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Publication Date: **03 APR 2025**

Effective Date: **15 MAY 2025**

AIRAC AIP AMDT
05
15 MAY 2025

AIRAC AIP AMENDMENT 05/25

I. Content

GEN - Record of AIP supplements updated.

AD - LRBC - charts updated with military exercise and training areas (LRTRA).
- LRCL, LRSB, LRTM - charts updated with military exercise and training areas (LRTRA) and dangerous (LRD) areas.

II.

Insert the following new pages and/or charts:		**Destroy the following pages and/or charts:**	
GEN 0.3-2	15 MAY 2025	GEN 0.3-2	17 APR 2025
GEN 0.4-1	15 MAY 2025	GEN 0.4-1	17 APR 2025
GEN 0.4-2	15 MAY 2025	GEN 0.4-2	17 APR 2025
GEN 0.4-3	15 MAY 2025	GEN 0.4-3	17 APR 2025
GEN 0.4-4	15 MAY 2025	GEN 0.4-4	17 APR 2025
GEN 0.4-5	15 MAY 2025	GEN 0.4-5	17 APR 2025
GEN 0.4-6	15 MAY 2025	GEN 0.4-6	17 APR 2025
GEN 0.4-7	15 MAY 2025	GEN 0.4-7	17 APR 2025
GEN 0.4-8	15 MAY 2025	GEN 0.4-8	17 APR 2025
GEN 0.5-1	15 MAY 2025	GEN 0.5-1	17 APR 2025
GEN 1.1-1	15 MAY 2025	GEN 1.1-1	23 JAN 2025
GEN 1.1-2	15 MAY 2025	----------	
GEN 1.3-3	15 MAY 2025	GEN 1.3-3	23 JAN 2025
GEN 1.4-1	15 MAY 2025	GEN 1.4-1	23 JAN 2025
GEN 1.4-2	15 MAY 2025	----------	
AD 2.2-36	15 MAY 2025	AD 2.2-36	13 JUL 2023
AD 2.2-37	15 MAY 2025	AD 2.2-37	13 JUL 2023
AD 2.2-51	15 MAY 2025	AD 2.2-51	06 DEC 2018
AD 2.2-51a	15 MAY 2025	AD 2.2-51a	07 DEC 2017
AD 2.2-91	15 MAY 2025	AD 2.2-91	06 DEC 2018
AD 2.2-91a	15 MAY 2025	AD 2.2-91a	07 DEC 2017
AD 2.2-93	15 MAY 2025	AD 2.2-93	06 DEC 2018
AD 2.2-93a	15 MAY 2025	AD 2.2-93a	07 DEC 2017
AD 2.3-1	15 MAY 2025	AD 2.3-1	23 JAN 2025
AD 2.7-30	15 MAY 2025	AD 2.7-30	20 APR 2023

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.7-30a	15 MAY 2025	AD 2.7-30a	10 NOV 2016
	AD 2.7-31	15 MAY 2025	AD 2.7-31	20 APR 2023
	AD 2.7-31a	15 MAY 2025	AD 2.7-31a	10 NOV 2016
	AD 2.7-32	15 MAY 2025	AD 2.7-32	20 APR 2023
	AD 2.7-32b	15 MAY 2025	AD 2.7-32b	10 NOV 2016
	AD 2.7-33	15 MAY 2025	AD 2.7-33	20 APR 2023
	AD 2.7-33b	15 MAY 2025	----------	
	AD 2.7-34	15 MAY 2025	AD 2.7-34	23 JAN 2025
	AD 2.7-34a	15 MAY 2025	AD 2.7-34a	10 NOV 2016
	AD 2.7-35	15 MAY 2025	AD 2.7-35	23 JAN 2025
	AD 2.7-35a	15 MAY 2025	AD 2.7-35a	10 NOV 2016
	AD 2.7-36	15 MAY 2025	AD 2.7-36	23 JAN 2025
	AD 2.7-36a	15 MAY 2025	AD 2.7-36a	10 NOV 2016
	AD 2.7-37	15 MAY 2025	AD 2.7-37	23 JAN 2025
	AD 2.7-37a	15 MAY 2025	AD 2.7-37a	23 MAY 2019
	AD 2.7-45	15 MAY 2025	AD 2.7-45	15 JUN 2023
	AD 2.7-45a	15 MAY 2025	AD 2.7-45a	10 NOV 2016
	AD 2.7-52	15 MAY 2025	AD 2.7-52	26 JAN 2023
	AD 2.7-52a	15 MAY 2025	AD 2.7-52a	10 NOV 2016
	AD 2.7-71	15 MAY 2025	AD 2.7-71	07 SEP 2023
	AD 2.7-71a	15 MAY 2025	AD 2.7-71a	10 NOV 2016
	AD 2.7-72	15 MAY 2025	AD 2.7-72	07 SEP 2023
	AD 2.7-72a	15 MAY 2025	AD 2.7-72a	10 NOV 2016
	AD 2.7-81	15 MAY 2025	AD 2.7-81	26 JAN 2023
	AD 2.7-81a	15 MAY 2025	AD 2.7-81a	10 NOV 2016
	AD 2.13-5	15 MAY 2025	AD 2.13-5	30 DEC 2021
	AD 2.13-30	15 MAY 2025	AD 2.13-30	20 APR 2023
	AD 2.13-30a	15 MAY 2025	AD 2.13-30a	10 NOV 2016
	AD 2.13-31	15 MAY 2025	AD 2.13-31	20 APR 2023
	AD 2.13-31a	15 MAY 2025	AD 2.13-31a	10 NOV 2016
	AD 2.13-33	15 MAY 2025	AD 2.13-33	20 APR 2023
	AD 2.13-33a	15 MAY 2025	AD 2.13-33a	10 NOV 2016
	AD 2.13-34	15 MAY 2025	AD 2.13-34	23 JAN 2025
	AD 2.13-34a	15 MAY 2025	AD 2.13-34a	10 NOV 2016
	AD 2.13-35	15 MAY 2025	AD 2.13-35	23 JAN 2025
	AD 2.13-35a	15 MAY 2025	AD 2.13-35a	13 AUG 2020
	AD 2.13-36	15 MAY 2025	AD 2.13-36	23 JAN 2025
	AD 2.13-36a	15 MAY 2025	AD 2.13-36a	10 NOV 2016
	AD 2.13-37	15 MAY 2025	AD 2.13-37	23 JAN 2025
	AD 2.13-37a	15 MAY 2025	AD 2.13-37a	17 AUG 2017
	AD 2.13-45	15 MAY 2025	AD 2.13-45	15 JUN 2023
	AD 2.13-45a	15 MAY 2025	AD 2.13-45a	17 AUG 2017
	AD 2.13-51	15 MAY 2025	AD 2.13-51	20 APR 2023
	AD 2.13-51a	15 MAY 2025	AD 2.13-51a	08 NOV 2018
	AD 2.13-92	15 MAY 2025	AD 2.13-92	20 APR 2023
	AD 2.13-92a	15 MAY 2025	AD 2.13-92a	10 NOV 2016
	AD 2.15-30	15 MAY 2025	AD 2.15-30	20 APR 2023
	AD 2.15-30a	15 MAY 2025	AD 2.15-30a	10 NOV 2016

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.15-31	15 MAY 2025	AD 2.15-31	20 APR 2023
	AD 2.15-31a	15 MAY 2025	AD 2.15-31a	10 NOV 2016
	AD 2.15-32	15 MAY 2025	AD 2.15-32	20 APR 2023
	AD 2.15-32b	15 MAY 2025	----------	
	AD 2.15-34	15 MAY 2025	AD 2.15-34	23 JAN 2025
	AD 2.15-34a	15 MAY 2025	AD 2.15-34a	10 NOV 2016
	AD 2.15-35	15 MAY 2025	AD 2.15-35	23 JAN 2025
	AD 2.15-35a	15 MAY 2025	AD 2.15-35a	10 NOV 2016
	AD 2.15-36	15 MAY 2025	AD 2.15-36	23 JAN 2025
	AD 2.15-36b	15 MAY 2025	----------	
	AD 2.15-37	15 MAY 2025	AD 2.15-37	23 JAN 2025
	AD 2.15-37b	15 MAY 2025	----------	
	AD 2.15-45	15 MAY 2025	AD 2.15-45	15 JUN 2023
	AD 2.15-45a	15 MAY 2025	AD 2.15-45a	10 NOV 2016
	AD 2.15-51	15 MAY 2025	AD 2.15-51	20 APR 2023
	AD 2.15-51a	15 MAY 2025	AD 2.15-51a	10 NOV 2016
	AD 2.15-52	15 MAY 2025	AD 2.15-52	20 APR 2023
	AD 2.15-52a	15 MAY 2025	AD 2.15-52a	10 NOV 2016
	AD 2.15-91	15 MAY 2025	AD 2.15-91	20 APR 2023
	AD 2.15-91a	15 MAY 2025	AD 2.15-91a	10 NOV 2016
	AD 2.15-92	15 MAY 2025	AD 2.15-92	20 APR 2023
	AD 2.15-92a	15 MAY 2025	AD 2.15-92a	10 NOV 2016
	AD 2.15-93	15 MAY 2025	AD 2.15-93	20 APR 2023
	AD 2.15-93a	15 MAY 2025	AD 2.15-93a	10 NOV 2016
	AD 2.15-94	15 MAY 2025	AD 2.15-94	20 APR 2023
	AD 2.15-94a	15 MAY 2025	AD 2.15-94a	10 NOV 2016

III. **Amend RECORD OF AIP AMDT (GEN 0.2) accordingly.**

END

GEN 0.3 RECORD OF AIP SUPPLEMENTS

No/Year	Subject	AIP section(s) affected	Period of validity	Cancellation record
1	2	3	4	5
AIRAC 02/18	BUCUREŞTI/Henri Coandă Airport, SID/STAR suspended.	AD 2.5	**from:** 16 AUG 2018 **to:** announced by NOTAM or SUP	
AIRAC 01/23	SATU MARE / Satu Mare Airport Local Aerodrome Regulations	AD 2.20	**from:** 23 FEB 2023 **to:** announced by NOTAM or SUP	
AIRAC 04/23	SATU MARE / Satu Mare, Aircraft Parking/Docking Chart - ICAO temporarily suspended.	AD 2.12	**from:** 20 APR 2023 **to:** announced by NOTAM or SUP	
~~02/23~~	~~BUCUREȘTI / Băneasa-Aurel Vlaicu Airport, parking charge.~~	~~GEN 4.1~~	~~**from:** 05 OCT 2023~~ ~~**to:** announced by NOTAM or SUP~~	~~AIP SUP 04/25~~
~~03/23~~	~~BUCUREȘTI / Băneasa-Aurel Vlaicu Airport, lighting charge.~~	~~GEN 4.1~~	~~**from:** 02 NOV 2023~~ ~~**to:** announced by NOTAM or SUP~~	~~AIP SUP 04/25~~
AIRAC 02/24	BUCUREȘTI FIR - Țăndărei Solar wind farm under construction	ENR 5.4, AD 2.4, AD 2.5, AD 2.8	**from:** 28 NOV 2024 **to:** 30 NOV 2026 EST	
AIRAC 03/24	BUCUREȘTI FIR - Alexandru Odobescu wind farms under construction	ENR 5.4, AD 2.4, AD 2.5, AD 2.8	**from:** 28 NOV 2024 **to:** 30 NOV 2026 EST	
AIRAC 04/24	BUCUREȘTI FIR - Gurbănești wind farm under construction	ENR 5.4, AD 2.4, AD 2.5	**from:** 28 NOV 2024 **to:** 30 NOV 2026 EST	
AIRAC 05/24	BUCUREȘTI FIR - Hârlău wind farm under construction	ENR 5.4, AD 2.14	**from:** 28 NOV 2024 **to:** 30 NOV 2026 EST	
AIRAC 06/24	BUCUREȘTI FIR - Deleni 1 wind farm and Scobinți wind farm under construction	ENR 5.4, AD 2.10	**from:** 28 NOV 2024 **to:** 30 NOV 2026 EST	
AIRAC 08/24	BUCUREȘTI FIR - Casimcea 1 wind farm and Casimcea 2 wind farm under construction	ENR 5.4, AD 2.8	**from:** 28 NOV 2024 **to:** 30 NOV 2026 EST	
AIRAC 09/24	BUCUREȘTI FIR - Cerchezu wind farm under construction	ENR 5.4, ENR 6-2, AD 2.8	**from:** 26 DEC 2024 **to:** 30 DEC 2026 EST	
AIRAC 10/24	BUCUREȘTI FIR - Cobadin wind farm and Pietreni wind farm under construction	ENR 5.4, AD 2.8	**from:** 26 DEC 2024 **to:** 30 NOV 2026 EST	
AIRAC 01/25	BUCUREȘTI FIR - Rugăria Eolian wind farm under construction	ENR 5.4, ENR 6-2, AD 2.2	**from:** 23 JAN 2025 **to:** 31 DEC 2026 EST	
01/25	CLUJ NAPOCA / Avram Iancu Airport, airport development charge.	GEN 4.1	**from:** 20 FEB 2025 **to:** 31 DEC 2028	
02/25	IAȘI / Iași Airport, airport development charge.	GEN 4.1	**from:** 20 FEB 2025 **to:** 31 DEC 2030	
AIRAC 02/25	BUCUREȘTI FIR - Beidaud Eolian wind farm under construction	ENR 5.4, AD 2.8	**from:** 20 MAR 2025 **to:** 31 DEC 2026 EST	
03/25	BAIA MARE / Maramureş Airport, rescue and fire fighting services	AD 2.3	**from:** 20 MAR 2025 **to:** 31 DEC 2027 EST	
AIRAC 03/25	BUCUREȘTI FIR - Dumești and Românești Wind Farms under construction	ENR 5.4, AD 2.10	**from:** 17 APR 2025 **to:** 31 DEC 2026 EST	

1	2	3	4	5
AIRAC 04/25	BUCUREŞTI / Henri Coandă Airport, temporary change of movement surface configuration due to development works.	AD 2.5	**from:** 17 APR 2025 **to:** 17 JUL 2025 EST	
04/25	BUCUREȘTI / Băneasa-Aurel Vlaicu Airport, temporary changes of charges.	GEN 4.1	**from:** 17 APR 2025 **to:** 31 DEC 2027	
AIRAC 05/25	BUCUREȘTI FIR - Bărăganu Wind Farm under construction	ENR 5.4, AD 2.8	from: 15 MAY 2025 to: 31 MAY 2027 EST	

GEN 0.4 CHECKLIST OF AIP PAGES

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GEN 0.1-1	15 JUL 2022
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GEN 0.1-3	15 JUL 2022
GEN 0.2-1	29 JAN 1998
GEN 0.2-2	29 JAN 1998
GEN 0.2-3	10 JUN 2004
GEN 0.2-4	02 AUG 2007
GEN 0.2-5	02 AUG 2007
GEN 0.2-6	25 MAR 2012
GEN 0.2-7	25 MAR 2012
GEN 0.2-8	10 NOV 2016
GEN 0.2-9	10 NOV 2016
GEN 0.2-10	20 MAY 2021
GEN 0.2-11	20 MAY 2021
GEN 0.2-12	26 DEC 2024
GEN 0.2-13	26 DEC 2024
GEN 0.3-1	17 APR 2025
GEN 0.3-2	15 MAY 2025
GEN 0.4-1	15 MAY 2025
GEN 0.4-2	15 MAY 2025
GEN 0.4-3	15 MAY 2025
GEN 0.4-4	15 MAY 2025
GEN 0.4-5	15 MAY 2025
GEN 0.4-6	15 MAY 2025
GEN 0.4-7	15 MAY 2025
GEN 0.4-8	15 MAY 2025
GEN 0.5-1	15 MAY 2025
GEN 0.6-1	15 JUL 2022
GEN 0.6-2	15 JUL 2022

GEN 1

Page	Date
GEN 1.1-1	15 MAY 2025
GEN 1.1-2	15 MAY 2025
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GEN 1.2-2	24 MAR 2022
GEN 1.2-3	24 MAR 2022
GEN 1.2-4	24 MAR 2022
GEN 1.2-5	24 MAR 2022
GEN 1.2-6	01 DEC 2022
GEN 1.2-7	01 DEC 2022
GEN 1.2-8	01 DEC 2022
GEN 1.2-9	01 DEC 2022
GEN 1.2-10	24 MAR 2022
GEN 1.2-11	24 MAR 2022
GEN 1.2-12	24 MAR 2022
GEN 1.2-13	24 MAR 2022
GEN 1.2-14	24 MAR 2022
GEN 1.2-15	24 MAR 2022
GEN 1.3-1	23 JAN 2025
GEN 1.3-2	23 JAN 2025
GEN 1.3-3	15 MAY 2025
GEN 1.4-1	15 MAY 2025
GEN 1.4-2	15 MAY 2025
GEN 1.5-1	22 MAY 2021
GEN 1.5-2	22 MAY 2021
GEN 1.5-3	22 MAY 2021
GEN 1.6-1	30 NOV 2023
GEN 1.6-2	30 NOV 2023
GEN 1.6-3	30 NOV 2023
GEN 1.6-4	30 NOV 2023
GEN 1.6-5	30 NOV 2023
GEN 1.6-6	30 NOV 2023
GEN 1.6-7	30 NOV 2023
GEN 1.6-8	01 NOV 2024
GEN 1.6-9	01 NOV 2024
GEN 1.6-10	01 NOV 2024
GEN 1.6-11	01 NOV 2024
GEN 1.6-12	01 NOV 2024
GEN 1.6-13	01 NOV 2024
GEN 1.6-14	01 NOV 2024
GEN 1.6-15	01 NOV 2024
GEN 1.6-16	01 NOV 2024
GEN 1.6-17	01 NOV 2024
GEN 1.6-18	01 NOV 2024
GEN 1.6-19	01 NOV 2024
GEN 1.6-20	01 NOV 2024
GEN 1.6-21	01 NOV 2024
GEN 1.6-22	01 NOV 2024
GEN 1.6-23	01 NOV 2024
GEN 1.6-24	01 NOV 2024
GEN 1.7-1	01 NOV 2024
GEN 1.7-2	30 NOV 2023
GEN 1.7-3	30 NOV 2023
GEN 1.7-4	30 NOV 2023
GEN 1.7-5	30 NOV 2023
GEN 1.7-6	30 NOV 2023
GEN 1.7-7	30 NOV 2023
GEN 1.7-8	30 NOV 2023
GEN 1.7-9	30 NOV 2023
GEN 1.7-10	30 NOV 2023
GEN 1.7-11	01 NOV 2024
GEN 1.7-12	01 NOV 2024
GEN 1.7-13	01 NOV 2024
GEN 1.7-14	30 NOV 2023
GEN 1.7-15	01 NOV 2024
GEN 1.7-16	01 NOV 2024
GEN 1.7-17	01 NOV 2024
GEN 1.7-18	01 NOV 2024
GEN 1.7-19	08 AUG 2024
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GEN 2

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GEN 2.2-1	30 MAR 2017
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GEN 2.2-3	09 AUG 2024
GEN 2.2-4	02 JUL 2010
GEN 2.2-5	02 JUL 2010
GEN 2.2-6	10 SEP 2020
GEN 2.2-7	10 SEP 2020
GEN 2.2-8	10 JUN 2004
GEN 2.2-9	10 SEP 2020
GEN 2.2-10	07 SEP 2023
GEN 2.2-11	01 APR 2024
GEN 2.2-12	02 JUL 2010
GEN 2.2-13	02 JUL 2010
GEN 2.2-14	28 MAR 2019
GEN 2.2-15	15 JUN 2023
GEN 2.2-16	02 JUL 2010
GEN 2.2-17	20 JUN 2019
GEN 2.2-18	02 JUL 2010
GEN 2.2-19	07 SEP 2023
GEN 2.2-20	07 SEP 2023
GEN 2.2-21	28 JAN 2021
GEN 2.2-22	02 JUL 2010
GEN 2.2-23	01 APR 2024
GEN 2.2-24	15 JUL 2022
GEN 2.2-25	09 AUG 2024
GEN 2.2-26	01 APR 2024
GEN 2.2-27	30 MAR 2017
GEN 2.3-1	15 JUN 2023
GEN 2.3-2	07 MAY 2009
GEN 2.3-3	26 MAR 2020
GEN 2.3-4	06 APR 2012
GEN 2.3-5	18 NOV 2010
GEN 2.4-1	13 JUN 2024
GEN 2.4-2	13 JUN 2024
GEN 2.5-1	20 MAR 2025
GEN 2.5-2	23 JAN 2025
GEN 2.5-3	20 MAR 2025
GEN 2.6-1	29 JAN 1998
GEN 2.6-2	29 JAN 1998
GEN 2.7-1	11 JUL 2024
GEN 2.7-2	11 JUL 2024
GEN 2.7-3	11 JUL 2024
GEN 2.7-4	11 JUL 2024
GEN 2.7-5	11 JUL 2024
GEN 2.7-6	11 JUL 2024
GEN 2.7-7	11 JUL 2024
GEN 2.7-8	11 JUL 2024
GEN 2.7-9	11 JUL 2024
GEN 2.7-10	11 JUL 2024
GEN 2.7-11	11 JUL 2024
GEN 2.7-12	11 JUL 2024
GEN 2.7-13	11 JUL 2024
GEN 2.7-14	11 JUL 2024
GEN 2.7-15	11 JUL 2024
GEN 2.7-16	11 JUL 2024
GEN 2.7-17	11 JUL 2024
GEN 2.7-18	11 JUL 2024
GEN 2.7-19	11 JUL 2024

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Page	Date
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Page	Date
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GEN 3.1-3	23 JAN 2025
GEN 3.1-3	23 JAN 2025
GEN 3.1-4	31 OCT 2024
GEN 3.1-5	20 MAR 2025
GEN 3.1-6	20 MAR 2025
GEN 3.1-7	31 OCT 2024
GEN 3.2-1	08 OCT 2020
GEN 3.2-2	08 OCT 2020
GEN 3.2-3	08 OCT 2020
GEN 3.2-4	31 OCT 2024
GEN 3.2-5	21 MAR 2024
GEN 3.2-6	13 JUN 2024
GEN 3.2-7	08 AUG 2024
GEN 3.2-8	31 OCT 2024
GEN 3.2-9	18 APR 2024
GEN 3.2-10	07 SEP 2023
GEN 3.2-11	20 FEB 2025
GEN 3.3-1	20 JUL 2017
GEN 3.3-2	15 SEP 2016
GEN 3.3-3	15 JUN 2023
GEN 3.4-1	10 SEP 2020
GEN 3.4-2	22 FEB 2024
GEN 3.4-3	25 MAR 2021
GEN 3.4-4	25 MAR 2021
GEN 3.4-5	10 SEP 2020
GEN 3.5-1	03 NOV 2022
GEN 3.5-2	16 MAY 2024
GEN 3.5-3	15 JUN 2023
GEN 3.5-4	15 JUN 2023
GEN 3.5-5	16 JUN 2022
GEN 3.5-6	20 FEB 2025
GEN 3.6-1	05 OCT 2023
GEN 3.6-2	05 OCT 2023
GEN 3.6-3	05 OCT 2023
GEN 4	
GEN 4.1-1	07 FEB 2013
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GEN 4.1-3	03 DEC 2020
GEN 4.1-4	20 MAR 2025
GEN 4.1-4a	20 MAR 2025
GEN 4.1-4b	20 MAR 2025
GEN 4.1-5	16 JUN 2022
GEN 4.1-5a	30 DEC 2021
GEN 4.1-6	18 APR 2024
GEN 4.1-6a	05 OCT 2023
GEN 4.1-7	19 APR 2024
GEN 4.1-8	01 NOV 2024
GEN 4.1-8a	01 NOV 2024
GEN 4.1-8b	01 NOV 2024
GEN 4.1-9	16 JUN 2022
GEN 4.1-9a	16 JUN 2022
GEN 4.1-10	20 MAR 2025
GEN 4.1-10a	20 MAR 2025
GEN 4.1-11	20 FEB 2025
GEN 4.1-11a	20 FEB 2025
GEN 4.1-11b	22 MAY 2021
GEN 4.1-12	08 OCT 2020
GEN 4.1-13	10 NOV 2016
GEN 4.1-14	01 JAN 2025
GEN 4.1-14a	20 MAR 2025
GEN 4.1-14b	20 MAR 2025
GEN 4.1-15	20 MAR 2025
GEN 4.1-15a	20 MAR 2025
GEN 4.1-16	05 DEC 2019
GEN 4.1-17	22 FEB 2024
GEN 4.1-17a	16 JUN 2022
GEN 4.1-18	17 APR 2025
GEN 4.1-18a	17 APR 2025
GEN 4.1-19	02 APR 2015
GEN 4.1-20	15 JUL 2021
GEN 4.1-21	20 MAR 2025
GEN 4.1-22	01 JAN 2025
GEN 4.2-1	01 JAN 2025
GEN 4.2-2	23 APR 2020
GEN 4.2-3	16 JUN 2022
GEN 4.2-4	10 SEP 2020
GEN 4.2-5	01 JAN 2015
GEN 4.2-6	01 JAN 2015
GEN 4.2-7	23 APR 2020
GEN 4.2-8	01 JAN 2015
GEN 4.2-9	20 MAR 2025
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PART 2-EN-ROUTE(ENR)

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ENR 0.6-1	29 JAN 1998
ENR 0.6-2	17 APR 2025
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ENR 1.1-1	30 DEC 2021
ENR 1.1-2	30 DEC 2021
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ENR 1.3-3	28 NOV 2024
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ENR 1.3-5	24 FEB 2022
ENR 1.3-6	15 JUL 2021
ENR 1.4-1	15 JUN 2023
ENR 1.4-2	24 MAY 2018
ENR 1.5-1	20 DEC 2007
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ENR 1.6-1	19 APR 2024
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ENR 1.7-1	17 AUG 2017
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ENR 1.9-1	28 APR 2016
ENR 1.9-2	28 APR 2016
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GEN 0.5 LIST OF HAND AMENDMENTS TO THE AIP

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GEN 1. NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 DESIGNATED AUTHORITIES

The postal, telegraphic and telex addresses of the designated authorities concerned with facilitation of international air navigation are as follows:

1. Civil aviation

MINISTERUL TRANSPORTURILOR
Direcţia Transport Aerian
Bd. Dinicu Golescu nr. 38, Sector 1,
BUCUREŞTI
TEL: +40-(0)21-3196209
FAX: +40-(0)21-3196162

AUTORITATEA AERONAUTICĂ CIVILĂ ROMÂNĂ
Şos. Bucureşti-Ploieşti nr. 38-40
Sector 1, Cod 013695
BUCUREŞTI
ROMANIA
DIRECTOR GENERAL
TEL: +40-(0)21-2081508
FAX: +40-(0)21-2081572
e-mail: contact@caa.ro
AFS: LRBBYAYA
SITA: BUHTOYA

2. Meteorology

AUTORITATEA AERONAUTICĂ CIVILĂ ROMÂNĂ
Şos. Bucureşti-Ploieşti nr. 38-40
Sector 1, Cod 013695
BUCUREŞTI
ROMANIA
DIRECTOR GENERAL
TEL: +40-(0)21-2081508
FAX: +40-(0)21-2081572
e-mail: contact@caa.ro
AFS: LRBBYAYA
SITA: BUHTOYA

3. Customs

MINISTERUL FINANŢELOR
Str. Apolodor Nr. 17, Sector 4, cod 050741,
BUCUREŞTI

AUTORITATEA VAMALĂ ROMÂNĂ
Str. Alexandru Ivasiuc Nr. 34-40, bl.5, Sector 6
cod poștal 060305 BUCUREȘTI
e-mail: vama@customs.ro
Web: www.customs.ro

4. Immigration

MINISTERUL AFACERILOR INTERNE
DIRECŢIA GENERALĂ DE PAŞAPOARTE
Str. Nicolae Iorga Nr. 29, Sector 1
BUCUREŞTI, ROMANIA
TEL: +40-(0)21-2125674
FAX: +40-(0)21-3121500
WEB: www.pasapoarte.mai.gov.ro
e-mail: dgp.relatiipublice@mai.gov.ro

INSPECTORATUL GENERAL AL POLIȚIEI DE FRONTIERĂ
Bulevardul Geniului nr. 42C, Sector 6, cod 060117,
Bucuresti, Romania
TEL: +40-(0)21-3162598
+40-(0)21-3182592
+40-(0)21-9590 (Info line)
FAX: +40-(0)21-3121189
WEB: www.politiadefrontiera.ro
e-mail: pfr@igpf.ro

5. Health

MINISTERUL SĂNĂTĂŢII
Intr. Cristian Popişteanu, nr.1-3, Sector 1,
cod 010024, BUCUREŞTI
TEL: +40-(0)21-3122212
+40-(0)21-3174008
e-mail: secretariat.dgspps@ms.ro
Web: www.ms.ro

AUTORITATEA NAŢIONALĂ SANITARĂ VETERINARĂ ŞI PENTRU SIGURANŢA ALIMENTELOR
Piaţa Presei Libere nr.1, Corp D1, Sector 1,
cod 013701, BUCUREŞTI
Telefon: +40-(0)37-2184997
Fax: +40-(0)37-2184993
e-mail: office@ansvsa.ro
Web: www.ansvsa.ro

6. En-route and aerodromes/heliports charges

See GEN 4

7. Agricultural quarantine

MINISTERUL AGRICULTURII ȘI DEZVOLTĂRII RURALE
Bd. Carol I Nr. 2-4, București, Sector 3, cod 030163

AUTORITATEA NAȚIONALĂ FITOSANITARĂ
Bdul Voluntari Nr. 11, Loc. Voluntari, Jud. Ilfov,
Cod 077190
Tel/Fax: 0212703254
e-mail: fitosanitar@anfdf.ro
Web: https://www.anfdf.ro/index.html

8. Aircraft accidents investigation

AUTORITATEA DE INVESTIGAŢII ŞI ANALIZĂ
PENTRU SIGURANŢA AVIAŢIEI CIVILE (AIAS)
Bucureşti, Bd. Dinicu Golescu nr. 38
Sector 1, cod 010873
TEL : +40-(0)21-2220535
: +40-(0)75-1192088 - for notification
according to RACR-REAC.300(1) lit (a)
FAX : +40-(0)37-8107106
WEB : www.cias.gov.ro
e-mail : info@aias.gov.ro
notificari@aias.gov.ro

3. Public health requirements

3.1 Passengers disembarking into the territory of Romania are required to present valid vaccination international certificates, according to the terms and conditions set forth in the World Health Organisation publications concerning the vaccination certificates required for international journeys. Passengers and crew members may also be requested to file a form-questionnaire, necessary for the antipaludal protection of the territory of Romania.

3.2 In addition to the provisions contained in paragraph 3.1, all provisions of the International Health Regulation relative to crew members, passengers, freight and aircraft are also compulsory.

~~3.3 THE SANITARY AND VETERINARY INSPECTION is performed by the Sanitary and Veterinary Police to prevent entering into Romania of animal products, animal and birds that could become a source of contamination both for human beings and animals.~~
~~The entry-exit approval is granted under the requirements provided by the Romanian sanitary and veterinary legislation and in according with the international Conventions concluded in this field and to which Romania is a Contracting Party.~~

3. Controlul sanitar

3.1 La sosirea pe teritoriul României, persoanele care au călătorit la bordul aeronavei trebuie să prezinte certificatele internaţionale de vaccinare valabile, în cazurile şi în conditiile prevăzute în Publicaţia Organizaţiei Mondiale a Sănătăţii privitoare la certificatele de vaccinare pretinse călătoriilor internaţionale. Personalului navigant şi pasagerilor li se va putea cere şi completarea unei fişe-chestionar, impusă de protecţia antipaludică a teritoriului României.

3.2 Pe lângă dispoziţiile prevăzute la punctul 3.1, sunt obligatorii şi toate prevederile Regulamentului Sanitar Internaţional cu privire la personalul navigant, pasageri, mărfuri şi aeronave.

~~3.3 CONTROLUL SANITAR VETERINAR se efectuează de către Poliţia Sanitar Veterinară, în scopul împiedicării pătrunderii în ţară a produselor de origine animală, animalelor şi păsărilor care pot fi surse de contaminare pentru om şi animale.~~
~~Avizul de intrare-ieşire din ţară se acordă în condiţiile prevăzute de legislaţia sanitar veterinară română, precum şi în baza convenţiilor internaţionale încheiate în acest domeniu, la care România este parte.~~

GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO

1. Customs requirements concerning cargo

1.1 The document required for the clearance of goods through customs is the Customs Declaration, which is submitted at the custom by the economic importer agent or his representative. Goods are released after obtaining the customs clearance, for goods placed under the Customs Declaration.

1.2 As regards air cargo transhipped from one international flight, at the same airport, no documents or special procedures are required except for the transit of articles prohibited to import, for which a prior special license is necessary.

1.3 The transit of nonEU cargo from an international airport to another international airport in the territory of Romania, is carried out on the basis of the Transit Customs Declaration. The Transit Customs Declaration is submitted by the transporter or his representative. In addition, the provisions under paragraph 1.2 are also applicable.

1.4 No clearance documents are required with respect to goods retained of on board an aircraft for oncarriage.

2. Official sanitary-veterinary and food safety control and official phytosanitary control

2.1 Official control at border control posts is carried out in accordance with the provisions of Article 47 of Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulations (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation) with subsequent amendments.

2.2 Sanitary-veterinary and food safety control is carried out by the representatives of the county sanitary-veterinary and food safety departments with control duties at border control posts / entry points, in order to avoid the entry into the territory of Romania of products of animal origin and of animals that could become sources of contamination for humans and animals, according to the provisions of Government Ordinance no. 42/2004 on the organization of the sanitary-veterinary and food safety activity, with subsequent amendments.

2.2.1 The import into Romania of products of non-animal origin, of animals and of products of animal origin is carried out in compliance with the sanitary-veterinary and food safety conditions provided by the legislation in force.

2.2.2 Each consignment of products of animal origin must have an official certificate issued by the official veterinarian in accordance with the provisions of Regulation (EU) 2017/625 of the European Parliament and of the Council of 15 March 2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, amending Regulations (EC) No 999/2001, (EC) No 396/2005, (EC) No 1069/2009, (EC) No 1107/2009, (EU) No 1151/2012, (EU) No 652/2014, (EU) 2016/429 and (EU) 2016/2031 of the European Parliament and of the Council, Council Regulations (EC) No 1/2005 and (EC) No 1099/2009 and Council Directives 98/58/EC, 1999/74/EC, 2007/43/EC, 2008/119/EC and 2008/120/EC, and repealing Regulations (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council, Council Directives 89/608/EEC, 89/662/EEC, 90/425/EEC, 91/496/EEC, 96/23/EC, 96/93/EC and 97/78/EC and Council Decision 92/438/EEC (Official Controls Regulation), with subsequent amendments.

2.2.3 Passengers may bring into Romania products of non-animal origin and of animal origin, provided that they present, if required, an official certificate in accordance with the provisions of Regulation (EU) 2017/625, with subsequent amendments.

GEN 1.4 REGLEMENTĂRI PRIVIND IMPORTUL, TRANZITUL ŞI EXPORTUL MĂRFURILOR

1. Controlul vamal al mărfurilor

1.1 Documentul cerut pentru eliberarea mărfurilor din vamă este Declaraţia Vamală care se depune la vamă de agentul economic importator sau reprezentantul acestuia. Eliberarea mărfurilor se face după obţinerea liberului de vamă, pentru mărfurile care fac obiectul Declarației Vamale.

1.2 În privinţa mărfurilor în tranzit care se transbordează de pe o cursă internaţională pe altă cursă internaţională, la acelaşi aeroport, nu se cer documente sau proceduri speciale cu excepţia tranzitului articolelor prohibite la import pentru care se cere autorizaţia specială prealabilă.

1.3 Tranzitul mărfurilor neunionale de la un aeroport internaţional la un alt aeroport internaţional pe teritoriul României, se face pe baza Declaraţiei Vamale de Tranzit. Declaraţia Vamală de Tranzit se depune la vamă de către transportator sau reprezentantul acestuia. În plus prevederile de la punctul 1.2 sunt valabile.

1.4 Nu sunt necesare documente pentru eliberarea mărfurilor reținute la bordul unei aeronave pentru transport.

2. Controlul oficial sanitar-veterinar și pentru siguranța alimentelor și controlul oficial fitosanitar

2.1 Controlul oficial în posturile de control la frontieră se realizează în conformitate cu prevederile art. 47 din Regulamentul (UE) 2017/625 al Parlamentului European și al Consiliului din 15 martie 2017 privind controalele oficiale și alte activități oficiale efectuate pentru a asigura aplicarea legislației privind alimentele și furajele, a normelor privind sănătatea și bunăstarea animalelor, sănătatea plantelor și produsele de protecție a plantelor, de modificare a Regulamentelor (CE) nr. 999/2001, (CE) nr. 396/2005, (CE) nr. 1069/2009, (CE) nr. 1107/2009, (UE) nr. 1151/2012, (UE) nr. 652/2014, (UE) 2016/429 și (UE) 2016/2031 ale Parlamentului European și ale Consiliului, a Regulamentelor (CE) nr. 1/2005 și (CE) nr. 1099/2009 ale Consiliului și a Directivelor 98/58/CE, 1999/74/CE, 2007/43/CE, 2008/119/CE și 2008/120/CE ale Consiliului și de abrogare a Regulamentelor (CE) nr. 854/2004 și (CE) nr. 882/2004 ale Parlamentului European și ale Consiliului, precum și a Directivelor 89/608/CEE, 89/662/CEE, 90/425/CEE, 91/496/CEE, 96/23/CE, 96/93/CE și 97/78/CE ale Consiliului și a Deciziei 92/438/CEE a Consiliului (Regulamentul privind controalele oficiale) , cu modificările și completările ulterioare.

2.2 Controlul sanitar-veterinar și pentru siguranța alimentelor se efectuează de către reprezentanții direcțiilor sanitar-veterinare și pentru siguranța alimentelor județene cu atribuții de control în posturile de control la frontieră / punctele de intrare, în scopul evitării introducerii pe teritoriul României a produselor de origine animală și a animalelor care pot fi surse de contaminare pentru om și animale, conform prevederilor Ordonanței Guvernului nr. 42/2004 privind organizarea activității sanitar-veterinare și pentru siguranța alimentelor, cu modificările și completările ulterioare.

2.2.1 Importul în România al produselor de origine non animală, al animalelor și al produselor de origine animală, se face cu respectarea condițiilor sanitar-veterinare și pentru siguranța alimentelor prevăzute de legislația în vigoare.

2.2.2 Fiecare transport de produse de origine animală va fi însoțit de un certificat oficial eliberat de medicul oficial conform prevederilor Regulamentului (UE) 2017/625 al Parlamentului European și al Consiliului din 15 martie 2017 privind controalele oficiale și alte activități oficiale efectuate pentru a asigura aplicarea legislației privind alimentele și furajele, a normelor privind sănătatea și bunăstarea animalelor, sănătatea plantelor și produsele de protecție a plantelor, de modificare a Regulamentelor (CE) nr. 999/2001, (CE) nr. 396/2005, (CE) nr. 1069/2009, (CE) nr. 1107/2009, (UE) nr. 1151/2012, (UE) nr. 652/2014, (UE) 2016/429 și (UE) 2016/2031 ale Parlamentului European și ale Consiliului, a Regulamentelor (CE) nr. 1/2005 și (CE) nr. 1099/2009 ale Consiliului și a Directivelor 98/58/CE, 1999/74/CE, 2007/43/CE, 2008/119/CE și 2008/120/CE ale Consiliului și de abrogare a Regulamentelor (CE) nr. 854/2004 și (CE) nr. 882/2004 ale Parlamentului European și ale Consiliului, precum și a Directivelor 89/608/CEE, 89/662/CEE, 90/425/CEE, 91/496/CEE, 96/23/CE, 96/93/CE și 97/78/CE ale Consiliului și a Deciziei 92/438/CEE a Consiliului (Regulamentul privind controalele oficiale), cu modificările și completările ulterioare.

2.2.3 Pasagerii pot aduce în România produse de origine non animală și de origine animală, cu condiția ca ei să prezinte pentru acestea, dacă se impune, un certificat oficial în conformitate cu prevederile Regulamentului (UE) 2017/625, cu modificările și completările ulterioare.

2.2.4 Products of non-animal origin or of animal origin carried by passengers are subject to the provisions of Commission Delegated Regulation (EU) 2019/2122 of 10 October 2019 supplementing Regulation (EU) 2017/625 of the European Parliament and of the Council as regards certain categories of animals and goods exempted from official controls at border control posts, specific controls on passengers' personal luggage and on small consignments of goods sent to natural persons which are not intended to be placed on the market and amending Commission Regulation (EU) No 142/2011, with subsequent amendments.

2.2.5 It is prohibited to throw food waste (products of animal or of non-animal origin) from aircraft on the territory of Romania. Food waste will be disposed of in accordance with the provisions of Regulation (EC) No. 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No. 1774/2002 (Animal by-products Regulation), with subsequent amendments.

2.2.6 Certain pets are not allowed to be introduced, by passengers, into Romanian territory unless they hold an official certificate according to the provisions of Regulation (EU) 2017/625, with subsequent amendments.

2.2.7 The carrier pigeons are not allowed to be brought by passengers to Romania, unless they hold an official certificate in accordance with the provisions of Regulation (EU) 2017/625, with subsequent amendments.

2.3 Official phytosanitary control at border control points is carried out by official phytosanitary inspectors of the National Phytosanitary Authority in the administrative area where there is an international civil airport or an airport open to international air traffic, with official control duties at border control posts approved by joint order of the competent authorities with a border control role or at the request of phytosanitary inspectors from county structures, in order to prevent the introduction and spread of organisms harmful to plants, plant products and other high-risk objects, the introduction of which is prohibited into the territory of Romania/the European Union. The introduction or dispatch of goods represented by plants, plant products or other objects is carried out on the basis of an official certificate issued by the competent authority in the country of origin, in compliance with the relevant legislation and international standards.

2.3.1 The import into Romania of plants, plant products and other objects is carried out in compliance with the phytosanitary area related applicable legislation and with the relevant international standards.

2.3.2 Each plants, plant products or other regulated objects shipment must have a phytosanitary certificate for export/re-export, as applicable, issued by the country of origin.

2.3.3 Passengers may bring into Romania only pineapples, coconuts, durian, bananas and dates for personal consumption. The introduction of plants, fruit, vegetables, except for those listed above, of flowers or seeds without a phytosanitary certificate is prohibited.

2.3.4 Plants, plant products or other objects transported by passengers which don't have a phytosanitary certificate are recorded at the border customs office and the official phytosanitary inspectors of the National Phytosanitary Authority in the administrative area where there is an international civil airport or an airport open to international air traffic are notified in order to apply legal measures.

2.3.5 Plants, plant products and other objects listed in Annex I to Commission Implementing Regulation (EU) 2018/2019 of 18 December 2018 establishing a provisional list of high risk plants, plant products or other objects, within the meaning of Article 42 of Regulation (EU) 2016/2031 and a list of plants for which phytosanitary certificates are not required for introduction into the Union, within the meaning of Article 73 of that Regulation, shall be considered as high-risk plants, plant products and other objects within the meaning of Article 42(1) of Regulation (EU) 2016/2031, and their introduction into the territory of the European Union territory is prohibited until a risk assessment has been carried out.

2.2.4 Produsele de origine non animală sau de origine animală transportate de pasageri se supun prevederilor Regulamentului delegat (UE) 2019/2122 al Comisiei din 10 octombrie 2019 de completare a Regulamentului (UE) 2017/625 al Parlamentului European și al Consiliului în ceea ce privește anumite categorii de animale și de mărfuri exceptate de la efectuarea controalelor oficiale la posturile de inspecție la frontieră, controalele specifice privind bagajele personale ale pasagerilor și transporturile mici de bunuri expediate către persoane fizice, care nu sunt destinate introducerii pe piață, și de modificare a Regulamentului (UE) nr. 142/2011 al Comisiei, cu modificările și completările ulterioare.

2.2.5 Este interzisă aruncarea pe teritoriul României a resturilor de alimente (produse de origine animală sau non-animală) provenite de la bordul aeronavelor. Acestea vor fi eliminate în conformitate cu prevederile Regulamentului (CE) nr. 1069/2009 al Parlamentului European și al Consiliului din 21 octombrie 2009 de stabilire a unor norme sanitare privind subprodusele de origine animală și produsele derivate care nu sunt destinate consumului uman și de abrogare a Regulamentului (CE) nr. 1774/2002 (Regulament privind subprodusele de origine animală), cu modificările și completările ulterioare.

2.2.6 Introducerea pe teritoriul României de către pasageri a unor animale de companie este condiționată de prezența unui certificat oficial conform prevederilor Regulamentului (UE) 2017/625, cu modificările și completările ulterioare.

2.2.7 Aducerea în România de către pasageri cu ajutorul aeronavelor a porumbeilor călători, este interzisă, dacă aceștia nu sunt însoțiți de un certificat oficial conform prevederilor Regulamentului (UE) 2017/625, cu modificările și completările ulterioare.

2.3 Controlul oficial fitosanitar în punctele de control la frontieră se efectuează de inspectorii fitosanitari oficiali ai Autorității Naționale Fitosanitare din raza administrativă în care există aeroport civil internațional sau aeroport deschis traficului aerian internațional, cu atribuții de control oficial în posturile de control la frontieră aprobate prin ordin comun al autorităților competente cu rol de control în frontieră sau la solicitare de către inspectorii fitosanitari din structurile județene, în scopul prevenirii introducerii și răspândirii organismelor dăunătoare plantelor, produselor vegetale și altor obiecte cu risc ridicat, a căror introducere pe teritoriul României/Uniunii Europene este interzisă. Introducerea sau expedierea bunurilor reprezentate de plante, produse vegetale sau alte obiecte se face în baza unui certificat oficial emis de autoritatea competentă din țara de origine, cu respectarea legislației și a standardelor internaționale relevante.

2.3.1 Importul în România al plantelor, produselor vegetale si al altor obiecte, se face cu respectarea legislației aplicabile domeniului fitosanitar și a standardelor internaționale relevante.

2.3.2 Fiecare transport de plante, produse vegetale sau alte obiecte reglementate va fi însoțit de un certificat fitosanitar pentru export/reexport, după caz, emis de țara de origine.

2.3.3 Pasagerii pot aduce în România doar fructe de ananas, nuci de cocos, durian, banane și curmale destinate consumului personal. Este interzisă introducerea de plante, fructe, legume, cu excepția celor enumerate anterior, flori sau semințe fără certificat fitosanitar.

2.3.4 Plantele, produsele vegetale sau alte obiecte transportate de pasageri pentru care nu se prezintă un certificat fitosanitar , sunt consemnate la biroul vamal de frontieră si se notifică inspectorii fitosanitari oficiali ai Autorității Naționale Fitosanitare din raza administrativă în care există aeroport civil internațional sau aeroport deschis traficului aerian internațional în vederea aplicării măsurilor legale.

2.3.5 Plantele, produsele vegetale și alte obiecte enumerate în anexa I la Regulamentul de punere în aplicare (UE) 2018/2019 al Comisiei din 18 decembrie 2018 de stabilire a unei liste provizorii cu plante, produse vegetale sau alte obiecte cu risc ridicat, în sensul articolului 42 din Regulamentul (UE) 2016/2031, și a unei liste cu plante pentru care nu sunt necesare certificate fitosanitare în vederea introducerii în Uniune, în sensul articolului 73 din același regulament, sunt considerate ca fiind plante, produse vegetale și alte obiecte cu risc ridicat în sensul articolului 42 alineatul (1) din Regulamentul (UE) 2016/2031, iar introducerea lor pe teritoriul Uniunii este interzisă până la realizarea unei evaluări a riscurilor.

