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Publication Date: **06 MAR 2025**

Effective Date: **17 APR 2025**

AIRAC AIP AMDT
04
17 APR 2025

AIRAC AIP AMENDMENT 04/25

I. Content

ENR - new restricted (LRR) and dangerous (LRD) areas - ENR 5.1;
- new military exercise and training areas (LRTRA) - ENR 5.2.

AD - LRSM - change of THR RWY 19 ELEV;
- change of Strip and RESA dimensions;
- change of RWY edge LGT.
- LRSB - Apron Boundary added.

II.

Insert the following new pages and/or charts:		**Destroy the following pages and/or charts:**	
GEN 0.3-1	17 APR 2025	GEN 0.3-1	20 MAR 2025
GEN 0.3-2	17 APR 2025	----------	
GEN 0.4-1	17 APR 2025	GEN 0.4-1	20 MAR 2025
GEN 0.4-2	17 APR 2025	GEN 0.4-2	20 MAR 2025
GEN 0.4-3	17 APR 2025	GEN 0.4-3	20 MAR 2025
GEN 0.4-4	17 APR 2025	GEN 0.4-4	20 MAR 2025
GEN 0.4-5	17 APR 2025	GEN 0.4-5	20 MAR 2025
GEN 0.4-6	17 APR 2025	GEN 0.4-6	20 MAR 2025
GEN 0.4-7	17 APR 2025	GEN 0.4-7	20 MAR 2025
GEN 0.4-8	17 APR 2025	GEN 0.4-8	20 MAR 2025
GEN 0.5-1	17 APR 2025	GEN 0.5-1	20 FEB 2025
GEN 4.1-18	17 APR 2025	GEN 4.1-18	16 JUL 2020
GEN 4.1-18a	17 APR 2025	----------	
ENR 0.6-2	17 APR 2025	ENR 0.6-2	31 OCT 2024
ENR 3.2-1	17 APR 2025	ENR 3.2-1	28 NOV 2024
ENR 3.2-10	17 APR 2025	ENR 3.2-10	31 OCT 2024
ENR 3.2-21	17 APR 2025	ENR 3.2-21	15 JUN 2023
ENR 4.4-5	17 APR 2025	ENR 4.4-5	31 OCT 2024
ENR 4.4-6	17 APR 2025	ENR 4.4-6	18 APR 2024
ENR 4.4-7	17 APR 2025	ENR 4.4-7	18 APR 2024
ENR 4.4-8	17 APR 2025	ENR 4.4-8	13 JUL 2023
ENR 5.1-2	17 APR 2025	ENR 5.1-2	13 JUL 2023
ENR 5.1-3	17 APR 2025	ENR 5.1-3	13 JUL 2023

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	ENR 5.1-4	17 APR 2025	ENR 5.1-4	13 JUL 2023
	ENR 5.1-5	17 APR 2025	ENR 5.1-5	13 JUL 2023
	ENR 5.1-6	17 APR 2025	ENR 5.1-6	13 JUL 2023
	ENR 5.1-7	17 APR 2025	ENR 5.1-7	13 JUL 2023
	ENR 5.1-8	17 APR 2025	ENR 5.1-8	13 JUL 2023
	ENR 5.1-9	17 APR 2025	ENR 5.1-9	15 JUL 2021
	ENR 5.1-10	17 APR 2025	ENR 5.1-10	15 JUL 2021
	ENR 5.1-11	17 APR 2025	ENR 5.1-11	15 JUN 2023
	ENR 5.1-12	17 APR 2025	----------	
	ENR 5.1-13	17 APR 2025	----------	
	ENR 5.1-14	17 APR 2025	----------	
	ENR 5.1-15	17 APR 2025	----------	
	ENR 5.2-1	17 APR 2025	ENR 5.2-1	12 NOV 2015
	ENR 5.2-2	17 APR 2025	ENR 5.2-2	23 MAY 2019
	ENR 5.2-3	17 APR 2025	ENR 5.2-3	26 MAY 2016
	ENR 5.2-4	17 APR 2025	ENR 5.2-4	15 JUN 2023
	ENR 5.2-5	17 APR 2025	ENR 5.2-5	07 NOV 2019
	ENR 5.2-6	17 APR 2025	ENR 5.2-6	31 OCT 2024
	ENR 5.2-7	17 APR 2025	ENR 5.2-7	10 NOV 2016
	ENR 5.2-8	17 APR 2025	ENR 5.2-8	12 NOV 2015
	ENR 5.2-9	17 APR 2025	----------	
	ENR 5.2-10	17 APR 2025	----------	
	ENR 5.2-11	17 APR 2025	----------	
	ENR 5.2-12	17 APR 2025	----------	
	ENR 5.2-13	17 APR 2025	----------	
	ENR 5.2-14	17 APR 2025	----------	
	ENR 5.2-15	17 APR 2025	----------	
	ENR 5.2-16	17 APR 2025	----------	
	ENR 5.2-17	17 APR 2025	----------	
	ENR 5.2-18	17 APR 2025	----------	
	ENR 5.2-19	17 APR 2025	----------	
	ENR 5.2-20	17 APR 2025	----------	
	ENR 5.2-21	17 APR 2025	----------	
	ENR 5.2-22	17 APR 2025	----------	
	ENR 5.2-23	17 APR 2025	----------	
	ENR 5.2-24	17 APR 2025	----------	
	ENR 5.2-25	17 APR 2025	----------	
	ENR 6-2	17 APR 2025	ENR 6-2	08 AUG 2024
	----------		ENR 6-2a	28 NOV 2024
	ENR 6-10	17 APR 2025	ENR 6-10	10 DEC 2015
	ENR 6-11	17 APR 2025	ENR 6-11	07 NOV 2019
	ENR 6-20	17 APR 2025	ENR 6-20	13 JUL 2023
	ENR 6-21	17 APR 2025	ENR 6-21	31 OCT 2024
	ENR 6-70	17 APR 2025	ENR 6-70	08 AUG 2024
	ENR 6-100	17 APR 2025	ENR 6-100	28 NOV 2024
	AD 2.1-1	17 APR 2025	AD 2.1-1	20 MAR 2025
	AD 2.1-2	17 APR 2025	AD 2.1-2	03 OCT 2024

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.1-31	17 APR 2025	AD 2.1-31	13 JUL 2023
	AD 2.1-32	17 APR 2025	AD 2.1-32	13 JUL 2023
	AD 2.1-33	17 APR 2025	AD 2.1-33	13 JUL 2023
	AD 2.1-34	17 APR 2025	AD 2.1-34	13 JUL 2023
	AD 2.1-35	17 APR 2025	AD 2.1-35	20 MAR 2025
	AD 2.1-36	17 APR 2025	AD 2.1-36	20 MAR 2025
	AD 2.1-37	17 APR 2025	AD 2.1-37	20 MAR 2025
	AD 2.1-38	17 APR 2025	AD 2.1-38	20 MAR 2025
	AD 2.1-45	17 APR 2025	AD 2.1-45	31 OCT 2024
	AD 2.1-53	17 APR 2025	AD 2.1-53	13 JUL 2023
	AD 2.1-54	17 APR 2025	AD 2.1-54	13 JUL 2023
	AD 2.1-81	17 APR 2025	AD 2.1-81	13 JUL 2023
	AD 2.1-83	17 APR 2025	AD 2.1-83	13 JUL 2023
	AD 2.1-84	17 APR 2025	AD 2.1-84	13 JUL 2023
	AD 2.3-31	17 APR 2025	AD 2.3-31	31 OCT 2024
	AD 2.3-51	17 APR 2025	AD 2.3-51	31 OCT 2024
	AD 2.3-52	17 APR 2025	AD 2.3-52	28 NOV 2024
	AD 2.3-71	17 APR 2025	AD 2.3-71	31 OCT 2024
	AD 2.3-91	17 APR 2025	AD 2.3-91	31 OCT 2024
	AD 2.3-92	17 APR 2025	AD 2.3-92	31 OCT 2024
	AD 2.3-93	17 APR 2025	AD 2.3-93	31 OCT 2024
	AD 2.3-94	17 APR 2025	AD 2.3-94	31 OCT 2024
	AD 2.4-5	17 APR 2025	AD 2.4-5	16 MAY 2024
	AD 2.4-30	17 APR 2025	AD 2.4-30	05 OCT 2023
	AD 2.4-31	17 APR 2025	AD 2.4-31	05 OCT 2023
	AD 2.4-32	17 APR 2025	AD 2.4-32	05 OCT 2023
	AD 2.4-33	17 APR 2025	AD 2.4-33	05 OCT 2023
	AD 2.4-34	17 APR 2025	AD 2.4-34	20 MAR 2025
	AD 2.4-35	17 APR 2025	AD 2.4-35	20 MAR 2025
	AD 2.4-36	17 APR 2025	AD 2.4-36	20 MAR 2025
	AD 2.4-37	17 APR 2025	AD 2.4-37	20 MAR 2025
	AD 2.4-41	17 APR 2025	AD 2.4-41	18 APR 2024
	AD 2.4-45	17 APR 2025	AD 2.4-45	05 SEP 2024
	AD 2.4-51	17 APR 2025	AD 2.4-51	05 OCT 2023
	AD 2.4-52	17 APR 2025	AD 2.4-52	05 OCT 2023
	AD 2.4-53	17 APR 2025	AD 2.4-53	05 OCT 2023
	AD 2.4-54	17 APR 2025	AD 2.4-54	05 OCT 2023
	AD 2.4-91	17 APR 2025	AD 2.4-91	05 OCT 2023
	AD 2.4-92	17 APR 2025	AD 2.4-92	05 OCT 2023
	AD 2.4-93	17 APR 2025	AD 2.4-93	05 OCT 2023
	AD 2.4-94	17 APR 2025	AD 2.4-94	05 OCT 2023
	AD 2.5-30	17 APR 2025	AD 2.5-30	05 OCT 2023
	AD 2.5-31	17 APR 2025	AD 2.5-31	05 OCT 2023
	AD 2.5-32	17 APR 2025	AD 2.5-32	05 OCT 2023
	AD 2.5-33	17 APR 2025	AD 2.5-33	05 OCT 2023
	AD 2.5-34	17 APR 2025	AD 2.5-34	20 MAR 2025
	AD 2.5-35	17 APR 2025	AD 2.5-35	20 MAR 2025
	AD 2.5-36	17 APR 2025	AD 2.5-36	20 MAR 2025

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.5-37	17 APR 2025	AD 2.5-37	20 MAR 2025
	AD 2.5-40	17 APR 2025	AD 2.5-40	18 APR 2024
	AD 2.5-45	17 APR 2025	AD 2.5-45	05 SEP 2024
	AD 2.5-51	17 APR 2025	AD 2.5-51	28 DEC 2023
	AD 2.5-53	17 APR 2025	AD 2.5-53	13 JUL 2023
	AD 2.5-55	17 APR 2025	AD 2.5-55	13 JUL 2023
	AD 2.5-57	17 APR 2025	AD 2.5-57	13 JUL 2023
	AD 2.5-91	17 APR 2025	AD 2.5-91	13 JUL 2023
	AD 2.5-93	17 APR 2025	AD 2.5-93	13 JUL 2023
	AD 2.5-95	17 APR 2025	AD 2.5-95	13 JUL 2023
	AD 2.5-97	17 APR 2025	AD 2.5-97	13 JUL 2023
	AD 2.8-31	17 APR 2025	AD 2.8-31	25 JAN 2024
	AD 2.8-32	17 APR 2025	AD 2.8-32	25 JAN 2024
	AD 2.8-35	17 APR 2025	AD 2.8-35	25 JAN 2024
	AD 2.8-36	17 APR 2025	AD 2.8-36	25 JAN 2024
	AD 2.8-45	17 APR 2025	AD 2.8-45	13 JUL 2023
	AD 2.8-52	17 APR 2025	AD 2.8-52	11 JUL 2024
	AD 2.8-52a	17 APR 2025	AD 2.8-52a	25 JAN 2024
	AD 2.8-71	17 APR 2025	AD 2.8-71	11 JUL 2024
	AD 2.8-71a	17 APR 2025	AD 2.8-71a	21 MAR 2024
	AD 2.8-72	17 APR 2025	AD 2.8-72	11 JUL 2024
	AD 2.8-72a	17 APR 2025	AD 2.8-72a	21 MAR 2024
	AD 2.8-81	17 APR 2025	AD 2.8-81	11 JUL 2024
	AD 2.8-81a	17 APR 2025	AD 2.8-81a	25 JAN 2024
	AD 2.8-82	17 APR 2025	AD 2.8-82	11 JUL 2024
	AD 2.8-82a	17 APR 2025	AD 2.8-82a	25 JAN 2024
	AD 2.9-30	17 APR 2025	AD 2.9-30	18 APR 2024
	AD 2.9-31	17 APR 2025	AD 2.9-31	18 APR 2024
	AD 2.9-32	17 APR 2025	AD 2.9-32	08 AUG 2024
	AD 2.9-33	17 APR 2025	AD 2.9-33	08 AUG 2024
	AD 2.9-51	17 APR 2025	AD 2.9-51	11 JUL 2024
	AD 2.9-51a	17 APR 2025	AD 2.9-51a	18 APR 2024
	AD 2.9-52	17 APR 2025	AD 2.9-52	11 JUL 2024
	AD 2.9-52a	17 APR 2025	AD 2.9-52a	18 APR 2024
	AD 2.9-71	17 APR 2025	AD 2.9-71	20 FEB 2025
	AD 2.9-71a	17 APR 2025	AD 2.9-71a	08 AUG 2024
	AD 2.9-72	17 APR 2025	AD 2.9-72	20 MAR 2025
	AD 2.9-72a	17 APR 2025	AD 2.9-72a	20 MAR 2025
	AD 2.9-81	17 APR 2025	AD 2.9-81	11 JUL 2024
	AD 2.9-81a	17 APR 2025	AD 2.9-81a	18 APR 2024
	AD 2.9-82	17 APR 2025	AD 2.9-82	11 JUL 2024
	AD 2.9-82a	17 APR 2025	AD 2.9-82a	18 APR 2024
	AD 2.9-83	17 APR 2025	AD 2.9-83	11 JUL 2024
	AD 2.9-83a	17 APR 2025	AD 2.9-83a	18 APR 2024
	AD 2.9-84	17 APR 2025	AD 2.9-84	11 JUL 2024
	AD 2.9-84a	17 APR 2025	AD 2.9-84a	18 APR 2024
	AD 2.10-1	17 APR 2025	AD 2.10-1	31 OCT 2024
	AD 2.10-22	17 APR 2025	AD 2.10-22	31 OCT 2024

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.10-30	17 APR 2025	AD 2.10-30	31 OCT 2024
	AD 2.10-31	17 APR 2025	AD 2.10-31	31 OCT 2024
	AD 2.10-51	17 APR 2025	AD 2.10-51	23 JAN 2025
	AD 2.10-52	17 APR 2025	AD 2.10-52	23 JAN 2025
	AD 2.10-71	17 APR 2025	AD 2.10-71	31 OCT 2024
	AD 2.10-72	17 APR 2025	AD 2.10-72	28 NOV 2024
	AD 2.10-91	17 APR 2025	AD 2.10-91	23 JAN 2025
	AD 2.10-92	17 APR 2025	AD 2.10-92	23 JAN 2025
	AD 2.10-93	17 APR 2025	AD 2.10-93	23 JAN 2025
	AD 2.10-94	17 APR 2025	AD 2.10-94	23 JAN 2025
	AD 2.12-1	17 APR 2025	AD 2.12-1	28 DEC 2023
	AD 2.12-2	17 APR 2025	AD 2.12-2	28 NOV 2024
	AD 2.12-3	17 APR 2025	AD 2.12-3	10 SEP 2020
	AD 2.12-4	17 APR 2025	AD 2.12-4	28 DEC 2023
	AD 2.12-5	17 APR 2025	AD 2.12-5	18 MAY 2023
	AD 2.12-6	17 APR 2025	AD 2.12-6	16 AUG 2018
	AD 2.12-20	17 APR 2025	AD 2.12-20	28 DEC 2023
	AD 2.12-20a	17 APR 2025	AD 2.12-20a	25 APR 2019
	AD 2.12-22	17 APR 2025	AD 2.12-22	25 APR 2019
	AD 2.12-25	17 APR 2025	AD 2.12-25	28 DEC 2023
	AD 2.12-26	17 APR 2025	AD 2.12-26	28 DEC 2023
	AD 2.12-51	17 APR 2025	AD 2.12-51	28 DEC 2023
	AD 2.12-52	17 APR 2025	AD 2.12-52	28 DEC 2023
	AD 2.12-81	17 APR 2025	AD 2.12-81	21 MAR 2024
	AD 2.12-82	17 APR 2025	AD 2.12-82	21 MAR 2024
	AD 2.12-83	17 APR 2025	AD 2.12-83	28 DEC 2023
	AD 2.13-1	17 APR 2025	AD 2.13-1	18 MAY 2023
	AD 2.13-20	17 APR 2025	AD 2.13-20	24 MAR 2022
	AD 2.13-22	17 APR 2025	AD 2.13-22	30 DEC 2021
	AD 2.14-1	17 APR 2025	AD 2.14-1	15 JUN 2023
	AD 2.14-30	17 APR 2025	AD 2.14-30	13 JUL 2023
	AD 2.14-31	17 APR 2025	AD 2.14-31	13 JUL 2023
	AD 2.14-51	17 APR 2025	AD 2.14-51	11 JUL 2024
	AD 2.14-52	17 APR 2025	AD 2.14-52	11 JUL 2024
	AD 2.14-71	17 APR 2025	AD 2.14-71	11 JUL 2024
	AD 2.14-72	17 APR 2025	AD 2.14-72	11 JUL 2024
	AD 2.14-81	17 APR 2025	AD 2.14-81	11 JUL 2024
	AD 2.14-82	17 APR 2025	AD 2.14-82	11 JUL 2024
	AD 2.14-83	17 APR 2025	AD 2.14-83	11 JUL 2024
	AD 2.14-84	17 APR 2025	AD 2.14-84	11 JUL 2024
	AD 2.15-1	17 APR 2025	AD 2.15-1	31 OCT 2024
	AD 2.15-2	17 APR 2025	AD 2.15-2	31 OCT 2024
	AD 2.16-30	17 APR 2025	AD 2.16-30	13 JUL 2023
	AD 2.16-31	17 APR 2025	AD 2.16-31	13 JUL 2023
	AD 2.16-32	17 APR 2025	AD 2.16-32	13 JUL 2023
	AD 2.16-33	17 APR 2025	AD 2.16-33	13 JUL 2023
	AD 2.16-34	17 APR 2025	AD 2.16-34	20 MAR 2025
	AD 2.16-35	17 APR 2025	AD 2.16-35	20 MAR 2025

II. **Insert the following new pages and/or charts:**

AD 2.16-36	17 APR 2025
AD 2.16-37	17 APR 2025
AD 2.16-45	17 APR 2025
AD 2.16-51	17 APR 2025
AD 2.16-52	17 APR 2025
AD 2.16-53	17 APR 2025
AD 2.16-54	17 APR 2025
AD 2.16-91	17 APR 2025
AD 2.16-92	17 APR 2025
AD 2.16-93	17 APR 2025
AD 2.16-94	17 APR 2025
AD 2.17-1	17 APR 2025
AD 2.17-51	17 APR 2025
AD 2.17-81	17 APR 2025
AD 2.29-10	17 APR 2025
AD 2.29-30	17 APR 2025
AD 2.29-31	17 APR 2025
AD 2.29-32	17 APR 2025
AD 2.29-33	17 APR 2025
AD 2.29-34	17 APR 2025
AD 2.29-35	17 APR 2025
AD 2.29-52	17 APR 2025
AD 2.29-76	17 APR 2025
AD 2.29-84	17 APR 2025

Destroy the following pages and/or charts:

AD 2.16-36	20 MAR 2025
AD 2.16-37	20 MAR 2025
AD 2.16-45	31 OCT 2024
AD 2.16-51	13 JUL 2023
AD 2.16-52	13 JUL 2023
AD 2.16-53	13 JUL 2023
AD 2.16-54	13 JUL 2023
AD 2.16-91	13 JUL 2023
AD 2.16-92	13 JUL 2023
AD 2.16-93	13 JUL 2023
AD 2.16-94	13 JUL 2023
AD 2.17-1	03 OCT 2024
AD 2.17-51	25 APR 2019
AD 2.17-81	05 DEC 2019
AD 2.29-10	15 JUN 2023
AD 2.29-30	20 FEB 2025
AD 2.29-31	20 FEB 2025
AD 2.29-32	20 FEB 2025
AD 2.29-33	20 FEB 2025
AD 2.29-34	20 FEB 2025
AD 2.29-35	20 FEB 2025
AD 2.29-52	20 MAR 2025
AD 2.29-76	20 FEB 2025
AD 2.29-84	20 FEB 2025

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

IV. **Hand amendments:**

See GEN 0.5 / 17 APR 2025.

V. **Information contained in the following NOTAM is incorporated in AIRAC AIP AMDT 04/25:**

A0593/25, A0594/25, A0595/25, A0596/25, A0597/25, A0601/25, A0676/25.

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	

GEN 0.4 CHECKLIST OF AIP PAGES

Page	Date
PART 1-GENERAL(GEN)	
GEN 0	
GEN 0.1-1	15 JUL 2022
GEN 0.1-2	15 JUL 2022
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
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AD 2.2-36/37 13 JUL 2023 AD 2.2-51/91/93 06 DEC 2018	Delete the following airspaces: LRTRA10A, LRTRA11B, LRTRA14, LRTRA15, LRTRA19A, LRTRA19B, LRTRA57. Insert the following airspaces: LRTRA32G/L, LRTRA47G, LRTRA48G, LRTRA42G/L, LRTRA43G/L, LRTRA44G, LRTRA45L, LRTRA60G, LRTA61G/L, LRTRA62G, LRTRA110A, LRTRA111A, LRTRA111D, LRTRA111F, LRTRA111I, LRTRA112L. For details see ENR 5.2 (LRTRA).	AIRAC 04/25 17 APR 2025
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AD 2.7-71/72 7 SEP 20213 AD 2.7-52/81 26 JAN2023	Delete the following airspaces: LRD03, LRTRA70, LRTRA71, LRTRA75A, LRTRA76, LRTRA77, LRTRA78. Insert the following airspaces: LRD03A/B, LRTRA20G, LRTRA21L, LRTRA23G/L, LRTRA25G/L, LRTRA27L, LRTRA28G/L, LRTRA29G/L, LRTRA37G/L. For details see ENR 5.1 (LRD) and ENR 5.2 (LRTRA).	AIRAC 04/25 17 APR 2025
AD 2.13-51/92 20 APR 2023	Delete the following airspaces: LRD09, LRD10, LRTRA72A, LRTRA73A, LRTRA74A. Insert the following airspaces: LRD09A/B, LRD10A/B, LRTRA24G/L, LRTRA34G/L, LRTRA35G/L, LRTRA25G/L, LRTRA36G/L. For details see ENR 5.1 (LRD) and ENR 5.2 (LRTRA).	AIRAC 04/25 17 APR 2025
AD 2.15- 51/52/91/92/93/94 20 APR 2023	Delete the following airspaces: LRD10, LRTRA71, LRTRA72A, LRTRA76, LRTRA77, LRTRA78. Insert the following airspaces: LRD10A/B, LRTRA20G, LRTRA21L, LRTRA24G/L, LRTRA26L, LRTRA27L, LRTRA28G/L, LRTRA30G/L, LRTRA34G/L, LRTRA36G/L. For details see ENR 5.1 (LRD) and ENR 5.2 (LRTRA).	AIRAC 04/25 17 APR 2025

TULCEA / Delta Dunării (LRTC)

1. Landing Charge
UNIT RATE: 2.50 EURO / tone

2. Lighting charge
UNIT RATE: 2.30 EURO / tone

3. Parking charge
UNIT RATE: 0.15 EURO / tone / hour

4. Passengers service
UNIT RATE: 5.00 EURO / passenger

5. Security charge
UNIT RATE: 1.00 EURO / passenger

6. Other charges
6.1 Transit charge
UNIT RATE: 1.00 EURO / passenger in transit
6.2 Transfer charge
UNIT RATE: 1.00 EURO / transferred passenger

7. Discounts
7.1 Discounts for airlines operating regular flights from TULCEA/Delta Dunării Airport
In the situation of operating regular flights operating from the Tulcea "Delta Dunării" Airport in order to encourage operating frequency, the airport operator can apply a 50% reduction to the landing tariff, in accordance with point 1, letter e) from the Annex to Order no. 744/2011 of September 23, 2011, in the following steps:

Number of landings per year	Rebates (%)
5 - 10	5
11 - 15	10
16 - 20	15
21 - 25	20
26 - 30	25
31 - 35	30
36 - 40	35
41 - 45	40
46 - 50	45
over 50	50

7.2 Incentive schemes for the operation of new destinations
For the operation of flights to new destinations, for a period of 24 months from the effective start of operation, the following discount scheme is applied at Tulcea "Delta Dunării" Airport, as follows:
- landing charge - a 50% discount;
- the charge for boarded passengers - less the charge collected for the surveillance of objectives necessary for the safety of AACR/AIAS passengers - a 50% discount.

The discount does not apply for flights operated to new destinations at the following charges:
- lighting charge ;
- parking charge;
- security charges ;
- the charges collected by AIAS / AACR for the surveillance of the objectives necessary for passenger safety, included in the tariff for boarded passengers.

GENERAL CONDITIONS:
1. This incentive scheme will be granted in a transparent and non-discriminatory manner to all interested airlines, upon request, based on the eligibility criteria of the scheme;
2. Discounts for the opening of new routes cannot be cumulated with other types of discounts for the respective route or with any other existing discount grid;
3. The charges for which a discount is granted under this scheme do not include other charges than those mentioned in this scheme, or additional charges that may be introduced by Tulcea "Delta Dunării" Airport.

TULCEA / Delta Dunării (LRTC)

1. Tariful de aterizare
NIVELUL UNITAR AL TARIFULUI: 2.50 EURO / tonă

2. Tariful de iluminare
NIVELUL UNITAR AL TARIFULUI: 2.30 EURO / tonă

3. Tariful de staţionare
NIVELUL UNITAR AL TARIFULUI: 0.15 EURO / tonă / oră

4. Servicii pentru pasageri
NIVELUL UNITAR AL TARIFULUI: 5.00 EURO / pasager

5. Tarif de securitate aeroportuară
NIVELUL UNITAR AL TARIFULUI: 1.00 EURO / pasager

6. Alte tarife
6.1 Tariful de tranzit
NIVELUL UNITAR AL TARIFULUI: 1.00 EURO / pasager în tranzit
6.2 Tariful de transfer
NIVELUL UNITAR AL TARIFULUI: 1.00 EURO / pasager în transfer

7. Reduceri
7.1 Reduceri pentru companiile aeriene care operează curse regulate de pe Aeroportul TULCEA/Delta Dunării
În situaţia unor curse regulate de pe Aeroportul "Delta Dunării" Tulcea, în scopul încurajării creşterii frecvenţei de operare, administratorul aeroportului poate aplica o reducere de 50% la tariful de aterizare, în conformitate cu pct. 1, lit. e) din Anexă la Ordinul nr. 744/2011 din 23 septembrie 2011, în următoarele trepte:

Număr de aterizări pe an	Reduceri (%)
5 - 10	5
11 - 15	10
16 - 20	15
21 - 25	20
26 - 30	25
31 - 35	30
36 - 40	35
41 - 45	40
46 - 50	45
peste 50	50

7.2 Scheme de stimulare pentru operarea de noi destinaţii
Pentru operarea curselor către noi destinaţii, pentru o perioadă de 24 luni de la începerea efectivă a operării, pe Aeroportul ”Delta Dunării„ Tulcea se aplică următoarea schemă de reduceri, după cum urmează :
- tariful de aterizare - o reducere de 50% ;
- tariful pentru pasageri îmbarcaţi - mai puţin tariful colectat pentru supravegherea obiectivelor necesare siguranţei pasagerilor AACR/AIAS – o reducere de 50%.

Nu se aplică reducerea pentru cursele operate pe noi destinaţii la următoarele tarife:
- tariful de iluminat;
- tariful de staţionare;
- tariful pentru securitate aeroportuară;
- tariful colectat de AIAS /AACR pentru supravegherea obiectivelor necesare siguranţei pasagerilor, cuprins în tariful pentru pasagerii îmbarcaţi.

CONDIŢII GENERALE:
1. Prezenta schemă de stimulare va fi acordată în mod transparent şi nediscriminatoriu tuturor companiilor aeriene interesate, la cerere, în baza criteriilor de eligibilitate aferente schemei;
2. Reducerile prevăzute pentru deschiderea de noi rute nu vor putea fi cumulate cu alte tipuri de reduceri pentru ruta respectivă sau cu orice altă grilă de discount existentă;
3. Tarifele pentru care se acordă reducere sub incidenţa prezentei scheme nu includ alte tarife faţă de cele menţionate în prezenta schemă, sau tarife adiţionale ce ar putea fi introduse de Aeroportul ”Delta Dunării” Tulcea.

ELIGIBILITY CRITERIA
1. ”New route” means any destination which, at the time of the sale of tickets for the respective route is located at least 100 km away from the airports - destination related to the already existing regular routes operated from Tulcea ”Delta Dunării” Airport at that time and which has not been operated by the respective airline / holding / concern for the last 12 months. The term of 12 months has as reference the proposed date of commencement of operations. When determining the distance between the new destination and the existing destination, the ARP - Aerodrome Reference Point - airports will be taken into account.
2. The minimum operating frequency is 1 flights per week;
3. In the event that several airlines requests incentives to open the same new route, will benefit of discounts for opening new routes the airline that will be the first to sell tickets for the new route. The airline will be obliged to start operations within a maximum of 4 months from the date of sale of the tickets.
4. With at least 3 working days before ticketing, the airline will notify and will send a request for opening the new route, which will include at least the following estimated data in order to analyze the eligibility for granting the incentive scheme: (proposed destination, operation frequency, aircraft type, maximum take off weight, number of seats of the aircraft, estimated loading factor, ground service time – turnarround, operating schedule).
5. The airline has the obligation to respect, throughout the granting period for opening new routes, the destination and the number of frequencies mentioned; the other specifications (respectively the maximum take-off weight the aircraft capacity and configuration, the ground service time or the operating schedule), can be modified as per necessity, by a written notification sent to the airport.
6. Destinations previously served by an operator and cancelled may be considered new routes when resumed by another operator, only if there is no code-share agreement or they are not subsidiaries of the same group.
7. The stimulation scheme applies exclusively to regular commercial flights operated from Tulcea ”Delta Dunării” Airport;
8. New seasonal route, valid for charter flights that have a repetitive flight schedule during a season (summer / winter), with a 50% discount on the landing fee and 50% on the passenger boarding fee, operated for at least 3 consecutive months.
The reduction does not apply for flights operated to new seasonal route -at the following charges:
- lighting charge;
- parking charge;
- security charge;
- the charge collected by RCAA / SIAA for the supervision of the objectives necessary for passenger safety, included in the charge for boarded passengers).

9. If the airline cancels the operations during the set period of the stimulation scheme in order to open new routes, respectively 24 months from the effective start of the operation on the new destination , the airline can continue to benefit from the incentive scheme in order to open new routes, if the New Route replaces the route with another New Route qualified according to item 1) above. The period for which the airline will benefit from the incentive scheme to open the New Route will be reduced with the period when the scheme has produced effects for the closed route. The airline will start the actual operation on the new destination within 3 months from the date of the last actual flight from Tulcea ”Delta Dunării” Airport to the previously operated destination.

7.3 Long-term parking
Long-term parking charge:
- 500 EURO / month for aircraft with MTOW < 50 tonnes, for platform stay longer than 72 hours;
- 1000 EURO / month for aircraft with MTOW >51 tonnes, for a platform stay longer than 72 hours.

8. Exemptions
8.1.According to article 32 paragraph (2) of Law 21/2020 Air Code with subsequent amendments and completions.
8.2 Humanitarian flights of the S.M.U.R.D. type are exempted from the payment of all airport charges and basic handling.

9. Increase
Operation outside the operating hours of the airport, published in AIP ROMÂNIA or through NOTAM :
In case airport services are provided outside of the operating hours, the following chrges are increased by 200%: airport rates, basic handling rates and handling rates on request.

Note: Current charges don't include VAT.

CRITERII DE ELIGIBILITATE
1. Prin ”Rută Nouă” se înțelege orice destinație care, la momentul punerii în vânzare a biletelor către ruta respectivă, este situată la cel puțin 100 km distanță față de aeroporturile - destinație aferentă rutelor regulate deja existente, operate de pe Aeroportul ”Delta Dunării” Tulcea la momentul respectiv și care nu au fost operate de respectiva companie aeriană / holding / concern în ultimele 12 luni. Termenul de 12 luni are ca referință data propusă de începere a operării acesteia. La determinarea distanței dintre noua destinație și destinația deja existentă, se va lua în calcul ARP-ul - Aerodrome Reference Point - aeroporturilor.
2. Frecvența minimă de operare este de 1 zbor pe săptămână.
3. În situația în care mai mulți operatori solicită stimulente pentru deschiderea aceleași rute noi, va beneficia de reduceri pentru deschiderea de noi rute, compania aeriană care va pune prima în vânzare bilete pentru noua rută. Compania aeriană va avea obligația de a începe operarea în maxim 4 luni de la data punerii în vânzare a biletelor.
4. Cu minim 3 zile lucrătoare anterior punerii în vânzare a biletelor, compania aeriană va transmite administratorului aeroportuar o solicitare de deschidere a noii rute, care va cuprinde cel puțin următoarele date estimate, necesare în vederea analizării eligibilității de acordare a schemei de stimulare (destinație propusă, frecvența de operare, tipul aeronavei, greutatea maximă la decolare, număr de locuri, grad de încărcare estimat, timpul de deservire la sol, programul de operare);
5. Compania aeriană are obligația de a respecta pe toată durata acordării schemei de stimulare numărul de frecvențe declarate; celelalte specificații (greutatea maximă la decolare, capacitatea si configurarea aeronavei, timpul de deservire la sol sau programul de operare) putând fi modificate în funcție de necesități printr-o notificare scrisă transmisă către aeroport.
6. Destinațiile anterior deservite de un operator și anulate pot fi considerate rute noi la reluarea de către un alt operator, doar în cazul în care nu există un acord de tip code-share sau nu sunt companii subsidiare ale aceluiași grup.
7. Schema de stimulare se aplică curselor comerciale regulate și curselor charter repetitive operate de pe Aeroportul ”Delta Dunării„ Tulcea.
8. Ruta nouă sezonieră, valabilă pentru zboruri charter care prezintă un program de zbor repetitiv pe parcursul unui sezon (vară / iarnă), cu reducere de 50% la tariful de aterizare și 50 % la tariful de îmbarcare pasageri, operate cel puțin 3 luni consecutiv.
Nu se aplică reducerea pentru ruta nouă sezonieră la următoarele tarife:
- tariful de iluminat;
- tariful de staționare;
- tariful pentru securitate aeroportuară;
- tariful colectat de AIAS /AACR pentru supravegherea obiectivelor necesare siguranței pasagerilor, cuprins în tariful pentru pasagerii îmbarcați.

9. În cazul în care compania aeriană anulează operațiunile în timpul perioadei stabilite a schemei de stimulare în vederea deschiderii de noi rute, respectiv 24 de luni de la începerea efectivă a operării pe noua destinație, compania aeriană poate beneficia în continuare de schema de stimulare în cazul în care înlocuiește ruta cu o rută nouă, care se va califica ca și rută nouă conform punctului 1). Perioada pentru care compania aeriană va beneficia de schema de stimulare în vederea deschiderii de noi rute va fi diminuată cu perioada în care schema a produs efecte pentru ruta închisă. Compania aeriană va începe operarea efectivă pentru noua destinație în cel mult 3 luni de la data ultimului zbor efectiv de pe Aeroportul ”Delta Dunării„ Tulcea către destinația anterior operată.

7.3 Staţionarea de lungă durată
Tarif de staţionare pe termen lung:
- 500 EURO / lună pentru aeronave cu MTOW < 50 tone, pentru o staţionare pe platformă mai mare de 72 de ore;
- 1000 EURO / lună pentru aeronave cu MTOW > 51 tone, pentru o staţionare pe platformă mai mare de 72 de ore.

8. Scutiri
8.1 Conform articol 32 aliniat (2) a Legii 21/2020 Codul Aerian cu modificarile si completările ulterioare.
8.2 Sunt scutite de la plata tuturor tarifelor aeroportuare și handling de bază zborurile umanitare de tip S.M.U.R.D.

9. Majorări
Operarea în afara orelor de funcționare ale aeroportului, publicate în AIP ROMÂNIA sau prin NOTAM:
În cazul în care serviciile aeroportuare sunt prestate în afara orelor de program, următoarele tarife se majorează cu 200%: tarife de aeroport, tarife handling de bază și tarife handling la cerere.

Nota: Tarifele nu includ TVA.

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△OKLIV 471618N0233121E	CLJ 333°/30.3 1600	338° 10.3 158°		↓	+/- 5NM	
▲FABZO 472612N0232659E	SAT 123°/28.5 500	338° 14.7 158°			+/- 5NM	
△BAIA MARE NDB (BMR) 474016N0232045E	SAT 095°/18.6 500	355° 11.6 175°	FL105 FL55 Class C		+/- 5NM	BAIA MARE NDB (BMR) IAR T33
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▲LESVO 465707N0274920E	BCU 051°/48.9 1800	324° 19.6 144°	FL105 FL55 Class C	↓	+/- 5NM	
△IAŞI NDB (ISI) 471403N0273447E	BCU 029°/53.4 1800			↑		IAŞI NDB (ISI) IAR P133, T74

1	2	3	4	5	6	7
Y33 (RNAV 5)		19.0				
▲ABOLO 470001N0271959E	BCU 029°/36.1 1800	356° 19.0 -	FL105 FL55	↓	+/- 5NM	ABOLO IAR T74
△BELMU 471902N0272111E	SCV 112°/45.7 1300		Class C			BELMU IAR P133

1	2	3	4	5	6	7
Y34 (RNAV 5)		55.5				
△UDSIG 465840N0260313E	BCU 305°/42.4 1800	061° 23.5 241°	FL105 FL85 Class C	↓	+/- 5NM	
▲ADMEC 470751N0263448E	SCV 160°/33.7 1300	061° 18.6 240°	FL105 FL55 Class C		+/- 5NM	ADMEC IAR T4
△KERLO 471502N0270000E	SCV 129°/36.3 1300	060° 13.4 241°	FL105 FL35		+/- 5NM	
▲ARPIG 472008N0271810E	SCV 112°/43.3 1300		Class C	↑		ARPIG IAR P133

1	2	3	4	5	6	7
Y88 (RNAV 5)		115.0				
▲POLUN 441415N0251324E	FLR 227°/26.2 400	267° 24.5 -	FL105 FL85 Class C	↓	+/- 5NM	POLUN IAR Z944
△VIKBI 441531N0243921E	FLR 247°/47.6 400	267° 38.8 -			+/- 5NM	
△ELDET 441710N0234521E	TGJ 153°/49.9 900	267° 14.2 -	FL105 FL55		+/- 5NM	ELDET IAR T226
▲LELTI 441740N0232532E	TGJ 170°/46.1 900	267° 37.5 -	Class C		+/- 5NM	
▲ANASA (FIR BDRY) 441843N0223319E	TGJ 211°/55.9 900					
						For continuation, see AIP SERBIA AND MONTENEGRO

1	2	3	4	5	6	7
Z942 (RNAV 5)		56.1				
△EVRIK 462107N0221432E	DVA 311°/43.7 900	339° 7.0 159°	FL105 FL85	↓	+/- 5NM	EVRIK IAR Z939, Z945
▲BUXLE 462750N0221143E	ARD 063°/46.8 400	339° 14.9 159°	Class C		+/- 5NM	
▲GANNA 464207N0220541E	ARD 046°/50.2 400	339° 5.0 159°	FL105 FL45 Class C		+/- 5NM	
▲BAVMA 464654N0220338E	ARD 041°/52.3 400	339° 19.9 159°			+/- 5NM	
△ORADEA NDB (ORA) 470601N0215527E	SAT 221°/54.6 500	339° 9.3 159°	FL105 FL55 Class C		+/- 5NM	ORADEA NDB (ORA) IAR M423, Y559
▲NARKA (FIR BDRY) 471454N0215136E	SAT 230°/51.0 500			↑		NARKA IAR Z941
						For continuation, see AIP HUNGARY

1	2	3	4	5	6	7
Z943 (RNAV 5)		47.6				
△VAMON 442358N0244047E	CRV 075°/32.9 600	284° 47.6 -	FL105 FL55	↓	+/- 5NM	VAMON IAR T285
△GIKUN 444013N0233811E	CRV 323°/24.4 600		Class C			

1	2	3	4	5	6	7
Z944 (RNAV 5)		53.9				For continuation, see AIP BULGARIA
▲TIMUR (FIR BDRY) 434120N0241421E	CRV 154°/40.2 600	- 53.9 227°	FL105 FL95		+/- 5NM	
▲POLUN 441415N0251324E	FLR 227°/26.2 400		Class C	↑		POLUN IAR Y88

1	2	3	4	5	6	7
Z945 (RNAV 5)		34.2				
△EVRIK 462107N0221432E	DVA 311°/43.7 900	080° 34.2 260°	FL105 FL85	↓	+/- 5NM	EVRIK IAR Z939, Z942
△TIDGA 462339N0230347E	DVA 001°/34.2 900		Class C	↑		TIDGA IAR Y559

1	2	3	4	5	6	7
Z946 (RNAV 5)		12.0				
▲ARGES (FIR BDRY) 440456N0264936E	OPT 154°/32.7 300	343° 12.0 -	FL105 FL95	↓	+/- 5NM	
▲OSTAL 441641N0264622E	OPT 148°/21.0 300		Class C			

1	2	3	4	5	6	7
Z947 (RNAV 5)		21.6				
▲FOCSA 455941N0264123E	BCU 184°/31.5 1800	031° 21.6 212°	FL105 FL45	↓	+/- 5NM	FOCSA IAR T74
△TULNU 461650N0270016E	BCU 145°/15.7 1800		Class C	↑		TULNU IAR T4

1	2	3	4	5	6	7
Z948 (RNAV 5)		43.1				
▲LARMU 471501N0230809E	SAT 155°/30.3 500	314° 43.1 134°	FL105 FL85	↓	+/- 5NM	
▲KARIL (FIR BDRY) 474738N0222632E	SAT 277°/18.7 500		Class C	↑		KARIL IAR T33, Z949
						For continuation, see AIP HUNGARY

1	2	3	4
INVED	460928N 0202405E	NIL	FRA (I): FL175-FL660
IPDIS	460941N 0241423E	STAR LRCL, STAR LRTM	
IPRAS	444123N 0262849E	STAR LRBS, LROP	
IPTOL	461728N 0240241E	STAR LRSB, SID LRTM	FRA (I): FL175-FL660
IRDUM	434324N 0292322E	NIL	FRA (I): FL175-FL660
IRLIT	470544N 0231313E	IAC LRCL	
IRLOX	453808N 0241102E	SID LRCL, SID LRSB, SID LRTM	FRA (A): LROP FRA (D): LRCL, LRSB, LRTM FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
IRLUP	464631N 0235914E	STAR LRCL, SID LRTM	
IRMAM	451331N 0284323E	T77	FRA (E): ODD
ITVAX	454926N 0242826E	STAR LRCL, STAR LRTM	
ITVUK	442801N 0263303E	STAR LRBS, LROP	
IVDEK	442831N 0264000E	STAR LRBS, LROP	FRA (I): FL175-FL660
IXORI	464313N 0231432E	STAR LRCL	FRA (I): FL175-FL660
IXUBA	463627N 0235835E	SID LRCL, STAR LRTM	FRA (I): FL175-FL660
JIBOU	472929N 0230730E	T90, IAC LRSM	FRA (I)
KARIL	474738N 0222632E	T33, Z948, Z949, IAC LRSM	FRA (A): LRSM FRA (D): LRSM FRA (I)
KEGAD	465508N 0242008E	STAR LRTM	
KAJNA	442715N 0255730E	Băneasa CTR, VFR route	
KENUX	461732N 0264604E	T74, STAR LRBC	FRA (I)
KERLO	471502N 0270000E	Y34	FRA (I)
KODRU	461132N 0280726E	NIL	FRA (I)
KOMAN	435900N 0261300E	L622	FRA (I): FL175-FL660
KONIM	441243N 0284957E	STAR LRCK	FRA (I): FL175-FL660
KOZBO	453606N 0252211E	IAC LRBV	
LAMIT	450614N 0232229E	Z938	FRA (A): LRCV, LROP FRA (D): LRCV FRA (I)
LAPKA	451734N 0263033E	T74	FRA (A): LRBV FRA (D): LRBV FRA (I)
LARMU	471501N 0230809E	Z948, SID/STAR LRCL, SID/STAR LRTM	FRA (A): LRCL, LRTM FRA (D): LRCL, LRTM FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
LATCU	465001N 0222256E	Y559	FRA (I)
LEBAT	452211N 0253343E	SID/STAR LRBV	FRA (I)
LELTI	441740N 0232532E	Y88, SID LRCV	FRA (I)
LEMPA	444337N 0282607E	SID LRCK	FRA (D): LRCK FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
LERVU	441146N 0285236E	STAR LRCK	
LESVO	465707N 0274920E	Y32, SID LRIA, IAC LRIA	FRA (I)
LEVTA	443522N 0262435E	STAR, IAC LROP	FRA (I): FL175-FL660
LILGU	443245N 0262240E	ENTRY/EXIT POINT CTR LRBS	
LIVGA	443643N 0262440E	SID LROP	
LOBKI	451041N 0285457E	L130	FRA (I)
LOMOS	435000N 0231500E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
LOVIS	443710N 0264010E	STAR LROP	
LUGEB	434408N 0283004E	NIL	FRA (I): FL175-FL660
LUPUK	442446N 0293646E	NIL	FRA (I)
LUROD	443829N 0263243E	STAR LRBS/LROP	
LUSOM	452449N 0212658E	SID LRAR, SID LRTR	FRA (I): FL175-FL660
LUTUP	442610N 0263058E	STAR LRBS	
LUXOT	455113N 0213510E	STAR LRAR, STAR LRTR	

1	2	3	4
MASEB	443209N 0254530E	STAR LRBS	
MASTE	454726N 0254826E	IAC LRBV	
MAVIT	451424N 0211830E	SID/STAR LRAR, SID/STAR LRTR	FRA (A): LRAR,LRTR,LYBE,LYBT,LYVR FRA (D): LRAR, LRTR FRA (E): FL175-FL660
MEDUD	460759N 0205327E	SID LRAR, SID LRTR	FRA (I): FL175-FL660
MEGIK	471230N 0215140E	NIL	FRA (I)
MEREC	474201N 0230603E	IAC LRBM	
MIKVI	462955N 0260733E	Z650	FRA (A): LRBC FRA (D): LRBC FRA (I)
MIRON	464310N 0270226E	T74, STAR LRBC	FRA (I)
MIVNU	443313N 0281723E	STAR LRCK	FRA (I): FL175-FL660
MIVSA	455420N 0212823E	NIL	FRA (I): FL175-FL660
MOBLU	441146N 0292650E	SID LRCK	FRA (D): LRCK FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
MOBRA	455152N 0244910E	STAR LRCL, STAR LRSB, STAR LRTM	FRA (A): LRCL, LRSB, LRTM FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
MOLID	463623N 0271718E	Z650, STAR LRBC	FRA (I)
MOPUG	460949N 0204229E	SID LRTR, SID LRAR	FRA (D): LRAR, LRTR FRA (I): FL175-FL660
MORAX	443021N 0261422E	Băneasa CTR, VFR route	
MOSOP	434309N 0293149E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
NAMUV	442259N 0280459E	STAR LRCK	
NARKA	471454N 0215136E	Z941, Z942	FRA (I)
NAVOD	434521N 0243335E	T226	FRA (A): LRCV FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
NECCO	441852N 0233726E	IAC LRCV	
NEKUL	453100N 0223512E	STAR LRAR, STAR LRTR	FRA (A): LRAR, LRTR FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
NEPOT	455737N 0230517E	NIL	FRA (I)
NERDI	451846N 0234211E	NIL	FRA (I)
NETUL	444143N 0265843E	Z930, SID/STAR LRBS/LROP	FRA (A): LRBS, LROP FRA (D): LRBS, LROP FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
NIGAB	443236N 0262936E	SID LRBS	
NIGEV	435841N 0244514E	NIL	FRA (I)
NOPTI	461855N 0215947E	Z939, SID/STAR LRAR, SID/STAR LRTR	FRA (A): LRAR, LRTR FRA (D): LRAR, LRTR FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
NULGO	440242N 0234302E	NIL	FRA (I)
NUNTA	470615N 0275130E	NIL	FRA (I)
NURPO	442807N 0291856E	STAR LRCK	FRA (A): LRCK FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
OBARA	470153N 0224259E	Z941	FRA (A): LROD FRA (D): LROD FRA (I)
OBCAS	453455N 0255025E	SID/STAR LRBV	FRA (I)
OBELA	443244N 0254938E	STAR, IAC LROP	FRA (I): FL175-FL660
OBUDO	443804N 0261112E	Otopeni CTR	
OBUGA	440632N 0260539E	L622, STAR LRBS/LROP	FRA (A): LRBS, LROP FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
OGATA	444846N 0300751E	NIL	FRA (E): EVEN

1	2	3	4
OGUPI	443632N 0260420E	Otopeni CTR, VFR route	
OKAGO	444749N 0263420E	STAR LRBS, LROP	
OKAXA	464911N 0235637E	SID LRTM	
OKIGO	474118N 0231102E	IAC LRBM	
OKLIV	471618N 0233121E	T995	FRA (A): LRBM FRA (D): LRBM FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
~~OLMEB~~	~~472555N 0232707E~~	~~T995~~	~~FRA (I)~~
OLMIP	460243N 0222212E	NIL	FRA (I): FL175-FL660
OLNOR	442318N 0261918E	SID LRBS/LROP	
OMISU	454800N 0213612E	IAC LRTR	FRA (I): FL175-FL660
ORBUF	453447N 0252433E	IAC LRBV	
ORSUT	441034N 0260433E	SID LRBS/LROP	
ORTIP	435840N 0251959E	NIL	FRA (I): FL175-FL660
ORVET	442443N 0253926E	STAR LRBS	
ORXIK	470907N 0221443E	Z941	FRA (I)
OSDOR	445835N 0300300E	NIL	FRA (X): EVEN
OSTAL	441641N 0264622E	Z946, STAR LRBS/LROP	FRA (A): LRBS, LROP FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
OSTOV	434700N 0234800E	NIL	FRA (I): FL175-FL660 FRA (X): FL165-FL175: ODD
OTRIX	455257N 0241700E	STAR LRCL, SID LRSB, STAR LRTM	
OVDOT	443220N 0225837E	T139	FRA (A): LRCV FRA (I)
OZZET	441918N 0241037E	IAC LRCV	
PADGU	444643N 0223638E	NIL	FRA (I)
PANZU	440212N 0240813E	T139, T226, IAC LRCV	FRA (I)
PASKA	472003N 0262954E	T4, SID LRSV, IAC LRSV	FRA (I)
PATWA	442840N 0260422E	Băneasa CTR, VFR route	
PELES	461302N 0270312E	T4	FRA (D): LRBC FRA (I)
PELUR	451712N 0252918E	NIL	FRA (I)
PEMOK	442153N 0242054E	T285, T899, IAC LRCV, SID LRCV	FRA (A): LROP FRA (I)
PEMUT	474107N 0231253E	IAC LRBM	
PEQIN	463836N 0271338E	Z924	
PETAV	443409N 0262442E	ENTRY/EXIT POINT CTR LROP	
PETOS	442836N 0252715E	STAR LRBS	FRA (I): FL175-FL660
PEVEX	440412N 0282655E	IAC/~~STAR~~ LRCK	FRA (I): FL175-FL660
PEVIL	472902N 0224838E	IAC LRSM	
PEXAL	444300N 0260529E	SID LROP	FRA (I): FL175-FL660
PIKUV	460330N 0240541E	STAR LRSB	
PILAT	444926N 0280552E	T4, T77, SID/STAR LRCK	FRA (A): LRCK, LRTC FRA (D): LRCK, LRTC FRA (I): FL175-FL660 FRA (E): FL105-FL175 FRA (X): FL105-FL175
PINUB	461913N 0241128E	SID LRSB, STAR LRTM	
PIRIG	464932N 0274344E	Y32, Z931	FRA (I)
PITIS	443435N 0283102E	STAR, IAC LRCK	
POGAV	464654N 0281000E	Z650	FRA (A): LRBC FRA (D): LRBC FRA (I)
POLUN	441415N 0251324E	Y88, Z944, SID LRBS/LROP	FRA (D): LRBS, LROP FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
PRAOS	474424N 0264129E	IAC LRSV	
RAMIX	461722N 0272019E	Y32	FRA (I)
RAMOD	474954N 0261721E	IAC LRSV	

1	2	3	4
RARIT	443604N 0262453E	STAR, IAC LROP	
RASAR	443726N 0254443E	ENTRY/EXIT POINT CTR LROP	
RASUB	435844N 0252506E	NIL	FRA (I): FL175-FL660
REBDI	450322N 0282825E	Z935	FRA (I)
REBLA	464536N 0234441E	NIL	FRA (I): FL175-FL660
REDKU	463024N 0263256E	Z650, STAR LRBC	FRA (I)
REPTO	473811N 0240000E	T33	FRA (A): LRBM FRA (D): LRBM FRA (I)
REVDA	434400N 0290836E	STAR LRCK	FRA (A): LRCK FRA (I): FL175-FL660
RIDPA	443719N 0262914E	SID LROP	
RILAS	471944N 0223637E	NIL	FRA (I)
RIPGA	451131N 0275407E	Z935	FRA (D): LRTC FRA (I)
RIRUX	443202N 0260406E	Otopeni CTR, VFR route	
RISUC	455251N 0254224E	IAC LRBV	
RIVKA	474227N 0262959E	IAC LRSV	
RIVOS	443921N 0273917E	Z930, SID/STAR LRCK	FRA (A): LRCK FRA (D): LRCK FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
ROMAG	472522N 0222507E	M423, Z932	FRA (A): LROD, LRSM FRA (D): LROD, LRSM FRA (I)
ROMOL	474408N 0250251E	NIL	FRA (E): ODD FRA (X): EVEN
ROMUX	455121N 0203724E	STAR LRAR, STAR LRTR	
RONBU	440306N 0262954E	NIL	FRA (I): FL175-FL660
ROTBI	443005N 0255635E	Otopeni CTR, VFR route	
RUCCU	475149N 0261629E	IAC LRSV	
RUKAT	443835N 0260940E	SID LROP	
RULES	471146N 0220411E	M423, Z941	FRA (I)
RUMUK	480136N 0232036E	M423, T995	FRA (A): LRSM, LRBM FRA (D): LRSM, LRBM FRA (E): ODD FRA (X): EVEN
RUPUG	465433N 0221511E	Y559	FRA (I)
RUSAG	455824N 0241552E	SID LRSB	FRA (I): FL175-FL660
RUTUV	462425N 0240613E	STAR LRTM	FRA (I): FL175-FL660
SALAC	464427N 0264407E	T4	FRA (I)
SISGU	442210N 0252753E	SID LRBS, LROP	
SOBSA	460253N 0250514E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
SODGO	445202N 0225051E	T226	FRA (D): LRCV FRA (I)
SOKRU	445934N 0251949E	SID LRBS, LROP	FRA (D): LRBS, LROP FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
SOMET	474140N 0230939E	T33, IAC LRBM, LRSM	FRA (I)
SOMOV	434200N 0245100E	Z937	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
SONOB	443123N 0254558E	ENTRY/EXIT POINT CTR LROP	
SORDU	440233N 0252648E	Z937, STAR LRBS/LROP	FRA (A): LRBS, LROP FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
SORUR	443446N 0255357E	Otopeni CTR, VFR route	
SOSIL	452105N 0211828E	SID/STAR LRTR	

3. Prohibited, Restricted and Danger Areas within BUCUREŞTI FIR

Identification, name and lateral limits	*Upper limit* *Lower limit*	*Remarks* *(time of activity, type of restriction, nature of hazard, risk of interception)*
1	2	3
PROHIBITED AREAS		
LRP2 CERNAVODĂ Circle of 1 NM (2 KM) radius centred on point of coordinates: 441920N 0280324E	4000 FT QNH GND	H24 Nuclear Energy Plant
LRP4 Circle of 5 KM radius centred on point of coordinates: 434424N 0234644E, except where inside SOFIA FIR.	FL85 GND	H24

Identification, name and lateral limits	*Upper limit* *Lower limit*	*Remarks* *(time of activity, type of restriction, nature of hazard, risk of interception)*
1	2	3
RESTRICTED AREAS		
LRR1 PITEŞTI/Geamăna Circle of 11 NM (20 KM) radius centred on point of coordinates: 445100N 0245300E	FL660 GND FL60 GND	Active: H24 Supersonic flights are prohibited. Subsonic flights are prohibited below 2000m STD (FL60), except aircraft with maximum take-of weight below 5.7 t.
LRR3 443025N 0261400E - 442720N 0255830E - 442100N 0260400E - 442100N 0261400E - to point of origin	FL105 GND	Active: H24 Penetration permission required, according to Government Decision HG no. 859/2021.
LRR4 Circle of 5 NM (10 KM) radius centred on point of coordinates: 442000N 0280200E except LRP2 airspace.	4000 FT QNH GND	Active: H24 Nuclear Energy Plant Except Romanian state aircraft performing SAR, medical evacuation, real world air policing, radiological survey, emergency intervention in case of real or drill nuclear or radiological alerts.
LRR5 453500N 0251235E - 453500N 0251630E - 453100N 0252240E - 452910N 0251900E - 453000N 0251600E - 452400N 0251300E - 452255N 0251455E - 452142N 0251310E - 452310N 0251035E - 452410N 0251200E - 452800N 0250840E - 453025N 0250840E	600 M AGL GND	Time of activity: H24, except state aircraft.
LRR6 Area bounded by lines joining points 440922N 0260215E then along the clockwise arc of a circle of 3 NM radius centred on 440708N 0260503E to 440454N 0260215E to point of origin.	2000 FT AMSL GND	H24
LRR7 BERCENI 442100N 0260400E - 442100N 0261400E - 441840N 0261400E - 441840N 0261100E - 442100N 0260400E	2000 FT AMSL GND	H24 For VFR flights except Romanian state aircraft performing SAR, real world air policing, medical evacuation.
LRR8 BALTENI Circle of 1 NM radius centred on point of coordinates: 444327N 0260309E	2400 FT AMSL GND	H24 For VFR flights except Romanian state aircraft performing SAR, real world air policing, medical evacuation.
LRR9 NEPTUN Circle of 1 NM radius centred on point of coordinates: 435219N 0283614E	2100 FT AMSL GND	H24 For VFR flights except Romanian state aircraft performing SAR, real world air policing, medical evacuation.
LRR50 A circle, radius 13.5 NM (25 KM) centred at 434424N 0234644E, except where inside SOFIA FIR.	FL165 GND	Time of activity: H24 Except SAR, real world air policing, medical evacuation, cartographic aerial photo aircraft and aircraft with maximum take-off weight below 5.7 t. Risk of interception in the event of penetration.

1	2	3
LRR101 Valea Călugărească Circle of 6 NM (12 KM) radius centred on point of coordinates: 445914N 0260920E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR102 Boldeşti-Scăieni Seciu Circle of 6 NM (12 KM) radius centred on point of coordinates: 450310N 0260309E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR103 Mehedinţa Circle of 6 NM (12 KM) radius centred on point of coordinates: 450619N 0261158E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR104 Ceptura Circle of 6 NM (12 KM) radius centred on point of coordinates: 450155N 0262013E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR105 Tătaru Circle of 6 NM (12 KM) radius centred on point of coordinates: 450621N 0261943E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR106 Câmpina Circle of 6 NM (12 KM) radius centred on point of coordinates: 450849N 0254442E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR107 Tufeni Circle of 6 NM (12 KM) radius centred on point of coordinates: 450255N 0255447E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR108 Vărbilău Circle of 6 NM (12 KM) radius centred on point of coordinates: 450900N 0255943E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR109 Tohani Circle of 6 NM (12 KM) radius centred on point of coordinates: 450352N 0262448E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR110 Proviţa Circle of 6 NM (12 KM) radius centred on point of coordinates: 450750N 0254115E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR111 Vipereşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 451418N 0262639E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR112 Pietroasele Circle of 6 NM (12 KM) radius centred on point of coordinates: 450354N 0263502E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR113 Tisău Circle of 6 NM (12 KM) radius centred on point of coordinates: 450946N 0262957E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR120 Boureni Circle of 6 NM (12 KM) radius centred on point of coordinates: 471341N 0263758E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR121 Maxut Circle of 6 NM (12 KM) radius centred on point of coordinates: 472750N 0265629E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR122 Valea Racului Circle of 6 NM (12 KM) radius centred on point of coordinates: 472119N 0265300E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR123 Ruginoasa Circle of 6 NM (12 KM) radius centred on point of coordinates: 471554N 0264938E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR124 Hodora Circle of 6 NM (12 KM) radius centred on point of coordinates: 471837N 0270003E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR125 Coarnele Caprei Circle of 6 NM (12 KM) radius centred on point of coordinates: 472258N 0270855E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR126 Bălţaţi Circle of 6 NM (12 KM) radius centred on point of coordinates: 471330N 0270822E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area

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LRR127 Strunga Circle of 6 NM (12 KM) radius centred on point of coordinates: 471051N 0265718E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR128 Luncaşi Circle of 6 NM (12 KM) radius centred on point of coordinates: 470707N 0264901E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR129 Lespezi Circle of 6 NM (12 KM) radius centred on point of coordinates: 472206N 0264117E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR130 Beciu-Vechi Circle of 6 NM (12 KM) radius centred on point of coordinates: 454348N 0270309E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR131 Angheleşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 460441N 0270623E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR132 Varniţa Circle of 6 NM (12 KM) radius centred on point of coordinates: 455900N 0265644E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR133 Panciu Circle of 6 NM (12 KM) radius centred on point of coordinates: 455616N 0270445E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR134 Boloteşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 455116N 0270057E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR135 Bizigheşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 454906N 0271132E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR136 Poiana Circle of 6 NM (12 KM) radius centred on point of coordinates: 460009N 0271527E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR137 Nicoreşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 455519N 0271759E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR138 Urecheşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 453650N 0270530E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR139 Răduleşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 454455N 0271926E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR142 Buneşti Avereşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 464704N 0275835E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR143 Codăeşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 465136N 0274710E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR145 Creţeşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 463849N 0275825E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR146 Soleşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 464431N 0274906E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR151 Mădulari Circle of 6 NM (12 KM) radius centred on point of coordinates: 444213N 0240504E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR152 Orleşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 444846N 0241323E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR153 Poboru Circle of 6 NM (12 KM) radius centred on point of coordinates: 444010N 0242634E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area

1	2	3
LRR154 Sâmbureşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 444855N 0242627E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR155 Dobroteasa Circle of 6 NM (12 KM) radius centred on point of coordinates: 444534N 0241758E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR156 Şuşani Circle of 6 NM (12 KM) radius centred on point of coordinates: 443321N 0240712E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR157 Ştefăneşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 443637N 0241514E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR160 Călmăţuiu Circle of 6 NM (12 KM) radius centred on point of coordinates: 435814N 0245148E	FL240 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR161 Troianul Circle of 6 NM (12 KM) radius centred on point of coordinates: 440037N 0250108E	FL240 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR162 Furculeşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 435200N 0250733E	FL240 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR163 Dracea Circle of 6 NM (12 KM) radius centred on point of coordinates: 435112N 0250104E	FL240 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR164 Olteanca Circle of 6 NM (12 KM) radius centred on point of coordinates: 435004N 0244804E	FL240 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR165 Plopii Slăviteşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 435732N 0244047E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR166 Cilieni Circle of 6 NM (12 KM) radius centred on point of coordinates: 435410N 0243553E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR167 Vişina Circle of 6 NM (12 KM) radius centred on point of coordinates: 435106N 0242649E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR168 Arvătеasca Circle of 6 NM (12 KM) radius centred on point of coordinates: 435715N 0242235E except LRR501 and LRR502 airspace.	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR169 Băbiciu Circle of 6 NM (12 KM) radius centred on point of coordinates: 440145N 0243253E except LRR501 and LRR502 airspace.	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR170 Gottlob Circle of 6 NM (12 KM) radius centred on point of coordinates: 455541N 0204316E except airspace within Belgrad FIR.	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR171 Recaş Circle of 6 NM (12 KM) radius centred on point of coordinates: 455017N 0213241E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR172 Topolovăţul Mare Circle of 6 NM (12 KM) radius centred on point of coordinates: 454650N 0213705E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR173 Belinţ Circle of 6 NM (12 KM) radius centred on point of coordinates: 454546N 0214550E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR174 Buziaş Circle of 6 NM (12 KM) radius centred on point of coordinates: 453824N 0213558E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area

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LRR175 Sânnicolaul Mare Circle of 6 NM (12 KM) radius centred on point of coordinates: 460335N 0203912E except airspace within Budapest FIR.	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR176 Topala Circle of 6 NM (12 KM) radius centred on point of coordinates: 454100N 0215655E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR177 Pădurani Circle of 6 NM (12 KM) radius centred on point of coordinates: 453232N 0215640E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR178 Darova Circle of 6 NM (12 KM) radius centred on point of coordinates: 453748N 0214600E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR179 Saravale Igriş Circle of 6 NM (12 KM) radius centred on point of coordinates: 460359N 0204806E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR180 Valea Anilor Circle of 6 NM (12 KM) radius centred on point of coordinates: 442126N 0225515E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR181 Bălăciţa Circle of 6 NM (12 KM) radius centred on point of coordinates: 442240N 0230717E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR182 Danceu Circle of 6 NM (12 KM) radius centred on point of coordinates: 442132N 0224404E, except airspace within Belgrad FIR.	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR183 Oprişor Circle of 6 NM (12 KM) radius centred on point of coordinates: 441818N 0230319E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR184 Iablaniţa Circle of 6 NM (12 KM) radius centred on point of coordinates: 442759N 0225842E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR185 Punghina Circle of 6 NM (12 KM) radius centred on point of coordinates: 441638N 0225556E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR186 Rogova Circle of 6 NM (12 KM) radius centred on point of coordinates: 442835N 0224843E, except airspace within Belgrad FIR.	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR190 Dalga Circle of 6 NM (12 KM) radius centred on point of coordinates: 440929N 0234808E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR191 Cerăt Circle of 6 NM (12 KM) radius centred on point of coordinates: 440432N 0234028E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR192 Radovan Circle of 6 NM (12 KM) radius centred on point of coordinates: 440858N 0233605E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR193 Padea Circle of 6 NM (12 KM) radius centred on point of coordinates: 440100N 0234738E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR194 Criva Circle of 6 NM (12 KM) radius centred on point of coordinates: 441548N 0233821E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR206 Circle of 2 NM radius centred on point of coordinates 443846N 0253632E.	2000 FT AMSL GND	Time of activity: H24 Except SAR, real world air policing and medical evacuation aircraft. Risk of interception in the event of penetration.

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LRR220 Plugari Circle of 6 NM (12 KM) radius centred on point of coordinates: 472927N 0270519E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR221 Mihail Kogălniceanu Circle of 6 NM (12 KM) radius centred on point of coordinates: 472117N 0272434E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR222 Românești Circle of 6 NM (12 KM) radius centred on point of coordinates: 471619N 0271836E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR223 Şolda Circle of 6 NM (12 KM) radius centred on point of coordinates: 472911N 0271807E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR230 Milcovul Circle of 6 NM (12 KM) radius centred on point of coordinates: 453828N 0271442E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR231 Bordeasca Nouă Circle of 6 NM (12 KM) radius centred on point of coordinates: 453128N 0271833E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR232 Sihlea Circle of 6 NM (12 KM) radius centred on point of coordinates: 452933N 0270713E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR233 Vulturu Circle of 6 NM (12 KM) radius centred on point of coordinates: 453653N 0272632E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR234 Măcişeni Circle of 6 NM (12 KM) radius centred on point of coordinates: 455152N 0274451E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR235 Cuca Circle of 6 NM (12 KM) radius centred on point of coordinates: 454505N 0275422E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR236 Târgu Bujor Circle of 6 NM (12 KM) radius centred on point of coordinates: 455255N 0275353E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR237 Ghingheşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 455811N 0274622E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR238 Tălpigi Circle of 6 NM (12 KM) radius centred on point of coordinates: 455909N 0272829E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR239 Băneasa Circle of 6 NM (12 KM) radius centred on point of coordinates: 455639N 0275539E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR270 Lovrin Circle of 6 NM (12 KM) radius centred on point of coordinates: 455801N 0204903E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR271 Periam Varias Circle of 6 NM (12 KM) radius centred on point of coordinates: 460046N 0205653E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR272 Jimbolia Cărpiniş Circle of 6 NM (12 KM) radius centred on point of coordinates: 455129N 0205316E except airspace within Belgrad FIR	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR300 Câmpeniţa Circle of 6 NM (12 KM) radius centred on point of coordinates: 463846N 0242719E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR301 Glodeni Circle of 6 NM (12 KM) radius centred on point of coordinates: 464036N 0243602E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR302 Breaza Circle of 6 NM (12 KM) radius centred on point of coordinates: 464449N 0243829E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area

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LRR303 Fărăgău Circle of 6 NM (12 KM) radius centred on point of coordinates: 464514N 0243202E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR304 Goreni Circle of 6 NM (12 KM) radius centred on point of coordinates: 465039N 0243946E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR305 Logig Circle of 6 NM (12 KM) radius centred on point of coordinates: 465211N 0243449E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR306 Căpâlna De Sus Circle of 6 NM (12 KM) radius centred on point of coordinates: 462234N 0242609E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR307 Şoimuş Circle of 6 NM (12 KM) radius centred on point of coordinates: 462316N 0243521E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR308 Cund Circle of 6 NM (12 KM) radius centred on point of coordinates: 461609N 0243031E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR309 Delenii Circle of 6 NM (12 KM) radius centred on point of coordinates: 461630N 0242016E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR310 Sântămărie Circle of 6 NM (12 KM) radius centred on point of coordinates: 461423N 0240840E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR311 Alecuş Circle of 6 NM (12 KM) radius centred on point of coordinates: 461734N 0240008E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR312 Valea Lungă Circle of 6 NM (12 KM) radius centred on point of coordinates: 460846N 0240338E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR313 Blaj Circle of 6 NM (12 KM) radius centred on point of coordinates: 461034N 0235333E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR314 Ciuguzel Circle of 6 NM (12 KM) radius centred on point of coordinates: 461719N 0235049E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR315 Căpud Circle of 6 NM (12 KM) radius centred on point of coordinates: 461217N 0234428E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR316 Tătăreşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 474106N 0230125E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR317 Stâna Circle of 6 NM (12 KM) radius centred on point of coordinates: 473103N 0225758E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR318 Ardud Circle of 6 NM (12 KM) radius centred on point of coordinates: 473743N 0225317E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR319 Supuru De Jos Circle of 6 NM (12 KM) radius centred on point of coordinates: 472750N 0224759E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR320 Satu Mic Circle of 6 NM (12 KM) radius centred on point of coordinates: 473435N 0224225E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR321 Trebeşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 474052N 0224436E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR322 Ghenci Circle of 6 NM (12 KM) radius centred on point of coordinates: 473816N 0223202E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area

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LRR323 Santău Circle of 6 NM (12 KM) radius centred on point of coordinates: 473043N 0223111E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR324 Sărăuad Circle of 6 NM (12 KM) radius centred on point of coordinates: 472801N 0223747E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR325 Petreşti Circle of 6 NM (12 KM) radius centred on point of coordinates: 473541N 0222117E	FL255 GND	Active: by NOTAM Anti-hail Rocket firing Area
LRR501 Circle of 2.16 NM (4 KM) radius centered on point of coordinates: 440436N 0242506E	FL165 GND	Time of activity: H24 Except Romanian state aircraft performing SAR, real world air policing, medical evacuation, cartographic aerial photo. Potential hazard to aircraft operations. Risk of interception in the event of penetration.
LRR502 Circle of 4.86 NM (9 KM) radius centered on point of coordinates: 440436N 0242506E	FL410 FL165	Time of activity: H24 Except Romanian state aircraft performing SAR, real world air policing, medical evacuation, cartographic aerial photo. Potential hazard to aircraft operations. Risk of interception in the event of penetration.
LRR503 Circle of 9.18 NM (17 KM) radius centered on point of coordinates: 440436N 0242506E	FL660 FL410	Time of activity: H24 Except Romanian state aircraft performing SAR, real world air policing, medical evacuation, cartographic aerial photo. Potential hazard to aircraft operations. Risk of interception in the event of penetration.

Identification, name and lateral limits	*Upper limit* *Lower limit*	*Remarks* *(time of activity, type of restriction, nature of hazard, risk of interception)*
1	2	3
DANGER AREAS		
LRD01A BABADAG (TULCEA) 445500N 0285300E - 445500N 0290000E - 445010N 0290000E - 444735N 0284344E - 445025N 0284130E - 445500N 0285300E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD01B BABADAG (TULCEA) 445500N 0285300E - 445500N 0290000E - 445010N 0290000E - 444735N 0284344E - 445025N 0284130E - 445500N 0285300E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD01C BABADAG (TULCEA) 445500N 0285300E - 445500N 0290000E - 445010N 0290000E - 444735N 0284344E - 445025N 0284130E - 445500N 0285300E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD03A BOGATA-TURDA (CLUJ-ALBA) 463300N 0234700E - 462800N 0235100E - 462400N 0234700E - 462800N 0234600E - 463300N 0234700E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD03B BOGATA-TURDA (CLUJ-ALBA) 463300N 0234700E - 462800N 0235100E - 462400N 0234700E - 462800N 0234600E - 463300N 0234700E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD04A BOTOSESTI-PAIA (MEHEDINTI) 442530N 0231100E - 442240N 0231630E - 442125N 0231430E - 442400N 0230930E - 442530N 0231100E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD04B BOTOSESTI-PAIA (MEHEDINTI) 442530N 0231100E - 442240N 0231630E - 442125N 0231430E - 442400N 0230930E - 442530N 0231100E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD05A PRISLOP 452147N 0251220E - 452128N 0251235E - 452123N 0251235E - 452139N 0251155E - 452147N 0251220E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD05B PRISLOP 452147N 0251220E - 452128N 0251235E - 452123N 0251235E - 452139N 0251155E - 452147N 0251220E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD06A CAP MIDIA (CONSTANTA) 442933N 0293107E - 442412N 0293156E - 440901N 0292644E - 440427N 0292219E - 441333N 0285130E - 442205N 0284225E - 442400N 0284225E - 442930N 0285535E - 442933N 0293107E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD06B CAP MIDIA (CONSTANTA) 442933N 0293107E - 442412N 0293156E - 440901N 0292644E - 440427N 0292219E - 441333N 0285130E - 442205N 0284225E - 442400N 0284225E - 442930N 0285535E - 442933N 0293107E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD06C CAP MIDIA (CONSTANTA) 442933N 0293107E - 442412N 0293156E - 440901N 0292644E - 440427N 0292219E - 441333N 0285130E - 442205N 0284225E - 442400N 0284225E - 442930N 0285535E - 442933N 0293107E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range

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LRD07A CAP MIDIA 2 (CONSTANTA) 442930N 0285535E - 442505N 0290112E - 441942N 0290049E - 441434N 0285756E - 441306N 0285620E - 442205N 0284225E - 442526N 0284230E - 442930N 0285535E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD07B CAP MIDIA 2 (CONSTANTA) 442930N 0285535E - 442505N 0290112E - 441942N 0290049E - 441434N 0285756E - 441306N 0285620E - 442205N 0284225E - 442526N 0284230E - 442930N 0285535E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD07C CAP MIDIA 2 (CONSTANTA) 442930N 0285535E - 442505N 0290112E - 441942N 0290049E - 441434N 0285756E - 441306N 0285620E - 442205N 0284225E - 442526N 0284230E - 442930N 0285535E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD08A CINCU (BRASOV) 460107N 0244512E - 455500N 0245448E - 455500N 0245024E - 455830N 0244248E - 460107N 0244512E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD08B CINCU (BRASOV) 460107N 0244512E - 455500N 0245448E - 455500N 0245024E - 455830N 0244248E - 460107N 0244512E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD08C CINCU (BRASOV) 460107N 0244512E - 455500N 0245448E - 455500N 0245024E - 455830N 0244248E - 460107N 0244512E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD09A CÎRŢIŞOARA (SIBIU) 454404N 0243124E - 454404N 0243418E - 454224N 0243336E - 454224N 0243254E - 454404N 0243124E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD09B CÎRŢIŞOARA (SIBIU) 454404N 0243124E - 454404N 0243418E - 454224N 0243336E - 454224N 0243254E - 454404N 0243124E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD10A CINCU (BRAŞOV) 462400N 0243800E - 455527N 0253538E - 453013N 0250117E - 460000N 0242015E - 462400N 0243800E	FL100 GND	Active: by NOTAM Airspace affected: Lower Military flight activities
LRD10B CINCU (BRAŞOV) 462400N 0243800E - 455527N 0253538E - 453013N 0250117E - 460000N 0242015E - 462400N 0243800E	FL285 GND	Active: by NOTAM Airspace affected: Lower Military flight activities
Note: In case **LRD10A/LRD10B** is active, VFR flights shall use the following transit corridor for crossing the area: *Sibiu/LRSB (454610N 0241006E) - Făgăraş (455000N 0245800E) - 454552N 0252338E - Ghimbav/LRBG (454110N 0253144E), GND - 2000 FT AGL, 1 NM left/right of centerline.*		
LRD14A DUD-TAUTI (ARAD) 461700N 0215345E - 461625N 0215530E - 461315N 0215343E - 461420N 0215020E - 461700N 0215345E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD14B DUD-TAUTI (ARAD) 461700N 0215345E - 461625N 0215530E - 461315N 0215343E - 461420N 0215020E - 461700N 0215345E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD17A GĂINA 462150N 0224230E - 462050N 0224640E - 461930N 0224900E - 461940N 0224440E - 462150N 0224230E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range

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LRD17B GĂINA 462150N 0224230E - 462050N 0224640E - 461930N 0224900E - 461940N 0224440E - 462150N 0224230E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD19A GROHOTIS (BRAŞOV) 452800N 0254900E - 452800N 0255500E - 452300N 0255400E - 452300N 0254800E - 452800N 0254900E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD19B GROHOTIS (BRAŞOV) 452800N 0254900E - 452800N 0255500E - 452300N 0255400E - 452300N 0254800E - 452800N 0254900E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD21A JEGALIA (CĂLĂRAŞI) 443330N 0273300E - 443330N 0273420E - 442530N 0273420E - 442530N 0273310E - 443330N 0273300E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD21B JEGALIA (CĂLĂRAŞI) 443330N 0273300E - 443330N 0273420E - 442530N 0273420E - 442530N 0273310E - 443330N 0273300E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD21C JEGALIA (CĂLĂRAŞI) 443330N 0273300E - 443330N 0273420E - 442530N 0273420E - 442530N 0273310E - 443330N 0273300E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD24A JIGODIN (HARGHITA) 462035N 0254725E - 462030N 0254750E - 461925N 0254715E - 461930N 0254700E - 462035N 0254725	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD24B JIGODIN (HARGHITA) 462035N 0254725E - 462030N 0254750E - 461925N 0254715E - 461930N 0254700E - 462035N 0254725	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD37A SÂI (SATU-MARE) 474040N 0230910E - 473950N 0230910E - 473955N 0230830E - 474000N 0230830E - 474040N 0230910E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD37B SÂI (SATU-MARE) 474040N 0230910E - 473950N 0230910E - 473955N 0230830E - 474000N 0230830E - 474040N 0230910E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD38A SMÂRDAN-MĂLINA (GALAŢI) 454010N 0275250E - 454010N 0275815E - 453030N 0275815E - 453030N 0275250E - 454010N 0275250E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD38B SMÂRDAN-MĂLINA (GALAŢI) 454010N 0275250E - 454010N 0275815E - 453030N 0275815E - 453030N 0275250E - 454010N 0275250E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD38C SMÂRDAN-MĂLINA (GALAŢI) 454010N 0275250E - 454010N 0275815E - 453030N 0275815E - 453030N 0275250E - 454010N 0275250E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD39A SMÂRDAN-MĂLINA (GALAŢI) A circle, radius 20NM centred at 453437N 0275451E, limited by FIR boundary	FL100 GND	Active: by NOTAM Airspace affected: Lower Military flight activities
LRD39B SMÂRDAN-MĂLINA (GALAŢI) A circle, radius 20NM centred at 453437N 0275451E, limited by FIR boundary	FL285 GND	Active: by NOTAM Airspace affected: Lower Military flight activities

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LRD43A VOINA PORTĂREASA (ARGEŞ) 452830N 0245440E - 452830N 0250100E - 452410N 0250100E - 452410N 0245440E - 452830N 0245440E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD43B VOINA PORTĂREASA (ARGEŞ) 452830N 0245440E - 452830N 0250100E - 452410N 0250100E - 452410N 0245440E - 452830N 0245440E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD70A MANGALIA2 435500N 0285100E - 435500N 0290800E - 434500N 0290800E - 434500N 0285100E - 435500N 0285100E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD70B MANGALIA2 435500N 0285100E - 435500N 0290800E - 434500N 0290800E - 434500N 0285100E - 435500N 0285100E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD70C MANGALIA2 435500N 0285100E - 435500N 0290800E - 434500N 0290800E - 434500N 0285100E - 435500N 0285100E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD71A MANGALIA3 435500N 0290800E - 435500N 0293000E - 434500N 0293000E - 434500N 0290800E - 435500N 0290800E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD71B MANGALIA3 435500N 0290800E - 435500N 0293000E - 434500N 0293000E - 434500N 0290800E - 435500N 0290800E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD72A TUZLA3 440500N 0290800E - 440500N 0293000E - 435500N 0293000E - 435500N 0290800E - 440500N 0290800E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD72B TUZLA3 440500N 0290800E - 440500N 0293000E - 435500N 0293000E - 435500N 0290800E - 440500N 0290800E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD72C TUZLA3 440500N 0290800E - 440500N 0293000E - 435500N 0293000E - 435500N 0290800E - 440500N 0290800E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD73A CONSTANŢA3 441500N 0290800E - 441500N 0293000E - 440500N 0293000E - 440500N 0290800E - 441500N 0290800E	FL100 GND	Active: by NOTAM Airspace afected: Lower Firing Range
LRD73B CONSTANŢA3 441500N 0290800E - 441500N 0293000E - 440500N 0293000E - 440500N 0290800E - 441500N 0290800E	FL285 GND	Active: by NOTAM Airspace afected: Lower Firing Range
LRD73C CONSTANŢA3 441500N 0290800E - 441500N 0293000E - 440500N 0293000E - 440500N 0290800E - 441500N 0290800E	FL660 GND	Active: by NOTAM Airspace afected: Lower, Upper Firing Range
LRD74A MIDIA2 442500N 0285100E - 442500N 0290800E - 441500N 0290800E - 441500N 0285100E - 442500N 0285100E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD74B MIDIA2 442500N 0285100E - 442500N 0290800E - 441500N 0290800E - 441500N 0285100E - 442500N 0285100E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range

1	2	3
LRD74C MIDIA2 442500N 0285100E - 442500N 0290800E - 441500N 0290800E - 441500N 0285100E - 442500N 0285100E	FL660 GND	Active: by NOTAM Airspace affected: Lower, Upper Firing Range
LRD75A MIDIA3 442500N 0290800E - 442500N 0293000E - 441500N 0293000E - 441500N 0290800E - 442500N 0290800E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD75B MIDIA3 442500N 0290800E - 442500N 0293000E - 441500N 0293000E - 441500N 0290800E - 442500N 0290800E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD76A SFÂNTU GHEORGHE 445800N 0295700E - 444300N 0295400E - 445200N 0293600E - 445600N 0293600E - 445800N 0295700E	FL100 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD76B SFÂNTU GHEORGHE 445800N 0295700E - 444300N 0295400E - 445200N 0293600E - 445600N 0293600E - 445800N 0295700E	FL285 GND	Active: by NOTAM Airspace affected: Lower Firing Range
LRD100A BUCUREŞTI/Clinceni Circle of 6 NM (12 KM) radius centred on point of coordinates: 441800N 0255600E	2000 FT AMSL GND	Active: by NOTAM Airspace affected: Lower Sports activity of aircraft and gliders
LRD100B BUCUREŞTI/Clinceni Circle of 6 NM (12 KM) radius centred on point of coordinates: 441800N 0255600E	FL60 GND	Active: by NOTAM Sports activity of aircraft, gliders and parachute jumping.
LRD100C BUCUREŞTI/Clinceni Circle of 6 NM (12 KM) radius centred on point of coordinates: 441800N 0255600E	FL130 GND	Active: by NOTAM Sports activity of aircraft, gliders and parachute jumping
LRD101 PLOIEŞTI/Strejnic Circle of 5 NM (10 KM) radius centred on point of coordinates: 445500N 0255800E	ALT 4000 FT(1200 M) GND	All the year: HJ Sports activity of gliders and parachute jumping
LRD103 BRAŞOV 454717N 0253951E - 454438N 0254522E - 453912N 0253953E - 454204N 0253421E	4000 FT AMSL GND	Active: by NOTAM Sports activity of aircraft, gliders and parachute jumping.
LRD104 BRAŞOV 454717N 0253951E - 454438N 0254522E - 453912N 0253953E - 454204N 0253421E	FL80 GND	Active: by NOTAM Sports activity of gliders and parachute jumping.
LRD105 ZARNESTI 453512N 0252456E - 453329N 0252754E - 453114N 0252538E - 453259N 0252243E	FL80 GND	Active: by NOTAM Sports activity of gliders and parachute jumping.
LRD106A IANCA 451312N 0272538E - 451155N 0272838E - 451107N 0273029E - 450954N 0272929E - 450556N 0272613E - 450753N 0272117E - 451312N 0272538E	2000 FT AMSL GND	Active: by NOTAM Sports activity of aircraft, gliders and parachute jumping
LRD106B IANCA 451312N 0272538E - 451155N 0272838E - 451107N 0273029E - 450954N 0272929E - 450556N 0272613E - 450753N 0272117E - 451312N 0272538E	FL130 GND	Active: by NOTAM Sports activity of aircraft, gliders and parachute jumping
LRD107A DEVA Circle of 5 NM (10 KM) radius centred on point of coordinates: 455159N 0225758E	FL100 GND	Active: by NOTAM Sports activity of aircraft, gliders and parachute jumping

ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS

AND AIR DEFENCE IDENTIFICATION ZONE (ADIZ)

Temporary Reserved Area (TRA) is a defined volume of airspace normally under the jurisdiction of one aviation authority and temporarily reserved, by common agreement, for the specific use by another aviation authority and through which other traffic may be allowed to transit, only by ATC clearance, based on a previous coordination between the concerned ATS Units, according to pre-established procedures.

Temporary Segregated Area (TSA) is a defined volume of airspace normally under the jurisdiction of one aviation authority and temporarily segregated, by common agreement, for the exclusive use by another aviation authority and through which other traffic will not be allowed to transit.

In the context of the FUA Concept, all TRAs and TSAs are airspace reservations subject to management and allocation at ASM Level 2.

Zonă Rezervată Temporar (TRA) - volum de spaţiu aerian cu dimensiuni definite, aflat în mod normal sub jurisdicţia unei autorităţi de aviaţie, care este temporar rezervat, prin acord comun, pentru utilizarea specifică de către o altă autoritate de aviaţie şi în care tranzitul altui trafic decât cel pentru care s-a rezervat zona poate fi permis numai cu autorizarea ATC, în baza coordonării prealabile dintre unităţile ATS implicate, conform unor proceduri prestabilite.

Zonă Segregată Temporar (TSA) - volum de spaţiu aerian cu dimensiuni definite, aflat în mod normal sub jurisdicţia unei autorităţi de aviaţie, care este segregat temporar, prin acord comun, pentru utilizarea exclusivă de către o altă autoritate de aviaţie şi în care tranzitul altui trafic nu va fi permis.

În contextul conceptului FUA (Utilizarea Flexibilă a Spaţiului Aerian), toate zonele de tip TRA sau TSA sunt rezervări de spaţiu aerian supuse managementului şi alocării ASM Level 2.

Identification, name and lateral limits	*Upper limit* *Lower limit*	*Remarks* *(time of activity, type of restriction, nature of hazard, risk of interception)*
1	2	3
TEMPORARY RESERVED AREAS (TRA)		
LRTRA1G 460413N 0213021E - 455833N 0215237E - 454952N 0213733E - 455414N 0212025E - 460413N 0213021E	4500 FT AMSL GND	Active: by NOTAM
LRTRA2 (IAŞI) Circle of 6 NM radius centred on point of coordinates: 471000N 0273500E	Vertical limits are issued by NOTAM	Active: by NOTAM Airspace affected: Lower
LRTRA2G 454604N 0210750E - 454319N 0211849E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E	3500 FT AMSL GND	Active: by NOTAM
LRTRA2L 454604N 0210750E - 454319N 0211849E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E	FL200 3500 FT AMSL	Active: by NOTAM
LRTRA3G 454319N 0211849E - 453954N 0213226E - 451500N 0214400E - 452257N 0212807E - 454319N 0211849E	5500 FT AMSL GND	Active: by NOTAM
LRTRA3L 454319N 0211849E - 453954N 0213226E - 451500N 0214400E - 452257N 0212807E - 454319N 0211849E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA4 443350N 0260512E - 443409N 0262442E - 443021N 0255635E - 443123N 0254558E - 443350N 0260512E	1017 FT MSL GND	Active: by ATC If LRTRA4 is activated, military helicopters training activity goes up to 1017FT MSL (310M MSL). The flights are coordinated between civil and military ATS UNITS. The helipoint is located south of RWY 08R/26L. Flights operating on RWY 08R/26L are not affected.

