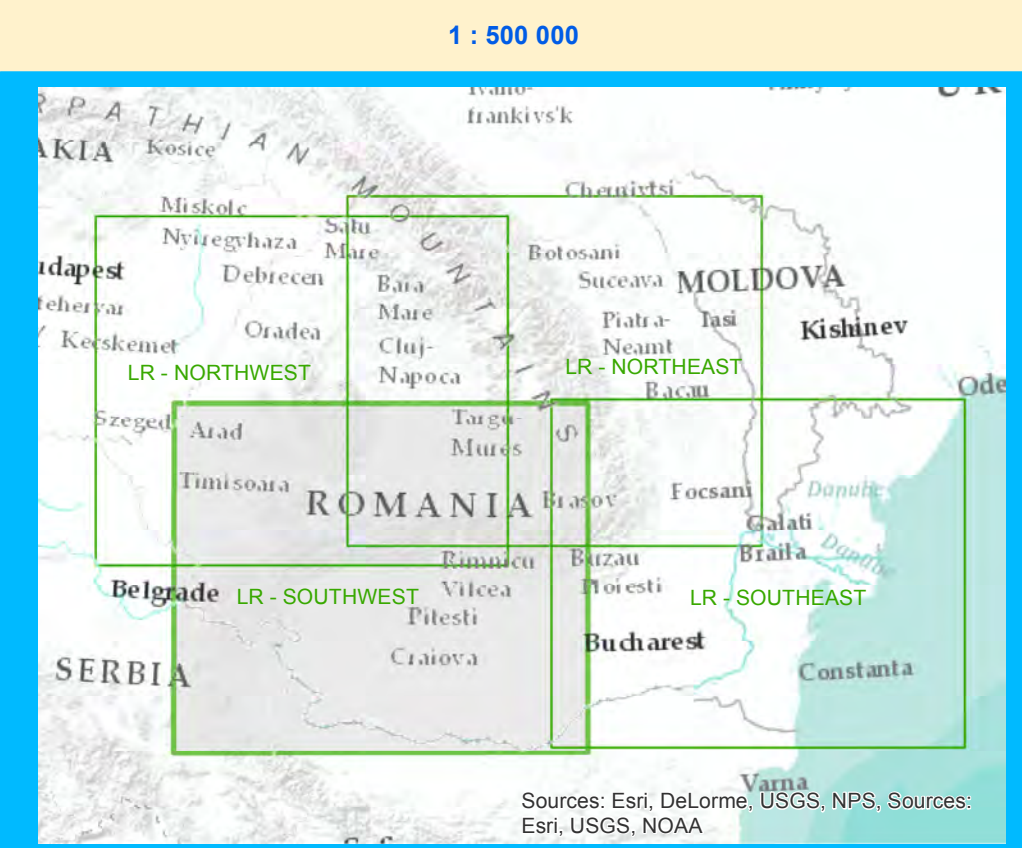


**Corrections to charts not contained in the AIP / Corecții ale hărților care nu sunt incluse în AIP**

Name of the chart 1	Location 2	Corrections 3
<b>VFR Chart - ICAO 1:500.000</b> VFR Chart North-East ROMANIA (LR-NE)	CTR LRIA	Lower limit of Y33 route between ABOLO (470001N 0271959E) and BELMU (471902N 0272111E) is FL35. Limita inferioară a rutei Y33 între ABOLO (470001N 0271959E) și BELMU (471902N 0272111E) is FL35.
<b>VFR Chart - ICAO 1:500.000</b> VFR Chart North-West ROMANIA (LR-NW) VFR Chart North-East ROMANIA (LR-NE) VFR Chart South-West ROMANIA (LR-SW)	NAPOC TMA	These charts must be used along with appropriate information on the VFR routes in NAPOC TMA described in AIP ROMÂNIA, section ENR 3.5.3. Aceste hărți trebuie utilizate împreună cu informațiile corespunzătoare referitoare la rutele VFR în TMA NAPOC descrise în AIP ROMÂNIA, secțiunea ENR 3.5.3.

These correction are published in AIP ROMANIA, page GEN 3.2-8.  
Aceste corecții sunt publicate în AIP ROMANIA, page GEN 3.2-8.

For correct informations about VFR Routes in TMA NAPOC see also AIP ROMANIA ENR 6.70 and ENR 6.71.



