422149N 0441126E - 422214N 0440813E - 422443N 0440421E
Sector 16	431243N 0420754E - 425821N 0424441E - 424835N 0423733E - 425220N 0420123E - 424334N 0415510E - 423757N 0415113E - 431723N 0400517E - 432236N 0400048E - 432300N 0400100E - then along the state border with Russia to - 431243N 0420754E
Sector 17	423705N 0441046E - 423602N 0442052E - 423418N 0443843E - 422610N 0451722E - 422017N 0454433E - then along the state border with Russia to - 421005N 0454230E - 420843N 0453720E - 421054N 0452252E - 421550N 0451719E - 422526N 0443143E - 422829N 0442001E - 422443N 0440421E - 422751N 0434818E - 423004N 0434253E - 423953N 0434241E - 423935N 0434543E - then along the state border with Russia to - 423705N 0441046E
Sector 18	414847N 0462030E - 415213N 0461316E - 415536N 0461608E - 415952N 0460704E - then along the state border with Russia to - 4155N 04625E - then along the state border with Azerbaijan - 414847N 0462030E
Sector 19	423935N 0434543E - 423953N 0434241E - 425201N 0430454E - 425554N 0431214E - then along the state border with Russia to - 423935N 0434543E
Sector 20	424223N 0441758E - 423602N 0442052E - 423705N 0441046E - then along the state border with Russia to - 424223N 0441758E
Sector 21	423505N 0451725E - 422610N 0451722E - 423418N 0443843E - 424446N 0443840E - then along the state border with Russia to - 423505N 0451725E
Sector 22	412727N 0425641E - 412738N 0430749E - 411915N 0430803E - then along the state border with Turkiye to - 412727N 0425641E
Sector 23	430923N 0425248E - 425821N 0424441E - 425201N 0430454E - 425554N 0431214E - then along the state border with Russia to - 430923N 0425248E
Sector 24	424446N 0443840E - 423418N 0443843E - 423602N 0442052E - 424223N 0441758E - then along the state border with Russia to - 424446N 0443840E
Sector 25	430923N 0425248E - 425821N 0424441E - 431243N 0420754E - then along the state border with Russia to - 430923N 0425248E
Sector 26	422017N 0454433E - 422610N 0451722E - 423505N 0451725E - then along the state border with Russia to - 422017N 0454433E

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AD Part 3 — Aerodromes

AD 0

AD 0.1 Preface - NOT APPLICABLE

NIL

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AD 0.2 Record of AIP Amendments - NOT APPLICABLE

NIL

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AD 0.3 Record of AIP Supplements - NOT APPLICABLE

NIL

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AD 0.4 Checklist of AIP pages - NOT APPLICABLE

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AD 0.5 List of hand amendments to the AIP - NOT APPLICABLE

NIL

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AD 0.6 Table of Contents to Part 3

AD 1 Aerodromes/heliports - introduction

AD 1.1 Aerodrome/heliport availability and conditions of use

1 General conditions

This section contains information on all aerodromes of Georgia, which are available for use in international and national aircraft operations.

The responsible authority for the civil aerodromes is Georgian Civil Aviation Agency.

Post: Georgian Civil Aviation Agency
Beginning of I Kheivani Street
0114 Tbilisi, Georgia
Tel: +995 32 294 80 10 (111)
Tel: +995 32 236 40 51
AFS: UGGUDNXX
AFS: UGGGZDZX
E-mail: cds@gcaa.ge

Landing of foreign aircraft on the territory of Georgia, shall be made only at the aerodromes specially designated for handling international air traffic listed in intergovernmental agreements on air services, as well as in documents produced through additional negotiations on the matter.

Note.— See GEN 1.2.

A state or an airline may, at its own discretion and within the established official minimum safe obstacle clearance limit, fix landing minima for their aircraft at the aerodromes assigned for international civil aviation operations. Take-off of aircraft from these aerodromes is not limited by meteorological conditions. Responsibility for observing the take-off and landing minima established by States and airlines rests with the pilot-in-command of aircraft.

Pilot-in-command of foreign aircraft operating in Georgia decides independently on the possibility of taking-off from an aerodrome, and of landing at a destination aerodrome while assuming full responsibility for the decision taken.

In case of forced landing of an aircraft, the ATC service renders this aircraft possible assistance in making a safe landing, without assuming responsibility for the outcome of the landing.

The ATC service has the right, if need arises, to forbid take-offs, and landings. However, this right may not be regarded as assuming responsibility for the decision taken by the pilot-in-command or exerting control over its correctness.

Documentation and differences on which requirements are services provided and aerodromes operated can be found in GEN 1.6 and GEN 1.7.

2 Use of military air bases

To be developed.

3 Low visibility procedures

Not applicable.

4 Aerodrome operating minima

To be developed.

5 Other information

5.1 Friction measuring device used and friction level below which the runway is declared slippery when it is wet

Aerodrome authorities are required to conduct periodically surveys of the friction characteristics of their runway surface. The purpose of these surveys is to predict the need for maintenance of the runway surface.

The recognized Continuous Friction Measurement Equipment devices in Georgia are SARSYS - STFT and ASFT equipment.

Table: SARSYS STFT and ASFT Friction Levels

Friction Measurement Equipment	Design objective for new surface	Maintenance planning level	Minimum friction level
SARSYS - STFT	0.80	0.54	0.43
ASFT	0.81	0.55	0.47

If a survey indicates that the runway surface friction characteristics have deteriorated below the specified Minimum Friction Level, based on aerodrome authority assessment runway will be notified by NOTAM as a runway 'may be slippery when wet'.

5.2 Runway surface condition

Aerodrome operator is responsible for assessment of operated runway and provision of Runway Surface Report (RCR) when the runway is wholly or partly contaminated by standing water, snow, slush, ice, frost, or is wet.

Runway surface condition assessment methods include but are not limited to use of the Runway Condition Assessment Matrix.

From runway surface assessment Runway Condition Code (RWYCC) and description of the runway surface are reported, which is based on the assessment of type, depth and coverage of contaminants.

When pilot reports runway braking action LESS THAN POOR aerodrome operator should reassess runway surface and may consider suspension of operation. Suspension of operation on runway also may be considered from runway surface periodic assessments.

Information about runway surface condition is distributed by AIS and ATS.

AD 1.2 Rescue and fire fighting services and snow plan

1 Rescue and fire fighting services

Adequate rescue and fire fighting vehicles, equipment and personnel are available at all aerodromes open to international commercial air transport.

The level of protection available is determined by the aerodrome category. Each rescue and fire fighting service is under the supervision and full service on a 24 hour basis is normally provided.

Note.– For heliports, special rules will apply.

Information about whether there is service or not and also the extent of the service is given on the relevant page for each aerodrome. Scheduled or non-scheduled traffic with aircraft carrying passengers are not allowed to use aerodromes without Rescue and Fire Fighting Services.

Each individual service is categorized according to the table shown below. Temporary changes will be published by NOTAM.

Aerodrome category	Foam meeting performance level A		Foam meeting performance level B		Foam meeting performance level C		Complementary agent	
	Water (L)	Discharge rate foam solution/ minute (L)	Water (L)	Discharge rate foam solution/ minute (L)	Water (L)	Discharge rate foam solution/ minute (L)	Dry chemical powders (kg)	Discharge Rate (kg/ second)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	350	350	230	230	160	160	45	2.25
2	1000	800	670	550	460	360	90	2.25
3	1800	1300	1200	900	820	630	135	2.25
4	3600	2600	2400	1800	1700	1100	135	2.25
5	8100	4500	5400	3000	3900	2200	180	2.25
6	11800	6000	7900	4000	5800	2900	225	2.25
7	18200	7900	12100	5300	8800	3800	225	2.25
8	27300	10800	18200	7200	12800	5100	450	4.5
9	36400	13500	24300	9000	17100	6300	450	4.5
10	48200	16600	32300	11200	22800	7900	450	4.5

2 Snow plan

2.1 Responsibility

The airport authority is the organization responsible for the operational maintenance of aerodrome pavement areas (evaluating the serviceability of the aerodrome elements and any change of their status) and for reporting the relevant information.

2.2 Measurement of contaminate depth

A metallic measuring rod will be used for measuring the depth of a layer of contaminate. The depth of standing water will be measured by the optical measuring rod OL-1 or a metallic measuring rod.

2.3 Measurement of braking action

The friction coefficient on runways will be measured with the SARSYS - STFT and ASFT. If aerodrome authority will use other braking action devices, those devices will be correlated to SARSYS - STFT and ASFT values. Based on these values the friction coefficient will be calculated as an average value for each third of the runway. Runway friction coefficient can be used by aerodrome operator for upgrading or downgrading of runway condition code (RWYCC).

2.4 Removal of snow (slush, ice and water)

Snow and slush are removed by sweepers, rotary ploughs, motor grades, bulldozers and blowers. Ice is removed by thermal equipment and chemicals (or a combination of both methods). Standing water is removed by blowers and sweepers.

For additional information see AD 2.7.

2.5 Snow removal priorities

Priority 1:

The following priorities are used for snow clearance and treatment:

1. Runway in use;
2. Access roads for the fire fighting vehicles for runway in use;
3. Taxiways in use;
4. Aircraft stands in use;
5. Other areas essential for operation of the aerodrome, e.g. navigation and communication sites, visual aids and meteorological equipment.

Priority 2:

1. Other runways and taxiways than those cleared as priority 1;
2. Other aprons/parking places;
3. Other areas such as roads and carparks.

2.6 Coordination of snow removal

For keeping the movement areas operational, the aerodrome service cooperates with the ATC service.

2.7 Distribution of information on snow conditions

The information about the conditions of the movement areas is issued by SNOWTAM. The AIS, after receiving information about the runway conditions at the aerodromes included in this AIP, publishes a SNOWTAM for these aerodromes and sends it to the appropriate authorities, including those of foreign states. Information about the runway conditions shall be issued to departing and to arriving crews by TWR.

AD 1.3 Index to aerodromes and heliports

Aerodrome/heliport name Location indicator	Type of traffic permitted to use the aerodrome/heliport			Reference to AD Section and remarks
	International – National (INTL - NTL)	IFR - VFR	S = Scheduled NS = Non-scheduled P = Private	
1	2	3	4	5
BATUMI **UGSB**	INTL - NTL	IFR - VFR	S – NS – P	AD 2.UGSB
KUTAISI/Kopitnari **UGKO**	INTL - NTL	IFR - VFR	S – NS – P	AD 2.UGKO
TBILISI/Tbilisi **UGTB**	INTL - NTL	IFR - VFR	S – NS – P	AD 2.UGTB
MESTIA **UGMS**	NTL	VFR	S – NS – P	AD 2.UGMS
NATAKHTARI **UGSA**	NTL	VFR	S – NS – P	AD 2.UGSA
TELAVI **UGGT**	NTL	VFR	S – NS – P	AD 2.UGGT
AMBROLAURI **UGAM**	NTL	VFR	S – NS – P	AD 2.UGAM

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AD 1.4 Grouping of aerodromes/ heliports

The criteria applied by Georgia in grouping aerodromes/heliports for the provision of information in this AIP are as follows:

International aerodrome/ heliport

The aerodrome/ heliport of entry and departure for international air traffic, where all formalities concerning customs, immigration, health, animal and plant quarantine and similar procedures are carried out and where air traffic services are available on a regular basis.

Domestic aerodrome/ heliport

An aerodrome/ heliport available only for domestic air traffic, including those military aerodrome/heliport where civil air traffic is allowed under certain conditions. Information about national aerodromes might be obtained at the international aerodromes.

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AD 1.5 Status of certification of aerodromes

Aerodrome name Location indicator	Validity and date of certification	Remarks
Tbilisi/Tbilisi UGTB	Permanent 23 Mar 2022	NIL
Batumi UGSB	Permanent 18 May 2023	NIL
Kutaisi/Kopitnari UGKO	Permanent 17 Jan 2022	NIL
Mestia UGMS	Permanent 18 Jan 2022	NIL
Natakhtari UGSA	Permanent 24 Jan 2022	NIL
Telavi UGGT	Permanent 04 Feb 2022	NIL
Ambrolauri UGAM	Permanent 20 Jan 2022	NIL

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AD 2 Aerodromes

UGAM

UGAM AD 2.1 Aerodrome location indicator and name

UGAM - AMBROLAURI

UGAM AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	423137N 0430808E RWY 11/29 centre
2	**Direction and distance from (city)**	1.6 KM NE from Ambrolauri centre
3	**Elevation / Reference temperature**	1784 FT / 29°C
4	**Geoid undulation at AD ELEV PSN**	71 FT
5	**MAG VAR / Annual change**	7°E (2021) / NIL
6	**Aerodrome operator**	UNITED AIRPORTS OF GEORGIA LTD
	Address	UNITED AIRPORTS OF GEORGIA 0198 TBILISI GEORGIA
	Telephone	+995322487300
	Telefax	NIL
	AFS	NIL
	E-mail	info@airports.ge, ambrolauri@airports.ge
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	VFR
8	**Remarks**	NIL

UGAM AD 2.3 Operational hours

1	**AD Operator**	Daily 0430-1430
2	**Customs and immigration**	NIL
3	**Health and sanitation**	NIL
4	**AIS Briefing Office**	NIL
5	**ATS Reporting Office (ARO)**	NIL
6	**MET Briefing Office**	NIL
7	**ATS**	Daily 0400-1440
8	**Fuelling**	NIL
9	**Handling**	Daily 0430-1430
10	**Security**	H24
11	**De-icing**	NIL
12	**Remarks**	NIL

UGAM AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	NIL
3	**Fuelling facilities / capacity**	NIL
4	**De-icing facilities**	NIL
5	**Hangar space for visiting aircraft**	NIL
6	**Repair facilities for visiting aircraft**	NIL
7	**Remarks**	NIL

UGAM AD 2.5 Passenger facilities

1	**Hotels**	Available in the city
2	**Restaurants**	Restaurant in the city, cafe at AD and in the city
3	**Transportation**	Taxis from AD, car rent at AD
4	**Medical Facilities**	First medical aid at hospital in the city
5	**Bank and Post Office**	Bank in the city Post Office: NIL
6	**Tourist Office**	Available in the city and at AD
7	**Remarks**	NIL

UGAM AD 2.6 Rescue and fire fighting services

1	**AD category for fire fighting**	CAT 3
2	**Rescue equipment**	1 Fire truck
3	**Capability for removal of disabled aircraft**	Available for L410-UVPE
4	**Remarks**	Responsible person's details: Mob: +995599263621 E-mail: g.murusidze@airports.ge

UGAM AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	Snow removal vehicle - Tractor FENDT 820 VARIO
2	**Clearance priorities**	1. RWY 11/29 and access roads to the Airport Rescue Service 2. TWY and taxiing paths on the apron 3. Aircraft parking stands and the aerodrome vehicles paths
3	**Remarks**	The snow plan and friction measuring details see in section AD 1.2.2

UGAM AD 2.8 Aprons, taxiways and check locations/positions data

1	**Apron designation, surface and strength of aprons**	APRON: Concrete and asphalt, PCN 10/F/B/Y/T
2	**Taxiway designation, width, surface and strength**	TWY A: 18 M, Concrete and asphalt, PCN 10/F/B/Y/T
3	**Altimeter checkpoint location and elevation**	Apron Elevation 1774 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	NIL
6	**Remarks**	NIL

UGAM AD 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 aircraft stands**	TWY guide lines
2	**RWY and TWY markings and LGT**	RWY: Designation, THR, centre line, TDZ, edge line marked TWY: Centre line, edge lines, holding position marked
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGAM AD 2.10 Aerodrome obstacles

1 Obstacles in Area 2

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGAM01	Pole	423159.2N 0430716.8E	1915/- FT	NIL	Mast
UGAM02	Pole	423157.5N 0430726.1E	1873/- FT	NIL	Mast
UGAM03	Pole	423154.5N 0430734.8E	1930/- FT	NIL	Mast
UGAM04	Pole	423151.0N 0430746.7E	1885/- FT	NIL	Mast
UGAM05	Pole	423150.2N 0430751.6E	1898/- FT	NIL	Mast
UGAM06	Pole	423123.1N 0430852.7E	1883/- FT	NIL	Mast

UGAM AD 2.11 Meteorological information provided

1	**Associated MET Office**	Ambrolauri
2	**Hours of service**	From 05:00 - until 13:00
	MET Office outside hours	-
3	**Office responsible for TAF preparation**	Kutaisi - UGKO
	Periods of validity	From 05:00 - until 17:00
4	**Trend forecast**	NIL
	Interval of issuance	NIL
5	**Briefing/consultation provided**	MET staff consultation at Kutaisi UGKO MET Office and Tbilisi UGTB MET Office
6	**Flight documentation**	Charts, abbreviated plain language text
	Language(s) used	English
7	**Charts and other information available for briefing or consultation**	S, U85, U70, P85, P70, SWM, T, GAMET, AIRMET
8	**Supplementary equipment available for providing information**	NIL
9	**ATS units provided with information**	Ambrolauri AFIS
10	**Additional information (limitation of service, etc.)**	NIL

UGAM AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCR) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
11	115.17°	1100 x 30	10/F/B/Y/T Concrete and asphalt	THR: 423144.35N 0430745.82E END: 423129.23N 0430829.47E GUND: 71 FT	THR: 1769 FT
29	295.17°			THR: 423129.23N 0430829.47E END: 423144.35N 0430745.82E GUND: 71 FT	THR: 1784 FT

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	7	8	9	10	11
11	0.40%	NIL	NIL	1220 x 80	NIL
29	-0.40%	NIL	NIL		NIL

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	12	13	14
11	NIL	NIL	NIL
29	NIL	NIL	NIL

UGAM AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
11	1100	1100	1100	1100	NIL
29	1100	1100	1100	1100	NIL

UGAM AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
11	NIL	NIL	NIL	NIL	NIL
29	NIL	NIL	NIL	NIL	NIL

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
11	NIL	NIL	NIL	NIL
29	NIL	NIL	NIL	NIL

UGAM AD 2.15 Other lighting and secondary power supply

1	**ABN/IBN location, characteristics and hours of operation**	ABN: NIL IBN: NIL
2	**LDI location and LGT** **Anemometer location and LGT**	NIL NIL
3	**TWY edge and centre line lighting**	NIL
4	**Secondary power supply/switch-over time**	NIL
5	**Remarks**	NIL

UGAM AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	NIL
2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL
5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

UGAM AD 2.17 Air traffic services airspace

1	**Designation and lateral limits**	AMBROLAURI FIZ 423509N 0430321E - 423110N 0431452E - 422805N 0431254E - 423204N 0430124E - 423509N 0430321E
2	**Vertical limits**	GND to 2000 FT AGL
3	**Airspace classification**	G
4	**ATS unit call sign** **Language(s)**	AMBROLAURI INFORMATION EN
5	**Transition altitude**	NIL
6	**Hours of applicability**	NIL
7	**Remarks**	NIL

UGAM AD 2.18 Air traffic services communication facilities

Service designation	Call sign	Channel(s)	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
AFIS	AMBROLAURI INFORMATION	119.850 MHz	NIL	NIL	0400-1440	NIL

UGAM AD 2.19 Radio navigation and landing aids

NIL

UGAM AD 2.20 Local aerodrome regulations

Local traffic regulations can be obtained on request via email: info@airports.ge or by phone (+995) 599263624 or (+995) 599263621.

1 Airport regulations

Isolated aircraft stand is located on coordinates: 423130.53N 0430815.95E.

Friction coefficient - Bowmonk AFM2 Airfield Friction Meter.

2 Taxiing to and from stands

Aerodrome taxiways are not equipped with lights. Taxiing to/from parking stands is visual.

3 Apron - taxiing during winter conditions

Aerodrome taxiways are not equipped with lights. Taxiing to/from parking stands is visual.

4 Regulations for helicopters

Take-off and landing on RWY 11/29. Stands 1 and 2 are available for helicopters. Air-taxiing, taxiing to/from stands 1 and 2 by TWY A only.

5 Removal of disabled aircraft from runway

When an aircraft is wrecked on a runway, it is 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.

UGAM AD 2.21 Noise abatement procedures

NIL

UGAM AD 2.22 Flight procedures

1 General

Flights within Ambrolauri FIZ shall be conducted in accordance with the Visual Flight Rules.

AFIS service is only provided within the operational hours of the unit. Outside the AFIS operational hours only FIS service is available.

The AFIS unit provides aircraft with information on known traffic and available information on meteorological and aerodrome conditions.

2 Procedures for IFR flights within Ambrolauri FIZ

Not applicable.

3 Radar procedures within Ambrolauri FIZ

Not applicable.

4 Procedures for VFR flights within Ambrolauri FIZ

– Flight plans (FPLs) are required to be submitted for operations within Ambrolauri FIZ;
– Flights shall be conducted with vertical visual reference to the ground;
– Two-way radio communication shall be maintained with the Ambrolauri AFIS unit on the unit frequency;
– Inbound aircraft shall establish communication with the AFIS unit 5 minutes before crossing the FIZ boundary. However, contact establishing can be delayed until the moment it becomes practically possible.

5 VFR routes within Ambrolauri FIZ

No special arrival and departure routes are established for VFR traffic.

UGAM AD 2.23 Additional information

Intense activity of small size bird flocks takes place daily from 08:00 to 11:00 (local time) (during summer season from June to September) when birds fly from resting area across the approach of RWY 11 to their feeding area, river. Only small size birds are active, which doesn't effect flight safety if strike to aircraft. Their flight height varies from 328 FT (100 M) to 550 FT (170 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.

Dispersal activities include shooting sound produced of liquid gas cannons allocated near the RWY 11/29.

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.

UGAM AD 2.24 Charts related to an aerodrome

Chart Name	Page
Aerodrome chart - ICAO	AD 2.UGAM-ADC
Visual approach chart - ICAO	AD 2.UGAM-VAC
Bird Concentrations and movement - Index chart	AD 2.UGAM-BIRD
* the chart contains a text page	

UGAM AD 2.25 Visual segment surface (VSS) penetration

To be developed.

AERODROME CHART-ICAO

AMBROLAURI(UGAM)

42°31'37''N
043°08'08''E

ELEV. 1784'

AMBROLAURI INFO 119.850

RWY	DIRECTION	THR	BEARING STRENGTH
11	108°	42°31'44''N 043°07'46''E	PCN 10 F/B/Y/T RWY, TWY and apron
29	288°	42°31'29''N 043°08'29''E	

INS COORDINATES FOR AIRCRAFT STANDS

POS.	COORDINATES
1	42°31'40.23''N 043°08'07.79''E
2	42°31'39.38''N 043°08'10.25''E

TAXIWAY WIDTH, SURFACE
TWY A : 18 M Asphalt-concrete

ELEV IN FEET
DIST IN M
BRG ARE MAG

ELEV 1769'

ELEV 1784'

APRON
ELEV 1774'

TERMINAL BUILDING

STRIP 1220 x 80

1100 x 30 ASPHALT-CONCRETE

TWY A

ARP

ISOLATED AIRCRAFT STAND

VAR 7°E-2021

SCALE 1:6000

0.2nm 0.1 0 0.1
0.36km 0.3 0.24 0.18 0.12 0.06 0

LEGEND

AIRCRAFT STAND ●1

RWY-HOLDING POSITION MARKING PATTERN A

0.2nm 0.1 0 0.1
300m 200 100 0 100

MARKING AIDS RWY 11/29 AND EXIT TWY

Changes: Chart reissued

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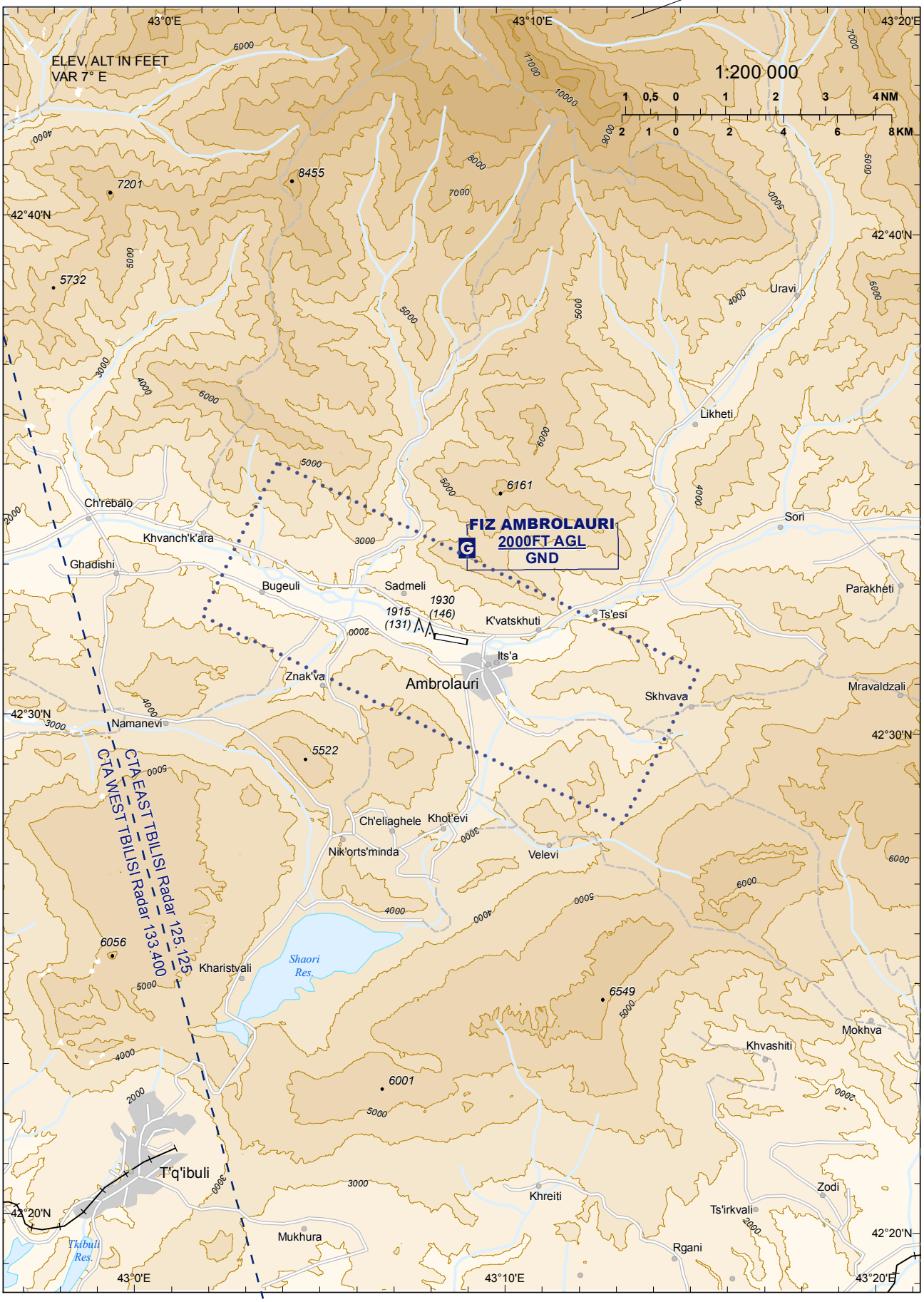
VISUAL APPROACH CHART - ICAO

AMBROLAURI (UGAM)

AERODROME ELEV. 1784'

HEIGHTS RELATED TO AD ELEV

AMBROLAURI INFO 119.850



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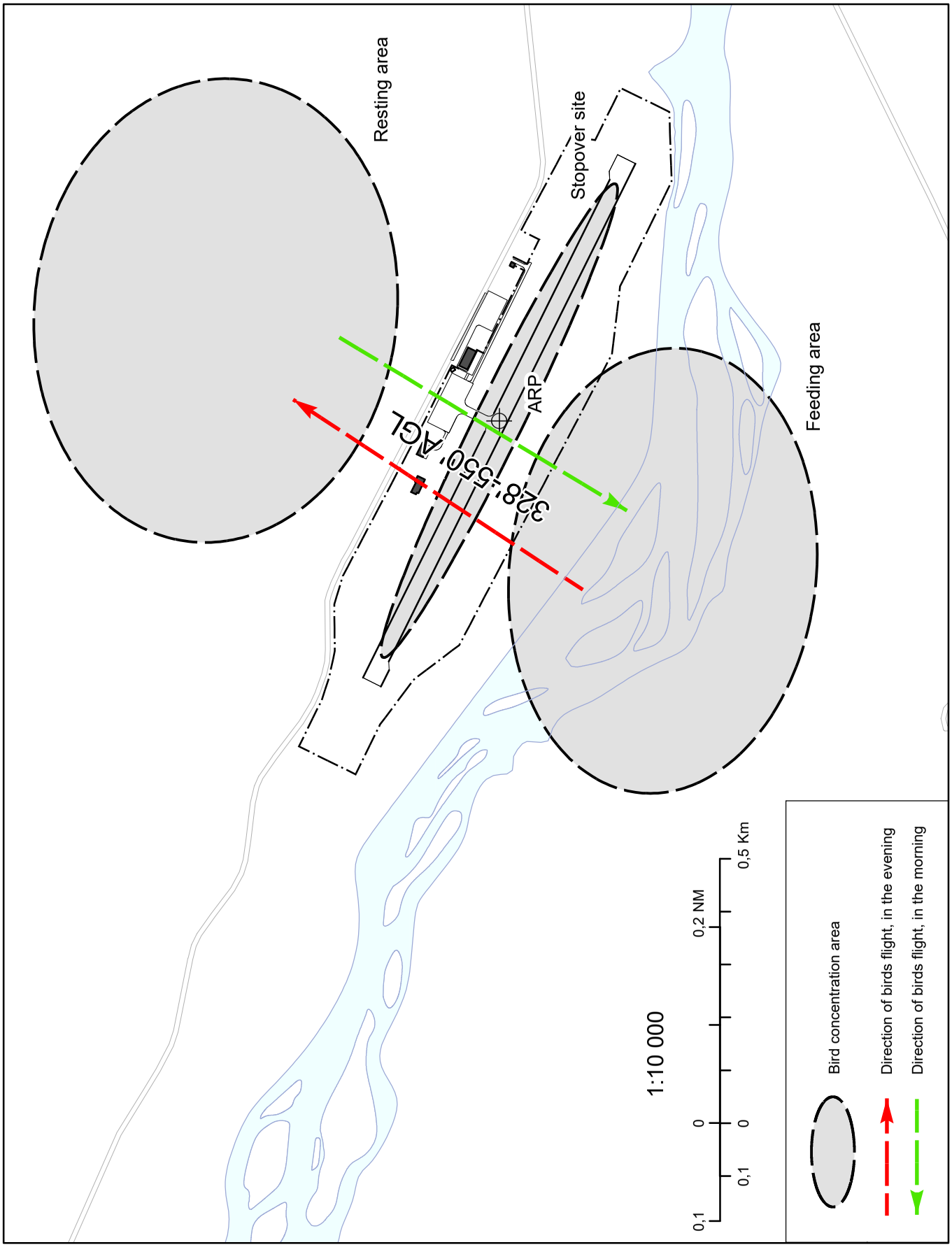
BIRD CONCENTRATIONS AND MOVEMENT

AMBROLAURI (UGAM)



Changes: Chart reissued

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UGGT

UGGT AD 2.1 Aerodrome location indicator and name

UGGT - TELAVI

UGGT AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	415712N 0453032E RWY 10/28 centre
2	**Direction and distance from (city)**	4.6 KM north-east from Telavi centre
3	**Elevation / Reference temperature**	1496 FT / 29°C
4	**Geoid undulation at AD ELEV PSN**	NIL
5	**MAG VAR / Annual change**	6°E (2016) / NIL
6	**Aerodrome operator**	GEORGIAN AVIATION UNIVERSITY
	Address	16 Ketevan Tsamebuli ave. 0144 TBILISI GEORGIA
	Telephone	+995322772516
	Telefax	+995322773138
	AFS	NIL
	E-mail	mail@ssu.edu.ge
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	VFR
8	**Remarks**	NIL

UGGT AD 2.3 Operational hours

1	**AD Operator**	MON-FRI 0500-1400
2	**Customs and immigration**	NIL
3	**Health and sanitation**	On Request
4	**AIS Briefing Office**	NIL
5	**ATS Reporting Office (ARO)**	NIL
6	**MET Briefing Office**	NIL
7	**ATS**	NIL
8	**Fuelling**	On Request
9	**Handling**	On Request
10	**Security**	On Request
11	**De-icing**	NIL
12	**Remarks**	AD working hours - HX, PPR

UGGT AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	Fuel: Gasoline-95 Oil: NIL
3	**Fuelling facilities / capacity**	NIL
4	**De-icing facilities**	NIL
5	**Hangar space for visiting aircraft**	NIL
6	**Repair facilities for visiting aircraft**	NIL
7	**Remarks**	Fuel TS-1 (Jet A1) and AVGAS 100 LL On request

UGGT AD 2.5 Passenger facilities

1	**Hotels**	Available in the city
2	**Restaurants**	Available in the city
3	**Transportation**	Taxis from AD
4	**Medical Facilities**	First medical aid at AD and hospital in the city
5	**Bank and Post Office**	Bank: Available in the city Post Office: NIL
6	**Tourist Office**	Available in the city
7	**Remarks**	NIL

UGGT AD 2.6 Rescue and fire fighting services

1	**AD category for fire fighting**	CAT 2
2	**Rescue equipment**	Available. 1 Fire truck (2500 liters)
3	**Capability for removal of disabled aircraft**	Available
4	**Remarks**	Available during flight only

UGGT AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	NIL
2	**Clearance priorities**	1. RWY 10/28 and TWY 2. Apron 3. Access roads to the airport Rescue Service
3	**Remarks**	Aerodrome surface cleaning when necessary

UGGT AD 2.8 Aprons, taxiways and check locations/positions data

1	**Apron designation, surface and strength of aprons**	APRON: Concrete and asphalt, PCN 16/F/C/Y/T
2	**Taxiway designation, width, surface and strength**	TWY A: 16 M, Concrete and asphalt, PCN 16/F/C/Y/T
3	**Altimeter checkpoint location and elevation**	THR RWY 10 Elevation 1496 FT THR RWY 28 Elevation 1437 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	NIL
6	**Remarks**	NIL

UGGT AD 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 aircraft stands**	Sign board at intersection of TWY with RWY. Guide lines at apron.
2	**RWY and TWY markings and LGT**	RWY 10/28: Designation, THR, centre line, TDZ, RWY edge, RWY end marked. RWY 28: TDZ, RWY edge, RWY end lighted. TWY: TWY edge marked and lighted. Holding position marked.
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGGT AD 2.10 Aerodrome obstacles

1 Obstacles in Area 3

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGGT01	Pole	415710.2N 0453057.3E	1525.0/- FT	MARKED	Wind Direction Indicator
UGGT02	Pole	415717.8N 0453013.0E	1466.0/- FT	MARKED / LGTD	Wind Direction Indicator
UGGT03	Pole	415702.7N 0453059.3E	1536.0/- FT	MARKED / LGTD	Mast
UGGT04	Pole	415702.2N 0453102.7E	1536.0/- FT	MARKED / LGTD	Mast
UGGT05	Pole	415703.2N 0453104.9E	1520.0/- FT	MARKED / LGTD	Mast
UGGT06	Building	415704.8N 0453057.4E	1486.0/- FT	MARKED / LGTD	Hangar

UGGT AD 2.11 Meteorological information provided

1	**Associated MET Office**	NIL
2	**Hours of service**	NIL
	MET Office outside hours	NIL
3	**Office responsible for TAF preparation**	NIL
	Periods of validity	NIL
4	**Trend forecast**	NIL
	Interval of issuance	NIL
5	**Briefing/consultation provided**	NIL
6	**Flight documentation**	NIL
	Language(s) used	NIL
7	**Charts and other information available for briefing or consultation**	NIL
8	**Supplementary equipment available for providing information**	NIL
9	**ATS units provided with information**	NIL
10	**Additional information (limitation of service, etc.)**	NIL

UGGT AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCR) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	**2**	**3**	**4**	**5**	**6**
10	102.02°	1150 x 25	16/F/C/Y/T Concrete and asphalt	THR: 415716.08N 0453007.76E END: 415708.31N 0453056.61E GUND: NIL	THR: 1496 FT
28	282.03°			THR: 415708.31N 0453056.61E END: 415716.08N 0453007.76E GUND: NIL	THR: 1437 FT TDZ: 1456.0 FT

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	**7**	**8**	**9**	**10**	**11**
10	-1.45%	NIL	NIL	1270 x 80	NIL
28	1.45%	NIL	NIL		NIL

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	**12**	**13**	**14**
10	NIL	NIL	NIL
28	NIL	NIL	NIL

UGGT AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
10	1150	1150	1150	1150	NIL
28	1150	1150	1150	1150	NIL

UGGT AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
10	NIL	NIL	NIL	NIL	NIL
28	NIL	GREEN	NIL	NIL	NIL

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
10	NIL	NIL	NIL	NIL
28	1150 M 100 M White FM 750 M Orange LIL	RED	NIL	TDZ end LGT on both sides of RWY; White LIL

UGGT AD 2.15 Other lighting and secondary power supply

1	**ABN/IBN location, characteristics and hours of operation**	ABN: NIL IBN: NIL
2	**LDI location and LGT** **Anemometer location and LGT**	NIL NIL
3	**TWY edge and centre line lighting**	Edge: Blue CL: NIL
4	**Secondary power supply/switch-over time**	NIL
5	**Remarks**	NIL

UGGT AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	NIL
2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL

5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

UGGT AD 2.17 Air traffic services airspace

1	**Designation and lateral limits**	TELAVI FIZ Circle: radius 5 NM, centred at: 415712N 0453028E
2	**Vertical limits**	GND to 1000 FT AGL
3	**Airspace classification**	G
4	**ATS unit call sign** **Language(s)**	NIL
5	**Transition altitude**	NIL
6	**Hours of applicability**	NIL
7	**Remarks**	NIL

UGGT AD 2.18 Air traffic services communication facilities

NIL

UGGT AD 2.19 Radio navigation and landing aids

NIL

UGGT AD 2.20 Local aerodrome regulations

1 Airport regulations

At Telavi Airport a number of local regulations apply, which are collected in manuals that are available at the office of airport. The manuals include the following:

– information about aircraft stands;
– information about taxiing from aircraft stands including taxi clearance and engine start-up;
– engine start-up and use of auxiliary power unit;
– precautions during extreme weather conditions.

A written form of local regulations may be requested on e-mail: airporttelavi@ssu.edu.ge

2 Taxiing to and from stands

Taxiing shall be performed after supervisor's permission on frequency 120.00 MHz (call sign "Telavi Tower").

3 Parking area for small aircraft (general aviation)

6 stands (1, 2, 3, 4, 5, and 6) are available for day time.

Isolated stand is located at 320 meters from the end of RWY 28.

4 Parking area for helicopters

Stand 1 is available for helicopter parking.

5 Apron – taxiing during winter conditions

During winter conditions areas on apron and taxiway are marked by visual signs.

6 Taxiing – limitations

Taxiing speed limit on TWY A is 5 km/h.

7 School and training flights. Technical test flights. Use of runway

Technical test flights are available.

8 Helicopter traffic – limitation

Take-off and landing for all types of civil helicopters shall be carried out from/to RWY 10/28.

9 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.

Contact information of the aerodrome coordinator for removal of disabled aircraft:
Tel: +995 577 93 93 34, +995 32 277 25 16
E-mail: t.lobzhanidze@ssu.edu.ge

Maximum weight of aircraft - 5700 kg.

UGGT AD 2.21 Noise abatement procedures

NIL

UGGT AD 2.22 Flight procedures

1 General

Flights within Telavi ATZ shall be performed in accordance with the Visual Flight Rules.
During aerodrome operational hours Telavi Tower is available on the frequency 120.00 MHz.

2 Procedures for IFR flights within Telavi ATZ

NIL

3 Radar procedures within Telavi ATZ

NIL

4 Procedures for VFR flights within Telavi ATZ

– Prior Permission for landing from Aerodrome Administration is required;
– Flight Plan (FPL) shall be submitted before flight;
– The flight shall be conducted with vertical visual reference to the ground;
– Two-way radio communication shall be maintained with the Telavi Tower on the frequency 120.00 MHz;
– When an aircraft is crossing Telavi ATZ in transit flight, communication shall be carried out with Telavi Tower on the frequency 120.00 MHz;
– The inbound aircraft shall establish communication with the Telavi Tower on the frequency 120.00 MHz 5 minutes before or when it becomes possible before crossing the established ATZ boundary.

5 VFR routes within Telavi ATZ

No special arrival and departure routes are established for VFR boundary.

UGGT AD 2.23 Additional information

NIL

UGGT AD 2.24 Charts related to an aerodrome

Chart Name	Page
Aerodrome chart - ICAO	AD 2.UGGT-ADC
Visual approach chart - ICAO	AD 2.UGGT-VAC
* the chart contains a text page	

UGGT AD 2.25 Visual segment surface (VSS) penetration

To be developed.

Changes: Chart reissued

AERODROME CHART-ICAO

41°57'12"N 045°30'32"E ELEV. 1496'

TWR 120.000

TELAVI (UGGT)

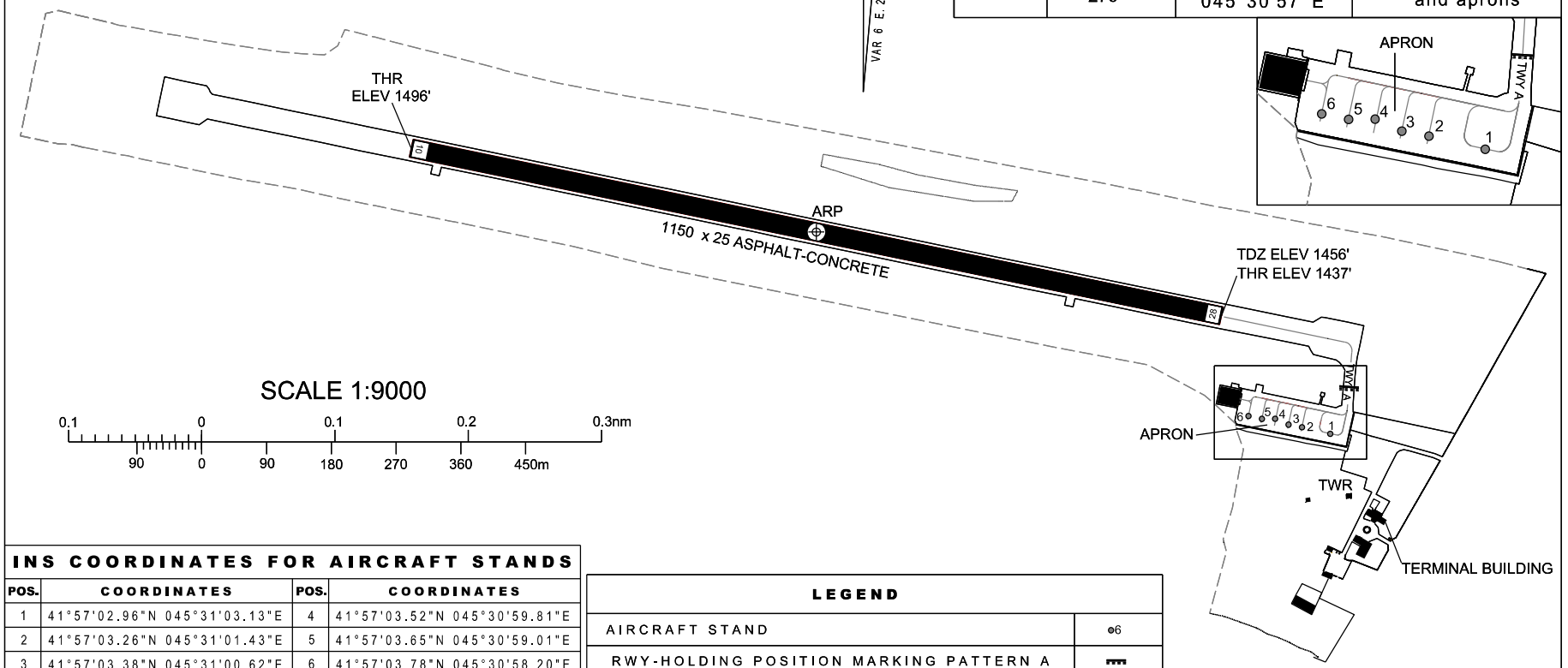
TAXIWAYS WIDTH, SURFACE

TWY A : 16 M Asphalt-concrete

ELEV IN FEETS
DIST IN METRES
BRG ARE MAG

VAR 6 E. 2016

RWY	DIRECTION	THR	BEARING STRENGTH
10	096°	41°57'16''N 045°30'08''E	PCN 16 F/C/Y/T RWY, all TWYs and aprons
28	276°	41°57'08''N 045°30'57''E	



SCALE 1:9000

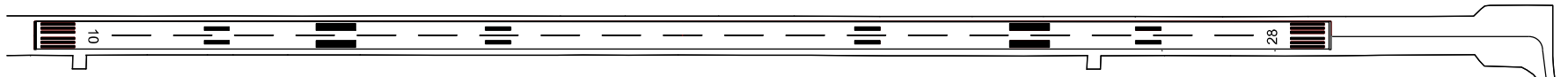
0.1 0 0.1 0.2 0.3nm
90 0 90 180 270 360 450m

INS COORDINATES FOR AIRCRAFT STANDS

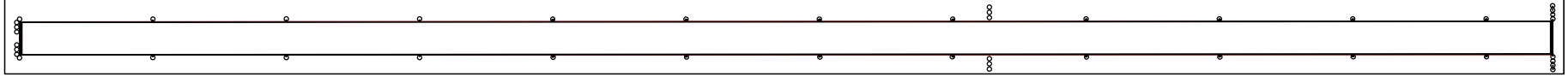
POS.	COORDINATES	POS.	COORDINATES
1	41°57'02.96"N 045°31'03.13"E	4	41°57'03.52"N 045°30'59.81"E
2	41°57'03.26"N 045°31'01.43"E	5	41°57'03.65"N 045°30'59.01"E
3	41°57'03.38"N 045°31'00.62"E	6	41°57'03.78"N 045°30'58.20"E

LEGEND	
AIRCRAFT STAND	⊙6
RWY-HOLDING POSITION MARKING PATTERN A	

MARKING AIDS RWY 10/28 AND EXIT TWY



LIGHTING AIDS RWY 28



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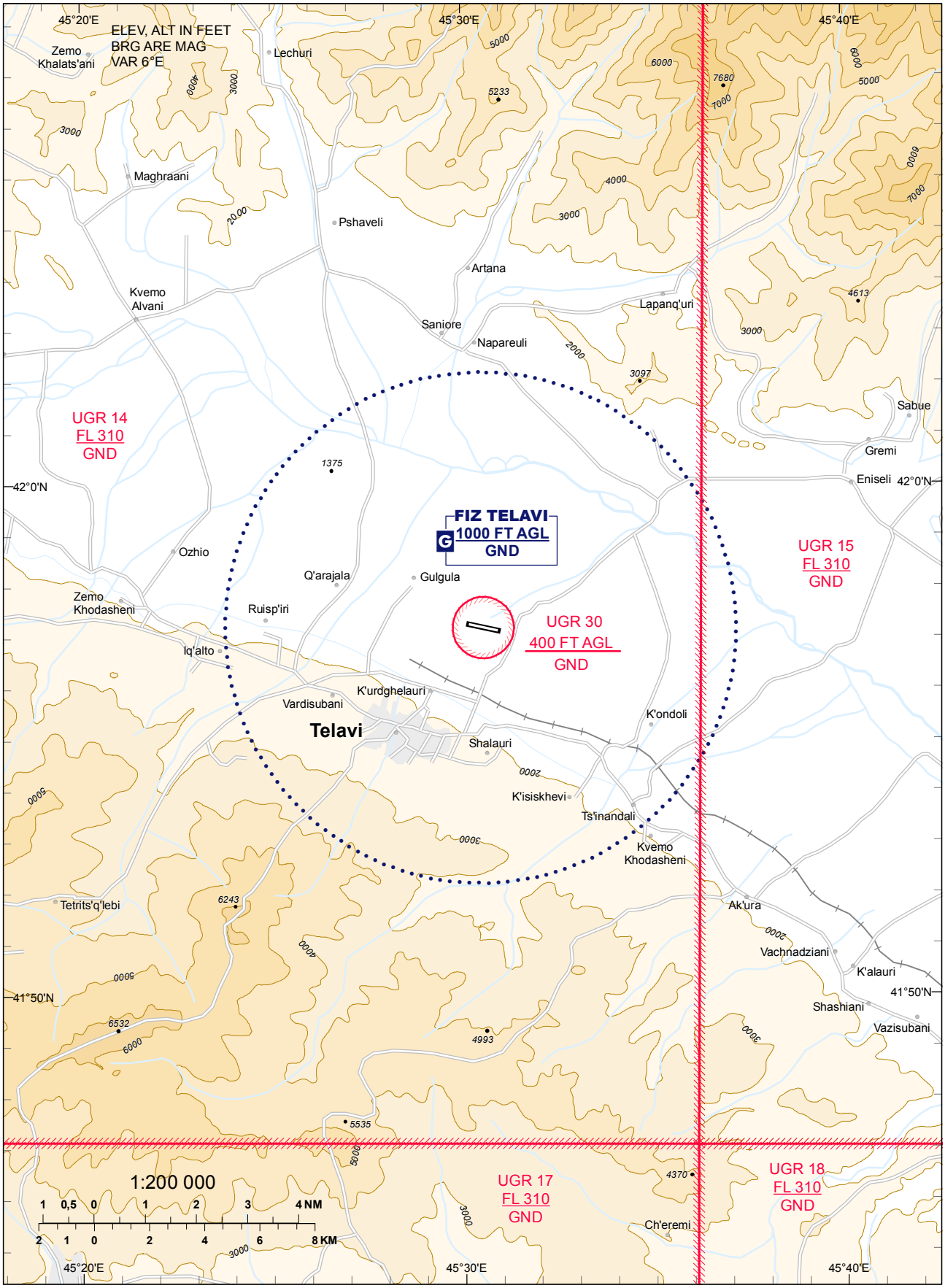
VISUAL APPROACH CHART - ICAO

TELAVI (UGGT)

AERODROME ELEV. 1496'

TELAVI TWR 120.000



Changes: Chart reissued

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UGKO

UGKO AD 2.1 Aerodrome location indicator and name

UGKO - KUTAISI/KOPITNARI

UGKO AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	421037N 0422858E RWY 07/25 centre line
2	**Direction and distance from (city)**	21 KM SW from Kutaisi centre
3	**Elevation / Reference temperature**	160 FT / 30°C
4	**Geoid undulation at AD ELEV PSN**	61 FT
5	**MAG VAR / Annual change**	7°E (2021) / NIL
6	**Aerodrome operator**	UNITED AIRPORTS OF GEORGIA LTD
	Address	UNITED AIRPORTS OF GEORGIA Airport, Isani-Samgori District 0158 TBILISI GEORGIA
	Telephone	+995322487300, +995599038930
	Telefax	NIL
	AFS	AFTN: UGKOGNXX AFTN: UGKOAPXX
	E-mail	operationcckutaisi@airports.ge, info@airports.ge, infodesk@airports.ge
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	IFR/VFR
8	**Remarks**	Phone: +995599038930 operation H24

UGKO AD 2.3 Operational hours

1	**AD Operator**	MON-FRI 0530-1400
2	**Customs and immigration**	H24
3	**Health and sanitation**	H24
4	**AIS Briefing Office**	H24
5	**ATS Reporting Office (ARO)**	H24
6	**MET Briefing Office**	H24
7	**ATS**	H24
8	**Fuelling**	H24
9	**Handling**	H24
10	**Security**	H24
11	**De-icing**	H24
12	**Remarks**	NIL

UGKO AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	Fuel: Jet A-1, TC-1/TS-1 (GOST 10227) Oil: NIL
3	**Fuelling facilities / capacity**	LLC Georgian Petroleum 3 refuelling truck: 1. Ford 11350 litres (3000 gallons), Flow Rate 1135 litres/minute; 2. Mercedes 26000 litres (5719 gallons), Flow Rate 1100 litres/minute; 3. Freightliner 21000 litres (4619 gallons), Flow Rate 1000 litres/minute Tel: (+995599)514704, (+995577)103275 Email: kutaisi@airgp.ge
4	**De-icing facilities**	Available - GS 800, Volvo LDM THY Aircraft Deicer
5	**Hangar space for visiting aircraft**	NIL
6	**Repair facilities for visiting aircraft**	NIL
7	**Remarks**	NIL

UGKO AD 2.5 Passenger facilities

1	**Hotels**	Available in the city
2	**Restaurants**	Available in the city
3	**Transportation**	Taxis and Shuttle Buses from the AD
4	**Medical Facilities**	First medical aid at AD, hospitals in the city
5	**Bank and Post Office**	Bank: Available Post Office: NIL
6	**Tourist Office**	Available
7	**Remarks**	NIL

UGKO AD 2.6 Rescue and fire fighting services

1	**AD category for fire fighting**	CAT 7
2	**Rescue equipment**	2 Fire trucks
3	**Capability for removal of disabled aircraft**	Available for Airbus A321
4	**Remarks**	Responsible person's details: Mob: +995595078017 Email: t.shalamberidze@airports.ge

UGKO AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	1 Snow Blower; 3 Snow Ploughs; 1 Scraper; 1 Sand Spreader

2	**Clearance priorities**	1. RWY 07/25 and associated TWY to apron 2. Apron 3. Access roads to the airport rescue service
3	**Remarks**	The snow plan and friction measuring details see in section AD 1.2.2

UGKO AD 2.8 Aprons, taxiways and check locations/positions data

1	**Apron designation, surface and strength of aprons**	APRON: Concrete and asphalt, PCN 65/F/C/X/T
2	**Taxiway designation, width, surface and strength**	TWY A: 23 M, Concrete and asphalt, PCN 65/F/C/X/T TWY B: 18 M, Concrete and asphalt, PCN 57/F/A/X/T
3	**Altimeter checkpoint location and elevation**	Apron Elevation 137.8 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	INS: see Aerodrome chart UGKO-ADC
6	**Remarks**	NIL

UGKO AD 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 aircraft stands**	Sign board at intersection of TWY with RWY. Guide lines at apron.
2	**RWY and TWY markings and LGT**	RWY: Designation, THR, TDZ, centreline, edge line, RWY end marked as appropriate. Centreline, edge line, THR are lighted. TWY: Centre line, edge line marked as appropriate. Edge line is lighted.
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGKO AD 2.10 Aerodrome obstacles

1 Obstacles in Area 2a

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGKO2A001	Antenna	421027.6N 0422817.9E	189/- FT	LGTD / RED	07 GP
UGKO2A002	Antenna	421027.2N 0422814.7E	152/- FT	LGTD / RED	NFM 07 GP
UGKO2A003	Pole	421028.4N 0422818.2E	155/- FT	LGTD / RED	07 Windsock
UGKO2A004	Pole	421027.9N 0422819.9E	173/- FT	LGTD / RED	07 Wind Sensor

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGKO2A005	Pole	421031.5N 0422858.9E	181/- FT	LGTD / RED	Middle Wind Sensor
UGKO2A006	Navaid	421032.5N 0422905.3E	175/- FT	LGTD / RED	DVOR/DME
UGKO2A007	Antenna	421033.0N 0422908.7E	174/- FT	LGTD / RED	DVOR/DME Control
UGKO2A008	Antenna	421038.1N 0422941.9E	174/- FT	LGTD / RED	NFM 25 GP
UGKO2A009	Antenna	421037.6N 0422938.0E	210/- FT	LGTD / RED	25 GP
UGKO2A010	Pole	421038.1N 0422937.4E	175/- FT	LGTD / RED	25 Windsock
UGKO2A011	Pole	421037.3N 0422935.6E	175/- FT	LGTD / RED	25 Wind Sensor

2 Obstacles in Area 2b

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGKO2B001	Antenna	421044.6N 0423004.4E	163/- FT	LGTD / RED	ILS LOC 07
UGKO2B002	Antenna	421028.4N 0422750.9E	130/- FT	LGTD / RED	ILS LOC 25

3 Obstacles in Area 2c

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGKO2C001	Building	421040.6N 0422815.7E	172/- FT	NIL	Meteo Building
UGKO2C002	Antenna	421040.8N 0422816.8E	193/- FT	NIL	Meteo 1
UGKO2C003	Antenna	421041.6N 0422815.9E	193/- FT	NIL	Meteo 2
UGKO2C004	Antenna	421040.6N 0422815.2E	197/- FT	NIL	Meteo 3
UGKO2C005	Antenna	421046.6N 0422819.5E	181/- FT	NIL	Fire Fighting Depo
UGKO2C006	Pole	421053.6N 0422803.7E	243/- FT	NIL	Light Mast 1
UGKO2C007	Pole	421050.8N 0422805.0E	241/- FT	NIL	Light Mast 2
UGKO2C008	Pole	421049.7N 0422800.8E	241/- FT	NIL	Light Mast 3
UGKO2C009	Pole	421048.7N 0422756.6E	241/- FT	NIL	Light Mast 4
UGKO2C010	Pole	421051.5N 0422755.3E	244/- FT	NIL	Light Mast 5
UGKO2C011	Pole	421052.6N 0422759.5E	244/- FT	NIL	Light Mast 6
UGKO2C012	Building	421053.6N 0422752.1E	196/- FT	NIL	Terminal
UGKO2C013	Control tower	421056.3N 0422803.3E	333/- FT	LGTD / RED	ATC Building
UGKO2C014	Antenna	421051.9N 0422751.1E	205/- FT	NIL	Ops Building

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGKO2C015	Pole	421051.7N 0422736.3E	225/- FT	NIL	Light Mast

4 Obstacles in Area 3

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGKO3001	General utility	421032.7N 0422816.9E	139.0/- FT	NIL	PAPI 07
UGKO3002	Sign	421047.5N 0422753.6E	137.0/- FT	NIL	Apron Sign on Apron
UGKO3003	Sign	421039.8N 0422800.9E	137.0/- FT	NIL	TWY "A" Sign on TWY
UGKO3004	Sign	421033.7N 0422802.3E	137.0/- FT	NIL	TWY "A" Holding Position Sign 1
UGKO3005	Sign	421034.0N 0422805.0E	137.0/- FT	NIL	TWY "A" Holding Position Sign 2
UGKO3006	Sign	421032.1N 0422808.8E	137.0/- FT	NIL	TWY "A" Sign on RWY
UGKO3007	General utility	421040.3N 0422937.3E	160.0/- FT	NIL	PAPI 25
UGKO3008	Sign	421034.9N 0422834.6E	143.0/- FT	NIL	TWY "B" Sign 1 on RWY
UGKO3009	Sign	421033.7N 0422825.2E	141.0/- FT	NIL	TWY "B" Sign 2 on RWY
UGKO3010	Sign	421035.6N 0422827.6E	142.0/- FT	NIL	TWY "B" Holding Position Sign 1
UGKO3011	Sign	421036.3N 0422830.0E	142.0/- FT	NIL	TWY "B" Holding Position Sign 2
UGKO3012	Sign	421040.1N 0422825.3E	142.0/- FT	NIL	TWY "B" Sign 1 on TWY
UGKO3013	Sign	421045.5N 0422816.4E	142.0/- FT	NIL	TWY "B" Sign 2 on TWY
UGKO3014	Sign	421043.6N 0422815.9E	142.0/- FT	NIL	TWY "B" Sign 3 on TWY
UGKO3015	Sign	421047.0N 0422811.1E	142.0/- FT	NIL	TWY "B" Sign 4 on TWY
UGKO3016	Sign	421047.0N 0422808.3E	142.0/- FT	NIL	Apron Sign 1 on TWY "B"
UGKO3017	Sign	421049.8N 0422809.2E	142.0/- FT	NIL	Apron Sign 2 on TWY "B"

UGKO AD 2.11 Meteorological information provided

1	**Associated MET Office**	KUTAISI
2	**Hours of service**	H24
	MET Office outside hours	-
3	**Office responsible for TAF preparation**	KUTAISI
	Periods of validity	24 HR
4	**Trend forecast**	TREND
	Interval of issuance	0.5 HR
5	**Briefing/consultation provided**	Personal consultation and telephone consultation
6	**Flight documentation**	Charts, tabular form, abbreviated plain language text
	Language(s) used	English
7	**Charts and other information available for briefing or consultation**	S, U85, U70, U50, U30, U20, P85, P70, P50, P40, P30, P20, SWH, SWM, T
8	**Supplementary equipment available for providing information**	NIL
9	**ATS units provided with information**	Kutaisi TWR, APP; Tbilisi ACC
10	**Additional information (limitation of service, etc.)**	NIL

UGKO AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCR) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
07	080.45°	2500 x 45	55/F/C/X/T Concrete and asphalt	THR: 421029.85N 0422804.04E END: 421043.27N 0422951.43E GUND: 61.4 FT	THR: 133.4 FT TDZ: 142.8 FT
25	260.45°			THR: 421043.27N 0422951.43E END: 421029.85N 0422804.04E GUND: 61.4 FT	THR: 160.3 FT TDZ: NIL

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	7	8	9	10	11
07	0.30%	60 x 45	250 x 150	2740 x 300	240 x 150
25	-0.30%	60 x 45	250 x 150		200 x 150

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	12	13	14
07	NIL	Yes	NIL
25	NIL	Yes	NIL

UGKO AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
07	2500	2750	2560	2500	NIL
25	2500	2750	2560	2500	NIL

UGKO AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
07	HIALS 900 M LIH	GREEN	PAPI Left/3.0° (52 FT)	NIL	NIL
25	HIALS 900 M LIH	GREEN	PAPI Left/3.0° (51 FT)	NIL	NIL

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
07	2500 M 60 M White FM 1900 M Yellow LIH	RED	NIL	NIL
25	2500 M 60 M White FM 1900 M Yellow LIH	RED	NIL	NIL

UGKO AD 2.15 Other lighting and secondary power supply

1	**ABN/IBN location, characteristics and hours of operation**	ABN: At Tower building, rotating light beacon, RPM 12, code W/G, SS-SR IBN: NIL
2	**LDI location and LGT** **Anemometer location and LGT**	NIL NIL
3	**TWY edge and centre line lighting**	CL: NIL Edge: All TWY
4	**Secondary power supply/switch-over time**	Secondary power supply to all lighting at AD. Switch-over time: 1 SEC
5	**Remarks**	NIL

UGKO AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO Geoid undulation**	NIL
2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL
5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

UGKO AD 2.17 Air traffic services airspace

1	**Designation and lateral limits**	KUTAISI CTR 421449N 0422206E - 421532N 0422751E - 421615N 0423335E - 421538N 0424048E - 420843N 0424220E - 420623N 0423548E - 420457N 0422420E - 420557N 0422005E - 420534N 0421710E - 421228N 0421535E - 421449N 0422206E
2	**Vertical limits**	GND to 1500 FT AMSL
3	**Airspace classification**	C
4	**ATS unit call sign Language(s)**	KUTAISI TOWER EN
5	**Transition altitude**	7000 FT AMSL
6	**Hours of applicability**	H24
7	**Remarks**	NIL

UGKO AD 2.18 Air traffic services communication facilities

Service designation	Call sign	Channel(s)	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
APP	KUTAISI APPROACH	127.100 MHz	NIL	NIL	H24	NIL
		121.500 MHz	NIL	NIL		Emergency
TWR	KUTAISI TOWER	125.500 MHz	NIL	NIL	H24	NIL

UGKO AD 2.19 Radio navigation and landing aids

Type of aids, MAG VAR, Type of supported OPS for ILS/MLS/GLS, basic GNSS and SBAS, Classification for ILS, Facility Classification and approach facility designation(s) for GBAS, VOR/ILS/MLS station declination	ID	Frequency, Channel number, Service provider	Hours of operation	Position of transmitting antenna coordinates	ELEV of DME transmitting antenna, GBAS reference point ELEV and ellipsoid HGT, SBAS LTP/FTP ellipsoid HGT	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DVOR/DME (7°E 2021)	KTS	113.600 MHZ CH 83X	H24	421032.6N 0422905.3E	200 FT	NIL	Coverage 108 NM.
ILS RWY 07 CAT I (7°E 2021) CLASS I/NIL/NIL							
LOC 07	IKS	110.100 MHZ	H24	421044.9N 0423004.4E	Not applicable	NIL	NIL
GP 07	—	334.400 MHZ	H24	421027.6N 0422817.8E	Not applicable	NIL	NIL
DME 07	IKS	CH 38X	H24	421027.6N 0422817.8E	200 FT	NIL	Coverage 25 NM. Omnidirectional.
ILS RWY 25 CAT I (7°E 2021) CLASS I/NIL/NIL							
LOC 25	IKO	108.700 MHZ	H24	421028.2N 0422751.1E	Not applicable	NIL	NIL
GP 25	—	330.500 MHZ	H24	421037.6N 0422938.0E	Not applicable	NIL	NIL
DME 25	IKO	CH 24X	H24	421037.6N 0422938.0E	200 FT	NIL	Coverage 25 NM. Omnidirectional.