1	2	3
LRTRA4G 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 453954N 0213226E - 454615N 0213541E	5500 FT AMSL GND	Active: by NOTAM
LRTRA4L 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 453954N 0213226E - 454615N 0213541E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA5G 452737N 0220252E - 451735N 0221614E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL80 GND	Active: by NOTAM
LRTRA5L 452737N 0220252E - 451735N 0221614E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL200 FL80	Active: by NOTAM
LRTRA6G 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451735N 0221614E	FL80 GND	Active: by NOTAM
LRTRA6L 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451735N 0221614E	FL200 FL80	Active: by NOTAM
LRTRA7G Circle of 3 NM radius centred on point of coordinates: 453358N 0215947E	4000 FT AMSL GND	Active: by NOTAM
LRTRA7L Circle of 3 NM radius centred on point of coordinates: 453358N 0215947E	FL200 4000 FT AMSL	Active: by NOTAM
LRTRA8G Circle of 3 NM radius centred on point of coordinates: 452221N 0222826E	FL90 GND	Active: by NOTAM
LRTRA8L Circle of 3 NM radius centred on point of coordinates: 452221N 0222826E	FL200 FL90	Active: by NOTAM
LRTRA9G Circle of 3 NM radius centred on point of coordinates: 451805N 0223329E	FL105 GND	Active: by NOTAM
LRTRA9L Circle of 3 NM radius centred on point of coordinates: 451805N 0223329E	FL200 FL105	Active: by NOTAM
LRTRA10G Circle of 3 NM radius centred on point of coordinates: 461503N 0215714E	5000 FT AMSL GND	Active: by NOTAM
LRTRA11G Circle of 3 NM radius centred on point of coordinates: 462019N 0224946E	FL80 GND	Active: by NOTAM
LRTRA11L Circle of 3 NM radius centred on point of coordinates: 462019N 0224946E	FL200 FL80	Active: by NOTAM
LRTRA12G Circle of 3 NM radius centred on point of coordinates: 454311N 0212234E	3500 FT AMSL GND	Active: by NOTAM
LRTRA12L Circle of 3 NM radius centred on point of coordinates: 454311N 0212234E	FL200 3500 FT AMSL	Active: by NOTAM
LRTRA13G 455618N 0210615E - 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E - 455618N 0210615E	5500 FT AMSL GND	Active: by NOTAM

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LRTRA13L 455618N 0210615E - 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E - 455618N 0210615E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA13M 455618N 0210615E - 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E - 455618N 0210615E	FL280 FL200	Active: by NOTAM
LRTRA13T 455618N 0210615E - 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E - 455618N 0210615E	FL660 FL350	Active: by NOTAM
LRTRA13U 455618N 0210615E - 454615N 0213541E - 454459N 0213923E - 452737N 0220252E - 451500N 0214400E - 452257N 0212807E - 453200N 0211000E - 454604N 0210750E - 455618N 0210615E	FL350 FL280	Active: by NOTAM
LRTRA14G 452737N 0220252E - 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL80 GND	Active: by NOTAM
LRTRA14L 452737N 0220252E - 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL200 FL80	Active: by NOTAM
LRTRA14M 452737N 0220252E - 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL280 FL200	Active: by NOTAM
LRTRA14T 452737N 0220252E - 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL660 FL350	Active: by NOTAM
LRTRA14U 452737N 0220252E - 451735N 0221614E - 450626N 0223103E - 445856N 0222603E - 445423N 0215258E - 451500N 0214400E - 452737N 0220252E	FL350 FL280	Active: by NOTAM
LRTRA20G 464448N 0240222E - 463207N 0241247E - 462804N 0240855E - 461925N 0241227E - 461711N 0241552E - 460938N 0241640E - 460949N 0241043E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 464303N 0235014E - 464448N 0240222E	3000 FT AMSL GND	Active: by NOTAM

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LRTRA21C 464551N 0240951E - 464200N 0241300E - 463458N 0241320E - 463150N 0241431E - 462938N 0241521E - 462152N 0241817E - 461518N 0242308E - 460923N 0242408E - 460938N 0241640E - 460949N 0241043E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 464303N 0235014E - 464448N 0240222E - 464551N 0240951E	FL75 3000 FT AMSL	Active: by NOTAM
LRTRA21L 464551N 0240951E - 464200N 0241300E - 463458N 0241320E - 463150N 0241431E - 462938N 0241521E - 462152N 0241817E - 461518N 0242308E - 460923N 0242408E - 460938N 0241640E - 460949N 0241043E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 464303N 0235014E - 464448N 0240222E - 464551N 0240951E	FL200 FL75	Active: by NOTAM
LRTRA21M 464551N 0240951E - 464200N 0241300E - 463458N 0241320E - 463150N 0241431E - 462938N 0241521E - 462152N 0241817E - 461518N 0242308E - 460923N 0242408E - 460938N 0241640E - 460949N 0241043E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 464303N 0235014E - 464448N 0240222E - 464551N 0240951E	FL280 FL200	Active: by NOTAM
LRTRA21T 464551N 0240951E - 464200N 0241300E - 463458N 0241320E - 463150N 0241431E - 462938N 0241521E - 462152N 0241817E - 461518N 0242308E - 460923N 0242408E - 460938N 0241640E - 460949N 0241043E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 464303N 0235014E - 464448N 0240222E - 464551N 0240951E	FL660 FL350	Active: by NOTAM
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LRTRA23G 463740N 0232209E - 461843N 0232743E - 462108N 0230437E - 463244N 0230039E - 463740N 0232209E	FL90 GND	Active: by NOTAM

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LRTRA40 444534N 0282900E - 442500N 0293100E - 445000N 0295100E - 451000N 0291400E - 450342N 0285449E - 450126N 0283000E - 444534N 0282900E	FL280 GND	Active: by NOTAM Airspace affected: Lower
LRTRA41 444534N 0282900E - 442500N 0293100E - 445000N 0295100E - 451000N 0291400E - 450342N 0285449E - 450126N 0283000E - 444534N 0282900E	FL660 L280	Active: by NOTAM Airspace affected: Upper

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LRTRA45L 465113N 0263534E - 462804N 0272955E - 461119N 0271451E - 463423N 0262039E - 465113N 0263534E	FL200 FL105	Active: by NOTAM
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LRTRA47U 473712N 0270852E - 472428N 0272339E - 471530N 0271100E - 470533N 0271459E - 464619N 0265626E - 464619N 0265055E - 472145N 0263650E - 473712N 0270852E	FL350 FL280	Active: by NOTAM
LRTRA48G Circle of 6 NM radius centred on point of coordinates: 463200N 0265200E	5500 FT AMSL GND	Active: by NOTAM
LRTRA48L Circle of 6 NM radius centred on point of coordinates: 463200N 0265200E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA48M Circle of 6 NM radius centred on point of coordinates: 463200N 0265200E	FL280 FL200	Active: by NOTAM
LRTRA50G Circle of 15 NM radius centred on point of coordinates: 451258N 0265843E	5500 FT AMSL GND	Active: by NOTAM
LRTRA51G Circle of 6 NM radius centred on point of coordinates: 451258N 0265843E	5500 FT AMSL GND	Active: by NOTAM
LRTRA51L Circle of 6 NM radius centred on point of coordinates: 451258N 0265843E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA51M Circle of 6 NM radius centred on point of coordinates: 451258N 0265843E	FL280 FL200	Active: by NOTAM
LRTRA52G 455249N 0261643E - 454409N 0263006E - 452906N 0262616E - 453639N 0260103E - 455249N 0261643E	FL130 GND	Active: by NOTAM
LRTRA53G 453639N 0260103E - 452906N 0262616E - 450810N 0262059E - 452222N 0254715E - 453639N 0260103E	FL130 GND	Active: by NOTAM
LRTRA54L 460805N 0255252E - 455249N 0261643E - 454409N 0263006E - 452906N 0262616E - 453639N 0260103E - 454003N 0254936E - 455604N 0255816E - 460805N 0255252E	FL200 FL130	Active: by NOTAM
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LRTRA54U 460805N 0255252E - 455249N 0261643E - 454409N 0263006E - 452906N 0262616E - 453639N 0260103E - 454003N 0254936E - 455604N 0255816E - 460805N 0255252E	FL350 FL280	Active: by NOTAM
LRTRA55L 454003N 0254936E - 453639N 0260103E - 452906N 0262616E - 450810N 0262059E - 452222N 0254715E - 452447N 0254126E - 454003N 0254936E	FL200 FL130	Active: by NOTAM

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LRTRA55T 454003N 0254936E - 453639N 0260103E - 452906N 0262616E - 450810N 0262059E - 452222N 0254715E - 452447N 0254126E - 454003N 0254936E	FL660 FL350	Active: by NOTAM
LRTRA55U 454003N 0254936E - 453639N 0260103E - 452906N 0262616E - 450810N 0262059E - 452222N 0254715E - 452447N 0254126E - 454003N 0254936E	FL350 FL280	Active: by NOTAM
LRTRA60G 463938N 0280000E - 461327N 0280035E - 461359N 0272900E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	5000 FT AMSL GND	Active: by NOTAM
LRTRA60L 463938N 0280000E - 461327N 0280035E - 461359N 0272900E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL200 5000 FT AMSL	Active: by NOTAM
LRTRA60M 463938N 0280000E - 461327N 0280035E - 461359N 0272900E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL280 FL200	Active: by NOTAM
LRTRA60T 463938N 0280000E - 461327N 0280035E - 461359N 0272900E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL660 FL350	Active: by NOTAM
LRTRA60U 463938N 0280000E - 461327N 0280035E - 461359N 0272900E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL350 FL280	Active: by NOTAM
LRTRA61G 462000N 0271022E - 461359N 0272900E - 455122N 0272501E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E	FL65 GND	Active: by NOTAM
LRTRA61L 462000N 0271022E - 461359N 0272900E - 455122N 0272501E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E	FL200 FL65	Active: by NOTAM
LRTRA61M 462000N 0271022E - 461359N 0272900E - 455122N 0272501E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E	FL280 FL200	Active: by NOTAM
LRTRA61T 462000N 0271022E - 461359N 0272900E - 455122N 0272501E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E	FL660 FL350	Active: by NOTAM
LRTRA61U 462000N 0271022E - 461359N 0272900E - 455122N 0272501E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E	FL350 FL280	Active: by NOTAM
LRTRA62G 461359N 0272900E - 461327N 0280035E - 455122N 0275540E - 455122N 0272501E - 461359N 0272900E	4500 FT AMSL GND	Active: by NOTAM

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LRTRA62L 461359N 0272900E - 461327N 0280035E - 455122N 0275540E - 455122N 0272501E - 461359N 0272900E	FL200 4500 FT AMSL	Active: by NOTAM
LRTRA62M 461359N 0272900E - 461327N 0280035E - 455122N 0275540E - 455122N 0272501E - 461359N 0272900E	FL280 FL200	Active: by NOTAM
LRTRA62T 461359N 0272900E - 461327N 0280035E - 455122N 0275540E - 455122N 0272501E - 461359N 0272900E	FL660 FL350	Active: by NOTAM
LRTRA62U 461359N 0272900E - 461327N 0280035E - 455122N 0275540E - 455122N 0272501E - 461359N 0272900E	FL350 FL280	Active: by NOTAM
LRTRA63G 455122N 0264637E - 455122N 0272501E - 452935N 0272114E - 453035N 0265051E - 453052N 0264117E - 453559N 0264237E - 455122N 0264637E	FL65 GND	Active: by NOTAM
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LRTRA63M 455122N 0264637E - 455122N 0272501E - 452935N 0272114E - 453035N 0265051E - 453052N 0264117E - 455122N 0264637E	FL280 FL200	Active: by NOTAM
LRTRA63T 455122N 0264637E - 455122N 0272501E - 452935N 0272114E - 453035N 0265051E - 453052N 0264117E - 455122N 0264637E	FL660 FL350	Active: by NOTAM
LRTRA63U 455122N 0264637E - 455122N 0272501E - 452935N 0272114E - 453035N 0265051E - 453052N 0264117E - 455122N 0264637E	FL350 FL280	Active: by NOTAM
LRTRA64G 455122N 0272501E - 455122N 0275540E - 452835N 0275040E - 452935N 0272114E - 455122N 0272501E	4000 FT AMSL GND	Active: by NOTAM
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LRTRA65U 453052N 0264117E - 453035N 0265051E - 452935N 0272114E - 451155N 0272838E - 451104N 0272859E - 450954N 0272929E - 450244N 0273236E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 453052N 0264117E	FL350 FL280	Active: by NOTAM
LRTRA66G 452935N 0272114E - 452835N 0275040E - 451332N 0281732E - 451107N 0273029E - 451155N 0272838E - 452935N 0272114E	4500 FT AMSL GND	Active: by NOTAM
LRTRA66L 452935N 0272114E - 452835N 0275040E - 451332N 0281732E - 451107N 0273029E - 451155N 0272838E - 452935N 0272114E	FL200 4500 FT AMSL	Active: by NOTAM
LRTRA66M 452935N 0272114E - 452835N 0275040E - 451332N 0281732E - 451107N 0273029E - 451104N 0272859E - 451155N 0272838E - 452935N 0272114E	FL280 FL200	Active: by NOTAM
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LRTRA67T 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 450244N 0273236E - 450954N 0272929E - 451104N 0272859E - 451107N 0273029E - 451332N 0281732E	FL660 FL350	Active: by NOTAM
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LRTRA68G 451312N 0272538E - 451155N 0272838E - 451107N 0273029E - 450954N 0272929E - 450556N 0272613E - 450753N 0272117E - 451312N 0272538E	3500 FT AMSL GND	Active: by NOTAM
LRTRA68L 451312N 0272538E - 451155N 0272838E - 451107N 0273029E - 450954N 0272929E - 450556N 0272613E - 450753N 0272117E - 451312N 0272538E	FL200 3500 FT AMSL	Active: by NOTAM
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LRTRA71G 442624N 0275521E - 441355N 0282323E - 440421N 0282842E - 440304N 0282924E - 435858N 0283141E - 435542N 0283330E - 435138N 0283546E - 434914N 0283336E - 435406N 0280546E - 440333N 0280016E - 440429N 0275521E - 442624N 0275521E	5500 FT AMSL GND	Active: by NOTAM
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LRTRA71T 442624N 0275521E - 441355N 0282323E - 440421N 0282842E - 440304N 0282924E - 435858N 0283141E - 435542N 0283330E - 435138N 0283546E - 434914N 0283336E - 435406N 0280546E - 440333N 0280016E - 440429N 0275521E - 442624N 0275521E	FL660 FL350	Active: by NOTAM
LRTRA71U 442624N 0275521E - 441355N 0282323E - 440421N 0282842E - 440304N 0282924E - 435858N 0283141E - 435542N 0283330E - 435138N 0283546E - 434914N 0283336E - 435406N 0280546E - 440333N 0280016E - 440429N 0275521E - 442624N 0275521E	FL350 FL280	Active: by NOTAM
LRTRA72G 443448N 0273125E - 443428N 0273703E - 442624N 0275521E - 440429N 0275521E - 440919N 0273125E - 443448N 0273125E	5500 FT AMSL GND	Active: by NOTAM
LRTRA72L 443448N 0273125E - 443428N 0273703E - 442624N 0275521E - 440429N 0275521E - 440919N 0273125E - 443448N 0273125E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA72M 443448N 0273125E - 443428N 0273703E - 442624N 0275521E - 440429N 0275521E - 440919N 0273125E - 443448N 0273125E	FL280 FL200	Active: by NOTAM
LRTRA72T 443448N 0273125E - 443428N 0273703E - 442624N 0275521E - 440429N 0275521E - 440919N 0273125E - 443448N 0273125E	FL660 FL350	Active: by NOTAM
LRTRA72U 443448N 0273125E - 443428N 0273703E - 442624N 0275521E - 440429N 0275521E - 440919N 0273125E - 443448N 0273125E	FL350 FL280	Active: by NOTAM
LRTRA73G 443613N 0270724E - 443448N 0273125E - 440919N 0273125E - 441205N 0271908E - 441321N 0270830E - 443613N 0270724E	5500 FT AMSL GND	Active: by NOTAM
LRTRA73L 443613N 0270724E - 443448N 0273125E - 440919N 0273125E - 441205N 0271908E - 441321N 0270830E - 443613N 0270724E	FL200 5500 FT AMSL	Active: by NOTAM
LRTRA73M 443613N 0270724E - 443448N 0273125E - 440919N 0273125E - 441205N 0271908E - 441321N 0270830E - 443613N 0270724E	FL280 FL200	Active: by NOTAM
LRTRA73T 443613N 0270724E - 443448N 0273125E - 440919N 0273125E - 441205N 0271908E - 441321N 0270830E - 443613N 0270724E	FL660 FL350	Active: by NOTAM

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LRTRA73U 443613N 0270724E - 443448N 0273125E - 440919N 0273125E - 441205N 0271908E - 441321N 0270830E - 443613N 0270724E	FL350 FL280	Active: by NOTAM
LRTRA74 Circle of 15 NM radius centred on point of coordinates: 442332N 0274336E	5500 FT AMSL GND	Active: by NOTAM
LRTRA80G 440401N 0283543E - 440059N 0284300E - 435404N 0283722E - 435542N 0283330E - 435706N 0283011E - 435858N 0283141E - 440401N 0283543E	3500 FT AMSL GND	Active: by NOTAM
LRTRA81G 440408N 0284535E - 440408N 0284812E - 435404N 0284814E - 435404N 0283722E - 440059N 0284300E - 440408N 0284535E	3000 FT AMSL GND	Active: by NOTAM
LRTRA82G 435404N 0283722E - 435404N 0284814E - 434500N 0284814E - 434500N 0283546E - 435404N 0283722E	3000 FT AMSL GND	Active: by NOTAM
LRTRA83G Circle of 2.5 NM radius centred on point of coordinates: 434913N 0282649E	3500 FT AMSL GND	Active: by NOTAM
LRTRA84G Circle of 2.5 NM radius centred on point of coordinates: 435720N 0282700E	3500 FT AMSL GND	Active: by NOTAM
LRTRA85G 440500N 0282500E - 440421N 0282842E - 440400N 0283040E - 440304N 0282924E - 440040N 0282610E - 440150N 0282230E - 440430N 0282200E - 440500N 0282500E	3500 FT AMSL GND	Active: by NOTAM
LRTRA90G Circle of 6 NM radius centred on point of coordinates: 444220N 0264301E	2000 FT AMSL GND	Active: by NOTAM
LRTRA91G Circle of 6 NM radius centred on point of coordinates: 441932N 0263021E	2000 FT AMSL GND	Active: by NOTAM
LRTRA91L Circle of 6 NM radius centred on point of coordinates: 441932N 0263021E	FL200 2000 FT AMSL	Active: by NOTAM
LRTRA92G Circle of 6 NM radius centred on point of coordinates: 441655N 0253201E	2000 FT AMSL GND	Active: by NOTAM
LRTRA92L Circle of 6 NM radius centred on point of coordinates: 441655N 0253201E	FL200 2000 FT AMSL	Active: by NOTAM
LRTRA93G Circle of 6 NM radius centred on point of coordinates: 443018N 0252910E	2000 FT AMSL GND	Active: by NOTAM
LRTRA94G 444704N 0253104E - 444456N 0254015E - 444145N 0254126E - 444421N 0252600E - 444704N 0253104E	2000 FT AMSL GND	Active: by NOTAM
LRTRA100G 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 443422N 0234004E - 445359N 0233344E	4500 FT AMSL GND	Active: by NOTAM
LRTRA100L 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 443422N 0234004E - 445359N 0233344E	FL200 4500 FT AMSL	Active: by NOTAM

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LRTRA100M 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 443422N 0234004E - 445359N 0233344E	FL280 FL200	Active: by NOTAM
LRTRA100T 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 443422N 0234004E - 445359N 0233344E	FL660 FL350	Active: by NOTAM
LRTRA100U 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 443422N 0234004E - 445359N 0233344E	FL350 FL280	Active: by NOTAM
LRTRA101G 443422N 0234004E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E	4500 FT AMSL GND	Active: by NOTAM
LRTRA101L 443422N 0234004E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E	FL200 4500 FT AMSL	Active: by NOTAM
LRTRA101M 443422N 0234004E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E	FL280 FL200	Active: by NOTAM
LRTRA101T 443422N 0234004E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E	FL660 FL350	Active: by NOTAM
LRTRA101U 443422N 0234004E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E	FL350 FL280	Active: by NOTAM
LRTRA102G 441912N 0241715E - 441849N 0241730E - 435503N 0240532E - 440733N 0234837E - 441901N 0234451E - 441912N 0241715E	4000 FT AMSL GND	Active: by NOTAM
LRTRA102L 441912N 0241715E - 441849N 0241730E - 435503N 0240532E - 440733N 0234837E - 441901N 0234451E - 441912N 0241715E	FL200 4000 FT AMSL	Active: by NOTAM
LRTRA102M 441912N 0241715E - 441849N 0241730E - 435503N 0240532E - 440733N 0234837E - 441901N 0234451E - 441912N 0241715E	FL280 FL200	Active: by NOTAM
LRTRA102T 441912N 0241715E - 441849N 0241730E - 435503N 0240532E - 440733N 0234837E - 441901N 0234451E - 441912N 0241715E	FL660 FL350	Active: by NOTAM
LRTRA102U 41912N 0241715E - 441849N 0241730E - 435503N 0240532E - 440733N 0234837E - 441901N 0234451E - 441912N 0241715E	FL350 FL280	Active: by NOTAM
LRTRA103G 442904N 0230410E - 442831N 0232731E - 435914N 0233702E - 440226N 0231725E - 442904N 0230410E	4500 FT AMSL GND	Active: by NOTAM
LRTRA103L 442904N 0230410E - 442831N 0232731E - 435914N 0233702E - 440226N 0231725E - 442904N 0230410E	FL200 4500 FT AMSL	Active: by NOTAM

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LRTRA103M 442904N 0230410E - 442831N 0232731E - 435914N 0233702E - 440226N 0231725E - 442904N 0230410E	FL280 FL200	Active: by NOTAM
LRTRA103T 442904N 0230410E - 442831N 0232731E - 435914N 0233702E - 440226N 0231725E - 442904N 0230410E	FL660 FL350	Active: by NOTAM
LRTRA103U 442904N 0230410E - 442831N 0232731E - 435914N 0233702E - 440226N 0231725E - 442904N 0230410E	FL350 FL280	Active: by NOTAM
LRTRA104G 445941N 0225512E - 445645N 0231823E - 443522N 0232522E - 443658N 0230406E - 445941N 0225512E	4500 FT AMSL GND	Active: by NOTAM
LRTRA104L 445941N 0225512E - 445645N 0231823E - 443522N 0232522E - 443658N 0230406E - 445941N 0225512E	FL200 4500 FT AMSL	Active: by NOTAM
LRTRA104M 445941N 0225512E - 445645N 0231823E - 443522N 0232522E - 443658N 0230406E - 445941N 0225512E	FL280 FL200	Active: by NOTAM
LRTRA104T 445941N 0225512E - 445645N 0231823E - 443522N 0232522E - 443658N 0230406E - 445941N 0225512E	FL660 FL350	Active: by NOTAM
LRTRA104U 445941N 0225512E - 445645N 0231823E - 443522N 0232522E - 443658N 0230406E - 445941N 0225512E	FL350 FL280	Active: by NOTAM
LRTRA105G 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E - 445359N 0233344E	4500 FT AMSL GND	Active: by NOTAM
LRTRA105L 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E - 445359N 0233344E	FL200 4500 FT AMSL	Active: by NOTAM
LRTRA105M 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E - 445359N 0233344E	FL280 FL200	Active: by NOTAM
LRTRA105T 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E - 445359N 0233344E	FL660 FL350	Active: by NOTAM
LRTRA105U 445359N 0233344E - 443733N 0240409E - 442605N 0241220E - 441912N 0241715E - 441901N 0234451E - 443422N 0234004E - 445359N 0233344E	FL350 FL280	Active: by NOTAM

1	2	3
LRTRA110A 473353N 0234552E - 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 472157N 0260518E - 471914N 0261302E - 471909N 0262229E - 470139N 0262932E - 464127N 0263734E - 463845N 0263515E - 463551N 0263354E - 463448N 0255708E - 463335N 0251212E - 463306N 0245647E - 463253N 0244947E - 463246N 0244704E - 463348N 0243815E - 463218N 0243032E - 463202N 0242110E - 463150N 0241431E - 463458N 0241320E - 464200N 0241300E - 464551N 0240951E - 470043N 0235741E - 472716N 0233558E - 472851N 0234023E - 473122N 0234449E - 473353N 0234552E	FL280 FL100	Active: by NOTAM
LRTRA110B 473353N 0234552E - 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 472323N 0262046E - 471909N 0262229E - 470139N 0262932E - 464127N 0263734E - 463845N 0263515E - 463551N 0263354E - 463448N 0255708E - 463335N 0251212E - 463306N 0245647E - 463253N 0244947E - 463246N 0244704E - 463232N 0243846E - 463218N 0243032E - 463202N 0242110E - 464200N 0241300E - 464551N 0240951E - 470043N 0235741E - 472716N 0233558E - 472851N 0234023E - 473122N 0234449E - 473353N 0234552E	FL660 FL280	Active: by NOTAM
LRTRA110C 473353N 0234552E - 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 472323N 0262046E - 471909N 0262229E - 470139N 0262932E - 464127N 0263734E - 463845N 0263515E - 463551N 0263354E - 463448N 0255708E - 463335N 0251212E - 464542N 0245231E - 470052N 0242731E - 472851N 0234023E - 473122N 0234449E - 473353N 0234552E	FL660 FL280	Active: by NOTAM
LRTRA110D 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 472323N 0262046E - 471909N 0262229E - 470139N 0262932E - 464127N 0263734E - 463845N 0263515E - 463551N 0263354E - 463448N 0255708E - 463335N 0251212E - 464542N 0245231E - 470054N 0244720E - 472722N 0243912E	FL660 FL280	Active: by NOTAM
LRTRA111A 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 453052N 0264117E - 453559N 0264237E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL280 FL65	Active: by NOTAM

1	2	3
LRTRA111B 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 453052N 0264117E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL660 FL280	Active: by NOTAM
LRTRA111C 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 450244N 0273236E - 450638N 0272648E - 450929N 0272235E - 453035N 0265051E - 453559N 0264237E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL660 FL280	Active: by NOTAM
LRTRA111D 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 452935N 0272114E - 453035N 0265051E - 453559N 0264237E - 454409N 0263006E - 455249N 0261643E - 460805N 0255252E - 461915N 0254749E - 462358N 0260554E - 462458N 0260945E - 462521N 0263413E - 462425N 0264443E - 463133N 0271952E - 463938N 0280000E	FL280 FL100	Active: by NOTAM
LRTRA111E 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 452935N 0272114E - 453035N 0265051E - 453559N 0264237E - 454409N 0263006E - 455249N 0261643E - 460805N 0255252E - 461915N 0254749E - 462358N 0260554E - 462458N 0260945E - 462521N 0263413E - 462425N 0264443E - 463133N 0271952E - 463938N 0280000E	FL660 FL280	Active: by NOTAM
LRTRA111F 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 450244N 0273236E - 450638N 0272648E - 450929N 0272235E - 453035N 0265051E - 453559N 0264237E - 454409N 0263006E - 455249N 0261643E - 460805N 0255252E - 461915N 0254749E - 462358N 0260554E - 462458N 0260945E - 462521N 0263413E - 462425N 0264443E - 463133N 0271952E - 463938N 0280000E	FL280 FL100	Active: by NOTAM

1	2	3
LRTRA111H 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 450244N 0273236E - 450638N 0272648E - 450929N 0272235E - 453035N 0265051E - 453559N 0264237E - 454409N 0263006E - 455249N 0261643E - 460805N 0255252E - 461915N 0254749E - 462358N 0260554E - 462458N 0260945E - 462521N 0263413E - 462425N 0264443E - 463133N 0271952E - 463938N 0280000E	FL660 FL280	Active: by NOTAM
LRTRA111I 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 452935N 0272114E - 453035N 0265051E - 453052N 0264117E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL280 FL65	Active: by NOTAM
LRTRA111J 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 452935N 0272114E - 453035N 0265051E - 453052N 0264117E - 455122N 0264637E - 461329N 0265222E - 462000N 0271022E - 463133N 0271952E - 463938N 0280000E	FL660 FL280	Active: by NOTAM
LRTRA111K 453052N 0264117E - 453035N 0265051E - 452935N 0272114E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 453052N 0264117E	FL280 FL65	Active: by NOTAM
LRTRA111N 453052N 0264117E - 453035N 0265051E - 452935N 0272114E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 453052N 0264117E	FL660 FL280	Active: by NOTAM
LRTRA112L 462521N 0263413E - 462004N 0263924E - 460306N 0263459E - 454409N 0263006E - 452906N 0262616E - 450810N 0262059E - 452222N 0254715E - 452447N 0254126E - 461915N 0254749E - 462358N 0260554E - 462458N 0260945E - 462521N 0263413E	FL200 FL130	Active: by NOTAM
LRTRA112M 462521N 0263413E - 462004N 0263924E - 460306N 0263459E - 454409N 0263006E - 452906N 0262616E - 450810N 0262059E - 452222N 0254715E - 452447N 0254126E - 461915N 0254749E - 462358N 0260554E - 462458N 0260945E - 462521N 0263413E	FL280 FL200	Active: by NOTAM

1	2	3
LRTRA113A 473712N 0270852E - 472428N 0272339E - 465702N 0275524E - 464504N 0280005E - 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 450412N 0263404E - 453013N 0250117E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 472716N 0233558E - 472851N 0234023E - 473122N 0234449E - 473353N 0234552E - 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 473712N 0270852E	FL280 FL130	Active: by NOTAM
LRTRA113B 473712N 0270852E - 472428N 0272339E - 465702N 0275524E - 464504N 0280005E - 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 444728N 0273911E - 445352N 0270637E - 450407N 0263420E - 450412N 0263404E - 453013N 0250117E - 461023N 0235313E - 461621N 0235022E - 462333N 0234653E - 464122N 0233817E - 472716N 0233558E - 472851N 0234023E - 473122N 0234449E - 473353N 0234552E - 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 473712N 0270852E	FL660 L280	Active: by NOTAM
LRTRA113C 473712N 0270852E - 472428N 0272339E - 465702N 0275524E - 464504N 0280005E - 463938N 0280000E - 461327N 0280035E - 455122N 0275540E - 452835N 0275040E - 451332N 0281732E - 450746N 0282347E - 450109N 0282253E - 445054N 0275001E - 450244N 0273236E - 450638N 0272648E - 450929N 0272235E - 453035N 0265051E - 453035N 0265051E - 453559N 0264237E - 454409N 0263006E - 455249N 0261643E - 460805N 0255252E - 463335N 0251212E - 464542N 0245231E - 470052N 0242731E - 472851N 0234023E - 473122N 0234449E - 473353N 0234552E - 472722N 0243912E - 472533N 0245406E - 472439N 0253756E - 472359N 0260018E - 473712N 0270852E	FL660 FL280	Active: by NOTAM

Identification, name and lateral limits	*Upper limit* *Lower limit*	*Remarks* *(time of activity, type of restriction, nature of hazard, risk of interception)*
1	2	3
TEMPORARY SEGREGATED AREAS (TSA)		
LRTSA59 (BUZĂU) Circle of 6 NM radius centred on point of coordinates: 450738N 0264745E	Vertical limits are issued by NOTAM	Active: by NOTAM Airspace affected: Lower
LRTSA61 (CLINCENI) Circle of 6 NM radius centred on point of coordinates: 441800N 0255600E		Active: by NOTAM Airspace affected: Lower
LRTSA66 (LUCIU) Circle of 6 NM radius centred on point of coordinates: 445820N 0270500E		Active: by NOTAM Airspace affected: Lower
LRTSA67 (Pădurea SPĂTARU) Circle of 6 NM radius centred on point of coordinates: 450520N 0264620E		Active: by NOTAM Airspace affected: Lower
LRTSA68 (Pădurea FRASIN) Circle of 6 NM radius centred on point of coordinates: 450610N 0264915E		Active: by NOTAM Airspace affected: Lower
LRTSA69 (SMEENI) Circle of 6 NM radius centred on point of coordinates: 445940N 0265200E		Active: by NOTAM Airspace affected: Lower

TEMPORARY RESERVED AREAS (TRA)		TEMPORARY RESERVED AREAS (TRA)	
Identification	Vertical limits	Identification	Vertical limits
LRTRA1G	GND - 4500 FT AMSL	LRTRA45L	FL105 - FL200
LRTRA2G	GND-3500 FT AMSL	LRTRA47G	GND-5000 FT AMSL
LRTRA2L	3500 FT AMSL - FL200	LRTRA47L	5000 FT AMSL - FL200
LRTRA3G	GND - 5500 AMSL	LRTRA48G	GND-5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200	LRTRA48L	5500 FT AMSL - FL200
LRTRA4	GND - 1017 FT AMSL	LRTRA50G	GND-5500 FT AMSL
LRTRA4G	GND - 5500 FT AMSL	LRTRA51G	GND-5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200	LRTRA51L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80	LRTRA52G	GND - FL130
LRTRA5L	FL80 - FL200	LRTRA53G	GND - FL130
LRTRA6G	GND - FL80	LRTRA60G	GND-5000 FT AMSL
LRTRA6L	FL80 - FL200	LRTRA60L	5000 FT AMSL - FL200
LRTRA7G	GND - 4000 FT AMSL	LRTRA61G	GND - FL65
LRTRA7L	4000 FT AMSL - FL200	LRTRA61L	FL65 - FL200
LRTRA8G	GND - FL90	LRTRA62G	GND - 4500 FT AMSL
LRTRA8L	FL90 - FL200	LRTRA62L	4500 FT AMSL - FL200
LRTRA9G	GND - FL105	LRTRA63G	GND - FL65
LRTRA9L	FL105 - FL200	LRTRA63L	FL65 - FL200
LRTRA10G	GND - 5000 FT AMSL	LRTRA64G	GND - 4000 FT AMSL
LRTRA11G	GND - FL80	LRTRA64L	4000 FT AMSL - FL200
LRTRA11L	FL80 - FL200	LRTRA65G	GND - 5500 FT AMSL
LRTRA12G	GND - 3500 FT AMSL	LRTRA65L	5500 FT AMSL - FL200
LRTRA12L	3500 FT AMSL - FL200	LRTRA66G	GND - 4500 FT AMSL
LRTRA13G	GND - 5500 FT AMSL	LRTRA66L	4500 FT AMSL - FL200
LRTRA13L	5500 FT AMSL - FL200	LRTRA67G	GND - 5000 FT AMSL
LRTRA14G	GND - FL80	LRTRA67L	5000 FT AMSL - FL200
LRTRA14L	FL80 - FL200	LRTRA68G	GND - 3500 FT AMSL
LRTRA20G	GND - 3000 FT AMSL	LRTRA68L	3500 FT AMSL - FL200
LRTRA21C	3000 FT AMSL - FL75	LRTRA69L	FL130 - FL200
LRTRA21L	FL75 - FL200	LRTRA71G	GND-5500 FT AMSL
LRTRA22G	GND - FL80	LRTRA71L	5500 FT AMSL - FL200
LRTRA22L	FL80 - FL200	LRTRA72G	GND-5500 FT AMSL
LRTRA23G	GND - FL90	LRTRA72L	5500 FT AMSL - FL200
LRTRA23L	FL90 - FL200	LRTRA73G	GND-5500 FT AMSL
LRTRA24G	GND - FL75	LRTRA73L	5500 FT AMSL - FL200
LRTRA24L	FL75 - FL200	LRTRA74	GND - 5500 FT AMSL
LRTRA25G	GND - FL75	LRTRA80G	GND - 3500 FT AMSL
LRTRA25L	FL75 - FL200	LRTRA81G	GND - 3000 FT AMSL
LRTRA26L	FL75 - FL200	LRTRA82G	GND - 3000 FT AMSL
LRTRA27L	FL75 - FL200	LRTRA83G	GND - 3500 FT AMSL
LRTRA28G	GND - FL70	LRTRA84G	GND - 3500 FT AMSL
LRTRA28L	FL70 - FL200	LRTRA85G	GND - 3500 FT AMSL
LRTRA29G	GND - FL100	LRTRA90G	GND - 2000 FT AMSL
LRTRA29L	FL100 - FL200	LRTRA91G	GND - 2000 FT AMSL
LRTRA30G	GND - FL90	LRTRA91L	2000 FT AMSL - FL200
LRTRA30L	FL90 - FL200	LRTRA92G	GND - 2000 FT AMSL
LRTRA31G	GND - FL100	LRTRA92L	2000 FT AMSL - FL200
LRTRA31L	FL100 - FL200	LRTRA93G	GND - 2000 FT AMSL
LRTRA32G	GND - FL95	LRTRA94G	GND - 2000 FT AMSL
LRTRA32L	FL95 - FL200	LRTRA100G	GND - 4500 FT AMSL
LRTRA33G	GND - FL90	LRTRA100L	4500 FT AMSL - FL200
LRTRA33L	FL90 - FL200	LRTRA101G	GND - 4500 FT AMSL
LRTRA34G	GND - FL65	LRTRA101L	4500 FT AMSL - FL200
LRTRA34L	FL65 - FL200	LRTRA102G	GND - 4000 FT AMSL
LRTRA35G	GND - FL70	LRTRA102L	4000 FT AMSL - FL200
LRTRA35L	FL70 - FL200	LRTRA103G	GND - 4500 FT AMSL
LRTRA36G	GND - FL80	LRTRA103L	4500 FT AMSL - FL200
LRTRA36L	FL80 - FL200	LRTRA104G	GND - 4500 FT AMSL
LRTRA37G	GND - FL90	LRTRA104L	4500 FT AMSL - FL200
LRTRA37L	FL90 - FL200	LRTRA105G	GND - 4500 FT AMSL
LRTRA40	GND - FL85	LRTRA105L	4500 FT AMSL - FL200
LRTRA42G	GND - FL85	LRTRA110A	FL100 - FL280
LRTRA42L	FL85 - FL200	LRTRA111A	FL65 - FL280
LRTRA43G	GND - FL90	LRTRA111D	FL100 - FL280
LRTRA43L	FL90 - FL200	LRTRA111F	FL100 - FL280
LRTRA44G	GND-5000 FT AMSL	LRTRA111I	FL65 - FL280
LRTRA44L	5000 FT AMSL - FL200	LRTRA111K	FL65 - FL280

DANGEROUS AREAS		DANGEROUS AREAS	
Identification	Vertical limits	Identification	Vertical limits
LRD01A	GND - FL100	LRD37A	GND - FL100
LRD01B	GND - FL285	LRD37B	GND - FL285
LRD01C	GND - FL660	LRD38A	GND - FL100
LRD03A	GND - FL100	LRD38B	GND - FL285
LRD03B	GND - FL285	LRD38C	GND - FL660
LRD04A	GND- FL100	LRD39A	GND - FL100
LRD04B	GND-FL285	LRD39B	GND-FL285
LRD05A	GND- FL100	LRD43A	GND- FL100
LRD05B	GND-FL285	LRD43B	GND-FL285
LRD06A	GND- FL100	LRD70A	GND- FL100
LRD06B	GND-FL285	LRD70B	GND-FL285
LRD06C	GND-FL660	LRD70C	GND-FL660
LRD07A	GND- FL100	LRD71A	GND- FL100
LRD07B	GND-FL285	LRD71B	GND-FL285
LRD07C	GND-FL660	LRD72A	GND- FL100
LRD08A	GND- FL100	LRD72B	GND-FL285
LRD08B	GND-FL285	LRD72C	GND-FL660
LRD08C	GND-FL660	LRD73A	GND- FL100
LRD09A	GND- FL100	LRD73B	GND-FL285
LRD09B	GND-FL285	LRD73C	GND-FL660
LRD10A	GND- FL100	LRD74A	GND- FL100
LRD10B	GND-FL285	LRD74B	GND-FL285
LRD14A	GND- FL100	LRD74C	GND-FL660
LRD14B	GND-FL285	LRD75A	GND- FL100
LRD17A	GND- FL100	LRD75B	GND-FL285
LRD17B	GND-FL285	LRD76A	GND- FL100
LRD19A	GND- FL100	LRD76B	GND-FL285
LRD19B	GND-FL285	LRD100A	GND - 2000 FT AMSL
LRD21A	GND- FL100	LRD100B	GND-FL60
LRD21B	GND-FL285	LRD100C	GND - FL130
LRD21C	GND-FL660	LRD106A	GND - 2000 FT AMSL
LRD24A	GND- FL100	LRD106B	GND - FL130
LRD24B	GND - FL285	LRD107A	GND - FL100

HORIZONTAL REFERENCE SYSTEM
Geographical coordinates (Latitude&Longitude) are expressed in WGS84

LAMBERT CONFORMAL PROJECTION
ISOGONIC INFORMATION 2023.5

EN-ROUTE CHART-ICAO

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On all ATS routes upper limit is FL105

COMMUNICATION FACILITIES

BUCURESTI	VOLMET	126.800
BRASOV	ATIS	124.530
BANEASA	ATIS	126.125
CLUJ	ATIS	125.525
CONSTANTA	ATIS	118.750
IASI	ATIS	122.865
OTOPENI	ATIS	118.500
SIBIU	ATIS	126.950
TIMISOARA	ATIS	123.125
TIRGU MURES	ATIS	125.950

FOR FIS FREQ. SEE ENR 6-40

AREA CONTROL CENTRE (ACC) BUCURESTI

ARGES SECTOR 121.180
ALTN: 123.900, 126.725, 124.975

BACAU SECTOR 128.610
ALTN: 125.725

BUDOP SECTOR 130.230
ALTN: 124.100

DINSI SECTOR 122.380
ALTN FREQ 122.725

KOMAN 1 SECTOR 129.755
ALTN: 126.080, 123.900, 126.725

LOMOS SECTOR 122.030
ALTN: 126.080, 123.900, 126.725, 124.975

MOPUG SECTOR 135.340
ALTN FREQ 121.375

NAPOC SECTOR 127.075
ALTN: 120.930

NERDI SECTOR 125.155
ALTN: 126.080, 123.900

FL 285 — Lower limit of airways
FL 245 — Lower limit of airways
FL 285 — Lower limit of airways
FL 285 — FL 105 — Lower limit of airways

APPROACH CONTROL UNITS

ARAD APP / ARAD APPROACH	123.530 ALTN: 126.350
BUCURESTI APP / BUCURESTI APPROACH	119.415 ALTN: 120.600
BUCURESTI APP / NAPOC NORTH APPROACH	126.430 ALTN: 127.275
BUCURESTI APP / NAPOC SOUTH APPROACH	119.680 ALTN: 127.275
CONSTANTA APP / CONSTANTA APPROACH	122.905 ALTN: 127.350

AERODROME CONTROL UNITS

ARAD	TWR	118.230
	ALTN	130.200
BACAU	TWR	120.980
	ALTN	118.600
BAIA MARE	TWR	118.855
	ALTN	118.100
BANEASA	TWR	125.205
	ALTN	120.800
	GND	129.950
BRASOV	TWR	118.630
	ALTN	120.135
CLUJ	TWR	118.705
	ALTN	134.400
CONSTANTA	TWR	124.030
	ALTN	120.450
CRAIOVA	TWR	129.530
	ALTN	124.300
IASI	TWR	119.955
	ALTN	119.200
ORADEA	TWR	118.455
	ALTN	120.200
OTOPENI	TWR	118.805
	ALTN	120.500
	GND	121.855
	ALTN	121.700
SATU MARE	TWR	119.655
	ALTN	118.800
SIBIU	TWR	121.305
	ALTN	122.700
SUCEAVA	TWR	129.955
	ALTN	118.300
TARGU MURES	TWR	119.180
	ALTN	120.325
TIMISOARA	TWR	120.105
	ALTN	129.450
	GND	121.600
TULCEA	TWR	119.755
	ALTN	120.300

EMERGENCY

WATCH WITHIN BUCURESTI FIR IS PROVIDED ON THE INTERNATIONAL DISTRESS FREQUENCY OF 121.500 MHz.

NOTES:
1. Vertical limits FL 240 / GND
2. Excluding LRR501

SCALE 1 : 1 000 000

KILOMETRES 50 40 30 20 10 0 25 50 75 100 125 150 175 200

NAUTICAL MILES 20 10 0 20 40 60 80 100

LEGEND

AIRSPACE:

CLASS C ABV FL 105
CLASS G BLW FL 105

CTR: CLASS C
ATS Route: CLASS C

EN ROUTE
① Segment avlb. EVEN levels only

Flight Information Region (FIR)

Name of FIR / Upper limit / Lower limit / Unit providing service — BUCURESTI / FL660 / GND / BUCURESTI ACC

Terminal Control Area (TMA)
Name of TMA / Upper limit / Lower limit / Unit providing area control service — TMA ARAD / 6000 ft / GND / ARAD APP

Control Zone (CTR)
Name of CTR / Upper limit / Lower limit / Unit providing approach control service — CTR CRAIOVA / 3500 ft STD / GND / CRAIOVA TWR

Direction of ATS RNAV Route: Bidirectional ↔ 12 ↔ 12 / Eastbound → 12 / Westbound ← 12

Aerodrome

ATS RNAV Route: Route designator / Magnetic track / Distance in nautical miles / Lower limit (FL) — T285 / 090° / 22 / FL65

Reporting point (REP): Compulsory ▲ / On request △

Military exercise and training Areas (LRD, LRTRA, LRTSA)
* Vertical limits are issued by NOTAM, unless otherwise specified.

Anti-hail Rocket firing Area
Vertical limits GND-FL255 unless note exists
See Note 1 and 2

Prohibited, Restricted and Danger Areas
Nationality letter / Identification of area / Vertical limits — LRP2 / 4000 FT AMSL / GND
P=Prohibited
R=Restricted
D=Danger

CTA Sector

Non-directional radio beacon (NDB)

Co-located VOR and DME navigation aids (VOR/DME)

Identification for radio navigation aids (NAVAID)
Name / NAVAID frequency, identification or call sign / Geographical coordinates / Elevation of DME site (to the nearest 100 ft)

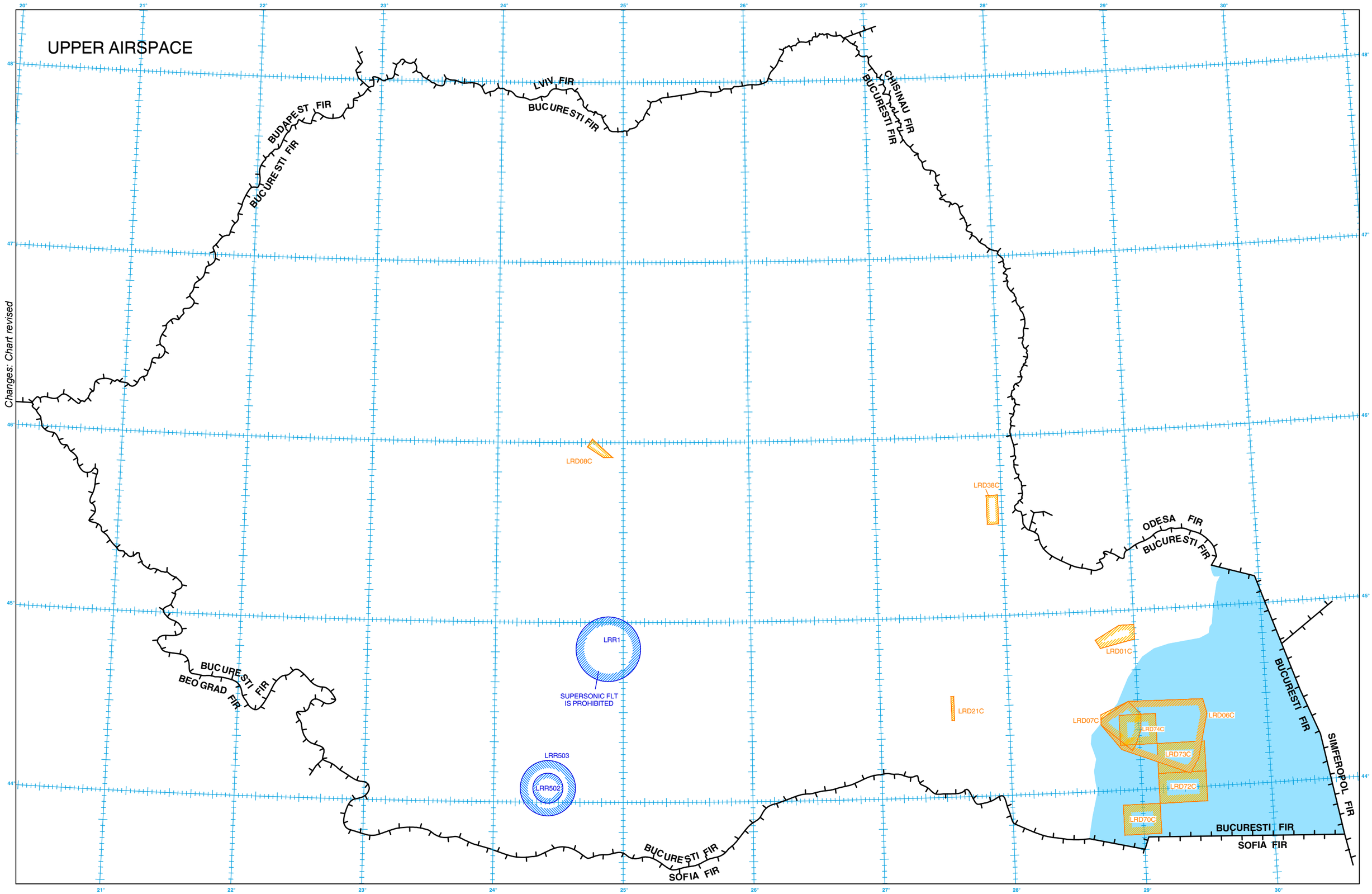
Isogonic line or isogonal – – – 5° E – – –

Area minimum altitude (AMA)

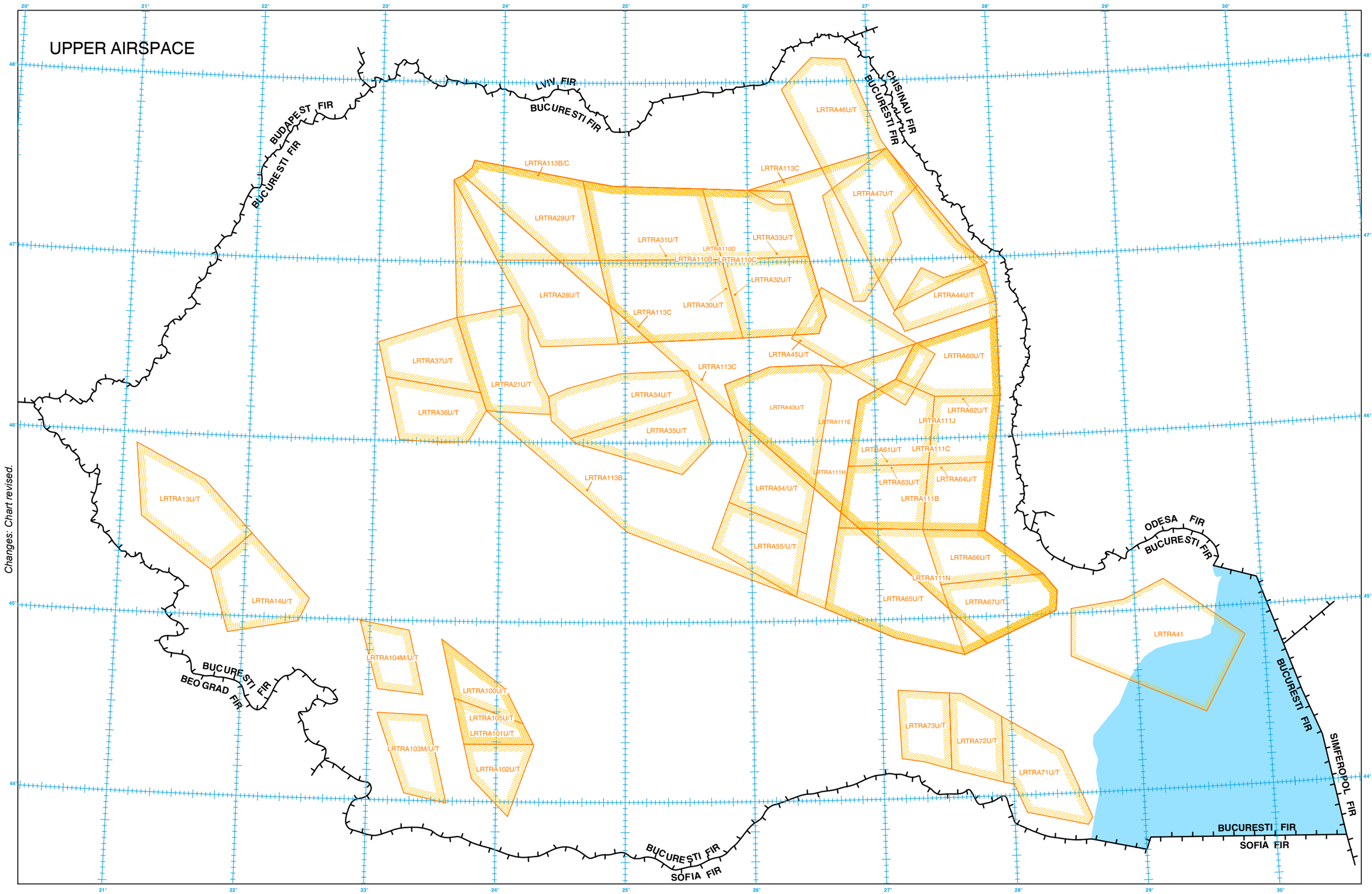
AMA is shown in one degree quadrilaterals formed by parallels and meridians representing the lowest altitude which may be used under instrument meteorogical conditions (IMC). The AMA provides a minimum clearance of 1000 feet, excepting the designated mountainous terrain where a minimum clearance of 2000 ft is provided, above all obstacles in the quadrilateral. It is represented in thousands and in hundreds of feet above mean sea level.

Example : 2200 feet 22

PROHIBITED/ RESTRICTED/ DANGER AREAS - INDEX CHART



TEMPORARY RESERVED AREAS (TRA) - INDEX CHART



Changes: Chart revised.

PROHIBITED/ RESTRICTED/ DANGER AREAS - INDEX CHART

LOWER AIRSPACE

Changes: Chart revised.

LRR321 LRR322 LRR320 LRR316 LRR325 LRR317 LRR318 LRR323 LRR324 LRR319 LRD37A/B

LRR121 LRR220 LRR125 LRR223 LRR129 LRR122 LRR221 LRR124 LRR123 LRR222 LRR120 LRR126 LRR143 LRR127 LRR128 LRR142 LRR146 LRR145

LRR305 LRR304 LRR303 LRR302 LRR300 LRR301 LRD03A/B LRR311 LRR306 LRR310 LRR307 LRR314 LRR315 LRR309 LRR308 LRR313 LRR312

LRD14A/B LRD17A/B LRD24A/B

LRR175 LRR179 LRR271 LRR171 LRR170 LRR270 LRR272 LRR172 LRR173 LRR176 LRR174 LRR177 LRR178 LRD107A LRD08A/B/C LRD10A/B LRD09A/B LRD103 LRD104 LRD105 LRR5 LRD43A/B LRD05A/B LRD19A/B

LRR131 LRR136 LRR133 LRR238 LRR237 LRR239 LRR234 LRR132 LRR135 LRR236 LRR134 LRR137 LRR235 LRR130 LRR139 LRR138 LRR230 LRR233 LRD38A/B/C LRD39A/B LRR232 LRR231 LRD106A/B

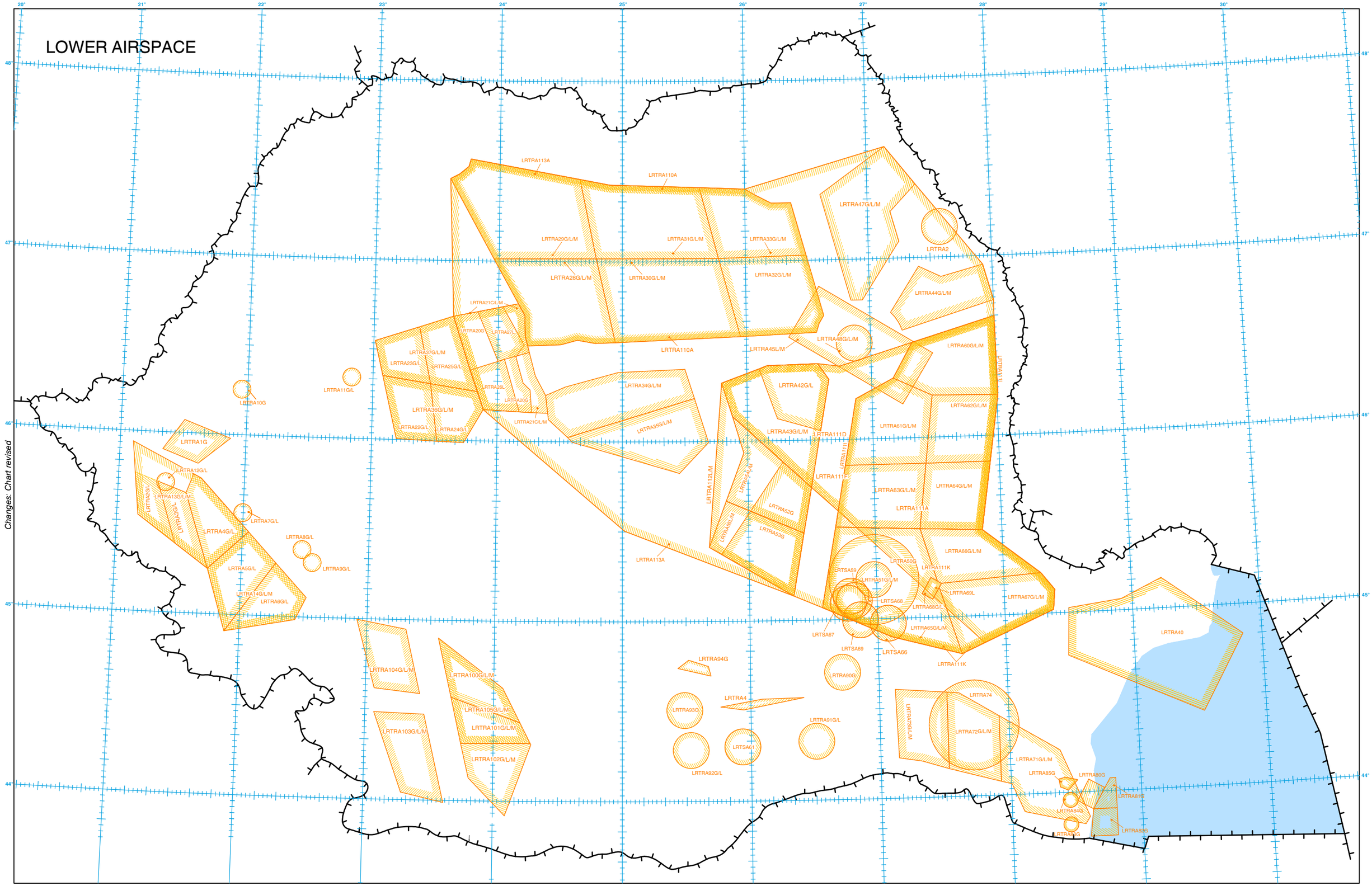
LRR111 LRR106 LRR108 LRR103 LRR105 LRR113 LRR110 LRR112 LRR107 LRR109 LRR102 LRR104 LRR101 LRD101 LRR8 LRR206 LRR1

LRR155 LRR154 LRR152 LRR151 LRR156 LRR153 LRR157

LRD01A/B/C LRD76A/B LRD21A/B/C LRD07A/B/C LRD06A/B/C LRD74A/B/C LRD75A/B LRD73A/B/C LRD72A/B/C LRD70A/B/C LRD71A/B LRR9

LRR186 LRR184 LRR181 LRD04A/B LRR182 LRR194 LRR190 LRR192 LRR180 LRR183 LRR185 LRR191 LRR193 LRR168 LRR167 LRR166 LRR164 LRR163 LRR162 LRR161 LRR169 LRR160 LRR165 LRR502 LRR501 LRP4 LRR50 LRD100A/B/C LRR3 LRR7 LRR6 LRP2 LRR4

TEMPORARY RESERVED AREAS (TRA)/ TEMPORARY SEGREGATED AREAS (TSA) - INDEX CHART



Changes: New LRD's / TRA's.

Lambert Conformal Conic Projection
Standard Parallels: N44.6° and N47.3°

NAPOC TMA VFR ROUTES

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

SIBIU TOWER	121.305
SIBIU TOWER ALTN	122.700
SIBIU ATIS	126.950

CLUJ TOWER	118.705
CLUJ TOWER ALTN	134.400
CLUJ ATIS	125.525

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

BUCURESTI INFORMATION - MOLDOVA FIS AREA	123.230
BUCURESTI INFORMATION - ARDEAL FIS AREA	136.230
BUCURESTI INFORMATION - BANAT FIS AREA	136.385
BUCURESTI INFORMATION - MUNTENIA & OLTENIA FIS AREA	129.400

MILITARY EXERCISE AND TRAINING AREAS

IDENTIFICATION	VERTICAL LIMITS
LRD03A	GND - FL100
LRD03B	GND - FL285
LRD08A	GND - FL100
LRD08B	GND - FL285
LRD08C	GND - FL660
LRD09A	GND - FL100
LRD09B	GND - FL285
LRD10A	GND - FL100
LRD10B	GND - FL285
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA20G	GND - 3000 FT AMSL
LRTRA21C	3000 FT AMSL - FL75
LRTRA21L	FL75 - FL200
LRTRA22G	GND - FL80
LRTRA22L	FL80 - FL200
LRTRA23G	GND - FL90
LRTRA23L	FL90 - FL200
LRTRA24G	GND - FL75
LRTRA24L	FL75 - FL200
LRTRA25G	GND - FL75
LRTRA25L	FL75 - FL200
LRTRA26L	FL75 - FL200
LRTRA27L	FL75 - FL200
LRTRA28G	GND - FL70
LRTRA28L	FL70 - FL200
LRTRA29G	GND - FL100
LRTRA29L	FL100 - FL200
LRTRA30G	GND - FL90
LRTRA30L	FL90 - FL200
LRTRA31G	GND - FL100
LRTRA31L	FL100 - FL200
LRTRA34G	GND - FL65
LRTRA34L	FL65 - FL200
LRTRA35G	GND - FL70
LRTRA35L	FL70 - FL200
LRTRA36G	GND - FL80
LRTRA36L	FL80 - FL200
LRTRA37G	GND - FL90
LRTRA37L	FL90 - FL200
LRTRA110A	FL100 - FL280

LEGEND

ICAO Location Indicator → LRSB
Sibiu ← Location Name
Elevation [ft] → 353FT 1820M ← Lenght of the longest runway [m]
Communication Channel/Frequency → TWR 121.50 (MTWR Military Tower)
OPC (Operational Control) not available for ATS

Locality Name → Ghindari
(DV3) ← VFR point code
Latitude → 463049N
0245542E ← Longitude

Note: For planning purposes, ONLY the points code will be used.

Civil Land - paved runway		Civil Land - unpaved runway		Heliport	H
Civil Land - unpublished		Military Land		Heliport - unpublished	H
Joint civil and military Land		Emergency aerodrome or aerodrome with no facilities		Abandoned or closed aerodrome	X

Compass Rose — VORDME — VOR — NDB

112.7 CND — Frequency, identification

5° E — Isogonic line (2023.5)

Airspace Class C TMA (clearance required) with vertical limits
- TMA Sector
- TMA Subsector

Airspace Class C CTR with upper limit

Prohibited, Restricted and Danger Area with identification and vertical limits

Anti-hail Rocket firing Area * with vertical limits from GND to FL255

Military exercise and training Areas (LRD, LRTRA, LRTSA)

FIS Boundary

Reporting point Compulsory

VFR Route

Obstacle with elevation [fMSL]

Lighted obstacle with elevation [fMSL]

Group obstacles with elevation [fMSL]

Lighted group obstacles with elevation [fMSL]

Man-made obstacle with elevation [fMSL]

7503 — Lf. Calarei N45 37 48 E024 49 02 — The elevation of the highest spot

7363 — Spot elevation

ELEV, ALT, HEIGHTS IN FT

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

Note: In case LRD10A/LRD10B is active, VFR flights shall use the following transit corridor for crossing the area:Sibiu/LRSB (454610N 0241006E) - Făgăraş (455000N 0245800E) - 454552N 0252338E - Ghimbav/LRBG (454110N 0253144E), GND - 2000 FT AGL, 1 NM left/right of centre line.

1:300000

0 5 10 20 KM
0 4 8 16 NM

Source: AIGA, USGS, ESRI ROMANIA, OpenStreetMap, EuroGeographics

Topographical base: 2015 - 2024

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AFS: LRBBYOYX

TEMPORARY RESERVED AREAS (TRA)

Identification	Vertical limits
LRTRA2L	3500 FT AMSL - FL200
LRTRA3L	5500 FT AMSL - FL200
LRTRA4L	5500 FT AMSL - FL200
LRTRA5L	FL80 - FL200
LRTRA6L	FL80 - FL200
LRTRA7L	4000 FT AMSL - FL200
LRTRA8L	FL90 - FL200
LRTRA9L	FL105 - FL200
LRTRA11L	FL80 - FL200
LRTRA12L	3500 FT AMSL - FL200
LRTRA13L	5500 FT AMSL - FL200
LRTRA13M	FL200 - FL280
LRTRA13U	FL280 - FL350
LRTRA13T	FL350 - FL660
LRTRA14L	FL80 - FL200
LRTRA14M	FL200 - FL280
LRTRA14U	FL280 - FL350
LRTRA14T	FL350 - FL660
LRTRA21L	FL75 - FL200
LRTRA21M	FL200 - FL280
LRTRA21U	FL280 - FL350
LRTRA21T	FL350 - FL660
LRTRA22L	FL80 - FL200
LRTRA23L	FL90 - FL200
LRTRA24L	FL75 - FL200
LRTRA25L	FL75 - FL200
LRTRA26L	FL75 - FL200
LRTRA27L	FL75 - FL200
LRTRA28L	FL70 - FL200
LRTRA28M	FL200 - FL280
LRTRA28U	FL280 - FL350
LRTRA28T	FL350 - FL660
LRTRA29L	FL100 - FL200
LRTRA29M	FL200 - FL280
LRTRA29U	FL280 - FL350
LRTRA29T	FL350 - FL660
LRTRA30L	FL90 - FL200
LRTRA30M	FL200 - FL280
LRTRA30U	FL280 - FL350
LRTRA30T	FL350 - FL660
LRTRA31L	FL100 - FL200
LRTRA31M	FL200 - FL280
LRTRA31U	FL280 - FL350
LRTRA31T	FL350 - FL660
LRTRA32L	FL95 - FL200
LRTRA32M	FL200 - FL280
LRTRA32U	FL280 - FL350
LRTRA32T	FL350 - FL660
LRTRA33L	FL90 - FL200
LRTRA33M	FL200 - FL280
LRTRA33U	FL280 - FL350
LRTRA33T	FL350 - FL660
LRTRA34L	FL65 - FL200
LRTRA34M	FL200 - FL280
LRTRA34U	FL280 - FL350
LRTRA34T	FL350 - FL660
LRTRA35L	FL70 - FL200
LRTRA35M	FL200 - FL280
LRTRA35U	FL280 - FL350
LRTRA35T	FL350 - FL660
LRTRA36L	FL80 - FL200
LRTRA36M	FL200 - FL280
LRTRA36U	FL280 - FL350
LRTRA36T	FL350 - FL660
LRTRA37L	FL90 - FL200
LRTRA37M	FL200 - FL280
LRTRA37U	FL280 - FL350
LRTRA37T	FL350 - FL660
LRTRA40	GND - FL280
LRTRA41	FL280 - FL660
LRTRA42L	FL85 - FL200
LRTRA43L	FL90 - FL200
LRTRA43M	FL200 - FL280
LRTRA43U	FL280 - FL350
LRTRA43T	FL350 - FL660
LRTRA44L	5000 FT AMSL - FL200
LRTRA44M	FL200 - FL280
LRTRA44U	FL280 - FL350
LRTRA44T	FL350 - FL660
LRTRA45L	FL105 - FL200
LRTRA45M	FL200 - FL280
LRTRA45U	FL280 - FL350
LRTRA45T	FL350 - FL660
LRTRA46U	FL280 - FL350
LRTRA46T	FL350 - FL660
LRTRA47L	5000 FT AMSL - FL200
LRTRA47M	FL200 - FL280
LRTRA47U	FL280 - FL350
LRTRA47T	FL350 - FL660
LRTRA48L	5500 FT AMSL - FL200
LRTRA48M	FL200 - FL280
LRTRA51L	5500 FT AMSL - FL200
LRTRA51M	FL200 - FL280
LRTRA52G	GND - FL130
LRTRA53G	GND - FL130
LRTRA54L	FL130 - FL200
LRTRA54M	FL200 - FL280
LRTRA54U	FL280 - FL350

TEMPORARY RESERVED AREAS (TRA)

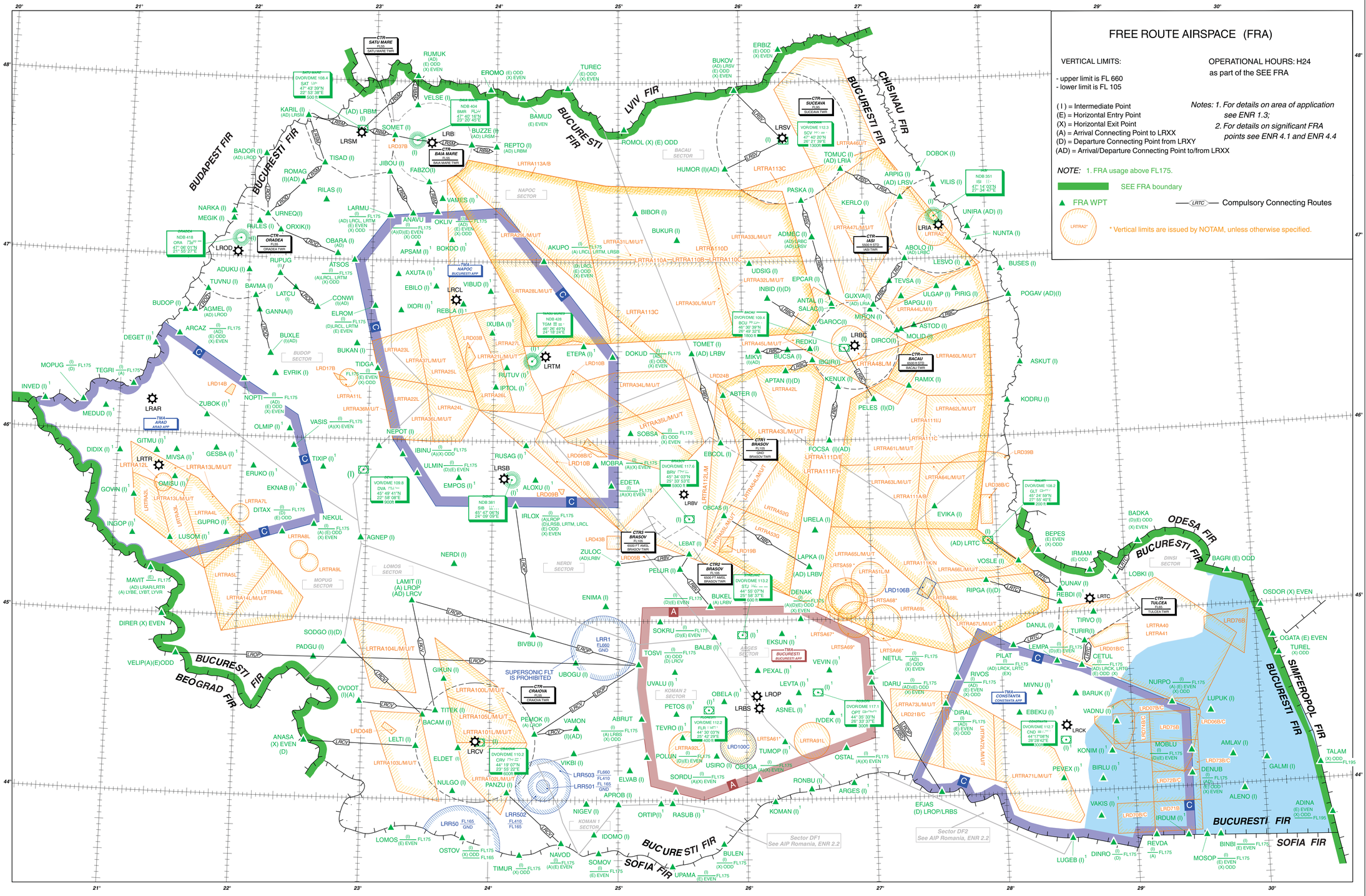
Identification	Vertical limits
LRTRA54T	FL350 - FL660
LRTRA55L	FL130 - FL200
LRTRA55M	FL200 - FL280
LRTRA55U	FL280 - FL350
LRTRA55T	FL350 - FL660
LRTRA60L	5000 FT AMSL - FL200
LRTRA60M	FL200 - FL280
LRTRA60U	FL280 - FL350
LRTRA60T	FL350 - FL660
LRTRA61L	FL65 - FL200
LRTRA61M	FL200 - FL280
LRTRA61U	FL280 - FL350
LRTRA61T	FL350 - FL660
LRTRA62L	4500 FT AMSL - FL200
LRTRA62M	FL200 - FL280
LRTRA62U	FL280 - FL350
LRTRA62T	FL350 - FL660
LRTRA63L	FL65 - FL200
LRTRA63M	FL200 - FL280
LRTRA63U	FL280 - FL350
LRTRA63T	FL350 - FL660
LRTRA64L	4000 FT AMSL - FL200
LRTRA64M	FL200 - FL280
LRTRA64U	FL280 - FL350
LRTRA64T	FL350 - FL660
LRTRA65L	5500 FT AMSL - FL200
LRTRA65M	FL200 - FL280
LRTRA65U	FL280 - FL350
LRTRA65T	FL350 - FL660
LRTRA66L	4500 FT AMSL - FL200
LRTRA66M	FL200 - FL280
LRTRA66U	FL280 - FL350
LRTRA66T	FL350 - FL660
LRTRA67L	5000 FT AMSL - FL200
LRTRA67M	FL200 - FL280
LRTRA67U	FL280 - FL350
LRTRA67T	FL350 - FL660
LRTRA68L	3500 FT AMSL - FL200
LRTRA69L	FL130 - FL200
LRTRA71L	5500 FT AMSL - FL200
LRTRA71M	FL200 - FL280
LRTRA71U	FL280 - FL350
LRTRA71T	FL350 - FL660
LRTRA72L	5500 FT AMSL - FL200
LRTRA72M	FL200 - FL280
LRTRA72U	FL280 - FL350
LRTRA72T	FL350 - FL660
LRTRA73L	5500 FT AMSL - FL200
LRTRA73M	FL200 - FL280
LRTRA73U	FL280 - FL350
LRTRA73T	FL350 - FL660
LRTRA91L	2000 FT AMSL - FL200
LRTRA92L	2000 FT AMSL - FL200
LRTRA100L	4500 FT AMSL - FL200
LRTRA100M	FL200 - FL280
LRTRA100U	FL280 - FL350
LRTRA100T	FL350 - FL660
LRTRA101L	4500 FT AMSL - FL200
LRTRA101M	FL200 - FL280
LRTRA101U	FL280 - FL350
LRTRA101T	FL350 - FL660
LRTRA102L	4000 FT AMSL - FL200
LRTRA102M	FL200 - FL280
LRTRA102U	FL280 - FL350
LRTRA102T	FL350 - FL660
LRTRA103L	4500 FT AMSL - FL200
LRTRA103M	FL200 - FL280
LRTRA103U	FL280 - FL350
LRTRA103T	FL350 - FL660
LRTRA104L	4500 FT AMSL - FL200
LRTRA104M	FL200 - FL280
LRTRA104U	FL280 - FL350
LRTRA104T	FL350 - FL660
LRTRA105L	4500 FT AMSL - FL200
LRTRA105M	FL200 - FL280
LRTRA105U	FL280 - FL350
LRTRA105T	FL350 - FL660
LRTRA110A	FL100 - FL280
LRTRA110B	FL280 - FL660
LRTRA110C	FL280 - FL660
LRTRA110D	FL280 - FL660
LRTRA111A	FL65 - FL280
LRTRA111B	FL280 - FL660
LRTRA111C	FL280 - FL660
LRTRA111D	FL100 - FL280
LRTRA111E	FL280 - FL660
LRTRA111F	FL100 - FL280
LRTRA111G	FL280 - FL660
LRTRA111H	FL65 - FL280
LRTRA111I	FL65 - FL280
LRTRA111J	FL280 - FL660
LRTRA111K	FL65 - FL280
LRTRA111L	FL130 - FL280
LRTRA112L	FL130 - FL280
LRTRA113A	FL280 - FL660
LRTRA113C	FL280 - FL660

DANGEROUS AREAS

Identification	Vertical limits
LRD01B	GND - FL285
LRD01C	GND - FL660
LRD03B	GND - FL285
LRD04B	GND-FL285
LRD05B	GND-FL285
LRD06B	GND-FL285
LRD06C	GND-FL660
LRD07B	GND-FL285
LRD07C	GND-FL660
LRD08B	GND-FL285
LRD08C	GND-FL660
LRD09B	GND-FL285
LRD10B	GND-FL285
LRD14B	GND-FL285
LRD17B	GND-FL285
LRD19B	GND-FL285
LRD21B	GND-FL285
LRD21C	GND-FL660
LRD24B	GND - FL285

DANGEROUS AREAS

Identification	Vertical limits
LRD37B	GND - FL285
LRD38B	GND - FL285
LRD38C	GND - FL660
LRD39B	GND-FL285
LRD43B	GND-FL285
LRD70B	GND-FL285
LRD70C	GND-FL660
LRD71B	GND-FL285
LRD72B	GND-FL285
LRD72C	GND-FL660
LRD73B	GND-FL285
LRD73C	GND-FL660
LRD74B	GND-FL285
LRD74C	GND-FL660
LRD75B	GND-FL285
LRD76B	GND-FL285
LRD101C	GND - FL130
LRD106B	GND - FL130



AD 2. AERODROMES

LRAR AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRAR - ARAD / Arad

LRAR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	461036N 0211543E RWY centerline.
2	*Direction and distance from city*	3 km West from Arad
3	*Elevation/Reference temperature/mean low temperature*	353 FT (108 M) / 31.0°C / -11.0°C
4	*Geoid undulation at AD ELEV PSN*	140 FT
5	*MAG VAR/ Annual rate of change*	5°E (2019) / 7.0'E
6	*AD Operator, address, telephone, telefax, telex, AFS*	Aeroportul Arad, Arad, România Tel: +40-722111998;+40-(0)257-339010 Fax: +40-(0)257-254482 Email: office@aradairport.ro Website: www.aeroportularad.ro Tel: +40-(0)257-254440 Ground Ops Fax: +40-(0)257-254546 Ground Ops Email: ground.op@aradairport.ro AFS: LRARRAYD SITA: ARWAAXH
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRAR AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	H24
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24, see GEN 3.1-5
5	*ATS Reporting Office (ARO)*	H24, see ENR 1.10-3
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fuelling*	H24
9	*Handling*	H24
10	*Security*	H24
11	*De-icing*	H24
12	*Remarks*	NIL

LRAR AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	747m^2 of storage, dangerous good room, cargo equipments.
2	*Fuel/Oil types*	Fuel: Kerosene TH type JET A1 AVGAZ 100LL Oil: NIL
3	*Fuelling facilities/capacity*	1 refueling truck 14 t, 1 refueling truck 10 t, 1 refueling truck 19 t
4	*De-icing facilities*	1 de-icing unit with fluid type I and II.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	NIL

LRAR AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Snack bar on the airport, restaurants in the city.
3	*Transportation*	Taxi from the AD.
4	*Medical facilities*	First aid at AD. Hospitals in the city.
5	*Bank and Post Office*	In the city.
6	*Tourist Office*	In the city.
7	*Remarks*	NIL

LRAR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	CAT 7
2	*Rescue equipment*	1 truck of 12000 l water,1590 l foam and 250 kg dry chemical. 1 truck of 8000 l water,1000 l foam and 250 kg dry chemical. 1 Mobile Command Control: pick-up truck 4x4.
3	*Capability for removal of disabled aircraft*	Only for code letter B aircraft, wingspan < 24 m. Air Operation Office: +40-(0)257-254440.
4	*Remarks*	NIL

LRAR AD 2.7 RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING, AND SNOW PLAN

1	*Types of clearing equipment*	1 truck with snow plough, snow blower and deicer spreader.
2	*Clearance priorities*	1. RWY 09/27 2. TWY A 3. APRON 2 4. TWY B 5. APRON 1
3	*Use of material for movement area surface treatment*	KAC RWYcleaning de-icing fluid.
4	*Specially prepared winter runways*	NIL
5	*Remarks*	RCR is used for reporting assessed condition through the issuance of SNOWTAM, when necessary. RWY CC are assessed according GRF and transmitted to pilots by TWR Arad. Regarding information on snow clearance published, see the snow plan in section AD 1.2.2.

LRAR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*		APRON 1	APRON 2
		Surface:	Asphalt	Concrete
		Strength:	6/R/C/W/T	41/R/C/W/T
2	*Taxiway designation, width, surface and strength*		TWY A	TWY B
		Width:	18 M	12 M
		Surface:	Concrete	Asphalt
		Strength:	55/R/C/W/T	6/R/C/W/T
3	*ACL location and elevation*	INS Apron 1 and Apron 2, elevation 352 FT.		
4	*VOR checkpoints*	NIL		
5	*INS checkpoints*	See AD 2.1-22		
6	*Remarks*	NIL		

LRAR 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 at aircraft stands*	Aircraft stand ID signs: 1, 2, 3, 4 and 5. Taxi to stands using TWY A & B and apron guide lines. Self parking procedures: Stop aircraft at yellow when STOP marking is in line pilot eye at an angle of 90º to the lead in line. Contingency procedures: parking guidance can be provided by marshaller in case of abnormal situation.
2	*RWY and TWY markings and LGT*	RWY: - markings: Designation, THR, TDZ, centre line, edges, aiming point. - lights: THR, centre line, TDZ, edge, END. TWY A: - markings: centre line, holding position marked, enhanced centre line. - lights: centre line, edge. TWY B: - markings: centre line. - lights: NIL.
3	*Stop bars and runway guard lights*	Stop bars lights, guard lights on TWY A.
4	*Other RWY protection measure*	NIL
5	*Remarks*	THR 27 displaced 180M, turn pad on RWY END 27 - markings: centre line, edge line. - lights: centre line, edge, turn ~~pad~~ lights green.

LRAR AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	*OBST type*	*OBST position*	*ELEV/HGT*	*Markings/ Type, colour*	*Remarks*
a	b	c	d	e	f
2	WATER TOWER	461030.2N 0211414.2E	425/ 76 FT	- / NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
7	POLE	461128.0N 0211611.1E	437/ 89 FT	- / -	
8	OTHER	461016.8N 0211708.7E	459/ 104 FT	- / -	
12	BUILDING	461013.5N 0211841.9E	508/ 144 FT	- / -	
13	WATER TOWER	461011.2N 0211829.1E	495/ 132 FT	- / -	
20	ANTENNA	461026.2N 0211906.5E	574/ 205 FT	Marked / LGT R	
25	TOWER	461320.8N 0211943.7E	1023/ 668 FT	- / -	
26	ANTENNA	461214.8N 0211423.0E	525/ 172 FT	- / -	
27	ANTENNA	461212.7N 0211905.9E	603/ 241 FT	- / -	
28	ANTENNA	461554.7N 0213949.6E	1958/ 395 FT	- / -	
29	ANTENNA	455802.6N 0211253.6E	819/ 386 FT	Marked / LGT R	
30	ANTENNA	455800.5N 0211257.6E	821/ 381 FT	Marked / LGT R	
102	NAVAID	461038.2N 0211606.7E	371/ 20 FT	- / LGT R	
103	NAVAID	461038.0N 0211606.8E	409/ 58 FT	Marked / LGT R	
105	OTHER	461038.7N 0211603.8E	383/ 27 FT	- / LGT R	
106	OTHER	461037.7N 0211610.5E	366/ 14 FT	Marked / LGT R	
210	POLE	461149.6N 0211611.5E	448/ 100 FT	- / -	
212	POLE	461134.5N 0211611.2E	439/ 90 FT	- / -	
213	ANTENNA	460907.3N 0211822.5E	496/ 137 FT	Marked / -	
215	POLE	460851.4N 0211752.5E	478/ 106 FT	- / -	
216	POLE	460857.7N 0211755.9E	465/ 102 FT	- / -	
217	POLE	460905.0N 0211800.0E	465/102 FT	- / -	
218	POLE	460908.3N 0211744.8E	464/ 102 FT	- / -	
219	POLE	460919.0N 0211748.5E	463/ 102 FT	- / -	
220	POLE	460924.6N 0211800.4E	485/ 102 FT	- / -	
222	TOWER	460943.8N 0211705.9E	463/ 105 FT	- / -	

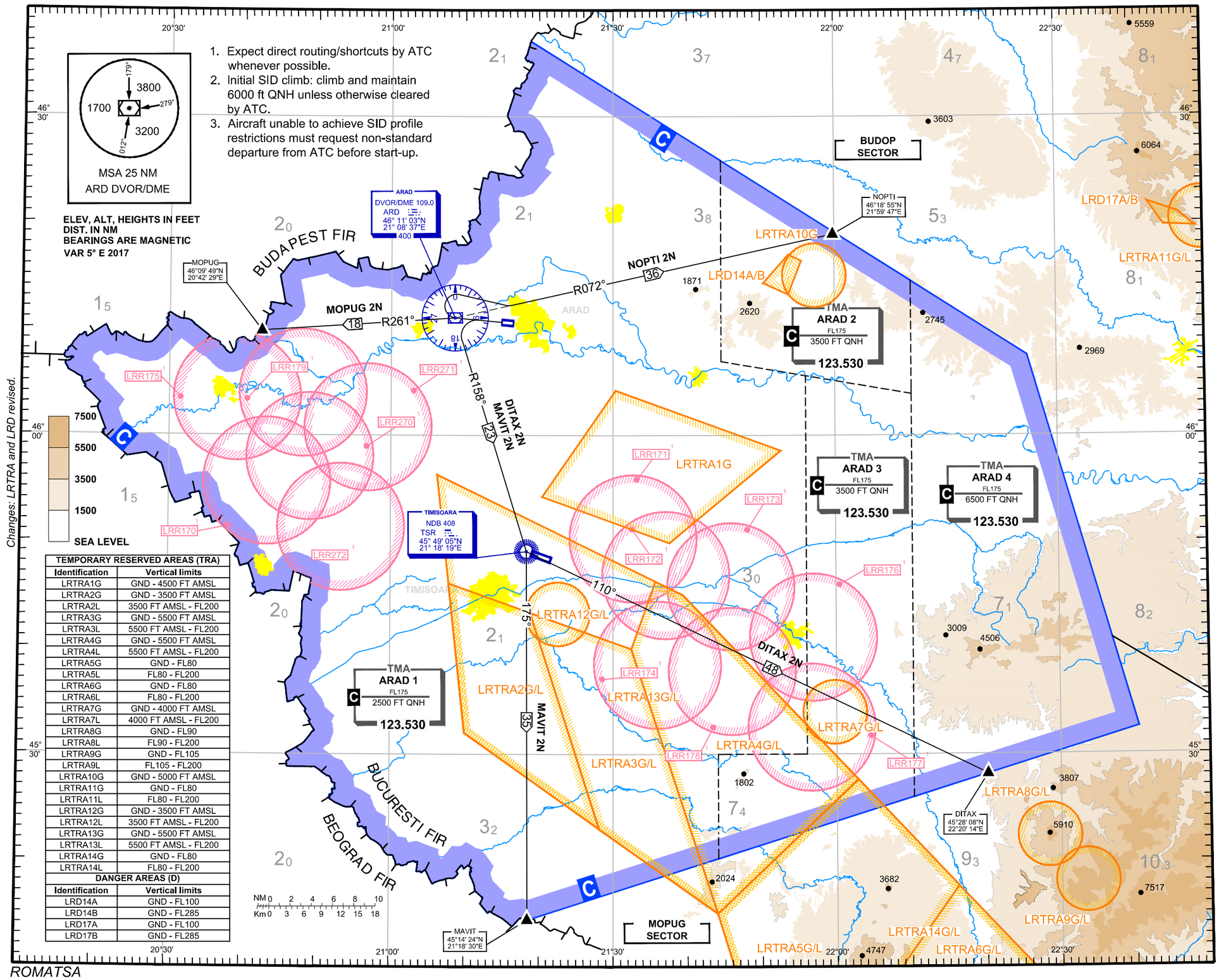
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

SECTOR	BUDOP	130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

ARAD / Arad (LRAR)
RWY 27
DITAX 2N, MAVIT 2N, MOPUG 2N, NOPTI 2N



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level.

DITAX 2N / MAVIT 2N / MOPUG 2N / NOPTI 2N

DESIGNATOR	ROUTING	ALTITUDES
DITAX 2N	On RWY track to ARD VOR/DME; LEFT turn to TSR NDB; LEFT turn, on bearing 110 TSR to DITAX.	After departure climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 2N	On RWY track to ARD VOR/DME; LEFT turn to TSR NDB; RIGHT turn, on bearing 175 TSR to MAVIT.	PDG min. 3.4%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 2N	On RWY track to ARD VOR/DME; LEFT turn, on R261 ARD to MOPUG.	PDG min. 7.7%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 2N	On RWY track to 1300; RIGHT turn to intercept R072 ARD; on R072 ARD to NOPTI. Departure turn limited to 200 kt IAS.	PDG min. 3.6%* After departure climb initially 6000 ft QNH. Further climb only by ATC.

* Increased climb gradient due to airspace structure. If unable to comply, contact ATC.

NOTE :
1. Vertical limits $\frac{FL255}{GND}$

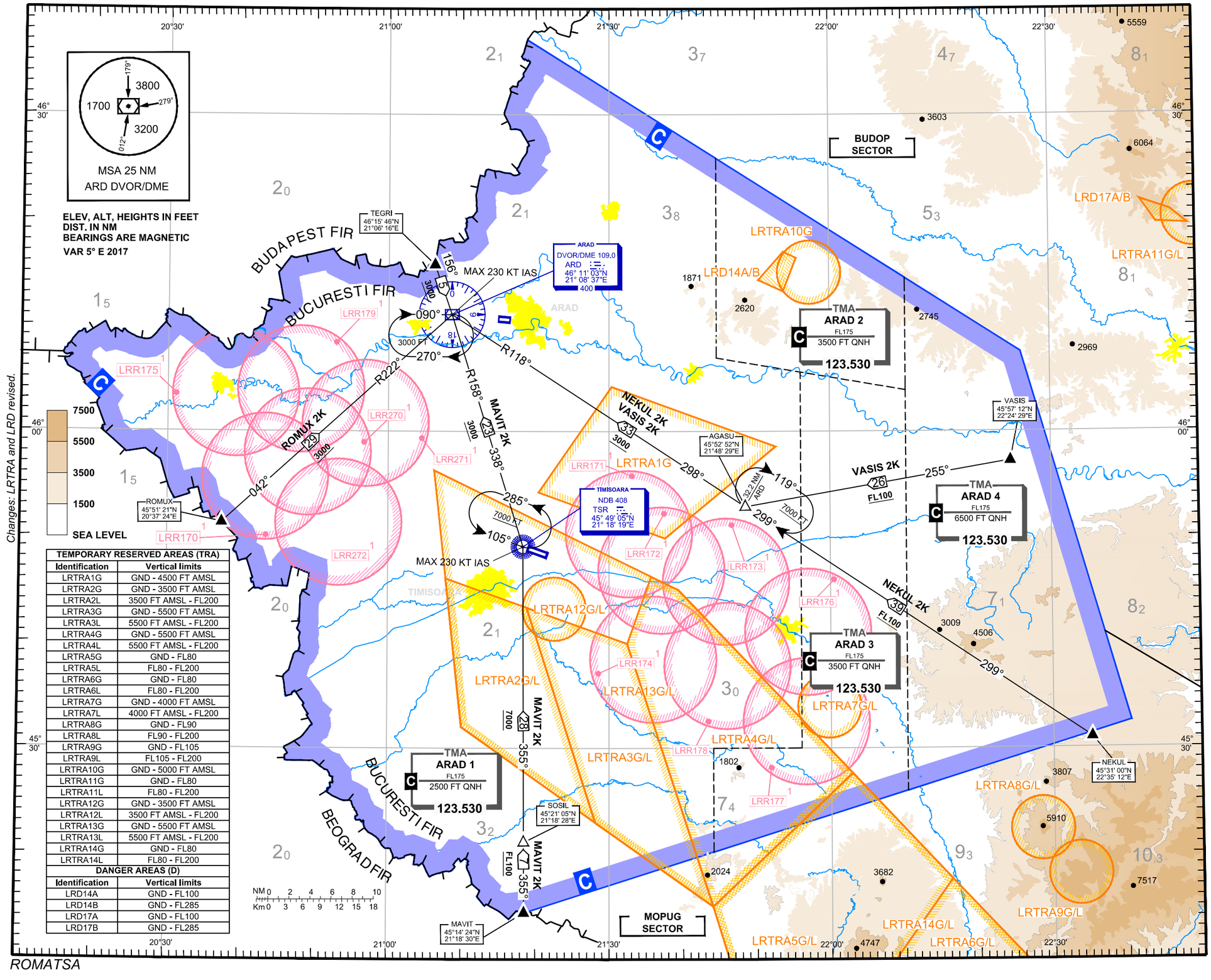
STANDARD ARRIVAL
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
RWY 09
MAVIT 2K, NEKUL 2K, ROMUX 2K, TEGRI 2K, VASIS 2K



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

Set transponder to 7600. Maintain last assigned and acknowledged altitude/flight level for 2 minutes. Proceed *to ARD VOR/DME*, and commence descent in the holding pattern over *ARD VOR/DME*, then execute approach and land. If landing is not possible, execute missed approach and proceed to *ARD VOR/DME*, and execute approach and land on the most convenient RWY.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

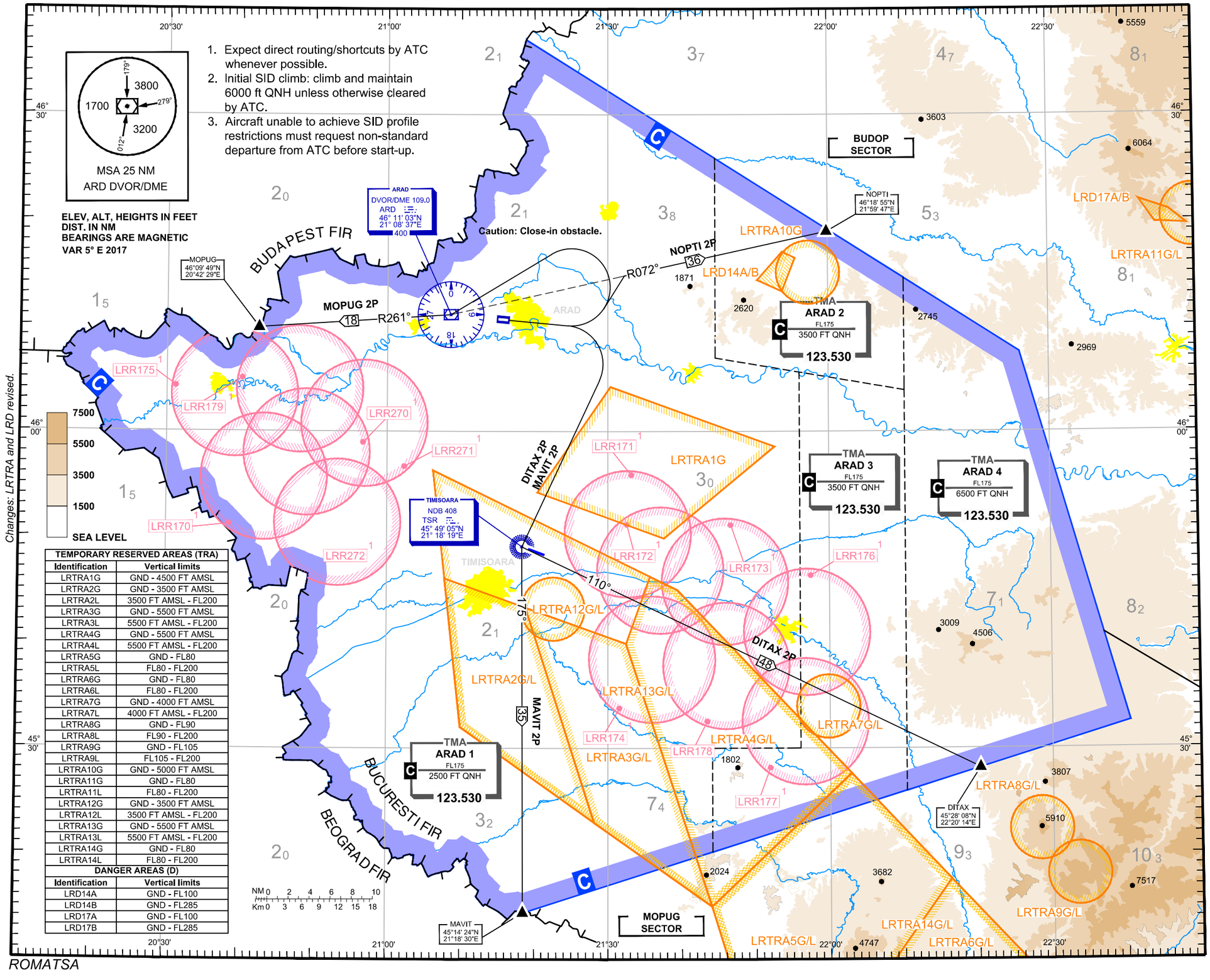
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

SECTOR	BUDOP	130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

ARAD / Arad (LRAR)
RWY 09
DITAX 2P, MAVIT 2P, MOPUG 2P, NOPTI 2P



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level.

DITAX 2P / MAVIT 2P / MOPUG 2P / NOPTI 2P

DESIGNATOR	ROUTING	ALTITUDES
DITAX 2P	On RWY track to 2000; RT to TSR NDB; LT, on QDR 110 TSR to DITAX.	After departure climb initially to 6000 ft QNH. Further climb only by ATC.
MAVIT 2P	On RWY track to 2000; RT to TSR NDB; LT, on QDR 175 TSR to MAVIT.	PDG min 3.4%* After departure climb initially to 6000 ft QNH. Further climb only by ATC.
MOPUG 2P	On RWY track to 2000; LT to ARD VOR/DME; RT, on R261 ARD to MOPUG.	After departure climb initially to 6000 ft QNH. Further climb only by ATC.
NOPTI 2P	On RWY track to 2000; LT heading 028° to intercept R072 ARD; on R072 ARD to NOPTI.	PDG 5.3%* After departure climb initially to 6000 ft QNH. Further climb only by ATC.

