

**UDSG — GYUMRI / Shirak****UDSG AD 2.1 Aerodrome location indicator and name**

UDSG — GYUMRI / Shirak

**UDSG AD 2.2 Aerodrome geographical and administrative data**

1	<i>ARP coordinates and site at AD</i>	404502N 0435134E at the center of the RWY
2	<i>Direction and distance from (city)</i>	5 KM south east from city Gyumri
3	<i>Elevation/Reference temperature</i>	5000 FT 20.2°C
4	<i>Geoid undulation at AD ELEV PSN</i>	-79 FT
5	<i>MAG VAR/Annual change</i>	7° E 2025/0.06°
6	<i>AD Administration, address, telephone, telefax, telex, AFS</i>	Post: AIA "Shirak" Airport Republic of Armenia Tel:+374312 41300 Fax:+374312 40958 AFS:UDSGYDYD
7	<i>Types of traffic permitted (IFR/VFR)</i>	IFR/VFR
8	<i>Remarks</i>	Nil

**UDSG AD 2.3 Operational hours**

1	<i>AD Administration</i>	<i>MON-FRI:0500-1400</i>
2	<i>Customs and immigration</i>	<i>0600-1800</i>
3	<i>Health and sanitation</i>	<i>0600-1800</i>
4	<i>AIS Briefing Office</i>	<i>0600-1800</i>
5	<i>ATS Reporting Office (ARO)</i>	<i>0600-1800</i>
6	<i>MET Briefing Office</i>	<i>0600-1800</i>
7	<i>ATS</i>	<i>0600-1800</i>
8	<i>Fuelling</i>	<i>0600-1800</i>
9	<i>Handling</i>	<i>0600-1800</i>
10	<i>Security</i>	<i>0600-1800</i>
11	<i>De-icing</i>	<i>0600-1800</i>
12	<i>Remarks</i>	Local time = UTC + 4 hours

**UDSG AD 2.4 Handling services and facilities**

1	<i>Cargo-handling facilities</i>	No Cargo Handling facilities.
2	<i>Fuel/oil types</i>	Jet A-1
3	<i>Fuelling facilities/capacity</i>	1 truck 22000 liters 700L/MIN
4	<i>De-icing facilities</i>	Available. See AD chart for location.
5	<i>Hangar space for visiting aircraft</i>	Nil
6	<i>Repair facilities for visiting aircraft</i>	Available.
7	<i>Remarks</i>	NIL.

**UDSG AD 2.5 Passenger facilities**

1	<i>Hotels</i>	Near the AD and in the city.
2	<i>Restaurants</i>	At AD and in the city.
3	<i>Transportation</i>	Buses and Taxis
4	<i>Medical facilities</i>	First aid at AD. Hospitals in the city.
5	<i>Bank and Post Office</i>	Bank at AD, Post Office in the city.
6	<i>Tourist Office</i>	At AD.
7	<i>Remarks</i>	Nil

**UDSG AD 2.6 Rescue and fire fighting services**

1	<i>AD category for fire fighting</i>	CAT 6
2	<i>Rescue equipment</i>	Available
3	<i>Capability for removal of disabled aircraft</i>	Not available
4	<i>Remarks</i>	Operation department Shift Manager is coordinator for crashed aircraft removal procedure and he is also the head of ARFF works. Tel: 00374 93600571; 00374 10493000 ext 7279

**UDSG AD 2.7 Seasonal availability - clearing**

1	<i>Types of clearing equipment</i>	1 Snow Blower, 4 Snow Ploughs and Scrapers
2	<i>Clearance priorities</i>	RWY 02/20, associated TWY to Apron and ACFT stands
3	<i>Remarks</i>	Information on snow clearance published from November-April in NOTAM (SNOWTAM). See also the snow plan subsection <a href="#">AD 1.2.2</a> .

**UDSG AD 2.8 Aprons, taxiways and check locations data**

1	<i>Apron surface and strength</i>	Surface: Asphalt/Concrete Strength: PCN 37/F/C/X/T
2	<i>Taxiway width, surface and strength</i>	Width: TWY-A- 22m Surface: Asphalt/Concrete Strength: PCN 45/F/C/X/T TWY-B and main TWY 22m Surface: Asphalt/Concrete Strength: PCN 44/F/C/X/T
3	<i>ACL location and elevation</i>	Location: RWY 20 / RWY 02 Elevation: 5000FT /4941FT
4	<i>VOR/INS checkpoints</i>	Nil
5	<i>Remarks</i>	Nil

**UDSG AD 2.9 Surface movement guidance and control system and markings**

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands</i>	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	<i>RWY and TWY markings and LGT</i>	RWY: Designation, THR, TDZ, centre line, edge runway end as appropriate are marked.  TWY: Centre line, holding positions at all TWY/RWY intersections are marked.
3	<i>Stop bars</i>	-
4	<i>Remarks</i>	Nil

**UDSG AD 2.10 Aerodrome obstacles**

ADelectronic obstacle data are provided according ICAO ANNEX 15.

See [GEN 3.1](#) for details of how electronic obstacle and terrain data may be obtained.

**UDSG AD 2.11 Meteorological information provided**

1	<i>Associated MET Office</i>	Gyumri/Shirak
2	<i>Hours of service</i>	H24
	<i>MET Office outside hours</i>	-
3	<i>Office responsible for TAF preparation</i>	Gyumri/Shirak
	<i>Periods of validity</i>	24 HR
4	<i>Type of landing forecast</i>	TREND
	<i>Interval of issuance</i>	0.5 HR
5	<i>Briefing/consultation provided</i>	Personal consultation.
6	<i>Flight documentation</i>	Charts, abbreviated plain language text
	<i>Language(s) used</i>	English and Russian.
7	<i>Charts and other information available for briefing or consultation</i>	S,U,P, SIG WX charts
8	<i>Supplementary equipment available for providing information</i>	Self-briefing terminal
9	<i>ATS units provided with information</i>	Gyumri Tower
10	<i>Additional information (limitation of service, etc.)</i>	See <a href="#">GEN 3.5</a> for RVR reporting and location of transmissometer

### UDSG AD 2.12 Runway physical characteristics

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
02	023.61°	3220 x 45	66/F/C/W/T Asphalt/ Concrete	404413.91N 0435106.12E	THR 4941FT TDZ 4941FT
20	203.62°	3220 x 45	66/F/C/W/T Asphalt/ Concrete	404549.51N 0435201.09E	THR 5000FT TDZ 5000FT
Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
0.56%	Nil	200x330	3570 X 330	According ICAO Annex 14	RESA 150m X 100m
0.56%	Nil	150x330	3570 X 330		RESA 150m X 100m

### UDSG AD 2.13 Declared distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
02	3220	3420	3220	3220	Nil
20	3220	3370	3220	3220	Nil

### UDSG 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	RWY edge LGT LEN, spacing colour, INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
02	CAT I 900 M	Green -	PAPI Left /3° (41 FT)	NIL	NIL	3220M, 49.53 M White Last 594 M Yellow HIRL	Red -	Nil	Nil
20	Nil	Green -	PAPI Left 3.5° (51 FT)	Nil	NIL	3220M, 49.53 M White Last 594 M Yellow HIRL	Red -	Nil	Nil

**UDSG AD 2.15 Other lighting, secondary power supply**

1	<i>ABN/IBN location, characteristics and hours of operation</i>	Nil
2	<i>LDI location and LGT</i> <i>Anemometer location and LGT</i>	Nil
3	<i>TWY edge and centre line lighting</i>	Edge TWY A, B
4	<i>Secondary power supply/switch-over time</i>	Secondary power supply to all lighting at AD. Switch-over time: t=0
5	<i>Remarks</i>	Nil

**UDSG AD 2.16 Helicopter landing area**

1	<i>Coordinates TLOF or THR of FATO Geoid undulation</i>	Nil
2	<i>TLOF and/of FATO elevation M/FT</i>	Nil
3	<i>TLOF and FATO area dimensions, surface, strength, marking</i>	Nil
4	<i>True BRG of FATO</i>	Nil
5	<i>Declared distance available</i>	Nil
6	<i>APP and FATO lighting</i>	Nil
7	<i>Remarks</i>	Nil

Note: Same as for ACFT.

**UDSG AD 2.17 Air traffic services airspace**

1	<i>Designation and lateral limits</i>	Gyumri CTR 405007N 0434115E - Radius GRM DME 10 NM - 403643N 0434207E - Then along state border with Turkey to - 405007N 0434115E
2	<i>Vertical limits</i>	6600 FT
3	<i>Airspace classification</i>	C
4	<i>ATS unit call sign</i> <i>Language(s)</i>	Gyumri Tower English
5	<i>Transition altitude</i>	11500 FT
6	<i>Remarks</i>	Nil

**UDSG AD 2.18 Air traffic services communication facilities**

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
TWR	Gyumri Tower	127.700 MHz 121.500 MHz	0600-1800	Primary frequency Emergency frequency

## UDSG AD 2.19 Radio navigation and landing aids

Type of aid, CAT of ILS/MLS (For VOR/ILS/MLS, give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME (7° E 2025)	GRM	113.400 MHz CH 81x	H24	404345.9N 0435050.1E	4950 FT	Coverage FL 100 30 NM
LLZ 02 ILS CAT I (7° E 2025)	IGM	110.300 MHz	0600-1800	404600.1N 0435207.2E	-	357 M beyond THR 20
GP 02 DME	-	335.000 MHz (CH 40x)	0600-1800	404420.7N 0435115.7E	-	3° RDH 52 FT/16M 281 M past THR 02 right side, 123 M from the centre line
MM 02	1 dot 1 dash	75 MHz	0600-1800	404343.7N 0435048.9E	-	197° MAG/1050 M to RWY 02

## UDSG AD 2.20 Local traffic regulations

### 1 Airport regulations

At Gyumri “Shirak” Airport a number of local regulations apply. The regulations are collected in a manual which is available at the AIS Briefing Office and at the Terminal Building. This manual includes, among other subjects, the following:

- a. Information about aircraft stands;
- b. Information about taxiing to aircraft stands;
- c. Information about taxiing from aircraft stands;
- d. Limitations in the operation of aircraft stands, including limitations in use of own power for taxiing;
- e. Information about Engine start-up positions;

Information about the regulations for taxiing can be obtained from Gyumri TWR on 127.700 MHz.

When a local regulation is important for the safe operation of aircraft on the apron Gyumri TWR gives information to each aircraft.

### 2 Taxiing to and from stands

Arriving aircraft is allocated a stand number by Gyumri TWR.

Taxiing of aircraft will be guided by “FOLLOW-ME” vehicle only by crew request or in low visibility condition.

Departing aircraft obtains pushback, engine start-up clearance and taxi instruction from Gyumri TWR on 127.700 MHz.

### 3 Parking area for small aircraft

Nil

### 4 Parking area for helicopters

Nil

### 5 Apron — taxiing during winter conditions

Nil

## 6 Taxiing — limitations

Information concerning limitation for uses TWY and Apron of large aircraft is given to each aircraft from Gyumri TWR.

## 7 School and training flights — technical test flights — use of runways

School and training flights must be made only after permission thereto has been obtained from Gyumri ATS authority.

## 8 Helicopter traffic — limitation

Nil

## 9 Removal of disabled aircraft from runways

In case when the aircraft is wrecked on a runway, it is removed from the runway by the Airline operating the aircraft as quickly as possible.

Airdrome Operator will have its participation according to the point 2.13 of Emergency Response Plan of Shirak airport.

Information about coordinator is available in AIP UDSG AD 2.6.

## UDSG AD 2.21 Noise abatement procedures

Nil

## UDSG AD 2.22 Flight procedures

### General

Flight within Gyumri TMA shall be conducted in accordance with the Instrument Flight Rules unless special permission is obtained from Gyumri Approach.

### Procedures for IFR flights within Gyumri TMA

The inbound, transit and outbound routes shown on the charts may be varied at the discretion of ATS. If necessary, in case of congestion, inbound aircraft may also be instructed to hold at GRMor BERDO or AMGIK in accordance with RWY in use.

### Radar procedures within Gyumri TMA

#### *Radar vectoring and sequencing*

Radar vectors and flight levels/heights are issued, as required, for spacing and separating the aircraft, so that correct landing intervals are maintained, taking into account aircraft characteristics.