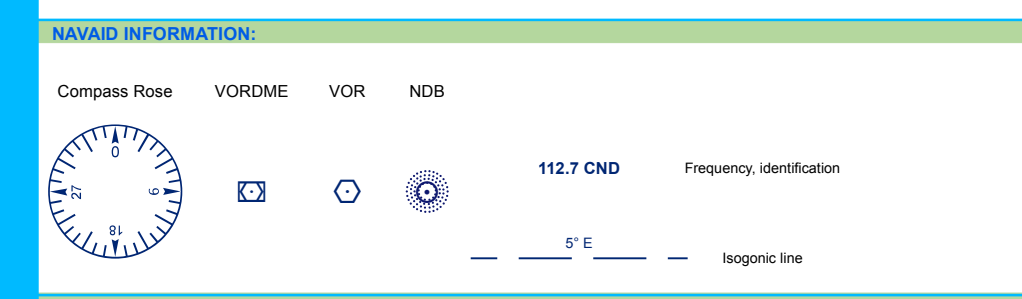
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Chart compiled and drawn by the AIM UNIT  
Tel: +40 21 232.56.99 Fax: +40 21 208.99.16 E-mail: ais@aisro.ro  
AFS: LRBBYOYX

LEGEND

**AIRPORT INFORMATION**

ICAO Location Indicator	LRAR	Location Name	Arad
Elevation [ft]	353	Length of the longest runway [m]	1820m
Communication Frequency	TWR 121.50	(MTWR Military Tower)	
OPC (Operational Control) not available for ATIS			

Civil Land - paved runway	Civil Land - unpaved runway	Helipad
Military Land	Emergency aerodrome of aerodrome with no facilities	Parachute Jumping Area
Joint civil and military Land	Abandoned or closed aerodrome	Ultralight

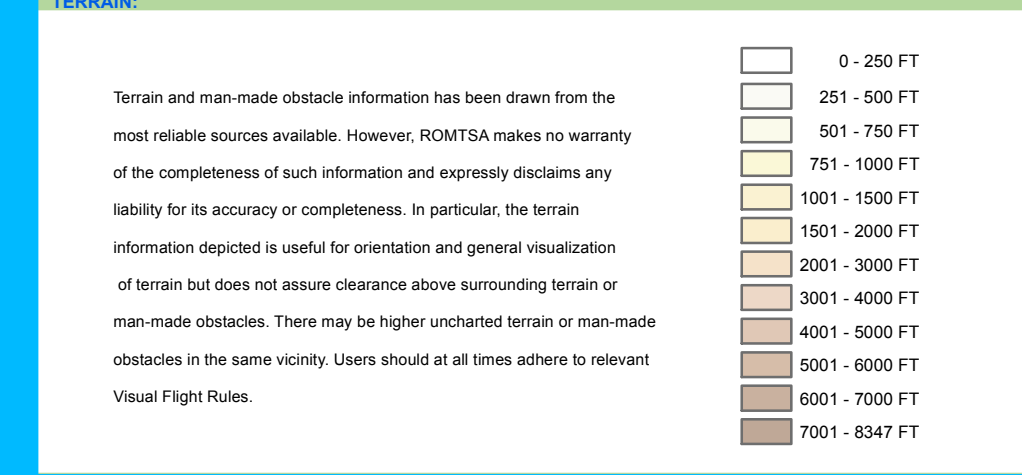


**AIRSPACE INFORMATION**

Airspace Class A	Military exercise and training Areas (AR, LTRTA, LRTSA)
Airspace Class C TMA	Anti-Air Rocket firing Area
Airspace Class C	Prohibited, Restricted and Danger Area
Airspace Class C CTR	FIR Boundary