* Increased climb gradient due to airspace structure. If unable to comply, contact ATC.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

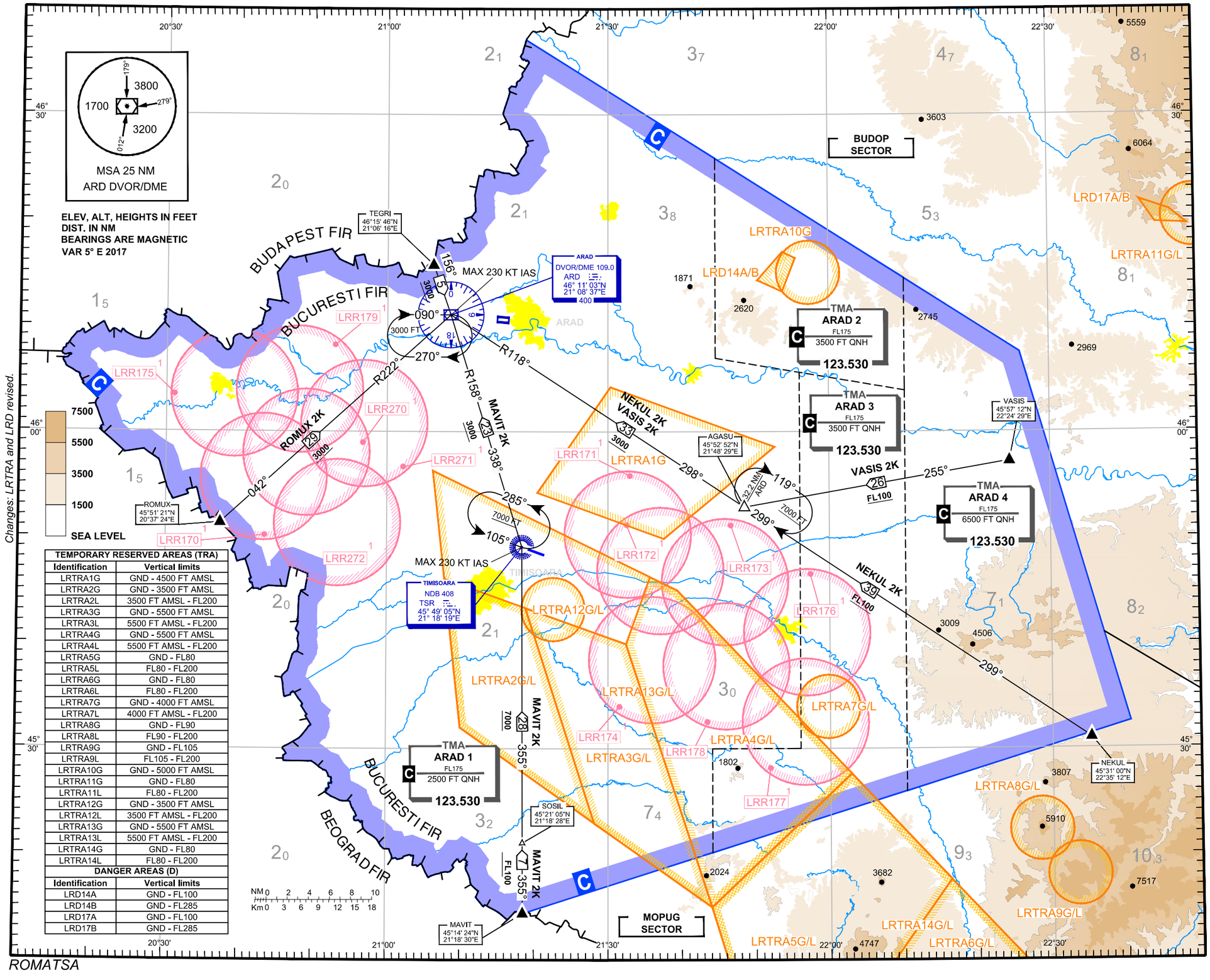
STANDARD ARRIVAL
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
RWY 27
MAVIT 2K, NEKUL 2K, ROMUX 2K, TEGRI 2K, VASIS 2K



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

Set transponder to 7600. Maintain last assigned and acknowledged altitude/flight level for 2 minutes. Proceed *to ARD VOR/DME,* and commence descent in the holding pattern over *ARD VOR/DME*, then execute approach and land. If landing is not possible, execute missed approach and proceed to *ARD VOR/DME*, and execute approach and land on the most convenient RWY.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

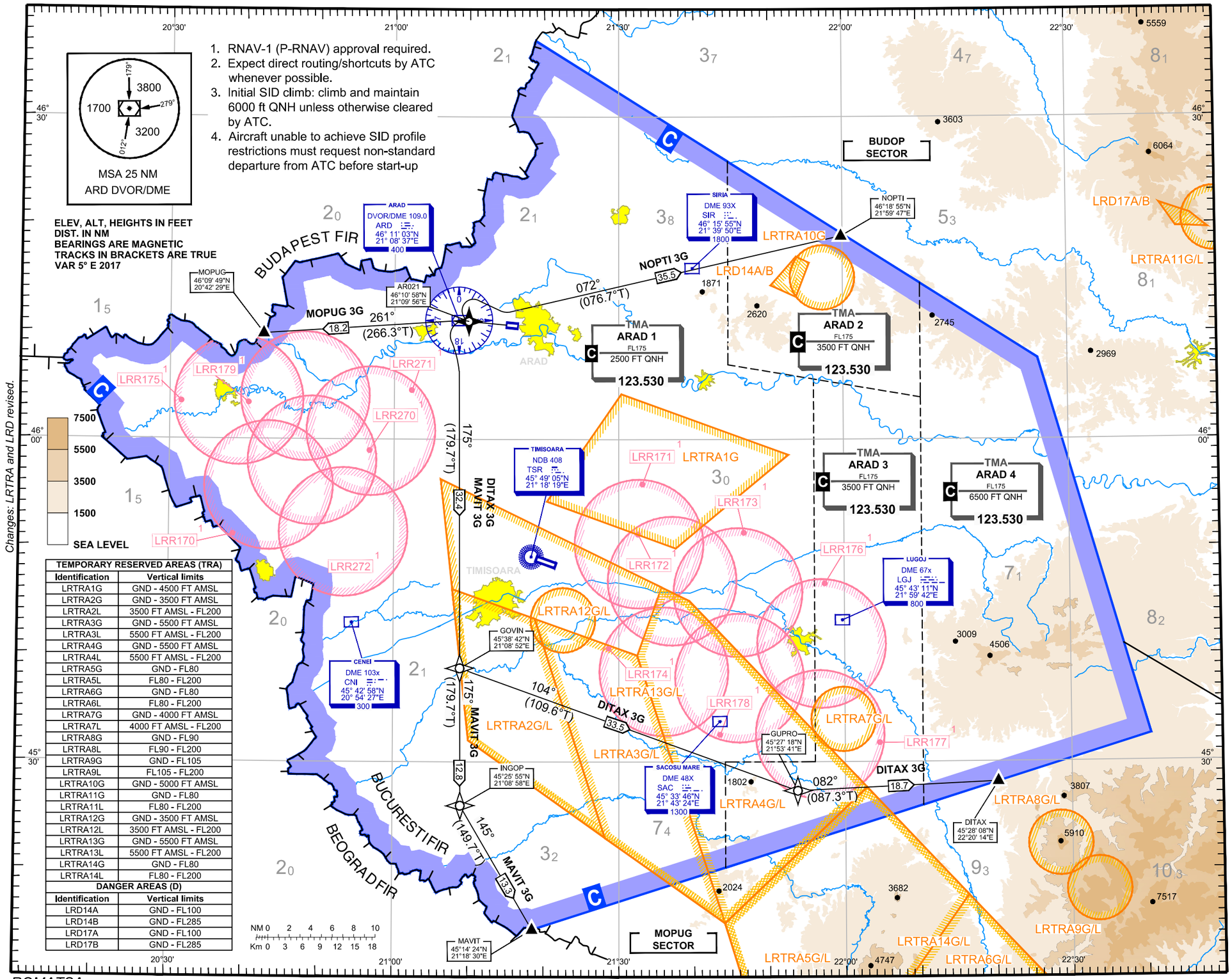
RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

SECTOR		
	BUDOP	130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

ARAD / Arad (LRAR)
RWY 27
DITAX 3G, MAVIT 3G, MOPUG 3G, NOPTI 3G



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

DITAX 3G / MAVIT 3G / MOPUG 3G / NOPTI 3G

DESIGNATOR	ROUTING	ALTITUDES
DITAX 3G	ARD - GOVIN - GUPRO - DITAX	After departure climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 3G	ARD - GOVIN - INGOP - MAVIT	PDG min. 3.7%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 3G	ARD - MOPUG	PDG min. 7.7%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 3G	AR021[K210-]→NOPTI	PDG min. 3.8%* After departure climb initially 6000 ft QNH. Further climb only by ATC.

* Increased climb gradient due to airspace structure. If unable to comply, contact ATC.

DITAX 3G		
ARD	N461102662	E0210837039
GOVIN	N453841982	E0210852487
GUPRO	N452718553	E0215340798
DITAX	N452808080	E0222013620
MAVIT 3G		
ARD	N461102662	E0210837039
GOVIN	N453841982	E0210852487
INGOP	N452554847	E0210858525
MAVIT	N451424000	E0211830000
MOPUG 3G		
ARD	N461102662	E0210837039
MOPUG	N460948500	E0204228979
NOPTI 3G		
AR021	N461057680	E0210956051
NOPTI	N461855190	E0215946587

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

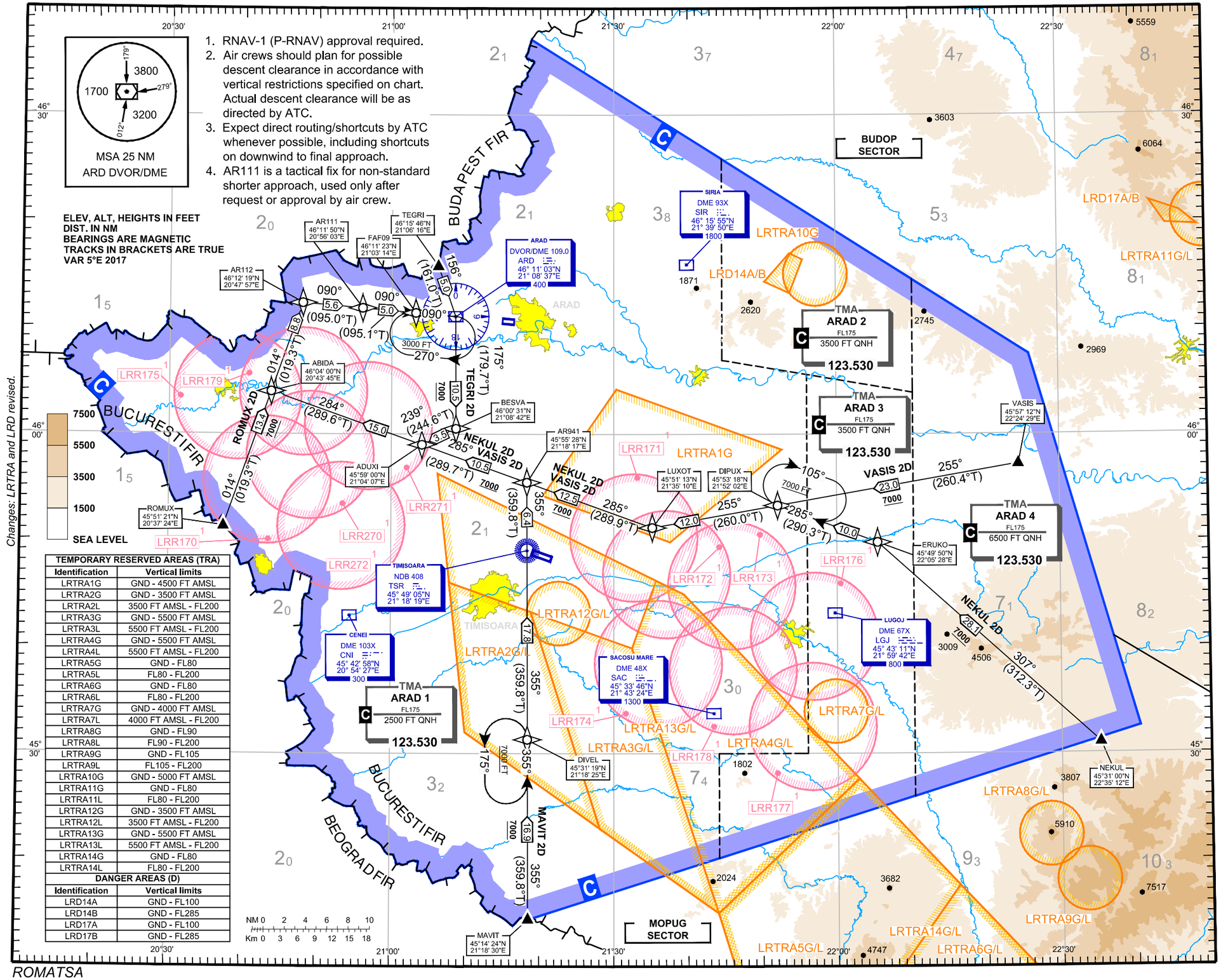
RNAV (DME/DME) ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
RWY 09
MAVIT 2D, NEKUL 2D, ROMUX 2D, TEGRI 2D, VASIS 2D



TEMPORARY RESERVED AREAS (TRA)

Identification	Vertical limits
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200

DANGER AREAS (D)

Identification	Vertical limits
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

a) if STAR was assigned and acknowledged by air crew, set transponder to 7600, continue with FPL and assigned STAR, then execute approach *VOR RWY09* and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

b) If STAR was assigned and acknowledged by air crew and vectoring was initiated, set transponder to 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to AR111, then FAF and execute approach *VOR RWY09* and land. Descending shall be executed in accordance with vertical restrictions specified on chart.

c) If STAR was not assigned, set transponder to 7600, proceed according to FPL and FPL STAR, execute approach *VOR RWY09* and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600. If landing is not possible, execute missed approach and proceed to FAF of most convenient RWY, execute approach VOR RWY 09 and land.

Runway 09	
DESIGNATOR	**ROUTING**
MAVIT 2D	MAVIT - DIVEL[A7000+] - TSR - AR941 - ADUXI[A7000+; K230-] - ABIDA[K210-] - AR112[A4000+] - AR111 - FAF09[A3000]
NEKUL 2D	NEKUL - ERUKO - DIPUX[A7000+] - LUXOT - AR941 - ADUXI[A7000+; K230-] - ABIDA[K210-] - AR112[A4000+] - AR111- FAF09[A3000]
ROMUX 2D	ROMUX - ABIDA[K210-] - AR112[A4000+] - AR111- FAF09[A3000]
TEGRI 2D	TEGRI - ARD[A7000+] - BESVA[K230-] - ADUXI[A7000+; K230-] - ABIDA[K210-] - AR112[A4000+] - AR111- FAF09[A3000]
VASIS 2D	VASIS - DIPUX[A7000+] - LUXOT - AR941 - ADUXI[A7000+; K230-] - ABIDA[K210-] - AR112[A4000+] - AR111- FAF09[A3000]

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

Changes: LRTRA and LRD revised.

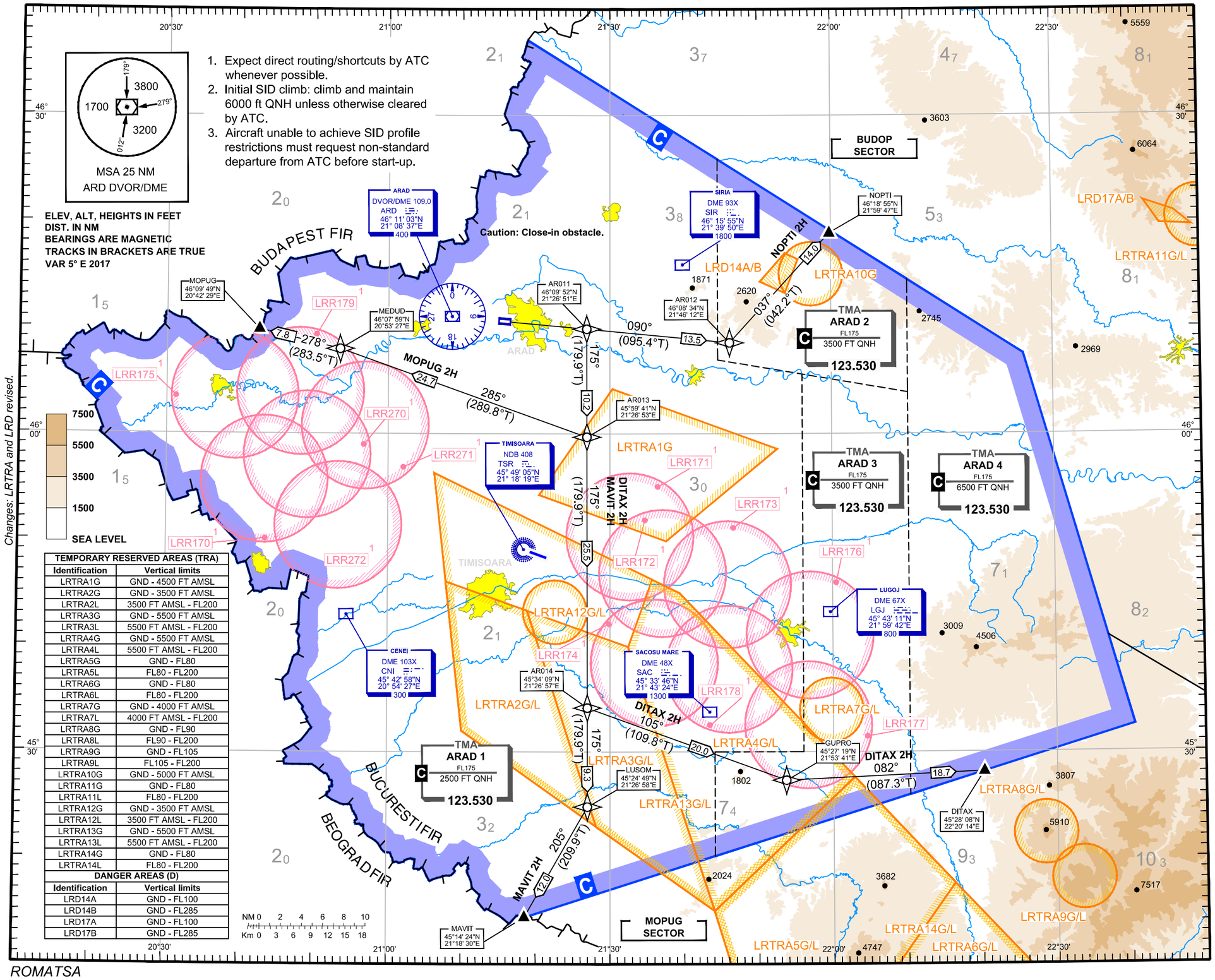
RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

SECTOR	BUDOP	130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

ARAD / Arad (LRAR)
RWY 09
DITAX 2H, MAVIT 2H, MOPUG 2H, NOPTI 2H



Changes: LRTRA and LRD revised.

TEMPORARY RESERVED AREAS (TRA)

Identification	Vertical limits
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200

DANGER AREAS (D)

Identification	Vertical limits
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level.

DITAX 2H / MAVIT 2H / MOPUG 2H / NOPTI 2H

DESIGNATOR	ROUTING	ALTITUDES
DITAX 2H	AR011[K210-] - AR013 - AR014- GUPRO - DITAX	After departure climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 2H	AR011[K210-] - AR013 - AR014- LUSOM - MAVIT	PDG min 3.6%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 2H	AR011[K210-] - AR013 - MEDUD - MOPUG	PDG min 3.5%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 2H	AR011 - AR012 - NOPTI	PDG min 5.0%* After departure climb initially 6000 ft QNH. Further climb only by ATC.

* Increased climb gradient due to airspace structure.
If unable to comply, contact ATC.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

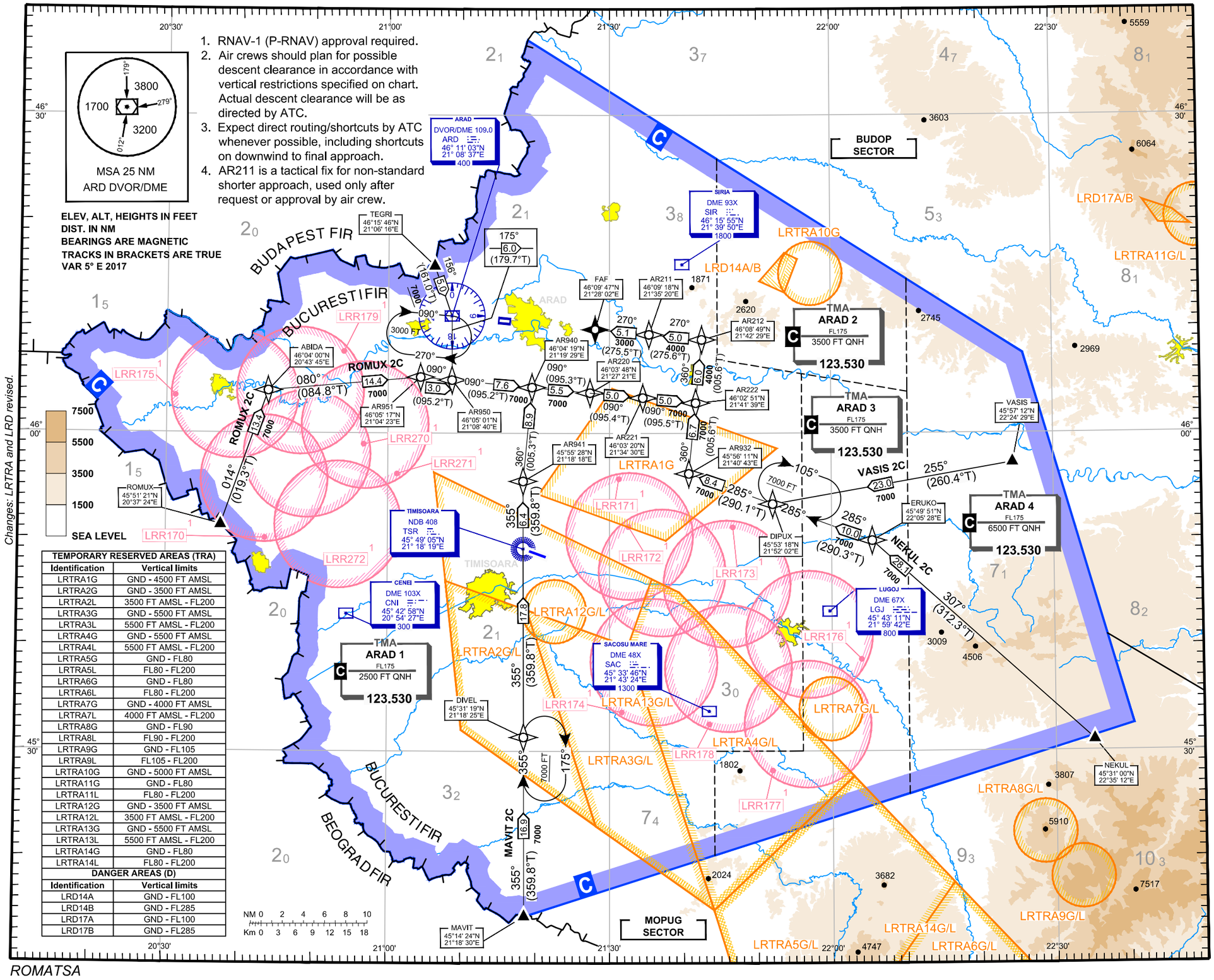
RNAV (DME/DME) ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
RWY 27
MAVIT 2C, NEKUL 2C, ROMUX 2C, TEGRI 2C, VASIS 2C



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

a) if STAR was assigned and acknowledged by air crew, set transponder to 7600, continue with FPL and assigned STAR, then execute approach ILS/VOR RWY27 and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

b) If STAR was assigned and acknowledged by air crew and vectoring was initiated, set transponder to 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to AR211, then FAF and execute approach ILS/VOR RWY27 and land. Descending shall be executed in accordance with vertical restrictions specified on chart.

c) If STAR was not assigned, set transponder to 7600, proceed according to FPL and FPL STAR, execute approach ILS/VOR RWY27 and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600. If landing is not possible, execute missed approach and proceed to FAF of most convenient RWY, execute approach ILS/VOR RWY 27 and land.

Runway 27	
DESIGNATOR	**ROUTING**
MAVIT 2C	MAVIT - DIVEL[A7000+] - TSR - AR941 - AR940[K230-] - AR220 - AR221 - AR222[K210-] - AR212[A4000+] - AR211 - FAF27[A3000]
NEKUL 2C	NEKUL - ERUKO - DIPUX[A7000+; K230-] - AR932 - AR222[K210-] - AR212[A4000+] - AR211 - FAF27[A3000]
ROMUX 2C	ROMUX - ABIDA - AR951 - AR950[A7000+] - AR940[K230-] - AR220 - AR221 - AR222[K210-] - AR212[A4000+] - AR211 - FAF27[A3000]
TEGRI 2C	TEGRI - ARD[A7000+] - AR950[A7000+] - AR940[K230-] - AR220 - AR221 - AR222[K210-] - AR212[A4000+] - AR211 - FAF27[A3000]
VASIS 2C	VASIS - DIPUX[A7000+; K230-] - AR932 - AR222[K210-] - AR212[A4000+] - AR211 - FAF27[A3000]

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

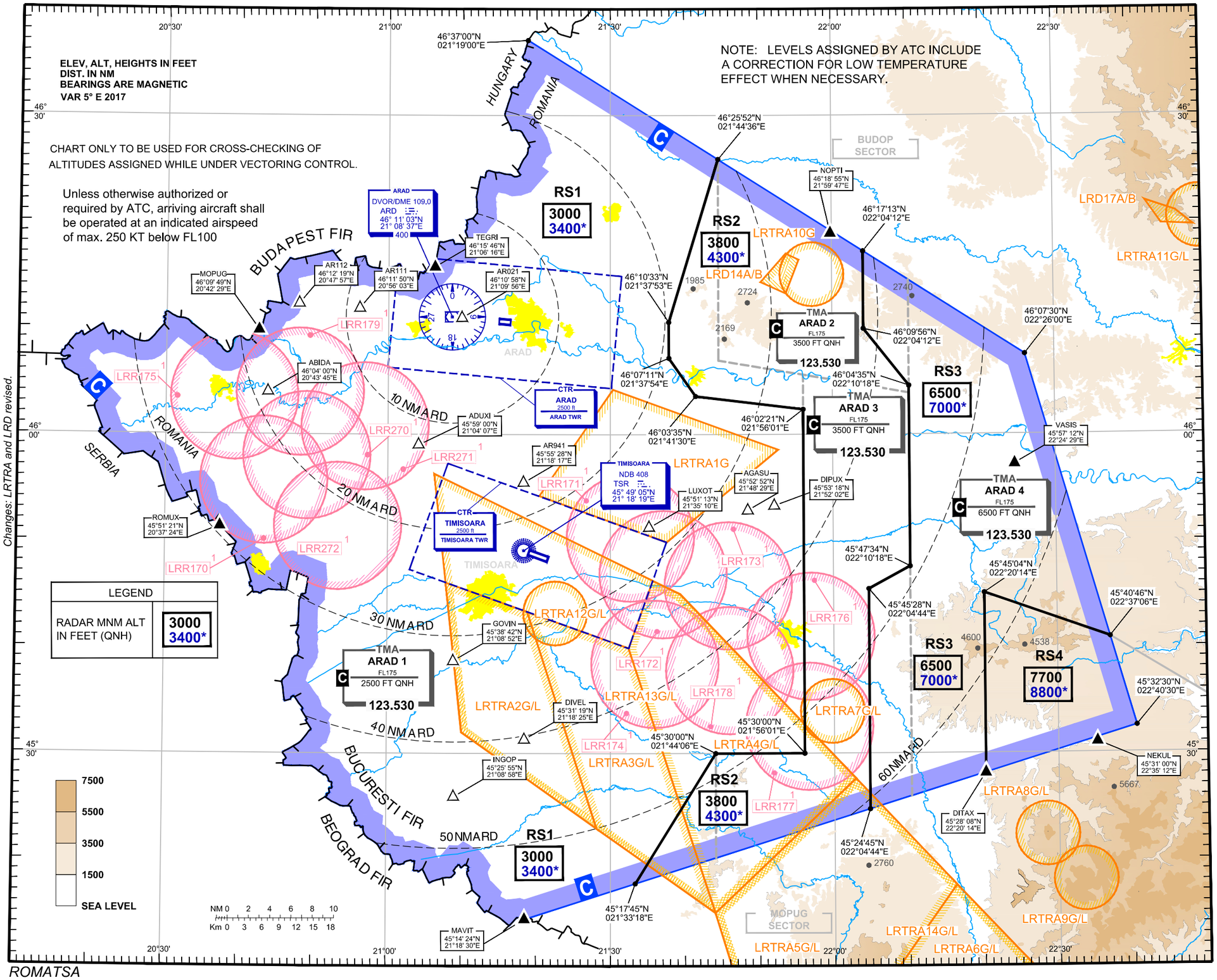
ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

ARAD / Arad (LRAR)

AERODROME ELEV
353 ft
TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

SECTOR BUDOP		130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375



Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

a) SID communication failure procedure
Set transponder 7600. Continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level. Climbing shall be executed in accordance with vertical restrictions specified on chart.

b) P-RNAV STAR communication failure procedure
Set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 minutes from setting 7600. Then proceed direct FAF and execute an instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.

c) Conventional STAR communication failure procedure
Set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 minutes from setting 7600. Then proceed direct *ARD VOR/DME* and execute an instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.

Minimum altitudes integrating a correction for low temperatures from **+0°C and **lower**.*

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

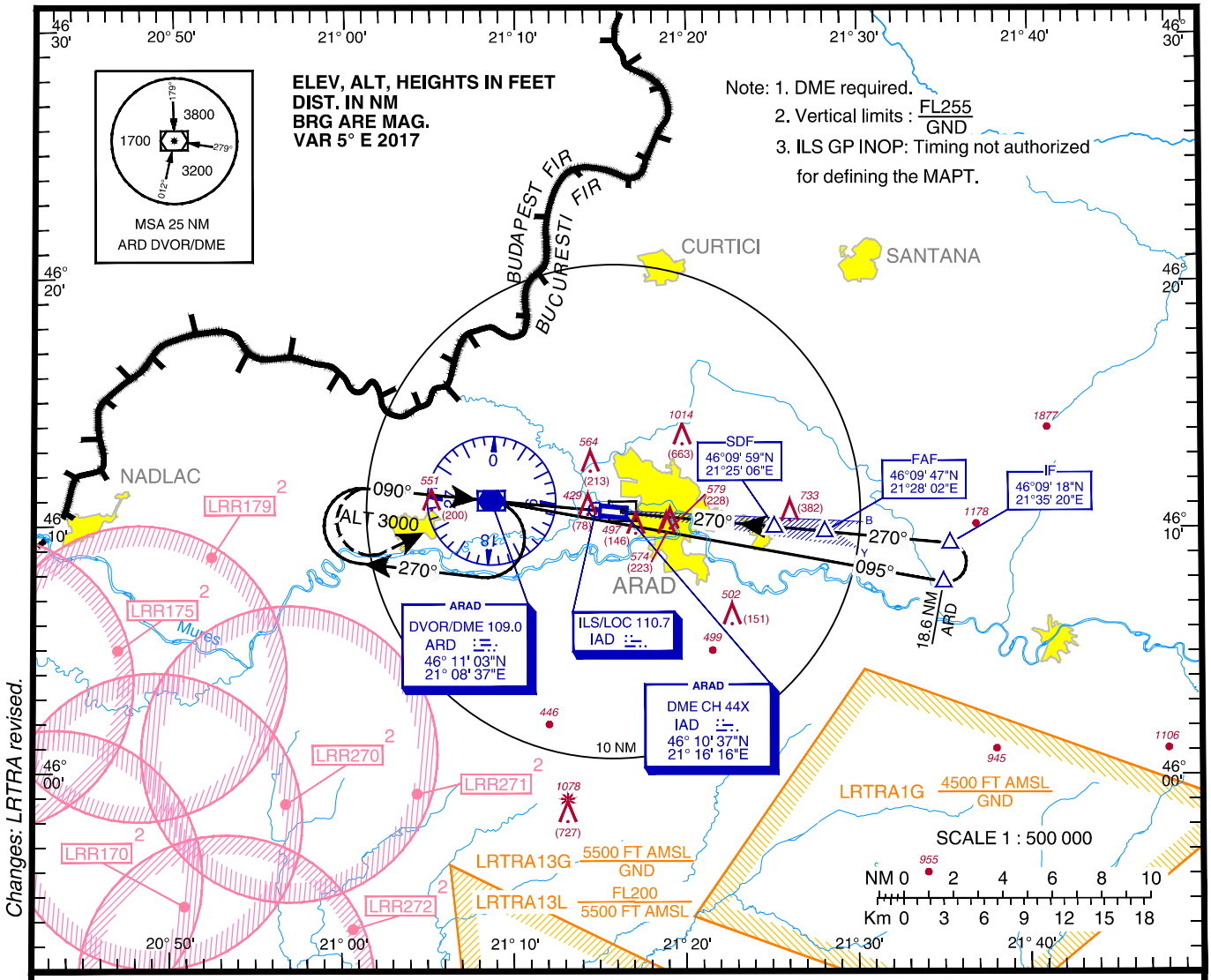
TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

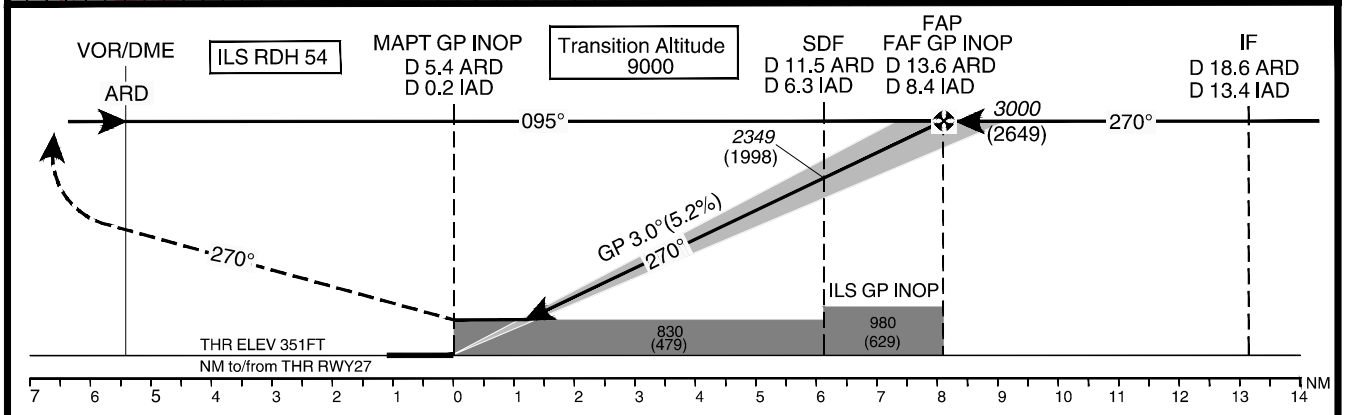
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **353 FT**
HEIGHTS RELATED TO THR ELEV 351 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
ILS RWY 27
CAT A, B





MISSED APPROACH

Climb straight ahead to ARD DVOR; on R270 ARD climb to 2300; LT, direct to ARD DVOR climbing to 3000 and join holding

OCA(H)		A	B
CAT I		547 (196)	559 (208)
CAT II		450 (99)	467 (116)
ILS GP INOP	FAF-SDF	980 (629)	
	SDF-MAPT	830 (479)	
Circling		850	900

GS	kts	80	100	120
FAF-MAPT 8.2 NM	min:s	6:09	4:55	4:06
Rate of descent	ft/min	420	530	640

Dist to DME IAD	NM	1	2	3	4	5	6.3 (SDF)	6	7	8
Dist to THR 27	NM	0.8	1.8	2.8	3.8	4.8	6.1	5.8	6.8	7.8
Altitudes (Heights)	ft	667 (316)	986 (635)	1304 (953)	1623 (1272)	1941 (1590)	2349 (1998)	2260 (1909)	2578 (2227)	2897 (2546)

For data tabulation see verso

ARAD / Arad (LRAR)
ILS RWY 27, CAT A, B

AERONAUTICAL DATA TABULATION

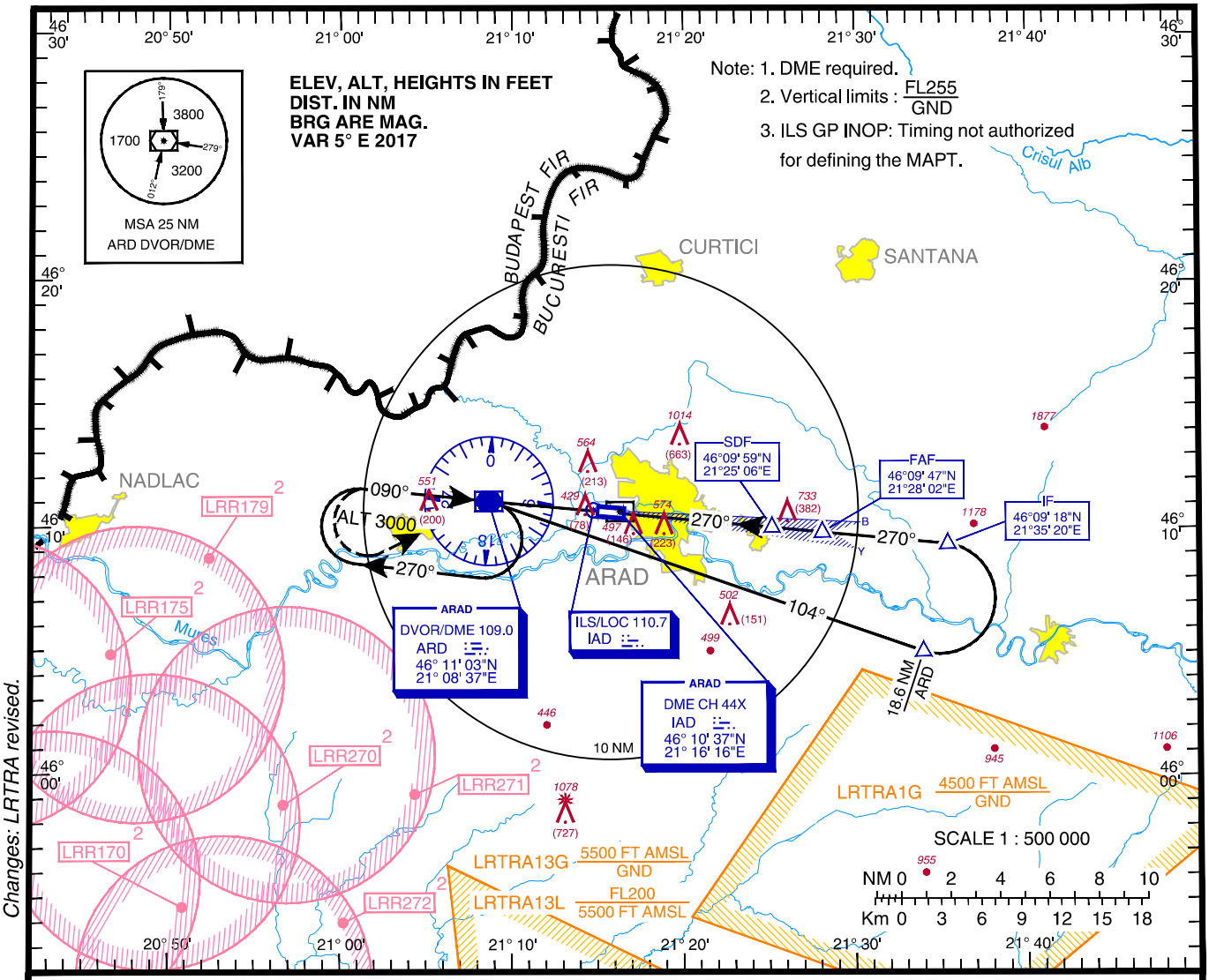
ILS approach to RWY 27 from ARD DVOR/DME	
Fix/Point	**Coordinates**
ARD DVOR/DME (IAF)	46°11'02.7"N 021°08'37.0"E
18.6 D ARD – Outbound 094.96° ARD VOR	46°07'44.0"N 021°34'57.4"E
13.4D IAD / 18.6 D ARD (IF) – BRG 270.34° ARD VOR	46°09'18.2"N 021°35'19.7"E
8.4 D IAD / 13.6 D ARD (FAF) – BRG 270.25° ARD VOR	46°09'47.4"N 021°28'02.0"E
6.3 D IAD / 11.5 D ARD (SDF) – BRG 270.22° ARD VOR	46°09'59.0"N 021°25'06.1"E
0.2 D IAD / 5.4 D ARD (MAPT) – BRG 270.11° ARD VOR	46°10'33.1"N 021°16'21.6"E
THR RWY 27	46°10'33.14"N 021°16'21.34"E

INSTRUMENT APPROACH CHART - ICAO

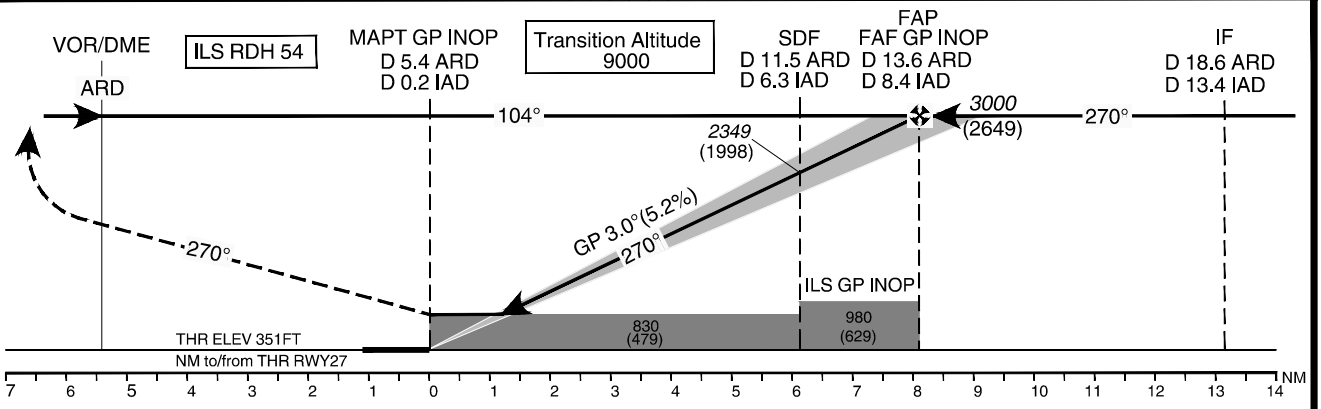
AERODROME ELEV. **353 FT**
HEIGHTS RELATED TO THR ELEV 351 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
ILS RWY 27
CAT C, D



Changes: LRTRA revised.



MISSED APPROACH

Climb straight ahead to ARD DVOR; on R270. ARD climb to 2300; LT, direct to ARD DVOR climbing to 3000 and join holding.

OCA(H)		C	D
CAT I		567 (216)	578 (227)
CAT II		479 (128)	493 (142)
ILS GP INOP	FAF-SDF	980 (629)	
	SDF-MAPT	830 (479)	
Circling		1410	

GS	kts	120	140	160
FAF-MAPT 8.2 NM	min:s	4:06	3:31	3:04
Rate of descent	ft/min	640	740	850

Dist to DME IAD	NM	1	2	3	4	5	6.3 (SDF)	6	7	8
Dist to THR 27	NM	0.8	1.8	2.8	3.8	4.8	6.1	5.8	6.8	7.8
Altitudes (Heights)	ft	667 (316)	986 (635)	1304 (953)	1623 (1272)	1941 (1590)	2349 (1998)	2260 (1909)	2578 (2227)	2897 (2546)

For data tabulation see verso

ARAD / Arad (LRAR)
ILS RWY 27, CAT C, D

AERONAUTICAL DATA TABULATION

ILS approach to RWY 27 from ARD DVOR/DME	
Fix/Point	**Coordinates**
ARD DVOR/DME (IAF)	46°11’02.7”N 021°08’37.0”E
18.6 D ARD – Outbound 103.80° ARD VOR	46°04’57.4”N 021°33’54.0”E
13.4 D IAD / 18.6 D ARD (IF) – BRG 270.34° ARD VOR	46°09’18.2”N 021°35’19.7”E
8.4 D IAD / 13.6 D ARD (FAF) – BRG 270.25° ARD VOR	46°09’47.4”N 021°28’02.0”E
6.3 D IAD / 11.5 D ARD (SDF)) – BRG 270.22° ARD VOR	46°09’59.0”N 021°25’06.1”E
0.2 D IAD / 5.4 D ARD (MAPT)) – BRG 270.11° ARD VOR	46°10’33.1”N 021°16’21.6”E
THR RWY 27	46°10’33.14”N 021°16’21.34”E

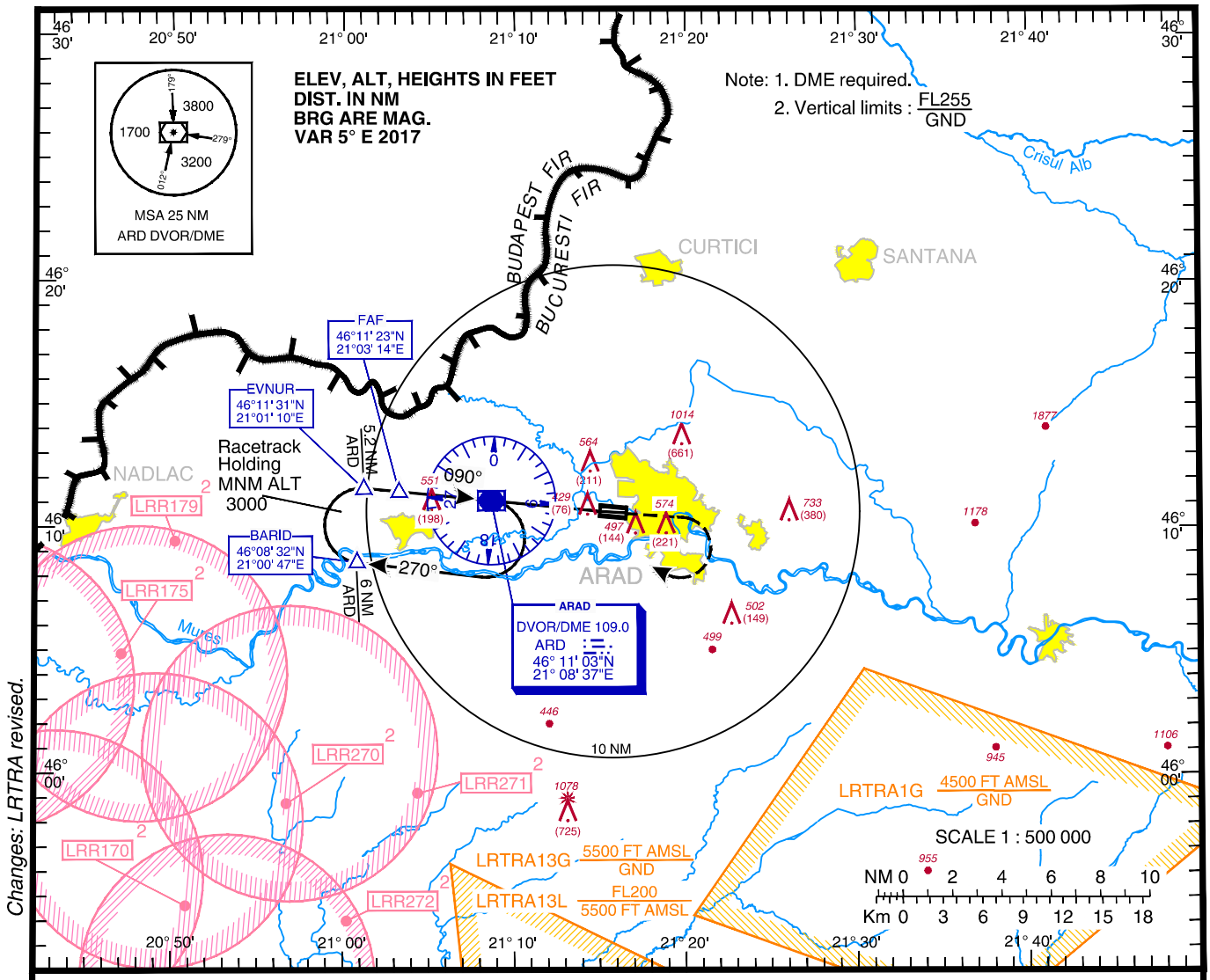
INSTRUMENT APPROACH CHART - ICAO

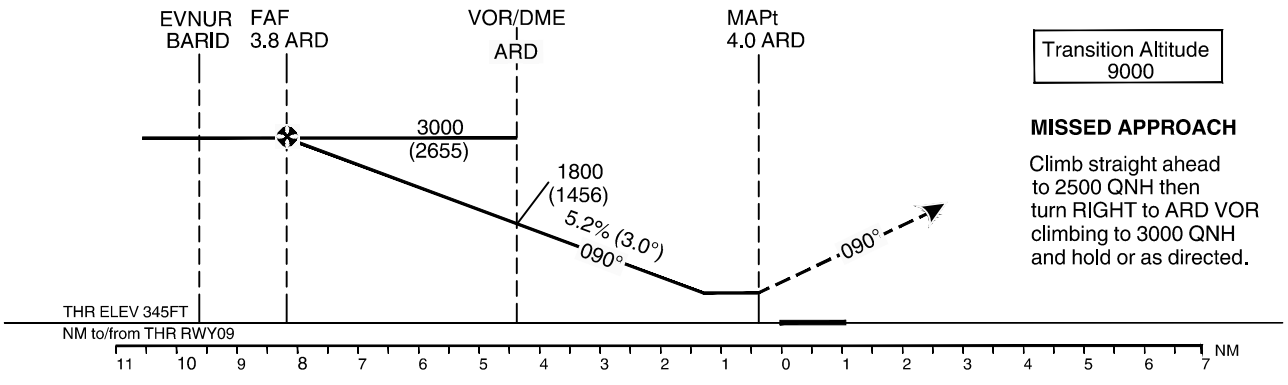
AERODROME ELEV. **353 ft**
HEIGHTS RELATED TO AD ELEV

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
VOR
RWY 09

Changes: LRTRA revised.





Transition Altitude
9000

MISSED APPROACH

Climb straight ahead to 2500 QNH then turn RIGHT to ARD VOR climbing to 3000 QNH and hold or as directed.

OCA(H)	A	B	C	D
Straight-in Approach	810			
Circling	870		1410	

	kts	70	90	100	120	140	160
FAF-MAPT 7.8 NM	min:s	6:41	5:12	4:41	3:54	3:21	2:55
Rate of descent	ft/min	372	425	531	637	743	849

Dist to/from ARD DME	NM	2/	1/	/1	/2	/3
Altitudes (Heights)	ft	2438 (2083)	2119 (1774)	1482 (1137)	1164 (819)	846 (501)

For data tabulation see verso

ARAD / Arad (LRAR)
VOR RWY 09

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 09	
Fix/Point	**Coordinates**
ARD DVOR/DME (Stepdown)	46°11'02.7"N 021°08'37.0"E
BARID - BRG 240.00°/ 6.00NM ARD	46°08'31.8"N 021°00'46.8"E
EVNUR - BRG 089.89°/ 5.20NM ARD	46°11'30.6"N 021°01'09.7"E
3.8 NM ARD (FAF)	46°11'23.1"N 021°03'14.0"E
4.0 NM ARD (MAPT)	46°10'40.9"N 021°14'21.0"E
THR RWY 09 – 4.4 DME ARD	46°10'38.57"N 021°14'56.86"E

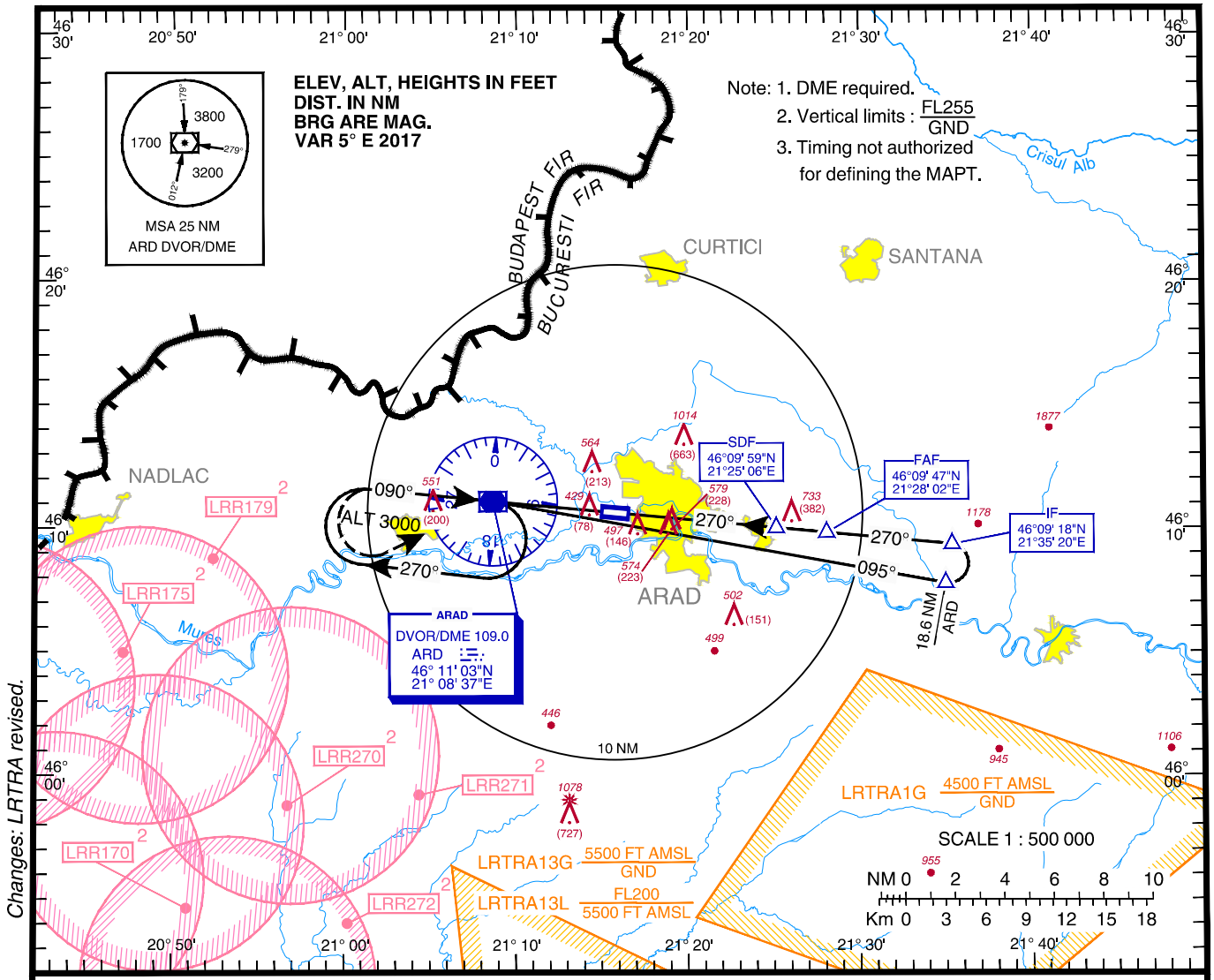
Final approach descent angle: 3.00**°**

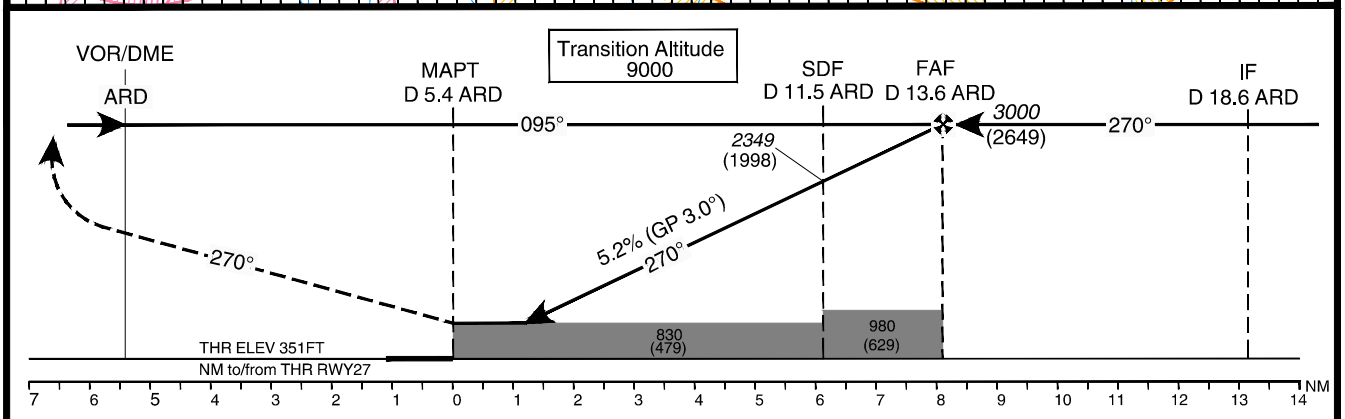
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **353 FT**
HEIGHTS RELATED TO THR ELEV 351 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
VOR RWY 27
CAT A, B





MISSED APPROACH

Climb straight ahead to ARD DVOR; on R270 ARD climb to 2300; LT, direct to ARD DVOR climbing to 3000 and join holding

GS	kts	80	100	120
FAF-MAPT 8.2 NM	min:s	6:09	4:55	4:06
Rate of descent	ft/min	420	530	640

OCA(H)		A	B
Straight-in approach	FAF-SDF	980 (629)	
	SDF-MAPT	830 (479)	
Circling		850	900

Dist to ARD DME	NM	6	7	8	9	10	11	11.5	12	13
Dist to THR 27	NM	0.6	1.6	2.6	3.6	4.6	5.6	6.1	6.6	7.6
Altitudes (Heights)	ft	597 (246)	916 (565)	1234 (883)	1553 (1202)	1873 (1520)	2190 (1839)	2349 (1998)	2508 (2157)	2826 (2475)

For data tabulation see verso

ARAD / Arad (LRAR)
VOR RWY 27, CAT A, B

AERONAUTICAL DATA TABULATION

VOR approach to RWY 27 from ARD DVOR/DME	
Fix/Point	**Coordinates**
ARD DVOR/DME (IAF)	46°11'02.7"N 021°08'37.0"E
18.6 D ARD – Outbound 094.96° ARD VOR	46°07'44.0"N 021°34'57.4"E
18.6 D ARD (IF) – BRG 270.34° ARD VOR	46°09'18.2"N 021°35'19.7"E
13.6 D ARD (FAF) – BRG 270.25° ARD VOR	46°09'47.4"N 021°28'02.0"E
11.5 D ARD (SDF) – BRG 270.22° ARD VOR	46°09'59.0"N 021°25'06.1"E
5.4 D ARD (MAPT) – BRG 270.11° ARD VOR	46°10'33.1"N 021°16'21.6"E
THR RWY 27	46°10'33.14"N 021°16'21.34"E

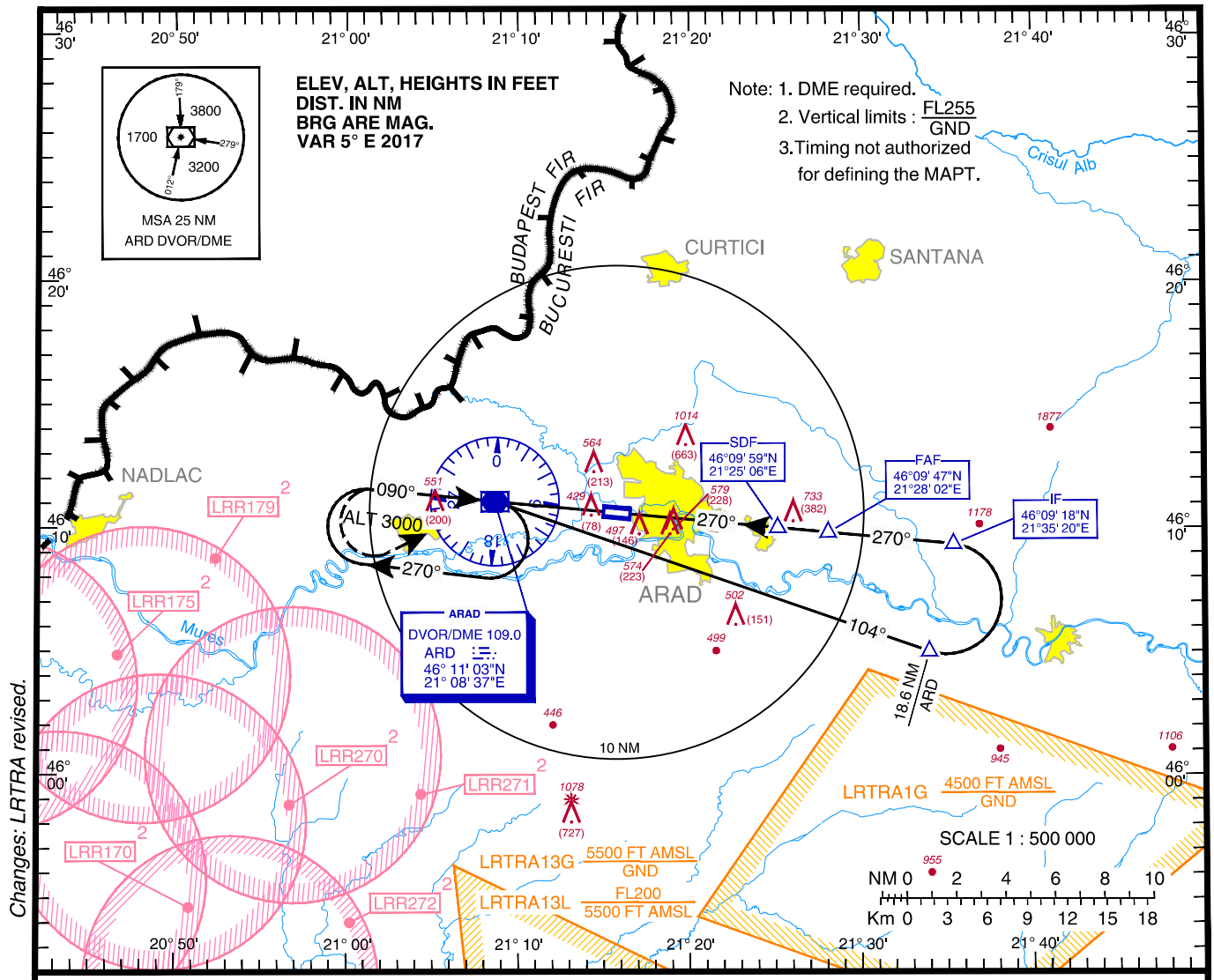
Final approach descent angle: 3.00°

INSTRUMENT APPROACH CHART - ICAO

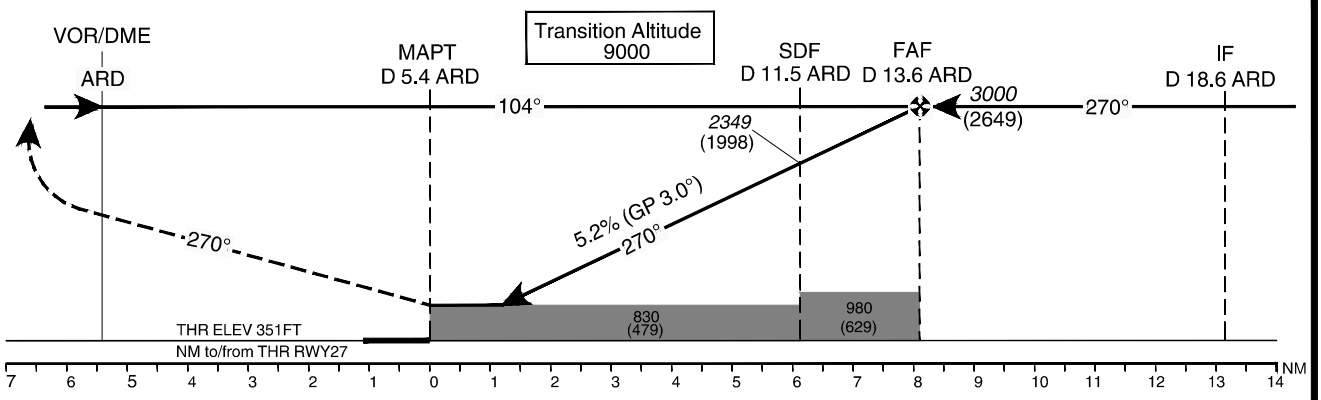
AERODROME ELEV. **353 FT**
HEIGHTS RELATED TO THR ELEV 351 FT

Arad Approach	123.530
Arad Approach ALTN	126.350
Arad Tower	118.230
Arad Tower ALTN	130.200

ARAD / Arad (LRAR)
VOR RWY 27
CAT C, D



Changes: LRTRA revised.



MISSED APPROACH

Climb straight ahead to ARD DVOR; on R270
ARD climb to 2300; LT, direct to ARD DVOR
climbing to 3000 and join holding

GS	kts	120	140	160
FAF-MAPT 8.2 NM	min:s	4:06	3:31	3:04
Rate of descent	ft/min	640	740	850

OCA(H)		C	D
Straight-in approach	FAF-SDF	980 (629)	
	SDF-MAPT	830 (479)	
Circling		1410	

Dist to ARD DME	NM	6	7	8	9	10	11	11.5	12	13
Dist to THR 27	NM	0.6	1.6	2.6	3.6	4.6	5.6	6.1	6.6	7.6
Altitudes (Heights)	ft	597 (246)	916 (565)	1234 (883)	1553 (1202)	1873 (1520)	2190 (1839)	2349 (1998)	2508 (2157)	2826 (2475)

For data tabulation see verso

ARAD / Arad (LRAR)
VOR RWY 27, CAT C, D

AERONAUTICAL DATA TABULATION

VOR approach to RWY 27 from ARD DVOR/DME	
Fix/Point	**Coordinates**
ARD DVOR/DME (IAF)	46°11'02.7"N 021°08'37.0"E
18.6 D ARD – Outbound 103.80° ARD VOR	46°04'57.4"N 021°33'54.0"E
18.6 D ARD (IF) – BRG 270.34° ARD VOR	46°09'18.2"N 021°35'19.7"E
13.6 D ARD (FAF) – BRG 270.25° ARD VOR	46°09'47.4"N 021°28'02.0"E
11.5 D ARD (SDF) – BRG 270.22° ARD VOR	46°09'59.0"N 021°25'06.1"E
5.4 D ARD (MAPT) – BRG 270.11 ARD VOR	46°10'33.1"N 021°16'21.6"E
THR RWY 27	46°10'33.14"N 021°16'21.34"E

Final approach descent angle: 3.00°

BAIA MARE / Maramureş (LRBM)

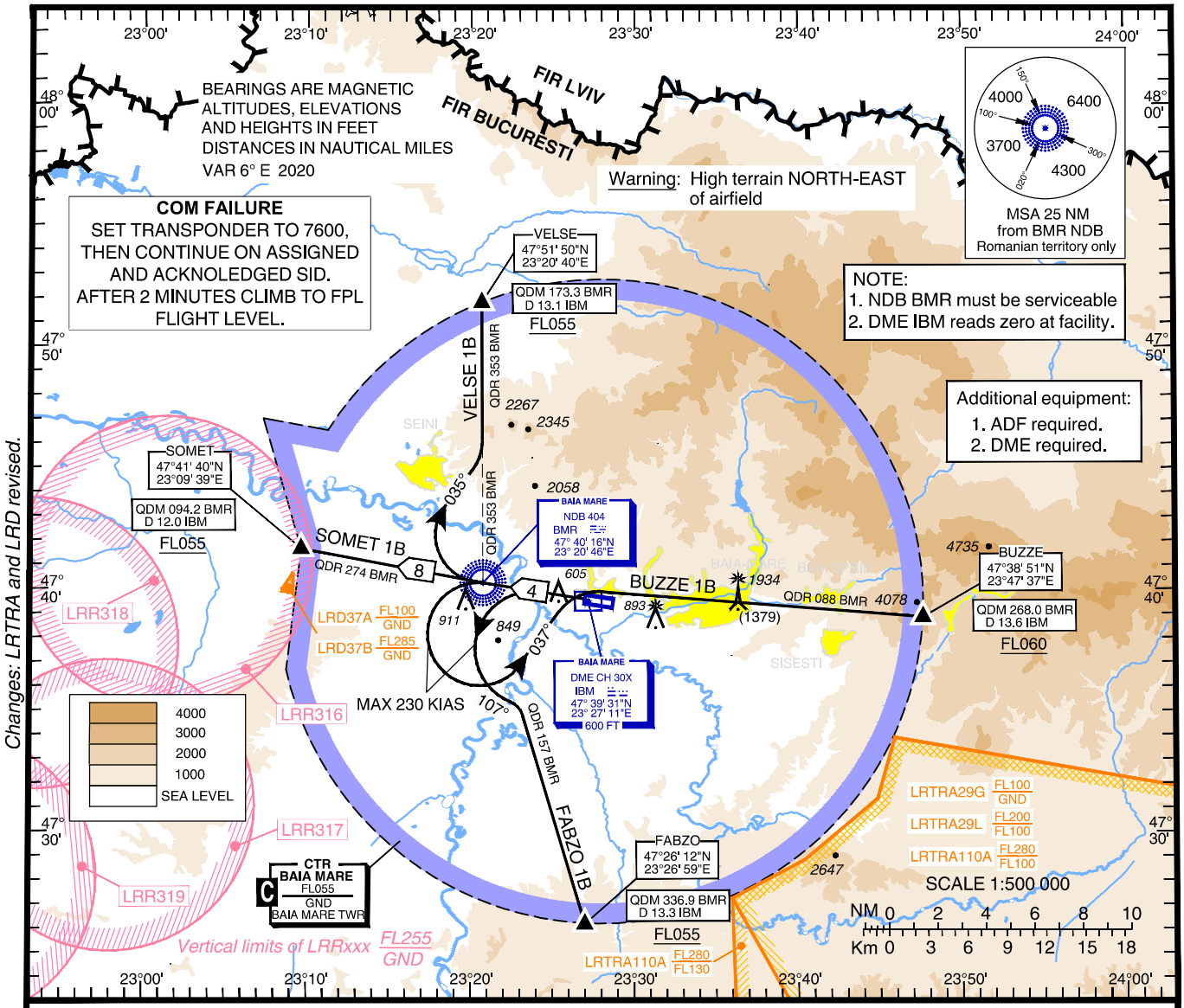
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

RWY 27

BUZZE 1B, FABZO 1B, SOMET 1B, VELSE 1B

Transition Altitude 4000

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100
NAPOC SECTOR	127.075	NAPOC SECTOR ALTN	120.930



Changes: LRTRA and LRD revised.

SID Identifier	DESCRIPTION
BUZZE 1B	On runway track climb to BMR NDB. Turn LEFT on track 037° to intercept QDR 088 BMR to BUZZE. Cross BUZZE at or above FL060. Departure turn limited to MAX 230 KIAS. PDG min 4.2% due to obstacles until FL060.
FABZO 1B	On runway track climb to 1000ft. Turn LEFT on track 107° to intercept QDR 157 BMR to FABZO. Cross FABZO at or above FL055(1). Departure turn limited to MAX 230 KIAS. (1) ATS climb gradient : 5.3% up to FABZO due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
SOMET 1B	On runway track climb to BMR NDB. Intercept QDR 274 BMR to SOMET. Cross SOMET at or above FL055(1). (1) ATS climb gradient : 6.9% up to SOMET due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
VELSE 1B	On runway track climb to BMR NDB. Turn RIGHT on track 035° to intercept QDR 353 BMR to VELSE. Cross VELSE at or above FL055 (1). Departure turn limited to MAX 230 KIAS. PDG min 4.4% due to obstacles until 3100ft. (1) ATS climb gradient : 5.7% up to VELSE due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.

BAIA MARE / Maramureș (LRBM)
SID RWY 27

AERONAUTICAL DATA TABULATION

SID RWY 27	
Waypoint Identifier	**Coordinates**
DER 27	47°39'36.14" N 023°26'58.77" E
BUZZE (QDM 268.0 BMR / D 13.8 IBM)	47°38'51.0" N 023°47'37.0" E
FABZO (QDM 336.9 BMR / D 13.3 IBM)	47°26'12.0" N 023°26'59.0" E
SOMET (QDM 094.2 BMR / D 12.0 IBM)	47°41'40.0" N 023°09'39.0" E
VELSE (QDM 173.3 BMR / D 13.1 IBM)	47°51'50.0" N 023°20'40.0" E
BMR NDB	47°40'16.4" N 023°20'45.5" E
IBM DME	47°39'30.7" N 023°27'11.0" E

Leg	Distance [NM]	True Track [°]	Magnetic Track [°]
BUZZE 1B			
DER 27 – BMR NDB	4.26	279.02	272.66 (QDM BMR NDB)
BMR NDB – BUZZE	31.95	094.65	088.29 (QDR BMR NDB)
FABZO 1B			
DER 27 – 1000 ft	2.14	279.02	272.66 (QDM BMR NDB)
1000 ft – FABZO	20.05	163.36	157.00 (QDR BMR NDB)
SOMET 1B			
DER 27 – BMR NDB	4.26	279.02	272.66 (QDM BMR NDB)
BMR NDB – SOMET	7.63	280.46	274.10 (QDR BMR NDB)
VELSE 1B			
DER 27 – BMR NDB	4.26	279.02	272.66 (QDM BMR NDB)
BMR NDB – VELSE	13.86	359.70	353.34 (QDR BMR NDB)

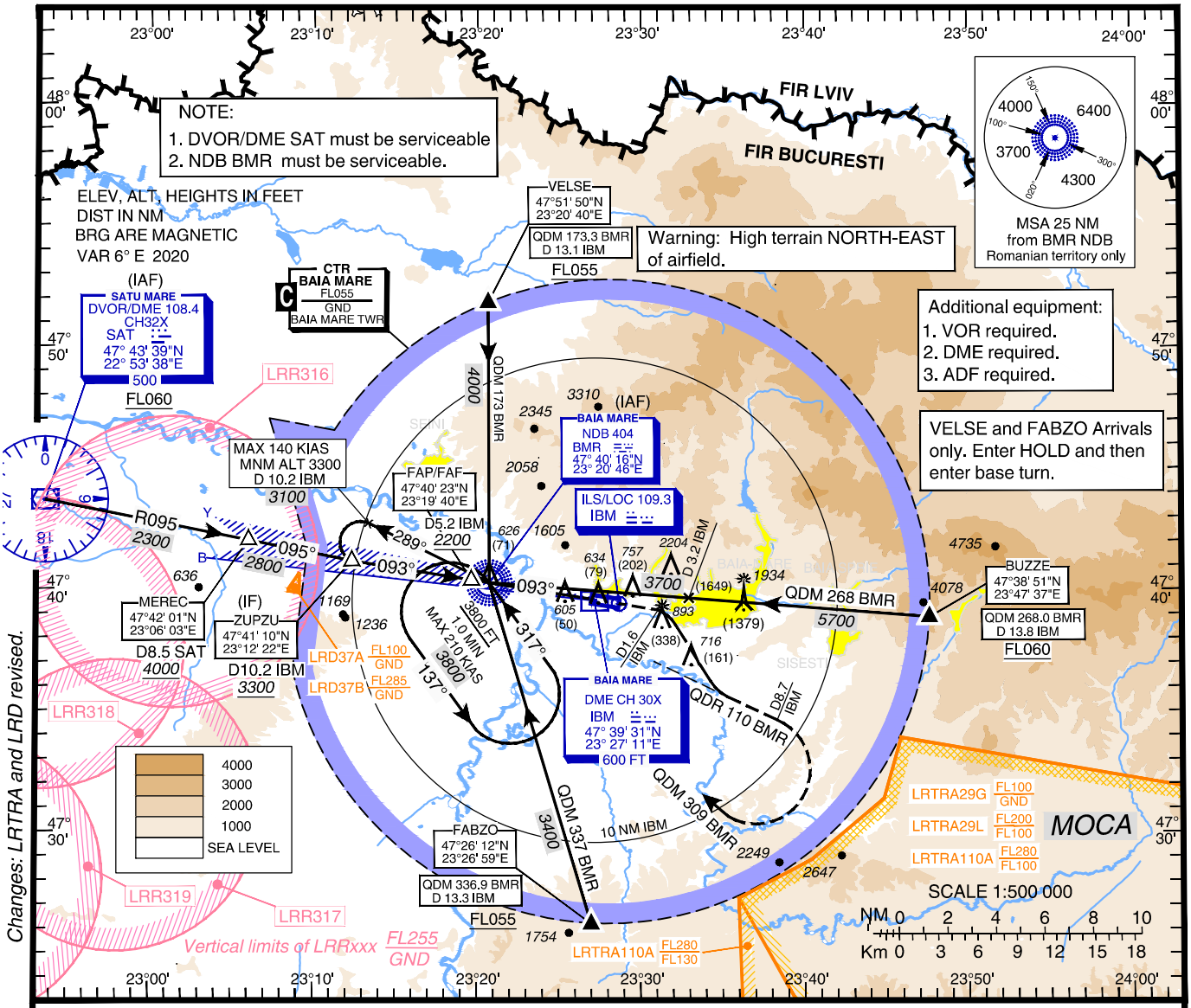
INSTRUMENT APPROACH CHART - ICAO

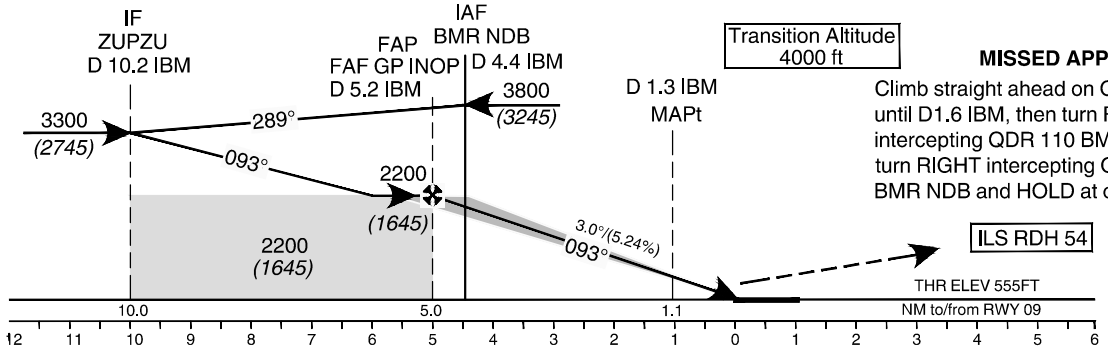
AERODROME ELEV. **606 ft**
HEIGHTS RELATED TO
THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

ILS Y
RWY 09
CAT A, B

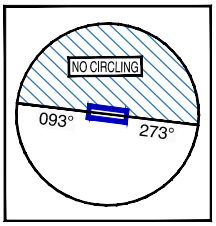




MISSED APPROACH

Climb straight ahead on QDR 093 BMR until D1.6 IBM, then turn RIGHT intercepting QDR 110 BMR, at D 8.7 IBM turn RIGHT intercepting QDM 309 BMR to BMR NDB and HOLD at or above 3800 FT.

OCA(H)		MACG	A	B
Straight-in Approach	CAT I	2.5%	896 (341)	905 (350)
		3.0%	837 (282)	847 (292)
		4.0%	785 (230)	795 (240)
	CAT II	2.5%	807 (252)	823 (268)
		3.0%	749 (194)	765 (210)
		4.0%	697 (142)	713 (158)
	GP INOP	2.5%	1000 (445)	
Circling*			1160	1340



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120
FAF - MAPT 3.9 NM	MIN:SEC	3:19	2:35	2:19	1:56
Rate of descent	FT/MIN	372	478	531	637

DIST to IBM DME	NM	5.0	4.0	3.0	2.0
ALT (HGT)	FT	2150 (1595)	1840 (1285)	1520 (965)	1100 (645)

For data tabulation see verso.

BAIA MARE / Maramureș (LRBM)
ILS Y RWY 09

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 09 CAT A, B from BUZZE, FABZO, VELSE, SAT VOR, BMR NDB		
Fix/Point	**Coordinates**	
BUZZE – BRG 267.96 BMR / D 13.83 IBM	47°38'51.0" N	023°47'37.0" E
FABZO – BRG 336.93 BMR / D 13.32 IBM	47°26'12.0" N	023°26'59.0" E
VELSE – BRG 173.33 BMR / D 13.09 IBM	47°51'50.0" N	023°20'40.0" E
SAT DVOR/DME (IAF)	47°43'38.7" N	022°53'37.9" E
BMR NDB (IAF)	47°40'16.4" N	023°20'45.5" E
MEREC – BRG 094.71 SAT / D 8.54 SAT	47°42'01.0" N	023°06'03.0" E
ZUPZU (IF) **–** BRG 092.65 BMR / D 10.15 IBM	47°41'10.0" N	023°12'21.9" E
D 5.2 IBM (FAP/FAF) **–** BRG 092.59 BMR / D 5.15 IBM	47°40'23.3" N	023°19'40.4" E
D 1.3 IBM (MAPt) **–** BRG 092.72 BMR / D 1.30 IBM	47°39'46.8" N	023°25'17.9" E
THR RWY 09	47°39'36.14" N	023°26'58.77" E
IBM LOC	47°39'24.4" N	023°28'47.6" E
IBM DME	47°39'30.7" N	023°27'11.0" E
ILS GP	47°39'30.9" N	023°27'10.9" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.

b) If ILS instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BMR NDB and hold 4 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

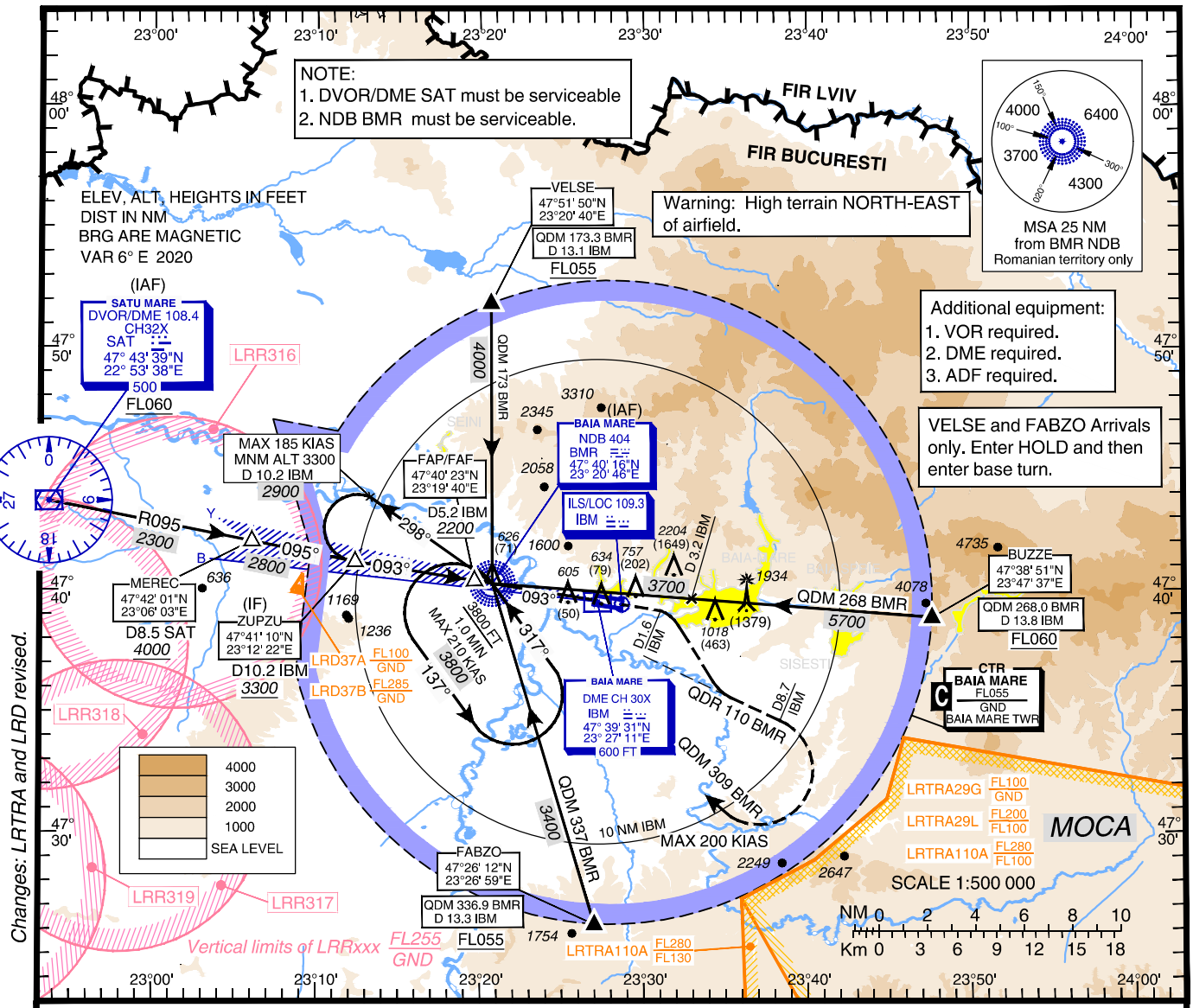
INSTRUMENT APPROACH CHART - ICAO

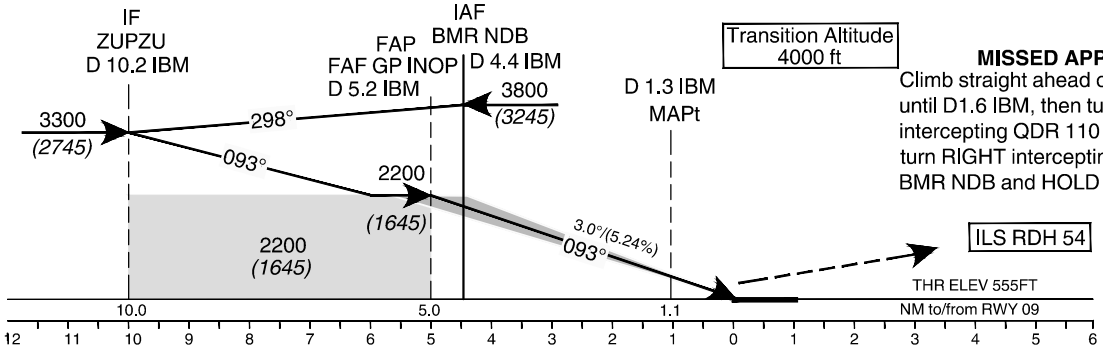
AERODROME ELEV. **606 ft**
HEIGHTS RELATED TO
THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

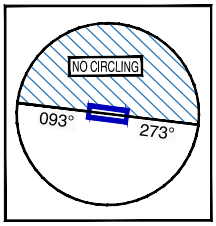
ILS Z
RWY 09
CAT C, D





MISSED APPROACH
Climb straight ahead on QDR 093 BMR until D1.6 IBM, then turn RIGHT intercepting QDR 110 BMR, at D 8.7 IBM turn RIGHT intercepting QDM 309 BMR to BMR NDB and HOLD at or above 3800 FT.

OCA(H)		MACG	C	D
Straight-in Approach	CAT I	2.5%	915 (360)	925 (370)
		3.0%	857 (302)	867 (312)
		4.0%	805 (250)	815 (260)
	CAT II	2.5%	837 (282)	850 (295)
		3.0%	779 (224)	792 (237)
		4.0%	726 (171)	740 (185)
	GP INOP	2.5%	1000 (445)	
Circling*			1610	N/A



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	120	140	160
FAF - MAPT 3.9 NM	MIN:SEC	1:57	1:40	1:28
Rate of descent	FT/MIN	637	743	849

DIST to IBM DME	NM	5.0	4.0	3.0	2.0
ALT (HGT)	FT	2150 (1595)	1840 (1285)	1520 (965)	1200 (645)

For data tabulation see verso.

BAIA MARE / Maramureș (LRBM)
ILS Z RWY 09

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 09 CAT C, D from BUZZE, FABZO, VELSE, SAT VOR, BMR NDB		
Fix/Point	**Coordinates**	
BUZZE – BRG 267.96 BMR / D 13.83 IBM	47°38'51.0" N	023°47'37.0" E
FABZO – BRG 336.93 BMR / D 13.32 IBM	47°26'12.0" N	023°26'59.0" E
VELSE – BRG 173.33 BMR / D 13.09 IBM	47°51'50.0" N	023°20'40.0" E
SAT DVOR/DME (IAF)	47°43'38.7" N	022°53'37.9" E
BMR NDB (IAF)	47°40'16.4" N	023°20'45.5" E
MEREC – BRG 094.71 SAT / D 8.54 SAT	47°42'01.0" N	023°06'03.0" E
ZUPZU (IF) **–** BRG 092.65 BMR / D 10.15 IBM	47°41'10.0" N	023°12'21.9" E
D 5.2 IBM (FAP/FAF) **–** BRG 092.59 BMR / D 5.15 IBM	47°40'23.3" N	023°19'40.4" E
D 1.3 IBM (MAPt) **–** BRG 092.72 BMR / D 1.30 IBM	47°39'46.8" N	023°25'17.9" E
THR RWY 09	47°39'36.14" N	023°26'58.77" E
IBM LOC	47°39'24.4" N	023°28'47.6" E
IBM DME	47°39'30.7" N	023°27'11.0" E
ILS GP	47°39'30.9" N	023°27'10.9" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.

b) If ILS instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BMR NDB and hold 4 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

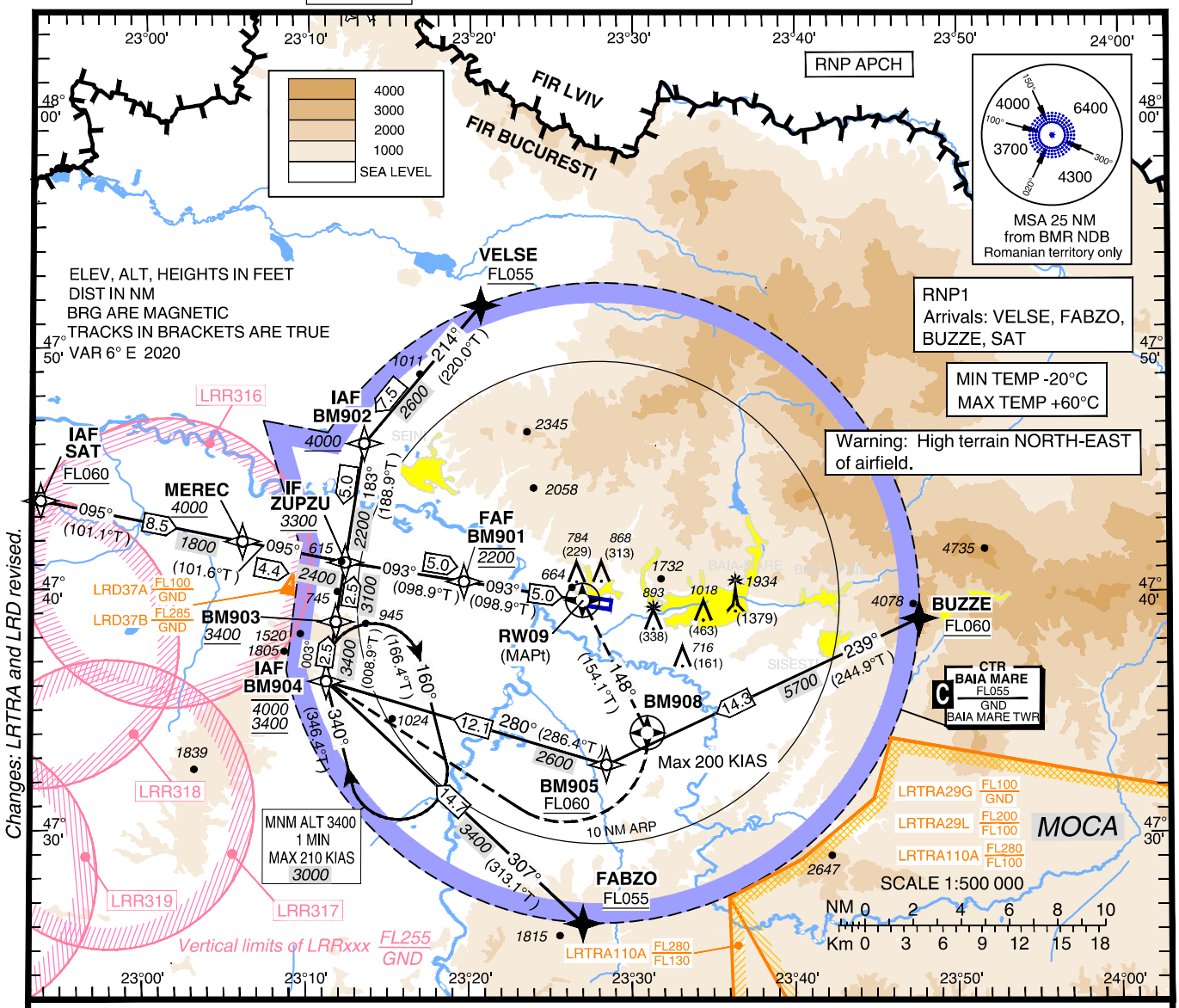
EGNOS
CH: 55763
E09A

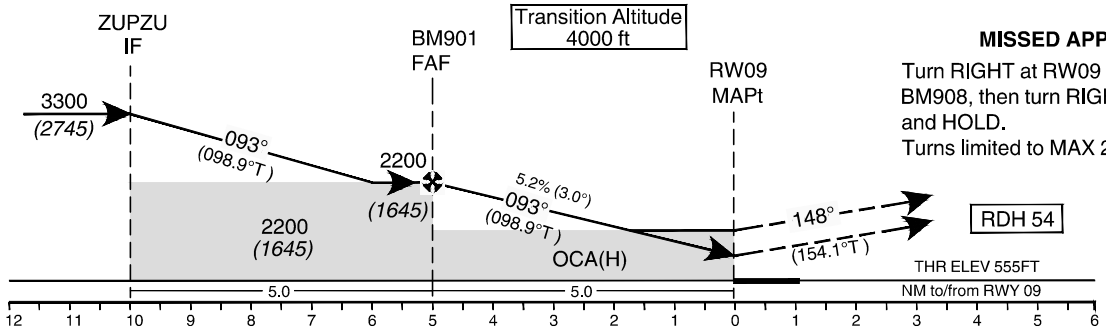
AERODROME ELEV. **606 ft**
HEIGHTS RELATED TO THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

RNP RWY 09

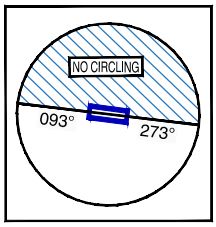




MISSED APPROACH

Turn RIGHT at RW09 on course 148° to BM908, then turn RIGHT direct to BM904 and HOLD.
Turns limited to MAX 200 KIAS.