UGKO AD 2.20 Local aerodrome regulations

1 Airport regulations

To be developed.

2 Taxiing to and from stands

For all type of aircraft is prohibited to use minimum turn radius on RWY, TWY and apron.

On RWY 07/25 180 degree turn for aircraft with MTOW 35 tones and over on turn pad only.

A stand number of arriving aircraft will be allocated by the TWR. Assistance from the "FOLLOW ME" vehicle should be requested via the TWR.

Assistance from the "FOLLOW ME" vehicle should be available:

– when visibility is less then 400 M;
– while taxiing from RWY 07/25 to aircraft stand if wind speed is more than 29 KT (15 M/SEC);
– by pilot request.

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.

Engine start–up and taxiing shall be carried out by the pilot–in–command only after receiving 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 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 obtaining 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.

Isolated aircraft stand with the coordinates 421043.683N 0422809.593E is available near the TWY B.

For those airplanes whose reference field length is 1500 m or over, during poor runway braking action being reported, because of insufficient longitudinal coefficient of friction, landing or take-off is forbidden if crosswind component exceeds 24 KM/HR (13 KT).

3 Parking area for small aircraft (General aviation)

General aviation aircraft shall be directed by marshallers to the parking.

4 Parking area for helicopters

Helicopters shall always be directed to the stand by a marshaller.

5 Apron – taxiing during winter conditions

Generally, apron, TWY, and RWY are not snow-covered during winter.

6 Taxiing – limitations

Taxiing speed limit on TWY A and TWY B is 25 KM/HR.

The washing area for aircraft is located on the aircraft parking stands 8 and 9.

7 School and training flights – technical test flights – use of runway

Educational and training flights can be made only after clearance from the TWR.

8 Helicopter traffic – limitation

Take-off and landing for all types of civil helicopters shall be carried out from/to RWY 07/25 only.

9 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.

UGKO AD 2.21 Noise abatement procedures

Not applicable.

UGKO AD 2.22 Flight procedures

1 Procedures for IFR flights within Kutaisi TMA

1.1 General

ATS surveillance service within Kutaisi TMA is provided by Kutaisi approach unit (call sign "Kutaisi approach") on frequency 127.1 MHZ.

Horizontal separation minimum applicable within Kutaisi TMA is 5 NM.

ATIS is not available. All pertinent information is provided by ATC.

1.2 Procedures for arrival flights

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 of the ILS z (or LOC z) instrument approach procedures. Loss of RNAV1 (GNSS) capability shall be immediately reported to ATC.

Arrival flights not capable of RNAV1 (GNSS) will normally be vectored for ILS approach. Alternatively, direct routing to KTS (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 RNAV 1 (GNSS)”.

Note: When vectored for ILS approach for RWY 07 expect glide path interception not below 3500 FT and for RWY 25 – not below 4500 FT (see also AD 2.UGKO-ATCSMAC chart).

Published speed restrictions on STARs and instrument approach procedures shall always be complied with. Controllers are not allowed to cancel published speed restrictions.

1.3 Procedures for departing flights

Departing flights capable of RNAV1 (GNSS) will normally be cleared to follow appropriate RNAV SID. Loss of RNAV1 (GNSS) capability shall be reported to ATC as soon as possible.

Departing flights not capable of RNAV1 (GNSS) will be cleared to follow appropriate conventional SID available for RWY 07 or will be instructed to “CONTINUE RUNWAY HEADING” (or “CLIMB STRAIGHT AHEAD”) for RWY 25. If a flight not capable of RNAV1 (GNSS) receives clearance to follow RNAV SID, the clearance shall be rejected and the reason stated: “UNABLE RNAV 1 (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 of RWY 25, controller may instruct to “CONTINUE RUNWAY HEADING” or “CLIMB STRAIGHT AHEAD”. In such cases standard climb gradient of 3.3% or greater shall be maintained. Such instructions are not utilized for RWY 07.

Visual departures are not implemented.

1.4 FPL route options for arrivals and departures

Arrivals to UGKO:

STAR First Point	Available Routings	Remarks
BASKA *	...GUSLI DCT BASKA	-
EMBUS *	...LURIS DCT EMBUS	FRA (I) points may also be used between LURIS and EMBUS
	...KUFAN DCT EMBUS	FRA (I) points may also be used between KUFAN and EMBUS
	...ADEKI DCT EMBUS	FRA (I) points may also be used between ADEKI and EMBUS
	...TISOT DCT BT DCT EMBUS	-
	...OGEVI DCT BT DCT EMBUS	-
	...H7 EMBUS	Only available for departures from local airports
MAQQO *	...ROLIN DCT MAQQO	-
	...IDLER DCT MAQQO	-
	...BANUT DCT MAQQO	-
TUZZA *	...SARPI DCT TUZZA	-
	[SID] TUZZA	SID from UGSB to TUZZA
Direct ARR Point	**Available Routings**	**Remarks**
KTS *	...H5 KTS	Only available for departures from local airports
	...H7 KTS	
** G, M and X types of flight are not restricted by the routing options described in the table.*		

Note: Cleared levels assigned by ATC during descent on DCT segments will be based on relevant ATC Surveillance Minimum Altitude Charts.

Departures from UGKO:

SID Last Point	Available Routings	Remarks
KADZE *	KADZE DCT BANUT...	-

KUSSA	KUSSA DCT IZERO...	-
	KUSSA DCT ROLIN...	Only available from the last Sunday of OCT until the last Sunday of MAR
	KUSSA DCT SARPI...	Only available for arrivals to LTFO
	KUSSA H5...	Only available for arrivals to local airports
	KUSSA [STAR]	STAR from KUSSA to UGSB
VIZRO *	VIZRO DCT LAPTO...	FRA (I) points may also be used between VIZRO and LAPTO
	VIZRO DCT LURIS...	FRA (I) points may also be used between VIZRO and LURIS
	VIZRO DCT KUFAN...	FRA (I) points may also be used between VIZRO and KUFAN
	VIZRO DCT DISKA...	-
	VIZRO DCT TAVRO...	-
	VIZRO DCT OGEVI...	-
	VIZRO DCT GIMUR...	-
	VIZRO H5...	-
Direct DEP Point	**Available Routings**	**Remarks**
KTS	KTS...	Only available for arrivals to UGKO
** G, M and X types of flight are not restricted by the routing options described in the table.*		

2 Procedures for VFR flights within Kutaisi TMA

Two-way radio communication shall be maintained with Kutaisi Approach on the FRQ 127.100 MHZ.

Transfer of VFR flights between Kutaisi APP and Kutaisi TWR is conducted over established entry/exit points of CTR as shown in the Visual Approach Chart AD2.UGKO-VAC unless otherwise instructed by APP or TWR unit.

3 Procedures for VFR flights within Kutaisi CTR

Aircraft shall establish two-way radio communication with Kutaisi tower before conducting flights in Kutaisi CTR.

VFR flights intending to enter Kutaisi CTR from uncontrolled airspace shall establish communication with Kutaisi tower at least 5 minutes before entry to obtain clearance.

VFR flights within Kutaisi CTR shall be conducted at or below 1500 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 Kutaisi CTR via the entry/exit points shown on the Visual Approach Chart AD 2.UGKO-VAC, unless otherwise instructed by APP or TWR unit.

To facilitate separation of VFR and IFR flights within the CTR, TWR controller may instruct a VFR flight to follow the following routes (taking into account the planned entry/exit point of a VFR flight):

For arriving VFR flights:

– UMZEL – NORGO, followed by holding at NORGO if required;
– OQIZO – NORGO, followed by holding at NORGO if required;
– GOLTI – AMPIZ – SOKKA, followed by holding at SOKKA if required;
– KRESA – ZAZNO – SOKKA, followed by holding at SOKKA if required.

For departing VFR flights:

– After departure to ZAZNO then KRESA;
– After departure to AMPIZ then GOLTI.
Note: No intermediate points will be required when leaving CTR via UMZEL or OQIZO or ZINDE.

For VFR flights crossing CTR:

– GOLTI – KRESA, or
– KRESA – GOLTI.

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

Name	Geographical coordinates	DVOR/DME Fix (KTS)	Visual reference
UMZEL	421449N 0422206E	R302.5/D6.7	North of Chagani village
OQIZO	421615N 0423335E	R023.3/D6.6	North of Maghlaki village
GOLTI	420916N 0424213E	R090.4/D9.8	West of Vartsikhe reservoir dam
ZINDE	420541N 0423004	R164.4/D4.9	North-West from Vani town stadium
KRESA	420618N 0421700E	R237.8/D9.9	West of Sajavakho village

Name	Geographical coordinates	DVOR/DME Fix (KTS)	Visual reference
ZAZNO	420727N 0422644E	R202.6/D3.5	East of Chkvishi village
AMPIZ	420808N 0423231E	R126.3/D3.5	West of Sakulia village
NORGO	421235N 0422831E	R341.2/D2.1	2NM north of UGKO ARP
SOKKA	420838N 0422924E	R165.9/D1.9	2NM south of UGKO ARP

See also the Visual Approach Chart AD 2.UGKO-VAC.

UGKO AD 2.23 Additional information

Intense activity of swallow flocks takes place daily from 08:00 to 11:00 (local time) (during summer season from June to September) when birds fly from resting area (Airport Buildings) across the approach of RWY 07 to their feeding area, Aerodrome. Only small swallows are active, which doesn't effect flight safety if strikes to aircraft. 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.

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 07/25.

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.

UGKO AD 2.24 Charts related to an aerodrome

Chart Name	Page
Aerodrome Chart - ICAO	AD 2.UGKO-ADC
Area Chart - ICAO	AD 2.UGKO-ARC
Standard Departure Chart - Instrument - ICAO RWY 07	AD 2.UGKO-SID-07-1
Standard Departure Routes - Instrument RWY 07	AD 2.UGKO-SID-07-3
Standard Departure Chart - Instrument - ICAO - RNAV RWY 07	AD 2.UGKO-SID-RNAV-07-1
Standard Departure Routes - Instrument - RNAV RWY 07	AD 2.UGKO-SID-RNAV-07-3
Standard Departure Chart - Instrument - ICAO - RNAV RWY 25	AD 2.UGKO-SID-RNAV-25-1
Standard Departure Routes - Instrument - RNAV RWY 25	AD 2.UGKO-SID-RNAV-25-3
Standard Arrival Chart - Instrument - ICAO - RNAV RWY 07	AD 2.UGKO-STAR-RNAV-07-1
Standard Arrival Routes - Instrument - RNAV RWY 07	AD 2.UGKO-STAR-RNAV-07-3
Standard Arrival Chart - Instrument - ICAO - RNAV RWY 25	AD 2.UGKO-STAR-RNAV-25-1
Standard Arrival Routes - Instrument - RNAV RWY 25	AD 2.UGKO-STAR-RNAV-25-3
ATC Surveillance Minimum Altitude Chart - ICAO	AD 2.UGKO-ATCSMAC-1
ATC Surveillance Minimum Altitude Sector's Coordinates	AD 2.UGKO-ATCSMAC-3
Instrument Approach Chart - ICAO RWY 07 (ILSy)	AD 2.UGKO-IAC-07-ILSy
* the chart contains a text page	

Chart Name	Page
Instrument Approach Chart - ICAO RWY 07 (ILSz)	AD 2.UGKO-IAC-07-ILSz-1
Instrument Approach Coding RWY 07 (ILSz)	AD 2.UGKO-IAC-07-ILSz-3
Instrument Approach Chart - ICAO RWY 07 (LOCy)	AD 2.UGKO-IAC-07-LOCy
Instrument Approach Chart - ICAO RWY 07 (LOCz)	AD 2.UGKO-IAC-07-LOCz-1
Instrument Approach Coding RWY 07 (LOCz)	AD 2.UGKO-IAC-07-LOCz-3
Instrument Approach Chart - ICAO RWY 25 (ILSy)	AD 2.UGKO-IAC-25-ILSy
Instrument Approach Chart - ICAO RWY 25 (ILSz)	AD 2.UGKO-IAC-25-ILSz-1
Instrument Approach Coding RWY 25 (ILSz)	AD 2.UGKO-IAC-25-ILSz-3
Instrument Approach Chart - ICAO RWY 25 (LOCy)	AD 2.UGKO-IAC-25-LOCy
Instrument Approach Chart - ICAO RWY 25 (LOCz)	AD 2.UGKO-IAC-25-LOCz-1
Instrument Approach Coding RWY 25 (LOCz)	AD 2.UGKO-IAC-25-LOCz-3
Instrument Approach Chart - ICAO RWY 07 (VOR)	AD 2.UGKO-IAC-07-VOR
Instrument Approach Chart - ICAO RWY 25 (VOR)	AD 2.UGKO-IAC-25-VOR
Visual Approach Chart - ICAO	AD 2.UGKO-VAC
Bird Concentrations and Movement - Index chart	AD 2.UGKO-BIRD
* the chart contains a text page	

UGKO AD 2.25 Visual segment surface (VSS) penetration

To be developed.

AERODROME CHART - ICAO

42°10' 37"N
042°28' 58"E

ELEV 160'

TWR 125.500

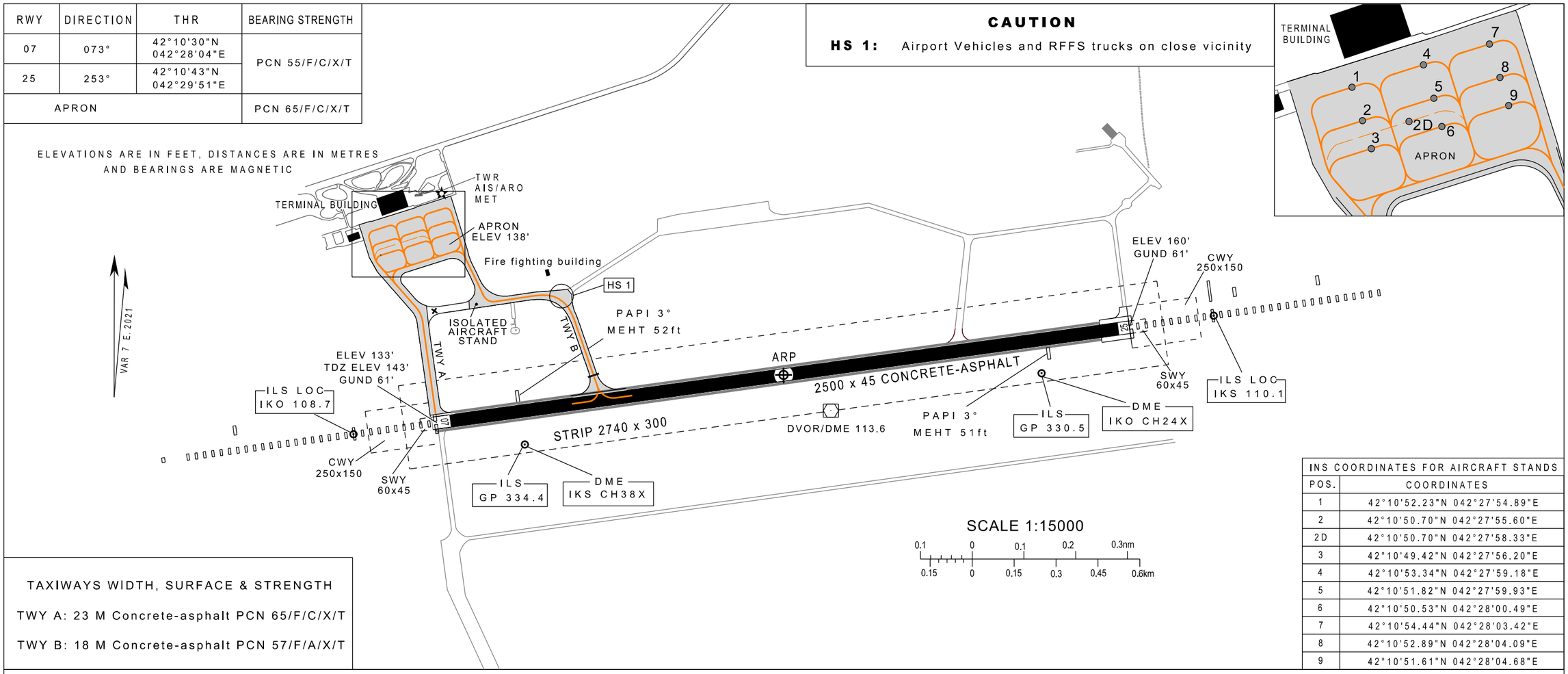
KUTAISI/Kopitnari (UGKO)

RWY	DIRECTION	THR	BEARING STRENGTH
07	073°	42°10'30"N 042°28'04"E	PCN 55/F/C/X/T
25	253°	42°10'43"N 042°29'51"E	
APRON			PCN 65/F/C/X/T

CAUTION

HS 1: Airport Vehicles and RFFS trucks on close vicinity

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



SCALE 1:15000

0.1 0 0.1 0.2 0.3nm
0.15 0 0.15 0.3 0.45 0.6km

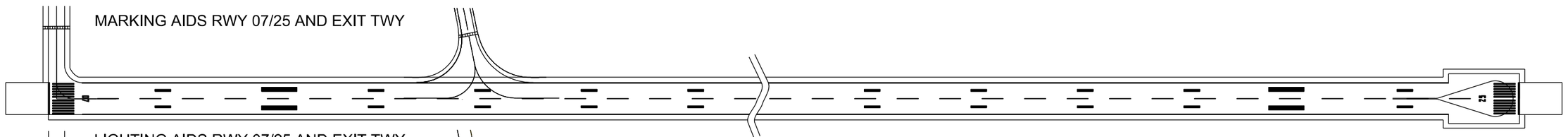
INS COORDINATES FOR AIRCRAFT STANDS	
POS.	COORDINATES
1	42°10'52.23"N 042°27'54.89"E
2	42°10'50.70"N 042°27'55.60"E
2D	42°10'50.70"N 042°27'58.33"E
3	42°10'49.42"N 042°27'56.20"E
4	42°10'53.34"N 042°27'59.18"E
5	42°10'51.82"N 042°27'59.93"E
6	42°10'50.53"N 042°28'00.49"E
7	42°10'54.44"N 042°28'03.42"E
8	42°10'52.89"N 042°28'04.09"E
9	42°10'51.61"N 042°28'04.68"E

TAXIWAYS WIDTH, SURFACE & STRENGTH

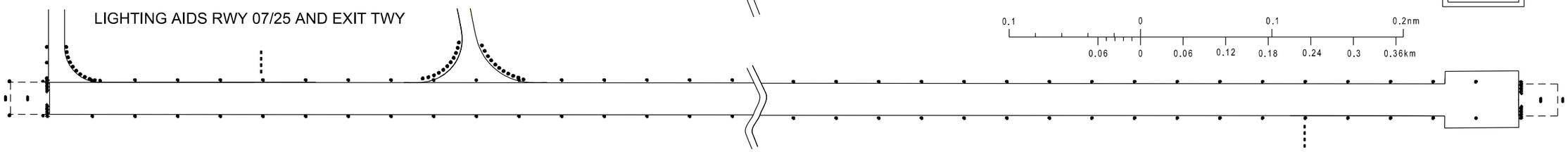
TWY A: 23 M Concrete-asphalt PCN 65/F/C/X/T

TWY B: 18 M Concrete-asphalt PCN 57/F/A/X/T

MARKING AIDS RWY 07/25 AND EXIT TWY



LIGHTING AIDS RWY 07/25 AND EXIT TWY



0.1 0 0.1 0.2nm
0.06 0 0.06 0.12 0.18 0.24 0.3 0.36km

Changes: Chart reissued

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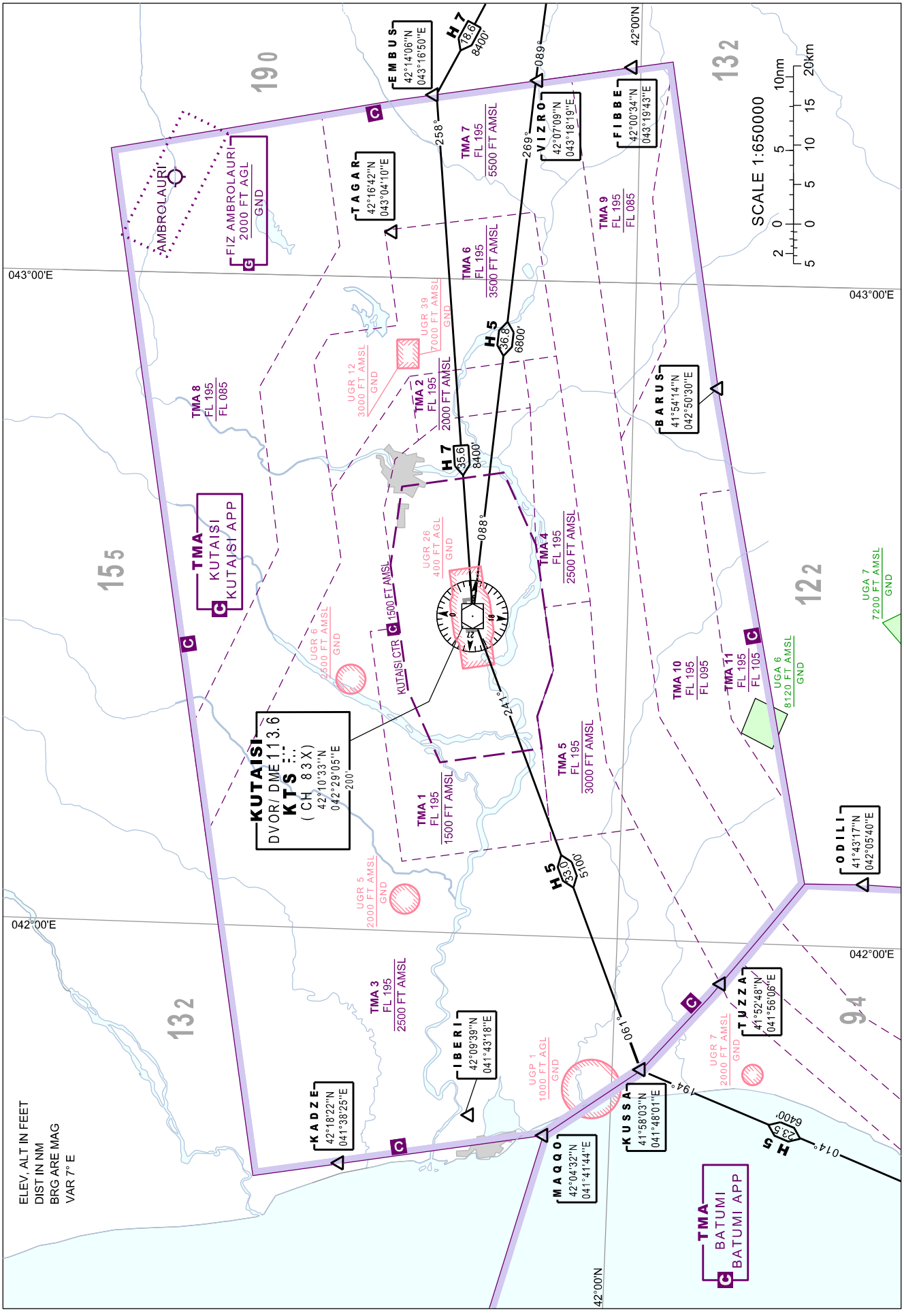
AREA CHART - ICAO

KUTAISI APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)



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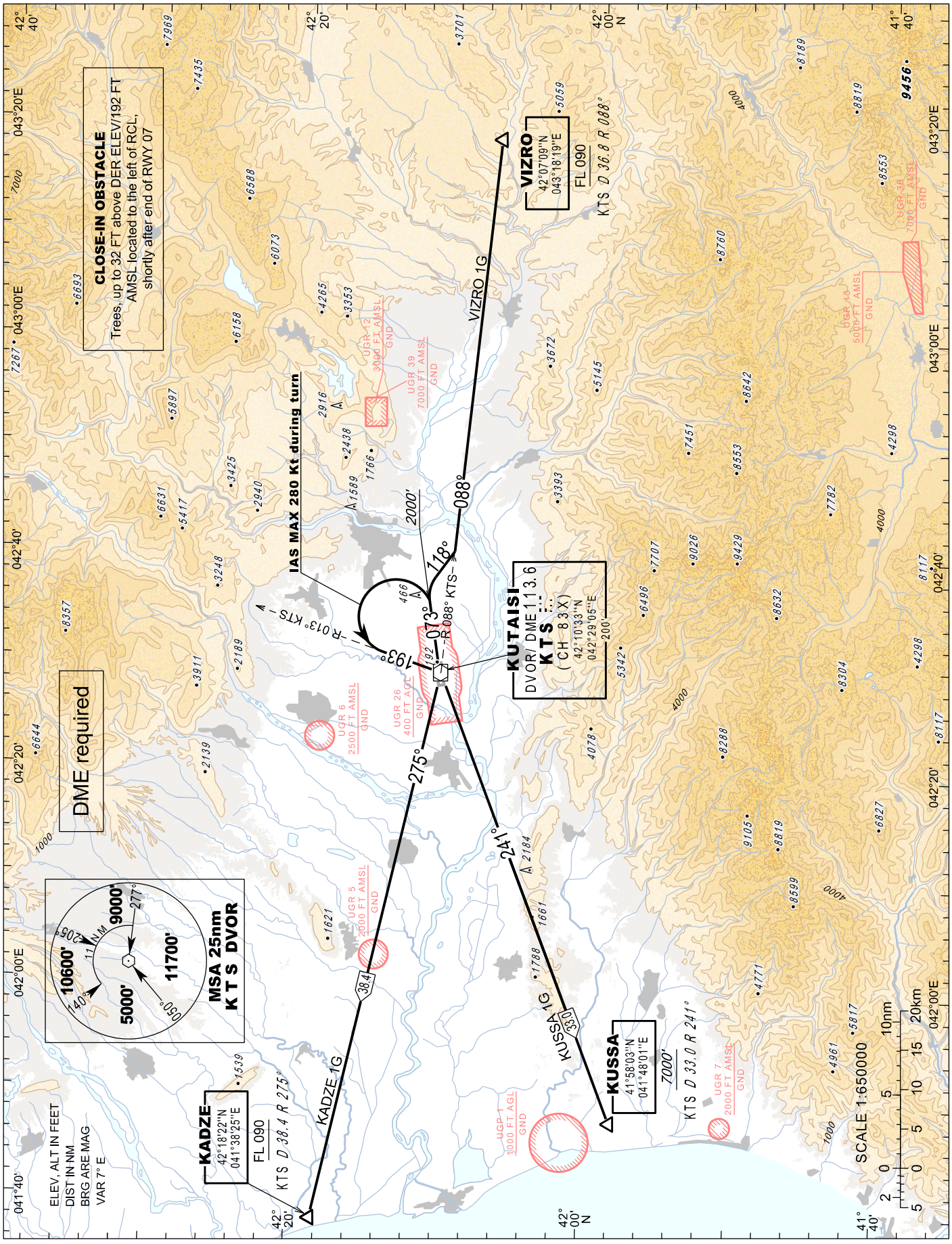
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
RWY 07
KADZE 1G VIZRO 1G
KUSSA 1G



Changes: Chart reissued

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STANDARD DEPARTURE ROUTES - INSTRUMENT - RWY 07

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.
KADZE 1G	**KADZE ONE GOLF** Climb runway heading to FL090 or above. At 2000 FT turn LEFT to intercept and follow R-013° KTS inbound KTS. Then proceed to KADZE, R-275° KTS. Do not turn before the DER. **IAS Max during the first turn 280Kt.**	3.7% to 4500 FT
KUSSA 1G	**KUSSA ONE GOLF** Climb runway heading to 7000 FT or above. At 2000 FT turn LEFT to intercept and follow R-013° KTS inbound KTS. Then proceed to KUSSA, R-241° KTS. Do not turn before the DER. **IAS Max during the first turn 280Kt.**	3.7% to 4500 FT
VIZRO 1G	**VIZRO ONE GOLF** Climb runway heading to FL090 or above. At 2000 FT turn RIGHT heading 118° to intercept and follow R-088° KTS inbound VIZRO. Do not turn before the DER.	4.0% to FL 090

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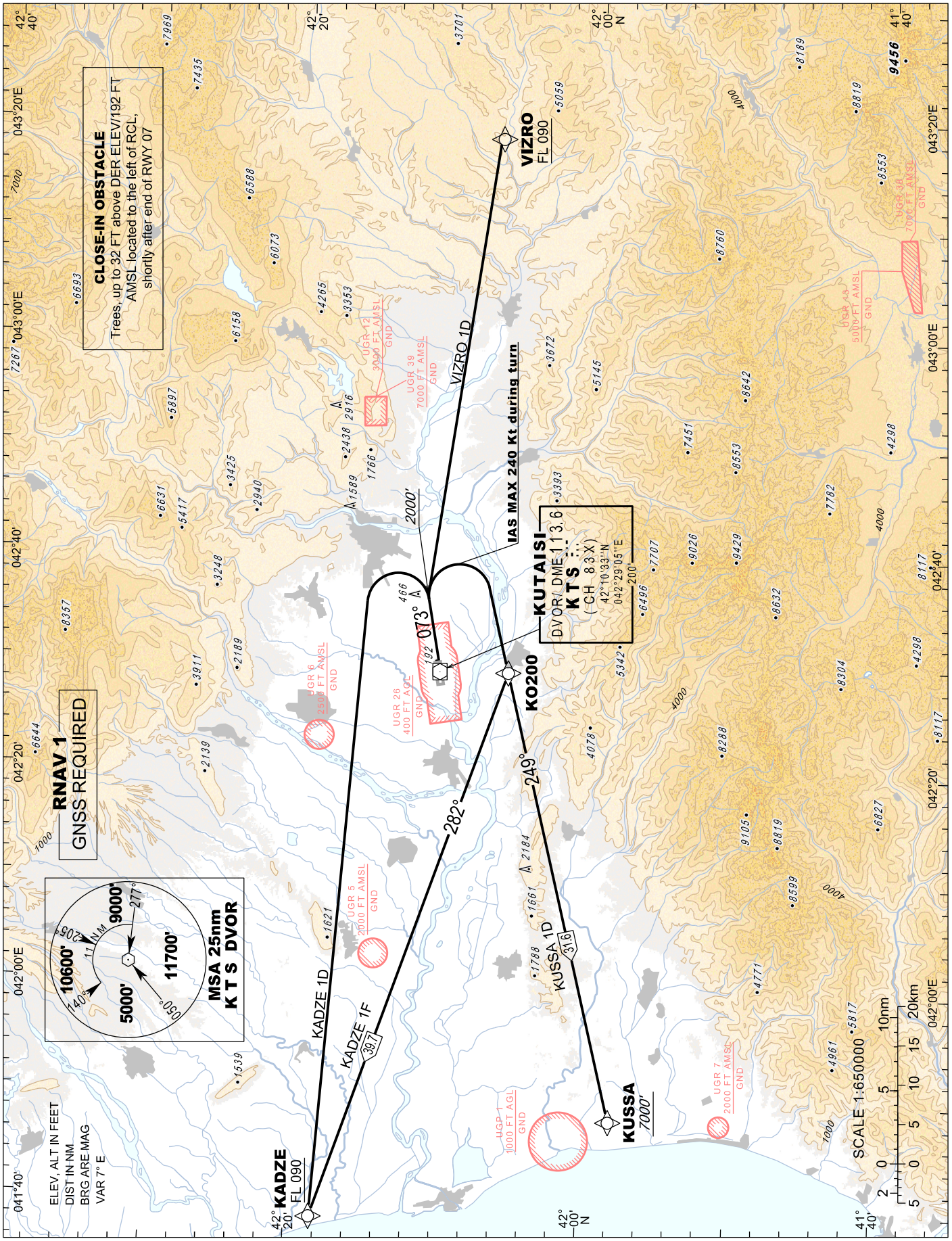
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
RNAV RWY 07

KADZE 1D KADZE 1F
KUSSA 1D VIZRO 1D



Changes: Chart reissued

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STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY07

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
KADZE 1D	**KADZE ONE DELTA** Climb on course 073°, when passing 2000 FT turn LEFT direct to KADZE. Cross KADZE at or above FL 090. Do not turn before the DER.	3.7% to 4500 FT	NIL

RNAV 1 SID Coding Table of KADZE 1D

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	073° (080.4°)	-	-	A2000	-	RNAV1
DF	KADZE	-	42°18'22.0"N 041°38'25.0"E	-	-	L	+FL090	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
KADZE 1F	**KADZE ONE FOXTROT** Climb on course 073°, when passing 2000 FT turn RIGHT direct to KO200, track to KADZE. Cross KADZE at or above FL 090. Do not turn before the DER.	4.0% to 5000 FT	Ignore speed restriction of KO200 after turn is completed inbound KO200

RNAV 1 SID Coding Table of KADZE 1F

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	–	-	-	073° (080.4°)	-	-	A2000	-	RNAV1
DF	KO200	-	42°05'52.0"N 042°29'07.0"E	-	-	R	-	-240	RNAV1
TF	KADZE	-	42°18'22.0"N 041°38'25.0"E	282° (288.6°)	39.7	-	+FL090	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
VIZRO 1D	**VIZRO ONE DELTA** Climb on course 073°, when passing 2000 FT turn RIGHT direct to VIZRO. Cross VIZRO at or above FL 090. Do not turn before the DER.	4.0% to FL 090	NIL

RNAV 1 SID Coding Table of VIZRO 1D

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	073° (080.4°)	-	-	A2000	-	RNAV1
DF	VIZRO	-	42°07'09.0"N 043°18'19.0"E	-	-	R	+FL090	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
KUSSA 1D	**KUSSA ONE DELTA** Climb on course 073°, when passing 2000 FT turn RIGHT direct to KO200, track to KUSSA. Cross KUSSA at or above 7000 FT. Do not turn before the DER.	4.0% to 5000 FT	Ignore speed restriction of KO200 after turn is completed inbound KO200

RNAV 1 SID Coding Table of KUSSA 1D

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	073° (080.4°)	-	-	A2000	-	RNAV1
DF	KO200	-	42°05'52.0"N 042°29'07.0"E	-	-	R	-	-240	RNAV1
TF	KUSSA	-	41°58'03.0"N 041°48'01.0"E	249° (255.9°)	31.6	-	+A7000	-	RNAV1

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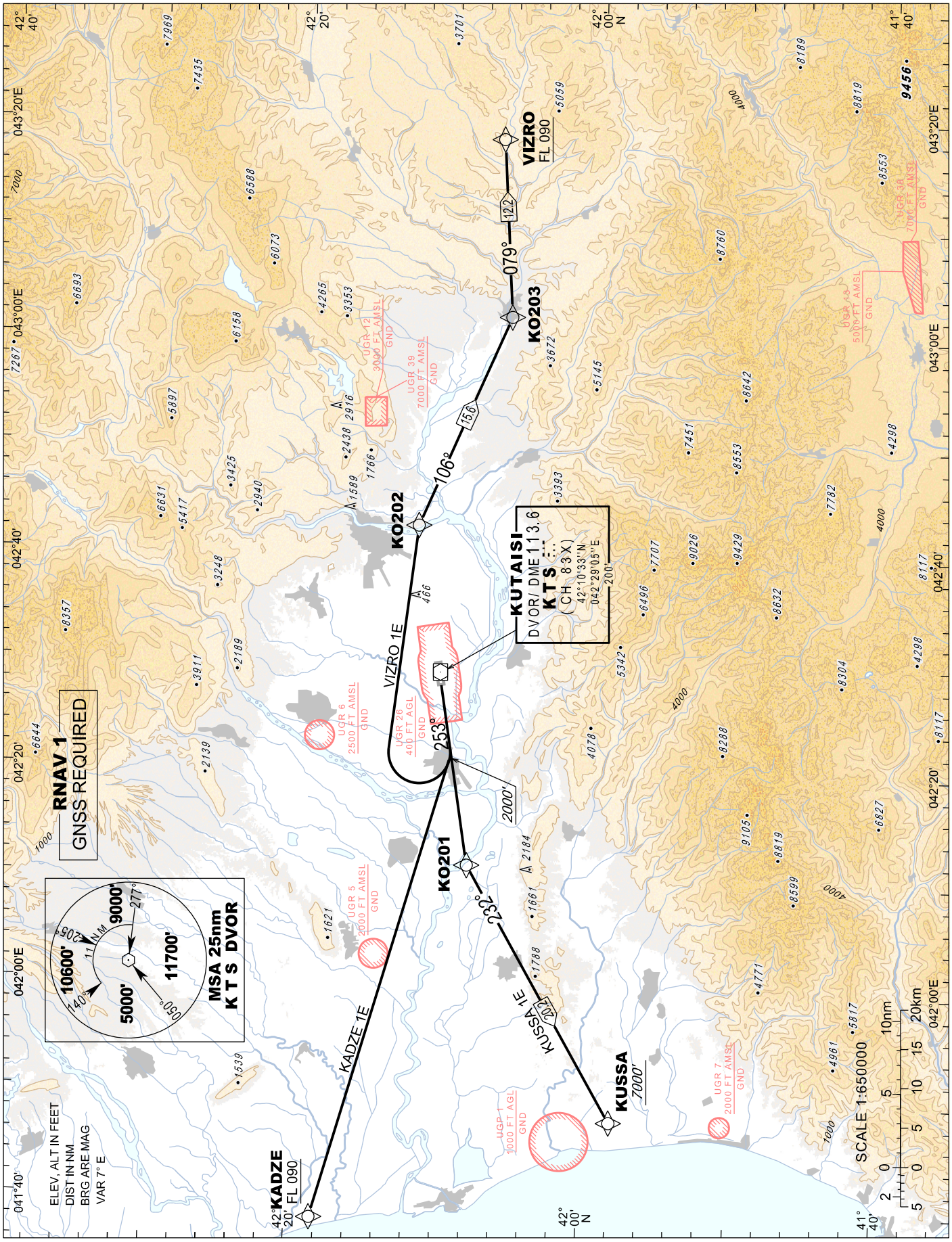
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
RNAV RWY 25

KADZE 1E VIZRO 1E
KUSSA 1E



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STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY25

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
KADZE 1E	**KADZE ONE ECHO** Climb on course 253°, when passing 2000 FT turn RIGHT direct to KADZE. Cross KADZE at or above FL 090. Do not turn before the DER.	3.8% to FL 090	NIL

RNAV 1 SID Coding Table of KADZE 1E

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	253° (260.4°)	-	-	A2000	-	RNAV1
DF	KADZE	-	42°18'22.0"N 041°38'25.0"E	-	-	R	+FL090	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
VIZRO 1E	**VIZRO ONE ECHO** Climb on course 253°, when passing 2000 FT turn RIGHT direct to KO202, track to KO203, track to VIZRO. Cross VIZRO at or above FL 090. Do not turn before the DER.	-	NIL

RNAV 1 SID Coding Table of VIZRO 1E

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CA	-	-	-	253° (260.4°)	-	-	A2000	-	RNAV1
DF	KO202	-	42°12'18.0"N 042°42'36.0"E	-	-	R	-	-	RNAV1
TF	KO203	-	42°06'14.0"N 043°01'58.0"E	106° (112.8°)	15.6	-	-	-	RNAV1
TF	VIZRO	-	42°07'09.0"N 043°18'19.0"E	079° (086.4°)	12.2	-	+FL090	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
KUSSA 1E	**KUSSA ONE ECHO** To KO201 on course 253°, to KUSSA. Cross KUSSA at or above 7000 FT.	-	NIL

RNAV 1 SID Coding Table of KUSSA 1E

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	KO201	-	42°08'23.0"N 042°11'21.0"E	253° (260.5°)	-	-	-	-	RNAV1
TF	KUSSA	-	41°58'03.0"N 041°48'01.0"E	232° (239.0°)	20.2	-	+A7000	-	RNAV1

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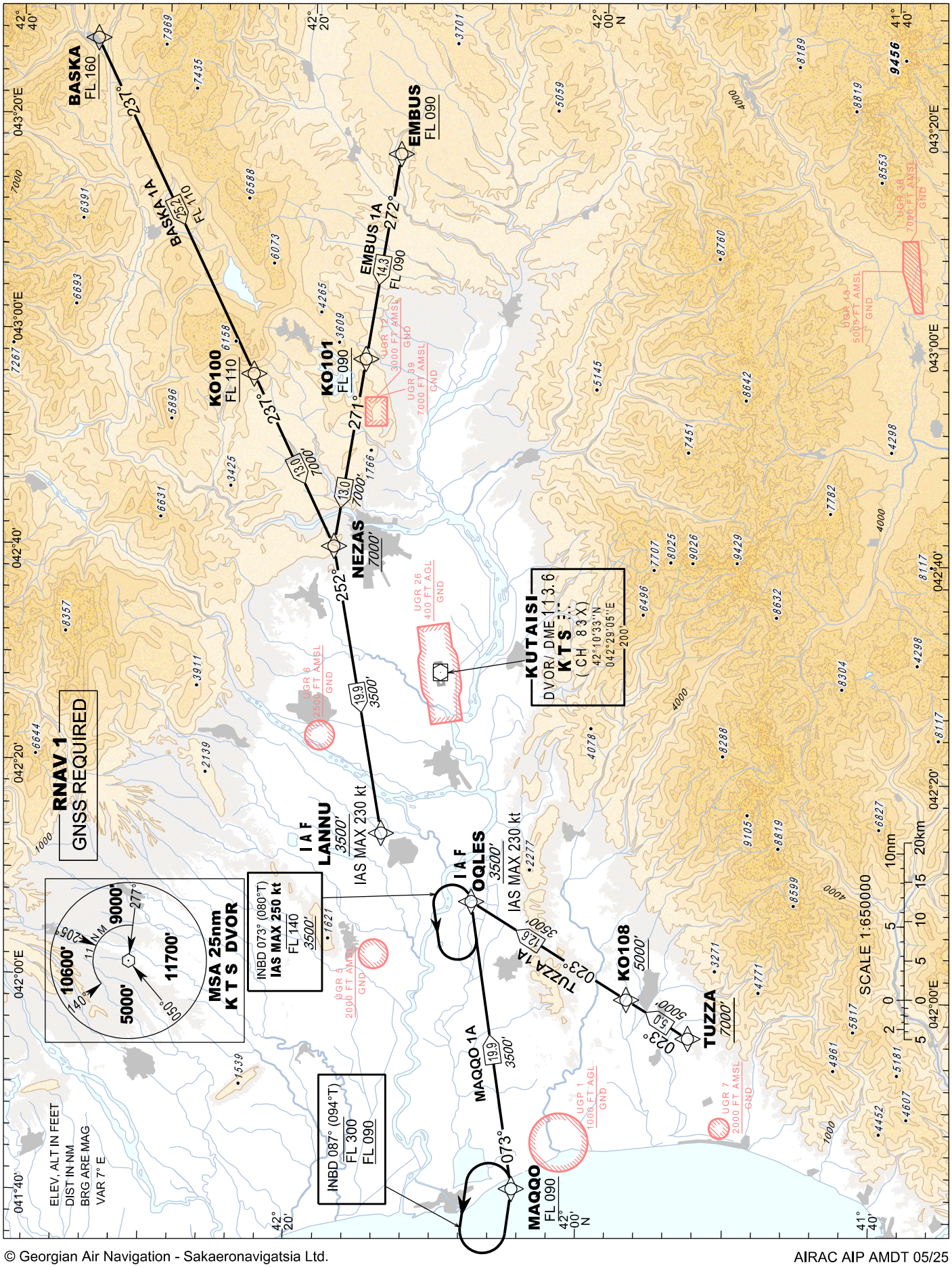
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION LEVEL FL 090
TRANSITION ALTITUDE 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
RNAV RWY 07

TUZZA 1A MAQQO 1A
BASKA 1A EMBUS 1A



Changes: Chart reissued

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STANDARD ARRIVAL ROUTES - RNAV (GNSS) INSTRUMENT - RWY 07

RNAV 1 STAR Coding Table of BASKA 1A

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	BASKA	-	42°34'59.0"N 043°26'55.0"E	-	-	-	+FL160	-	RNAV1
TF	KO100	-	42°23'54.0"N 042°56'14.0"E	237° (244.1°)	25.2	-	+FL110	-	RNAV1
TF	NEZAS	-	42°18'07.0"N 042°40'29.0"E	237° (243.7°)	13.0	-	+A7000	-	RNAV1
TF	LANNU	-	42°14'19.0"N 042°14'06.0"E	252° (259.1°)	19.9	-	+A3500	-230	RNAV1

RNAV 1 STAR Coding Table of EMBUS 1A

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	EMBUS	-	42°14'06.0"N 043°16'50.0"E	-	-	-	+FL090	-	RNAV1
TF	KO101	-	42°16'14.0"N 042°57'50.0"E	272° (278.7°)	14.3	-	+FL090	-	RNAV1
TF	NEZAS	-	42°18'07.0"N 042°40'29.0"E	271° (278.4°)	13.0	-	+A7000	-	RNAV1
TF	LANNU	-	42°14'19.0"N 042°14'06.0"E	252° (259.1°)	19.9	-	+A3500	-230	RNAV1

RNAV 1 STAR Coding Table of MAQQO 1A

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	MAQQO	-	42°04'32.0"N 041°41'44.0"E	-	-	-	+FL090	-	RNAV1
TF	OQLES	-	42°07'58.0"N 042°08'03.0"E	073° (079.9°)	19.9	-	+A3500	-230	RNAV1

RNAV 1 STAR Coding Table of TUZZA 1A

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	TUZZA	-	41°52'48.0"N 041°56'06.0"E	-	-	-	+A7000	-	RNAV1
TF	KO108	-	41°57'07.0"N 041°59'29.0"E	023° (030.2°)	5.0	-	+A5000	-	RNAV1
TF	OQLES	-	42°07'58.0"N 042°08'03.0"E	023° (030.3°)	12.6	-	+A3500	-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
MAQQO	087° (094.0°)	1.5*	L	FL090	FL300	280	-7°	RNAV1
OQLES	073° (080.0°)	1.0	L	A3500	FL140	250	-7°	RNAV1

* 1.0 min at or below FL140

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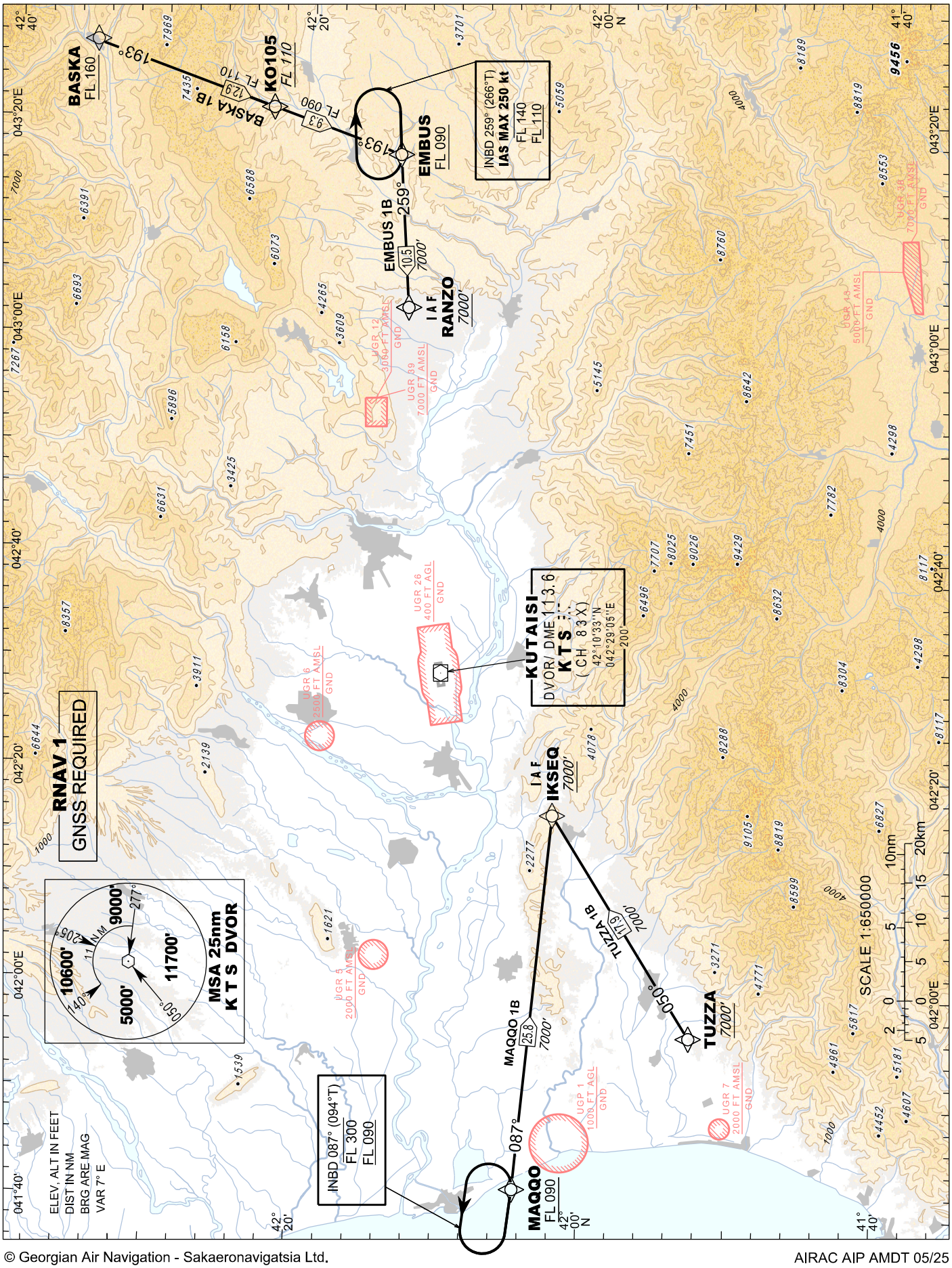
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION LEVEL FL 090
TRANSITION ALTITUDE 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
RNAV RWY 25

TUZZA 1B MAQQO 1B
BASKA 1B EMBUS 1B



Changes: Chart reissued

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STANDARD ARRIVAL ROUTES - RNAV (GNSS) INSTRUMENT - RWY 25

RNAV 1 STAR Coding Table of BASKA 1B

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	BASKA	-	42°34'59.0"N 043°26'55.0"E	-	-	-	+FL160	-	RNAV1
TF	KO105	-	42°22'51.0"N 043°21'03.0"E	193° (199.7°)	12.9	-	+FL110	-	RNAV1
TF	EMBUS	-	42°14'06.0"N 043°16'50.0"E	193° (199.6°)	9.3	-	+FL090	-	RNAV1
TF	RANZO	-	42°13'23.0"N 043°02'44.0"E	259° (266.2°)	10.5	-	+A7000	-	RNAV1

RNAV 1 STAR Coding Table of EMBUS 1B

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	EMBUS	-	42°14'06.0"N 043°16'50.0"E	-		-	+FL090	-	RNAV1
TF	RANZO	-	42°13'23.0"N 043°02'44.0"E	259° (266.2°)	10.5	-	+A7000	-	RNAV1

RNAV 1 STAR Coding Table of MAQQO 1B

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	MAQQO	-	42°04'32.0"N 041°41'44.0"E	-	-	-	+FL090	-	RNAV1
TF	IKSEQ	-	42°02'37.0"N 042°16'14.0"E	087° (094.1°)	25.8	-	+A7000	-	RNAV1