BACĂU / George Enescu (LRBC)

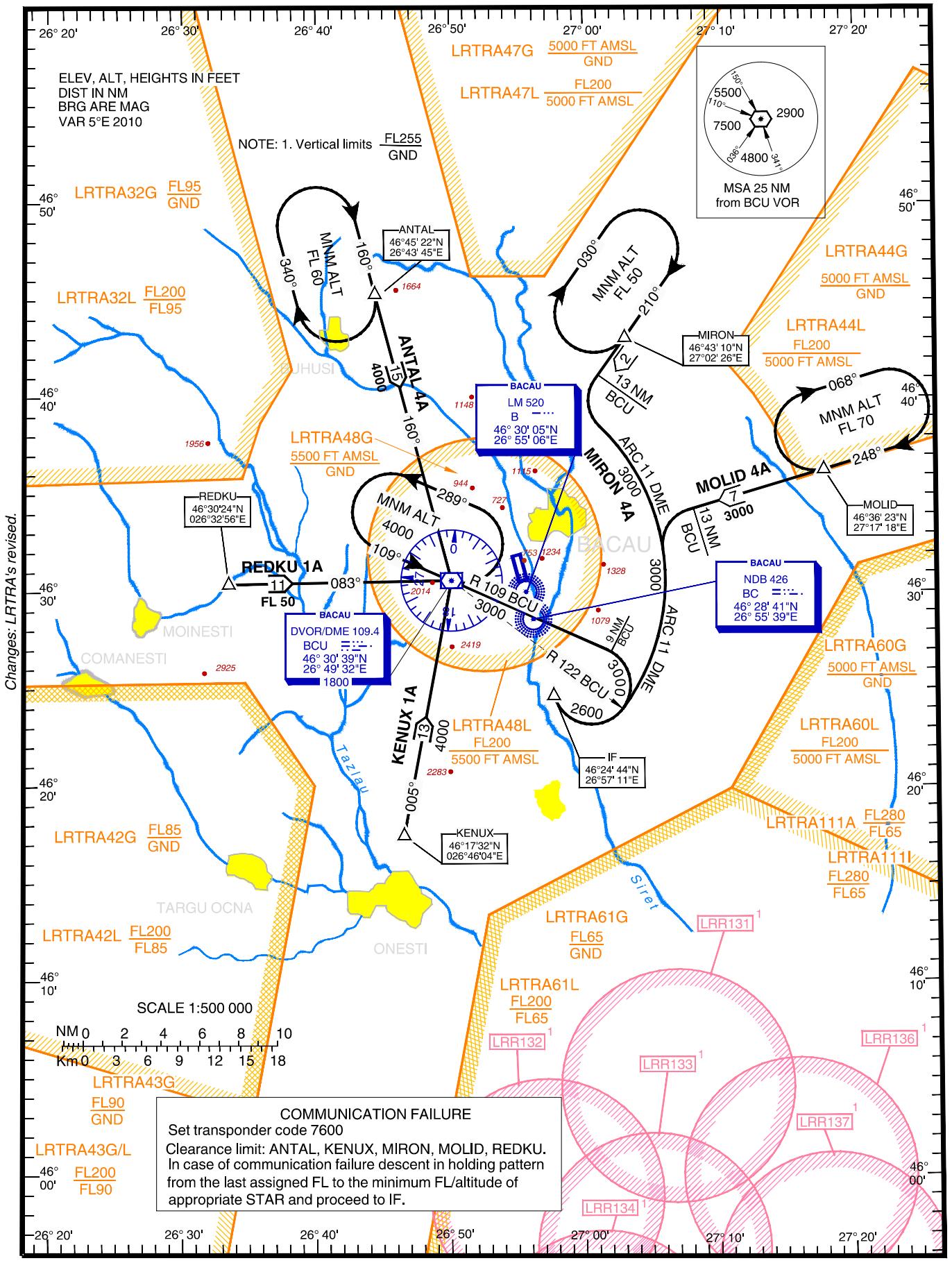
RWY 34

STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

Transition Altitude
4000

BACAU TOWER	120.980
BACAU TOWER ALTN	118.600

ANTAL 4A KENUX 1A
MIRON 4A MOLID 4A REDKU 1A



Changes: LRTRA's revised.

BACĂU / George Enescu (LRBC)

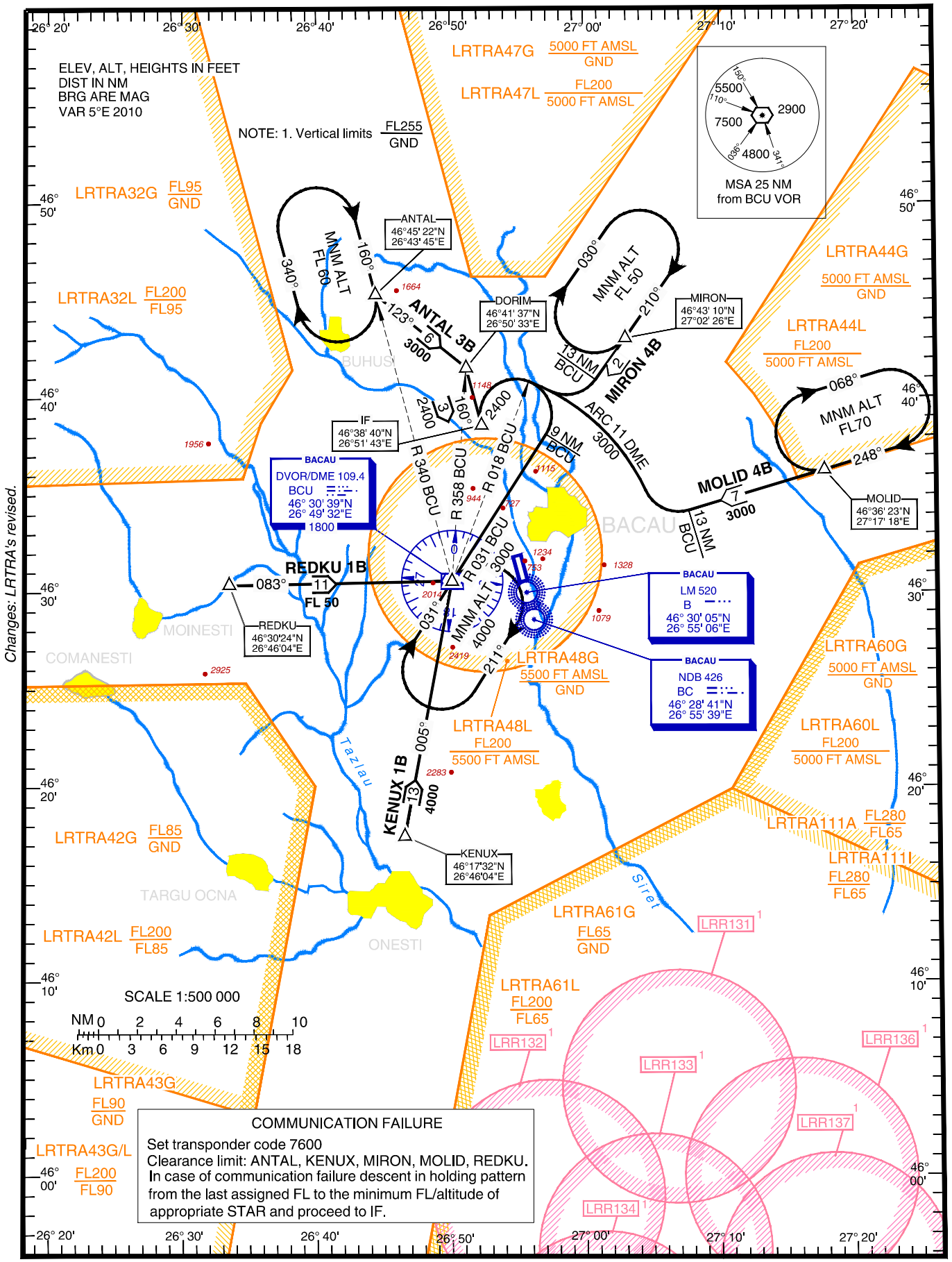
RWY 16

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

Transition Altitude
4000

BACAU TOWER	120.980
BACAU TOWER ALTN	118.600

ANTAL 3B KENUX 1B
MIRON 4B MOLID 4B REDKU 1B

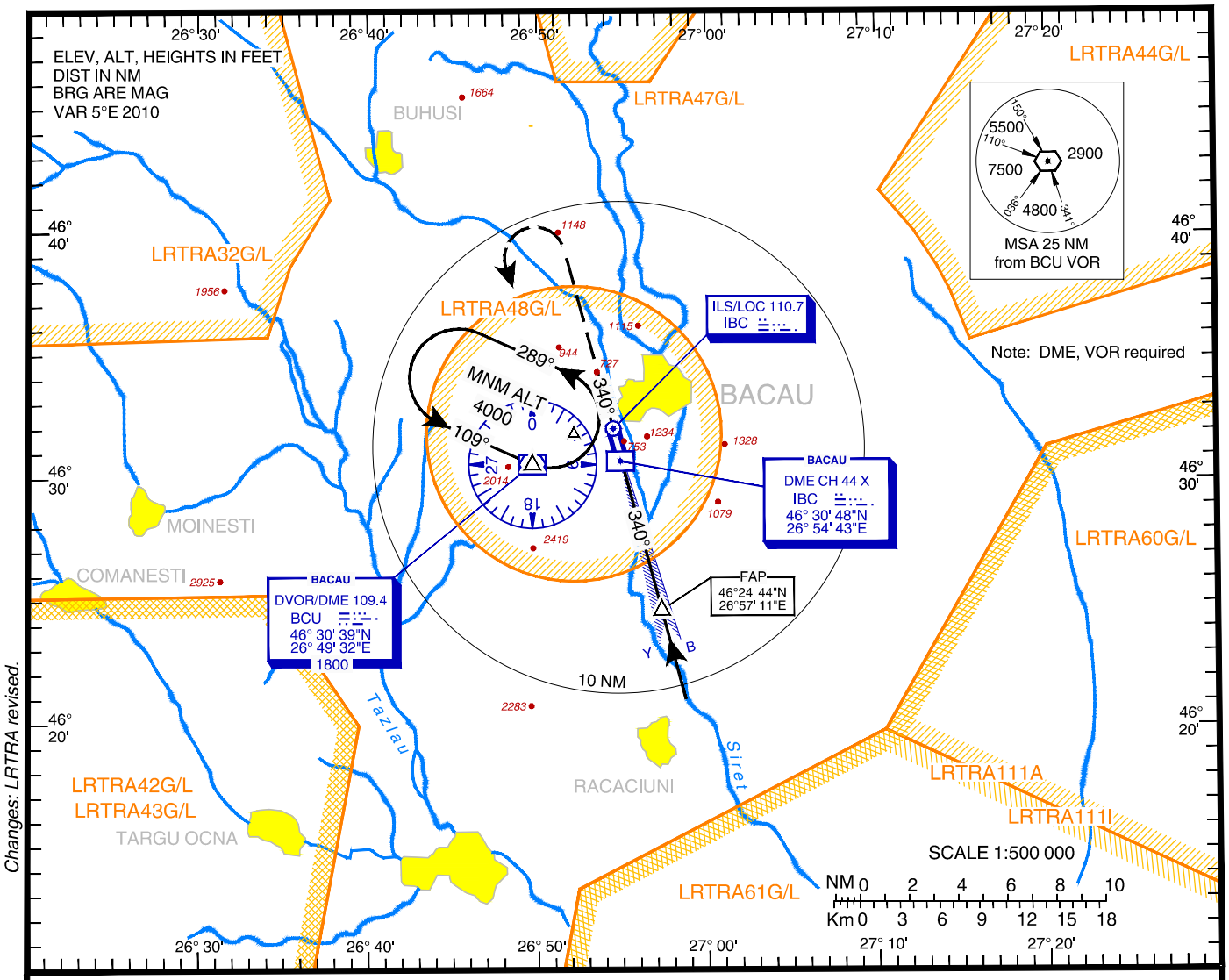


INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **607 ft**
HEIGHTS RELATED TO
THR RWY 34 - ELEV 591 ft

BACAU TOWER	120.980
BACAU TOWER ALTN	118.600

BACĂU / George Enescu (LRBC)
ILS RWY 34

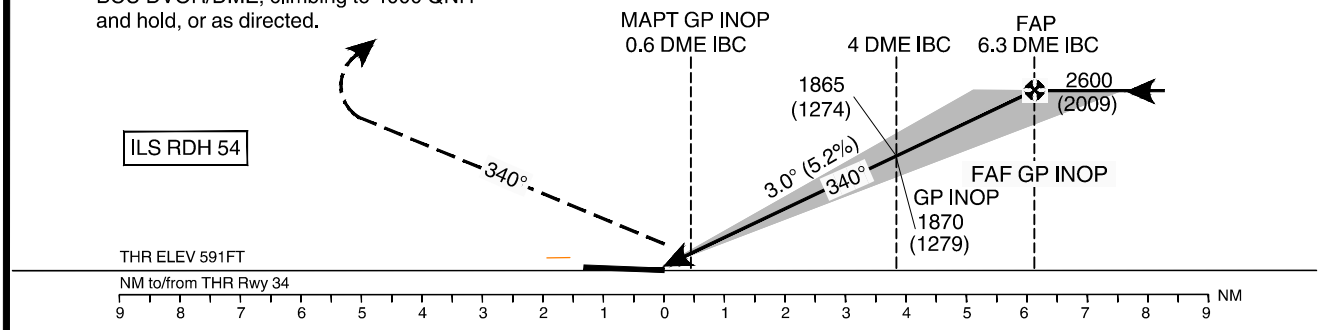


Changes: LRTRA revised.

MISSED APPROACH:
Climb straight ahead on RWY track to 3400 QNH then turn LEFT to BCU DVOR/DME, climbing to 4000 QNH and hold, or as directed.

ILS DME reads zero at IBC GP antenna (297 m beyond THR 34)

Transition Altitude 4000



OCA(H)	A	B	C	D
Straight-in approach	791 (200)			
ILS GP INOP	920 (329)			
Circling	1630		2640	2820

GS	kts	70	90	100	120	140	160
FAF-MAPT 5.7 NM	min:s	4:53	3:48	3:25	2:51	2:27	2:08
Rate of descent	ft/min	372	478	531	637	743	849

Distance to TDZ	NM	1	2	3	4	5
Altitude	ft	909	1228	1546	1865	2183

For data tabulation see verso.

BACĂU / George Enescu (LRBC)
ILS RWY 34

AERONAUTICAL DATA TABULATION

ILS approach to RWY 34	
Fix/Point	**Coordinates**
FAP/FAF GP INOP–BRG 132.88°/7.94NM BCU	46°24’44.5”N 026°57’11.3”E
MAPT	46°30’14.2”N 026°55’02.0”E
THR RWY 34	46°30’39.97”N 026°54’51.92”E
IBC LOC	46°32’07.5”N 026°54’17.5”E
BCU DVOR/DME	46°30’39.3”N 026°49’32.0”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA32G	GND – FL95	LRTRA47L	5000 FT AMSL – FL200
LRTRA32L	FL95 – FL200	LRTRA48G	GND – 5500 FT AMSL
LRTRA42G	GND – FL85	LRTRA48L	5500 FT AMSL – FL200
LRTRA42L	FL85 – FL200	LRTRA60G	GND – 5000 FT AMSL
LRTRA43G	GND – FL90	LRTRA60L	5000 FT AMSL – FL200
LRTRA43L	FL90 – FL200	LRTRA61G	GND – FL65
LRTRA44G	GND – 5000 FT AMSL	LRTRA61L	FL65 – FL200
LRTRA44L	5000 FT AMSL – FL200	LRTRA111A	FL65 – FL280
LRTRA47G	GND – 5000 FT AMSL	LRTRA111I	FL65 – FL280

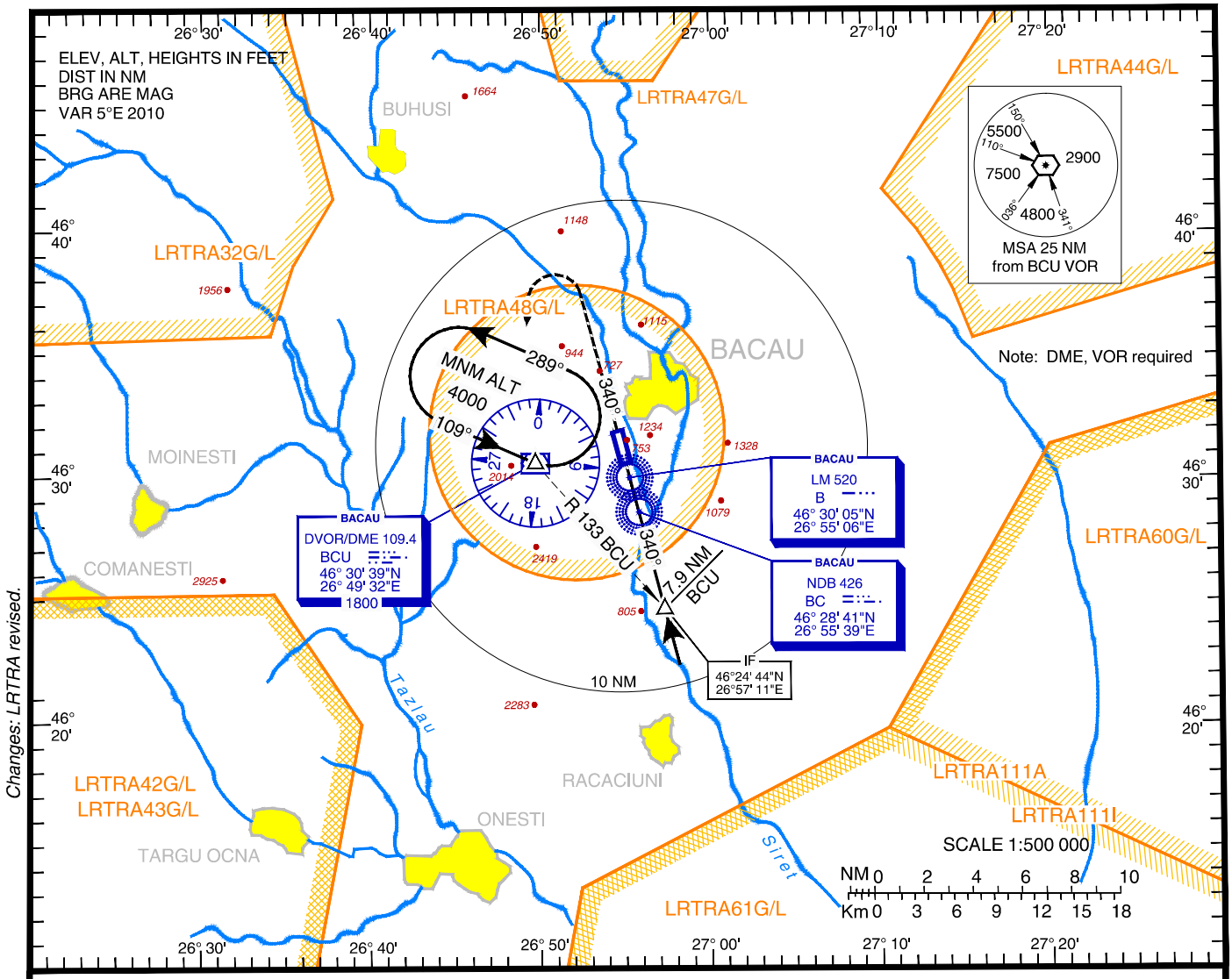
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **607 ft**
HEIGHTS RELATED TO
THR RWY 34 - ELEV 591 ft

BACAU TOWER	120.980
BACAU TOWER ALTN	118.600

BĂCAU / George Enescu (LRBC)

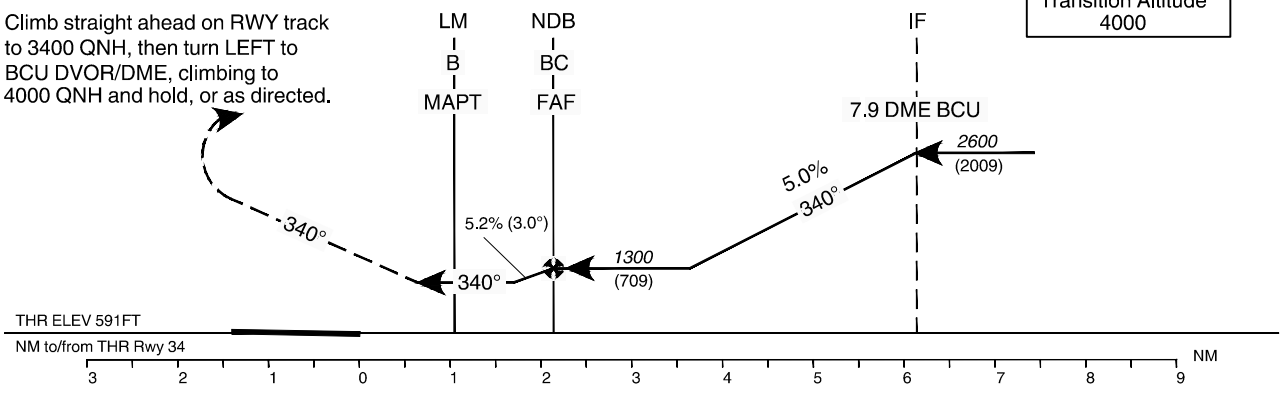
NDB RWY 34



MISSED APPROACH:

Climb straight ahead on RWY track to 3400 QNH, then turn LEFT to BCU DVOR/DME, climbing to 4000 QNH and hold, or as directed.

Transition Altitude 4000



OCA/H	A	B	C	D
Straight-in approach	1200 (609)			
Circling	1630		2640	2820

GS	kts	70	90	100	120	140	160
FAF-MAPT 1.5 NM	min:s	1:17	1:00	0:54	0:45	0:39	0:34
Rate of descent	ft/min	372	478	531	637	743	849
For data tabulation see verso.							

BACĂU / George Enescu (LRBC)
NDB RWY 34

AERONAUTICAL DATA TABULATION

NDB approach to RWY 34	
Fix/Point	**Coordinates**
IF – BRG 132.88° / 7.94NM BCU	46°24’44.5”N 026°57’11.3”E
BC NDB (FAF)	46°28’41.2”N 026°55’38.7”E
B LM (MAPT)	46°30’05.2”N 026°55’05.6”E
THR RWY 34	46°30’39.97”N 026°54’51.92”E
BCU DVOR/DME	46°30’39.3”N 026°49’32.0”E

Final approach descent angle: 3.00º

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA32G	GND – FL95	LRTRA47L	5000 FT AMSL – FL200
LRTRA32L	FL95 – FL200	LRTRA48G	GND – 5500 FT AMSL
LRTRA42G	GND – FL85	LRTRA48L	5500 FT AMSL – FL200
LRTRA42L	FL85 – FL200	LRTRA60G	GND – 5000 FT AMSL
LRTRA43G	GND – FL90	LRTRA60L	5000 FT AMSL – FL200
LRTRA43L	FL90 – FL200	LRTRA61G	GND – FL65
LRTRA44G	GND – 5000 FT AMSL	LRTRA61L	FL65 – FL200
LRTRA44L	5000 FT AMSL – FL200	LRTRA111A	FL65 – FL280
LRTRA47G	GND – 5000 FT AMSL	LRTRA111I	FL65 – FL280

BACĂU / George Enescu

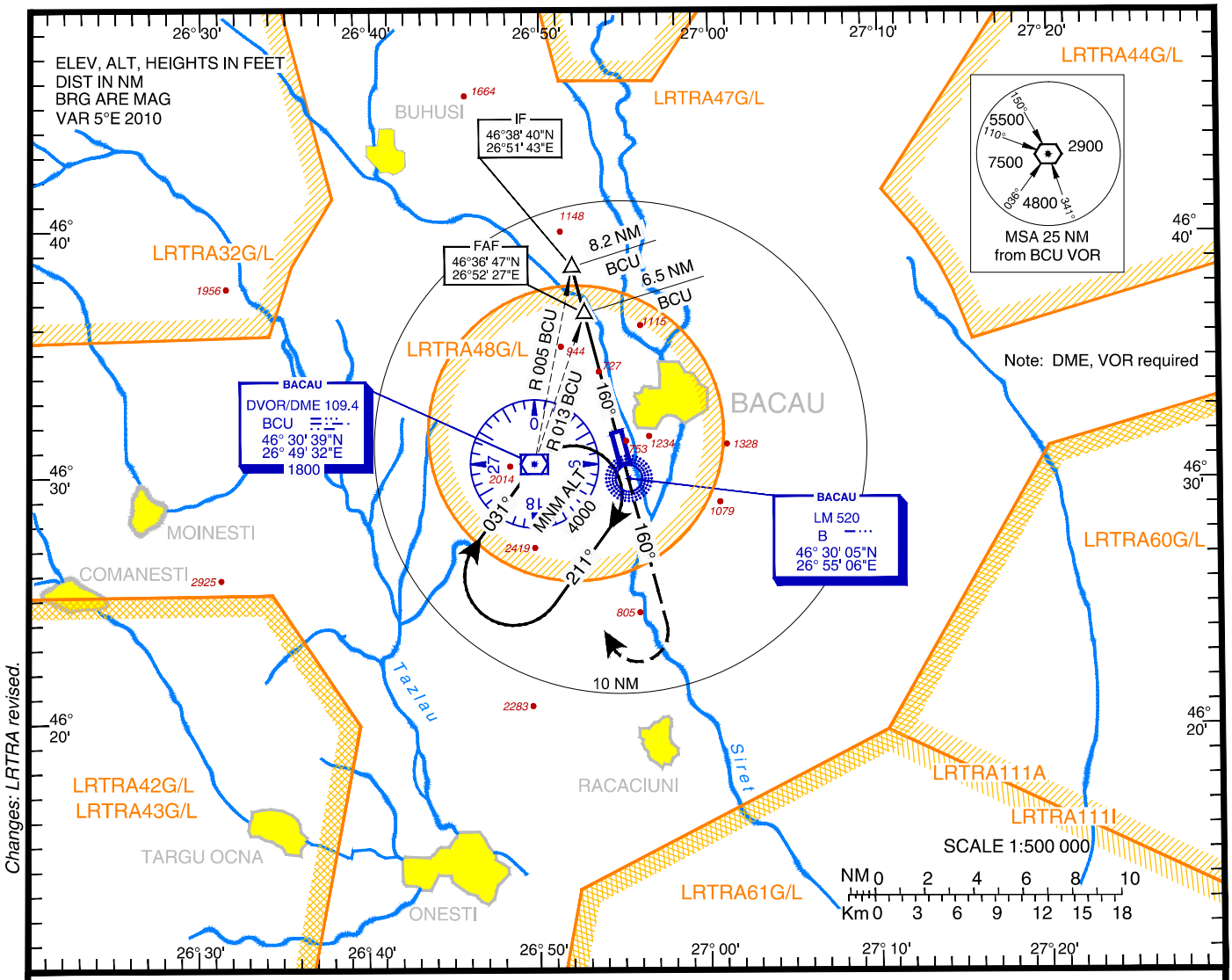
(LRBC)

NDB RWY 16

INSTRUMENT APPROACH CHART - ICAO

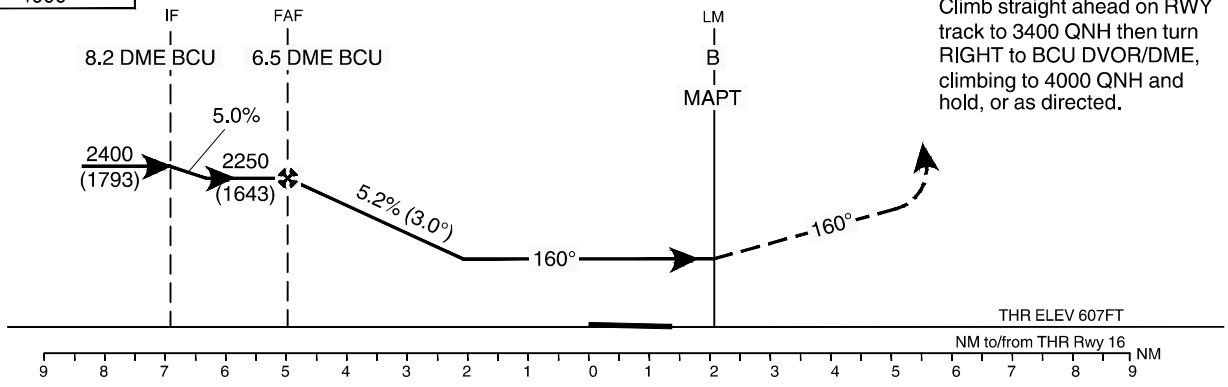
AERODROME ELEV. **607 ft**
HEIGHTS RELATED TO AD ELEV

BACAU TOWER	120.980
BACAU TOWER ALTN	118.600



Changes: LRTRA revised.

Transition Altitude
4000



MISSED APPROACH:

Climb straight ahead on RWY track to 3400 QNH then turn RIGHT to BCU DVOR/DME, climbing to 4000 QNH and hold, or as directed.

OCA(H)	A	B	C	D
Straight-in approach	1360 (753)			
Circling	1630		2640	2820

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.9 NM	min:s	5:55	4:36	4:08	3:27	2:57	2:35
Rate of descent	ft/min	372	478	531	637	743	849
For data tabulation see verso.							

BACĂU / George Enescu (LRBC)
NDB RWY 16

AERONAUTICAL DATA TABULATION

NDB approach to RWY 16	
Fix/Point	**Coordinates**
IF – BRG 005.35° / 8.16 NM BCU	46°38’40.3”N 026°51’42.8”E
FAF – BRG 012.94°/ 6.46 NM BCU	46°36’47.1”N 026°52’27.5”E
B LM (MAPT)	46°30’05.2”N 026°55’05.6”E
THR RWY 16	46°31’57.74”N 026°54’21.36”E
BCU DVOR/DME	46°30’39.3”N 026°49’32.0”E

Final approach descent angle: 3.00º

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA32G	GND – FL95	LRTRA47L	5000 FT AMSL – FL200
LRTRA32L	FL95 – FL200	LRTRA48G	GND – 5500 FT AMSL
LRTRA42G	GND – FL85	LRTRA48L	5500 FT AMSL – FL200
LRTRA42L	FL85 – FL200	LRTRA60G	GND – 5000 FT AMSL
LRTRA43G	GND – FL90	LRTRA60L	5000 FT AMSL – FL200
LRTRA43L	FL90 – FL200	LRTRA61G	GND – FL65
LRTRA44G	GND – 5000 FT AMSL	LRTRA61L	FL65 – FL200
LRTRA44L	5000 FT AMSL – FL200	LRTRA111A	FL65 – FL280
LRTRA47G	GND – 5000 FT AMSL	LRTRA111I	FL65 – FL280

LRBM AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRBM - BAIA MARE / Maramureș

LRBM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	473930N 0232758E, 099° GEO / 1250 M from THR 09
2	*Direction and distance from (city)*	279° GEO / 10 km from Baia Mare
3	*Elevation/Reference temperature/mean low temperature*	606 FT / 29.8°C / -13.6°C
4	*Geoid undulation at AD ELEV PSN*	130 FT
5	*MAG VAR/ Annual change*	6° E (2020) / 7.2' E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	AEROPORTUL INTERNAȚIONAL MARAMUREȘ R.A., Str. 66, Nr. 22, Tăuții Măgherăuș, jud. Maramureș, cod poștal 437345 Tel: +40-(0)770-431771 Tel: +40-(0)262-293444 Fax: +40-(0)262-223394 E-mail: office@aimm.eu. Alternate: ground@aimm.eu AFS: LRBMRAYD Web: www.aimm.eu
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	Telephone numbers are available during LRBM AD operational hours only. For operations out of operational hours, contact e-mail: ground@aimm.eu.

LRBM AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	MON-FRI W: 0500-1700, S: 0400-1600; SUN W: 0930-1330, S: 0830-1230.
2	*Customs and immigration*	As AD Operator
3	*Health and sanitation*	As AD Operator
4	*AIS Briefing Office*	As AD Operator
5	*ATS Reporting Office (ARO)*	As AD Operator
6	*MET Briefing Office*	As AD Operator
7	*ATS*	W: 0500-1700; S: 0400-1600
8	*Fuelling*	As AD Operator
9	*Handling*	As AD Operator
10	*Security*	As AD Operator
11	*De-icing*	As AD Operator
12	*Remarks*	Outside the operational hours of the AD, services listed above are available O/R, submitted to the AD and approved with at least 24 hours in advance.

LRBM AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	6 electric tractors, 26 baggage trailers, 1 air start unit, 1 air conditioning unit, 4 self-propelled passenger stairs, 4 self-propelled conveyorbelts, 3 mobile GPU 115/200V-400HZ and 28V, 1 lavatory service trailer, 1 potable-water trailer, 1 airport passenger/crew minibus, 1 lower deck loader, 2 ULD container dollies.
2	*Fuel/oil types*	JET A1 / NIL
3	*Fuelling facilities/capacity*	1 refueling truck 25000 litres, 22 litres/second
4	*De-icing facilities*	2 de-icing units with heated water, heated SAE Type I fluid/water mixture and unheated SAE Type II fluid.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	For details regarding refuelling and fuel rate contact fuel provider at phone no. +40-(0)757-031166.

LRBM AD 2.5 PASSENGER FACILITIES

1	*Hotels*	In the city and neighborhood.
2	*Restaurants*	Snack bar on the airport, restaurants in the city and neighborhood.
3	*Transportation*	Taxis from the AD.
4	*Medical facilities*	1 ambulance on the airport, 1 first aid room on the airport, hospitals in the city.
5	*Bank and Post Office*	Banks and Post Offices in the city.
6	*Tourist Office*	Office in the city. Tel: +40-(0)262-206113; Fax: +40-(0)262-206114; email: office@visitmaramures.ro; www.visitmaramures.ro.
7	*Remarks*	NIL

LRBM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 7.
2	*Rescue equipment*	Rescue/cut-in equipment: 1 electrical portable rescue equipment, 1 powered rescue saw, 1 oscillating saw; Ladders: 3 extension rescue ladders; Rescue tool box: 1 set.
3	*Capability for removal of disabled aircraft*	Maximum removal capability: code letter A aircraft, wingspan < 15 m. Local Action Coordinator: +40-744-570731 (available 24/7) Substitute: +40-770-431771 (available as AD Operator) e-mail: ground@aimm.eu
4	*Remarks*	NIL

LRBM AD 2.7 RUNWAY SURFACE CONDITION ASSESMENT AND REPORTING, AND SNOW PLAN

1	*Types of clearing equipment*	2 snow blower, 1 tractor with blade, 2 snow plough with jet sweeper, 1 multi-function snow-clearing equipment with snow-blower, blade, sweeper and RWY deicing sprayer with liquid, 1 truck with RWY deicing sprayer with liquid and solid mixture.
2	*Clearance priorities*	1. RWY 09/27 and associated TWY to Apron 2. Apron
3	*Use of material for movement area surface tratment*	Runway de-icer liquid used for RWY, TWYs and Apron de-icing is based on potassium formate (KFOR). Runway de-icer solid used for RWY, TWYs and Apron de-icing is based on sodium formate (NAFO).
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Information on snow clearance is based of Runway Condition Report (RCR) and published in NOTAM (SNOWTAM) with respect of Global Reporting Format (GRF) method. The RCR is continuously updated and forwarded to air traffic services and to aeronautical information services for transmission to the flight crew by SNOWTAM and radio broadcast. See also the snow plan in section AD 1.2.2.

LRBM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	Designation: Surface: Strength:	APRON Concrete 59/R/D/W/T		
2	*Taxiway designation, width, surface and strength*	Designation: Width: Surface: Strength:	TWY A 18 M Asphalt 59/R/D/W/T	TWY B 18 M Asphalt 59/R/D/W/T	TWY C 18 M Concrete 60/R/D/W/T
3	*Altimeter checkpoint location and elevation*	Location: Elevation:	APRON 597FT(182M)		
4	*VOR checkpoints*	NIL			
5	*INS checkpoints*	See AD 2.3-22			
6	*Remarks*	INS points represent COCKPIT STOP POSITION of parked aircraft. TWY C is an apron taxiway.			

LRBM 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*	Aircraft stand ID signs: NIL. TWY guide lines: provided for TWY A,B,C. Visual docking guidance system of aircraft stands: NIL. Visual parking guidance system of aircraft stands: aircraft stand markings and aircraft stand maneuvering guidance lights.
2	*RWY and TWY markings and LGT*	RWY: Designation, aiming point, marked. THR, TDZ, centre line, edge line, runway end, marked and lighted. TWY A, B: Enhanced centre line, marked; Centre line, edge lines, holding position, marked and lighted. TWY C: Centre line, edge line South, marked and lighted.
3	*Stop bars*	TWY A, B: Stop bars and runway guard lights at holding position. TWY A, B: Mandatory instruction marking at holding positions, enhanced taxiway centre line marking.
4	*Remarks*	Aircraft must follow stand guidelines with COCKPIT OVER THE CENTER LINE.

Changes: LRD and LRTRA revised.

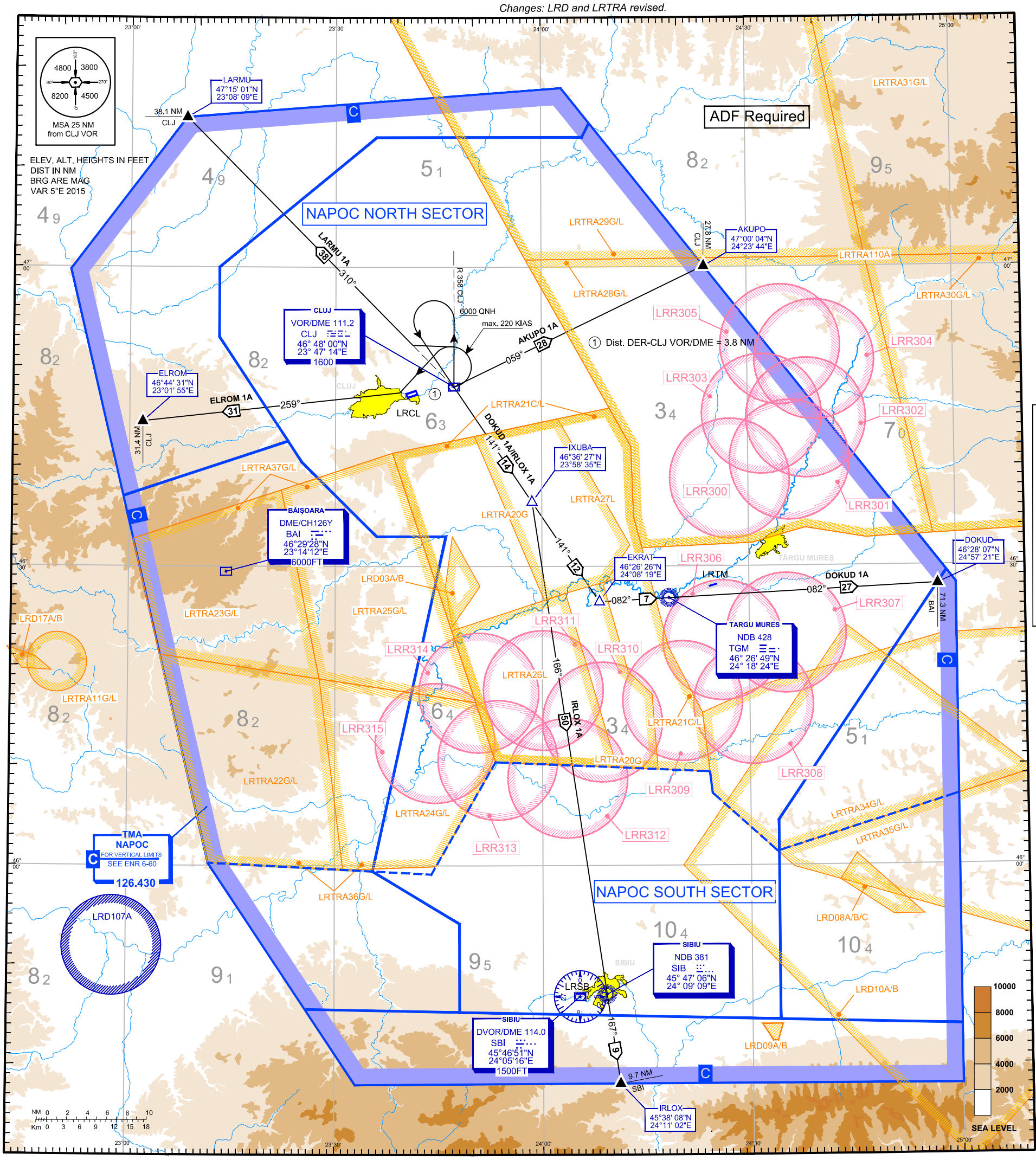
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH 126.430
NAPOC APPROACH ALTN 127.275
NAPOC NORTH APPROACH 126.430
NAPOC NORTH APPROACH ALTN 127.275
NAPOC SOUTH APPROACH 119.680
NAPOC SOUTH APPROACH ALTN 127.275

CLUJ TOWER 118.705
CLUJ TOWER ALTN 134.400
CLUJ ATIS 125.525

SECTOR: NAPOC 127.075
NAPOC ALTN 120.930
NERDI 125.155
NERDI ALTN 123.900
BUDOP 130.230
BUDOP ALTN 124.100



RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110. Climbing shall be executed in accordance with vertical restrictions specified on chart. 7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL. If cleared FL is lower than MRVA, climb immediately to MRVA. If cleared FL is lower than FL110, after 2 min. climb to FL110. Climbing shall be executed in accordance with MRVA chart. 7 minutes from setting 7600 climb to FPL flight level.

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before deparure)
AKUPO 1A	Direct to CLJ VOR; LT, on R059 CLJ to AKUPO. Cross AKUPO at or above FL100.	Increased climb gradient 5.4% until AKUPO due to airspace structure. Increased climb gradient 4.7% until CLJ VOR due to obstacles.
DOKUD 1A	Direct to CLJ VOR; LT, on R358 CLJ climb to 6000 QNH or above ; LT, direct to CLJ VOR climb to FL090 or above at CLJ VOR; on R141 CLJ to EKRAT; LT, on bearing 082° inbound to TGM NDB; on bearing 082° from TGM NDB to DOKUD. Cross DOKUD at or above FL100.	Increased climb gradient 4.7% until CLJ VOR due to obstacles. Departure turn limited to max. IAS 220 KT.
ELROM 1A	Direct to CLJ VOR; LT, on R259 CLJ to ELROM. Cross ELROM at or above FL110.	Increased climb gradient 4.7% until CLJ VOR due to obstacles, followed by 4.4 % until ELROM due to airspace structure. Departure turn limited to max. IAS 220 KT.
IRLOX 1A	Direct to CLJ VOR; LT, on R358 CLJ climb to 6000 QNH or above ; LT, direct to CLJ VOR climb to FL090 or above at CLJ VOR; on R141 CLJ to IXUBA; RT, on bearing 166° inbound to SIB NDB; on bearing 167° from SIB NDB to IRLOX. Cross IRLOX at or above FL110.	Increased climb gradient 4.7% until CLJ VOR due to obstacles. Departure turn limited to max. IAS 220 KT.
LARMU 1A	Direct to CLJ VOR; LT, on R310 CLJ to LARMU. Cross LARMU at or above FL100.	Increased climb gradient 4.7% until CLJ VOR due to obstacles, followed by 3.6% until LARMU due to airspace structure. Departure turn limited to max. IAS 220 KT.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
AKUPO	N470003762	E0242344287
DER-LRCL-07	N464725306	E0234149946
CLJ VOR/DME	N464800438	E0234714118
DOKUD	N462807453	E0245721352
EKRAT	N462626408	E0240819283
ELROM	N464430715	E0230154709
IRLOX	N453808151	E0241102176
IXUBA	N463627153	E0235834582
LARMU	N471501159	E0230808785
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

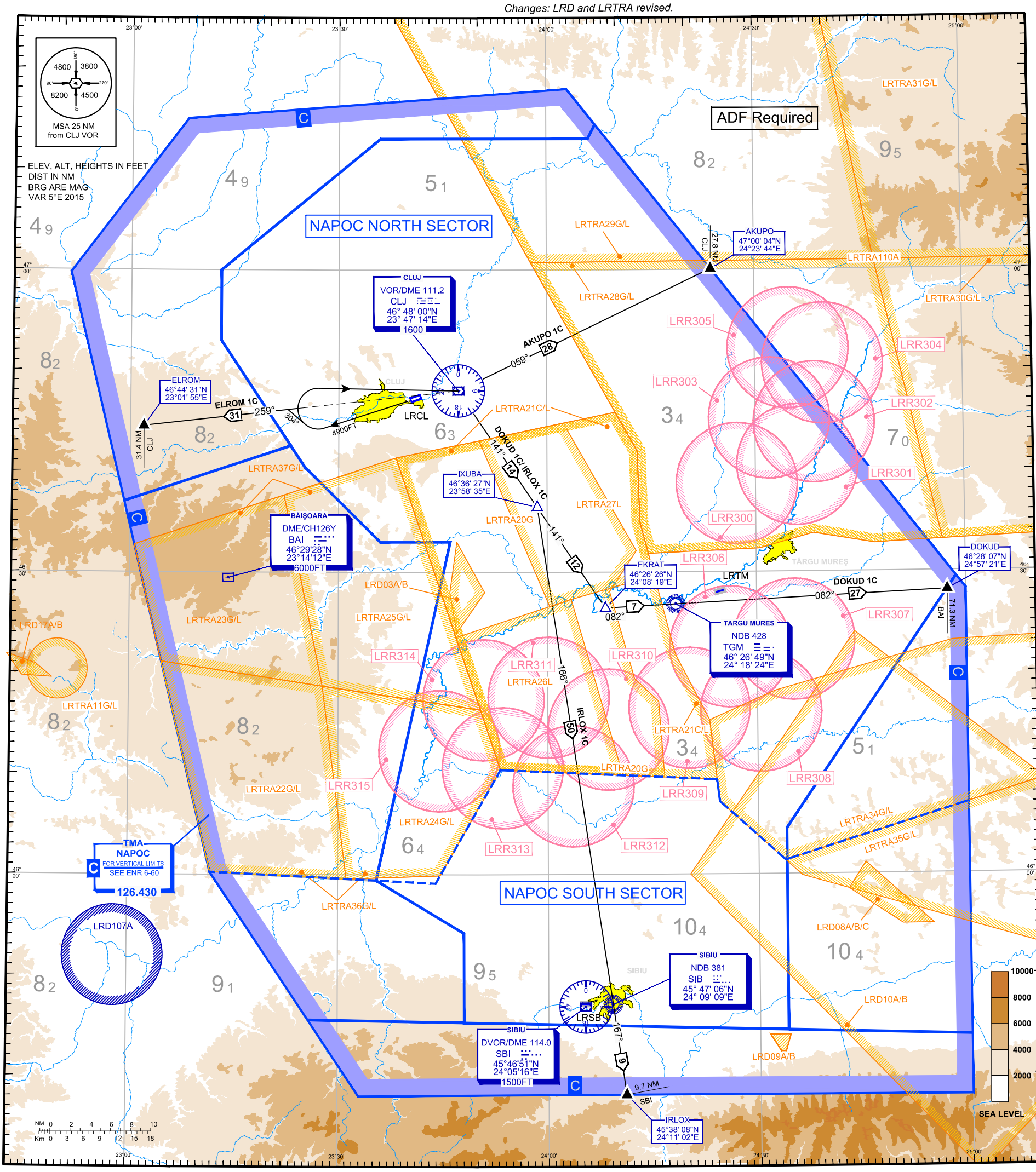
DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRCL DEPARTURE SEQUENCE RWY07

Leg	Distance (NM)	True track	Magnetic Track
1	3	4	
AKUPO 1A			
DER07 – CLJ VOR	3.758	81.00	75.83
CLJ VOR – AKUPO	27.785	64.05	58.88
DOKUD 1A			
DER07 - CLJ VOR	3.758	81.00	75.83
Track North	-	3.00	357.83
CLJ VOR – EKRAT	26.014	145.91	140.74
EKRAT - TGM-NDB	6.976	86.86	81.65
TGM-NDB - DOKUD	26.967	86.98	81.77
ELROM 1A			
DER07 - CLJ VOR	3.758	81.00	75.83
CLJ VOR – ELROM	31.349	263.87	258.70
IRLOX 1A			
DER07 - CLJ VOR	3.758	81.00	75.83
Track North	-	3.00	357.83
CLJ VOR – IXUBA	13.948	145.90	140.73
IXUBA - SIB-NDB	49.911	171.47	166.35
SIB-NDB – IRLOX	9.063	171.62	166.50
LARMU 1A			
DER07 - CLJ VOR	3.758	81.00	75.83
CLJ VOR - LARMU	38.019	315.54	310.37

Changes: LRD and LRTRA revised.

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO



NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TRANSITION ALTITUDE 7000 ft

CLUJ TOWER	118.705
CLUJ TOWER ALTN	134.400
CLUJ ATIS	125.525

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110. Climbing shall be executed in accordance with vertical restrictions specified on chart. 7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL. If cleared FL is lower than MRVA, climb immediately to MRVA. If cleared FL is lower than FL110, after 2 min. climb to FL110. Climbing shall be executed in accordance with MRVA chart. 7 minutes from setting 7600 climb to FPL flight level.