OCA (H)		A	B	C	D
LPV (CAT I)	2.5%	944 (389)	954 (399)	964 (409)	973 (418)
LNAV/VNAV	2.5%	1175 (620)	1185 (630)	1201 (646)	1389 (834)
	3.0%	1151 (596)	1161 (606)	1171 (616)	1288 (733)
	4.0%	1104 (549)	1114 (559)	1124 (569)	1134 (579)
LNAV	2.5%	1170 (615)		1260 (705)	1460 (905)
	3.0%			1210 (655)	1410 (855)
	4.0%			1170 (615)	1300 (745)
Circling*		1160	1340	1610	N/A



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF - MAPt 5.0 NM	MIN:SEC	4:17	3:20	3:00	2:30	2:09	1:53
Rate of descent (5.2%)	FT/MIN	372	478	531	637	743	850

DIST to RW09	NM	5.0	4.0	3.0	2.0
ALT (HGT)	FT	2200 (1645)	1890 (1335)	1570 (1015)	1250 (695)

For data tabulation see verso.

BAIA MARE / Maramureș (LRBM)
RNP RWY 09

AERONAUTICAL DATA TABULATION

RNP RWY 09		
Waypoint Identifier	**Coordinates**	
VELSE	47°51'50.0" N	023°20'40.0" E
FABZO	47°26'12.0" N	023°26'59.0" E
BUZZE	47°38'51.0" N	023°47'37.0" E
BM905	47°32'47.2" N	023°28'24.9" E
BM904 (IAF)	47°36'13.7" N	023°11'13.2" E
BM903	47°38'41.8" N	023°11'47.5" E
VOR SAT (IAF)	47°43'38.7" N	022°53'37.9" E
MEREC	47°42'01.0" N	023°06'03.0" E
BM902 (IAF)	47°46'06.2" N	023°13'30.8" E
ZUPZU (IF)	47°41'10.0" N	023°12'21.9" E
BM901 (FAF)	47°40'23.3" N	023°19'40.4" E
RW09 (MAPt)	47°39’36.14" N	023°26’58.77" E
BM908	47°34'06.8" N	023°30'55.2" E

RADIO COMMUNICATION FAILURE

a) If RNP instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BM904 and hold 4 minutes, then continue the RNP approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

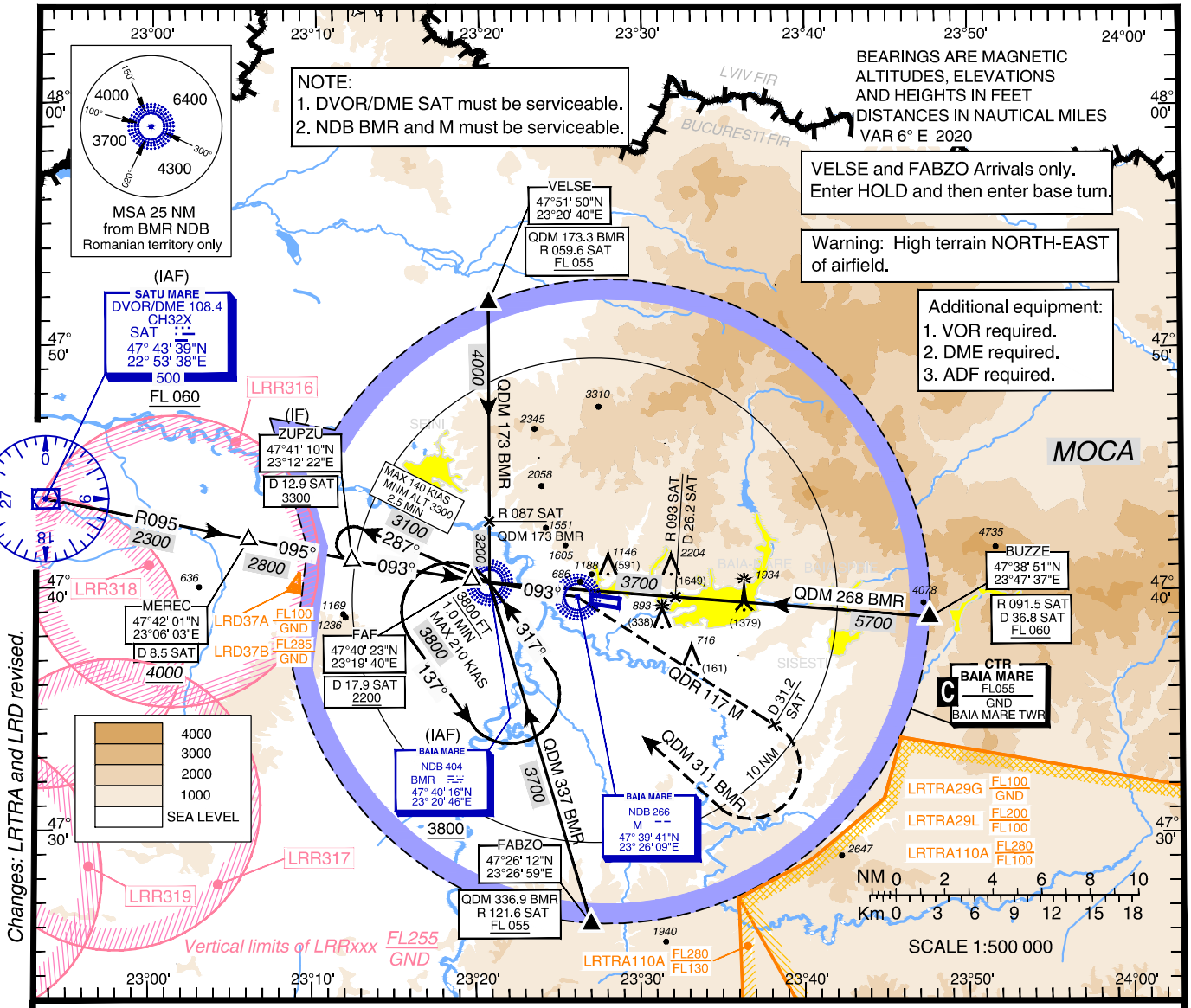
AERODROME ELEV. **606 ft**

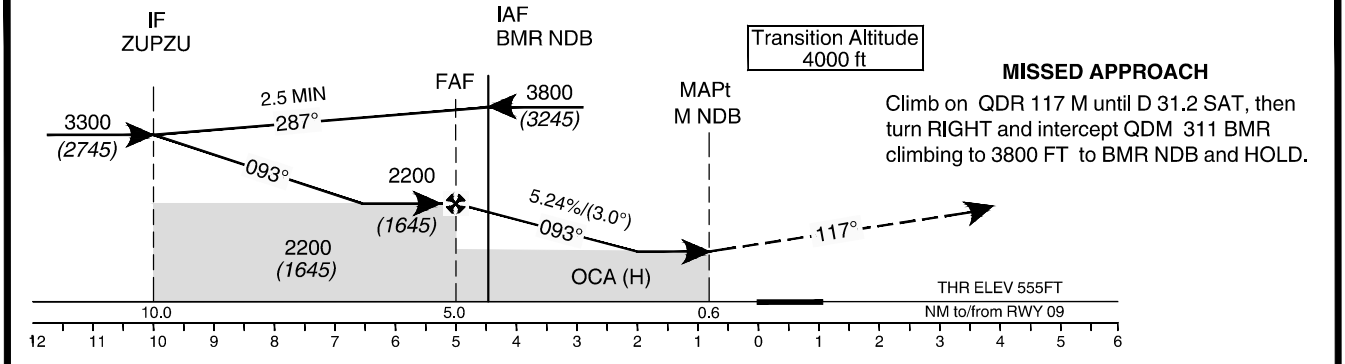
HEIGHTS RELATED TO THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

NDB W
RWY 09
CAT A, B

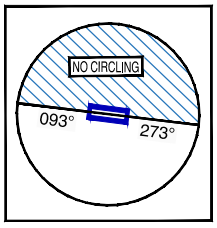




MISSED APPROACH

Climb on QDR 117 M until D 31.2 SAT, then turn RIGHT and intercept QDM 311 BMR climbing to 3800 FT to BMR NDB and HOLD.

OCA(H)	A	B
Straight-in Approach	1200 (645)	1210 (655)
Circling*	1200	1340



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120
FAF - MAPT 4.4 NM	MIN:SEC	3:47	2:56	2:39	2:12
Rate of descent	FT/MIN	372	478	531	637

For data tabulation see verso.

BAIA MARE / Maramureş (LRBM)
NDB W RWY 09 CAT A, B

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 09, Cat A, B from BUZZE, FABZO, VELSE, SAT VOR, BMR NDB	
Fix/Point	**Coordinates**
BUZZE – BRG 091.47 SAT/ 36.79 NM SAT	47°38’51.0”N 023°47’37.0”E
FABZO – BRG 336.93 BMR / BRG 121.55 SAT	47°26’12.0”N 023°26’59.0”E
VELSE – BRG 173.33 BMR / BRG 059.60 SAT	47°51’50.0”N 023°20’40.0”E
SAT DVOR/DME (IAF)	47°43’38.7”N 022°53’37.9”E
BMR NDB (IAF)	47°40’16.4”N 023°20’45.5”E
MEREC – BRG 094.71 SAT / 8.54 NM SAT	47°42’01.0”N 023°06’03.0”E
ZUPZU (IF) – BRG 094.85 SAT / 12.89 NM SAT	47°41’10.0”N 023°12’21.9”E
FAF – BRG 092.59 BMR / 17.89 NM SAT	47°40’23.3”N 023°19’40.4”E
MAPT – NDB M	47°39’41.3”N 023°26’09.3”E
THR RWY 09	47°39’36.14”N 023°26’58.77”E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If NDB instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BMR NDB and hold 4 minutes, then continue the NDB approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

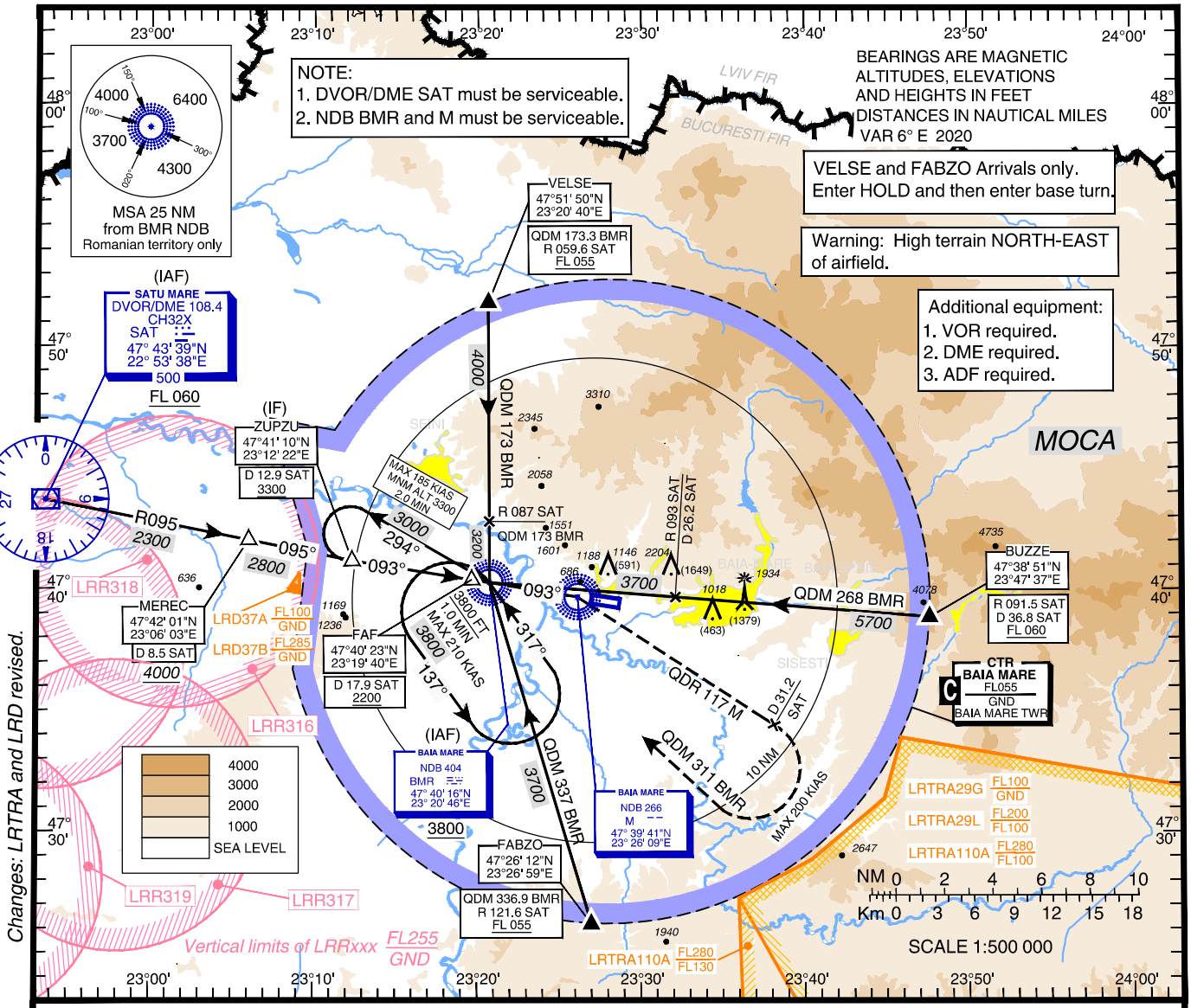
AERODROME ELEV. **606 ft**

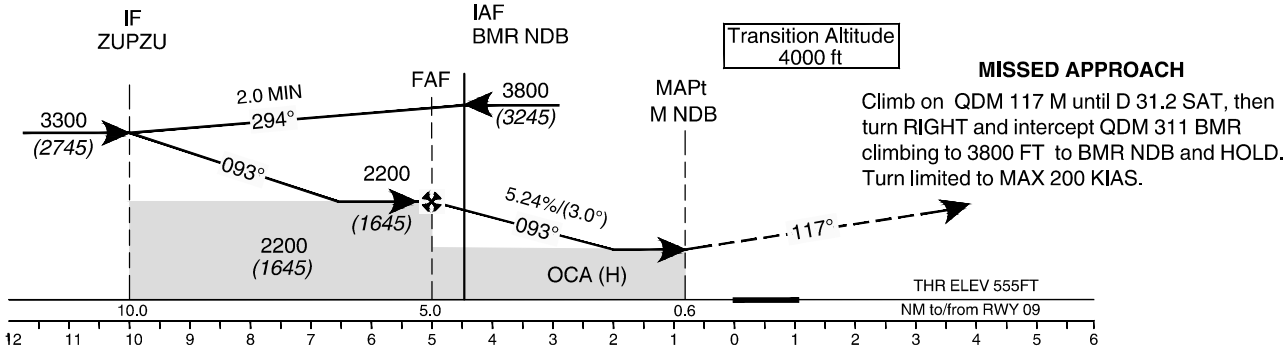
HEIGHTS RELATED TO THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

NDB X
RWY 09
CAT C, D

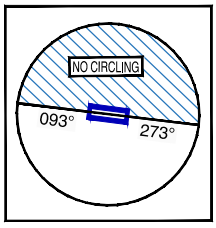




MISSED APPROACH

Climb on QDM 117 M until D 31.2 SAT, then turn RIGHT and intercept QDM 311 BMR climbing to 3800 FT to BMR NDB and HOLD. Turn limited to MAX 200 KIAS.

OCA(H)	C	D
Straight-in Approach	1230 (675)	1250 (695)
Circling*	1610	NA



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	120	140	160
FAF - MAPT 4.4 NM	MIN:SEC	2:12	1:54	1:39
Rate of descent	FT/MIN	637	743	849

For data tabulation see verso.

BAIA MARE / Maramureş (LRBM)
NDB X RWY 09 CAT C, D

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 09, Cat C, D from BUZZE, FABZO, VELSE, SAT VOR, BMR NDB	
Fix/Point	**Coordinates**
BUZZE – BRG 091.47 SAT/ 36.79 NM SAT	47°38’51.0”N 023°47’37.0”E
FABZO – BRG 336.93 BMR / BRG 121.55 SAT	47°26’12.0”N 023°26’59.0”E
VELSE – BRG 173.33 BMR / BRG 059.60 SAT	47°51’50.0”N 023°20’40.0”E
SAT DVOR/DME (IAF)	47°43’38.7”N 022°53’37.9”E
BMR NDB (IAF)	47°40’16.4”N 023°20’45.5”E
MEREC – BRG 094.71 SAT / 8.54 NM SAT	47°42’01.0”N 023°06’03.0”E
ZUPZU (IF) – BRG 094.85 SAT / 12.89 NM SAT	47°41’10.0”N 023°12’21.9”E
FAF – BRG 092.59 BMR / 17.89 NM SAT	47°40’23.3”N 023°19’40.4”E
MAPT – NDB M	47°39’41.3”N 023°26’09.3”E
THR RWY 09	47°39’36.14”N 023°26’58.77”E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If NDB instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BMR NDB and hold 4 minutes, then continue the NDB approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

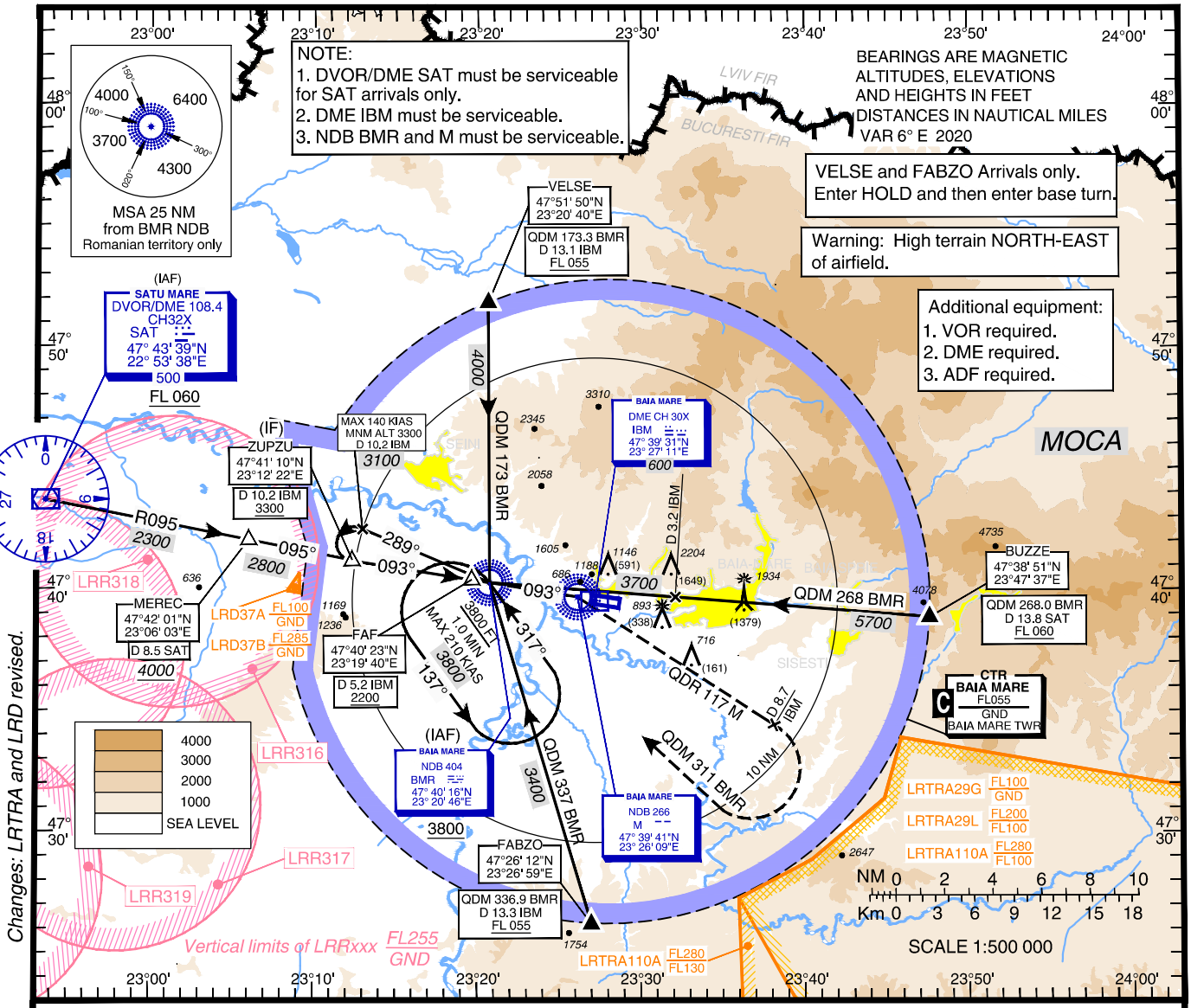
AERODROME ELEV. **606 ft**

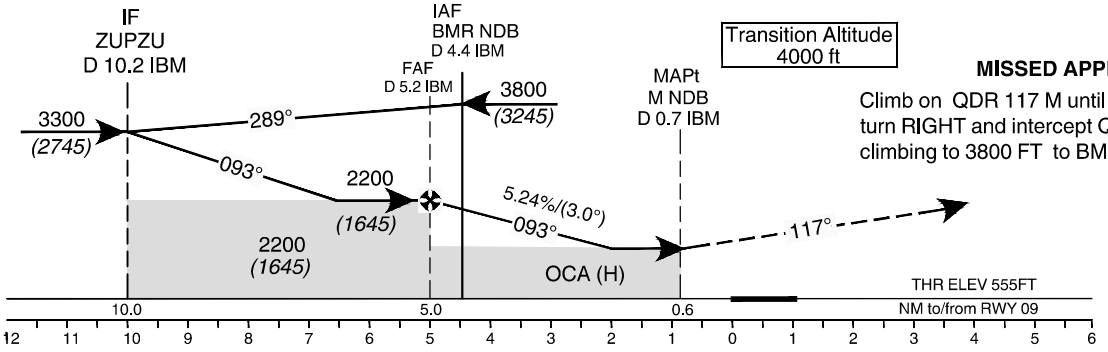
HEIGHTS RELATED TO THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

NDB Y
RWY 09
CAT A, B

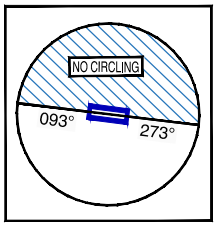




MISSED APPROACH

Climb on QDR 117 M until D 8.7 IBM, then turn RIGHT and intercept QDM 311 BMR climbing to 3800 FT to BMR NDB and HOLD.

OCA(H)	A	B
Straight-in Approach	1200 (645)	1210 (655)
Circling*	1200	1340



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120
FAF - MAPT 4.4 NM	MIN:SEC	3:47	2:56	2:39	2:12
Rate of descent	FT/MIN	372	478	531	637

DIST to IBM DME	NM	5.0	4.0	3.0	2.0
ALT (HGT)	FT	2150 (1595)	1840 (1285)	1520 (965)	1200 (645)

For data tabulation see verso.

BAIA MARE / Maramureş (LRBM)
NDB Y RWY 09 CAT A, B

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 09, Cat A, B from BUZZE, FABZO, VELSE, SAT VOR, BMR NDB	
Fix/Point	**Coordinates**
BUZZE – BRG 267.96 BMR / 13.83 NM IBM	47°38’51.0”N 023°47’37.0”E
FABZO – BRG 336.93 BMR / 13.32 NM IBM	47°26’12.0”N 023°26’59.0”E
VELSE – BRG 173.33 BMR / 13.09 NM IBM	47°51’50.0”N 023°20’40.0”E
SAT DVOR/DME (IAF)	47°43’38.7”N 022°53’37.9”E
BMR NDB (IAF)	47°40’16.4”N 023°20’45.5”E
MEREC – BRG 094.71 SAT / 8.54 NM SAT	47°42’01.0”N 023°06’03.0”E
ZUPZU (IF) – BRG 092.65 BMR / 10.15 NM IBM	47°41’10.0”N 023°12’21.9”E
FAF – BRG 092.59 BMR / 5.15 NM IBM	47°40’23.3”N 023°19’40.4”E
MAPT – NDB M	47°39’41.3”N 023°26’09.3”E
THR RWY 09	47°39’36.14”N 023°26’58.77”E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If NDB instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BMR NDB and hold 4 minutes, then continue the NDB approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

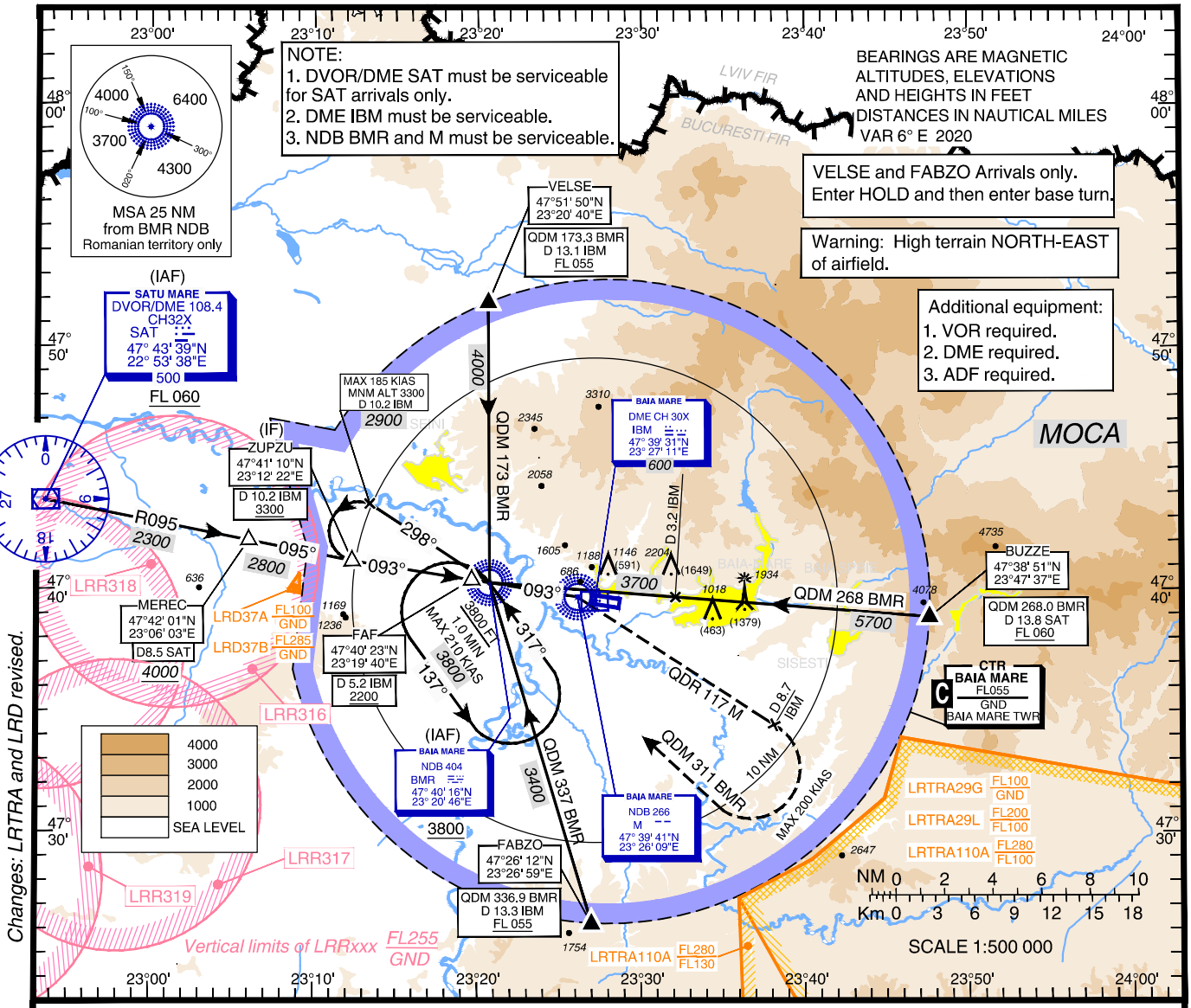
AERODROME ELEV. **606 ft**

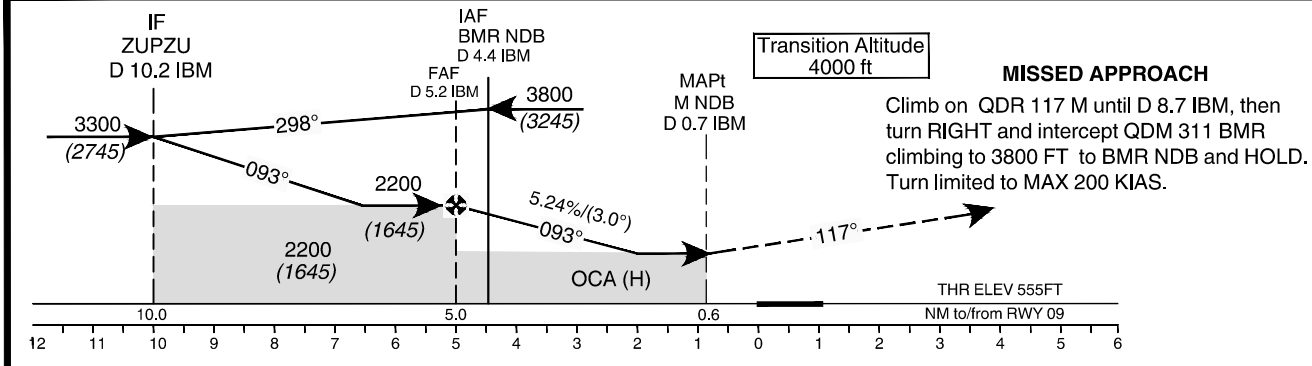
HEIGHTS RELATED TO THR RWY 09 - ELEV 555 ft

BAIA MARE / Maramureş (LRBM)

TWR BAIA MARE	118.855	TWR BAIA MARE ALTN	118.100
TWR SATU MARE	119.655	TWR SATU MARE ALTN	118.800
BUDOP SECTOR	130.230	BUDOP SECTOR ALTN	124.100

NDB Z
RWY 09
CAT C, D

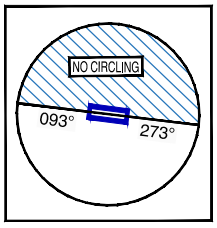




MISSED APPROACH

Climb on QDR 117 M until D 8.7 IBM, then turn RIGHT and intercept QDM 311 BMR climbing to 3800 FT to BMR NDB and HOLD. Turn limited to MAX 200 KIAS.

OCA(H)	C	D
Straight-in Approach	1230 (675)	1250 (695)
Circling*	1610	NA



*Circling SOUTH of RWY only.

Timing not authorized for defining the MAPt.

GS	KT	120	140	160
FAF - MAPT 4.4 NM	MIN:SEC	2:12	1:54	1:39
Rate of descent	FT/MIN	637	743	849

DIST to IBM DME	NM	5.0	4.0	3.0	2.0
ALT (HGT)	FT	2150 (1595)	1840 (1285)	1520 (965)	1200 (645)

For data tabulation see verso.

BAIA MARE / Maramureş (LRBM)
NDB Z RWY 09 CAT C, D

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 09, Cat C, D from BUZZE, FABZO, VELSE, SAT VOR, BMR NDB	
Fix/Point	**Coordinates**
BUZZE – BRG 267.96 BMR / 13.83 NM IBM	47°38’51.0”N 023°47’37.0”E
FABZO – BRG 336.93 BMR / 13.32 NM IBM	47°26’12.0”N 023°26’59.0”E
VELSE – BRG 173.33 BMR / 13.09 NM IBM	47°51’50.0”N 023°20’40.0”E
SAT DVOR/DME (IAF)	47°43’38.7”N 022°53’37.9”E
BMR NDB (IAF)	47°40’16.4”N 023°20’45.5”E
MEREC – BRG 094.71 SAT / 8.54 NM SAT	47°42’01.0”N 023°06’03.0”E
ZUPZU (IF) – BRG 092.65 BMR / 10.15 NM IBM	47°41’10.0”N 023°12’21.9”E
FAF – BRG 092.59 BMR / 5.15 NM IBM	47°40’23.3”N 023°19’40.4”E
MAPT – NDB M	47°39’41.3”N 023°26’09.3”E
THR RWY 09	47°39’36.14”N 023°26’58.77”E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If NDB instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BMR NDB and hold 4 minutes, then continue the NDB approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

LRBS 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 400 M from THR 07, LGT.
3	*TWY edge and centre line lighting*	TWY green centreline lights (LIL) on TWY D and partial on TWY A, TWY blue edge lights (LIL) installed at around 6m from TWY A and D edge. See following chart AD 2.4-20/20 a.
4	*Secondary power supply/switch-over time*	Secondary power supply to all lighting on the AD, switch-over time less than 1 s.
5	*Remarks*	NIL

LRBS AD 2.16 HELICOPTER LANDING AREA

1	*Coordinates 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

LRBS AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	BĂNEASA CTR 443400N0262442E - 442800N0262330E - 442800N0262000E - 443025N0261400E - 442720N0255830E - 442400N0255000E - 442400N0254740E - 443123N0254558E - 443005N0255635E - 443400N0262442E
2	*Vertical limits*	SFC to 2 000 FT (600 M) AMSL
3	*Airspace classification*	C
4	*ATS unit call sign* *Language(s)*	Băneasa Tower English, Romanian
5	*Transition altitude*	4000 FT (1200 M) AMSL
6	*Hours of applicability*	As ATS
7	*Remarks*	NIL

LRBS AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	*Call sign*	*Channel/ Frequency*	*SATVOICE*	*Logon address*	*Hours of operation*	*Remarks*
1	2	3	4	5	6	7
TWR	Băneasa Tower	125.205 120.800 MHz ALTN 121.500 MHz EMERG	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
TWR	Băneasa Ground	129.950 MHz	NIL	NIL	H24	NIL
APP/SRE	Bucureşti Approach	119.415 120.600 MHz ALTN	NIL	NIL	H24	NIL
	Bucureşti Director	127.155 120.600 MHz ALTN	NIL	NIL	HX	At ATC instruction only. For ARR TFC below FL065 and above 2000 FT AMSL
ATIS	Băneasa ATIS	126.125 MHz	NIL	NIL	H24	NIL

LRBS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS give declination)	*ID*	*Frequency*	*Hours of operation*	*Position of transmitting antenna coordinates*	*Elevation of DME transmitting antenna*	*Remarks*
1	2	3	4	5	6	7
LOC 07 (5°E/2010) ILS CAT II	IBS	109.500 MHz	H24	443028.5N 0260730.3E		Front course angle 3.8°. Cat. II ICAO
GP 07	-	332.600 MHz	H24	443005.6N 0260519.8E		GP Angle 3°, ILS RDH 56 FT (17 M)
DME 07	IBS	1056.000 MHz CH 32X	H24	443005.9N 0260519.8E	300FT	
LOC 25 (5°E/2010) ILS CAT II	IBN	110.500 MHz	H24	442955.3N 0260449.5E		Front course angle 3.54°.
GP 25	-	329.600 MHz	H24	443026.5N 0260702.6E		GP Angle 3°, ILS RDH 53 FT
DME 25	IBN	1066.000 MHz CH 42X	H24	443026.7N 0260702.4E	300FT	
NDB(LO)	BSW	521 KHZ	H24	442819.5N 0255707.2E		249° MAG / 5.98 NM from THR 07
NDB(LO)	BSE	256 KHZ	H24	443146.7N 0261349.9E		069° MAG / 4.87 NM from THR 25

Note: Due to potential interference, the ILS instrument approach to RWY 07 at BUCUREŞTI / Băneasa - Aurel Vlaicu aerodrome is only approved for aircraft with receivers complying the FM immunity provisions as stated in sections 3.1.4 and 3.3.8 of Annex 10, Vol. I.

LRBS AD 2.20 LOCAL AERODROME REGULATIONS

For aircraft departing/arriving from/at BUCUREŞTI/Băneasa-Aurel Vlaicu aerodrome and transiting CTR Otopeni, check VFR chart AD 2.5-40 for BUCUREŞTI/Henri Coandă aerodrome.

Pentru aeronavele care decolează/aterizează de pe/la aerodromul BUCUREŞTI/Băneasa-Aurel Vlaicu şi urmează să tranziteze CTR Otopeni, se va avea în vedere harta VFR AD 2.5-40 de la aerodromul BUCUREŞTI/Henri Coandă.

1. AIRPORT REGULATIONS / REGLEMENTĂRI DE AEROPORT

Aircraft are permitted to taxi on the apron only if permanent radio contact with ATC TWR Băneasa can be maintained during the entire taxiing maneuver. If ATC TWR Băneasa informs regarding a follow-me car to guide a taxiing aircraft, the pilot shall adhere to its signals. If the pilot prefers guidance by a Follow-me car for a taxiing maneuver, he may request one from ATC TWR Băneasa. Follow-me cars are identifiable by a functioning lighting signals ramp (Follow Me) and yellow omnidirectional light/flashing light. On the aprons aircraft are permitted to taxi only at the indispensable minimum engine thrust. When taxiing into aircraft stands and on twys, aircraft shall generally not stop in curves so as to avoid the further appliance of break-away power

Rularea aeronavelor pe platformă este permisă numai dacă sunt în legătură radio permanentă cu ATC TWR Băneasa pe toată perioada manevrelor de rulare. În situaţia în care ATC TWR Băneasa informează privind însoţirea cu Follow Me a aeronavei în rulaj, pilotul trebuie să urmeze întocmai semnalele acestuia. În cazul în care pilotul doreşte efectuarea manevrelor de rulare cu asistenţă Follow Me, va solicita acest lucru către ATC TWR Băneasa. Vehiculele Follow Me sunt identificabile prin rampele luminoase de semnalizare (Follow Me) şi girofar de culoare galbenă. Rularea aeronavelor pe platformă este permisă numai la un regim de turaţie al motoarelor care să permită deplasarea aeronavei. La rularea pentru intrarea în poziţiile de staţionare și la efectuarea virajelor pe caile de rulare, aeronavele nu vor opri în curbe, pentru a evita turarea suplimentară a motoarelor în vederea punerii în mişcare.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

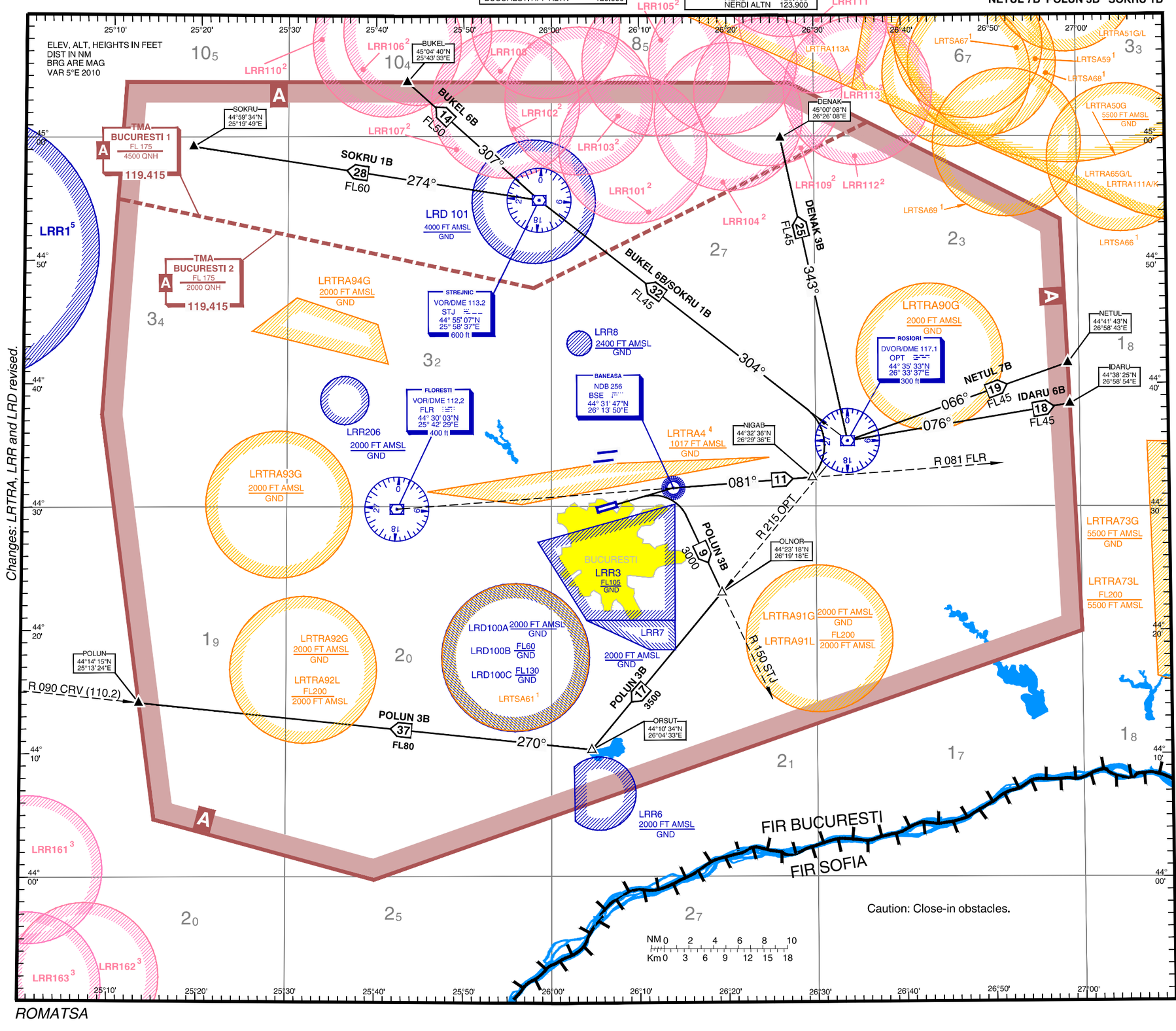
TRANSITION ALTITUDE 4000 FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

SECTOR		
	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 07 (LRBS)
BUKEL 6B DENAK 3B IDARU 6B
NETUL 7B POLUN 3B SOKRU 1B



Standard Instrument Departure Routes (SID) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 6B	To BSE NDB, RDL 081 FLR VOR/DME to NIGAB, turn LEFT, RDL 304 STJ VOR/DME inbound to STJ VOR/DME, RDL 307 STJ VOR/DME to BUKEL. Not available for traffic to NEPOT. Cross BUKEL at or above FL110.
DENAK 3B	To BSE NDB, RDL 081 FLR VOR/DME to NIGAB, turn LEFT, RDL 219 OPT VOR/DME inbound to OPT VOR/DME, turn LEFT, RDL 343 OPT VOR/DME to DENAK. Cross DENAK at or above minimum En-Route FL.
IDARU 6B	To BSE NDB, RDL 081 FLR VOR/DME to NIGAB, turn LEFT, RDL 219 OPT VOR/DME inbound to OPT VOR/DME, RDL 076 OPT VOR/DME to IDARU. Cross IDARU at or above FL60.
NETUL 7B	To BSE NDB, RDL 081 FLR VOR/DME to NIGAB, turn LEFT, RDL 219 OPT VOR/DME inbound to OPT VOR/DME RDL 066 OPT VOR/DME to NETUL. Cross NETUL at or above FL60.
POLUN 3B	Climb on RWY track to 1000 QNH or D15.5 OPT, whichever is later, turn RIGHT, RDL 150 STJ VOR/DME to OLNOR, turn RIGHT RDL 215 OPT VOR/DME to ORSUT climbing at or above FL80, turn RIGHT, RDL 090 CRV VOR/DME inbound to POLUN. Not available for traffic to MOPUG. Cross POLUN at or above minimum En-Route FL.
SOKRU 1B	To BSE NDB, RDL 081 FLR VOR/DME to NIGAB, turn LEFT, RDL 304 STJ VOR/DME inbound to STJ VOR/DME, RDL 274 STJ VOR/DME to SOKRU. Not available for traffic to DIRER. Cross SOKRU at or above FL110.

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{FL255}{GND}$

3. Vertical limits $\frac{FL240}{GND}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT

$\frac{FL660}{GND}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

RADIO COMMUNICATION FAILURE PROCEDURE
Set transponder to 7600, then:
- continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
- if being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point climbing to FPL flight level.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

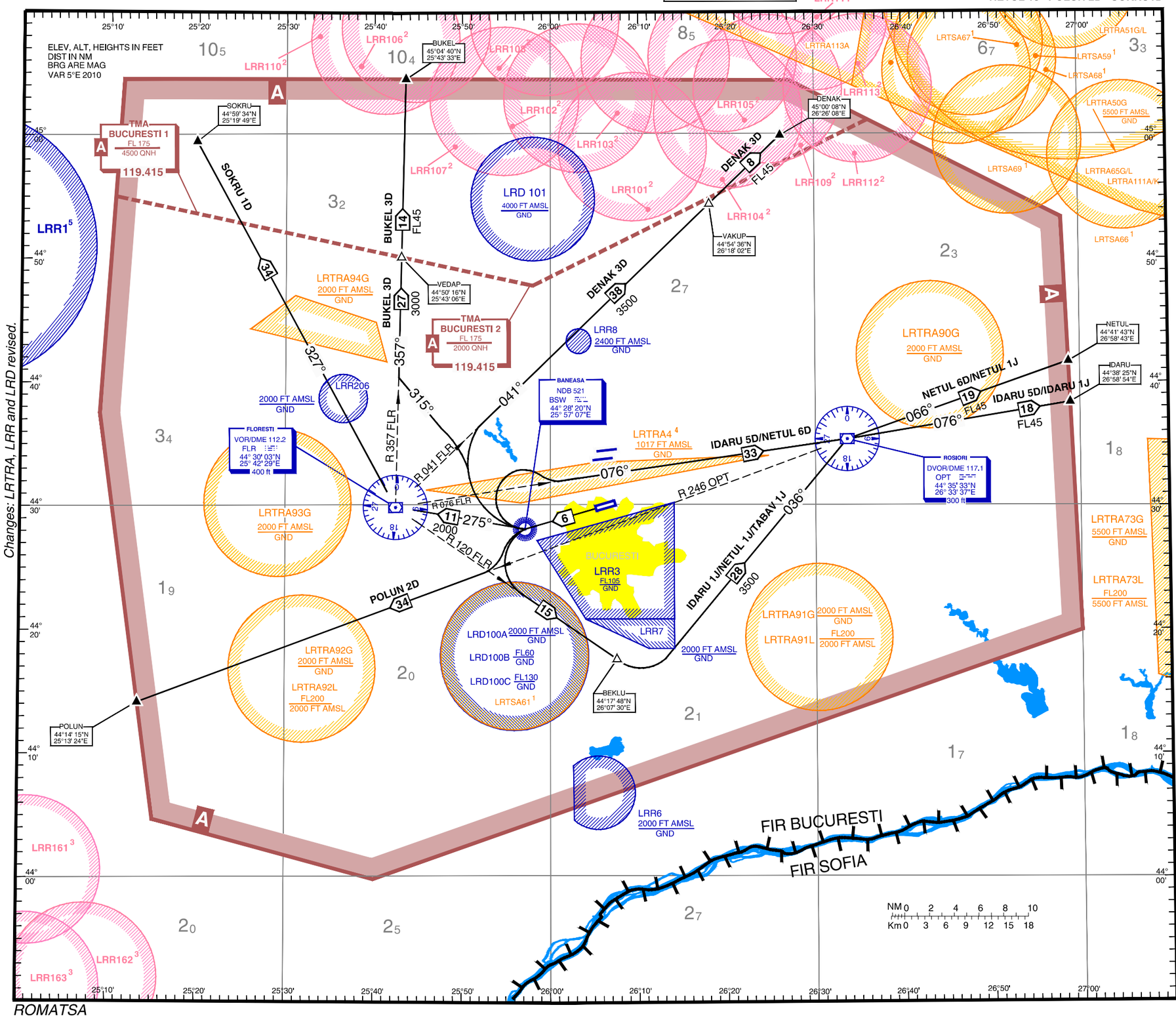
TRANSITION ALTITUDE
4000 FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

SECTOR		
	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 25 (LRBS)
BUKEL 3D DENAK 3D IDARU 5D IDARU 1J NETUL 6D NETUL 1J POLUN 2D SOKRU1D



Changes: LRTRA, LRR and LRD revised.

Standard Instrument Departure Routes (SID) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.	
DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 3D	To BSW NDB or 2000 QNH, whichever is later, turn RIGHT, intercept BRG 315 from BSW NDB, intercept RDL 357 FLR VOR/DME to BUKEL. PDG min 3.8% due to airspace structure. Not available for traffic to NEPOT.
DENAK 3D	To BSW NDB or 2000 QNH, whichever is later, turn RIGHT, intercept RDL 041 FLR VOR/DME to DENAK. Cross DENAK at or above minimum En-Route FL.
IDARU 5D	To BSW NDB or 2000 QNH, whichever is later, turn RIGHT, intercept RDL 256 OPT VOR/DME inbound to OPT VOR/DME, intercept RDL 076 OPT VOR/DME to IDARU. Cross IDARU at or above FL60.
IDARU 1J	To BSW NDB, turn LEFT, RDL 120 FLR VOR/DME to BEKLU, turn LEFT, RDL 216 OPT VOR/DME inbound to OPT VOR/DME, intercept RDL 076 OPT VOR/DME to IDARU. Cross IDARU at or above FL60.
NETUL 6D	To BSW NDB or 2000 QNH, whichever is later, turn RIGHT, intercept RDL 256 OPT VOR/DME inbound to OPT VOR/DME, R066 OPT VOR/DME to NETUL. Cross NETUL at or above FL60.
NETUL 1J	To BSW NDB, turn LEFT, RDL 120 FLR VOR/DME to BEKLU, turn LEFT, RDL 216 OPT VOR/DME inbound to OPT VOR/DME, intercept RDL 066 OPT VOR/DME to NETUL. Cross NETUL at or above FL60.
POLUN 2D	To BSW NDB, turn LEFT, intercept RDL 246 OPT VOR/DME to POLUN climbing at or above FL100. Not available for traffic to MOPUG. PDG min 4.0% due to airspace structure.
SOKRU 1D	To BSW NDB or 2000 QNH, whichever is later, intercept RDL 095 FLR VOR/DME inbound to FLR VOR/DME, turn RIGHT, intercept RDL 327 FLR VOR/DME to SOKRU. PDG min 4.0% due to airspace structure. Not available for traffic to DIRER.

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits FL255 / GND
3. Vertical limits FL240 / GND
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: FL60 / GND for subsonic FLT
   FL660 / GND for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

RADIO COMMUNICATION FAILURE PROCEDURE

Set transponder to 7600, then:
- continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
- if being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point climbing to FPL flight level.

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

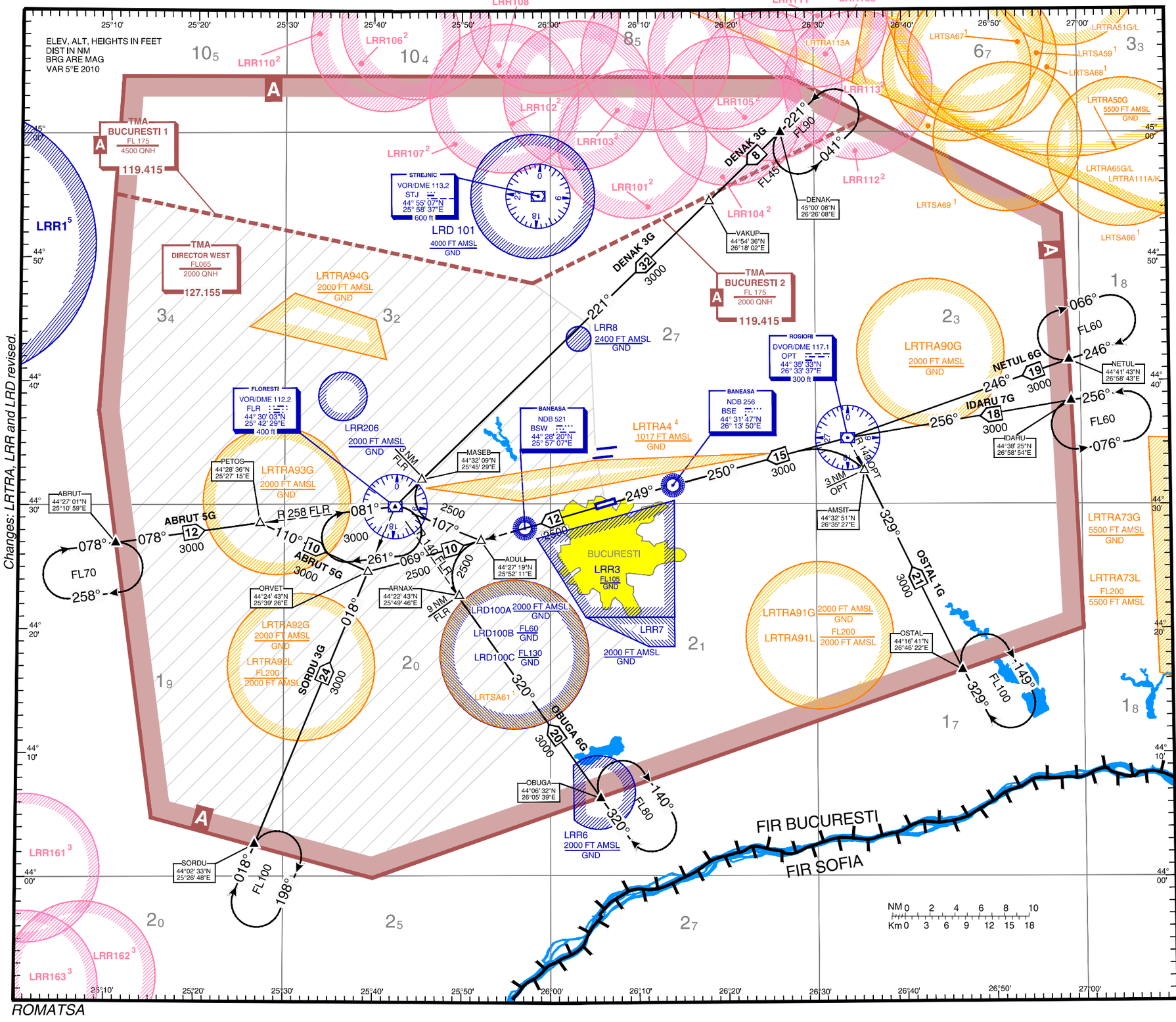
TRANSITION ALTITUDE 4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RWY 07
ABRUT 5G DENAK 3G IDARU 7G
NETUL 6G OBUGA 6G OSTAL 1G SORDU 3G



Changes: LRTRA, LRR and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

DESIGNATOR ARRIVAL ROUTE	ARRIVAL ROUTE AND LEVEL INSTRUCTIONS
ABRUT 5G	RDL 258 FLR VOR/DME inbound to FLR VOR/DME, at PETOS turn RIGHT, HDG 110 to ORVET, turn LEFT, RDL 249 OPT VOR/DME inbound to ADULI.
DENAK 3G	RDL 041 FLR VOR/DME inbound to FLR VOR/DME, at MASEB turn LEFT, intercept RDL 107 FLR VOR/DME to ADULI.
IDARU 7G	RDL 076 OPT VOR/DME inbound to OPT VOR/DME, RDL 250 OPT VOR/DME to BSE NDB, BRG 249 to BSW NDB.
NETUL 6G	RDL 066 OPT VOR/DME inbound to OPT VOR/DME, RDL 250 OPT VOR/DME to BSE NDB, BRG 249 to BSW NDB.
OBUGA 6G	Intercept RDL 140 FLR VOR/DME inbound to FLR VOR/DME, at ARNAX turn RIGHT to ADULI.
OSTAL 1G	RDL 149 OPT VOR/DME inbound to OPT VOR/DME, at AMSIT turn LEFT, RDL 250 OPT VOR/DME to BSE NDB, BRG 249 to BSW NDB.
SORDU 3G	RDL 198 FLR VOR/DME inbound to FLR VOR/DME, at ORVET turn RIGHT, RDL 249 OPT VOR/DME inbound to OPT VOR/DME to ADULI.

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{FL255}{GND}$

3. Vertical limits $\frac{FL240}{GND}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT

$\frac{FL660}{GND}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

RADIO COMMUNICATION FAILURE

- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
- If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to FLR VOR/DME then ADULI . Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
- If STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

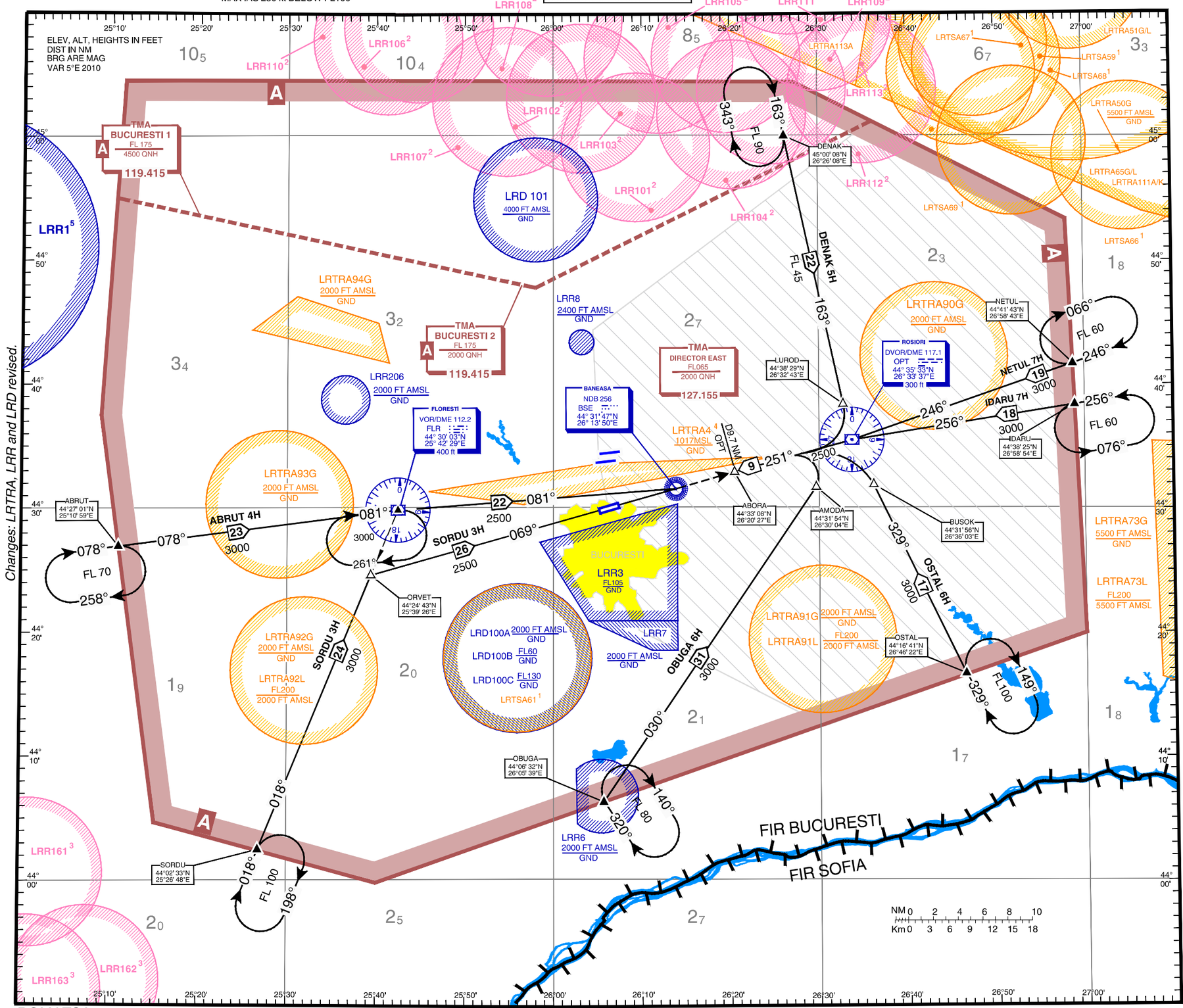
TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 25 (LRBS)
ABRUT 4H DENAK 5H IDARU 7H
NETUL 7H OBUGA 6H OSTAL 6H SORDU 3H



Standard Instrument Arrival Routes (STAR) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

DESIGNATOR ARRIVAL ROUTE	ARRIVAL ROUTE AND LEVEL INSTRUCTIONS
ABRUT 4H	RDL 258 FLR VOR/DME inbound to FLR VOR/DME, intercept RDL 081 FLR VOR/DME to BSE NDB.
DENAK 5H	RDL 343 OPT VOR/DME inbound to OPT VOR/DME, at LUROD turn RIGHT, RDL 251° OPT VOR/DME to ABORA.
IDARU 7H	RDL 076 OPT VOR/DME inbound to OPT VOR/DME, RDL 251° OPT VOR/DME to ABORA.
NETUL 7H	RDL 066 OPT VOR/DME inbound to OPT VOR/DME, RDL 251° OPT VOR/DME to ABORA.
OBUGA 6H	RDL 210 OPT VOR/DME inbound to OPT VOR/DME, at AMODA turn LEFT, RDL 251° OPT VOR/DME to ABORA.
OSTAL 6H	RDL 149 OPT VOR/DME inbound to OPT VOR/DME, at BUSOK turn LEFT, RDL 251° OPT VOR/DME to ABORA.
SORDU 3H	RDL 198 FLR VOR/DME inbound to ORVET, turn RIGHT, RDL 249 OPT VOR/DME inbound to BSE NDB.

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{\text{FL255}}{\text{GND}}$

3. Vertical limits $\frac{\text{FL240}}{\text{GND}}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{\text{FL60}}{\text{GND}}$ for subsonic FLT

$\frac{\text{FL660}}{\text{GND}}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

RADIO COMMUNICATION FAILURE

- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
- If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to OPT VOR/DME then ABORA . Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
- If STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

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

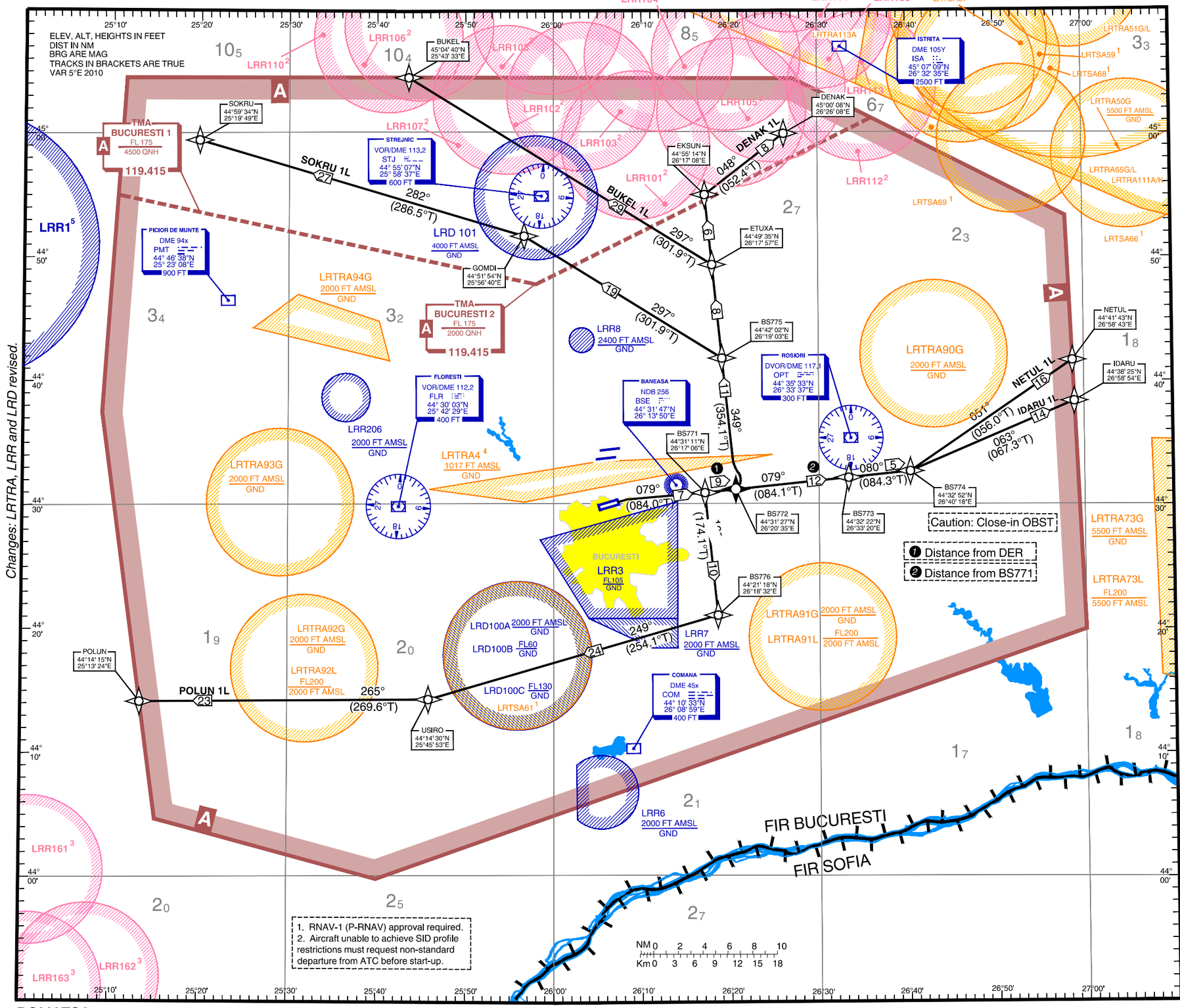
TRANSITION ALTITUDE
4000 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

SECTOR	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 07 (LRBS)
BUKEL 1L DENAK 1L IDARU 1L
NETUL 1L POLUN 1L SOKRU 1L



Standard Instrument Departure Routes (SID) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE PROCEDURE

Set transponder to 7600, then:

a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.

b) if being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

DESIGNATOR	ROUTING	REMARKS
BUKEL 1L	BS772[K250-] – BS775 – ETUXA – BUKEL	Not available for traffic to NEPOT. Close-in obstacles.
DENAK 1L *	BS772[K250-] – BS775 – ETUXA – EKSUN – DENAK[FL110+]	Close-in obstacles. PDG min 4.4% until DENAK due to airspace structure.
IDARU 1L	BS771 – BS773 – BS774 – IDARU	Close-in obstacles.
NETUL 1L	BS771 – BS773 – BS774 – NETUL	Close-in obstacles.
POLUN 1L	BS771[K250-] – BS776 – USIRO – POLUN	Not available for traffic to MOPUG. Close-in obstacles.
SOKRU 1L	BS772[K250-] – BS775[K250-] – GOMDI – SOKRU	Not available for traffic to DIRER. Close-in obstacles.

**if unable to comply, contact ATC before start-up*
Underlined WPTs are flyover

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{\text{FL255}}{\text{GND}}$

3. Vertical limits $\frac{\text{FL240}}{\text{GND}}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{\text{FL60}}{\text{GND}}$ for subsonic FLT

$\frac{\text{FL660}}{\text{GND}}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
BS771	443111.407N	0261706.234E	fly-by
BS772	443126.824N	0262034.850E	flyover
BS773	443222.417N	0263319.620E	fly-by
BS774	443252.190N	0264017.642E	fly-by
BS775	444201.604N	0261903.250E	fly-by
BS776	442117.744N	0261831.988E	fly-by
BUKEL	450440.121N	0254332.572E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
EKSUN	445513.731N	0261708.121E	fly-by
ETUXA	444934.939N	0261757.475E	fly-by
GOMDI	445154.285N	0255639.717E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
POLUN	441414.722N	0251324.144E	fly-by
SOKRU	445934.136N	0251949.048E	fly-by
USIRO	441430.397N	0254552.599E	fly-by

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

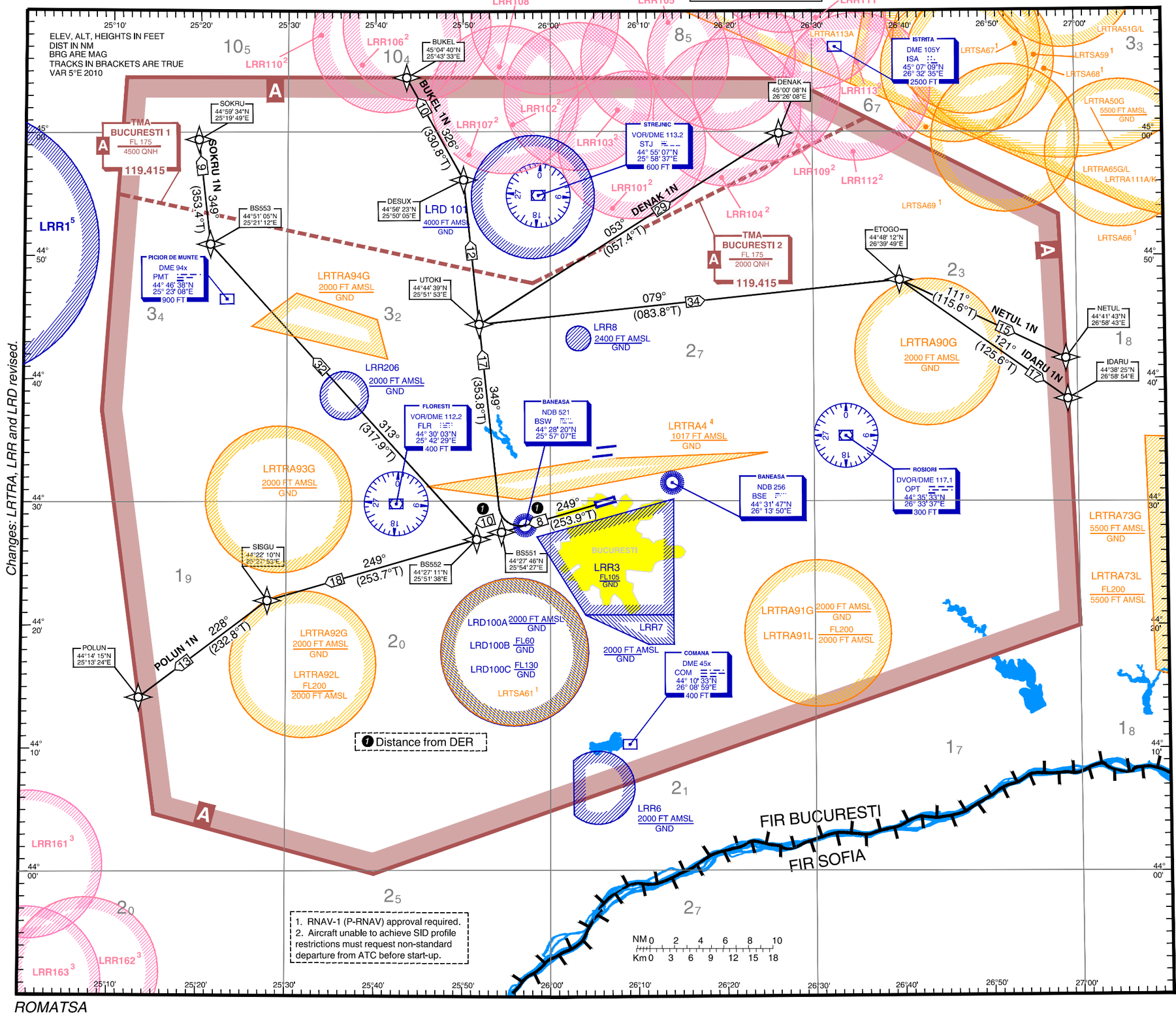
TRANSITION ALTITUDE
4000 FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

SECTOR	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 25 (LRBS)
BUKEL 1N DENAK 1N IDARU 1N
NETUL 1N POLUN 1N SOKRU 1N



Standard Instrument Departure Routes (SID) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE PROCEDURE

Set transponder to 7600, then:

a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.

b) if being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

DESIGNATOR	ROUTING	REMARKS
BUKEL 1N *	BS551[A2400+; K250-] – UTOKI – DESUX – BUKEL[F110+]	Not available for traffic to NEPOT. PDG min 4.2% until BS551 due to obstacles, followed by PDG min 4.0% until BUKEL due to airspace structure.
DENAK 1N *	BS551[A2400+; K250-] – UTOKI – DENAK[F110+]	PDG min 4.2% until BS551 due to obstacles, followed by PDG min 3.6% until DENAK due to airspace structure.
IDARU 1N *	BS551[A2400+; K250-] – UTOKI – ETOGO – IDARU	PDG min 4.2% until BS551 due to obstacles.
NETUL 1N *	BS551[A2400+; K250-] – UTOKI – ETOGO – NETUL	PDG min 4.2% until BS551 due to obstacles.
POLUN 1N *	BS552[A2600+] – SISGU – POLUN[F100+]	Not available for traffic to MOPUG. PDG min 4.0% until POLUN due to airspace structure. PDG min 3.7% until BS552 due to obstacles.
SOKRU 1N	BS552[A2600+] – BS553 – SOKRU[F110+]	Not available for traffic to DIRER. PDG min 3.7% until BS553 due to obstacles. PDG min 3.7% until SOKRU due to airspace structure.

**if unable to comply, contact ATC before start-up*

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits FL255 / GND

3. Vertical limits FL240 / GND

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: FL60 / GND for subsonic FLT; FL660 / GND for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
BS551	442746.041N	0255427.101E	fly-by
BS552	442710.693N	0255137.812E	fly-by
BS553	445105.363N	0252111.748E	fly-by
BUKEL	450440.121N	0254332.572E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
DESUX	445622.808N	0255005.231E	fly-by
ETOGO	444812.135N	0263949.158E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
POLUN	441414.722N	0251324.144E	fly-by
SISGU	442209.891N	0252752.661E	fly-by
SOKRU	445934.136N	0251949.048E	fly-by
~~TABAV~~	~~445322.808N~~	~~0265801.012E~~	~~fly-by~~
UTOKI	444439.242N	0255153.111E	fly-by

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

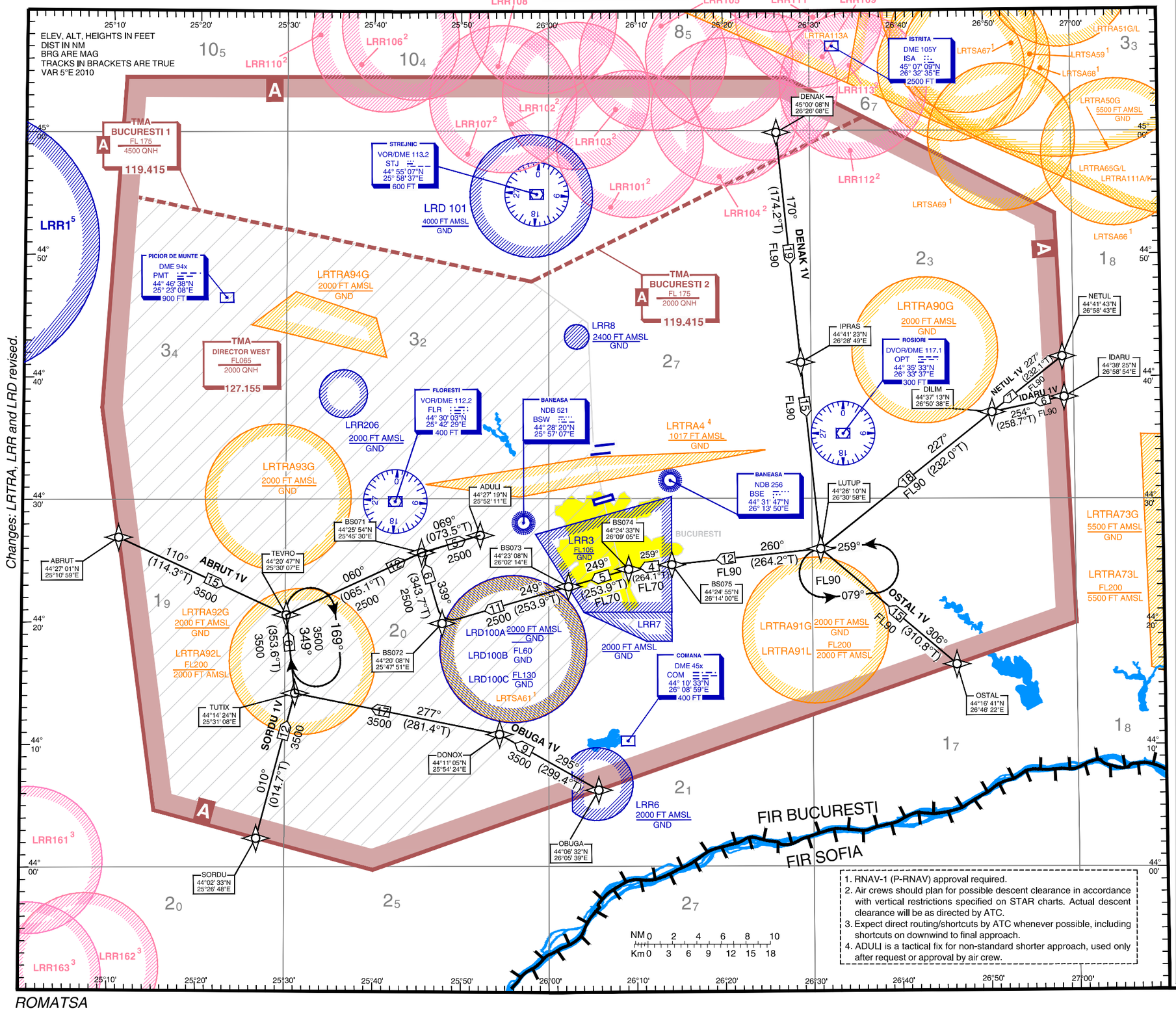
TRANSITION ALTITUDE
4000 ft

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 07 (LRBS)
ABRUT 1V DENAK 1V IDARU 1V NETUL 1V
OBUGA 1V OSTAL 1V SORDU 1V



Changes: LRTRA, LRR and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE PROCEDURE

a) if RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
b) if RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to ADULI. Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
c) if STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

DESIGNATOR	ROUTING
ABRUT 1V	ABRUT – TEVRO[A3500+; K240-] – BS071 – ADULI[A2500+; K210-]
DENAK 1V	DENAK – IPRAS – LUTUP – BS075[F090+] – BS074 – BS073[F070+; K220-] –BS072 – BS071 – ADULI[A2500+; K210-]
IDARU 1V	IDARU[F090+] – DILIM[K250-] – LUTUP – BS075[F090+] – BS074 – BS073[F070+; K220-] –BS072 – BS071 – ADULI[A2500+; K210-]
NETUL 1V	NETUL[F090+] – DILIM[K250-] – LUTUP – BS075[F090+] – BS074 – BS073[F070+; K220-] –BS072 – BS071 – ADULI[A2500+; K210-]
OBUGA 1V	OBUGA – DONOX – TUTIX – TEVRO[A3500+; K240-] – BS071 – ADULI[A2500+; K210-]
OSTAL 1V	OSTAL - LUTUP - BS075[F090+] - BS074 - BS073[F070+; K220-] - BS072 - BS071 - ADULI[A2500+; K210-]
SORDU 1V	SORDU – TUTIX – TEVRO[A3500+ ; K240-] – BS071 – ADULI[A2500+; K210-]

NOTE: 1. Vertical limits are issued by NOTAM
2. Vertical limits $\frac{FL255}{GND}$
3. Vertical limits $\frac{FL240}{GND}$
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT
$\frac{FL660}{GND}$ for supersonic FLT

TEMPORARY RESERVED AREAS

Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
ABRUT	442700.924N	0251059.398E	fly-by
ADULI	442718.618N	0255211.352E	fly-by
BS071	442553.541N	0254529.656E	fly-by
BS072	442007.959N	0254750.813E	fly-by
BS073	442308.225N	0260214.086E	fly-by
BS074	442433.340N	0260905.251E	fly-by
BS075	442455.477N	0261400.003E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
DILIM	443713.027N	0265037.704E	fly-by
DONOX	441105.174N	0255423.878E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
IPRAS	444123.131N	0262849.043E	fly-by
LUTUP	442610.274N	0263057.995E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
OBUGA	440632.436N	0260539.380E	fly-by
OSTAL	441640.502N	0264622.377E	fly-by
SORDU	440233.097N	0252648.226E	fly-by
TEVRO	442047.081N	0253007.333E	fly-by
TUTIX	441424.422N	0253107.611E	fly-by

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

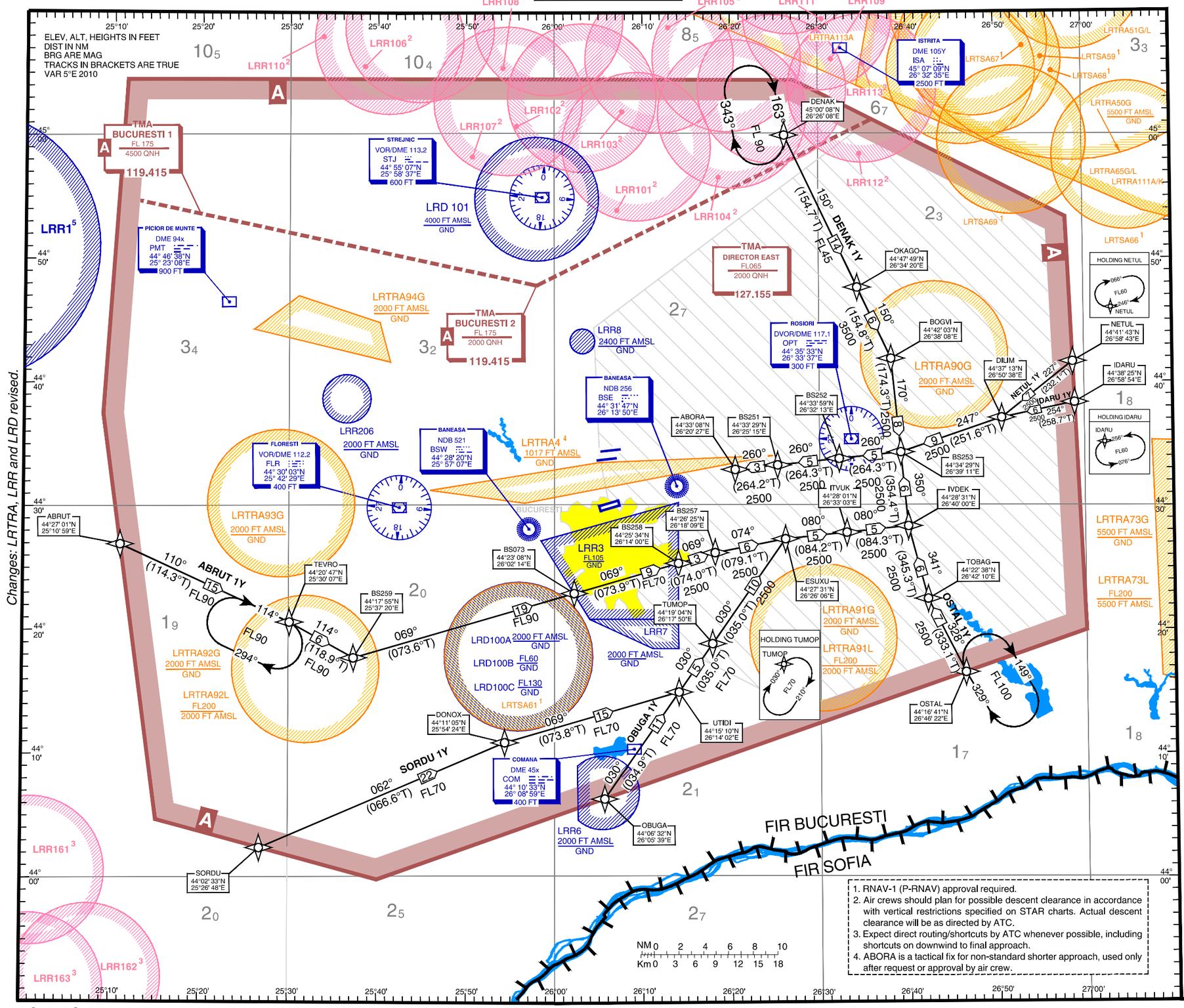
TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu
RWY 25 (LRBS)
ABRUT 1Y DENAK 1Y IDARU 1Y NETUL 1Y
OBUGA 1Y OSTAL1Y SORDU1Y



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

Changes: LRTRA, LRR and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE PROCEDURE

a) if RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
b) if RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to ABORA. Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
c) if STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

DESIGNATOR	ROUTING
ABRUT 1Y	ABRUT – TEVRO – BS259 – BS073[F090+] – BS258[F070+] – BS257 – ESUXU[K230-] – ITVUK – IVDEK[K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]
DENAK 1Y	DENAK – OKAGO[F045+] – BOGVI[A3500+; K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]
IDARU 1Y	IDARU – DILIM[K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]
NETUL 1Y	NETUL – DILIM[K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]
OBUGA 1Y	OBUGA – UTIDI – TUMOP[F070+] – ESUXU[K230-] – ITVUK – IVDEK[K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]
OSTAL 1Y	OSTAL – TOBAG – IVDEK[K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]
SORDU 1Y	SORDU – DONOX – UTIDI – TUMOP[F070+] – ESUXU[K230-] – ITVUK – IVDEK[K220-] – BS253 – BS252 – BS251 – ABORA[A2500+; K200-]

NOTE: 1. Vertical limits are issued by NOTAM
2. Vertical limits $\frac{FL255}{GND}$
3. Vertical limits $\frac{FL240}{GND}$
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT
$\frac{FL660}{GND}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
ABORA	443307.934N	0262026.961E	fly-by
ABRUT	442700.924N	0251059.398E	fly-by
BOGVI	444203.093N	0263807.810E	fly-by
BS073	442308.225N	0260214.086E	fly-by
BS251	443329.067N	0262515.485E	fly-by
BS252	443359.292N	0263213.121E	fly-by
BS253	443429.093N	0263910.881E	fly-by
BS257	442625.257N	0261809.434E	fly-by
BS258	442534.063N	0261400.003E	fly-by
BS259	441754.969N	0253720.343E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
DILIM	443713.027N	0265037.704E	fly-by
DONOX	441105.174N	0255423.878E	fly-by
ESUXU	442730.793N	0262606.479E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
ITVUK	442800.963N	0263303.413E	fly-by
IVDEK	442830.711N	0264000.469E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
OBUGA	440632.436N	0260539.380E	fly-by
OSTAL	441640.502N	0264622.377E	fly-by
OKAGO	444748.779N	0263419.568E	fly-by
SORDU	440233.097N	0252648.226E	fly-by
TEVRO	442047.081N	0253007.333E	fly-by
TOBAG	442237.978N	0264209.949E	fly-by
TUMOP	441903.599N	0261749.709E	fly-by
UTIDI	441510.031N	0261401.934E	fly-by

VISUAL OPERATIONS CHART

44° 30' 13" N
026° 06' 13" E

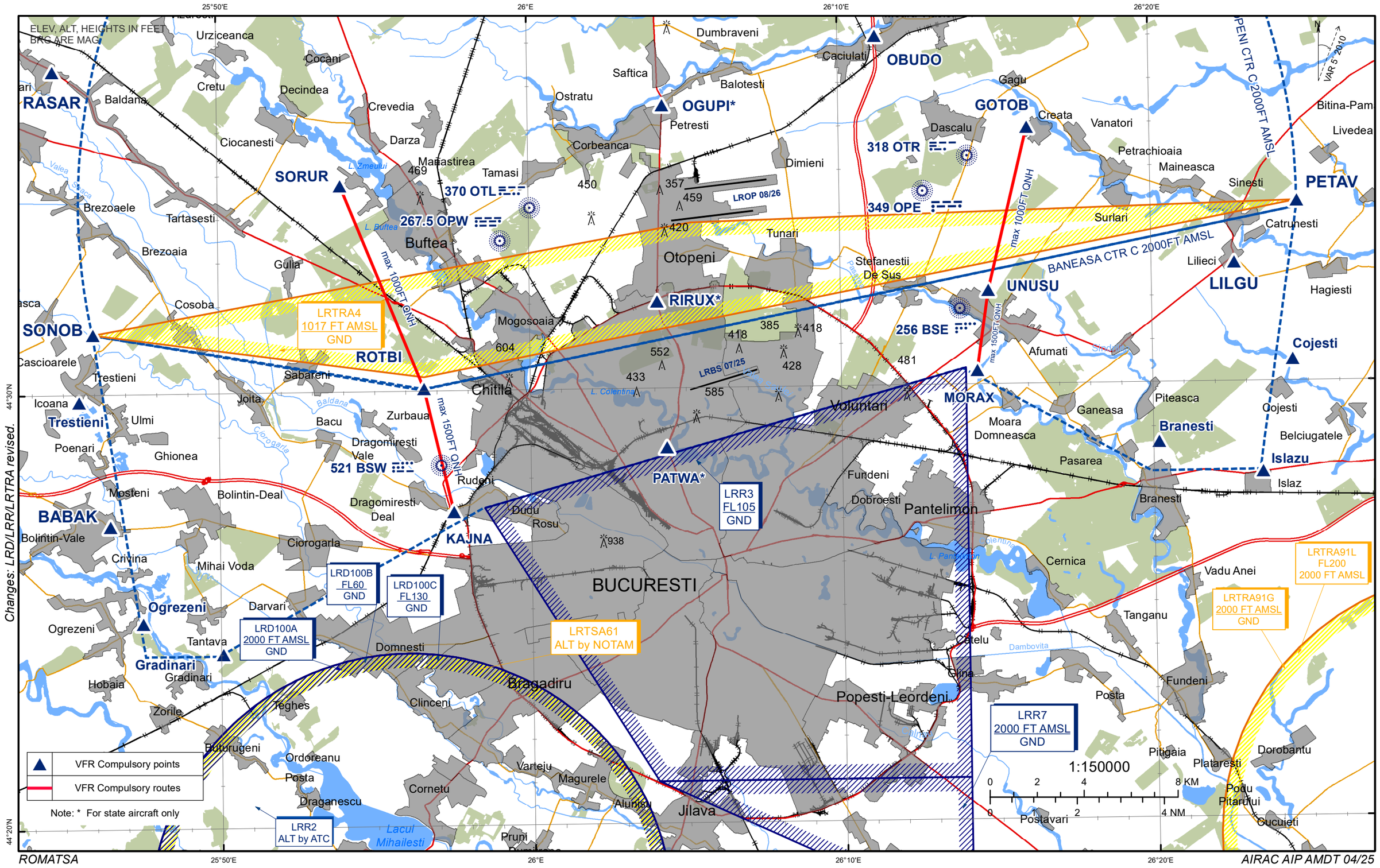
ELEV 299 FT

BĂNEASA ATIS	126.125
BUCUREȘTI VOLMET	126.800
BUCUREȘTI APPROACH	119.415
BUCUREȘTI DIRECTOR	127.155
BUCUREȘTI DIRECTOR ALTN	120.600

BUCUREȘTI INFORMATION	129.400
BĂNEASA TOWER	125.205
BĂNEASA TOWER ALTN	120.800
BĂNEASA GROUND	129.950

BUCUREȘTI/
Băneasa - Aurel Vlaicu (LRBS)

VFR Routes
Aircraft categories A and H



Changes: LRD/LRR/LRTRA revised.

ATC SURVEILLANCE

MINIMUM ALTITUDE CHART - ICAO

TRANSITION ALTITUDE
4000 FT

AERODROME ELEV 299 FT

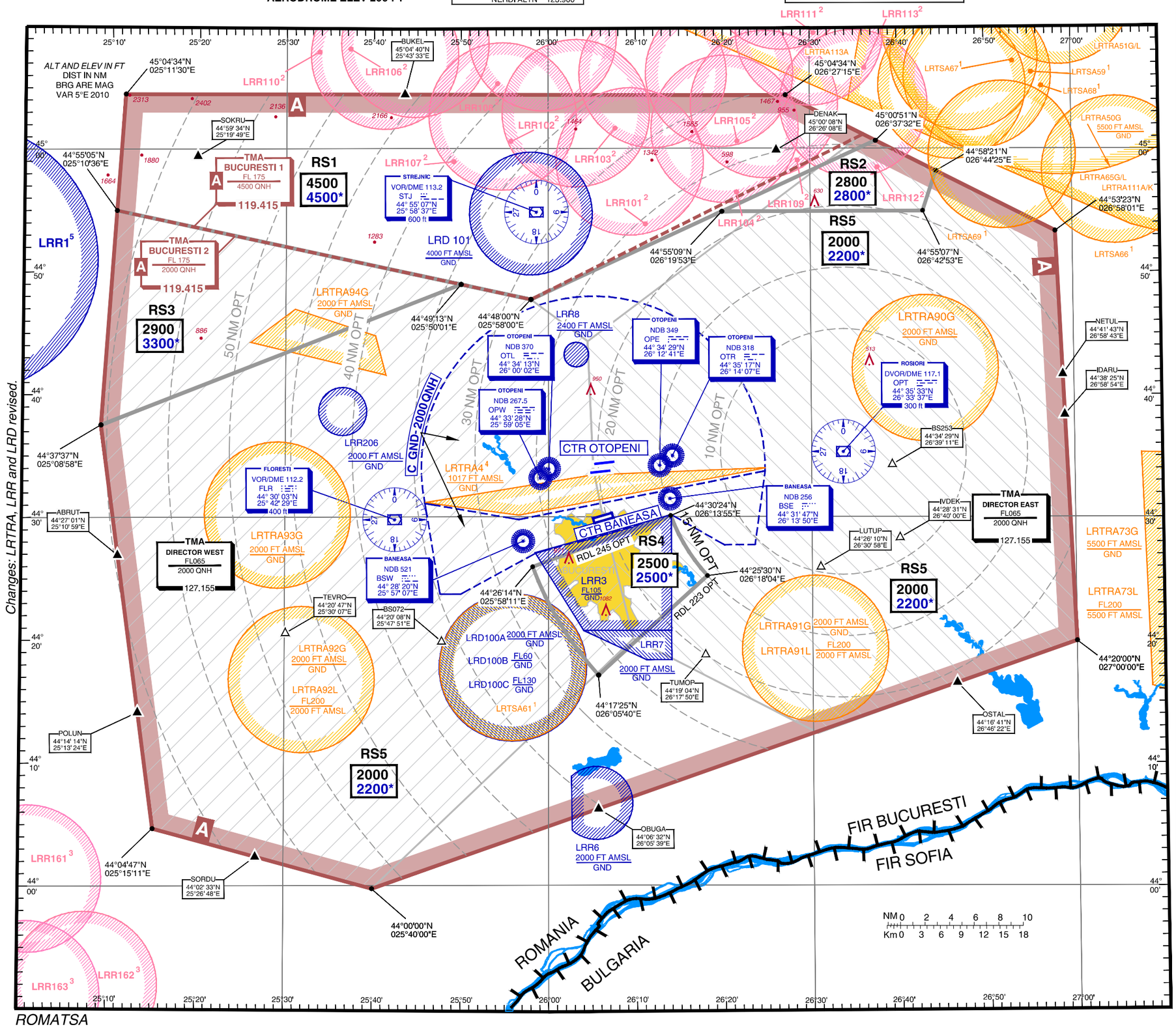
SECTOR		
	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.950

BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI /

Băneasa - Aurel Vlaicu (LRBS)



Changes: LRTRA, LRR and LRD revised.