Radar vectoring charts haven't been published since the instrument approach procedures and altitudes ensured that adequate terrain clearance exists at all times until the point where the pilot resumes his own navigation on final approach or in the circuit.

#### *Surveillance radar approaches*

Nil

#### *Precision radar approach*

Nil

#### *Communication failure*

In case of communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Doc 7030.

### Procedures for VFR flights within Gyumri TMA

Nil

### Advisory considerations in case of engine inoperative after take-off from AD Shirak Gyumri

In case of engine failure/fire after take-off, each operator is responsible for developing an emergency approach procedure. It is advisable to take into account the local circumstances outlined below

1. The maneuver zone safe altitude in IMC is 6600FT, in VMC is 6000FT.

2. After take-off from RWY20 initiate right side maneuver not further 2NM to the West or left side maneuver not further 4NM to the East over point (RWY02 TRH 1NM, GRM D0.5NM/R197°) or at 5500FT, whichever is earlier.
3. After take-off from RWY02 initiate left or right side maneuver not further 4NM over point (RWY20 TRH 1NM, GRM D3.3NM/R017°) or at 5500FT, whichever is earlier.
4. During approach to RWY20 do not cross Arc GRM D6.1NM (North of aerodrome).
5. During approach to RWY02 do not cross Arc GRM D7NM (South of aerodrome).

## **UDSG AD 2.23 Additional information**

### **Bird concentrations in the vicinity of the airport**

Nil

## UDSG AD 2.24 Charts related to an aerodrome

Aerodrome ground Movement and aircraft Parking Chart — ICAO ([see page UDSG AD 2.2-1](#))

Aerodrome Obstacle Chart — ICAO Type A ([see page UDSG AD 2.2-3](#))

Aerodrome Chart — ICAO ([see page UDSG AD 2.2-5](#))

Area Chart — ICAO ([see page UDSG AD 2.2-7](#))

List Of Coordinates For RVA Gyumri TMA ([see page UDSG AD 2.2-9](#))

ATC Surveillance Minimum Altitude Chart - ICAO ([see page UDSG AD 2.2-11](#))

Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY02 ([see page UDSG AD 2.2-13](#))

Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY02 ([see page UDSG AD 2.2-15](#))

Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY02 (Waypoint Data/List) ([see page UDSG AD 2.2-17](#))

Standard Departure Chart — Instrument SID - ICAO RNAV1 (GNSS) RWY02 ([see page UDSG AD 2.2-19](#))

Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY20 ([see page UDSG AD 2.2-21](#))

Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY20 ([see page UDSG AD 2.2-23](#))

Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY20 (Waypoint Data/List) ([see page UDSG AD 2.2-25](#))

Standard Departure Chart — Instrument SID - ICAO RNAV1 (GNSS) RWY20 ([see page UDSG AD 2.2-27](#))

Standard Arrival Route — Instrument STAR RNAV1 (GNSS) RWY20 ([see page UDSG AD 2.2-29](#))

Standard Arrival Route — Instrument STAR RNAV1 (GNSS) RWY20 (Waypoint Data/List) ([see page UDSG AD 2.2-31](#))

Standard Arrival Chart — Instrument STAR - ICAO RNAV1 (GNSS) RWY20 ([see page UDSG AD 2.2-33](#))

Instrument Approach Chart — ICAO ILS/DME RWY 02 ([see page UDSG AD 2.2-35](#))

Instrument Approach Chart — ICAO DVOR DME RWY 02 ([see page UDSG AD 2.2-37](#))

RNP RWY 20 Instrument Approach (LNAV/VNAV) Route Data ([see page UDSG AD 2.2-39](#))

RNAV (GNSS) Instrument Approach RWY 20 (Waypoint Data/List) ([see page UDSG AD 2.2-41](#))

Instrument Approach Chart - ICAO RNP RWY 20 (LNAV/VNAV) ([see page UDSG AD 2.2-43](#))

RNP RWY 02 Instrument Approach (LNAV/VNAV) Route Data ([see page UDSG AD 2.2-45](#))

RNAV (GNSS) Instrument Approach RWY 02 (Waypoint Data/List) ([see page UDSG AD 2.2-47](#))

Instrument Approach Chart - ICAO RNP RWY 02 (LNAV/VNAV) ([see page UDSG AD 2.2-49](#))

Visual Approach Chart — ICAO RWY 02/20 ([see page UDSG AD 2.2-51](#))

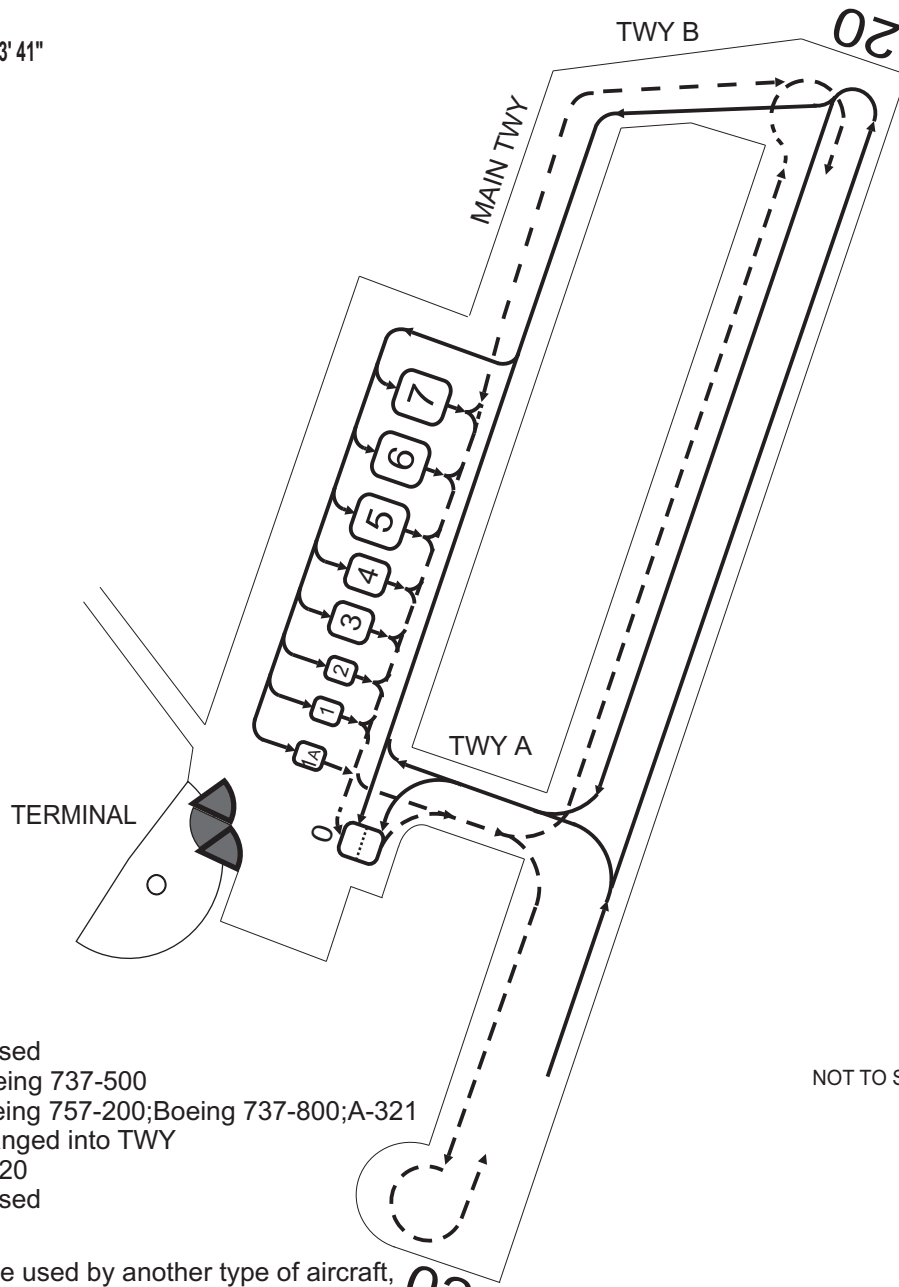
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**AERODROME GROUND MOVEMENT AND PARKING CHART - ICAO**

GYUMRI/TWR 127.7

**GYUMRI / International ARMENIA**

↑↑ VAR 7°E-2025  
Annual rate of change 3' 41"



- STANDS 0 Closed
- STANDS 1 A, 4 Boeing 737-500
- STANDS 1 Boeing 757-200; Boeing 737-800; A-321
- STANDS 2 changed into TWY
- STANDS 3 A-320
- STANDS 5,6,7 Closed

NOT TO SCALE

NOTE: All stands can be used by another type of aircraft, which external dimension is similar with mentioned types.

02

————— AFTER LANDING  
- - - - - BEFORE TAKE-OFF

CHANGE: MAG VAR

TAXIWAY	STANDS	Coordinates for aircraft stands
WIDTH:		
TWY A - 22 m	0 - PCN 27/F/C/Y/T	N0 - 40 45 02.67N 043 51 21.09E
TWY B - 22 m	1 - PCN 56/F/C/W/T	N1A - 40 45 04.42N 043 51 17.81E
TWY MAIN - 22 m	1A - PCN 58/F/C/W/T	N1 - 40 45 05.55N 043 51 18.89E
SURFACE:	2 - PCN 53/F/C/X/T	N3 - 40 45 06.38N 043 51 22.45E
Asphalt-Concrete	3 - PCN 33/F/C/W/T	N4 - 40 45 07.46N 043 51 23.78E
STRENGTH:	4 - PCN 27/F/C/X/T	N5 - 40 45 08.68N 043 51 25.30E
TWY A - PCN 45/F/C/X/T	5 - PCN 27/F/C/X/T	N6 - 40 45 10.05N 043 51 26.99E
TWY B - PCN 44/F/C/X/T	6 - PCN 28/F/C/X/T	N7 - 40 45 11.43N 043 51 28.71E
TWY MAIN - PCN 34/F/C/W/T	7 - PCN 27/F/C/X/T	

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DIMENSIONS IN METERS  
ELEVATION IN FEET

AERODROME OBSTACLE CHART-ICAO  
TYPE A (OPERATING LIMITATIONS)

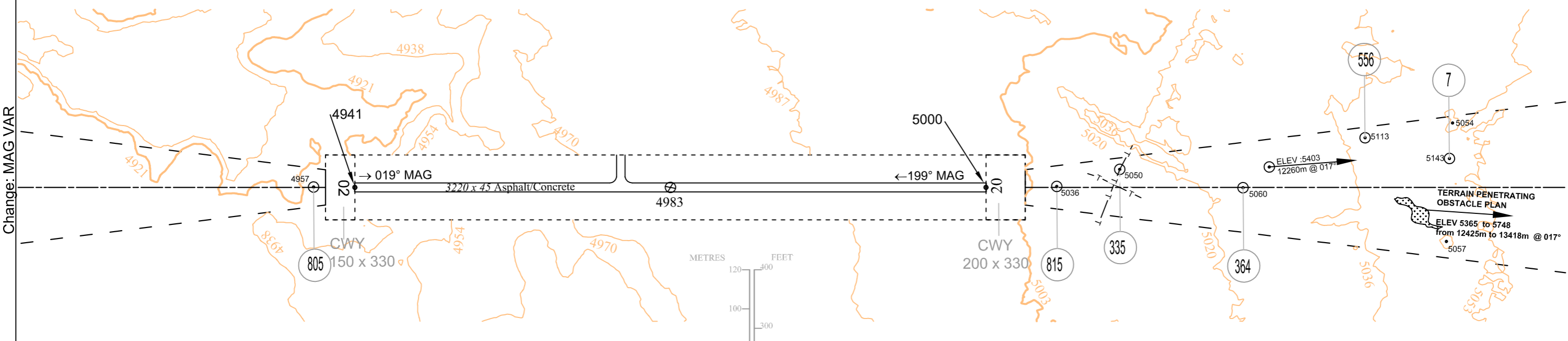
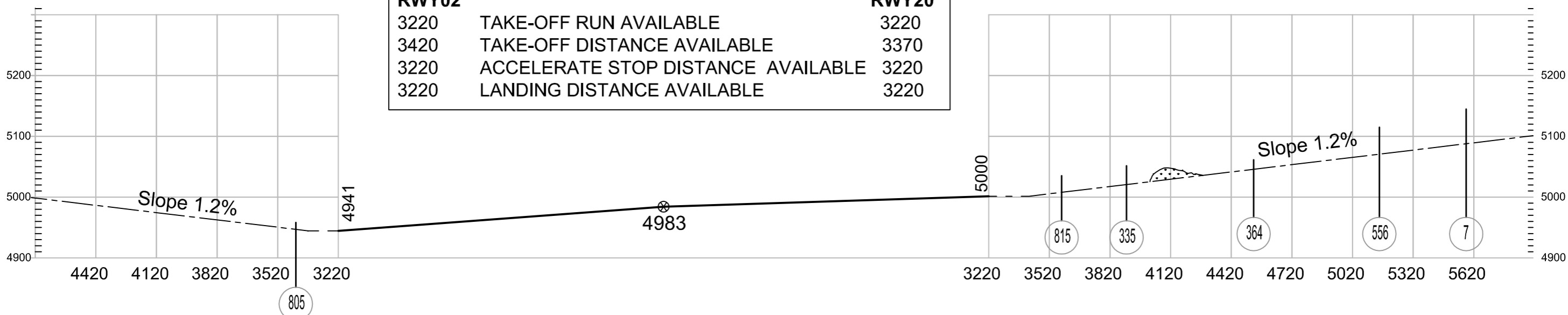
GYUMRI / SHIRAK