RNAV 1 STAR Coding Table of TUZZA 1B

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	TUZZA	-	41°52'48.0"N 041°56'06.0"E	-	-	-	+A7000	-	RNAV1
TF	IKSEQ	-	42°02'37.0"N 042°16'14.0"E	050° (056.6°)	17.9	-	+A7000	-	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
MAQQO	087° (094.0°)	1.5*	L	FL090	FL300	280	-7°	RNAV1
EMBUS	259° (266.0°)	1.0	R	FL110	FL140	250	-7°	RNAV1

* 1.0 min at or below FL140

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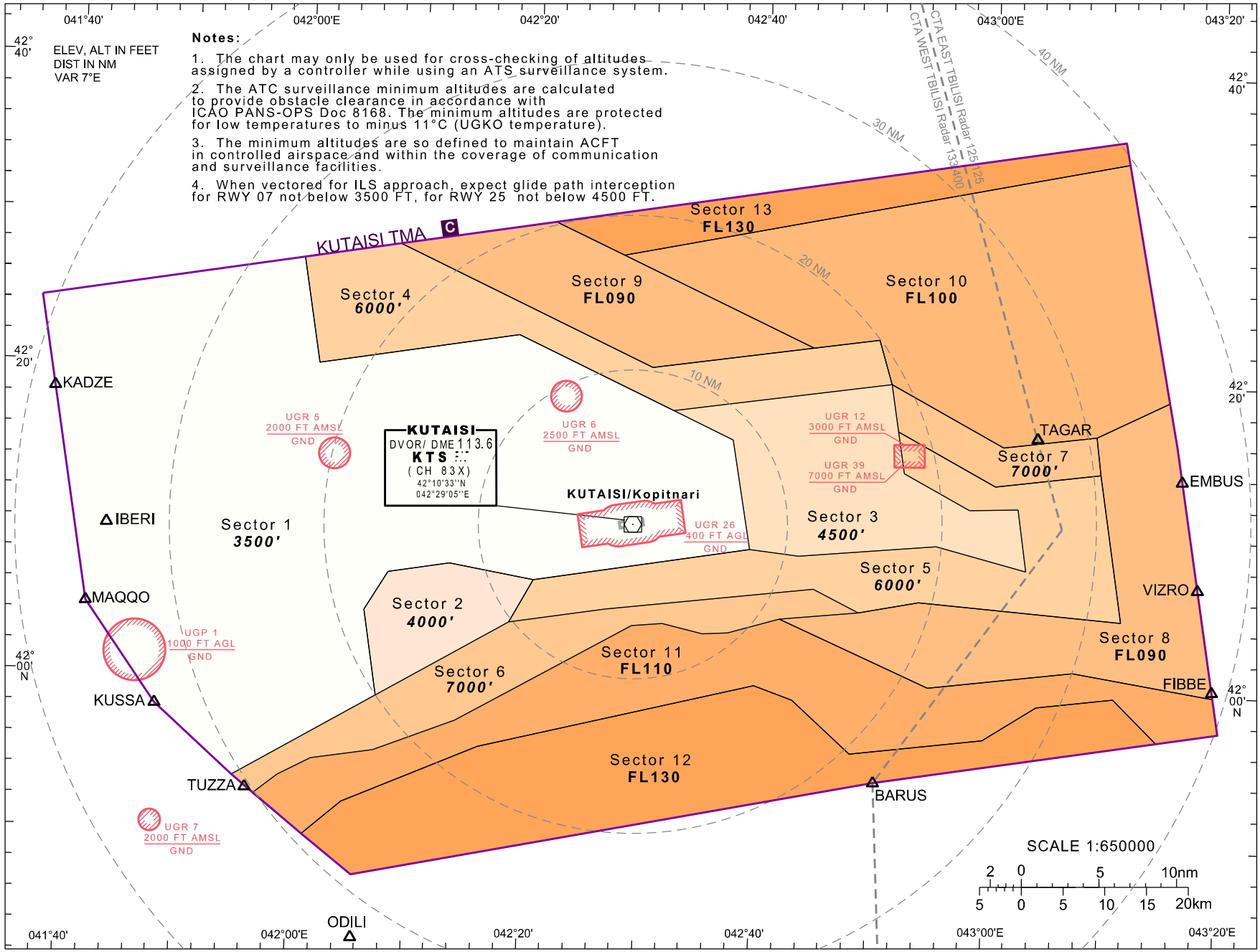
Changes: Chart reissued

ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

KUTAISI/Kopitnari (UGKO)

AERODROME ELEV 160'
TRANSITION ALTITUDE 7000'

APP 127.1
TWR 125.5



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ATC Surveillance Minimum Altitude Sectors' Coordinates

Sector	Lateral limits
Sector 1	422413N 0413700E - 422712N 0415948E - 422024N 0420123E - 422237N 0421844E - 421800N 0423222E - 421613N 0423737E - 420908N 0423918E - 420648N 0422033E - 420742N 0421314E - 420701N 0420755E - 420432N 0420557E - 415900N 0420711E - 415334N 0415456E - 415803N 0414800E - 420432N 0414143E - 422413N 0413700E
Sector 2	415900N 0420711E - 420432N 0420557E - 420701N 0420755E - 420742N 0421314E - 420648N 0422033E - 420401N 0421833E - 415900N 0420711E
Sector 3	421800N 0423222E - 421831N 0423703E - 422004N 0425120E - 421701N 0425200E - 421419N 0425236E - 421202N 0425821E - 421208N 0430235E - 420808N 0430321E - 420938N 0425531E - 420848N 0424334E - 420908N 0423918E - 421613N 0423737E - 421800N 0423222E
Sector 4	422712N 0415948E - 422817N 0420808E - 422046N 0423027E - 422218N 0424428E - 422255N 0425011E - 422004N 0425120E - 421831N 0423703E - 421800N 0423222E - 422237N 0421844E - 422024N 0420123E - 422712N 0415948E
Sector 5	420648N 0422033E - 420908N 0423918E - 420848N 0424334E - 420938N 0425531E - 420808N 0430321E - 421208N 0430235E - 421202N 0425821E - 421419N 0425236E - 421701N 0425200E - 421336N 0430034E - 421429N 0430943E - 420457N 0431142E - 420559N 0425406E - 420513N 0424854E - 420641N 0424455E - 420502N 0422653E - 420401N 0421833E - 420648N 0422033E
Sector 6	415334N 0415456E - 415900N 0420711E - 420401N 0421833E - 420502N 0422653E - 420641N 0424455E - 420513N 0424854E - 420441N 0424202E - 420343N 0423735E - 420337N 0423523E - 420412N 0423153E - 420401N 0422914E - 415732N 0421407E - 415528N 0420706E - 415448N 0420145E - 415339N 0415854E - 415223N 0415648E - 415248N 0415606E - 415334N 0415456E
Sector 7	422004N 0425120E - 421608N 0430113E - 421655N 0430919E - 421429N 0430943E - 421336N 0430034E - 421701N 0425200E - 422004N 0425120E
Sector 8	420441N 0424202E - 420513N 0424854E - 420559N 0425406E - 420457N 0431142E - 421429N 0430943E - 421655N 0430919E - 421913N 0431538E - 421623N 0431621E - 420007N 0431948E - 420138N 0430735E - 420028N 0425503E - 420441N 0424202E
Sector 9	422817N 0420808E - 422959N 0422139E - 422758N 0422741E - 422218N 0424428E - 422046N 0423027E - 422817N 0420808E
Sector 10	422758N 0422741E - 423437N 0431144E - 421913N 0431538E - 421655N 0430919E - 421608N 0430113E - 422004N 0425120E - 422255N 0425011E - 422218N 0424428E - 422758N 0422741E
Sector 11	415223N 0415648E - 415339N 0415854E - 415448N 0420145E - 415528N 0420706E - 415732N 0421407E - 420401N 0422914E - 420412N 0423153E - 420337N 0423523E - 420343N 0423735E - 420441N 0424202E - 420028N 0425503E - 420138N 0430735E - 420007N 0431948E - 415748N 0432017E - 415711N 0431458E - 415958N 0431109E - 415921N 0430431E - 415709N 0425953E - 415604N 0424825E - 415928N 0424318E - 420020N 0423958E - 415554N 0421610E - 415204N 0420430E - 414953N 0420110E - 415223N 0415648E
Sector 12	414953N 0420110E - 415204N 0420430E - 415554N 0421610E - 420020N 0423958E - 415928N 0424318E - 415604N 0424825E - 415709N 0425953E - 415921N 0430431E - 415958N 0431109E - 415711N 0431458E - 415414N 0425030E - 414721N 0420533E - 414953N 0420110E
Sector 13	422959N 0422139E - 423602N 0431122E - 423437N 0431144E - 422758N 0422741E - 422959N 0422139E

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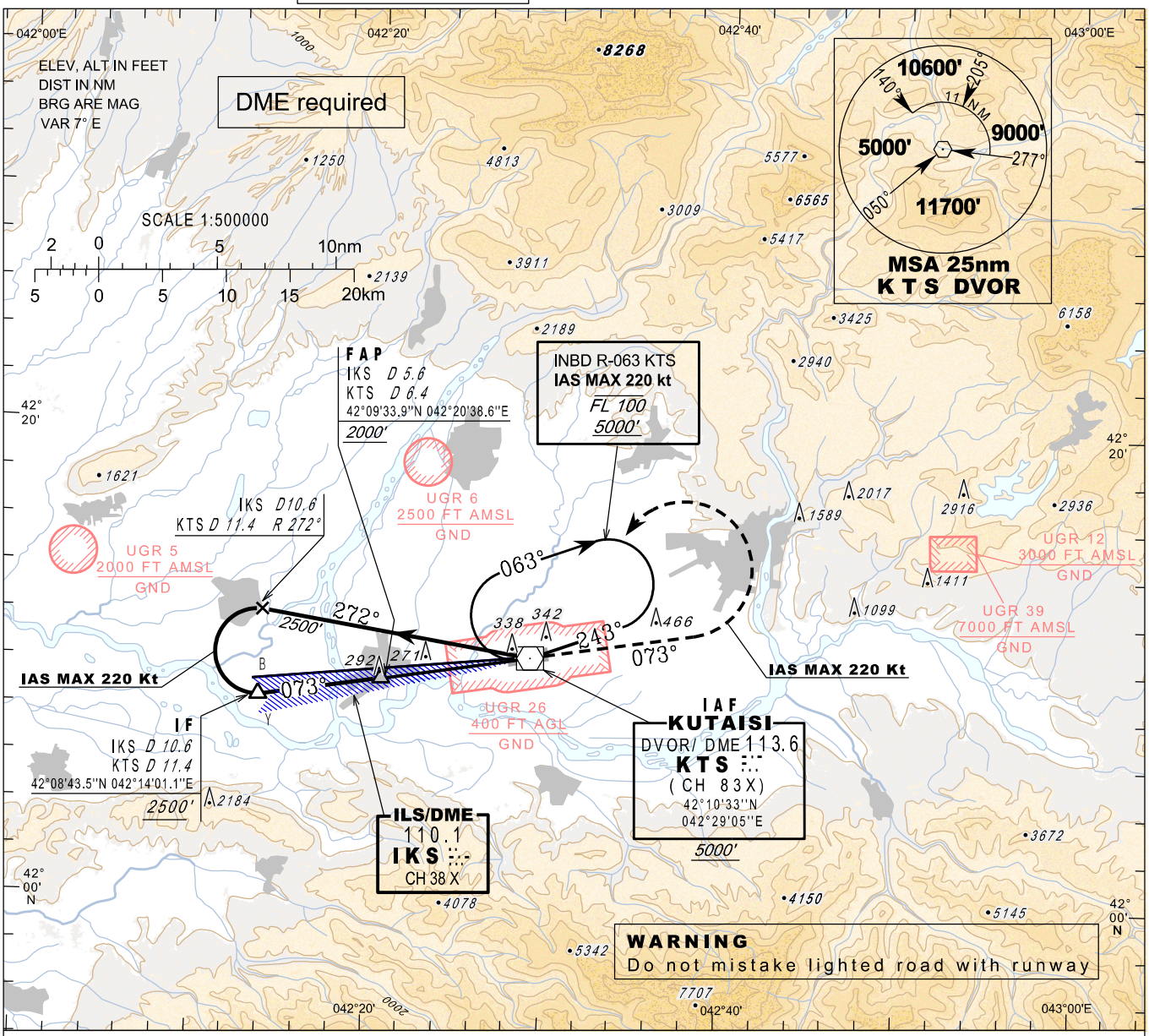
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 07 - ELEV 133'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
ILSy
RWY 07

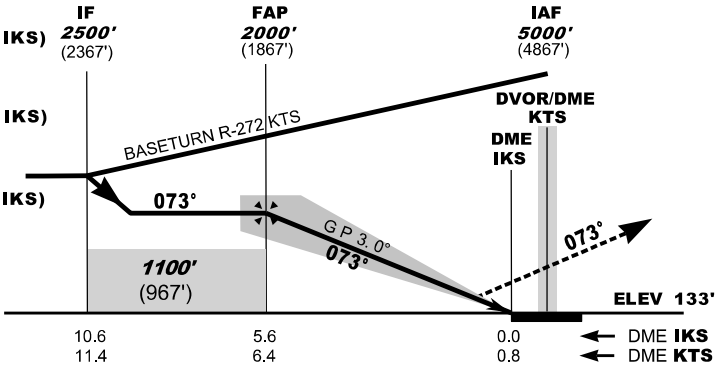


MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS** and follow **ATC** instructions.
IAS MAX 220kt

KTS DVOR Unserviceable:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left heading **255°** ,expect vectoring.
IAS MAX 220kt

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).
IAS MAX 220kt



Straight-in Approach	A	B	C	D
OCA(H)	**311** (178)	**321** (188)	**331** (198)	**341** (208)

DME IKS NM	5	4	3	2	1
DME KTS NM	5.8	4.8	3.8	2.8	1.8
ALT (HGT) ft	**1798** (1665)	**1472** (1339)	**1147** (1014)	**824** (691)	**503** (370)

ILS RDH 51'

Changes: Chart reissued

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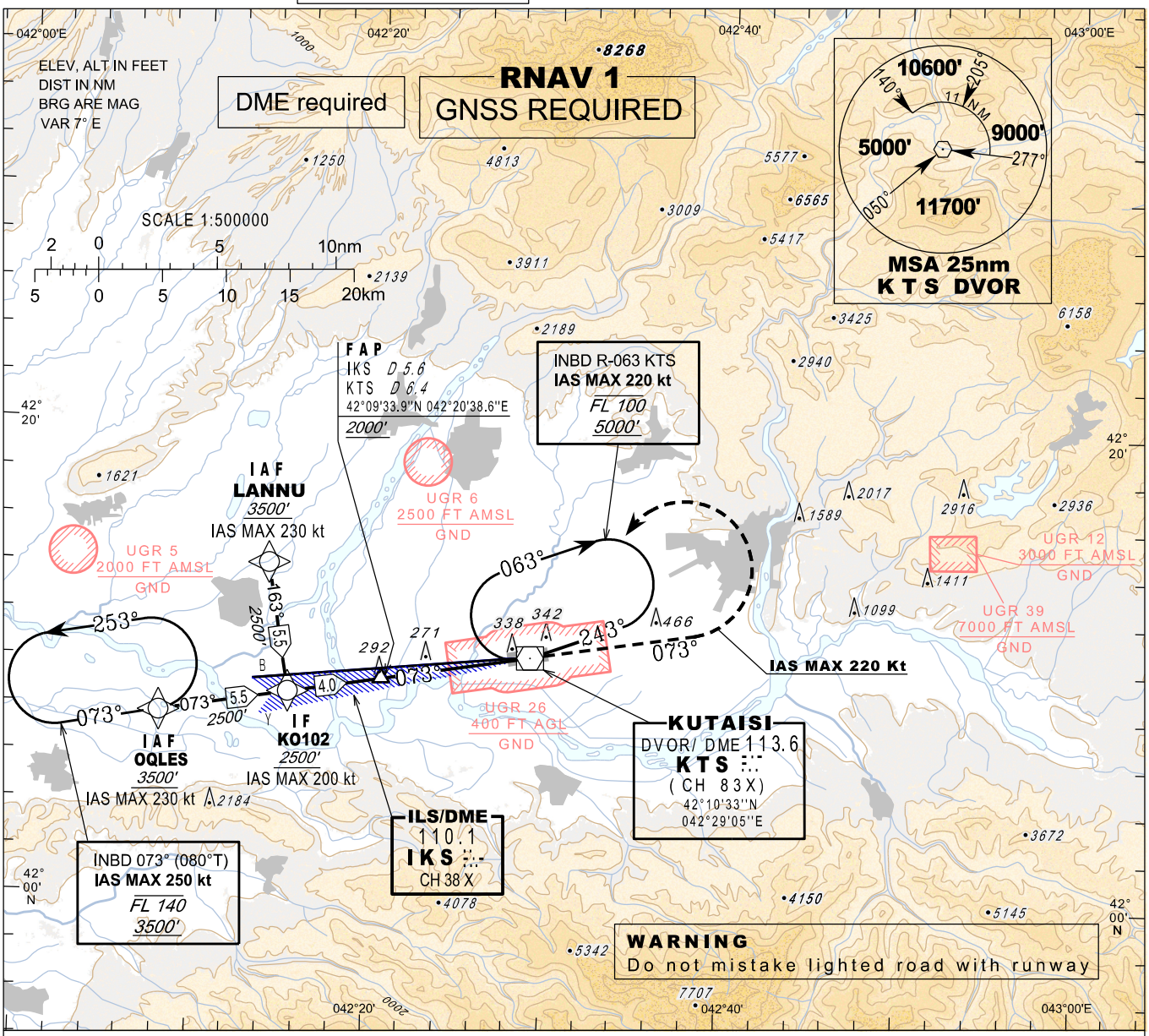
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 07 - ELEV 133'

TRANSITION ALT 7000'

APP	127.100
TWR	125.500

KUTAISI/Kopitnari (UGKO)
ILSz
RWY 07



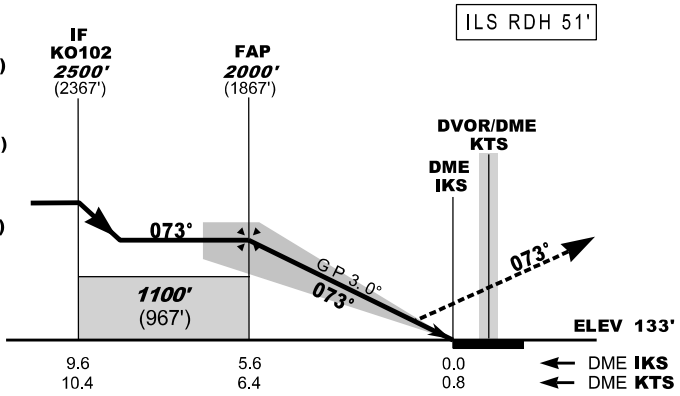
MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS** and follow **ATC** instructions.
IAS MAX 220kt

KTS DVOR Unserviceable:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left heading **255°**, expect vectoring.
IAS MAX 220kt

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).
IAS MAX 220kt

ILS RDH 51'



Straight-in Approach	A	B	C	D
OCA(H)	**311** (178)	**321** (188)	**331** (198)	**341** (208)

DME IKS NM	5	4	3	2	1
DME KTS NM	5.8	4.8	3.8	2.8	1.8
ALT (HGT) ft	**1798** (1665)	**1472** (1339)	**1147** (1014)	**824** (691)	**503** (370)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 07 ILSz

LANNU transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	LANNU	-	42°14'19.0"N 042°14'06.0"E	-	-	-	+A3500	-230	RNAV1
TF	KO102	-	42°08'53.6"N 042°15'20.6"E	163° (170.3°)	5.5	-	+A2500	-200	RNAV1

OQLES transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	OQLES	-	42°07'58.0"N 042°08'03.0"E	-	-	-	+A3500	-230	RNAV1
TF	KO102	-	42°08'53.6"N 042°15'20.6"E	073° (080.2°)	5.5	-	+A2500	-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
OQLES	073° (080.0°)	1.0	L	A3500	FL140	250	-7°	RNAV1

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INSTRUMENT APPROACH CHART - ICAO

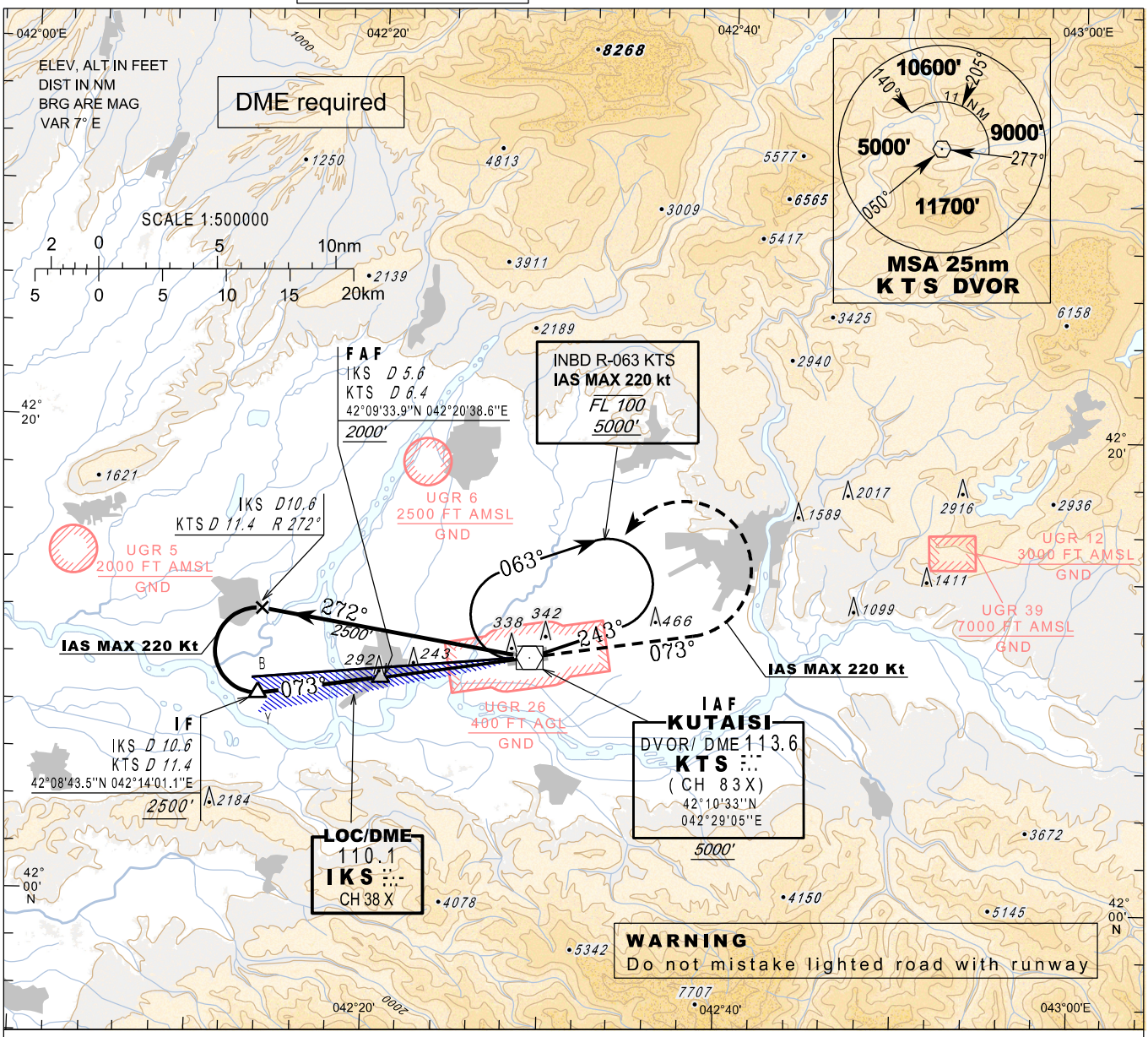
AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 07 - ELEV 133'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)

LOCy
RWY 07

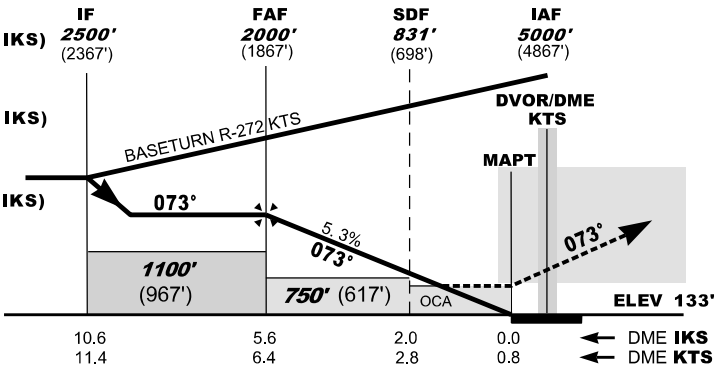


MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS** and follow **ATC** instructions.
IAS MAX 220kt

KTS DVOR Unserviceable:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left heading **255°**, expect vectoring.
IAS MAX 220kt

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).
IAS MAX 220kt



Straight-in Approach	A B C D
OCA(H)	**480** (340)

Timing is not authorised for defining the MAPT

DME IKS NM	5	4	3	2	1
DME KTS NM	5.8	4.8	3.8	2.8	1.8
ALT (HGT) ft	**1805** (1672)	**1481** (1348)	**1156** (1023)	**831** (698)	**507** (374)

Changes: Chart reissued

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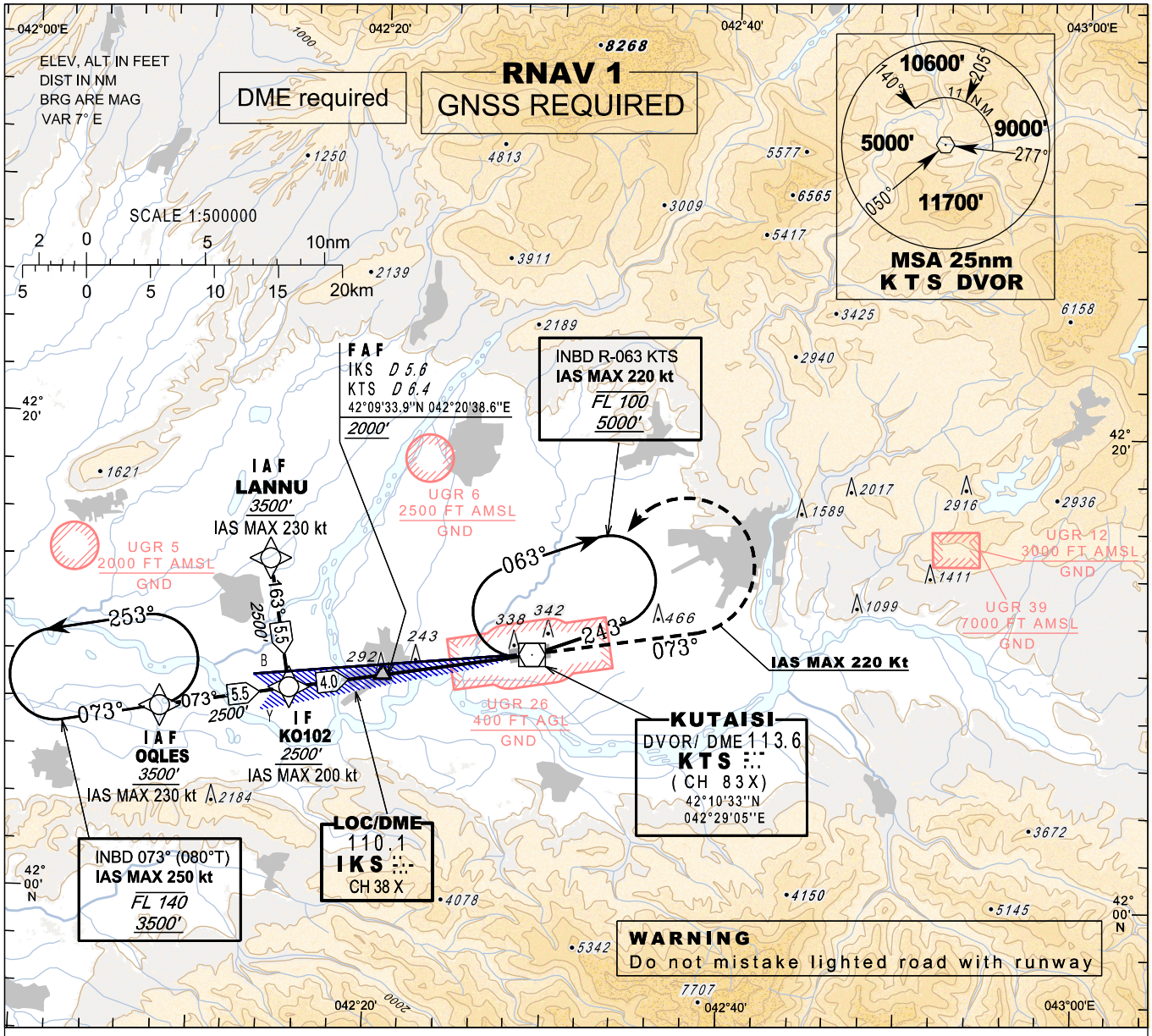
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 07 - ELEV 133'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
LOCz
RWY 07

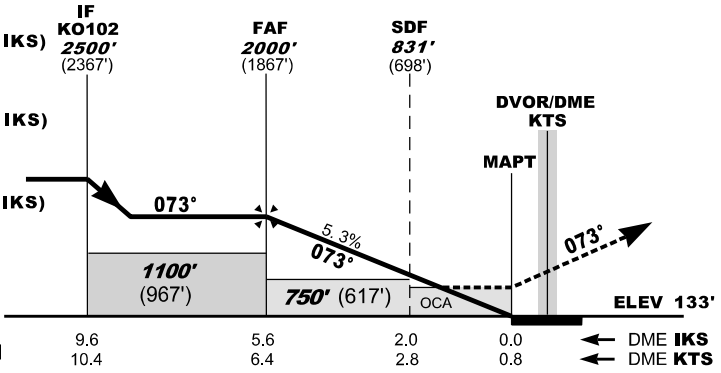


MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS** and follow **ATC** instructions.
IAS MAX 220kt

KTS DVOR Unserviceable:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left heading **255°**, expect vectoring.
IAS MAX 220kt

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).
IAS MAX 220kt



Straight-in Approach	A	B	C	D
OCA(H)	**480** (340)			

Timing is not authorised for defining the MAPT

DME IKS NM	5	4	3	2	1
DME KTS NM	5.8	4.8	3.8	2.8	1.8
ALT (HGT) ft	**1805** (1672)	**1481** (1348)	**1156** (1023)	**831** (698)	**507** (374)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 07 LOCz

LANNU transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	LANNU	-	42°14'19.0"N 042°14'06.0"E	-	-	-	+A3500	-230	RNAV1
TF	KO102	-	42°08'53.6"N 042°15'20.6"E	163° (170.3°)	5.5	-	+A2500	-200	RNAV1

OQLES transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	OQLES	-	42°07'58.0"N 042°08'03.0"E	-	-	-	+A3500	-230	RNAV1
TF	KO102	-	42°08'53.6"N 042°15'20.6"E	073° (080.2°)	5.5	-	+A2500	-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
OQLES	073° (080.0°)	1.0	L	A3500	FL140	250	-7°	RNAV1

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INSTRUMENT APPROACH CHART - ICAO

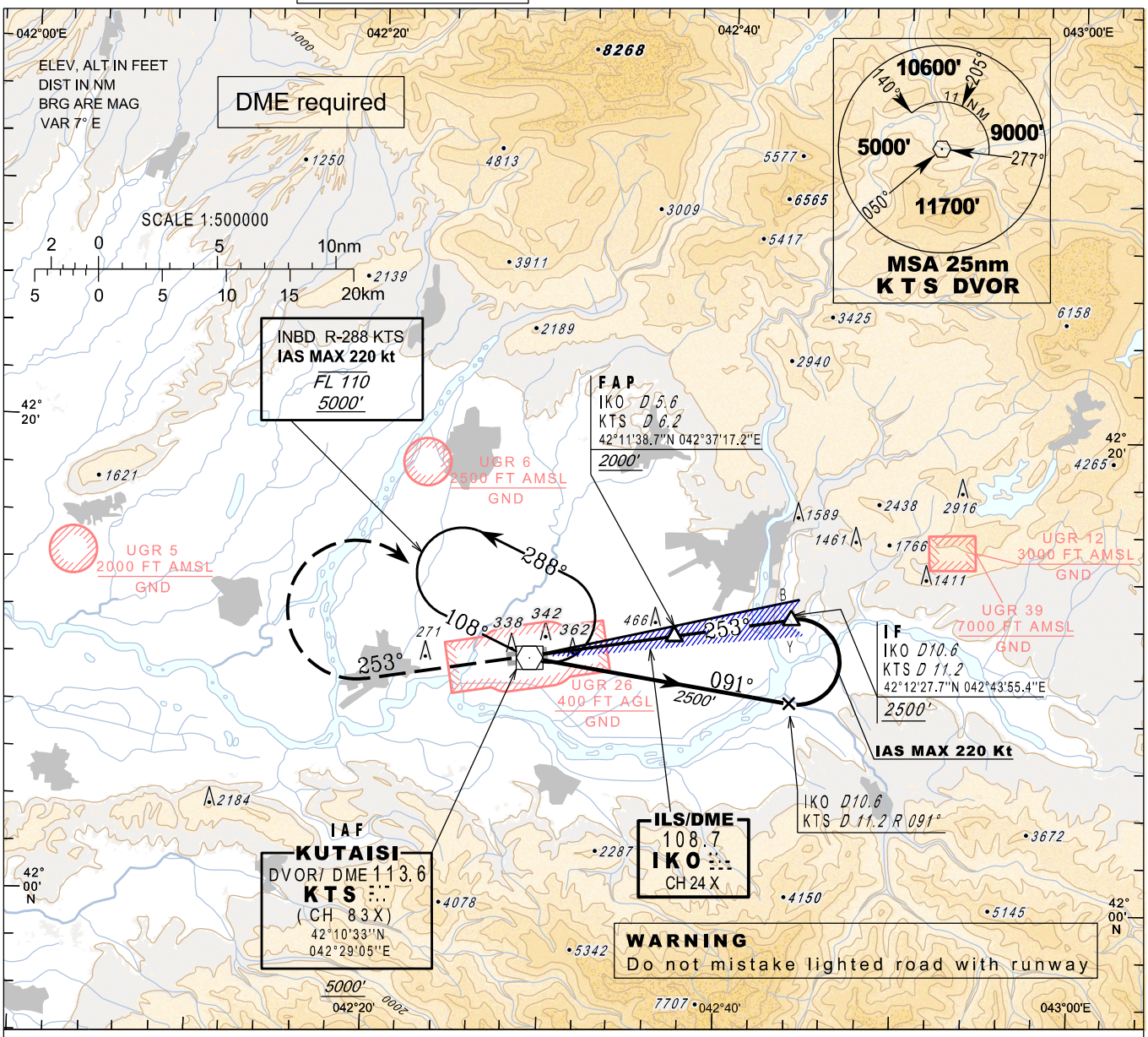
KUTAISI/Kopitnari (UGKO)

ILSy
RWY 25

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 25 - ELEV 160'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

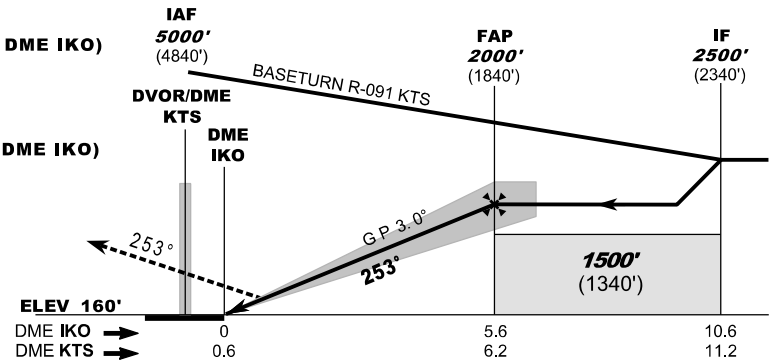


MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS** and follow **ATC** instructions.

KTS DVOR Unserviceable:
Climb straight ahead to **4500'**, expect vectoring.

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS**, hold as published, when ready make new approach (ILSy or LOCy or VOR).



Straight-in Approach	A	B	C	D
OCA(H)	**330** (170)	**340** (180)	**350** (190)	**360** (200)

DME IKO NM	5	4	3	2	1
DME KTS NM	5.6	4.6	3.6	2.6	1.6
ALT (HGT) ft	**1825** (1665)	**1499** (1339)	**1174** (1014)	**851** (691)	**530** (370)

ILS RDH 51'

Changes: Chart reissued

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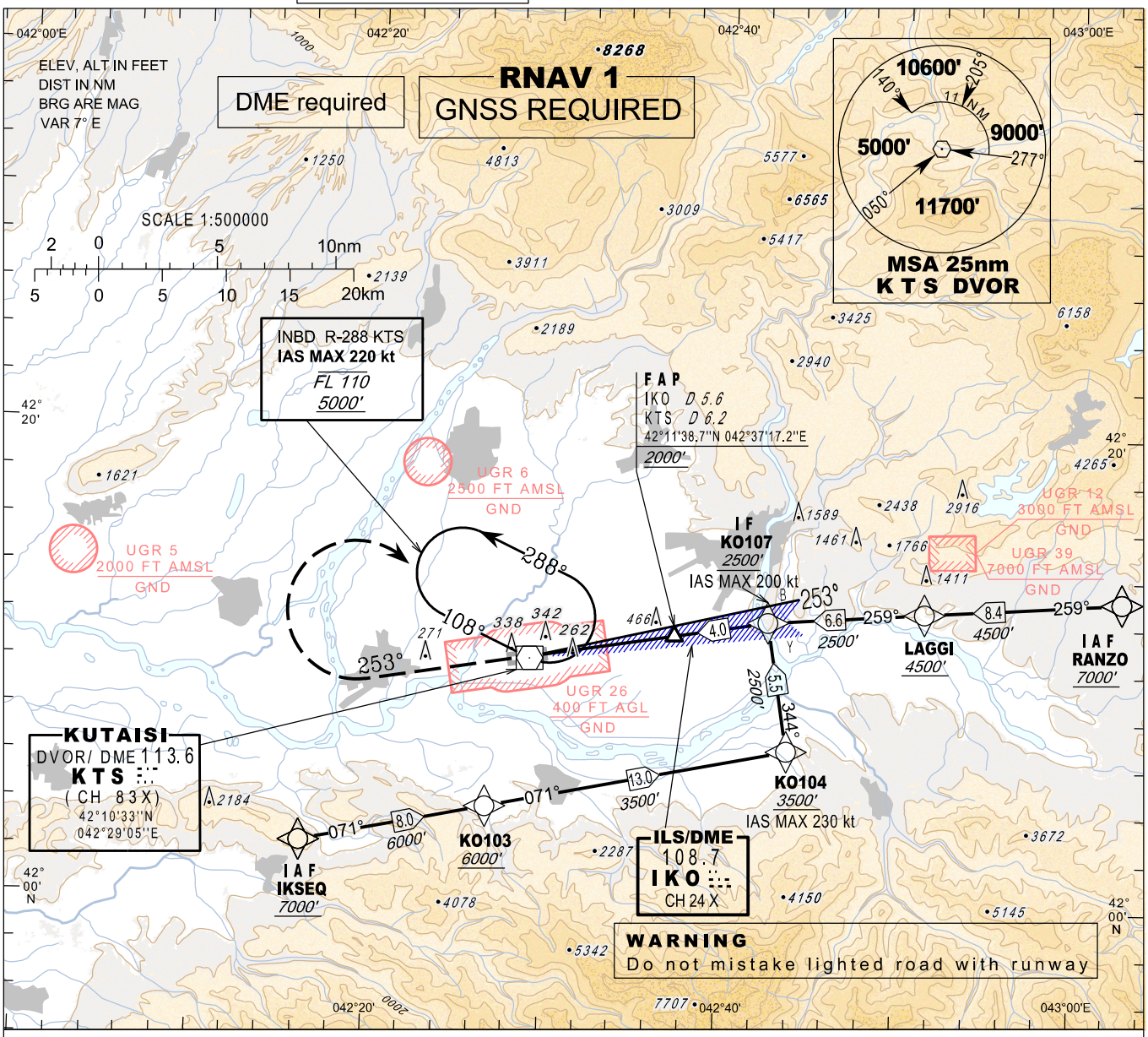
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 25 - ELEV 160'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)
ILSz
RWY 25



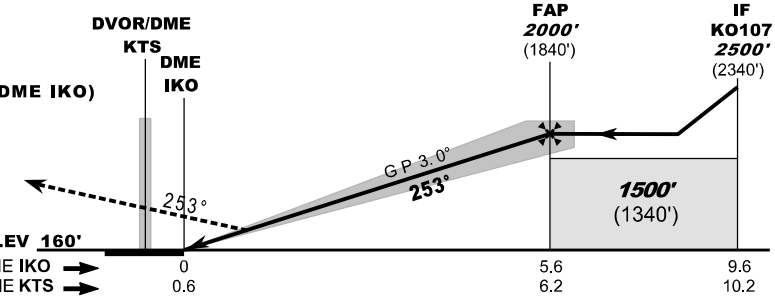
MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS** and follow **ATC** instructions.

KTS DVOR Unserviceable:
Climb straight ahead to **4500'**, expect vectoring.

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS**, hold as published, when ready make new approach (ILSy or LOCy or VOR).

ILS RDH 51'



Straight-in Approach	A	B	C	D
OCA(H)	**330** (170)	**340** (180)	**350** (190)	**360** (200)

DME IKO NM	5	4	3	2	1
DME KTS NM	5.6	4.6	3.6	2.6	1.6
ALT (HGT) ft	**1825** (1665)	**1499** (1339)	**1174** (1014)	**851** (691)	**530** (370)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 25 ILSz

IKSEQ transition

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	IKSEQ	-	42°02'37.0"N 042°16'14.0"E	-	-	-	+A7000	-	RNAV1
TF	KO103	-	42°04'15.0"N 042°26'45.0"E	071° (078.1°)	8.0	-	+A6000	-	RNAV1
TF	KO104	-	42°06'52.0"N 042°43'48.0"E	071° (078.2°)	13.0	-	+A3500	-230	RNAV1
TF	KO107	-	42°12'18.0"N 042°42'36.0"E	344° (350.7°)	5.5	-	+A2500	-200	RNAV1

RANZO transition

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	RANZO	-	42°13'23.0"N 043°02'44.0"E	-	-	-	+A7000	-	RNAV1
TF	LAGGI	-	42°12'47.0"N 042°51'30.0"E	259° (265.9°)	8.4	-	+A4500	-	RNAV1
TF	KO107	-	42°12'18.0"N 042°42'36.0"E	259° (265.9°)	6.6	-	+A2500	-200	RNAV1

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INSTRUMENT APPROACH CHART - ICAO

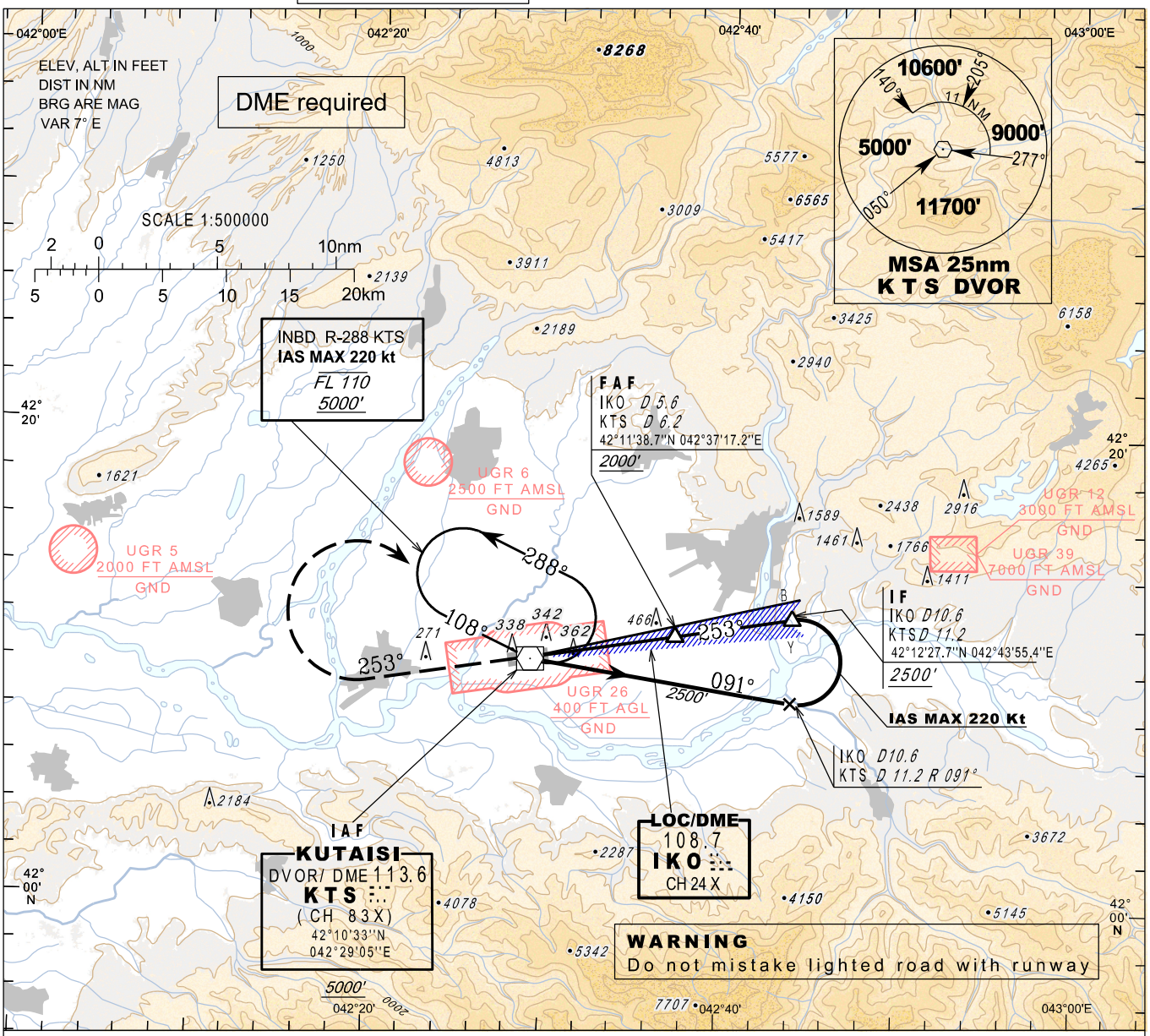
AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 25 - ELEV 160'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)

LOCy
RWY 25



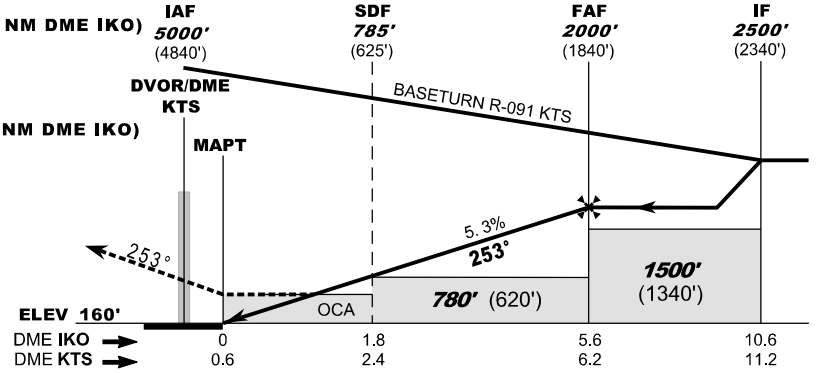
MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS** and follow **ATC** instructions.

KTS DVOR Unserviceable:
Climb straight ahead to **4500'**, expect vectoring.

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS**, hold as published, when ready make new approach (ILSy or LOCy or VOR).

Timing is not authorised for defining the MAPT



Straight-in Approach	A	B	C	D
OCA(H)	**510** (350)			

DME IKO NM	5	4	3	2	1
DME KTS NM	5.6	4.6	3.6	2.6	1.6
ALT (HGT) ft	**1808** (1648)	**1488** (1328)	**1169** (1009)	**849** (689)	**529** (369)

Changes: Chart reissued

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INSTRUMENT APPROACH CHART - ICAO

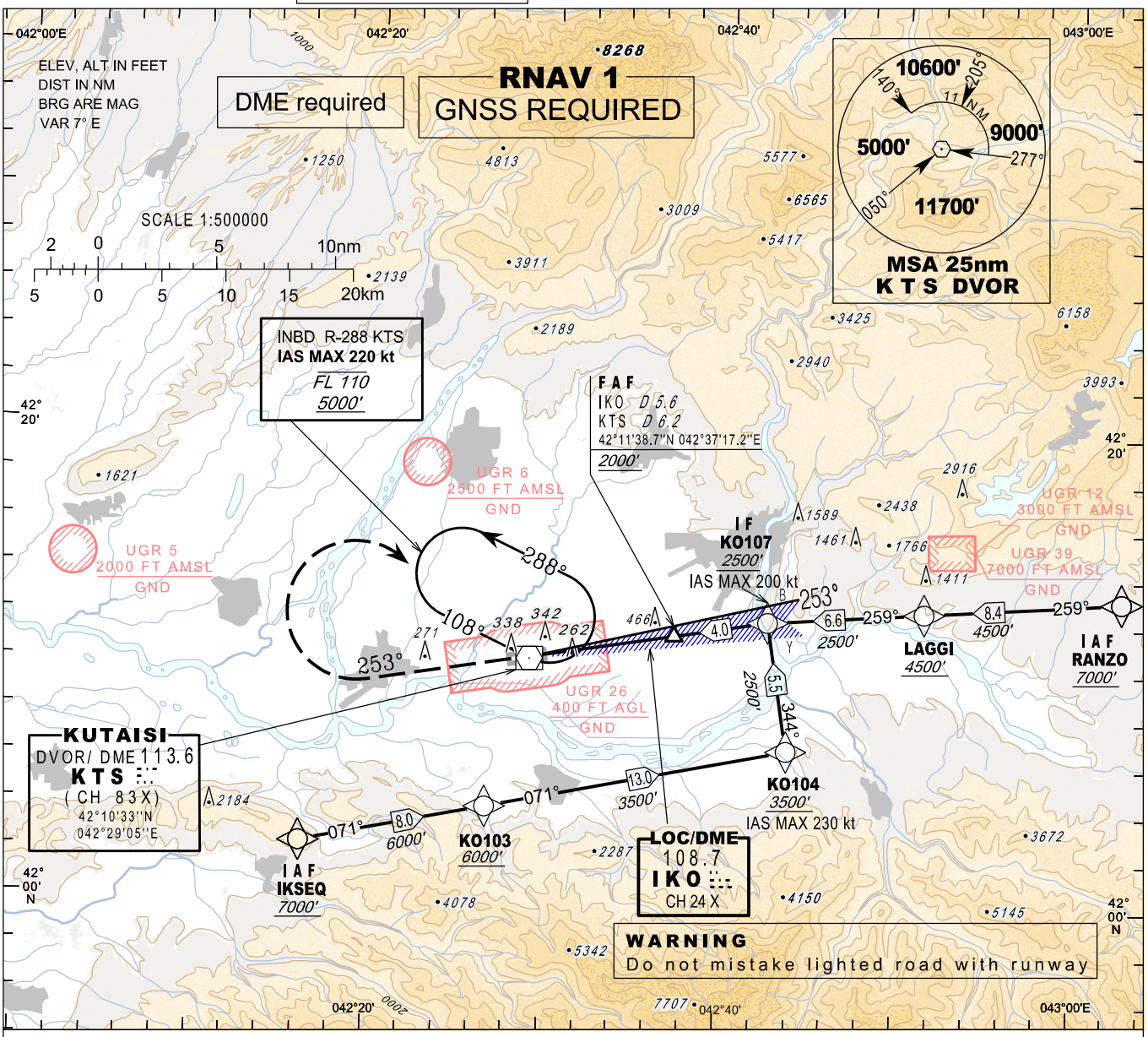
AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 25 - ELEV 160'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

KUTAISI/Kopitnari (UGKO)

LOCz
RWY 25



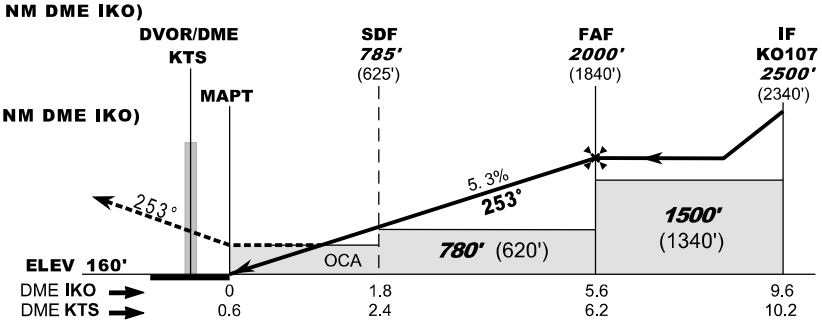
MISSED APPROACH

Normal:
Climb straight ahead to **3500'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS** and follow **ATC** instructions.

KTS DVOR Unserviceable:
Climb straight ahead to **4500'**, expect vectoring.

Radio Communication Failure:
Climb straight ahead to **5000'**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS**, hold as published, when ready make new approach (ILSy or LOCy or VOR).