IN CASE OF COMMUNICATION FAILURE

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

Minimum altitudes integrating a correction for low temperatures from **+2°C and **lower**.*

NOTE : LEVELS ASSIGNED BY ATC INCLUDE A CORRECTION FOR LOW TEMPERATURE EFFECT WHEN NECESSARY

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{\text{FL255}}{\text{GND}}$
3. Vertical limits $\frac{\text{FL240}}{\text{GND}}$
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: $\frac{\text{FL60}}{\text{GND}}$ for subsonic FLT; $\frac{\text{FL660}}{\text{GND}}$ for supersonic FLT
6. Chart only to be used for cross-checking of altitudes assigned while under vectoring control.
7. Unless otherwise authorized or required by ATC, arriving aircraft shall be operated at an indicated airspeed of maximum 250KT below FL100.
8. BUCURESTI DIRECTOR (EAST or WEST) activates depending on the runway in use.

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LEGEND	
RADAR MNM ALT IN FEET (QNH)	2000

INSTRUMENT APPROACH CHART - ICAO

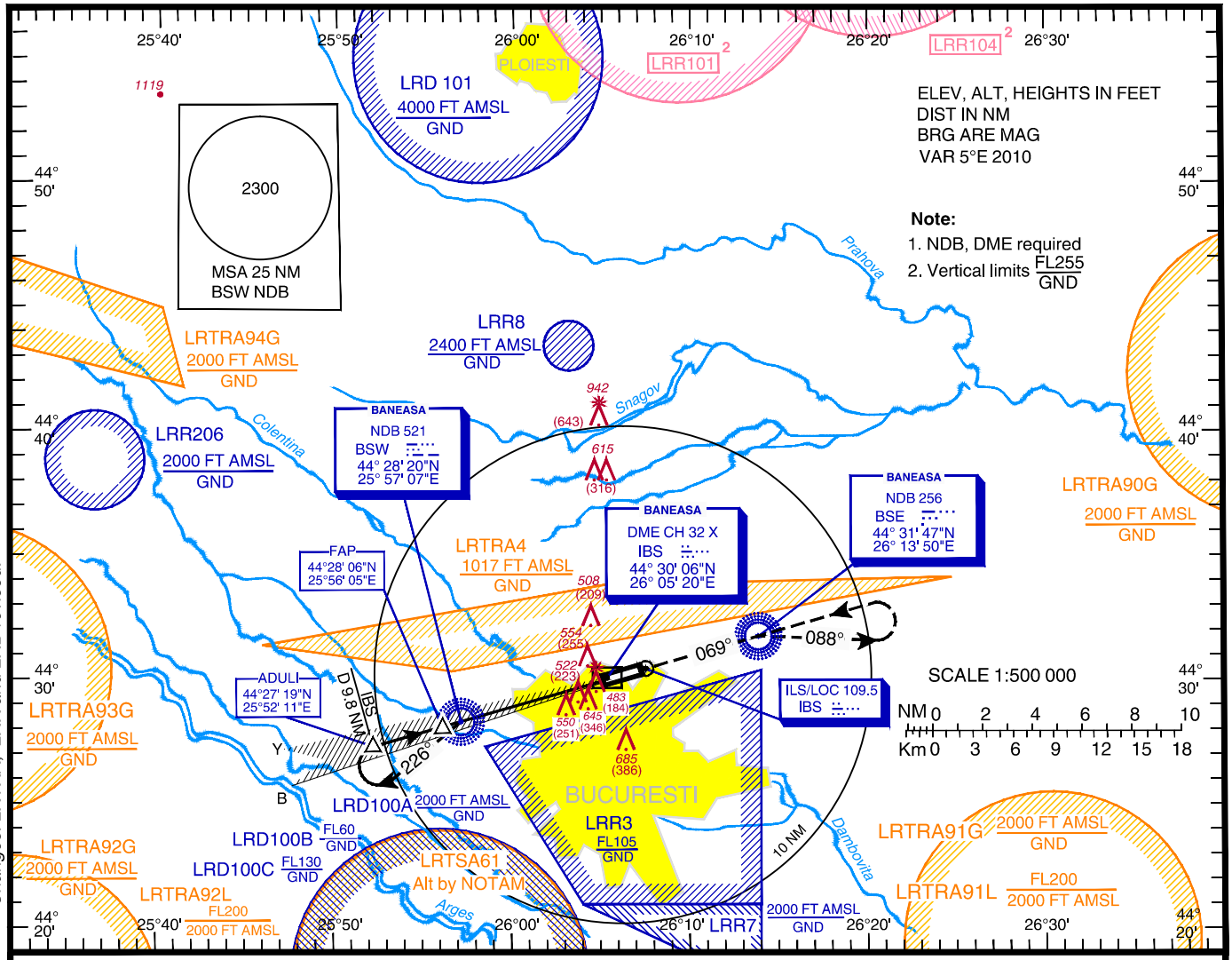
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO AD ELEV

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
ILS RWY 07
CAT A / B

Changes: LRTRA, LRR and LRD revised.

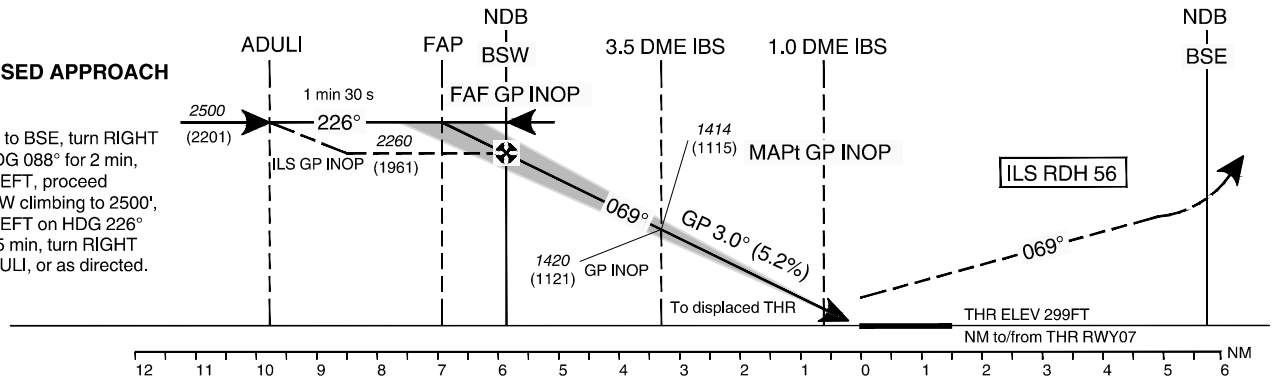


Transition Altitude
4000

DME reads zero at IBS DME antenna,
319 m from THR07

MISSED APPROACH

Climb to BSE, turn RIGHT on HDG 088° for 2 min, turn LEFT, proceed to BSW climbing to 2500', turn LEFT on HDG 226° for 1.5 min, turn RIGHT to ADULI, or as directed.



OCA(H)		A	B
Straight-in approach	ILS CAT I	440 (141)	450 (151)
	ILS CAT II	348 (49)	359 (60)
	ILS GP INOP	710 (411)	
Circling		NOT AUTH.	

GS	kts	70	90	100	120
FAF - MAPT 5.1 NM	min:s	4:22	3:24	3:04	2:33
Rate of descent	ft/min	371	478	531	637

Distance to IBS DME	NM	6	5	4	3	2
Altitude	ft	2210	1891	1573	1254	936

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS RWY 07, CAT A/B

AERONAUTICAL DATA TABULATION

ILS approach to RWY 07, CAT A/B from ADULI, BSW NDB	
BSW NDB (IAF/FAF GP INOP)	44°28'19.5'N 025°57'07.2'E
ADULI (IAF)	44°27'18.6'N 025°52'11.4'E
FAP	44°28'06.4'N 025°56'04.9'E
3.5 DME IBS (Height Check/Stepdown ILS GP INOP)	44°29'03.5'N 026°00'39.6'E
1.0 DME IBS (MAPT GP INOP)	44°29'45.3'N 026°04'01.0'E
THR RWY 07	44°29'59.27'N 026°05'08.68'E
IBS LOC	44°30'28.5'N 026°07'30.3'E
BSE NDB	44°31'46.7'N 026°13'49.9'E

INSTRUMENT APPROACH CHART - ICAO

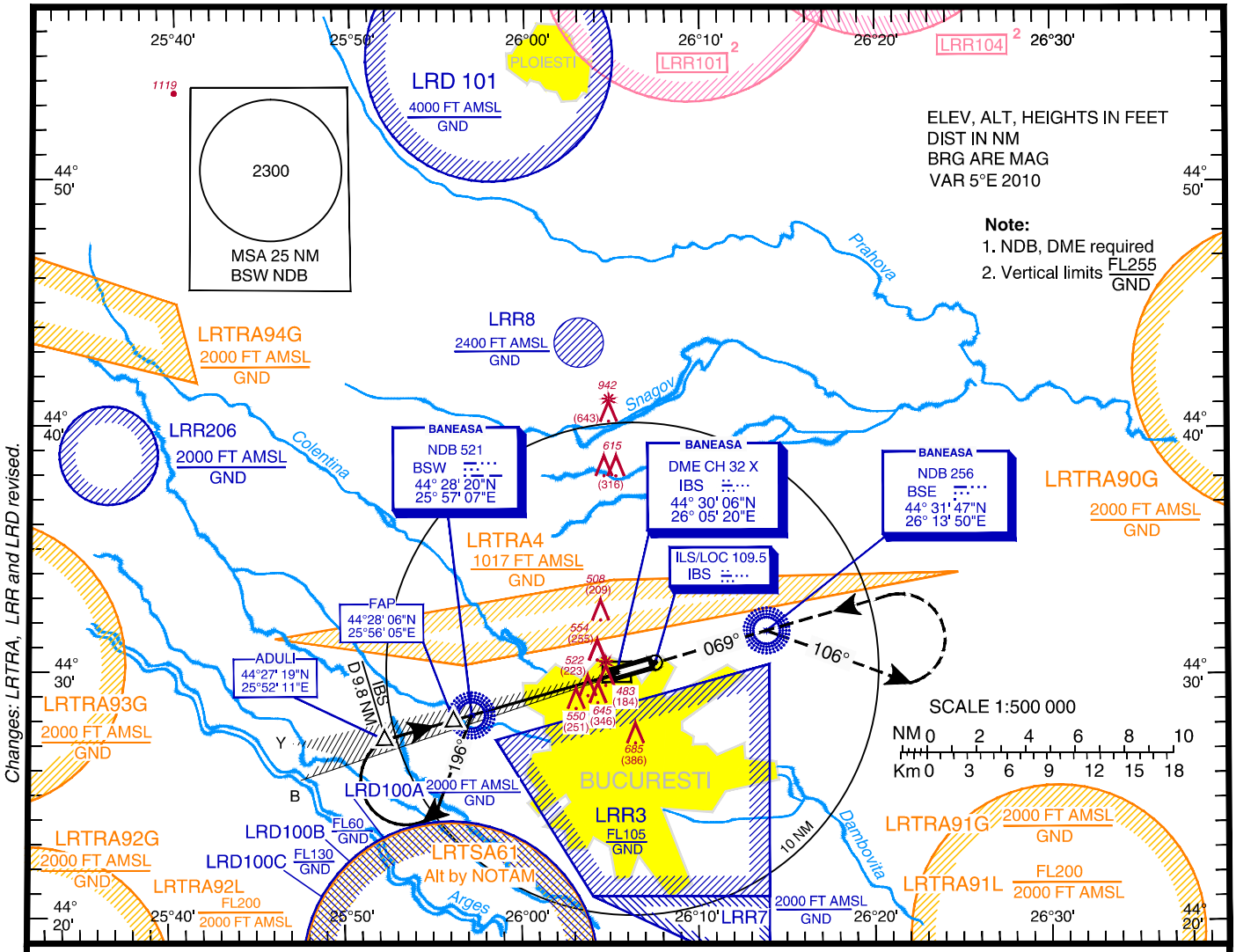
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO AD ELEV

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

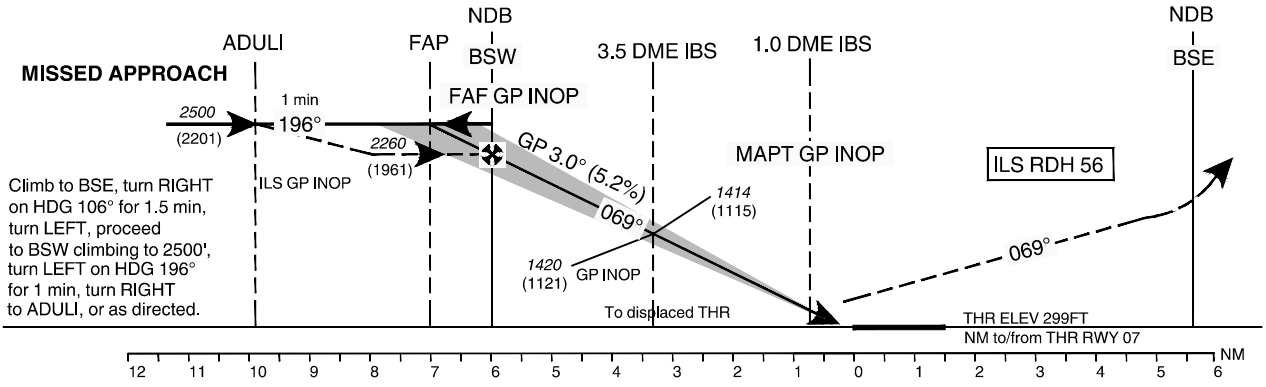
BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
ILS RWY 07
CAT C / D

Changes: LRTRA, LRR and LRD revised.



Transition Altitude
4000

DME reads zero at IBS DME antenna,
319 m from THR07



OCA(H)		C	D
Straight-in approach	ILS CAT I	462 (163)	476 (177)
	ILS CAT II	372 (73)	385 (86)
	ILS GP INOP	710 (411)	
Circling		NOT AUTH.	

GS	kts	100	120	140	160
FAF - MAPT 5.1 NM	min:s	3:04	2:33	2:11	1:55
Rate of descent	ft/min	531	637	743	849

Distance to IBS DME	NM	6	5	4	3	2
Altitude	ft	2210	1891	1573	1254	936

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS RWY 07, CAT C/D

AERONAUTICAL DATA TABULATION

ILS approach to RWY 07, CAT C/D from ADULI, BSW NDB	
BSW NDB (IAF/FAF GP INOP)	44°28'19.5'N 025°57'07.2'E
ADULI (IAF)	44°27'18.6'N 025°52'11.4'E
FAP	44°28'06.4'N 025°56'04.9'E
3.5 DME IBS (Height Check/Stepdown ILS GP INOP)	44°29'03.5'N 026°00'39.6'E
1.0 DME IBS (MAPT GP INOP)	44°29'45.3'N 026°04'01.0'E
THR RWY 07	44°29'59.27'N 026°05'08.68'E
IBS LOC	44°30'28.5'N 026°07'30.3'E
BSE NDB	44°31'46.7'N 026°13'49.9'E

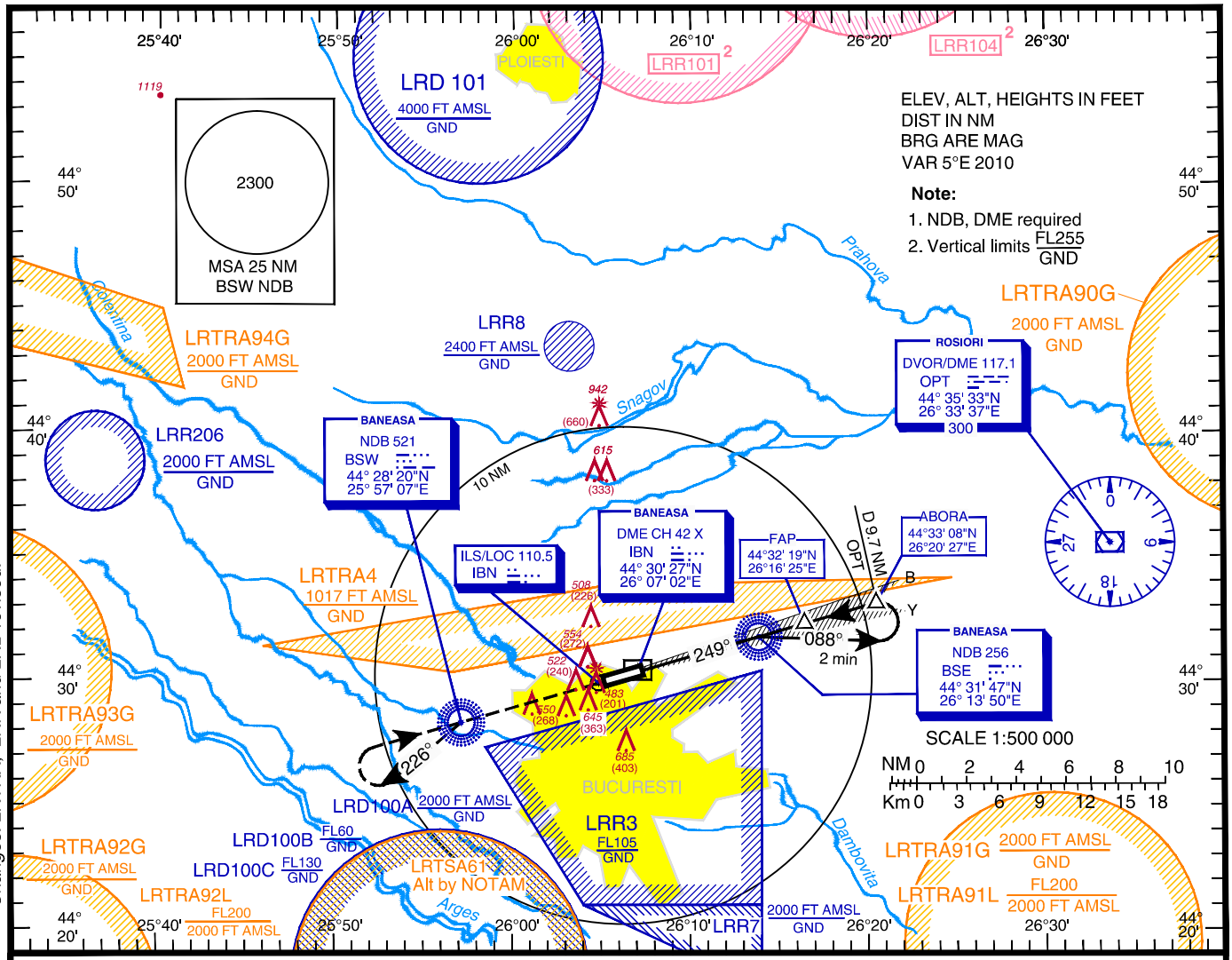
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV. 282

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

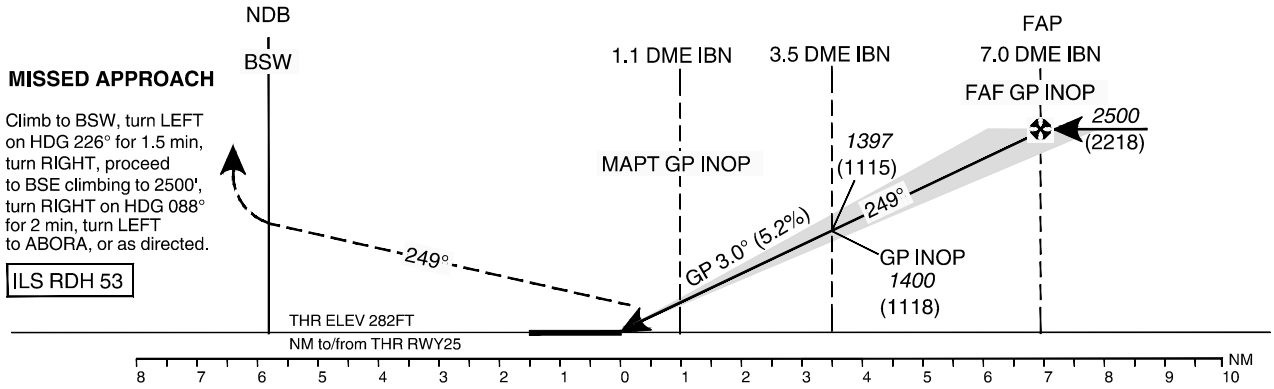
BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
ILS RWY 25
CAT A / B



Changes: LRTRA, LRR and LRD revised.

Transition Altitude
4000

DME reads zero at IBN DME antenna (327 m from THR 25)



MISSED APPROACH

Climb to BSW, turn LEFT on HDG 226° for 1.5 min, turn RIGHT, proceed to BSE climbing to 2500', turn RIGHT on HDG 088° for 2 min, turn LEFT to ABORA, or as directed.

ILS RDH 53

OCA(H)		A	B
Straight-in approach	ILS CAT I	430 (148)	440 (158)
	ILS GP INOP	640 (358)	
Circling		NOT AUTH.	

GS	kts	70	90	100	120
FAF - MAPT 5.9 NM	min:s	5:04	3:56	3:32	2:57
Rate of descent	ft/min	372	478	531	637

Distance to IBN	NM	2	3	4	5	6
Altitude	ft	919	1237	1556	1874	2193

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS RWY 25, CAT A/B

AERONAUTICAL DATA TABULATION

ILS approach to RWY 25, CAT A/B from ABORA, BSE NDB	
BSE NDB (IAF)	44º31'46.7'N 026º13'49.9'E
ABORA (IAF)	44º33'07.9'N 026º20'27.0'E
7.0 IBN (FAP/FAF GP INOP)	44º32'18.5'N 026º16'25.4'E
3.5 DME IBN (Height Check/Stepdown ILS GP INOP)	44º31'21.2'N 026º11'45.9'E
1.1 DME IBN (MAPT GP INOP)	44º30'41.3'N 026º08'32.4'E
THR RWY 25	44º30'25.8'N 026º07'17.2'E
IBN LOC	44º29'55.3'N 026º04'49.5'E
BSW NDB	44º28'19.5'N 025º57'07.2'E

INSTRUMENT APPROACH CHART - ICAO

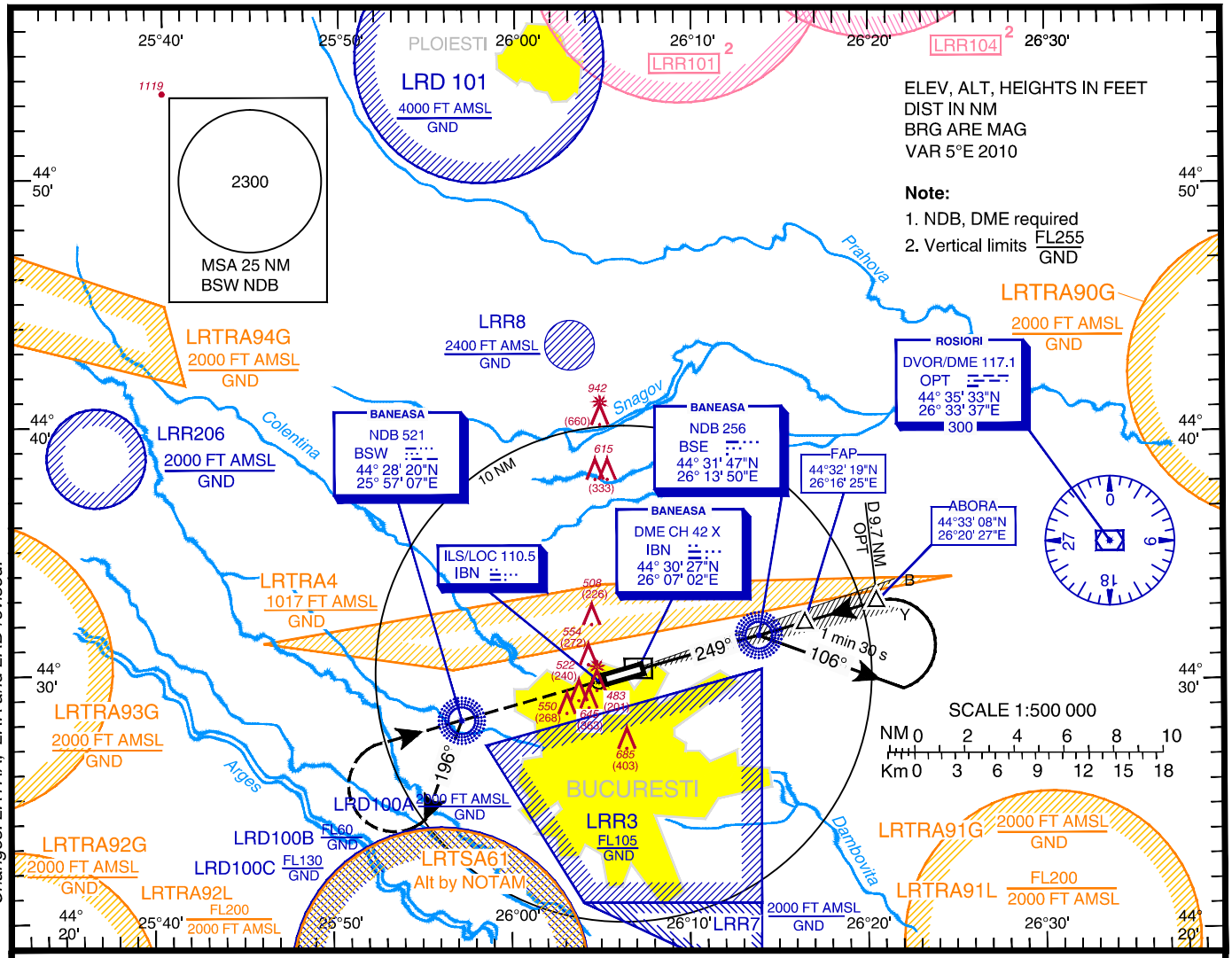
AERODROME ELEV **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV. 282

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

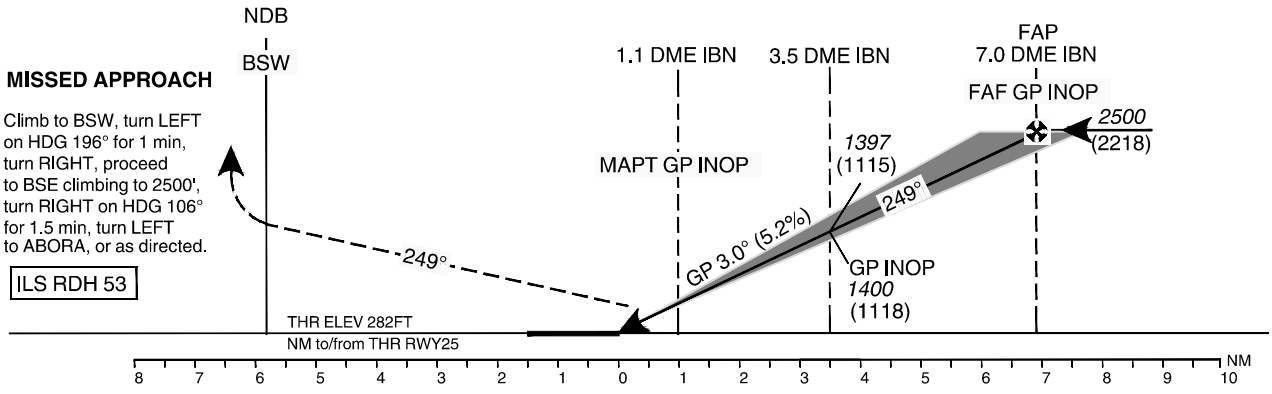
BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
ILS RWY 25
CAT C / D

Changes: LRTRA, LRR and LRD revised.



Transition Altitude
4000

DME reads zero at IBN DME antenna (327 m from THR 25)



MISSED APPROACH

Climb to BSW, turn LEFT on HDG 196° for 1 min, turn RIGHT, proceed to BSE climbing to 2500', turn RIGHT on HDG 106° for 1.5 min, turn LEFT to ABORA, or as directed.

ILS RDH 53

OCA(H)		C	D
Straight-in approach	ILS CAT I	453 (171)	466 (184)
	ILS GP INOP	640 (358)	
Circling		NOT AUTH.	

GS	kts	100	120	140	160
FAF - MAPT 5.9 NM	min:s	3:32	2:57	2:32	2:13
Rate of descent	ft/min	531	637	743	849

Distance to IBN	NM	2	3	4	5	6
Altitude	ft	919	1237	1556	1874	2193

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS RWY 25, CAT C/D

AERONAUTICAL DATA TABULATION

ILS approach to RWY 25, CAT C/D from ABORA, BSE NDB	
BSE NDB (IAF)	44º31'46.7'N 026º13'49.9'E
ABORA (IAF)	44º33'07.9'N 026º20'27.0'E
7.0 IBN (FAP/FAF GP INOP)	44º32'18.5'N 026º16'25.4'E
3.5 DME IBN (Height Check/Stepdown ILS GP INOP)	44º31'21.2'N 026º11'45.9'E
1.1 DME IBN (MAPT GP INOP)	44º30'41.3'N 026º08'32.4'E
THR RWY 25	44º30'25.8'N 026º07'17.2'E
IBN LOC	44º29'55.3'N 026º04'49.5'E
BSW NDB	44º28'19.5'N 025º57'07.2'E

INSTRUMENT APPROACH CHART - ICAO

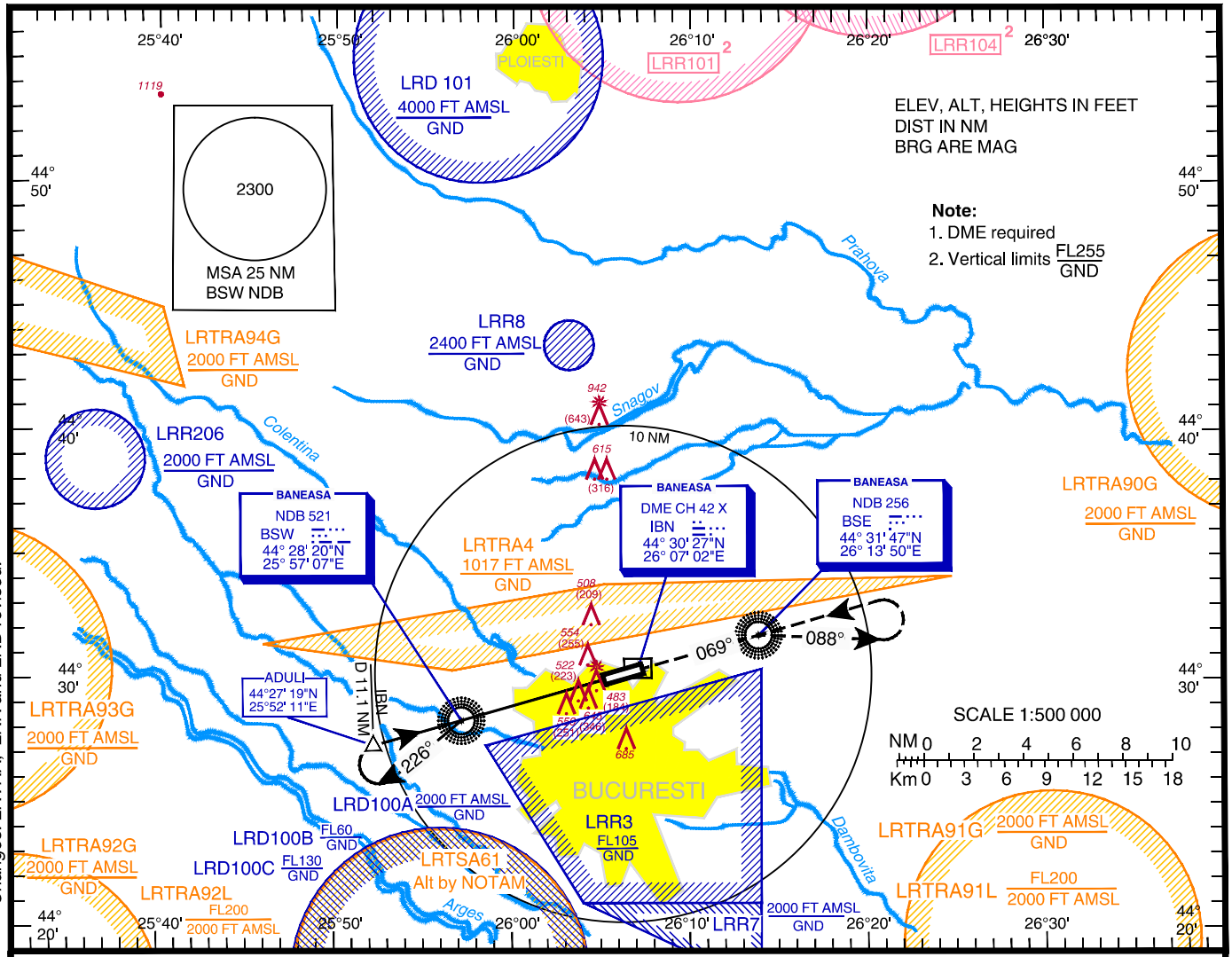
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO AD ELEV

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

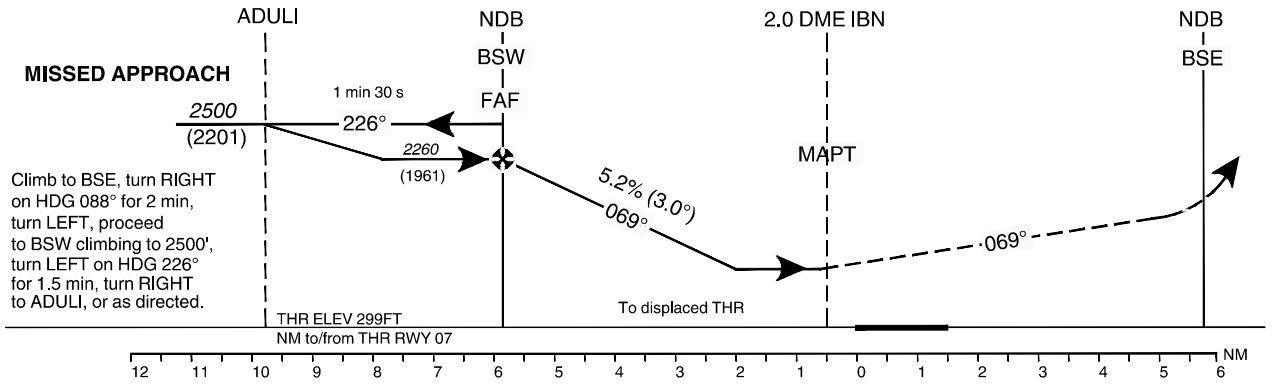
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
NDB RWY 07
CAT A / B

Changes: LRTRA, LRR and LRD revised.



Transition Altitude
4000



OCA/H	A	B
Straight-in approach	900 (601)	
Circling	NOT AUTH.	

GS	kts	70	90	100	120
FAF - MAPT 5.4 NM	min:s	4:38	3:36	3:14	2:42
Rate of descent	ft/min	372	478	531	637

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
NDB RWY 07, CAT A/B

AERONAUTICAL DATA TABULATION

NDB approach to RWY 07, CAT A/B from ADULI, BSW NDB	
BSW NDB (IAF/FAF)	44º28'19.5'N 025º57'07.2'E
ADULI (IAF)	44º27'18.6'N 025º52'11.4'E
2.0 D IBN (MAPT)	44º29'49.8'N 026º04'22.9'E
THR RWY 07	44º29'59.27'N 026º05'08.68'E
BSE NDB	44º31'46.7'N 026º13'49.9'E

Final approach descent angle: 3.00º

INSTRUMENT APPROACH CHART - ICAO

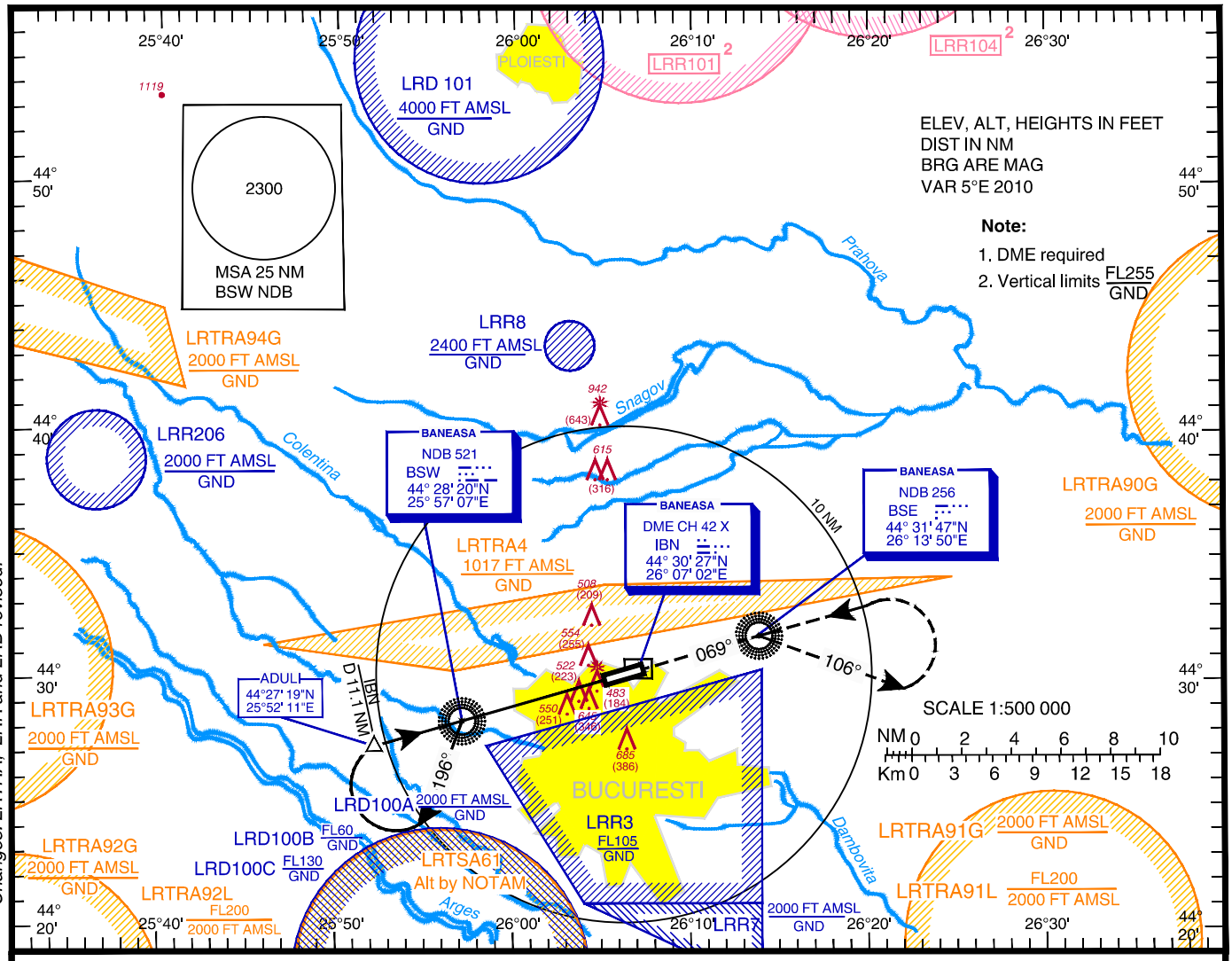
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO AD ELEV

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

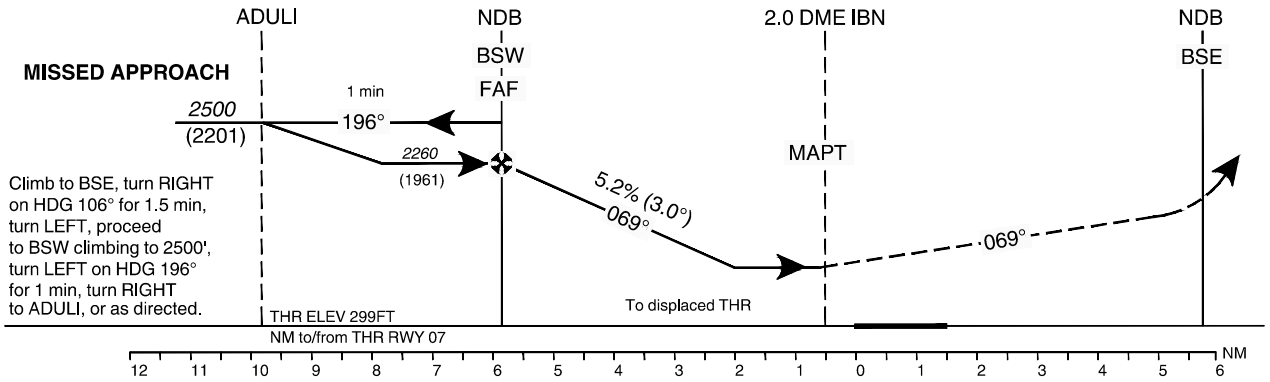
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREȘTI
Băneasa-Aurel Vlaicu (LRBS)
NDB RWY 07
CAT C / D

Changes: LRTRA, LRR and LRD revised.



Transition Altitude
4000



OCA(H)	C	D
Straight-in approach	900 (601)	
Circling	NOT AUTH.	

GS	kts	100	120	140	160
FAF - MAPT 5.4 NM	min:s	3:14	2:42	2:19	2:01
Rate of descent	ft/min	531	637	743	849

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
NDB RWY 07, CAT C/D

AERONAUTICAL DATA TABULATION

NDB approach to RWY 07, CAT C/D from ADULI, BSW NDB	
BSW NDB (IAF/FAF)	44º28'19.5'N 025º57'07.2'E
ADULI (IAF)	44º27'18.6'N 025º52'11.4'E
2.0 D IBN (MAPT)	44º29'49.8'N 026º04'22.9'E
THR RWY 07	44º29'59.27'N 026º05'08.68'E
BSE NDB	44º31'46.7'N 026º13'49.9'E

Final approach descent angle: 3.00º

INSTRUMENT APPROACH CHART - ICAO

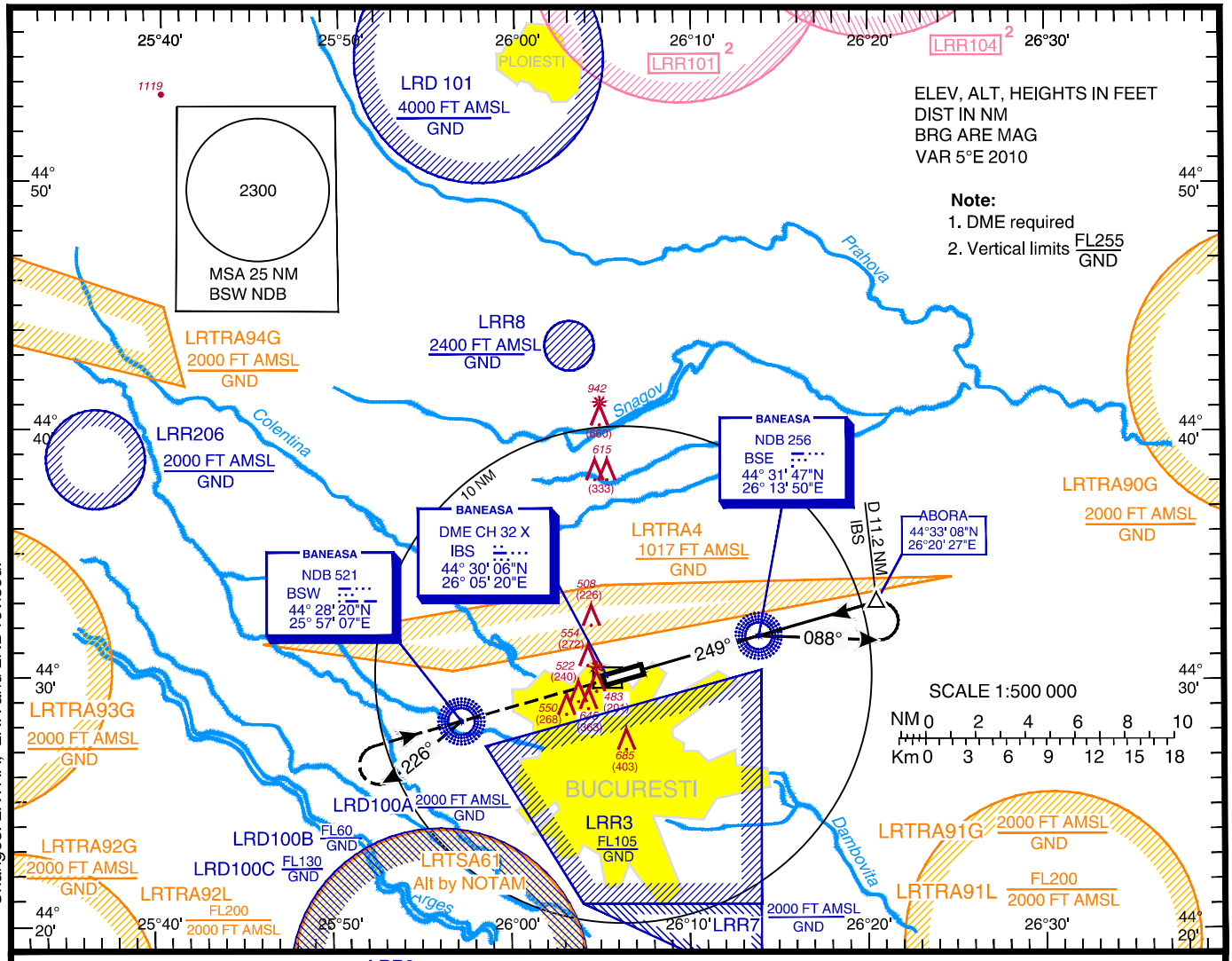
AERODROME ELEV **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV. 282

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

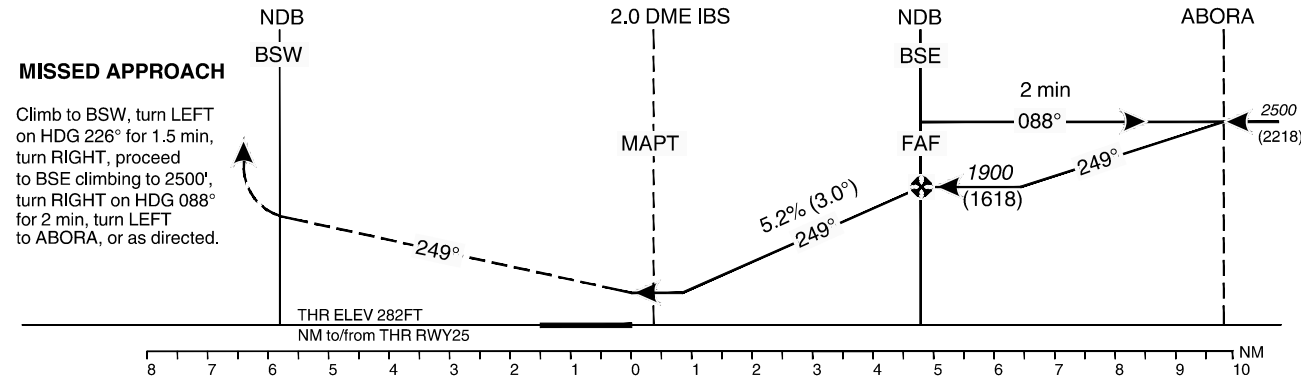
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
NDB RWY 25
CAT A / B

Changes: LRTRA, LRR and LRD revised.



Transition Altitude
4000



MISSED APPROACH

Climb to BSW, turn LEFT on HDG 226° for 1.5 min, turn RIGHT, proceed to BSE climbing to 2500', turn RIGHT on HDG 088° for 2 min, turn LEFT to ABORA, or as directed.

OCA/H	A	B
Straight-in approach	690 (408)	
Circling	NOT AUTH.	

	kts	70	90	100	120
FAF - MAPT 4.3 NM	min:s	3:41	2:52	2:35	2:09
Rate of descent	ft/min	372	478	531	637

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB RWY 25, CAT A/B

AERONAUTICAL DATA TABULATION

NDB approach to RWY 25, CAT A/B from ABORA, BSE NDB	
BSE NDB (IAF/FAF)	44º31'46.7"N 026º13'49.9"E
ABORA (IAF)	44º33'07.9"N 026º20'27.0"E
2.0 D IBS (MAPT)	44º30'35.1"N 026º08'02.4"E
THR RWY 25	44º30'25.81"N 026º07'17.21"E
BSW NDB	44º28'19.5"N 025º57'07.2"E

Final approach descent angle: 3.00º

INSTRUMENT APPROACH CHART - ICAO

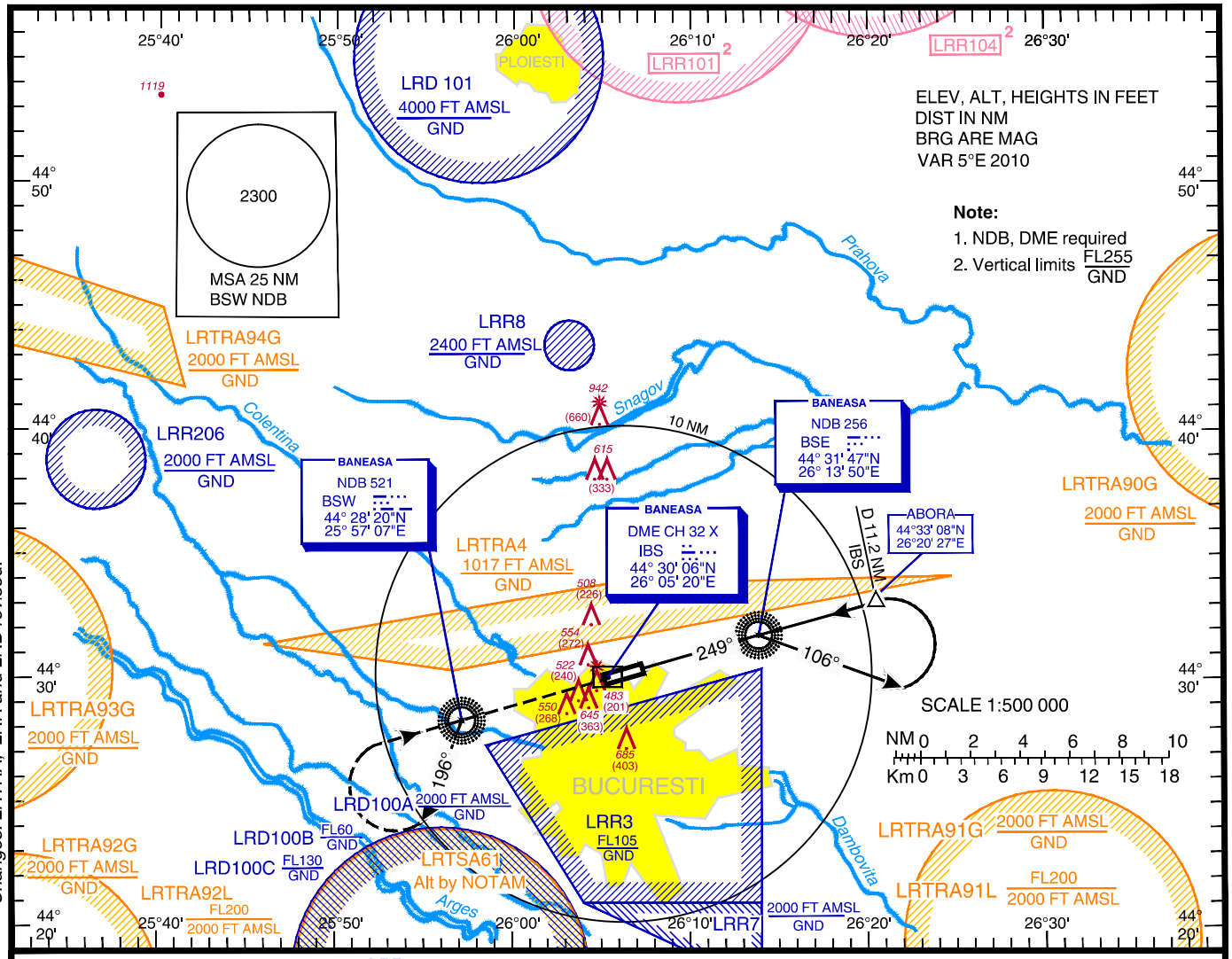
AERODROME ELEV **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV. 282

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.950
BANEASA ATIS	126.125

BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI
Băneasa-Aurel Vlaicu (LRBS)
NDB RWY 25
CAT C / D

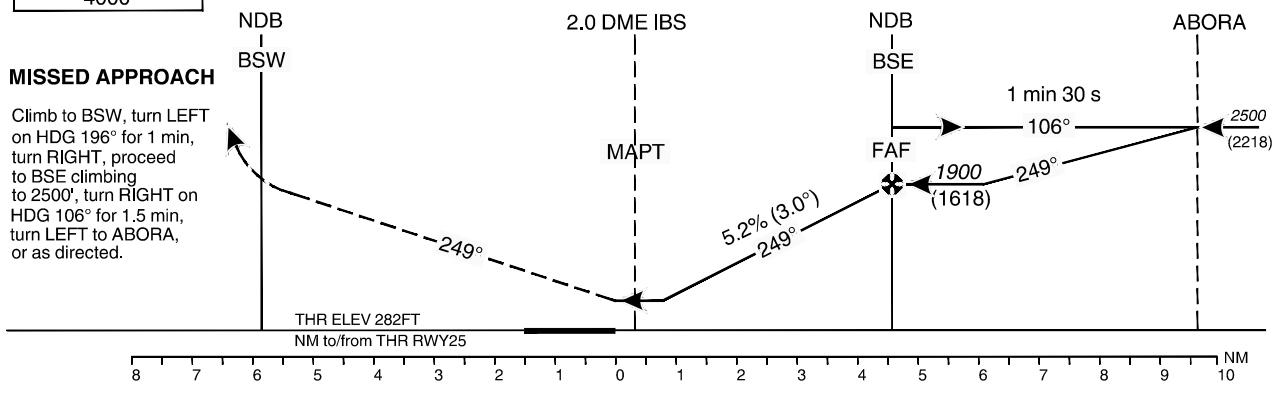
Changes: LRTRA, LRR and LRD revised.



Transition Altitude
4000

MISSED APPROACH

Climb to BSW, turn LEFT on HDG 196° for 1 min, turn RIGHT, proceed to BSE climbing to 2500', turn RIGHT on HDG 106° for 1.5 min, turn LEFT to ABORA, or as directed.



OCA/H	C	D
Straight-in approach	690 (408)	
Circling	NOT AUTH.	

	kts	100	120	140	160
FAF - MAPT 4.3 NM	min:s	2:35	2:09	1:51	1:37
Rate of descent	ft/min	531	637	743	849

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB RWY 25, CAT C/D

AERONAUTICAL DATA TABULATION

NDB approach to RWY 25, CAT C/D from ABORA, BSE NDB	
BSE NDB (IAF/FAF)	44º31'46.7'N 026º13'49.9'E
ABORA (IAF)	44º33'07.9'N 026º20'27.0'E
2.0 D IBS (MAPT)	44º30'35.1'N 026º08'02.4'E
THR RWY 25	44º30'25.81'N 026º07'17.21'E
BSW NDB	44º28'19.5'N 025º57'07.2'E

Final approach descent angle: 3.00º

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
4000 FT

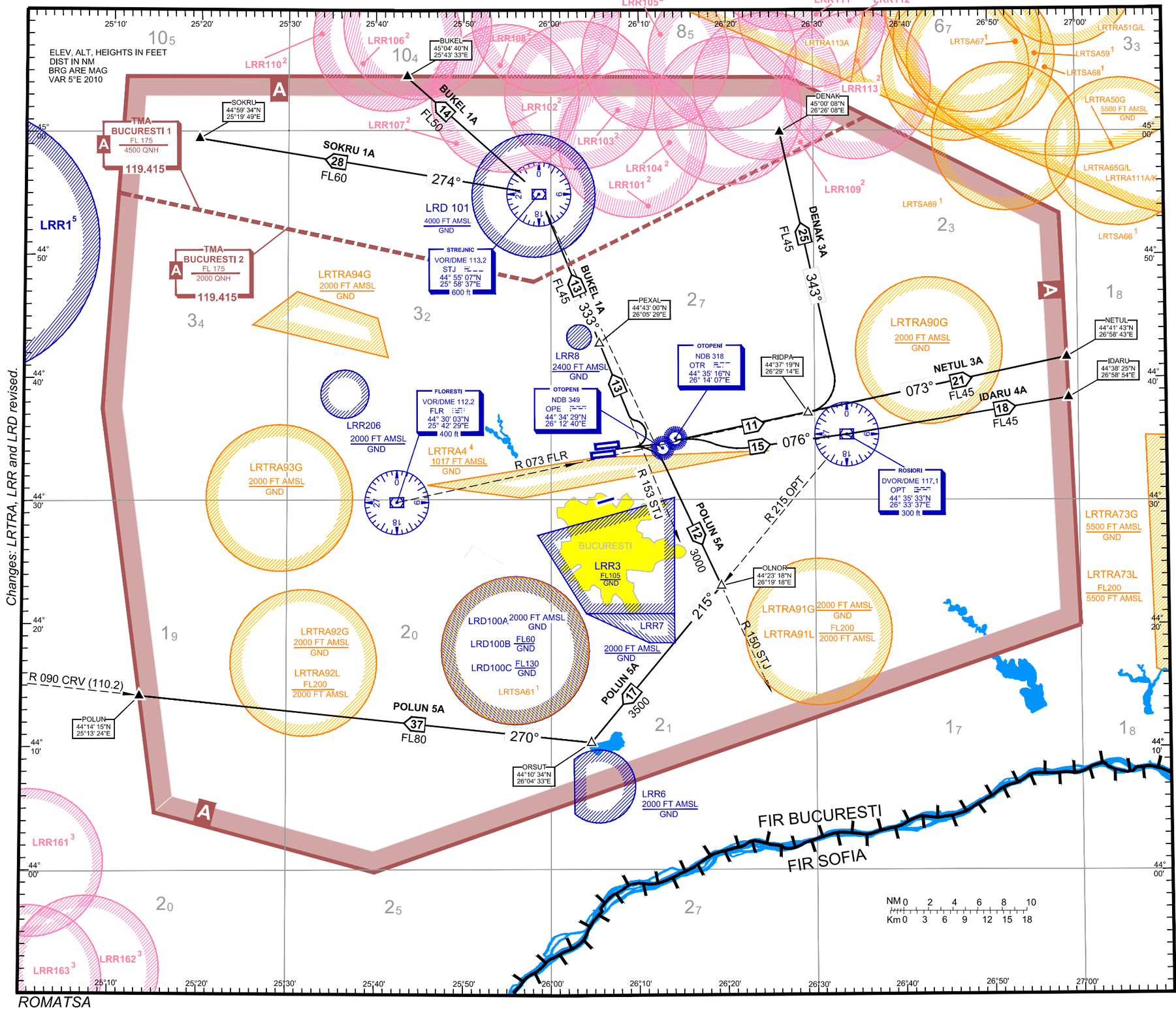
OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI DEL	121.955

SECTOR	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Henri Coandă (LROP)
RWY 08R/L

BUKEL 1A, DENAK 3A, IDARU 4A
NETUL 3A, POLUN 5A, SOKRU 1A



Changes: LRTRA, LRR and LRD revised.

Standard Instrument Departure Routes (SID) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 1A	Climb on RWY track to 800 QNH, intercept RDL 153 STJ VOR/DME inbound to STJ VOR/DME, intercept RDL 307 STJ VOR/DME to BUKEL. Cross PEXAL at or above FL 45. Cross BUKEL at or above FL 110. Not available for traffic to NEPOT. PDG min. 4.4% due to airspace structure.
DENAK 3A	To OPE/OTR NDB, RDL 073 FLR VOR/DME to RIDPA, turn LEFT, RDL 343 OPT VOR/DME to DENAK. Cross DENAK at or above minimum ENROUTE FL. PDG min. 4.4% due to airspace structure.
IDARU 4A	To OPE/OTR NDB turn RIGHT, RDL 256 OPT VOR/DME, RDL 076 OPT VOR/DME to IDARU. Cross IDARU at or above FL60.
NETUL 3A	To OPE/OTR NDB, intercept RDL 073 FLR VOR/DME to NETUL. Cross NETUL at or above FL60.
POLUN 5A	Climb on RWY track to 1000 QNH or D 17 OPT VOR/DME whichever is later, turn RIGHT, RDL 150 STJ VOR/DME to OLNOR, turn RIGHT, RDL 215 OPT VOR/DME to ORSUT climbing at or above FL80, turn RIGHT RDL 090 inbound CRV VOR/DME to POLUN. Cross POLUN at or above minimum EN-ROUTE FL. Not available for traffic to MOPUG.
SOKRU 1A	Climb on RWY track to 800 QNH, intercept RDL 153 STJ VOR/DME inbound to STJ VOR/DME, RDL 274 STJ VOR/DME to SOKRU. Cross PEXAL at or above FL 45. Cross SOKRU at or above FL 110. Not available for traffic to DIRER

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{\text{FL255}}{\text{GND}}$
3. Vertical limits $\frac{\text{FL240}}{\text{GND}}$
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: $\frac{\text{FL60}}{\text{GND}}$ for subsonic FLT
   $\frac{\text{FL660}}{\text{GND}}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

RADIO COMMUNICATION FAILURE PROCEDURE

Set transponder to 7600, then:
- continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
- if being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point climbing to FPL flight level.

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
4000 FT

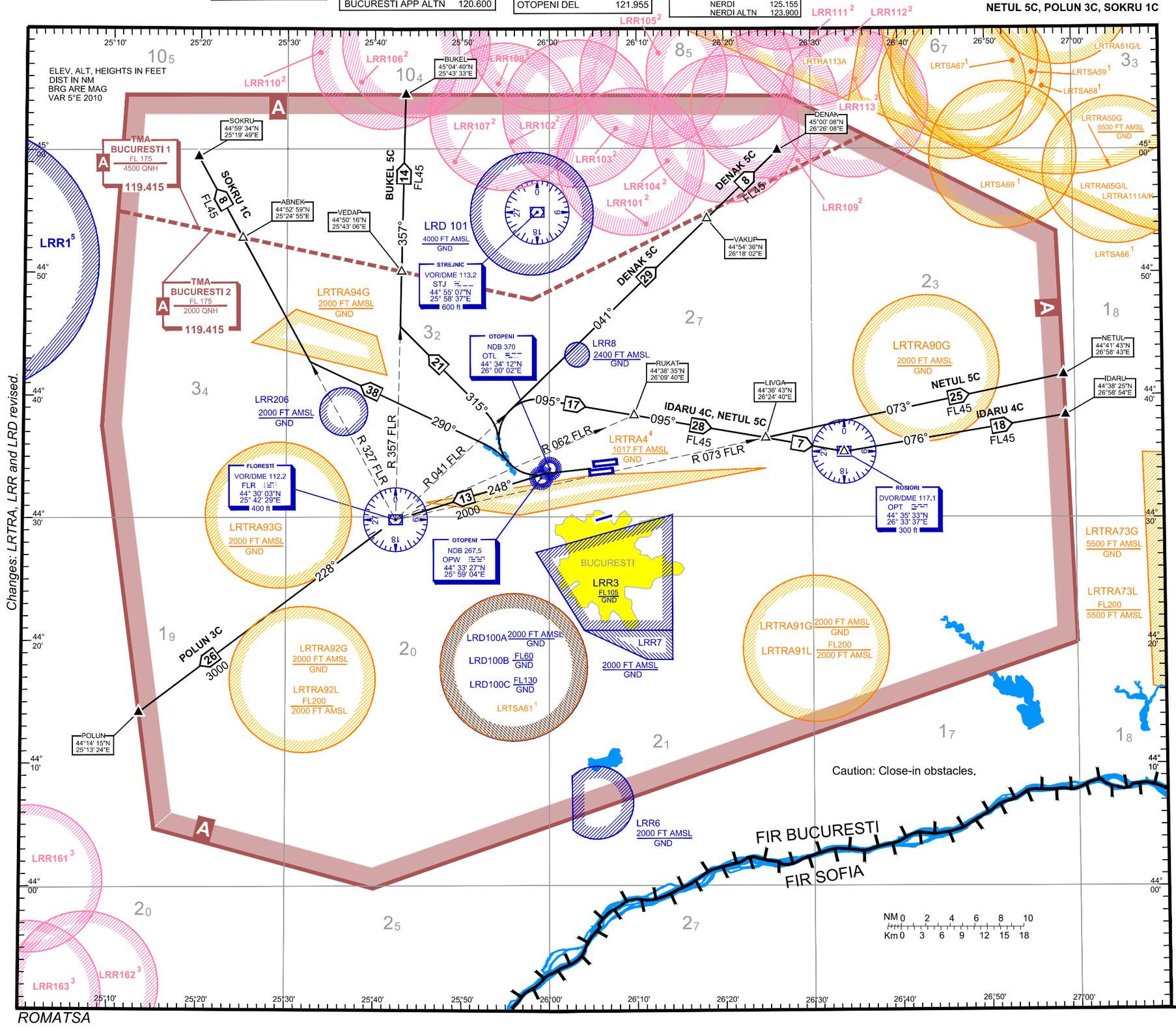
OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI DEL	121.955

SECTOR		
	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Henri Coandă (LROP)
RWY 26R/L

BUKEL 5C, DENAK 5C, IDARU 4C
NETUL 5C, POLUN 3C, SOKRU 1C



Changes: LRTRA, LRR and LRD revised.

Standard Instrument Departure Routes (SID) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 5C	To OTL/OPW NDB, turn RIGHT, BRG 315° OTL/OPW NDB, intercept RDL 357 FLR VOR/DME to BUKEL. Cross VEDAP at or above FL45 PDG min. 4.5% due to airspace structure. Not available for traffic to NEPOT.
DENAK 5C	To OTL/OPW NDB, turn RIGHT RDL 041 FLR VOR/DME to DENAK . PDG min. 4.2% due to airspace structure. Cross VAKUP at or above FL45.
IDARU 4C	To OTL/OPW NDB turn RIGHT, RDL 275 OPT VOR/DME, inbound to OPT VOR/DME, turn LEFT, RDL 076 OPT VOR/DME to IDARU. Cross IDARUat or above FL60.
NETUL 5C	To OTL/OPW NDB, turn RIGHT, intercept RDL 275 OPT VOR/DME inbound to LIVGA, turn LEFT, RDL 073 FLR VOR/DME to NETUL. Cross NETUL at or above FL60.
POLUN 3C	To OTL/OPW NDB, turn LEFT, RDL 068 FLR VOR/DME inbound to FLR VOR/DME, RDL 228 FLR VOR/DME to POLUN. PDG min. 3.6 due to airspace structure. Not available for traffic to MOPUG.
SOKRU 1C	To OTL/OPW NDB, turn RIGHT BRG 290°, intercept RDL 327 FLR VOR/DME to SOKRU PDG min 3.9% due to airspace structure. Not available for traffic to DIRER.

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{FL255}{GND}$

3. Vertical limits $\frac{FL240}{GND}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT

$\frac{FL660}{GND}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

RADIO COMMUNICATION FAILURE PROCEDURE

Set transponder to 7600, then:
- continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
- if being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point climbing to FPL flight level.

STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

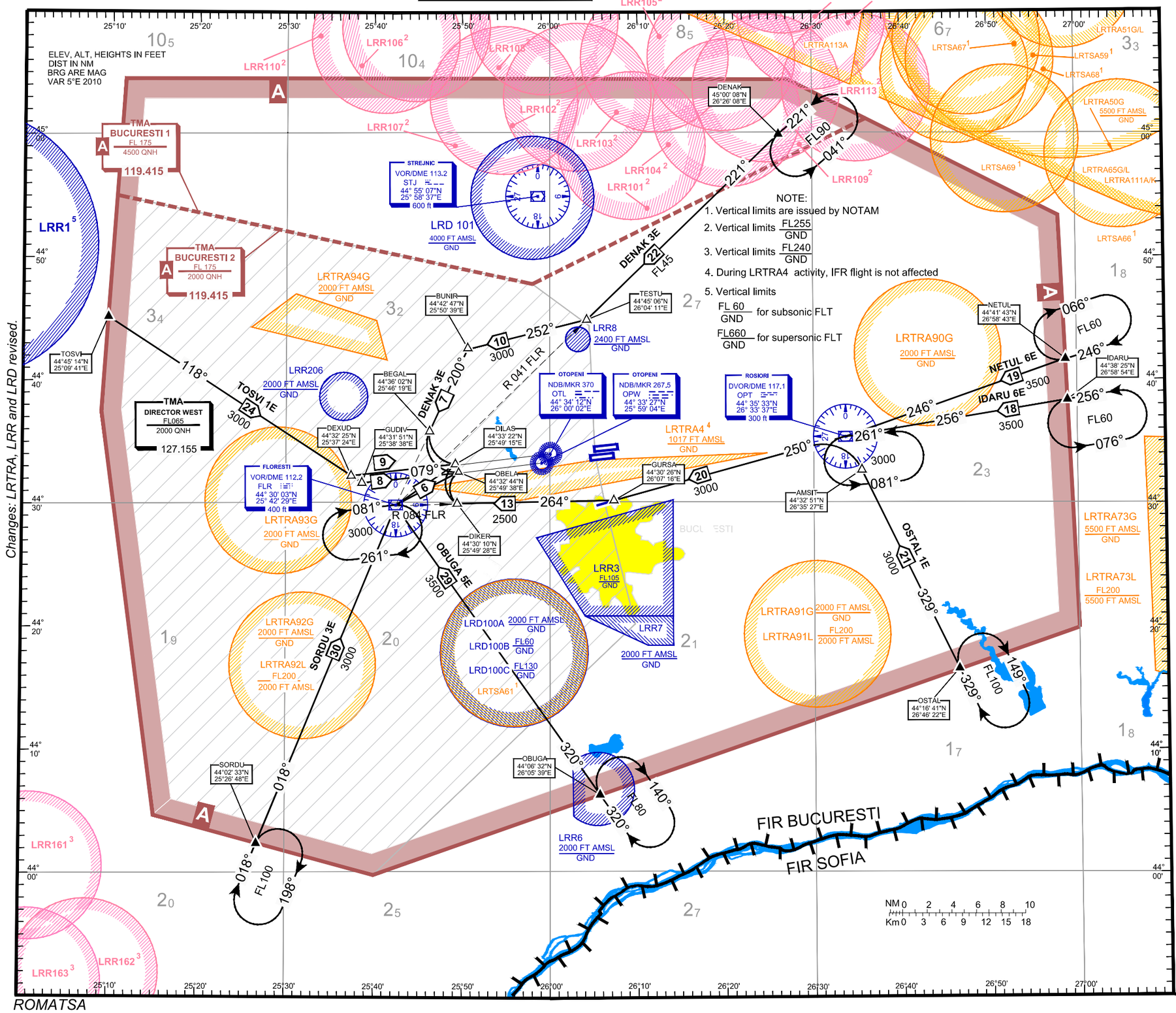
TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
RWY 08R/L
DENAK 3E, IDARU 6E, NETUL 6E
OBUGA 5E, OSTAL 1E, SORDU 3E, TOSVI 1E



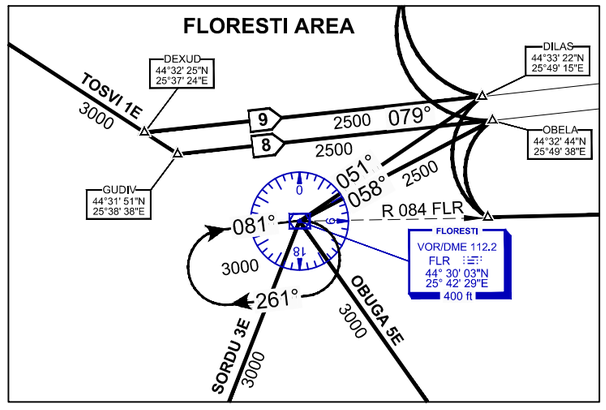
Changes: LRTRA, LRR and LRD revised.

RADIO COMMUNICATION FAILURE

- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
- If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to FLR VOR/DME then OBELA/DILAS . Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
- If STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR.
Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

DESIGNATOR ARRIVAL ROUTE	ARRIVAL ROUTE AND LEVEL INSTRUCTIONS
DENAK 3E	RDL 041 FLR VOR/DME inbound to TESTU, HDG 252 to BUNIR, RDL 020 FLR VOR/DME inbound to BEGAL, turn LEFT to DILAS/OBELA.
IDARU 6E	RDL 076 OPT VOR/DME, RDL 250 OPT VOR/DME to GURSA, intercept RDL 084 FLR VOR/DME inbound to DIKER, turn RIGHT to DILAS/OBELA.
NETUL 6 E	R 066 OPT VOR/DME inbound to OPT VOR/DME, RDL 250 OPT VOR/DME to GURSA, intercept RDL 084 FLR VOR/DME inbound DIKER, turn RIGHT to DILAS/OBELA.
OBUGA 5E	RDL 140 FLR VOR/DME inbound to FLR VOR/DME intercept RDL 051/RDL 058 FLR VOR/DME to DILAS/OBELA.
OSTAL 1E	RDL 149 OPT VOR/DME inbound to OPT, at AMSIT turn LEFT, RDL 250 OPT VOR/DME to GURSA, intercept RDL 084 FLR VOR/DME inbound to DIKER, turn RIGHT to DILAS/OBELA.
SORDU 3E	RDL 198 FLR VOR/DME inbound to FLR VOR/DME, intercept RDL 051/RDL 058 FLR VOR/DME to DILAS/OBELA.
TOSVI 1E	RDL 298 FLR VOR/DME inbound to DEXUD / GUDIV, BRG 079 OTL / OPW NDB to DILAS / OBELA.

FLORESTI AREA



TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

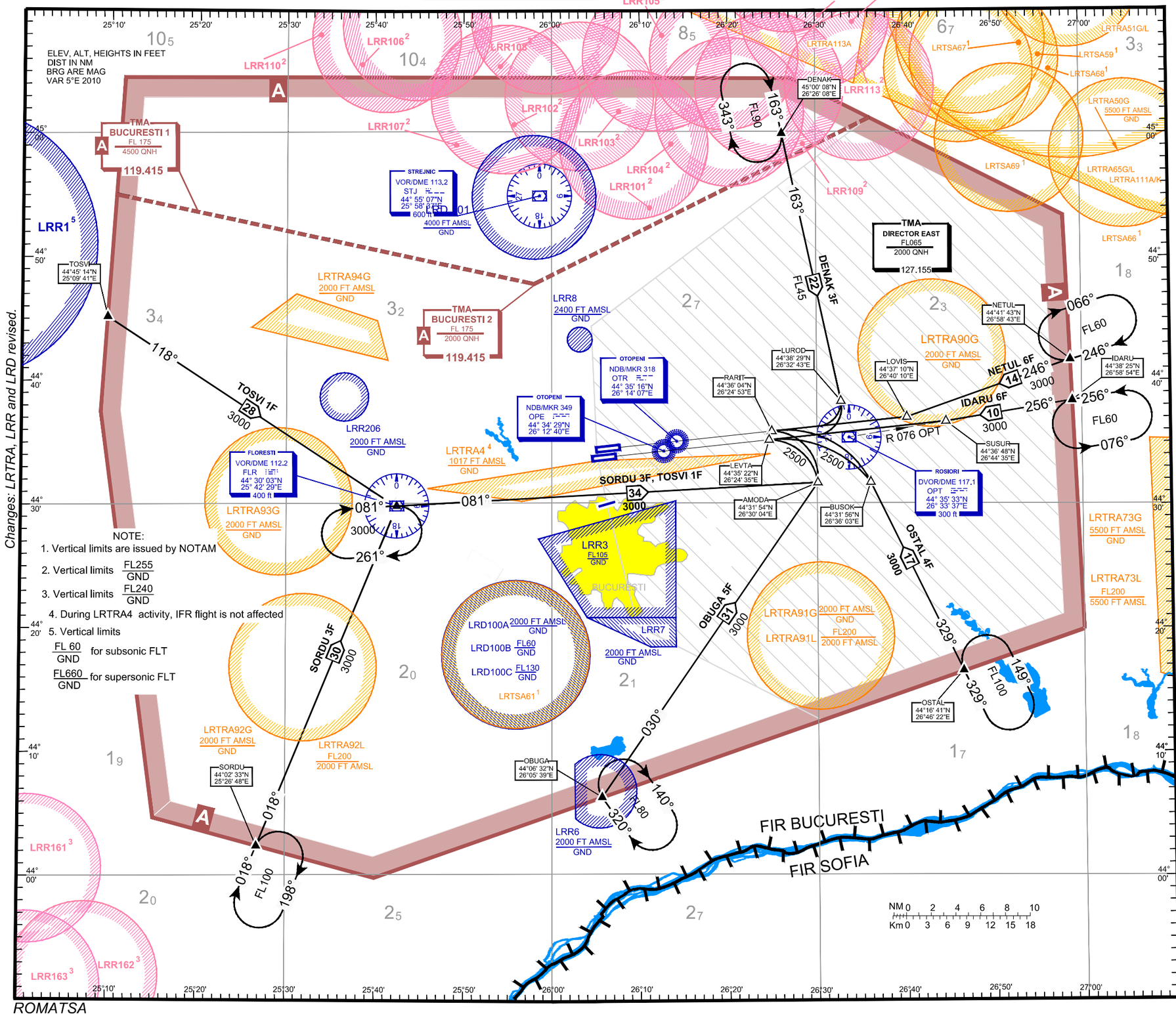
TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
RWY 26L/R
DENAK 3F, IDARU 6F, NETUL 6F
OBUGA 5F, OSTAL 4F, SORDU 3F, TOSVI 1F



NOTE:
1. Vertical limits are issued by NOTAM
2. Vertical limits FL255 / GND
3. Vertical limits FL240 / GND
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits
   FL 60 / GND for subsonic FLT
   FL660 / GND for supersonic FLT

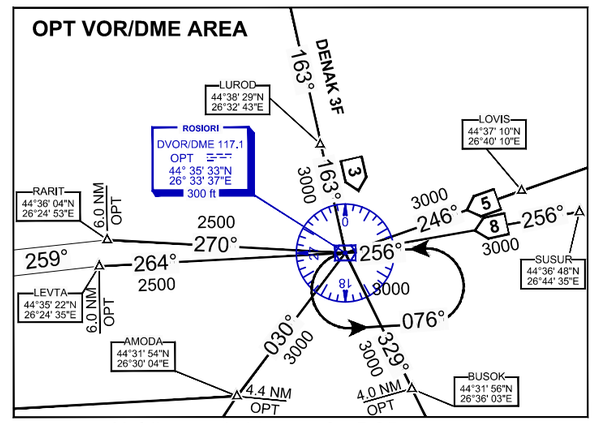
Changes: LRTRA, LRR and LRD revised.

RADIO COMMUNICATION FAILURE

- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
- If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to OPT VOR/DME, then RDL 264/ RDL 270 OPT VOR/DME to LEVTA/RARIT. Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
- If STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR.
  Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

DESIGNATOR ARRIVAL ROUTE	ARRIVAL ROUTE AND LEVEL INSTRUCTIONS
DENAK 3F	RDL343 OPT VOR/DME inbound to OPT VOR/DME at LUROD turn RIGHT, BRG 259 OTR/OPE NDB to RARIT/LEVTA.
IDARU 6F	RDL 076 OPT VOR/DME, inbound to OPT VOR/DME to SUSUR, intercept BRG 259 OTR/OPE NDB to RARIT/LEVTA.
NETUL 6F	RDL 066 OPT VOR/DME inbound to OPT VOR/DME to LOVIS, intercept BRG 259 OTR/OPE NDB to RARIT/LEVTA.
OBUGA 5F	RDL 210 OPT VOR/DME inbound to OPT VOR/DME to AMODA, turn LEFT to LEVTA/RARIT.
OSTAL 4F	RDL 149 OPT VOR/DME inbound to OPT VOR/DME to BUSOK, turn LEFT to LEVTA/RARIT.
SORDU 3F	RDL 198 FLR VOR/DME inbound to FLR VOR/DME, turn RIGHT, RDL 081 FLR VOR/DME at AMODA turn LEFT to LEVTA/RARIT.
TOSVI 1F	RDL 298 FLR VOR/DME inbound to FLR VOR/DME, RDL 081FLR VOR/DME to AMODA, turn LEFT to LEVTA/RARIT.

OPT VOR/DME AREA



Holding available only for RCF procedures

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

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

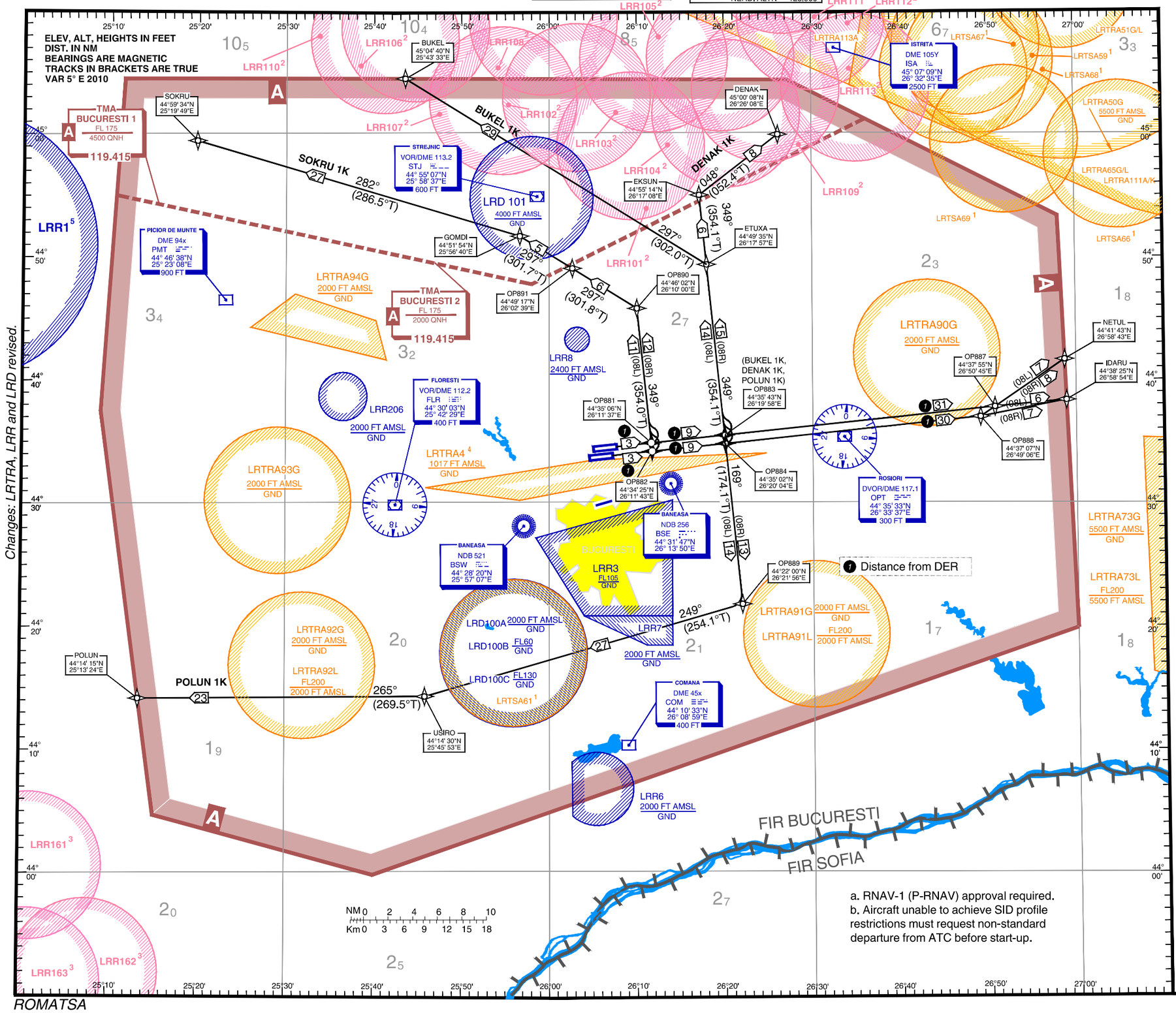
TRANSITION ALTITUDE
4000 FT

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI DEL	121.955

SECTOR	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Henri Coandă (LROP)
RWY 08L/R
BUKEL 1K, DENAK 1K, IDARU 1K
NETUL 1K, POLUN 1K, SOKRU 1K



RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

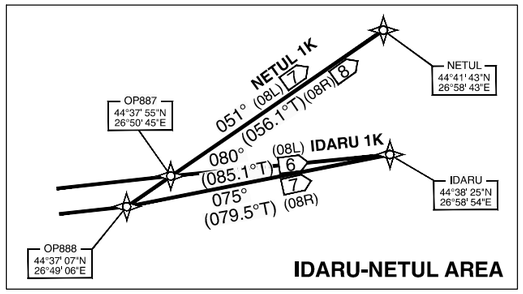
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.

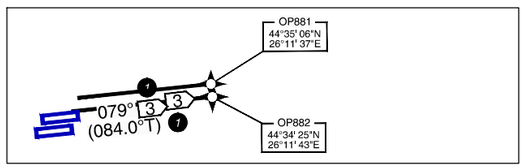
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

RNAV DEPARTURE PROCEDURE

DESIGNATOR	ROUTING	REMARKS
BUKEL 1K *	OP883[K270-] (08L) / OP884[K270-] (08R) - ETUXA - BUKEL[F110+]	Not available for traffic to NEPOT. PDG min 3.5% until BUKEL due to airspace structure.
DENAK 1K *	OP883[K270-] (08L) / OP884[K270-] (08R) - ETUXA - EKSUN - DENAK[F110+]	PDG min 5.0% until DENAK due to airspace structure.
IDARU 1K	OP887(08L) / OP888 (08R) - IDARU	None
NETUL 1K	OP887(08L) / OP888 (08R) - NETUL	None
POLUN 1K *	OP883[A4000+; K250-] (08L) / OP884[A4000+; K250-] (08R) - OP889 - USIRO - POLUN	Not available for traffic to MOPUG. RWY 08L: PDG min 7.0% until OP883 due to airspace structure. RWY 08R: PDG min 6.7% until OP884 due to airspace structure.
SOKRU 1K	OP881[A900+; K220-] (08L) / OP882[K220-] (08R) - OP890 - OP891[F045+] - GOMDI - SOKRU[F110+]	Not available for traffic to DIRER. PDG min 3.5% until SOKRU due to airspace structure. RWY 08L: PDG min 3.4% until OP881 due to obstacles.

* If unable to comply, contact ATC before start-up.
Underlined WPT are flyover.





NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits FL255 / GND

3. Vertical limits FL240 / GND

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: FL60 / GND for subsonic FLT
FL660 / GND for supersonic FLT

TEMPORARY RESERVED AREAS

Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
BUKEL	450440.121N	0254332.572E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
~~DEXIM~~	~~444233.075N~~	~~0264514.335E~~	~~fly-by~~
EKSUN	445513.731N	0261708.121E	fly-by
~~ELKAV~~	~~445543.219N~~	~~0265138.107E~~	~~fly-by~~
ETUXA	444934.939N	0261757.475E	fly-by
GOMDI	445154.285N	0255639.717E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
OP881	443505.531N	0261136.734E	flyover
OP882	443424.940N	0261142.684E	flyover
OP883	443542.748N	0261957.990E	flyover
OP884	443502.161N	0262003.842E	flyover
~~OP885~~	~~443704.432N~~	~~0263848.993E~~	~~fly-by~~
~~OP886~~	~~443619.747N~~	~~0263756.725E~~	~~fly-by~~
OP887	443754.519N	0265045.222E	fly-by
OP888	443706.677N	0264905.656E	fly-by
OP889	442159.577N	0262156.214E	fly-by
OP890	444602.123N	0261000.159E	fly-by
OP891	444916.707N	0260238.662E	fly-by
POLUN	441414.722N	0251324.144E	fly-by
SOKRU	445934.136N	0251949.048E	fly-by
~~TABAV~~	~~445322.808N~~	~~0265801.012E~~	~~fly-by~~
USIRO	441430.397N	0254552.599E	fly-by

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

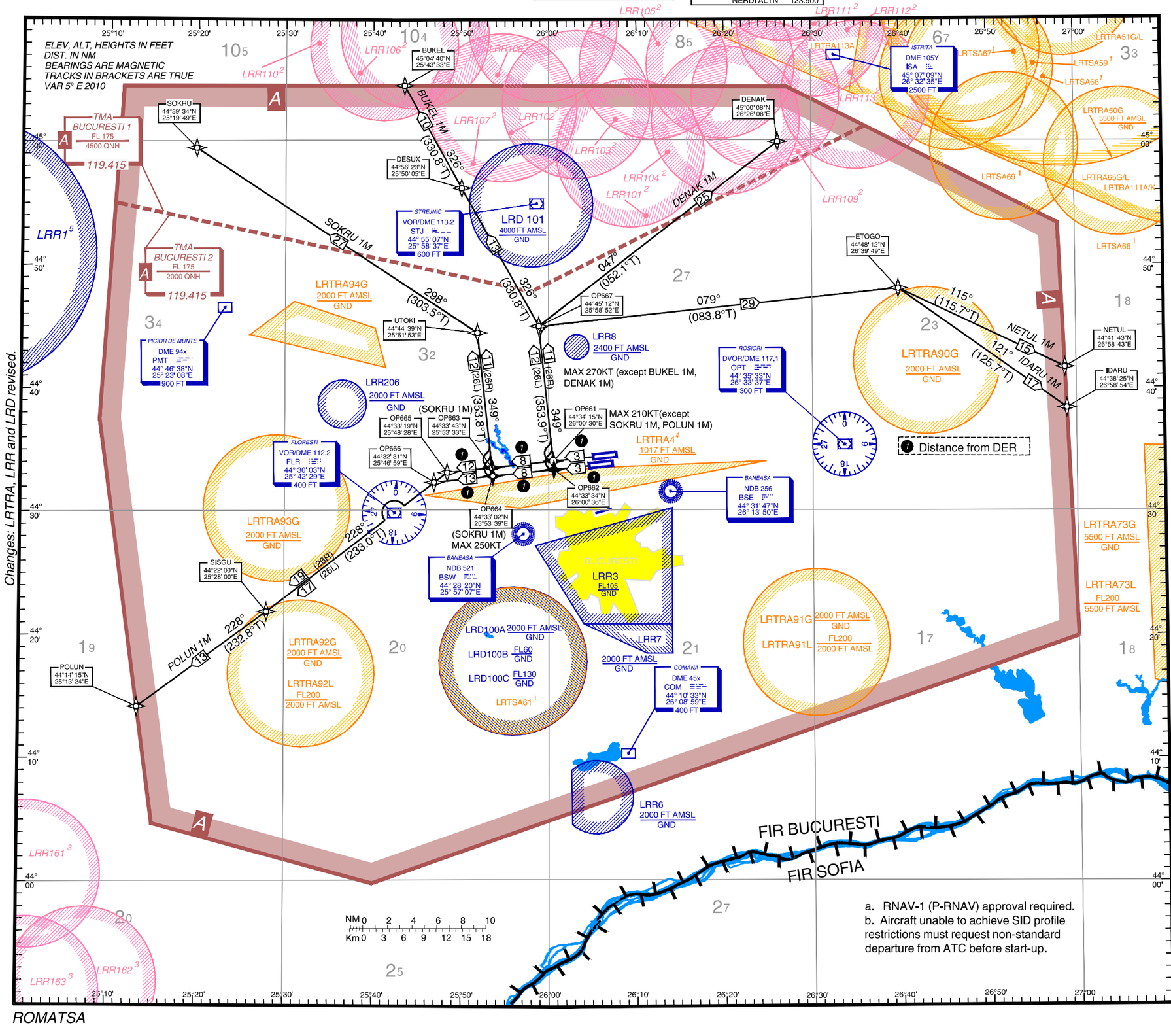
TRANSITION ALTITUDE
4000 FT

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI DEL	121.955

SECTOR	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

BUCUREŞTI / Henri Coandă (LROP)
RWY 26L/R
BUKEL 1M, DENAK 1M, IDARU 1M,
NETUL 1M, POLUN 1M, SOKRU 1M



RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.

b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

RNAV DEPARTURE PROCEDURE

DESIGNATOR	ROUTING	REMARKS
BUKEL 1M *	OP662[K210-] (26L) / OP661[K210-] (26R) - OP667[F045+] - DESUX - BUKEL[F110+]	Not available for traffic to NEPOT. Close-in Obstacles. PDG min 4.9% until BUKEL due to airspace structure.
DENAK 1M *	OP662[K210-] (26L) / OP661[K210-] (26R) - OP667 - DENAK[F110+]	Close-in Obstacles. PDG min 4.7% until DENAK due to airspace structure.
IDARU 1M	OP662[K210-] (26L) / OP661[K210-] (26R) - OP667[K270-] - ETOGO - IDARU	Close-in Obstacles.
NETUL 1M	OP662[K210-] (26L) / OP661[K210-] (26R) - OP667[K270-] - ETOGO - NETUL	Close-in Obstacles.
POLUN 1M *	OP666[A4000+] (26L) / OP665[A4000+] (26R) - SISGU - POLUN[F100+]	Not available for traffic to MOPUG. Close-in Obstacles. RWY 26L: PDG min 4.9% until OP666 due to airspace structure. RWY 26R: PDG min 5.2% until OP665 due to airspace structure.
SOKRU 1M	OP664[K250-] (26L) / OP663[K250-] (26R) - UTOKI - SOKRU[F110+]	Not available for traffic to DIRER. Close-in Obstacles. PDG min 3.9% until SOKRU due to airspace structure.