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
AKUPO 1C	On runway track climb to 4900 ft QNH; RT, direct to CLJ VOR climb to FL090 or above at CLJ VOR; LT, on R059 CLJ to AKUPO. Cross AKUPO at or above FL100.	Increased climb gradient 5.3% until 4900 QNH due to obstacles, followed by 4.1% until CLJ VOR due to mountainous terrain and airspace structure. CAUTION: close-in obstacles
DOKUD 1C	On runway track climb to 4900 ft QNH; RT, direct to CLJ VOR climb to FL090 or above at CLJ VOR; on R141 CLJ to EKRAT; LT, on bearing 082° inbound to TGM NDB; on bearing 082° from TGM NDB to DOKUD. Cross DOKUD at or above FL100.	Increased climb gradient 5.3% until 4900 QNH due to obstacles, followed by 4.1% until CLJ VOR due to mountainous terrain and airspace structure. CAUTION: close-in obstacles
ELROM 1C	On runway track climb to 4900 ft QNH; RT, on track 304° to intercept R259 CLJ, on R259 CLJ to ELROM. Cross ELROM at or above FL110.	Increased climb gradient 6.2% until ELROM due to airspace structure. Increased climb gradient 5.3% until 4900 QNH due to obstacles, followed by 4.1% until ELROM due to mountainous terrain. CAUTION: close-in obstacles
IRLOX 1C	On runway track climb to 4900 ft QNH; RT, direct to CLJ VOR climb to FL090 or above at CLJ VOR; on R141 CLJ to IXUBA; RT, on bearing 166° inbound to SIB NDB; on bearing 167° from SIB NDB to IRLOX. Cross IRLOX at or above FL110.	Increased climb gradient 5.3% until 4900 QNH due to obstacles, followed by 4.1% until CLJ VOR due to mountainous terrain and airspace structure. CAUTION: close-in obstacles.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
AKUPO	N470003762	E0242344287
CLJ VOR/DME	N464800438	E0234714118
DOKUD	N462807453	E0245721352
EKRAT	N462626408	E0240819283
ELROM	N464430715	E0230154709
IRLOX	N453808151	E0241102176
IXUBA	N463627153	E0235834582
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRCL DEPARTURE SEQUENCE RWY25

Leg	Distance (NM)	True track	Magnetic Track
1	3	4	
AKUPO 1C			
Runway Track	-	*251.84*	*246.67*
CLJ VOR - AKUPO	27.785	64.05	58.88
ELROM 1C			
Runway Track	-	*251.84*	*246.67*
CLJ VOR - ELROM	31.349	263.87	258.70
DOKUD 1C			
Runway Track	-	*251.84*	*246.67*
CLJ-VOR - EKRAT	26.014	145.91	140.74
EKRAT - TGM-NDB	6.976	86.86	81.65
TGM-NDB - DOKUD	26.967	86.98	81.77
IRLOX 1A			
Runway Track	-	*251.84*	*246.67*
CLJ-VOR - IXUBA	13.948	145.90	140.73
IXUBA - SIB-NDB	49.911	171.47	166.35
SIB-NDB - IRLOX	9.063	171.62	166.50

Changes: LRD and LRTRA revised.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 7000 ft

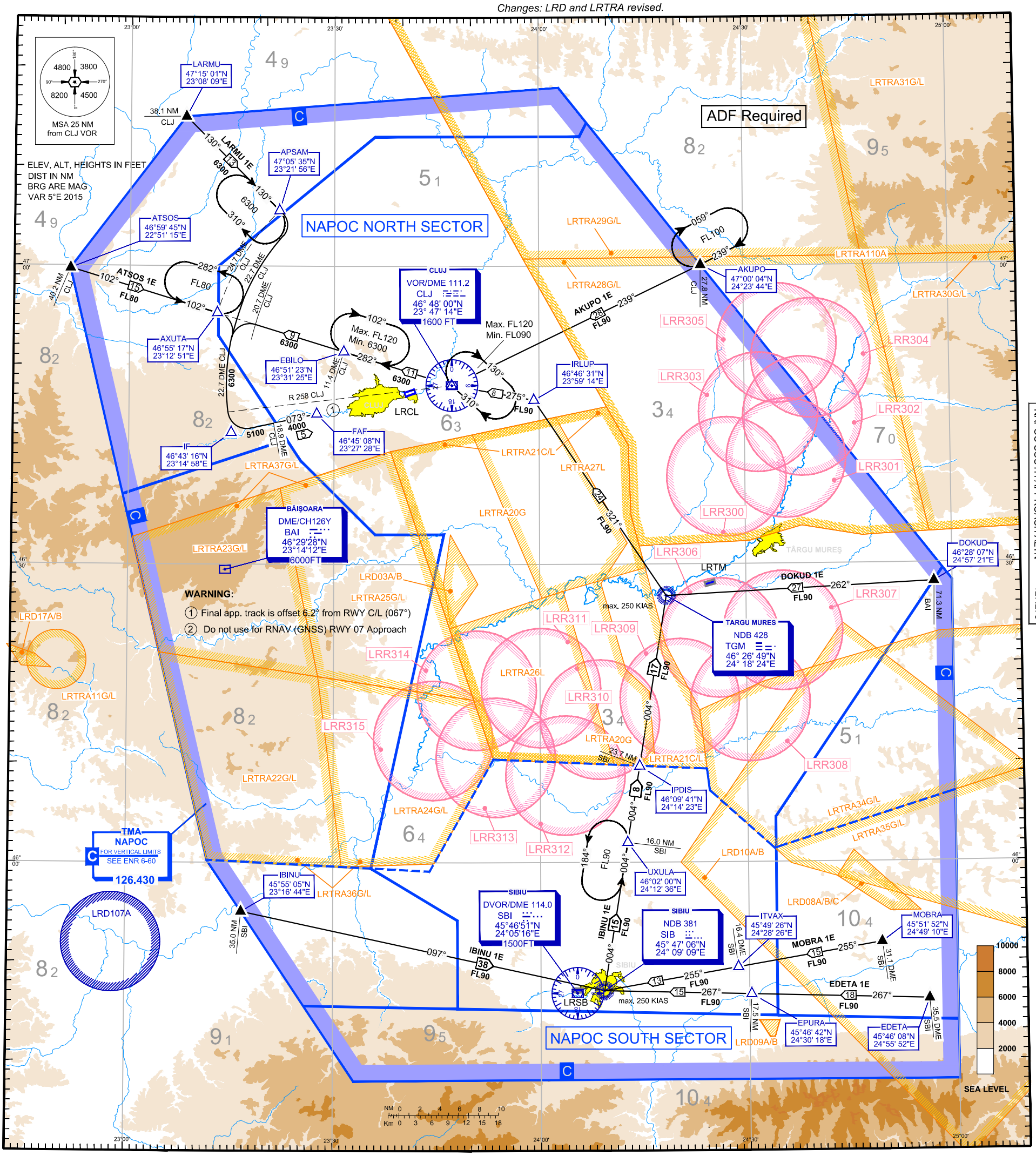
NAPOC APPROACH
NAPOC APPROACH ALTN
NAPOC NORTH APPROACH
NAPOC NORTH APPROACH ALTN
NAPOC SOUTH APPROACH
NAPOC SOUTH APPROACH ALTN

126.430
127.275
126.430
127.275
119.680
127.275

CLUJ TOWER
CLUJ TOWER ALTN
CLUJ ATIS

118.705
134.400
125.525

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100



Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to EBILO. At EBILO join AKUPO 1E. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to EBILO. If last cleared FL is lower than MRVA climb immediately to MRVA. At EBILO join AKUPO 1E. Descending shall be executed in accordance with MRVA until EBILO and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
d. In case of missed approach. From APSAM join LARMU 1E. If necessary to change RWY, join LARMU 1F. Descending shall be executed in accordance with vertical restrictions specified on charts.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

CLUJ - NAPOCA/ Avram Iancu (LRCL)
RWY 07
AKUPO 1E ATSOS 1E DOKUD 1E EDETA 1E
IBINU 1E LARMU 1E MOBRA 1E

LRCL ARRIVAL SEQUENCE RWY07

Designator	Identification point	Distance (MN)	Magnetic Track (DEG)	Minimum Alt / FL
1	2	3	4	5
AKUPO 1E	AKUPO			
		27.785	239.33 (R059 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		11.371	282.19 (R282 CLJ)	6300
	EBILO			
		9.320	281.99 (R282 CLJ)	6300
	DME 20.7 CLJ			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			
ATSOS 1E	ATSOS			
		15.460	101.50 (R282 CLJ)	FL080
	AXUTA (IAF)			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			
DOKUD 1E	DOKUD			
		26.967	262.24	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		11.371	282.19 (R282 CLJ)	6300
	EBILO			
		9.320	281.99 (R282 CLJ)	6300
	DME 20.7 CLJ			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			

1	2	3	4	5
EDETA 1E	EDETA			
		17.905	266.85	FL090
	EPURA			
		14.806	266.54	FL090
	SIB NDB (max 250 KIAS)			
		15.102	4.02	FL090
	UXULA			
		7.772	4.02 from SIB NDB	FL090
	IPDIS			
		17.369	3.98 to TGM NDB	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		11.371	282.19 (R282 CLJ)	6300
	EBILO			
		9.320	281.99 (R282 CLJ)	6300
	DME 20.7 CLJ			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			
IBINU 1E	IBINU			
		37.506	96.86	FL090
	SIB NDB (max 250 KIAS)			
		15.102	4.02	FL090
	UXULA			
		7.772	4.02 from SIB NDB	FL090
	IPDIS			
		17.369	3.98 to TGM NDB	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		11.371	282.19 (R282 CLJ)	6300
	EBILO			
		9.320	281.99 (R282 CLJ)	6300
	DME 20.7 CLJ			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			

1	2	3	4	5
LARMU 1E	LARMU			
		13.329	129.89 (R310 CLJ)	6300
	APSAM (IAF)			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			
MOBRA 1E	MOBRA			
		14.699	255.45	FL090
	ITVAX			
		13.683	255.21	FL090
	SIB NDB (max 250 KIAS)			
		15.102	4.02	FL090
	UXULA			
		7.772	4.02 from SIB NDB	FL090
	IPDIS			
		17.369	3.98 to TGM NDB	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		11.371	282.19 (R282 CLJ)	6300
	EBILO			
		9.320	281.99 (R282 CLJ)	6300
	DME 20.7 CLJ			
		-	DME 22.7 CLJ arc	6300
	IF		*lead-in at IF: 77.67 (R258 CLJ)*	
		3.798	72.59 (R253 CLJ)	5100
	DME 18.9 CLJ			
		5.002	72.65 (R253 CLJ)	4000
	FAF LRCL 07			

CLUJ – NAPOCA / Avram Iancu (LRCL)
STANDARD ARRIVAL
INSTRUMENT (STAR)
RWY 07

AERONAUTICAL DATA TABULATION

LIST OF WAYPOINTS

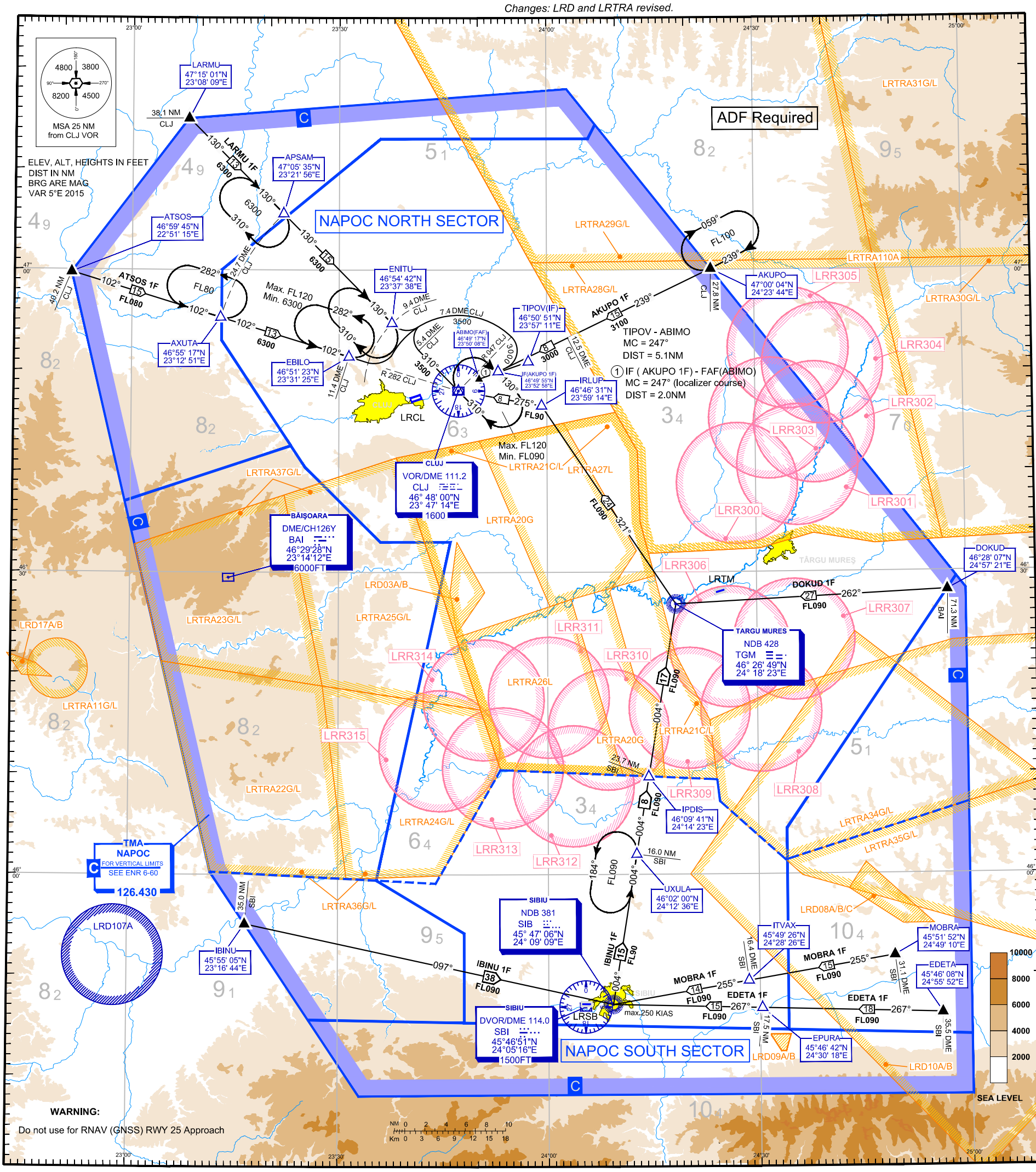
Waypoint name	Latitude	Longitude
AKUPO	N470003762	E0242344287
APSAM (IAF)	N470534529	E0232155654
ATSOS	N465944989	E0225115090
AXUTA (IAF)	N465516984	E0231251452
CLJ VOR/DME (IAF)	N464800438	E0234714118
DOKUD	N462807453	E0245721352
EBILO	N465122844	E0233125292
EDETA	N454608288	E0245552249
EPURA	N454642269	E0243018171
FAF_LRCL_07	N464507647	E0232727957
IBINU	N455504940	E0231643516
IF	N464316421	E0231457563
IPDIS	N460940557	E0241422949
IRLUP	N464631258	E0235913737
ITVAX	N454925590	E0242825776
LARMU	N471501159	E0230808785
MOBRA	N455151885	E0244909844
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699
UXULA	N460200362	E0241235949

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH 126.430
NAPOC APPROACH ALTN 127.275
NAPOC NORTH APPROACH 126.430
NAPOC NORTH APPROACH ALTN 127.275
NAPOC SOUTH APPROACH 119.680
NAPOC SOUTH APPROACH ALTN 127.275

CLUJ TOWER 118.705
CLUJ TOWER ALTN 134.400
CLUJ ATIS 125.525

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

NOTES : *Vertical limits of LRRxxx* FL255 / GND

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to EBILO. At EBILO join ATSOS 1F. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to EBILO. If last cleared FL is lower than MRVA climb immediately to MRVA. At EBILO join ATSOS 1F. Descending shall be executed in accordance with MRVA until EBILO and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
d. In case of missed approach. From APSAM join LARMU 1F. If necessary to change RWY, join LARMU 1E. Descending shall be executed in accordance with vertical restrictions specified on charts.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

CLUJ - NAPOCA/ Avram Iancu (LRCL)
RWY 25
AKUPO 1F ATSOS 1F DOKUD 1F EDETA 1F
IBINU 1F LARMU 1F MOBRA 1F

LRCL ARRIVAL SEQUENCE RWY 25

Designator	Identification point	Distance (MN)	Magnetic Track	Minimum Alt / FL
1	2	3	4	5
AKUPO 1F	AKUPO			
		15.288	239.32 (R059 CLJ)	3100
	DME 12.5 CLJ			
		8.120	239.08 (R059 CLJ)	3000
	IF			
		2.042	246.81 (localizer course)	3000
	ABIMO (FAF)			
ATSOS 1F	ATSOS			
		15.460	101.50 (R282 CLJ)	FL080
	AXUTA			
		13.318	101.76 (R282 CLJ)	6300
	EBILO			
		1.974	102.00 (R282 CLJ)	3500
	DME 9.4 CLJ			
		-	DME 7.4 CLJ arc	3500
	TIPOV (IF) (max 210 KIAS)		*lead-in at IF: 226.67 (R047 CLJ)*	
		5.081	246.86 (localizer course)	3000
	ABIMO (FAF)			
DOKUD 1F	DOKUD			
		26.967	262.24	FL090
	TGM NDB			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		5.398	310.38 (R310 CLJ)	3500
	DME 5.4 CLJ			
		-	DME 7.4 CLJ arc	3500
	TIPOV (IF) (max 210 KIAS)		*lead-in at IF: 226.67 (R047 CLJ)*	
		5.081	246.86 (localizer course)	3000
	ABIMO (FAF)			
EDETA 1F	EDETA			
		17.905	266.85	FL090
	EPURA			
		14.806	266.54	FL090
	SIB NDB (max KIAS 250			
		15.102	4.02	FL090
	UXULA			
		7.772	4.02 from SIB NDB	FL090
	IPDIS			
		17.369	3.98 to TGM NDB	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		5.398	310.38 (R310 CLJ)	3500
	DME 5.4 CLJ			
		-	DME 7.4 CLJ arc	3500
	TIPOV (IF) (max 210 KIAS)		*lead-in at IF: 226.67 (R047 CLJ)*	
		5.081	246.86 (localizer course)	3000
	ABIMO (FAF)			
IBINU 1F	IBINU			
		37.506	096.86	FL090
	SIB NDB (max KIAS 250)			
		15.102	004.02	FL090
	UXULA			
		7.772	004.02	FL090
	IPDIS			
		17.369	003.98	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		5.398	310.42 (R310 CLJ)	3500
	DME 5.4 CLJ			
		-	DME 7.4 CLJ arc	3500
	TIPOV (IF) (max 210 KIAS)		*lead-in at IF: 226.67 (R047 CLJ)*	
		5.081	246.86 (localizer course)	3000
	ABIMO (FAF)			
LARMU 1F	LARMU			
		13.329	129.89 (R310 CLJ)	6300
	APSAM			
		15.293	130.06 (R310 CLJ)	6300
	DME 9.4 CLJ			
		-	DME 7.4 CLJ arc	3500
	TIPOV (IF) (max 210 KIAS)		*lead-in at IF: 226.67 (R047 CLJ)*	
		5.081	246.86 (localizer course)	3000
	ABIMO (FAF)			
MOBRA 1F	MOBRA			
		14.699	255.45	FL090
	ITVAX			
		13.683	255.21	FL090
	SIB NDB (max KIAS 250)			
		15.102	4.02	FL090
	UXULA			
		7.772	4.02 from SIB NDB	FL090
	IPDIS			
		17.369	3.98 to TGM NDB	FL090
	TGM NDB (max 250 KIAS)			
		23.732	321.07	FL090
	IRLUP			
		8.375	275.13 (R095 CLJ)	FL090
	CLJ VOR-DME (IAF)			
		5.398	310.38 (R310 CLJ)	3500
	DME 5.4 CLJ			
		-	DME 7.4 CLJ arc	3500
	TIPOV (IF) (max 210 KIAS)		*lead-in at IF: 226.67 (R047 CLJ)*	
		5.081	246.86 (localizer course)	3000
	ABIMO (FAF)			

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
ABIMO (FAF)	N464917198	E0235008323
AKUPO	N470003762	E0242344287
APSAM	N470534529	E0232155654
ATSOS	N465944989	E0225115090
AXUTA	N465516984	E0231251452
CLJ VOR/DME	N464800438	E0234714118
DOKUD	N462807453	E0245721352
EBILO	N465122844	E0233125292
EDETA	N454608288	E0245552249
ENITU	N465442306	E0233738196
EPURA	N454642269	E0243018171
IBINU	N455504940	E0231643516
IF (AKUPO 1F)	N464955129	E0235258009
IPDIS	N460940557	E0241422949
IRLUP	N464631258	E0235913737
ITVAX	N454925590	E0242825776
LARMU	N471501159	E0230808785
MOBRA	N455151885	E0244909844
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699
TIPOV (IF)	N465051429	E0235710567
UXULA	N460200362	E0241235949

CLUJ – NAPOCA / Avram Iancu (LRCL)
STANDARD ARRIVAL
INSTRUMENT (STAR)
RWY 25

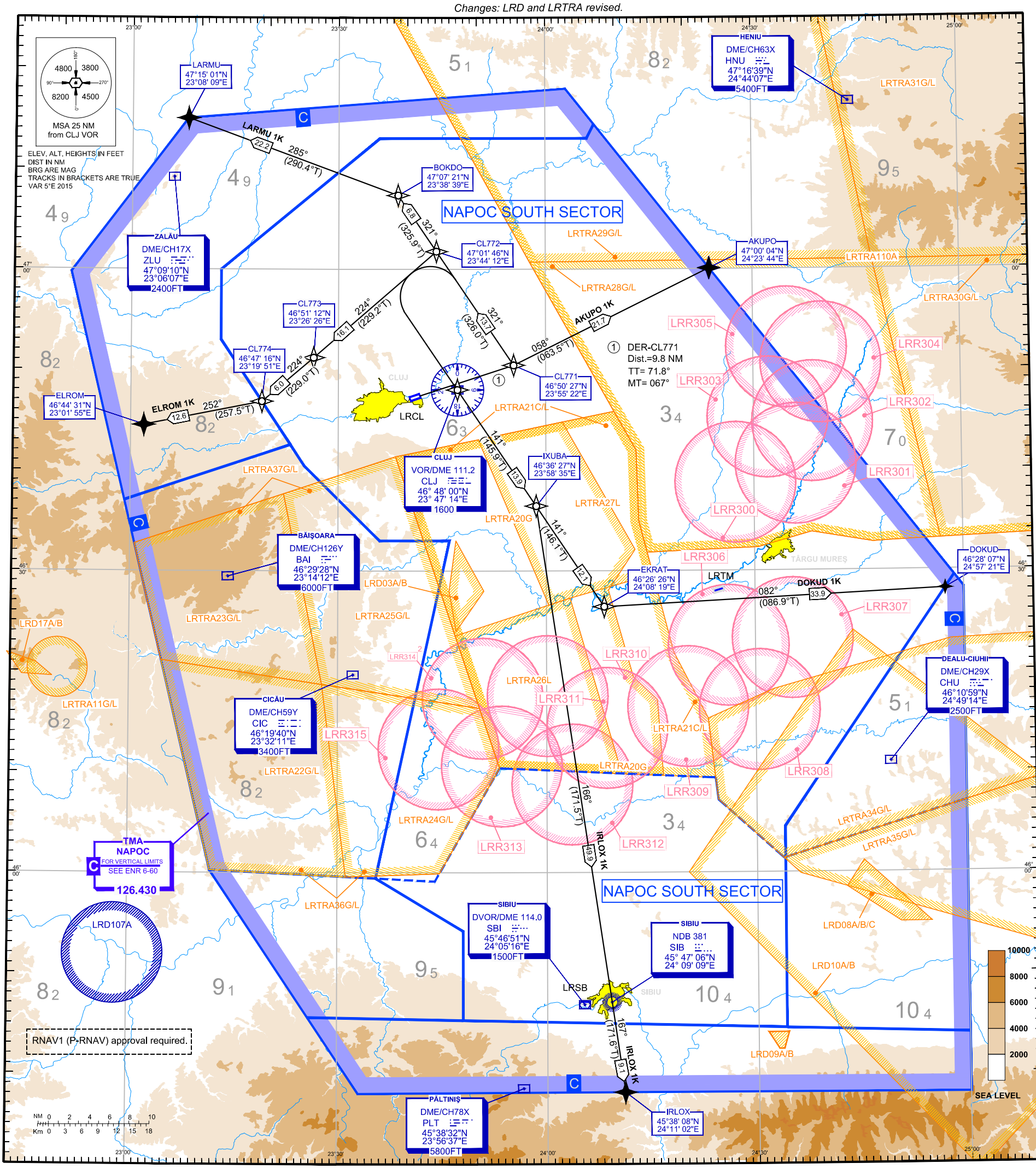
AERONAUTICAL DATA TABULATION

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO



TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

CLUJ TOWER	118.705
CLUJ TOWER ALTN	134.400
CLUJ ATIS	125.525

SECTOR: NAPOC	
NAPOC ALTN	127.075
NERDI	120.930
NERDI ALTN	125.155
BUDOP	123.900
BUDOP ALTN	130.230
	124.100

10000 8000 6000 4000 2000

Radio Communication Failure:

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110.
Climbing shall be executed in accordance with vertical restrictions specified on chart.
7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL.
If cleared FL is lower than MRVA, climb immediately to MRVA.
If cleared FL is lower than FL110, after 2 min. climb to FL110.
Climbing shall be executed in accordance with MRVA chart.
7 minutes from setting 7600 climb to FPL flight level.

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
AKUPO 1K	CL771[K250-] - AKUPO[F100+]	Increased climb gradient 4.7% until AKUPO due to airspace structure. Increased climb gradient 4.4% until 1400 ft QNH due to obstacles.
DOKUD 1K	CL771[F070-; K250-] – [T326; F080; K250-; L] → CLJ[F090+] – IXUBA – EKRAT – DOKUD[F100+]	Increased climb gradient 4.4% until 1800 ft QNH due to obstacles.
ELROM 1K	CL771[K250-] – CL772 – CL773[F090+] – CL774 – ELROM[F110+]	Increased climb gradient 4.4% until 1800 ft QNH due to obstacles.
IRLOX 1K	CL771[F070-; K250-] - [T326; F080; K250-; L] → CLJ[F090+] - IXUBA - SIB - IRLOX[F110+]	Increased climb gradient 4.4% until 1800 ft QNH due to obstacles.
LARMU 1K	CL771[K250-] - CL772 - BOKDO - LARMU [F100+]	Increased climb gradient 4.4% until 1800 ft QNH due to obstacles.

CLUJ - NAPOCA/ Avram Iancu (LRCL)
RWY 07
AKUPO 1K DOKUD 1K ELROM 1K
IRLOX 1K LARMU 1K

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
AKUPO	N470003762	E0242344287	Compulsory fly-by
BOKDO	N470721134	E0233838659	On request fly-by
CL771	N465027262	E0235522078	On request fly-by
CL772	N470145738	E0234412085	On request fly-by
CL773	N465112239	E0232625510	On request fly-by
CL774	N464715925	E0231950546	On request fly-by
CLJ VOR/DME	N464800438	E0234714118	On request fly-by
DER_LRCL_07	N464725306	E0234149946	-
DOKUD	N462807453	E0245721352	Compulsory fly-by
EKRAT	N462626408	E0240819283	On request fly-by
ELROM	N464430715	E0230154709	Compulsory fly-by
IRLOX	N453808151	E0241102176	Compulsory fly-by
IXUBA	N463627153	E0235834582	On request fly-by
LARMU	N471501159	E0230808785	Compulsory fly-by
SIB-NDB	N454706038	E0240909294	On request fly-by

LRCL RNAV DEPARTURE SEQUENCE RWY 07

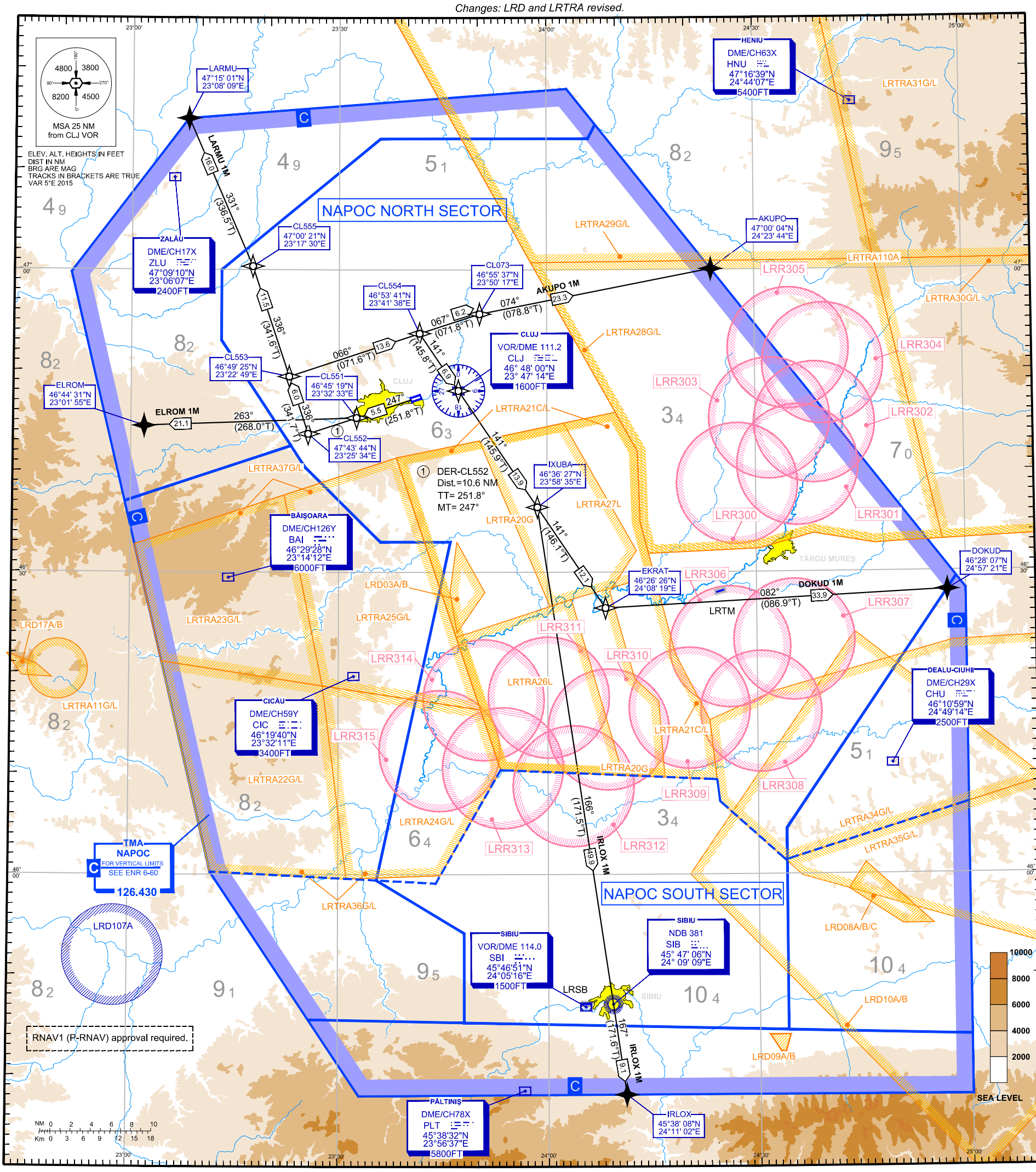
Leg	Leg type	Distance (NM)	True track	Magnetic Track
1	2	3	4	
AKUPO 1K				
DER_LRCL_07 - CL771	-	9.779	71.84	66.67
CL771 - AKUPO	TF	21.693	63.52	58.35
DOKUD 1K				
DER_LRCL_07 - CL771	-	9.779	71.84	66.67
CL771 - [F080]	CA	-	325.99	320.82
[F080] - CLJ	DF	-	-	-
CLJ - IXUBA	TF	13.948	145.90	140.73
IXUBA - EKRAT	TF	12.067	146.05	140.88
EKRAT - DOKUD	TF	33.943	86.86	81.65
ELROM 1K				
DER_LRCL_07 - CL771	-	9.779	71.84	66.67
CL771 - CL772	TF	13.658	325.99	320.82
CL772 - CL773	TF	16.122	229.18	224.01
CL773 - CL774	TF	5.997	228.96	223.79
CL774 - ELROM	TF	12.630	257.51	252.34
IRLOX 1K				
DER_LRCL_07 - CL771	-	9.779	71.84	66.67
CL771 - [F080]	CA	-	325.99	320.82
[F080] - CLJ	DF	-	-	-
CLJ - IXUBA	TF	13.948	145.90	140.73
IXUBA - SIB-NDB	TF	49.911	171.47	166.35
SIB-NDB - IRLOX	TF	9.063	171.62	166.50
LARMU 1K				
DER_LRCL_07 - CL771	-	9.779	71.84	66.67
CL771 - CL772	TF	13.658	325.99	320.82
CL772 - BOKDO	TF	6.760	325.85	320.67
BOKDO - LARMU	TF	22.171	290.43	285.26

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) DEPARTURE CHART INSTRUMENT (SID) - ICAO



TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

CLUJ TOWER	118.705
CLUJ TOWER ALTN	134.400
CLUJ ATIS	125.525

SECTOR:	
NAPOC ALTN	127.075
NERDI	120.930
NERDI ALTN	125.155
BUDOP	123.900
BUDOP ALTN	130.230
	124.100

Radio Communication Failure:

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110.
Climbing shall be executed in accordance with vertical restrictions specified on chart.
7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL.
If cleared FL is lower than MRVA, climb immediately to MRVA.
If cleared FL is lower than FL110, after 2 min. climb to FL110.
Climbing shall be executed in accordance with MRVA chart.
7 minutes from setting 7600 climb to FPL flight level.

NOTES : Vertical limits of LRRxxx FL255 / GND

DESIGNATOR	ROUTING	REMARKS (if unble to comply, contact ATC before departure)
AKUPO 1M	CL552[K250-] - CL553[K250-] - CL554 - CL073 - AKUPO[F100+]	Increased climb gradient 4.5% until 2500 ft QNH, followed by 4.1% due to mountainous terrain until CL553. CAUTION: close-in obstacles
DOKUD 1M	CL552[K250-] - CL553[K250-] - CL554 - CLJ[F090+] - IXUBA - EKRAT - DOKUD[F100+]	Increased climb gradient 4.5% until 2500 ft QNH, followed by 4.1% due to mountainous terrain until CL553. CAUTION: close-in obstacles
ELROM 1M	CL551 - ELROM[F110+]	Increased climb gradient 6.3% until ELROM due to airspace structure. Increased climb gradient 5.3% until 2300 ft QNH, followed by 4.1% due to mountainous terrain until ELROM. CAUTION: close-in obstacles
IRLOX 1M	CL552[K250-] - CL553[K250-] - CL554 - CLJ[F090+] - IXUBA - SIB - IRLOX[F110+]	Increased climb gradient 4.5% until 2500 ft QNH, followed by 4.1% due to mountainous terrain until CL553. CAUTION: close-in obstacles
LARMU 1M	CL552[K250-] - CL553 - CL555 - LARMU [F100+]	Increased climb gradient 4.5% until 2500 ft QNH, followed by 4.1% due to mountainous terrain until CL553. CAUTION: close-in obstacles

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
DER_LRCL_25	N464703496	E0234013174	-
AKUPO	N470003762	E0242344287	Compulsory Fly-by
CL073	N465537405	E0235016555	On request Fly-by
CL551	N464519463	E0233233234	On request Fly-by
CL552	N464344089	E0232533962	On request Fly-by
CL553	N464925416	E0232248979	On request Fly-by
CL554	N465341073	E0234137514	On request Fly-by
CL555	N470020524	E0231730485	On request Fly-by
CLJ VOR/DME	N464800438	E0234714118	On request Fly-by
DOKUD	N462807453	E0245721352	Compulsory Fly-by
EKRAT	N462626408	E0240819283	On request Fly-by
ELROM	N464430715	E0230154709	Compulsory Fly-by
IRLOX	N453808151	E0241102176	Compulsory Fly-by
IXUBA	N463627153	E0235834582	On request Fly-by
LARMU	N471501159	E0230808785	Compulsory Fly-by
SIB-NDB	N454706038	E0240909294	On request Fly-by

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

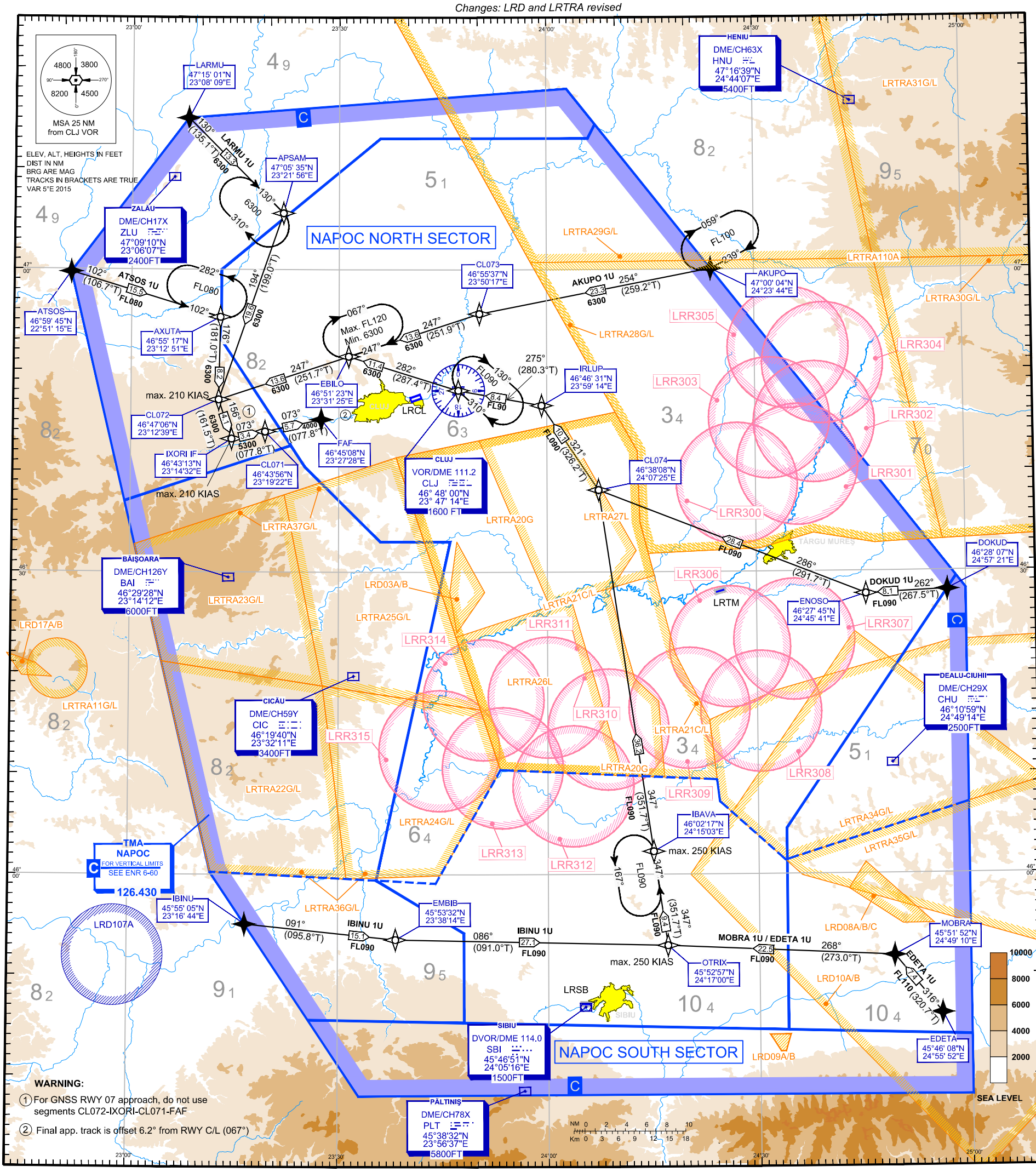
LRCL RNAV DEPARTURE SEQUENCE RWY 25

Leg	Leg type	Distance (NM)	True track	Magnetic Track
AKUPO 1M				
DER_LRCL_25 - CL552	-	10.609	251.83	246.66
CL552 - CL553	TF	5.997	341.65	336.48
CL553 - CL554	TF	13.593	71.61	66.44
CL554 - CL073	TF	6.240	71.84	66.67
CL073 - AKUPO	TF	23.345	78.83	73.66
DOKUD 1M				
DER_LRCL_25 - CL552	-	10.609	251.83	246.66
CL552 - CL553	TF	5.997	341.65	336.48
CL553 - CL554	TF	13.593	71.61	66.44
CL554 - CLJ	TF	6.862	145.83	140.66
CLJ - IXUBA	TF	13.948	145.90	140.73
IXUBA - EKRAT	TF	12.067	146.05	140.88
EKRAT - DOKUD	TF	33.943	86.86	81.65
ELROM 1M				
DER_LRCL_25 - CL551	-	5.547	251.83	246.66
CL551 - ELROM	TF	21.087	267.98	262.81
IRLOX 1M				
DER_LRCL_25 - CL552	-	10.609	251.83	246.66
CL552 - CL553	TF	5.997	341.65	336.48
CL553 - CL554	TF	13.593	071.61	066.44
CL554 - CLJ	TF	6.862	145.83	140.66
CLJ - IXUBA	TF	13.948	145.90	140.73
IXUBA - SIB-NDB	TF	49.911	171.47	166.35
SIB-NDB - IRLOX	TF	9.063	171.62	166.50
LARMU 1M				
DER_LRCL_25 - CL552	-	10.609	251.83	246.66
CL552 - CL553	TF	5.997	341.65	336.48
CL553 - CL555	TF	11.514	341.61	336.44
CL555 - LARMU	TF	16.015	336.53	331.36

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised

RNAV (DME/DME) STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH 126.430
NAPOC APPROACH ALTN 127.275
NAPOC NORTH APPROACH 126.430
NAPOC NORTH APPROACH ALTN 127.275
NAPOC SOUTH APPROACH 119.680
NAPOC SOUTH APPROACH ALTN 127.275

CLUJ TOWER 118.705
CLUJ TOWER ALTN 134.400
CLUJ ATIS 125.525

TMA SPEED LIMIT MAX IAS 250KT BELOW FL100

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to EBILO. At EBILO join AKUPO 1U. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to EBILO. If last cleared FL is lower than MRVA climb immediately to MRVA. At EBILO join AKUPO 1U. Descending shall be executed in accordance with MRVA until EBILO and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
d. In case of missed approach. From APSAM join LARMU 1U. If necessary to change RWY, join LARMU 1X. Descending shall be executed in accordance with vertical restrictions specified on charts.

1. RNAV-1 (P-RNAV) approval required.
2. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on chart. Actual descent clearance will be as directed by ATC.
3. Expect direct routing/shortcuts by ATC whenever possible.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

CLUJ - NAPOCA/ Avram Iancu (LRCL)
RWY 07
AKUPO 1U ATSOS 1U DOKUD 1U EDETA 1U
IBINU 1U LARMU 1U MOBRA 1U

LIST OF WAYPOINTS

Waypoint name	Restrictions	Latitude	Longitude	Type
AKUPO	F100+	N470003762	E0242344287	Compulsory Fly-by
APSAM	A6300+	N470534529	E0232155654	On request Fly-by
ATSOS	F080+	N465944989	E0225115090	Compulsory Fly-by
AXUTA	F080+	N465516984	E0231251452	On request Fly-by
CL071	A5300+	N464355794	E0231922053	On request Fly-by
CL072	K210-	N464705673	E0231238983	On request Fly-by
CL073	-	N465537405	E0235016555	On request Fly-by
CL074	-	N463807875	E0240725475	On request Fly-by
CLJ VOR/DME	F090+; F120-	N464800438	E0234714118	On request Fly-by
DOKUD	F100+	N462807453	E0245721352	Compulsory Fly-by
EBILO	A6300+; F120-	N465122844	E0233125292	On request Fly-by
EDETA	F110+	N454608288	E0245552249	Compulsory Fly-by
EMBIB	-	N455332142	E0233814371	On request Fly-by
ENOSO	-	N462745309	E0244540904	On request Fly-by
FAF_LRCL_07	A4000+	N464507647	E0232727957	Compulsory Fly-by
IBAVA	F090+; K250-	N460217166	E0241503011	On request Fly-by
IBINU	F110+	N455504940	E0231643516	Compulsory Fly-by
IRLUP	-	N464631258	E0235913737	On request Fly-by
IXORI (IF)	A6300+; K210-	N464312666	E0231432402	On request Fly-by
LARMU	F100+	N471501159	E0230808785	Compulsory Fly-by
MOBRA	F110+	N455151885	E0244909844	Compulsory Fly-by
OTRIX	K250-	N455256944	E0241700365	On request Fly-by

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRCL RNAV ARRIVAL SEQUENCE RWY 07

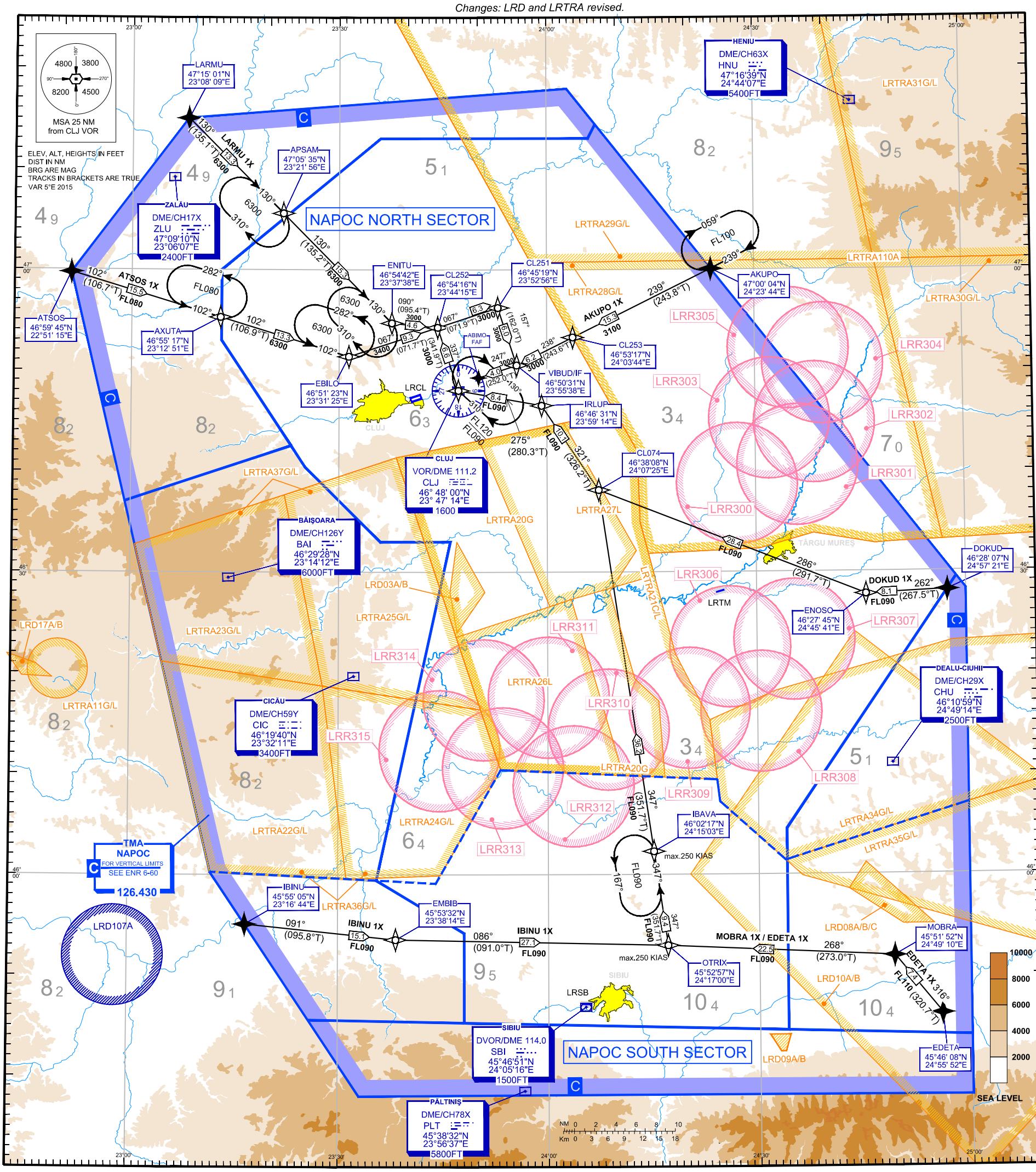
Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
AKUPO 1U				
AKUPO - CL073	23.345	259.24	254.07	6300
CL073 - EBILO	13.61	251.94	246.77	6300
EBILO - CL072	13.586	251.72	246.55	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	77.75	72.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	77.81	72.64	4000
ATSOS 1U				
ATSOS - AXUTA	15.46	106.67	101.50	FL080
AXUTA - CL072	8.193	181.00	175.83	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	77.75	72.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	77.81	72.64	4000
DOKUD 1U				
DOKUD - ENOSO	8.078	267.45	262.24	FL090
ENOSO - CL074	28.372	291.69	286.48	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - EBILO	11.371	287.36	282.19	6300
EBILO - CL072	13.586	251.72	246.55	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	77.75	72.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	77.81	72.64	4000

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
EDETA 1U				
EDETA - MOBRA	7.404	320.73	315.61	FL110
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - CL074	36.245	351.66	346.54	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - EBILO	11.371	287.36	282.19	6300
EBILO - CL072	13.586	251.72	246.55	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	077.75	072.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	077.81	072.64	4000
IBINU 1U				
IBINU - EMBIB	15.103	095.75	090.63	FL090
EMBIB - OTRIX	27.086	091.01	085.89	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - CL074	36.245	351.66	346.54	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - EBILO	11.371	287.36	282.19	6300
EBILO - CL072	13.586	251.72	246.55	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	077.75	072.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	077.81	072.64	4000

Leg	Distance (NM	True track	Magnetic Track	Minimum Alt/FL
LARMU 1U				
LARMU - APSAM	13.329	135.06	129.89	6300
APSAM - CL072	19.552	199.03	193.86	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	077.75	072.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	077.81	072.64	4000
MOBRA 1U				
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - CL074	36.245	351.66	346.54	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - EBILO	11.371	287.36	282.19	6300
EBILO - CL072	13.586	251.72	246.55	6300
CL072 - IXORI (IF)	4.097	161.49	156.32	6300
IXORI (IF) - CL071 (STD)	3.398	077.75	072.58	5300
CL071 (STD) - FAF_LRCL_07	5.697	077.81	072.64	4000

Changes: LRD and LRTRA revised.