Timing is not authorised for defining the MAPT



Straight-in Approach	A	B	C	D
OCA(H)	**510** (350)			

DME IKO NM	5	4	3	2	1
DME KTS NM	5.6	4.6	3.6	2.6	1.6
ALT (HGT) ft	**1808** (1648)	**1488** (1328)	**1169** (1009)	**849** (689)	**529** (369)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 25 LOCz

IKSEQ transition

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	IKSEQ	-	42°02'37.0"N 042°16'14.0"E	-	-	-	+A7000	-	RNAV1
TF	KO103	-	42°04'15.0"N 042°26'45.0"E	071° (078.1°)	8.0	-	+A6000	-	RNAV1
TF	KO104	-	42°06'52.0"N 042°43'48.0"E	071° (078.2°)	13.0	-	+A3500	-230	RNAV1
TF	KO107	-	42°12'18.0"N 042°42'36.0"E	344° (350.7°)	5.5	-	+A2500	-200	RNAV1

RANZO transition

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	RANZO	-	42°13'23.0"N 043°02'44.0"E	-	-	-	+A7000	-	RNAV1
TF	LAGGI	-	42°12'47.0"N 042°51'30.0"E	259° (265.9°)	8.4	-	+A4500	-	RNAV1
TF	KO107	-	42°12'18.0"N 042°42'36.0"E	259° (265.9°)	6.6	-	+A2500	-200	RNAV1

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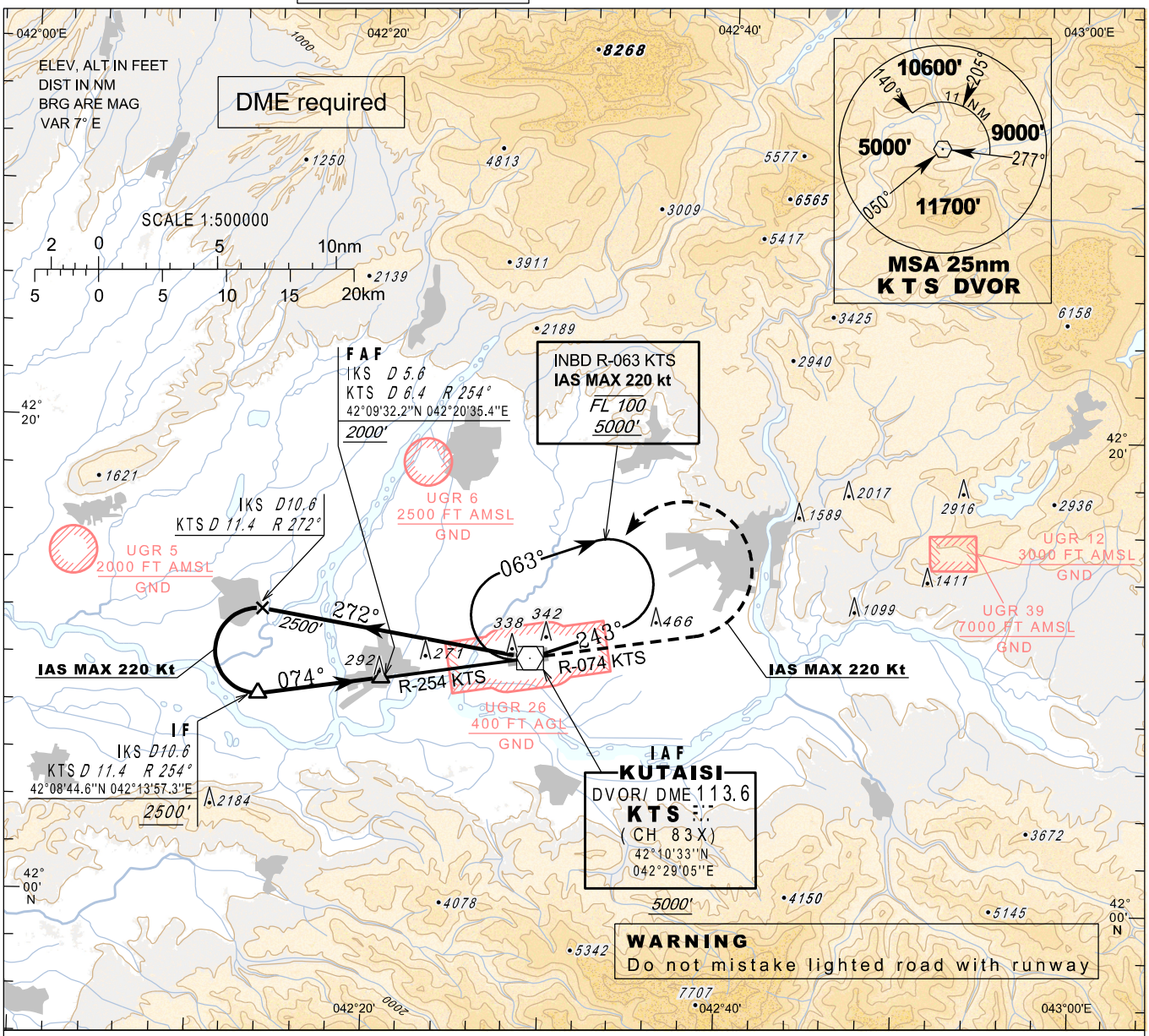
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 07 - ELEV 133'

TRANSITION ALT 7000'

APP 127.100
TWR 125.500

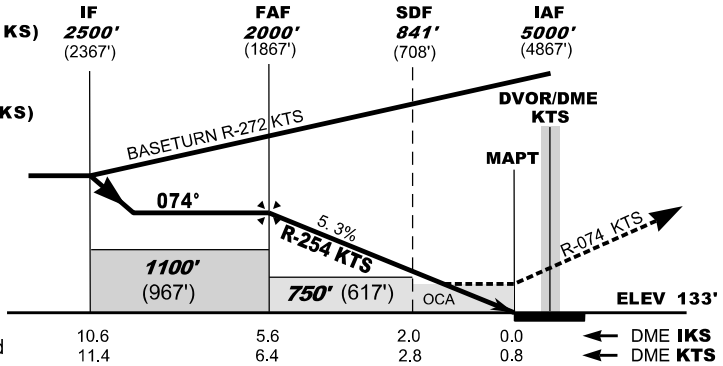
KUTAISI/Kopitnari (UGKO)
VOR
RWY 07



MISSED APPROACH

Normal:
Climb **3500'** on **R-074 KTS**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS** and follow **ATC** instructions.
IAS MAX 220kt

Radio Communication Failure:
Climb **5000'** on **R-074 KTS**, at **7 NM DME KTS (7.4 NM DME IKS)** turn left inbound **KTS**, hold as published, when ready make new approach. IAS MAX 220kt



Straight-in Approach	A	B	C	D
OCA(H)	**590** (460)			

Timing is not authorised for defining the MAPT

DME KTS NM	6	5	4	3	2	1
DME IKS NM	5.2	4.2	3.2	2.2	1.2	0.2
ALT (HGT) ft	**1871** (1738)	**1549** (1416)	**1227** (1094)	**905** (772)	**583** (450)	**261** (128)

Changes: Chart reissued

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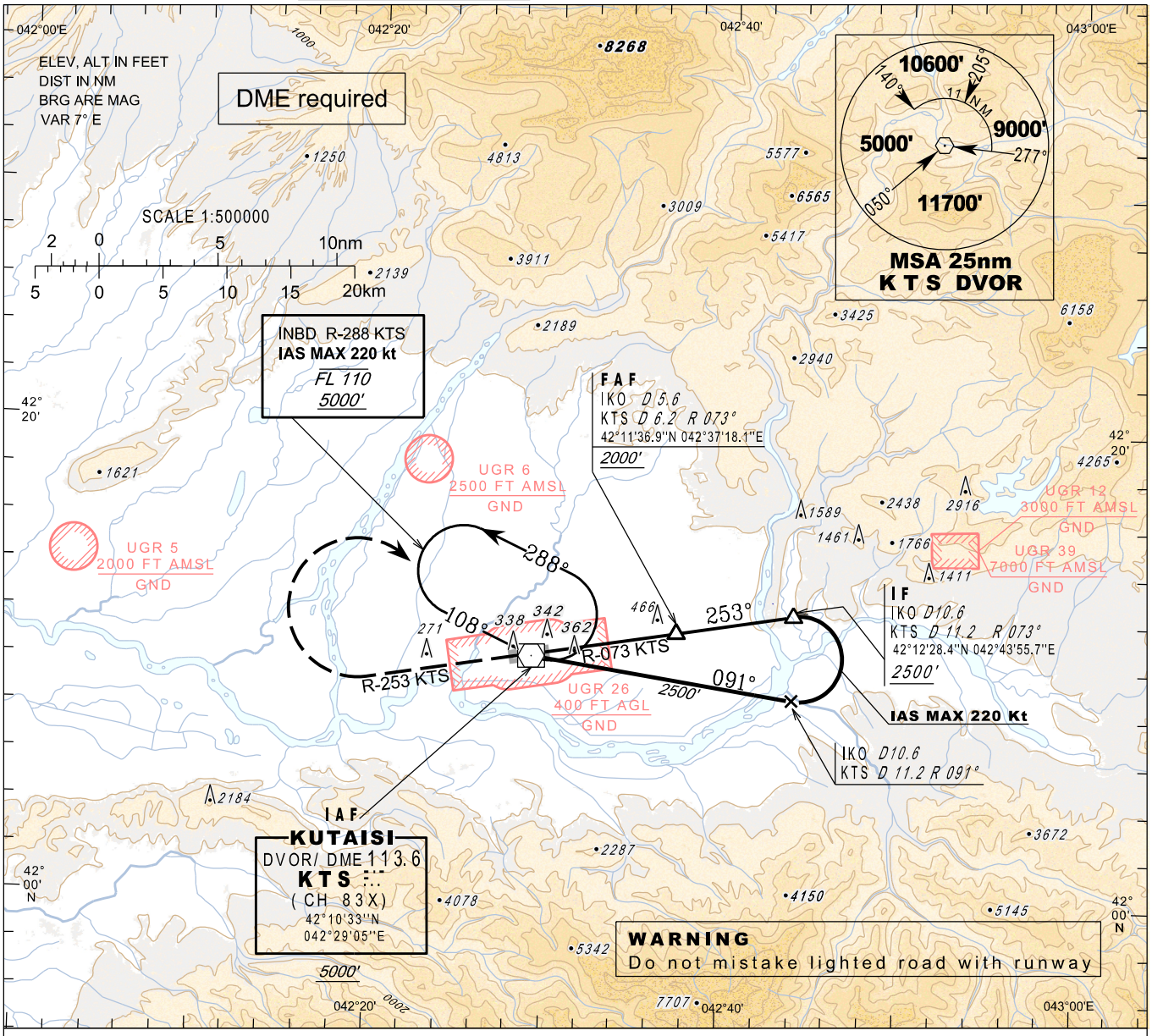
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 160'
HEIGHTS RELATED TO
THR RWY 25 - ELEV 160'

TRANSITION ALT 7000'

APP	127.100
TWR	125.500

KUTAISI/Kopitnari (UGKO)
VOR
RWY 25

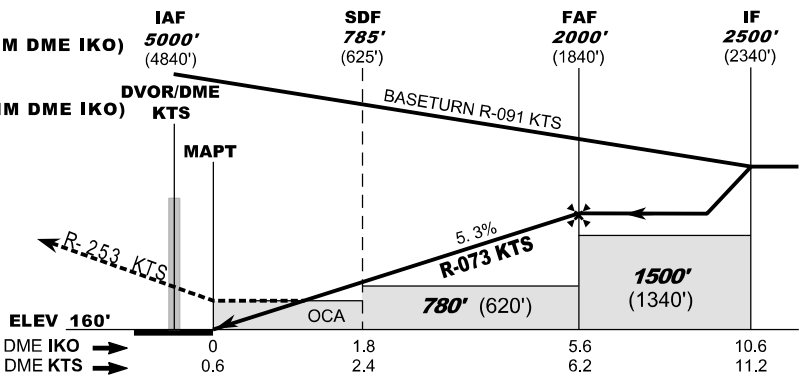


MISSED APPROACH

Normal:
Climb **3500'** on **R-253 KTS**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS** and follow **ATC** instructions.

Radio Communication Failure:
Climb **5000'** on **R-253 KTS**, at **7 NM DME KTS (7.2 NM DME IKO)** turn right inbound **KTS** , hold as published, when ready make new approach.

Timing is not authorised for defining the MAPT



Straight-in Approach	A	B	C	D
OCA(H)	**510** (350)			

DME KTS NM	6	5	4	3	2	1
DME IKO NM	5.4	4.4	3.4	2.4	1.4	0.4
ALT (HGT) ft	**1936** (1776)	**1617** (1457)	**1297** (1137)	**978** (818)	**658** (498)	**339** (179)

Changes: Chart reissued

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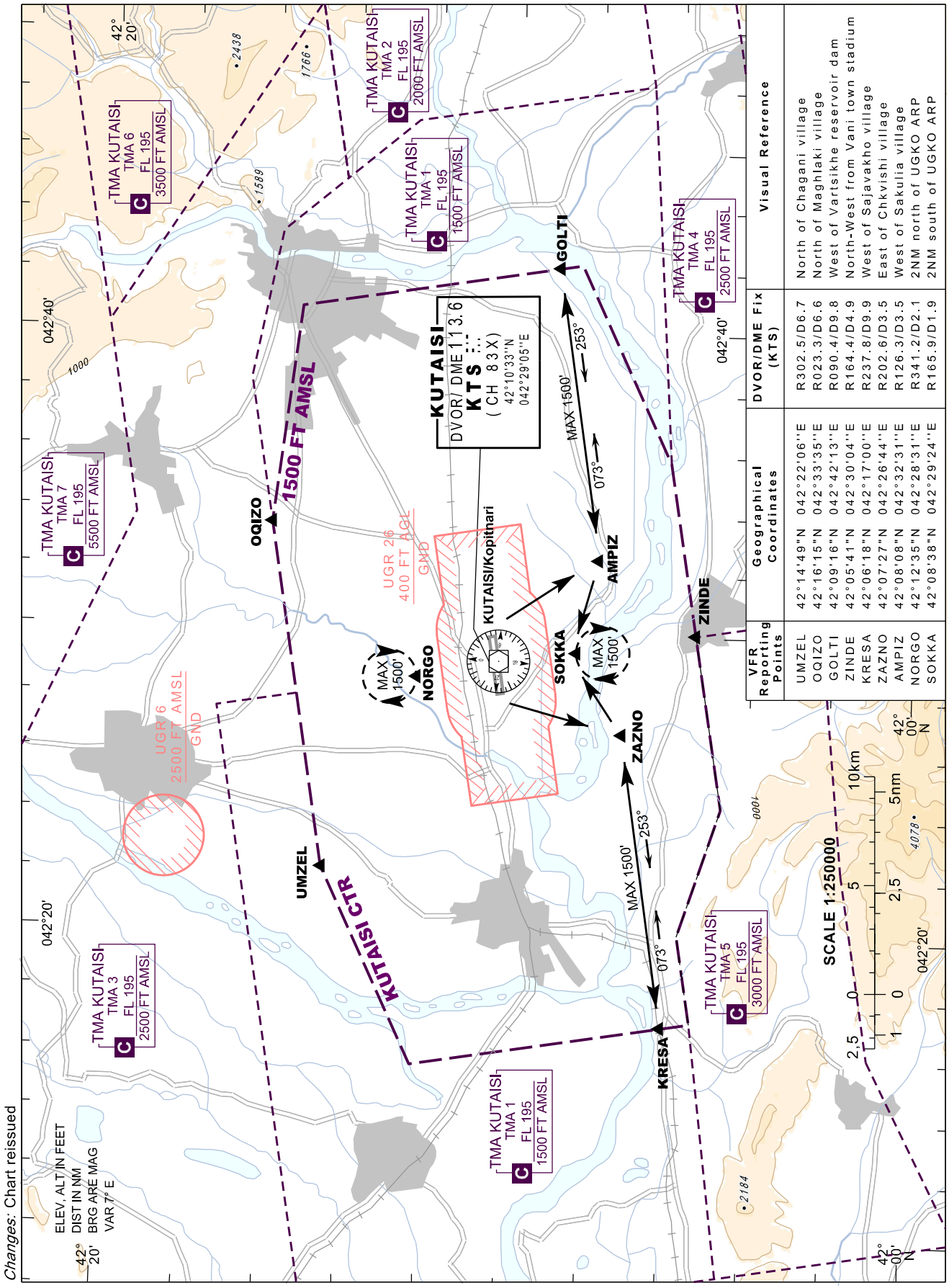
VISUAL APPROACH CHART-ICAO

KUTAISI/Kopitnari (UGKO)

AERODROME ELEV 160'

APP 127.100
TWR 125.500



VFR Reporting Points	Geographical Coordinates	DVOR/DME Fix (KTS)	Visual Reference
UMZEL	42°14'49"N 042°22'06"E	R302.5/D6.7	North of Chagani village
OQIZO	42°16'15"N 042°33'35"E	R023.3/D6.6	North of Maghlaki village
GOLTI	42°09'16"N 042°42'13"E	R090.4/D9.8	West of Vartsikhe reservoir dam
ZINDE	42°05'41"N 042°30'04"E	R164.4/D4.9	North-West from Vani town stadium
KRESA	42°06'18"N 042°17'00"E	R237.8/D9.9	West of Sajavakho village
ZAZNO	42°07'27"N 042°26'44"E	R202.6/D3.5	East of Chkvishi village
AMPIZ	42°08'08"N 042°32'31"E	R126.3/D3.5	West of Sakulia village
NORGO	42°12'35"N 042°28'31"E	R341.2/D2.1	2NM north of UGKO ARP
SOKKA	42°08'38"N 042°29'24"E	R165.9/D1.9	2NM south of UGKO ARP

Changes: Chart reissued

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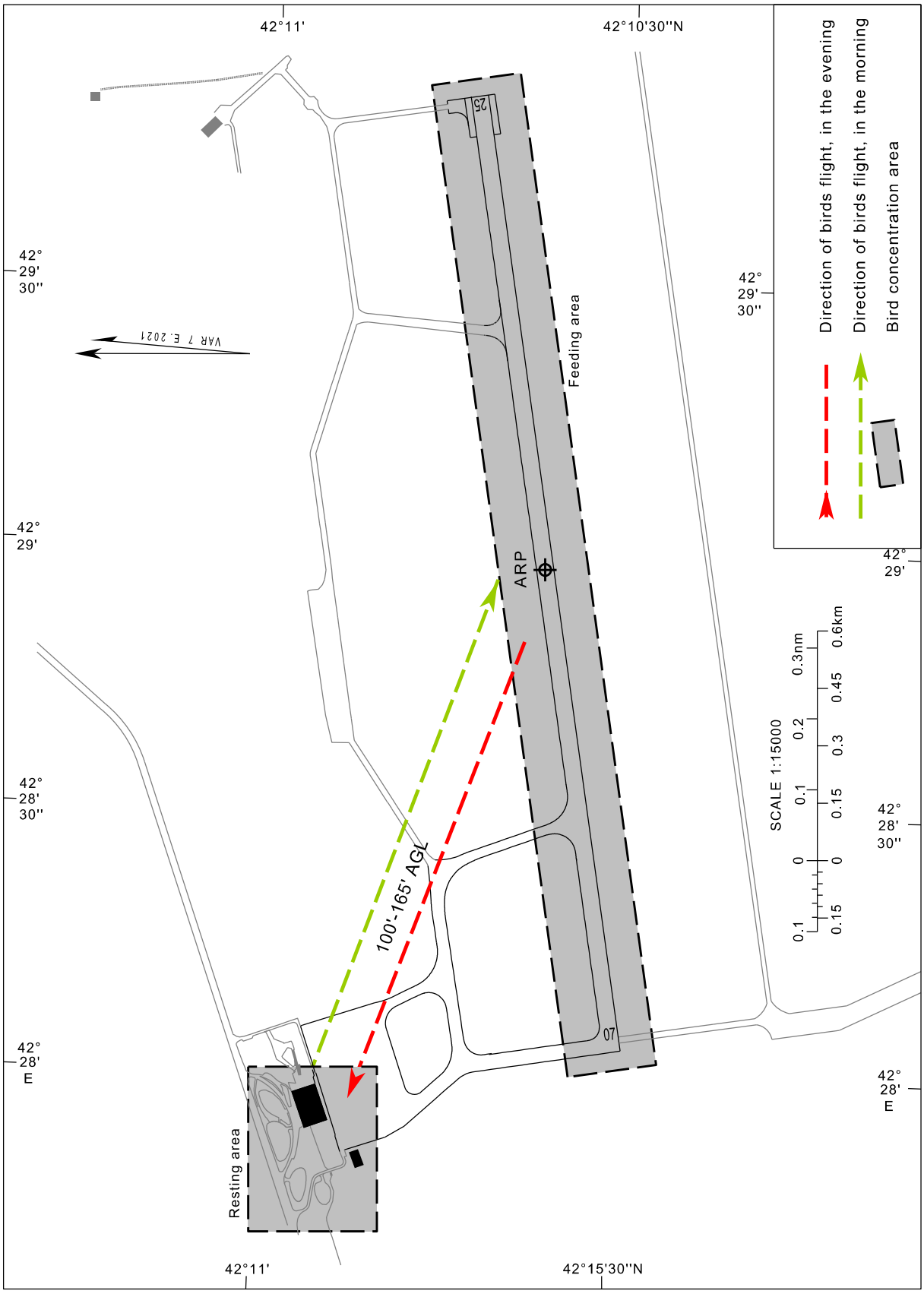
BIRD CONCENTRATIONS AND MOVEMENT (INDEX CHART)

KUTAISI/Kopitnari (UGKO)



Changes: Chart reissued

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UGMS

UGMS AD 2.1 Aerodrome location indicator and name

UGMS - MESTIA

UGMS AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	430318N 0424501E RWY 02/20 centre
2	**Direction and distance from (city)**	2 KM NE from Mestia center
3	**Elevation / Reference temperature**	4778 FT / 23°C
4	**Geoid undulation at AD ELEV PSN**	72 FT
5	**MAG VAR / Annual change**	7°E (2021) / NIL
6	**Aerodrome operator**	UNITED AIRPORTS OF GEORGIA LTD
	Address	UNITED AIRPORTS OF GEORGIA 0158 TBILISI GEORGIA
	Telephone	UNITED AIRPORTS OF GEORGIA +995322487300 MESTIA/QUEEN TAMAR AIRPORT ADMINISTRATION: +995591512533
	Telefax	NIL
	AFS	NIL
	E-mail	UNITED AIRPORTS OF GEORGIA info@airports.ge MESTIA/QUEEN TAMAR AIRPORT ADMINISTRATION: mestia@airports.ge
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	VFR
8	**Remarks**	NIL

UGMS AD 2.3 Operational hours

1	**AD Operator**	Daily 0430-1430
2	**Customs and immigration**	NIL
3	**Health and sanitation**	NIL
4	**AIS Briefing Office**	NIL
5	**ATS Reporting Office (ARO)**	NIL
6	**MET Briefing Office**	NIL
7	**ATS**	Daily 0400-1440
8	**Fuelling**	NIL
9	**Handling**	Daily 0430-1430

10	**Security**	H24
11	**De-icing**	NIL
12	**Remarks**	NIL

UGMS AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	NIL
3	**Fuelling facilities / capacity**	NIL
4	**De-icing facilities**	NIL
5	**Hangar space for visiting aircraft**	NIL
6	**Repair facilities for visiting aircraft**	NIL
7	**Remarks**	NIL

UGMS AD 2.5 Passenger facilities

1	**Hotels**	Available in the city
2	**Restaurants**	Restaurant in the city, cafe at AD and in the city
3	**Transportation**	Taxis from AD, car rent at AD
4	**Medical Facilities**	First medical aid at hospital in the city
5	**Bank and Post Office**	Bank in the city Post Office: NIL
6	**Tourist Office**	Available in the city and at AD
7	**Remarks**	NIL

UGMS AD 2.6 Rescue and fire fighting services

1	**AD category for fire fighting**	CAT 3
2	**Rescue equipment**	1 Fire truck
3	**Capability for removal of disabled aircraft**	Available for L410-UVPE
4	**Remarks**	Responsible person's details: Mob: +995577345508 E-mail: a.gigani@airports.ge

UGMS AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	1 Snow removal vehicle - Bucher Rolba; 1 Water Sprinkler ZIL-130 KPm-130
2	**Clearance priorities**	1. RWY 02/20 and access roads to the Airport Rescue Service 2. TWYs and taxiing paths on the apron 3. Aircraft parking stands and the aerodrome vehicles paths

3	**Remarks**	The snow plan and friction measuring details see in section AD 1.2.2

UGMS AD 2.8 Aprons, taxiways and check locations/positions data

1	**Apron designation, surface and strength of aprons**	APRON 1: Concrete, PCN 22/R/B/W/T APRON 2: Concrete, PCN 22/R/B/W/T
2	**Taxiway designation, width, surface and strength**	TWY A: 18 M, Concrete, PCN 22/R/B/W/T TWY B: 18 M, Concrete, PCN 22/R/B/W/T TWY F: 18 M, Concrete, PCN 22/R/B/W/T
3	**Altimeter checkpoint location and elevation**	Apron 1 Elevation 4741 FT Apron 2 Elevation 4769 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	NIL
6	**Remarks**	NIL

UGMS AD 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 aircraft stands**	Sign boards at intersections of TWY with RWY. Guide lines at aprons.
2	**RWY and TWY markings and LGT**	RWY: Designation, THR, TDZ, centreline, edge line, RWY end marked as appropriate. TWY: Centre line. LGT: NIL
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGMS AD 2.10 Aerodrome obstacles

1 Obstacles in Area 2

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGMS05	Building	430237.9N 0424429.3E	4887/- FT	NIL	NIL

2 Obstacles in Area 3

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGMS01	Tower	430321.5N 0424459.5E	4789.0/- FT	NIL	NIL
UGMS02	Antenna	430321.5N 0424501.2E	4776.0/- FT	NIL	NIL

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGMS03	Pole	430316.9N 0424457.9E	4775.0/- FT	NIL	Wind Sensor
UGMS04	Pole	430305.9N 0424449.7E	4732.1/- FT	NIL	Wind Direction Indicator

UGMS AD 2.11 Meteorological information provided

1	**Associated MET Office**	Mestia
2	**Hours of service**	From 05:00 - until 13:00
	MET Office outside hours	-
3	**Office responsible for TAF preparation**	Tbilisi - UGTB
	Periods of validity	From 05:00 - until 17:00
4	**Trend forecast**	NIL
	Interval of issuance	NIL
5	**Briefing/consultation provided**	MET staff consultation at Tbilisi UGTB MET Office and Kutaisi UGKO MET Office
6	**Flight documentation**	Charts, abbreviated, plain language text
	Language(s) used	English
7	**Charts and other information available for briefing or consultation**	S, U85, U70, P85, P70, SWM, T, GAMET, AIRMET
8	**Supplementary equipment available for providing information**	NIL
9	**ATS units provided with information**	Mestia AFIS
10	**Additional information (limitation of service, etc.)**	NIL

UGMS AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCR) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
02	030.51°	1150 x 30	22/R/B/W/T Concrete	THR: 430302.41N 0424448.64E END: 430334.41N 0424514.36E GUND: NIL	THR: 4702 FT TDZ: 4713.0 FT
20	210.52°			THR: 430327.49N 0424508.80E END: 430302.41N 0424448.64E GUND: NIL	THR: 4761 FT

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	7	8	9	10	11
02	2.00%	NIL	NIL	1260 x 60	NIL
20	-2.00%	50 x 30	NIL		30 x 60

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	12	13	14
02	NIL	NIL	NIL
20	NIL	NIL	NIL

UGMS AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
02	NIL	NIL	NIL	1150	NIL
20	1150	1150	1200	900	NIL

UGMS AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
02	NIL	NIL	NIL	NIL	NIL
20	NIL	NIL	NIL	NIL	NIL

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
02	NIL	NIL	NIL	NIL
20	NIL	NIL	NIL	NIL

UGMS AD 2.15 Other lighting and secondary power supply

1	**ABN/IBN location, characteristics and hours of operation**	ABN: NIL IBN: NIL
2	**LDI location and LGT** **Anemometer location and LGT**	NIL NIL
3	**TWY edge and centre line lighting**	NIL
4	**Secondary power supply/switch-over time**	NIL
5	**Remarks**	NIL

UGMS AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	NIL

2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL
5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

UGMS AD 2.17 Air traffic services airspace

1	**Designation and lateral limits**	MESTIA FIZ 430104N 0423311E - 430302N 0424046E - 430645N 0424346E - 430424N 0424912E - 430149N 0424707E - 425847N 0423414E - 430104N 0423311E
2	**Vertical limits**	GND to 2000 FT AGL
3	**Airspace classification**	G
4	**ATS unit call sign** **Language(s)**	MESTIA INFORMATION EN
5	**Transition altitude**	NIL
6	**Hours of applicability**	NIL
7	**Remarks**	NIL

UGMS AD 2.18 Air traffic services communication facilities

Service designation	Call sign	Channel(s)	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**	**6**	**7**
AFIS	MESTIA INFORMATION	121.100 MHz	NIL	NIL	0400-1440	NIL

UGMS AD 2.19 Radio navigation and landing aids

NIL

UGMS AD 2.20 Local aerodrome regulations

1 Airport regulations

Isolated aircraft stand is located on RWY 02 end with coordinates: 430334.41N 0424514.36E.

Friction coefficient - Bowmonk AFM2 Airfield Friction Meter.

2 Taxiing to and from stands

Aerodrome taxiways are not equipped with lights. Taxiing to/from parking stands is visual.

3 Apron – taxiing during winter conditions

Aerodrome taxiways are not equipped with lights. Taxiing to/from parking stands is visual.

4 Regulations for helicopters

Take-off and landing on RWY 02/20. Stands 2, 3, 4, 5 are available for helicopters. Air-taxiing, taxiing to/from stands 2, 3, 4, 5 by TWY B only.

5 Removal of disabled aircraft from runway

When an aircraft is wrecked on a runway, it is 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.

UGMS AD 2.21 Noise abatement procedures

NIL

UGMS AD 2.22 Flight procedures

1 General

Flights within Mestia FIZ shall be in accordance with the Visual Flight Rules.

AFIS service is only provided within the operational hours of the unit. Outside the AFIS operational hours only FIS service is available.

The AFIS unit provides aircraft with information on known traffic and available information on meteorological and aerodrome conditions.

2 Procedures for IFR flights within Mestia FIZ

Not applicable.

3 Radar procedures within Mestia FIZ

Not applicable.

4 Procedures for VFR flights within Mestia FIZ

– Flight plans (FPLs) are required to be submitted for operations within Mestia FIZ;
– Flights shall be conducted with vertical visual reference to the ground;
– Two-way radio communication shall be maintained with the Mestia AFIS unit on the unit frequency;
– Inbound aircraft shall establish communication with the AFIS unit 5 minutes before crossing the FIZ boundary. However, contact establishing can be delayed until the moment it becomes practically possible.

5 VFR routes within Mestia FIZ

No special arrival and departure routes are established for VFR traffic.

UGMS AD 2.23 Additional information

NIL

UGMS AD 2.24 Charts related to an aerodrome

Chart Name	Page
Aerodrome chart - ICAO	AD 2.UGMS-ADC
Visual approach chart - ICAO	AD 2.UGMS-VAC
* the chart contains a text page	

UGMS AD 2.25 Visual segment surface (VSS) penetration

To be developed.

AERODROME CHART-ICAO

MESTIA (UGMS)

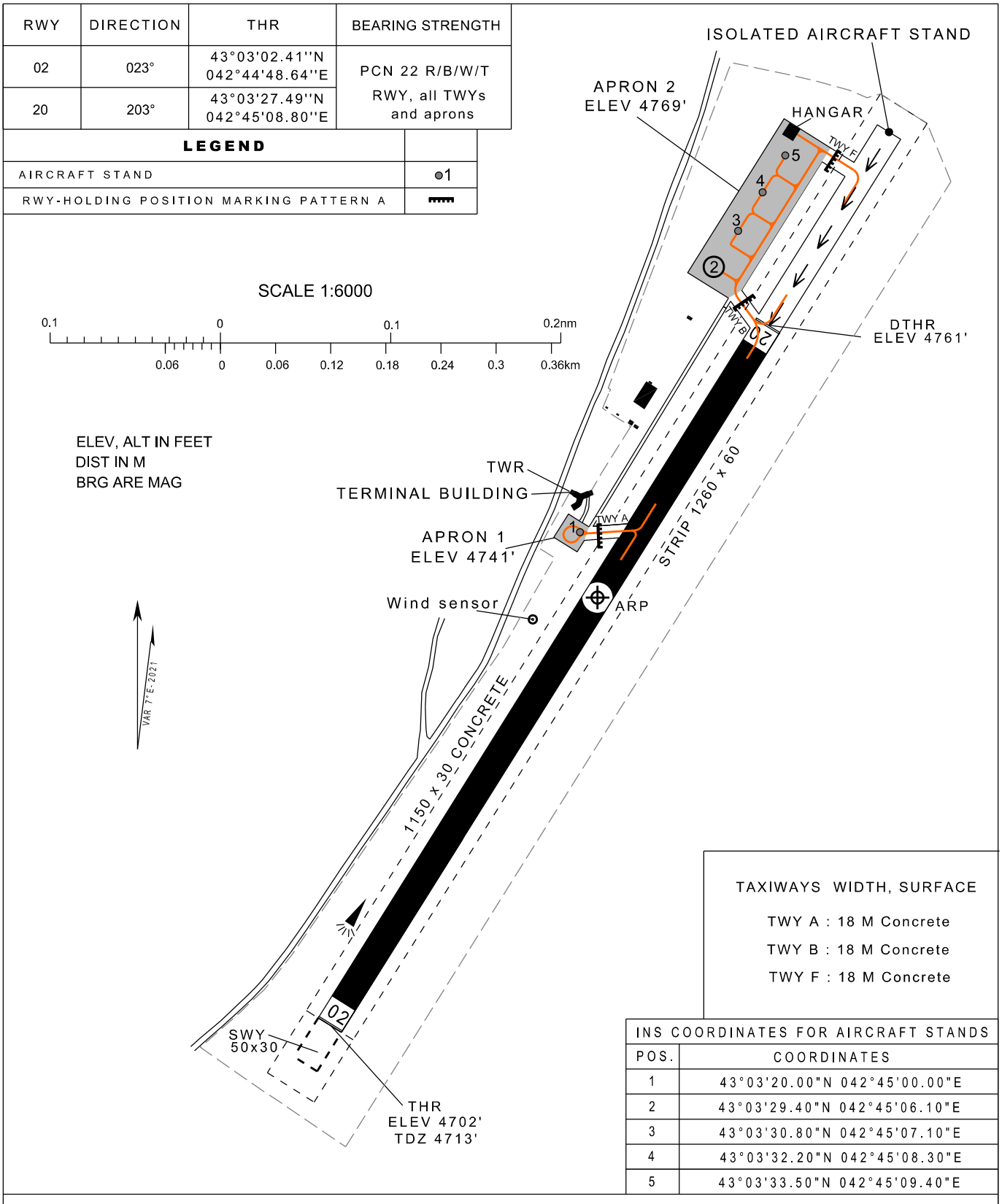
43°03'18''N
042°45'01''E

ELEV 4778'

MESTIA INFO 121.100

RWY	DIRECTION	THR	BEARING STRENGTH
02	023°	43°03'02.41''N 042°44'48.64''E	PCN 22 R/B/W/T RWY, all TWYs and aprons
20	203°	43°03'27.49''N 042°45'08.80''E	

LEGEND	
AIRCRAFT STAND	1
RWY-HOLDING POSITION MARKING PATTERN A	



TAXIWAYS WIDTH, SURFACE

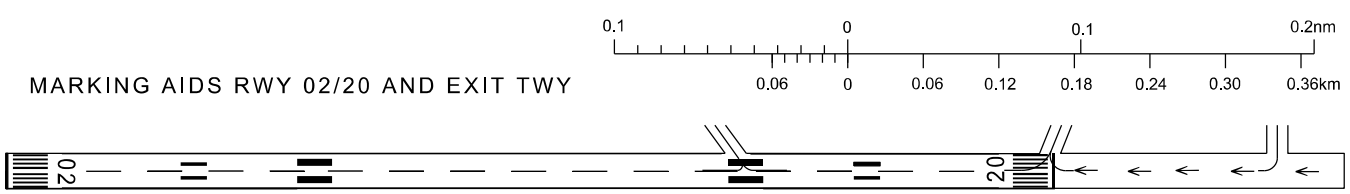
TWY A : 18 M Concrete

TWY B : 18 M Concrete

TWY F : 18 M Concrete

INS COORDINATES FOR AIRCRAFT STANDS	
POS.	COORDINATES
1	43°03'20.00"N 042°45'00.00"E
2	43°03'29.40"N 042°45'06.10"E
3	43°03'30.80"N 042°45'07.10"E
4	43°03'32.20"N 042°45'08.30"E
5	43°03'33.50"N 042°45'09.40"E

MARKING AIDS RWY 02/20 AND EXIT TWY



Changes: Chart reissued

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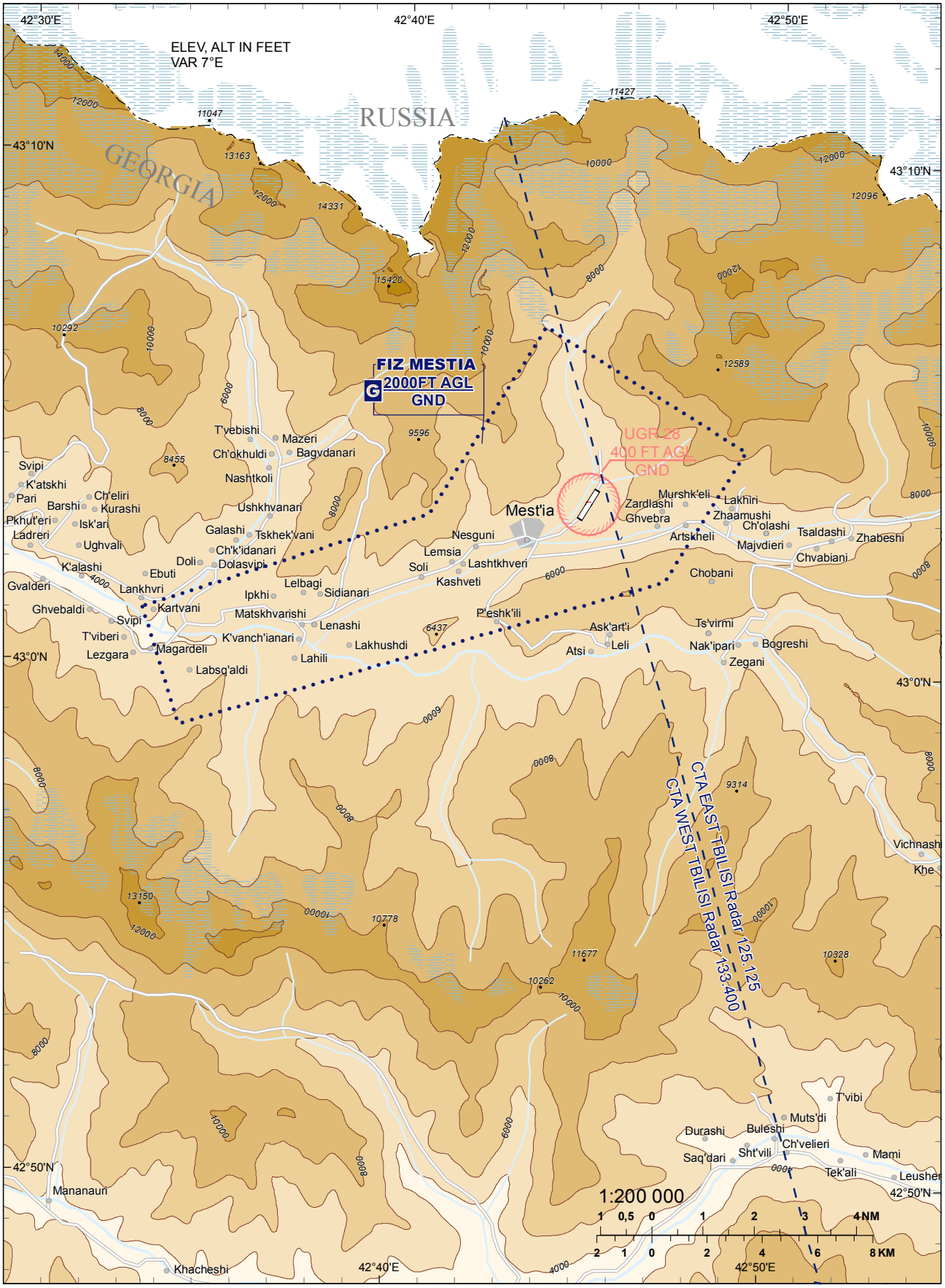
VISUAL APPROACH CHART - ICAO

MESTIA (UGMS)

AERODROME ELEV. 4778'

MESTIA INFO 121.100



Changes: Chart reissued

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UGSA

UGSA AD 2.1 Aerodrome location indicator and name

UGSA - NATAKHTARI

UGSA AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	415514N 0444310E 5 M from Hangar for visiting aircraft
2	**Direction and distance from (city)**	8 KM from Mtskheta center
3	**Elevation / Reference temperature**	1687 FT / 29°C
4	**Geoid undulation at AD ELEV PSN**	50 FT
5	**MAG VAR / Annual change**	7°E (2021) / NIL
6	**Aerodrome operator**	SERVICEAIR LTD
	Address	Natakhtari 0038 MTSKHETA GEORGIA
	Telephone	+995322428428, +995599659090
	Telefax	NIL
	AFS	NIL
	E-mail	admin@serviceair.ge, info@serviceair.ge
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	VFR
8	**Remarks**	NIL

UGSA AD 2.3 Operational hours

1	**AD Operator**	MON-FRI from 05:30 to 14:00; SAT-SUN On Request
2	**Customs and immigration**	NIL
3	**Health and sanitation**	On Request
4	**AIS Briefing Office**	NIL
5	**ATS Reporting Office (ARO)**	NIL
6	**MET Briefing Office**	NIL
7	**ATS**	NIL
8	**Fuelling**	On Request
9	**Handling**	On Request
10	**Security**	On Request
11	**De-icing**	NIL
12	**Remarks**	NIL

UGSA AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	Fuel: TS1 (GOST 10227) Oil: NIL
3	**Fuelling facilities / capacity**	Tank capacity of 7500 liters, flow rate 400 liters/minute Tel: (+995 599) 65 90 95 Email: admin@serviceair.ge
4	**De-icing facilities**	NIL
5	**Hangar space for visiting aircraft**	Available. There are 4 hangars with a total area of 2300 sq.m without heating
6	**Repair facilities for visiting aircraft**	Available minor repairs for ultra light and light aircraft
7	**Remarks**	NIL

UGSA AD 2.5 Passenger facilities

1	**Hotels**	Available in the city
2	**Restaurants**	Available in the city and at AD
3	**Transportation**	Taxis from AD
4	**Medical Facilities**	First medical aid at AD and hospital in the city
5	**Bank and Post Office**	Available in the city
6	**Tourist Office**	Available at AD
7	**Remarks**	NIL

UGSA AD 2.6 Rescue and fire fighting services

1	**AD category for fire fighting**	CAT 2
2	**Rescue equipment**	Available 1 Fire truck
3	**Capability for removal of disabled aircraft**	Available, L410
4	**Remarks**	Contact information of the aerodrome coordinator for removal of disabled aircraft: Tel: +995599659095 E-mail: admin@serviceair.ge

UGSA AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	NIL
2	**Clearance priorities**	1. RWY 10/28 and TWY 2. Apron 3. Access roads to the Airport Rescue Service
3	**Remarks**	Aerodrome surface cleaning when necessary. The snow plan and friction measuring details see in section AD 1.2.2

UGSA AD 2.8 Aprons, taxiways and check locations/positions data

1	**Apron designation, surface and strength of aprons**	APRON: Concrete, PCN 12/R/B/W/T
2	**Taxiway designation, width, surface and strength**	TWY A: 10 M, Concrete, PCN 12/R/B/W/T
3	**Altimeter checkpoint location and elevation**	Apron Elevation 1688 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	NIL
6	**Remarks**	NIL

UGSA AD 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 aircraft stands**	NIL
2	**RWY and TWY markings and LGT**	RWY: Designation, THR, centre line TWY: Centre line, holding position
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGSA AD 2.10 Aerodrome obstacles

1 Obstacles in Area 2

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSA01	Pole	415507.4N 0444315.6E	1805/- FT	MARKED	Mast
UGSA02	Pole	415512.0N 0444317.1E	1810/- FT	MARKED	Mast

2 Obstacles in Area 3

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSA03	Pole	415513.5N 0444307.5E	1760.0/- FT	MARKED	Wind Direction Indicator
UGSA04	Pole	415509.8N 0444307.3E	1764.0/- FT	NIL	Mast
UGSA05	Pole	415510.3N 0444305.1E	1765.0/- FT	NIL	Mast
UGSA06	Pole	415510.9N 0444303.0E	1764.0/- FT	NIL	Mast
UGSA07	Pole	415511.5N 0444300.9E	1763.0/- FT	NIL	Mast

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSA08	Pole	415512.0N 0444258.9E	1763.0/- FT	NIL	Mast
UGSA09	Pole	415512.6N 0444256.9E	1763.0/- FT	NIL	Mast
UGSA10	Pole	415513.1N 0444254.9E	1763.0/- FT	NIL	Mast
UGSA11	Pole	415513.7N 0444253.0E	1763.0/- FT	NIL	Mast
UGSA12	Pole	415514.2N 0444251.1E	1759.0/- FT	NIL	Mast
UGSA13	Pole	415514.7N 0444249.1E	1761.0/- FT	NIL	Mast
UGSA14	Pole	415515.3N 0444247.2E	1760.0/- FT	NIL	Mast
UGSA15	Pole	415515.7N 0444245.2E	1760.0/- FT	NIL	Mast
UGSA16	Pole	415516.3N 0444243.5E	1759.0/- FT	NIL	Mast
UGSA17	Pole	415516.9N 0444241.8E	1757.0/- FT	NIL	Mast
UGSA18	Pole	415520.2N 0444243.1E	1764.0/- FT	NIL	Mast
UGSA19	Pole	415513.4N 0444307.9E	1764.0/- FT	NIL	Mast
UGSA20	Building	415513.3N 0444308.1E	1739.0/- FT	NIL	Bower
UGSA21	Building	415514.0N 0444309.7E	1767.0/- FT	NIL	Hangar
UGSA22	Tank	415512.3N 0444312.2E	1755.0/- FT	NIL	NIL

UGSA AD 2.11 Meteorological information provided

1	**Associated MET Office**	NIL
2	**Hours of service**	NIL
	MET Office outside hours	NIL
3	**Office responsible for TAF preparation**	NIL
	Periods of validity	NIL
4	**Trend forecast**	NIL
	Interval of issuance	NIL
5	**Briefing/consultation provided**	NIL
6	**Flight documentation**	NIL
	Language(s) used	NIL
7	**Charts and other information available for briefing or consultation**	NIL
8	**Supplementary equipment available for providing information**	NIL
9	**ATS units provided with information**	NIL
10	**Additional information (limitation of service, etc.)**	NIL

UGSA AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCR) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
10	109.30°	948 x 18	12/R/B/W/T Concrete	THR: 415521.77N 0444230.76E END: 415511.63N 0444309.61E GUND: NIL	THR: 1677 FT
28	289.30°			THR: 415515.13N 0444256.19E END: 415521.77N 0444230.76E GUND: NIL	THR: 1683 FT

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	7	8	9	10	11
10	0.34%	NIL	NIL	1008 x 60	NIL
28	-0.34%	NIL	NIL		NIL

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	12	13	14
10	NIL	NIL	NIL
28	NIL	NIL	NIL

UGSA AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
10	620	620	620	948	NIL
28	948	948	948	620	NIL

UGSA AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
10	NIL	NIL	NIL	NIL	NIL
28	NIL	NIL	NIL	NIL	NIL

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
10	NIL	NIL	NIL	NIL
28	NIL	NIL	NIL	NIL

UGSA AD 2.15 Other lighting and secondary power supply

1	**ABN/IBN location, characteristics and hours of operation**	ABN: NIL IBN: NIL
2	**LDI location and LGT** **Anemometer location and LGT**	NIL NIL
3	**TWY edge and centre line lighting**	NIL
4	**Secondary power supply/switch-over time**	NIL
5	**Remarks**	NIL

UGSA AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	NIL
2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL
5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL

7	**Remarks**	NIL

UGSA AD 2.17 Air traffic services airspace

1	**Designation and lateral limits**	NATAKHTARI ATZ Circle: radius 2 NM, centred at: 415513N 0444309E
2	**Vertical limits**	GND to 1000 FT AGL
3	**Airspace classification**	G
4	**ATS unit call sign** **Language(s)**	NIL
5	**Transition altitude**	NIL
6	**Hours of applicability**	NIL
7	**Remarks**	NIL

UGSA AD 2.18 Air traffic services communication facilities

NIL

UGSA AD 2.19 Radio navigation and landing aids

NIL

UGSA AD 2.20 Local aerodrome regulations

1 Airport regulations

At Natakhtari Airport a number of local regulations apply, which are collected in manuals that are available at the Passenger Terminal Building. These manuals include the following:

a. information about aircraft stands;
b. information about taxiing from aircraft stands including taxi clearance and engine start-up;
c. marshaller assistance;
d. engine start-up and use of auxiliary power unit (APU);
e. precautions during extreme weather conditions.

A written form of "Local Regulations" may be requested from:

LTD "ServiceAir"
Head Office
Natakhtari, Mtskheta 0038
Georgia
E-mail: admin@serviceair.ge

2 Taxiing to and from stands. Parking on apron and in hangars. Exploitation during winter conditions

Taxiing shall be performed after supervisor's permission on frequency 131.750 MHz (call sign "Natakhtari"), and parking on apron and in hangars are guided by a marshaller on the stand.

During winter conditions areas on apron and taxiway are marked by visual signs. Speed of taxiing on apron or taxiway shall not exceed 5 km/h.

3 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 expense of the owner or user.

UGSA AD 2.21 Noise abatement procedures

NIL

UGSA AD 2.22 Flight procedures

Under development

UGSA AD 2.23 Additional information

NIL

UGSA AD 2.24 Charts related to an aerodrome

Chart Name	Page
Aerodrome chart - ICAO	AD 2.UGSA-ADC
Visual approach chart - ICAO	AD 2.UGSA-VAC
* the chart contains a text page	

UGSA AD 2.25 Visual segment surface (VSS) penetration

To be developed.

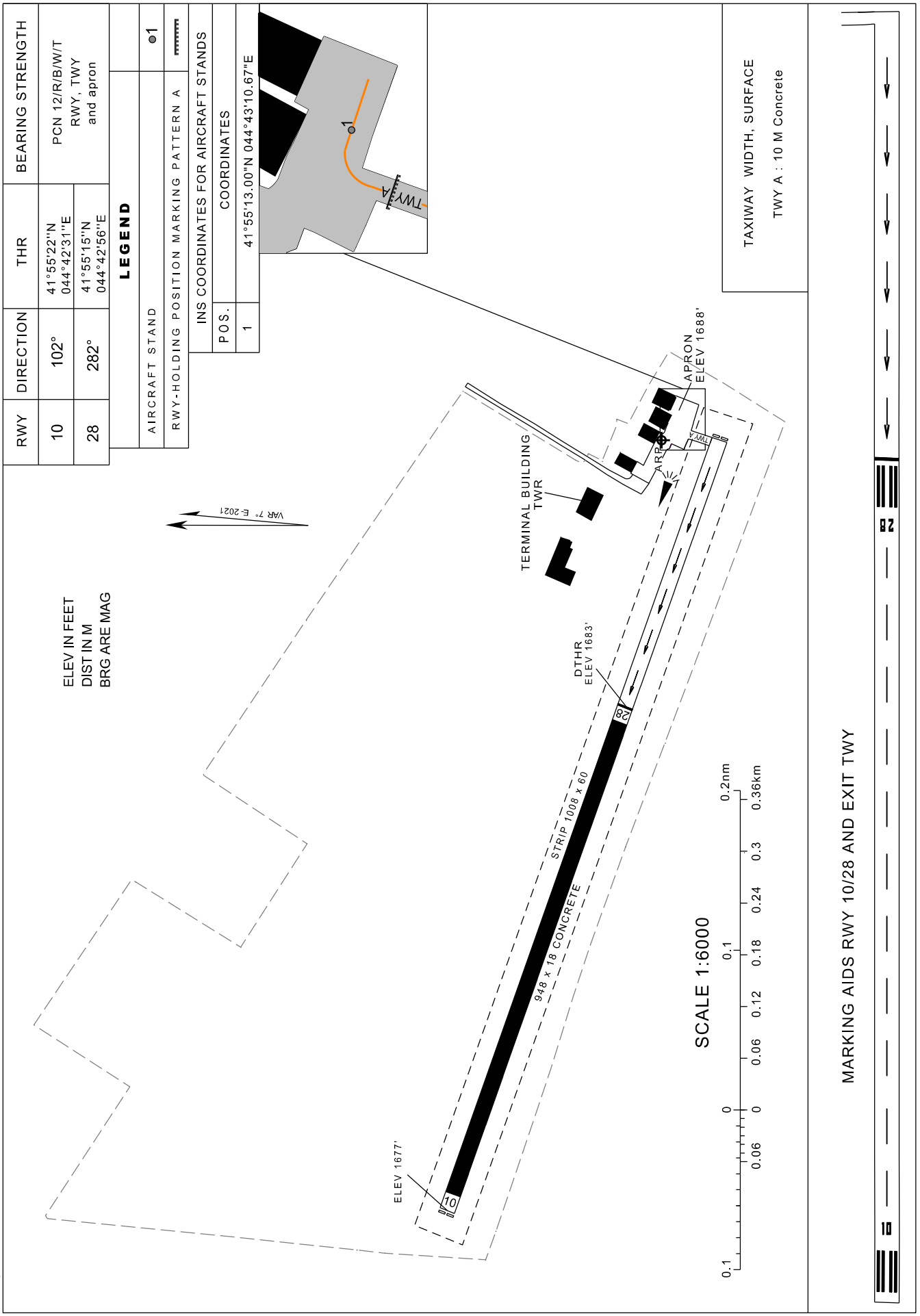
AERODROME CHART-ICAO

NATAKHTARI (UGSA)

41°55'14''N
044°43'10''E

ELEV 1687'

NATAKHTARI Supervisor 131.750



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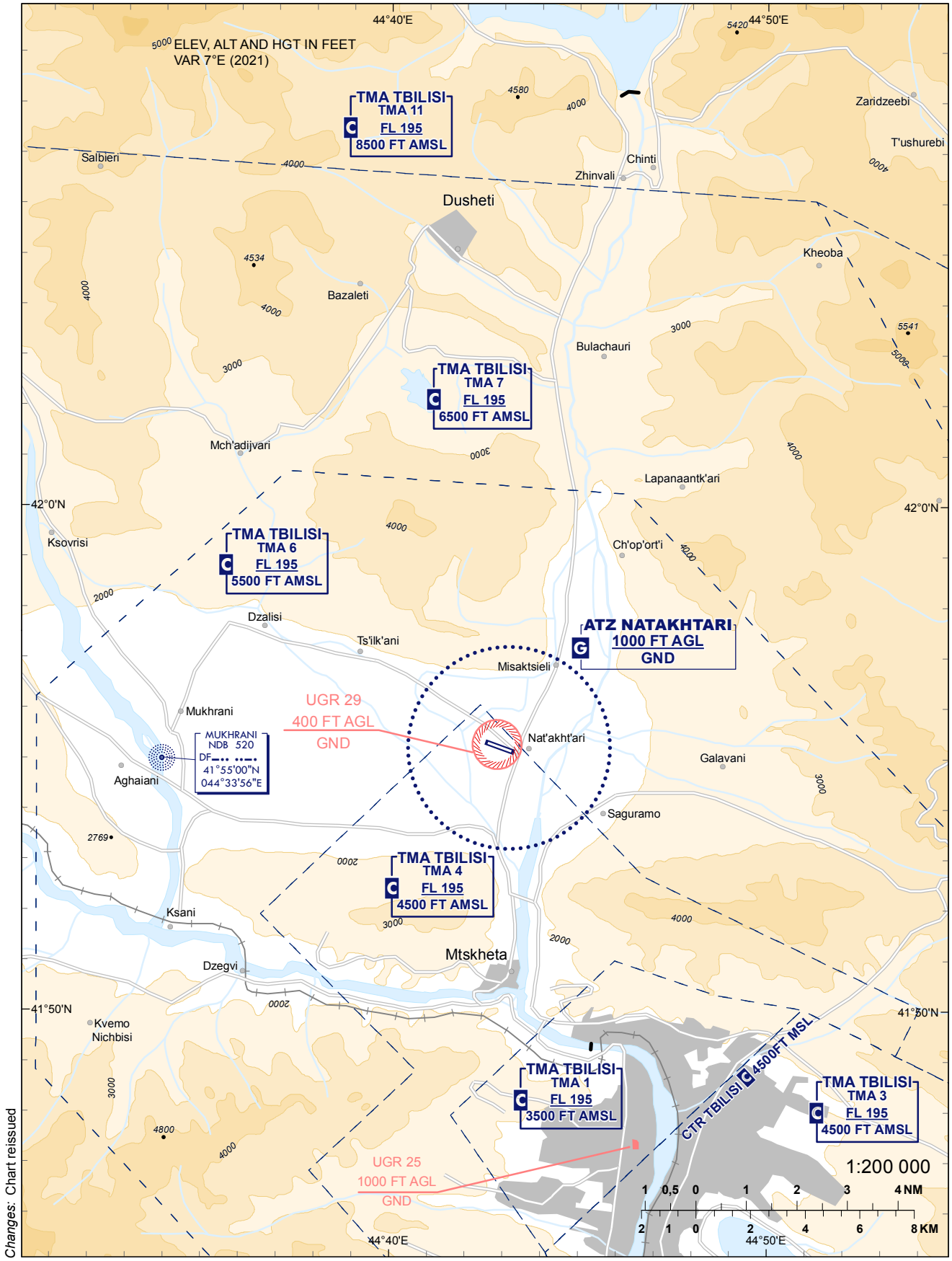
VISUAL APPROACH CHART - ICAO

NATAKHTARI (UGSA)

AERODROME ELEV. 1687'

NATAKHTARI 131.750



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UGSB

UGSB AD 2.1 Aerodrome location indicator and name

UGSB - BATUMI

UGSB AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	413637N 0413558E on the RWY 12/30
2	**Direction and distance from (city)**	5 KM SW from Batumi
3	**Elevation / Reference temperature**	37 FT / 28°C
4	**Geoid undulation at AD ELEV PSN**	68 FT
5	**MAG VAR / Annual change**	7°E (2023) / NIL
6	**Aerodrome operator**	BATUMI AIRPORT LTD
	Address	220 Airport Highway 6015 BATUMI GEORGIA
	Telephone	+995422235100, +995422235102, +995422235103
	Telefax	+995422235103
	AFS	AFTN: UGSBBFXX SITA: BATUMXH
	E-mail	aliozgur.pehlivan@tav.aero, bus.info@tav.aero
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	IFR/VFR
8	**Remarks**	NIL

UGSB AD 2.3 Operational hours

1	**AD Operator**	H24
2	**Customs and immigration**	H24
3	**Health and sanitation**	H24
4	**AIS Briefing Office**	H24
5	**ATS Reporting Office (ARO)**	H24
6	**MET Briefing Office**	H24
7	**ATS**	H24
8	**Fuelling**	H24
9	**Handling**	H24
10	**Security**	H24
11	**De-icing**	H24
12	**Remarks**	NIL

UGSB AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	NIL
2	**Fuel/oil types**	Fuel: TS1 (equivalent jet A - 1) Oil: AMG-10, MK-8P
3	**Fuelling facilities / capacity**	Refuelling facilities available; 2 Tracks 22 tones, 1 Track 7.5 tones; 20 litres/sec
4	**De-icing facilities**	Yes
5	**Hangar space for visiting aircraft**	NIL
6	**Repair facilities for visiting aircraft**	Available for jobbing. Major repairs for aircraft up to 10000 KG by agreement
7	**Remarks**	NIL

UGSB AD 2.5 Passenger facilities

1	**Hotels**	In the city
2	**Restaurants**	Near the AD and in the city
3	**Transportation**	Buses, taxis from the AD
4	**Medical Facilities**	First medical aid at AD, hospitals in the city
5	**Bank and Post Office**	In the city
6	**Tourist Office**	Available in the city
7	**Remarks**	NIL

UGSB AD 2.6 Rescue and fire fighting services

1	**AD category for fire fighting**	CAT 6 On request CAT 7
2	**Rescue equipment**	H24, 2 Fire trucks; 4 rescue boats available from coastguard
3	**Capability for removal of disabled aircraft**	Crane vehicles up to 50 t on request by an external company
4	**Remarks**	FOP duty chief, responsible coordinator for removal of disabled aircraft: Tel: +995 577 999 193, +995 422 235 100 E-mail: busgroundoperation@tav.aero

UGSB AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	4 Snow Ploughs, 1 Snow Plough with blower equipment
2	**Clearance priorities**	1. RWY 12/30 and the access roads to the airport Rescue service 2. Taxiways in use and aircraft taxiing paths on the apron 3. Aircraft parking stands and vehicles paths on the apron 4. Runway and taxiways shoulders 5. The remaining sections (areas)
3	**Remarks**	NIL

UGSB AD 2.8 Aprons, taxiways and check locations/positions data

1	**Apron designation, surface and strength of aprons**	APRON : Concrete and asphalt, PCN 35/F/B/X/T APRON Aircraft stands 14, 14A, 15, 15A, 16, 16A: Asphalt, PCN 54/F/B/X/T
2	**Taxiway designation, width, surface and strength**	TWY A: 23 M, Concrete and asphalt, PCN 35/F/B/X/T TWY B: 23 M, Concrete and asphalt, PCN 35/F/B/X/T
3	**Altimeter checkpoint location and elevation**	THR RWY 30 Elevation 37 FT THR RWY 12 Elevation 17 FT Apron Elevation 35 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	INS: See AD Chart UGSB-ADC
6	**Remarks**	NIL

UGSB AD 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 aircraft stands**	Taxiing guidance signs at all intersections with TWY and RWY and at all holding positions. Guide lines at apron. Nose-in guidance at aircraft stands.
2	**RWY and TWY markings and LGT**	RWY 12: Designation, THR, centre line, runway edge, RWY end marked as appropriate. THR, runway edge, RWY end are lighted. RWY 30: Designation, THR, centre line, runway edge, RWY end marked as appropriate. Runway edge, RWY end are lighted. Edge lights - TWYs A and B.
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGSB AD 2.10 Aerodrome obstacles