* If unable to comply, contact ATC before start-up.

Underlined WPT are flyover.

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{\text{FL255}}{\text{GND}}$

3. Vertical limits $\frac{\text{FL240}}{\text{GND}}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{\text{FL60}}{\text{GND}}$ for subsonic FLT

$\frac{\text{FL660}}{\text{GND}}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
BUKEL	450440.121N	0254332.572E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
DESUX	445622.808N	0255005.231E	fly-by
~~ELKAV~~	~~445543.219N~~	~~0265138.107E~~	~~fly-by~~
ETOGO	444812.135N	0263949.158E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
OP661	443415.091N	0260030.398E	flyover
OP662	443334.496N	0260036.476E	flyover
OP663	443342.936N	0255333.041E	flyover
OP664	443302.339N	0255339.201E	flyover
OP665	443319.188N	0254828.348E	fly-by
OP666	443231.096N	0254659.069E	fly-by
OP667	444511.509N	0255851.759E	fly-by
POLUN	441414.722N	0251324.144E	fly-by
SISGU	442209.891N	0252752.661E	fly-by
SOKRU	445934.136N	0251949.048E	fly-by
~~TABAV~~	~~445322.808N~~	~~0265801.012E~~	~~fly-by~~
UTOKI	444439.242N	0255153.111E	fly-by

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

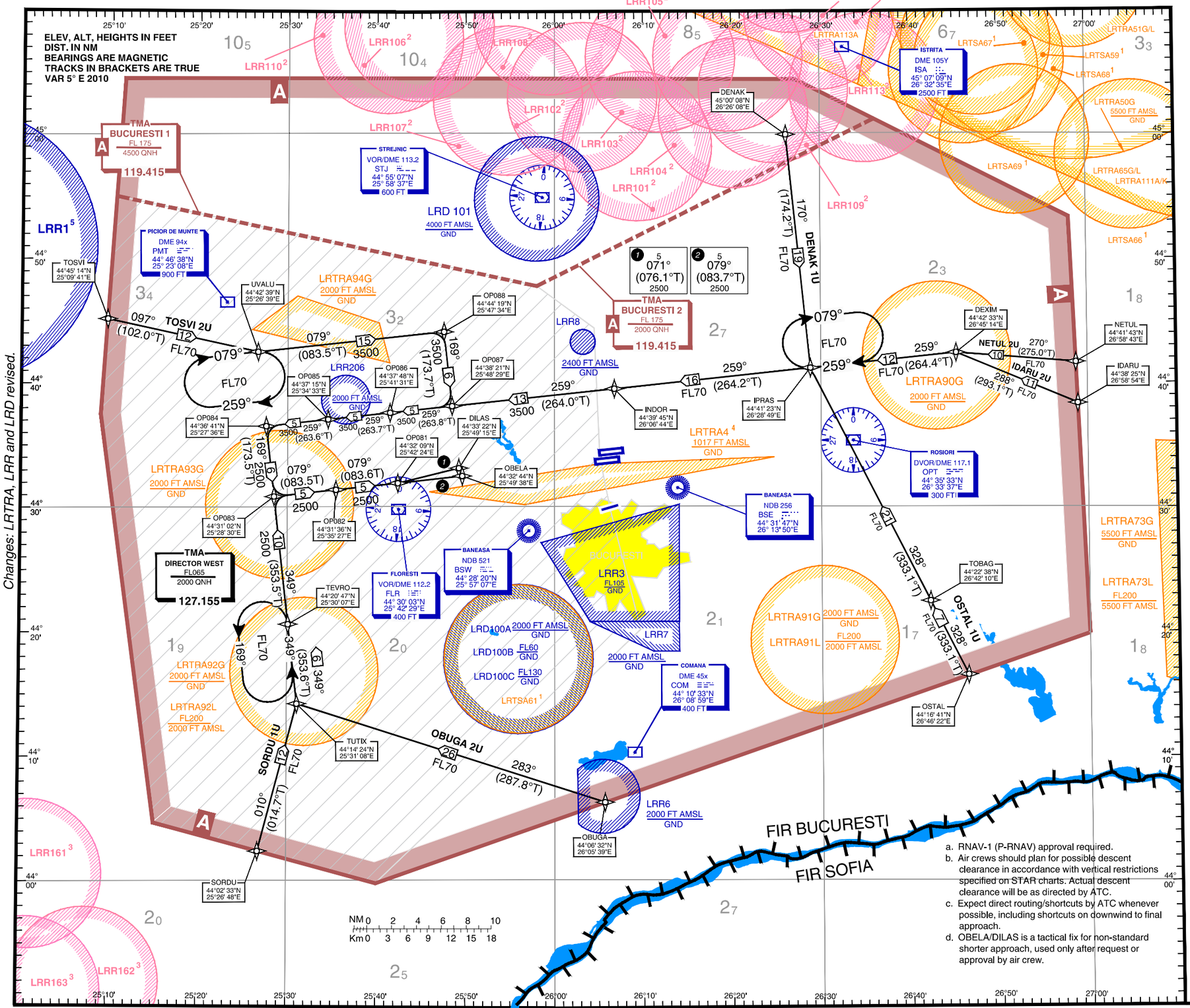
TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
RWY 08L/R
DENAK 1U, IDARU 2U, NETUL 2U
OBUGA 2U, OSTAL 1U, SORDU 1U, TOSVI 2U



Changes: LRTRA, LRR and LRD revised.

a. RNAV-1 (P-RNAV) approval required.
b. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on STAR charts. Actual descent clearance will be as directed by ATC.
c. Expect direct routing/shortcuts by ATC whenever possible, including shortcuts on downwind to final approach.
d. OBELA/DILAS is a tactical fix for non-standard shorter approach, used only after request or approval by air crew.

RADIO COMMUNICATION FAILURE

a) if RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
b) if RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to *OBELA/DILAS*. Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
c) if STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

RNAV ARRIVAL PROCEDURE	
DESIGNATOR	**ROUTING**
DENAK 1U	DENAK – IPRAS[F070+] – INDOR[F070+; K240-] – OP087[K230-] – OP086 – OP085 – OP084[A3500+; K220-] – OP083[K220-] – OP082 – OP081 – DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)
IDARU 2U	IDARU[F070+] - DEXIM - IPRAS[F070+] - INDOR[F070+; K240-] - OP087[K230-] - OP086 - OP085 - OP084[A3500+; K220-] - OP083[K220-] - OP082 - OP081 - DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)
NETUL 2U	IDARU[F070+] - DEXIM - IPRAS[F070+] - INDOR[F070+; K240-] - OP087[K230-] - OP086 - OP085 - OP084[A3500+; K220-] - OP083[K220-] - OP082 - OP081 - DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)
OBUGA 2U	OBUGA - TUTIX - TEVRO[F070+; K240-] - OP083[K220-] - OP082 - OP081 - DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)
OSTAL 1U	OSTAL - TOBAG - IPRAS[F070+] - INDOR[F070+; K240-] - OP087[K230-] - OP086 - OP085 - OP084[A3500+; K220-] - OP083[K220-] - OP082 - OP081 - DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)
SORDU 1U	SORDU - TUTIX - TEVRO[F070+; K240-] - OP083[K220-] - OP082 - OP081 - DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)
TOSVI 2U	TOSVI[F140-; K270-] - UVALU[F070+] - OP088[K230-] - OP087[K230-] - OP086 - OP085 - OP084[A3500+; K220-] - OP083[K220-] - OP082 - OP081 - DILAS[A2500+; K210-] (08L) / OBELA[A2500+; K210-] (08R)

NOTE: 1. Vertical limits are issued by NOTAM
2. Vertical limits FL255 / GND
3. Vertical limits FL240 / GND
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: FL60 / GND for subsonic FLT
FL660 / GND for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
DENAK	450008.205N	0262608.489E	fly-by
DEXIM	444233.075N	0264514.335E	fly-by
DILAS	443322.101N	0254914.534E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
INDOR	443945.251N	0260643.720E	fly-by
IPRAS	444123.131N	0262849.043E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
OBELA	443243.559N	0254938.210E	fly-by
OBUGA	440632.436N	0260539.380E	fly-by
OP081	443209.364N	0254223.583E	fly-by
OP082	443136.111N	0253526.669E	fly-by
OP083	443102.437N	0252829.898E	fly-by
OP084	443641.147N	0252735.999E	fly-by
OP085	443714.883N	0253433.431E	fly-by
OP086	443748.198N	0254131.008E	fly-by
OP087	443821.089N	0254828.725E	fly-by
OP088	444419.029N	0254733.699E	fly-by
OSTAL	441640.502N	0264622.377E	fly-by
SORDU	440233.097N	0252648.226E	fly-by
TEVRO	442047.081N	0253007.333E	fly-by
TOBAG	442237.978N	0264209.949E	fly-by
TOSVI	444514.010N	0250940.719E	fly-by
TUTIX	441424.422N	0253107.611E	fly-by
UVALU	444238.891N	0252638.864E	fly-by

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

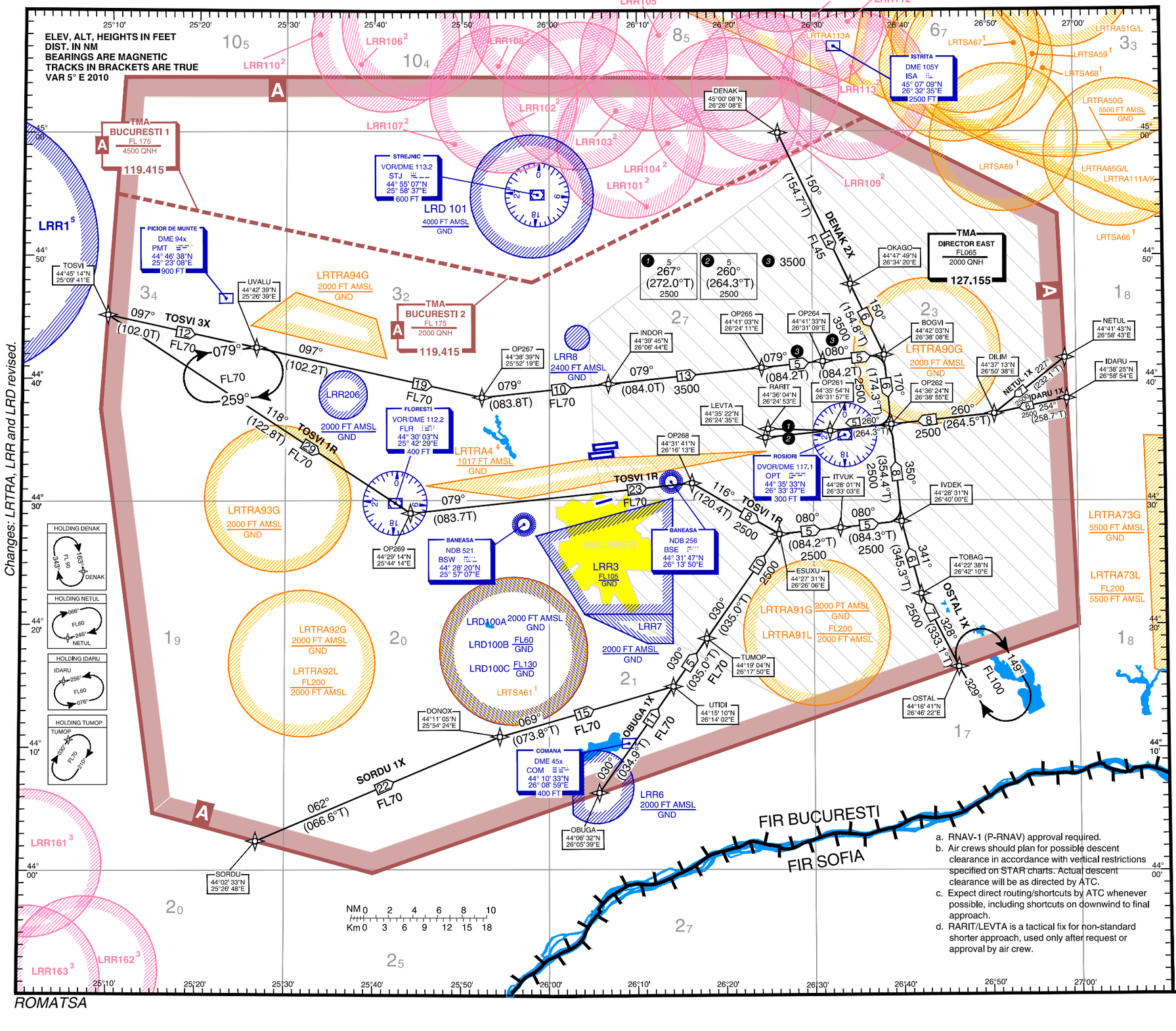
TRANSITION ALTITUDE
4000 ft

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
RWY 26L/R
DENAK 2X, IDARU 1X, NETUL 1X
OBUGA 1X, OSTAL 1X, SORDU 1X, TOSVI 1R, TOSVI 3X



a. RNAV-1 (P-RNAV) approval required.
b. Air crews should plan for possible descent clearance in accordance with vertical restrictions specified on STAR charts. Actual descent clearance will be as directed by ATC.
c. Expect direct routing/shortcuts by ATC whenever possible, including shortcuts on downwind to final approach.
d. RARIT/LEVTA is a tactical fix for non-standard shorter approach, used only after request or approval by air crew.

RADIO COMMUNICATION FAILURE

a) if RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
b) if RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to *RARIT/LEVTA*. Descending shall be executed in accordance with minimum altitude of Bucuresti TMA or vertical restrictions specified on Radar Minimum Altitude Chart, whichever is greater, but not less than 2500 ft.
c) if STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

RNAV ARRIVAL PROCEDURE	
DESIGNATOR	**ROUTING**
DENAK 2X	DENAK - OKAGO[F045+] - BOGVI[A3500+;K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
IDARU 1X	IDARU - DILIM[K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
NETUL 1X	NETUL - DILIM[K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
OBUGA 1X	OBUGA - UTIDI - TUMOP[F070+] - ESUXU[K230-] - ITVUK - IVDEK[K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
OSTAL 1X	OSTAL – TOBAG – IVDEK[K220-] – OP262 – OP261 – LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
SORDU 1X	SORDU - DONOX - UTIDI - TUMOP[F070+] - ESUXU[K230-] - ITVUK - IVDEK[K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
TOSVI 1R	TOSVI[F170-] - OP269 - OP268[FL070+; K230-] - ESUXI[K230-] - ITVUK - IVDEK[K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)
TOSVI 3X	TOSVI[F170-] - UVALU[F070+] - OP267 - INDOR[FL070+] - OP265[K230-] - OP264 - BOGVI[A3500+; K220-] - OP262 - OP261 - LEVTA[A2500+; K210-] (26L) / RARIT[A2500+; K210-] (26R)

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{FL255}{GND}$

3. Vertical limits $\frac{FL240}{GND}$

4. During LRTRA4 activity, IFR flight is not affected

5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT

$\frac{FL660}{GND}$ for supersonic FLT

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

Changes: LRTRA, LRR and LRD revised.

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude	Type
1	2	3	4
BOGVI	444203.093N	0263807.810E	fly-by
DENAK	450008.205N	0262608.489E	fly-by
DILIM	443713.027N	0265037.704E	fly-by
DONOX	441105.174N	0255423.878E	fly-by
ESUXU	442730.793N	0262606.479E	fly-by
IDARU	443824.506N	0265854.475E	fly-by
INDOR	443945.251N	0260643.720E	fly-by
ITVUK	442800.963N	0263303.413E	fly-by
IVDEK	442830.711N	0264000.469E	fly-by
LEVTA	443522.004N	0262434.540E	fly-by
NETUL	444143.375N	0265842.826E	fly-by
OBUGA	440632.436N	0260539.380E	fly-by
OKAGO	444748.779N	0263419.568E	fly-by
OP261	443554.055N	0263156.977E	fly-by
OP262	443623.872N	0263854.962E	fly-by
OP264	444133.225N	0263109.155E	fly-by
OP265	444102.931N	0262410.624E	fly-by
OP267	443839.017N	0255218.761E	fly-by
OP268	443140.866N	0261612.538E	fly-by
OP269	442913.863N	0254414.476E	fly-by
OSTAL	441640.502N	0264622.377E	fly-by
RARIT	443604.377N	0262453.323E	fly-by
SORDU	440233.097N	0252648.226E	fly-by
TOBAG	442237.978N	0264209.949E	fly-by
TOSVI	444514.010N	0250940.719E	fly-by
TUMOP	441903.599N	0261749.709E	fly-by
UTIDI	441510.031N	0261401.934E	fly-by
UVALU	444238.891N	0252638.864E	fly-by

VISUAL OPERATIONS CHART

44° 34' 16" N
026° 05' 06" E

ELEV 314 FT

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI ATIS	118.500
OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

BUCUREȘTI VOLMET	126.800
BUCUREȘTI APPROACH	119.415
BUCUREȘTI APPROACH ALTN	120.600
BUCUREȘTI DIRECTOR	127.155
BUCUREȘTI DIRECTOR ALTN	120.600
BUCUREȘTI INFORMATION	129.400

BUCUREȘTI/
Henri Coandă (LROP)

Aircraft categories A and H

25°40'E 25°50'E 26°E 26°10'E 26°20'E 26°30'E

44°40'N 44°30'N

ELEV, ALT, HEIGHTS IN FEET
BRG ARE MAG

MAR 5.2010

Changes: LRD/LRR/ LRTRA revised.

BUCURESTI TMA1 A FL175 - 4500FT QNH
BUCURESTI TMA2 A FL175 - 2000FT QNH

LRTRA94G
2000 FT AMSL
GND

LRR8
2400 FT AMSL
GND

LRR206
2000FT QNH
GND

LRTRA90G
2000 FT AMSL
GND

LRR3
FL105
GND

LRTRA4
1017 FT AMSL
GND

LRTRA91L
FL200
2000 FT AMSL

LRTRA91G
2000 FT AMSL
GND

LRTSA61
ALT by NOTAM

LRD100B
FL60
GND

LRD100C
FL130
GND

LRD100A
2000 FT AMSL
GND

GORER
ARMOX
OBUDO
RASAR
SORUR
OGUPI*
GOTOB
PETAV
SONOB
ROTBI
RIRUX*
UNUSU
LILGU
MORAX
PATWA*
KAJNA
Trestieni
Ogrezeni
Gradinari
BABAK

370 OTL
267.5 OPW
318 OTR
349 OPE
256 BSE
521 BSW
112.2 FLR
117.1 OPT

LROP 08/26
LRBS 07/25

max 1000FT QNH
max 1500FT QNH

OTOPENI CTR C 2000FT AMSL
BANEASA CTR C 2000FT AMSL

738 942 615 938 Otopeni BUCURESTI

VFR Compulsory points
VFR Compulsory routes
Note: * For state aircraft only

1:200000
0 2 4 8 KM
0 1 2 4 NM

ATC SURVEILLANCE
MINIMUM ALTITUDE CHART - ICAO

TRANSITION ALTITUDE
4000 ft

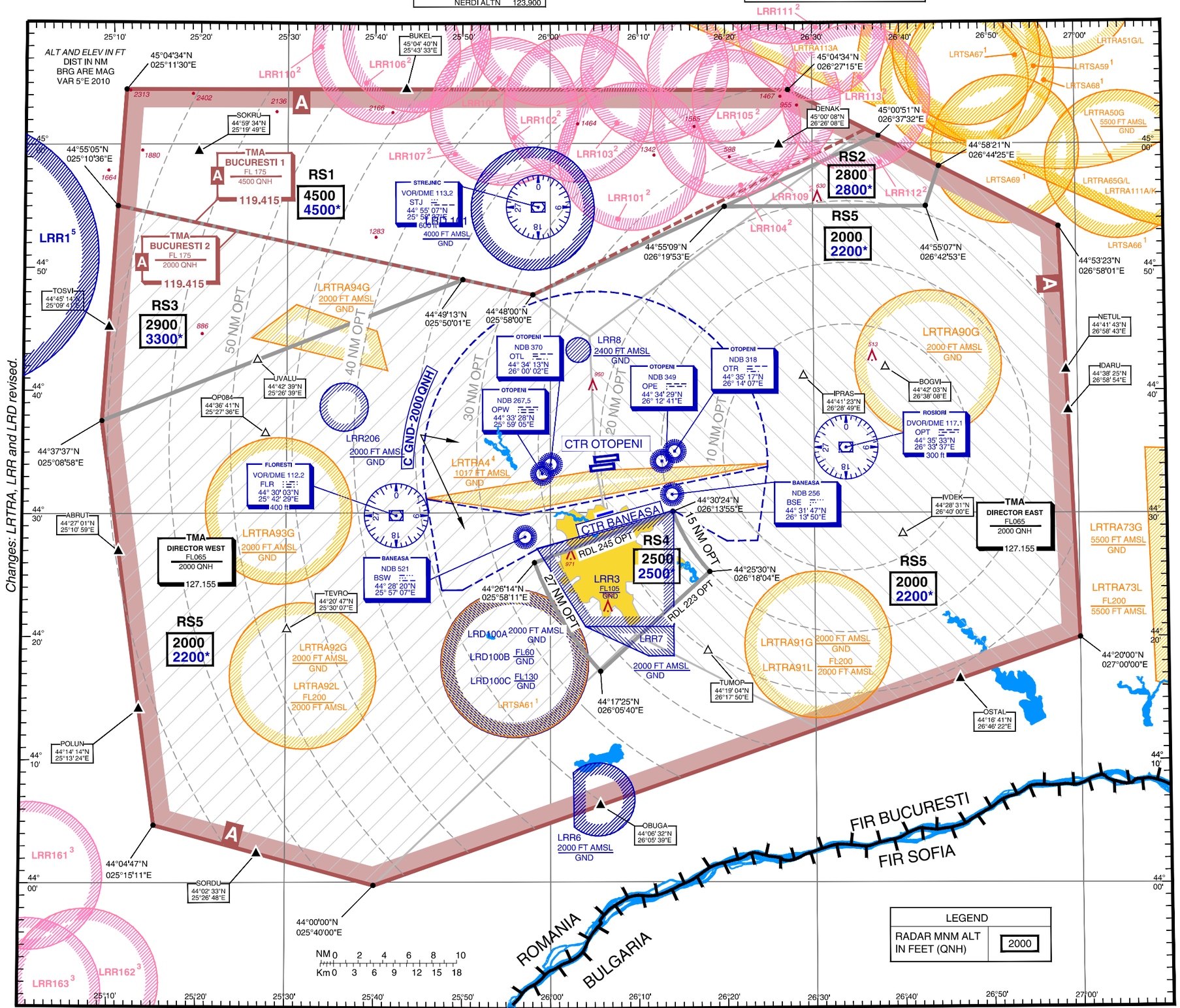
AERODROME ELEV 314 ft

SECTOR		
	LOMOS	122.030
	LOMOS ALTN	126.080
	KOMAN	129.755
	KOMAN ALTN	126.080
	ARGES	121.180
	ARGES ALTN	124.975
	NERDI	125.155
	NERDI ALTN	123.900

OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700

OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Henri Coandă (LROP)



Changes: LRTRA, LRR and LRD revised.

IN CASE OF COMMUNICATION FAILURE

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

Minimum altitudes integrating a correction for low temperatures from **+2°C and **lower**.*

NOTE : LEVELS ASSIGNED BY ATC INCLUDE A CORRECTION FOR LOW TEMPERATURE EFFECT WHEN NECESSARY

NOTE: 1. Vertical limits are issued by NOTAM

2. Vertical limits $\frac{FL255}{GND}$
3. Vertical limits $\frac{FL240}{GND}$
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: $\frac{FL60}{GND}$ for subsonic FLT
   $\frac{FL660}{GND}$ for supersonic FLT
6. Chart only to be used for cross-checking of altitudes assigned while under vectoring control.
7. Unless otherwise authorized or required by ATC, arriving aircraft shall be operated at an indicated airspeed of maximum 250KT below FL100.
8. BUCURESTI DIRECTOR (EAST or WEST) activates depending on the runway in use.

TEMPORARY RESERVED AREAS			
Identification	Vertical limits	Identification	Vertical limits
LRTRA51G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280
LRTRA51L	5500 FT AMSL - FL200	LRTRA111K	FL65 - FL280
LRTRA65G	GND - 5500 FT AMSL	LRTRA113A	FL130 - FL280
LRTRA65L	5500 FT AMSL - FL200		

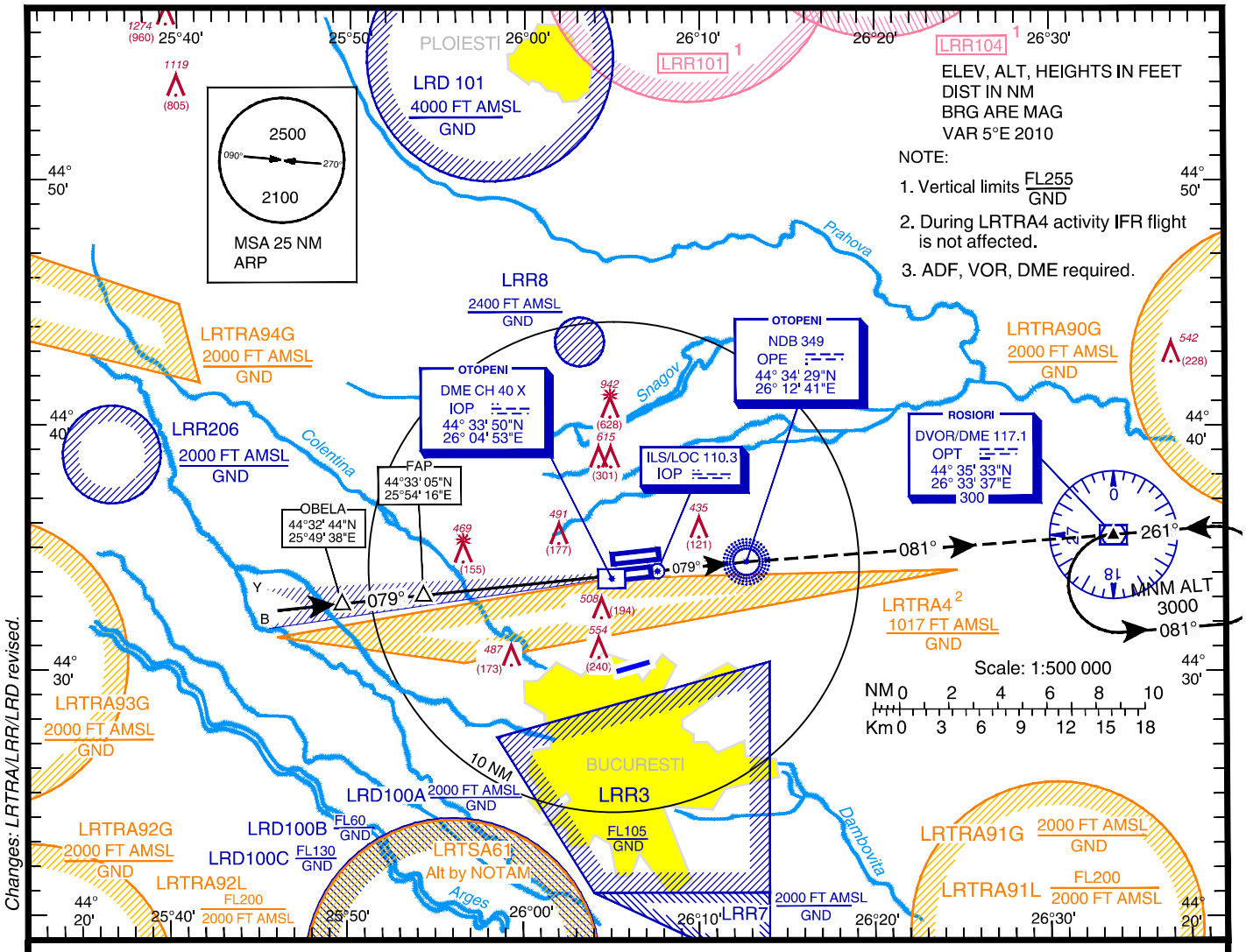
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO AD ELEV

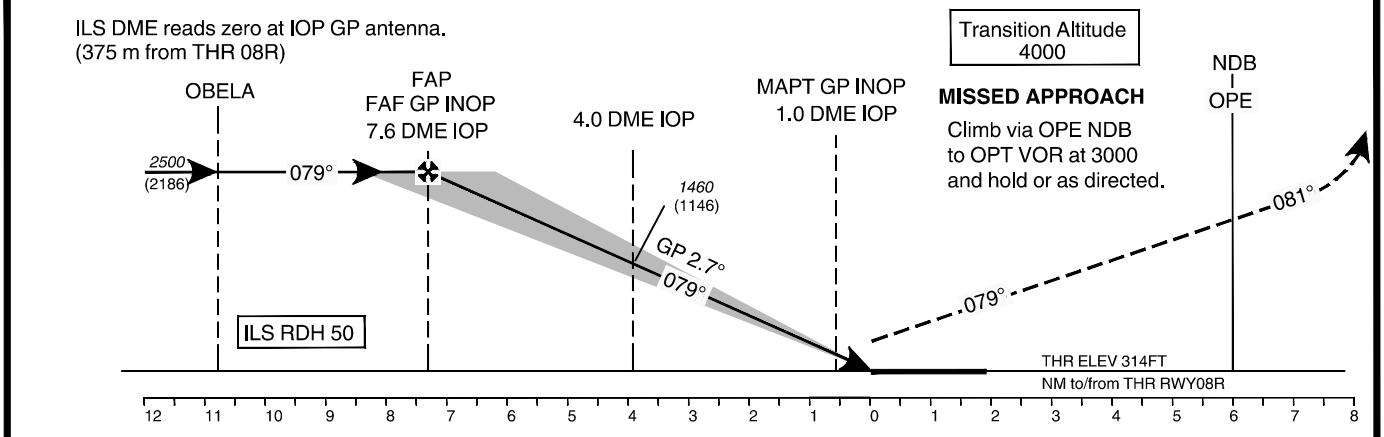
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
ILS
RWY 08R



Changes: LRTRA/LRR/LRD revised.



OCA/H		A	B	C	D
Straight-in approach	ILS CAT I	452 (138)	458 (144)	468 (154)	475 (161)
	ILS CAT II	363 (49)	373 (59)	386 (72)	399 (85)
	ILS GP INOP	690 (376)			
Circling*		780	790	1010	

Cat III approved. RVR not less than 200m.
* Circling NORTH of airport only

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.6 NM	min:s	5:40	4:24	3:58	3:18	2:50	2:28
Rate of descent	ft/min	334	430	478	573	669	764

Distance to IOP DME	NM	6	5	4	3	2	1
Altitude (Height)	ft	2033 (1719)	1747 (1433)	1460 (1146)	1174 (860)	887 (573)	601 (287)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
ILS RWY 08R

AERONAUTICAL DATA TABULATION

ILS approach to RWY 08R from OBELA	
OBELA	44º32’43.6”N 025º49’38.2”E
FAP/FAF GP INOP	44º33’05.2”N 025º54’15.6”E
4.0 DME IOP (Height Check/Stepdown ILS GP INOP)	44º33’28.5”N 025º59’18.4”E
1.0 DME IOP (MAPT GP INOP)	44º33’47.7”N 026º03’28.9”E
THR RWY 08R	44º33’52.78”N 026º04’36.29”E
IOP LOC	44º34’06.4”N 026º07’36.0”E
OPE NDB	44º34’29.2”N 026º12’40.5”E
OPT VOR/DME	44º35’32.6”N 026º33’36.6”E

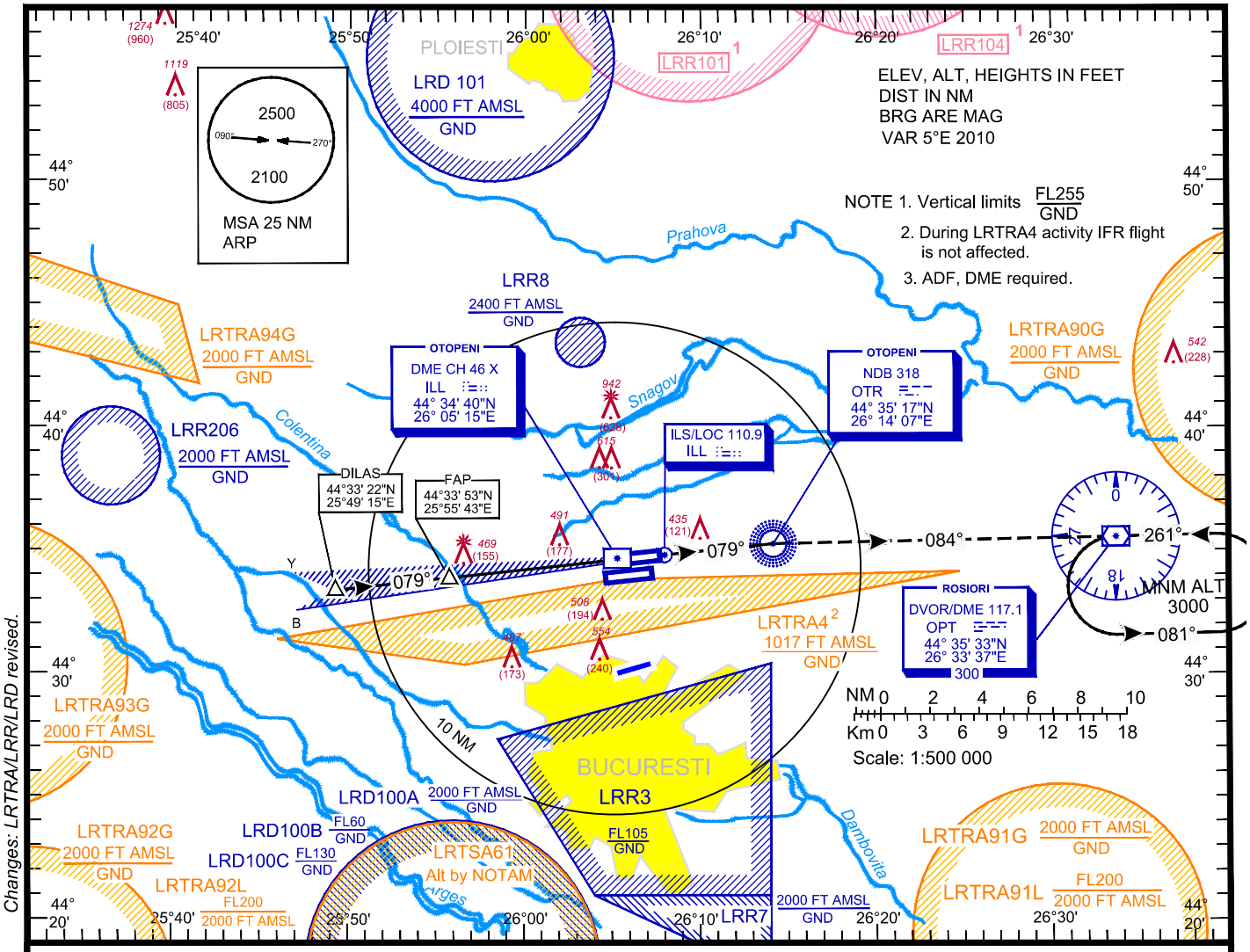
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 314 FT
HEIGHTS RELATED TO
THR RWY 08L - ELEV. 314 FT

BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI
Henri Coandă (LROP)
ILS
RWY 08L

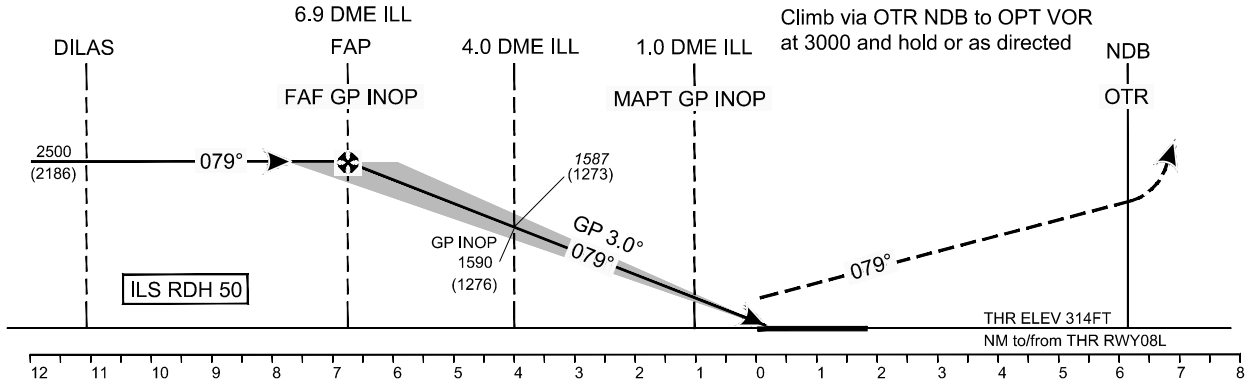


Changes: LRTRA/LRR/LRD revised.

Transition Altitude
4000

ILS DME reads zero at ILL GP antenna.
(328 m from THR 08L)

MISSED APPROACH
Climb via OTR NDB to OPT VOR at 3000 and hold or as directed



OCA/H		A	B	C	D
Straight-in approach	ILS CAT I	456 (142)	466 (152)	476 (162)	489 (175)
	ILS CAT II	361 (47)	374 (60)	384 (70)	397 (83)
	ILS GP INOP	690 (376)			
Circling*		780	790	1010	

GS	kts	70	90	100	120	140	160
FAF-MAPT 5.9 NM	min:s	5:04	3:56	3:32	2:57	2:32	2:13
Rate of descent	ft/min	372	478	531	637	743	849

Distance to ILL DME	NM	5	4	3	2
Altitude (Height)	ft	1905 (1591)	1587 (1273)	1268 (954)	950 (636)

* Circling NORTH of airport only.

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
ILS RWY 08L

AERONAUTICAL DATA TABULATION

ILS approach to RWY 08L from DILAS	
DILAS	44°33'22.1"N 025°49'14.5"E
6.9 DME ILL (FAF GP INOP)	44°33'53.0"N 025°55'43.3"E
4.0 DME ILL (Height Check/Stepdown ILS GP INOP)	44°34'11.4"N 025°59'42.7"E
1.0 DME ILL (MAPT GP INOP)	44°34'30.6"N 026°03'53.2"E
THR RWY 08L	44°34'35.84"N 026°05'02.76"E
ILL LOC	44°34'49.0"N 026°07'56.8"E
OTR NDB	44°35'16.8"N 026°14'07.3"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E

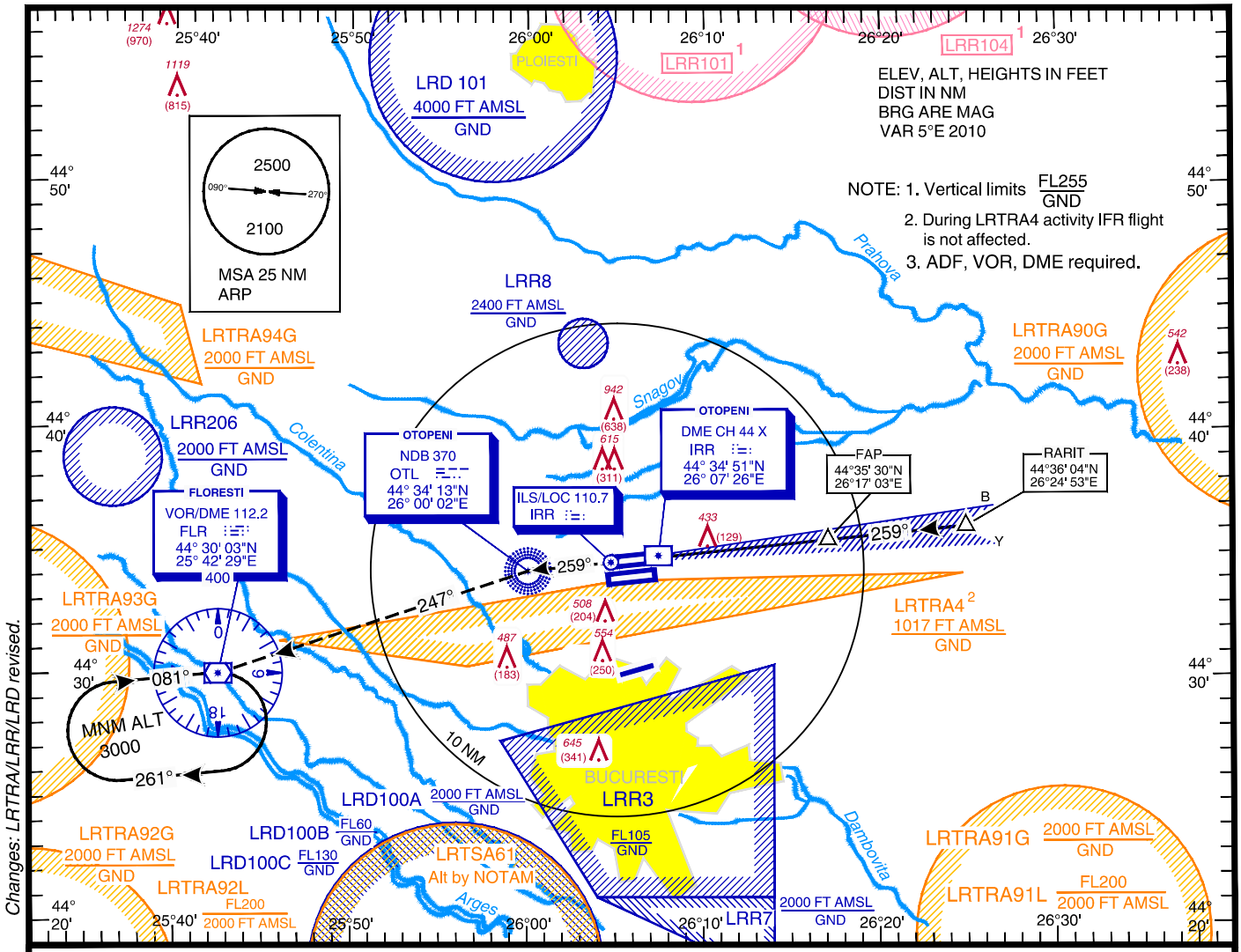
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV.**314 FT**
HEIGHTS RELATED TO THR RWY 26R - ELEV 304 FT

BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

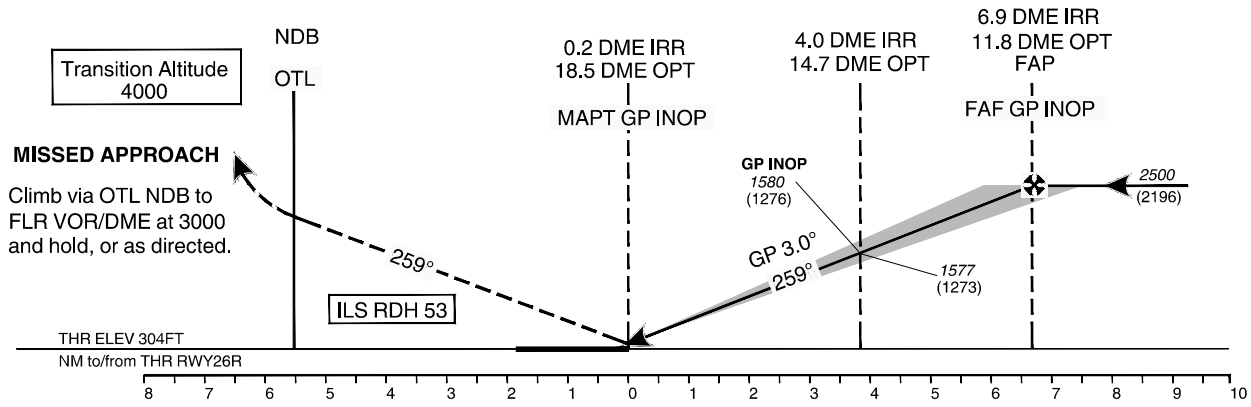
OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
ILS
RWY 26R



Changes: LRTRA/LRR/LRD revised.

ILS DME reads zero at IRR GP antenna
(299 m from THR 26R)



OCA/H		A	B	C	D
Straight-in approach	ILS CAT I	478 (174)	490 (186)	498 (194)	509 (205)
	ILS GP INOP	680 (376)			
	Circling*	780	790	1010	

* Circling NORTH of airport only.

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:45	4:28	4:01	3:21	2:52	2:31
Rate of descent	ft/min	372	478	531	637	743	849
Timing not authorized for defining the MAPt.							

Distance to IRR DME	NM	1	2	3	4	5	6
Altitude (Height)	ft	621 (317)	940 (636)	1258 (954)	1577 (1273)	1895 (1591)	2214 (1910)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
ILS RWY 26R

AERONAUTICAL DATA TABULATION

ILS approach to RWY 26R from RARIT	
RARIT	44º36'04.4"N 026º24'53.3"E
6.9 DME IRR (FAF GP INOP)	44º35'29.8"N 026º17'02.6"E
4.0 DME IRR (Height Check/Stepdown ILS GP INOP)	44º35'11.8"N 026º13'00.4"E
0.2 DME IRR (MAPt GP INOP)	44º34'47.7"N 026º07'40.0"E
THR RWY 26R	44º34'47.73"N 026º07'39.96"E
IRR LOC	44º34'34.4"N 026º04'44.4"E
OTL NDB	44º34'12.9"N 026º00'02.2"E
FLR VOR/DME	44º30'03.0"N 025º42'29.4"E

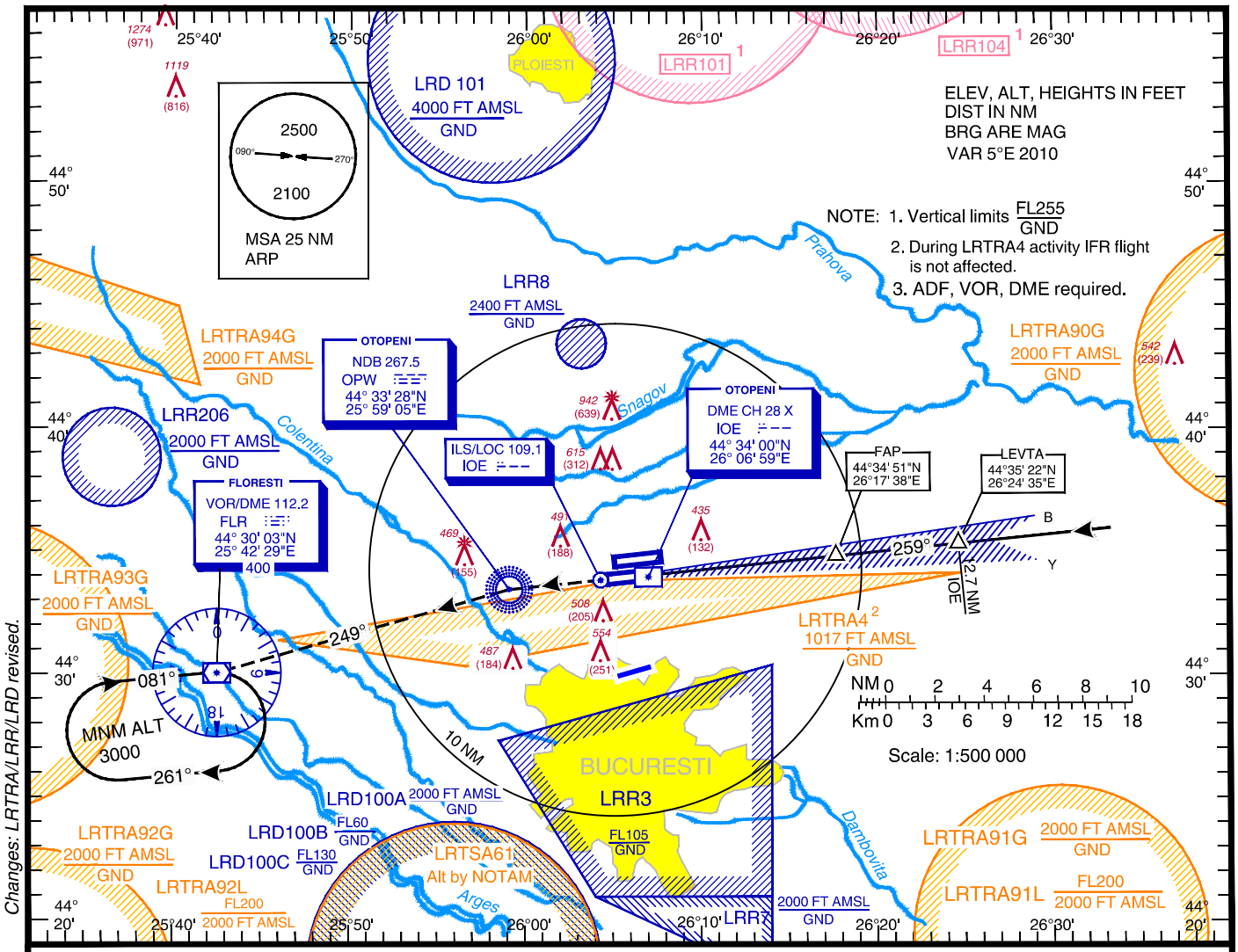
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **314FT**
HEIGHTS RELATED TO
THR RWY 26L - ELEV 303FT

BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

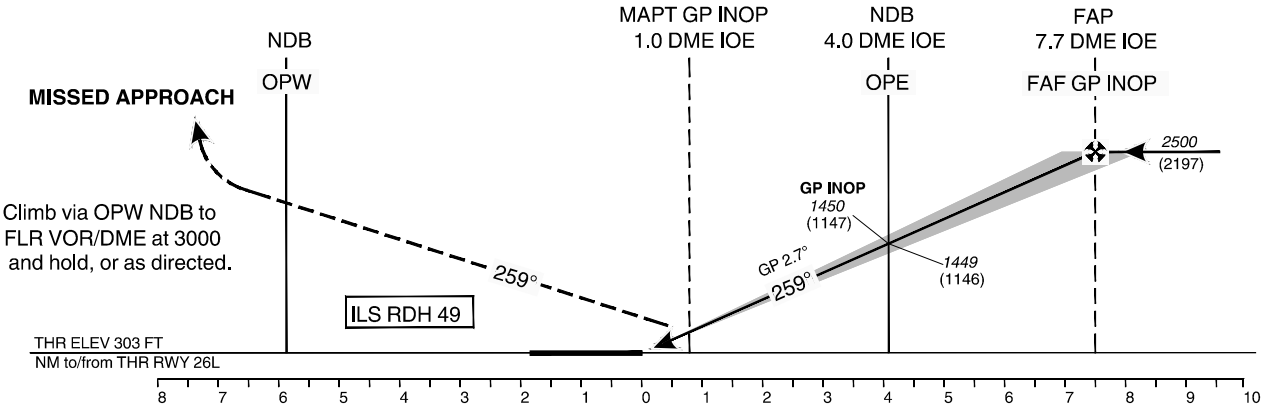
BUCUREŞTI / Henri Coandă (LROP)
ILS
RWY 26L



Changes: LRTRA/LRR/LRD revised.

ILS DME reads zero at IOE GP antenna.
(365 m from THR 26L)

Transition Altitude
4000



OCA/H		A	B	C	D
Straight-in approach	ILS CAT I	439 (136)	447 (144)	456 (153)	464 (161)
	ILS GP INOP	730 (427)			
Circling*		780	790	1010	

*Circling NORTH of airport only.

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:45	4:28	4:01	3:21	2:52	2:31
Rate of descent	ft/min	333	428	476	571	666	762

Distance to IOE DME	NM	2	3	4	5	6	7
Altitude (Height)	ft	876 (573)	1163 (860)	1449 (1146)	1736 (1433)	2022 (1719)	2309 (2006)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
ILS RWY 26L

AERONAUTICAL DATA TABULATION

ILS approach to RWY 26L from LEVTA	
LEVTA	44°35'22.0'N 026°24'34.5'E
7.7 DME IOE (FAF GP INOP)	44°34'51.4'N 026°17'38.2'E
4.0 DME IOE (Height check / Stepdown GP INOP)	44°34'28.6'N 026°12'32.0'E
1.0 DME IOE (MAPT GP INOP)	44°34'09.8'N 026°08'21.4'E
THR RWY 26L	44°34'04.69'N 026°07'13.54'E
LOC IOE	44°33'51.2'N 026°04'15.9'E
OPW NDB	44°33'27.9'N 025°59'04.7'E
FLR VOR/DME	44°30'03.0'N 025°42'29.4'E

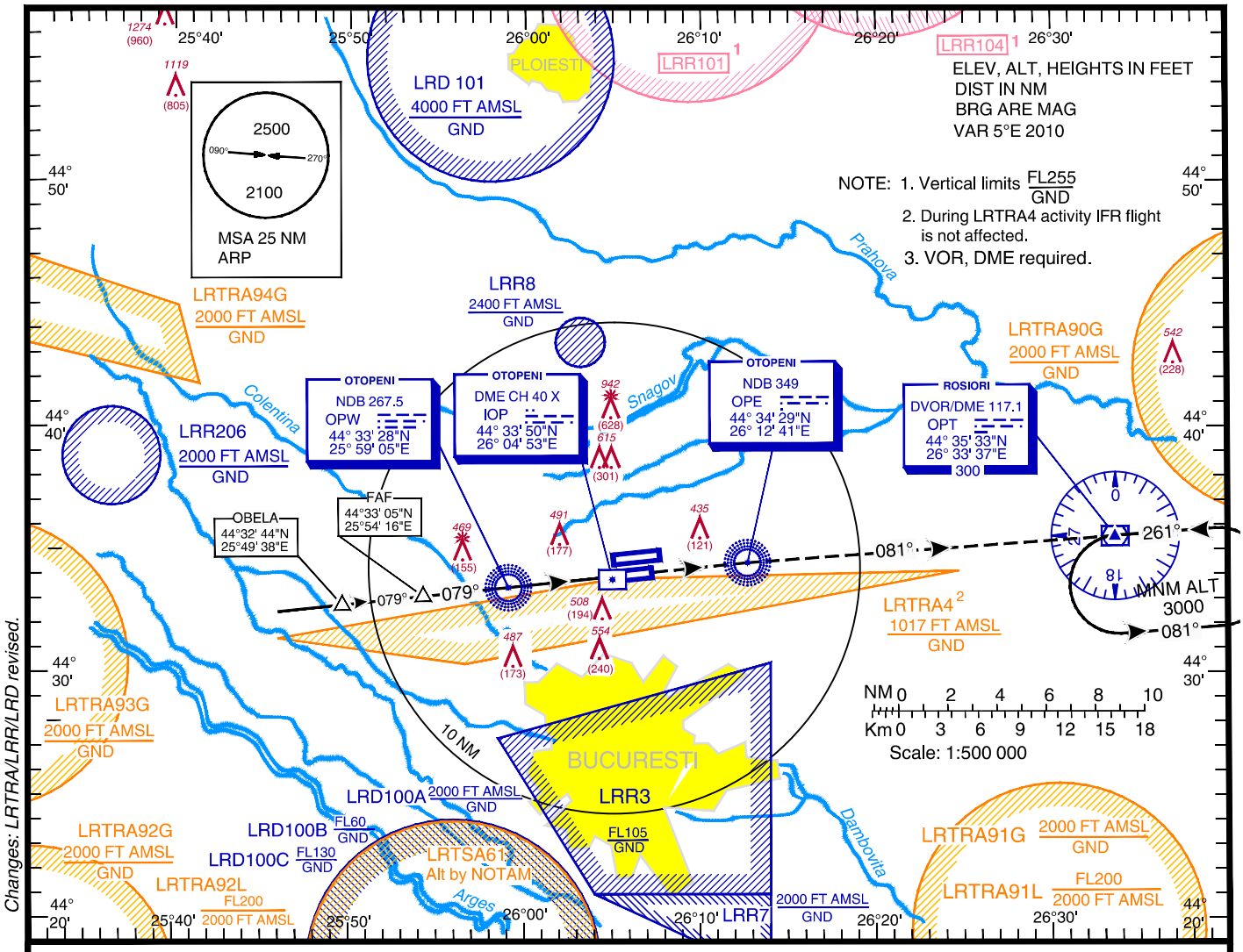
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO AD ELEV

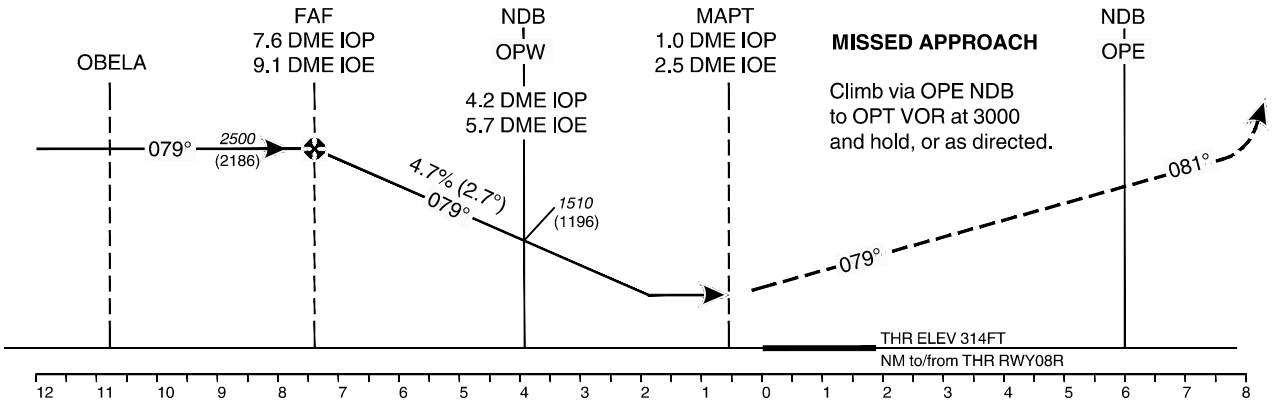
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
NDB
RWY 08R



Transition Altitude 4000



MISSED APPROACH

Climb via OPE NDB to OPT VOR at 3000 and hold, or as directed.

OCA/H	A	B	C	D
Straight-in approach	710 (396)		720 (406)	
Circling*	780	790	1010	

*Circling NORTH of airport only.

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.6 NM	min:s	5:40	4:24	3:58	3:18	2:50	2:28
Rate of descent	ft/min	334	430	478	573	669	764

Distance to IOP/IOE DME	NM	5/6.5	4/5.5	3/4.5	2/3.5
Altitude (Height)	ft	1747 (1433)	1460 (1146)	1174 (860)	887 (573)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
NDB RWY 08R

AERONAUTICAL DATA TABULATION

NDB approach to RWY 08R from OBELA	
OBELA	44º32'43.6'N 025º49'38.2'E
7.6 IOP / **9.1 IOE (**FAF)	44º33'05.2'N 025º54'15.6'E
OPW NDB 4.2 IOP / **5.7 IOE** (Stepdown)	44º33'27.9'N 025º59'04.7'E
1.0 IOP / **2.5 IOE** (MAPT)	44º33'47.7'N 026º03'28.9'E
THR RWY 08R	44º33'52.78'N 026º04'36.29'E
OPE NDB	44º34'29.2'N 026º12'40.5'E
OPT VOR/DME	44º35'32.6'N 026º33'36.6'E

Final approach descent angle: 2.70º

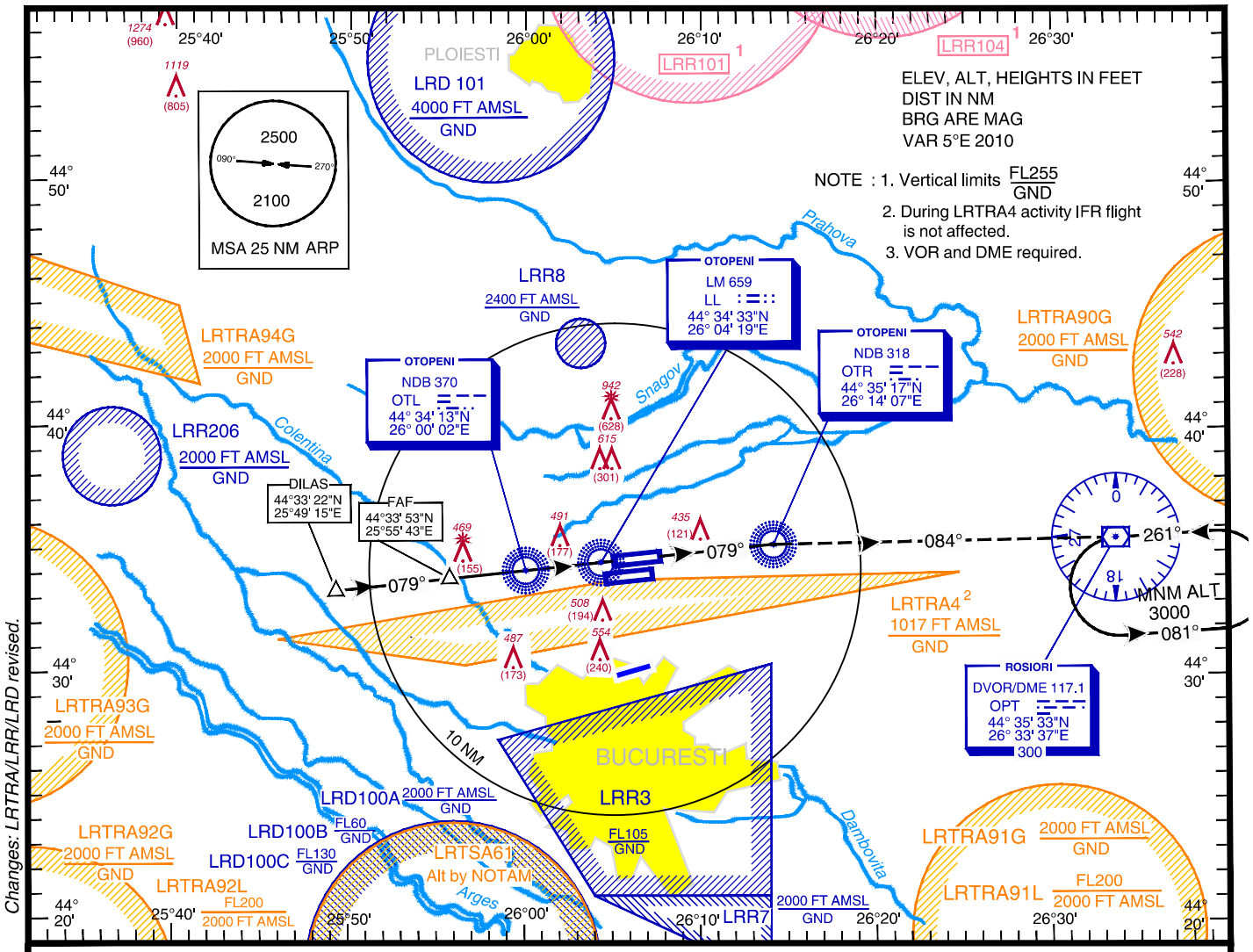
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV.**314 FT**
HEIGHTS RELATED TO AD ELEV

BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

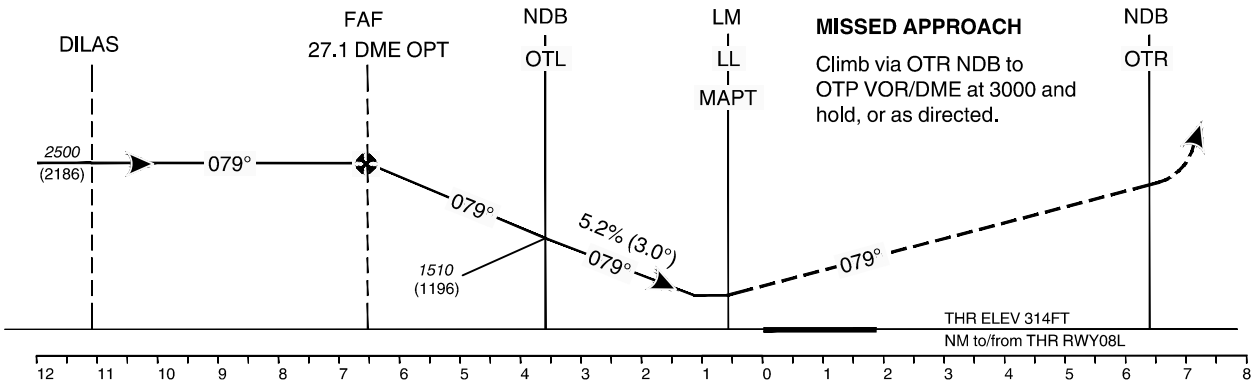
OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
NDB
RWY 08L



Changes: LRTRA/LRR/LRD revised.

Transition Altitude
4000



OCA/H	A	B	C	D
Straight-in approach	710 (396)		720 (406)	
Circling *	780	790	1010	

* Circling NORTH of airport only.

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.2 NM	min:s	5:19	4:08	3:43	3:06	2:40	2:19
Rate of descent	ft/min	372	478	531	637	743	849
For data tabulation see verso.							

BUCURESTI / Henri Coanda (LROP)
NDB RWY 08L

AERONAUTICAL DATA TABULATION

NDB approach to RWY 08L from DILAS	
DILAS	44°33'22.1"N 025°49'14.5"E
27.1 DME OPT (FAF)	44°33'53.0"N 025°55'43.3"E
OTL NDB (Stepdown)	44°34'12.9"N 026°00'02.2'E
LM LL (MAPT)	44°34'32.5"N 026°04'19.0"E
THR RWY 08L	44°34'35.84"N 026°05'02.76"E
OTR NDB	44°35'16.8"N 026°14'07.3"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E

Final approach descent angle: 3.00°

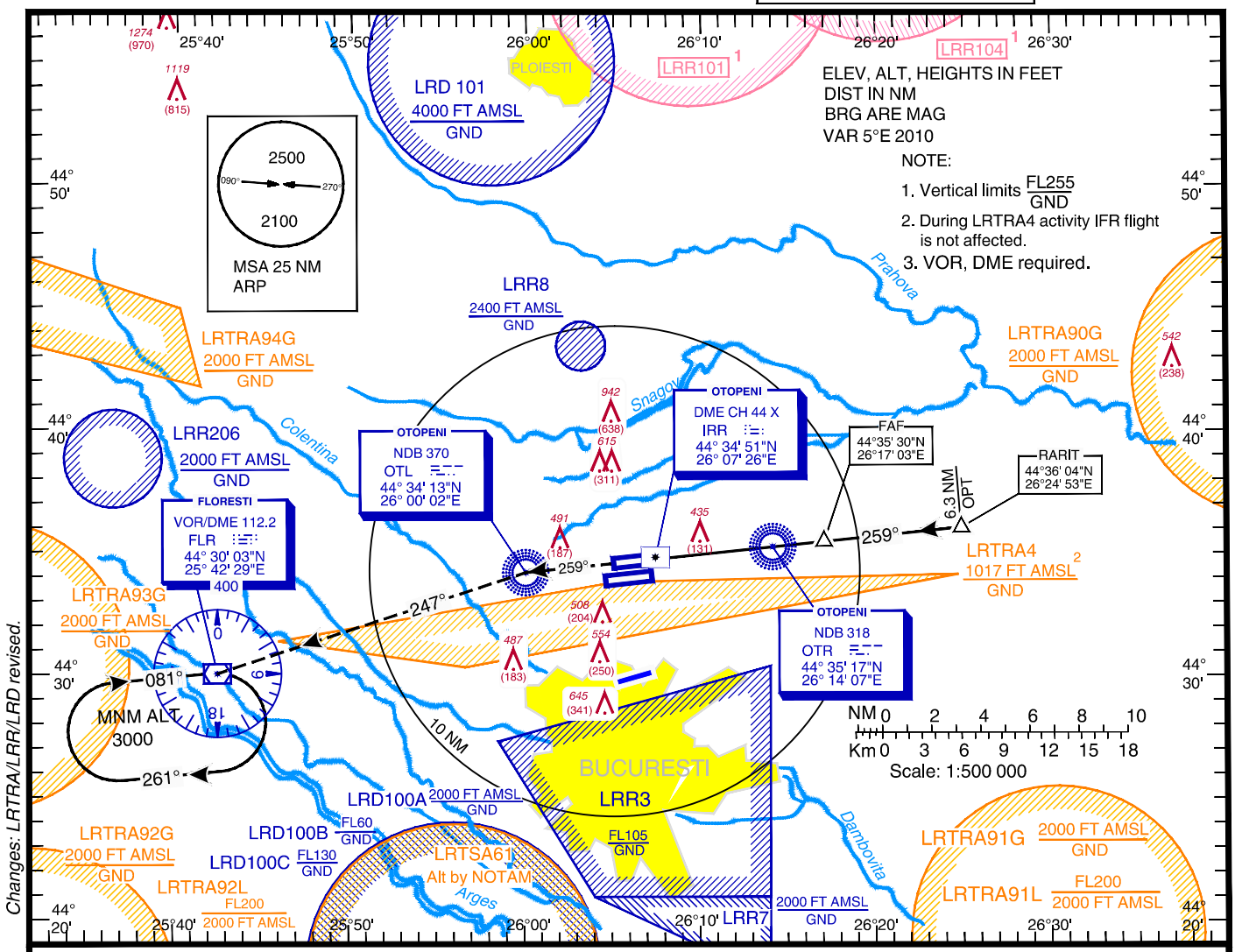
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO
THR RWY 26R - ELEV 304 FT

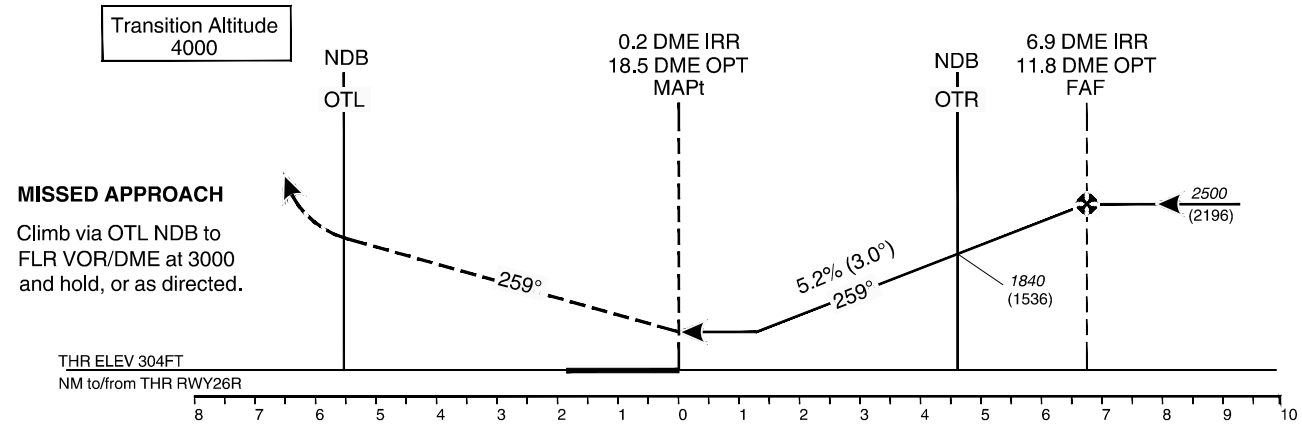
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCURESTI / Henri Coanda (LROP)
NDB
RWY 26R



Changes: LRTRA/LRR/LRD revised.



OCA/H	A	B	C	D
Straight-in approach	690 (386)			
Circling*	780	790	1010	

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:45	4:28	4:01	3:21	2:52	2:31
Rate of descent	ft/min	372	478	531	637	743	849
Timing not authorized for defining the MAPt.							

*Circling NORTH of airport only.

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
NDB RWY 26R

AERONAUTICAL DATA TABULATION

NDB approach to RWY 26R from RARIT	
RARIT	44º36'04.4"N 026º24'53.3"E
6.9 DME IRR (FAF)	44º35'29.8"N 026º17'02.6"E
OTR NDB (Stepdown)	44º35'16.8"N 026º14'07.3"E
0.2 DME IRR (MAPt)	44º34'47.7"N 026º07'40.0"E
THR RWY 26R	44º34'47.73"N 026º07'39.96"E
OTL NDB	44º34'12.9"N 026º00'02.2"E
FLR VOR/DME	44º30'03.0"N 025º42'29.4"E

Final approach descent angle: 3.00º

INSTRUMENT APPROACH CHART - ICAO

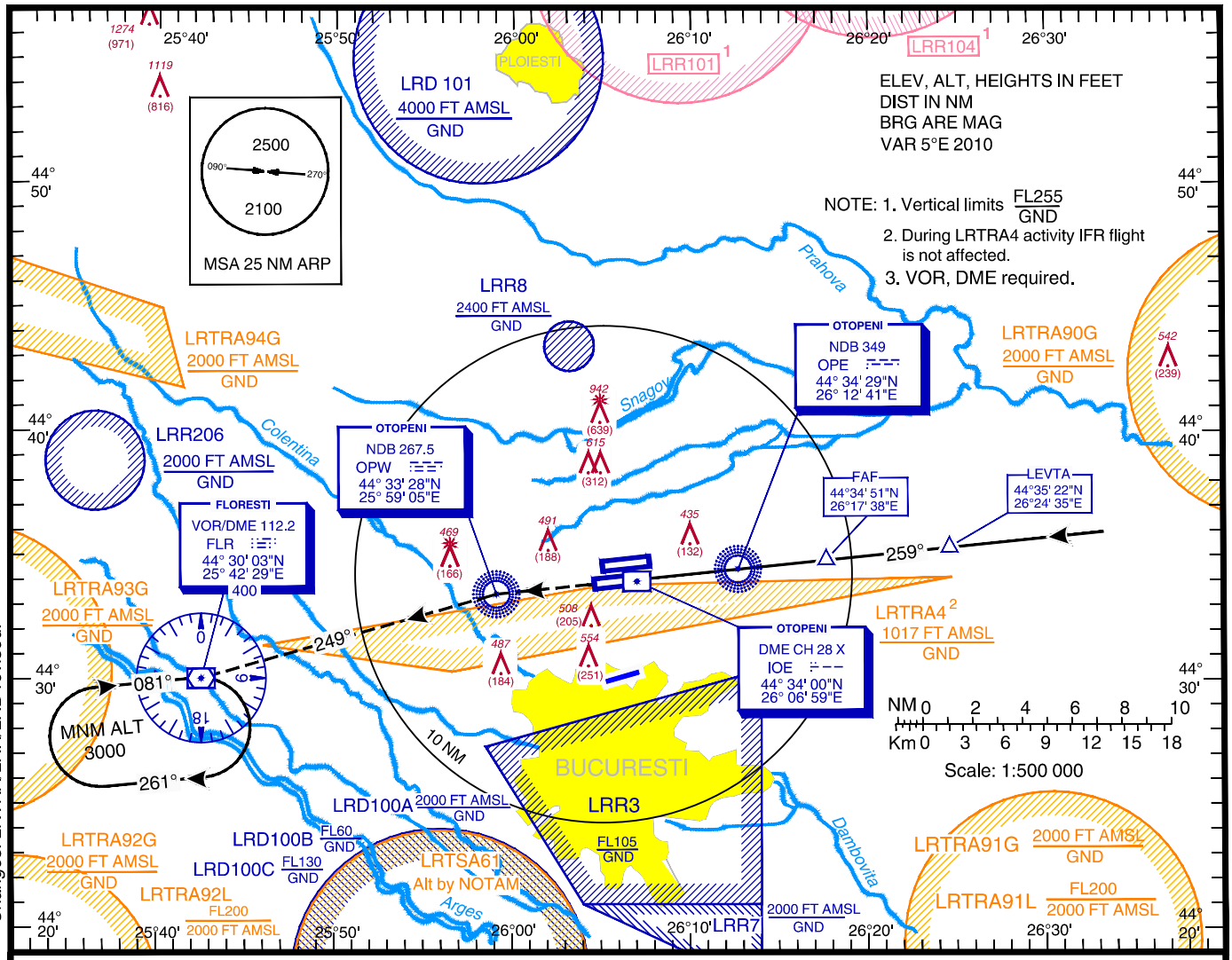
AERODROME ELEV. **314FT**
HEIGHTS RELATED TO
THR RWY 26L - ELEV 303FT

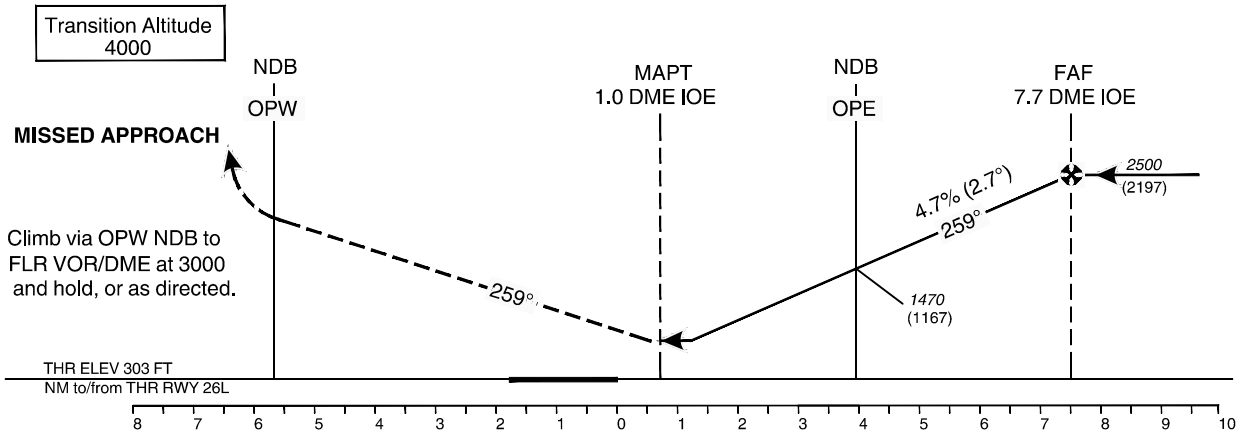
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
NDB
RWY 26L

Changes: LRTRA/LRR/LRD revised.





OCA/H	A	B	C	D
Straight-in approach	790 (487)			
Circling*	780	790	1010	

*Circling NORTH of airport only.

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:45	4:28	4:01	3:21	2:52	2:31
Rate of descent	ft/min	333	428	476	571	666	762

Distance to IOE DME	NM	2	3	4	5	6	7
Altitude (Height)	ft	876 (573)	1163 (860)	1449 (1146)	1736 (1433)	2022 (1719)	2309 (2006)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
NDB RWY 26L

AERONAUTICAL DATA TABULATION

NDB approach to RWY 26L from LEVTA	
LEVTA	44º35'22.0'N 026º24'34.5'E
7.7 DME IOE (FAF)	44º34'51.4'N 026º17'38.2'E
OPE NDB (Stepdown)	44º34'29.2'N 026º12'40.5'E
1.0 DME IOE (MAPT)	44º34'09.8'N 026º08'21.4'E
THR RWY 26L	44º34'04.69'N 026º07'13.54'E
OPW NDB	44º33'27.9'N 025º59'04.7'E
FLR VOR/DME	44º30'03.0'N 025º42'29.4'E

Final approach descent angle: 2.70º

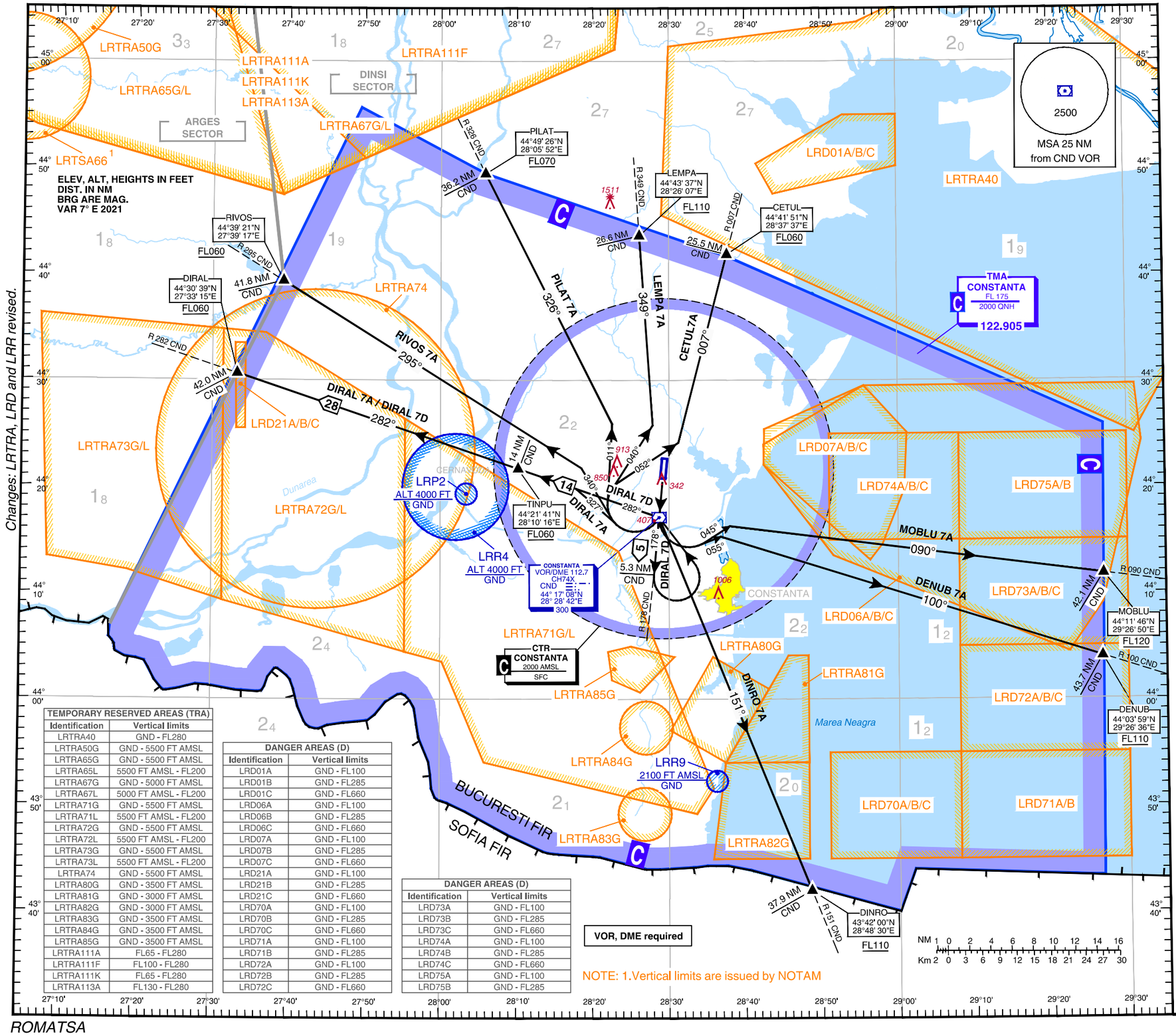
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO
CAT. A, B, C, D

TRANSITION ALTITUDE
4000 ft

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)
RWY 18
CETUL 7A, DENUB 7A, DINRO 7A, DIRAL 7A,
DIRAL 7D, LEMPA 7A, MOBLU 7A, PILAT 7A, RIVOS 7A



NOTE: 1.Vertical limits are issued by NOTAM

TEMPORARY RESERVED AREAS (TRA)

Identification	Vertical limits
LRTRA40	GND - FL280
LRTRA50G	GND - 5500 FT AMSL
LRTRA65G	GND - 5500 FT AMSL
LRTRA65L	5500 FT AMSL - FL200
LRTRA67G	GND - 5000 FT AMSL
LRTRA67L	5000 FT AMSL - FL200
LRTRA71G	GND - 5500 FT AMSL
LRTRA71L	5500 FT AMSL - FL200
LRTRA72G	GND - 5500 FT AMSL
LRTRA72L	5500 FT AMSL - FL200
LRTRA73G	GND - 5500 FT AMSL
LRTRA73L	5500 FT AMSL - FL200
LRTRA74	GND - 5500 FT AMSL
LRTRA80G	GND - 3500 FT AMSL
LRTRA81G	GND - 3000 FT AMSL
LRTRA82G	GND - 3000 FT AMSL
LRTRA83G	GND - 3500 FT AMSL
LRTRA84G	GND - 3500 FT AMSL
LRTRA85G	GND - 3500 FT AMSL
LRTRA111A	FL65 - FL280
LRTRA111F	FL100 - FL280
LRTRA111K	FL65 - FL280
LRTRA113A	FL130 - FL280

DANGER AREAS (D)

Identification	Vertical limits
LRD01A	GND - FL100
LRD01B	GND - FL285
LRD01C	GND - FL660
LRD06A	GND - FL100
LRD06B	GND - FL285
LRD06C	GND - FL660
LRD07A	GND - FL100
LRD07B	GND - FL285
LRD07C	GND - FL660
LRD21A	GND - FL100
LRD21B	GND - FL285
LRD21C	GND - FL660
LRD70A	GND - FL100
LRD70B	GND - FL285
LRD70C	GND - FL660
LRD71A	GND - FL100
LRD71B	GND - FL285
LRD72A	GND - FL100
LRD72B	GND - FL285
LRD72C	GND - FL660

DANGER AREAS (D)

Identification	Vertical limits
LRD73A	GND - FL100
LRD73B	GND - FL285
LRD73C	GND - FL660
LRD74A	GND - FL100
LRD74B	GND - FL285
LRD74C	GND - FL660
LRD75A	GND - FL100
LRD75B	GND - FL285

SID	Description
CETUL 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **RIGHT** heading **052°M** to intercept and follow **R007 CND** (007°M) to **CETUL**. Cross **CETUL** at or above **FL060**.
DENUB 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **LEFT** heading **055°M** to intercept and follow **R100 CND** (100°M) to **DENUB**. Cross **DENUB** at or above **FL110** (1). (1) ATS climb gradient 4.0%up to **FL110.** Advise ATC if unable to ensure the ATS climb gradient.
DINRO 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **LEFT** to intercept and follow **R151 CND** (151°M) to **DINRO**. Cross **DINRO** at or above **FL110** (1). (1) ATS climb gradient 4.3% up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.
DIRAL 7D	Climb on **R 358 CND** (178°M) to **CND**, then follow **R 178 CND** (178°M). At **5.3 CND**, turn **LEFT** direct to **CND**. At **CND** follow **R 282 CND** (282°M) to **DIRAL**. Cross **TINPU** at or above **FL060.**(1) (1) ATS climb gradient 4.1% up to **FL060**. Advise ATC if unable to ensure the ATS climb gradient.
DIRAL 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **RIGHT** heading **327°M** to intercept and follow **R 282 CND** (282°M) to **DIRAL**. Cross **TINPU** at or above **FL060.**(1) (1) ATS climb gradient 6.3% up to **FL060.** Advise ATC if unable to ensure the ATS climb gradient.
LEMPA 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **RIGHT** heading **040°M** to intercept and follow **R 349 CND** (349°M) to **LEMPA**. Cross **LEMPA** at or above **FL110** (1). (1) ATS climb gradient 6.0% up to **FL110.** Advise ATC if unable to ensure the ATS climb gradient.
MOBLU 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **LEFT** heading **045°M** to intercept and follow **R 090 CND** (090°M) to **MOBLU**. Cross **MOBLU** at or above **FL120** (1). (1) ATS climb gradient 4.6% up to **FL120.** Advise ATC if unable to ensure the ATS climb gradient.
PILAT 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **RIGHT** heading **011°M** to intercept and follow **R 326 CND** (326°M) to **PILAT**. Cross **PILAT** at or above **FL070.**
RIVOS 7A	Climb on **R 358 CND** (178°M) to **CND**. At **CND** turn **RIGHT** heading **340°M** to intercept and follow **R 295 CND** (295°M) to **RIVOS**. Cross **RIVOS** at or above **FL060.**

RADIO COMMUNICATION FAILURE

Set transponder to 7600 then:
a) Continue on assigned heading and acknowledged SID. After 2 min. climb to FPL flight level;
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point climbing to FPL flight level.

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)

SID RWY 18

AERONAUTICAL DATA TABULATION

SID RWY 18	
Fix/Waypoint Name	**Coordinates**
CETUL – BRG 007.43°/ 25.53NM CND	44°41’51.1”N 028°37’37.3”E
DENUB - BRG100.19°/ 43.69NM CND	44°03’58.6”N 029°26’35.7”E
DINRO - BRG 150.75°/ 37.93NM CND	43°42’00.0”N 028°48’30.0”E
DIRAL – BRG 282.10°/ 41.99NM CND	44°30’39.0”N 027°33’14.9”E
LEMPA – BRG 349.02°/ 26.56NM CND	44°43’37.5”N 028°26’07.0”E
MOBLU – BRG 089.98°/ 42.14NM CND	44°11’46.0”N 029°26’50.2”E
PILAT – BRG 326.31°/ 36.19NM CND	44°49’25.8”N 028°05’51.9”E
RIVOS – BRG 295.40°/ 41.78NM CND	44°39'20.5"N 027°39'17.0"E
TINPU – BRG 282.10°/ 14.00NM CND	44°21’41.3"N 028°10’16.1"E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E
DER 18	44°20’37.5”N 028°29’09.4”E

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO
CAT. A, B, C, D

TRANSITION ALTITUDE
4000 FT

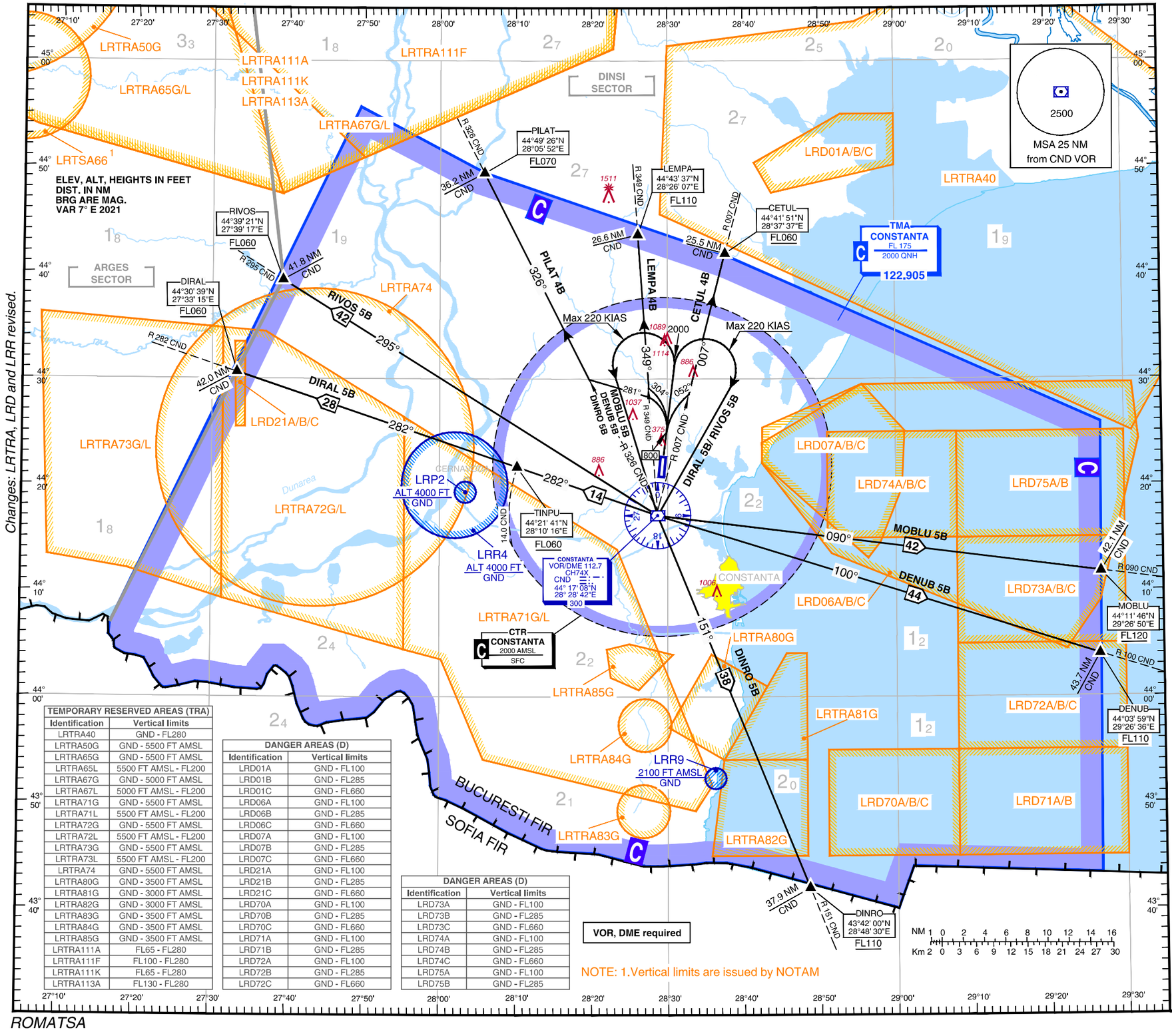
Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)

RWY 36

CETUL 4B, DENUB 5B, DINRO 5B, DIRAL 5B, LEMPA 4B, MOBLU 5B, PILAT 4B, RIVOS 5B



Changes: LRTRA, LRD and LRR revised.