**WAYPOINTS**

Reporting point  
Reporting point  
On request

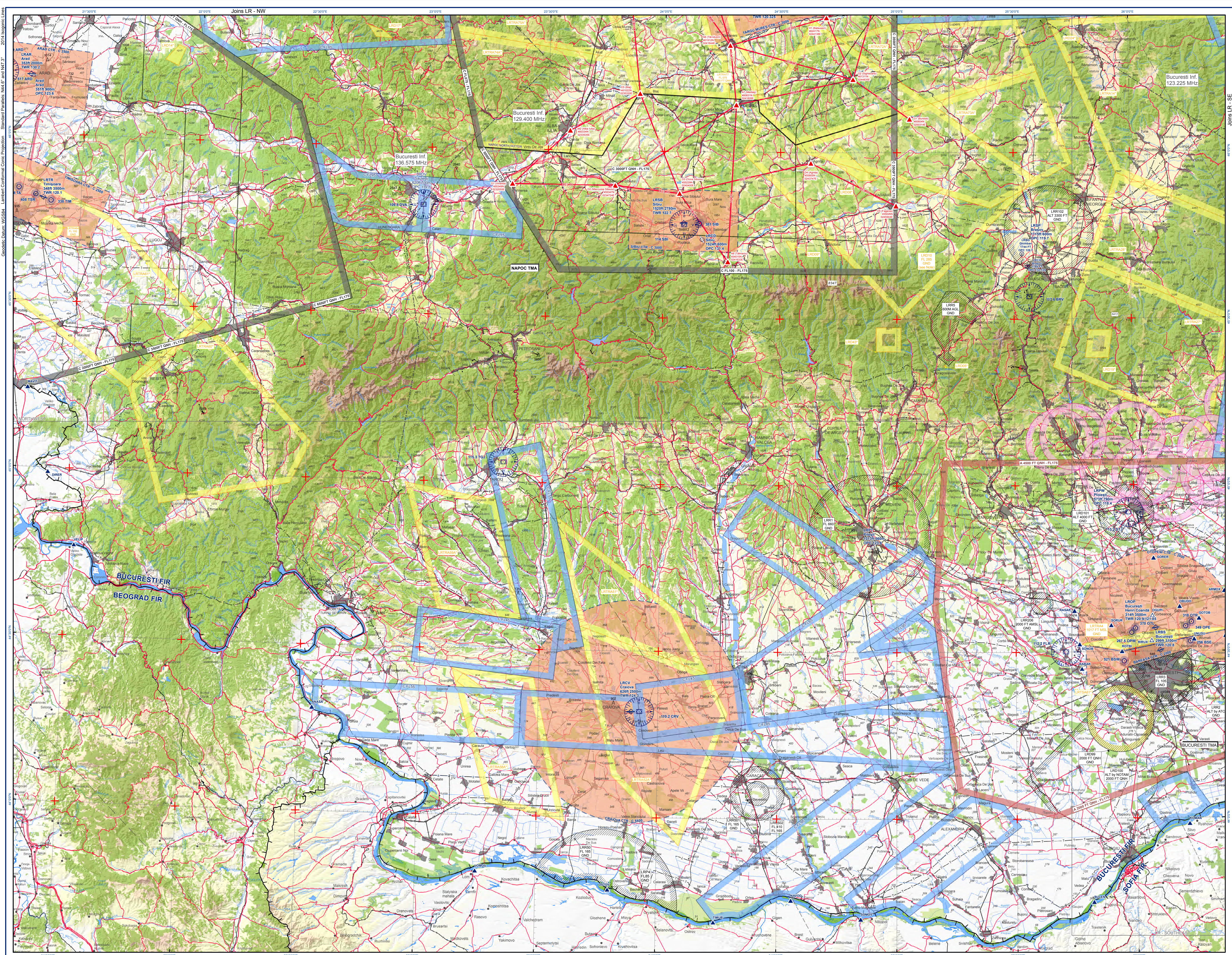


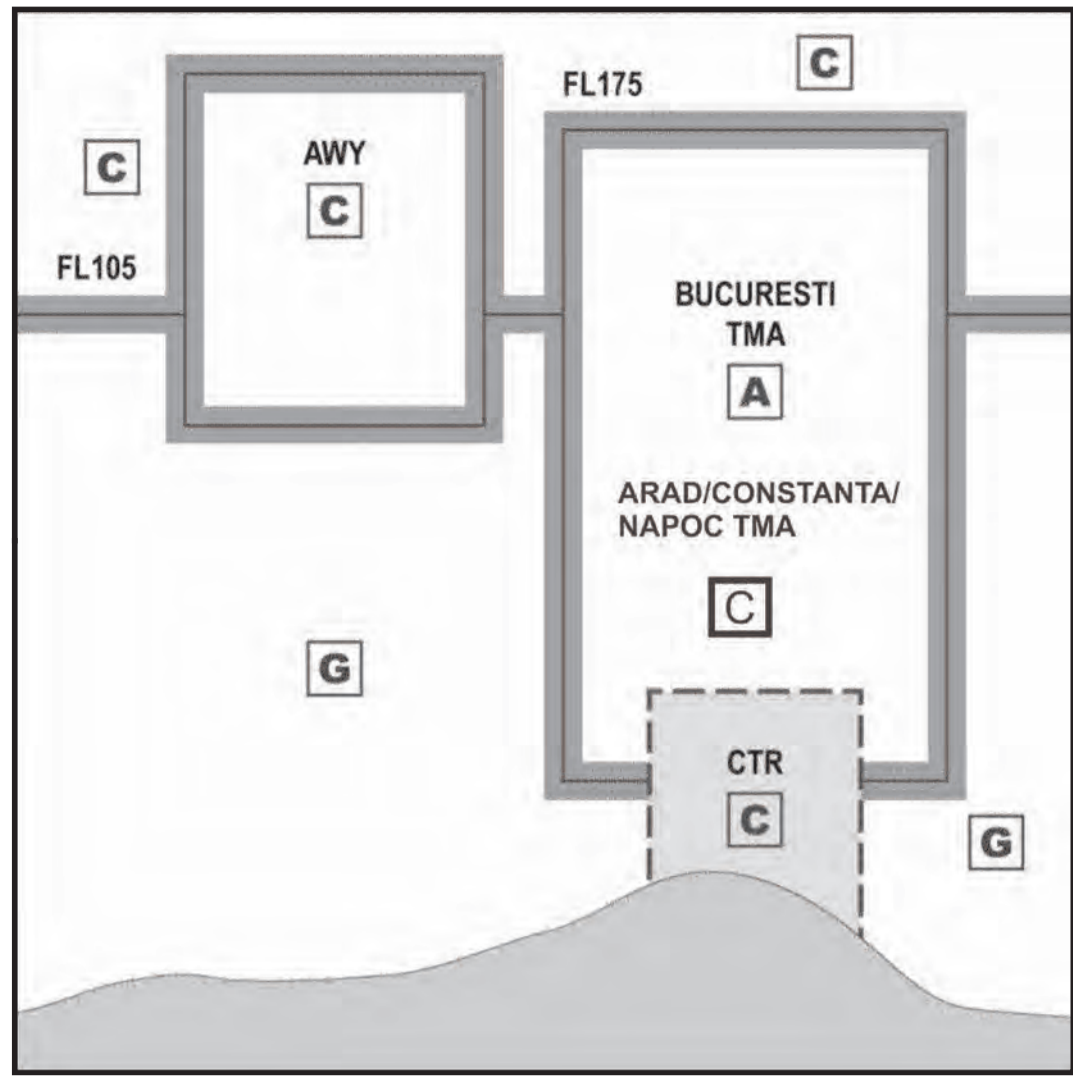
**OBSTACLES**

Obstacle with elevation (METS)	7637	The elevation of the highest spot on the chart
Lighted obstacle with elevation (METS)	7363	Spot elevation with elevation (METS)
Group obstacles with elevation (METS)		
Lighted group obstacles with elevation (METS)		
Man-made obstruction with elevation (METS)		

**GENERAL**

Built-up area	Forest
Village	Grass
Highway	Orchard
Primary road	Vineyard
Secondary road	River
Railroad	Lake
Power Line	Swamp
Bridge	
Cable car installation	
Tunnel	





Airspace in BUCUREȘTI FIR is classified according to the provisions of ICAO Annex 11. Provisions of each class of airspace are described in the following paragraphs:

Class A. IFR flights only are permitted, all flights are subject to air traffic control service and are separated from each other. Airspace Class A comprises: - TMA BUCUREȘTI.

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. Airspace Class C comprises:

- all ATS routes in BUCUREȘTI FIR
- All Aerodrome Control Zones (CTR): Arad, Bacău, Baia Mare, Băneasa, Otopeni, Cluj-Napoca, Constanța, Craiova, Iași, Oradea, Satu Mare, Sibiu, Suceava, Târgu Mureș, Timișoara, Tulcea;
- CONSTANȚA TMA, ARAD TMA, NAPOC TMA;
- Airspace in BUCUREȘTI FIR above FL105.