RNAV (DME/DME) STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TRANSITION ALTITUDE 7000 ft

CLUJ TOWER	118.705
CLUJ TOWER ALTN	134.400
CLUJ ATIS	125.525

TMA SPEED LIMIT MAX IAS 250KT BELOW FL100

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to EBILO. At EBILO join ATSOS 1X. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to EBILO. If last cleared FL is lower than MRVA climb immediately to MRVA. At EBILO join ATSOS 1X. Descending shall be executed in accordance with MRVA until EBILO and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

d. In case of missed approach. From APSAM join LARMU 1X. If necessary to change RWY, join LARMU 1U. Descending shall be executed in accordance with vertical restrictions specified on charts.

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

1. RNAV-1 (P-RNAV) approval required.
2. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on chart. Actual descent clearance will be as directed by ATC.
3. Expect direct routing/shortcuts by ATC whenever possible.
4. VIBUD is a tactical fix for non-standard shorter approach, used only after request or approval by air crew.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

CLUJ - NAPOCA/ Avram Iancu (LRCL)
RWY 25
AKUPO 1X ATSOS 1X DOKUD 1X EDETA 1X
IBINU 1X LARMU 1X MOBRA 1X

LIST OF WAYPOINTS

Waypoint name		Latitude	Longitude	Type
ABIMO (FAF_LRCL_25)	A3000+	N464917198	E0235008323	Compulsory Fly-by
AKUPO	F100+	N470003762	E0242344287	Compulsory Fly-by
APSAM	A6300+	N470534529	E0232155654	On request Fly-by
ATSOS	F080+	N465944989	E0225115090	Compulsory Fly-by
AXUTA	F080+	N465516984	E0231251452	On request Fly-by
CL074	-	N463807875	E0240725475	On request Fly-by
CL251	-	N465612912	E0235255681	On request Fly-by
CL252	A3400+*/A3000+	N465416423	E0234414868	On request Fly-by
CL253	A3100+	N465317018	E0240344067	On request Fly-by
CLJ VOR/DME	F090+; F120-	N464800438	E0234714118	On request Fly-by
DOKUD	F100+	N462807453	E0245721352	Compulsory Fly-by
EBILO	A6300+	N465122844	E0233125292	On request Fly-by
EDETA	F110+	N454608288	E0245552249	Compulsory Fly-by
EMBIB	-	N455332142	E0233814371	On request Fly-by
ENITU	A6300+	N465442306	E0233738196	On request Fly-by
ENOSO	-	N462745309	E0244540904	On request Fly-by
IBAVA	F090+; K250-	N460217166	E0241503011	On request Fly-by
IBINU	F110+	N455504940	E0231643516	Compulsory Fly-by
IRLUP	-	N464631258	E0235913737	On request Fly-by
LARMU	F100+	N471501159	E0230808785	Compulsory Fly-by
MOBRA	F110+	N455151885	E0244909844	Compulsory Fly-by
OTRIX	K250-	N455256944	E0241700365	On request Fly-by
VIBUD (IF)	K210-	N465030795	E0235537909	On request Fly-by

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Note: * For ATSOS 1X arrival only

LRCL RNAV ARRIVAL SEQUENCE RWY 25

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
AKUPO 1X				
AKUPO - CL253	15.292	243.79	238.62	3100
CL253 - VIBUD (IF)	6.212	243.55	238.38	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000
ATSOS 1X				
ATSOS - AXUTA	15.46	106.67	101.50	FL080
AXUTA - EBILO	13.318	106.93	101.76	6300
EBILO - CL252	9.262	71.71	66.54	3400
CL252 - CL251	6.259	71.87	66.70	3000
CL251 - VIBUD (IF)	5.998	161.98	156.81	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000
DOKUD 1X				
DOKUD - ENOSO	8.078	267.45	262.24	FL090
ENOSO - CL074	28.372	291.69	286.48	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - CL252	6.596	341.91	336.74	3000
CL252 - CL251	6.259	71.87	66.70	3000
CL251 - VIBUD (IF)	5.998	161.98	156.81	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
EDETA 1X				
EDETA - MOBRA	7.404	320.73	315.61	FL110
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.7	346.58	FL090
IBAVA - CL074	36.245	351.66	346.54	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - CL252	6.596	341.91	336.74	3000
CL252 - CL251	6.259	71.87	66.70	3000
CL251 - VIBUD (IF)	5.998	161.98	156.81	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000
IBINU 1X				
IBINU - EMBIB	15.103	95.75	90.63	FL090
EMBIB - OTRIX	27.086	91.01	85.89	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - CL074	36.245	351.66	346.54	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - CL252	6.596	341.91	336.74	3000
CL252 - CL251	6.259	71.87	66.70	3000
CL251 - VIBUD (IF)	5.998	161.98	156.81	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
LARMU 1X				
LARMU - APSAM	13.329	135.06	129.89	6300
APSAM - ENITU	15.293	135.23	130.06	6300
ENITU - CL252	4.553	95.40	90.23	3000
CL252 - CL251	6.259	71.87	66.70	3000
CL251 - VIBUD (IF)	5.998	161.98	156.81	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000
MOBRA 1X				
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - CL074	36.245	351.66	346.54	FL090
CL074 - IRLUP	10.112	326.15	320.98	FL090
IRLUP - CLJ	8.375	280.30	275.13	FL090
CLJ - CL252	6.596	341.91	336.74	3000
CL252 - CL251	6.259	71.87	66.70	3000
CL251 - VIBUD (IF)	5.998	161.98	156.81	3000
VIBUD (IF) - ABIMO (FAF)	3.966	252.01	246.84	3000

ATC SURVEILLANCE

MINIMUM ALTITUDE CHART - ICAO

TRANSITION ALTITUDE 7000 FT

AERODROME ELEV 1039 FT

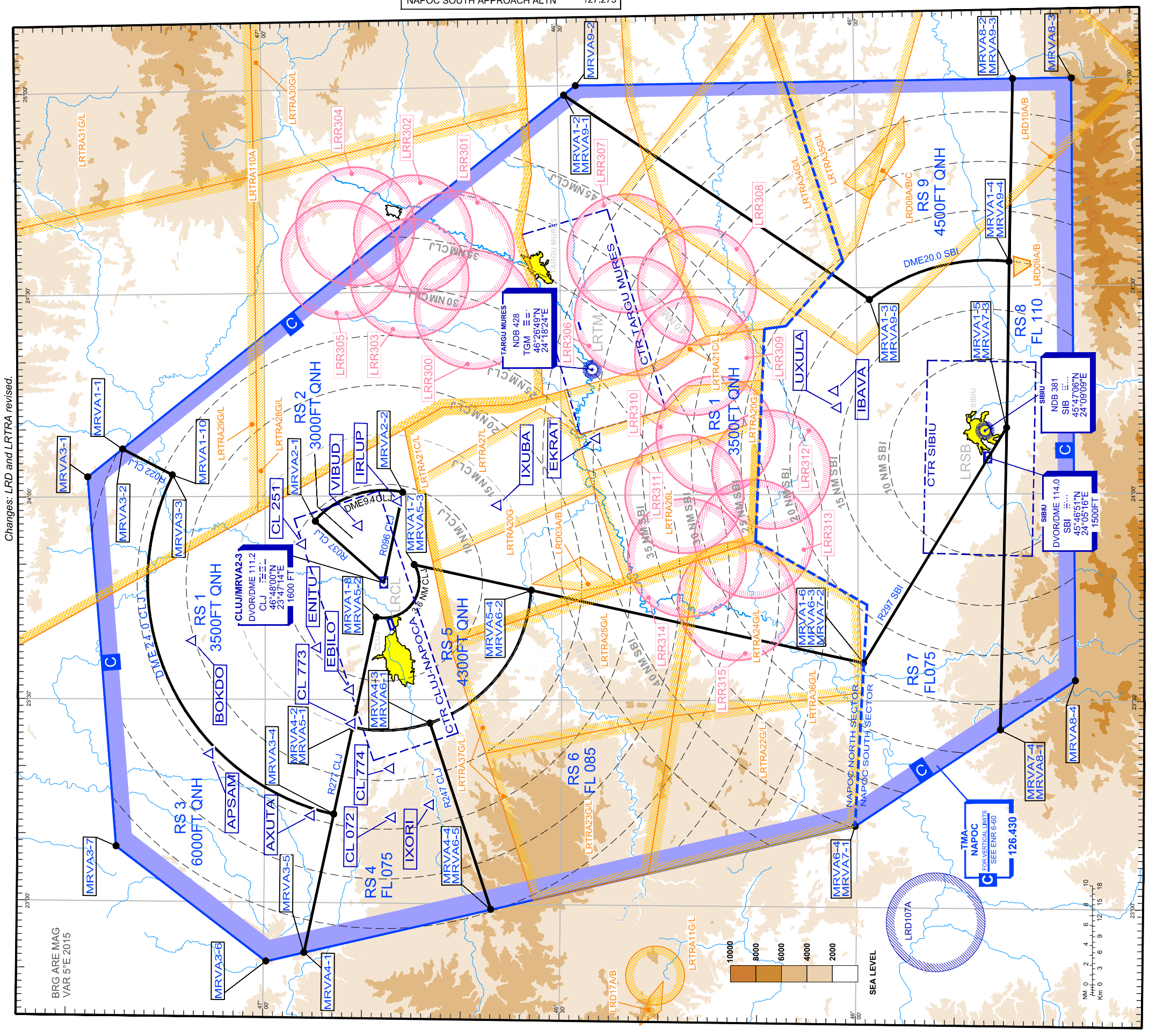
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

CLUJ TOWER	118.705
CLUJ TOWER ALTN	134.400
CLUJ ATIS	125.525

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900

SECTOR: ARGES	121.180
ARGES ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

CLUJ-NAPOCA / Avram Iancu (LRCL)



IN CASE OF COMMUNICATION FAILURE

- SET TRANSPONDER CODE 7600
- FOLLOW COMMUNICATION FAILURE
- PROCEDURE ON RELEVANT SID / STAR

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

TMA SECTOR BORDER

RADAR SECTOR (RS) BORDER

3000FT QNH RADAR MINIMUM ALTITUDE (FT)

NOTE:

1. CHART ONLY TO BE USED FOR CROSS-CHECKING OF ALTITUDES ASSIGNED WHILE UNDER RADAR CONTROL.

2. UNLESS OTHERWISE AUTHORIZED OR REQUIRED BY ATC, ARRIVING AIRCRAFT SHALL BE OPERATED AT AN INDICATED AIRSPEED OF MAXIMUM 250 KT BELOW FL 100.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
APSAM	N470534529	E0232155654
AXUTA	N465516984	E0231251452
BOKDO	N470721134	E0233838659
CL072	N464705673	E0231238983
CL251	N465612912	E0235255681
CL773	N465112239	E0232625510
CL774	N464715925	E0231950546
EBILO	N465122844	E0233125292
EKRAT	N462626408	E0240819283
ENITU	N465442306	E0233738196
IBAVA	N460217166	E0241503011
IRLUP	N464631258	E0235913737
IXORI	N464312666	E0231432402
IXUBA	N463627153	E0235834582
UXULA	N460200362	E0241235949
VIBUD	N465030795	E0235537909

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

RADAR SECTOR (RS)

SECTOR	Latitude	Longitude
RS 1 3500 ft ALT EXCEPTING RS 2		
MRVA1-1	N471424719	E0240705819
MRVA1-2	N462924710	E0245838627
MRVA1-3	N455843927	E0242817542
Arc DME 20.0 SBI		
MRVA1-4	N454431397	E0243338216
MRVA1-5	N454458344	E0240940843
MRVA1-6	N455925727	E0233528752
MRVA1-7	N464453330	E0234950724
Arc DME 3.6 CLJ		
MRVA1-8	N464846169	E0234206919
MRVA1-9	N465300898	E0231303644
Arc DME 24.0 CLJ		
MRVA1-10	N470920268	E0240315137
RS 2 3000 ft ALT		
MRVA2-1	N465459510	E0235623478
MRVA2-2	N464603345	E0240036695
MRVA2-3/DVORDME	N464800438	E0234714118
RS 3 6000 ft ALT		
MRVA3-1	N471755565	E0240259354
MRVA3-2	N471424719	E0240705819
MRVA3-3	N470920268	E0240315137
Arc DME 24.0 CLJ		
MRVA3-4	N465300898	E0231303644
MRVA3-5	N465555449	E0225235754
MRVA3-6	N465944989	E0225115090
MRVA3-7	N471501159	E0230808785

SECTOR	Latitude	Longitude
RS 4 FL075		
MRVA4-1	N465555449	E0225235754
MRVA4-2	N465109444	E0232553251
Arc DME 15.0 CLJ		
MRVA4-3	N464319341	E0232631142
MRVA4-4	N463701507	E0225911071
RS 5 4300 ft ALT		
MRVA5-1	N465109444	E0232553251
MRVA5-2	N464846169	E0234206919
Arc DME 3.6 CLJ		
MRVA5-3	N464453330	E0234950724
MRVA5-4	N463302410	E0234603893
Arc DME 15.0 CLJ		
RS 6 FL 085		
MRVA6-1	N464319341	E0232631142
Arc DME 15.0 CLJ		
MRVA6-2	N463302410	E0234603893
MRVA6-3	N455925727	E0233528752
MRVA6-4	N460015153	E0231145549
MRVA6-5	N463701507	E0225911071

SECTOR	Latitude	Longitude
RS 7 FL 075		
MRVA7-1	N460015153	E0231145549
MRVA7-2	N455925727	E0233528752
MRVA7-3	N454458344	E0240940843
MRVA7-4	N454534632	E0232548457
RS 8 FL 110		
MRVA8-1	N454534632	E0232548457
MRVA8-2	N454355915	E0250000000
MRVA8-3	N453800000	E0250000000
MRVA8-4	N453800000	E0233300000
RS 9 4500 ft ALT		
MRVA9-1	N462924710	E0245838627
MRVA9-2	N462812302	E0250000000
MRVA9-3	N454355915	E0250000000
MRVA9-4	N454431397	E0243338216
Arc DME 20.0 SBI		
MRVA9-5	N455843927	E0242817542

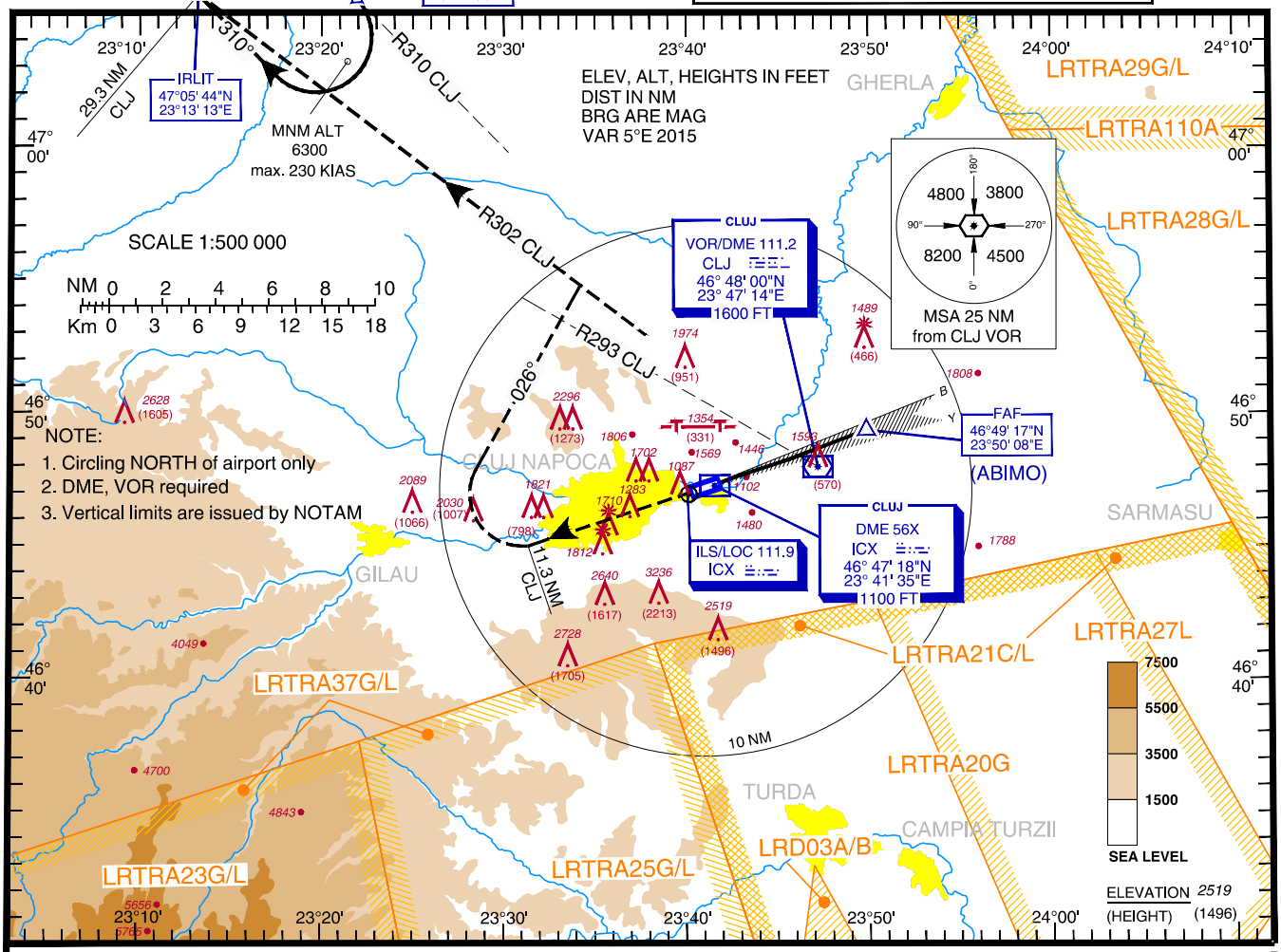
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1039 ft**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 1023

CLUJ-NAPOCA / Avram Iancu (LRCL)

NAPOC APPROACH 126.430	Cluj ATIS 125.525
NAPOC NORTH APPROACH 126.430	
Cluj Tower 118.705	Cluj Tower ALTN 134.400

ILS RWY 25

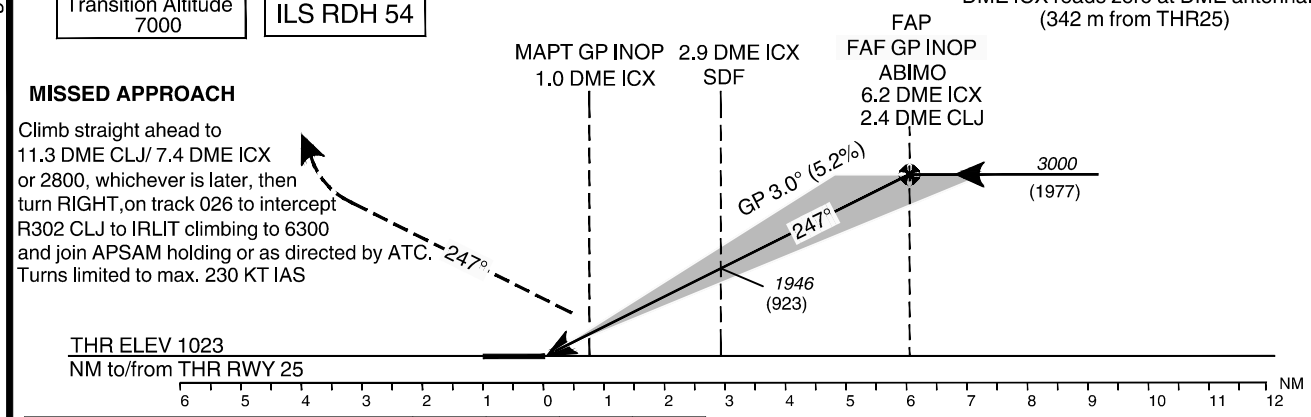


Changes: LRD and LRTRA revised.

Transition Altitude 7000

ILS RDH 54

DME ICX reads zero at DME antenna.
(342 m from THR25)



MISSED APPROACH

Climb straight ahead to
11.3 DME CLJ/ 7.4 DME ICX
or 2800, whichever is later, then
turn RIGHT,on track 026 to intercept
R302 CLJ to IRLIT climbing to 6300
and join APSAM holding or as directed by ATC.
Turns limited to max. 230 KT IAS

OCA(H)			A	B	C	D
Straight-in Approach	CAT I	MAP climb Gradient 2.5%	1226 (203)	1238 (215)	1246 (223)	1257 (234)
		MAP climb Gradient 3.0%	1196 (173)	1208 (185)	1216 (193)	1227 (204)
	CAT II	MAP climb Gradient 2.5%	1139 (116)	1156 (133)	1168 (145)	1182 (159)
		MAP climb Gradient 3.0%	1108 (85)	1125 (102)	1137 (114)	1151 (128)
	GP INOP	w/o stepdown Fix	1920 (897)			
		After stepdown Fix	1350 (327)			
Circling			2060	2190	2540	2700

GS	kts	70	90	100	120	140	160
FAF-MAPt 5.2 NM	min:s	4:27	3:28	3:07	2:36	2:14	1:57
Rate of descent	ft/min	372	478	531	637	743	849

Timing not authorized for defining MAPt

Distance to DME ICX	NM	2	3	4	5	6
Distance to THR 25	NM	1.8	2.8	3.8	4.8	5.8
Altitude Height	ft	1659 636	1978 955	2296 1273	2615 1592	2933 1910

For data tabulation see verso.

CLUJ NAPOCA / Avram Iancu (LRCL)
ILS RWY 25

AERONAUTICAL DATA TABULATION

ILS approach to RWY 25 from ABIMO	
Fix/Point	**Coordinates**
ABIMO (FAF GP INOP) – BRG 246.82°/6.21NM ICX/2.37NM CLJ	46º49’17.2”N 023º50’08.3”E
2.9 D ICX (Height check / Step down) – **BRG 246.76°/2.90NM CLJ**	46º48’15.6”N 023º45’33.6”E
1.0 D ICX (MAPT GP INOP) – BRG 246.76°/1.00NM CLJ	46º47’40.1”N 023º42’55.8”E
THR RWY 25	46º47’24.70”N 023º41’47.26”E
ICX LOC	46º47’01.6”N 023º40’04.7”E
11.3 D CLJ	46º45’03.3”N 023º31’22.0”E
29.3 D CLJ IRLIT (Secondary APSAM holding fix) – R302 CLJ	47º05’43.6”N 023º13’12.6”E
24.7 D CLJ APSAM (Holding fix) – R310 CLJ	47º05’34.5”N 023º21’55.7”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA28G	GND – FL70
LRTRA21C	3000 FT AMSL – FL75	LRTRA28L	FL70 – FL200
LRTRA21L	FL75 – FL200	LRTRA29G	GND – FL100
LRTRA23G	GND – FL90	LRTRA29L	FL100 – FL200
LRTRA23L	FL90 – FL200	LRTRA37G	GND – FL90
LRTRA25G	GND – FL75	LRTRA37L	FL90 – FL200
LRTRA25L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA27L	FL75 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD03B	GND– FL285

CLUJ-NAPOCA / Avram Iancu (LRCL)

INSTRUMENT APPROACH CHART - ICAO

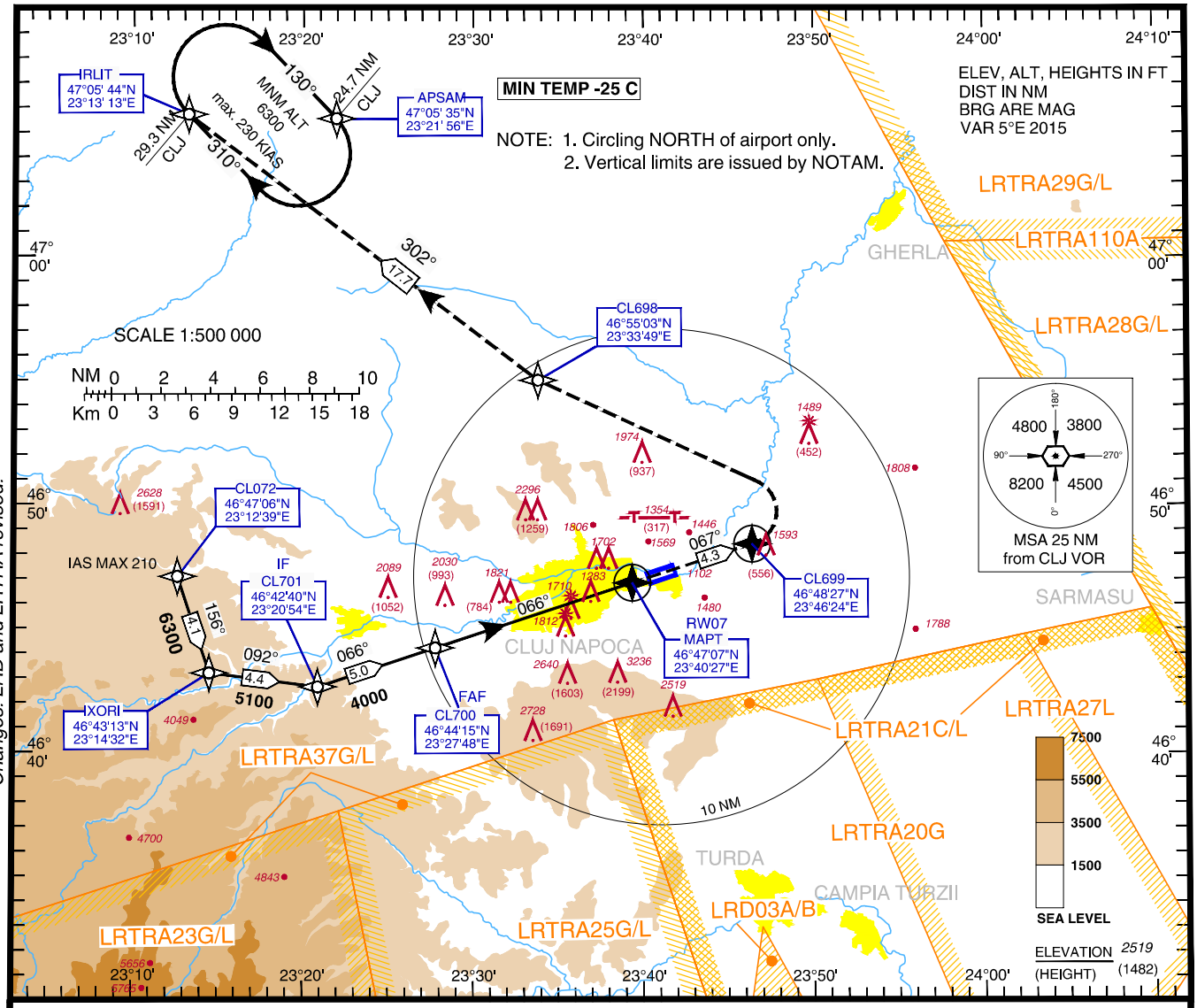
AERODROME ELEV. **1039 ft**
HEIGHTS RELATED TO THR RWY 07 - ELEV 1037

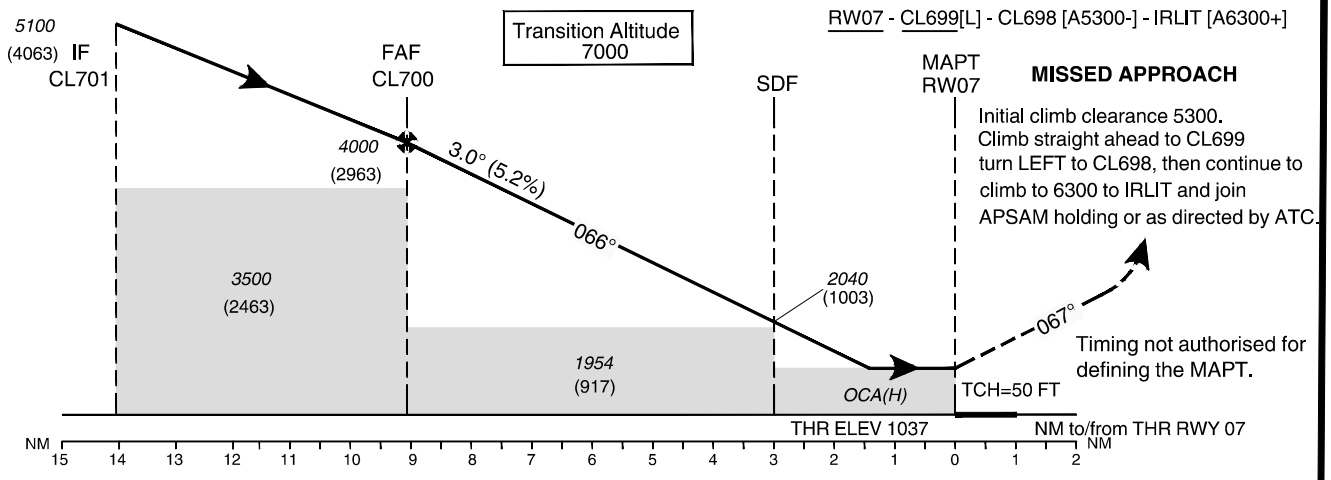
EGNOS
CH: 46178
E07A

NAPOC APPROACH 126.430	Cluj ATIS 125.525
NAPOC NORTH APPROACH 126.430	
Cluj Tower 118.705	Cluj Tower ALTN 134.400

RNAV (GNSS) RWY 07

Changes: LRD and LRTRA revised.





OCA(H)	A	B	C	D
LPV	1280 (243)	1292 (255)	1300 (263)	1311 (274)
LNAV/VNAV	1430 (393)			
LNAV	1560 (523)			
Circling	2060	2190	2540	2700

GS	kts	70	90	100	120	140	160
FAF MAPT 9.2NM	min:s	7:53	6:08	5:31	4:36	3:57	3:27
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Distance to THR 07	NM	8	6	4	2
Altitude (Height)	FT	3634 (2597)	2997 (1960)	2360 (1323)	1723 (686)

For data tabulation see verso.

CLUJ NAPOCA / Avram Iancu (LRCL)
RNAV (GNSS) RWY 07

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY07 from CL072	
Fix/Waypoint Name	**Coordinates**
CL072 (IAF)	46° 47’ 05.7”N 023° 12’ 39.0”E
IXORI	46° 43’ 12.7”N 023° 14’ 32.4”E
CL701 (IF)	46° 42’ 40.3”N 023° 20’ 54.2”E
CL700 (FAF)	46° 44’ 14.7”N 023° 27’ 48.2”E
SDF 3.0NM (LNAV only)	46° 46’ 10.4”N 023° 36’ 17.8”E
THR RWY 07 (MAPt)	46° 47’ 06.53”N 023° 40’ 26.61”E
CL699	46° 48’ 26.9”N 023° 46’ 23.9”E
CL698	46° 55’ 02.6”N 023° 33’ 48.6”E
IRLIT	47° 05’ 43.6”N 023° 13’ 12.6”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA28G	GND – FL70
LRTRA21C	3000 FT AMSL – FL75	LRTRA28L	FL70 – FL200
LRTRA21L	FL75 – FL200	LRTRA29G	GND – FL100
LRTRA23G	GND – FL90	LRTRA29L	FL100 – FL200
LRTRA23L	FL90 – FL200	LRTRA37G	GND – FL90
LRTRA25G	GND – FL75	LRTRA37L	FL90 – FL200
LRTRA25L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA27L	FL75 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD03B	GND– FL285

CLUJ-NAPOCA / Avram Iancu (LRCL)

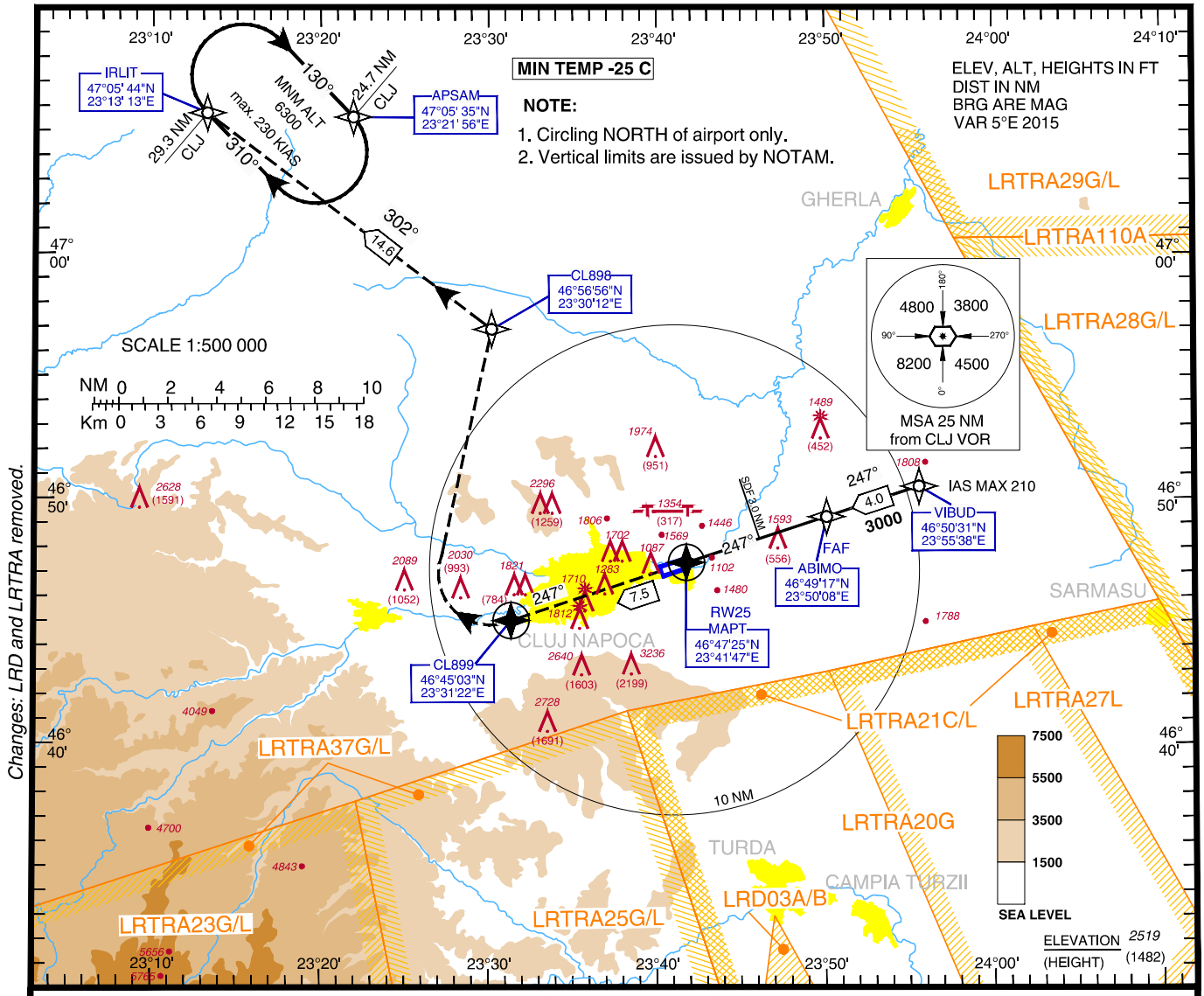
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1039 ft**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 1023

EGNOS
CH: 54105
E25A

NAPOC APPROACH 126.430	Cluj ATIS 125.525
NAPOC NORTH APPROACH 126.430	
Cluj Tower 118.705	Cluj Tower ALTN 134.400

RNAV (GNSS) RWY 25

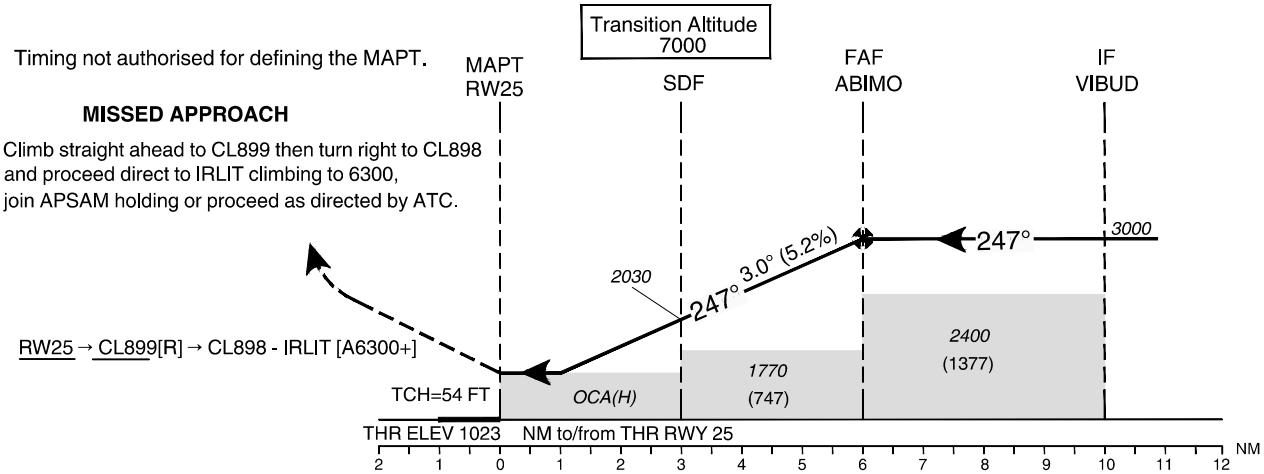


Changes: LRD and LRTRA removed.

Timing not authorised for defining the MAPT.

MISSED APPROACH

Climb straight ahead to CL899 then turn right to CL898 and proceed direct to IRLIT climbing to 6300, join APSAM holding or proceed as directed by ATC.



OCA(H)	A	B	C	D
LPV	1280 (257)			
LNAV/VNAV	1550 (527)			
LNAV	1550 (527)			
Circling	2060	2190	2540	2700

GS	kts	70	90	100	120	140	160
FAF MAPT 6.0NM	min:s	5:09	4:00	3:36	3:00	2:34	2:15
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Distance to THR 25	NM	1	2	3	4	5	6
Altitude (Height)	FT	1395 (372)	1714 (961)	2032 (1009)	2351 (1328)	2669 (1646)	3000 (1977)

For data tabulation see verso.

CLUJ NAPOCA / Avram Iancu (LRCL)
RNAV (GNSS) RWY 25

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY25 from VIBUD	
Fix/Waypoint Name	**Coordinates**
VIBUD (IF)	46° 50’ 30.8”N 023° 55’ 37.9”E
ABIMO (FAF)	46° 49’ 17.2”N 023° 50’ 08.3”E
SDF 3.0NM (LNAV only)	46° 48’ 20.7”N 023° 45’ 55.9”E
THR RWY 25 (MAPt)	46° 47’ 24.70”N 023° 41’ 47.26”E
CL899	46° 45’ 03.3”N 023° 31’ 21.8”E
CL898	46° 56’ 55.6”N 023° 30’ 11.8”E
IRLIT	47° 05’ 43.6”N 023° 13’ 12.6”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA28G	GND – FL70
LRTRA21C	3000 FT AMSL – FL75	LRTRA28L	FL70 – FL200
LRTRA21L	FL75 – FL200	LRTRA29G	GND – FL100
LRTRA23G	GND – FL90	LRTRA29L	FL100 – FL200
LRTRA23L	FL90 – FL200	LRTRA37G	GND – FL90
LRTRA25G	GND – FL75	LRTRA37L	FL90 – FL200
LRTRA25L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA27L	FL75 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD03B	GND– FL285

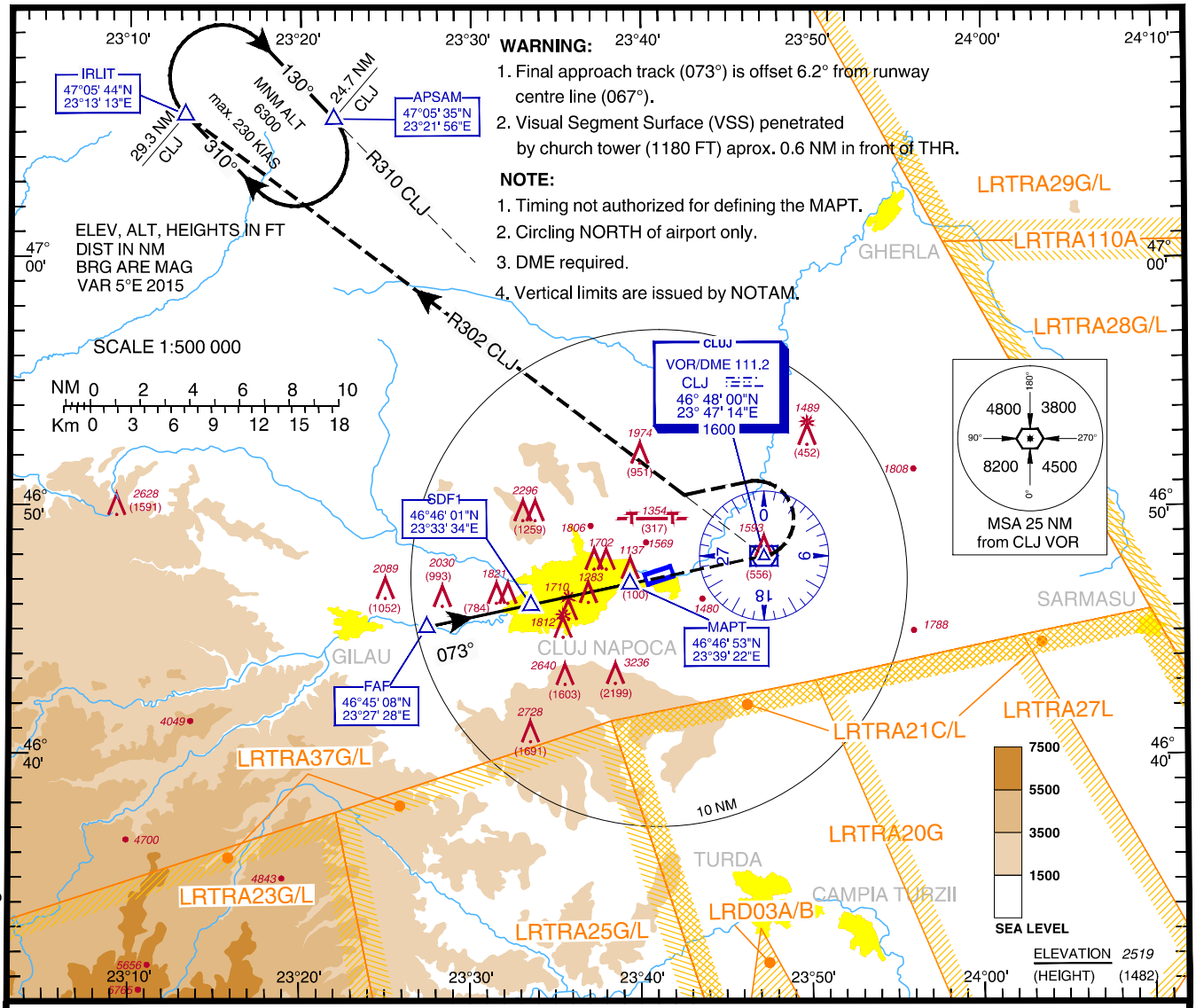
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1039 ft**
HEIGHTS RELATED TO
THR RWY 07 - ELEV 1037

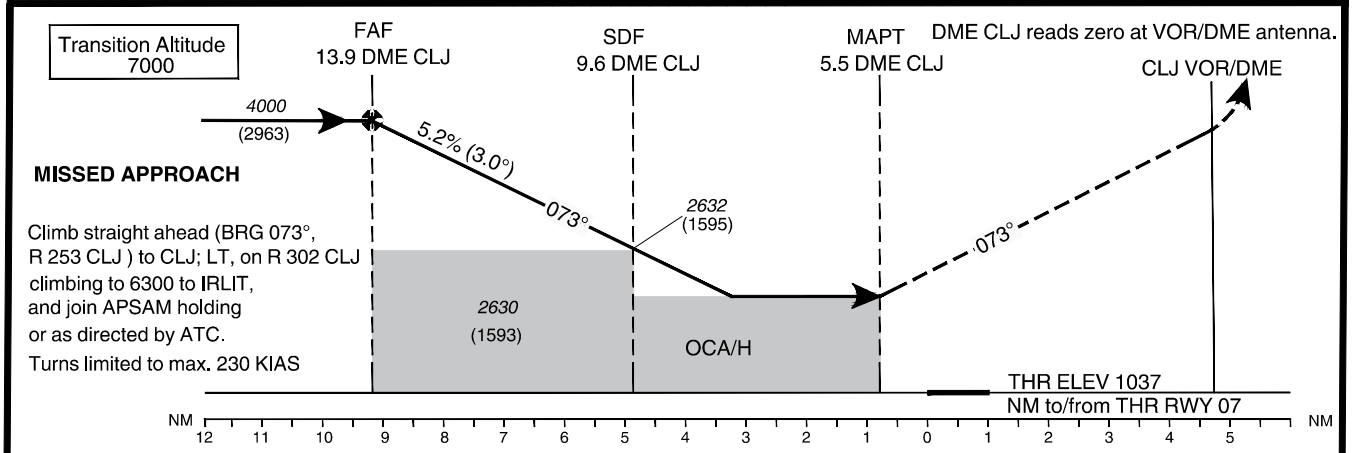
CLUJ-NAPOCA / Avram Iancu (LRCL)

NAPOC APPROACH 126.430 Cluj ATIS 125.525
NAPOC NORTH APPROACH 126.430
Cluj Tower 118.705 Cluj Tower ALTN 134.400

VOR RWY 07



Changes: LRD and LRTRA revised.



OCA(H)	A	B	C	D
Straight-in Approach	N/A			
Circling	2060	2190	2540	2700

GS	kts	70	90	100	120	140	160
FAF-MAPT 8.4 NM	min:s	7:12	5:36	5:02	4:12	3:36	3:09
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Distance to DME CLJ	NM	13	12	11	10	9.6	9	8	7	6
Distance to THR 07	NM	8.3	7.3	6.3	5.3	4.9	4.3	3.3	2.3	1.3
Altitude (Height)	FT	3715 (2678)	3397 (2360)	3078 (2041)	2760 (1723)	2632 (1595)	2441 (1404)	2123 (1086)	1804 (767)	1486 (449)

For data tabulation see verso.

CLUJ NAPOCA / Avram Iancu (LRCL)
VOR RWY 07

AERONAUTICAL DATA TABULATION

VOR approach to RWY 07	
Fix/Point	**Coordinates**
13.9 D CLJ DME (FAF) – R253 CLJ / BRG 072.74º	46º45'07.6"N 023º27'28.0"E
9.6 D CLJ DME (SDF) – R253 CLJ / BRG 072.55º	46º46'01.4"N 023º33'34.4"E
5.5 D CLJ DME (MAPT) – R253 CLJ/BRG 073.07º	46º46'53.2"N 023º39'21.9"E
THR RWY 07	46º47'06.53"N 023º40'26.61"E
CLJ VOR/DME	46º48'00.4"N 023º47'14.1"E
IRLIT (Secondary Fix) – R302 CLJ / BRG 302.29 º / 29.3 NM CLJ	47º05'43.6"N 023º13'12.6"E
APSAM (Holdindg Fix) – R130 / BRG 130.37 º / 24.7 NM CLJ	47º05'34.5"N 023º21'55.7"E

Final approach descent angle: 3.00º

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA28G	GND – FL70
LRTRA21C	3000 FT AMSL – FL75	LRTRA28L	FL70 – FL200
LRTRA21L	FL75 – FL200	LRTRA29G	GND – FL100
LRTRA23G	GND – FL90	LRTRA29L	FL100 – FL200
LRTRA23L	FL90 – FL200	LRTRA37G	GND – FL90
LRTRA25G	GND – FL75	LRTRA37L	FL90 – FL200
LRTRA25L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA27L	FL75 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD03B	GND– FL285

LRSB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	*Associated MET Office*	SIBIU
2	*Hours of service* *MET Office outside hours*	H24 -
3	*Office responsible for TAF preparation* *Periods of validity* *Interval of issuance*	LROM 24 HR 6 HR, during aerodrome operational hours
4	*Type of landing forecast* *Interval of issuance*	NIL -
5	*Briefing / consultation provided*	Self-briefing; briefing/consultation on request (see row 8)
6	*Flight documentation* *Language(s) used*	Charts, tabular form, abbreviated plain language text Romanian, English
7	*Charts and other information available for briefing or consultation*	SWC, W/T Charts, SIGMET, METAR, TAF
8	*Supplementary equipment available for providing information*	Tel/Fax: +40-(0)269-228088
9	*ATS units provided with information*	SIBIU TWR
10	*Additional information (limitation of service, etc.)*	NIL

LRSB AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	*Dimensions of RWY (M)*	*Strength (PCN) and surface of RWY and SWY*	*THR coord* *RWY end coord* *THR geoid undulation*	*THR elevation and highest elevation of TDZ of precision APP RWY*	*Slope of RWY-SWY*
1	2	3	4	5	6	7
27	271.35°	2630 x 45	110/R/D/W/T Concrete	454708.20N 0240608.97E 454710.19N 0240407.22E GUND 138 FT	THR 1444 FT TDZ 1458 FT	0.50% (914 M) 1.25% (1106 M) 0.80% (610 M)
09	091.32°	2630 x 45	110/R/D/W/T Concrete	454710.19N 0240407.22E 454708.20N 0240608.97E GUND 138 FT	THR 1520 FT TDZ 1516 FT	-0.80% (610 M) -1.25% (1106 M) -0.50% (914 M) -0.12% (150 M)

SWY dimensions (M)	*CWY dimensions (M)*	*Strip dimensions (M)*	RESA dimensions *(M)*	Location and description of ARST system	OFZ	Remarks
8	9	10	11	12	13	14
NIL	NIL	2900 x 300	90 x 90	NIL	YES	No runway concrete shoulders.
148 x 45	210 x 180	2900 x 300	145 x 90	NIL	YES	No runway concrete shoulders.