1 Obstacles in Area 2a

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB2A001	Antenna	413652.0N 0413526.4E	75/- FT	LGTD / RED	NIL
UGSB2A002	Building	413646.3N 0413549.7E	117/- FT	LGTD / RED	NIL
UGSB2A003	Antenna	413653.5N 0413523.8E	40/23 FT	MARKED / LGTD / RED	NFM 12 GP
UGSB2A004	Antenna	413651.9N 0413526.2E	66/48 FT	LGTD / RED	GP

2 Obstacles in Area 2b

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB2B001	Navaid	413604.6N 0413650.8E	78/- FT	MARKED	NDB

3 Obstacles in Area 2c

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB2C001	Pole	413712.5N 0413631.1E	251/- FT	LGTD / RED	Mast
UGSB2C002	Building	413903.3N 0413748.8E	402/- FT	LGTD / RED	NIL
UGSB2C003	Control tower	413633.6N 0413620.4E	198/- FT	LGTD / RED	ATC Building
UGSB2C004	Building	413649.6N 0413548.0E	62/- FT	NIL	NIL
UGSB2C005	Building	413650.8N 0413548.7E	62/- FT	NIL	NIL
UGSB2C006	Building	413730.9N 0413556.7E	351/- FT	NIL	NIL
UGSB2C007	Building	413757.9N 0413642.1E	320/- FT	NIL	NIL
UGSB2C008	Building	413914.8N 0413811.6E	685/- FT	LGTD / RED	NIL
UGSB2C009	Building	413747.4N 0413608.6E	476/- FT	NIL	NIL
UGSB2C010	Building	413805.3N 0413626.1E	304/- FT	NIL	NIL
UGSB2C011	Building	413816.8N 0413638.5E	293/- FT	NIL	NIL
UGSB2C012	Building	413814.9N 0413636.2E	378/- FT	NIL	NIL
UGSB2C013	Building	413813.2N 0413633.9E	294/- FT	NIL	NIL
UGSB2C014	Building	413804.0N 0413629.6E	261/- FT	NIL	NIL
UGSB2C015	Building	413916.2N 0413819.6E	539/- FT	NIL	NIL
UGSB2C016	Building	413900.7N 0413745.1E	646/- FT	NIL	NIL
UGSB2C017	Building	413749.4N 0413640.8E	278/- FT	NIL	NIL
UGSB2C018	Building	413744.7N 0413611.8E	275/- FT	NIL	NIL
UGSB2C019	Building	413801.2N 0413647.2E	260/- FT	NIL	NIL
UGSB2C020	Building	413751.8N 0413622.0E	217/- FT	NIL	NIL
UGSB2C021	Building	413810.9N 0413651.3E	229/- FT	NIL	NIL
UGSB2C022	Building	413813.5N 0413652.4E	295/- FT	NIL	NIL
UGSB2C023	Building	413810.6N 0413647.1E	444/- FT	NIL	NIL
UGSB2C024	Building	413825.1N 0413757.9E	231/- FT	NIL	NIL
UGSB2C025	Building	413805.9N 0413635.0E	279/- FT	NIL	NIL
UGSB2C026	Building	413751.8N 0413610.2E	256/- FT	NIL	NIL
UGSB2C027	Building	413743.5N 0413631.6E	194/- FT	NIL	NIL

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB2C028	Building	413711.5N 0413521.6E	108/- FT	NIL	NIL
UGSB2C029	Building	413719.2N 0413539.9E	189/- FT	NIL	NIL
UGSB2C030	Building	413732.3N 0413922.2E	932/- FT	NIL	NIL
UGSB2C031	Pole	413654.5N 0413520.7E	52/- FT	LGTD / RED	12 Wind Sensor
UGSB2C032	Building	413746.6N 0413622.7E	208/- FT	NIL	NIL
UGSB2C033	Building	413713.9N 0413526.3E	162/- FT	NIL	NIL
UGSB2C034	Building	413713.4N 0413526.0E	162/- FT	NIL	NIL
UGSB2C035	Building	413714.3N 0413527.2E	162/- FT	NIL	NIL
UGSB2C036	Building	413726.3N 0413547.8E	328/- FT	NIL	NIL
UGSB2C037	Pole	413509.5N 0414109.1E	1245/- FT	NIL	Mast
UGSB2C038	Pole	413614.3N 0414104.2E	1250/- FT	LGTD / RED	Mast
UGSB2C039	Pole	413809.9N 0414300.0E	1083/- FT	LGTD / RED	Mast
UGSB2C040	Pole	413654.1N 0414009.0E	1321/- FT	LGTD / RED	Mast
UGSB2C041	Building	413856.1N 0413731.2E	206/- FT	NIL	NIL
UGSB2C042	Building	413751.4N 0413613.4E	374/- FT	NIL	NIL
UGSB2C043	Building	413819.5N 0413704.1E	377/- FT	NIL	NIL
UGSB2C044	Building	413759.3N 0413631.1E	210/- FT	NIL	NIL
UGSB2C045	Building	413648.5N 0413549.6E	75/- FT	NIL	NIL
UGSB2C046	Building	413650.4N 0413548.9E	56/- FT	NIL	NIL
UGSB2C047	Building	413654.9N 0413544.1E	69/- FT	NIL	NIL
UGSB2C048	Building	413656.6N 0413539.3E	62/- FT	NIL	NIL
UGSB2C049	Building	413647.0N 0413551.5E	49/- FT	NIL	NIL
UGSB2C050	Building	413647.6N 0413552.5E	59/- FT	NIL	NIL
UGSB2C051	Building	413648.0N 0413551.1E	56/- FT	NIL	NIL
UGSB2C052	Building	413649.0N 0413548.8E	59/- FT	NIL	NIL
UGSB2C053	Building	413855.2N 0413724.9E	600/- FT	LGTD / RED	NIL
UGSB2C054	Building	413712.8N 0413526.2E	170/- FT	NIL	NIL
UGSB2C055	Pole	413611.0N 0413627.6E	70/- FT	MARKED / LGTD / RED	30 Wind Sensor

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB2C056	Navaid	413623.0N 0413606.2E	53/- FT	MARKED / LGTD / RED	DME
UGSB2C057	Pole	413631.1N 0413556.5E	47/- FT	MARKED / LGTD / RED	Middle Wind Sensor
UGSB2C058	Building	413713.9N 0413554.1E	246/- FT	NIL	NIL
UGSB2C059	Building	413733.5N 0413605.8E	361/- FT	NIL	NIL
UGSB2C060	Building	413812.9N 0413646.1E	339/- FT	NIL	NIL
UGSB2C061	Building	413823.8N 0413647.4E	566/- FT	NIL	NIL
UGSB2C062	Building	413823.9N 0413651.6E	572/- FT	NIL	NIL
UGSB2C063	Building	413816.8N 0413701.0E	416/- FT	NIL	NIL
UGSB2C064	Building	413828.1N 0413654.8E	236/- FT	NIL	NIL
UGSB2C065	Building	413822.1N 0413700.8E	421/- FT	NIL	NIL
UGSB2C066	Building	413819.6N 0413704.4E	391/- FT	NIL	NIL
UGSB2C067	Building	413817.1N 0413708.5E	454/- FT	NIL	NIL
UGSB2C068	Building	413814.0N 0413715.0E	439/- FT	NIL	NIL
UGSB2C069	Building	413812.1N 0413713.8E	460/- FT	NIL	NIL
UGSB2C070	Building	413809.9N 0413715.9E	386/- FT	NIL	NIL
UGSB2C071	Building	413807.6N 0413718.0E	494/- FT	NIL	NIL
UGSB2C072	Building	413800.2N 0413720.9E	386/- FT	NIL	NIL
UGSB2C073	Building	413753.9N 0413731.3E	373/- FT	NIL	NIL
UGSB2C074	Building	413750.8N 0413732.8E	340/- FT	NIL	NIL
UGSB2C075	Building	413828.1N 0413701.1E	356/- FT	NIL	NIL
UGSB2C076	Building	413823.8N 0413704.5E	438/- FT	NIL	NIL
UGSB2C077	Building	413830.4N 0413700.6E	288/- FT	NIL	NIL
UGSB2C078	Building	413832.3N 0413703.1E	276/- FT	NIL	NIL
UGSB2C079	Building	413826.1N 0413711.6E	203/- FT	NIL	NIL
UGSB2C080	Building	413823.6N 0413715.4E	315/- FT	NIL	NIL
UGSB2C081	Building	413830.1N 0413658.2E	448/- FT	NIL	NIL
UGSB2C082	Building	413830.8N 0413711.7E	212/- FT	NIL	NIL
UGSB2C083	Building	413826.2N 0413755.4E	310/- FT	NIL	NIL

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB2C084	Building	413821.7N 0413644.6E	561/- FT	NIL	NIL

4 Obstacles in Area 3

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGSB3001	Pole	413627.2N 0413630.6E	102.3/- FT	MARKED / LGTD / RED	Light Mast
UGSB3002	Pole	413625.9N 0413628.8E	101.1/- FT	MARKED / LGTD / RED	Light Mast
UGSB3003	Building	413624.5N 0413638.9E	70.5/- FT	NIL	NIL
UGSB3004	Pole	413619.3N 0413642.1E	111.0/- FT	MARKED / LGTD / RED	Light Mast
UGSB3005	Pole	413652.7N 0413527.2E	27.3/- FT	MARKED	FD12P Weather Sensor
UGSB3006	Fence	413626.4N 0413633.7E	36.4/- FT	NIL	NIL
UGSB3007	Fence	413627.3N 0413632.5E	35.8/- FT	NIL	NIL
UGSB3008	Fence	413628.3N 0413630.7E	33.1/- FT	NIL	NIL
UGSB3009	Fence	413627.9N 0413630.1E	35.4/- FT	NIL	NIL
UGSB3010	Fence	413628.6N 0413628.6E	31.2/- FT	NIL	NIL
UGSB3011	Fence	413626.8N 0413626.8E	32.2/- FT	NIL	NIL

UGSB AD 2.11 Meteorological information provided

1	**Associated MET Office**	BATUMI
2	**Hours of service**	H24
	MET Office outside hours	-
3	**Office responsible for TAF preparation**	BATUMI
	Periods of validity	24 HR
4	**Trend forecast**	TREND
	Interval of issuance	0.5 HR
5	**Briefing/consultation provided**	MET staff consultation at MET Office
6	**Flight documentation**	Charts, abbreviated plain language text
	Language(s) used	English
7	**Charts and other information available for briefing or consultation**	S, U85, U70, U50, U30, U20, P85, P70, P50, P40, P30, P20, SWH, SWM, T
8	**Supplementary equipment available for providing information**	NIL
9	**ATS units provided with information**	Batumi TWR, APP; Tbilisi ACC
10	**Additional information (limitation of service, etc.)**	NIL

UGSB AD 2.12 Runway physical characteristics

RWY Designations	TRUE BRG	Dimensions of RWY (M)	Strength (PCR) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
12	130.89°	2500 x 45	35/F/B/X/T Concrete and asphalt	THR: 413701.32N 0413519.99E END: NIL GUND: 67.8 FT	THR: 17.1 FT TDZ: 20.4 FT
30	310.91°			THR: 413608.27N 0413641.64E END: NIL GUND: 68 FT	THR: 37 FT

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	7	8	9	10	11
12	0.24%	NIL	NIL	2620 x 280	120 x 90
30	-0.24%	NIL	NIL		120 x 90

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	12	13	14
12	NIL	NIL	On the left side of RWY 12 first 890 M of the strip decreased to 75 M instead of 140 M and final 162 M of the strip decreased to 85 M instead of 140 M.
30	NIL	NIL	On the left side of RWY 12 first 890 M of the strip decreased to 75 M instead of 140 M and final 162 M of the strip decreased to 85 M instead of 140 M.

UGSB AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
12	2500	2500	2500	2500	NIL
30	2500	2500	2500	2500	NIL

UGSB AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
12	HIALS 210 M LIH	GREEN	PAPI Left/3.0° (51 FT)	NIL	NIL
30	NIL	NIL	NIL	NIL	NIL

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
12	2500 M, 60 M White FM 1900 M Yellow LIH	RED	NIL	NIL
30	2500 M, 60 M White FM 1900 M Yellow LIH	RED	NIL	NIL

UGSB AD 2.15 Other lighting and secondary power supply

1	**ABN/IBN location, characteristics and hours of operation**	ABN: At Tower Building, rotating light beacon, RPM 12, code W/G, SS-SR IBN: NIL
2	**LDI location and LGT** **Anemometer location and LGT**	NIL NIL
3	**TWY edge and centre line lighting**	CL: NIL Edge: All TWY
4	**Secondary power supply/switch-over time**	Secondary power supply to all lighting at AD. Switch-over time: 1 SEC.
5	**Remarks**	NIL

UGSB AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	NIL

2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL
5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

UGSB AD 2.17 Air traffic services airspace

1	Designation and lateral limits	BATUMI CTR 1 413413N 0413429E - 413450N 0413319E - 413406N 0412939E - 413828N 0412254E - 414757N 0413350E - 414149N 0414316E - 413413N 0413429E	BATUMI CTR 2 413239N 0413727E - 413413N 0413429E - 414149N 0414316E - 414002N 0414600E - 413335N 0414117E - 413239N 0413727E
2	Vertical limits	GND to 1500 FT AMSL	GND to 3500 FT AMSL
3	Airspace classification	C	
4	ATS unit call sign Language(s)	BATUMI TOWER EN	
5	Transition altitude	7000 FT AMSL	
6	Hours of applicability	H24	
7	Remarks	NIL	

UGSB AD 2.18 Air traffic services communication facilities

Service designation	Call sign	Channel(s)	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**	**6**	**7**
APP	BATUMI APPROACH	124.425 MHz	NIL	NIL	H24	NIL
		121.500 MHz	NIL	NIL		Emergency
TWR	BATUMI TOWER	118.600 MHz	NIL	NIL	H24	NIL

UGSB AD 2.19 Radio navigation and landing aids

Type of aids, MAG VAR, Type of supported OPS for ILS/MLS/GLS, basic GNSS and SBAS, Classification for ILS, Facility Classification and approach facility designation(s) for GBAS, VOR/ILS/MLS station declination	ID	Frequency, Channel number, Service provider	Hours of operation	Position of transmitting antenna coordinates	ELEV of DME transmitting antenna, GBAS reference point ELEV and ellipsoid HGT, SBAS LTP/FTP ellipsoid HGT	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DME	BTM	108.400 MHZ CH 21X	H24	413623.0N 0413606.2E	100 FT	NIL	Coverage 108 NM. Omnidirectional.
NDB (7°E 2023)	LU	430 KHZ	H24	413604.6N 0413650.8E	Not applicable	NIL	NIL
ILS RWY 12 (7°E 2023) CLASS NIL/NIL/NIL							
LOC 12	ILU	110.300 MHZ	H24	413603.6N 0413648.8E	Not applicable	NIL	NIL
GP 12	—	335.000 MHZ	H24	413651.9N 0413526.2E	Not applicable	NIL	NIL
DME 12	ILU	CH 40X	H24	413651.8N 0413526.3E	100 FT	NIL	Coverage 25 NM. Omnidirectional.

UGSB AD 2.20 Local aerodrome regulations

1 Airport regulations

At Batumi airport a number of local regulations apply. The 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. General aviation aircraft will have to use the general aviation parking area.

During push back maneuvers engine start-up allowed only on idle power. After completion of push back use minimum break away power to initiate aircraft movement.

Departing IFR and VFR flights shall contact TWR to obtain ATC clearance before commencing taxing. 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 taxing with this type of aircraft.

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.

Isolated aircraft stand with the coordinates 413615.71N 0413639.05E is available on the TWY B.

3 Parking area for small aircraft (general aviation)

General aviation aircraft shall be directed by marshallers to the parking area for small aircraft.

4 Taxiing for helicopters

Helicopters shall always be directed to the stand by a marshaller.

Helicopters with wheeled landing gear shall ground taxi to/from stands 10, 10A, 11, 12, 13.

Helicopters with skid landing gear shall air taxi to/from stands 10, 10A, 11, 12, 13.

Helicopters shall taxi into aircraft stands 10, 10A, 11, 12, 13 under own engine power after "FOLLOW ME" vehicle. From stands 10, 10A, 11, 12, 13 helicopters shall perform 180 degrees turn in a hover due to taxi out.

5 Apron – taxiing during winter conditions

As a rule, apron and RWY are not snow-covered during winter.

The aircraft parking stand 12 is allocated for de-icing treatment of aircraft.

6 Taxiing – limitations

Taxiing is carried out in accordance with general rules (see point 2). Additional information will be given to each aircraft from the TWR.

7 Educational and training flights. Technical test flying. Use of runways

Educational and training flights can be made only after permission from the TWR. Permission will not be given within the following periods: 18.00-08.00 LT and on Saturdays, on Sundays and official holidays. For educational and training flights and such technical test flights necessary for the purpose of ascertaining the airworthiness during flight, use of the RWY system is restricted as follows: RWY 30 must be used for take-off only and RWY 12 must be used for landing only.

8 Helicopter flights – limitation

Irregular helicopter flights are allowed only after prior approval from the Batumi Aerodrome Administration.

9 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.

UGSB AD 2.21 Noise abatement procedures

Not applicable.

UGSB AD 2.22 Flight procedures

1 Runway use

Take-off from RWY12 and landing on RWY30 is only permitted in daytime exclusively in accordance with the Visual Flight Rules (VFR) for aeroplanes with MTOW not exceeding 5700 kilograms and for all types of helicopters.

2 Procedures for IFR flights within Batumi TMA

2.1 General

ATS surveillance service within Batumi TMA is provided by Batumi approach unit (call sign "Batumi approach") on frequency 124.425 MHZ.

Horizontal separation minimum applicable within Batumi TMA is 5 NM.

ATIS is not available. All pertinent information is provided by ATC.

2.2 Procedures for arrival flights

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.

Arrival flights not capable of RNAV1 (GNSS) will normally be vectored for final approach. Alternatively, direct routing to LU (IAF) may be given followed by ILS y (or LOC y or NDB) 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 RNAV 1 (GNSS)”.

Published speed restrictions on STARs and instrument approach procedures shall always be complied with. Controllers are not allowed to cancel published speed restrictions.

2.3 Procedures for departing flights

Departing flights capable of RNAV1 (GNSS) will normally be cleared to follow appropriate RNAV SID of RWY 30. Loss of RNAV1 (GNSS) capability shall be reported to ATC as soon as possible.

Departing flights not capable of RNAV1 (GNSS) will be instructed to “CONTINUE RUNWAY HEADING” (or “CLIMB STRAIGHT AHEAD”) for RWY 30. If a flight not capable of RNAV1 (GNSS) receives clearance to follow RNAV SID, the clearance shall be rejected and the reason stated: “UNABLE RNAV 1 (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 of RWY 30, controller may instruct to “CONTINUE RUNWAY HEADING” or “CLIMB STRAIGHT AHEAD”. In such cases standard climb gradient of 3.3 % or greater shall be maintained.

Visual departures are not implemented.

2.4 FPL route options for arrivals and departures

Arrivals to UGSB:

STAR First Point	Available Routings	Remarks
KUSSA *	..GUSLI DCT KTS DCT KUSSA	-
	..LURIS DCT KTS DCT KUSSA	-
	...KUFAN DCT EMBUS DCT KTS DCT KUSSA	-
	...KTS DCT KUSSA	Any FRA DCT is available before KTS when cruising level is below FL160
	...H5 KUSSA	Only available for departures from local airports
	[SID] KUSSA	SID from UGKO to KUSSA
ODILI *	...ADEKI DCT BADIR DCT ODILI	-
	...TISOT DCT LAGAS DCT ODILI	-
	...OGEVI DCT TETRO DCT ODILI	-
	...ZAGOT DCT TETRO DCT ODILI	Only available for departures from UGTB
	...PALLE DCT TETRO DCT ODILI	Only available for departures from UGTB
ROLIN	As available via Ankara FIR	-
SARPI	As available via Ankara FIR	-
SOSED *	...IDLER DCT SOSED	-
	...BANUT DCT SOSED	-
Direct ARR Point	**Available Routings**	**Remarks**
LU *	...H5 LU	Only available for departures from local airports
** G, M and X types of flight are not restricted by the routing options described in the table.*		

Note: Cleared levels assigned by ATC during descent on DCT segments will be based on relevant ATC Surveillance Minimum Altitude Charts.

Departures from UGSB:

SID Last Point	Available Routings	Remarks
BARUS *	BARUS DCT TAVRO...	-
	BARUS DCT AGISO DCT OGEVI...	-

FIBBE *	FIBBE DCT LAPTO...	-
	FIBBE DCT LURIS...	-
	FIBBE DCT GIMUR...	-
	FIBBE DCT KUFAN...	-
	FIBBE DCT DISKA...	-
IZERO	As available via Ankara FIR	-
PORZA *	PORZA DCT BANUT...	-
TUZZA	TUZZA [STAR]	STAR from TUZZA to UGKO
Direct DEP Point	**Available Routings**	**Remarks**
KUSSA	KUSSA H5...	KUSSA is only recommended to be used when TUZZA1D, BARUS1 or FIBBE1 SID requirements cannot be met
LU	LU...	Only available for arrivals to UGSB
SARPI	As available via Ankara FIR	Only available for arrivals to LTFO
** G, M and X types of flight are not restricted by the routing options described in the table.*		

3 Procedures for VFR flights within Batumi TMA

Two-way radio communication shall be maintained with the Batumi Approach on the FRQ 124.425 MHZ.

Transfer of VFR flights between Batumi APP and Batumi TWR is conducted over established entry/exit points of CTR as shown in the Visual Approach Chart AD2.UGSB-VAC unless otherwise instructed by APP or TWR unit.

4 Procedures for VFR flights within Batumi CTR

Aircraft shall establish two-way radio communication with Batumi tower before conducting flights in Batumi CTR.

VFR flights intending to enter Batumi CTR from uncontrolled airspace shall establish communication with Batumi tower at least 5 minutes before entry to obtain clearance.

VFR flights within Batumi CTR shall be conducted at or below 1500 FT AMSL within CTR1 and at or below 3500 FT within CTR2 unless otherwise cleared by the TWR unit.

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

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

If the traffic situation requires or the active runway is blocked, the aircraft conducting VFR flight may be directed to the holding area established at point ABUKO (Max. 1000 FT AMSL) or instructed to stay outside CTR.

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

Name	Geographical coordinates	Visual reference
VERTE	414224N 0414223E	North of Mtsvane Kontskhi
QOZON	413335N 0414117E	Over the right bank of Chorokhi river west of Erge village
DOQQA	413430N 0413356E	Over coastline, west of Gonio Castle
ABUKO	413955N 0414055E	Over the junction of Korilistskhali river with the black sea

See also the Visual Approach Chart AD 2.UGSB-VAC.

UGSB 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 RWY 12/30 to their feeding area, SW of the airport. Their flight height is approximately 100 FT (30 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.

Intense activity of seagulls also takes place during daytime near the airport territory over the Black Sea, as they use sea water for feeding and resting.

Seasonal activity of swallows and hawks takes place during autumn and spring when they fly across the RWY 12/30, their flight height varies from 100 FT (30 M) to 165 FT (50 M) AGL.

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 air traffic controllers.

Pilots of aircraft are advised, where the design limitations of aircraft installations permit, to operate landing lights in flight, within the terminal area and 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 allocated near the RWY 12/30. Also loud-hailers installed on aerodrome service vehicle are continually used for distressing birds. No open waste-bins on the aerodrome.

UGSB AD 2.24 Charts related to an aerodrome

Chart Name	Page
Aerodrome chart - ICAO	AD 2.UGSB-ADC
Area chart - ICAO	AD 2.UGSB-ARC
Aerodrome obstacle chart - ICAO Type A	AD 2.UGSB-AOC-A
Standard Departure Chart - Instrument - ICAO - RNAV RWY 30	AD 2.UGSB-SID-RNAV-30-1
Standard Departure Routes - Instrument - RNAV RWY 30 (Part 1)	AD 2.UGSB-SID-RNAV-30-3
Standard Departure Routes - Instrument RNAV RWY 30 (Part 2)	AD 2.UGSB-SID-RNAV-30-5
Standard Arrival Chart - Instrument - ICAO - RNAV RWY 12	AD 2.UGSB-STAR-RNAV-12-1
Standard Arrival Routes - Instrument - RNAV RWY 12	AD 2.UGSB-STAR-RNAV-12-3
ATC Surveillance Minimum Altitude chart - ICAO	AD 2.UGSB-ATCSMAC-1
ATC Surveillance Minimum Altitude Sector's coordinates	AD 2.UGSB-ATCSMAC-3
Instrument Approach Chart - ICAO RWY 12 (ILSy)	AD 2.UGSB-IAC-12-ILSy
Instrument Approach Chart - ICAO RWY 12 (ILSz)	AD 2.UGSB-IAC-12-ILSz-1
RNAV Transition Coding Tables RWY 12 (ILSz)	AD 2.UGSB-IAC-12-ILSz-3
Instrument Approach Chart - ICAO RWY 12 (LOCy)	AD 2.UGSB-IAC-12-LOCy
Instrument Approach Chart - ICAO RWY 12 (LOCz)	AD 2.UGSB-IAC-12-LOCz-1
RNAV Transition Coding Tables RWY 12 (LOCz)	AD 2.UGSB-IAC-12-LOCz-3
Instrument Approach Chart - ICAO RWY 12 (NDB)	AD 2.UGSB-IAC-12-NDB
Visual Approach Chart - ICAO	AD 2.UGSB-VAC
Bird Concentrations and Movement - Index chart	AD 2.UGSB-BIRD
* the chart contains a text page	

UGSB AD 2.25 Visual segment surface (VSS) penetration

To be developed.

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AERODROME CHART - ICAO

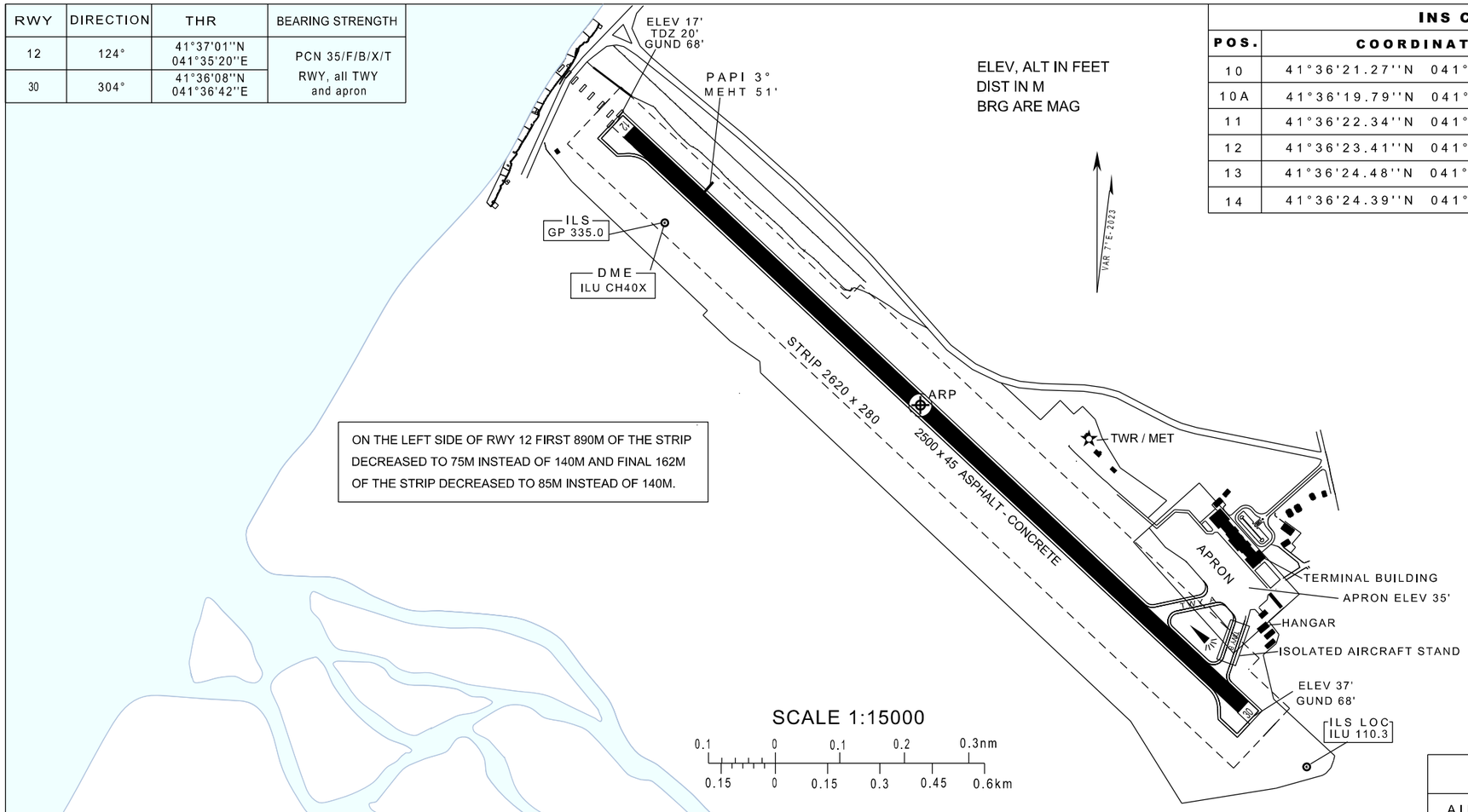
BATUMI (UGSB)

41°36' 37" N
041°35' 58" E

ELEV. 37'

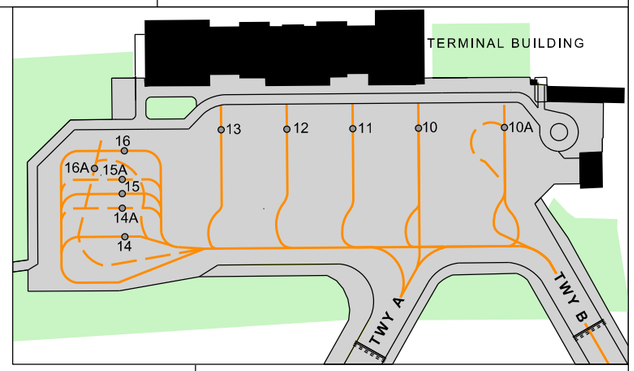
TWR 118.6

RWY	DIRECTION	THR	BEARING STRENGTH
12	124°	41°37'01''N 041°35'20''E	PCN 35/F/B/X/T
30	304°	41°36'08''N 041°36'42''E	RWY, all TWY and apron



INS COORDINATES FOR AIRCRAFT STANDS

POS.	COORDINATES	POS.	COORDINATES
10	41°36'21.27''N 041°36'39.74''E	14A	41°36'25.04''N 041°36'31.63''E
10A	41°36'19.79''N 041°36'41.44''E	15	41°36'25.07''N 041°36'32.19''E
11	41°36'22.34''N 041°36'38.36''E	15A	41°36'25.49''N 041°36'32.26''E
12	41°36'23.41''N 041°36'36.98''E	16	41°36'25.74''N 041°36'33.12''E
13	41°36'24.48''N 041°36'35.60''E	16A	41°36'26.02''N 041°36'32.27''E
14	41°36'24.39''N 041°36'31.26''E		



TAXIWAYS WIDTH, SURFACE

TWY A : 23 M Asphalt-Concrete

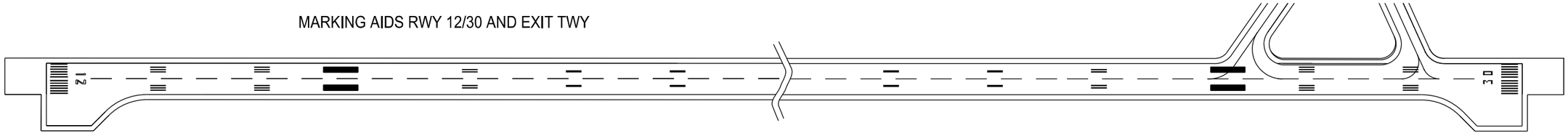
TWY B : 23 M Asphalt-Concrete

Aircraft stands № 14,14A,15,15A,16,16A - Asphalt-PCN 54/F/B/X/T

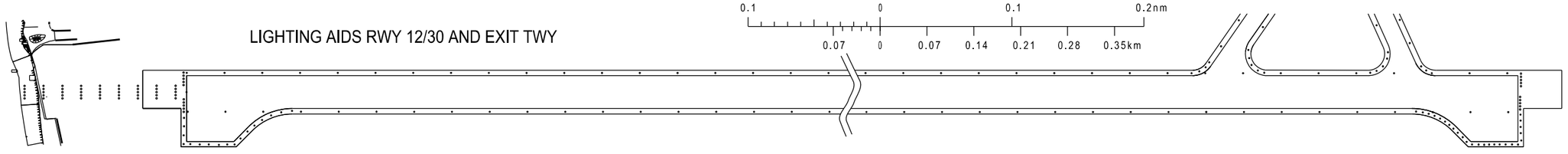
LEGEND

AIRCRAFT STAND	⊙13
RWY-HOLDING POSITION MARKING PATTERN A	

MARKING AIDS RWY 12/30 AND EXIT TWY



LIGHTING AIDS RWY 12/30 AND EXIT TWY



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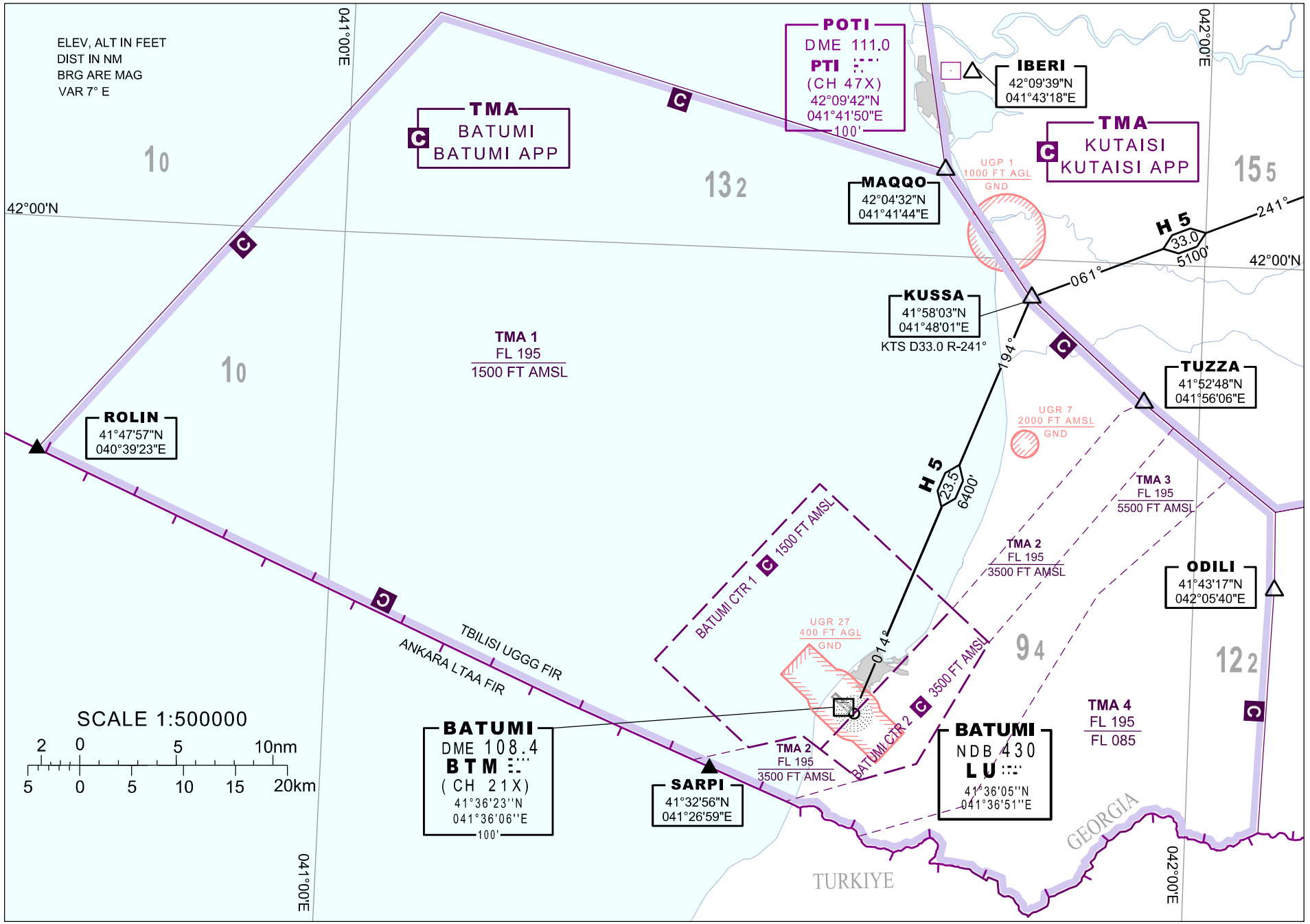
AREA CHART - ICAO

APP 124.425
TWR 118.600



BATUMI (UGSB)

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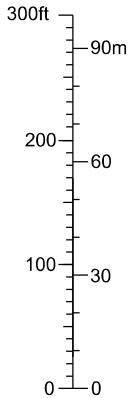
BATUMI (UGSB)
RWY 12/30

TYPE A (OPERATING LIMITATIONS)

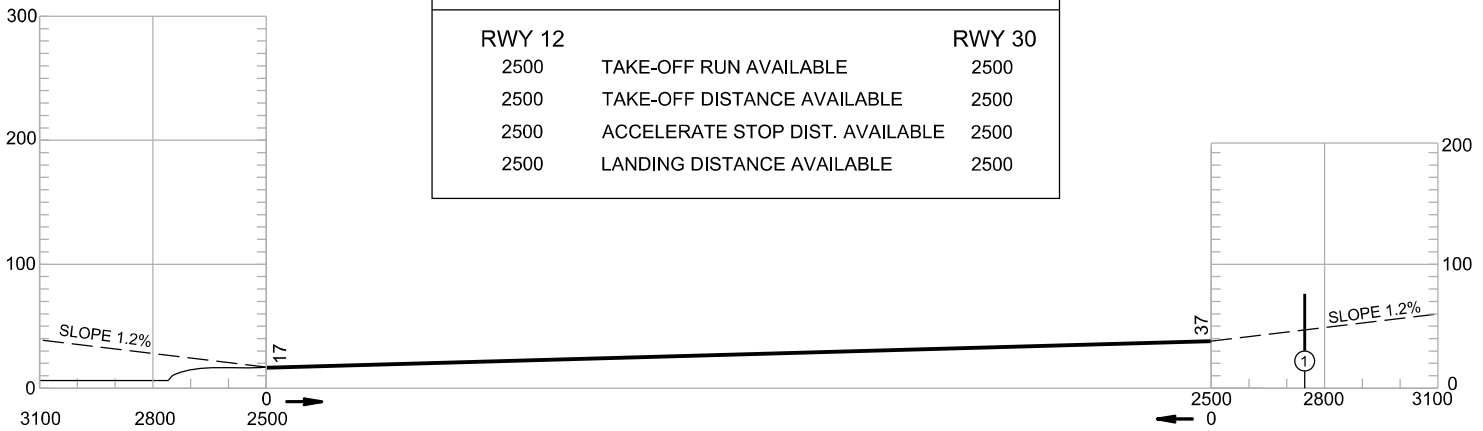
MAGNETIC VARIATION 7°E 2023
DIMENSIONS IN METRES
ELEVATIONS IN FEET

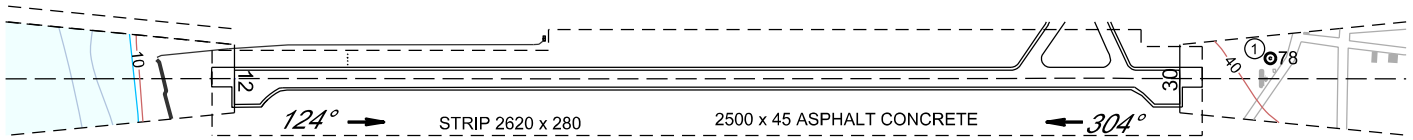
VERTICAL SCALE 1:2000



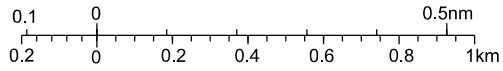
RWY 12/30

DECLARED DISTANCES		
RWY 12		RWY 30
2500	TAKE-OFF RUN AVAILABLE	2500
2500	TAKE-OFF DISTANCE AVAILABLE	2500
2500	ACCELERATE STOP DIST. AVAILABLE	2500
2500	LANDING DISTANCE AVAILABLE	2500





HORIZONTAL SCALE 1:20000



ORDER OF ACCURACY
HORIZONTAL 0m
VERTICAL 0ft

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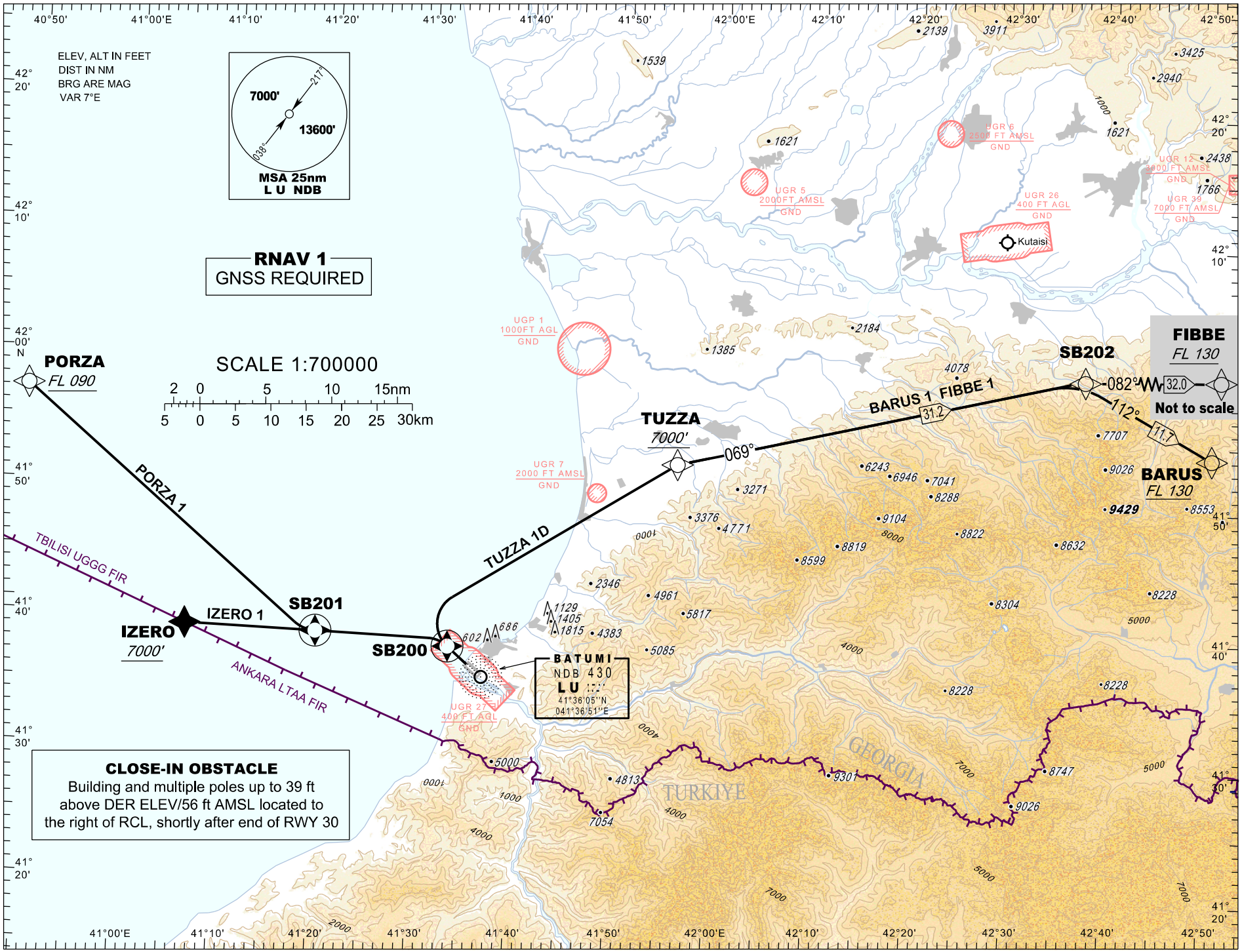
Changes: Chart reissued

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BATUMI (UGSB)

RNAV RWY 30

PORZA 1 IZERO 1 TUZZA 1D
BARUS 1 FIBBE 1



TRANSITION ALTITUDE
7000'

APP	124.425
TWR	118.600

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STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY30

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
BARUS 1	**BARUS ONE** To SB200 on course 304°, turn RIGHT direct to TUZZA, to SB202, to BARUS. Cross BARUS at or above FL130.	5.3% to 7000 FT	NIL

RNAV SID Coding Table of BARUS 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	SB200	YES	41°38'20.0"N 041°33'19.0"E	304° (310.9°)	-	-	-	-	RNAV1
DF	TUZZA	-	41°52'48.0"N 041°56'06.0"E	-	-	R	-	-	RNAV1
TF	SB202	-	41°59'57.0"N 042°36'45.0"E	069° (076.5°)	31.2	-	-	-	RNAV1
TF	BARUS	-	41°54'14.0"N 042°50'30.0"E	112°(119.1°)	11.7	-	+FL130	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
IZERO 1	**IZERO ONE** To SB200 on course 304°, turn LEFT direct to IZERO. Cross IZERO at or above 7000 FT	5.3% to 7000 FT	NIL

RNAV 1 SID Coding Table of IZERO 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	SB200	YES	41°38'20.0"N 041°33'19.0"E	304° (310.9°)	-	-	-	-	RNAV1
DF	IZERO	-	41°39'21.0"N 041°06'32.0"E	-	-	L	+A7000	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
PORZA 1	**PORZA ONE** To SB200 on course 304°, turn LEFT direct to SB201, turn RIGHT direct to PORZA. Cross PORZA at or above FL090.	5.3% to 2000 FT	NIL

RNAV 1 SID Coding Table of PORZA 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	SB200	YES	41°38'20.0"N 041°33'19.0'E	304° (310.9°)	-	-	-	-	RNAV1
DF	SB201	YES	41°39'08.0"N 041°19'50.0"E	-	-	L	-	-	RNAV1
DF	PORZA	-	41°57'08.0"N 040°49'38.0"E	-	-	R	+FL090	-	RNAV1

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
TUZZA 1D	**TUZZA ONE DELTA** To SB200 on course 304°, turn RIGHT direct to TUZZA. Cross TUZZA at or above 7000 FT.	5.3% to 7000 FT	NIL

RNAV 1 SID Coding Table of TUZZA 1D

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	SB200	YES	41°38'20.0"N 041°33'19.0"E	304° (310.9°)	-	-	-	-	RNAV1
DF	TUZZA	-	41°52'48.0"N 041°56'06.0"E	-	-	R	+A7000	-	RNAV1

For continuation see AD 2.UGSB-SID-RNAV-30-5

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STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY 30 (Continuation)

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
FIBBE 1	**FIBBE ONE** To SB200 on course 304°, turn RIGHT direct to TUZZA, to SB202, to FIBBE. Cross FIBBE at or above FL130.	5.3% to 7000FT	NIL

RNAV 1 SID Coding Table of FIBBE 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	SB200	YES	41°38'20.0"N 041°33'19.0"E	304° (310.9°)	-	-	-	-	RNAV1
DF	TUZZA	-	41°52'48.0"N 041°56'06.0"E	-	-	R	-	-	RNAV1
TF	SB202	-	41°59'57.0"N 042°36'45.0"E	069° (076.5°)	31.2	-	-	-	RNAV1
TF	FIBBE	-	42°00'34.0"N 043°19'43.0"E	082° (089.0°)	32.0	-	+FL130	-	RNAV1

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Changes: Chart reissued

STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

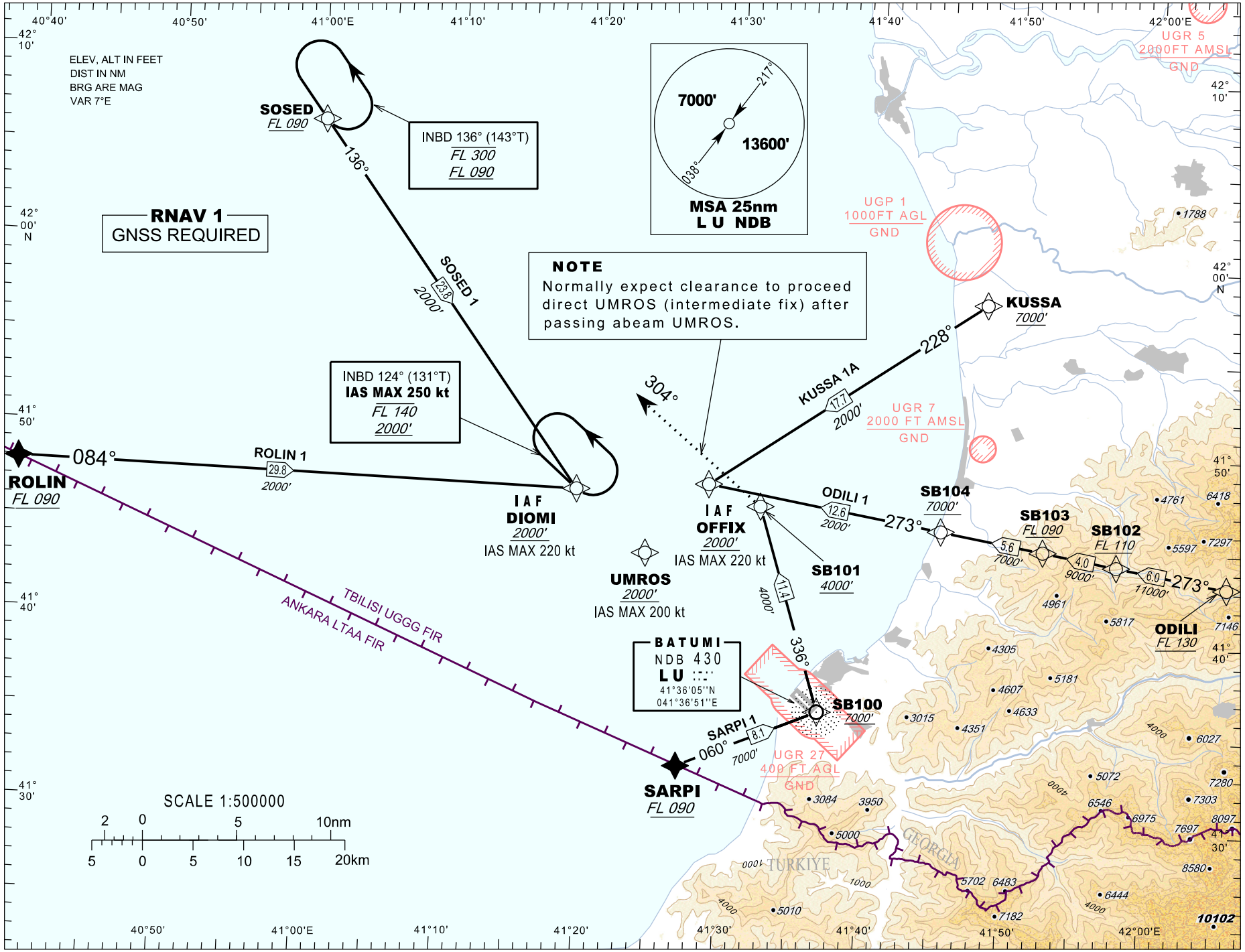
BATUMI (UGSB)

RNAV RWY 12

ROLIN 1 SOSED 1 SARPI 1
KUSSA 1A ODILI 1

TRANSITION LEVEL FL 090
TRANSITION ALTITUDE 7000'

APP 124.425
TWR 118.600



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STANDARD ARRIVAL ROUTES - RNAV (GNSS) INSTRUMENT - RWY 12

RNAV 1 STAR Coding Table of ODILI 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	ODILI	-	41°43'17.0"N 042°05'40.0"E	-	-	-	+FL130	-	RNAV1
TF	SB102	-	41°44'18.0"N 041°57'46.0"E	273° (279.8°)	6.0	-	+FL110	-	RNAV1
TF	SB103	-	41°44'59.0"N 041°52'30.0"E	273° (279.9°)	4.0	-	+FL090	-	RNAV1
TF	SB104	-	41°45'55.0"N 041°45'12.0"E	273° (279.8°)	5.6	-	+A7000	-	RNAV1
TF	OFFIX	-	41°48'00.0"N 041°28'35.0"E	273° (279.6°)	12.6	-	+A2000	-220	RNAV1

RNAV 1 STAR Coding Table of SOSED 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	SOSED	-	42°06'35.0"N 041°00'15.0"E	-	-	-	+FL090	-	RNAV1
TF	DIOMI	-	41°47'29.0"N 041°19'10.0"E	136° (143.5°)	23.8	-	+A2000	-220	RNAV1

RNAV 1 STAR Coding Table of ROLIN 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	ROLIN	-	41°47'57.0"N 040°39'23.0"E	-	-	-	+FL090	-	RNAV1
TF	DIOMI	-	41°47'29.0"N 041°19'10.0"E	084° (090.7°)	29.8	-	+A2000	-220	RNAV1

RNAV 1 STAR Coding Table of KUSSA 1A

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	KUSSA	-	41°58'03.0"N 041°48'01.0"E	-	-	-	+A7000	-	RNAV1
TF	OFFIX	-	41°48'00.0"N 041°28'35.0"E	228° (235.3°)	17.7	-	+A2000	-220	RNAV1

RNAV 1 STAR Coding Table of SARPI 1

Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	SARPI	-	41°32'56.0"N 041°26'59.0"E	-	-	-	+FL090	-	RNAV1
TF	SB100	-	41°36'05.0"N 041°36'51.0"E	060° (066.8°)	8.1	-	+A7000	-	RNAV1
TF	SB101	-	41°46'55.0"N 041°32'19.0"E	336° (342.7°)	11.4	-	+A4000	-	RNAV1
FM	-	-	-	304° (310.9°)	-	-	+A2000	-	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
SOSED	136° (143.0°)	1.5*	L	FL090	FL300	280	-7°	RNAV1
DIOMI	124° (131.0°)	1.0	L	A2000	FL140	250	-7°	RNAV1

* 1.0 min at or below FL140

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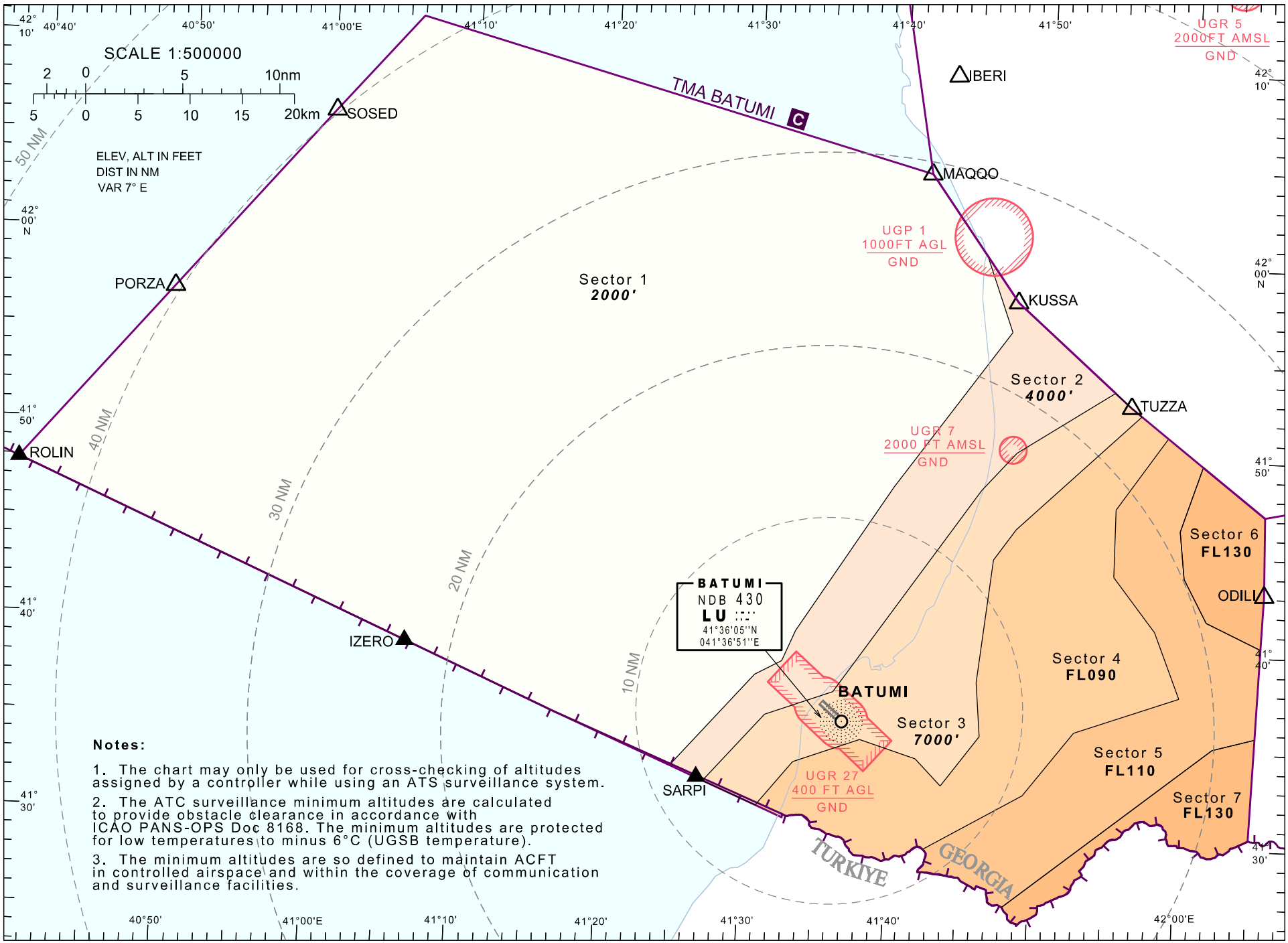
Changes: Chart reissued

ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AERODROME ELEV 37'
TRANSITION ALT 7000'

APP 124.425
TWR 118.600

BATUMI (UGSB)



Notes:

1. The chart may only be used for cross-checking of altitudes assigned by a controller while using an ATS surveillance system.
2. The ATC surveillance minimum altitudes are calculated to provide obstacle clearance in accordance with ICAO PANS-OPS Doc 8168. The minimum altitudes are protected for low temperatures to minus 6°C (UGSB temperature).
3. The minimum altitudes are so defined to maintain ACFT in controlled airspace and within the coverage of communication and surveillance facilities.