MAGNETIC VARIATION 7°E - 2025  
Annual rate of change 3' 41"

RWY 02/20

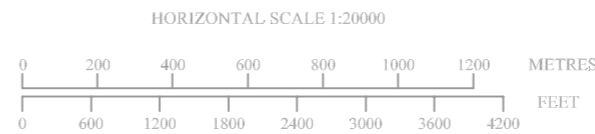
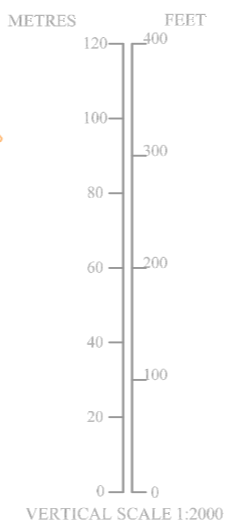
DECLARED DISTANCES

RWY02		RWY20
3220	TAKE-OFF RUN AVAILABLE	3220
3420	TAKE-OFF DISTANCE AVAILABLE	3370
3220	ACCELERATE STOP DISTANCE AVAILABLE	3220
3220	LANDING DISTANCE AVAILABLE	3220



Change: MAG VAR

LEGEND	
DISTANCE AND T.BEARING FROM THE END OF THE RUNWAY FARTHEST REMOVED AND THE ELEVATION	ELEV 5403 12328m @ 092°
IDENTIFICATION NUMBER	006
BUILDINGS	■
ANTENA, POLE	⊙
TERRAIN PENETRATING OBSTACLE PLAN	▨
TERRAIN CONTOUR	—
ELEVATION	5200



ORDER OF ACCURACY  
HORIZONTAL 5M  
VERTICAL 1.5 F

AMENDMENT RECORD		
N	DATA	ENTERED BY

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**AERODROME  
CHART-ICAO**

ELEV  
5000'

ARP  
40 45 02N  
043 51 34E

TWR 127.7

**GYUMRI / International  
ARMENIA**

VAR 7°E-2025  
Annual rate of change 3' 41"

GYUMRI

5141'

ILS LLZ  
IGM 110.3

5059'

5018'

RESA  
150x100

CWY  
200 x 330

**20**

ELEV  
5000'

PAPI  
GP 3,5  
(6.12%)  
MEHT 51

MAIN

3220 m x 45 m  
ASPHALT CONCRETE

BEARINGS ARE MAGNETIC  
DISTANCES IN METRES  
ELEVATIONS IN FEET

3570 m x 330 m  
STRIP

TERMINAL

5046'

RWY	TRUE DIRECTION	THR	Distance between runway THR and centerlines of taxiways
			From TWY "A"
02	024	40 44 13.91N 043 51 06.12E	1561
20	204	40 45 49.51N 043 52 01.09E	1650

**AERODROME LIGHTING**

Approach: RWY 02 HIALS  
RWY 20 NONE  
Runway: Edge-white last 570m  
Yellow HIRL  
Threshold: Green

STRENGTH		DECLARED DISTANCES			
		TORA	TODA	ASDA	LDA
PCN 66/F/C/W/T	02	3220	3420	3220	3220
	20	3220	3370	3220	3220

ILS GP  
335.0

ELEV  
4941'

PAPI  
GP 3  
(5.24%)  
MEHT 41

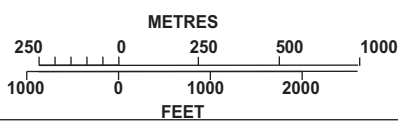
RESA  
150x100

CWY  
150 x 330

**02**

PRECISION APPROACH  
LIGHTING SYSTEM

DVOR/DME  
GRM 113.4



CHANGE: PCN

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**AREA CHART - ICAO**

AD ELEV 5000  
THR RWY 20 ELEV 5000  
THR RWY 02 ELEV 4941

GYUMRI / TWR 127.7

HOLDING PATTERNS

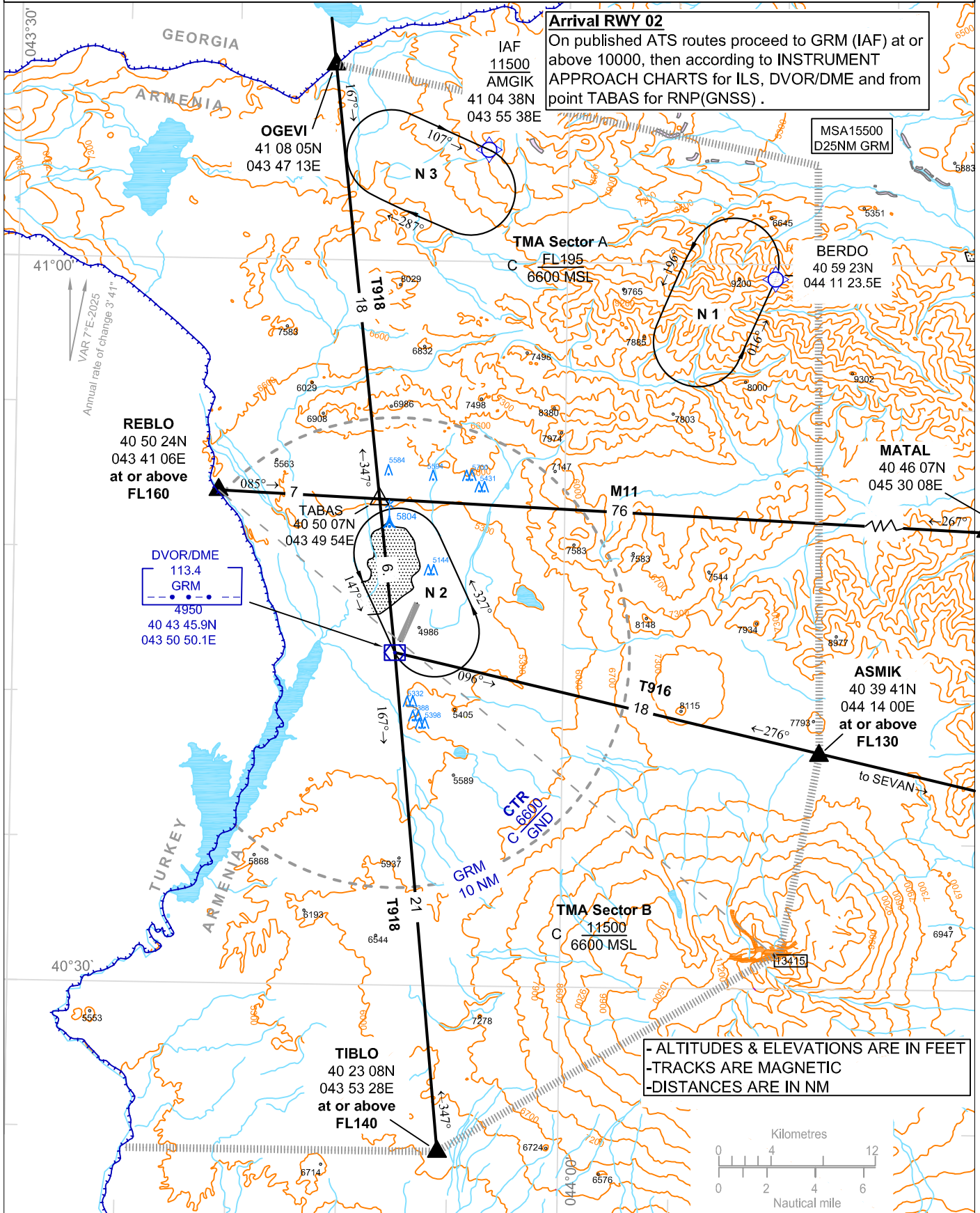
**GYUMRI / SHIRAK**

TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500

N1 - 11500 - FL140  
N2 - 10000 - FL140  
N3 - 11500 - FL140

**Arrival RWY 02**

On published ATS routes proceed to GRM (IAF) at or above 10000, then according to INSTRUMENT APPROACH CHARTS for ILS, DVOR/DME and from point TABAS for RNP(GNSS).



DVOR/DME  
113.4  
GRM  
4950  
40 43 45.9N  
043 50 50.1E

- ALTITUDES & ELEVATIONS ARE IN FEET  
- TRACKS ARE MAGNETIC  
- DISTANCES ARE IN NM



CHANGE: MAG VAR

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## LIST OF COORDINATES FOR RVA GYUMRI TMA