LRSB AD 2.13 DECLARED DISTANCES

RWY designator	*TORA (M)*	*TODA (M)*	*ASDA (M)*	*LDA (M)*	*Remarks*
1	2	3	4	5	6
27	2630	2630	2630	2630	NIL
09	2630	2840	2778	2630	NIL

REDUCED DECLARED DISTANCES

RWY designator	*TORA (M)*	*TODA (M)*	*ASDA (M)*	*Remarks*
1	2	3	4	5
27 TWY E	2290	2290	2290	NIL

LRSB AD 2.14 APPROACH AND RWY 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
27	ALS CAT II 420M LIH	Green -	PAPI Left/3° (50FT)	White 900M	1730M, 15M White, LIH 600M, 15M White-Red, LIH 300M, 15M Red, LIH	2030M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	NIL
09	SALS 420M LIH	Green -	PAPI Left/3.5° (50FT)	NIL	1730M, 15M White, LIH 600M, 15M White-Red, LIH 300M, 15M Red, LIH	2030M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	148 Red	NIL

LRSB AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	*ABN / IBN location, characteristics and hours of operation*	NIL
2	*LDI location and LGT* *Anemometer location and LGT*	NIL 150 M from THR 27, lighted.
3	*TWY edge and centre line lighting*	TWY edge blue omnidirectional LIL. TWY centre line: TWY E, W green. Exit taxiway centre line lights: yellow/green.
4	*Secondary power supply/switch-over time*	Secondary power supply to all lighting on the AD; Switch-over time 1 sec.
5	*Remarks*	NIL

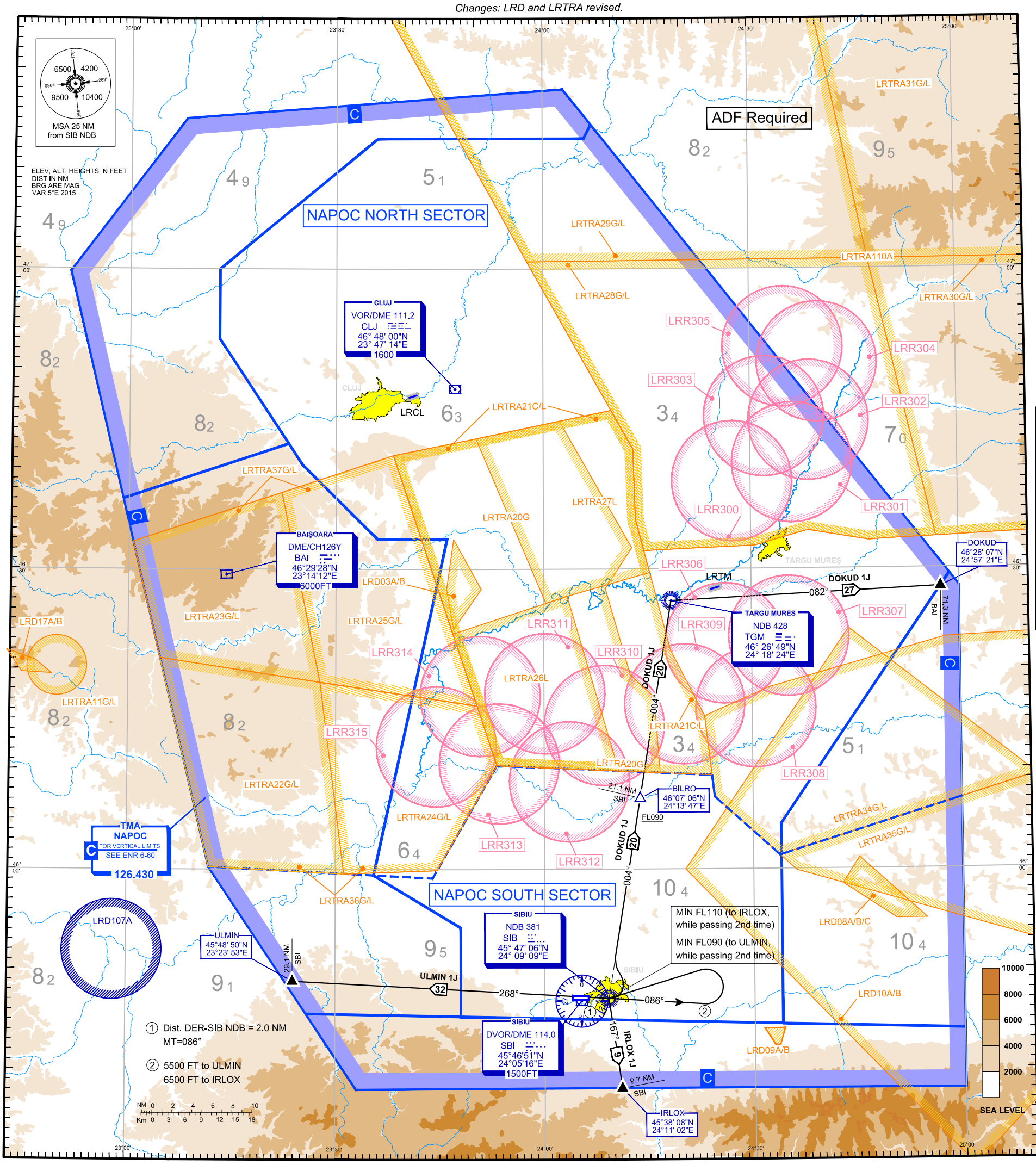
LRSB AD 2.16 HELICOPTER LANDING AREA

1	*Co-ordinates TLOF or THR of FATO* *Geoid undulation*	NIL NIL
2	*TLOF and/or FATO elevation M/FT*	NIL
3	*TLOF and FATO area dimensions, surface, strength, marking*	NIL
4	*True and MAG BRG of FATO*	NIL
5	*Declared distance available*	NIL
6	*APP and FATO lighting*	NIL
7	*Remarks*	NIL

LRSB AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	SIBIU CTR 455322N 0235122E - 455255N 0241922E - 454155N 0241900E - 454222N 0235059E - 455322N 0235122E
2	*Vertical limits*	GND to 3000 FT AMSL
3	*Airspace classification*	C
4	*ATS unit call sign* *Language(s)*	Sibiu Tower English, Romanian
5	*Transition altitude*	7000 FT QNH
6	*Hours of applicability*	H24
7	*Remarks*	NIL

Changes: LRD and LRTRA revised.



TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

SECTOR: NAPOC	
NAPOC ALTN	127.075
NERDI	120.930
NERDI ALTN	125.155
BUDOP	123.900
BUDOP ALTN	130.230
	124.100

NOTES: *Vertical limits of LRRxxx FL255 / GND*

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110. Climbing shall be executed in accordance with vertical restrictions specified on chart. 7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL. If cleared FL is lower than MRVA, climb immediately to MRVA. If cleared FL is lower than FL110, after 2 min. climb to FL110. Climbing shall be executed in accordance with MRVA chart. 7 minutes from setting 7600 climb to FPL flight level.

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1J	On runway track inbound to SIB NDB; LT, on bearing 004° from SIB NDB climb to FL090 or above at BILRO (DME 21.1 SBI); on bearing 004° inbound TGM NDB to TGM NDB; RT, on bearing 082° from TGM NDB to DOKUD. Cross DOKUD at or above FL100.	Increased climb gradient 5.6% until DME 21.1 SBI due to airspace structure Increased climb gradient 3.9% until 2600 ft QNH due to obstacles.
IRLOX 1J	On runway track inbound to SIB NDB; on bearing 086° from SIB NDB climb to 6500 ft QNH; LT, direct to SIB NDB climb to FL110 or above at SIB NDB; LT, on bearing 167° from SIB NDB to IRLOX. Cross IRLOX at or above FL110.	Increased climb gradient 4.1% due to mountainous terrain.
ULMIN 1J	On runway track inbound to SIB NDB; on bearing 086° from SIB NDB climb to 5500 ft QNH; LT, direct to SIB NDB climb to FL090 or above at SIB NDB; RT, on bearing 268° from SIB NDB to ULMIN. Cross ULMIN at or above FL110.	Increased climb gradient 4.1% due to mountainous terrain.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
BILRO	N460706368	E0241347048
DER_LRSB_09	N454708043	E0240618686
DOKUD	N462807453	E0245721352
IRLOX	N453808151	E0241102176
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699
ULMIN	N454849862	E0232352643

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

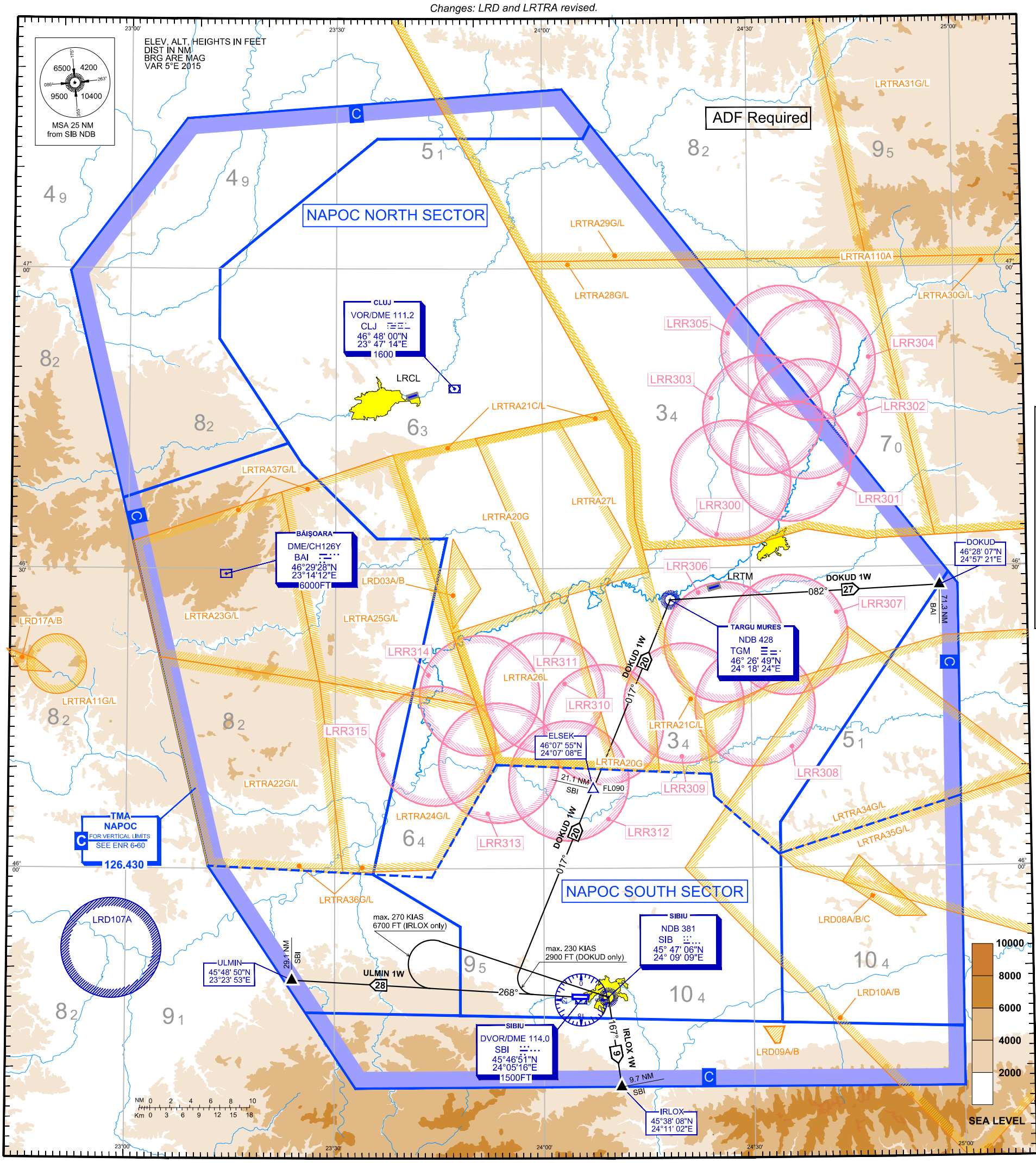
DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRSB DEPARTURE SEQUENCE RWY 09

Leg	Distance (NM)	True track	Magnetic Track
1	3	4	
DOKUD 1J			
DER_LRSB_09 - SIB-NDB	1.990	90.95	85.83
SIB-NDB - BILRO	20.270	9.14	4.02 from SIB NDB
BILRO - TGM-NDB	19.973	9.19	3.98 to TGM NDB
TGM-NDB - DOKUD	26.967	86.98	81.77
IRLOX 1J			
DER09 - SIB-NDB	1.990	90.95	85.83
Track East	-	*90.95*	*85.83*
SIB-NDB - IRLOX	9.063	171.62	166.50
ULMIN 1J			
DER_LRSB_09 - SIB-NDB	1.990	90.95	85.83
Track East	-	*90.95*	*85.83*
SIB-NDB - ULMIN	31.725	273.40	268.28

Changes: LRD and LRTRA revised.

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO



RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110. Climbing shall be executed in accordance with vertical restrictions specified on chart. 7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL. If cleared FL is lower than MRVA, climb immediately to MRVA. If cleared FL is lower than FL110, after 2 min. climb to FL110. Climbing shall be executed in accordance with MRVA chart. 7 minutes from setting 7600 climb to FPL flight level.

NOTES: *Vertical limits of LRRxxx FL255 / GND*

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1W	On bearing 268° from SIB NDB climb to 2900 ft QNH; RT, on bearing 017° inbound TGM NDB climb to FL090 or above at ELSEK (DME 21.1 SBI), then on bearing 017° TGM NDB; RT, on bearing 082° from TGM NDB to DOKUD. Cross DOKUD at or above FL100.	Departure turn limited to max IAS 230 KT. Increased climb gradient 5.1% until 2900 ft QNH due to obstacles. Increased climb gradient 4.9% from 2900 ft QNH until DME 21.1 SBI due to airspace structure.
IRLOX 1W	On bearing 268° from SIB NDB climb to 6700 ft QNH; RT, direct to SIB NDB climb to FL110 or above at SIB NDB; RT, on bearing 167° from SIB NDB to IRLOX. IRLOX at or above FL110.	Departure turn limited to max IAS 270 KT. Increased climb gradient 6.0% until 5500 ft QNH due to obstacles, followed by 4.1% due to mountainous terrain.
ULMIN 1W	On bearing 268° from SIB NDB to ULMIN. ULMIN at or above FL110.	Increased climb gradient 6.0% until 5500 ft QNH due to obstacles, followed by 5.3% due to airspace structure (4.1% due to mountainous terrain).

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
DER_LRSB_27	N454710345	E0240357500
DOKUD	N462807453	E0245721352
ELSEK	N460755137	E0240707661
IRLOX	N453808151	E0241102176
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699
ULMIN	N454849862	E0232352643

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

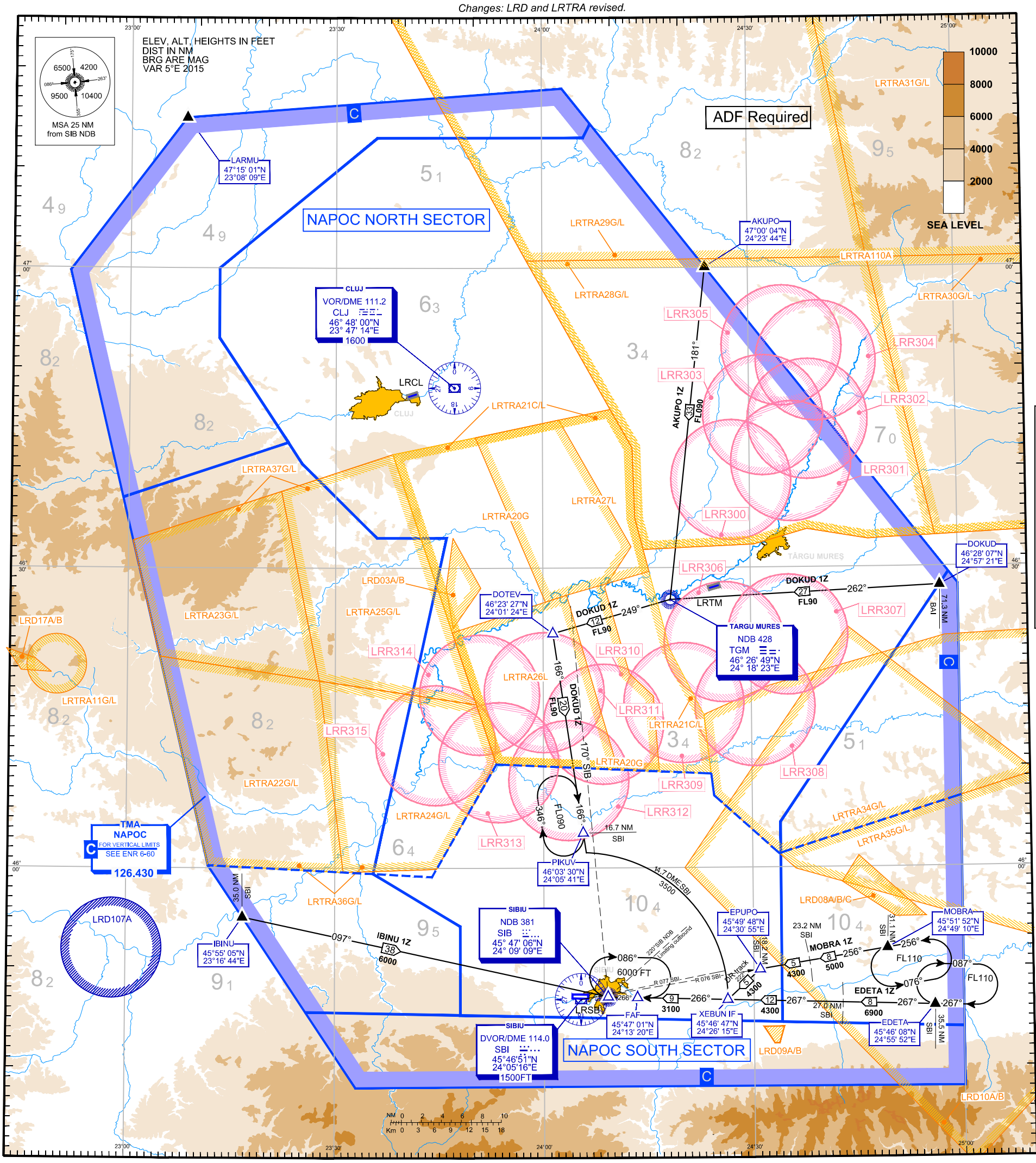
DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRSB DEPARTURE SEQUENCE RWY27

Leg	Distance (NM)	True track	Magnetic Track
1	3	4	
DOKUD 1W			
Track West	-	*273.40*	*268.28*
Track West - ELSEK	-	*22.39*	*17.27*
ELSEK - TGM-NDB	20.453	22.39	17.18
TGM-NDB - DOKUD	26.967	86.98	81.77
IRLOX 1W			
Track West	-	*273.40*	*268.28*
SIB-NDB - IRLOX	9.063	171.62	166.50
ULMIN 1W			
DER27 - ULMIN	28.204	273.40	268.28

Changes: LRD and LRTRA revised.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to SIB NDB. At SIB NDB proceed instrument approach procedure for RWY 27. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to SIB NDB. If last cleared FL is lower than MRVA climb immediately to MRVA. At SIB NDB proceed instrument approach procedure for RWY 27. Descending shall be executed in accordance with MRVA until SIB NDB and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

d. In case of missed approach. From SIB NDB proceed instrument approach procedure for RWY 27. If necessary to change RWY, from SIB NDB proceed instrument approach procedure for RWY 27, then circling to RWY 09. Descending shall be executed in accordance with vertical restrictions specified on charts.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

NOTES: *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

SIBIU/ Sibiu (LRSB)
RWY 27
AKUPO 1Z DOKUD 1Z EDETA 1Z
IBINU 1Z MOBRA 1Z

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
AKUPO	N470003762	E0242344287
DOKUD	N462807453	E0245721352
DOTEV	N462327172	E0240123863
EDETA	N454608288	E0245552249
EPUPO	N454948472	E0243055385
FAF _LRSB_27	N454700877	E0241320460
IBINU	N455504940	E0231643516
MOBRA	N455151885	E0244909844
PIKUV	N460330108	E0240540733
SIB NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699
XEBUN (IF)	N454647118	E0242615159

LRCL ARRIVAL SEQUENCE RWY 27

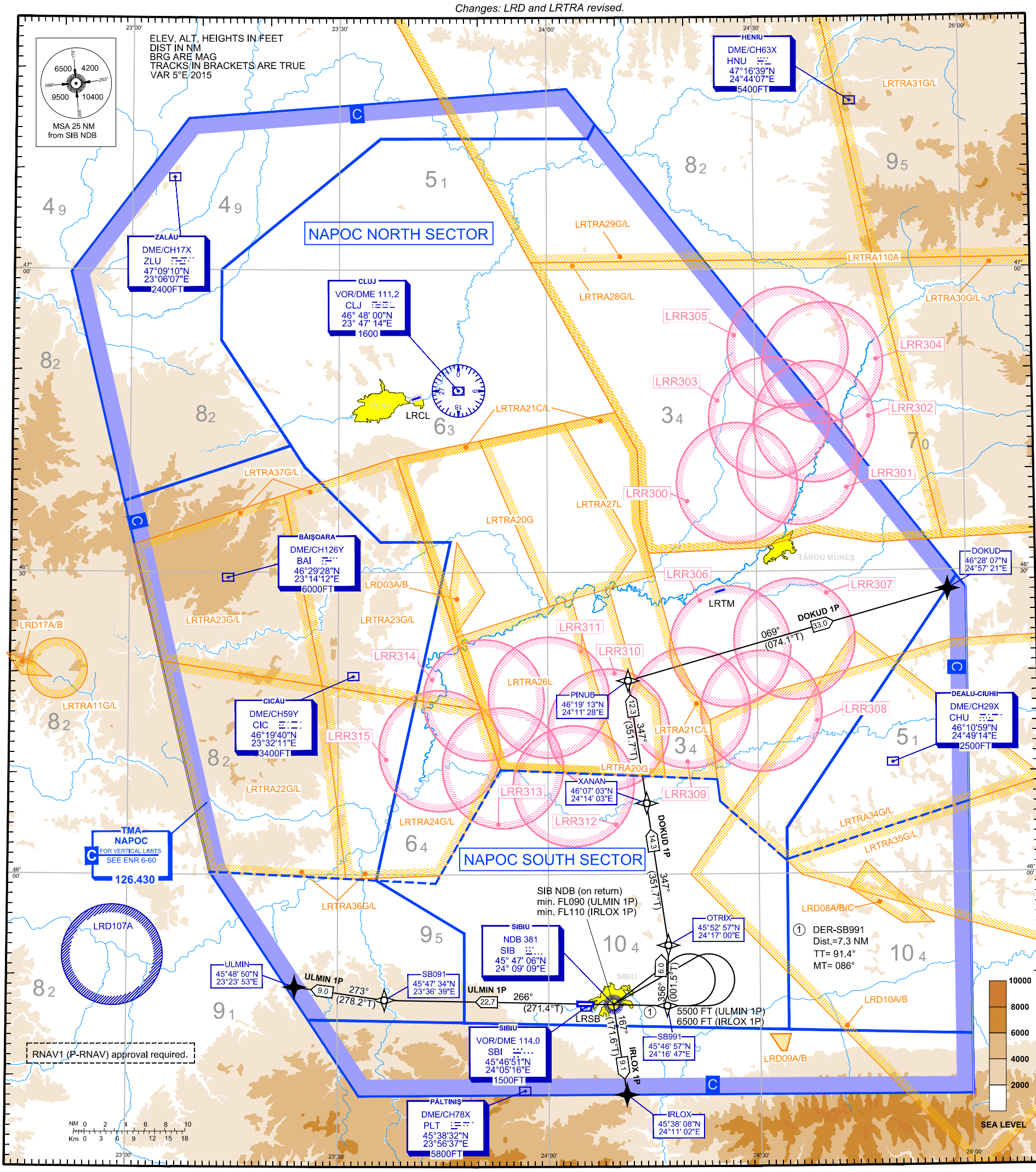
Designator	Identification point	Distance (MN)	Magnetic Track	Minimum Alt / FL
AKUPO 1Z	AKUPO			
		33.464	181.22	FL090
	TGM NDB (max 250 KIAS)			
		12.231	248.93	FL090
	DOTEV		*lead-in at DOTEV: 170.38*	
		20.178	166.38	FL090
	PIKUV (IAF)			
		-	DME14.7 SBI arc	3500
	XEBUN (IF)			
		9.039	266.41	3100
	FAF LRSB 27			
DOKUD 1Z	DOKUD			
		26.967	262.24	FL090
	TGM NDB (max 250 KIAS)			
		12.231	248.93	FL090
	DOTEV		*lead-in at DOTEV: 170.38*	
		20.178	166.38	FL090
	PIKUV (IAF)			
		-	DME 14.7 SBI arc	3500
	XEBUN (IF)			
		9.039	266.41	3100
	FAF LRSB 27			
EDETA 1Z	EDETA			
		8.429	266.85	6900
	DME 27.0 SBI			
		12.312	266.70	4300
	XEBUN (IF)			
		9.039	266.41	3100
	FAF LRSB 27			
IBINU 1Z	IBINU			
		37.506	96.86	6000
	SIB NDB			
MOBRA 1Z	MOBRA			
		7.916	255.87 (R076 SBI)	5000
	DME 23.2 SBI			
		5.000	255.62 (R076 SBI)	4300
	EPUPO			
		4.452	222.13	4300
	XEBUN (IF)			
		9.039	266.41	3100
	FAF LRSB 27			

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO



NOTES: *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

Radio Communication Failure:

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110.
Climbing shall be executed in accordance with vertical restrictions specified on chart.
7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL.
If cleared FL is lower than MRVA, climb immediately to MRVA.
If cleared FL is lower than FL110, after 2 min. climb to FL110.
Climbing shall be executed in accordance with MRVA chart.
7 minutes from setting 7600 climb to FPL flight level.

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1P	SB991[A3300+] - OTRIX - XANAN[F090+] - PINUB - DOKUD[F100+]	Increased PDG 4.8% until XANAN due to airspace structure. Increased PDG 3.8% until OTRIX due to obstacles.
IRLOX 1P	[T091; A6500; L] → SIB-NDB [F110+] - IRLOX[F110+]	Increased PDG 4.1% until IRLOX due to mountainous terrain.
ULMIN 1P	[T091; A5500; L] → SIB-NDB [F090+] - SB091 - ULMIN[F110+]	Increased PDG 4.1% until ULMIN due to mountainous terrain.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
DER_LRSB_09	N454708043	E0240618686	-
DOKUD	N462807453	E0245721352	Compulsory fly-by
IRLOX	N453808151	E0241102176	Compulsory fly-by
OTRIX	N455256944	E0241700365	On request fly-by
PINUB	N461912951	E0241128317	On request fly-by
SB091	N454733500	E0233639289	On request fly-by
SB991	N454657207	E0241647122	On request fly-by
SIB-NDB	N454706038	E0240909294	-
ULMIN	N454849862	E0232352643	Compulsory fly-by
XANAN	N460703085	E0241402830	On request fly-by

LRSB RNAV DEPARTURE SEQUENCE RWY 09

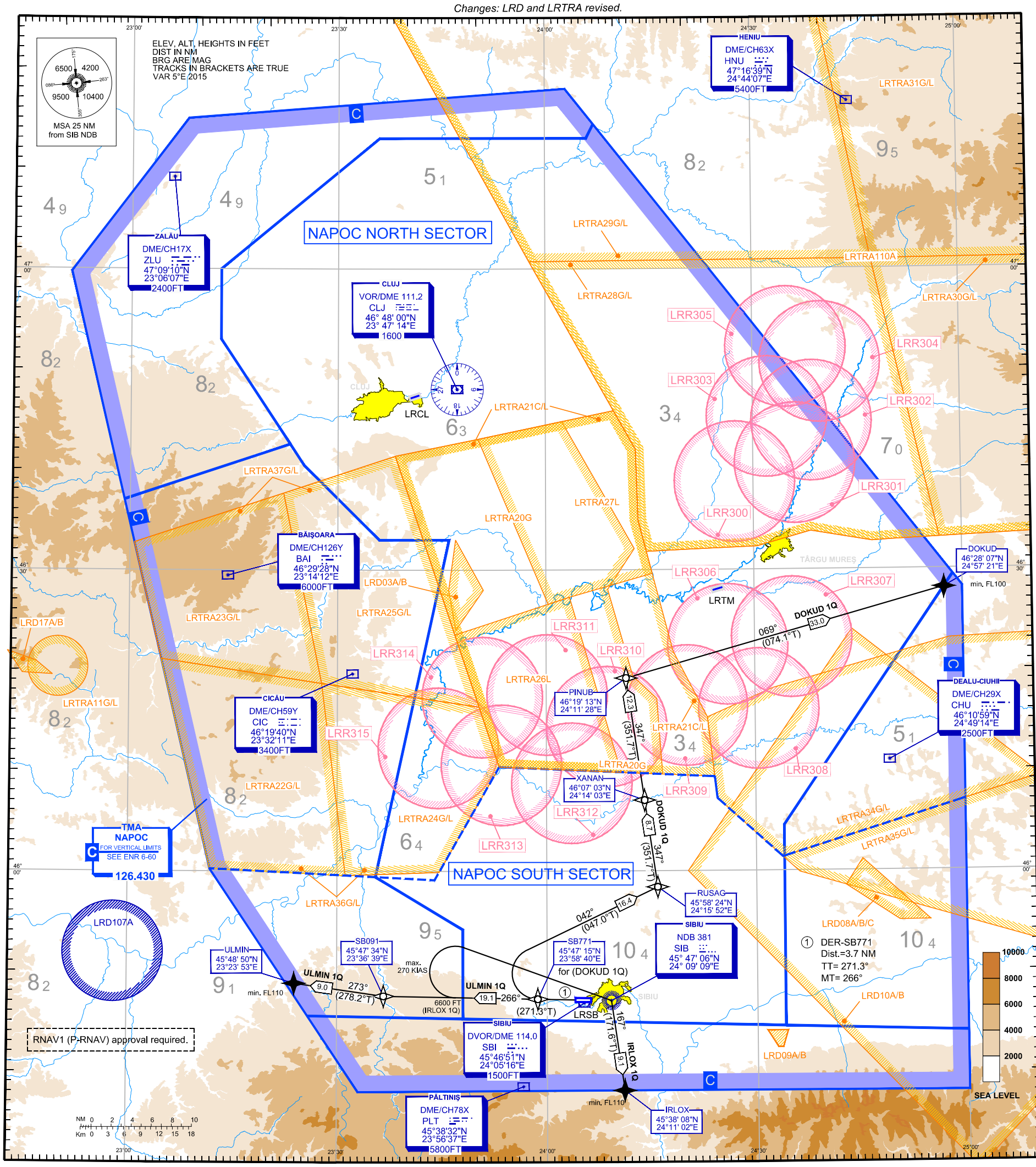
Leg	Leg type	Distance (NM)	True track	Magnetic Track
1	2	3	4	5
DOKUD 1P				
DER_LRSB_09 - SB991	-	7.332	91.35	86.23
SB991 - OTRIX	TF	5.999	1.47	356.35
OTRIX - XANAN	TF	14.256	351.70	346.58
XANAN - PINUB	TF	12.299	351.66	346.54
PINUB - DOKUD	TF	32.985	74.05	68.84
IRLOX 1P				
DER_LRSB_09 - [A6500]	CA	-	91.35	86.23
[A6500] - SIB-NDB	DF	-	-	-
SIB-NDB - IRLOX	TF	9.063	171.62	166.50
ULMIN 1P				
DER_LRSB_09 - [A5500]	CA	-	91.35	86.23
[A5500] - SIB-NDB	DF	-	-	-
SIB-NDB - SB091	TF	22.747	271.35	266.23
SB091 - ULMIN	TF	9.029	278.18	273.06

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) DEPARTURE CHART INSTRUMENT (SID) - ICAO



Radio Communication Failure:

NOTES: *Vertical limits of LRRxxx FL255 / GND*

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110.
Climbing shall be executed in accordance with vertical restrictions specified on chart.
7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL.
If cleared FL is lower than MRVA, climb immediately to MRVA.
If cleared FL is lower than FL110, after 2 min. climb to FL110.
Climbing shall be executed in accordance with MRVA chart.
7 minutes from setting 7600 climb to FPL flight level.

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1Q	SB771[A2700+; K230-; R] → RUSAG - XANAN[F090+] - PINUB - DOKUD[F100+]	Increased PDG 5.1% until RUSAG due to obstacles. Increased PDG 4.5% until XANAN due to airspace structure.
IRLOX 1Q	[T271; A6600; K270-; R] → SIB-NDB [F110+] - IRLOX[F110+]	Increased PDG 5.7% until 6,600 ft due to obstacles, followed by 4.1% due to mountainous terrain.
ULMIN 1Q	SB091 - ULMIN[F110+]	Increased PDG 5.7% until ULMIN due to airspace structure. Increased PDG 5.7% until 6600 FT due to obstacles, followed by 4.1% due to mountainous terrain

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
DER_LRSB_27	N454710345	E0240357500	-
DOKUD	N462807453	E0245721352	Compulsory fly-by
IRLOX	N453808151	E0241102176	Compulsory fly-by
PINUB	N461912951	E0241128317	On request fly-by
RUSAG	N455824382	E0241551864	On request fly-by
SB091	N454733500	E0233639289	On request fly-by
SB771	N454715337	E0235840422	On request fly-over
SIB-NDB	N454706038	E0240909294	-
ULMIN	N454849862	E0232352643	Compulsory Fly-by
XANAN	N460703085	E0241402830	On request fly-by

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

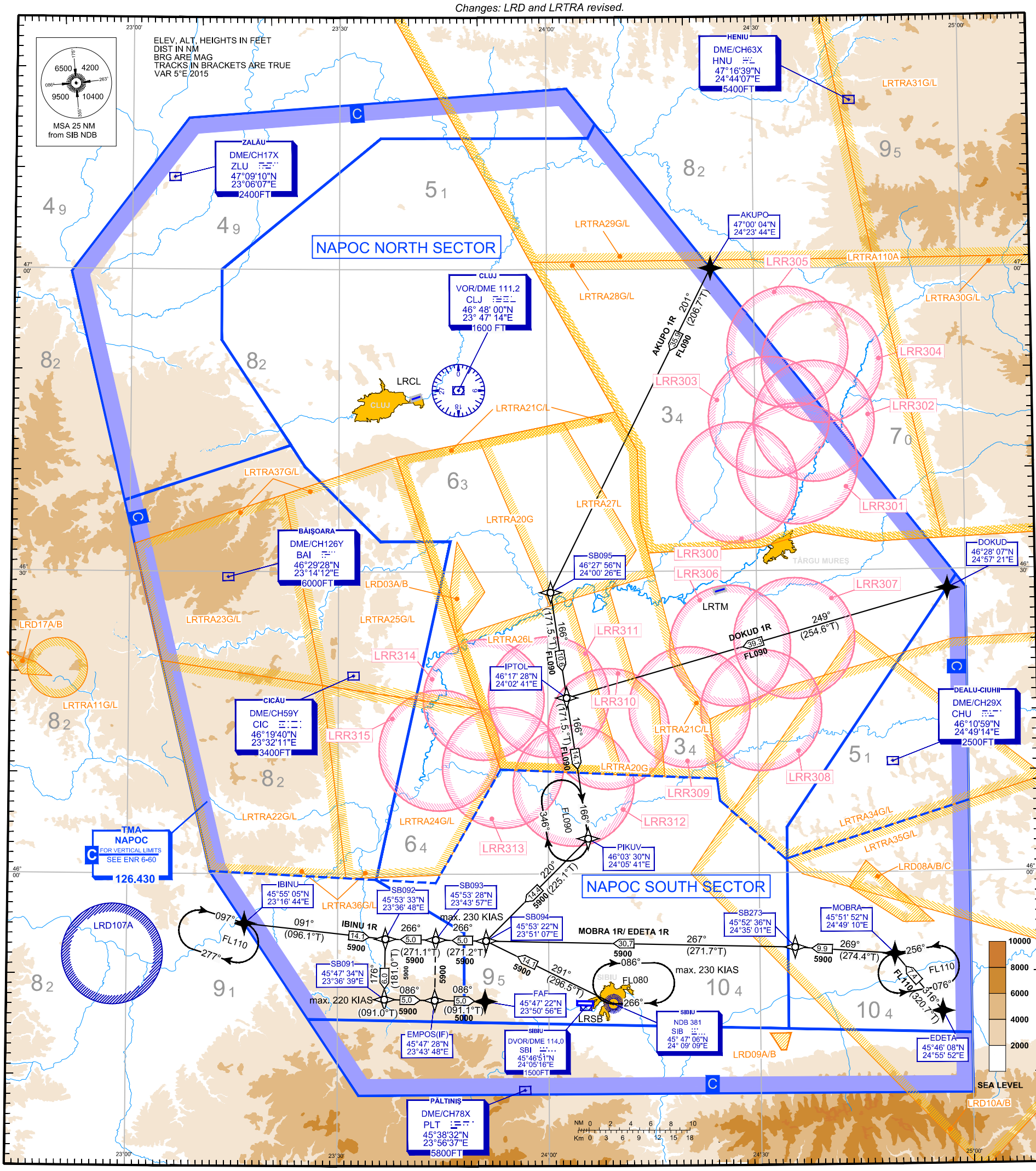
DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRSB RNAV DEPARTURE SEQUENCE RWY 27

Leg	Leg type	Distance (NM)	True track	Magnetic Track
DOKUD 1Q				
DER_LRSB_27 - SB771	-	3.699	271.32	266.20
SB771 - RUSAG	TF	16.390	47.01	41.89
RUSAG - XANAN	TF	8.740	351.68	346.56
XANAN - PINUB	TF	12.299	351.66	346.54
PINUB - DOKUD	TF	32.985	74.05	68.84
IRLOX 1Q				
DER_LRSB_27 - [A6600]	CA	-	271.32	266.20
[A6600] - SIB-NDB	DF	-	-	-
SIB-NDB - IRLOX	TF	9.063	171.62	166.50
ULMIN 1Q				
DER_LRSB_27 - SB091	-	19.110	271.32	266.20
SB091 - ULMIN	TF	9.029	278.18	273.06

Changes: LRD and LRTRA revised.

RNAV (DME/DME) STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

TMA SPEED LIMIT MAX IAS 250KT BELOW FL100

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to SIB NDB. At SIB NDB proceed to SB094, join MOBRA 1R and follow instrument approach procedure for RWY 09. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to SIB NDB. If last cleared FL is lower than MRVA climb immediately to MRVA. At SIB NDB proceed to SB094, join MOBRA 1R and follow instrument approach procedure for RWY 09. Descending shall be executed in accordance with MRVA until SIB NDB and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

d. In case of missed approach. From SIB NDB proceed to SB094, join MOBRA 1R and follow instrument approach procedure for RWY 09. If necessary to change RWY, from SIB NDB proceed instrument approach procedure for RWY 27. Descending shall be executed in accordance with vertical restrictions specified on charts.

NOTES: *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

1. RNAV-1 (P-RNAV) approval required.
2. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on chart. Actual descent clearance will be as directed by ATC.
3. Expect direct routing/shortcuts by ATC whenever possible.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

SIBIU/ Sibiu (LRSB)
RWY 09
AKUPO 1R DOKUD 1R EDETA 1R
IBINU 1R MOBRA 1R

LIST OF WAYPOINTS

Waypoint name	Restrictions	Latitude	Longitude	Type
AKUPO	F100+	N470003762	E0242344287	Compulsory fly-by
DOKUD	F100+	N462807453	E0245721352	Compulsory fly-by
EDETA	F110+	N454608288	E0245552249	Compulsory fly-by
EMPOS	A5900+; K210-	N454728076	E0234347778	On request fly-by
FAF_LRSB_09	A5000+	N454722203	E0235056269	Compulsory fly-by
IBINU	F110+; K 250-	N455504940	E0231643516	Compulsory fly-by
IPTOL	-	N461728203	E0240241262	On request fly-by
MOBRA	F110+	N455151885	E0244909844	Compulsory fly-by
PIKUV	F090+	N460330108	E0240540733	On request fly-by
SB091	K220-	N454733500	E0233639289	On request fly-by
SB092	K220-	N455333192	E0233648207	On request fly-by
SB093	-	N455327779	E0234357467	On request fly-by
SB094	K230-	N455321917	E0235106726	On request fly-by
SB095	-	N462755978	E0240025696	
SB273	-	N455236102	E0243501023	On request fly-by

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

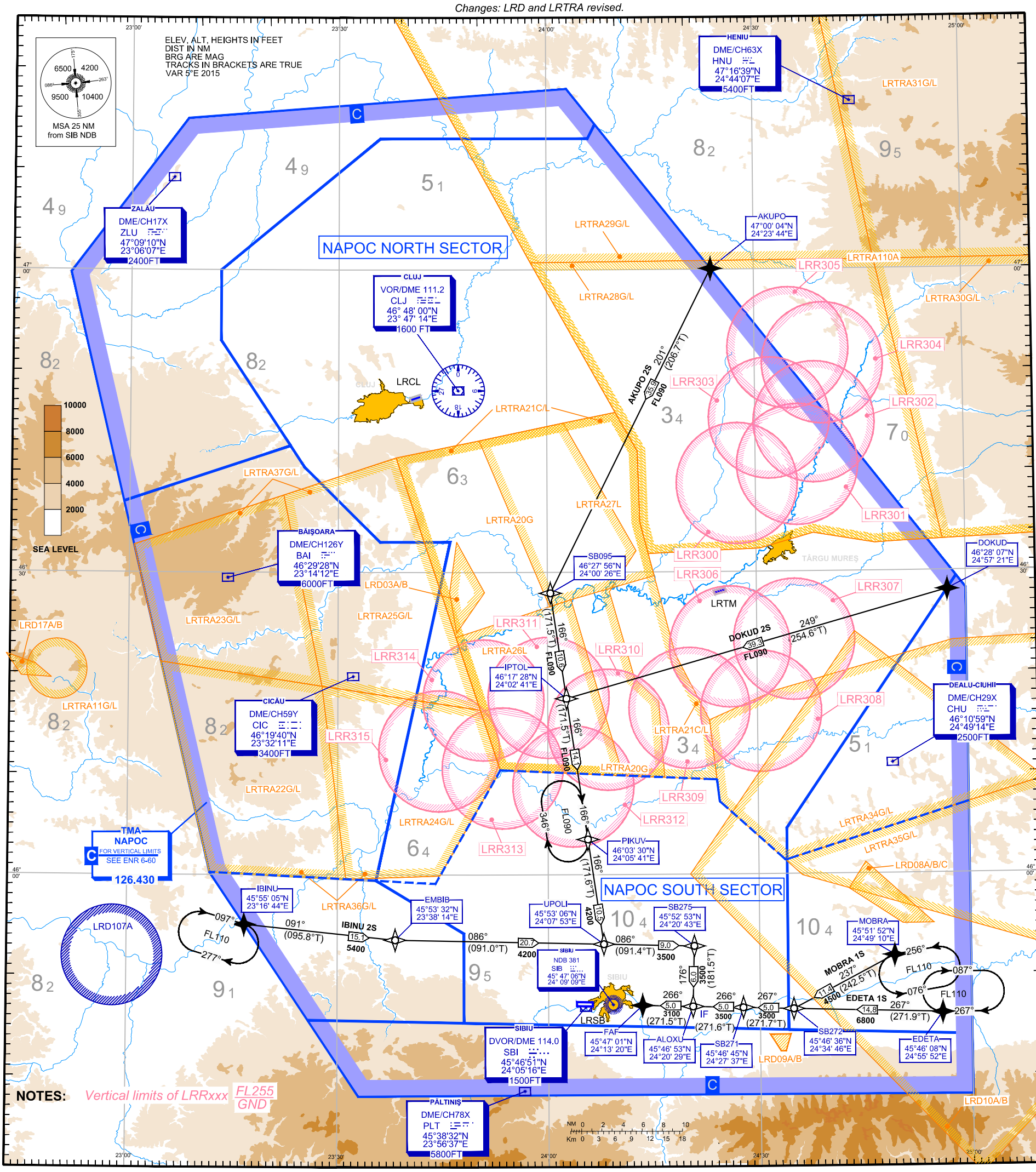
TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

LRSB RNAV ARRIVAL SEQUENCE RWY 09

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
AKUPO 1R				
AKUPO - SB095	35.920	206.65	201.48	FL090
SB095 - IPTOL	10.583	171.49	166.28	FL090
IPTOL - PIKUV	14.126	171.52	166.40	FL090
PIKUV - SB094	14.353	225.14	220.02	5900
SB094 - SB093	4.998	271.16	266.04	5900
SB093 - SB092	4.998	271.08	265.96	5900
SB092 - SB091	5.997	180.99	175.87	5900
SB091 - EMPOS	4.998	91.00	85.88	5900
EMPOS - FAF_LRSB_09	4.998	91.08	85.96	5000
DOKUD 1R				
DOKUD - IPTOL	39.320	254.60	249.43	FL090
IPTOL - PIKUV	14.126	171.52	166.40	FL090
PIKUV - SB094	14.353	225.14	220.02	5900
SB094 - SB093	4.998	271.16	266.04	5900
SB093 - SB092	4.998	271.08	265.96	5900
SB092 - SB091	5.997	180.99	175.87	5900
SB091 - EMPOS	4.998	91.00	85.88	5900
EMPOS - FAF_LRSB_09	4.998	91.08	85.96	5000
MOBRA 1R				
MOBRA - SB273	9.912	274.35	269.23	5900
SB273 - SB094	30.681	271.69	266.57	5900
SB094 - SB093	4.998	271.16	266.04	5900
SB093 - SB092	4.998	271.08	265.96	5900
SB092 - SB091	5.997	180.99	175.87	5900
SB091 - EMPOS	4.998	91.00	85.88	5900
EMPOS - FAF_LRSB_09	4.998	91.08	85.96	5000
EDETA 1R				
EDETA - MOBRA	7.404	320.73	315.61	FL110
MOBRA - SB273	9.912	274.35	269.23	5900
SB273 - SB094	30.681	271.69	266.57	5900
SB094 - SB093	4.998	271.16	266.04	5900
SB093 - SB092	4.998	271.08	265.96	5900
SB092 - SB091	5.997	180.99	175.87	5900
SB091 - EMPOS	4.998	91.00	85.88	5900
EMPOS - FAF_LRSB_09	4.998	91.08	85.96	5000
IBINU 1R				
IBINU - SB092	14.104	96.11	90.99	5900
SB092 - SB091	5.997	180.99	175.87	5900
SB091 - EMPOS	4.998	91.00	85.88	5900
EMPOS - FAF_LRSB_09	4.998	91.08	85.96	5000

Changes: LRD and LRTRA revised.

RNAV (DME/DME) STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

TMA SPEED LIMIT MAX IAS 250KT BELOW FL100

NOTES: *Vertical limits of LRRxxx* FL255 / GND

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to SIB NDB. At SIB NDB proceed instrument approach procedure for RWY 27. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to SIB NDB. If last cleared FL is lower than MRVA climb immediately to MRVA. At SIB NDB proceed instrument approach procedure for RWY 27. Descending shall be executed in accordance with MRVA until SIB NDB and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
d. In case of missed approach. From SIB NDB proceed instrument approach procedure for RWY 27. If necessary to change RWY, proceed to SB094, join MOBRA 1R and follow instrument approach procedure for RWY 09. Descending shall be executed in accordance with vertical restrictions specified on charts.