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ATC Surveillance Minimum Altitude Sectors' Coordinates

Sector	Lateral limits
Sector 1	421137N 0410602E - 420432N 0414144E - 420025N 0414543E - 415630N 0414740E - 414818N 0413952E - 414041N 0413327E - 413906N 0413234E - 413821N 0413045E - 413328N 0412508E - 413600N 0411700E - 414757N 0403923E - 420635N 0410015E - 421137N 0410602E
Sector 2	420025N 0414543E - 415803N 0414801E - 415334N 0415456E - 415017N 0414816E - 414817N 0414555E - 413736N 0413611E - 413618N 0413132E - 413244N 0412727E - 413328N 0412508E - 413821N 0413045E - 413906N 0413234E - 414041N 0413327E - 414818N 0413952E - 415630N 0414740E - 420025N 0414543E
Sector 3	415334N 0415456E - 415248N 0415606E - 415223N 0415648E - 414619N 0414823E - 414443N 0414655E - 413821N 0414602E - 413533N 0414623E - 413256N 0414349E - 413418N 0414201E - 413511N 0413809E - 413354N 0413336E - 413135N 0413108E - 413244N 0412727E - 413618N 0413132E - 413736N 0413611E - 414817N 0414555E - 415017N 0414816E - 415334N 0415456E
Sector 4	413100N 0413300E - 413135N 0413108E - 413354N 0413336E - 413511N 0413809E - 413418N 0414201E - 413256N 0414349E - 413533N 0414623E - 413821N 0414602E - 414443N 0414655E - 414619N 0414823E - 415223N 0415648E - 415118N 0415842E - 414732N 0415515E - 414402N 0415515E - 414116N 0415812E - 413752N 0420001E - 413555N 0415251E - 413235N 0414928E - 412938N 0414246E - then along the state border with Turkiye to - 413100N 0413300E
Sector 5	412938N 0414246E - 413235N 0414928E - 413555N 0415251E - 413752N 0420001E - 414116N 0415812E - 414402N 0415515E - 414732N 0415515E - 415118N 0415842E - 414953N 0420110E - 414630N 0415943E - 414404N 0420007E - 414150N 0420144E - 414032N 0420532E - 413553N 0420520E - 413517N 0420226E - 412647N 0414821E - then along the state border with Turkiye to - 412938N 0414246E
Sector 6	414953N 0420110E - 414721N 0420533E - 414316N 0420540E - 414032N 0420532E - 414150N 0420144E - 414404N 0420007E - 414630N 0415943E - 414953N 0420110E
Sector 7	412647N 0414821E - 413517N 0420226E - 413553N 0420520E - 413037N 0420506E - then along the state border with Turkiye- 412647N 0414821E

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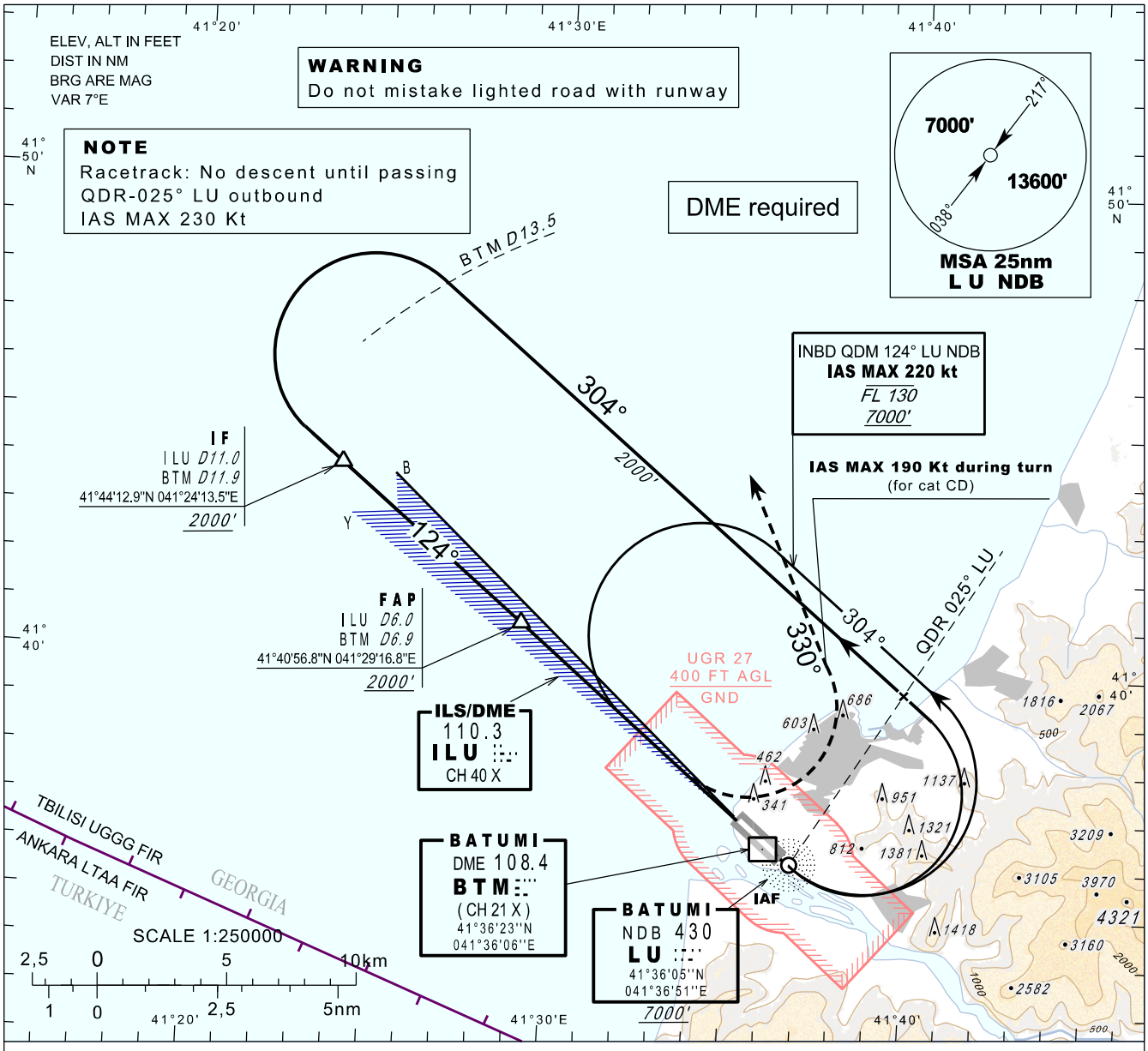
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 37'
HEIGHTS RELATED TO
THR RWY 12 - ELEV 17'

TRANSITION ALT 7000'

APP 124.425
TWR 118.600

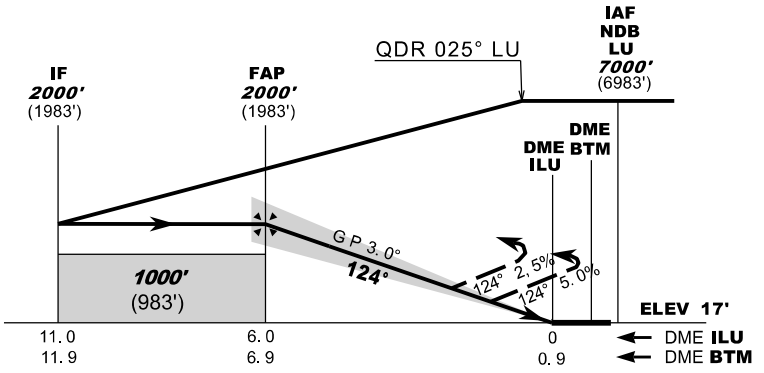
BATUMI (UGSB)
ILSy
RWY 12



MISSED APPROACH

Climb straight ahead. At **800'** turn left heading **330°** climbing to **3000'** and follow ATC instructions.
IAS MAX 190 KT until turn is completed (for cat CD).

ILS RDH 51'



Straight-in Approach				
Missed APCH climb gradient	OCA (H)			
	A	B	C	D
2.5%	**687** (670)		**787** (770)	
5.0%	**377** (360)	**487** (470)		

DME ILU NM	6	5	4	3	2	1
DME BTM NM	6.9	5.9	4.9	3.9	2.9	1.9
ALT (HGT) ft	**2010** (1993)	**1682** (1665)	**1355** (1338)	**1031** (1014)	**708** (691)	**387** (370)

Changes: Chart reissued

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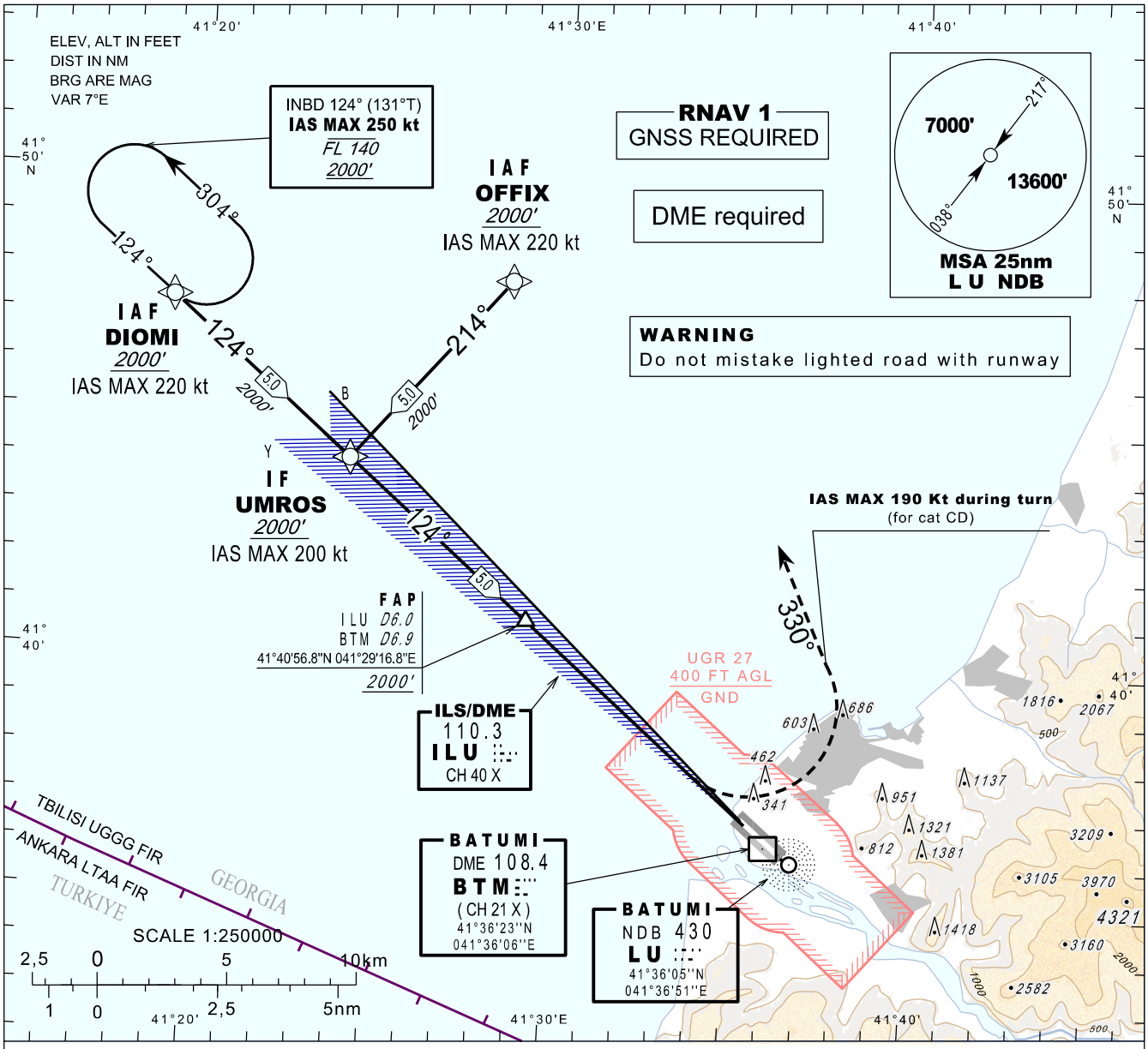
INSTRUMENT APPROACH CHART - ICAO

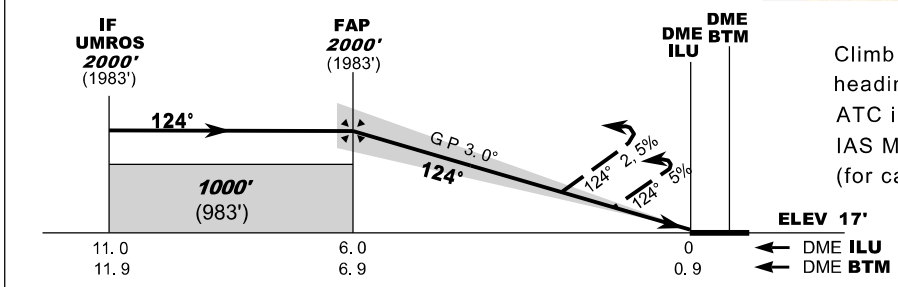
AERODROME ELEV 37'
HEIGHTS RELATED TO
THR RWY 12 - ELEV 17'

TRANSITION ALT 7000'

APP 124.425
TWR 118.600

BATUMI (UGSB)
ILSz
RWY 12





MISSED APPROACH

Climb straight ahead. At **800'** turn left heading **330°** climbing to **3000'** and follow ATC instructions.
IAS MAX 190 KT until turn is completed (for cat CD).

Straight-in Approach				
Missed APCH climb gradient	OCA (H)			
	A	B	C	D
2.5%	**687** (670)		**787** (770)	
5.0%	**377** (360)	**487** (470)		

ILS RDH 51'

DME ILU NM	6	5	4	3	2	1
DME BTM NM	6.9	5.9	4.9	3.9	2.9	1.9
ALT (HGT) ft	**2010** (1993)	**1682** (1665)	**1355** (1338)	**1031** (1014)	**708** (691)	**387** (370)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 12 ILSz

DIOMI transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	DIOMI	-	41°47'29.0"N 041°19'10.0"E	-	-	-	+A2000	-220	RNAV1
TF	UMROS	-	41°44'12.9"N 041°24'13.5"E	124° (130.8°)	5.0	-	+A2000	-200	RNAV1

OFFIX transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	OFFIX	-	41°48'00.0"N 041°28'35.0"E	-	-	-	+A2000	-220	RNAV1
TF	UMROS	-	41°44'12.9"N 041°24'13.5"E	214° (220.8°)	5.0	-	+A2000	-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
DIOMI	124° (131.0°)	1.0	L	A2000	FL140	250	-7°	RNAV1

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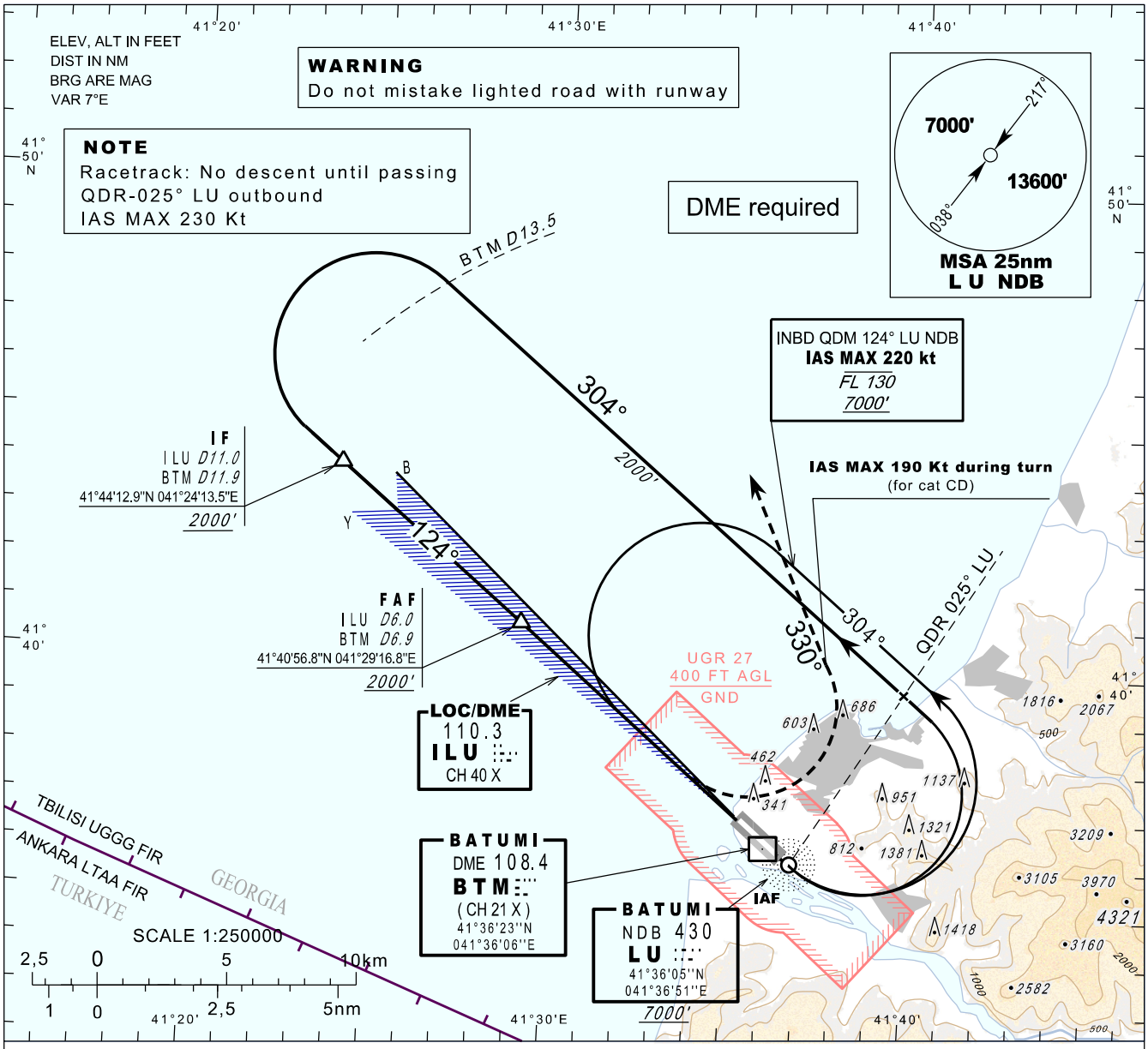
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 37'
HEIGHTS RELATED TO
THR RWY 12 - ELEV 17'

TRANSITION ALT 7000'

APP 124.425
TWR 118.600

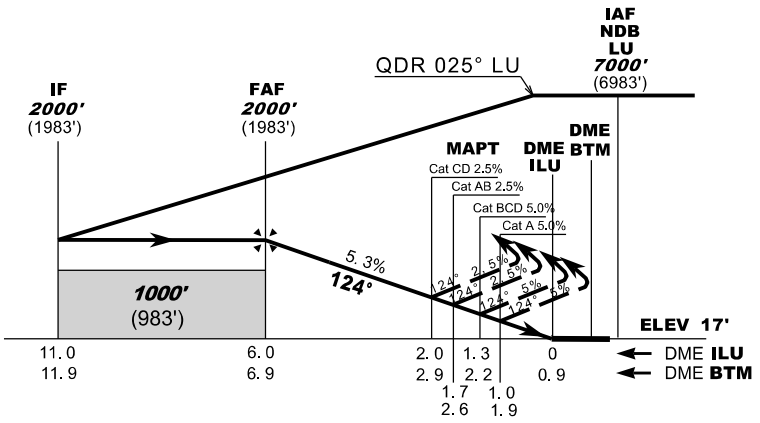
BATUMI (UGSB)
LOCy
RWY 12



MISSED APPROACH

Climb straight ahead. At **800'** turn left heading **330°** climbing to **3000'** and follow ATC instructions.
IAS MAX 190 KT until turn is completed (for cat CD).

Timing is not authorised for defining the MAPT



Straight-in Approach				
Missed APCH climb gradient	OCA (H)			
	A	B	C	D
2.5%	**630** (610)		**750** (730)	
5.0%	**400** (380)	**500** (480)		

DME ILU NM	6	5	4	3	2	1
DME BTM NM	6.9	5.9	4.9	3.9	2.9	1.9
ALT (HGT) ft	**2000** (1983)	**1678** (1661)	**1355** (1338)	**1033** (1016)	**711** (694)	**389** (372)

Changes: Chart reissued

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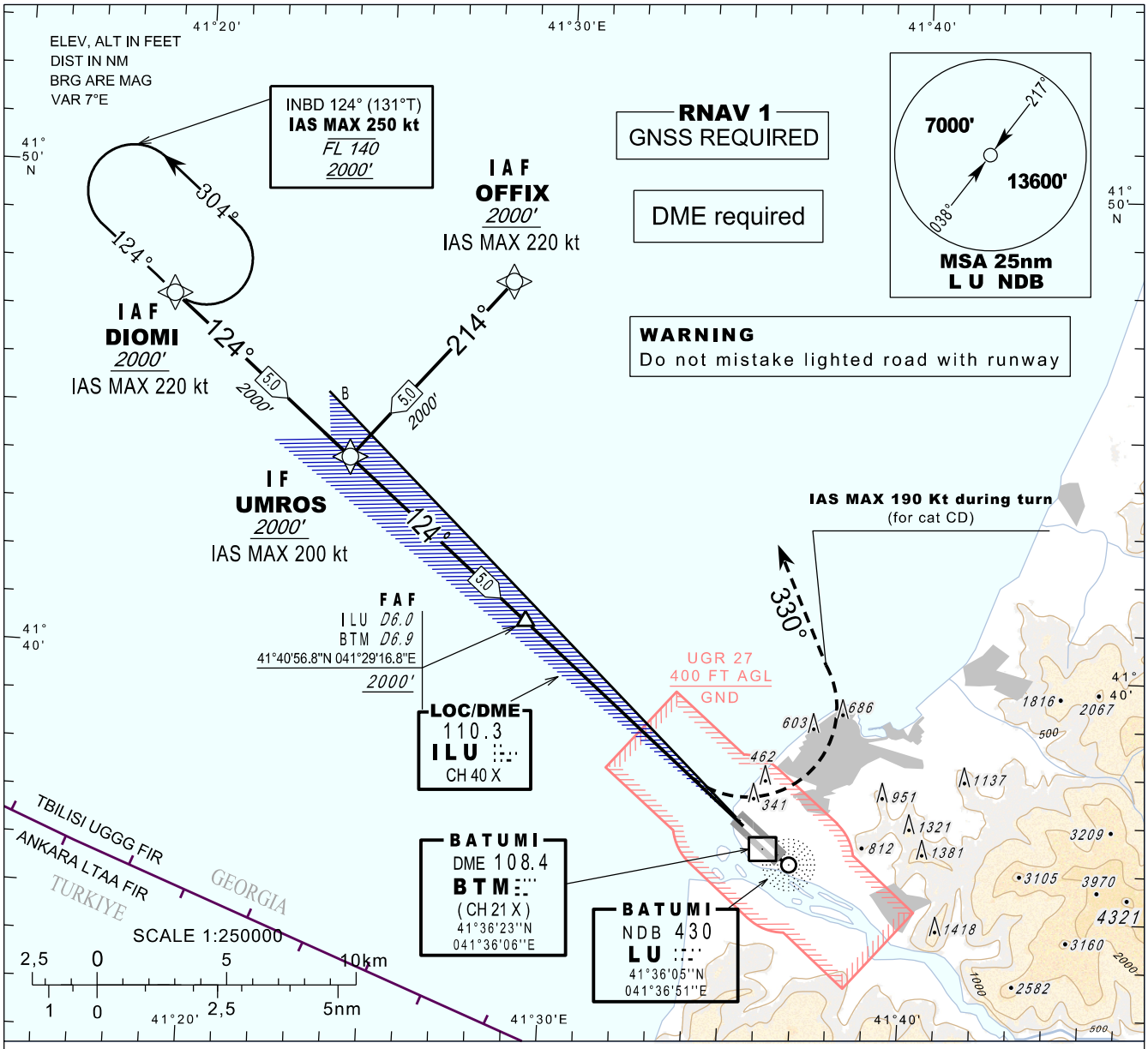
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 37'
HEIGHTS RELATED TO
THR RWY 12 - ELEV 17'

TRANSITION ALT 7000'

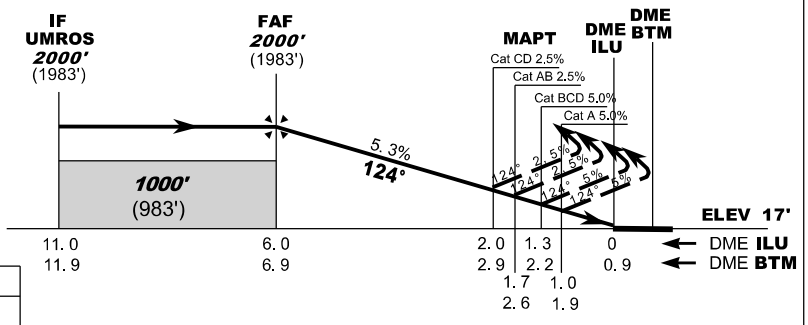
APP 124.425
TWR 118.600

BATUMI (UGSB)
LOCz
RWY 12



MISSED APPROACH

Climb straight ahead. At **800'** turn left heading **330°** climbing to **3000'** and follow ATC instructions.
IAS MAX 190 KT until turn is completed (for cat CD).



Straight-in Approach				
Missed APCH climb gradient	OCA (H)			
	A	B	C	D
2.5%	**630** (610)		**750** (730)	
5.0%	**400** (380)	**500** (480)		

Timing is not authorised for defining the MAPT

DME ILU NM	6	5	4	3	2	1
DME BTM NM	6.9	5.9	4.9	3.9	2.9	1.9
ALT (HGT) ft	**2000** (1983)	**1678** (1661)	**1355** (1338)	**1033** (1016)	**711** (694)	**389** (372)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 12 LOCz

DIOMI transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	DIOMI	-	41°47'29.0"N 041°19'10.0"E	-	-	-	+A2000	-220	RNAV1
TF	UMROS	-	41°44'12.9"N 041°24'13.5"E	124° (130.8°)	5.0	-	+A2000	-200	RNAV1

OFFIX transition									
Path Terminator	Waypoint			Course/Track °MAG(°True)	DIST NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
IF	OFFIX	-	41°48'00.0"N 041°28'35.0"E	-	-	-	+A2000	-220	RNAV1
TF	UMROS	-	41°44'12.9"N 041°24'13.5"E	214° (220.8°)	5.0	-	+A2000	-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
DIOMI	124° (131.0°)	1.0	L	A2000	FL140	250	-7°	RNAV1

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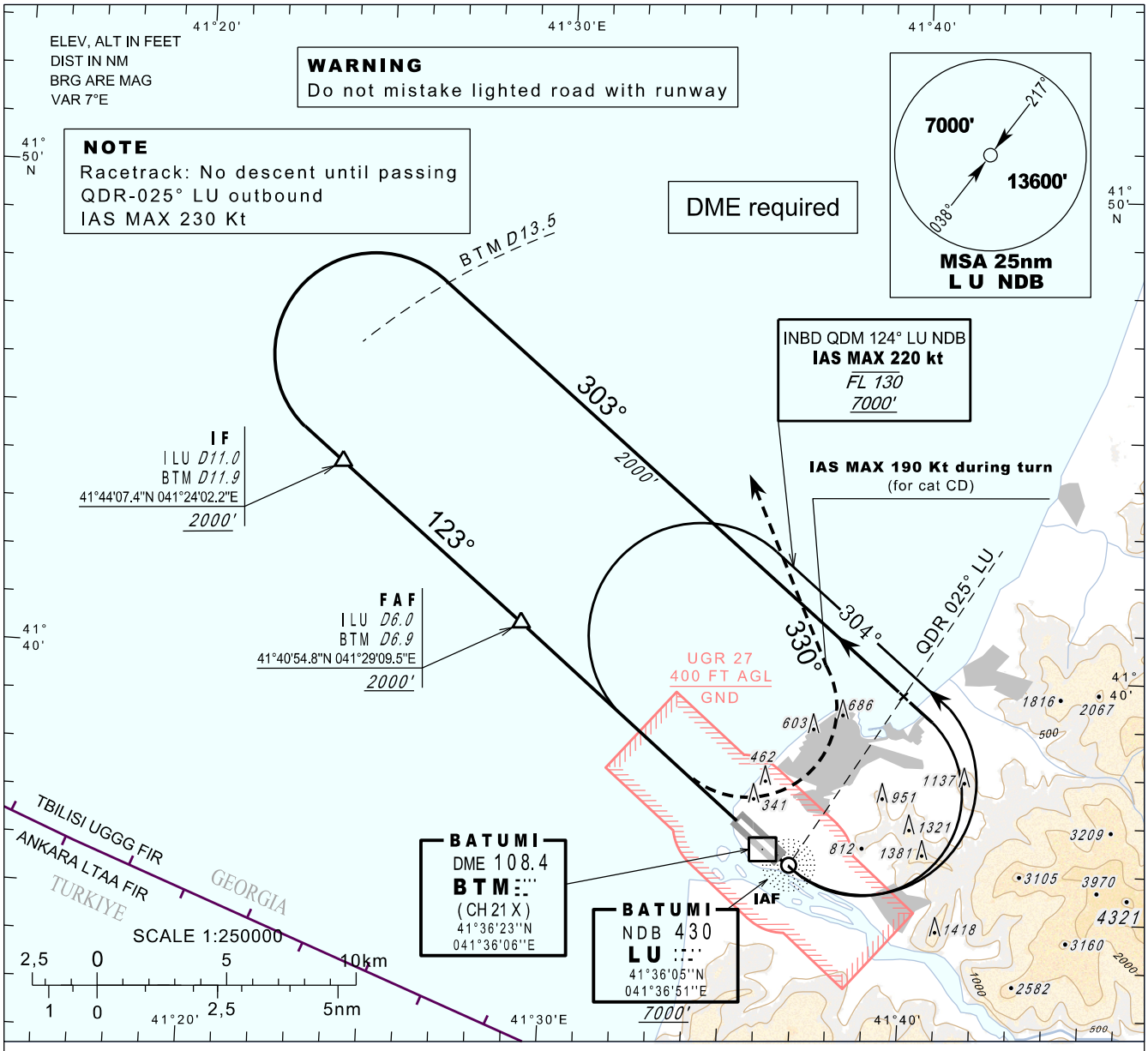
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 37'
HEIGHTS RELATED TO
THR RWY 12 - ELEV 17'

TRANSITION ALT 7000'

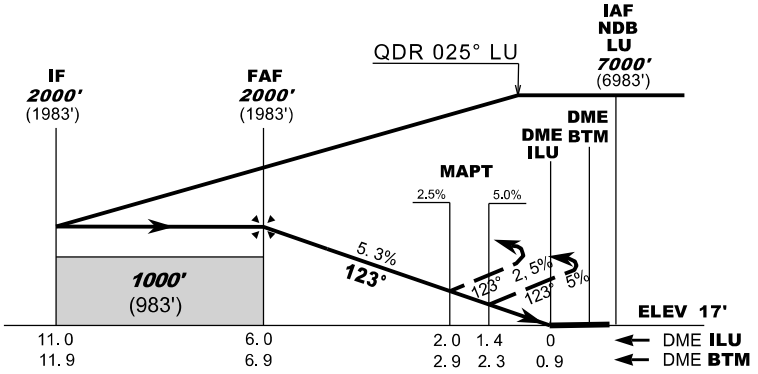
APP 124.425
TWR 118.600

BATUMI (UGSB)
NDB
RWY 12



MISSED APPROACH

Climb on QDM **123°** NDB LU. At **800'** turn left heading **330°** climbing to **3000'** and follow ATC instructions.
IAS MAX 190 KT until turn is completed (for cat CD).



Timing is not authorised for defining the MAPT

Straight-in Approach	
Missed APCH climb gradient	**OCA (H)**
	A B C D
2.5%	**750** (730)
5.0%	**540** (520)

DME BTM NM	7	6	5	4	3	2
DME ILU NM	6.1	5.1	4.1	3.1	2.1	1.1
ALT (HGT) ft	**2032** (2015)	**1712** (1695)	**1393** (1376)	**1073** (1056)	**753** (736)	**433** (416)

Changes: Chart reissued

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VISUAL APPROACH CHART-ICAO

BATUMI (UGSB)

AERODROME ELEV 37'

APP	124.425
TWR	118.600

VFR Reporting Points	Geographical Coordinates	Visual Reference
VERTE	41°42'24"N 041°42'23''E	North of Mtsvane Kontskhi
QOZON	41°33'35"N 041°41'17''E	Over the right bank of Chorokhi river west of Erge village
DOQQA	41°34'30"N 041°33'56''E	Over coastline west of Gonio Castle
ABUKO	41°39'55"N 041°40'55''E	Over the junction of Korilistskhali river with the black sea

ELEV, ALT IN FEET
DIST IN NM
BRG ARE MAG
VAR 7° E

41°40'
41°20'E
41° 40' N

UGR 7
2000 FT AMSL
GND

TMA BATUMI
TMA 1
C FL 195
1500 FT AMSL

BATUMI CTR 1 1500 FT AMSL

VERTE

TMA BATUMI
TMA 2
C FL 195
3500 FT AMSL

UGR 27
400 FT AGL
GND

MAX
1000'

ABUKO

BATUMI CTR 2 3500 FT AMSL

BATUMI
NDB 430
LU
41°36'05"N
041°36'51"E

DOQQA

TMA BATUMI
TMA 3
C FL 195
5500 FT AMSL

QOZON

TMA BATUMI
TMA 2
C FL 195
3500 FT AMSL

TBILISI UGGG FIR

ANKARA LTAA FIR

GEORGIA

TURKIYE

TMA BATUMI
TMA 4
C FL 195
FL 085

SCALE 1:250000

2,5 0 5 10km

1 0 2,5 5nm

Changes: Chart reissued

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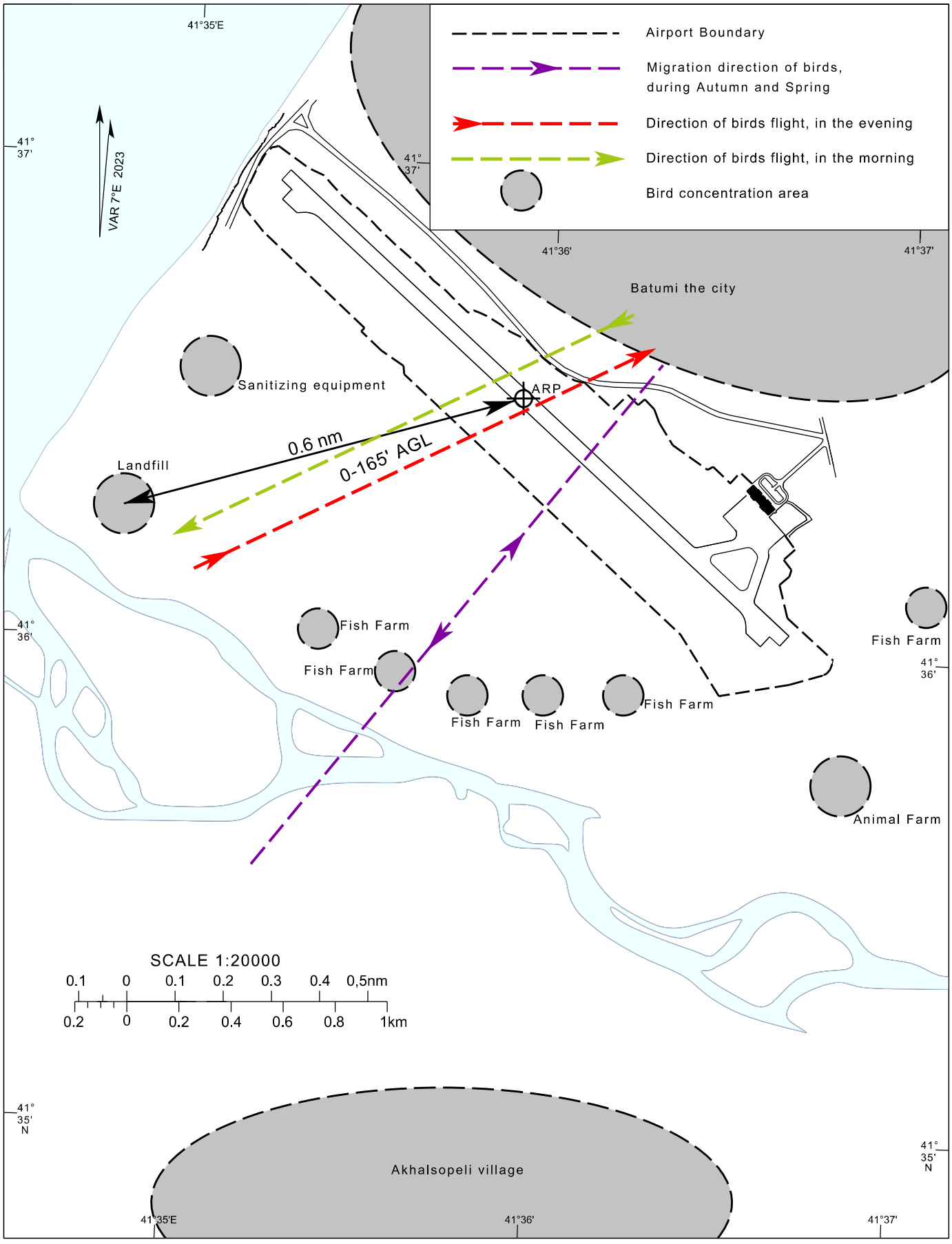
BIRD CONCENTRATIONS AND MOVEMENT (INDEX CHART)

BATUMI (UGSB)



Changes: Chart reissued

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UGTB

UGTB AD 2.1 Aerodrome location indicator and name

UGTB - TBILISI/TBILISI

UGTB AD 2.2 Aerodrome geographical and administrative data

1	**ARP coordinates and site at AD**	414009N 0445717E RWY 13L/31R centre line
2	**Direction and distance from (city)**	17 KM SE from Tbilisi
3	**Elevation / Reference temperature**	1578 FT / 25°C
4	**Geoid undulation at AD ELEV PSN**	46 FT
5	**MAG VAR / Annual change**	7°E (2020) / NIL
6	**Aerodrome operator**	TAV URBAN GEORGIA LLC
	Address	TBILISI/Tbilisi Airport 0158 TBILISI GEORGIA
	Telephone	+995322310265, +995322310267, +995322310241
	Telefax	+995322310322, +995322310268
	AFS	AFTN: UGGGBFXX SITA: TBSGMXH
	E-mail	tbs.info@tav.aero, tbsramp.tower@tav.aero
	Website	NIL
7	**Type of traffic permitted (IFR/VFR)**	IFR/VFR
8	**Remarks**	APRON FREQ 131.700 MHZ

UGTB AD 2.3 Operational hours

1	**AD Operator**	H24
2	**Customs and immigration**	H24
3	**Health and sanitation**	H24
4	**AIS Briefing Office**	H24
5	**ATS Reporting Office (ARO)**	H24
6	**MET Briefing Office**	H24
7	**ATS**	H24
8	**Fuelling**	H24
9	**Handling**	H24
10	**Security**	H24
11	**De-icing**	H24
12	**Remarks**	NIL

UGTB AD 2.4 Handling services and facilities

1	**Cargo-handling facilities**	All modern facilities handling weights up to 5 tons
2	**Fuel/oil types**	Fuel: LLC ATF Jet A-1, Kerosene TC-1/TS-1 LLC GEORGIAN AIRWAYS Kerosene TS-1 LLC GEORGIAN PETROLEUM Kerosene TS-1 LLC PETROCAS FUEL SERVICES GEORGIA Jet A-1, Kerosene TS-1 Oil: NIL
3	**Fuelling facilities / capacity**	LLC ATF Fuel Storage - 7000 m³; Refueling Trucks - 4 Trucks (45000 litres and 20000 litres); Max flow rate: 2750 litres/minute, 1320 litres/minute, 1150 litres/minute. Tel: (+995) 599144544 Email: info@atf.ge LLC GEORGIAN AIRWAYS Fuel Storage - 3200 m³; 2 Refueling Trucks (51000; 40000 litres), Max flow rate: 800 - 1000 litres/minute Tel: (+995 32) 248 55 98; (+995 577) 51 03 00; (+995 577) 93 93 95 Email: fuel@georgian-airways.com LLC GEORGIAN PETROLEUM Fuel Storage - 2800 m³; 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 PETROCAS FUEL SERVICES GEORGIA Fuel Storage - 5500 m³; 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	**De-icing facilities**	Yes
5	**Hangar space for visiting aircraft**	Can be requested from Airplane Technics LLC for Boeing 737 CL+NG, Airbus 318/319/320/321 and smaller aircraft
6	**Repair facilities for visiting aircraft**	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	**Remarks**	NIL

UGTB AD 2.5 Passenger facilities

1	**Hotels**	Available in the city
2	**Restaurants**	Restaurant, cafe at AD and in the city
3	**Transportation**	Buses, taxis from the AD

4	**Medical Facilities**	First medical aid at AD, hospitals in the city
5	**Bank and Post Office**	Banks at AD and in the city Post Office: H24 Exchange Office: H24
6	**Tourist Office**	Available in the city
7	**Remarks**	NIL

UGTB AD 2.6 Rescue and fire fighting services

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

UGTB AD 2.7 Seasonal availability - clearing

1	**Types of clearing equipment**	4 Snow Ploughs MOAZ-549 DE-224,1 Snow Plough MAZ-5434X3 BS4000-PBA-2R,1 Snow Plough Mercedes-Benz Arocs RSC-250 with blower unit, 1 Auger Wheel Scraper URAL DE-226, 1 Anti/De-ice Chemical Sprinkler/Spreader IVECO X-Way 360, 1 JCB, 1 Dump truck KAMAZ, 1 Tractor T-40, 1 Tractor Belarus MTZ892
2	**Clearance priorities**	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	**Remarks**	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	**Apron designation, surface and strength of aprons**	APRON 1 : Concrete and asphalt, PCN 53/R/B/W/U APRON 1 Aircraft stands 112, 113, 114, 115, 116: Concrete - PCN 62/R/A/W/T APRON 1 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

2	**Taxiway designation, width, surface and 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 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 TWY G section 353.4 M long from RWY 13R towards TWY B: 23 M, Concrete and asphalt, PCN 114/F/C/X/T TWY G section towards RWY 13L: 23 M, Concrete and asphalt, PCN 65/R/A/X/T
3	**Altimeter checkpoint location and elevation**	THR RWY 13R Elevation 1578 FT THR RWY 31L Elevation 1513 FT Apron 4 - Elevation: 1560 FT
4	**VOR checkpoints**	NIL
5	**INS checkpoints**	INS: See Aircraft Parking and Ground Movement Chart
6	**Remarks**	Aircraft stand 33 - Asphalt- PCN 12/F/B/X/T TWY F is closed

UGTB AD 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 aircraft stands**	Sign boards at all intersections with TWY and RWY and at all holding positions. Guide lines at aprons
2	**RWY and TWY markings and LGT**	RWY Marking: Designation, THR, TDZ, centre line, edge line, RWY end RWY Lighting: THR, TDZ (only 31L), centre line, edge line, RWY end TWY Marking: Holding points, centre line, edge line TWY Lighting: Centre line and edge (A, B, C, E, G), RWY guard lights (A, B, E, G)
3	**Stop bars and RWY guard lights**	NIL
4	**Other RWY protection measures**	NIL
5	**Remarks**	NIL

UGTB AD 2.10 Aerodrome obstacles

1 Obstacles in Area 2

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	**2**	**3**	**4**	**5**	**6**
UGTB01	Building	413933.1N 0445739.9E	1591/- FT	NIL	NIL
UGTB02	Building	414036.6N 0445618.9E	1614/- FT	NIL	NIL
UGTB03	Building	413906.8N 0445024.3E	2714/- FT	NIL	Church Shavnabada
UGTB04	Antenna	414533.8N 0445459.4E	3584/- FT	LGTD	Mast SSR
UGTB05	Antenna	413959.9N 0445656.2E	1716/- FT	LGTD	Mast ACR
UGTB06	Antenna	414602.6N 0445503.9E	3667/- FT	LGTD	Mast MSSR
UGTB07	Building	414126.8N 0445639.4E	1791/- FT	NIL	NIL
UGTB08	Building	414120.6N 0445755.5E	1834/- FT	NIL	NIL

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGTB09	Monument	414130.3N 0445709.9E	2044/- FT	NIL	NIL
UGTB10	Navaid	414013.7N 0445648.8E	1627/- FT	LGTD	Antenna DVOR/DME
UGTB11	Navaid	413933.1N 0445741.3E	1557/- FT	LGTD	Antenna GP 31L
UGTB12	Navaid	414030.4N 0445629.6E	1611/- FT	LGTD	Antenna GP 13R
UGTB13	Antenna	414144.8N 0444707.4E	3304/- FT	LGTD	Hill Mta Tsminda (antenna TV)
UGTB14	Antenna	413253.7N 0445714.0E	2550/- FT	NIL	Hill (mast)
UGTB42	Building	414116.0N 0445725.7E	1762/- FT	LGTD	NIL
UGTB43	Building	414008.2N 0445650.2E	1584/- FT	MARKED / LGTD	NIL
UGTB44	Navaid	414246.3N 0445344.5E	1942/- FT	MARKED / LGTD	Antenna L 13R
UGTB45	Building	414202.5N 0445446.3E	1876/- FT	NIL	NIL
UGTB46	Building	414200.9N 0445446.3E	1876/- FT	NIL	NIL
UGTB47	Building	414159.3N 0445446.3E	1876/- FT	NIL	NIL

2 Obstacles in Area 3

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGTB15	Building	414029.9N 0445725.7E	1666.0/- FT	LGTD	NIL
UGTB16	Building	414026.7N 0445730.2E	1697.5/- FT	LGTD	NIL
UGTB17	Pole	414028.5N 0445725.7E	1670.6/- FT	LGTD	Light mast
UGTB18	Pole	414023.7N 0445732.7E	1660.8/- FT	LGTD	Light mast
UGTB19	Pole	414022.4N 0445734.4E	1642.4/- FT	LGTD	Light mast
UGTB20	Pole	414019.1N 0445739.2E	1645.0/- FT	LGTD	Light mast
UGTB21	Pole	414006.6N 0445754.8E	1608.6/- FT	LGTD	Light mast
UGTB22	Pole	414002.7N 0445755.1E	1602.4/- FT	LGTD	Light mast
UGTB23	Pole	413959.1N 0445747.2E	1623.7/- FT	LGTD	Light mast
UGTB24	Pole	413959.9N 0445746.2E	1598.4/- FT	LGTD	Light mast
UGTB25	Pole	414001.0N 0445744.8E	1599.4/- FT	LGTD	Light mast
UGTB26	Pole	414002.0N 0445743.2E	1625.6/- FT	LGTD	Light mast
UGTB27	Pole	414003.1N 0445741.8E	1600.7/- FT	LGTD	Light mast

Designator	Type	Coordinates	ELEV/HGT	Markings / LGT type, colour	Remarks
1	2	3	4	5	6
UGTB28	Pole	414004.1N 0445740.3E	1601.7/- FT	LGTD	Light mast
UGTB29	Pole	414004.7N 0445739.4E	1628.3/- FT	LGTD	Light mast
UGTB30	Pole	414015.9N 0445738.7E	1641.1/- FT	LGTD	Light mast
UGTB31	Pole	414014.9N 0445740.2E	1641.4/- FT	LGTD	Light mast
UGTB32	Pole	414013.9N 0445741.6E	1641.4/- FT	LGTD	Light mast
UGTB33	Pole	414012.9N 0445743.1E	1641.4/- FT	LGTD	Light mast
UGTB34	Pole	414011.8N 0445744.5E	1641.1/- FT	LGTD	Light mast
UGTB35	Pole	414005.8N 0445737.6E	1632.2/- FT	LGTD	Light mast
UGTB36	Pole	414006.9N 0445736.1E	1632.2/- FT	LGTD	Light mast
UGTB37	Pole	414007.9N 0445734.8E	1632.2/- FT	LGTD	Light mast
UGTB38	Pole	414008.8N 0445733.5E	1632.2/- FT	LGTD	Light mast
UGTB39	Pole	414009.7N 0445732.1E	1632.2/- FT	LGTD	Light mast
UGTB40	Pole	414010.7N 0445730.8E	1632.2/- FT	LGTD	Light mast
UGTB41	Building	414033.2N 0445717.4E	1692.9/- FT	LGTD	NIL

UGTB AD 2.11 Meteorological information provided

1	**Associated MET Office**	TBILISI
2	**Hours of service**	H24
	MET Office outside hours	-
3	**Office responsible for TAF preparation**	TBILISI
	Periods of validity	24 HR
4	**Trend forecast**	TREND
	Interval of issuance	0.5 HR
5	**Briefing/consultation provided**	MET staff consultation
6	**Flight documentation**	Charts, tabular form, abbreviated plain language text
	Language(s) used	English
7	**Charts and other information available for briefing or consultation**	S, U85, U70, U50, U30, U20, P85, P70, P50, P40, P30, P20, SWH, SWM, T
8	**Supplementary equipment available for providing information**	SADIS
9	**ATS units provided with information**	Tbilisi TWR, APP, ACC, FIS
10	**Additional information (limitation of service, etc.)**	NIL

UGTB AD 2.12 Runway physical characteristics

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

RWY Designations	Slope of RWY - SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)
1	7	8	9	10	11
13L	NIL	NIL	NIL	NIL	NIL
31R	NIL	NIL	NIL		NIL
13R	-0.70%	NIL	NIL	3120 x 300	90 x 90
31L	0.70%	NIL	200 x 150		160 x 100

RWY Designations	Location and Description of Arresting System	OFZ	Remarks
1	12	13	14
13L	NIL	NIL	RWY is closed for landings and take-offs
31R	NIL	NIL	RWY is closed for landings and take-offs
13R	NIL	NIL	RWY shoulders width 7.5 M
31L	NIL	Yes	RWY shoulders width 7.5 M

UGTB AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
13L	NIL	NIL	NIL	NIL	NIL
31R	NIL	NIL	NIL	NIL	NIL
13R	3000	3000	3000	3000	NIL
	2500	2500	2500	NIL	FROM TWY B
	1600	1600	1600	NIL	FROM TWY A
31L	3000	3200	3000	3000	NIL
	1400	1600	1400	NIL	FROM TWY A

UGTB AD 2.14 Approach and runway lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT, colour, WBAR	VASIS (MEHT) PAPI	TDZ LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST
1	2	3	4	5	6
13L	NIL	NIL	NIL	NIL	NIL
31R	NIL	NIL	NIL	NIL	NIL
13R	ALSF-1 900 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
31L	PALSF-II 870 M LIH	GREEN	PAPI Both/3.0° (51 FT)	900 M	3000 M 15 M White FM 2100 M - 2700 M W/R FM 2700 M Red LIH

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
13L	NIL	NIL	NIL	NIL
31R	NIL	NIL	NIL	NIL
13R	3000 M 60 M White FM 2400 M Yellow LIH	RED	NIL	Flashing LGT 900 M available

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
31L	3000 M 60 M White FM 2400 M Yellow LIH	RED	NIL	Flashing LGT 570 M available

UGTB AD 2.15 Other lighting and secondary power supply

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

UGTB AD 2.16 Helicopter landing area

1	**Coordinates TLOF or THR of FATO** **Geoid undulation**	NIL
2	**TLOF and/or FATO elevation M/FT**	NIL
3	**TLOF and FATO area dimensions, surface, strength, marking**	NIL
4	**True BRG of FATO**	NIL
5	**Declared distance available**	NIL
6	**APP and FATO lighting**	NIL
7	**Remarks**	NIL

UGTB AD 2.17 Air traffic services airspace

1	**Designation and lateral limits**	TBILISI CTR 414513N 0444409E - 415002N 0445056E - 414559N 0450149E - 414109N 0450755E - 413249N 0451242E - 412801N 0450555E - 413000N 0445740E - 413651N 0444901E - 414513N 0444409E
2	**Vertical limits**	GND to 4500 FT AMSL
3	**Airspace classification**	C
4	**ATS unit call sign** **Language(s)**	TBILISI TOWER EN
5	**Transition altitude**	11000 FT AMSL
6	**Hours of applicability**	H24
7	**Remarks**	NIL

UGTB AD 2.18 Air traffic services communication facilities

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

UGTB AD 2.19 Radio navigation and landing aids

Type of aids, MAG VAR, Type of supported OPS for ILS/MLS/GLS, basic GNSS and SBAS, Classification for ILS, Facility Classification and approach facility designation(s) for GBAS, VOR/ILS/MLS station declination	ID	Frequency, Channel number, Service provider	Hours of operation	Position of transmitting antenna coordinates	ELEV of DME transmitting antenna, GBAS reference point ELEV and ellipsoid HGT, SBAS LTP/FTP ellipsoid HGT	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
NDB (7°E 2020)	DF	520 KHZ	H24	415500.0N 0443356.0E	Not applicable	NIL	NIL
DVOR/DME (7°E 2020)	TBS	113.700 MHZ CH 84X	H24	414013.7N 0445648.8E	1700 FT	NIL	Coverage 108 NM.

Type of aids, MAG VAR, Type of supported OPS for ILS/MLS/GLS, basic GNSS and SBAS, Classification for ILS, Facility Classification and approach facility designation(s) for GBAS, VOR/ILS/MLS station declination	ID	Frequency, Channel number, Service provider	Hours of operation	Position of transmitting antenna coordinates	ELEV of DME transmitting antenna, GBAS reference point ELEV and ellipsoid HGT, SBAS LTP/FTP ellipsoid HGT	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS RWY 13R (7°E 2020) CLASS NIL/NIL/NIL							
LOC 13R	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	3.5° GP, 50 FT Co-located with DME 13R
DME 13R	IVP	CH 40X	H24	414030.4N 0445629.6E	1600 FT	NIL	Coverage 25 NM. Omnidirectional. Co-located with GP 13R
OM 13R	Dashes	75.000 MHZ	H24	414247.0N 0445344.2E	Not applicable	NIL	NIL
MM 13R	Dot-Dashes	75.000 MHZ	H24	414058.4N 0445601.3E	Not applicable	NIL	NIL
ILS RWY 31L CAT I (7°E 2020) CLASS I/NIL/NIL							
LOC 31L	INA	108.900 MHZ	H24	414045.4N 0445617.7E	Not applicable	NIL	NIL
GP 31L	—	329.300 MHZ	H24	413933.1N 0445741.3E	Not applicable	NIL	3.0° GP, 54 FT Co-located with DME 31L
DME 31L	INA	CH 26X	H24	413933.2N 0445741.2E	1600 FT	NIL	Coverage 25 NM. Omnidirectional. Co-located with GP31L
OM 31L	Dashes	75.000 MHZ	H24	413757.7N 0445949.5E	Not applicable	NIL	NIL
MM 31L	Dot-Dashes	75.000 MHZ	H24	413902.0N 0445828.4E	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 slop 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, 16B, 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 then 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 only aircraft with code "C" or lower are allowed to make 180 degrees turn.

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 are allowed only from/to RWY 13R/31L.

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

Parking stand 33 is allocated for helicopters with the largest overall dimension (D) not exceeding 15.72 M.

Taxiing to/from stand 33 is prohibited during nighttime and/or runway visual range less than 400 M.

After entering stand 33 helicopter shall perform 180 degrees turn in a hover due to park in a correct position.

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 stands 5C, 7C is allowed at a low thrust.

TWY A is used for manoeuvering 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 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)”.

Published speed restrictions on STARs and instrument approach procedures shall always be complied with. Controllers are not allowed to cancel published speed restrictions.

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.

1.4 FPL route options for arrivals and departures

Arrivals to UGTB:

STAR First Point	Available Routings	Remarks

GIMUR *	...IDLER DCT GIMUR	-
	...BANUT DCT GIMUR	FRA (I) points may also be used between BANUT and GIMUR
	...GUSLI DCT GIMUR	FRA (I) points may also be used between GUSLI and GIMUR
	...VIZRO DCT GIMUR	Only available for departures from local airport
	...FIBBE DCT GIMUR	Only available for departures from local airport
	...BT DCT GIMUR	Any FRA DCT is available before BT when cruising level is below FL150
LAGAS *	...ROLIN DCT LAGAS	-
	...SARPI DCT ODILI DCT TETRO DCT LAGAS	-
	...NOLGA DCT LAGAS	-
LAMUS *	...KUFAN DCT LAMUS	-
	...ADEKI DCT LAMUS	-
TISOT	As available via Yerevan FIR	-
Direct ARR Point	**Available Routings**	**Remarks**
TAVRO	As available via Yerevan FIR	Only available for traffic via REBLO
TBS *	...H5 TBS	Only available for departures from local airports
** G, M and X types of flight are not restricted by the routing options described in the table.*		

Note: Cleared levels assigned by ATC during descent on DCT segments will be based on relevant ATC Surveillance Minimum Altitude Charts.