Class G. IFR and VFR flights are permitted and receive flight information service if requested. Airspace Class G comprises: all Control Zones of Aerial Work and Airfields of Sports Activity, all airspace in BUCUREȘTI FIR not designated with another class and Restricted Areas.

The requirements for the flights within each class of airspace are as shown in the following table:

Class	Type of flight	Separation provided	Services provided	VMC visibility and distance from cloud minima	Speed limitation	Radio communication requirement	Subject to ATC clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable	Not applicable	Continuous two-way	Yes
	IFR from IFR	IFR from IFR	Air traffic control service	Not applicable	Not applicable	Continuous two-way	Yes
C	VFR from IFR	IFR from IFR	1) Air traffic control service for separation from IFR; 2) VFR/VFR traffic information (and traffic avoidance advice on request)	4 NM (8 KM) at and above 10000 FT (3050 M) AMSL; 2.5 NM (5 KM) below 10000 FT (3050 M) AMSL; 5000 FT (1500 M) horizontal; 1000 FT (300 M) vertical distance from cloud	250 KT IAS below 10000 FT (3050 M) AMSL	Continuous two-way	Yes
	IFR	Nil	Flight information service	Not applicable	250 KT IAS below 10000 FT (3050 M) AMSL	Continuous two-way	No
G	VFR	Nil	Flight information service	4 NM (8 KM) at and above 10000 FT (3050 M) AMSL; 2.5 NM (5 KM) below 10000 FT (3050 M) AMSL; 5000 FT (1500 M) horizontal; 1000 FT (300 M) vertical distance from cloud At and below 3000 FT (900 M) AMSL or 1000 FT (300 M) above terrain whichever is higher - 5 NM, clear of cloud and in sight of ground or water	250 KT IAS below 10000 FT (3050 M) AMSL	No	No

Letter	Morse Code	Keyword
A	· - - -	Alpha
B	- · - -	Bravo
C	- - · -	Charlie
D	- - - ·	Delta
E	- - - -	Echo
F	· - · -	Foxtrot
G	· - - -	Golf
H	- · - ·	Hotel
I	· · - -	India
J	· - - -	Juliett
K	- - - ·	Kilo
L	- · - ·	Lima
M	- - - -	Mike
N	- · - ·	November
O	- - - -	Oscar
P	· - - -	Papa
Q	- - - -	Quebec
R	- · - ·	Romeo
S	· - - ·	Sierra
T	- - - -	Tango
U	· - - -	Uniform
V	· - · -	Victor
W	- · - -	Whiskey
X	- · - ·	X-ray
Y	- - - ·	Yankee
Z	- - - -	Zulu

Number	Morse Code	Keyword
0	- - - - -	Zero
1	· - - - -	One
2	· · - - -	Two
3	· · · - -	Three
4	· · · · -	Four
5	· · · · ·	Five
6	· - - · -	Six
7	- - - · -	Seven
8	- - - - ·	Eight
9	- - - - -	Nine

The semicircular vertical separation system for en-route flights

MAGNETIC TRACKS												
000° - 179°						180° - 359°						
FL	IFR	M	FT	FL	VFR	IFR	M	FT	FL	VFR	M	FT
0						0						
10	300	1000				20	600	2000				
30	900	3000	35	1050	3500	40	1200	4000	45	1350	4500	
50	1500	5000	55	1700	5500	60	1850	6000	65	2000	6500	
70	2150	7000	75	2300	7500	80	2450	8000	85	2600	8500	
90	2750	9000	95	2900	9500	100	3050	10000	105	3200	10500	
110	3350	11000	115	3500	11500	120	3650	12000	125	3800	12500	
130	3950	13000	135	4100	13500	140	4250	14000	145	4400	14500	
150	4550	15000	155	4700	15500	160	4900	16000	165	5050	16500	
170	5200	17000	175	5350	17500	180	5500	18000	185	5650	18500	
190	5800	19000	195	5950	19500	200	6100	20000	205	6250	20500	
210	6400	21000	215	6550	21500	220	6700	22000	225	6850	22500	
230	7000	23000	235	7150	23500	240	7300	24000	245	7450	24500	
250	7600	25000	255	7750	25500	260	7900	26000	265	8100	26500	
270	8250	27000	275	8400	27500	280	8550	28000	285	8700	28500	
290	8850	29000				300	9150	30000				
310	9450	31000				320	9750	32000				
330	10050	33000				340	10350	34000				
350	10650	35000				360	10950	36000				
370	11300	37000				380	11600	38000				
390	11900	39000				400	12200	40000				
410	12500	41000				430	13100	43000				
450	13700	45000				470	14350	47000				
490	14950	49000										