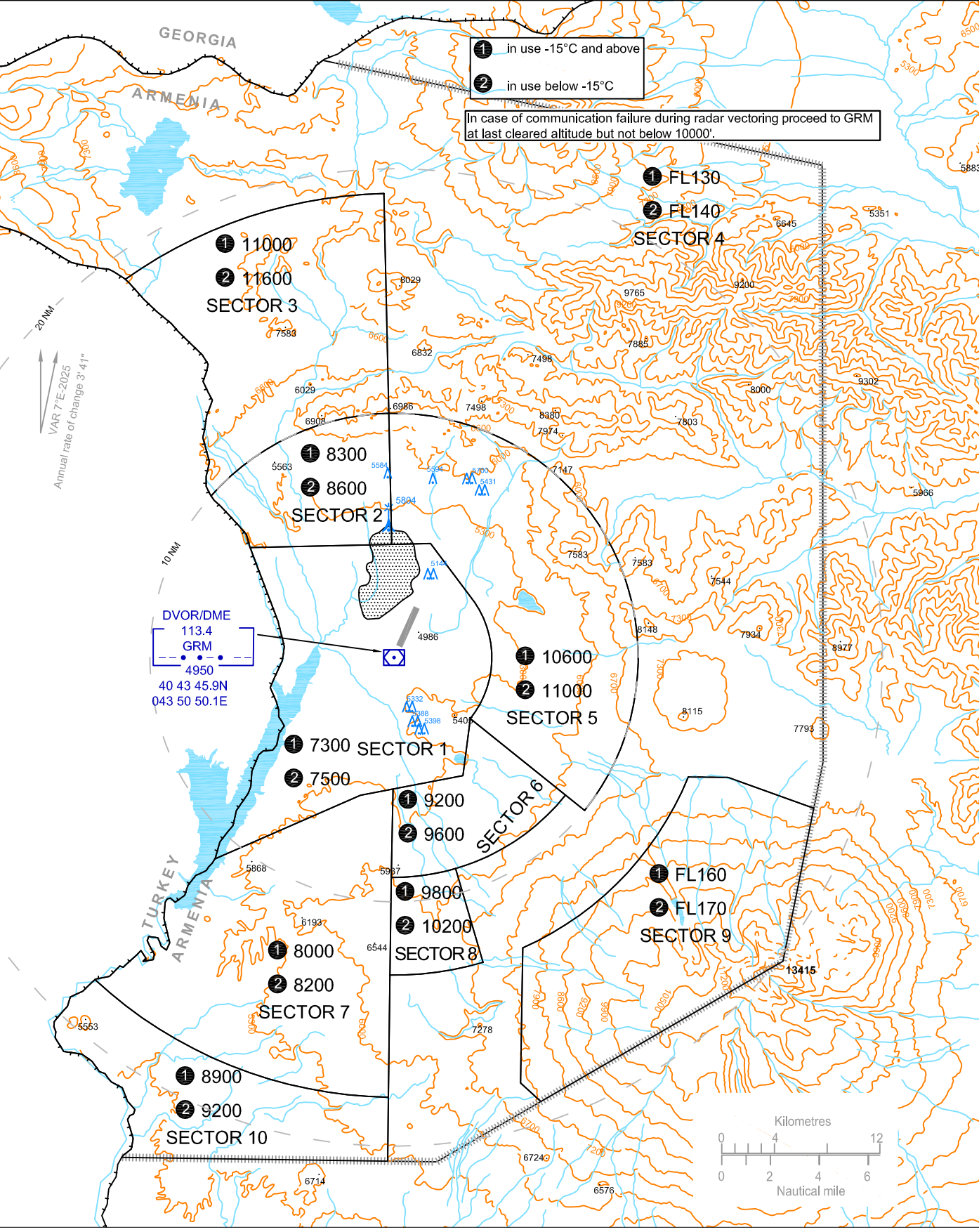
Number Sector	Coordinate	Altitude/FL (In use -15°C and above) Altitude/FL ( In use below - 15°C)					
1	40 46 04N 43 55 09E- 40 48 27N 43 52 43E- 40 48 24N 43 50 37E- 40 48 11N 43 42 59E- Then along state border with Turkey to 40 35 25N 43 41 20E- 40 38 07N 43 49 07E- 40 38 23N 43 50 53E- 40 38 58N 43 54 38E- 40 41 18N 43 54 59E- ARC 4 NM GRM 40 46 04N 43 55 09E	7300 7500					
2	40 53 46N 43 50 22E- ARC 10 NM GRM 40 50 17N 43 40 51E- Then along state border with Turkey to- 40 48 11N 43 42 59E- 40 48 24N 43 50 37E- 40 53 46N 43 50 22E	8300 8600					
3	41 02 46N 43 49 57E- ARC 19 NM GRM 40 59 06N 43 36 02E- Then along state border with Turkey to 40 50 17N 43 40 51E- ARC 10 NM GRM 40 53 46N 43 50 22E- 41 02 46N 43 49 57E	11000 11600					
4	41 04 07N 44 13 40E- 41 08 11N 43 46 32E- Then along state border with Georgia, then along state border with Turkey to- 40 59 06N 43 36 02E- ARC 19 NM GRM 41 02 46N 43 49 57E- 40 53 46N 43 50 22E- ARC 10 NM GRM 40 37 36N 44 01 11E- 40 38 13N 44 00 09E- ARC 9 NM GRM 40 35 09N 43 54 17E- 40 31 19N 43 55 49E- ARC 13 NM GRM 40 30 45N 43 50 50E- 40 25 45N 43 50 50E- 40 23 08N 43 50 50E- 40 23 08N 43 53 28E- 40 25 39N 43 59 01E- 40 26 24N 43 57 55E- 40 31 57N 43 57 57E- ARC 13 NM GRM 40 39 01N 44 06 45E- 40 39 01N 44 08 53E- 40 37 47N 44 13 31E- 40 39 41N 44 14 00E- 41 04 07N 44 13 40E	FL130 FL140					
5				40 53 46N 43 50 22E- 40 48 24N 43 50 37E- 40 48 27N 43 52 43E- 40 46 04N 43 55 09E- ARC 4 NM GRM 40 41 18N 43 54 59E- 40 38 13N 44 00 09E- 40 37 36N 44 01 11E- ARC 10 NM GRM 40 53 46N 43 50 22E	10600 11000		
6				40 41 18N 43 54 59E- 40 38 13N 44 00 09E- ARC 9 NM GRM 40 34 46N 43 50 50E- 40 38 23N 43 50 53E- 40 38 58N 43 54 38E- 40 41 18N 43 54 59E	9200 9600		
7				40 34 46N 43 50 50E- 40 38 23N 43 50 53E- 40 38 07N 43 49 07E- 40 35 25N 43 41 20E- Then along state border with Turkey to 40 30 24N 43 35 00E- ARC 18 NM GRM 40 25 45N 43 50 50E- 40 34 46N 43 50 50E	8000 8200		
8				40 35 09N 43 54 17E- ARC 9 NM GRM 40 34 46N 43 50 50E- 40 30 45N 43 50 50E- ARC 13 NM GRM 40 31 19N 43 55 49E- 40 35 09N 43 54 17E	9800 10200		
9				40 37 47N 44 13 31E- 40 39 01N 44 08 53E- 40 39 01N 44 06 45E- ARC 13 NM GRM 40 31 57N 43 57 57E- 40 26 24N 43 57 55E- 40 25 39N 43 59 01E- 40 31 30N 44 11 56E- 40 37 47N 44 13 31E	FL160 FL170		
10				40 25 45N 43 50 50E- ARC 18 NM GRM 40 30 24N 43 35 00E- Then along state border with Turkey to 40 23 08N 43 36 35E- 40 23 08N 43 50 50E- 40 25 45N 43 50 50E	8900 9200		

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**ATC Surveillance Minimum  
Altitude Chart - ICAO**

AD ELEV 5000      GYUMRI / TWR    127.7      **GYUMRI / SHIRAK**

TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500



CHANGE: MAG VAR

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### Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY02

Designator	Route	After take-Off		Remarks
		Climb to	Expect FREQ	
ASMIK 1C	Climb on track 017° (T023.6°) to <u>SG452</u> ; LT via SG454 on track 175° (T182.2°) SG455; LT on track 094° (T101.1°) to ASMIK (Δ). <u>SG452</u> [L] – SG454 [K185-] – SG455 [K210-; L] – ASMIK.	FL130	GYUMRI 127.7 MHZ	PDG 4.9% up to FL130

Example: SG452 denotes fly-over

#### RNAV SID CODING TABLE OF ASMIK 1C

Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
CF	SG452	Y	N40 47 50.8 E043 53 10.8	017° (T023.6°)	2.2		A6000+	K185-	RNAV1	
DF	SG454	N	N40 49 15.0 E043 48 56.0			L	A7500+	K185-	RNAV1	
TF	SG455	N	N40 43 31.0 E043 48 39.0	175° (T182.2°)	5.7		A10100+	K210-	RNAV1	
TF	ASMIK	N	N40 39 41.0 E044 14 00.0	094° (T101.1°)	19.7	L	FL130+		RNAV1	

Designator	Route	After take-Off		Remarks
		Climb to	Expect FREQ	
TABAS 1C	Climb on track 017° (T023.6°) to <u>SG452</u> ; LT via SG454 on track 175° (T182.2°) to <u>SG453</u> ; LT direct TABAS (Δ). SG452 [L] – SG454 [K185-] – SG453 [K210-; L] – TABAS.	FL130	GYUMRI 127.7 MHZ	PDG 4.9% up to A7500 PDG 3.5% from A7500 up to FL130

Example: SG453 denotes fly-over

#### RNAV SID CODING TABLE OF TABAS 1C

Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
CF	SG452	Y	N40 47 50.8 E043 53 10.8	017° (T023.6°)	2.2		A6000+	K185-	RNAV1	
DF	SG454	N	N40 49 15.0 E043 48 56.0			L	A7500+	K185-	RNAV1	
TF	SG453	Y	N 40 39 37.7 E043 48 27.5	175° (T182.2°)	9.6		A10100+	K210-	RNAV1	
DF	TABAS	N	N40 50 07.0 E043 49 54.0			L	FL130+		RNAV1	

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## Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY02

Designator	Route	After take-Off		Remarks						
		Climb to	Expect FREQ							
<b>TIBLO 1C</b>	Climb on track 017° (T023.6°) to <u>SG452</u> ; LT via SG454 on track 175° (T182.2°) to SG453; LT on track 160° (T166.9°) TIBLO(Δ). <u>SG452</u> [L] – SG454 – SG453 [K210-; L] – TIBLO.	FL130	GYUMRI 127.7 MHZ	PDG 4.9% up to A7500 PDG 3.5% from A7500 up to FL130						
Example: <u>SG453</u> and <u>SG452</u> denotes fly-over										
RNAV SID CODING TABLE OF TIBLO 1C										
Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
CF	SG452	Y	N40 47 50.8 E043 53 10.8	017° (T023.6°)	2.2		A6000+	K185-	RNAV1	
DF	SG454	N	N40 49 15.0 E043 48 56.0			L	A7500+	K185-	RNAV1	
TF	SG453	Y	N 40 39 37.7 E043 48 27.5	175° (T182.2°)	9.6		A11500+	K210-	RNAV1	
TF	TIBLO	N	N40 23 08.0 E043 53 28.0	160° (T166.9°)	16.9	L	FL130+		RNAV1	

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**Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY02****Waypoint Data/List**

<b>WPT Name</b>	<b>CODING</b>		<b>DISPLAY</b>	
SG452	N 40 47 50.8	E 043 53 10.8	N 40 47.8	E 043 53.2
SG453	N 40 39 37.7	E 043 48 27.5	N 40 39.6	E 043 48.4
SG454	N 40 49 15.0	E 043 48 56.0	N 40 49.3	E 043 48.9
SG455	N 40 43 31.0	E 043 48 39.0	N 40 43.5	E 043 48.6
SG500	N 40 42 06.4	E 043 58 09.5	N 40 42.1	E 043 58.1
ASMIK	N 40 39 41.0	E 044 14 00.0	N 40 39.7	E 044 14.0
TABAS	N 40 50 07.0	E 043 49 54.0	N 40 50.1	E 043 49.9
TIBLO	N 40 23 08.0	E 043 53 28.0	N 40 23.1	E 043 53.5

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**STANDARD DEPARTURE  
CHART -  
INSTRUMENT (SID) - ICAO**  
TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500

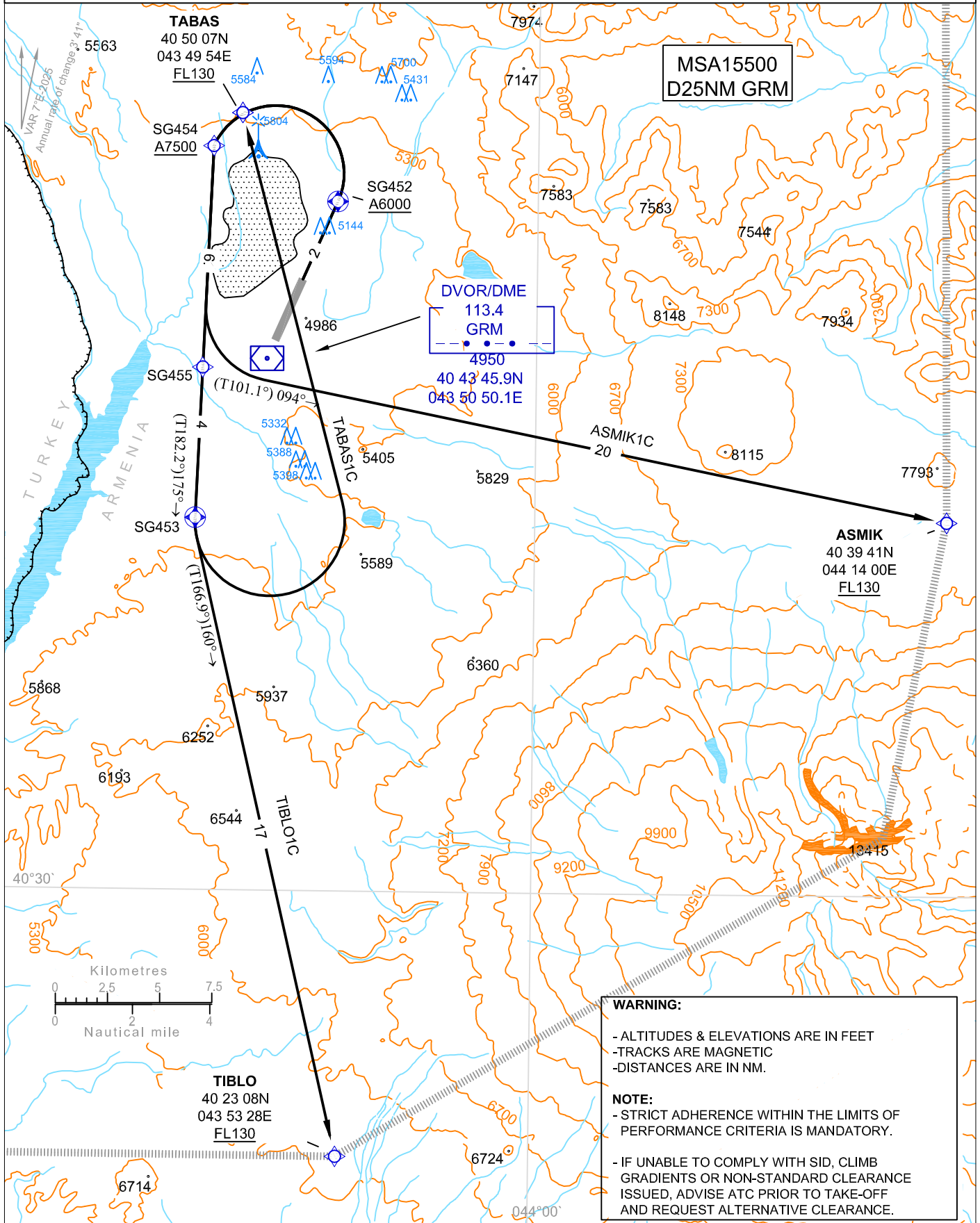
AD ELEV 5000  
THR RWY 02 ELEV 4941

GYUMRI / TWR 127.7

**GYUMRI / SHIRAK**

**RNAV1 (GNSS) RWY 02**

TABAS 1C, ASMIK 1C, TIBLO 1C



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**Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY20**