Departures from UGTB:

SID Last Point	Available Routings	Remarks
DF *	DF DCT BARUS DCT BANUT...	FRA (I) point KADZE may be used between BARUS and BANUT to avoid UGP 230 when cruising level is below FL290
	DF DCT BARUS DCT ROLIN...	-
	DF DCT BARUS DCT ODILI DCT SARPI...	-
	DF DCT BT...	Any FRA DCT is available from BT when cruising level is below FL160
	DF H5...	Only available for arrivals to local airports
DISKA	As available via Baku FIR	-
KUFAN	As available via Rostov FIR	-
LAPTO	As available via Rostov FIR	-
PALLE *	PALLE DCT BARUS DCT BANUT...	FRA (I) point KADZE may be used between BARUS and BANUT to avoid UGP 230 when cruising level is below FL290
	PALLE DCT BARUS DCT ROLIN...	-
	PALLE DCT BARUS DCT ODILI DCT SARPI...	-
	PALLE DCT TETRO DCT ODILI...	Only available for arrivals to UGSB
	PALLE DCT NOLGA...	-
TAVRO	As available via Yerevan FIR	-
ZAGOT *	ZAGOT DCT BARUS DCT BANUT...	FRA (I) point KADZE may be used between BARUS and BANUT to avoid UGP 230 when cruising level is below FL290
	ZAGOT DCT BARUS DCT ROLIN...	-
	ZAGOT DCT BARUS DCT ODILI DCT SARPI...	-
	ZAGOT DCT TETRO DCT ODILI...	Only available for arrivals to UGSB
	ZAGOT DCT NOLGA...	-
Direct DEP Point	**Available Routings**	**Remarks**
TBS	TBS...	Only available for arrivals to UGTB

** G, M and X types of flight are not restricted by the routing options described in the table.*

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 between Tbilisi APP and Tbilisi TWR is conducted over established entry/exit points of CTR as 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 intending 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
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

See also the Visual Approach Chart AD 2.UGTB-VAC.

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

Chart Name	Page
Aerodrome chart - ICAO	AD 2.UGTB-ADC
Aircraft parking and ground movement chart - ICAO	AD 2.UGTB-APGMC
Aerodrome obstacle chart - ICAO Type A	AD 2.UGTB-AOC-A
Area chart - ICAO	AD 2.UGTB-ARC
Standard Departure Chart - Instrument - ICAO - RNAV RWY 13R	AD 2.UGTB-SID-RNAV-13R-1
Standard Departure Routes and Coding - Instrument - RNAV RWY 13R (Part 1)	AD 2.UGTB-SID-RNAV-13R-3
Standard Departure Routes and Coding - Instrument - RNAV RWY 13R (Part 2)	AD 2.UGTB-SID-RNAV-13R-5
Standard Departure Chart - Instrument - ICAO - RNAV RWY 31L	AD 2.UGTB-SID-RNAV-31L-1
Standard Departure Routes and Coding - Instrument - RNAV RWY 31L (Part 1)	AD 2.UGTB-SID-RNAV-31L-3
Standard Departure Routes and Coding - Instrument - RNAV RWY 31L (Part 2)	AD 2.UGTB-SID-RNAV-31L-5
Standard Departure Chart - Instrument - ICAO - RNAV RWY 31L (TAVRO)	AD 2.UGTB-SID-RNAV-31L-T-1
Standard Departure Routes and Coding - Instrument - RNAV RWY 31L (TAVRO)	AD 2.UGTB-SID-RNAV-31L-T-3
Standard Departure Chart - Instrument - ICAO RWY 13R/31L	AD 2.UGTB-SID-13R/31L-1
Standard Departure Routes - Instrument RWY 13R/31L	AD 2.UGTB-SID-13R/31L-3
Standard Arrival Chart - Instrument - ICAO - RNAV RWY 13R	AD 2.UGTB-STAR-RNAV-13R-1
Standard Arrival Routes - Instrument - RNAV RWY 13R	AD 2.UGTB-STAR-RNAV-13R-3
Standard Arrival Chart - Instrument - ICAO - RNAV RWY 31L	AD 2.UGTB-STAR-RNAV-31L-1
Standard Arrival Routes - Instrument - RNAV RWY 31L	AD 2.UGTB-STAR-RNAV-31L-3
ATC Surveillance Minimum Altitude Chart - ICAO	AD 2.UGTB-ATCSMAC-1
ATC Surveillance Minimum Altitude sector's coordinates	AD 2.UGTB-ATCSMAC-3
Instrument approach chart - ICAO RWY 13R (ILSy)	AD 2.UGTB-IAC-13R-ILSy
Instrument Approach Chart - ICAO RWY 13R (ILSz)	AD 2.UGTB-IAC-13R-ILSz-1
Instrument Approach Coding RWY 13R (ILSz)	AD 2.UGTB-IAC-13R-ILSz-3
Instrument Approach Chart - ICAO RWY 13R (LOCy)	AD 2.UGTB-IAC-13R-LOCy
* the chart contains a text page	

Chart Name	Page
Instrument Approach Chart - ICAO RWY 13R (LOCz)	AD 2.UGTB-IAC-13R-LOCz-1
Instrument Approach Coding RWY 13R (LOCz)	AD 2.UGTB-IAC-13R-LOCz-3
Instrument Approach Chart - ICAO RWY 31L (ILSy)	AD 2.UGTB-IAC-31L-ILSy
Instrument Approach Chart - ICAO RWY 31L (ILSz)	AD 2.UGTB-IAC-31L-ILSz-1
Instrument Approach Coding RWY 31L (ILSz)	AD 2.UGTB-IAC-31L-ILSz-3
Instrument Approach Chart - ICAO RWY 31L (LOCy)	AD 2.UGTB-IAC-31L-LOCy
Instrument Approach Chart - ICAO RWY 31L (LOCz)	AD 2.UGTB-IAC-31L-LOCz-1
Instrument Approach Coding RWY 31L (LOCz)	AD 2.UGTB-IAC-31L-LOCz-3
Instrument Approach Chart - ICAO RWY 13R (VOR)	AD 2.UGTB-IAC-13R-VOR
Instrument Approach Chart - ICAO RWY 31L (VOR)	AD 2.UGTB-IAC-31L-VOR
Visual Approach Chart - ICAO	AD 2.UGTB-VAC
Bird Concentrations and Movement - Index chart	AD 2.UGTB-BIRD
* the chart contains a text page	

UGTB AD 2.25 Visual segment surface (VSS) penetration

To be developed.

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AERODROME CHART - ICAO

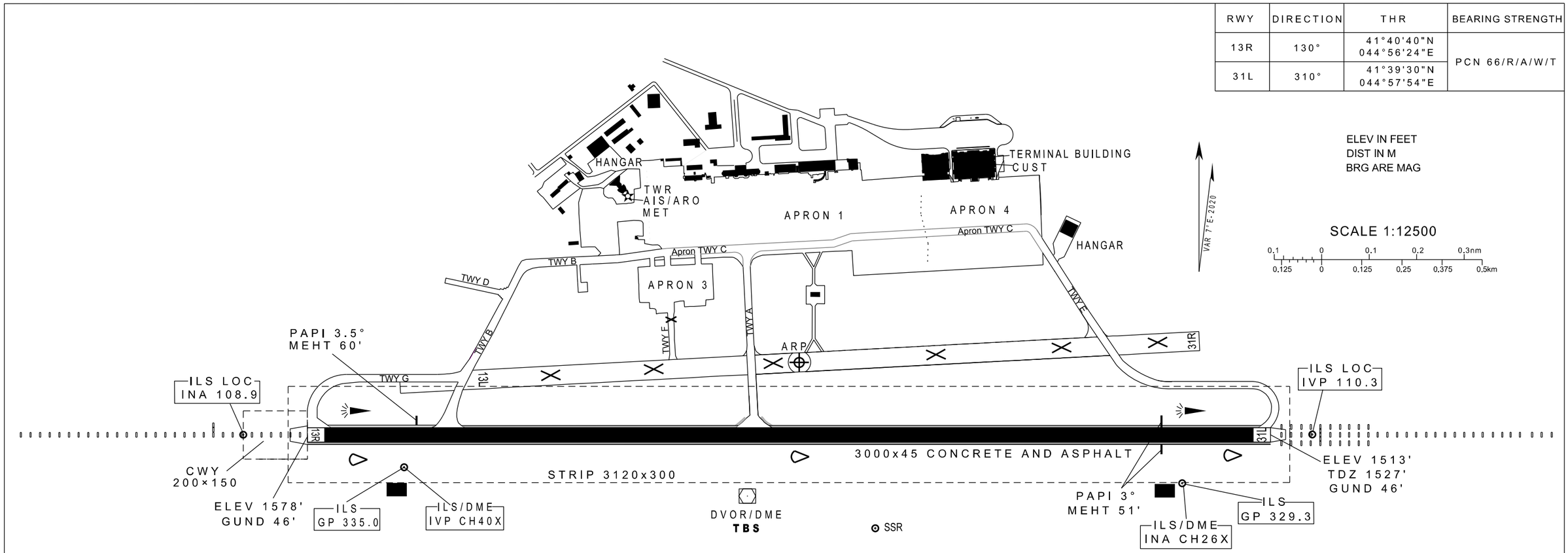
41° 40' 09" N
044° 57' 17" E

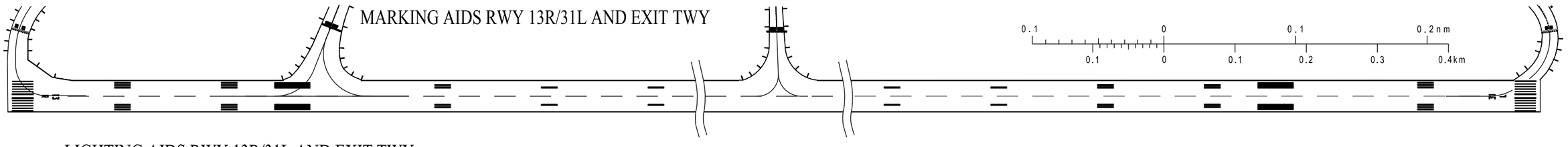
ELEV 1578'

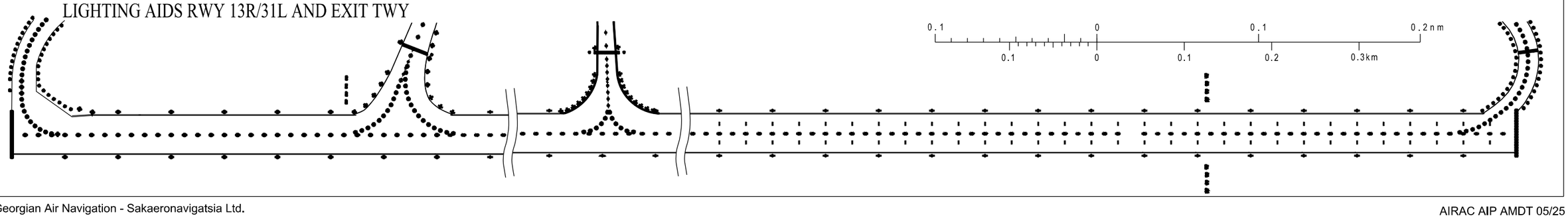
TWR	119.000 (Primary)
	128.000 (Secondary)
APRON	131.700

TBILISI /Tbilisi (UGTB)

RWY	DIRECTION	THR	BEARING STRENGTH
13R	130°	41°40'40"N 044°56'24"E	PCN 66/R/A/W/T
31L	310°	41°39'30"N 044°57'54"E	







Changes: Chart reissued

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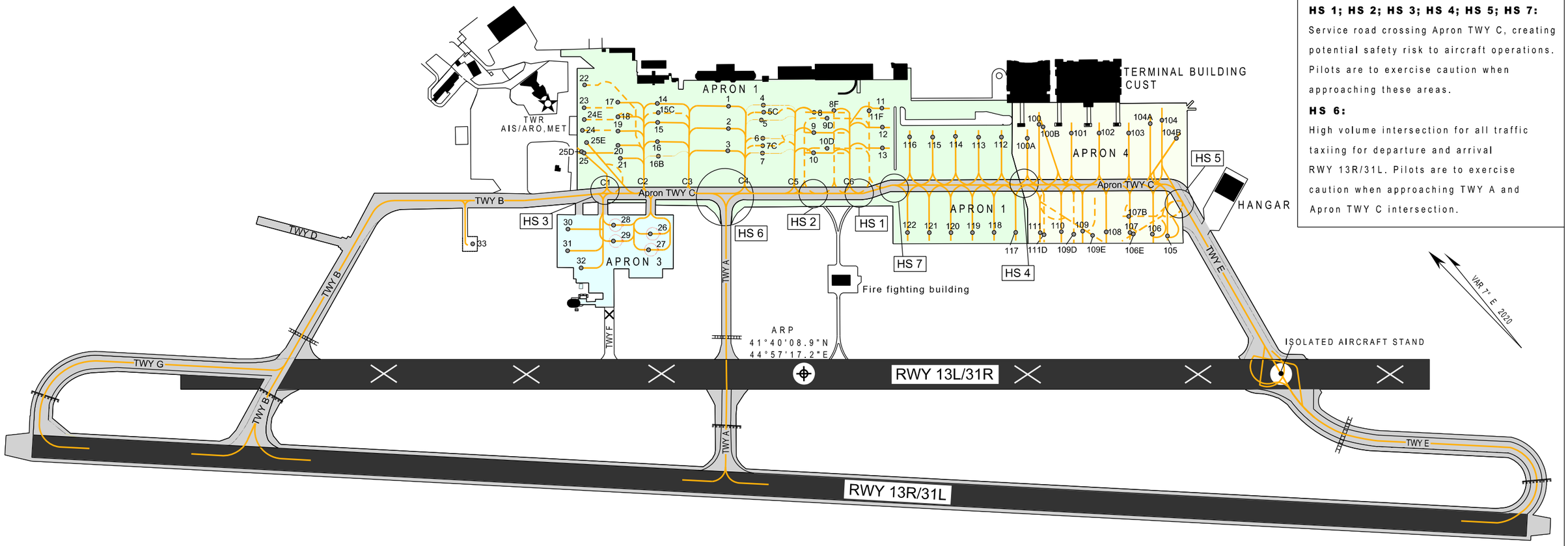
AIRCRAFT PARKING AND GROUND MOVEMENT CHART - ICAO

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.

SCALE 1:8000

0.1 0 0.1 0.2nm
0.08 0 0.08 0.16 0.24 0.32 0.4 0.48km

INS COORDINATES FOR AIRCRAFT STANDS

POS.	COORDINATES	POS.	COORDINATES	POS.	COORDINATES	POS.	COORDINATES
1	41°40'24.99"N 044°57'28.44"E	14	41°40'28.32"N 044°57'24.08"E	28	41°40'24.54"N 044°57'14.11"E	107B	41°40'01.87"N 044°57'47.05"E
2	41°40'23.95"N 044°57'27.10"E	15	41°40'27.43"N 044°57'22.99"E	29	41°40'23.80"N 044°57'13.15"E	108	41°40'02.10"N 044°57'44.58"E
3	41°40'22.91"N 044°57'25.75"E	15C	41°40'27.82"N 044°57'23.61"E	30	41°40'26.39"N 044°57'11.01"E	109	41°40'03.15"N 044°57'43.09"E
4	41°40'23.49"N 044°57'30.70"E	16	41°40'26.51"N 044°57'21.86"E	31	41°40'25.39"N 044°57'09.70"E	109D	41°40'03.45"N 044°57'42.41"E
5	41°40'22.80"N 044°57'29.79"E	16B	41°40'25.85"N 044°57'20.99"E	32	41°40'23.98"N 044°57'09.52"E	109E	41°40'02.57"N 044°57'43.63"E
5C	41°40'23.14"N 044°57'30.24"E	17	41°40'30.12"N 044°57'21.70"E	33	41°40'30.28"N 044°57'03.93"E	110	41°40'04.15"N 044°57'41.81"E
6	41°40'21.96"N 044°57'28.68"E	18	41°40'29.45"N 044°57'20.85"E	100	41°40'10.24"N 044°57'46.86"E	111	41°40'05.10"N 044°57'40.47"E
7	41°40'21.27"N 044°57'27.78"E	19	41°40'28.78"N 044°57'20.01"E	100A	41°40'10.17"N 044°57'45.38"E	111D	41°40'04.78"N 044°57'40.54"E
7C	41°40'21.61"N 044°57'28.23"E	20	41°40'28.11"N 044°57'19.16"E	100B	41°40'09.94"N 044°57'46.97"E	112	41°40'11.31"N 044°57'43.72"E
8	41°40'20.88"N 044°57'33.45"E	21	41°40'27.39"N 044°57'18.53"E	101	41°40'08.41"N 044°57'48.42"E	113	41°40'12.33"N 044°57'42.27"E
8F	41°40'19.85"N 044°57'33.89"E	22	41°40'32.47"N 044°57'20.60"E	102	41°40'07.17"N 044°57'50.16"E	114	41°40'13.35"N 044°57'40.83"E
9	41°40'19.94"N 044°57'32.22"E	23	41°40'31.40"N 044°57'19.25"E	103	41°40'05.84"N 044°57'52.03"E	115	41°40'14.38"N 044°57'39.38"E
9D	41°40'20.02"N 044°57'33.91"E	24	41°40'30.43"N 044°57'17.76"E	104	41°40'04.94"N 044°57'54.84"E	116	41°40'15.40"N 044°57'37.93"E
10	41°40'19.00"N 044°57'30.99"E	24E	41°40'30.82"N 044°57'18.58"E	104A	41°40'05.31"N 044°57'53.91"E	117	41°40'06.13"N 044°57'38.85"E
10D	41°40'18.61"N 044°57'32.13"E	25	41°40'29.37"N 044°57'16.40"E	104B	41°40'03.45"N 044°57'54.66"E	118	41°40'07.09"N 044°57'37.49"E
11	41°40'18.01"N 044°57'37.97"E	25D	41°40'29.36"N 044°57'16.50"E	105	41°39'59.31"N 044°57'48.36"E	119	41°40'08.06"N 044°57'36.13"E
11F	41°40'18.05"N 044°57'36.44"E	25E	41°40'29.64"N 044°57'17.35"E	106	41°40'00.00"N 044°57'47.53"E	120	41°40'09.02"N 044°57'34.77"E
12	41°40'17.11"N 044°57'36.84"E	26	41°40'22.49"N 044°57'15.90"E	106E	41°40'00.88"N 044°57'46.16"E	121	41°40'09.99"N 044°57'33.41"E
13	41°40'16.13"N 044°57'35.60"E	27	41°40'21.81"N 044°57'14.84"E	107	41°40'01.03"N 044°57'46.06"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

Aircraft Stand 33 - Asphalt - PCN 12/F/B/X/T

APRON 4 - Concrete - PCN 72/R/A/W/T

LEGEND

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
TWY G :23 M Concrete and asphalt PCN 114/F/C/X/T PCN 65/R/A/X/T

Changes: Chart reissued

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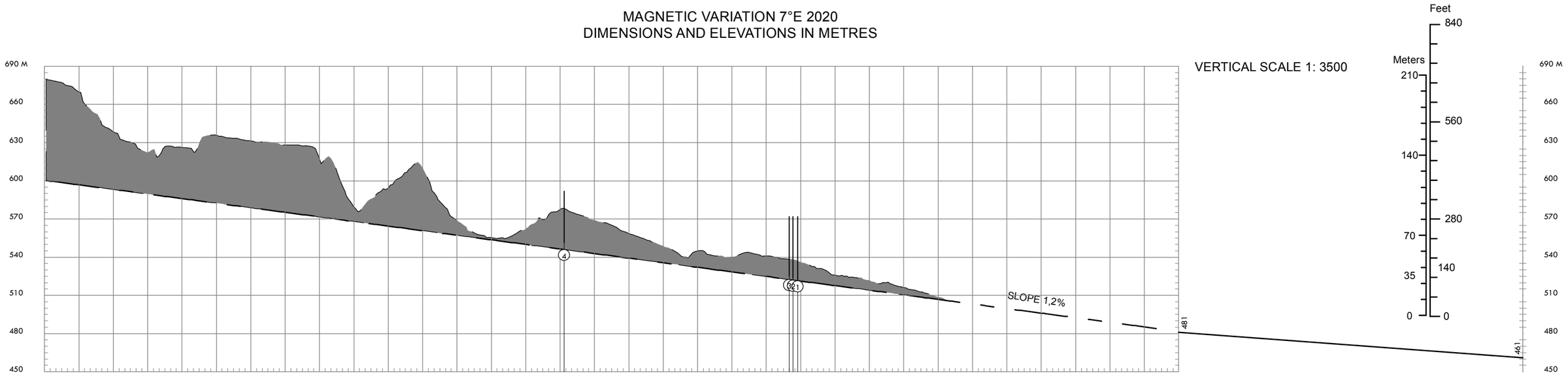
TBILISI/Tbilisi (UGTB)
RWY 13R/31L

AERODROME OBSTACLE CHART - ICAO

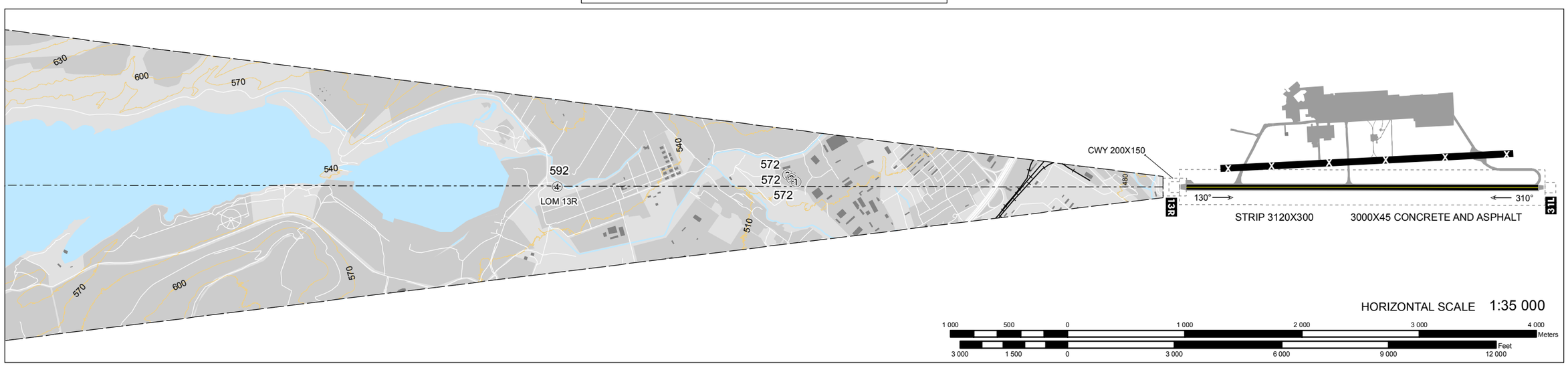
TYPE A (OPERATING LIMITATIONS)

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



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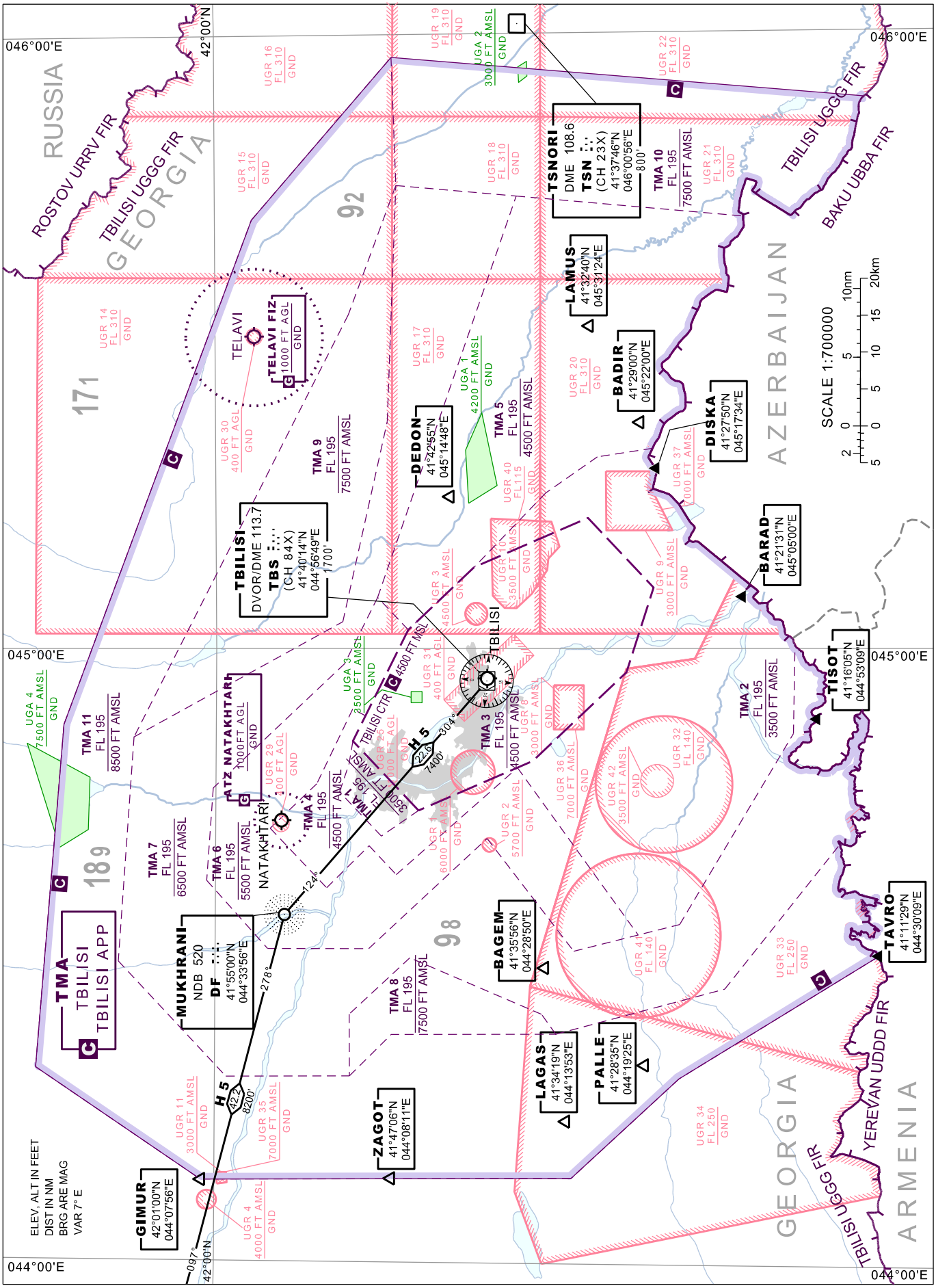
AREA CHART - ICAO

APP 134.600
TWR 119.000 (Primary)
128.000 (Secondary)
INFO 124.150
ATIS 132.800

TBILISI/Tbilisi (UGTB)



ELEV, ALT IN FEET
DIST IN NM
BRG ARE MAG
VAR 7° E

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STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

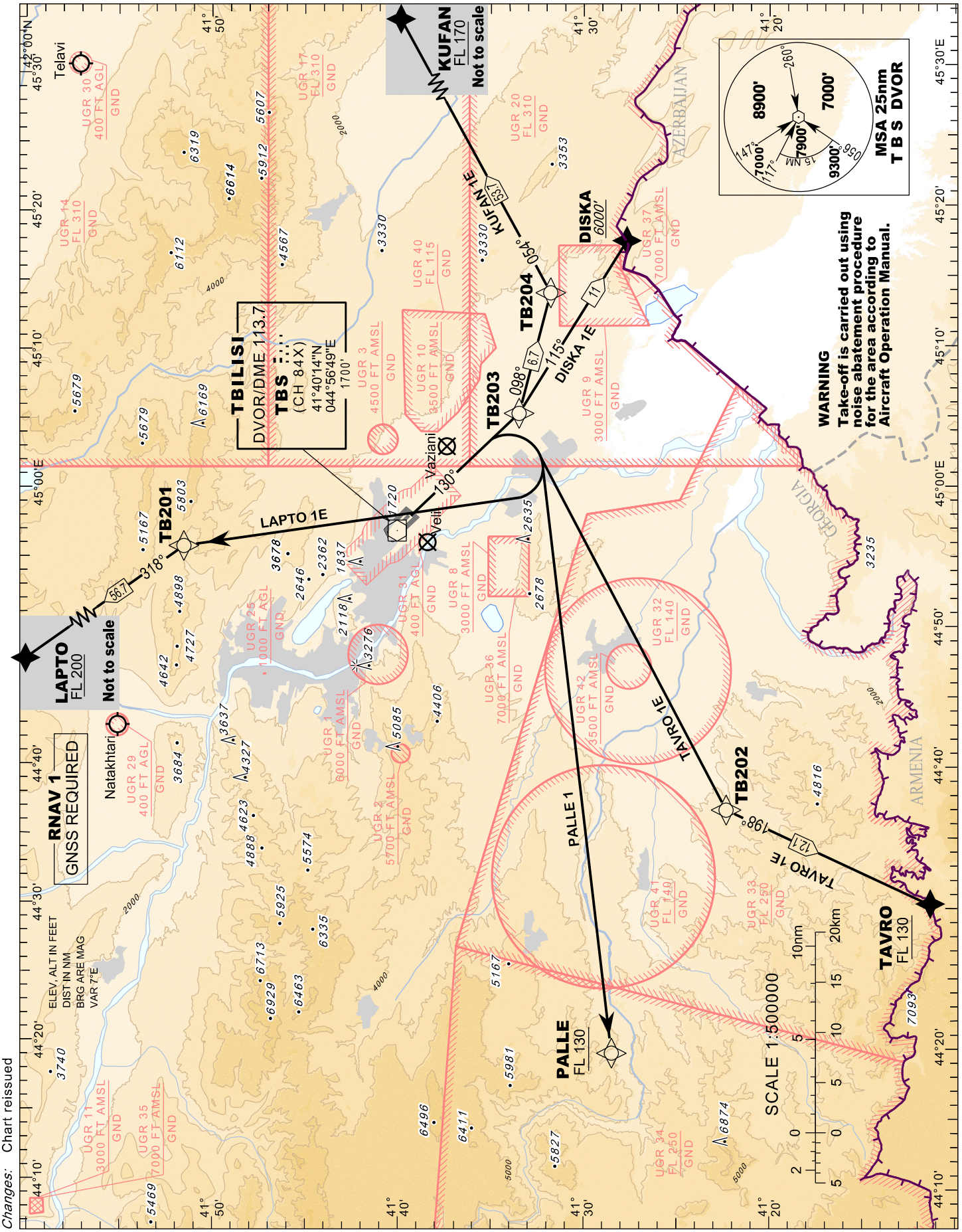
TRANSITION ALTITUDE
11000'

APP 134.600
TWR 119.000 (Primary)
128.000 (Secondary)

TBILISI/Tbilisi (UGTB)

RNAV RWY 13R

PALLE 1 LAPTO 1E KUFAN 1E
DISKA 1E TAVRO 1E



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STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY13R

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
PALLE 1	**PALLE ONE** 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.

RNAV 1 SID Coding Table of PALLE 1

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
LAPTO 1E	**LAPTO ONE ECHO** 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

RNAV 1 SID Coding Table of LAPTO 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	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
KUFAN 1E	**KUFAN ONE ECHO** To TB203 on course 130°, to TB204, to KUFAN. Cross KUFAN at or above FL170.	4% to FL150	NIL

RNAV 1 SID Coding Table of KUFAN 1E

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
DISKA 1E	**DISKA ONE ECHO** To TB203 on course 130°, to DISKA. Cross DISKA at or above 6000FT.	3.9% to 6000 FT	NIL

RNAV 1 SID Coding Table of DISKA 1E

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
TAVRO 1E	**TAVRO ONE ECHO** Climb on course 130°, when passing 4000 FT turn right direct to TB202, track to TAVRO. Cross TAVRO at or above FL130.	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

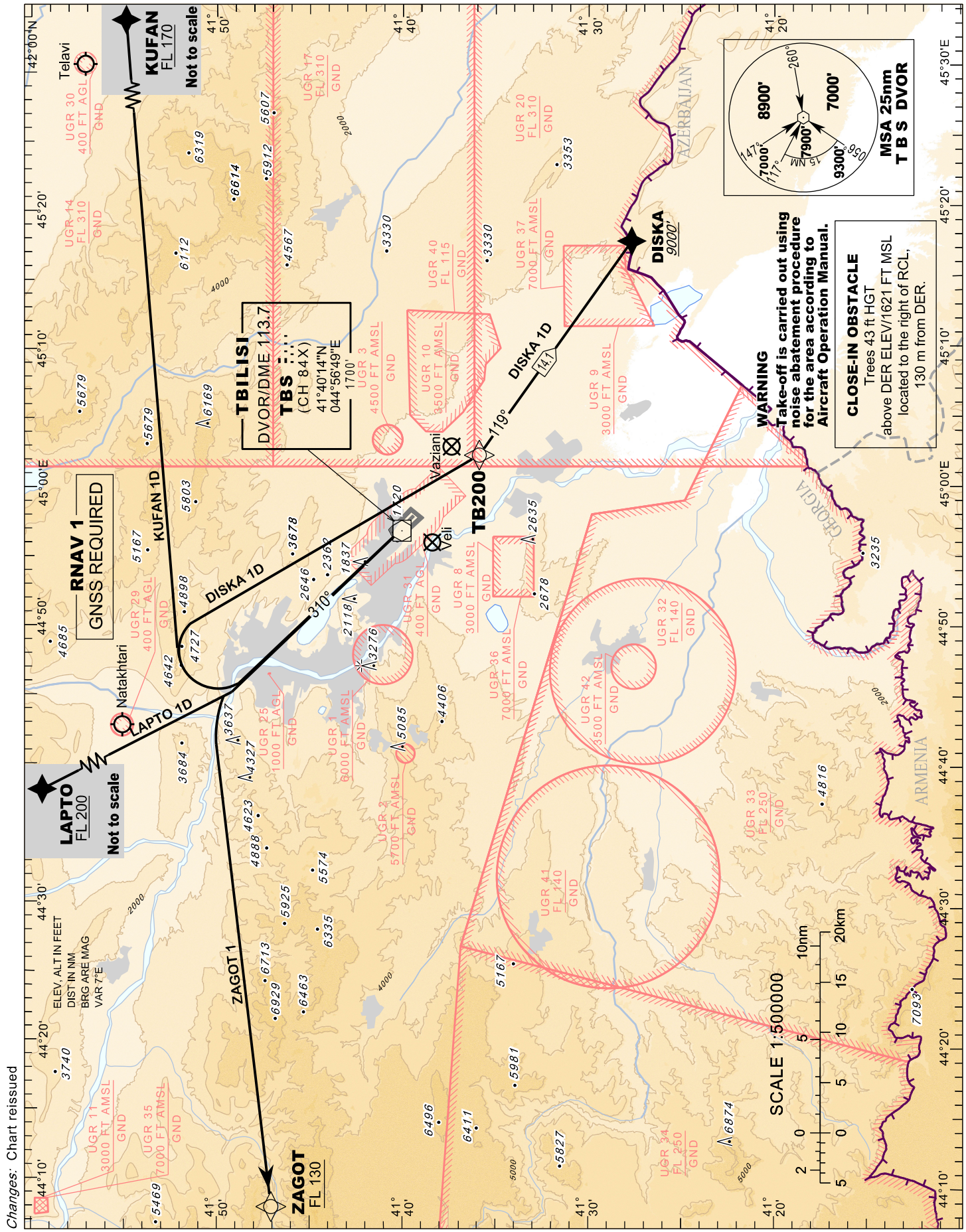
TRANSITION ALTITUDE
11000'

APP 134.600
TWR 119.000 (Primary)
128.000 (Secondary)

TBILISI/Tbilisi (UGTB)

RNAV RWY 31L

ZAGOT 1 LAPTO 1D
KUFAN 1D DISKA 1D



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STANDARD DEPARTURE ROUTES - RNAV (GNSS) INSTRUMENT - RWY31L

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
ZAGOT 1	**ZAGOT ONE** 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
LAPTO 1D	**LAPTO ONE DELTA** 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
KUFAN 1D	**KUFAN ONE DELTA** 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
DISKA 1D	**DISKA ONE DELTA** 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)

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

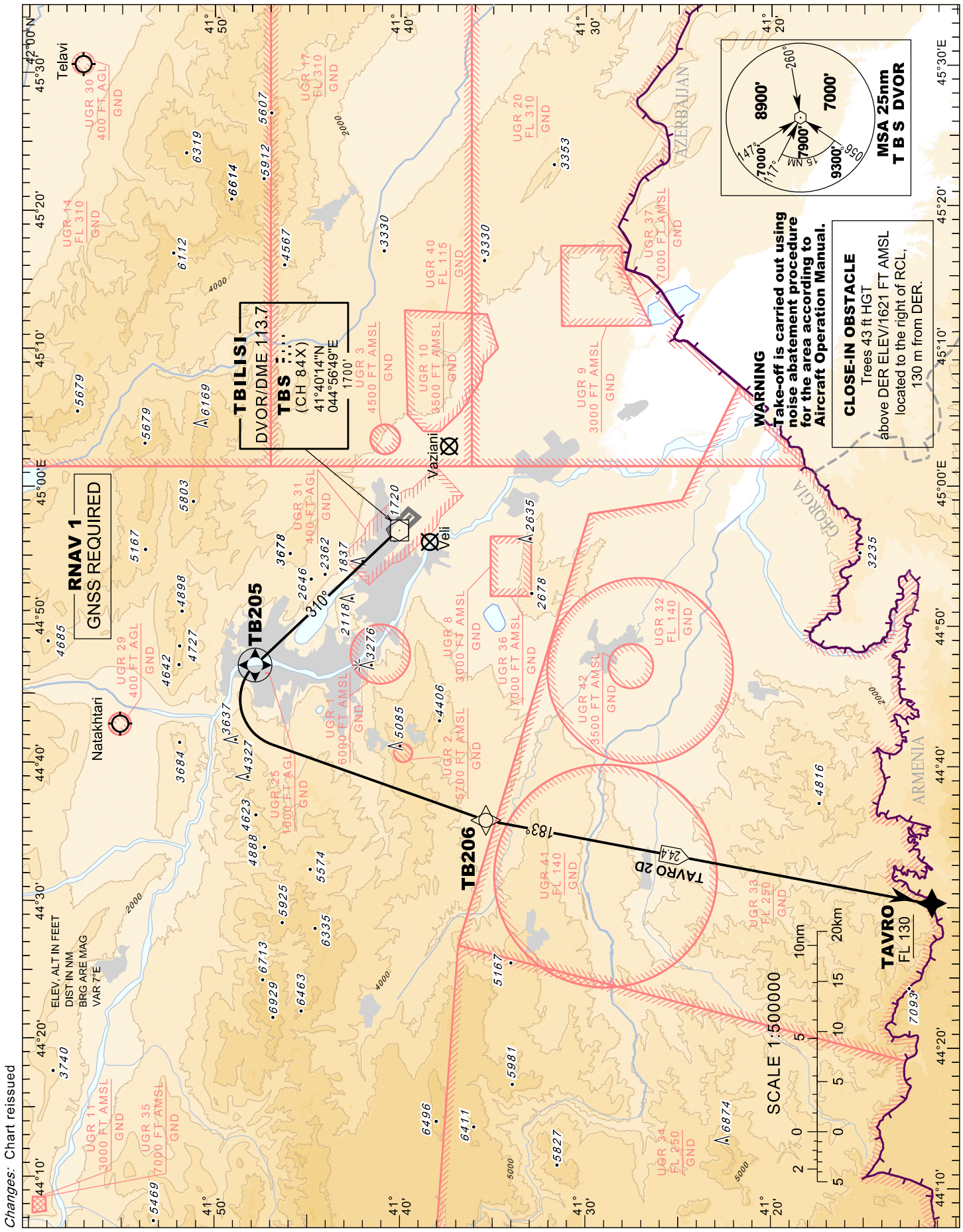
TBILISI/Tbilisi (UGTB)

RNAV RWY 31L

TAVRO 2D

TRANSITION ALTITUDE
11000'

APP 134.600
TWR 119.000 (Primary)
128.000 (Secondary)



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

SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.	Comment
TAVRO 2D	**TAVRO TWO DELTA** To TB205 on course 310°, turn left direct to TB206, to TAVRO. Cross TAVRO at or above FL130.	5.4% to 8000 FT.	NIL

RNAV 1 SID Coding Table of TAVRO 2D

Path Terminator	Waypoint			Course/Track °MAG(°True)	NM	Turn Direction	Constraints		Navigation Specification
	Identifier	Flyover	Coordinates				Level	Speed kt	
CF	TB205	YES	41°48'00.4"N 044°47'06.4"E	310° (316.5°)	-	-	-	-	RNAV1
DF	TB206	-	41°35'32.0"N 044°36'00.0"E	-	-	L	-	-	RNAV1
TF	TAVRO	-	41°11'29.0"N 044°30'09.0"E	183° (190.4°)	24.4	-	+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

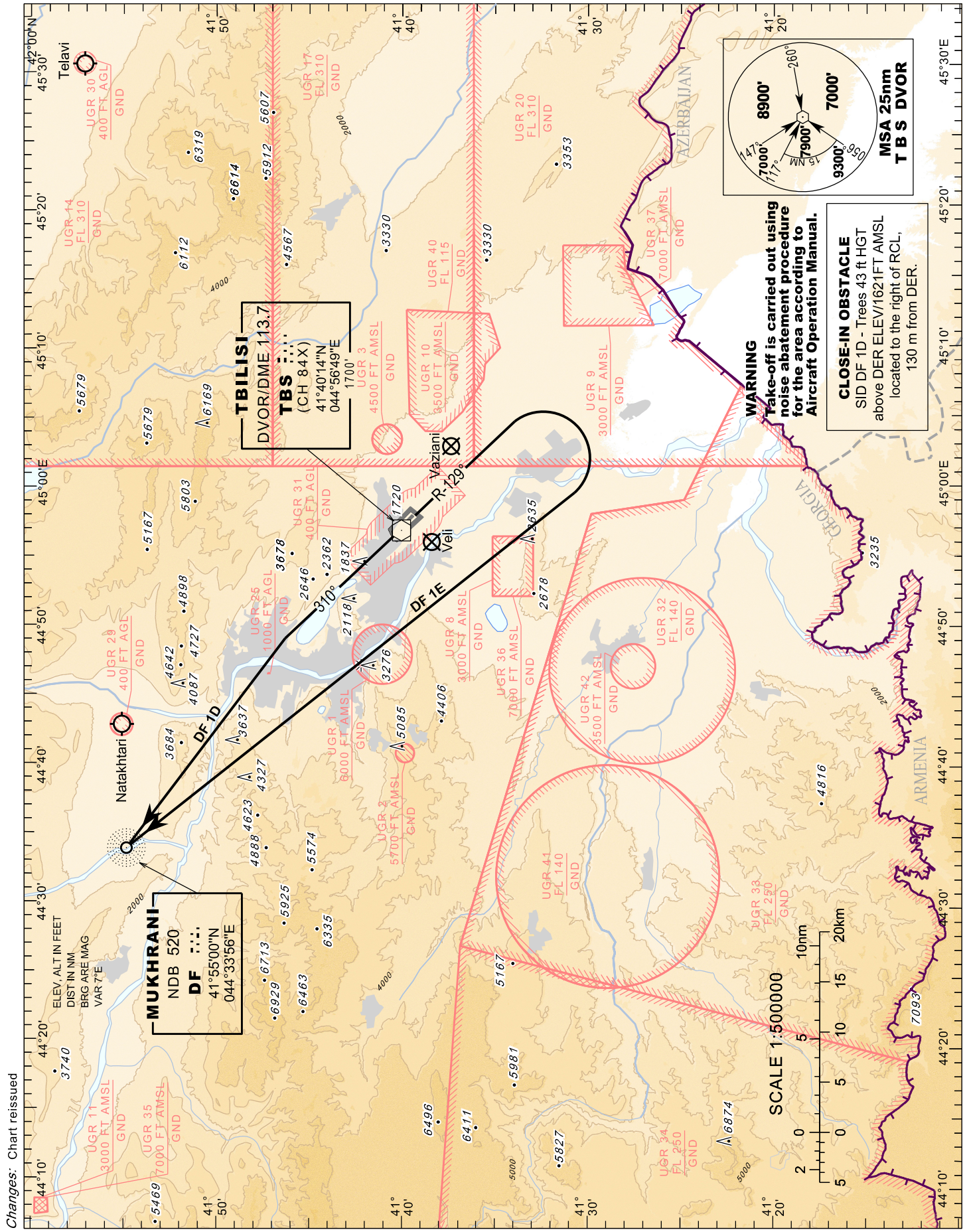
TRANSITION ALTITUDE
11000'

APP 134.600
TWR 119.000 (Primary)
128.000 (Secondary)

TBILISI/Tbilisi (UGTB)

RWY 13R/31L

DF 1D DF 1E



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

RWY	SID	ROUTING AND ALTITUDES	MIN.CLIMB GRAD.
31L	**DF 1D**	**DELTA FOXTROT ONE DELTA** Climb on heading 310°, when passing 5000 FT proceed direct to DF. Cross DF at or above 9000 FT.	5.4% to 9000FT
13R	**DF 1E**	**DELTA FOXTROT ONE ECHO** 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

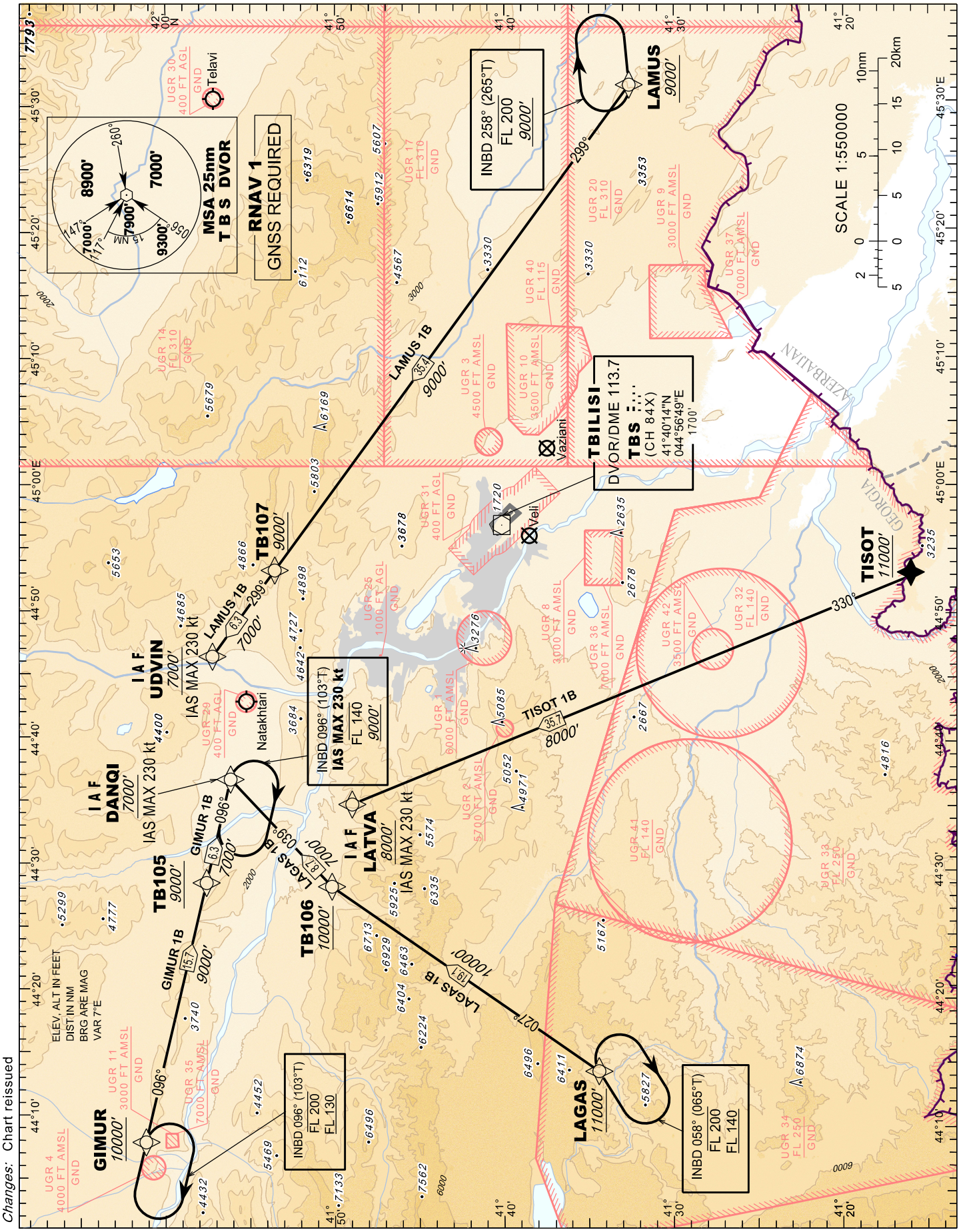
TBILISI/Tbilisi (UGTB)

RNAV RWY 13R

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

TRANSITION LEVEL	FL 130
TRANSITION ALTITUDE	11000'

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



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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)

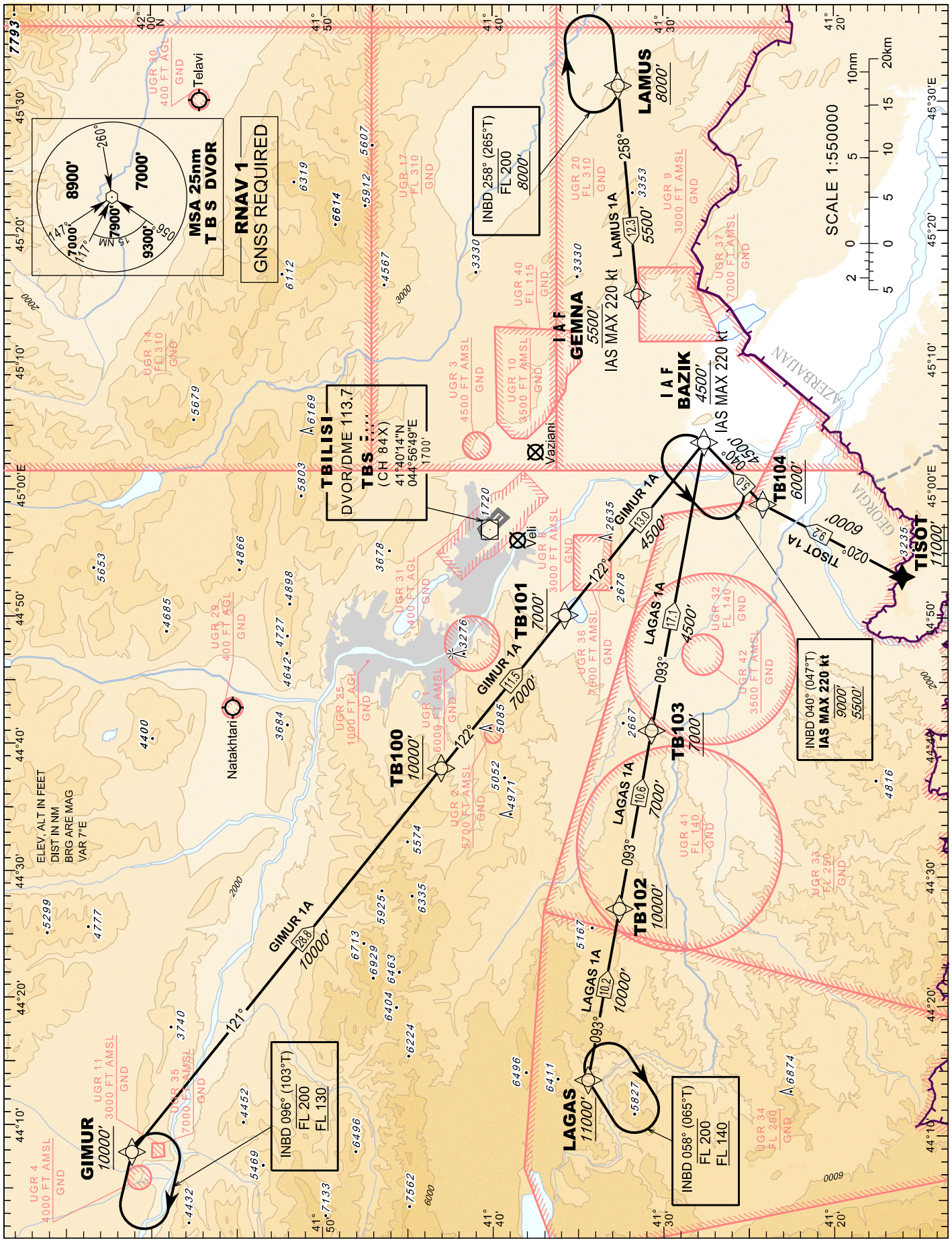
RNAV RWY 31L

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

TRANSITION LEVEL FL 130

TRANSITION ALTITUDE 11000'

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



Changes: Chart reissued

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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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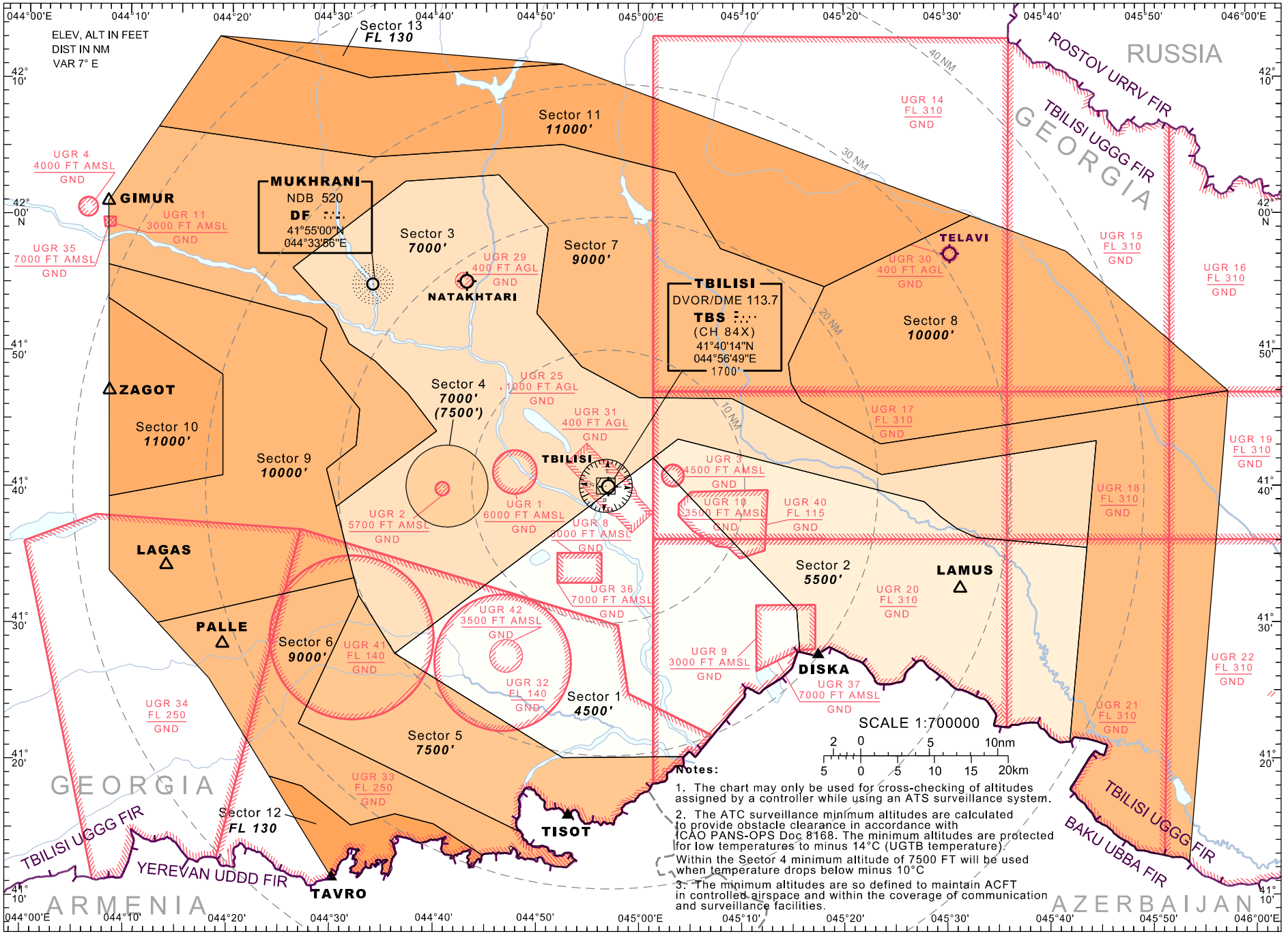
Changes: Chart reissued

ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AERODROME ELEV. 1578'
TRANSITION ALTITUDE 11000'

APP 134.600
TWR 119.000 (Primary)
128.000 (Secondary)

TBILISI/Tbilisi (UGTB)



Notes:

1. The chart may only be used for cross-checking of altitudes assigned by a controller while using an ATS surveillance system.
2. The ATC surveillance minimum altitudes are calculated to provide obstacle clearance in accordance with ICAO PANS-OPS Doc 8168. The minimum altitudes are protected for low temperatures to minus 14°C (UGTB temperature). Within the Sector 4 minimum altitude of 7500 FT will be used when temperature drops below minus 10°C
3. The minimum altitudes are so defined to maintain ACFT in controlled airspace and within the coverage of communication and surveillance facilities.