1. RNAV-1 (P-RNAV) approval required.
2. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on chart. Actual descent clearance will be as directed by ATC.
3. Expect direct routing/shortcuts by ATC whenever possible.
4. ALOXU is a tactical fix for non-standard shorter approach, used only after request or approval by air crew.

Speed restrictions:

ALOXU - max. 210 KIAS
SB272 - max. 220 KIAS
SB275 - max. 230 KIAS

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

SIBIU/ Sibiu (LRSB)
RWY 27
AKUPO 2S DOKUD 2S EDETA 1S
IBINU 2S MOBRA 1S

LIST OF WAYPOINTS

Waypoint name	Restriction	Latitude	Longitude	Type
AKUPO	F100+	N470003762	E0242344287	Compulsory fly-by
ALOXU	A3500+;K210-	N454653152	E0242028962	On request fly-by
DOKUD	F100+	N462807453	E0245721352	Compulsory fly-by
EDETA	F110+	N454608288	E0245552249	Compulsory fly-by
EMBIB	A5400+	N455332142	E0233814371	On request fly-by
FAF_LRSB_27	A3100-	N454700877	E0241320460	Compulsory fly-by
IBINU	F110+	N455504940	E0231643516	Compulsory fly-by
IPTOL		N461728203	E0240241262	On request fly-by
MOBRA	F110+	N455151885	E0244909844	Compulsory fly-by
PIKUV	F090+	N460330108	E0240540733	On request fly-by
SB095		N462755978	E0240025696	On request fly-by
SB271		N454644981	E0242737412	On request fly-by
SB272	K220-; A4500+ for MOBRA 1S; A6800+ for EDETA 1S	N454636362	E0243445845	On request fly-by
SB275	K230-	N455252891	E0242042603	On request fly-by
UPOLI	A4200+	N455306411	E0240753187	On request fly-by

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

LRSB RNAV ARRIVAL SEQUENCE RWY 27

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
AKUPO 2S				
AKUPO - SB095	35.920	206.65	201.48	FL090
SB095 - IPTOL	10.583	171.49	166.28	FL090
IPTOL - PIKUV	14.126	171.52	166.40	FL090
PIKUV - UPOLI	10.511	171.56	166.44	4200
UPOLI - SB275	8.961	91.36	86.24	3500
SB275 - ALOXU	6.000	181.51	176.39	3500
ALOXU - FAF_LRSB_27	5.000	271.52	266.40	3100
DOKUD 2S				
DOKUD - IPTOL	39.320	254.60	249.39	FL090
IPTOL - PIKUV	14.126	171.52	166.40	FL090
PIKUV - UPOLI	10.511	171.56	166.44	4200
UPOLI - SB275	8.961	91.36	86.24	3500
SB275 - ALOXU	6.000	181.51	176.39	3500
ALOXU - FAF_LRSB_27	5.000	271.52	266.40	3100
EDETA 1S				
EDETA - SB272	14.781	271.94	266.82	6800
SB272 - SB271	5.000	271.69	266.57	3500
SB271 - ALOXU	4.999	271.60	266.48	3500
ALOXU - FAF_LRSB_27	5.000	271.52	266.40	3100
IBINU 2S				
IBINU - EMBIB	15.103	95.75	90.63	5400
EMBIB - UPOLI	20.713	91.01	85.89	4200
UPOLI - SB275	8.961	91.36	86.24	3500
SB275 - ALOXU	6.000	181.51	176.39	3500
ALOXU - FAF_LRSB_27	5.000	271.52	266.40	3100
MOBRA 1S				
MOBRA - SB272	11.362	242.51	237.39	4500
SB272 - SB271	5.000	271.69	266.57	3500
SB271 - ALOXU	4.999	271.60	266.48	3500
ALOXU - FAF_LRSB_27	5.000	271.52	266.40	3100

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

ATC SURVEILLANCE

MINIMUM ALTITUDE CHART - ICAO

TRANSITION ALTITUDE 7000 FT

AERODROME ELEV 1520 FT

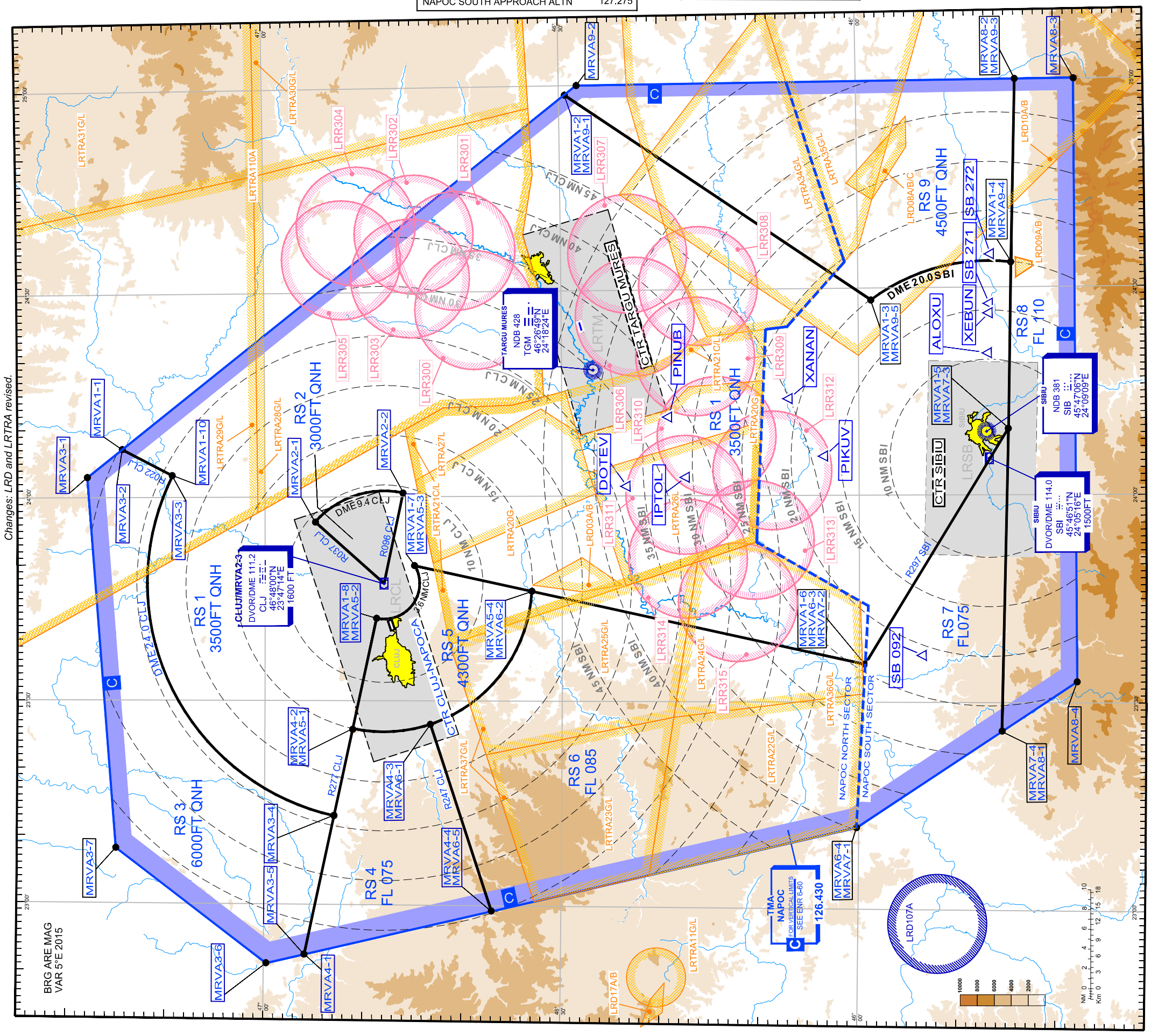
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900

SECTOR: ARGES	121.180
ARGES ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

SIBIU / Sibiu (LRSB)



NOTES: *Vertical limits of LRRxxx* *FL255 / GND*

IN CASE OF COMMUNICATION FAILURE

- SET TRANSPONDER CODE 7600
- FOLLOW COMMUNICATION FAILURE
- PROCEDURE ON RELEVANT SID / STAR

NOTE:

1. CHART ONLY TO BE USED FOR CROSS-CHECKING OF ALTITUDES ASSIGNED WHILE UNDER RADAR CONTROL.
2. UNLESS OTHERWISE AUTHORIZED OR REQUIRED BY ATC, ARRIVING AIRCRAFT SHALL BE OPERATED AT AN INDICATED AIRSPEED OF MAXIMUM 250 KT BELOW FL 100.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
ALOXU	N454653152	E0242028962
DOTEV	N462327172	E0240123863
IPTOL	N461728203	E0240241262
PIKUV	N460330108	E0240540733
PINUB	N461912951	E0241128317
SB092	N455333192	E0233648207
SB271	N454644981	E0242737412
SB272	N454636362	E0243445845
XANAN	N460703085	E0241402830
XEBUN	N454647118	E0242615159

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

RADAR SECTOR (RS)

SECTOR	Latitude	Longitude
RS 1 3500 ft ALT EXCEPTING RS 2		
MRVA1-1	N471424719	E0240705819
MRVA1-2	N462924710	E0245838627
MRVA1-3	N455843927	E0242817542
Arc DME 20.0 SBI		
MRVA1-4	N454431397	E0243338216
MRVA1-5	N454458344	E0240940843
MRVA1-6	N455925727	E0233528752
MRVA1-7	N464453330	E0234950724
Arc DME 3.6 CLJ		
MRVA1-8	N464846169	E0234206919
MRVA1-9	N465300898	E0231303644
Arc DME 24.0 CLJ		
MRVA1-10	N470920268	E0240315137
RS 2 3000 ft ALT		
MRVA2-1	N465459510	E0235623478
MRVA2-2	N464603345	E0240036695
MRVA2-3/DVORDME	N464800438	E0234714118

SECTOR	Latitude	Longitude
RS 3 6000 ft ALT		
MRVA3-1	N471755565	E0240259354
MRVA3-2	N471424719	E0240705819
MRVA3-3	N470920268	E0240315137
Arc DME 24.0 CLJ		
MRVA3-4	N465300898	E0231303644
MRVA3-5	N465555449	E0225235754
MRVA3-6	N465944989	E0225115090
MRVA3-7	N471501159	E0230808785
RS 4 FL075		
MRVA4-1	N465555449	E0225235754
MRVA4-2	N465109444	E0232553251
Arc DME 15.0 CLJ		
MRVA4-3	N464319341	E0232631142
MRVA4-4	N463701507	E0225911071
RS 5 4300 ft ALT		
MRVA5-1	N465109444	E0232553251
MRVA5-2	N464846169	E0234206919
Arc DME 3.6 CLJ		
MRVA5-3	N464453330	E0234950724
MRVA5-4	N463302410	E0234603893
Arc DME 15.0 CLJ		

SECTOR	Latitude	Longitude
RS 6 FL 085		
MRVA6-1	N464319341	E0232631142
Arc DME 15.0 CLJ		
MRVA6-2	N463302410	E0234603893
MRVA6-3	N455925727	E0233528752
MRVA6-4	N460015153	E0231145549
MRVA6-5	N463701507	E0225911071
RS 7 FL 075		
MRVA7-1	N460015153	E0231145549
MRVA7-2	N455925727	E0233528752
MRVA7-3	N454458344	E0240940843
MRVA7-4	N454534632	E0232548457
RS 8 FL 110		
MRVA8-1	N454534632	E0232548457
MRVA8-2	N454355915	E0250000000
MRVA8-3	N453800000	E0250000000
MRVA8-4	N453800000	E0233300000
RS 9 4500 ft ALT		
MRVA9-1	N462924710	E0245838627
MRVA9-2	N462812302	E0250000000
MRVA9-3	N454355915	E0250000000
MRVA9-4	N454431397	E0243338216
Arc DME 20.0 SBI		
MRVA9-5	N455843927	E0242817542

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

INSTRUMENT APPROACH CHART - ICAO

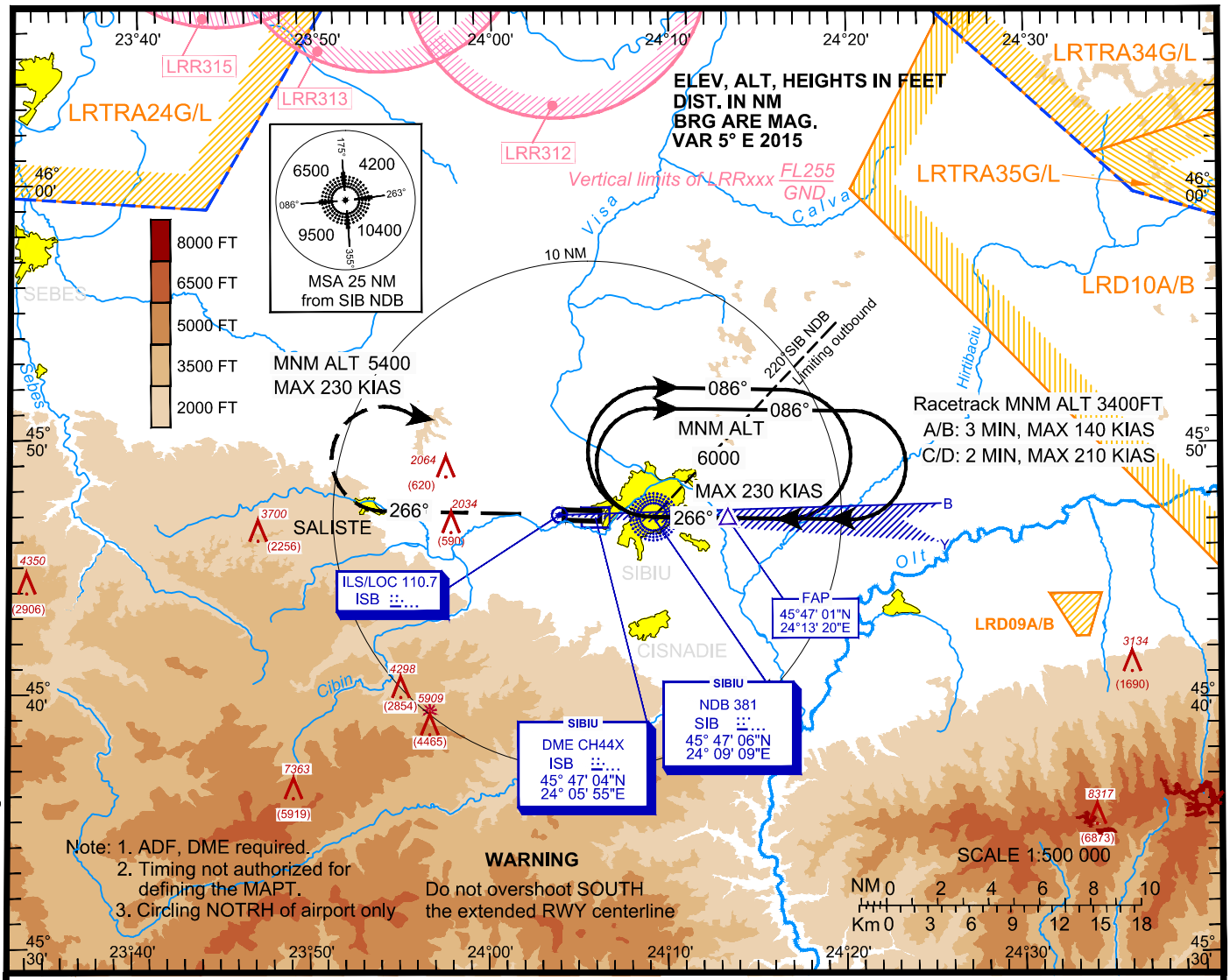
AERODROME ELEV. **1520 ft**
HEIGHTS RELATED TO
THR RWY 27 - ELEV 1444 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

SIBIU / Sibiu (LRSB)
ILS
RWY 27

Changes: LRD and LRTRA revised.

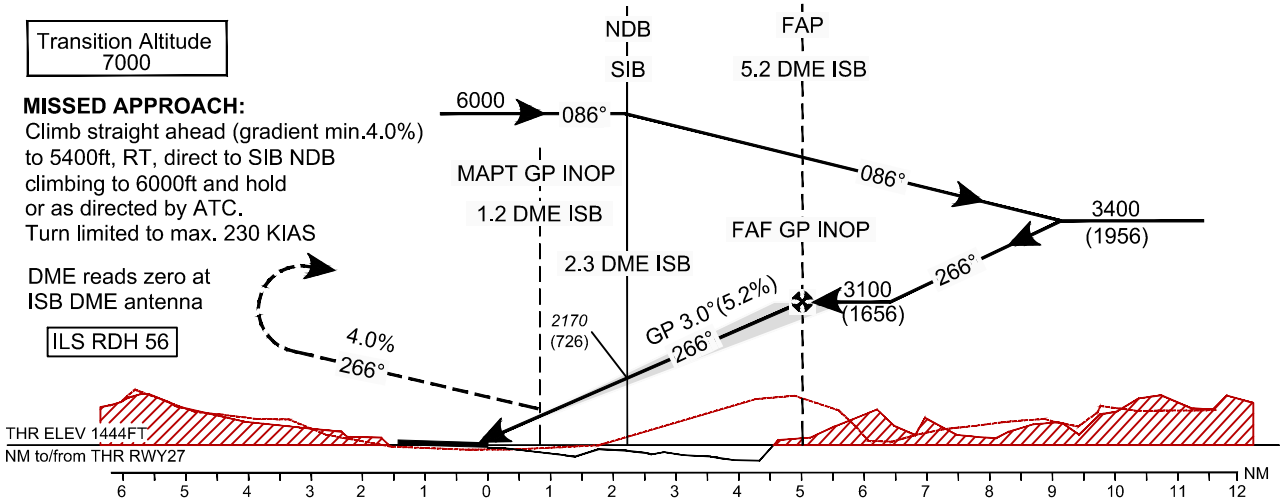


Transition Altitude 7000

MISSED APPROACH:
Climb straight ahead (gradient min.4.0%) to 5400ft, RT, direct to SIB NDB climbing to 6000ft and hold or as directed by ATC.
Turn limited to max. 230 KIAS

DME reads zero at ISB DME antenna

ILS RDH 56



OCA(H) / (4.0%)		A	B	C	D
Straight-in approach	CAT I	1597 (153)	1608 (164)	1621 (177)	1635 (191)
	CAT II	1557 (113)	1574 (130)	1586 (142)	1600 (156)
	GP INOP	1850 (406)			
Circling		2370	2470	2900	3200

For data tabulation see verso.

GS	kts	70	90	100	120	140	160
FAF-MAPT 4.0 NM	min:s	3:26	2:40	2:24	2:00	1:43	1:30
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Distance to/from DME ISB	NM	2	2.3 (SIB NDB)	3	4	5
Distance to THR 27	NM	1.8	2.1	2.8	3.8	4.8
Altitude (Height)	ft	2084 (640)	2170 (726)	2402 (958)	2721 (1277)	3039 (1595)

SIBIU / Sibiu (LRSB)
ILS RWY 27

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 27	
Fix/Point	**Coordinates**
SIB NDB (IAF)	45°47’06.0”N 024°09’09.3”E
5.2 D ISB (FAP/FAF)	45°47’00.9”N 024°13’20.5”E
1.2 DME ISB (MAPT)	45°47’06.7”N 024°07’37.6”E
THR RWY 27	45°47’08.20”N 024°06’08.97”E
ISB LOC	45°47’10.3”N 024°03’58.3”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA24G	GND – FL75	LRTRA34L	FL65 – FL200
LRTRA24L	FL75 – FL200	LRTRA35G	GND – FL70
LRTRA34G	GND – FL65	LRTRA35L	FL70 – FL200

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD09A	GND – FL100	LRD10A	GND– FL100
LRD09B	GND – FL285	LRD10B	GND – FL285

INSTRUMENT APPROACH CHART - ICAO

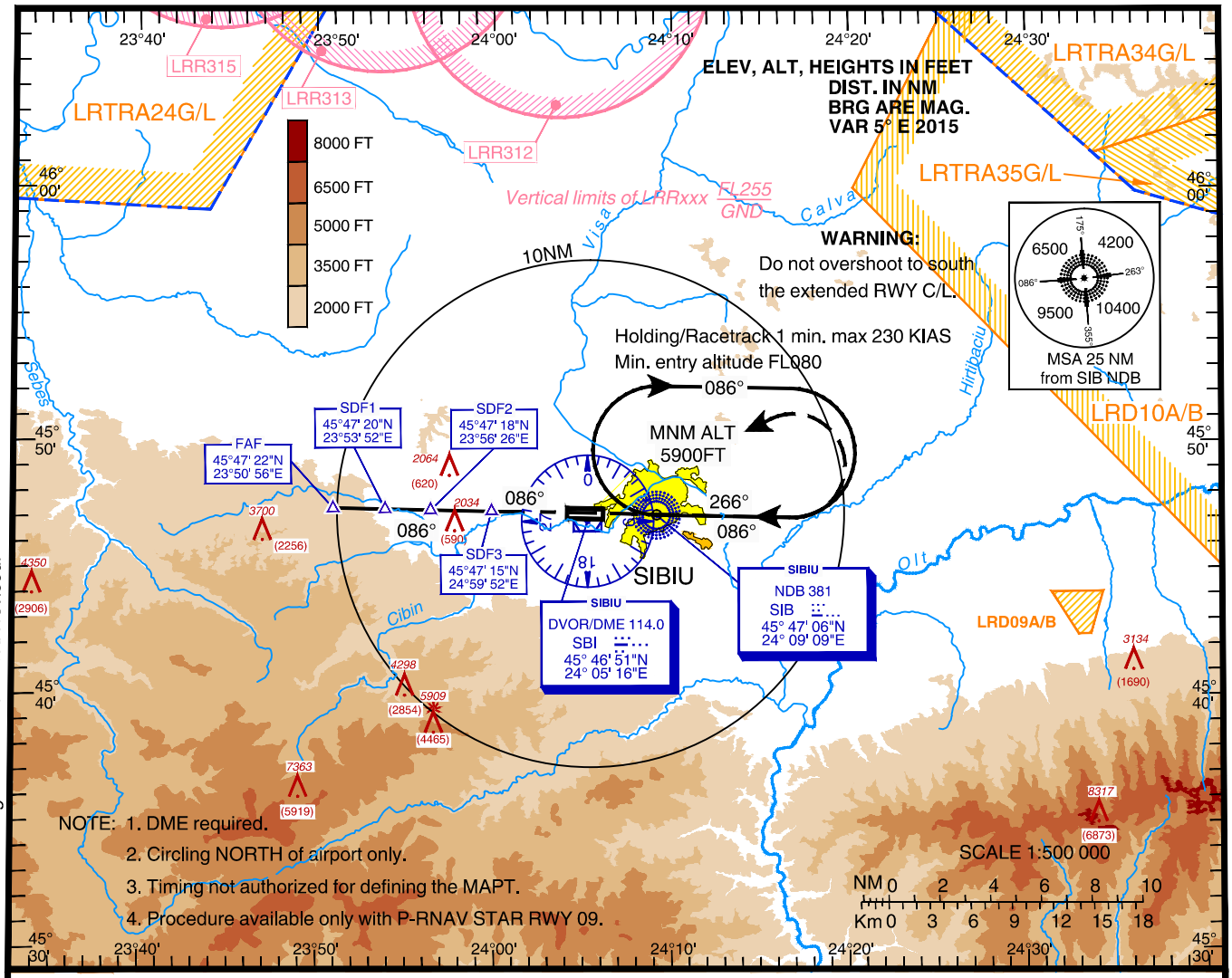
AERODROME ELEV. **1520 ft**
HEIGHTS RELATED TO
THR RWY 09 - ELEV 1520 ft

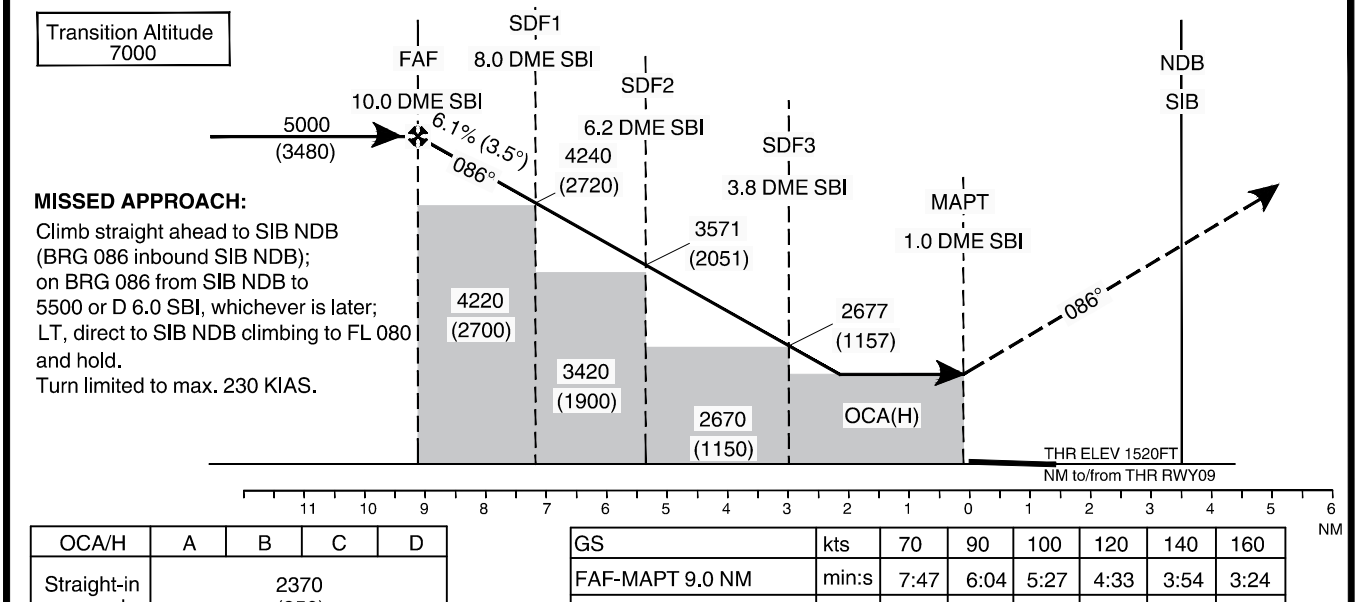
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SIBIU / Sibiu (LRSB)
NDB
RWY 09

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

Changes: LRD and LRTRA revised.





OCA/H	A	B	C	D
Straight-in approach	2370 (850)			
Circling	2370	2470	2900	3200

GS	kts	70	90	100	120	140	160
FAF-MAPT 9.0 NM	min:s	7:47	6:04	5:27	4:33	3:54	3:24
Rate of descent (6.1%)	ft/min	432	556	618	741	865	988

Distance to DME SBI	NM	9	8	7	6.2	6	5	4	3.8	3
Distance to THR 09	NM	8.2	7.2	6.2	5.4	5.2	4.2	3.2	3.0	2.2
Altitude (Height)	FT	4612 (3092)	4240 (2720)	3868 (2348)	3571 (2051)	3496 (1976)	3124 (1604)	2752 (1232)	2677 (1157)	2378 (858)

For data tabulation see verso

SIBIU / Sibiu (LRSB)
NDB RWY 09

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 09	
Fix/Point	**Coordinates**
D 10.0 SBI (FAF) – BRG 085.93° SIB NDB	45°47’22.2”N 023°50’56.3”E
D 8.0 SBI (SDF1) – BRG 086.02° SIB NDB	45°47’19.8”N 023°53’51.6”E
D 6.2 SBI (SDF2) – BRG 086.05° SIB NDB	45°47’17.6”N 023°56’26.0”E
D 3.8 SBI (SDF3) – BRG 086.09° SIB NDB	45°47’14.6”N 023°59’52.1”E
D 1.0 SBI (MAPT) – BRG 086.14° SIB NDB	45°47’11.0”N 024°03’55.2”E
THR RWY 09	45°47’10.19”N 024°04’07.22”E
SIB NDB	45°47’06.0”N 024°09’09.3”E

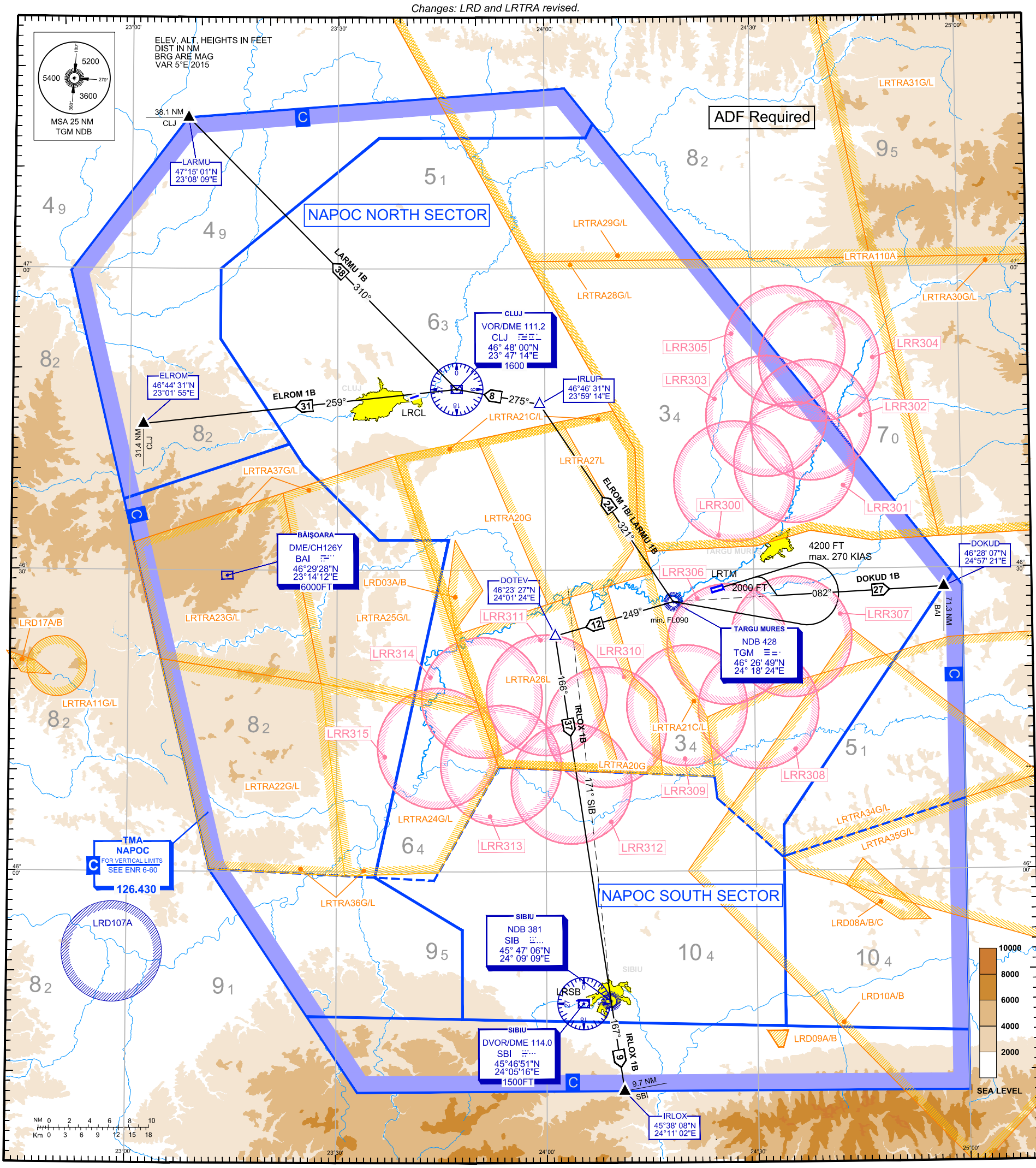
Final approach descent angle: 3.50**º**

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA24G	GND – FL75	LRTRA34L	FL65 – FL200
LRTRA24L	FL75 – FL200	LRTRA35G	GND – FL70
LRTRA34G	GND – FL65	LRTRA35L	FL70 – FL200

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD09A	GND – FL100	LRD10A	GND– FL100
LRD09B	GND – FL285	LRD10B	GND – FL285

Changes: LRD and LRTRA revised.

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO



TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

NOTES : *Vertical limits of LRRxxx* *FL255* / *GND*

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110. Climbing shall be executed in accordance with vertical restrictions specified on chart. 7 minutes from setting 7600 climb to FPL flight level.
b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL. If cleared FL is lower than MRVA, climb immediately to MRVA. If cleared FL is lower than FL110, after 2 min. climb to FL110. Climbing shall be executed in accordance with MRVA chart. 7 minutes from setting 7600 climb to FPL flight level.

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1B	On runway track climb to 2000 ft QNH; RT, on track 127° to intercept bearing 082° from TGM NDB; on bearing 082° from TGM NDB to DOKUD. Cross DOKUD at or above FL100.	Increased climb gradient 6.8% until DOKUD due to airspace structure. Increased climb gradient 3.5% until 2000 ft QNH due to obstacles
ELROM 1B	On runway track climb to 4200 ft QNH; RT, direct to TGM NDB climb to FL090 or above at TGM NDB; RT, on bearing 321° from TGM NDB to IRLUP; LT, on R095 CLJ to CLJ VOR; LT, on R259 CLJ to ELROM. Cross ELROM at or above FL110.	Departure turn limited to max IAS 270 KT. Increased climb gradient 5.0% until TGM NDB due to airspace structure. Increased climb gradient 3.4% until 2000 ft QNH due to obstacles.
IRLOX 1B	On runway track climb to 4200 ft QNH; RT, direct to TGM NDB climb to FL090 or above at TGM NDB; LT, on bearing 249° from TGM NDB to cross bearing 171° SIB NDB; LT, on bearing 166° inbound to SIB NDB; on bearing 167° from SIB NDB to IRLOX. Cross IRLOX at or above FL110.	Departure turn limited to max IAS 270 KT. Increased climb gradient 5.0% until TGM NDB due to airspace structure. Increased climb gradient 3.4% until 2000 ft QNH due to obstacles.
LARMU 1B	On runway track climb to 4200 ft QNH; RT, direct to TGM NDB climb to FL090 or above at TGM NDB; RT, on bearing 321° from TGM NDB to IRLUP; LT, on R095 CLJ to CLJ VOR; RT, on R310 CLJ to LARMU. Cross LARMU at or above FL100.	Departure turn limited to max IAS 270 KT Increased climb gradient 5.0% until TGM NDB due to airspace structure. Increased climb gradient 3.4% until 2000 ft QNH due to obstacles.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
CLJ VOR/DME	N464800438	E0234714118
DOKUD	N462807453	E0245721352
DOTEV	N462327172	E0240123863
ELROM	N464430715	E0230154709
IRLOX	N453808151	E0241102176
IRLUP	N464631258	E0235913737
LARMU	N471501159	E0230808785
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

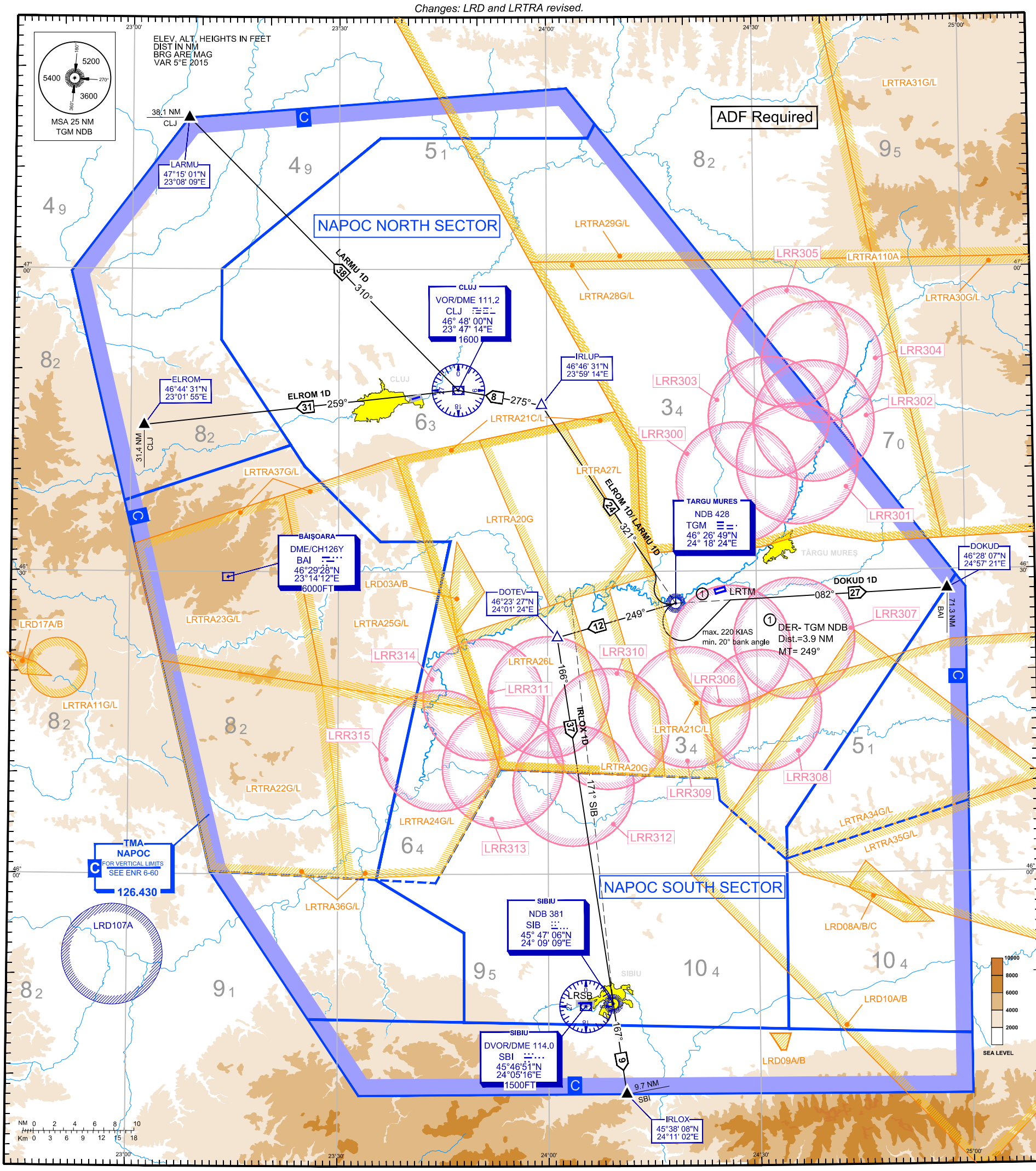
DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRTM DEPARTURE SEQUENCE RWY07

Leg	Distance (NM)	True track	Magnetic Track
1	3	4	5
DOKUD 1B			
TGM-NDB - DOKUD	26.967	86.98	81.77
ELROM 1B			
TGM-NDB - IRLUP	23.732	326.28	321.07
IRLUP - CLJ-VOR	8.375	280.30	275.13
CLJ-VOR - ELROM	31.349	263.87	258.70
IRLOX 1B			
TGM-NDB - DOTEV	12.231	254.14	248.93
DOTEV - SIB-NDB	36.762	171.51	166.39
SIB-NDB - IRLOX	9.063	171.62	166.50
LARMU 1B			
TGM-NDB - IRLUP	23.732	326.28	321.07
IRLUP - CLJ-VOR	8.375	280.30	275.13
CLJ-VOR - LARMU	38.019	315.54	310.37

Changes: LRD and LRTRA revised.

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO



TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110. Climbing shall be executed in accordance with vertical restrictions specified on chart. 7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL. If cleared FL is lower than MRVA, climb immediately to MRVA. If cleared FL is lower than FL110, after 2 min. climb to FL110. Climbing shall be executed in accordance with MRVA chart. 7 minutes from setting 7600 climb to FPL flight level.

NOTES : Vertical limits of LRRxxx FL255 / GND

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1D	On runway track inbound to TGM NDB; LT, on bearing 082° from TGM NDB to DOKUD. Cross DOKUD at or above FL100.	Departure turn limited to max IAS 220 KT and 20° minimum bank angle. Increased climb gradient 4.9% until DOKUD due to airspace structure. Increased climb gradient 4.2% until TGM NDB due to obstacles.
ELROM 1D	On runway track inbound to TGM NDB; RT, on bearing 321° from TGM NDB to IRLUP; LT, on R095 CLJ to CLJ VOR; LT, on R259 CLJ to ELROM. Cross ELROM at or above FL110.	Increased climb gradient 4.2% until TGM NDB due to obstacles
IRLOX 1D	On runway track inbound to TGM NDB; on bearing 249° from TGM NDB to cross bearing 171° SIB NDB; LT, on bearing 166° inbound to SIB NDB; on bearing 167° from SIB NDB to IRLOX. Cross IRLOX at or above FL110.	Increased climb gradient 4.2% until TGM NDB due to obstacles.
LARMU 1D	On runway track inbound to TGM NDB; RT, on bearing 321° from TGM NDB to IRLUP; LT, on R095 CLJ to CLJ VOR; RT, on R310 CLJ to LARMU. Cross LARMU at or above FL100.	Increased climb gradient 4.2% until TGM NDB due to obstacles.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
CLJ VOR/DME	N464800438	E0234714118
DER_LRTM_25	N462752892	E0242349427
DOKUD	N462807453	E0245721352
DOTEV	N462327172	E0240123863
ELROM	N464430715	E0230154709
IRLOX	N453808151	E0241102176
IRLUP	N464631258	E0235913737
LARMU	N471501159	E0230808785
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699

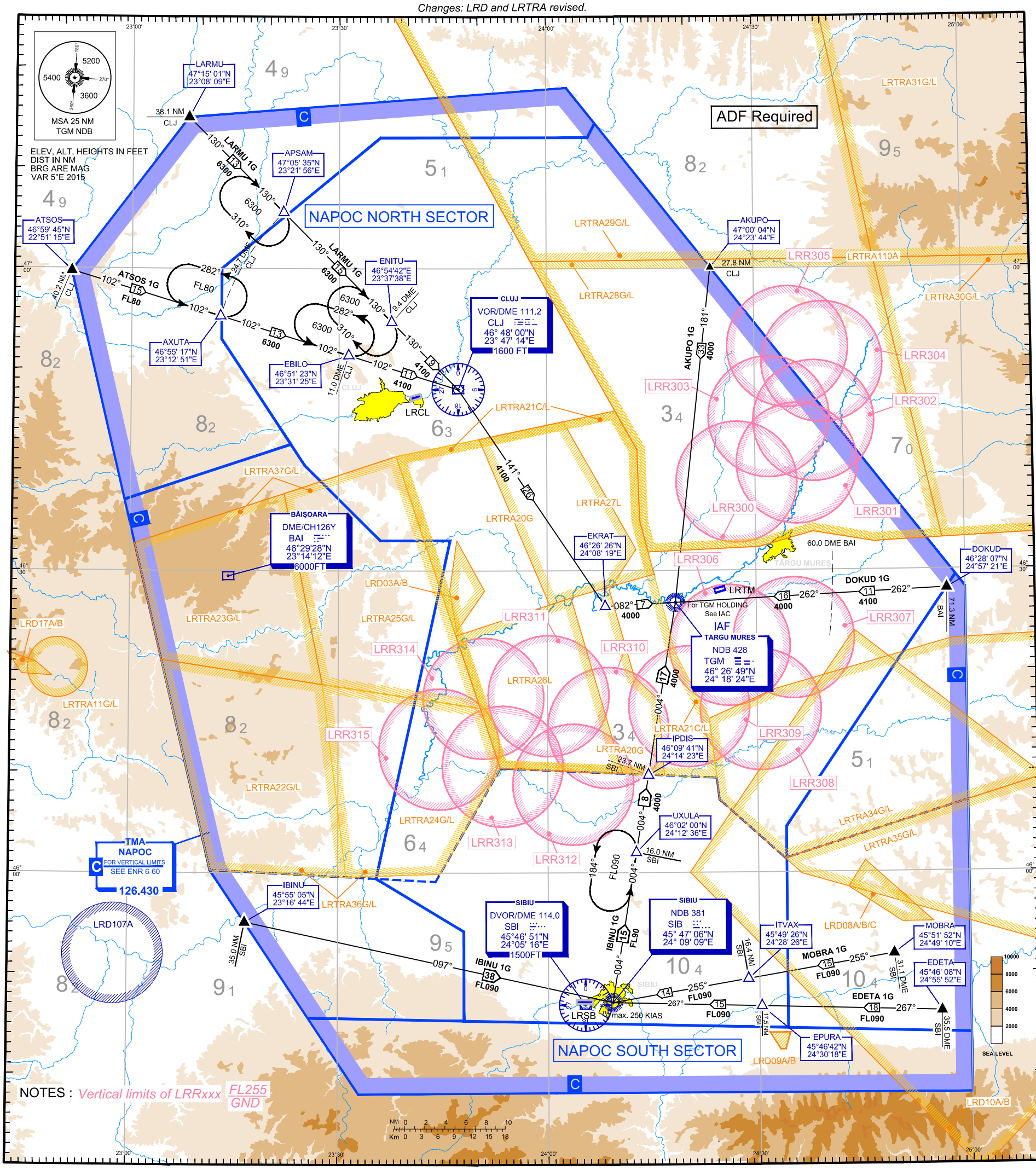
TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

LRTM DEPARTURE SEQUENCE RWY25

Leg	Distance (NM)	True track	Magnetic Track
1	3	4	
DOKUD 1D			
DER_LRTM_25 - TGM-NDB	3.902	254.16	248.95
TGM-NDB - DOKUD	26.967	86.98	81.77
ELROM 1D			
DER_LRTM_25 - TGM-NDB	3.902	254.16	248.95
TGM-NDB - IRLUP	23.732	326.28	321.07
IRLUP - CLJ-VOR	8.375	280.30	275.13
CLJ-VOR - ELROM	31.349	263.87	258.70
IRLOX 1D			
DER_LRTM_25 - TGM-NDB	3.902	254.16	248.95
TGM-NDB - DOTEV	12.231	254.14	248.93
DOTEV - SIB-NDB	36.762	171.51	166.39
SIB-NDB - IRLOX	9.063	171.62	166.50
LARMU 1D			
DER25 - TGM-NDB	3.902	254.16	248.95
TGM-NDB - IRLUP	23.732	326.28	321.07
IRLUP - CLJ-VOR	8.375	280.30	275.13
CLJ-VOR - LARMU	38.019	315.54	310.37

Changes: LRD and LRTRA revised.



Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to TGM NDB. At TGM NDB proceed instrument approach procedure for RWY 07. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to TGM NDB. If last cleared FL is lower than MRVA climb immediately to MRVA. At TGM NDB proceed instrument approach procedure for RWY 07. Descending shall be executed in accordance with MRVA until TGM NDB and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.

d. In case of missed approach. From TGM NDB proceed instrument approach procedure for RWY 07. If necessary to change RWY, proceed instrument approach procedure for RWY 25. Descending shall be executed in accordance with vertical restrictions specified on charts.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE 7000 ft

NAPOC APPROACH 126.430
NAPOC APPROACH ALTN 127.275
NAPOC NORTH APPROACH 126.430
NAPOC NORTH APPROACH ALTN 127.275
NAPOC SOUTH APPROACH 119.680
NAPOC SOUTH APPROACH ALTN 127.275

TARGU MURES TOWER 119.180
TARGU MURES TOWER ALTN 120.325
TARGU MURES ATIS 125.950

TMA SPEED LIMIT MAX IAS 250KT BELOW FL100

TÂRGU MUREŞ/ Transilvania - Târgu Mureş (LRTM)

RWY 07/25

AKUPO 1G ATSOS 1G DOKUD 1G EDETA 1G IBINU 1G LARMU 1G MOBRA 1G

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
AKUPO	N470003762	E0242344287
APSAM	N470534529	E0232155654
ATSOS	N465944989	E0225115090
AXUTA	N465516984	E0231251452
CLJ VOR/DME	N464800438	E0234714118
DOKUD	N462807453	E0245721352
EBILO	N465122844	E0233125292
EDETA	N454608288	E0245552249
EKRAT	N462626408	E0240819283
ENITU	N465442306	E0233738196
EPURA	N454642269	E0243018171
IBINU	N455504940	E0231643516
IPDIS	N460940557	E0241422949
ITVAX	N454925590	E0242825776
LARMU	N471501159	E0230808785
MOBRA	N455151885	E0244909844
SIB-NDB	N454706038	E0240909294
TGM-NDB	N462648890	E0241823699
UXULA	N460200362	E0241235949

LRTM ARRIVAL SEQUENCE RWY07/25

Designator	Identification point	Distance (MN)	Magnetic Track	Minimum Alt / FL
AKUPO 1G	AKUPO			
		33.464	181.13	4000
	TGM NDB			
ATSOS 1G	ATSOS			
		15.460	101.50 (R282 CLJ)	FL080
	AXUTA			
		13.318	101.76 (R282 CLJ)	6300
	EBILO			
		11.371	102.00 (R282 CLJ)	4100
	CLJ VOR-DME			
		26.014	140.74 (R141 CLJ)	4100
	EKRAT			
		6.976	81.65	4000
	TGM NDB (IAF)			
DOKUD 1G	DOKUD			
		11.352	262.24	4100
	DME 60.0 BAI			
		15.615	262.04	4000
	TGM NDB (IAF)			
EDETA 1G	EDETA			
		17.905	266.85	FL090
	EPURA			
		14.806	266.54	FL090
	SIB NDB (max KIAS 250			
		15.102	4.02	FL090
	UXULA			
		7.772	4.06 from SIB NDB	4000
	IPDIS			
		17.369	3.98 to TGM NDB	4000
	TGM NDB (IAF)			
IBINU 1G	IBINU			
		37.506	96.86	FL090
	SIB NDB (max 250 KIAS)			
		15.102	4.02	FL090
	UXULA			
		7.772	4.06 from SIB NDB	4000
	IPDIS			
		17.369	3.98 to TGM NDB	4000
	TGM NDB (IAF)			
LARMU 1G	LARMU			
		13.329	129.89 (R310 CLJ)	6300
	APSAM			
		15.293	130.06 (R310 CLJ)	6300
	ENITU			
		9.396	130.26 (R310 CLJ)	4100
	CLJ VOR-DME			
		26.014	140.74 (R141 CLJ	4100
	EKRAT			
		6.976	81.65	4000
	TGM NDB (IAF)			
MOBRA 1G	MOBRA			
		14.699	255.45	FL090
	ITVAX			
		13.683	255.21	FL090
	SIB NDB (max 250 KIAS)			
		15.102	4.02	FL090
	UXULA			
		7.772	4.06 from SIB NDB	4000
	IPDIS			
		17.369	3.98 to TGM NDB	4000
	TGM NDB (IAF)			

TÂRGU MUREŞ / Transilvania – Târgu Mureș (LRTM)
STANDARD ARRIVAL
INSTRUMENT (STAR)
RWY 07/25

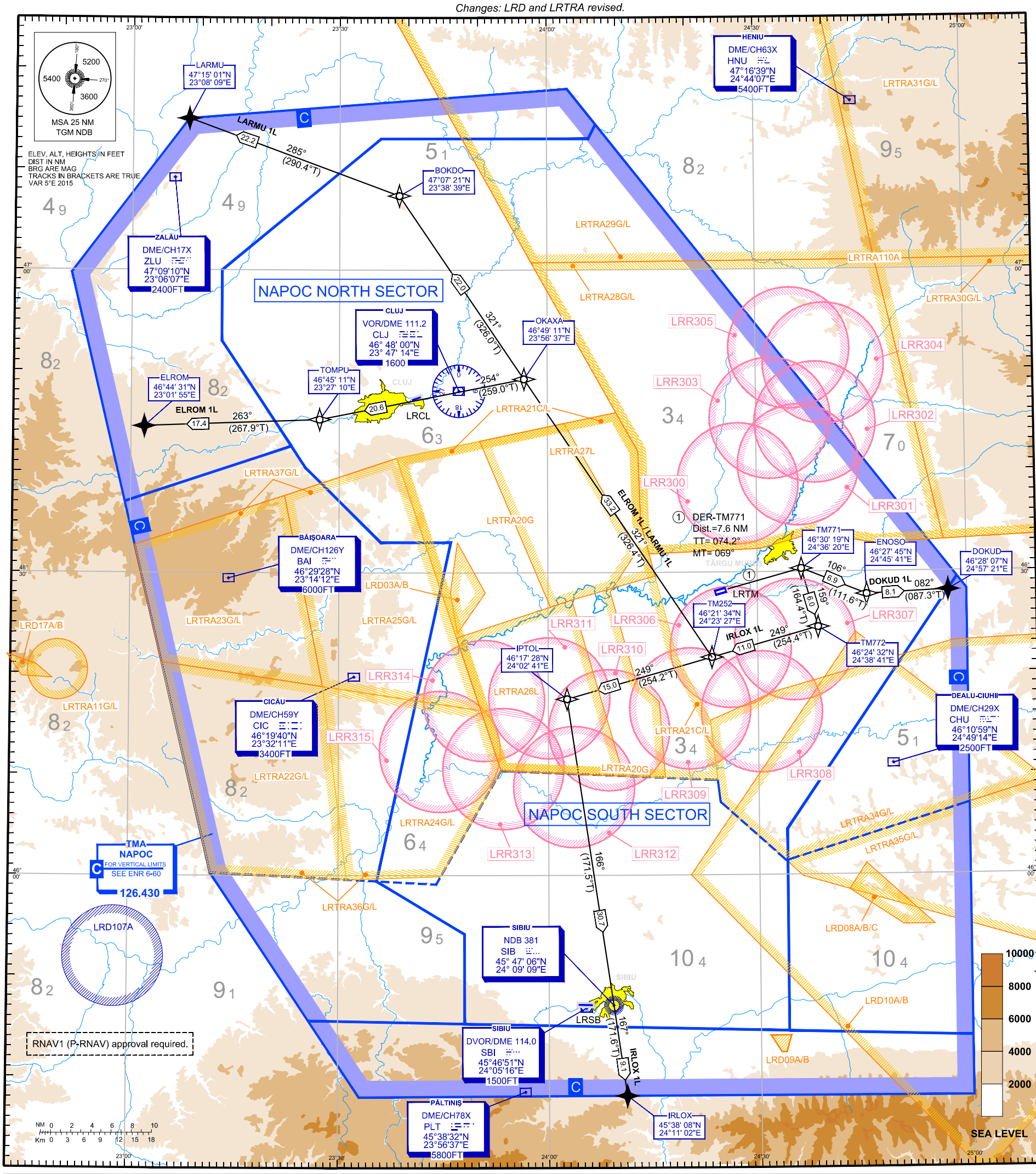
AERONAUTICAL DATA TABULATION

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO



TRANSITION ALTITUDE
7000 ft

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

NOTES : *Vertical limits of LRRxxx* *FL255* / *GND*

Radio Communication Failure:

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110.
Climbing shall be executed in accordance with vertical restrictions specified on chart.
7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL.
If cleared FL is lower than MRVA, climb immediately to MRVA.
If cleared FL is lower than FL110, after 2 min. climb to FL110.
Climbing shall be executed in accordance with MRVA chart.
7 minutes from setting 7600 climb to FPL flight level.

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1L	TM771[A2600+] - ENOSO - DOKUD[F100+]	Increased PDG 6.7% until DOKUD due to airspace structure. Increased PDG 3.5% until TM771 due to obstacles
ELROM 1L	TM771[A2800+; K250-] - TM772[K260-] - TM252[F090+] - OKAXA - TOMPU - ELROM[F110+]	Increased PDG 6.7% until TM252 due to airspace structure. Increased PDG 4.3% until TM771 due to obstacles
IRLOX 1L	TM771[A2800+; K250-] - TM772[K260-] - TM252[F090+] - IPTOL - SIB-NDB - IRLOX[F110+]	Increased PDG 6.5% until TM252 due to airspace structure. Increased PDG 4.3% until TM771 due to obstacles
LARMU 1L	TM771[A2800+; K250-] - TM772[K260-] - TM252[F090+] - OKAXA - BOKDO - LARMU[F100+]	Increased PDG 6.7% until TM252 due to airspace structure. Increased PDG 4.3% until TM771 due to obstacles.

TÂRGU MUREȘ/ Transilvania - Târgu Mureș (LRTM)
RWY 07
DOKUD 1L ELROM 1L IRLOX 1L LARMU 1L

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
BOKDO	N470721134	E0233838659	On request Fly-by
DER_LRTM_07	N462814955	E0242542320	-
DOKUD	N462807453	E0245721352	Compulsory Fly-by
ELROM	N464430715	E0230154709	On request Fly-by
ENOSO	N462745309	E0244540904	On request Fly-by
IPTOL	N461728203	E0240241262	On request Fly-by
IRLOX	N453808151	E0241102176	Compulsory Fly-by
LARMU	N471501159	E0230808785	Compulsory Fly-by
OKAXA	N464910902	E0235637110	On request Fly-by
SIB-NDB	N454706038	E0240909294	On request Fly-by
TM252	N462134447	E0242326587	On request Fly-by
TM771	N463018949	E0243620200	On request Fly-by
TM772	N462432409	E0243840568	On request Fly-by
TOMPU	N464511478	E0232709568	On request Fly-by

LRTM RNAV DEPARTURE SEQUENCE RWY 07

Leg	Leg type	Distance (NM)	True track	Magnetic Track
1	2	3	4	5
DOKUD 1L				
DER_LRTM_07 - TM771	-	7.631	74.22	69.01
TM771 - ENOSO	TF	6.947	111.58	106.37
ENOSO - DOKUD	TF	8.078	87.31	82.10
ELROM 1L				
DER_LRTM_07 - TM771	-	7.631	74.22	69.01
TM771 - TM772	TF	6.000	164.35	159.14
TM772 - TM252	TF	10.955	254.38	249.17
TM252 - OKAXA	TF	33.242	326.35	321.14
OKAXA - TOMPU	TF	20.633	259.02	253.85
TOMPU - ELROM	TF	17.375	267.91	262.74
IRLOX 1L				
DER_LRTM_07 - TM771	-	7.631	74.22	69.01
TM771 - TM772	TF	6.000	164.35	159.14
TM772 - TM252	TF	10.955	254.38	249.17
TM252 - IPTOL	TF	14.958	254.20	248.99
IPTOL - SIB-NDB	TF	30.711	171.53	166.41
SIB-NDB - IRLOX	TF	9.063	171.62	166.50
LARMU 1L				
DER_LRTM_07 - TM771	-	7.631	74.22	69.01
TM771 - TM772	TF	6.000	164.35	159.14
TM772 - TM252	TF	10.955	254.38	249.17
TM252 - OKAXA	TF	33.242	326.35	321.14
OKAXA - BOKDO	TF	21.954	326.01	320.84
BOKDO - LARMU	TF	22.171	290.43	285.26

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO

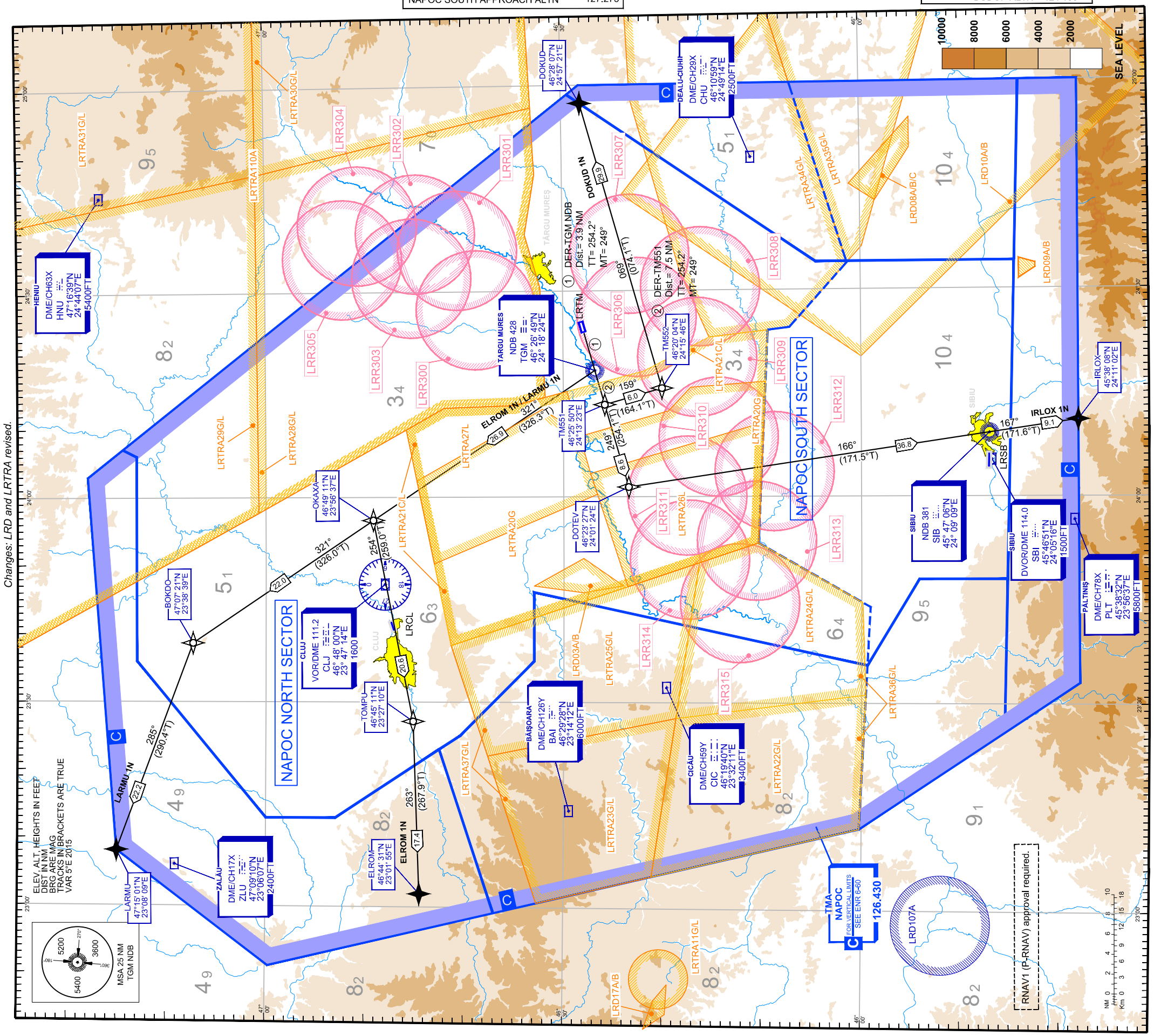
TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

TÂRGU MUREŞ/ Transilvania - Târgu Mureş (LRTM)
RWY 25
DOKUD 1N ELROM 1N IRLOX 1N LARMU 1N



Changes: LRD and LRTRA revised.

NOTES : *Vertical limits of LRRxxx* *FL255 / GND*

Radio Communication Failure:

Set transponder to 7600, then:
a. Continue on assigned SID and cleared FL. If cleared FL is lower than FL110, after 2 min. climb FL110.
Climbing shall be executed in accordance with vertical restrictions specified on chart.
7 minutes from setting 7600 climb to FPL flight level.

b. If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point and cleared FL.
If cleared FL is lower than MRVA, climb immediately to MRVA.
If cleared FL is lower than FL110, after 2 min. climb to FL110.
Climbing shall be executed in accordance with MRVA chart.
7 minutes from setting 7600 climb to FPL flight level.

DESIGNATOR	ROUTING	REMARKS (if unable to comply, contact ATC before departure)
DOKUD 1N	TM551[A3000+; K250-] - TM552 [K260-] - DOKUD[F100+]	Increased PDG 5.0% until TM551 due to obstacles. Increased PDG 3.8% until DOKUD due to airspace structure.
ELROM 1N	TGM-NDB[A2200+] - OKAXA - TOMPU - ELROM[F110+]	Increased PDG 4.9% until TGM-NDB due to obstacles.
IRLOX 1N	TM551[A3000+] - DOTEV - SIB-NDB - IRLOX[F110+]	Increased PDG 4.2% until TM551 due to obstacles.
LARMU 1N	TGM-NDB[A2200+] - OKAXA - BOKDO - LARMU[F100+]	Increased PDG 4.9% until TGM-NDB due to obstacles.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
BOKDO	N470721134	E0233838659	On request Fly-by
DER_LRTM_25	N462752892	E0242349427	-
DOKUD	N462807453	E0245721352	Compulsory Fly-by
DOTEV	N462327172	E0240123863	On request Fly-by
ELROM	N464430715	E0230154709	On request Fly-by
IRLOX	N453808151	E0241102176	Compulsory Fly-by
LARMU	N471501159	E0230808785	Compulsory Fly-by
OKAXA	N464910902	E0235637110	On request Fly-by
SIB NDB	N454706038	E0240909294	On request Fly-by
TGM NDB	N462648890	E0241823699	On request Fly-by
TM551	N462549920	E0241323514	On request Fly-by
TM552	N462003894	E0241546070	On request Fly-by
TOMPU	N464511478	E0232709568	On request Fly-by

LRTM RNAV DEPARTURE SEQUENCE RWY 25

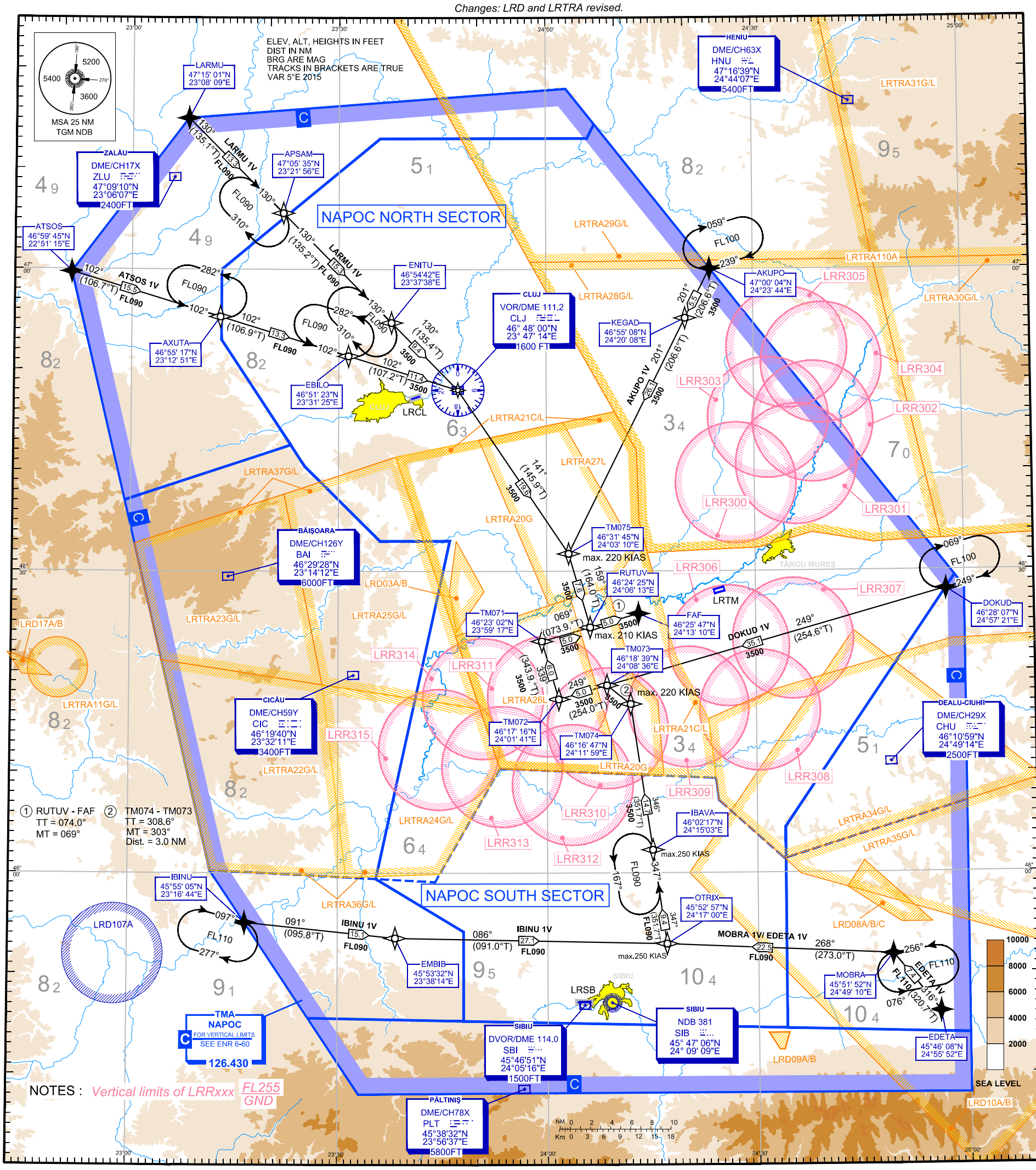
Leg	Leg type	Distance (NM)	True track	Magnetic Track
DOKUD 1N				
DER_LRTM_25 - TM551	-	7.499	254.20	248.99
TM551 - TM552	TF	5.999	164.07	158.86
TM552 - DOKUD	TF	29.889	74.10	68.89
ELROM 1N				
DER_LRTM_25 – TGM NDB	-	3.902	254.16	248.95
TGM NDB - OKAXA	TF	26.942	326.28	321.07
OKAXA - TOMPU	TF	20.633	259.02	253.90
TOMPU - ELROM	TF	17.375	267.91	262.79
IRLOX 1N				
DER_LRTM_25 - TM551	-	7.499	254.20	248.99
TM551 - DOTEV	TF	8.634	254.07	248.86
DOTEV – SIB NDB	TF	36.762	171.51	166.39
SIB NDB - IRLOX	TF	9.063	171.62	166.50
LARMU 1N				
DER_LRTM_25 – TGM NDB	-	3.902	254.16	248.95
TGM NDB - OKAXA	TF	26.942	326.28	321.07
OKAXA - BOKDO	TF	21.954	326.01	320.84
BOKDO - LARMU	TF	22.171	290.43	285.26

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to TGM NDB. At TGM NDB proceed instrument approach procedure for RWY 07. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to TGM NDB. If last cleared FL is lower than MRVA climb immediately to MRVA. At TGM NDB proceed instrument approach procedure for RWY 07. Descending shall be executed in accordance with MRVA until TGM NDB and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
d. In case of missed approach. From TGM NDB proceed instrument approach procedure for RWY 07. If necessary to change RWY, proceed instrument approach procedure for RWY 25. Descending shall be executed in accordance with vertical restrictions specified on charts.

1. RNAV-1 (P-RNAV) approval required.
2. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on chart. Actual descent clearance will be as directed by ATC.
3. Expect direct routing/shortcuts by ATC whenever possible.
4. RUTUV is a tactical fix for non-standard shorter approach, used only after request or approval by air crew.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

TÂRGU MUREŞ/ Transilvania - Târgu Mureş (LRTM)
RWY 07
AKUPO 1V ATSOS 1V DOKUD 1V EDETA 1V
IBINU 1V LARMU 1V MOBRA 1V

LIST OF WAYPOINTS

Waypoint name	Restriction	Latitude	Longitude	Type
AKUPO	F100+	N470003762	E0242344287	Compulsory Fly-by
APSAM	F090+	N470534529	E0232155654	On request Fly-by
ATSOS	F090+	N465944989	E0225115090	Compulsory Fly-by
AXUTA	F090+	N465516984	E0231251452	On request Fly-by
CLJ VOR/DME	-	N464800438	E0234714118	On request Fly-by
DOKUD	F100+	N462807453	E0245721352	Compulsory Fly-by
EBILO	F090+	N465122844	E0233125292	On request Fly-by
EDETA	F110+	N454608288	E0245552249	Compulsory Fly-by
EMBIB	-	N455332142	E0233814371	On request Fly-by
ENITU	F090+	N465442306	E0233738196	On request Fly-by
FAF_LRTM_07	A3500+	N462547237	E0241309944	Compulsory Fly-by
IBAVA	F090+; K250-	N460217166	E0241503011	On request Fly-by
IBINU	F110+	N455504940	E0231643516	Compulsory Fly-by
KEGAD	-	N465507685	E0242007746	On request Fly-by
LARMU	F100+	N471501159	E0230808785	Compulsory Fly-by
MOBRA	F110+	N455151885	E0244909844	Compulsory Fly-by
OTRIX	K250-;	N455256944	E0241700365	On request Fly-by
RUTUV	K210-;	N462424716	E0240613083	On request Fly-by
TM071	-	N462301787	E0235916647	On request Fly-by
TM072	-	N461716084	E0240140537	On request Fly-by
TM073	K220-	N461838854	E0240836318	On request Fly-by
TM074	K220-	N461646791	E0241159362	On request Fly-by
TM075	K220-;	N463144696	E0240310061	On request Fly-by

LRTM RNAV ARRIVAL SEQUENCE RWY 07

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
AKUPO 1V				
AKUPO - KEGAD	5.521	206.62	201.41	3500
KEGAD - TM075	26.142	206.61	201.40	3500
TM075 - RUTUV	7.633	163.95	158.74	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500
ATSOS 1V				
ATSOS - AXUTA	15.460	106.67	101.50	FL090
AXUTA - EBILO	13.318	106.93	101.76	FL090
EBILO - CLJ	11.371	107.17	102.00	3500
CLJ - TM075	19.623	145.90	140.73	3500
TM075 - RUTUV	7.633	163.95	158.74	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500
DOKUD 1V				
DOKUD - TM073	35.051	254.60	249.39	3500
TM073 - TM072	4.999	254.02	248.81	3500
TM072 - TM071	5.998	343.93	338.72	3500
TM071 - RUTUV	4.999	73.90	68.69	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500
EDETA 1V				
EDETA - MOBRA	7.404	320.73	315.61	FL110
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - TM074	14.654	351.67	346.46	3500
TM074 - TM073	2.999	308.55	303.34	3500
TM073 - TM072	4.999	254.02	248.81	3500
TM072 - TM071	5.998	343.93	338.72	3500
TM071 - RUTUV	4.999	73.90	68.69	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500
IBINU 1V				
IBINU - EMBIB	15.103	95.75	90.63	FL090
EMBIB - OTRIX	27.086	91.01	85.89	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - TM074	14.654	351.67	346.46	3500
TM074 - TM073	2.999	308.55	303.34	3500
TM073 - TM072	4.999	254.02	248.81	3500
TM072 - TM071	5.998	343.93	338.72	3500
TM071 - RUTUV	4.999	73.90	68.69	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500
LARMU 1V				
LARMU - APSAM	13.329	135.06	129.89	FL090
APSAM - ENITU	15.293	135.23	130.06	FL090
ENITU - CLJ	9.396	135.43	130.26	3500
CLJ - TM075	19.623	145.90	140.73	3500
TM075 - RUTUV	7.633	163.95	158.74	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500
MOBRA 1V				
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - TM074	14.654	351.67	346.46	3500
TM074 - TM073	2.999	308.55	303.34	3500
TM073 - TM072	4.999	254.02	248.81	3500
TM072 - TM071	5.998	343.93	338.72	3500
TM071 - RUTUV	4.999	73.90	68.69	3500
RUTUV - FAF_LRTM_07	5.000	73.99	68.78	3500

TÂRGU MUREŞ / Transilvania – Târgu Mureș (LRTM)
RNAV (DME/DME)
STANDARD ARRIVAL
INSTRUMENT (STAR)
RWY 07

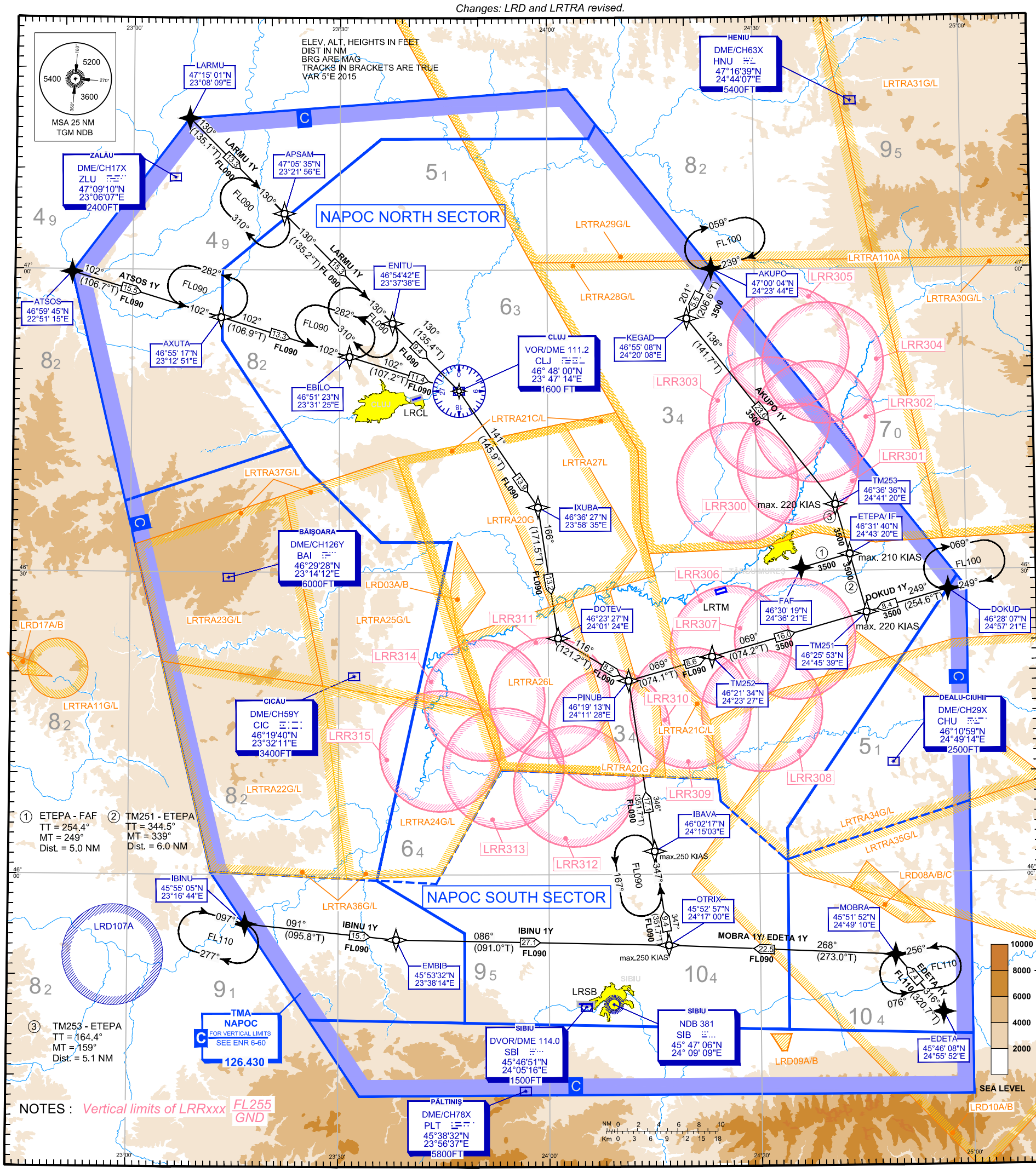
AERONAUTICAL DATA TABULATION

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

Changes: LRD and LRTRA revised.

RNAV (DME/DME) STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO



TRANSITION ALTITUDE
7000 ft

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

Radio Communication Failure:

a. If RWY in use received, set transponder 7600, proceed according assigned or designated STAR, otherwise proceed according FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
b. If direct routing was initiated, set transponder 7600 and continue to assigned point and last cleared FL for 2 min., then continue on STAR or if no STAR received proceed direct to TGM NDB. At TGM NDB proceed instrument approach procedure for RWY 25. Descending shall be executed in accordance with MRVA until assigned point and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
c. If vectoring was initiated set transponder 7600 and continue on assigned heading and last cleared FL for 2 min., then proceed direct to TGM NDB. If last cleared FL is lower than MRVA climb immediately to MRVA. At TGM NDB proceed instrument approach procedure for RWY 25. Descending shall be executed in accordance with MRVA until TGM and thereafter in accordance with vertical restrictions specified on chart. Descending below last cleared FL at least 2 min. from setting 7600.
d. In case of missed approach. From TGM NDB proceed instrument approach procedure for RWY 25. If necessary to change RWY, proceed instrument approach procedure for RWY 07. Descending shall be executed in accordance with vertical restrictions specified on charts

1. RNAV-1 (P-RNAV) approval required.
2. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on chart. Actual descent clearance will be as directed by ATC.
3. Expect direct routing/shortcuts by ATC whenever possible.
4. ETEPA is a tactical fix for non-standard shorter approach, used only after request or approval by air crew.

PHRASEOLOGY:

1. "CLEARED (STAR designator)"
   Authorisation to fly the lateral STAR.
   Altitude and speed assignments will be issued by ATC.

2. "CLEARED (STAR designator) AND PROFILE"
   Authorisation to fly the lateral STAR as published, including the vertical and speed constraints depicted on the procedure.

TÂRGU MUREŞ/ Transilvania - Târgu Mureş (LRTM)
RWY25
AKUPO 1Y ATSOS 1Y DOKUD 1Y EDETA 1Y
IBINU 1Y LARMU 1Y MOBRA 1Y

LIST OF WAYPOINTS

Waypoint name	Restriction	Latitude	Longitude	Type
AKUPO	F100+	N470003762	E0242344287	Compulsory Fly-by
APSAM	F090+	N470534529	E0232155654	On request Fly-by
ATSOS	F090+	N465944989	E0225115090	Compulsory Fly-by
AXUTA	F090+	N465516984	E0231251452	On request Fly-by
CLJ VOR/DME	-	N464800438	E0234714118	On request Fly-by
DOKUD	F100+	N462807453	E0245721352	Compulsory Fly-by
DOTEV	-	N462327172	E0240123863	On request Fly-by
EBILO	F090+	N465122844	E0233125292	On request Fly-by
EDETA	F110+	N454608288	E0245552249	Compulsory Fly-by
EMBIB	-	N455332142	E0233814371	On request Fly-by
ENITU	F090+	N465442306	E0233738196	On request Fly-by
ETEPA	K210-	N463139856	E0244319610	On request Fly-by
FAF_LRTM_25	A3500+	N463019148	E0243621229	Compulsory Fly-by
IBAVA	F090+; K250-	N460217166	E0241503011	On request Fly-by
IBINU	F110+	N455504940	E0231643516	Compulsory Fly-by
IXUBA	-	N463627153	E0235834582	On request Fly-by
KEGAD	-	N465507685	E0242007746	On request Fly-by
LARMU	F100+	N471501159	E0230808785	Compulsory Fly-by
MOBRA	F110+	N455151885	E0244909844	Compulsory Fly-by
OTRIX	K250-	N455256944	E0241700365	On request Fly-by
PINUB	-	N461912951	E0241128317	On request Fly-by
TM251	K220-	N462553162	E0244539307	On request Fly-by
TM252	F090+	N462134447	E0242326587	On request Fly-by
TM253	K220-	N463636203	E0244119770	On request Fly-by

LRTM RNAV ARRIVAL SEQUENCE RWY 25

Leg	Distance (NM)	True track	Magnetic Track	Minimum Alt/FL
AKUPO 1Y				
AKUPO - KEGAD	5.521	206.62	201.41	3500
KEGAD - TM253	23.577	141.69	136.48	3500
TM253 - ETEPA	5.130	164.40	159.19	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500
ATSOS 1Y				
ATSOS - AXUTA	15.460	106.67	101.50	FL090
AXUTA - EBILO	13.318	106.93	101.76	FL090
EBILO - CLJ	11.371	107.17	102.00	FL090
CLJ - IXUBA	13.948	145.90	140.73	FL090
IXUBA - DOTEV	13.150	171.46	166.25	FL090
DOTEV - PINUB	8.164	121.21	116.00	FL090
PINUB - TM252	8.623	74.05	68.84	FL090
TM252 - TM251	15.967	74.19	68.98	3500
TM251 - ETEPA	6.000	344.46	339.25	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500
DOKUD 1Y				
DOKUD - TM251	8.395	254.60	249.39	3500
TM251 - ETEPA	6.000	344.46	339.25	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500
EDETA 1Y				
EDETA - MOBRA	7.404	320.73	315.61	FL110
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - PINUB	17.117	351.67	346.46	FL090
PINUB - TM252	8.623	74.05	68.84	FL090
TM252 - TM251	15.967	74.19	68.98	3500
TM251 - ETEPA	6.000	344.46	339.25	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500
IBINU 1Y				
IBINU - EMBIB	15.103	95.75	90.63	FL090
EMBIB - OTRIX	27.086	91.01	85.89	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - PINUB	17.117	351.67	346.46	FL090
PINUB - TM252	8.623	74.05	68.84	FL090
TM252 - TM251	15.967	74.19	68.98	3500
TM251 - ETEPA	6.000	344.46	339.25	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500
LARMU 1Y				
LARMU - APSAM	13.329	135.06	129.89	FL090
APSAM - ENITU	15.293	135.23	130.06	FL090
ENITU - CLJ	9.396	135.43	130.26	FL090
CLJ - IXUBA	13.948	145.90	140.73	FL090
IXUBA - DOTEV	13.150	171.46	166.25	FL090
DOTEV - PINUB	8.164	121.21	116.00	FL090
PINUB - TM252	8.623	74.05	68.84	FL090
TM252 - TM251	15.967	74.19	68.98	3500
TM251 - ETEPA	6.000	344.46	339.25	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500
MOBRA 1Y				
MOBRA - OTRIX	22.495	272.96	267.84	FL090
OTRIX - IBAVA	9.439	351.70	346.58	FL090
IBAVA - PINUB	17.117	351.67	346.46	FL090
PINUB - TM252	8.623	74.05	68.84	FL090
TM252 - TM251	15.967	74.19	68.98	3500
TM251 - ETEPA	6.000	344.46	339.25	3500
ETEPA - FAF_LRTM_25	5.000	254.43	249.22	3500

TÂRGU MUREŞ / Transilvania – Târgu Mureș (LRTM)
RNAV (DME/DME)
STANDARD ARRIVAL
INSTRUMENT (STAR)
RWY 25

AERONAUTICAL DATA TABULATION

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

ATC SURVEILLANCE

MINIMUM ALTITUDE CHART - ICAO

TRANSITION ALTITUDE 7000 FT

AERODROME ELEV 963 FT

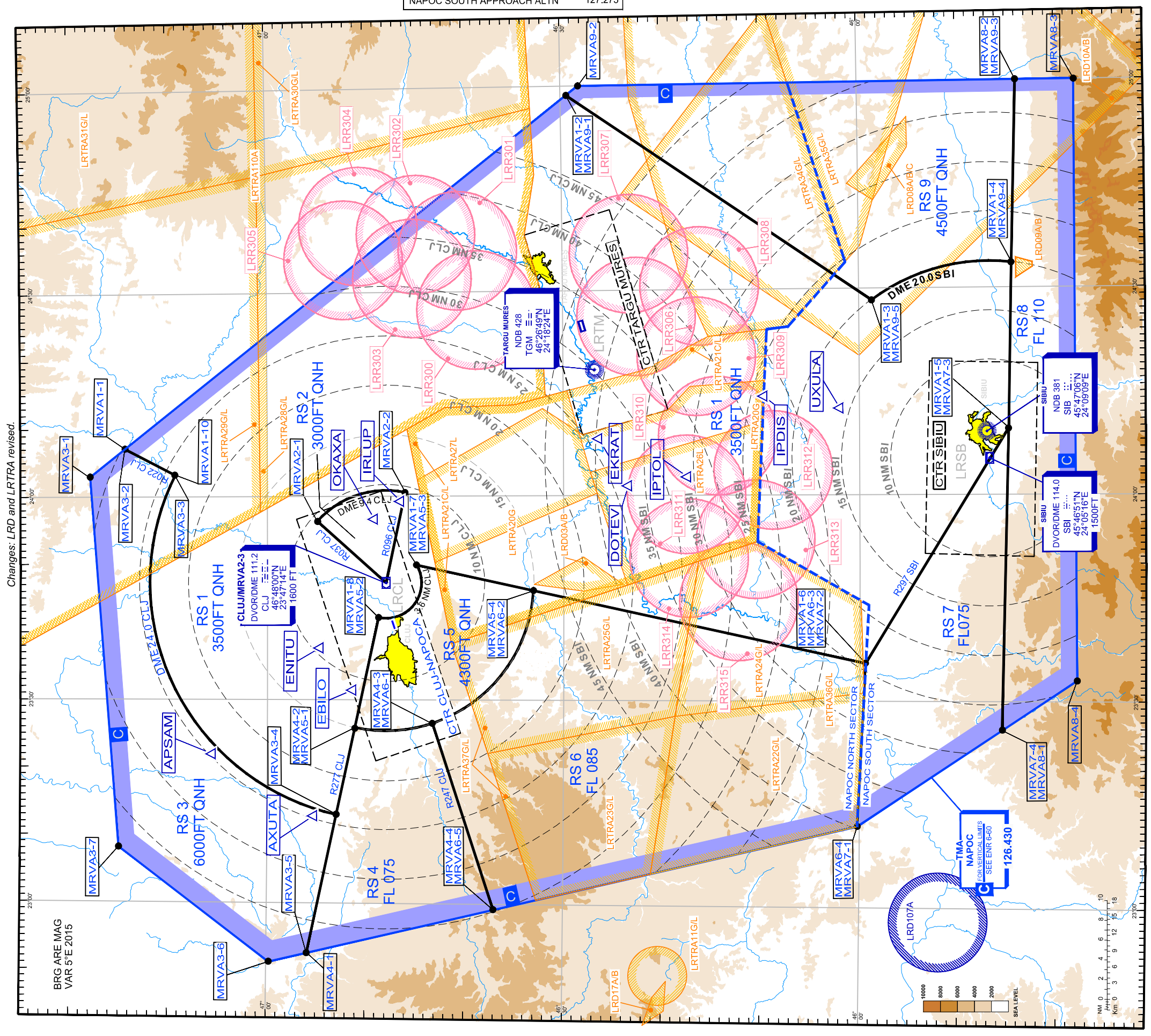
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

SECTOR: NAPOC	127.075
NAPOC ALTN	120.930
NERDI	125.155
NERDI ALTN	123.900

SECTOR: ARGES	121.180
ARGES ALTN	123.900
BUDOP	130.230
BUDOP ALTN	124.100

TÂRGU-MUREŞ / Transilvania-Târgu Mureş (LRTM)



IN CASE OF COMMUNICATION FAILURE

- SET TRANSPONDER CODE 7600
- FOLLOW COMMUNICATION FAILURE PROCEDURE ON RELEVANT SID / STAR

NOTES : *Vertical limits of LRRxxx* $\frac{FL255}{GND}$

TMA SECTOR BORDER

RADAR SECTOR (RS) BORDER

3000FT QNH RADAR MINIMUM ALTITUDE (FT)

NOTE:

1. CHART ONLY TO BE USED FOR CROSS-CHECKING OF ALTITUDES ASSIGNED WHILE UNDER RADAR CONTROL.
2. UNLESS OTHERWISE AUTHORIZED OR REQUIRED BY ATC, ARRIVING AIRCRAFT SHALL BE OPERATED AT AN INDICATED AIRSPEED OF MAXIMUM 250 KT BELOW FL 100.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
APSAM	N470534529	E0232155654
AXUTA	N465516984	E0231251452
DOTEV	N462327172	E0240123863
EBILO	N465122844	E0233125292
EKRAT	N462626408	E0240819283
ENITU	N465442306	E0233738196
IPDIS	N460940557	E0241422949
IPTOL	N461728203	E0240241262
IRLUP	N464631258	E0235913737
OKAXA	N464910902	E0235637110
UXULA	N460200362	E0241235949

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA11G	GND – FL80	LRTRA28L	FL7 – FL200
LRTRA11L	FL80 – FL200	LRTRA29G	GND – FL100
LRTRA20G	GND – 3000 FT AMSL	LRTRA29L	FL100 – FL200
LRTRA21C	3000 FT AMSL – FL75	LRTRA30G	GND – FL90
LRTRA21L	FL75 – FL200	LRTRA30L	FL90 – FL200
LRTRA22G	GND – FL80	LRTRA31G	GND – FL100
LRTRA22L	FL80 – FL200	LRTRA31L	FL100 – FL200
LRTRA23G	GND – FL90	LRTRA34G	GND – FL65
LRTRA23L	FL90 – FL200	LRTRA34L	FL65 – FL200
LRTRA 24G	GND – FL75	LRTRA35G	GND – FL70
LRTRA24L	FL75 – FL200	LRTRA35L	FL70 – FL200
LRTRA25G	GND – FL75	LRTRA36G	GND – FL80
LRTRA25L	FL75 – FL200	LRTRA36L	FL80 – FL200
LRTRA26L	FL75 – FL200	LRTRA37G	GND – FL90
LRTRA27L	FL75 – FL200	LRTRA37L	FL90 – FL200
LRTRA28G	GND – FL70	LRTRA110A	FL100 – FL280

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD03A	GND – FL100	LRD09B	GND– FL285
LRD03B	GND – FL285	LRD10A	GND – FL100
LRD08A	GND – FL100	LRD10B	GND – FL285
LRD08B	GND – FL285	LRD17A	GND – FL100
LRD08C	GND – FL660	LRD17B	GND– FL285
LRD09A	GND – FL100	LRD107A	GND – FL100

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RADAR SECTOR (RS)

SECTOR	Latitude	Longitude
RS 1 3500 ft ALT EXCEPTING RS 2		
MRVA1-1	N471424719	E0240705819
MRVA1-2	N462924710	E0245838627
MRVA1-3	N455843927	E0242817542
Arc DME 20.0 SBI		
MRVA1-4	N454431397	E0243338216
MRVA1-5	N454458344	E0240940843
MRVA1-6	N455925727	E0233528752
MRVA1-7	N464453330	E0234950724
Arc DME 3.6 CLJ		
MRVA1-8	N464846169	E0234206919
MRVA1-9	N465300898	E0231303644
Arc DME 24.0 CLJ		
MRVA1-10	N470920268	E0240315137
RS 2 3000 ft ALT		
MRVA2-1	N465459510	E0235623478
MRVA2-2	N464603345	E0240036695
MRVA2-3/DVORDME	N464800438	E0234714118
RS 3 6000 ft ALT		
MRVA3-1	N471755565	E0240259354
MRVA3-2	N471424719	E0240705819
MRVA3-3	N470920268	E0240315137
Arc DME 24.0 CLJ		
MRVA3-4	N465300898	E0231303644
MRVA3-5	N465555449	E0225235754
MRVA3-6	N465944989	E0225115090
MRVA3-7	N471501159	E0230808785

SECTOR	Latitude	Longitude
RS 4 FL075		
MRVA4-1	N465555449	E0225235754
MRVA4-2	N465109444	E0232553251
Arc DME 15.0 CLJ		
MRVA4-3	N464319341	E0232631142
MRVA4-4	N463701507	E0225911071
RS 5 4300 ft ALT		
MRVA5-1	N465109444	E0232553251
MRVA5-2	N464846169	E0234206919
Arc DME 3.6 CLJ		
MRVA5-3	N464453330	E0234950724
MRVA5-4	N463302410	E0234603893
Arc DME 15.0 CLJ		
RS 6 FL 085		
MRVA6-1	N464319341	E0232631142
Arc DME 15.0 CLJ		
MRVA6-2	N463302410	E0234603893
MRVA6-3	N455925727	E0233528752
MRVA6-4	N460015153	E0231145549
MRVA6-5	N463701507	E0225911071

SECTOR	Latitude	Longitude
RS 7 FL 075		
MRVA7-1	N460015153	E0231145549
MRVA7-2	N455925727	E0233528752
MRVA7-3	N454458344	E0240940843
MRVA7-4	N454534632	E0232548457
RS 8 FL 110		
MRVA8-1	N454534632	E0232548457
MRVA8-2	N454355915	E0250000000
MRVA8-3	N453800000	E0250000000
MRVA8-4	N453800000	E0233300000
RS 9 4500 ft ALT		
MRVA9-1	N462924710	E0245838627
MRVA9-2	N462812302	E0250000000
MRVA9-3	N454355915	E0250000000
MRVA9-4	N454431397	E0243338216
Arc DME 20.0 SBI		
MRVA9-5	N455843927	E0242817542

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **963 ft**
HEIGHTS RELATED TO AD ELEV

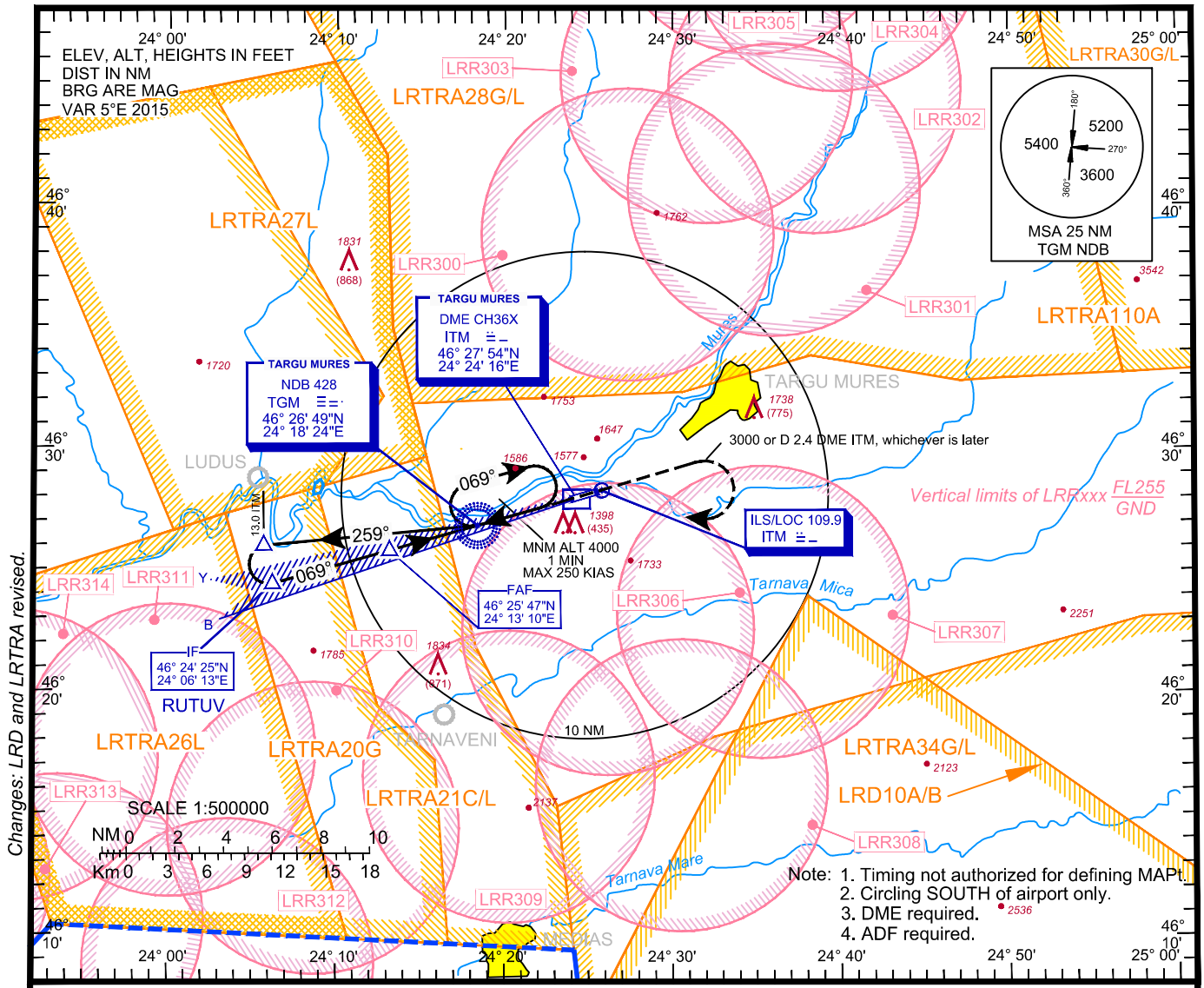
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

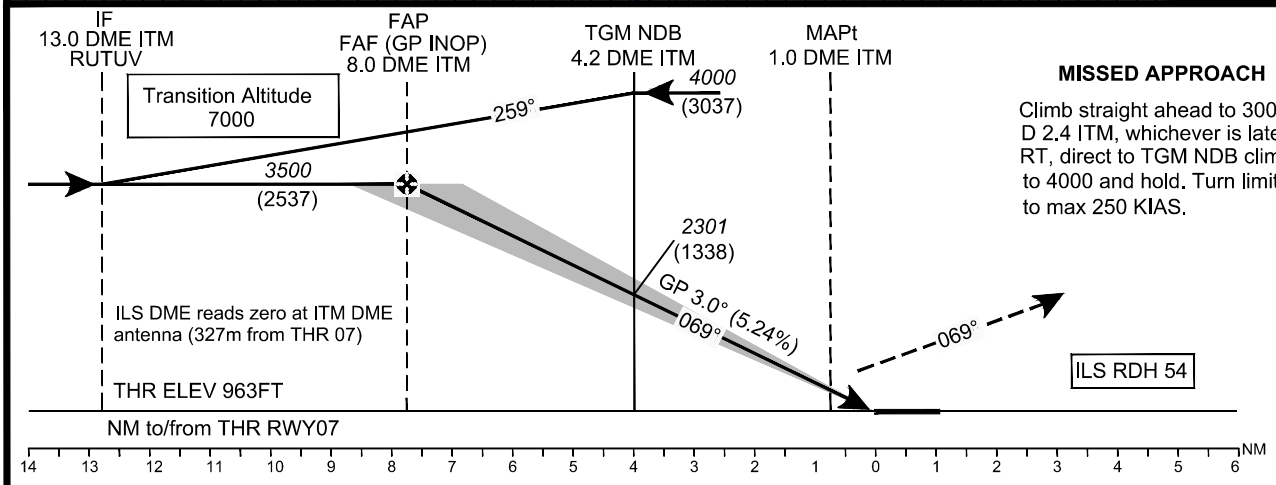
TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TÂRGU MUREŞ/ Transilvania- Târgu Mureş (LRTM)

ILS RWY 07 CAT A / B

Changes: LRD and LRTRA revised.