Designator	Route	After take-Off		Remarks
		Climb to	Expect FREQ	
<b>ASMIK 1G</b>	Climb on track 197°(T203.6°) to SG453; LT direct SG500; RT on track 094° (T101.3°) to ASMIK (Δ). SG453 [K195-; L] – SG500 [K210-; R] – ASMIK.	FL130	GYUMRI 127.7 MHZ	PDG 4.8% up to FL130

Example: SG453 denotes fly-over**RNAV SID CODING TABLE OF ASMIK 1G**

Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
CF	SG453	Y	N40 39 37.7 E043 48 27.5	197° (T203.6°)	5.0		A6500+	K195-	RNAV1	
DF	SG500	N	N40 42 06.4 E043 58 09.5			L	A9500+	K210-	RNAV1	
TF	ASMIK	N	N40 39 41.0 E044 14 00.0	094° (T101.3°)	12.3	R	FL130 +		RNAV1	

Designator	Route	After take-Off		Remarks
		Climb to	Expect FREQ	
<b>TABAS 1G</b>	Climb on track 197°(T203.6°) to SG453; LT direct TABAS (Δ). SG453 [K195-; L] – TABAS.	FL130	GYUMRI 127.7 MHZ	PDG 5.6% up to FL130

Example: SG453 denotes fly-over**RNAV SID CODING TABLE OF TABAS 1G**

Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
CF	SG453	Y	N40 39 37.7 E043 48 27.5	197° (T203.6°)	5.0		A6700+	K195-	RNAV1	
DF	TABAS	N	N40 50 07.0 E043 49 54.0			L	FL130 +		RNAV1	

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### Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY20

Designator	Route	After take-Off		Remarks
		Climb to	Expect FREQ	
<b>TIBLO 1G</b>	Climb on track 197°(T203.6°) to <u>SG453</u> ; LT on track 160°(166.9°) to TIBLO (Δ). <u>SG453</u> [K195-; L] – TIBLO.	FL130	GYUMRI 127.7 MHZ	PDG 6% up to FL130

Example: SG453 denotes fly-over

#### RNAV SID CODING TABLE OF TIBLO 1G

Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
CF	SG453	Y	N40 39 37.7 E043 48 27.5	197° (T203.6°)	5.0		A6800+	K195-	RNAV1	
TF	TIBLO	N	N40 23 08.0 E043 53 28.0	160° (T166.9°)	16.9	L	FL130+		RNAV1	

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**Standard Departure Route — Instrument SID RNAV1 (GNSS) RWY20  
Waypoint Data/List**

WPT Name	CODING		DISPLAY	
SG452	N 40 47 50.8	E 043 53 10.8	N 40 47.8	E 043 53.2
SG453	N 40 39 37.7	E 043 48 27.5	N 40 39.6	E 043 48.4
SG454	N 40 49 15.0	E 043 48 56.0	N 40 49.3	E 043 48.9
SG455	N 40 43 31.0	E 043 48 39.0	N 40 43.5	E 043 48.6
SG500	N 40 42 06.4	E 043 58 09.5	N 40 42.1	E 043 58.1
ASMIK	N 40 39 41.0	E 044 14 00.0	N 40 39.7	E 044 14.0
TABAS	N 40 50 07.0	E 043 49 54.0	N 40 50.1	E 043 49.9
TIBLO	N 40 23 08.0	E 043 53 28.0	N 40 23.1	E 043 53.5

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**STANDARD DEPARTURE  
CHART -  
INSTRUMENT (SID) - ICAO**  
TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500

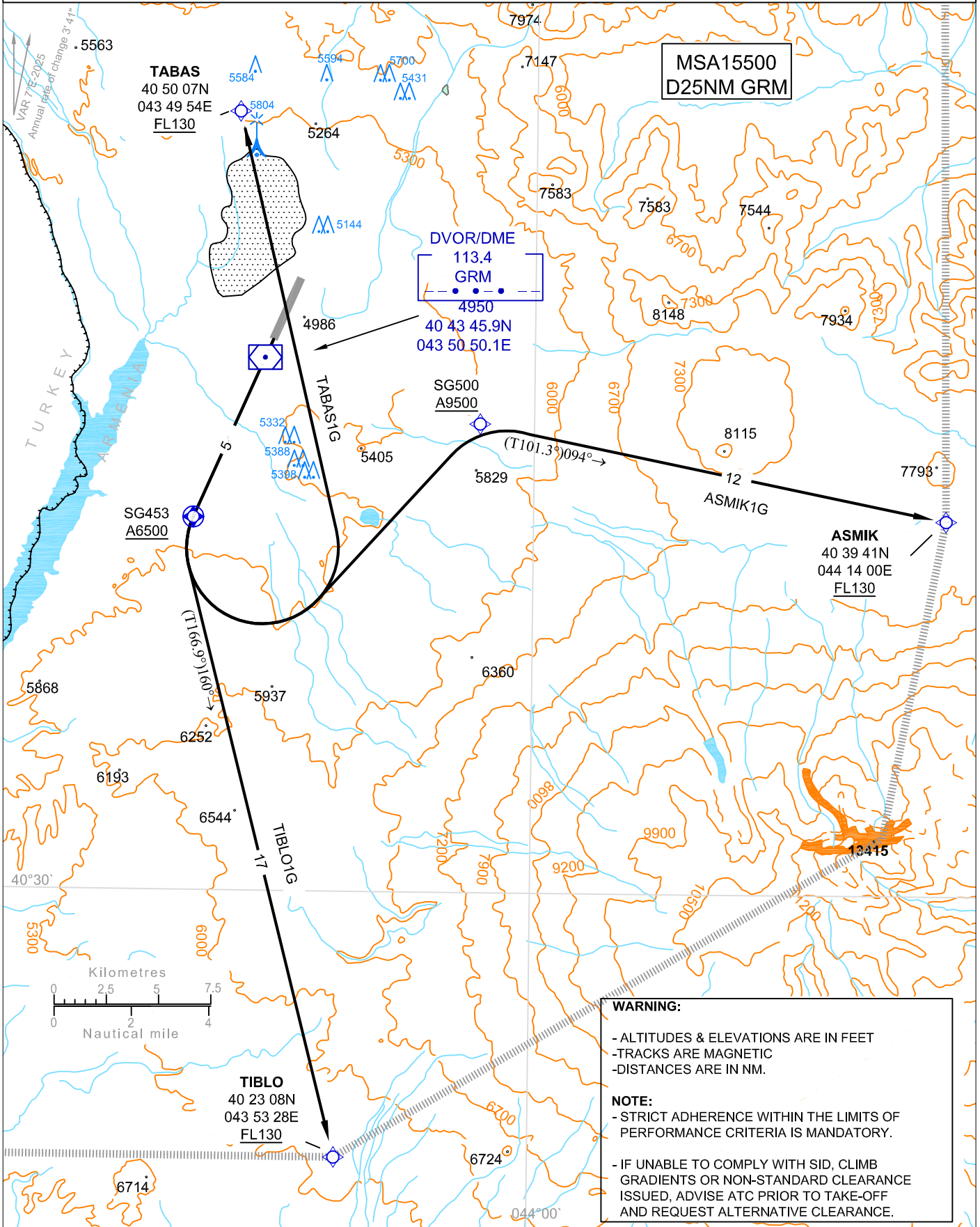
AD ELEV 5000  
THR RWY 20 ELEV 5000

GYUMRI / TWR 127.7

**GYUMRI / SHIRAK**

**RNAV1 (GNSS) RWY 20**

TABAS 1G, ASMIK 1G, TIBLO 1G



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**Standard Arrival Route — Instrument STAR RNAV1 (GNSS) RWY20**

Designator	Route								Remarks	
ASMIK 1J	Track M347° (T354.3°) ASMIK–IAF BERDO ASMIK (K210-;FL130+)–IAF BERDO (A11500+)								STAR for RNP APCH	
<b>RNAV STAR CODING TABLE OF ASMIK 1J</b>										
Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
IF	ASMIK	N	N40 39 41.0 E044 14 00.0				FL130+	K210-	RNAV1	
TF	BERDO	N	N40 59 23.1 E044 11 23.5	347° (T354.3°)	19.8		A11500+		RNAV1	

Designator	Route								Remarks	
REBLO 1J	Track M031° (T037.7°) REBLO–IAF AMGIK REBLO (K210-;FL160+)–IAF AMGIK (A11500+)								STAR for RNP APCH	
<b>RNAV STAR CODING TABLE OF REBLO 1J</b>										
Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
IF	REBLO	N	N40 50 24.0 E043 41 06.0				FL160+	K210-	RNAV1	
TF	IAF AMGIK	N	N41 04 37.7 E043 55 38.2	031° (T037.7°)	18.0		A11500+		RNAV1	

Designator	Route								Remarks	
TIBLO 1J	Track M014°(T020.5) TIBLO – IAF BERDO TIBLO (K210-;FL140+) – IAF BERDO (A11500+)								STAR for RNP APCH	
<b>RNAV STAR CODING TABLE OF TIBLO 1J</b>										
Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
IF	TIBLO	N	N40 23 08.0 E043 53 28.0				FL140+	K210-	RNAV1	
TF	BERDO	N	N40 59 23.1 E044 11 23.5	014° (T020.5)	38.7		A11500+		RNAV1	

Designator	Route								Remarks	
OGEVI 1J	Track M111° (T118.4°) OGEVI–IAF AMGIK OGEVI (K210-;FL130+)–IAF AMGIK (A11500+)								STAR for RNP APCH	
<b>RNAV STAR CODING TABLE OF OGEVI 1J</b>										
Path Terminator	Waypoint			Course/ Track Mag(True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Fly Over	Coordinates				Level	IAS		
IF	OGEVI	N	N41 08 05.0 E043 47 13.0				FL130+	K210-	RNAV1	
TF	IAF AMGIK	N	N41 04 37.7 E043 55 38.2	111° (T118.4°)	7.2		A11500+		RNAV1	

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**Standard Arrival Route — Instrument STAR RNAV1 (GNSS) RWY20****Waypoint Data/ List**

<b>WPT Name</b>	<b>CODING</b>		<b>DISPLAY</b>	
BERDO(IAF)	N 40 59 23.1	E 044 11 23.5	N 40 59.4	E 044 11.4
AMGIK(IAF)	N41 04 37.7	E043 55 38.2	N41 04.6	E043 55.6
ASMIK	N 40 39 41.0	E 044 14 00.0	N 40 39 7	E 044 14.0
TIBLO	N 40 23 08.0	E 043 53 28.0	N 40 23.1	E 043 53.5
REBLO	N 40 50 24.0	E 043 41 06.0	N 40 50.4	E 043 41.1
OGEVI	N 41 08 05.0	E 043 47 13.0	N 41 08.1	E 043 47.2