TEMPORARY RESERVED AREAS (TRA)	
Identification	Vertical limits
LRTRA40	GND - FL280
LRTRA50G	GND - 5500 FT AMSL
LRTRA65G	GND - 5500 FT AMSL
LRTRA65L	5500 FT AMSL - FL200
LRTRA67G	GND - 5000 FT AMSL
LRTRA67L	5000 FT AMSL - FL200
LRTRA71G	GND - 5500 FT AMSL
LRTRA71L	5500 FT AMSL - FL200
LRTRA72G	GND - 5500 FT AMSL
LRTRA72L	5500 FT AMSL - FL200
LRTRA73G	GND - 5500 FT AMSL
LRTRA73L	5500 FT AMSL - FL200
LRTRA74	GND - 5500 FT AMSL
LRTRA80G	GND - 3500 FT AMSL
LRTRA81G	GND - 3000 FT AMSL
LRTRA82G	GND - 3000 FT AMSL
LRTRA83G	GND - 3500 FT AMSL
LRTRA84G	GND - 3500 FT AMSL
LRTRA85G	GND - 3500 FT AMSL
LRTRA111A	FL65 - FL280
LRTRA111F	FL100 - FL280
LRTRA111K	FL65 - FL280
LRTRA113A	FL130 - FL280

DANGER AREAS (D)	
Identification	Vertical limits
LRD01A	GND - FL100
LRD01B	GND - FL285
LRD01C	GND - FL660
LRD06A	GND - FL100
LRD06B	GND - FL285
LRD06C	GND - FL660
LRD07A	GND - FL100
LRD07B	GND - FL285
LRD07C	GND - FL660
LRD21A	GND - FL100
LRD21B	GND - FL285
LRD21C	GND - FL660
LRD70A	GND - FL100
LRD70B	GND - FL285
LRD70C	GND - FL660
LRD71A	GND - FL100
LRD71B	GND - FL285
LRD72A	GND - FL100
LRD72B	GND - FL285
LRD72C	GND - FL660

DANGER AREAS (D)	
Identification	Vertical limits
LRD73A	GND - FL100
LRD73B	GND - FL285
LRD73C	GND - FL660
LRD74A	GND - FL100
LRD74B	GND - FL285
LRD74C	GND - FL660
LRD75A	GND - FL100
LRD75B	GND - FL285

SID	Description
CETUL 4B	Climb on runway axis, at ***800*** **FT** (447) turn **RIGHT** heading **052°M** to intercept and follow **R 007 CND** (007°M) to **CETUL.** Cross **CETUL** at or above **FL060** (1). (1) **ATS climb gradient 5.2**% up to **FL060.** (2)
DENUB 5B	Climb on runway axis, at ***2000*** **FT** (1647) turn **LEFT** (Max 220 KIAS during turn) direct to **CND** . At **CND** follow **R 100 CND** (100°M) to **DENUB.** Cross **DENUB** at or above **FL110** (1). (1) **ATS climb gradient 3.7**% up to **FL110.** (2)
DINRO 5B	Climb on runway axis, at ***2000*** **FT** (1647) turn **LEFT** (Max 220 KIAS during turn) direct to **CND** . At **CND** follow **R151 CND** (151°M) to **DINRO.** Cross **DINRO** at or above **FL110** (1). (1) **ATS climb gradient 4.2**% up to **FL110.** (2)
DIRAL 5B	Climb on runway axis, at ***2000*** **FT** (1647) turn **RIGHT**(Max 220 KIAS during turn) direct to **CND** . At **CND** follow **R 282 CND** (282°M) to **DIRAL.** Cross **TINPU** at or above **FL060.**(1) (1) **ATS climb gradient 5.2**% up to **FL060.** (2)
LEMPA 4B	Climb on runway axis, at ***800*** **FT** (447) turn **LEFT** heading **304°M** to intercept and follow **R 349 CND** (349°M) to **LEMPA.** Cross **LEMPA** at or above **FL110** (1). (1) **ATS climb gradient 9.2**% up to **FL110.** (2)
MOBLU 5B	Climb on runway axis, at ***2000*** **FT** (1647) turn **LEFT** (Max 220 KIAS during turn) direct to **CND** . At **CND** follow **R 090 CND** (090°M) to **MOBLU.** Cross **MOBLU** at or above **FL120** (1). (1) **ATS climb gradient 4.2**% up to **FL120.** (2)
PILAT 4B	Climb on runway axis, at ***800*** **FT** (447) turn **LEFT** heading **281°M** to intercept and follow **R326 CND** (326°M) to **PILAT.** Cross **PILAT** at or above **FL070** (1). (1) **ATS climb gradient 3.7**% up to **FL070.** (2)
RIVOS 5B	Climb on runway axis, at ***2000*** **FT** (1647) turn **RIGHT** (Max 220 KIAS during turn) direct to **CND** . At **CND** follow **R 295 CND** (295°M) to **RIVOS.** Cross **RIVOS** at or above **FL060.**

(2) Advise ATC if unable to ensure the ATS climb gradient.

RADIO COMMUNICATION FAILURE

Set transponder to 7600 then:
a) Continue on assigned heading and acknowledged SID. After 2 min. climb to FPL flight level;
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID point climbing to FPL flight level.

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)

SID RWY 36

AERONAUTICAL DATA TABULATION

SID RWY 36	
Fix/Waypoint Name	**Coordinates**
CETUL – BRG 007.43°/ 25.53NM CND	44°41’51.1”N 028°37’37.3”E
DENUB – BRG 100.19°/ 43.69NM CND	44°03’58.6”N 029°26’35.7”E
DINRO – BRG 150.75°/ 37.93NM CND	43°42’00.0”N 028°48’30.0”E
DIRAL – BRG 282.10°/ 41.99NM CND	44°30’39.0”N 027°33’14.9”E
LEMPA – BRG 349.02°/ 26.56NM CND	44°43’37.5”N 028°26’07.0”E
MOBLU – BRG 089.98°/ 42.14NM CND	44°11’46.0”N 029°26’50.2”E
PILAT – BRG 326.31°/ 36.19NM CND	44°49’25.8”N 028°05’51.9”E
RIVOS – BRG 295.40°/ 41.78NM CND	44°39'20.5"N 027°39'17.0"E
TINPU – BRG 282.10°/ 14.00NM CND	44°21'41.3"N 028°10'16.1"E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E
DER 36	44°22’43.7”N 028°29’26.6”E

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO CAT. A B C D / DL

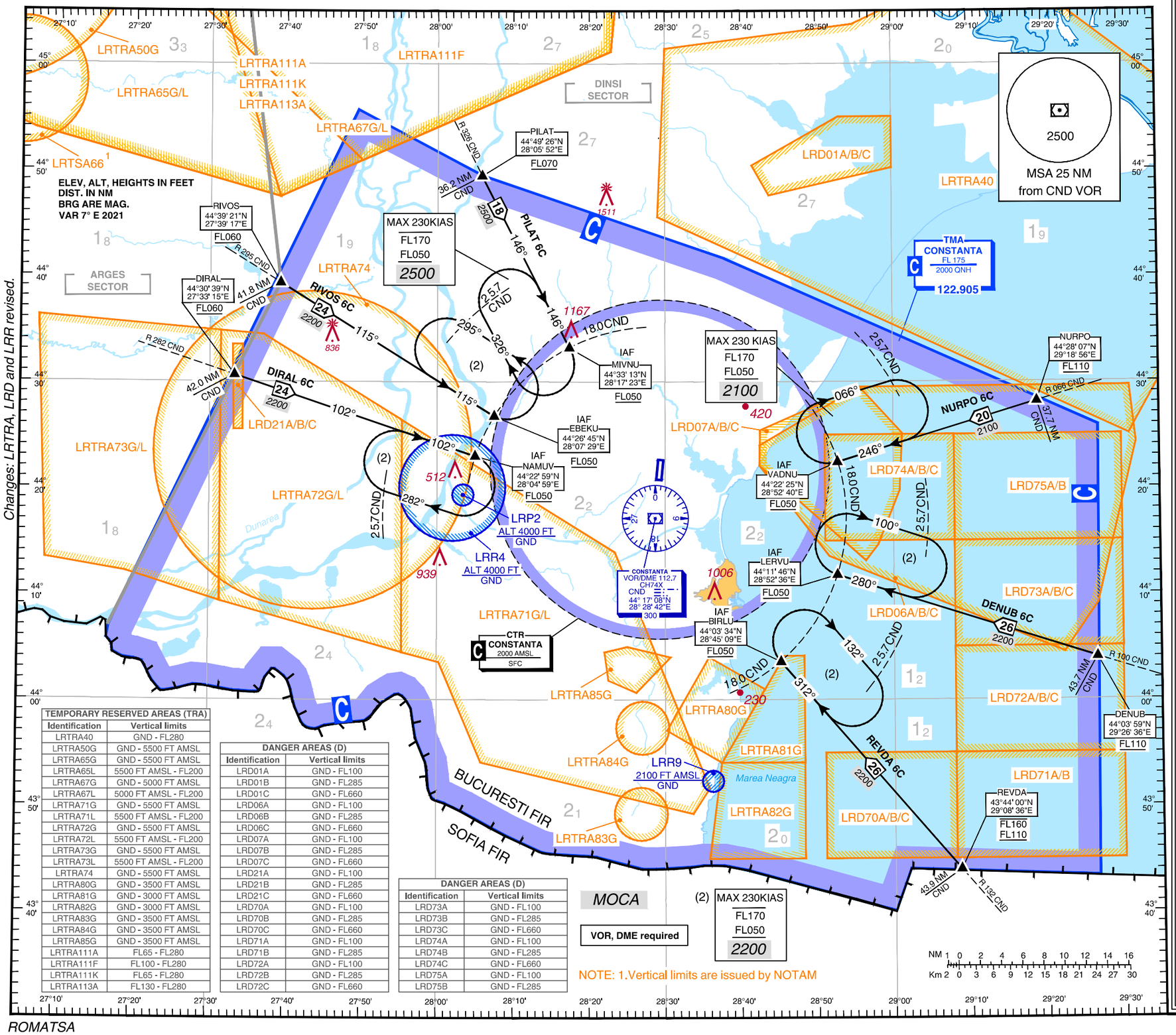
TRANSITION ALTITUDE
4000 FT

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)

RWY 18
DENUB 6C, DIRAL 6C,
NURPO 6C, PILAT 6C, REVDA 6C, RIVOS 6C



Changes: LRTRA, LRD and LRR revised.

TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA40	GND - FL280
LRTRA50G	GND - 5500 FT AMSL
LRTRA65G	GND - 5500 FT AMSL
LRTRA65L	5500 FT AMSL - FL200
LRTRA67G	GND - 5000 FT AMSL
LRTRA67L	5000 FT AMSL - FL200
LRTRA71G	GND - 5500 FT AMSL
LRTRA71L	5500 FT AMSL - FL200
LRTRA72G	GND - 5500 FT AMSL
LRTRA72L	5500 FT AMSL - FL200
LRTRA73G	GND - 5500 FT AMSL
LRTRA73L	5500 FT AMSL - FL200
LRTRA74	GND - 5500 FT AMSL
LRTRA80G	GND - 3500 FT AMSL
LRTRA81G	GND - 3000 FT AMSL
LRTRA82G	GND - 3000 FT AMSL
LRTRA83G	GND - 3500 FT AMSL
LRTRA84G	GND - 3500 FT AMSL
LRTRA85G	GND - 3500 FT AMSL
LRTRA111A	FL65 - FL280
LRTRA111F	FL100 - FL280
LRTRA111K	FL65 - FL280
LRTRA113A	FL130 - FL280

DANGER AREAS (D)	
Identification	**Vertical limits**
LRD01A	GND - FL100
LRD01B	GND - FL285
LRD01C	GND - FL660
LRD06A	GND - FL100
LRD06B	GND - FL285
LRD06C	GND - FL660
LRD07A	GND - FL100
LRD07B	GND - FL285
LRD07C	GND - FL660
LRD21A	GND - FL100
LRD21B	GND - FL285
LRD21C	GND - FL660
LRD70A	GND - FL100
LRD70B	GND - FL285
LRD70C	GND - FL660
LRD71A	GND - FL100
LRD71B	GND - FL285
LRD72A	GND - FL100
LRD72B	GND - FL285
LRD72C	GND - FL660

DANGER AREAS (D)	
Identification	**Vertical limits**
LRD73A	GND - FL100
LRD73B	GND - FL285
LRD73C	GND - FL660
LRD74A	GND - FL100
LRD74B	GND - FL285
LRD74C	GND - FL660
LRD75A	GND - FL100
LRD75B	GND - FL285

MOCA

VOR, DME required

(2) MAX 230KIAS FL170 FL050 *2200*

NOTE: 1.Vertical limits are issued by NOTAM

Textual description of standard arrival routes- instrument STAR

STAR	DESCRIPTION
DENUB 6C	From **DENUB** at or above **FL110** to **LERVU** on course **280°** at or above **FL50.**
DIRAL 6C	From **DIRAL** at or above **FL60** to **NAMUV** on course **102°** at or above **FL50.**
NURPO 6C	From **NURPO** at or above **FL110** to **VADNU** on course **246°** at or above **FL50.**
PILAT 6C	From **PILAT** at or above **FL70** to **MIVNU** on course **146°** at or above **FL50.**
REVDA 6C	From **REVDA** between minimum **FL110** and maximum **FL160** to **BIRLU** on course **312°** at or above **FL50.**
RIVOS 6C	From **RIVOS** at or above **FL60** to **EBEKU** on course **115°** at or above **FL50.**

RADIO COMMUNICATION FAILURE

Set transponder to 7600 then:

a) If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

b) If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to CND VOR/DME, then RDL 337 CND VOR/DME, when passing D 15.6 CND VOR/DME turn right proceed along CND 18 DME arc to **UCOBE** and execute approach and land. Descending shall be executed in accordance with the vertical restrictions specified on Radar Minimum Altitude Chart, but not less then 2500 ft.

c) If STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)

STAR to RWY 18

AERONAUTICAL DATA TABULATION

STAR to RWY 18 from DENUB, DIRAL, NURPO, PILAT, REVDA, RIVOS.	
Fix/Waypoint Name	**Coordinates**
DENUB – BRG 100.19°/ 43.69NM CND	44°03’58.6”N 029°26’35.7”E
DIRAL - BRG 282.10°/ 41.99NM CND	44°30’39.0”N 027°33’14.9”E
NURPO - BRG 065.77°/ 37.66NM CND	44°28’06.5”N 029°18’56.2”E
PILAT- BRG 326.31°/ 36.19NM CND	44°49’25.8”N 028°05’51.9”E
REVDA – BRG 131.77°/ 43.90NM CND	43°44’00.0”N 029°08’36.0”E
RIVOS – BRG 295.40°/ 41.78NM CND	44°39’20.5”N 027°39’17.0”E
BIRLU (IAF) - BRG 131.77°/ 18.00NM CND	44°03'34.0"N 028°45'09.0"E
EBEKU (IAF) – BRG 295.40/ 18.00NM CND	44°26’44.8”N 028°07’29.1”E
LERVU (IAF) – BRG100.19/ 18.00NM CND	44°11’46.3”N 028°52’36.2”E
MIVNU (IAF) – BRG 326.31°/ 18.00NM CND	44°33'13.1"N 028°17'23.2"E
NAMUV (IAF) – BRG 282.10/ 18.00NM CND	44°22’59.0”N 028°04’58.9”E
VADNU (**IAF)** – BRG 065.77/ 18.00NM CND	44°22’25.0”N 028°52’40.0”E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO CAT. A B C D / DL

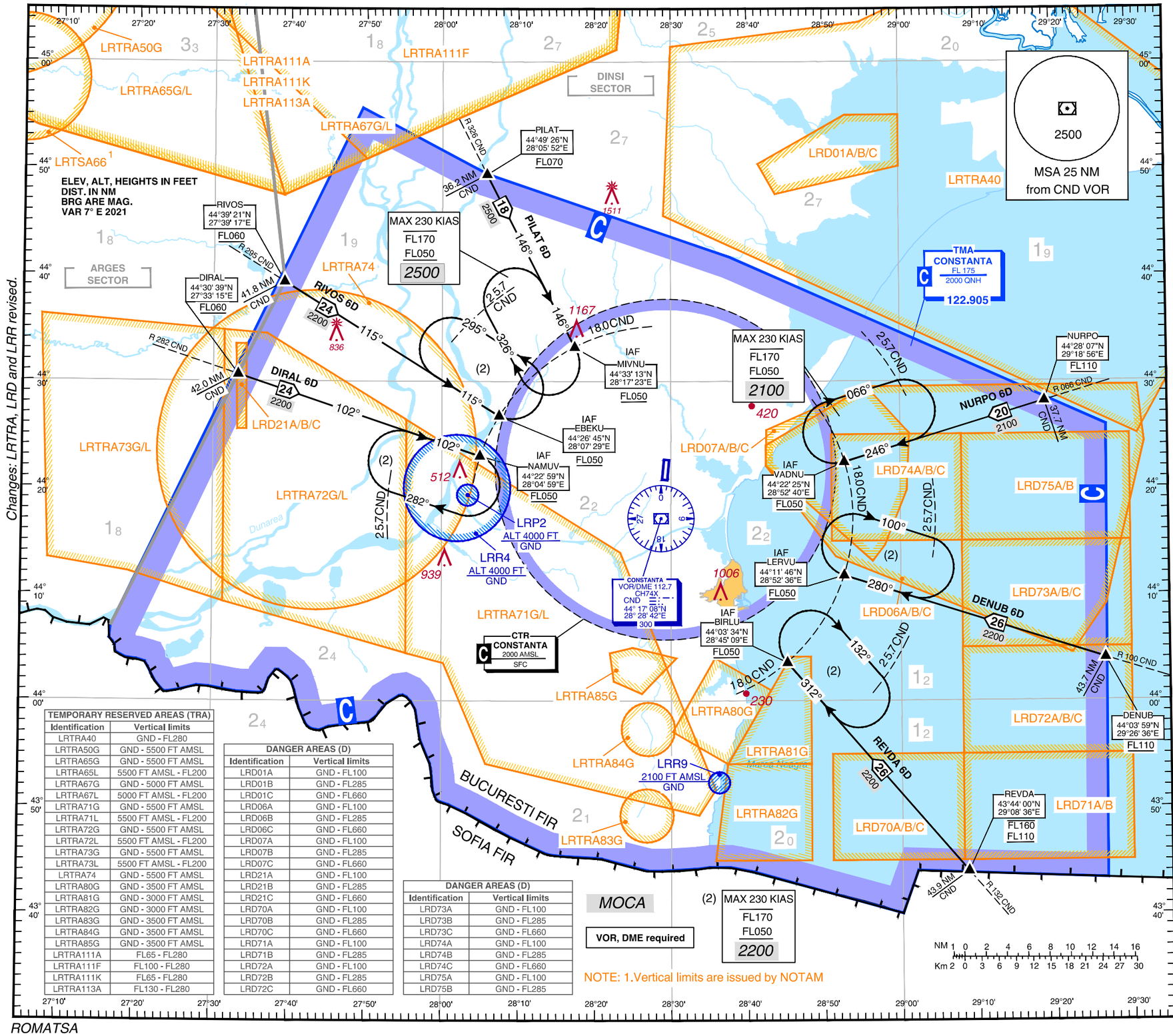
TRANSITION ALTITUDE
4000 FT

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)

RWY 36
DENUB 6D, DIRAL 6D, NURPO 6D, PILAT 6D, REVDA 6D, RIVOS 6D



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA40	GND - FL280
LRTRA50G	GND - 5500 FT AMSL
LRTRA65G	GND - 5500 FT AMSL
LRTRA65L	5500 FT AMSL - FL200
LRTRA67G	GND - 5000 FT AMSL
LRTRA67L	5000 FT AMSL - FL200
LRTRA71G	GND - 5500 FT AMSL
LRTRA71L	5500 FT AMSL - FL200
LRTRA72G	GND - 5500 FT AMSL
LRTRA72L	5500 FT AMSL - FL200
LRTRA73G	GND - 5500 FT AMSL
LRTRA73L	5500 FT AMSL - FL200
LRTRA74	GND - 5500 FT AMSL
LRTRA80G	GND - 3500 FT AMSL
LRTRA81G	GND - 3000 FT AMSL
LRTRA82G	GND - 3000 FT AMSL
LRTRA83G	GND - 3500 FT AMSL
LRTRA84G	GND - 3500 FT AMSL
LRTRA85G	GND - 3500 FT AMSL
LRTRA111A	FL65 - FL280
LRTRA111F	FL100 - FL280
LRTRA111K	FL65 - FL280
LRTRA113A	FL130 - FL280

DANGER AREAS (D)	
Identification	**Vertical limits**
LRD01A	GND - FL100
LRD01B	GND - FL285
LRD01C	GND - FL660
LRD06A	GND - FL100
LRD06B	GND - FL285
LRD06C	GND - FL660
LRD07A	GND - FL100
LRD07B	GND - FL285
LRD07C	GND - FL660
LRD21A	GND - FL100
LRD21B	GND - FL285
LRD21C	GND - FL660
LRD70A	GND - FL100
LRD70B	GND - FL285
LRD70C	GND - FL660
LRD71A	GND - FL100
LRD71B	GND - FL285
LRD72A	GND - FL100
LRD72B	GND - FL285
LRD72C	GND - FL660

DANGER AREAS (D)	
Identification	**Vertical limits**
LRD73A	GND - FL100
LRD73B	GND - FL285
LRD73C	GND - FL660
LRD74A	GND - FL100
LRD74B	GND - FL285
LRD74C	GND - FL660
LRD75A	GND - FL100
LRD75B	GND - FL285

Textual description of standard arrival routes- instrument STAR

STAR	DESCRIPTION
DENUB 6D	From **DENUB** at or above **FL110** to **LERVU** on course **280°** at or above **FL50.**
DIRAL 6D	From **DIRAL** at or above **FL60** to **NAMUV** on course **102°** at or above **FL50.**
NURPO 6D	From **NURPO** at or above **FL110** to **VADNU** on course **246°** at or above **FL50.**
PILAT 6D	From **PILAT** at or above **FL70** to **MIVNU** on course **146°** at or above **FL50.**
REVDA 6D	From **REVDA** between minimum **FL110** and maximum **FL160** to **BIRLU** on course **312°** at or above **FL50.**
RIVOS 6D	From **RIVOS** at or above **FL60** to **EBEKU** on course **115°** at or above **FL50.**

RADIO COMMUNICATION FAILURE

Set transponder to 7600 then:

a) If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

b) If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to CND VOR/DME, then RDL 150 CND VOR/DME, when passing D 10.5 CND VOR/DME turn right proceed along CND 13 DME arc to **PEVEX** and execute approach and land. Descending shall be executed in accordance with the vertical restrictions specified on Radar Minimum Altitude Chart, but not less then 2500 ft.

c) If STAR was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)

STAR to RWY 36

AERONAUTICAL DATA TABULATION

STAR to RWY 36 from DENUB, DIRAL,NURPO,PILAT, REVDA, RIVOS.	
Fix/Waypoint Name	**Coordinates**
DENUB – BRG 100.19°/ 43.69NM CND	44°03’58.6”N 029°26’35.7”E
DIRAL - BRG 282.10°/ 41.99NM CND	44°30’39.0”N 027°33’14.9”E
NURPO - BRG 065.77°/ 37.66NM CND	44°28’06.5”N 029°18’56.2”E
PILAT - BRG 326.31°/ 36.19NM CND	44°49’25.8”N 028°05’51.9”E
REVDA – BRG 131.77°/ 43.90NM CND	43°44’00.0”N 029°08’36.0”E
RIVOS – BRG 295.40°/ 41.78NM CND	44°39’20.5”N 027°39’17.0”E
BIRLU (IAF) - BRG 131.77°/ 18.00NM CND	44°03'34.0"N 028°45'09.0"E
EBEKU (IAF) – BRG 295.40/ 18.00NM CND	44°26’44.8”N 028°07’29.1”E
LERVU (IAF) – BRG100.19/ 18.00NM CND	44°11’46.3”N 028°52’36.2”E
MIVNU (IAF) – BRG 326.31°/ 18.00NM CND	44°33'13.1"N 028°17'23.2"E
NAMUV (IAF) – BRG 282.10/ 18.00NM CND	44°22’59.0”N 028°04’58.9”E
VADNU (**IAF)** – BRG 065.77/ 18.00NM CND	44°22’25.0”N 028°52’40.0”E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E

ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

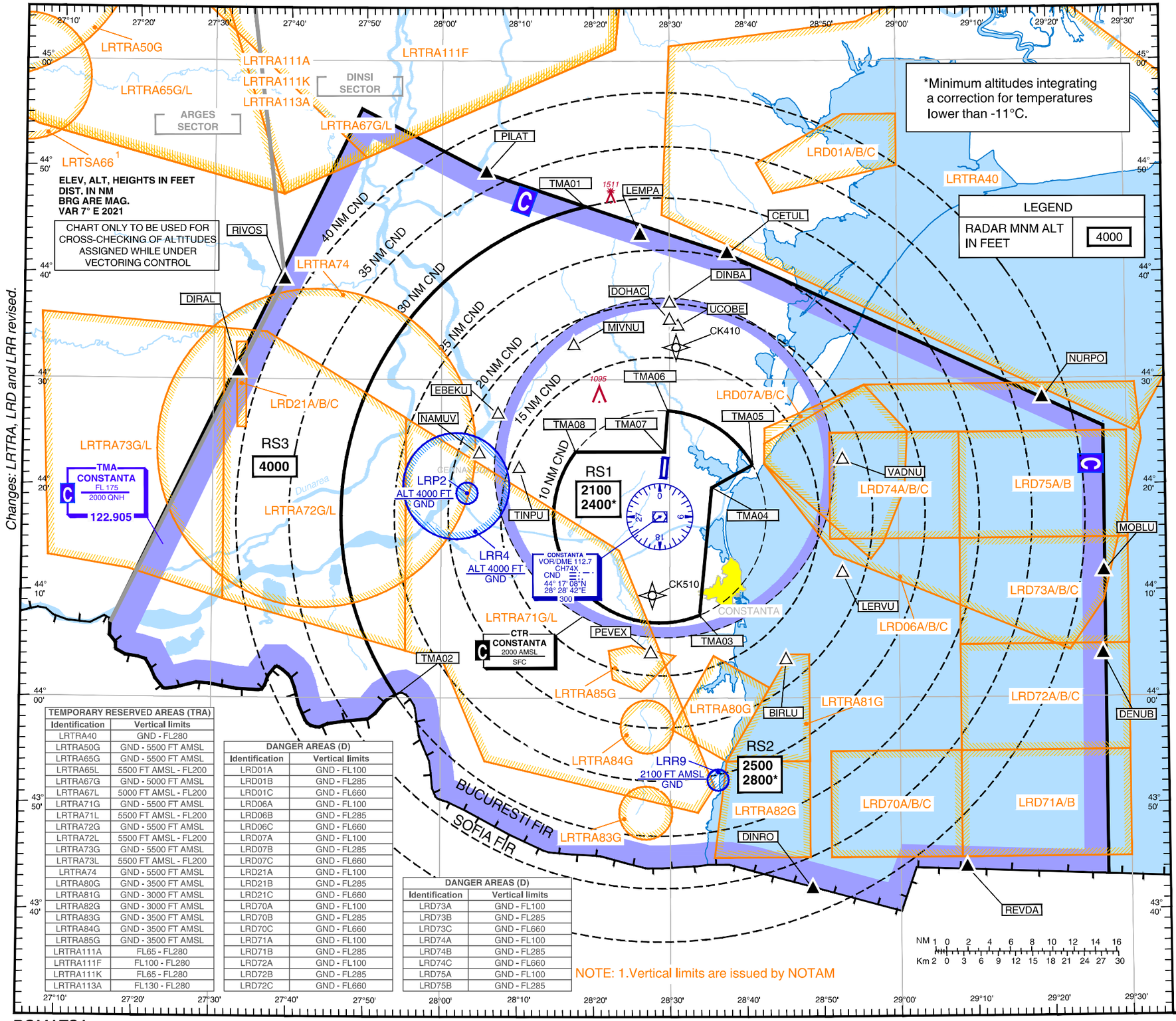
AERODROME ELEV 353 FT

TRANSITION ALTITUDE 4000 FT

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA40	GND - FL280
LRTRA50G	GND - 5500 FT AMSL
LRTRA65G	GND - 5500 FT AMSL
LRTRA65L	5500 FT AMSL - FL200
LRTRA67G	GND - 5000 FT AMSL
LRTRA67L	5000 FT AMSL - FL200
LRTRA71G	GND - 5500 FT AMSL
LRTRA71L	5500 FT AMSL - FL200
LRTRA72G	GND - 5500 FT AMSL
LRTRA72L	5500 FT AMSL - FL200
LRTRA73G	GND - 5500 FT AMSL
LRTRA73L	5500 FT AMSL - FL200
LRTRA74	GND - 5500 FT AMSL
LRTRA80G	GND - 3500 FT AMSL
LRTRA81G	GND - 3000 FT AMSL
LRTRA82G	GND - 3000 FT AMSL
LRTRA83G	GND - 3500 FT AMSL
LRTRA84G	GND - 3500 FT AMSL
LRTRA85G	GND - 3500 FT AMSL
LRTRA111A	FL65 - FL280
LRTRA111F	FL100 - FL280
LRTRA111K	FL65 - FL280
LRTRA113A	FL130 - FL280

DANGER AREAS (D)	
Identification	**Vertical limits**
LRD01A	GND - FL100
LRD01B	GND - FL285
LRD01C	GND - FL660
LRD06A	GND - FL100
LRD06B	GND - FL285
LRD06C	GND - FL660
LRD07A	GND - FL100
LRD07B	GND - FL285
LRD07C	GND - FL660
LRD21A	GND - FL100
LRD21B	GND - FL285
LRD21C	GND - FL660
LRD70A	GND - FL100
LRD70B	GND - FL285
LRD70C	GND - FL660
LRD71A	GND - FL100
LRD71B	GND - FL285
LRD72A	GND - FL100
LRD72B	GND - FL285
LRD72C	GND - FL660

DANGER AREAS (D)	
Identification	**Vertical limits**
LRD73A	GND - FL100
LRD73B	GND - FL285
LRD73C	GND - FL660
LRD74A	GND - FL100
LRD74B	GND - FL285
LRD74C	GND - FL660
LRD75A	GND - FL100
LRD75B	GND - FL285

LIST OF WAYPOINTS

Waypoint name	Latitude	Longitude
BIRLU	440334N	0284509E
CETUL	444151N	0283737E
CK410	443303N	0283052E
CK510	440942N	0282740E
DENUB	440359N	0292636E
DINBA	443814N	0283134E
DINRO	434200N	0284830E
DIRAL	443039N	0273315E
DOHAC	443515N	0283109E
EBEKU	442645N	0280729E
LEMPA	444337N	0282607E
LERVU	441146N	0285236E
MIVNU	443313N	0281723E
MOBLU	441146N	0292650E
NAMUV	442259N	0280459E
NURPO	442807N	0291856E
PEVEX	440412N	0282655E
PILAT	444926N	0280552E
REVDA	434400N	0290836E
RIVOS	443921N	0273917E
TINPU	442141N	0281016E
UCOBE	443503N	0283108E
VADNU	442225N	0285240E

RADAR SECTOR (RS)

SECTOR	Latitude	Longitude
RS1 2100 FT / 2400 FT		
TMA03	440751N	0283353E
TMA04	441951N	0283531E
TMA05	442159N	0284053E
TMA 05 – TMA06	DME 10.0 CND arc	
TMA06	442706N	0282945E
TMA07	442314N	0282920E
TMA08	442314N	0281739E
TMA08 – TMA03	DME 10.0 CND arc	
RS2 2500 FT/ 2800 FT – whole TMA, not included Sector 1 and 3		
RS3 4000 FT		
TMA01	444619N	0281900E
TMA01 – TMA02	DME 30.0 CND arc	
TMA02	440023N	0275408E
TMA limit clockwise to TMA01		

RADIO COMMUNICATION FAILURE RWY 18

If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to CND VOR/DME, then RDL 337 CND VOR/DME, when passing D 15.6 CND VOR/DME turn right proceed along CND 18 DME arc to UCOBE and execute approach and land. Descending shall be executed in accordance with the vertical restrictions specified on Radar Minimum Altitude Chart, but not less then *2500* FT.

RADIO COMMUNICATION FAILURE RWY 36

If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to CND VOR/DME, then RDL 150 CND VOR/DME, when passing D 10.5 CND VOR/DME turn right proceed along CND 13 DME arc to PEVEX and execute approach and land. Descending shall be executed in accordance with the vertical restrictions specified on Radar Minimum Altitude Chart, but not less then *2500* FT.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 353FT

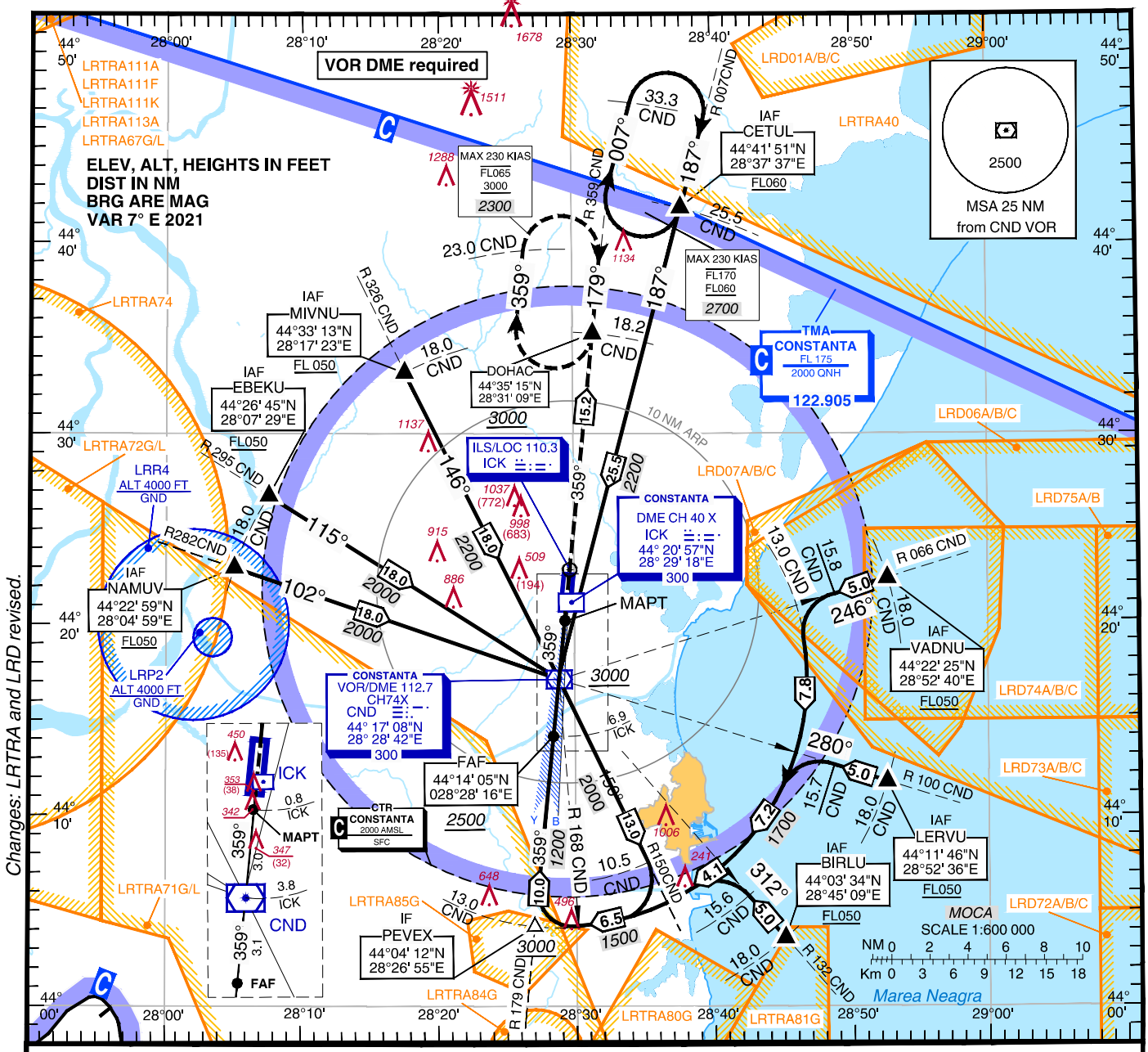
HEIGHTS RELATED TO THR RWY 36 - ELEV 315FT

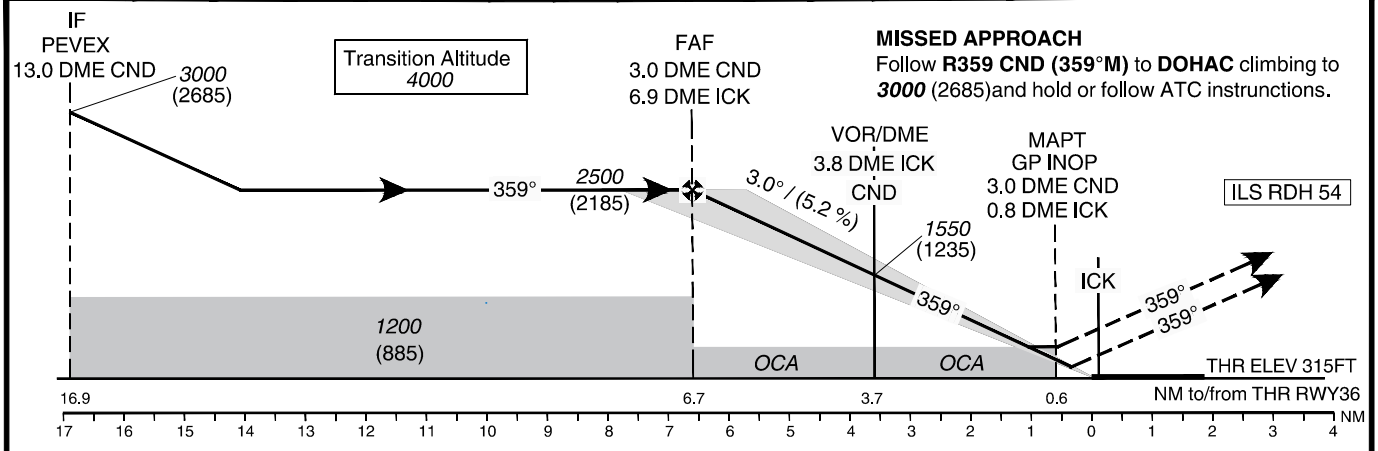
Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)
ILS RWY 36

Changes: LRTRA and LRD revised.





MISSED APPROACH
Follow **R359 CND (359°M)** to **DOHAC** climbing to ***3000*** (2685)and hold or follow ATC instrunctions.

OCA/(H)		A	B	C	D	DL
Straight-in Approach	ILS CAT I	*460* (145)	*471* (156)	*480* (165)	*491* (176)	*492* (177)
	ILS GP INOP	*600* (285)				
Circling		*750*	*850*	*1400*	*1440*	

Timing not authorised for defining the MAPt.

Dist to DME ICK	NM	6	5	4	3	2	1
Altitudes (Height)	FT	*2230* (1915)	*1910* (1595)	*1590* (1275)	*1270* (955)	*950* (635)	*630* (315)

GS	KT	70	90	100	120	140	160
FAF-MAPT 6.1 NM	MIN:SEC	5:14	4:04	3:40	3:03	2:37	2:17
Rate of descent 5.24%	FT/MIN	371	478	531	637	743	849

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)
ILS RWY 36

AERONAUTICAL DATA TABULATION

ILS approach to RWY 36 from BIRLU, CETUL, EBEKU, LERVU, MIVNU, NAMUV, VADNU.	
Fix/Waypoint Name	**Coordinates**
BIRLU (IAF) - BRG 131.77° / 18.00NM CND	44°03’34.0”N 028°45’09.0”E
CETUL (IAF) - BRG 007.43° / 25.53NM CND	44°41’51.1”N 028°37’37.3”E
EBEKU (IAF) - BRG 295.40° / 18.00NM CND	44°26’44.8”N 028°07’29.1”E
LERVU (IAF) - BRG 100.19° / 18.00NM CND	44°11’46.3”N 028°52’36.2”E
MIVNU (IAF) - BRG 326.31° / 18.00NM CND	44°33’13.1”N 028°17’23.2”E
NAMUV (IAF) - BRG 282.10° / 18.00NM CND	44°22’59.0”N 028°04’58.9”E
VADNU (IAF) - BRG 065.77° / 18.00NM CND	44°22’25.0”N 028°52’40.0”E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E
PEVEX (IF) - BRG 178.68° / 13.00NM CND	44°04’11.8”N 028°26’54.8”E
FAF (GP INOP) - BRG 178.59° / 6.9NM ICK	44°14’05.3”N 028°28’16.1”E
MAPT (GP INOP) - BRG 178.59° / 0.8NM ICK	44°20'09.8"N 028°29'05.6"E
THR RWY 36	44°20’47.20”N 028°29’10.73”E
ICK LOC	44°22’53.9”N 028°29’28.0”E
ICK GP-DME	44°20'56.9"N 028°29'18.4"E
DOHAC - BRG 358.54° / 18.20NM CND	44°35'14.9"N 028°31'09.4"E

Final approach descent angle: 3.00°

LRTRA AND LRD VERTICAL LIMITS

TEMPORARY RESERVED AREAS (TRA)		**DANGER AREAS (D)**	
Identification	**Vertical limits**	**Identification**	**Vertical limits**
LRTRA40	GND - FL280	LRD01A	GND - FL100
LRTRA67G	GND - 5000 FT AMSL	LRD01B	GND - FL285
LRTRA67L	5000 FT AMSL - FL200	LRD01C	GND - FL660
LRTRA71G	GND - 5500 FT AMSL	LRD06A	GND - FL100
LRTRA71L	5500 FT AMSL - FL200	LRD06B	GND - FL285
LRTRA72G	GND - 5500 FT AMSL	LRD06C	GND - FL660
LRTRA72L	5500 FT AMSL - FL200	LRD07A	GND - FL100
LRTRA74G	GND - 5500 FT AMSL	LRD07B	GND - FL285
LRTRA80G	GND - 3500 FT AMSL	LRD07C	GND - FL660
LRTRA81G	GND - 3000 FT AMSL	LRD72A	GND - FL100
LRTRA84G	GND - 3500 FT AMSL	LRD72B	GND - FL285
LRTRA85G	GND - 3500 FT AMSL	LRD72C	GND - FL660
LRTRA111A	FL65 - FL280	LRD73A	GND - FL100
LRTRA111F	FL100 - FL280FL	LRD73B	GND - FL285
LRTRA111K	FL65 - FL280	LRD73C	GND - FL660
LRTRA113A	FL130 - FL280	LRD74A	GND - FL100
		LRD74B	GND - FL285
		LRD74C	GND - FL660
		LRD75A	GND - FL100
		LRD75B	GND - FL285

RADIO COMMUNICATION FAILURE

Maintain 3000 ft. QNH and intercept R359 CND until CND VOR/DME, then proceed outbound R150 CND. At D10.5 CND turn RIGHT, proceed along CND 13 DME arc to PEVEX for a new approach.

INSTRUMENT APROACH CHART - ICAO

AERODROM ELEV 353FT

HEIGHTS RELATED TO
THR RWY 18 - ELEV 353FT

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Tower	124.030
Constanta Approach ALTN	127.350
Constanta Tower ALTN	120.450

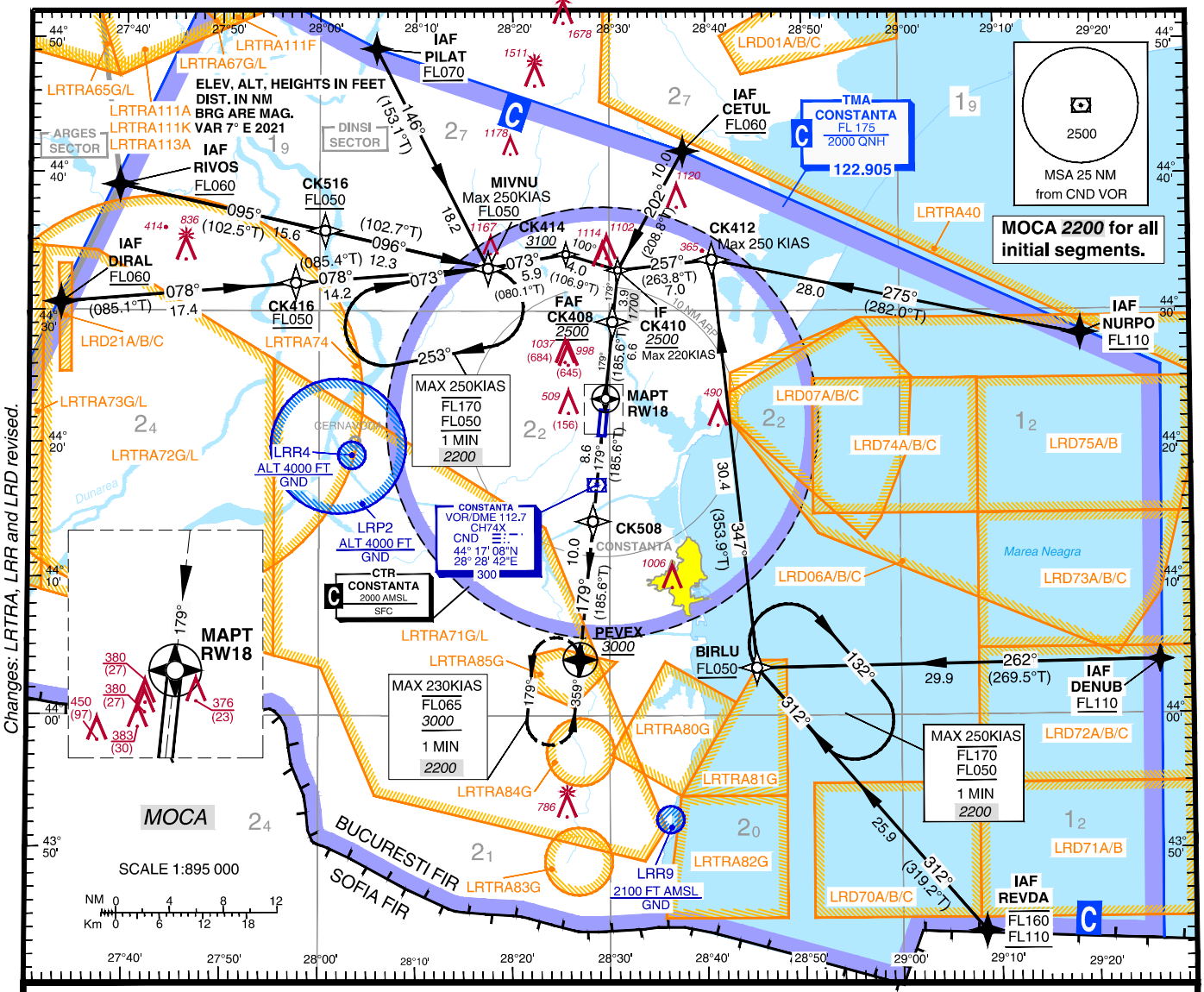
EGNOS
CH89017
E18A

CONSTANȚA/ Mihail Kogălniceanu- Constanța (LRCK)
RNP RWY 18

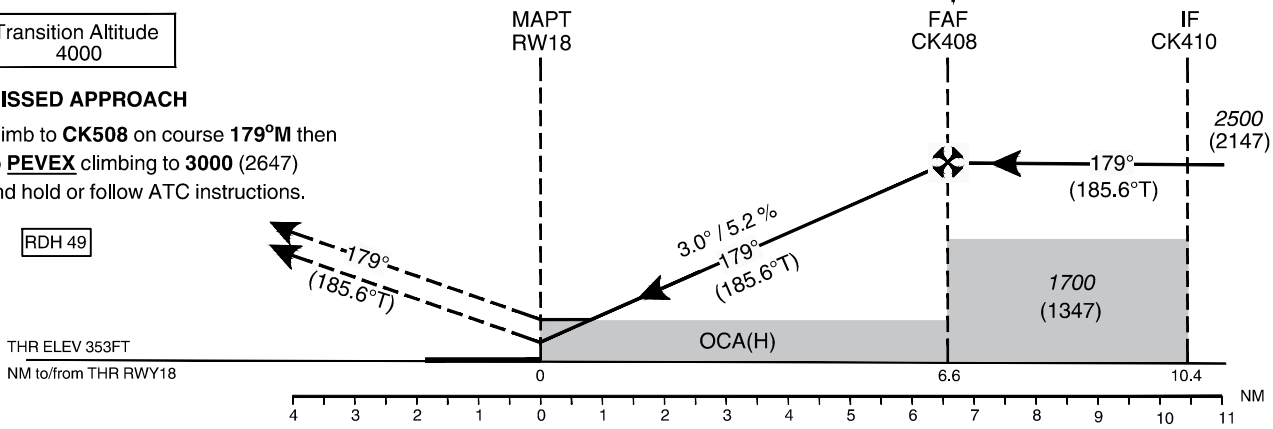
T° MNM LNAV-VNAV: -30°C
T° LNAV-VNAV > 60°C: VPA > 3.5°
For uncompensated BARO VNAV systems

RNP APCH & RNAV1 (GNSS only) Required
Refer to coding table)

Changes: LRTRA, LRR and LRD revised.



Transition Altitude 4000



MISSED APPROACH

Climb to **CK508** on course **179°M** then to **PEVEX** climbing to **3000** (2647) and hold or follow ATC instructions.

RDH 49

OCA(H)	A	B	C	D	DL
LPV	*520*(167)	*530*(177)	*540*(187)	*550*(197)	*550*(197)
LNAV/VNAV	*510*(157)	*530*(177)	*540*(187)	*560*(207)	-
LNAV	*630*(277)				-
CIRCLING	*750*	*850*	*1400*	*1440*	-

SBAS CAT I operations not approved.

Dist to THR	NM	1	2	3	4	5	6
Altitudes (Height)	FT	720 (367)	*1040* (687)	*1360* (1007)	*1680* (1327)	*1990* (1637)	*2310* (1957)

GS	KTS	70	90	100	120	140	160
FAF-MAPT 6.6 NM	MIN:SEC	5:39	4:24	3:58	3:18	2:50	2:28
Rate of descent 5.24%	FT/MIN	371	478	531	637	743	849

Timing not authorised for defining the MAPt.

CONSTANŢA / Mihail Kogălniceanu - Constanţa (LRCK)
RNP RWY 18

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY18	
Fix/Waypoint Name	**Coordinates**
CETUL (IAF)	44°41’51.1”N 028°37’37.3”E
PILAT (IAF)	44°49’25.8”N 028°05’51.9”E
NURPO (IAF)	44°28'06.5"N 029°18'56.2"E
DENUB (IAF)	44°03'58.6"N 029°26'35.7"E
REVDA (IAF)	43°44’00.0”N 029°08’36.0”E
DIRAL (IAF)	44°30'39.0"N 027°33'14.9"E
RIVOS (IAF)	44°39’20.5”N 027°39’17.0”E
BIRLU	44°03’34.0”N 028°45’09.0”E
MIVNU	44°33'13.1"N 028°17'23.0"E
PEVEX	44°04’11.8”N 028°26’54.8”E
CK412	44°33’49.2”N 028°40’35.4”E
CK414	44°34’13.5”N 028°25’30.4”E
CK416	44°32’06.0”N 027°57’33.2”E
CK508	44°14’07.6”N 028°28’16.3”E
CK516	44°35’56.8”N 028°00’35.2”E
CK410 (IF)	44°33’03.4”N 028°30’51.5”E
CK408 (FAF)	44°29’13.4”N 028°30’19.9”E
RW18 (MAPt)	44°22’40.04”N 028°29’26.13”E

LRTRA AND LRD VERTICAL LIMITS

TEMPORARY RESERVED AREAS (TRA)				DANGER AREAS (D)			
Identification	**Vertical limits**	**Identification**	**Vertical limits**	**Identification**	**Vertical limits**	**Identification**	**Vertical limits**
LRTRA40	GND - FL280	LRTRA74G	GND - 5500 FT AMSL	LRD01A	GND - FL100	LRD70C	GND - FL660
LRTRA65G	GND - 5500 FT AMSL	LRTRA80G	GND - 3500 FT AMSL	LRD01B	GND - FL285	LRD71A	GND - FL100
LRTRA65L	5500 FT AMSL - FL200	LRTRA81G	GND - 3000 FT AMSL	LRD01C	GND - FL660	LRD71B	GND - FL285
LRTRA67G	GND - 5000 FT AMSL	LRTRA82G	GND - 3000 FT AMSL	LRD06A	GND - FL100	LRD72A	GND - FL100
LRTRA67L	5000 FT AMSL - FL200	LRTRA83G	GND - 3500 FT AMSL	LRD06B	GND - FL285	LRD72B	GND - FL285
LRTRA71G	GND - 5500 FT AMSL	LRTRA84G	GND - 3500 FT AMSL	LRD06C	GND - FL660	LRD72C	GND - FL660
LRTRA71L	5500 FT AMSL - FL200	LRTRA85G	GND - 3500 FT AMSL	LRD07A	GND - FL100	LRD73A	GND - FL100
LRTRA72G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280	LRD07B	GND - FL285	LRD73B	GND - FL285
LRTRA72L	5500 FT AMSL - FL200	LRTRA111F	FL100 - FL280FL	LRD07C	GND - FL660	LRD73C	GND - FL660
LRTRA73G	GND - 5500 FT AMSL	LRTRA111K	FL65 - FL280	LRD21A	GND - FL100	LRD74A	GND - FL100
LRTRA73L	5500 FT AMSL - FL200	LRTRA113A	FL130 - FL280	LRD21B	GND - FL285	LRD74B	GND - FL285
				LRD21C	GND - FL660	LRD74C	GND - FL660
				LRD70A	GND - FL100	LRD75A	GND - FL100
				LRD70B	GND - FL285	LRD75B	GND - FL285

RADIO COMMUNICATION FAILURE

a) If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated RNP Instrument Approach Procedure. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600

b) If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to CK410, then FAF and execute approach and land. Descending shall be executed in accordance with the vertical restrictions specified on Radar Minimum Altitude Chart, but not less then 2500 ft.

c) If RNP Instrument Approach Procedure was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL RNP Instrument Approach Procedure. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

d) MISSED APPROACH, from PEVEX climb in holding to FL050, proceed direct to MIVNU and follow a new approach RWY 18.

INSTRUMENT APROACH CHART - ICAO

AERODROM ELEV 353FT

HEIGHTS RELATED TO THR RWY 36 - ELEV 315FT

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Tower	124.030
Constanta Approach ALTN	127.350
Constanta Tower ALTN	120.450

EGNOS CH89609 E36A

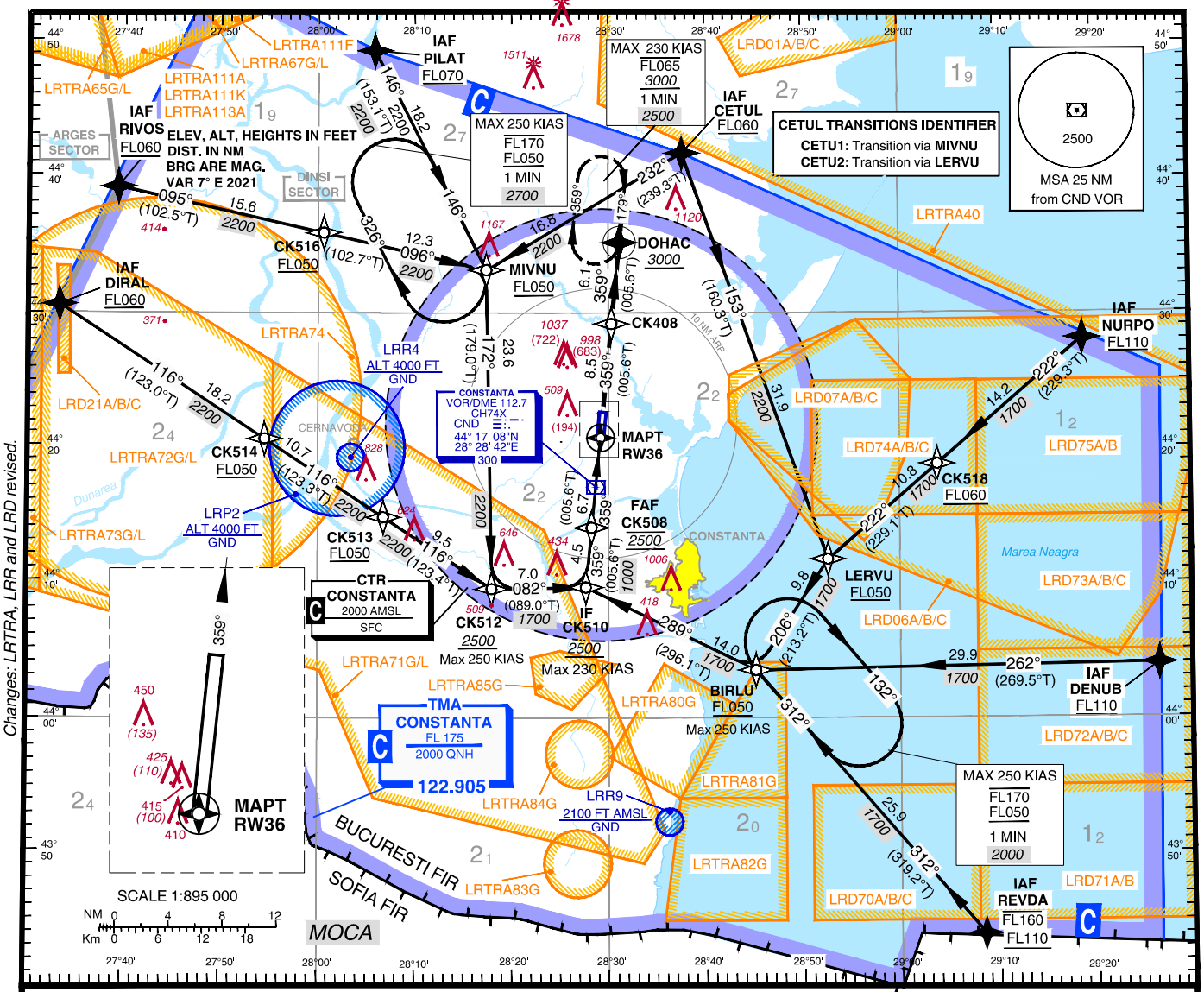
RNP APCH & RNAV1 (GNSS only) Required (Refer to coding table)

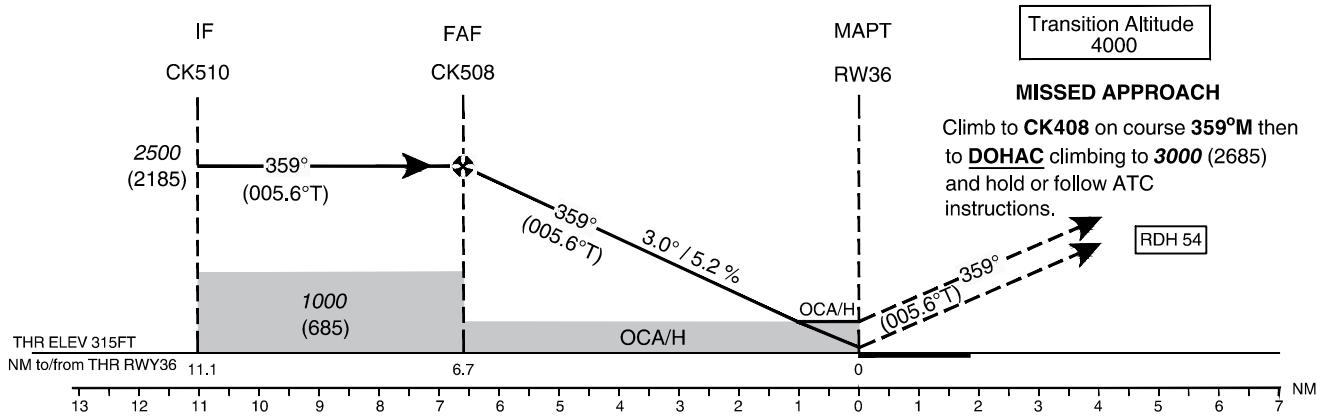
T° MNM LNAV-VNAV: -30°C
T° LNAV-VNAV > 60°C VPA > 3.5°
For uncompensated BARO VNAV systems

CONSTANȚA/ Mihail Kogălniceanu-Constanța (LRCK)

RNP RWY 36

Changes: LRTRA, LRR and LRD revised.





Transition Altitude 4000

MISSED APPROACH

Climb to **CK408** on course **359°M** then to **DOHAC** climbing to ***3000*** (2685) and hold or follow ATC instructions.

RDH 54

SBAS CAT I operations not approved.

OCA(H)	A	B	C	D	DL
LPV	*550*(235)	*560*(245)	*570*(255)	*580*(265)	*580*(265)
LNAV/VNAV	*550*(235)	*560*(245)	*580*(265)	*590*(275)	-
LNAV	*680*(365)				-
CIRCLING	*750*	*850*	*1400*	*1440*	-

Timing not authorised for defining the MAPt.

Dist to THR	NM	6	5	4	3	2	1
Altitudes (Height)	FT	*2280* (1965)	*1960* (1645)	*1640* (1325)	*1330* (1015)	*1010* (695)	*690* (375)

GS	KTS	70	90	100	120	140	160
FAF-MAPT 6.7 NM	MIN:SEC	5:45	4:28	4:01	3:21	2:52	2:31
Rate of descent 5.24%	FT/MIN	371	478	531	637	743	849

CONSTANŢA / Mihai Kogalniceanu - Constanţa (LRCK)
RNP RWY 36

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY36	
Fix/Waypoint Name	**Coordinates**
CETUL (IAF)	44°41’51.1”N 028°37’37.3”E
PILAT (IAF)	44°49’25.8”N 028°05’51.9”E
NURPO (IAF)	44°28’06.5”N 029°18’56.2”E
DENUB (IAF)	44°03’58.6”N 029°26’35.7”E
REVDA (IAF)	43°44’00.0”N 029°08’36.0”E
DIRAL (IAF)	44°30’39.0”N 027°33’14.9”E
RIVOS (IAF)	44°39’20.5”N 027°39’17.0”E
BIRLU	44°03’34.0”N 028°45’09.0”E
DOHAC	44°35’14.9”N 028°31’09.4”E
LERVU	44°11’46.0”N 028°52’36.0”E
MIVNU	44°33’13.1”N 028°17’23.0”E
CK408	44°29’13.4”N 028°30’19.9”E
CK512	44°09’35.2”N 028°17’56.9”E
CK513	44°14’49.7”N 028°06’56.0”E
CK514	44°20’42.5”N 027°54’29.6”E
CK516	44°35’56.8”N 028°00’35.2”E
CK518	44°18’48.7”N 029°03’54.2”E
CK510 (IF)	44°09’42.0”N 028°27’40.3”E
CK508 (FAF)	44°14’07.6”N 028°28’16.3”E
RW36 (MAPt)	44°20’47.20”N 028°29’10.73”E

LRTRA AND LRD VERTICAL LIMITS

TEMPORARY RESERVED AREAS (TRA)				DANGER AREAS (D)			
Identification	**Vertical limits**	**Identification**	**Vertical limits**	**Identification**	**Vertical limits**	**Identification**	**Vertical limits**
LRTRA40	GND - FL280	LRTRA74G	GND - 5500 FT AMSL	LRD01A	GND - FL100	LRD70C	GND - FL660
LRTRA65G	GND - 5500 FT AMSL	LRTRA80G	GND - 3500 FT AMSL	LRD01B	GND - FL285	LRD71A	GND - FL100
LRTRA65L	5500 FT AMSL - FL200	LRTRA81G	GND - 3000 FT AMSL	LRD01C	GND - FL660	LRD71B	GND - FL285
LRTRA67G	GND - 5000 FT AMSL	LRTRA82G	GND - 3000 FT AMSL	LRD06A	GND - FL100	LRD72A	GND - FL100
LRTRA67L	5000 FT AMSL - FL200	LRTRA83G	GND - 3500 FT AMSL	LRD06B	GND - FL285	LRD72B	GND - FL285
LRTRA71G	GND - 5500 FT AMSL	LRTRA84G	GND - 3500 FT AMSL	LRD06C	GND - FL660	LRD72C	GND - FL660
LRTRA71L	5500 FT AMSL - FL200	LRTRA85G	GND - 3500 FT AMSL	LRD07A	GND - FL100	LRD73A	GND - FL100
LRTRA72G	GND - 5500 FT AMSL	LRTRA111A	FL65 - FL280	LRD07B	GND - FL285	LRD73B	GND - FL285
LRTRA72L	5500 FT AMSL - FL200	LRTRA111F	FL100 - FL280FL	LRD07C	GND - FL660	LRD73C	GND - FL660
LRTRA73G	GND - 5500 FT AMSL	LRTRA111K	FL65 - FL280	LRD21A	GND - FL100	LRD74A	GND - FL100
LRTRA73L	5500 FT AMSL - FL200	LRTRA113A	FL130 - FL280	LRD21B	GND - FL285	LRD74B	GND - FL285
				LRD21C	GND - FL660	LRD74C	GND - FL660
				LRD70A	GND - FL100	LRD75A	GND - FL100
				LRD70B	GND - FL285	LRD75B	GND - FL285

RADIO COMMUNICATION FAILURE

a) If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated RNP Instrument Approach Procedure. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600

b) If RWY was assigned or received by ATC or ATIS and vectoring was initiated, set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to CK510, then FAF and execute approach and land. Descending shall be executed in accordance with the vertical restrictions specified on Radar Minimum Altitude Chart, but not less then 2500 ft.

c) If RNP Instrument Approach Procedure was not assigned and RWY not assigned or received by ATC or ATIS, set transponder 7600, proceed according to FPL and FPL RNP Instrument Approach Procedure. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

d) MISSED APPROACH, from DOHAC climb in holding to FL050, proceed direct to MIVNU and follow a new approach RWY36.

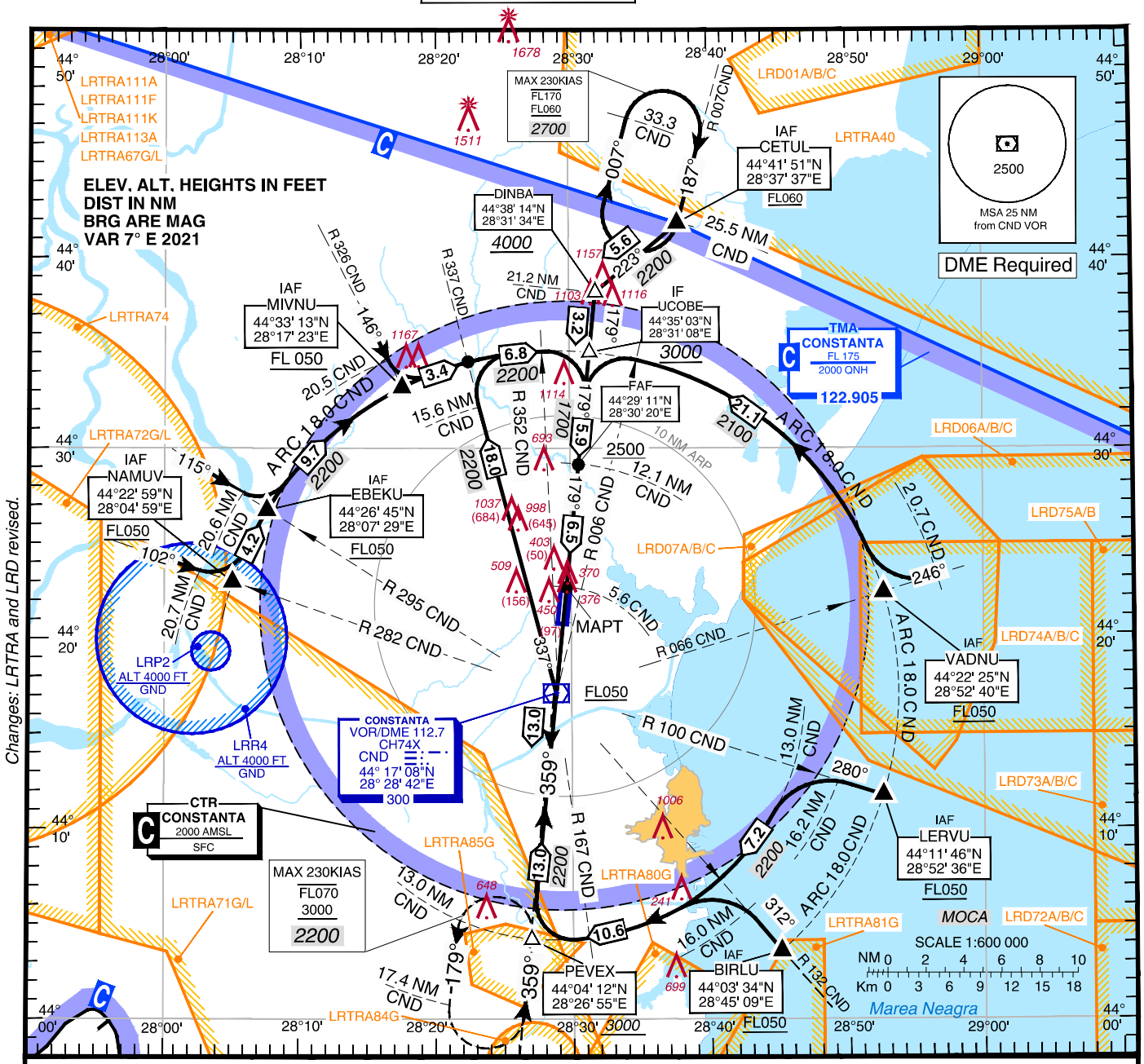
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 353FT
HEIGHTS RELATED TO AD ELEV - 353FT

Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

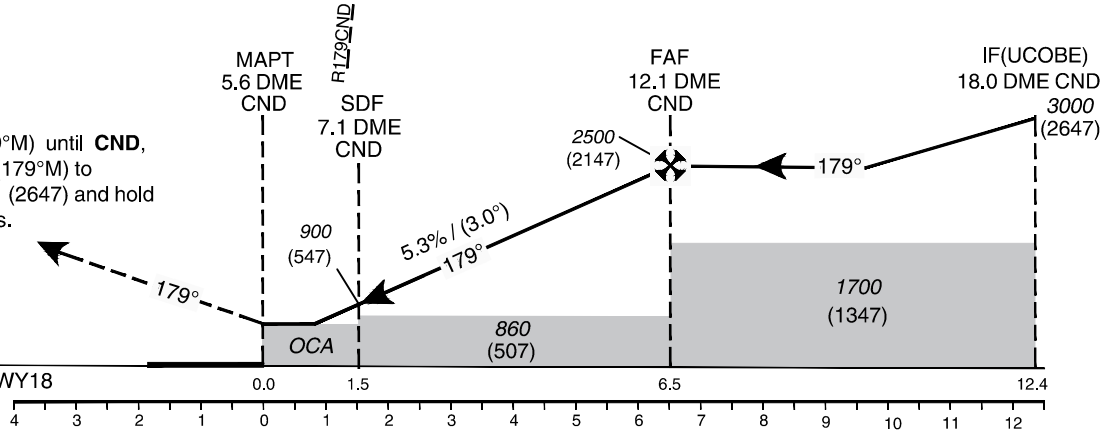
CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)
VOR RWY 18



Transition Altitude
4000

MISSED APPROACH

Climb to **R359 CND** (179°M) until **CND**, then follow **R179 CND** (179°M) to **PEVEX** climbing to ***3000*** (2647) and hold or follow ATC instructions.



OCA/(H)	A	B	C	D
Straight-in Approach	*650* (297)			
Circling	750	850	1400	1440

Timing not authorised for defining the MAPt.

Dist to DME CND	NM	7	8	9	10	11	12
Altitudes (Height)	FT	*860* (507)	*1190* (837)	*1510* (1157)	*1830* (1477)	*2150* (1797)	*2470* (2117)

GS	KT	70	90	100	120	140	160
FAF-MAPT 6.5 NM	MIN:SEC	5:34	4:20	3:54	3:15	2:47	2:26
Rate of descent 5.28%	FT/MIN	374	481	535	642	749	856

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)
VOR RWY 18

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 18 from BIRLU, CETUL, EBEKU, LERVU, MIVNU, NAMUV, VADNU.	
Fix/Waypoint Name	**Coordinates**
BIRLU (IAF) – BRG 131.77°/18.00NM CND	44°03’34.0”N 028°45’09.0”E
CETUL (IAF) – BRG 007.43°/25.53NM CND	44°41’51.1”N 028°37’37.3”E
EBEKU (IAF) – BRG 295.40°/18.00 CND	44°26’44.8”N 028°07’29.1”E
LERVU (IAF) – BRG 100.19°/18.00NM CND	44°11’46.3”N 028°52’36.2”E
MIVNU (IAF) – BRG 326.31°/18.00NM CND	44°33’13.1”N 028°17’23.2”E
NAMUV (IAF) – BRG 282.10°/18.00NM CND	44°22’59.0”N 028°04’58.9”E
VADNU (IAF) – BRG 065.77°/18.00NM CND	44°22’25.0”N 028°52’40.0”E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E
DINBA – BRG 358.54°/21.20NM CND	44°38’14.0”N 028°31’33.9”E
UCOBE (IF) – BRG 358.54°/18.00NM CND	44°35’02.9”N 028°31’07.8”E
FAF – BRG 358.54°/12.10 NM CND	44°29’10.6”N 028°30’19.8”E
MAPT – BRG 358.54°/5.60 NM CND	44°22’42.4”N 028°29’27.2”E
THR RWY 18	44°22’40.04”N 028°29’26.13”E
PEVEX – BRG 178.68°/13.00NM CND	44°04’11.8”N 028°26’54.8”E

Final approach descent angle: 5.3% (3.00°)

LRTRA AND LRD VERTICAL LIMITS

TEMPORARY RESERVED AREAS (TRA)		**DANGER AREAS (D)**	
Identification	**Vertical limits**	**Identification**	**Vertical limits**
LRTRA40	GND - FL280	LRD01A	GND - FL100
LRTRA67G	GND - 5000 FT AMSL	LRD01B	GND - FL285
LRTRA67L	5000 FT AMSL - FL200	LRD01C	GND - FL660
LRTRA71G	GND - 5500 FT AMSL	LRD06A	GND - FL100
LRTRA71L	5500 FT AMSL - FL200	LRD06B	GND - FL285
LRTRA72G	GND - 5500 FT AMSL	LRD06C	GND - FL660
LRTRA72L	5500 FT AMSL - FL200	LRD07A	GND - FL100
LRTRA74G	GND - 5500 FT AMSL	LRD07B	GND - FL285
LRTRA80G	GND - 3500 FT AMSL	LRD07C	GND - FL660
LRTRA81G	GND - 3000 FT AMSL	LRD72A	GND - FL100
LRTRA84G	GND - 3500 FT AMSL	LRD72B	GND - FL285
LRTRA85G	GND - 3500 FT AMSL	LRD72C	GND - FL660
LRTRA111A	FL65 - FL280	LRD73A	GND - FL100
LRTRA111F	FL100 - FL280FL	LRD73B	GND - FL285
LRTRA111K	FL65 - FL280	LRD73C	GND - FL660
LRTRA113A	FL130 - FL280	LRD74A	GND - FL100
		LRD74B	GND - FL285
		LRD74C	GND - FL660
		LRD75A	GND - FL100
		LRD75B	GND - FL285

RADIO COMMUNICATION FAILURE

Maintain 3000 ft QNH and intercept R179 CND until CND VOR/DME, then proceed outbound R337 CND. At D15.6 CND turn RIGHT, proceed along CND 18 DME arc to UCOBE for a new approach.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 353FT

HEIGHTS RELATED TO THR RWY 36 - ELEV 315FT

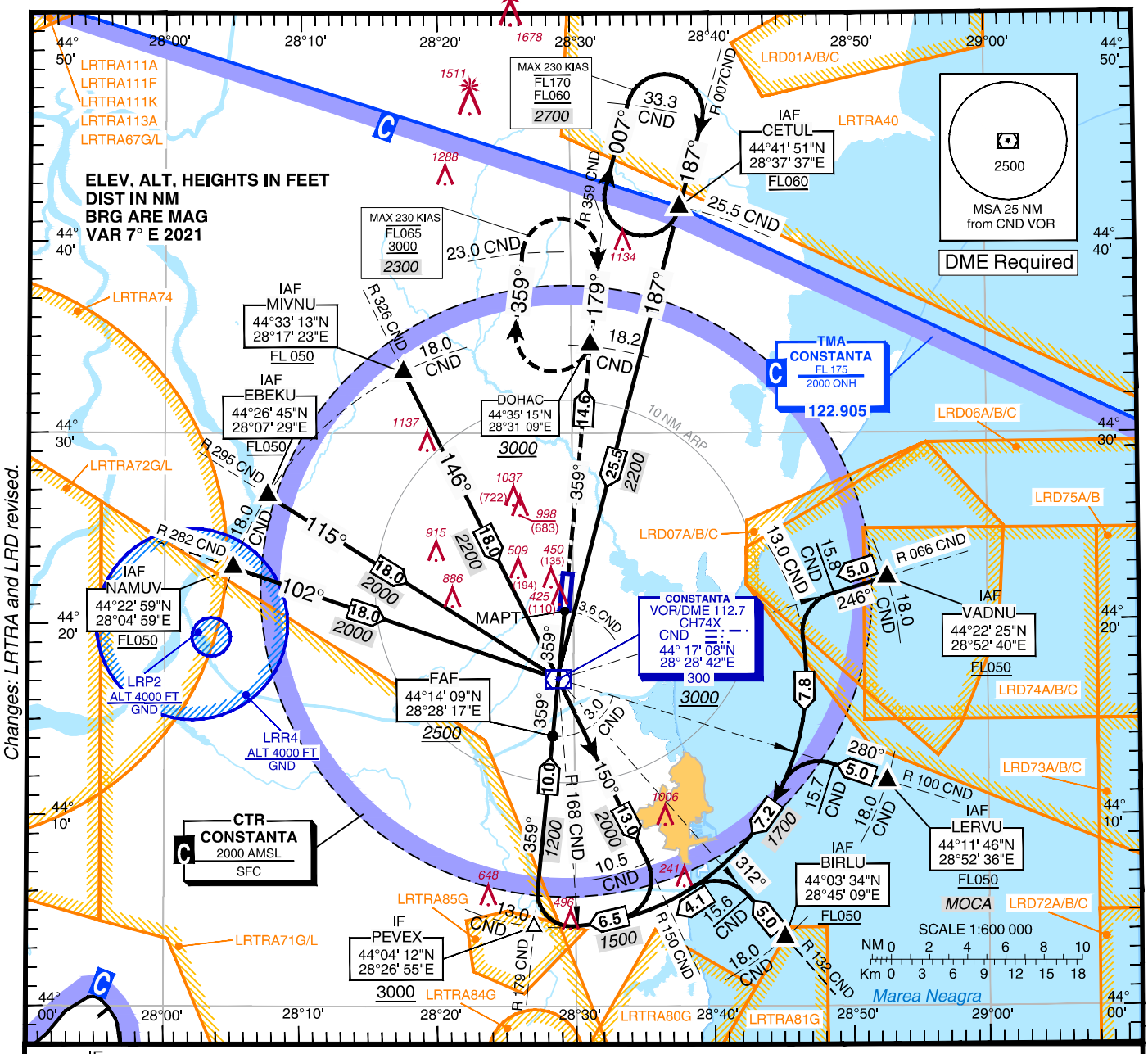
Constanta ATIS	118.750
Constanta Approach	122.905
Constanta Approach ALTN	127.350
Constanta Tower	124.030
Constanta Tower ALTN	120.450

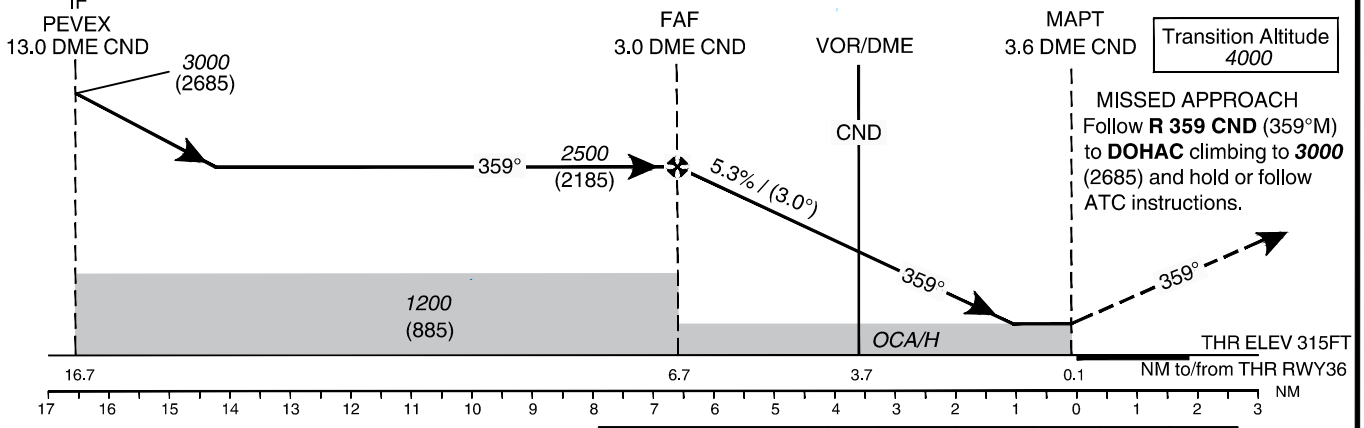
DINSI SECTOR	122.380
DINSI SECTOR ALTN	122.725
ARGES SECTOR	121.180
ARGES SECTOR ALTN	123.900

CONSTANȚA/M.Kogălniceanu-Constanța (LRCK)

VOR RWY 36

Changes: LRTRA and LRD revised.





OCA/H	A	B	C	D
Straight-in Approach	680 (365)			
Circling	750	850	1400	1440

Timing not authorised for defining the MAPt.

Dist to/from CND DME	NM	2/-	1/-	0/0	-/1	-/2
Altitudes (Height)	FT	2180 (1865)	1860 (1545)	1540 (1225)	1220 (905)	900 (585)

GS	KT	70	90	100	120	140	160
FAF-MAPT 6.6 NM	MIN:SEC	5:39	4:24	3:58	3:18	2:50	2:28
Rate of descent 5.27%	FT/MIN	374	480	534	640	747	854

CONSTANŢA / Mihail Kogalniceanu - Constanţa (LRCK)
VOR RWY 36

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 36 from BIRLU, CETUL, EBEKU, LERVU, MIVNU, NAMUV, VADNU.	
Fix/Waypoint Name	**Coordinates**
BIRLU (IAF) – BRG 131.77°/18.00NM CND	44°03’34.0”N 028°45’09.0”E
CETUL (IAF) – BRG 007.43°/25.53NM CND	44°41’51.1”N 028°37’37.3”E
EBEKU (IAF) – BRG 295.40°/18.00 CND	44°26’44.8”N 028°07’29.1”E
LERVU (IAF) – BRG 100.19°/18.00NM CND	44°11’46.3”N 028°52’36.2”E
MIVNU (IAF) – BRG 326.31°/18.00NM CND	44°33’13.1”N 028°17’23.2”E
NAMUV (IAF) – BRG 282.10°/18.00NM CND	44°22’59.0”N 028°04’58.9”E
VADNU (IAF) – BRG 065.77°/18.00NM CND	44°22’25.0”N 028°52’40.0”E
CND VOR/DME	44°17’08.0”N 028°28’42.0”E
PEVEX (IF) – BRG 178.68°/13.00NM CND	44°04’11.8”N 028°26’54.8”E
FAF – BRG 178.68°/3.00NM CND	44°14’08.9”N 028°28’17.2”E
MAPT – BRG 358.68°/3.60NM CND	44°20’42.9”N 028°29’11.8”E
THR RWY 36	44°20’47.20”N 028°29’10.73”E
DOHAC – BRG 358.54°/18.20NM CND	44°35’14.9”N 028°31’09.4”E

Final approach descent angle: 5.3% (3.00°)

LRTRA AND LRD VERTICAL LIMITS

TEMPORARY RESERVED AREAS (TRA)		**DANGER AREAS (D)**	
Identification	**Vertical limits**	**Identification**	**Vertical limits**
LRTRA40	GND - FL280	LRD01A	GND - FL100
LRTRA67G	GND - 5000 FT AMSL	LRD01B	GND - FL285
LRTRA67L	5000 FT AMSL - FL200	LRD01C	GND - FL660
LRTRA71G	GND - 5500 FT AMSL	LRD06A	GND - FL100
LRTRA71L	5500 FT AMSL - FL200	LRD06B	GND - FL285
LRTRA72G	GND - 5500 FT AMSL	LRD06C	GND - FL660
LRTRA72L	5500 FT AMSL - FL200	LRD07A	GND - FL100
LRTRA74G	GND - 5500 FT AMSL	LRD07B	GND - FL285
LRTRA80G	GND - 3500 FT AMSL	LRD07C	GND - FL660
LRTRA81G	GND - 3000 FT AMSL	LRD72A	GND - FL100
LRTRA84G	GND - 3500 FT AMSL	LRD72B	GND - FL285
LRTRA85G	GND - 3500 FT AMSL	LRD72C	GND - FL660
LRTRA111A	FL65 - FL280	LRD73A	GND - FL100
LRTRA111F	FL100 - FL280FL	LRD73B	GND - FL285
LRTRA111K	FL65 - FL280	LRD73C	GND - FL660
LRTRA113A	FL130 - FL280	LRD74A	GND - FL100
		LRD74B	GND - FL285
		LRD74C	GND - FL660
		LRD75A	GND - FL100
		LRD75B	GND - FL285

RADIO COMMUNICATION FAILURE

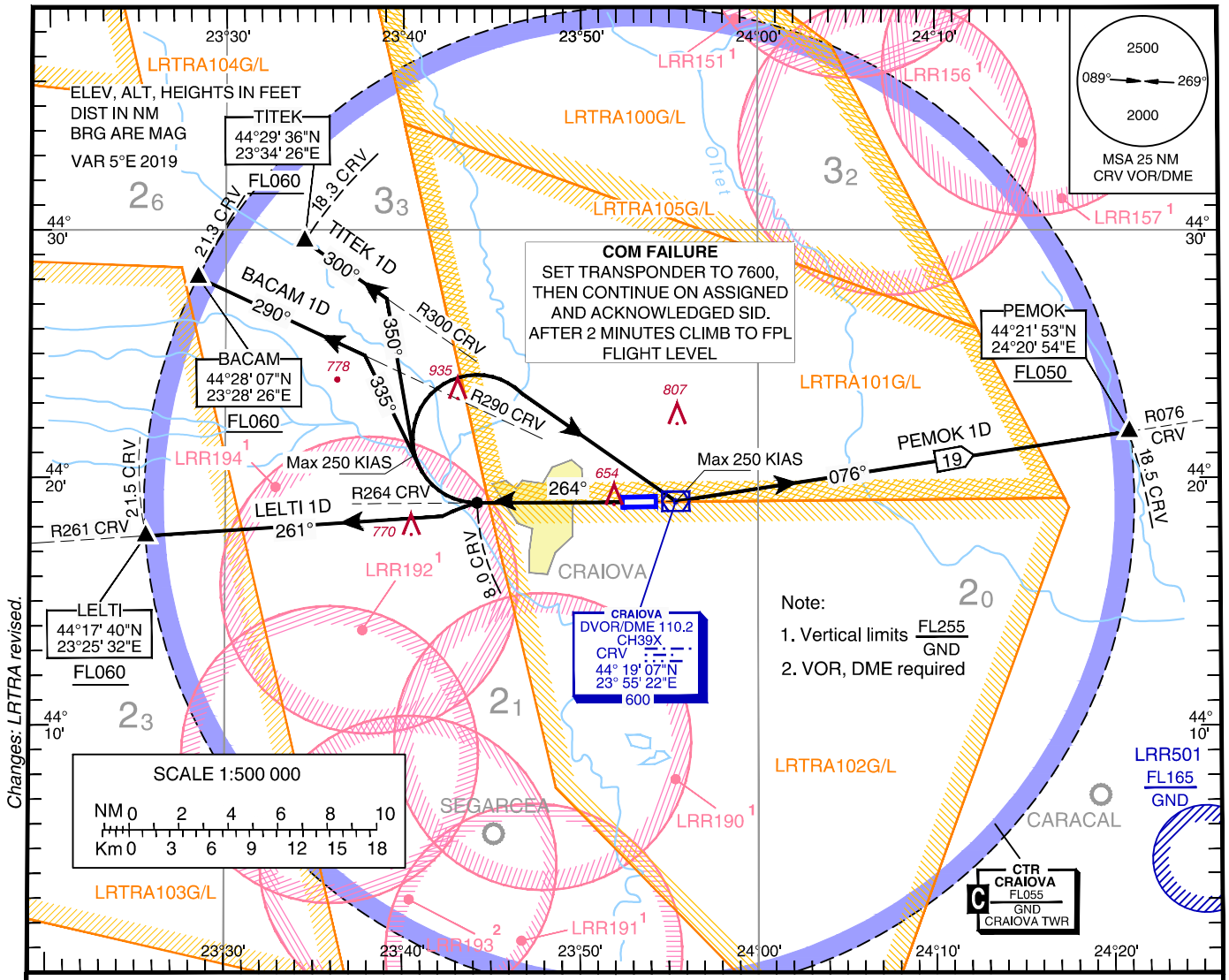
Maintain 3000 ft. QNH and intercept R359 CND until CND VOR/DME, then proceed outbound R150 CND. At D10.5 CND turn RIGHT, proceed along CND 13 DME arc to PEVEX for a new approach.

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

Transition Altitude
4000

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
RWY 26
BACAM 1D, LELTI 1D, PEMOK 1D, TITEK 1D



Changes: LRTRA revised.

SID Identifier	DESCRIPTION
BACAM 1D	Climb on **R 264° CRV** (264°M). At **8.0 CRV**, turn **RIGHT** heading **335°M** (Max 250 KIAS) to intercept and follow **R 290° CRV** (290°M) to **BACAM** at or above **FL060.**(1) **(1) ATS climbgradient: 5.0%** up to BACAM, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
LELTI 1D	Climb on runway heading. At **8.0 CRV**, turn **LEFT** to intercept and follow **R 261° CRV** (261°M) to **LELTI** at or above **FL060.**(1) **(1) ATS climb gradient: 4.7%** up to LELTI, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
PEMOK 1D	Climb on **R 264° CRV** (264°M). At **8.0 CRV**, turn **RIGHT** direct to CRV. At **CRV** follow **R 076° CRV** (076°M) to **PEMOK** at or above **FL050.** Max **250 KIAS** until **CRV.**
TITEK 1D	Climb on **R 264° CRV** (264°M). At **8.0 CRV**, turn **RIGHT** heading 350°M (Max **250 KIAS**) to intercept and follow **R 300° CRV** (300°M) to **TITEK** at or above **FL060.**(1) **(1) ATS climb gradient: 5.6%** up to TITEK due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.

TEMPORARY RESERVED AREAS					
Identification	Vertical limits	Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND - 4500 FT AMSL	LRTRA102G	GND - 4000 FT AMSL	LRTRA104G	GND - 4500 FT AMSL
LRTRA100L	4500 FT AMSL - FL200	LRTRA102L	4000 FT AMSL - FL200	LRTRA104L	4500 FT AMSL - FL200
LRTRA101G	GND - 4500 FT AMSL	LRTRA103G	GND - 4500 FT AMSL	LRTRA105G	GND - 4500 FT AMSL
LRTRA101L	4500 FT AMSL - FL200	LRTRA103L	4500 FT AMSL - FL200	LRTRA105L	4500 FT AMSL - FL200

CRAIOVA / Craiova (LRCV)
SID RWY 26

AERONAUTICAL DATA TABULATION

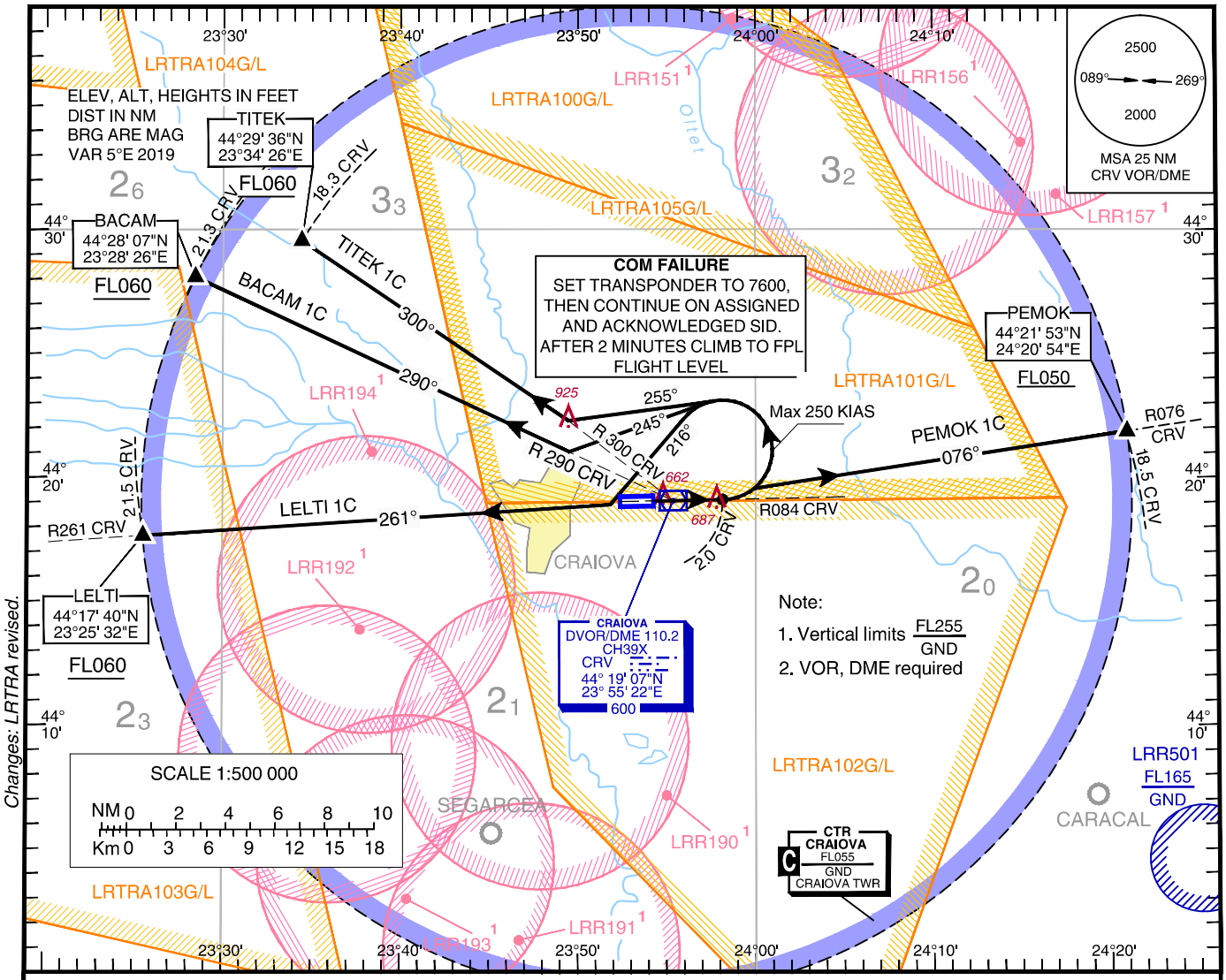
SID RWY 26	
Fix/Point	**Coordinates**
CRV VOR DME	44°19'07.0"N 023°55'21.9"E
BACAM – BRG 289.86° CRV / 21.30NM CRV	44°28'07.0"N 023°28'26.0"E
TITEK – BRG 299.76° CRV / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
LELTI – BRG 261.01° CRV / 21.47NM CRV	44°17'40.0"N 023°25'32.0"E
PEMOK – BRG 075.98° CRV / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
DER 26	44°19'04.3"N 023°51'59.7"E

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

Transition Altitude
4000

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
RWY 08
BACAM 1C, LELTI 1C,
PEMOK 1C, TITEK 1C



Changes: LRTRA revised.