NM to KM		KM to NM		FT to M		M to FT	
1 NM = 1.852 KM		1 KM = 0.54 NM		1 FT = 0.3048 M		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	0.37	0.2	0.11	2	0.61	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	16.4
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	1.852	1	0.54	10	3.048	10	32.81
2	3.704	2	1.08	20	6.096	20	65.62
3	5.556	3	1.62	30	9.144	30	98.43
4	7.408	4	2.16	40	12.192	40	131.23
5	9.26	5	2.7	50	15.24	50	164.04
6	11.112	6	3.24	60	18.288	60	196.85
7	12.964	7	3.78	70	21.336	70	229.66
8	14.816	8	4.32	80	24.384	80	262.47
9	16.668	9	4.86	90	27.432	90	295.28
10	18.52	10	5.4	100	30.48	100	328.08
20	37.04	20	10.8	200	60.96	200	656.17
30	55.56	30	16.2	300	91.44	300	984.25
40	74.08	40	21.6	400	121.92	400	1312.34
50	92.6	50	27	500	152.4	500	1640.42
60	111.12	60	32.4	600	182.88	600	1968.5
70	129.64	70	37.80	700	213.36	700	2296.59
80	148.16	80	43.2	800	243.84	800	2624.67
90	166.68	90	48.6	900	274.32	900	2952.76
100	185.2	100	54	1000	304.8	1000	3280.84
200	370.4	200	107.99	2000	609.6	2000	6561.68
300	555.6	300	161.99	3000	914.4	3000	9842.52
400	740.8	400	215.98	4000	1219.2	4000	13123.36
500	926	500	269.98	5000	1524	5000	16404.20
				6000	1828.8		
				7000	2133.6		
				8000	2438.4		
				9000	2743.20		
				10000	3048.000		

VFR flights which transit NAPOC TMA shall use the bidirectional VFR routes described below. VFR flights landing/departing at/from aerodromes within horizontal limits of NAPOC TMA which enter NAPOC TMA shall use the following bidirectional VFR routes:

ROUTE	POINT	CITY	COORDINATES	
			LATITUDE	LONGITUDE
ALPHA	V12	Gălgău	N 47° 16' 53"	E 23° 41' 22"
	D1	Dej	N 47° 08' 10"	E 23° 51' 08"
	C3	Gherla	N 47° 01' 35"	E 23° 55' 27"
	C4	Mociu	N 46° 48' 06"	E 24° 02' 34"
	M2	Zau De Câmpie	N 46° 36' 50"	E 24° 09' 02"
	M6	Târnăveni	N 46° 19' 12"	E 24° 16' 44"
BRAVO	Y3	Mediaș	N 46° 08' 31"	E 24° 18' 26"
	S3	Vurpar	N 45° 53' 59"	E 24° 19' 28"
	V6	Tâlmăciu	N 45° 40' 15"	E 24° 16' 33"
	V10	Valea Drăganului	N 46° 53' 50"	E 22° 49' 46"
	D1	Dej	N 47° 08' 10"	E 23° 51' 08"
	V1	Beclean	N 47° 10' 12"	E 24° 10' 36"
HOTEL	V10	Valea Drăganului	N 46° 53' 50"	E 22° 49' 46"
	H1	Huedin	N 46° 52' 22"	E 23° 01' 53"
	C1	Chinteni	N 46° 52' 11"	E 23° 32' 46"
	C4	Mociu	N 46° 48' 06"	E 24° 02' 34"
SIERRA	V7	Vinerea	N 45° 53' 49"	E 23° 20' 55"
	S1	Miercurea Sibiului	N 45° 53' 47"	E 23° 47' 24"
	S2	Ocna Sibiului	N 45° 52' 29"	E 24° 04' 00"
	S3	Vurpar	N 45° 53' 59"	E 24° 19' 28"
	X1	Agnita	N 45° 58' 05"	E 24° 37' 47"
	V5	Făgăraș	N 45° 50' 26"	E 24° 59' 44"
KILO	V11	Zalău	N 47° 12' 09"	E 23° 04' 08"
	C1	Chinteni	N 46° 52' 11"	E 23° 32' 46"
	C6	Feleacu	N 46° 42' 48"	E 23° 36' 10"
	L1	Turda	N 46° 34' 58"	E 23° 49' 47"
	Y2	Blaj	N 46° 10' 22"	E 23° 53' 30"
	S2	Ocna Sibiului	N 45° 52' 29"	E 24° 04' 00"
ZULU	V6	Tâlmăciu	N 45° 40' 15"	E 24° 16' 33"
	V11	Zalău	N 47° 12' 09"	E 23° 04' 08"
	C2	Bonțida	N 46° 54' 38"	E 23° 49' 52"
	C4	Mociu	N 46° 48' 06"	E 24° 02' 34"
LIMA	V4	Bunești	N 46° 06' 04"	E 25° 03' 14"
	X2	Sighișoara	N 46° 13' 11"	E 24° 48' 35"
	M6	Târnăveni	N 46° 19' 12"	E 24° 16' 44"
	M1	Luduș	N 46° 29' 01"	E 24° 06' 18"
ECHO	L1	Turda	N 46° 34' 58"	E 23° 49' 47"
	X2	Sighișoara	N 46° 13' 11"	E 24° 48' 35"
	M5	Bălașueni	N 46° 24' 17"	E 24° 41' 38"
	M3	Sângeorgiu de Mureș	N 46° 35' 48"	E 24° 37' 09"
TANGO	V9	Câmpeni	N 46° 21' 36"	E 23° 04' 37"
	L1	Turda	N 46° 34' 58"	E 23° 49' 47"
	M2	Zau De Câmpie	N 46° 36' 50"	E 24° 09' 02"
	M3	Sângeorgiu de Mureș	N 46° 35' 48"	E 24° 37' 09"
MIKE	M4	Miercurea Nirajului	N 46° 31' 48"	E 24° 48' 00"
	V3	Ghindari	N 46° 30' 49"	E 24° 55' 42"
	S1	Miercurea Sibiului	N 45° 53' 47"	E 23° 47' 24"
	Y3	Mediaș	N 46° 08' 31"	E 24° 18' 26"
CHARLIE	X2	Sighișoara	N 46° 13' 11"	E 24° 48' 35"
	V3	Ghindari	N 46° 30' 49"	E 24° 55' 42"
	D1	Dej	N 47° 08' 10"	E 23° 51' 08"
	C2	Bonțida	N 46° 54' 38"	E 23° 49' 52"
GOLF	C5	Cojocna	N 46° 44' 56"	E 23° 51' 08"
	L1	Turda	N 46° 34' 58"	E 23° 49' 47"
	V3	Ghindari	N 46° 30' 49"	E 24° 55' 42"
	M5	Bălașueni	N 46° 24' 17"	E 24° 41' 38"
XRAY	M6	Târnăveni	N 46° 19' 12"	E 24° 16' 44"
	Y2	Blaj	N 46° 10' 22"	E 23° 53' 30"
	Y1	Alba Iulia	N 46° 03' 34"	E 23° 35' 35"
	D1	Vinerea	N 45° 53' 49"	E 23° 20' 55"
FOXTROT	X1	Agnita	N 45° 58' 05"	E 24° 37' 47"
	Y3	Mediaș	N 46° 08' 31"	E 24° 18' 26"
	Y2	Blaj	N 46° 10' 22"	E 23° 53' 30"
	V9	Câmpeni	N 46° 21' 36"	E 23° 04' 37"
DELTA	V6	Tâlmăciu	N 45° 40' 15"	E 24° 16' 33"
	X1	Agnita	N 45° 58' 05"	E 24° 37' 47"
	X2	Sighișoara	N 46° 13' 11"	E 24° 48' 35"
	V5	Făgăraș	N 45° 50' 26"	E 24° 59' 44"
V3	Ghindari	N 46° 30' 49"	E 24° 55' 42"	

Note: : In case LRD10 is active, VFR flights shall use the following transit corridor for crossing the area: Sibiu/LRSB (454610N 0241006E) - Făgăraș (455000N 0245800E) - 454552N 0252338E - Ghimbav/LRBG (454110N 0253144E), GND - 2000 FT AGL, 1 NM left/right of centerline