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

AD ELEV 5000  
THR RWY 20 ELEV 5000

GYUMRI / TWR

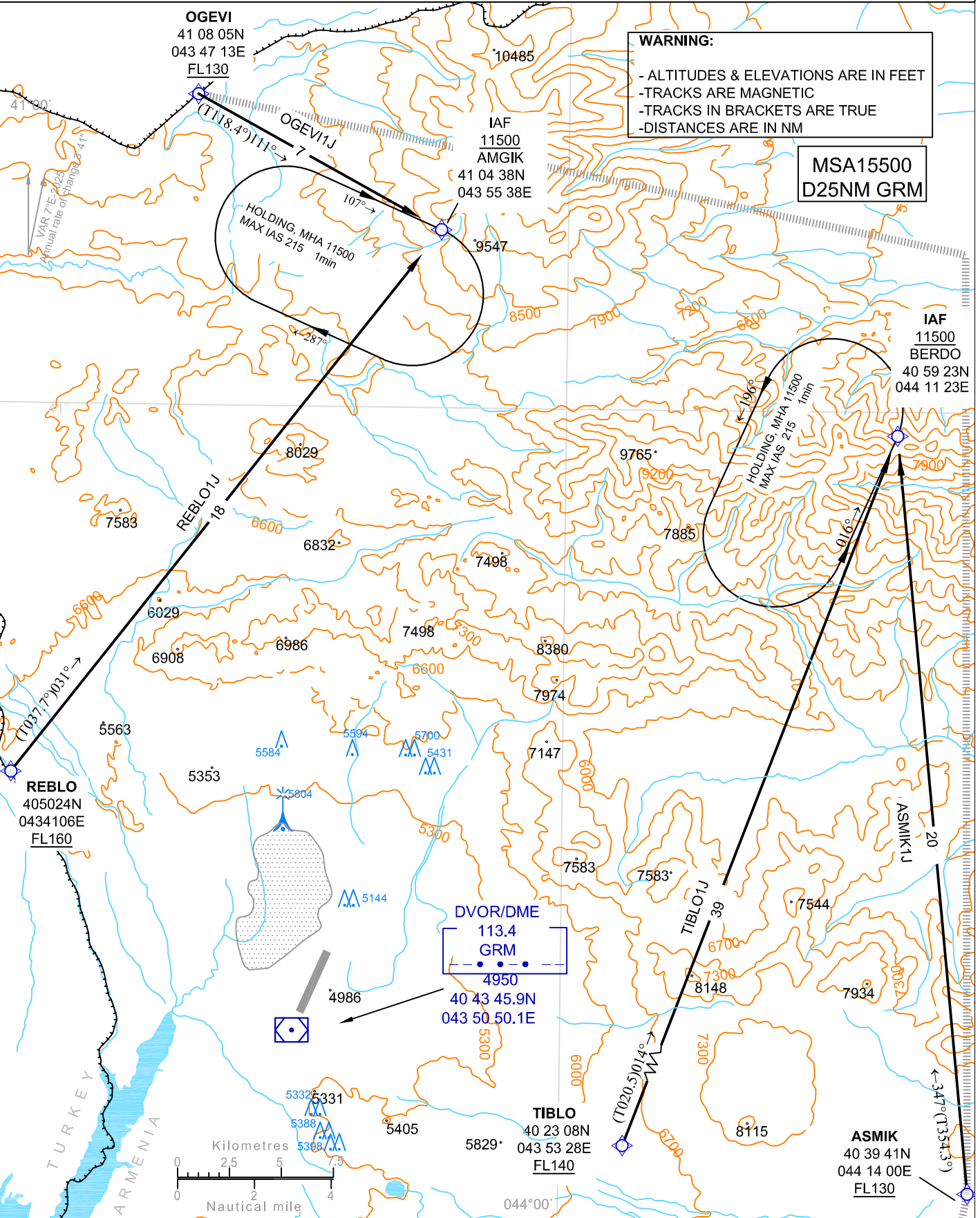
127.7

**GYUMRI / SHIRAK**

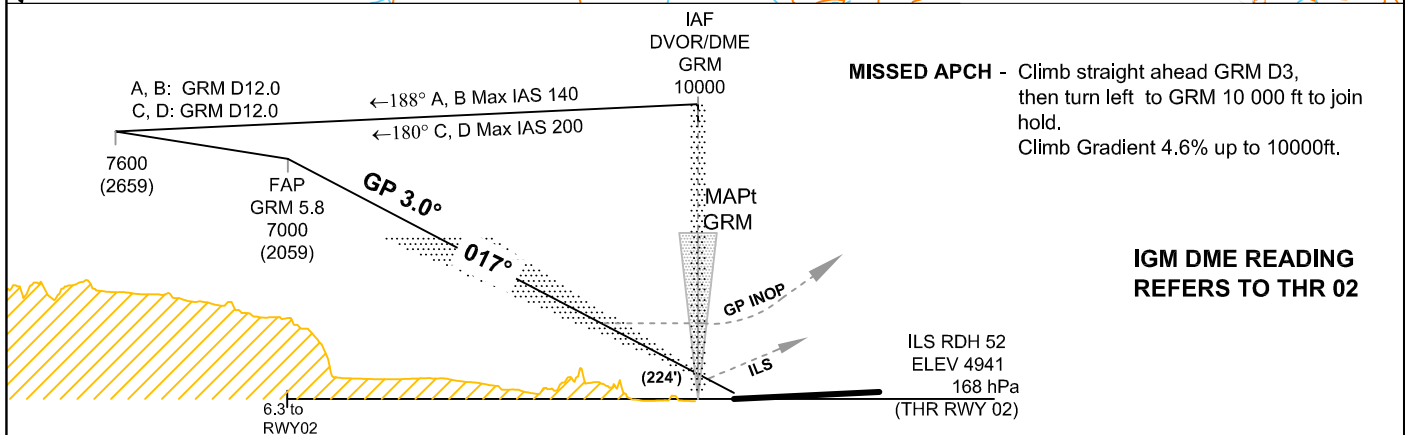
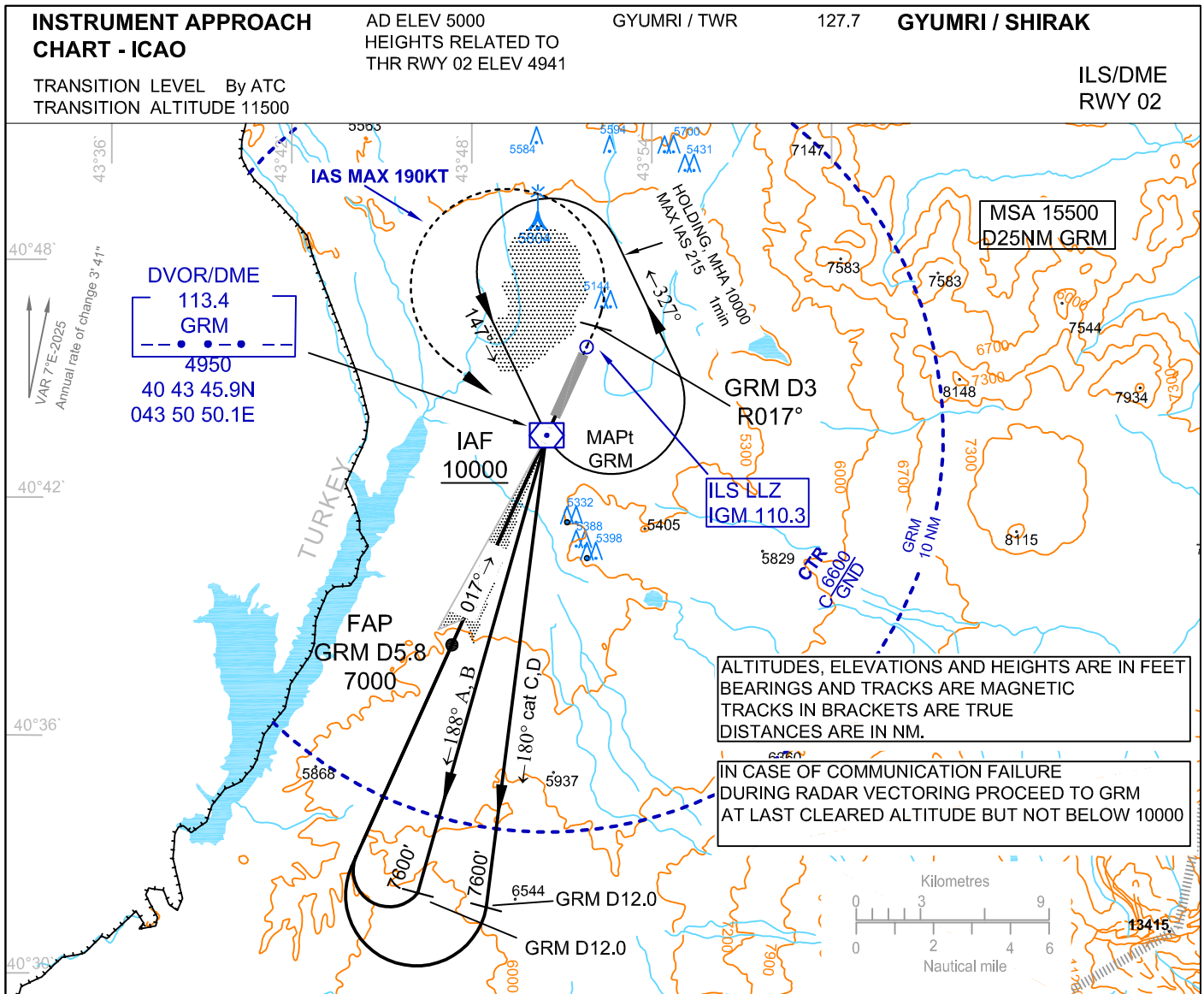
**RNAV1 (GNSS) RWY 20**