MISSED APPROACH

Climb straight ahead to 3000 or D 2.4 ITM, whichever is later; RT, direct to TGM NDB climbing to 4000 and hold. Turn limited to max 250 KIAS.

OCA/(H)		A	B
Straight-in Approach	ILS CAT I	1111 (148)	1124 (161)
	ILS CAT II	1015 (52)	1029 (66)
	GP INOP	1500 (537)	
Circling		1730	1900

GS	kts	70	90	100	120
FAF-MAPT 7.0 NM	min:s	5:58	4:39	4:11	3:29
Rate of descent	ft/min	372	478	531	637

Dist to DME ITM	NM	7	6	5	4.2 TGM	4	3	2
Dist to THR 07	NM	6.8	5.8	4.8	4.0	3.8	2.8	1.8
Altitude (Height)	ft	3190 (2227)	2871 (1908)	2553 (1590)	2301 (1338)	2234 (1271)	1916 (953)	1597 (634)

For data tabulation see verso.

TÂRGU MUREŞ / Transilvania - Târgu Mureș (LRTM)
ILS RWY 07 CAT A / B

AERONAUTICAL DATA TABULATION

ILS Approach CAT A, B to RWY 07	
Fix/Point	**Coordinates**
TGM NDB (IAF)	46°26’48.9”N 024°18’23.7”E
13.0 D ITM – BRG 259.47° TGM outbound	46°25’59.1”N 024°05’41.1”E
RUTUV / 13.0 D ITM (IF) – BRG 68.78° TGM	46°24’24.7”N 024°06’13.1”E
8.0 D ITM (FAF GP INOP) - BRG 68.89° TGM	46°25’47.2”N 024°13’09.9”E
1.0 D ITM (MAPT)	46°27’41.6”N 024°22’51.5”E
THR RWY 07	46°27’55.01”N 024°24’00.25”E
ITM LOC	46°28’15.1”N 024°25’43.3”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA30G	GND – FL90
LRTRA21C	3000 FT AMSL – FL75	LRTRA30L	FL90 – FL200
LRTRA21L	FL75 – FL200	LRTRA34G	GND – FL65
LRTRA26L	FL75 – FL200	LRTRA34L	FL65 – FL200
LRTRA27L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA28G	GND – FL70		
LRTRA28L	FL70 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD10A	GND – FL100	LRD10B	GND– FL280

INSTRUMENT APPROACH CHART - ICAO

AERODROME
ELEV. **963 ft**
HEIGHTS RELATED TO AD ELEV

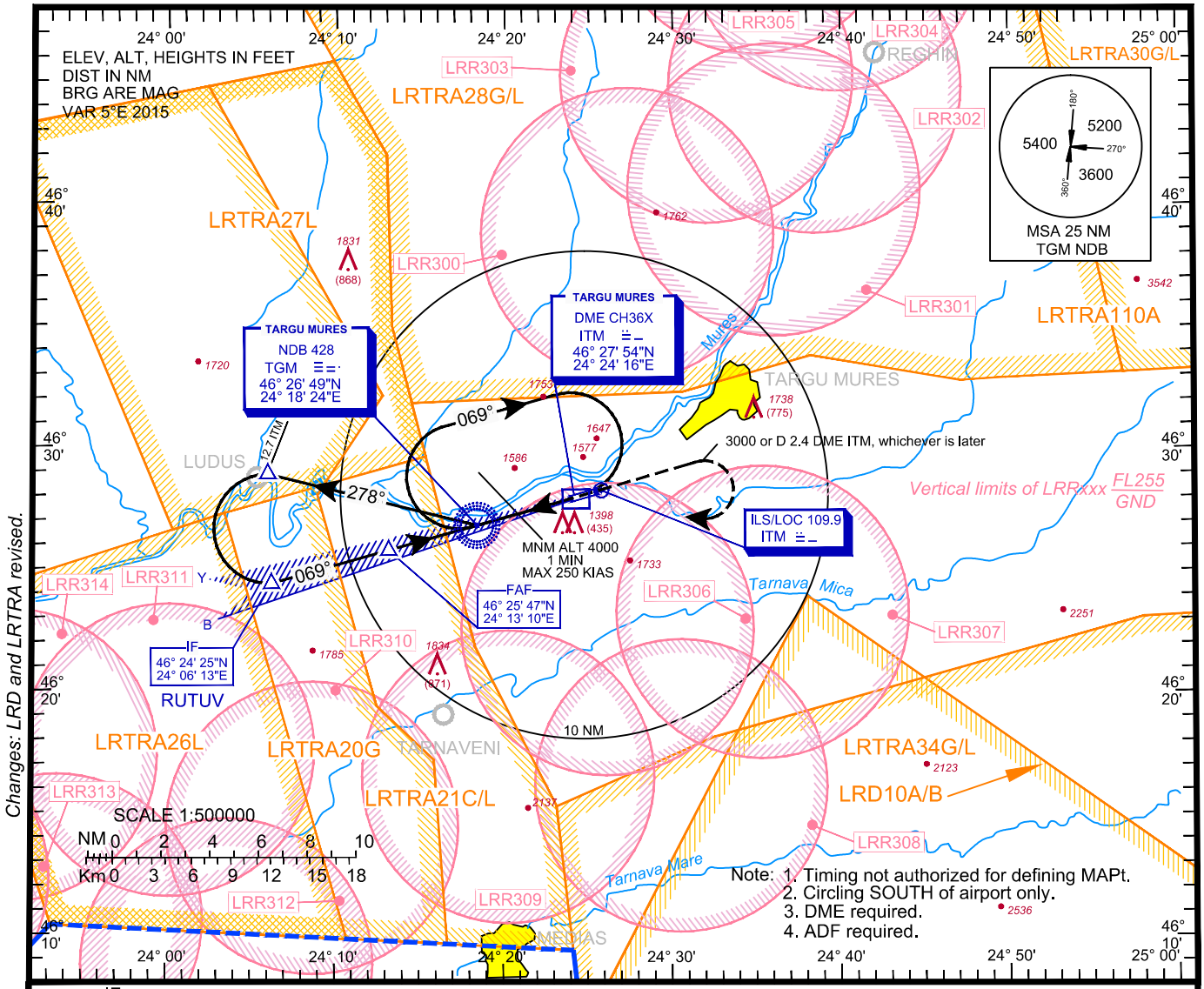
TARGU MURES ATIS	125.950
NAPOC APPROACH	126.430
NAPOC NORTH APPROACH	126.430
NAPOC SOUTH APPROACH	119.680

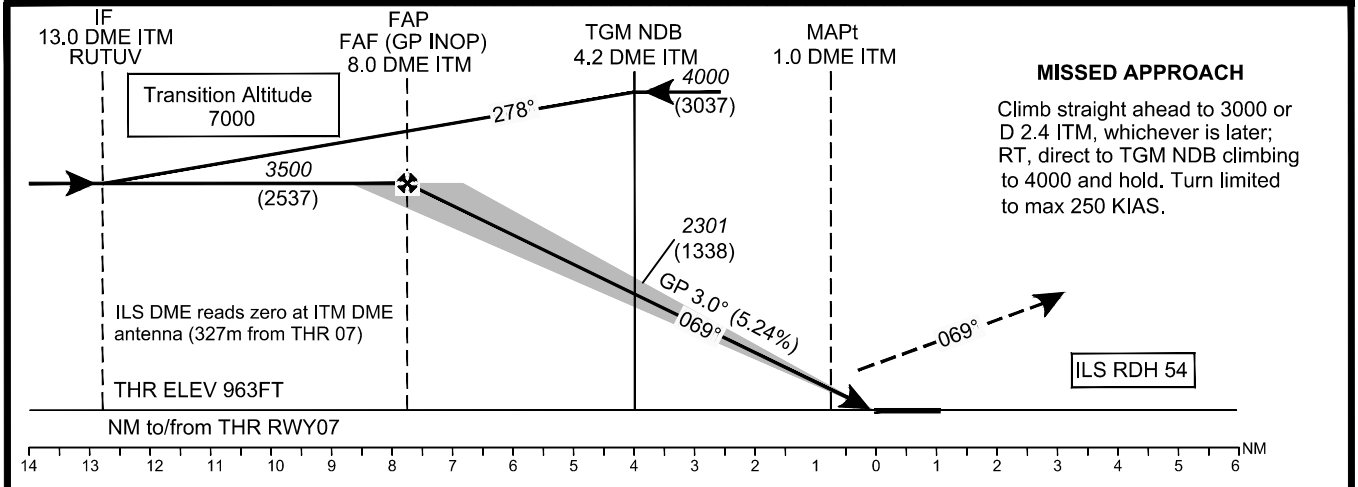
TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325

TÂRGU MUREŞ/ Transilvania- Târgu Mureș (LRTM)

ILS RWY 07 CAT C / D

Changes: LRD and LRTRA revised.





MISSED APPROACH

Climb straight ahead to 3000 or D 2.4 ITM, whichever is later; RT, direct to TGM NDB climbing to 4000 and hold. Turn limited to max 250 KIAS.

OCA/(H)		C	D
Straight-in Approach	ILS CAT I	1137 (174)	1150 (187)
	ILS CAT II	1042 (79)	1061 (98)
	GP INOP	1500 (537)	
Circling		2200	2300

GS	kts	100	120	140	160
FAF-MAPT 7.0 NM	min:s	4:11	3:29	2:59	2:37
Rate of descent	ft/min	531	637	743	849

Dist to DME ITM	NM	7	6	5	4.2 TGM	4	3	2
Dist to THR 07	NM	6.8	5.8	4.8	4.0	3.8	2.8	1.8
Altitude (Height)	ft	3190 (2227)	2871 (1908)	2553 (1590)	2301 (1338)	2234 (1271)	1916 (953)	1597 (634)

For data tabulation see verso.

TÂRGU MUREŞ / Transilvania - Târgu Mureș (LRTM)
ILS RWY 07 CAT C / D

AERONAUTICAL DATA TABULATION

ILS Approach CAT C, D to RWY 07	
Fix/Point	**Coordinates**
TGM NDB (IAF)	46°26’48.9”N 024°18’23.7”E
12.7 D ITM – BRG 278.49° TGM outbound	46°28’53.9”N 024°05’57.7”E
RUTUV / 13.0 D ITM (IF) **–** BRG 68.78°TGM	46°24’24.7”N 024°06’13.1”E
8.0 D ITM (FAF GP INOP) **–** BRG 68.89°TGM	46°25’47.2”N 024°13’09.9”E
1.0 D ITM (MAPT)	46°27’41.6”N 024°22’51.5”E
THR RWY 07	46°27’55.01”N 024°24’00.25”E
ITM LOC	46°28’15.1”N 024°25’43.3”E

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA30G	GND – FL90
LRTRA21C	3000 FT AMSL – FL75	LRTRA30L	FL90 – FL200
LRTRA21L	FL75 – FL200	LRTRA34G	GND – FL65
LRTRA26L	FL75 – FL200	LRTRA34L	FL65 – FL200
LRTRA27L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA28G	GND – FL70		
LRTRA28L	FL70 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD10A	GND – FL100	LRD10B	GND– FL280

INSTRUMENT APPROACH CHART - ICAO

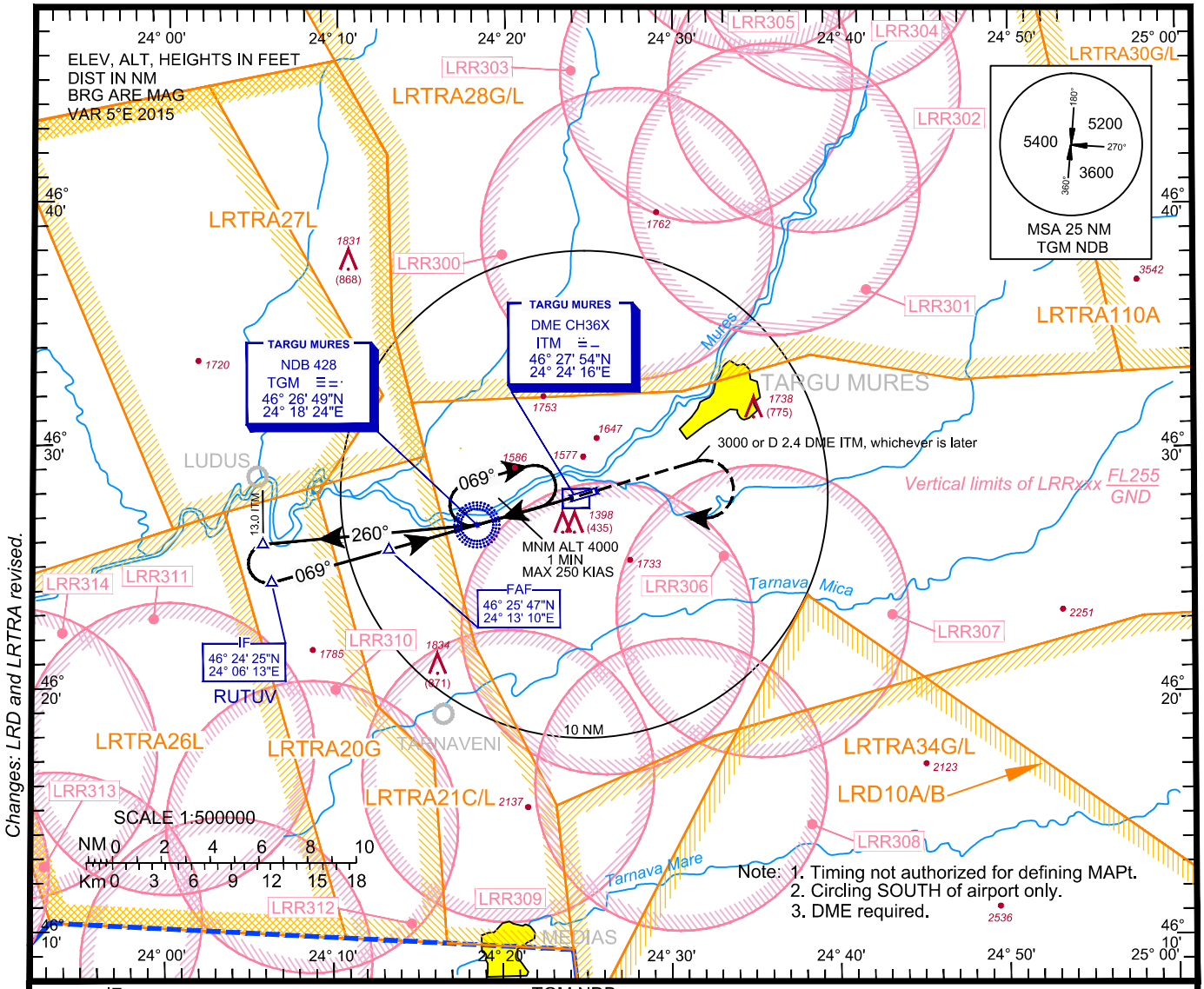
AERODROME ELEV. **963 ft**
HEIGHTS RELATED TO AD ELEV

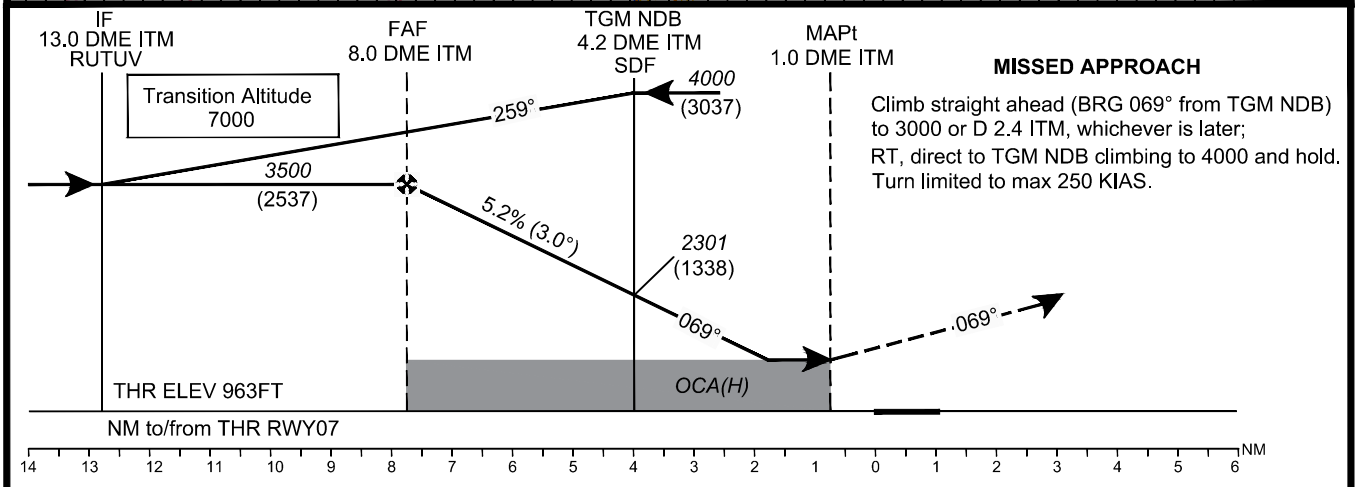
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TÂRGU MUREŞ/ Transilvania- Târgu Mureş (LRTM)
NDB RWY 07 CAT A / B

Changes: LRD and LRTRA revised.





MISSED APPROACH

Climb straight ahead (BRG 069° from TGM NDB) to 3000 or D 2.4 ITM, whichever is later;
RT, direct to TGM NDB climbing to 4000 and hold.
Turn limited to max 250 KIAS.

OCA/H	A	B
Straight-in approach	1720 (757)	
Circling	1880	2040

GS	kts	70	90	100	120
FAF-MAPT 7.0 NM	min:s	5:58	4:39	4:11	3:29
Rate of descent	ft/min	372	478	531	637

Dist to DME ITM	NM	7	6	5	4.2 TGM	4	3	2
Dist to THR 07	NM	6.8	5.8	4.8	4.0	3.8	2.8	1.8
Altitude (Height)	ft	3190 (2227)	2871 (1908)	2553 (1590)	2301 (1338)	2234 (1271)	1916 (953)	1597 (634)

For data tabulation see verso.

TÂRGU MUREŞ / Transilvania - Târgu Mureș (LRTM)
NDB RWY 07 CAT A / B

AERONAUTICAL DATA TABULATION

NDB Approach CAT A, B to RWY 07	
Fix/Point	**Coordinates**
TGM NDB (IAF, SDF)	46°26’48.9”N 024°18’23.7”E
13.0 D ITM – BRG 259.47° TGM outbound	46°25’59.1”N 024°05’41.1”E
RUTUV / 13.0 D ITM (IF) – BRG 068.78°TGM	46°24’24.7”N 024°06’13.1”E
8.0 D ITM (FAF) – BRG 68.89° TGM	46°25’47.2”N 024°13’09.9”E
1.0 D ITM (MAPT)	46°27’41.6”N 024°22’51.5”E
THR RWY 07	46°27’55.01”N 024°24’00.25”E

Final approach descent angle: 3.00^{o}

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA30G	GND – FL90
LRTRA21C	3000 FT AMSL – FL75	LRTRA30L	FL90 – FL200
LRTRA21L	FL75 – FL200	LRTRA34G	GND – FL65
LRTRA26L	FL75 – FL200	LRTRA34L	FL65 – FL200
LRTRA27L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA28G	GND – FL70		
LRTRA28L	FL70 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD10A	GND – FL100	LRD10B	GND– FL280

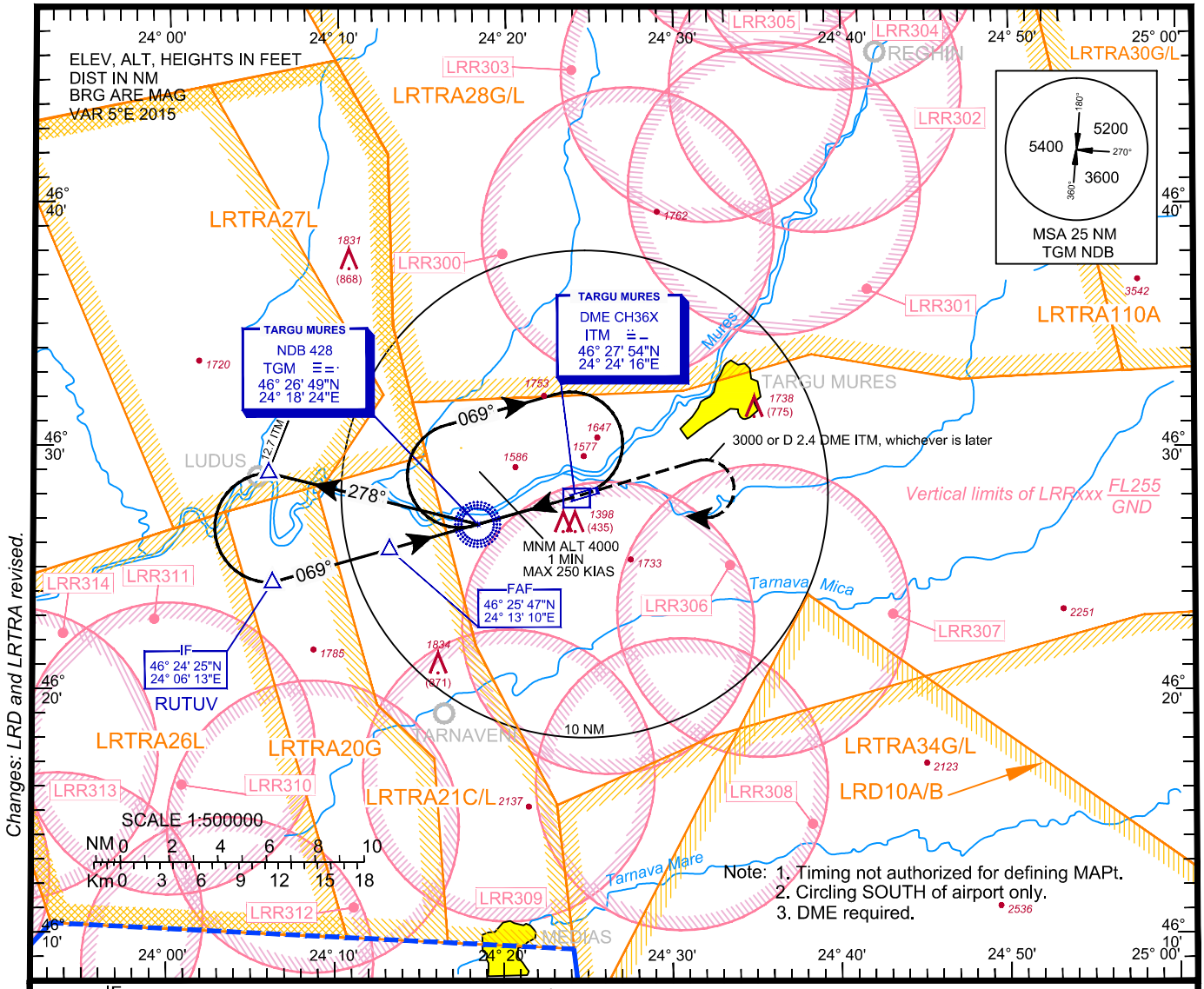
INSTRUMENT APPROACH CHART - ICAO

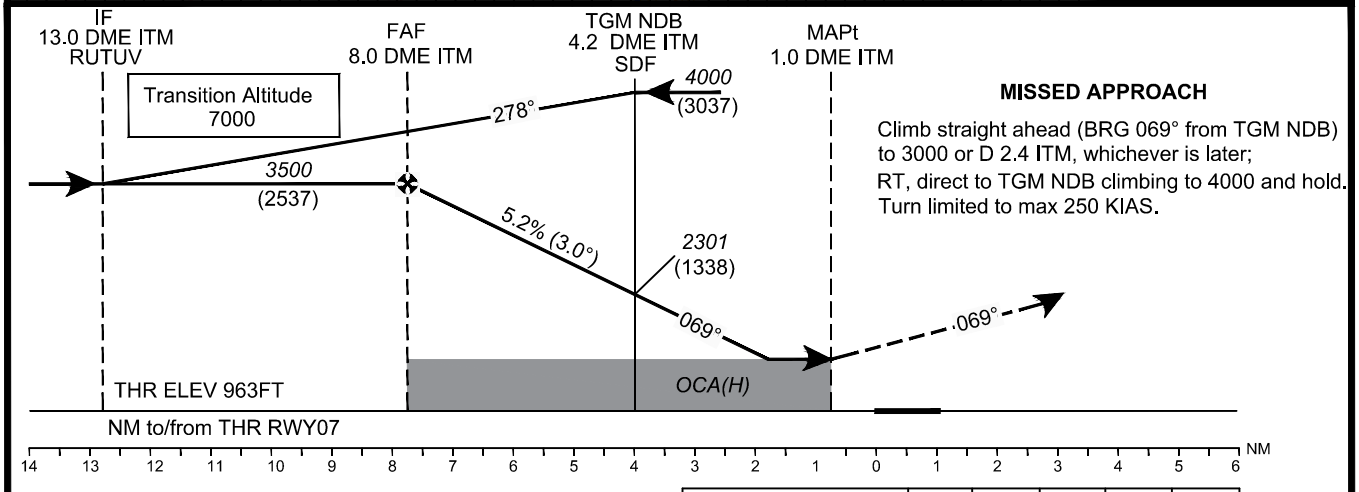
AERODROME ELEV. **963 ft**
HEIGHTS RELATED TO AD ELEV

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TÂRGU MUREŞ/ Transilvania- Târgu Mureş (LRTM)
NDB RWY 07 CAT C / D





MISSED APPROACH

Climb straight ahead (BRG 069° from TGM NDB) to 3000 or D 2.4 ITM, whichever is later;
RT, direct to TGM NDB climbing to 4000 and hold.
Turn limited to max 250 KIAS.

OCA/H	C	D
Straight-in approach	1720 (757)	
Circling	2200	2300

GS	kts	100	120	140	160
FAF-MAPT 7.0 NM	min:s	4:11	3:29	2:59	2:37
Rate of descent	ft/min	531	637	743	849

Dist to DME ITM	NM	7	6	5	4.2 TGM	4	3	2
Dist to THR 07	NM	6.8	5.8	4.8	4.0	3.8	2.8	1.8
Altitude (Height)	ft	3190 (2227)	2871 (1908)	2553 (1590)	2301 (1338)	2234 (1271)	1916 (953)	1597 (634)

For data tabulation see verso.

TÂRGU MUREŞ / Transilvania - Târgu Mureș (LRTM)
NDB RWY 07 CAT C / D

AERONAUTICAL DATA TABULATION

NDB Approach CAT C, D to RWY 07	
Fix/Point	**Coordinates**
TGM NDB (IAF, SDF)	46°26’48.9”N 024°18’23.7”E
12.7 D ITM – BRG 278.49° TGM outbound	46°28’53.9”N 024°05’57.7”E
RUTUV / 13.0 D ITM (IF) - BRG 068.78° TGM	46°24’24.7”N 024°06’13.1”E
8.0 D ITM (FAF) – BRG 068.89° TGM	46°25’47.2”N 024°13’09.9”E
1.0 D ITM (MAPT)	46°27’41.6”N 024°22’51.5”E
THR RWY 07	46°27’55.01”N 024°24’00.25”E

Final approach descent angle: 3.00°

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA30G	GND – FL90
LRTRA21C	3000 FT AMSL – FL75	LRTRA30L	FL90 – FL200
LRTRA21L	FL75 – FL200	LRTRA34G	GND – FL65
LRTRA26L	FL75 – FL200	LRTRA34L	FL65 – FL200
LRTRA27L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA28G	GND – FL70		
LRTRA28L	FL70 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD10A	GND – FL100	LRD10B	GND– FL280

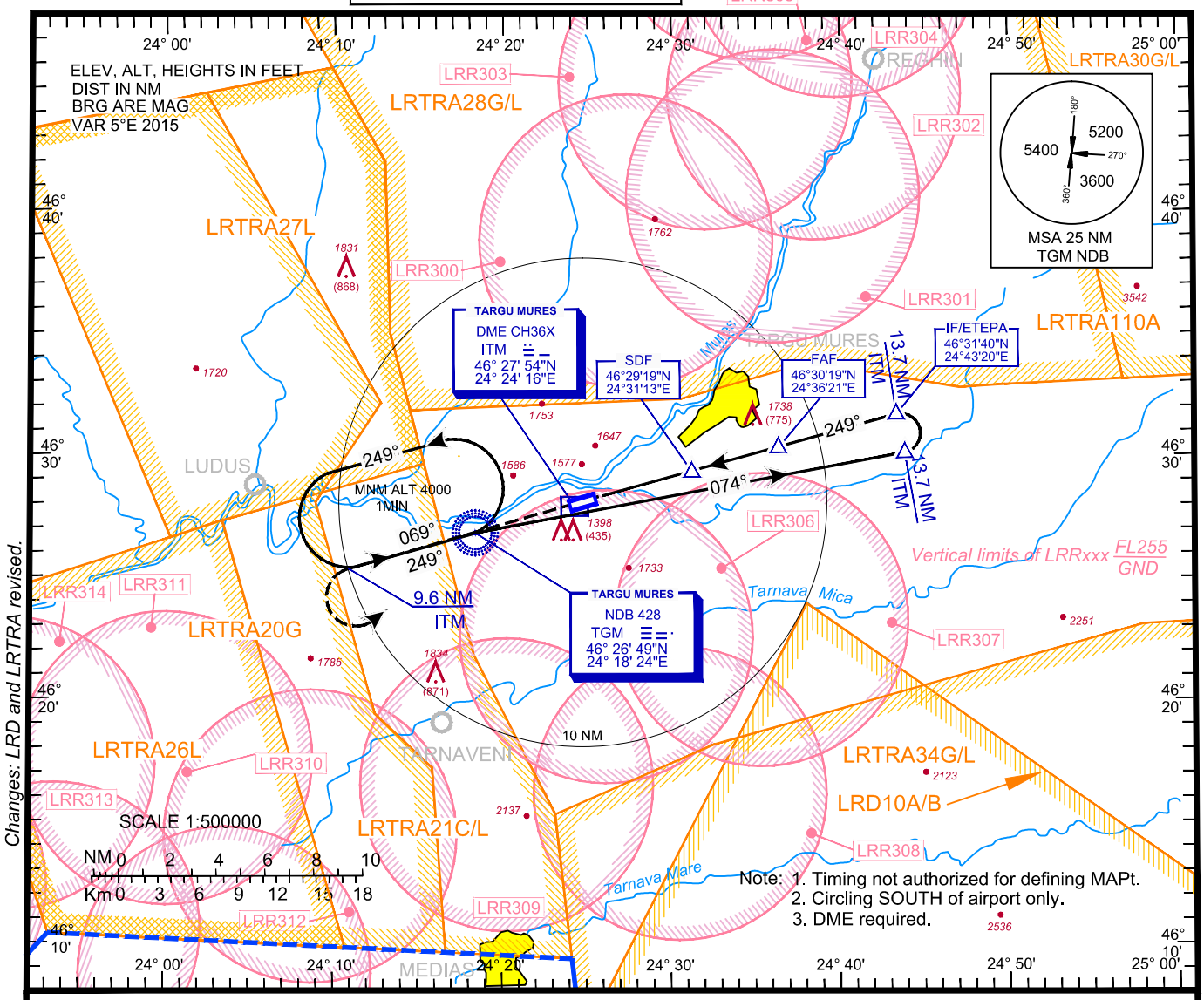
INSTRUMENT APPROACH CHART - ICAO

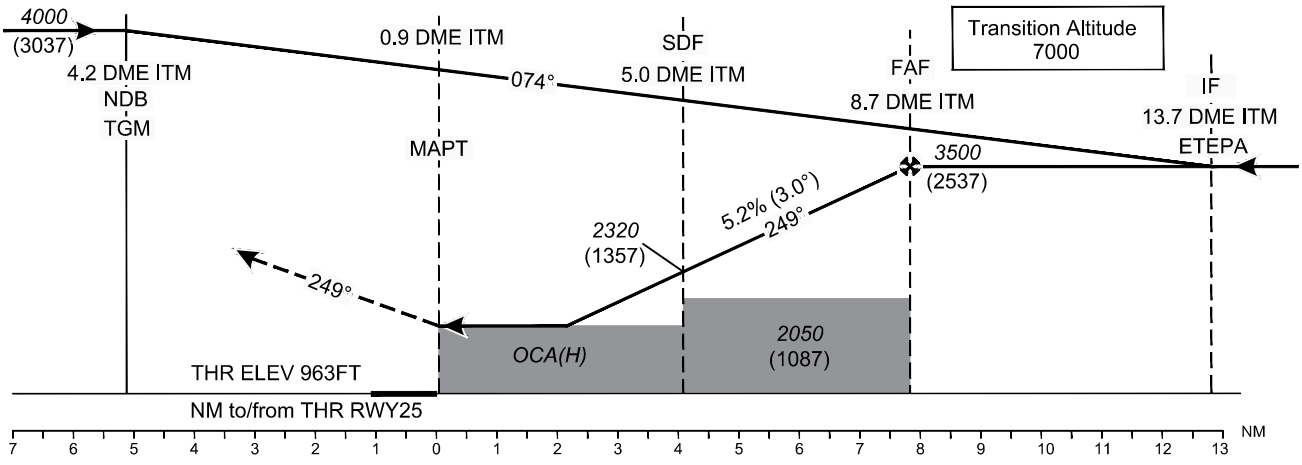
AERODROME ELEV. **963 ft**
HEIGHTS RELATED TO AD ELEV

NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TÂRGU MUREŞ/ Transilvania- Târgu Mureş (LRTM)
NDB RWY 25 CAT A / B





MISSED APPROACH

Climb straight ahead to TGM NDB (BRG 249);
on BRG 249 from TGM NDB to D 9.6 ITM;
LT, direct to TGM NDB climbing to 4000 and hold.
Turn limited to max 250 KIAS.

GS	KTS	70	90	100	120
FAF-MAPT (7.8 NM)	MIN:S	6:41	5:12	4:41	3:54
Rate of descent (5.24%)	FT/MIN	371	478	531	637

OCA/H	A	B
Straight-in approach	1730 (767)	
Circling	1880	2040

Distance to DME ITM	NM	2	3	4	5	6	7	8
Distance to THR 25	NM	1.1	2.1	3.1	4.1	5.1	6.1	7.1
Altitude (Height)	FT	1365 (402)	1684 (721)	2002 *(1039)*	2320 (1357)	2639 (1676)	2957 (1994)	3276 (2313)

For data tabulation see verso

TÂRGU MUREŞ / Transilvania - Târgu Mureș (LRTM)
NDB RWY 25 CAT A / B

AERONAUTICAL DATA TABULATION

NDB Approach CAT A, B to RWY 25	
Fix/Point	**Coordinates**
TGM NDB (IAF)	46°26'48.9"N 024°18'23.7"E
13.7 D ITM – BRG 074.08° TGM outbound	46°30'05.5"N 024°43'50.9"E
ETEPA / 13.7 D ITM (IF) – BRG 249.22°TGM	46°31'39.9"N 024°43'19.6"E
8.7 D ITM (FAF) – BRG 249.13° TGM	46°30'19.1"N 024°36'21.2"E
5.0 D ITM (SDF) – BRG 249.08° TGM	46°29'19.3"N 024°31'12.9"E
0.9 D ITM (MAPT)	46°28'12.5"N 024°25'29.9"E
THR RWY 25	46°28'12.53"N 024°25'29.92"E
9.6D ITM – BRG 248.91° TGM	46°25'20.2"N 024°10'54.2"E

Final approach descent angle: 3.00^{o}

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA30G	GND – FL90
LRTRA21C	3000 FT AMSL – FL75	LRTRA30L	FL90 – FL200
LRTRA21L	FL75 – FL200	LRTRA34G	GND – FL65
LRTRA26L	FL75 – FL200	LRTRA34L	FL65 – FL200
LRTRA27L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA28G	GND – FL70		
LRTRA28L	FL70 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD10A	GND – FL100	LRD10B	GND– FL280

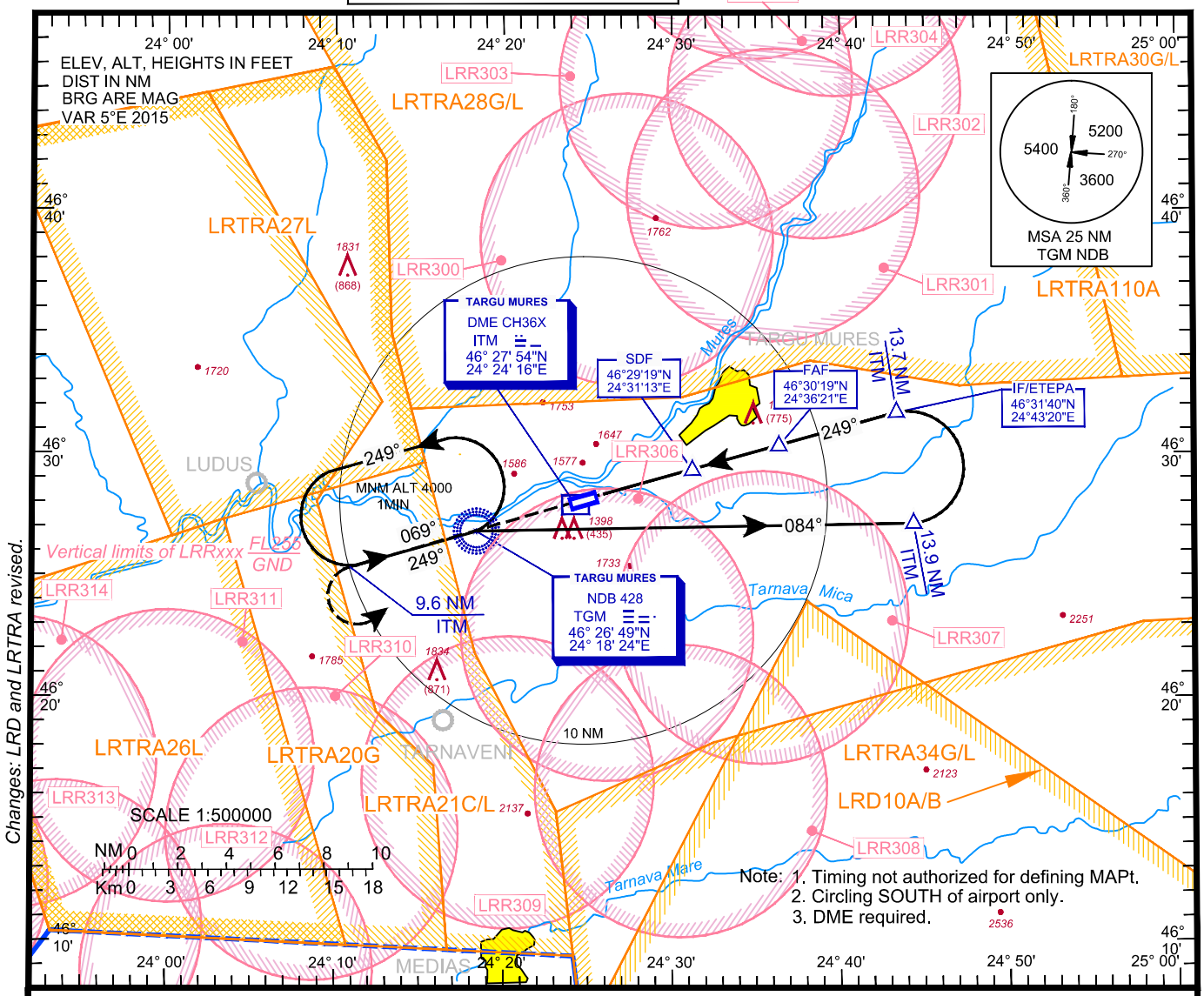
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **963 ft**
HEIGHTS RELATED TO AD ELEV

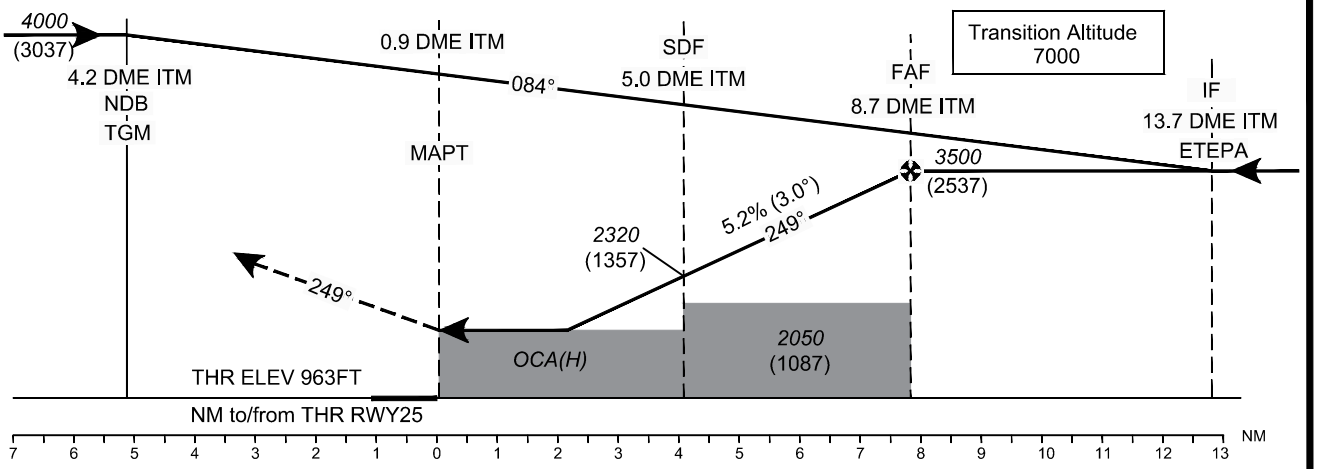
NAPOC APPROACH	126.430
NAPOC APPROACH ALTN	127.275
NAPOC NORTH APPROACH	126.430
NAPOC NORTH APPROACH ALTN	127.275
NAPOC SOUTH APPROACH	119.680
NAPOC SOUTH APPROACH ALTN	127.275

TARGU MURES TOWER	119.180
TARGU MURES TOWER ALTN	120.325
TARGU MURES ATIS	125.950

TÂRGU MUREŞ/ Transilvania- Târgu Mureș (LRTM)
NDB RWY 25 CAT C / D



Changes: LRD and LRTRA revised.



MISSED APPROACH

Climb straight ahead to TGM NDB (BRG 249);
on BRG 249 from TGM NDB to D 9.6 ITM;
LT, direct to TGM NDB climbing to 4000 and hold.
Turn limited to max 250 KIAS.

OCA/H	C	D
Straight-in approach	1730 (767)	
Circling	2200	2300

GS	KTS	100	120	140	160
FAF-MAPT (7.8 NM)	MIN:S	4:41	3:54	3:20	2:55
Rate of descent (5.24%)	FT/MIN	531	637	743	849

Distance to DME ITM	NM	2	3	4	5	6	7	8
Distance to THR 25	NM	1.1	2.1	3.1	4.1	5.1	6.1	7.1
Altitude (Height)	FT	1365 (402)	1684 (721)	2002 *(1039)*	2320 (1357)	2639 (1676)	2957 (1994)	3276 (2313)

For data tabulation see verso

TÂRGU MUREŞ / Transilvania - Târgu Mureș (LRTM)
NDB RWY 25 CAT C / D

AERONAUTICAL DATA TABULATION

NDB Approach CAT C, D to RWY 25	
Fix/Point	**Coordinates**
TGM NDB (IAF)	46°26'48.9"N 024°18'23.7"E
13.9 D ITM – BRG 083.65° TGM outbound	46°27'07.3"N 024°44'21.1"E
ETEPA / 13.7 D ITM (IF) – BRG 249.22°TGM	46°31'39.9"N 024°43'19.6"E
8.7 D ITM (FAF) – BRG 249.13° TGM	46°30'19.1"N 024°36'21.2"E
5.0 D ITM (SDF) – BRG 249.08° TGM	46°29'19.3"N 024°31'12.9"E
0.9 D ITM (MAPT) - BRG 248.98° TGM	46°28'12.5"N 024°25'29.9"E
THR THR 25	46°28'12.53"N 024°25'29.92"E
9.6 D ITM - BRG 248.91° TGM	46°25'20.2"N 024°10'54.2"E

Final approach descent angle: 3.00^{o}

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA20G	GND – 3000 FT AMSL	LRTRA30G	GND – FL90
LRTRA21C	3000 FT AMSL – FL75	LRTRA30L	FL90 – FL200
LRTRA21L	FL75 – FL200	LRTRA34G	GND – FL65
LRTRA26L	FL75 – FL200	LRTRA34L	FL65 – FL200
LRTRA27L	FL75 – FL200	LRTRA110A	FL100 – FL280
LRTRA28G	GND – FL70		
LRTRA28L	FL70 – FL200		

DANGEROUS AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRD10A	GND – FL100	LRD10B	GND– FL280