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ATC Surveillance Minimum Altitude Sectors' Coordinates

Sector	Lateral Limits
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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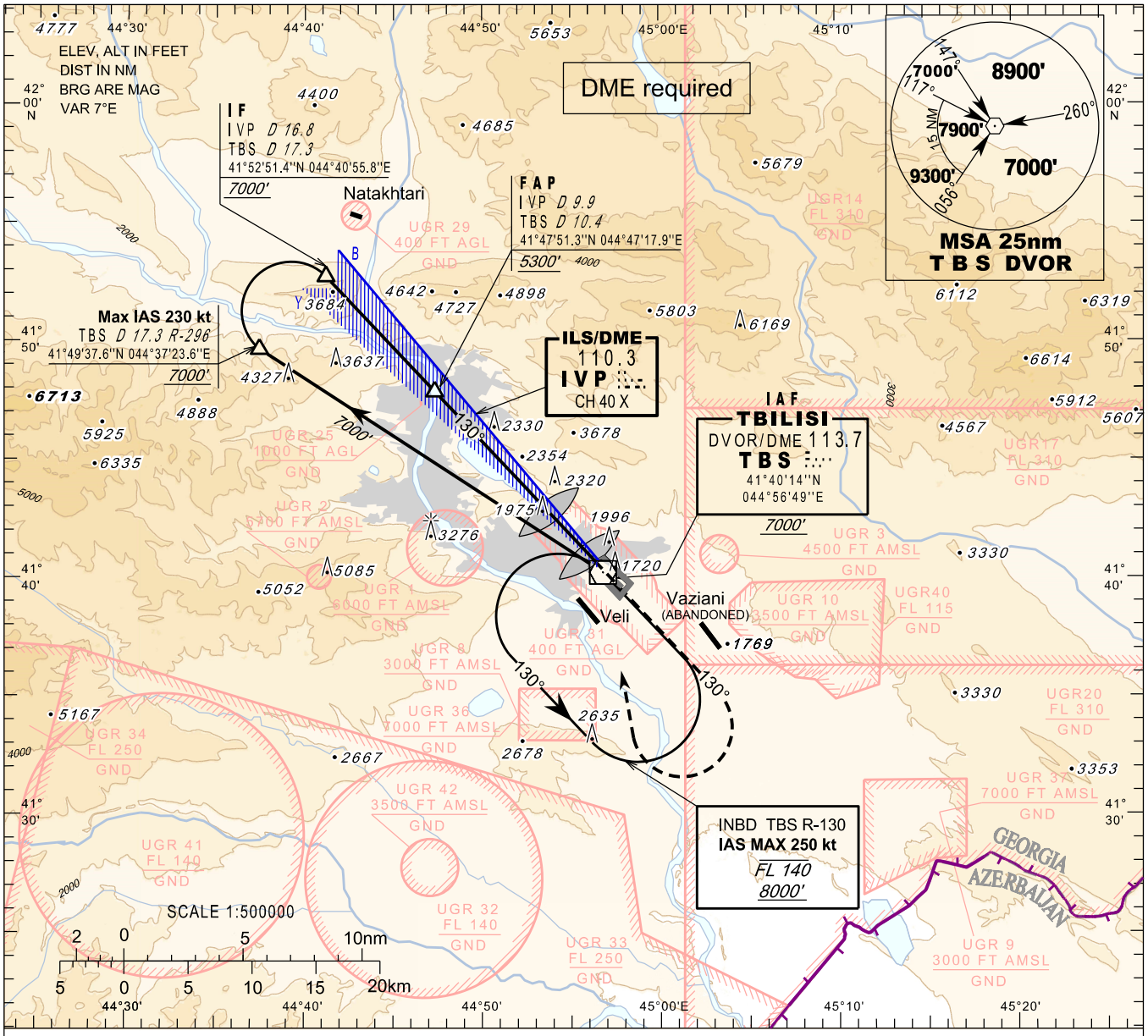
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 13R - ELEV 1578'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
ILS y
RWY 13R

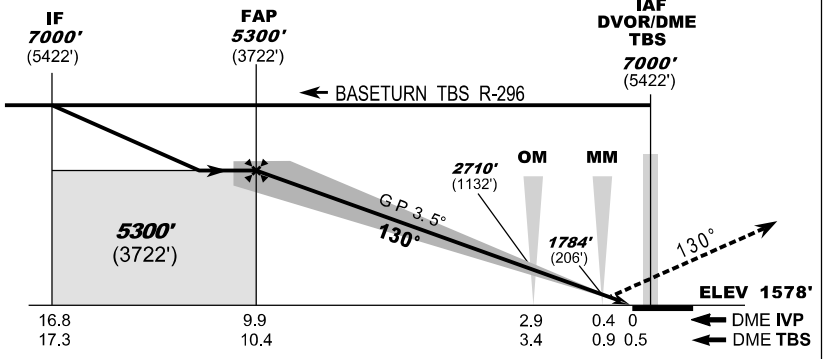


MISSED APPROACH

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 RDH 50'

Straight in Approach	A B	C	D
OCA(H)	**1768** (190)	**1778** (200)	**1788** (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	**4973** (3395)	**4601** (3023)	**4230** (2652)	**3858** (2280)	**3486** (1908)	**3115** (1537)	**2743** (1165)	**2371** (793)	**2000** (422)

Changes: Chart reissued

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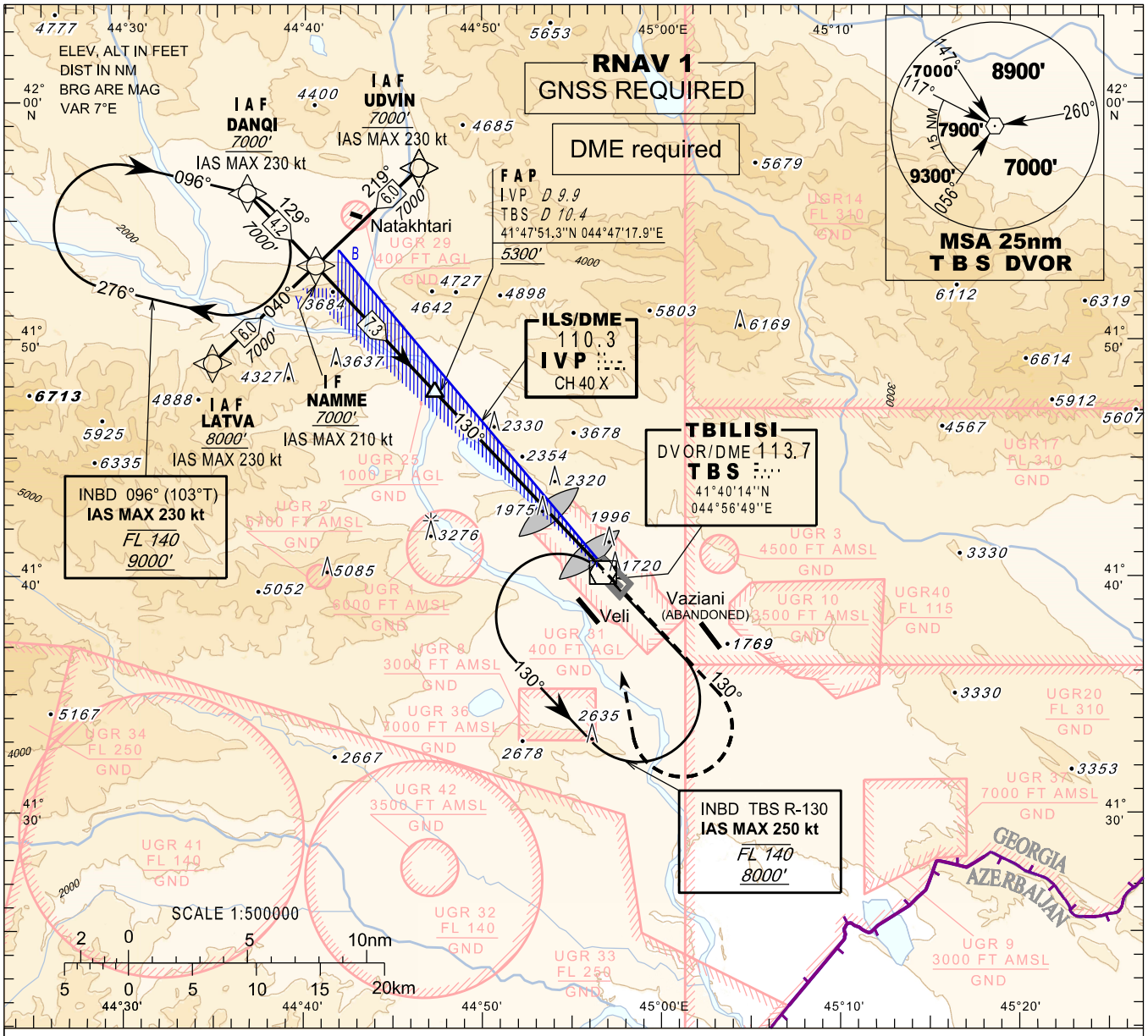
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 13R - ELEV 1578'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
ILS z
RWY 13R

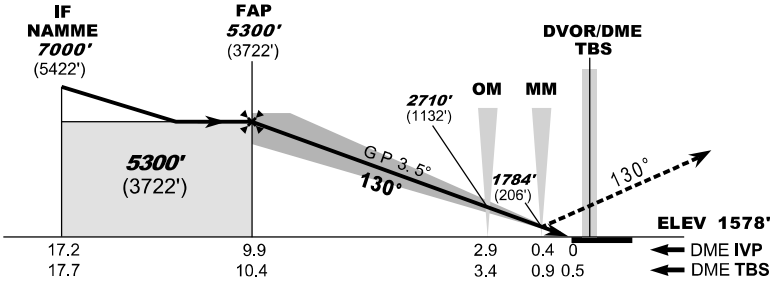


MISSED APPROACH

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
OCA(H)	**1768** (190)	**1778** (200)	**1788** (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	**4973** (3395)	**4601** (3023)	**4230** (2652)	**3858** (2280)	**3486** (1908)	**3115** (1537)	**2743** (1165)	**2371** (793)	**2000** (422)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 13R (ILSz)

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

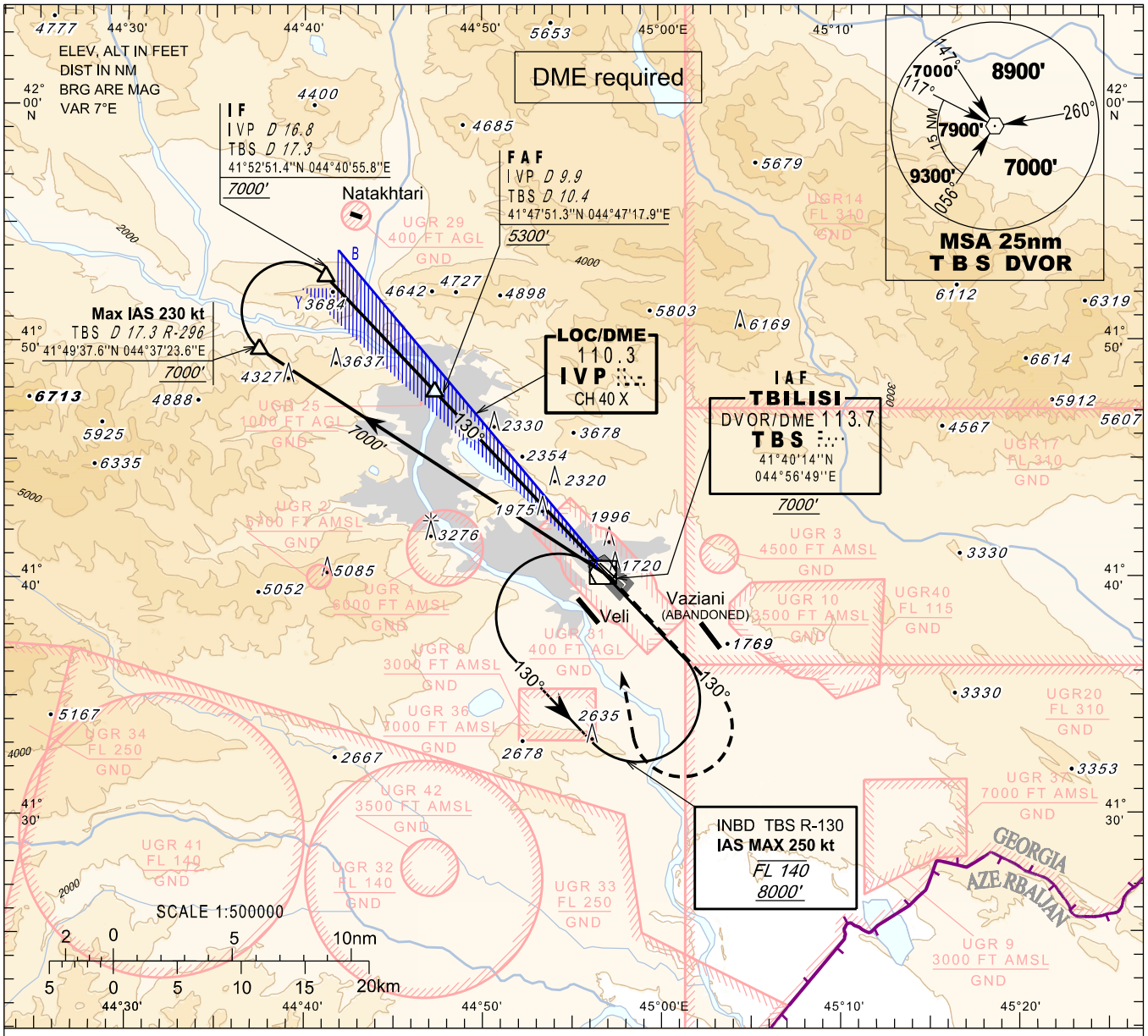
AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 13R - ELEV 1578'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)

LOC y
RWY 13R

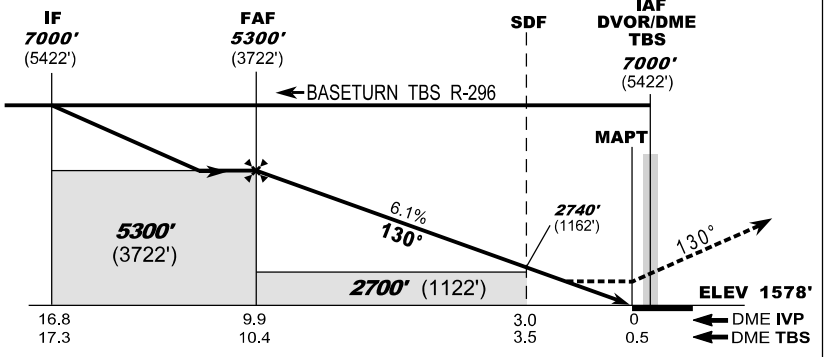


MISSED APPROACH

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.



Timing is not authorised for defining the MAPT

Straight in Approach	A B C D
OCA(H)	**2280** (700)

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)

Changes: Chart reissued

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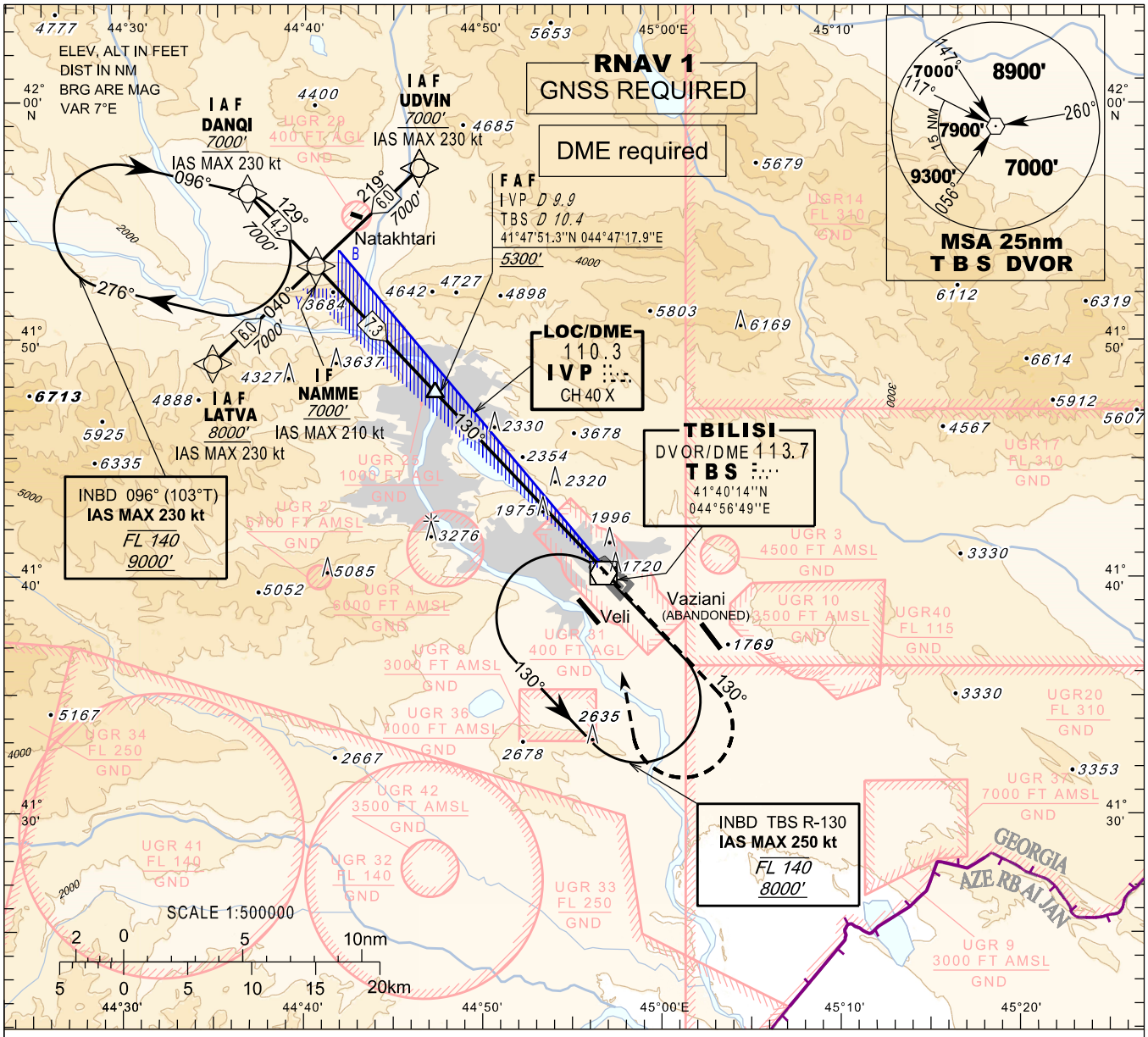
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 13R - ELEV 1578'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
LOC z
RWY 13R

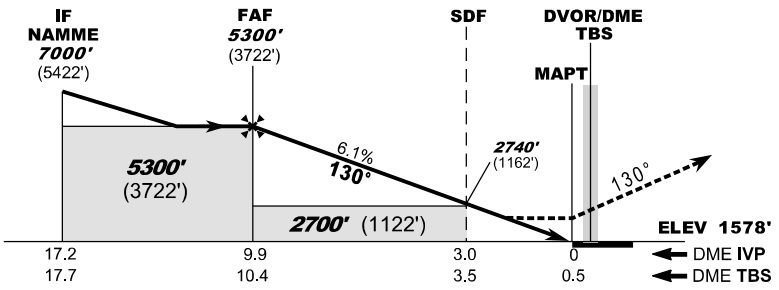


MISSED APPROACH

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
OCA(H)	**2280** (700)

Timing is not authorised for defining the MAPT

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)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 13R (LOCz)

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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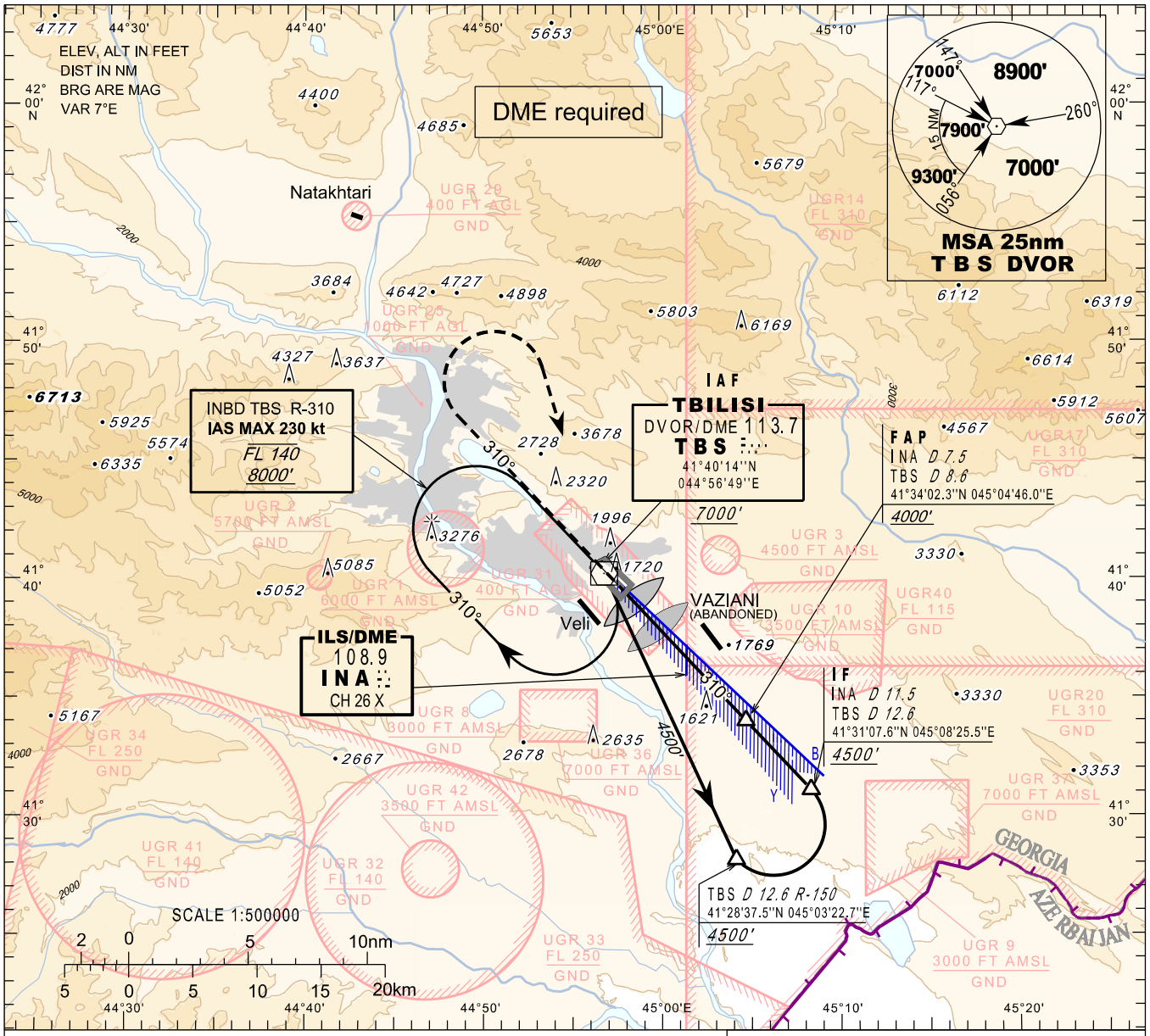
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 31L - ELEV 1513'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
ILS y
RWY 31L



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.

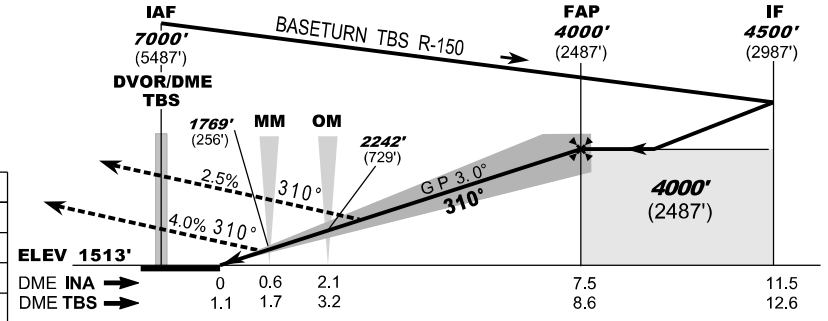
Radio Communication Failure:
Climb straight ahead to **8000'**, when passing **6000'** turn right to **TBS**, hold as published, when ready make new approach.

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'

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



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	**3839** (2326)	**3510** (1997)	**3181** (1668)	**2855** (1342)	**2530** (1017)	**2208** (695)	**1886** (373)

Changes: Chart reissued

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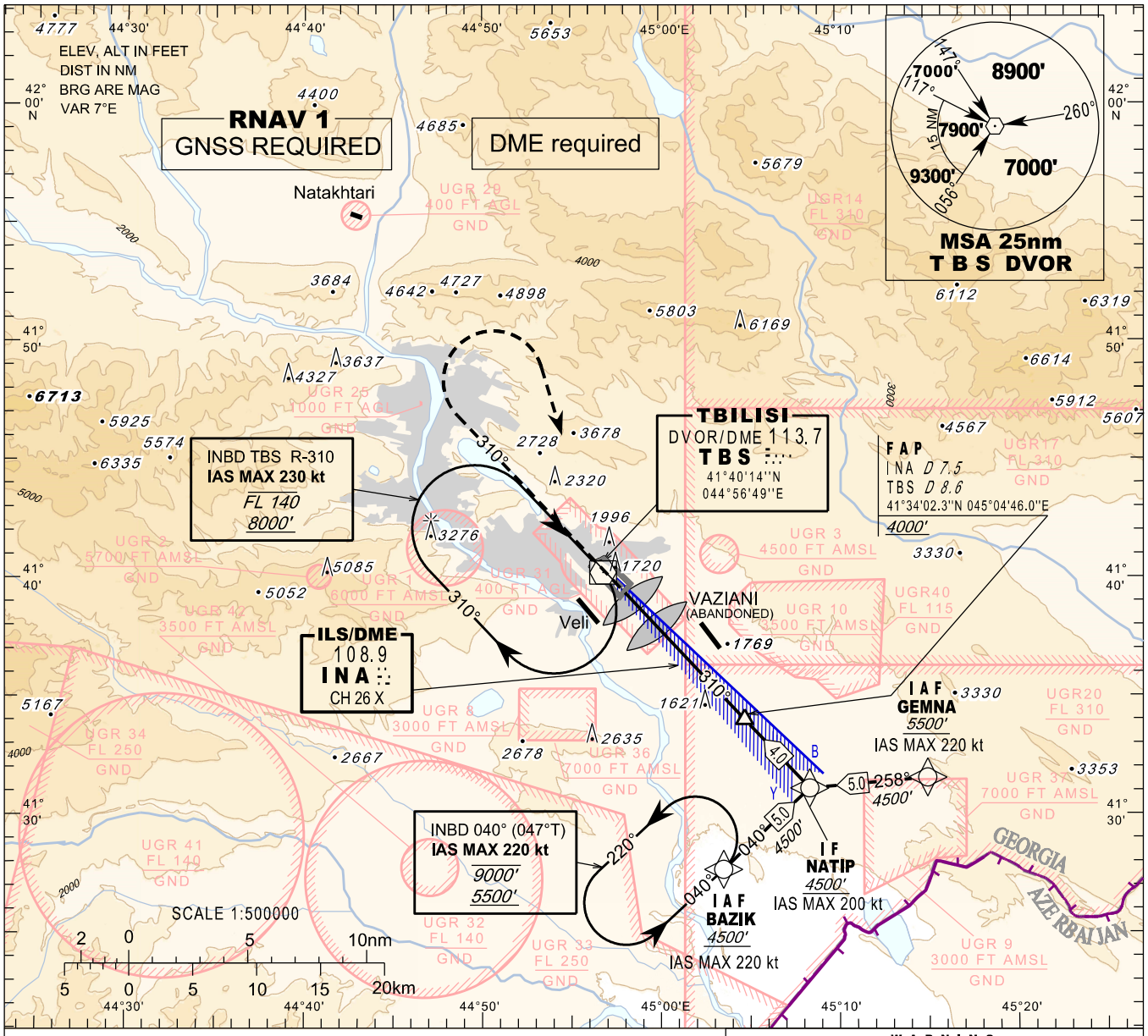
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 31L - ELEV 1513'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
ILS z
RWY 31L



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.

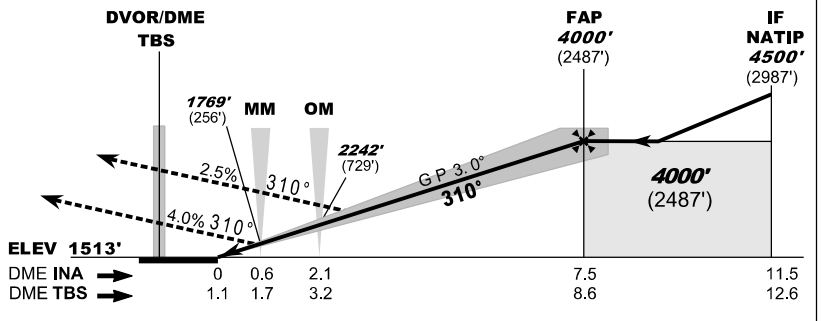
Radio Communication Failure:
Climb straight ahead to **8000'**, when passing **6000'** turn right to **TBS**, hold as published, when ready make new approach (ILS y or LOC y or VOR).

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'

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



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	**3839** (2326)	**3510** (1997)	**3181** (1668)	**2855** (1342)	**2530** (1017)	**2208** (695)	**1886** (373)

Changes: Chart reissued

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RNAV Transition Coding Tables - RWY 31L (ILSz)

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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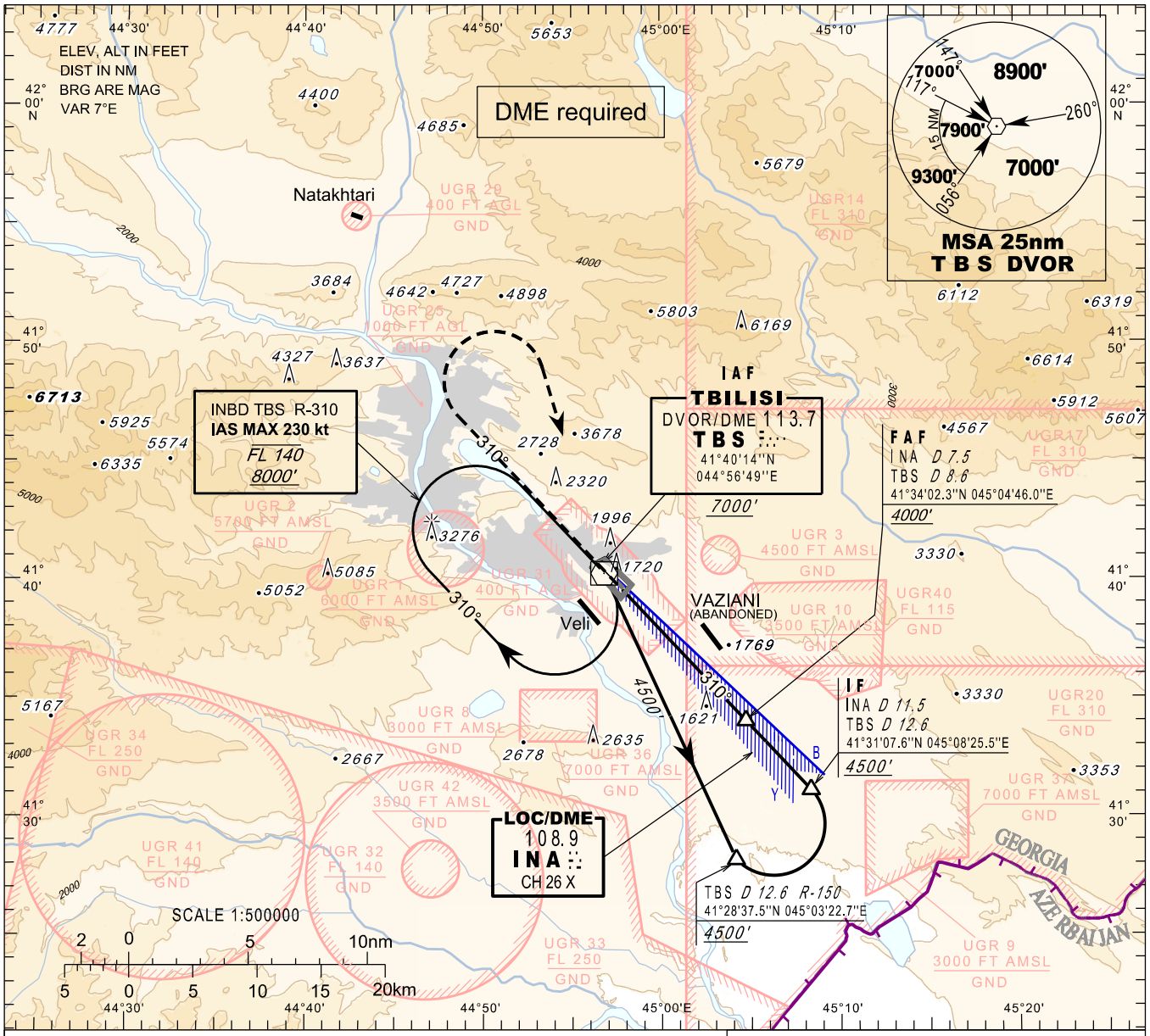
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 31L - ELEV 1513'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
LOC y
RWY 31L



MISSED APPROACH

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

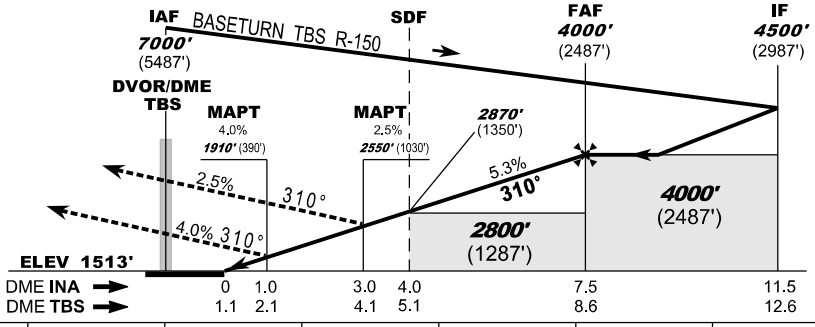
TBS DVOR Unserviceable:
Climb straight ahead to **7000'**, when passing **6000'** turn right heading **170**, expect vectoring.

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:

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	
Missed APCH climb gradient	**OCA(H)** 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)

Changes: Chart reissued

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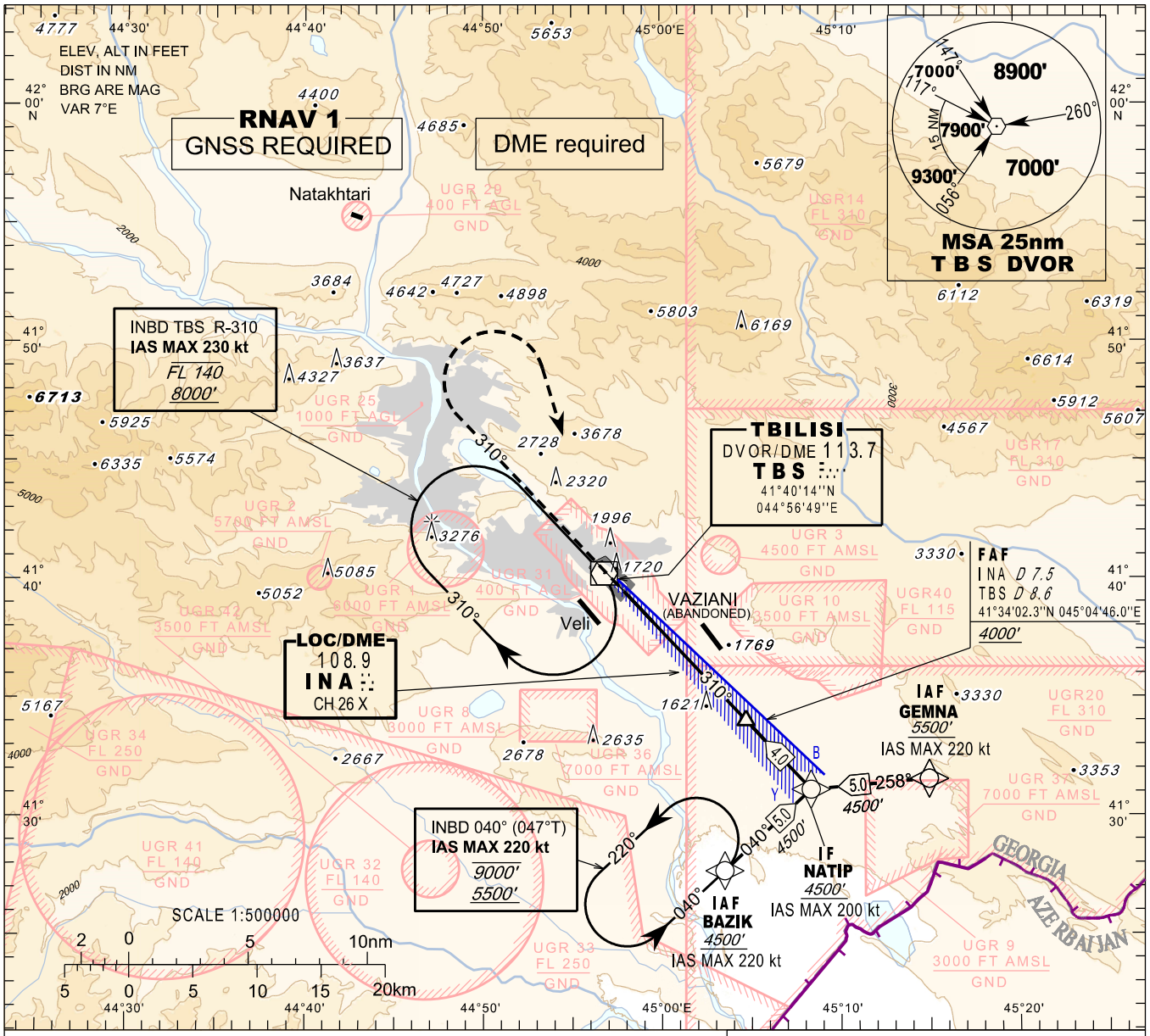
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 31L - ELEV 1513'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
LOC z
RWY 31L



MISSED APPROACH

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

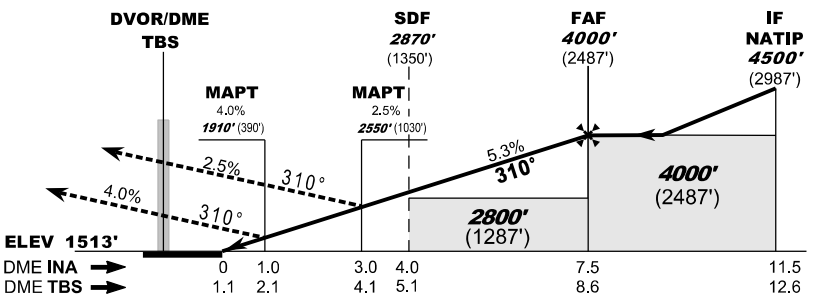
TBS DVOR Unserviceable:
Climb straight ahead to **7000'**, when passing **6000'** turn right heading **170**, expect vectoring.

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:

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	
Missed APCH climb gradient	**OCA(H)** 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)

Changes: Chart reissued

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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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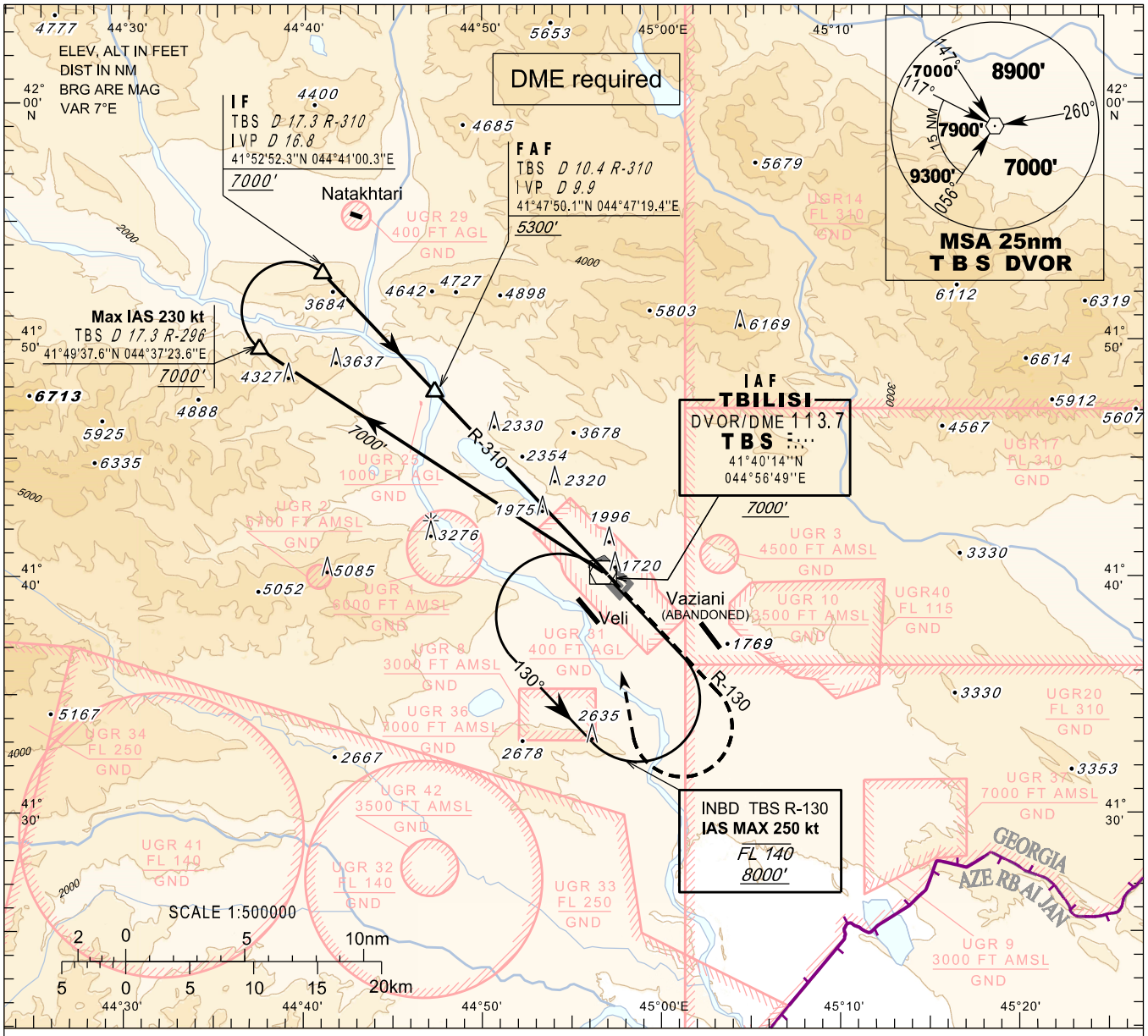
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 13R - ELEV 1578'

TRANSITION ALTITUDE 11000'

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

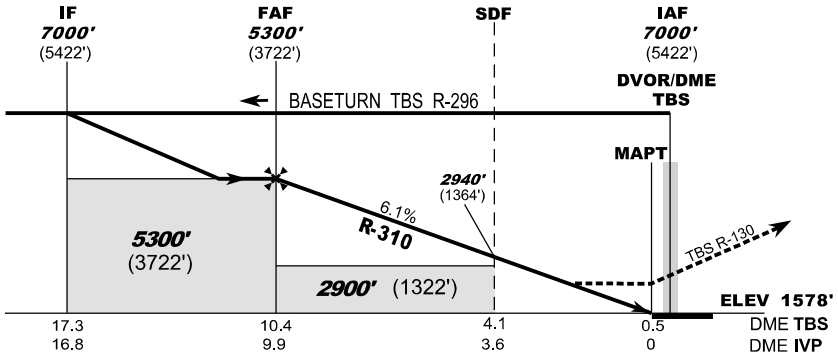
TBILISI/Tbilisi (UGTB)
VOR
RWY 13R



MISSED APPROACH

Normal:
Climb on **R-130 TBS** to **7000'**, when passing **4500'** turn right to **TBS**. Then as directed by **ATC**.

Radio Communication Failure:
Climb on **R-130 TBS** to **8000'**, when passing **4500'** turn right to **TBS** and hold as published, when ready make new approach.



Straight-in Approach	A	B	C	D
OCA(H)	**2580** (1000)			

Timing is not authorised for defining the MAPT

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	**5142** (3564)	**4771** (3193)	**4400** (2822)	**4029** (2451)	**3658** (2080)	**3287** (1709)	**2916** (1338)	**2545** (967)	**2174** (596)	**1802** (224)

Changes: Chart reissued

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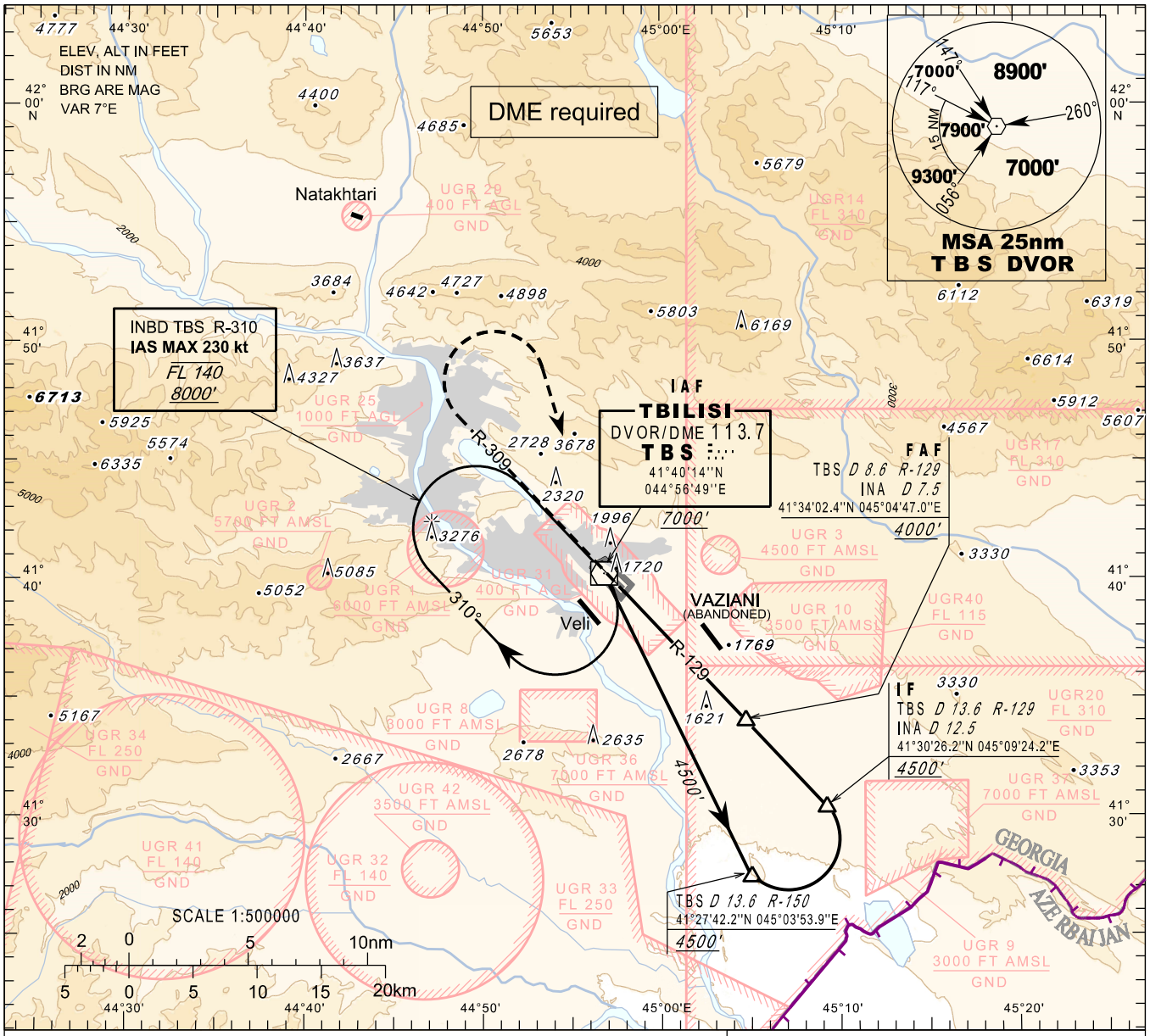
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 1578'
HEIGHTS RELATED TO
THR RWY 31L - ELEV 1513'

TRANSITION ALTITUDE 11000'

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

TBILISI/Tbilisi (UGTB)
VOR
RWY 31L



MISSED APPROACH

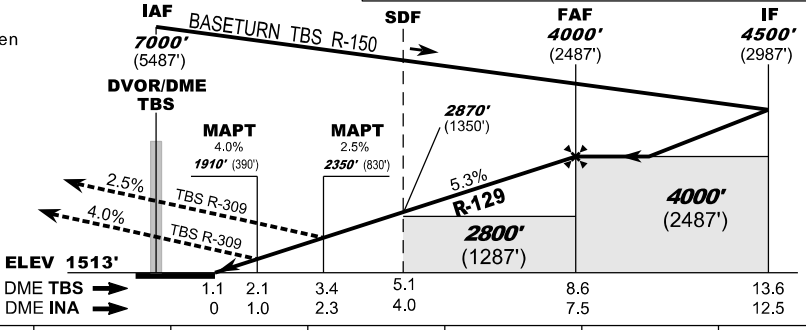
Normal:
Climb on **R-309 TBS** to **7000'**, when passing **6000'** turn right to **TBS**, then as directed by **ATC**.

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	
Missed APCH climb gradient	**OCA(H)** 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)

Changes: Chart reissued

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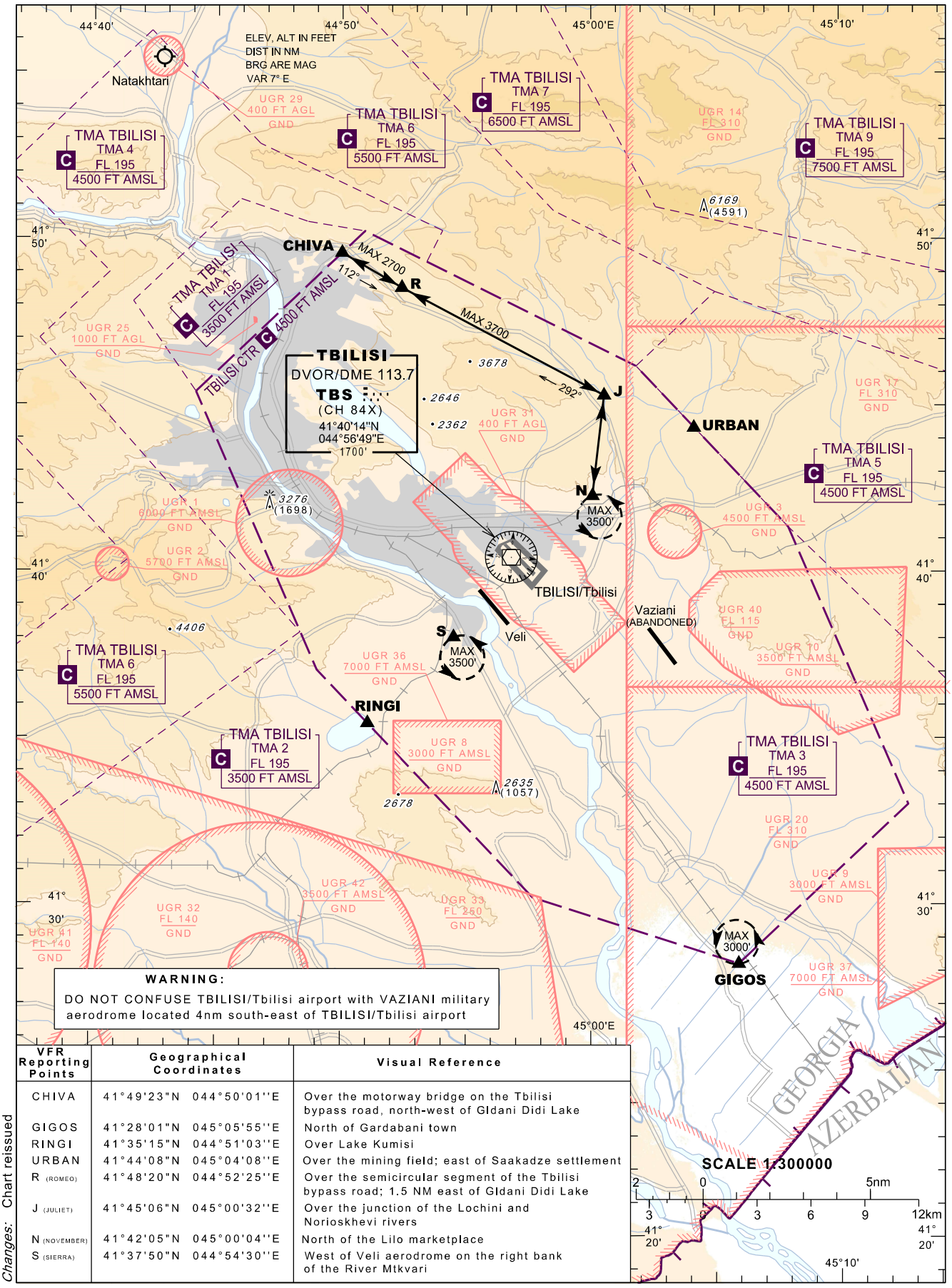
VISUAL APPROACH CHART - ICAO

TBILISI/Tbilisi (UGTB)

AERODROME ELEV. 1578'
HEIGHTS RELATED TO AD ELEV

APP	134.600
TWR	119.000 (Primary) 128.000 (Secondary)



WARNING:
DO NOT CONFUSE TBILISI/Tbilisi airport with VAZIANI military aerodrome located 4nm south-east of TBILISI/Tbilisi airport

VFR Reporting Points	Geographical Coordinates	Visual Reference
CHIVA	41°49'23"N 044°50'01"E	Over the motorway bridge on the Tbilisi bypass road, north-west of GIdani Didi Lake
GIGOS	41°28'01"N 045°05'55"E	North of Gardabani town
RINGI	41°35'15"N 044°51'03"E	Over Lake Kumisi
URBAN	41°44'08"N 045°04'08"E	Over the mining field; east of Saakadze settlement
R (ROMEO)	41°48'20"N 044°52'25"E	Over the semicircular segment of the Tbilisi bypass road; 1.5 NM east of GIdani Didi Lake
J (JULIET)	41°45'06"N 045°00'32"E	Over the junction of the Lochini and Norioskhevi rivers
N (NOVEMBER)	41°42'05"N 045°00'04"E	North of the Lilo marketplace
S (SIERRA)	41°37'50"N 044°54'30"E	West of Veli aerodrome on the right bank of the River Mtkvari

Changes: Chart reissued

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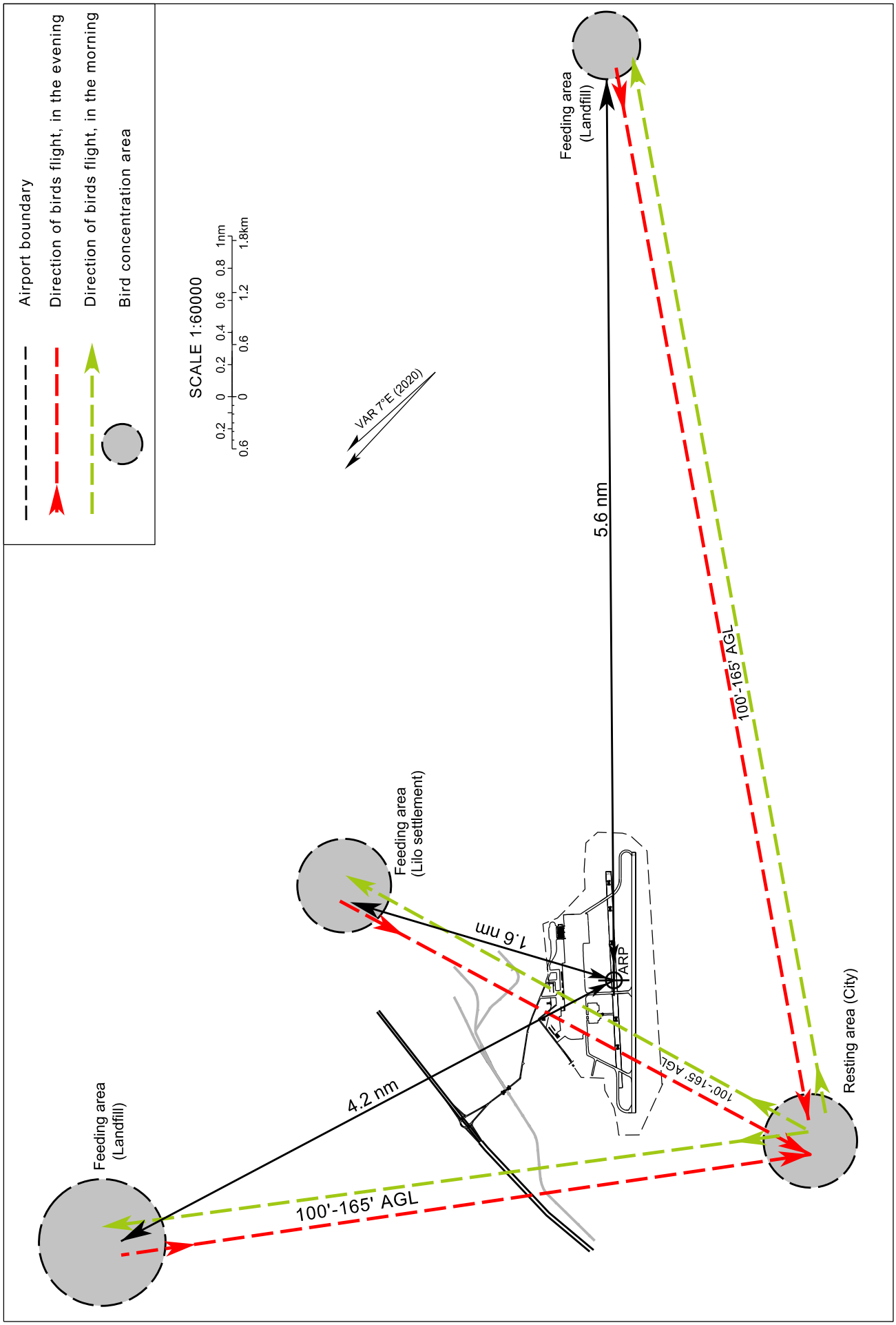
BIRD CONCENTRATIONS AND MOVEMENT (INDEX CHART)

TBILISI/Tbilisi (UGTB)



Changes: Chart reissued

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