ASMIK 1J, TIBLO 1J, OGEVI 1J, REBLO 1J

TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500



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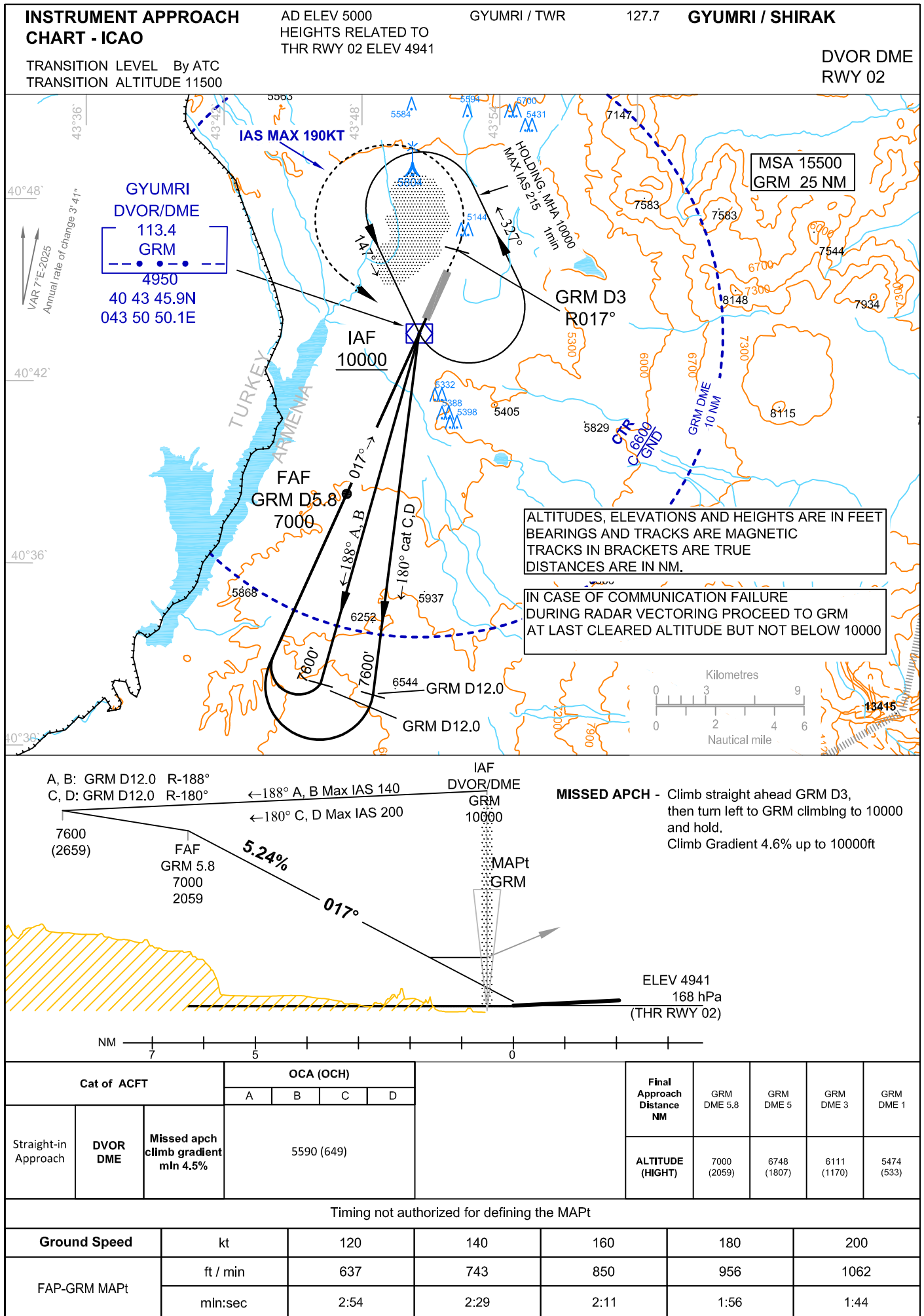
Cat of ACFT		OCA (OCH)				Final Approach Distance NM	IGM DME 6.3	IGM DME 5	IGM DME 3	IGM DME 1
		A	B	C	D					
Straight-in Approach	ILS CAT I	5092 (151)	5099 (158)	5112 (171)	5125 (184)	ALTIMETER (HEIGHT)	7000 (2059)	6585 (1644)	5949 (1008)	5312 (371)
	GP INOP	5590 (649)								

Timing not authorized for defining the MAPt

Ground Speed	kt	120	140	160	180	200
FAP-GRM MAPt	ft / min	637	743	850	956	1062
	min:sec	2:54	2:29	2:11	1:56	1:44

CHANGE: MAG VAR

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**INSTRUMENT APPROACH CHART - ICAO**

AD ELEV 5000  
HEIGHTS RELATED TO  
THR RWY 02 ELEV 4941

GYUMRI / TWR

127.7

**GYUMRI / SHIRAK**

DVOR DME  
RWY 02

TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500

GYUMRI  
DVOR/DME  
113.4  
GRM  
4950  
40 43 45.9N  
043 50 50.1E

MSA 15500  
GRM 25 NM

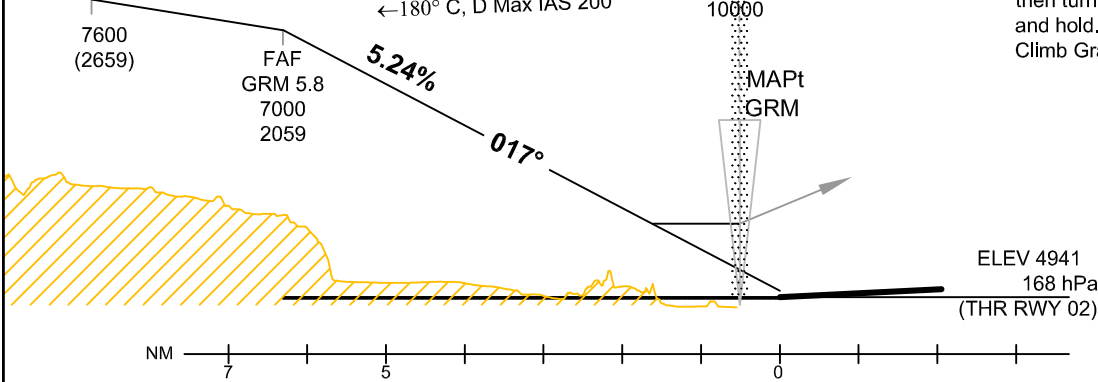
ALTITUDES, ELEVATIONS AND HEIGHTS ARE IN FEET  
BEARINGS AND TRACKS ARE MAGNETIC  
TRACKS IN BRACKETS ARE TRUE  
DISTANCES ARE IN NM.

IN CASE OF COMMUNICATION FAILURE  
DURING RADAR VECTORED PROCEED TO GRM  
AT LAST CLEARED ALTITUDE BUT NOT BELOW 10000



A, B: GRM D12.0 R-188°  
C, D: GRM D12.0 R-180°  
←188° A, B Max IAS 140  
←180° C, D Max IAS 200

**MISSED APCH** - Climb straight ahead GRM D3, then turn left to GRM climbing to 10000 and hold.  
Climb Gradient 4.6% up to 10000ft



Cat of ACFT			OCA (OCH)				Final Approach Distance NM	GRM DME 5.8	GRM DME 5	GRM DME 3	GRM DME 1
			A	B	C	D					
Straight-in Approach	DVOR DME	Missed apch climb gradient min 4.5%	5590 (649)				ALTIMUDE (HIGHT)	7000 (2059)	6748 (1807)	6111 (1170)	5474 (533)
			Timing not authorized for defining the MAPt					120	140	160	180
FAP-GRM MAPt		ft / min	637	743	850	956	1062				
		min:sec	2:54	2:29	2:11	1:56	1:44				

CHANGE: MAG VAR

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## RNP RWY20 INSTRUMENT APPROACH (LNAV / VNAV) Route Data

### Coding Table From IAF BERDO

Path Terminator	Waypoint				Course/ Track Mag (True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly- Over	Coordinates				IAS	Level		
IF	BERDO	IAF	N	N40 59 23.1 E044 11 23.5					A11500+	RNP APCH	
TF	SG451	IF	N	N41 02 36.5 E 044 01 43.1	287° (T293.8°)	8.0		K210-	A11000+	RNP APCH	
TF	IDRUS	FAF	N	N40 58 01.7 E043 59 03.7	197° (T203.7°)	5.0	L	K210-	A10000+	RNP APCH	

### Coding Table From IAF AMGIK

Path Terminator	Waypoint				Course/ Track Mag (True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly- Over	Coordinates				IAS	Level		
IF	AMGIK	IAF	N	N41 04 37.7 E043 55 38.2					A11500+	RNP APCH	
TF	SG451	IF	N	N41 02 36.5 E 044 01 43.1	107° (T113.7°)	5.0		K210-	A11000+	RNP APCH	
TF	IDRUS	FAF	N	N40 58 01.7 E043 59 03.7	197° (T203.7°)	5.0	R	K210-	A10000+	RNP APCH	

### Holding Identification

Path Terminator	Holding fix	Coordinates	Inbound Mag (Tru)	Outbound Time(min)/ Distance (NM)	Turn Direction	Level	IAS	Navigation Specification	Remark
HM	IAF AMGIK	N41 04 37.7 E043 55 38.2	107° (T113.7°)	1 MIN	R	A11500+	K215-	RNP APCH	

### Coding Table For Final Approach / Missed Approach Segment

Path Terminator	Waypoint				Course/ Track Mag (True)	DIST NM/ Time	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly- Over	Coordinates				IAS	Level		
IF	IDRUS	FAF	N	N40 58 01.7 E043 59 03.7				K210-	A10000+	RNP APCH	
TF	RWY20	MAPt	Y	N40 45 49.5 E043 52 01.1	197° (T203.7°)	13.3		K185-	A5260+	RNP APCH	
TF	SG453	MATF	Y	N40 39 37.7 E043 48 27.5	197° (T203.7°)	6.8		K195-	A6000+	RNP APCH	
DF	BERDO	MAHF	N	N40 59 23.1 E044 11 23.5			L	K195-	A11500+	RNP APCH	
HM	BERDO	MAHF	N	N40 59 23.1 E044 11 23.5	016° (T022.8°)	1 Min	L	K215-	A11500+	RNP APCH	HM

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**RNAV (GNSS) INSTRUMENT APPROACH RWY20**  
**Waypoint Data/ List**

<b>WPT Name</b>	<b>CODING</b>		<b>DISPLAY</b>	
BERDO(IAF)	N 40 59 23.1	E 044 11 23.5	N 40 59.4	E 044 11.4
AMGIK(IAF)	N 41 04 37.7	E 043 55 38.2	N 41 04.6	E 043 55.6
SG451 (IF)	N 41 02 36.5	E 044 01 43.1	N 41 02.6	E 044 01.7
IDRUS (FAF)	N 40 58 01.7	E 043 59 03.7	N 40 58.0	E 043 59.1
RW20 (MAPt)	N 40 45 49.5	E 043 52 01.1	N 40 45.8	E 043 51.0
SG453 (MATF)	N 40 39 37.7	E 043 48 27.5	N 40 39.6	E 043 48.5
BERDO(MAHF)	N 40 59 23.1	E 044 11 23.5	N 40 59.4	E 044 11.4

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**INSTRUMENT APPROACH  
CHART - ICAO**

AD ELEV 5000  
THR RWY 20 ELEV 5000

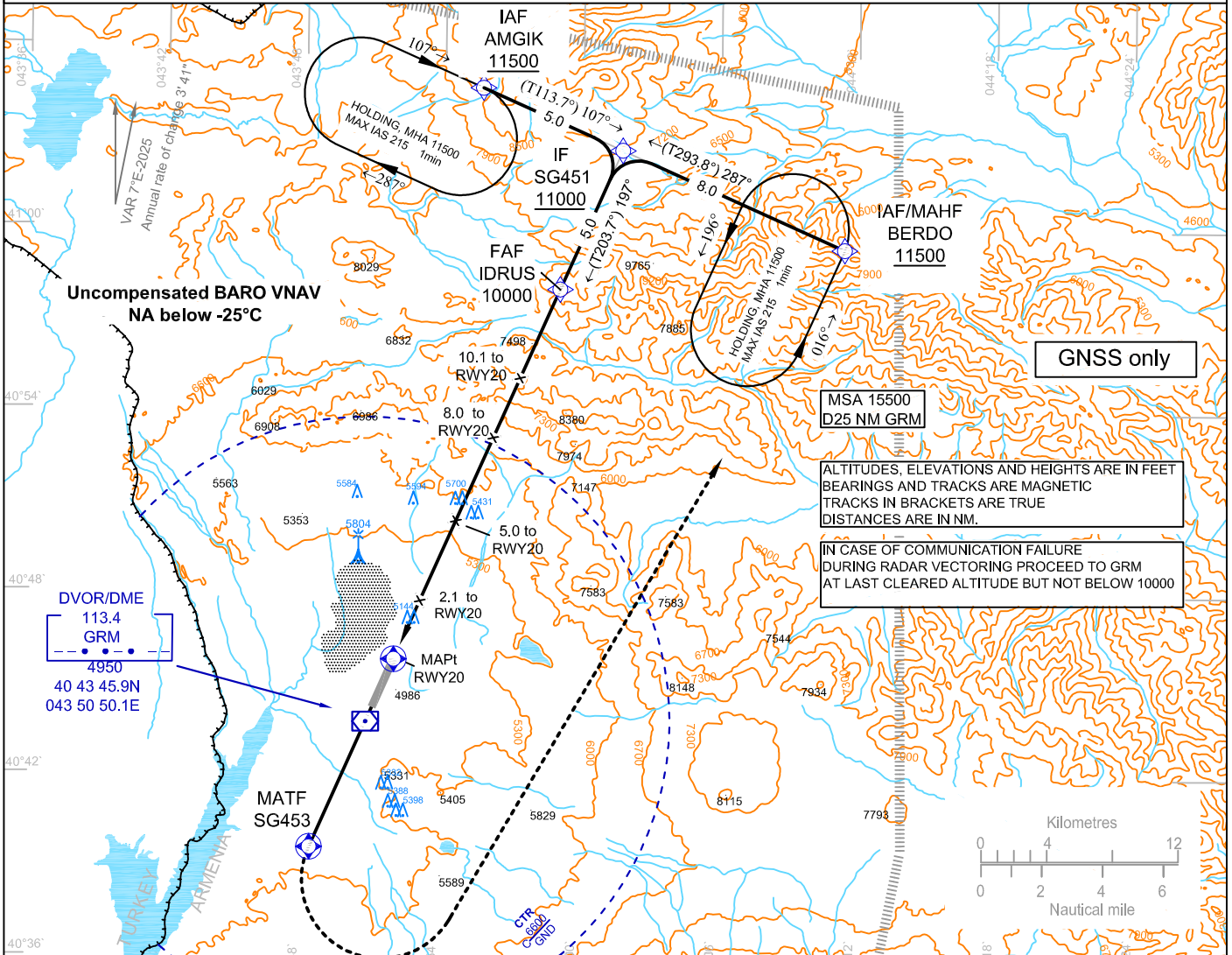
GYUMRI / TWR

127.7

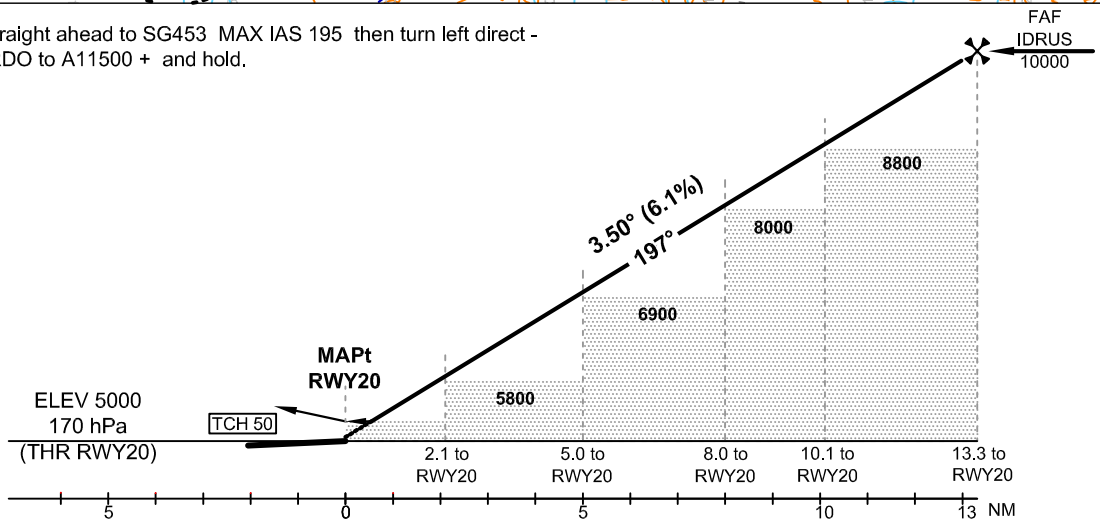
**GYUMRI / SHIRAK**

TRANSITION LEVEL By ATC  
TRANSITION ALTITUDE 11500

**RNP RWY20(LNAV / VNAV)**



**MISSED APCH** - Climb straight ahead to SG453 MAX IAS 195 then turn left direct - IAF BERDO to A11500 + and hold.



CHANGE: MAG VAR

OCA (OCH)				
Cat of ACFT	A	B	C	D
LNAV	5370 (370)			
LNAV / VNAV	5260 (260)			

Timing not authorized for defining the MAPt						
Ground Speed	kt	120	140	160	180	200
	IDRUS - RWY20 MAPt	ft / min	740	870	990	1120
	min:sec	6:39	5:42	4:59	4:26	3:59

DIST THR / RWY20	NM	13.3	12	10	8	6	4	2
ALTITUDE	ft	10000	9510	8760	8020	7280	6540	5790

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## RNP RWY02 INSTRUMENT APPROACH (LNAV / VNAV) Route Data

### Coding Table From IAF ASMIK

Path Terminator	Waypoint				Course/Track Mag (True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly-Over	Coordinates				IAS	Level		
IF	ASMIK	IAF	N	N40 39 41.0 E044 14 00.0					FL130+	RNP APCH	
TF	SG449	WPT	N	N40 30 56.3 E043 50 38.2	237° (T244.0°)	19.8		K210-	A9500+	RNP APCH	
TF	SG450	IF	N	N40 32 56.6 E043 44 37.8	287° (T293.7°)	5.0	R	K210-	A8500+	RNP APCH	
TF	EDIGU	FAF	N	N40 38 26.7 E043 47 46.9	017° (T023.6°)	6.0	R	K210-	A7000+	RNP APCH	

### Table From IAF GRM

Path Terminator	Waypoint				Course/Track Mag (True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly-Over	Coordinates				IAS	Level		
IF	GRM	IAF	N	N40 43 45.9 E043 50 50.1					A10000+	RNP APCH	
TF	SG448	TF	N	N40 37 48.8 E043 54 34.8	147° (T154.4°)	6.6		K210-	A9500+	RNP APCH	
TF	SG449	TF	N	N40 30 56.3 E043 50 38.2	197° (T203.6°)	7.5	R	K210-	A9500+	RNP APCH	
TF	SG450	IF	N	N40 32 56.6 E043 44 37.8	287° (T293.7°)	5.0	R	K210-	A8500+	RNP APCH	
TF	EDIGU	FAF	N	N40 38 26.7 E043 47 46.9	017° (T023.6°)	6.0	R	K210-	A7000+	RNP APCH	

### Coding Table From IAF TIBLO

Path Terminator	Waypoint				Course/Track Mag (True)	DIST NM	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly-Over	Coordinates				IAS	Level		
IF	TIBLO	IAF	N	N40 23 08.0 E043 53 28.0					FL140+	RNP APCH	
TF	SG450	IF	N	N40 32 56.6 E043 44 37.8	319° (T325.5°)	11.9		K210-	A8500+	RNP APCH	
TF	EDIGU	FAF	N	N40 38 26.7 E043 47 46.9	017° (T023.6°)	6.0	R	K210-	A7000+	RNP APCH	

### Coding Table For Final Approach / Missed Approach Segment

Path Terminator	Waypoint				Course/Track Mag (True)	DIST NM/Time	Turn Direction	Constraints		Navigation Specification	Remarks
	Identifier	Type	Fly-Over	Coordinates				IAS	Level		
IF	EDIGU	FAF	N	N40 38 26.7 E043 47 46.9				K210-	A7000+	RNP APCH	
TF	RWY02	MAPt	Y	N40 44 13.9 E043 51 06.1	017° (T023.6°)	6.3		K185-	A5158+	RNP APCH	
TF	SG447	MATF	Y	N40 46 31.4 E043 52 25.3	017° (T023.6°)	2.5		K190-	A5700+	RNP APCH	
DF	GRM	MAHF	N	N40 43 45.9 E043 50 50.1			L	K190-	A10000+	RNP APCH	
HM	GRM	MAHF	N	N40 43 45.9 E043 50 50.1	147° (T154.4°)	1 Min	L	K215-	A10000+	RNP APCH	HM

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**RNAV (GNSS) INSTRUMENT APPROACH RWY02**  
**Waypoint Data / List**

WPT Name	CODING		DISPLAY	
ASMIK (IAF)	N 40 39 41.0	E 044 14 00.0	N 40 39.7	E 044 14.0
TIBLO (IAF)	N 40 23 08.0	E 043 53 28.0	N 40 23.1	E 043 53.5
GRM (IAF)	N 40 43 45.9	E 043 50 50.1	N 40 43.8	E 043 50.8
SG448 (TF)	N 40 37 48.8	E 043 54 34.8	N 40 37.8	E 043 54.6
SG449 (TF)	N 40 30 56.3	E 043 50 38.2	N 40 30.9	E 043 50.6
SG450 (IF)	N 40 32 56.6	E 043 44 37.8	N 40 32.9	E 043 44.6
EDIGU (FAF)	N 40 38 26.7	E 043 47 46.9	N 40 38.4	E 043 47.8
RW02 (MAPt)	N 40 44 13.9	E 043 51 06.1	N 40 44.2	E 043 51.1
SG447 (MATF)	N 40 46 31.4	E 043 52 25.3	N 40 46.5	E 043 52.4
GRM (MAHF)	N 40 43 45.9	E 043 50 50.1	N 40 43.8	E 043 50.8

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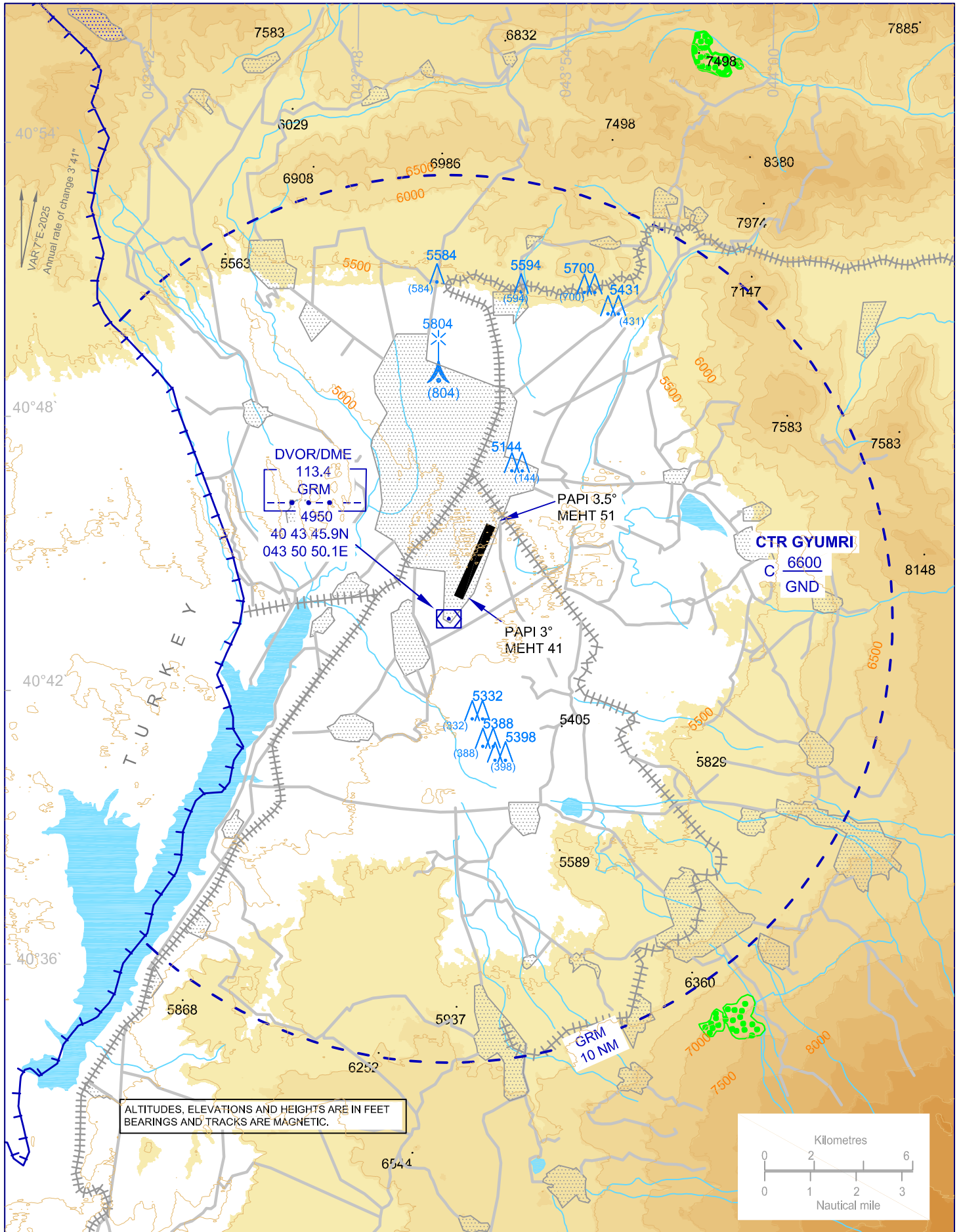
**VISUAL APPROACH  
CHART - ICAO**

AD ELEV 5000  
HEIGHTS RELATED  
TO AD ELEV

GYUMRI / TWR

127.7

**GYUMRI/ SHIRAK  
RWY 02/20**



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