SID Identifier	DESCRIPTION
BACAM 1C	**Climb on R 264° CRV (084°M) until CRV, then follow R 084°CRV (084°M). At 2.0 CRV,** turn **LEFT** heading **245°M** (Max 250 KIAS) to intercept and follow **R 290° CRV** (290°M) to BACAM at or above **FL060.**(1) **(1) ATS climb gradient: 3.6%** up to BACAM, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
LELTI 1C	Climb on **R 264° CRV** (084°M) until **CRV**, then follow **R 084°CRV** (084°M). At **2.0 CRV**, turn **LEFT** heading **216°M** (Max 250 KIAS) to intercept and follow **R 261° CRV** (261°M) to **LELTI** at or above **FL060.**(1) **(1) ATS climb gradient: 3.4%** up to LELTI, due to airspace restriction. Advise ATC if unble to ensure the ATC climb gradient.
PEMOK 1C	Climb on runway heading. At **2.0 CRV**, turn **LEFT** to intercept and follow **R 076° CRV** (076°M) to PEMOK at or above FL050.(1) **(1) ATS climb gradient: 3.8%** up to PEMOK, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
TITEK 1C	Climb on **R 264° CRV** (084°M) until **CRV**, then follow **R 084°CRV** (084°M). At **2.0 CRV**, turn **LEFT** heading **255°M** (Max 250 KIAS) to intercept and follow **R 300° CRV** (300°M) to **TITEK** at or above **FL060.**(1) **(1) ATS climb gradient: 4.1%** up to TITEK due to airspace restriction. Advise ATC if unble to ensure the ATS climb gradient.

TEMPORARY RESERVED AREAS

Identification	Vertical limits	Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND - 4500 FT AMSL	LRTRA102G	GND - 4000 FT AMSL	LRTRA104G	GND - 4500 FT AMSL
LRTRA100L	4500 FT AMSL - FL200	LRTRA102L	4000 FT AMSL - FL200	LRTRA104L	4500 FT AMSL - FL200
LRTRA101G	GND - 4500 FT AMSL	LRTRA103G	GND - 4500 FT AMSL	LRTRA105G	GND - 4500 FT AMSL
LRTRA101L	4500 FT AMSL - FL200	LRTRA103L	4500 FT AMSL - FL200	LRTRA105L	4500 FT AMSL - FL200

CRAIOVA / Craiova (LRCV)
SID RWY 08

AERONAUTICAL DATA TABULATION

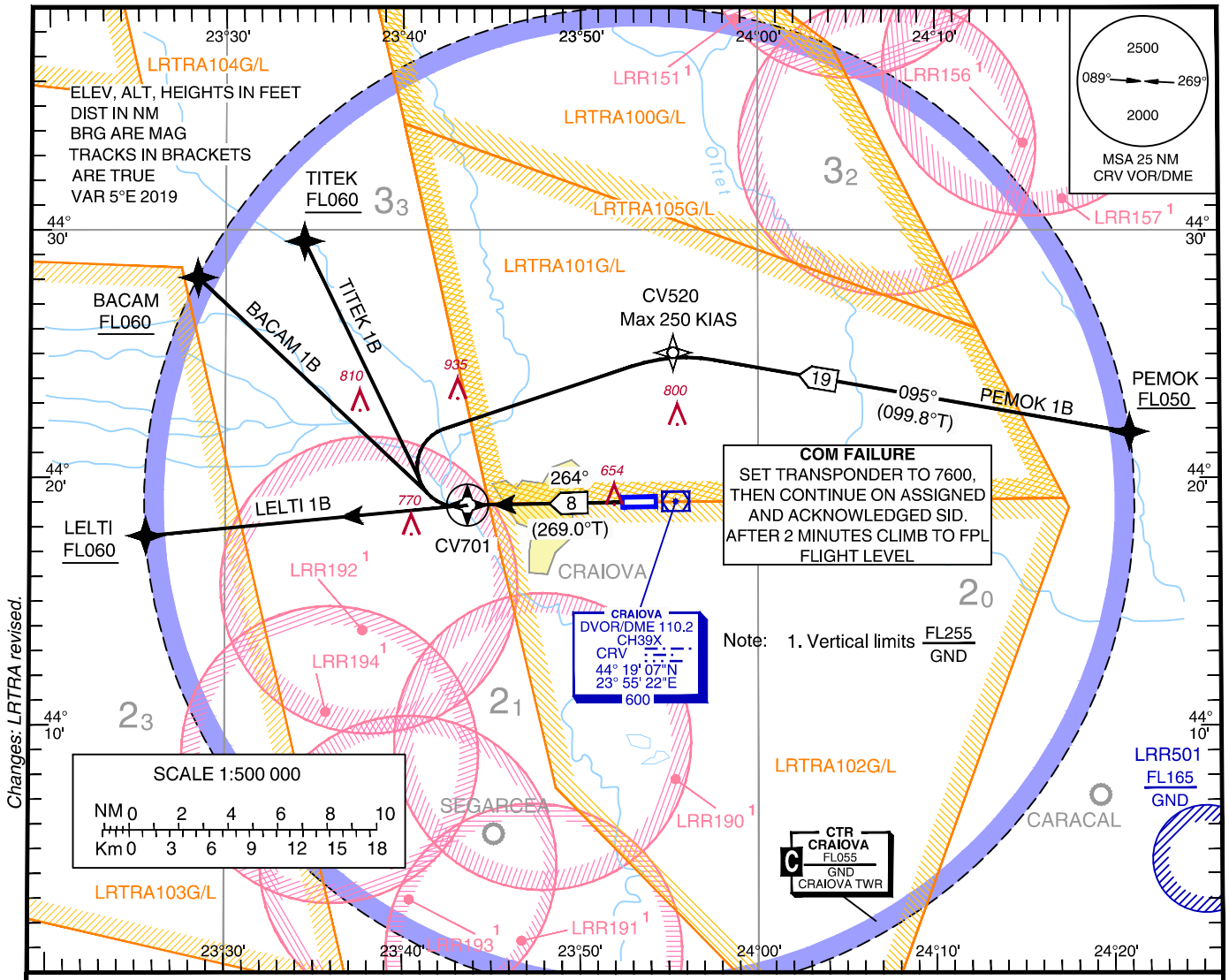
SID RWY 08	
Fix/Point	**Coordinates**
CRV VOR DME	44°19'07.0"N 023°55'21.9"E
BACAM – BRG 289.86° CRV / 21.30NM CRV	44°28'07.0"N 023°28'26.0"E
TITEK – BRG 299.76° CRV / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
LELTI – BRG 261.01° CRV / 21.47NM CRV	44°17'40.0"N 023°25'32.0"E
PEMOK – BRG 075.98° CRV / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
DER 08	44°19'06.2"N 023°54'28.6"E

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

Transition Altitude
4000

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
RNAV1 (GNSS) RWY 26
BACAM 1B, LELTI 1B, PEMOK 1B, TITEK 1B



Changes: LRTRA revised.

SID Identifier	DESCRIPTION
BACAM 1B	Climb to **CV701** on course **264°M.** At **CV701**, turn **RIGHT** (Max 250 KIAS), direct to **BACAM** at or above **FL060.**(1) **(1) ATS climbgradient: 4.8%** up to **BACAM**, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
LELTI 1B	Climb to **CV701** on course **264°M .** At **CV701**, turn **LEFT** (Max 250 KIAS), direct to **LELTI** at or above **FL060.**(1) **(1) ATS climb gradient: 4.6%** up to **LELTI**, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
PEMOK 1B	Climb to **CV701** on course **264°M.** At **CV701**, turn **RIGHT** direct to **CV520** (Max 250 KIAS), then to **PEMOK** at or above **FL050.**
TITEK 1B	Climb to **CV701** on course **264°M.** At **CV701**, turn **RIGHT** (Max 250 KIAS), direct to **TITEK** at or above **FL060.**(1) **(1) ATS climb gradient: 5.7%** up to **FL060**, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.

TEMPORARY RESERVED AREAS

Identification	Vertical limits	Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND - 4500 FT AMSL	LRTRA102G	GND - 4000 FT AMSL	LRTRA104G	GND - 4500 FT AMSL
LRTRA100L	4500 FT AMSL - FL200	LRTRA102L	4000 FT AMSL - FL200	LRTRA104L	4500 FT AMSL - FL200
LRTRA101G	GND - 4500 FT AMSL	LRTRA103G	GND - 4500 FT AMSL	LRTRA105G	GND - 4500 FT AMSL
LRTRA101L	4500 FT AMSL - FL200	LRTRA103L	4500 FT AMSL - FL200	LRTRA105L	4500 FT AMSL - FL200

CRAIOVA / Craiova (LRCV)
RNAV1 (GNSS) SID RWY 26

AERONAUTICAL DATA TABULATION

RNAV1 (GNSS) SID RWY 26	
Waypoint Identifier	***Coordinates***
CV701	44°18'57.2" N 023°43'38.4" E
CV520	44°25'06.9" N 023°55'12.8" E
BACAM	44°28'07.0" N 023°28'26.0" E
LELTI	44°17'40.0" N 023°25'32.0" E
PEMOK	44°21'52.9" N 024°20'54.5" E
TITEK	44°29'35.8" N 023°34'25.9" E
DER 26	44°19'04.3" N 023°51'59.7" E

TABULAR DESCRIPTION

RNAV1 (GNSS) SID RWY 26

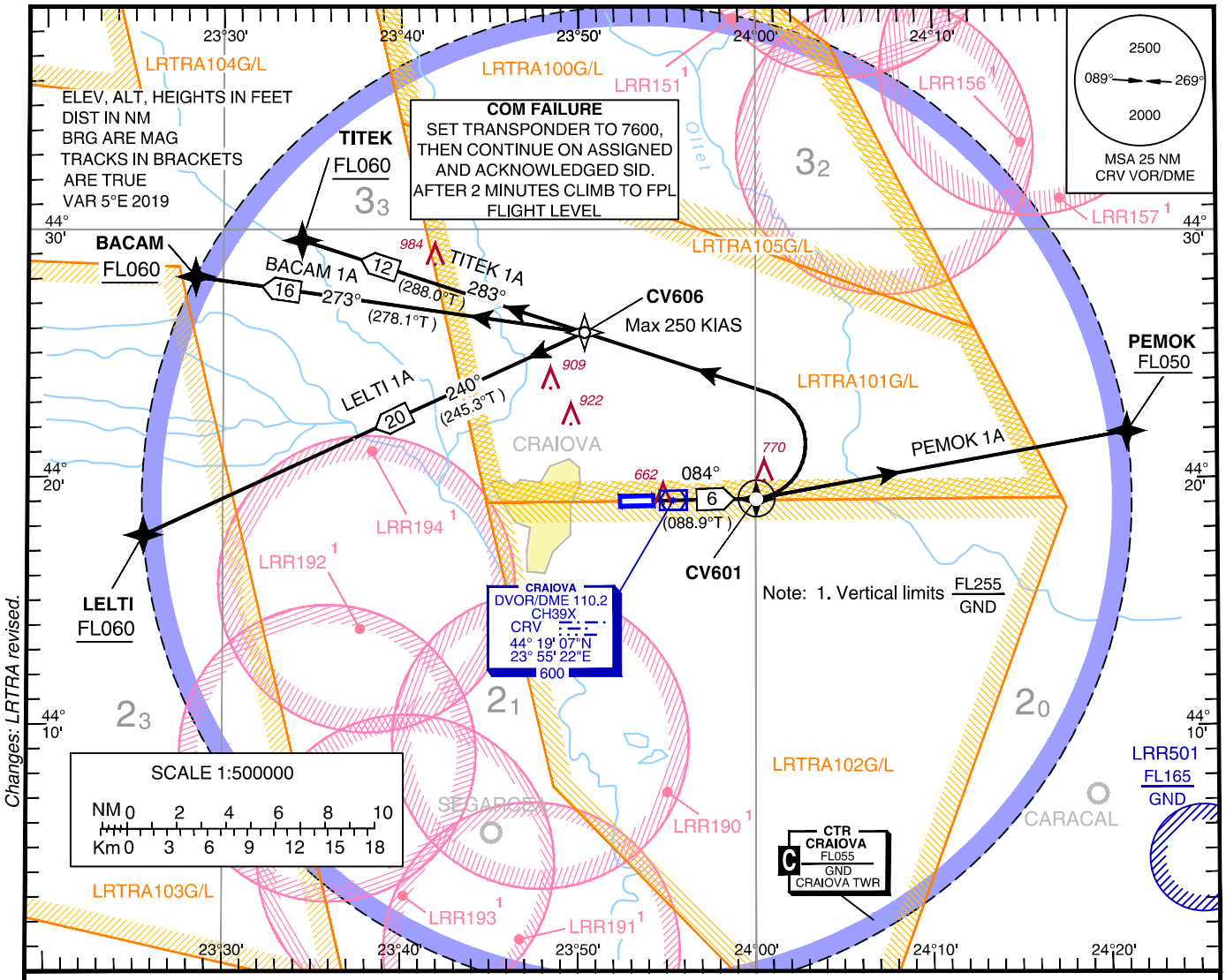
Serial No	*SID ID*	*Path Descriptor*	*Waypoint ID*	*Flyover*	*Course °M (°T)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*NAV SPEC*
010	BACAM 1B	CF	CV701	Y	264 (269.0)	5.0E	8	-	-	-	-	RNAV 1
020	BACAM 1B	DF	BACAM	-	-	5.0E	-	-	+FL060	-	-	RNAV 1
010	LELTI 1B	CF	CV701	Y	264 (269.0)	5.0E	8	-	-	-	-	RNAV 1
020	LELTI 1B	DF	LELTI	-	-	5.0E	-	R	+FL060	-	-	RNAV 1
010	PEMOK 1B	CF	CV701	Y	264 (269.0)	5.0E	8	-	-	-	-	RNAV 1
020	PEMOK 1B	DF	CV520	-	-	5.0E	-	-	-	-250	-	RNAV 1
030	PEMOK 1B	TF	PEMOK	-	095 (099.8)	5.0E	19	-	+FL050	-	-	RNAV 1
010	TITEK 1B	CF	CV701	Y	264 (269.0)	5.0E	8	-	-	-	-	RNAV 1
020	TITEK 1B	DF	TITEK	-	-	5.0E	-	-	+FL060	-	-	RNAV 1

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

Transition Altitude
4000

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
RNAV1 (GNSS) RWY 08
BACAM 1A, LELTI 1A,
PEMOK 1A, TITEK 1A



Changes: LRTRA revised.

SID Identifier	DESCRIPTION
BACAM 1A	Climb to **CV601** on course **084°M.** At **CV601**, turn **LEFT** direct to **CV606** (Max 250 KIAS), then to **BACAM** at or above **FL060.**
LELTI 1A	Climb to **CV601** on course **084°M.** At **CV601**, turn **LEFT** direct to **CV606** (Max 250 KIAS), then to **LELTI** at or above **FL060.**
PEMOK 1A	Climb to **CV601** on course **084°M.** At **CV601**, turn **LEFT** direct to **PEMOK** at or above **FL050.**(1) (1) **ATS climb gradient: 3.8%** up to **PEMOK**, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
TITEK 1A	Climb to **CV601** on course **084°M.** At **CV601**, turn **LEFT** direct to **CV606** (Max 250 KIAS), then to **TITEK** at or above **FL060.**(1) (1) **ATS climb gradient: 3.7%** up to **FL060**, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.

TEMPORARY RESERVED AREAS					
Identification	Vertical limits	Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND - 4500 FT AMSL	LRTRA102G	GND - 4000 FT AMSL	LRTRA104G	GND - 4500 FT AMSL
LRTRA100L	4500 FT AMSL - FL200	LRTRA102L	4000 FT AMSL - FL200	LRTRA104L	4500 FT AMSL - FL200
LRTRA101G	GND - 4500 FT AMSL	LRTRA103G	GND - 4500 FT AMSL	LRTRA105G	GND - 4500 FT AMSL
LRTRA101L	4500 FT AMSL - FL200	LRTRA103L	4500 FT AMSL - FL200	LRTRA105L	4500 FT AMSL - FL200

CRAIOVA / Craiova (LRCV)
RNAV1 (GNSS) SID RWY 08

AERONAUTICAL DATA TABULATION

RNAV1 (GNSS) SID RWY 08	
Waypoint Identifier	***Coordinates***
CV601	44°19'10.6"N 024°00'02.9"E
CV606	44°25'54.1"N 023°50'22.5"E
BACAM	44°28'07.0"N 023°28'26.0"E
LELTI	44°17'40.0"N 023°25'32.0"E
PEMOK	44°21'52.9"N 024°20'54.5"E
TITEK	44°29'35.8"N 023°34'25.9"E
DER 08	44°19'06.2''N 023°54'28.6''E

TABULAR DESCRIPTION

RNAV1 (GNSS) SID RWY 08

Serial No	*SID ID*	*Path Descriptor*	*Waypoint ID*	*Flyover*	*Course °M (°T)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*NAV SPEC*
010	BACAM 1A	CF	CV601	Y	084 (088.9)	5.0E	6	-	-	-	-	RNAV 1
020	BACAM 1A	DF	CV606	-	-	5.0E	-	L		-250	-	RNAV 1
030	BACAM 1A	TF	BACAM		273 (278.1)	5.0E	16	-	+FL060	-	-	RNAV 1
010	LELTI 1A	CF	CV601	Y	084 (088.9)	5.0E	6	-	-	-	-	RNAV 1
020	LELTI 1A	DF	CV606	-	-	5.0E	-	-	-	-250	-	RNAV 1
030	LELTI 1A	TF	LELTI	-	240 (245.3)	5.0E	20	-	+FL060	-	-	RNAV 1
010	PEMOK 1A	CF	CV601	Y	084 (088.9)	5.0E	6	-	-	-	-	RNAV 1
020	PEMOK 1A	DF	PEMOK	-	-	5.0E	-	-	+FL050	-	-	RNAV 1
010	TITEK 1A	CF	CV601	Y	084 (088.9)	5.0E	6	-	-	-	-	RNAV 1
020	TITEK 1A	DF	CV606	-	-	5.0E	-	-	-	-250	-	RNAV 1
030	TITEK 1A	TF	TITEK	-	283 (288.0)	5.0E	12	-	+FL060	-	-	RNAV 1

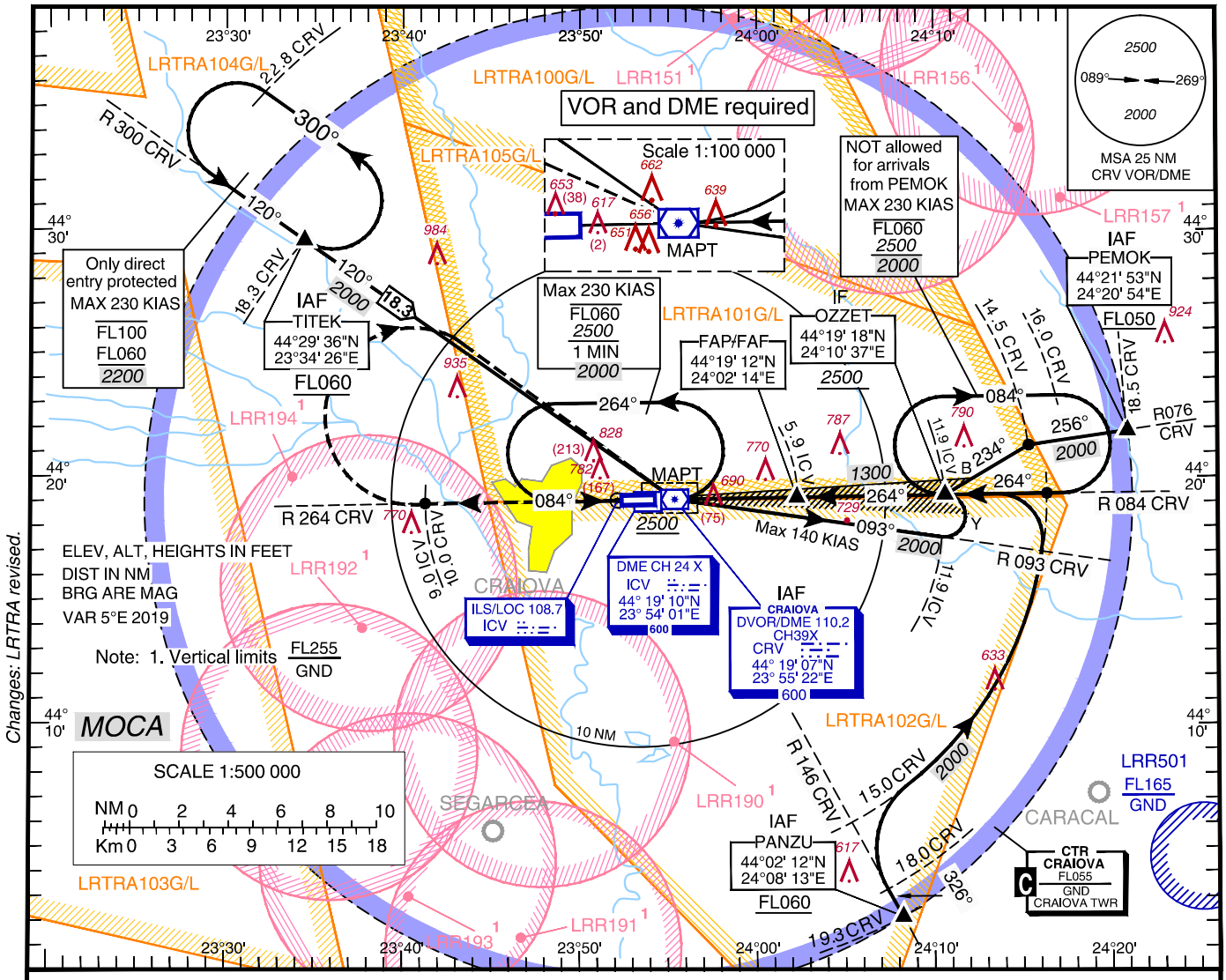
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **628 ft**

HEIGHTS RELATED TO THR RWY 26 - ELEV 615 ft

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
ILS Z
RWY 26

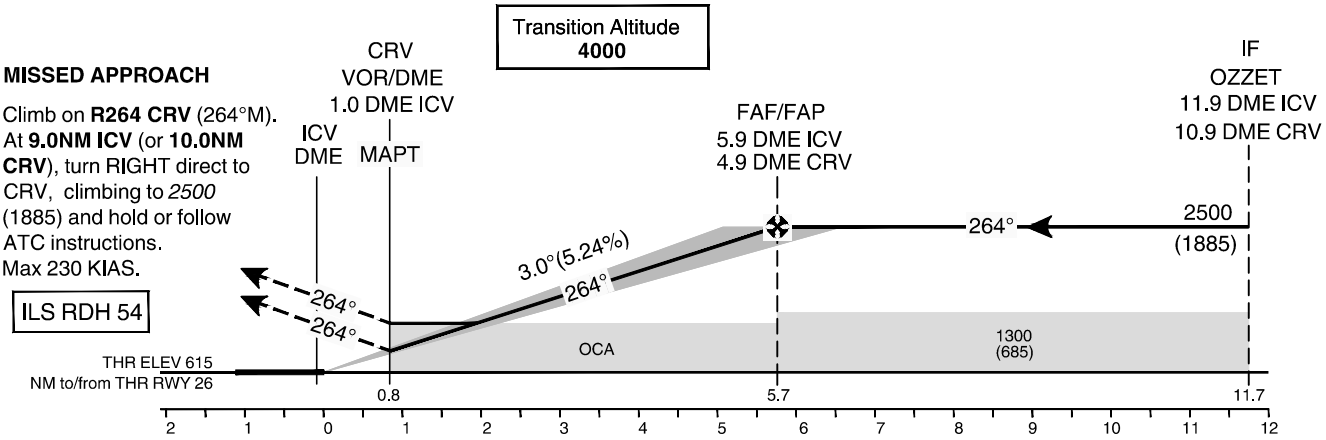


Changes: LRTRA revised.

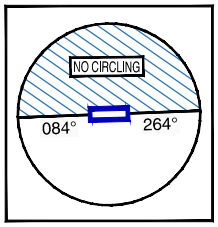
MISSED APPROACH

Climb on **R264 CRV** (264°M). At **9.0NM ICV** (or **10.0NM CRV**), turn RIGHT direct to CRV, climbing to *2500* (1885) and hold or follow ATC instructions. Max 230 KIAS.

ILS RDH 54



OCA (H)		A	B
Straight-in Approach	CAT I	759 (144)	768 (153)
	CAT II	671 (56)	683 (68)
	GP INOP	940 (325)	
Circling*		1080	1130



GS	KT	70	90	100	120	140	160
FAF-MAPT 4.9 NM	MIN:SEC	4:12	3:16	2:56	2:27	2:06	1:50
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to ICV DME	NM	2	3	4	5
Altitudes (Height)	FT	*1250* (635)	*1570* (955)	*1890* (1275)	*2210* (1595)

* Circling South of airport only.

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
ILS Z RWY 26

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 26 from TITEK, PEMOK, PANZU, CRV.	
Fix/Point	**Coordinates**
TITEK (IAF) – BRG 300.05° / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
PEMOK (IAF) – BRG 076.27° / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
PANZU (IAF) – BRG 146.26° / 19.28NM CRV	44°02'12.0"N 024°08'13.0"E
CRV DVOR/DME **(IAF)**	44°19'07.0"N 023°55'21.9"E
BRG 146.00° / 15.00NM CRV	44°05'57.4"N 024°05'22.5"E
BRG 084.00° / 15.00NM CRV	44°19'29.8"N 024°16'15.4"E
BRG 264.00° / 9.00NM ICV	44°18'55.7"N 023°41'29.4"E
BRG 075.98° / 14.50NM CRV	44°21'17.2"N 024°15'20.4"E
OZZET (**IF**) – BRG 083.95° / 11.91NM ICV	44°19'17.8"N 024°10'36.9"E
FAF (GP INOP) – BRG 083.95° / 5.90NM ICV	44°19'11.9"N 024°02'14.4"E
MAPT (GP INOP) – BRG 083.95° / 1.00NM ICV	44°19'06.9"N 023°55'24.8"E
ICV LOC	44°19'04.4"N 023°52'07.9"E
GP 26	44°19'09.8"N 023°54'01.4"E
ICV DME	44°19'09.9"N 023°54'01.3"E
THR 26	44°19'06.08"N 023°54'15.11"E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If ILS instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to OZZET and hold 4 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

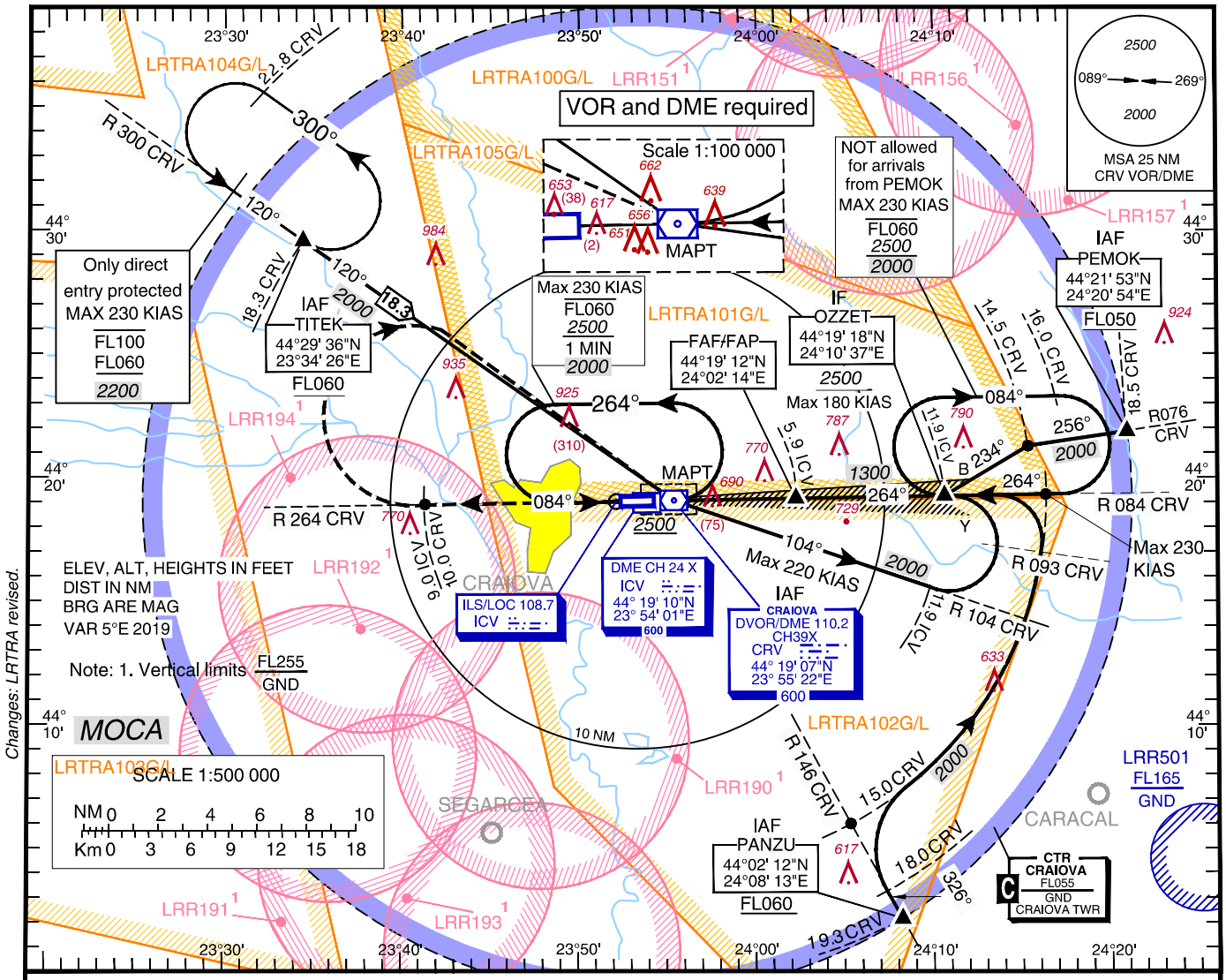
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **628 ft**

HEIGHTS RELATED TO THR RWY 26 - ELEV 615 ft

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

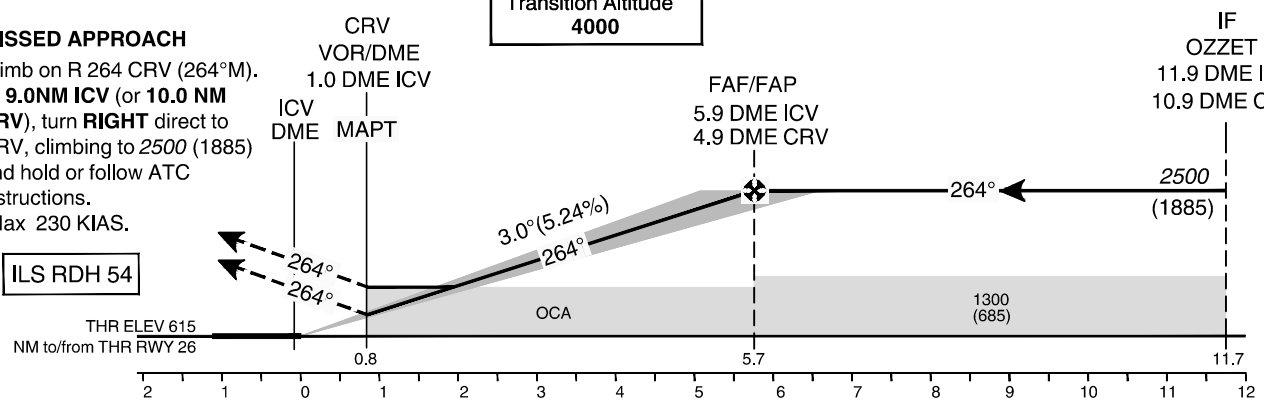
CRAIOVA / Craiova (LRCV)
ILS Y
RWY 26



MISSED APPROACH
Climb on R 264 CRV (264°M). At **9.0NM ICV** (or **10.0 NM CRV**), turn **RIGHT** direct to CRV, climbing to *2500* (1885) and hold or follow ATC instructions.
Max 230 KIAS.

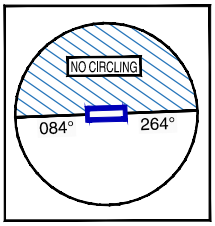
ILS RDH 54

Transition Altitude **4000**



OCA (H)		C	D	DL
Straight-in Approach	CAT I	*777* (162)	*788* (173)	*789* (174)
	CAT II	*697* (82)	*711* (96)	
	GP INOP	*940* (325)		–
Circling*		*1320*		–

* Circling South of airport only.



GS	KT	70	90	100	120	140	160
FAF-MAPT 4.9 NM	MIN:SEC	4:12	3:16	2:56	2:27	2:06	1:50
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to ICV DME	NM	2	3	4	5
Altitudes (Height)	FT	*1250* (635)	*1570* (955)	*1890* (1275)	*2210* (1595)

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
ILS Y RWY 26

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 26 from TITEK, PEMOK, PANZU, CRV.	
Fix/Point	**Coordinates**
TITEK (IAF) – BRG 300.05° / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
PEMOK (IAF) – BRG 076.27° / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
PANZU (IAF) – BRG 146.26° / 19.28NM CRV	44°02'12.0"N 024°08'13.0"E
CRV DVOR/DME **(IAF)**	44°19'07.0"N 023°55'21.9"E
BRG 146.00° / 15.00NM CRV	44°05'57.4"N 024°05'22.5"E
BRG 084.00° / 15.00NM CRV	44°19'29.8"N 024°16'15.4"E
BRG 264.00° / 9.00NM ICV	44°18'55.7"N 023°41'29.4"E
BRG 075.98° / 14.50NM CRV	44°21'17.2"N 024°15'20.4"E
OZZET (**IF**) – BRG 083.95° / 11.91NM ICV	44°19'17.8"N 024°10'36.9"E
FAF (GP INOP) – BRG 083.95° / 5.90NM ICV	44°19'11.9"N 024°02'14.4"E
MAPT (GP INOP) – BRG 083.95° / 1.00NM ICV	44°19'06.9"N 023°55'24.8"E
ICV LOC	44°19'04.4"N 023°52'07.9"E
GP 26	44°19'09.8"N 023°54'01.4"E
ICV DME	44°19'09.9"N 023°54'01.3"E
THR 26	44°19'06.08"N 023°54'15.11"E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If ILS instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to OZZET and hold 4 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

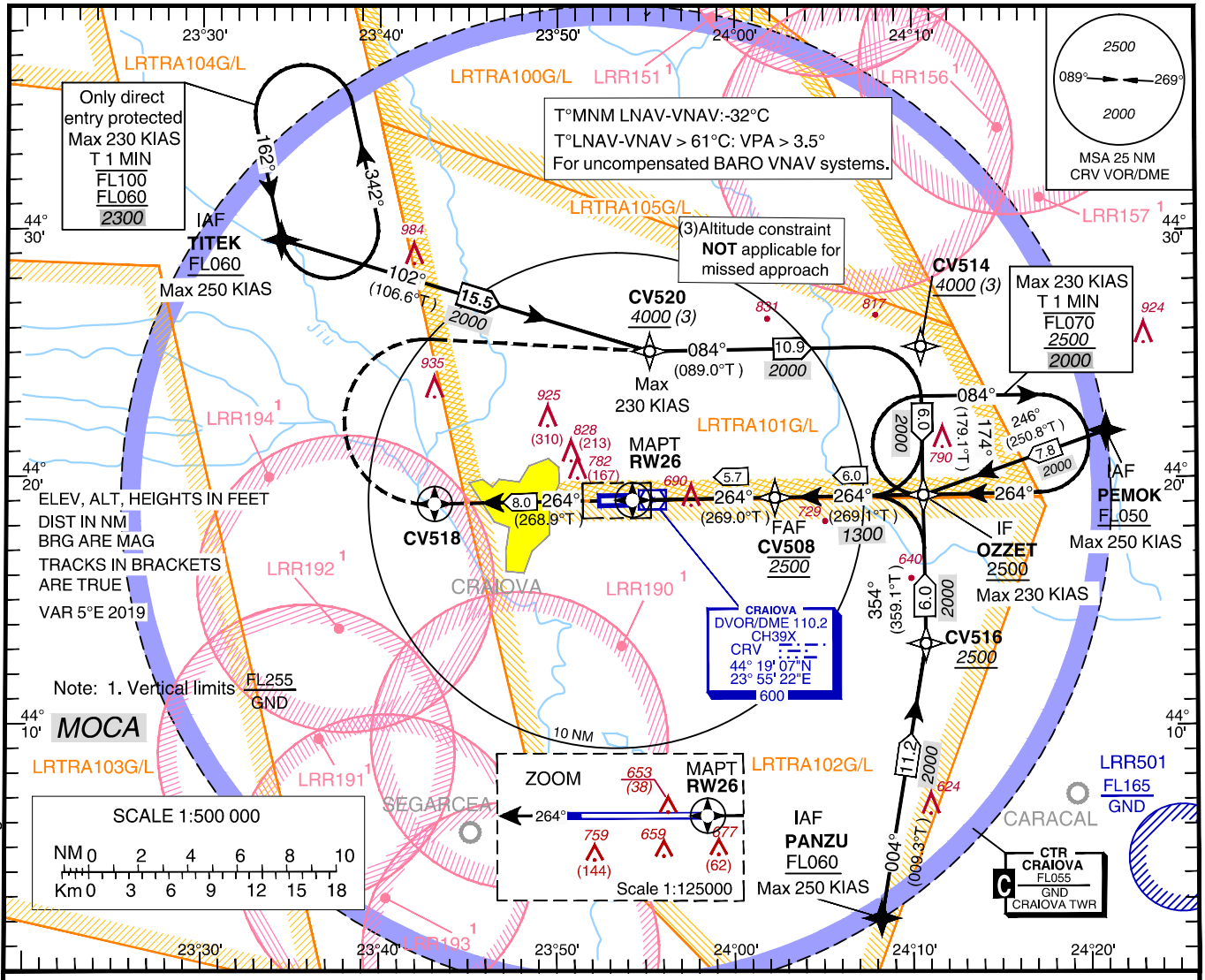
INSTRUMENT APPROACH CHART - ICAO

EGNOS
CH98764
E26A

AERODROME ELEV. **628 ft**
HEIGHTS RELATED TO
THR RWY 26 - ELEV 615 ft

CRAIOVA / Craiova (LRCV)
RNP RWY 26

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

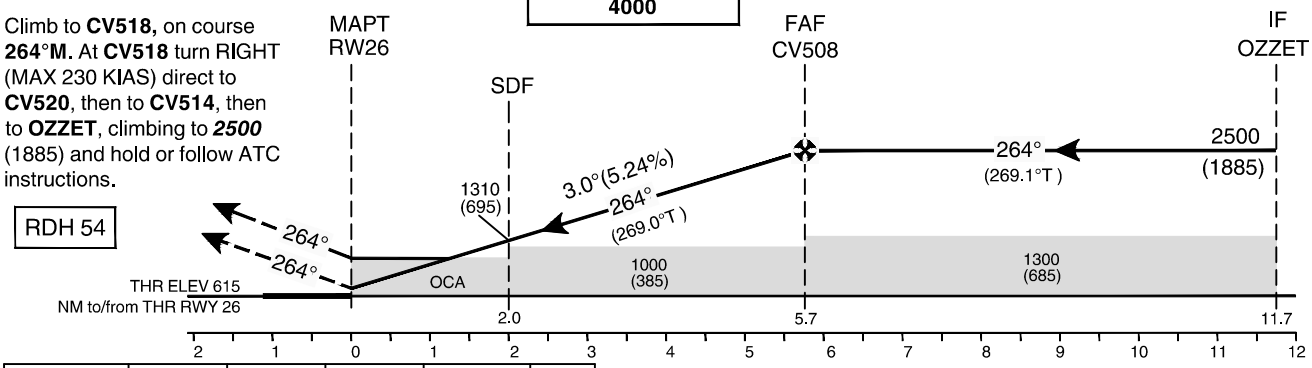


Changes: LRTRA revised.

MISSED APPROACH

Climb to **CV518,** on course **264°M.** At **CV518** turn RIGHT (MAX 230 KIAS) direct to **CV520**, then to **CV514**, then to **OZZET**, climbing to ***2500*** (1885) and hold or follow ATC instructions.

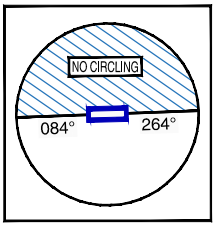
Transition Altitude 4000



OCA (H)	A	B	C	D	DL
LPV	*783 (168)*	*795 (180)*	*803 (188)*	*813(198)*	
LNAV/VNAV	*810 (195)*	820 (205)	830 (215)	*850 (235)*	-
LNAV	*930 (315)*				-
LNAV w/o SDF	*1000 (385)*				-
Circling*	*1080*	*1130*	*1320*	*1320*	-

Dist to RW26	NM	1	2	3	4	5
Altitudes (Height)	FT	*990* (375)	*1310* (695)	*1620* (1005)	*1940* (1325)	*2260* (1645)

GS	KT	70	90	100	120	140	160
FAF-MAPT 5.7 NM	MIN:SEC	4:56	3:50	3:27	2:52	2:28	2:09
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849



Timing not authorized for defining the MAPt.

* Circling South of airport only.

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
RNP RWY 26

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY26	
Waypoint Identifier	**Coordinates**
CV508 (FAF)	44°19'12.1"N 024°02'15.5"E
CV514	44°25'17.8"N 024°10'29.3"E
CV516	44°13'17.9"N 024°10'44.4"E
CV518	44°18'56.7"N 023°43'06.7"E
CV520	44°25'06.9"N 023°55'12.8"E
OZZET (IF)	44°19'17.8"N 024°10'36.9"E
PANZU (IAF)	44°02'12.0"N 024°08'13.0"E
PEMOK (IAF)	44°21'52.9"N 024°20'54.5"E
SDF	44°19’08.2”N 023°57’02.2”E
RW26 (MAPT)	44°19'06.08"N 023°54'15.11"E
TITEK (IAF)	44°29'35.8"N 023°34'25.9"E

RADIO COMMUNICATION FAILURE

a) If RNP RWY 26 instrument flight procedure was assigned and acknowledged, set transponder 7600, proceed according assigned or designated RNP RWY 26 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP RWY 26 instrument flight procedure was not assigned and acknowledged, set transponder 7600, proceed according to FPL to OZZET and hold 4 minutes not above 4500 ft, then continue the RNP RWY 26 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

INSTRUMENT APPROACH CHART - ICAO

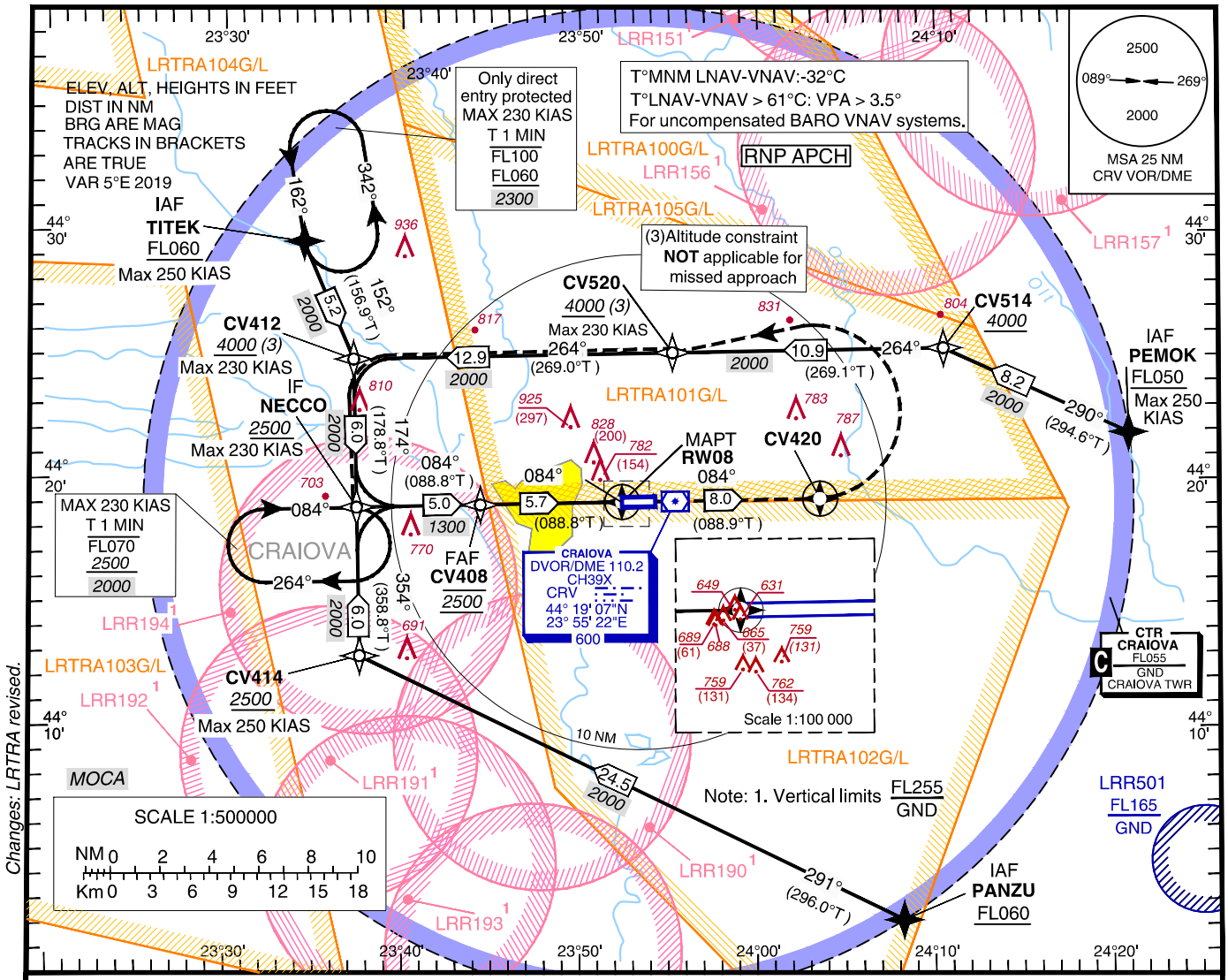
EGNOS
CH: 65241
E08A

AERODROME ELEV. 628 ft
HEIGHTS RELATED TO AD ELEV

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)

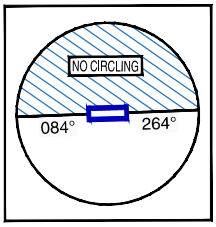
RNP RWY 08

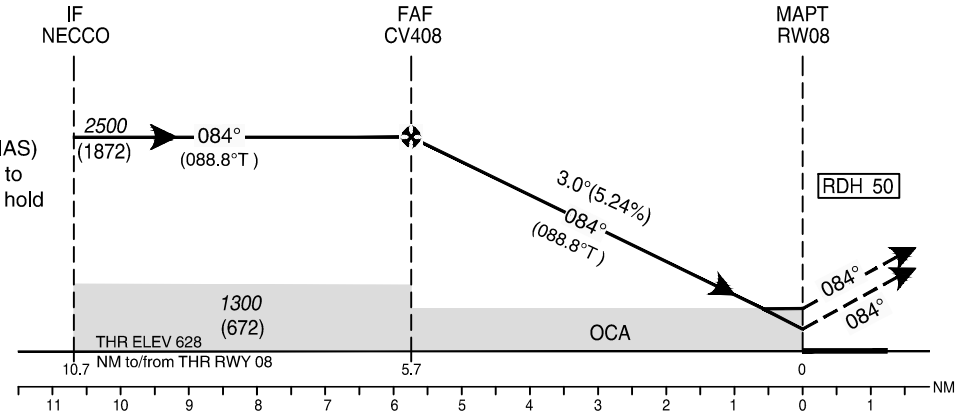


Transition Altitude
4000

MISSED APPROACH

Climb to **CV420**, on course **084°M.**
At **CV420** turn **LEFT** (max. IAS 230 KIAS) direct to **CV 520**, then to **CV412**, then to **NECCO**, climbing to ***2500*** (1872) and hold or follow ATC instructions.





SBAS CAT I OPERATIONS NOT APPROVED

OCA (H)	A	B	C	D	DL
LPV	*794* (166)	*807* (179)	*839* (211)	*849* (221)	
LNAV/VNAV	*890* (262)	*910* (282)	*920* (292)	*930* (302)	-
LNAV	*1010* (382)				-
Circling*	*1080*	*1130*	*1320*	*1320*	-

Distance to RW 08	NM	5	4	3	2
Altitude (Height)	FT	2270 (1642)	1950 (1322)	1630 (1002)	1310 (682)

GS	KT	70	90	100	120	140	160
FAF MAPT 5.7NM	MIN:SEC	4:54	3:49	3:26	2:52	2:27	2:09
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

* Circling South of airport only.

Timing not authorized for defining the MAPt.

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
RNP RWY 08

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY08	
Waypoint Identifier	**Coordinates**
CV408 (FAF)	44°18’57.9”N 023°44’24.0”E
CV412	44°24’51.4”N 023°37’15.3”E
CV414	44°12’51.6”N 023°37’37.2”E
CV420	44°19'13.0"N 024°03'30.8"E
CV514	44°25’17.8”N 024°10’ 29.3”E
CV520	44°25'06.9"N 023°55'12.8"E
NECCO (IF)	44°18’51.5”N 023°37’26.2”E
PANZU (IAF)	44°02’12.0”N 024°08’13.0”E
PEMOK (IAF)	44°21’52.9”N 024°20’54.5”E
RW08 (MAPT)	44°19’04.57”N 023°52’ 22.32”E
TITEK (IAF)	44°29’35.8”N 023°34’25.9”E

RADIO COMMUNICATION FAILURE

a) If RNP RWY 08 instrument flight procedure was assigned and acknowledged, set transponder 7600, proceed according assigned or designated RNP RWY 08 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP RWY 08 instrument flight procedure was not assigned and acknowledged, set transponder 7600, proceed according to FPL to NECCO and hold 4 minutes not above 4500 ft, then continue the RNP RWY 08 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

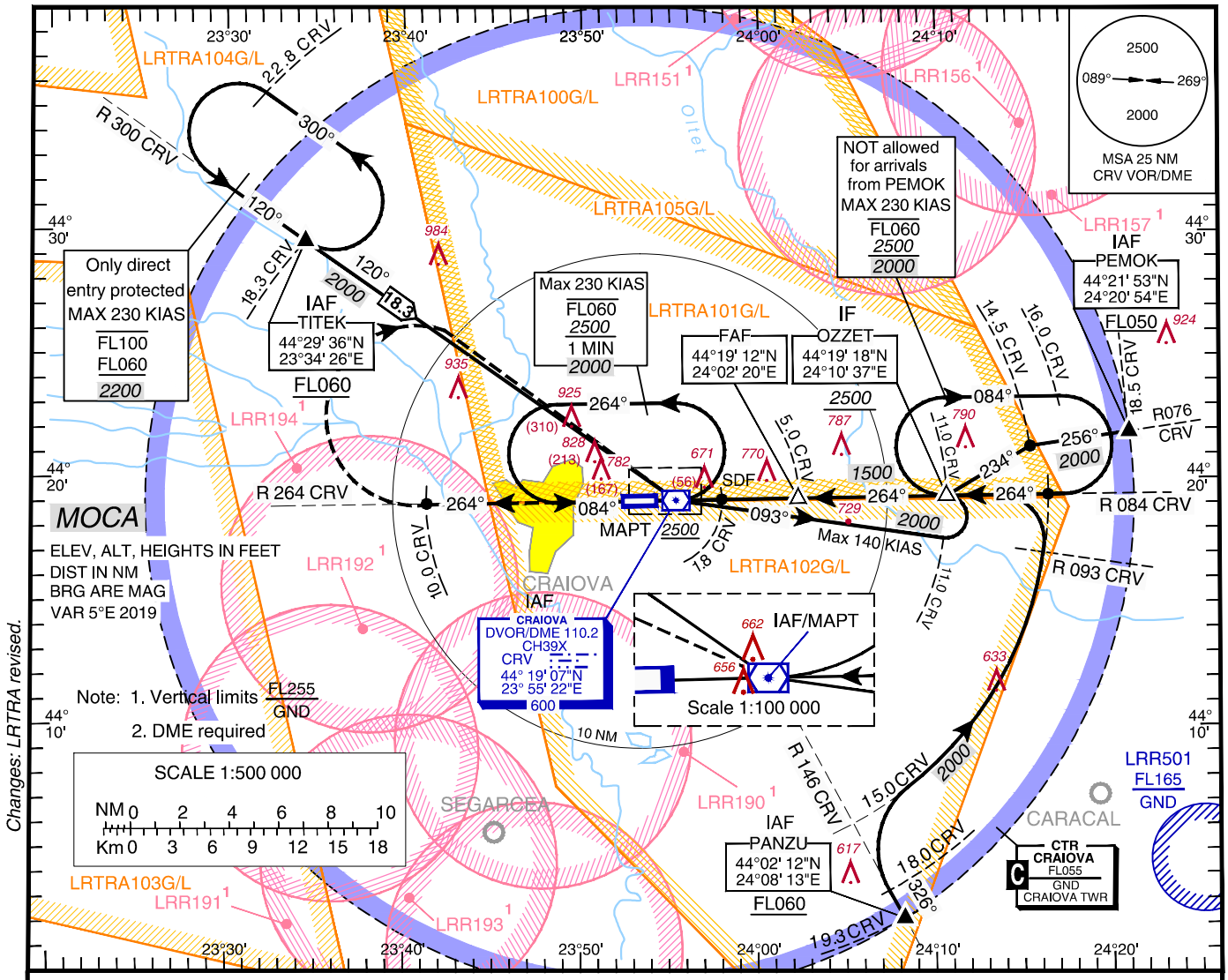
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **628 ft**

HEIGHTS RELATED TO THR RWY 26 - ELEV 615 ft

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
VOR Z
RWY 26

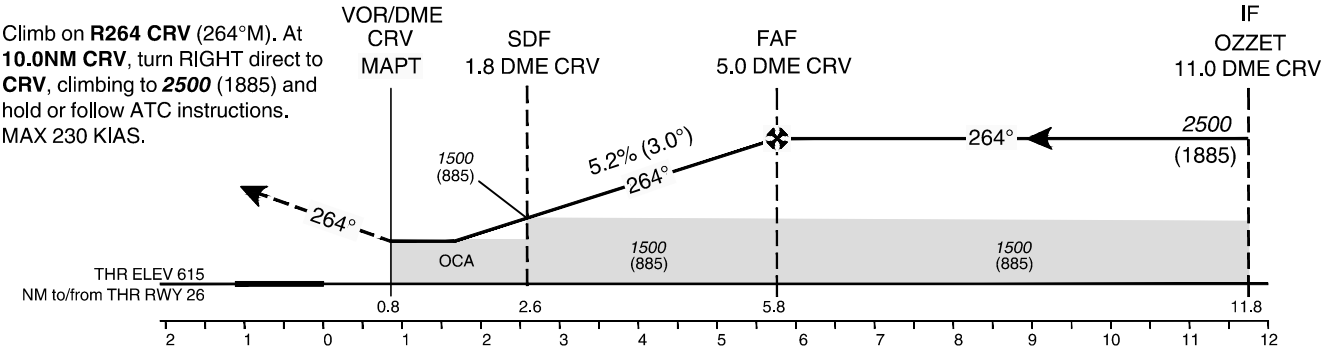


Changes: LRTRA revised.

Transition Altitude 4000

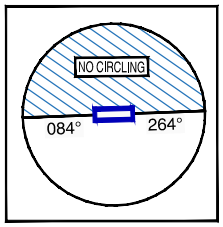
MISSED APPROACH

Climb on **R264 CRV** (264°M). At **10.0NM CRV**, turn RIGHT direct to **CRV**, climbing to ***2500*** (1885) and hold or follow ATC instructions. MAX 230 KIAS.



OCA(H)	A	B
Straight-in Approach	*930* (315)	
w/o SDF	*1500* (885)	
Circling*	*1080*	*1130*

* Circling South of airport only.



GS	KT	70	90	100	120	140	160
FAF-MAPT 5.0 NM	MIN:SEC	4:17	3:20	3:00	2:30	2:09	1:52
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to CRV DME	NM	1	2	3	4
Altitudes (Height)	FT	*1240* (625)	*1560* (945)	*1870* (1255)	*2190* (1575)

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
VOR Z RWY 26

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 26 from TITEK, PEMOK, PANZU, CRV	
Fix/Point	**Coordinates**
TITEK (IAF) – BRG 300.05° / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
PEMOK (IAF) – BRG 076.27° / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
PANZU (IAF) – BRG 146.26° / 19.28NM CRV	44°02'12.0"N 024°08'13.0"E
CRV DVOR/DME **(IAF)**	44°19'07.0"N 023°55'21.9"E
BRG 146.00° / 15.00NM CRV	44°05'57.4"N 024°05'22.5"E
BRG 084.00° / 15.00NM CRV	44°19'29.8"N 024°16'15.4"E
BRG 264.00° / 10.00NM CRV	44°18'55.6"N 023°41'26.3"E
BRG 075.98° / 14.50NM CRV	44°21'17.2"N 024°15'20.4"E
OZZET (**IF**) – BRG 084.00° / 11.00NM CRV	44°19'17.8"N 024°10'36.9"E
FAF – BRG 084.00° / 5.00NM CRV	44°19'12.0"N 024°02'19.7"E
SDF – BRG 084.00° / 1.80NM CRV	44°19'08.8"N 023°57'52.3"E
MAPT (CRV DVOR/DME)	44°19'07.0"N 023°55'21.9"E
THR 26	44°19'06.08"N 023°54'15.11"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 26 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 26 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 26 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to OZZET and hold 4 minutes, then continue the VOR RWY 26 approach.

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

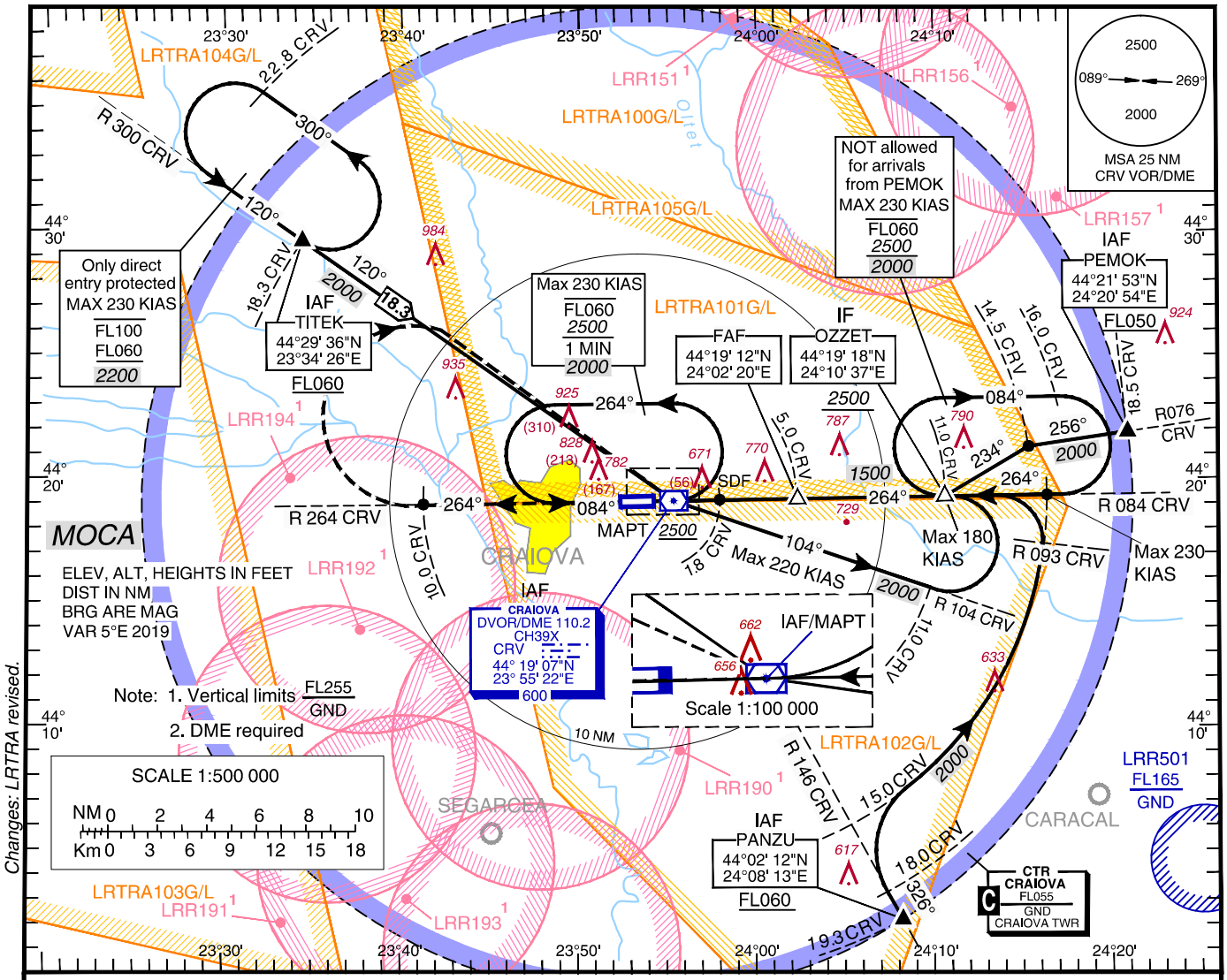
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **628 FT**

HEIGHTS RELATED TO THR RWY 26 - ELEV 615 ft

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

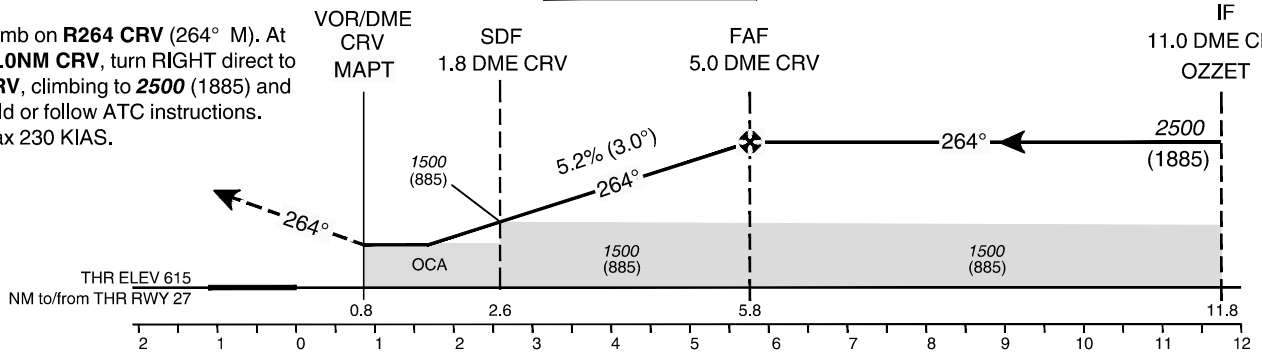
CRAIOVA / Craiova (LRCV)
VOR Y
RWY 26



Transition Altitude 4000

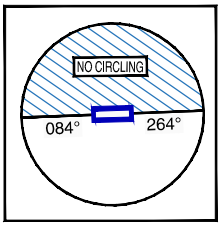
MISSED APPROACH

Climb on **R264 CRV** (264° M). At **10.0NM CRV**, turn RIGHT direct to **CRV**, climbing to ***2500*** (1885) and hold or follow ATC instructions. Max 230 KIAS.



OCA(H)	C	D
Straight-in Approach	*930* (315)	
w/o SDF	*1500* (885)	
Circling*	*1320*	*1320*

* Circling South of airport only.



GS	KT	70	90	100	120	140	160
FAF-MAPT 5.0 NM	MIN:SEC	4:17	3:20	3:00	2:30	2:09	1:52
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to CRV DME	NM	1	2	3	4
Altitudes (Height)	FT	*1240* (625)	*1560* (945)	*1870* (1255)	*2190* (1575)

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
VOR Y RWY 26

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 26 from TITEK, PEMOK, PANZU, CRV	
Fix/Point	**Coordinates**
TITEK (IAF) – BRG 300.05° / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
PEMOK (IAF) – BRG 076.27° / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
PANZU (IAF) – BRG 146.26° / 19.28NM CRV	44°02'12.0"N 024°08'13.0"E
CRV DVOR/DME **(IAF)**	44°19'07.0"N 023°55'21.9"E
BRG 146.00° / 15.00NM CRV	44°05'57.4"N 024°05'22.5"E
BRG 084.00° / 15.00NM CRV	44°19'29.8"N 024°16'15.4"E
BRG 264.00° / 10.00NM CRV	44°18'55.6"N 023°41'26.3"E
BRG 075.98° / 14.50NM CRV	44°21'17.2"N 024°15'20.4"E
OZZET (**IF**) – BRG 084.00° / 11.00NM CRV	44°19'17.8"N 024°10'36.9"E
FAF – BRG 084.00° / 5.00NM CRV	44°19'12.0"N 024°02'19.7"E
SDF – BRG 084.00° / 1.80NM CRV	44°19'08.8"N 023°57'52.3"E
MAPT (CRV DVOR/DME)	44°19'07.0"N 023°55'21.9"E
THR 26	44°19'06.08"N 023°54'15.11"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 26 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 26 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 26 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to OZZET and hold 4 minutes, then continue the VOR RWY 26 approach.

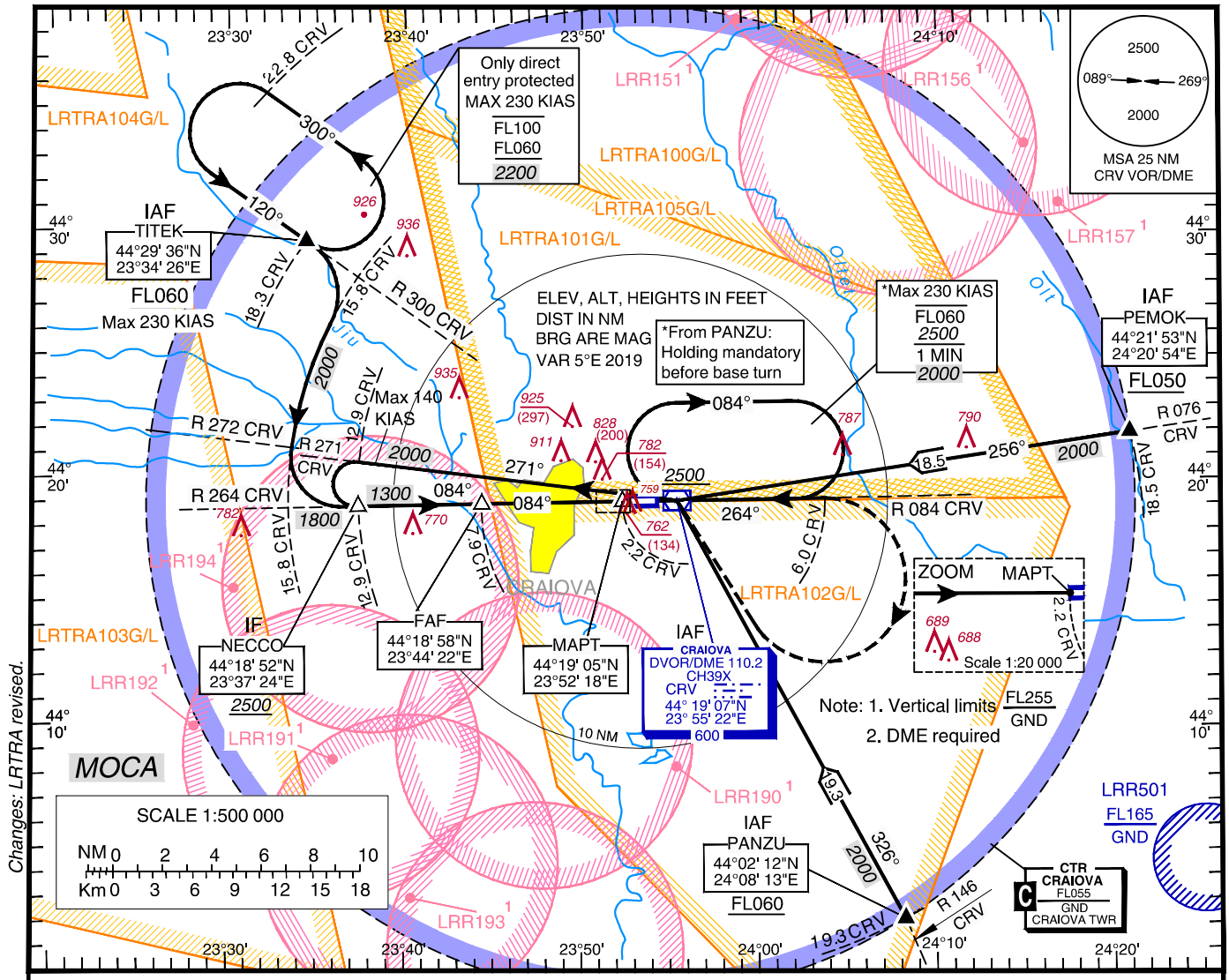
TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

INSTRUMENT APPROACH CHART - ICAO

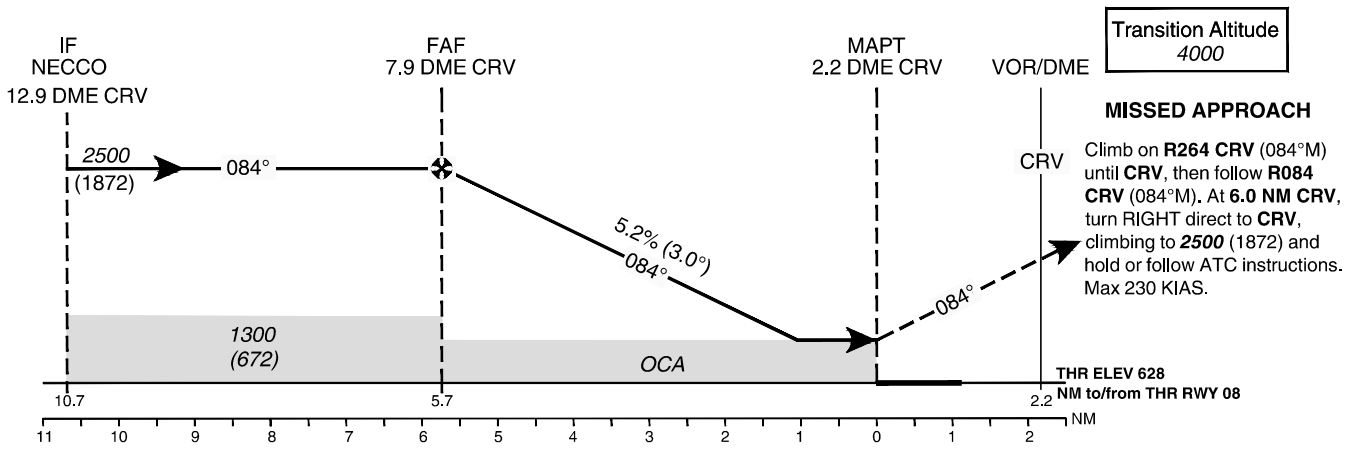
AERODROME ELEV. **628 ft**
HEIGHTS RELATED TO AD ELEV

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
VOR Z
RWY 08



Changes: LRTRA revised.

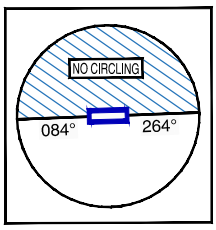


MISSED APPROACH

Climb on **R264 CRV** (084°M) until **CRV**, then follow **R084 CRV** (084°M). At **6.0 NM CRV**, turn RIGHT direct to **CRV**, climbing to ***2500*** (1872) and hold or follow ATC instructions. Max 230 KIAS.

OCA(H)	A	B
Straight-in Approach	*1010* (382)	
Circling*	*1080*	*1130*

* Circling South of airport only.



GS	KT	70	90	100	120	140	160
FAF-MAPT 5.7 NM	MIN:SEC	4:53	3:48	3:25	2:51	2:27	2:08
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to CRV DME	NM	7	6	5	4
Altitudes (Heights)	FT	*2220* (1592)	*1900* (1272)	*1580* (952)	*1270* (642)

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
VOR Z RWY 08

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 08 from TITEK, PEMOK, PANZU, CRV.	
Fix/Point	**Coordinates**
TITEK (IAF) – BRG 300.05° / 18.30NM CRV	44°29’35.8”N 023°34’25.9”E
PEMOK (IAF) – BRG 076.27° / 18.54NM CRV	44°21’52.9”N 024°20’54.5”E
PANZU (IAF) – BRG 146.26° / 19.28NM CRV	44°02’12.0”N 024°08’13.0”E
CRV DVOR/DME **(IAF)**	44°19’07.0”N 023°55’21.9”E
BRG 300.05° / 15.80NM CRV	44°28’10.0”N 023°37’18.1”E
BRG 264.00° / 15.80NM CRV	44°18’48.3”N 023°33’21.7”E
BRG 084.00° / 6.00NM CRV	44°19’12.9”N 024°03’43.3”E
NECCO (IF) – BRG 264.00° / 12.90NM CRV	44°18’51.5”N 023°37’26.2”E
FAF – BRG 264.00° / 7.90NM CRV	44°18’58.2”N 023°44’21.8”E
MAPT – BRG 264.00° / 2.20NM CRV	44°19’04.6”N 023°52’18.1”E
CRV DVOR/DME	44°19’07.0”N 023°55’21.9”E
THR 08	44°19’04.57”N 023°52’22.32”E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 08 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 08 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 08 instrument flight procedure was not assigned or received by ATC, set transponder 7600, then:
b1) If arriving via TITEK, hold at TITEK for 4 minutes, then continue the VOR RWY 08 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
b2) If arriving via PEMOK or PANZU, proceed according to FPL to CRV and hold 4 minutes, then continue the VOR RWY 08 approach.

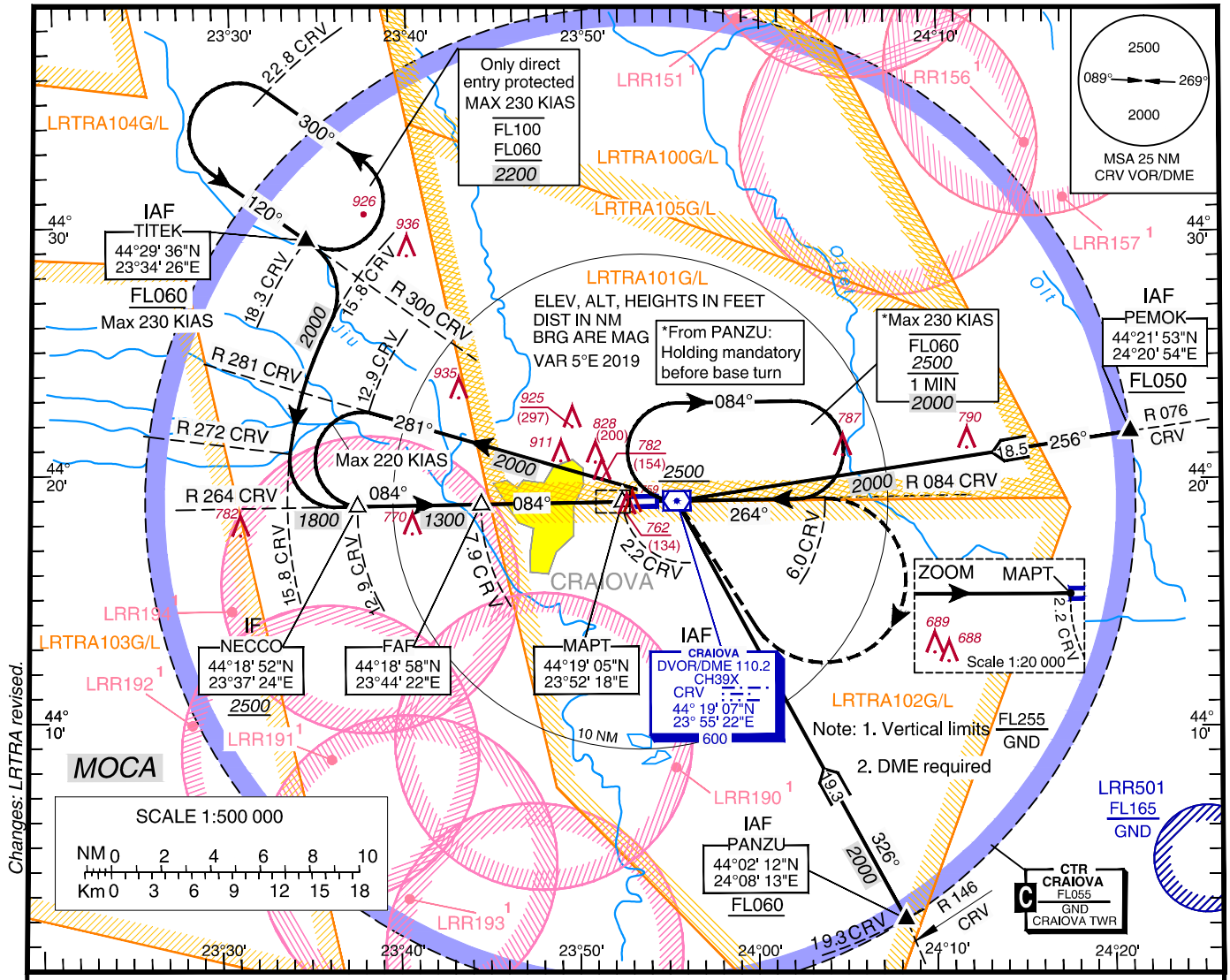
TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

INSTRUMENT APPROACH CHART - ICAO

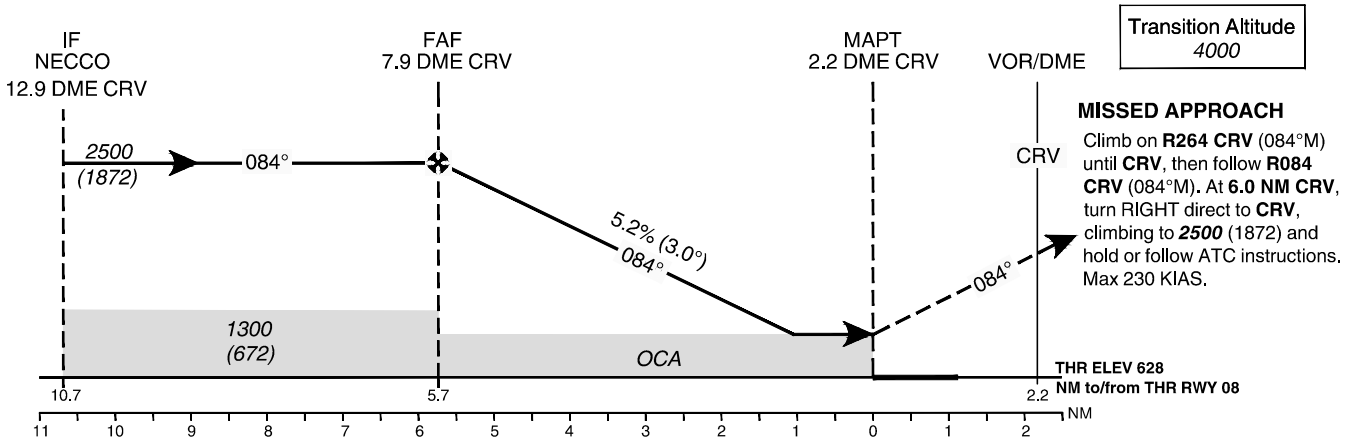
AERODROME ELEV. **628 ft**
HEIGHTS RELATED TO AD ELEV

CRAIOVA TOWER 129.530
CRAIOVA TOWER ALTN 124.300

CRAIOVA / Craiova (LRCV)
VOR Y
RWY 08

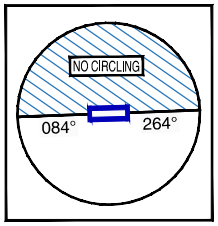


Changes: LRTRA revised.



OCA(H)	C	D
Straight-in Approach	1010 (382)	
Circling*	1320	1320

* Circling South of airport only.



GS	KT	70	90	100	120	140	160
FAF-MAPT 5.7 NM	MIN:SEC	4:53	3:48	3:25	2:51	2:27	2:08
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to CRV DME	NM	7	6	5	4
Altitudes (Heights)	FT	2220 (1592)	1900 (1272)	1580 (952)	1270 (642)

For data tabulation see verso

CRAIOVA / Craiova (LRCV)
VOR Y RWY 08

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 08 from TITEK, PEMOK, PANZU, CRV.	
Fix/Point	**Coordinates**
TITEK (IAF) – BRG 300.05° / 18.30NM CRV	44°29'35.8"N 023°34'25.9"E
PEMOK (IAF) – BRG 076.27° / 18.54NM CRV	44°21'52.9"N 024°20'54.5"E
PANZU (IAF) – BRG 146.26° / 19.28NM CRV	44°02'12.0"N 024°08'13.0"E
CRV DVOR/DME **(IAF)**	44°19'07.0"N 023°55'21.9"E
BRG 300.05° / 15.80NM CRV	44°28'10.0"N 023°37'18.1"E
BRG 264.00° / 15.80NM CRV	44°18'48.3"N 023°33'21.7"E
BRG 084.00° / 6.00NM CRV	44°19'12.9"N 024°03'43.3"E
NECCO (IF) – BRG 264.00° / 12.90NM CRV	44°18'51.5"N 023°37'26.2"E
FAF – BRG 264.00° / 7.90NM CRV	44°18'58.2"N 023°44'21.8"E
MAPT – BRG 264.00° / 2.20NM CRV	44°19'04.6"N 023°52'18.1"E
CRV DVOR/DME	44°19'07.0"N 023°55'21.9"E
THR 08	44°19'04.57"N 023°52'22.32"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 08 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 08 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 08 instrument flight procedure was not assigned or received by ATC, set transponder 7600, then:
b1) If arriving via TITEK, hold at TITEK for 4 minutes, then continue the VOR RWY 08 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
b2) If arriving via PEMOK or PANZU, proceed according to FPL to CRV and hold 4 minutes, then continue the VOR RWY 08 approach.

TEMPORARY RESERVED AREAS (TRA)			
Identification	Vertical limits	Identification	Vertical limits
LRTRA100G	GND – 4500 FT AMSL	LRTRA103G	GND – 4500 FT AMSL
LRTRA100L	4500 FT AMSL – FL200	LRTRA103L	4500 FT AMSL – FL200
LRTRA101G	GND – 4500 FT AMSL	LRTRA104G	GND – 4500 FT AMSL
LRTRA101L	4500 FT AMSL – FL200	LRTRA104L	4500 FT AMSL – FL200
LRTRA102G	GND – 4000 FT AMSL	LRTRA105G	GND – 4500 FT AMSL
LRTRA102L	4000 FT AMSL – FL200	LRTRA105L	4500 FT AMSL – FL200

LRIA AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRIA - IAŞI / Iaşi

LRIA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	471049N 0273715E Runway centre.
2	*Direction and distance from city*	3.48 km East from IAŞI.
3	*Elevation/Reference temperature/mean low temperature*	411 FT / 30.3°C / -12.2°C
4	*Geoid undulation at AD ELEV PSN*	105 FT
5	*MAG VAR/Annual rate of change*	6° E (2020) / 7.2´ E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	Aeroportul Iaşi R.A. Str. Moara de Vânt nr. 34, cod 700376 Tel: +40-(0)232-271590 Fax: +40-(0)232-271570 AFS: LRIARAYD SITA: IASAPXH operational@aeroport.ro handling@aeroport.ro iasi@aeroport.ro www.aeroport-iasi.ro
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRIA AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	H24
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24
5	*ATS Reporting Office (ARO)*	H24
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fuelling*	H24
9	*Handling*	H24
10	*Security*	H24
11	*De-icing*	H24
12	*Remarks*	Notification on requested services shall be addressed by fax, AFS or SITA address of AD Administration. Lack of prior notification may cause delays in service delivery.

LRIA AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	4 electric tractors, 1 diesel tractor, 19 bag carts, 4 GPU 115V/400Hz & 28.5V, 1 GPU 28.5V, 1 air starter unit, 1 aircraft heater, 2 self-propelled lavatory service vehicles, 1 self-propelled potable water vehicles, 2 catering products transportantion vehicle, 5 self-propelled conveyor-belt loader, 12 towed passengers stairs, 1 equipment towing vehicle, 3 aircraft towing/ push-back tractors.
2	*Fuel/Oil types*	JET A1 / NIL AVGAS / NIL
3	*Fuelling facilities/capacity*	Storage: JET A1 - 180 m^3 Refueling equipments: JET A1 - 1 truck / 20 m^3 - 1 truck / 30 m^3 AVGAS - 1 mobile pump / 1 m^3
4	*De-icing facilities*	3 de-icing vehicles, type II ACFT de/anti-icing fluide.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	On request, for BOEING 737 & AIRBUS A320 families. Major repairs by arrangement.
7	*Remarks*	1. Catering services available. Contact: iasi@aircatering.ro. 2. Preliminary briefing, requests of operating permissions on aerodrome and handling shall be sent by fax, AFS or SITA address of AD Administration. Any other way of contact may cause delays. 3. ACFT AVGAS refueling AVBL only based on prior request to AD Administration 24 hours before ETA.

LRIA AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Snack bar on the AD.
3	*Transportation*	Buses, taxis and rent-a-car on the AD.
4	*Medical facilities*	First aid on the AD. Hospitals in the city.
5	*Bank and Post Office*	Bank ATM on AD. Bank and Post office in the city.
6	*Tourist Office*	In the city.
7	*Remarks*	Rent-a-car offices on AD: Tel: +40-(0)731-630800; +40-(0)752-220222; +40-(0)728-228923; +40-(0)733-207554; +40-(0)748-110557; +40-(0)745-062158; +40-(0)740-175488; +40-(0)757-067182.

LRIA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	CAT 7
2	*Rescue equipment*	2 Rescue and firefighting vehicles with extrication equipment.
3	*Capability for removal of disabled aircraft*	Limited by arrangement. Local Action Coordinator: +40-(0)790-678346 e-mail: iso@aeroport.ro
4	*Remarks*	NIL

LRIA AD 2.7 RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING, AND SNOW PLAN

1	*Types of clearing equipment*	4 snow ploughs with brush and blower sweeper, 1 tractor with snow blower; 1 spreader for liquid and solid de-icing materials, 2 mini trucks with snow brush/plough, snow blower and spreader for liquid and solid de-icing materials, 1 truck with plough, brush and spreader for liquid de-icing materials, 1 tractor with plough and spreader for solid de-icing materials.
2	*Clearance priorities*	1. RWY 14/32 2. TWY A 3. TWY D 4. APRON 1 5. TWY E 6. RWY14 intermediate runway turn pad
3	*Use of material for movement area surface treatment*	Generic fluids and solid materials used for movement area de/anti-icing: 1. KFOR(potassium formate fluid); 2. KAC (potassium acetate fluid), and 3. NAFO (sodium formate granular solid).
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Runway Condition Report/SNOWTAM issued according to Global Reporting Format by Operational Safety Service tel: +40 728 060 757. See also the snow plan in section AD 1.2.2.

LRIA AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	APRON 1 Surface: Concrete Strength: 88/R/C/W/T - Stand 01-06 102/R/C/W/T - Stand 07-13
2	*Taxiway designation, width, surface and strength*	TWY A: Width: 23 M; Surface: Asphalt; Strength: 99/F/C/W/T TWY B: Width: 18 M; Surface: Concrete; Strength: 25/R/D/W/T TWY D: Width: 23 M; Surface: Asphalt; Strength: 99/F/C/W/T TWY E: Width: 23 M; Surface: Asphalt; Strength: 102/F/C/W/T
3	*Altimeter checkpoints location and elevation*	Location: APRON 1 Elevation: 362 FT (110 M)
4	*VOR checkpoints*	NIL
5	*INS checkpoints*	On each stand: see AD 2.10-22 LRIA Aircraft Parking/Docking Chart - ICAO - APRON 1
6	*Remarks*	NIL

AIRCRAFT PARKING/DOCKING CHART - ICAO

APRON1 ELEVATION
362 FT

IASI TOWER	119.955
IASI TOWER ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi(LRIA)

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

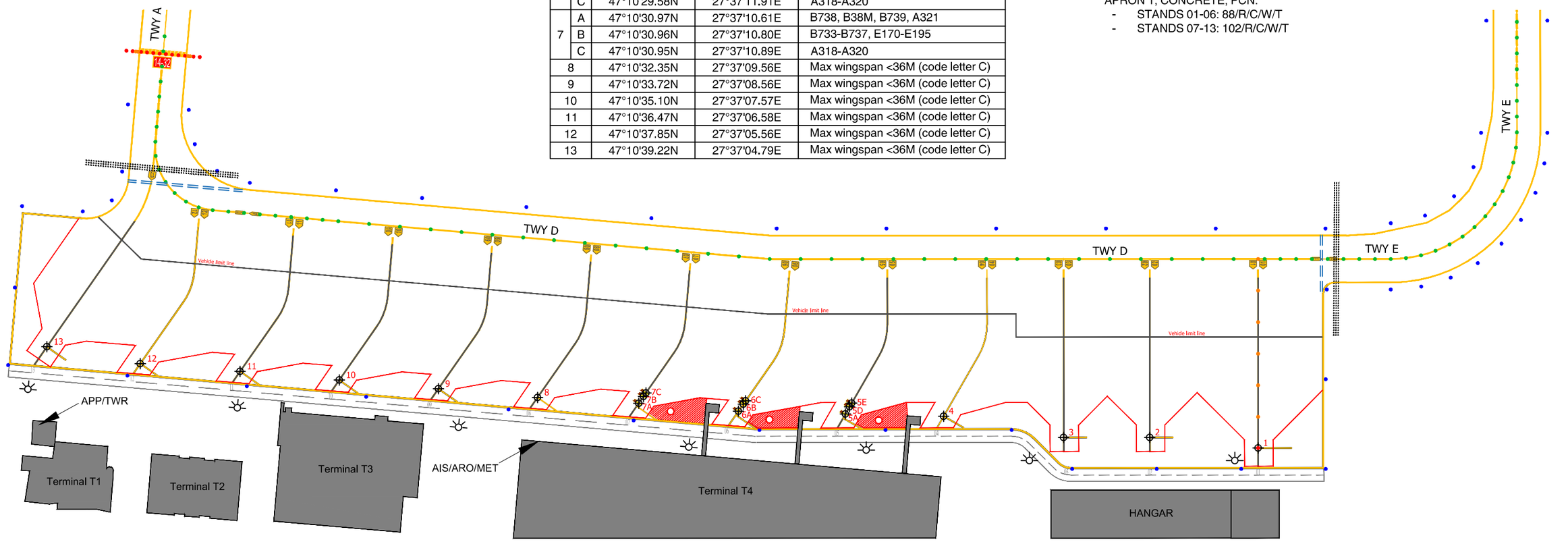
VAR 6°E 2020

ANNUAL RATE OF CHANGE 7.2' E

INS COORDINATES FOR AIRCRAFT STANDS				
1		47°10'22.45N	27°37'17.02E	Max wingspan <52M (code letter D)
2		47°10'23.96N	27°37'15.95E	Max wingspan <36M (code letter C)
3		47°10'25.10N	27°37'14.94E	Max wingspan <36M (code letter C)
4		47°10'26.85N	27°37'13.95E	Max wingspan <36M (code letter C)
5	A	47°10'28.16N	27°37'12.82E	B738, B38M, B739, A321
	D	47°10'28.16N	27°37'13.01E	E170-E195
	E	47°10'28.16N	27°37'13.10E	B733-B737, A318-A320
6	A	47°10'29.59N	27°37'11.63E	B738, B38M, B739, A321
	B	47°10'29.58N	27°37'11.82E	B733-B737, E170-E195
	C	47°10'29.58N	27°37'11.91E	A318-A320
7	A	47°10'30.97N	27°37'10.61E	B738, B38M, B739, A321
	B	47°10'30.96N	27°37'10.80E	B733-B737, E170-E195
	C	47°10'30.95N	27°37'10.89E	A318-A320
8		47°10'32.35N	27°37'09.56E	Max wingspan <36M (code letter C)
9		47°10'33.72N	27°37'08.56E	Max wingspan <36M (code letter C)
10		47°10'35.10N	27°37'07.57E	Max wingspan <36M (code letter C)
11		47°10'36.47N	27°37'06.58E	Max wingspan <36M (code letter C)
12		47°10'37.85N	27°37'05.56E	Max wingspan <36M (code letter C)
13		47°10'39.22N	27°37'04.79E	Max wingspan <36M (code letter C)

TAXIWAY A 23 M WIDE, ASPHALT, PCN 99/F/C/W/T
TWY D 23 M WIDE, ASPHALT, PCN 99/F/C/W/T
TWY E 23 M WIDE, ASPHALT, PCN 102/F/C/W/T
APRON 1, CONCRETE, PCN:
- STANDS 01-06: 88/R/C/W/T
- STANDS 07-13: 102/R/C/W/T

Changes: APRON markings and INS coordinates.



METRES
30 20 10 0 50 100
100 0 100 200 300
FEET

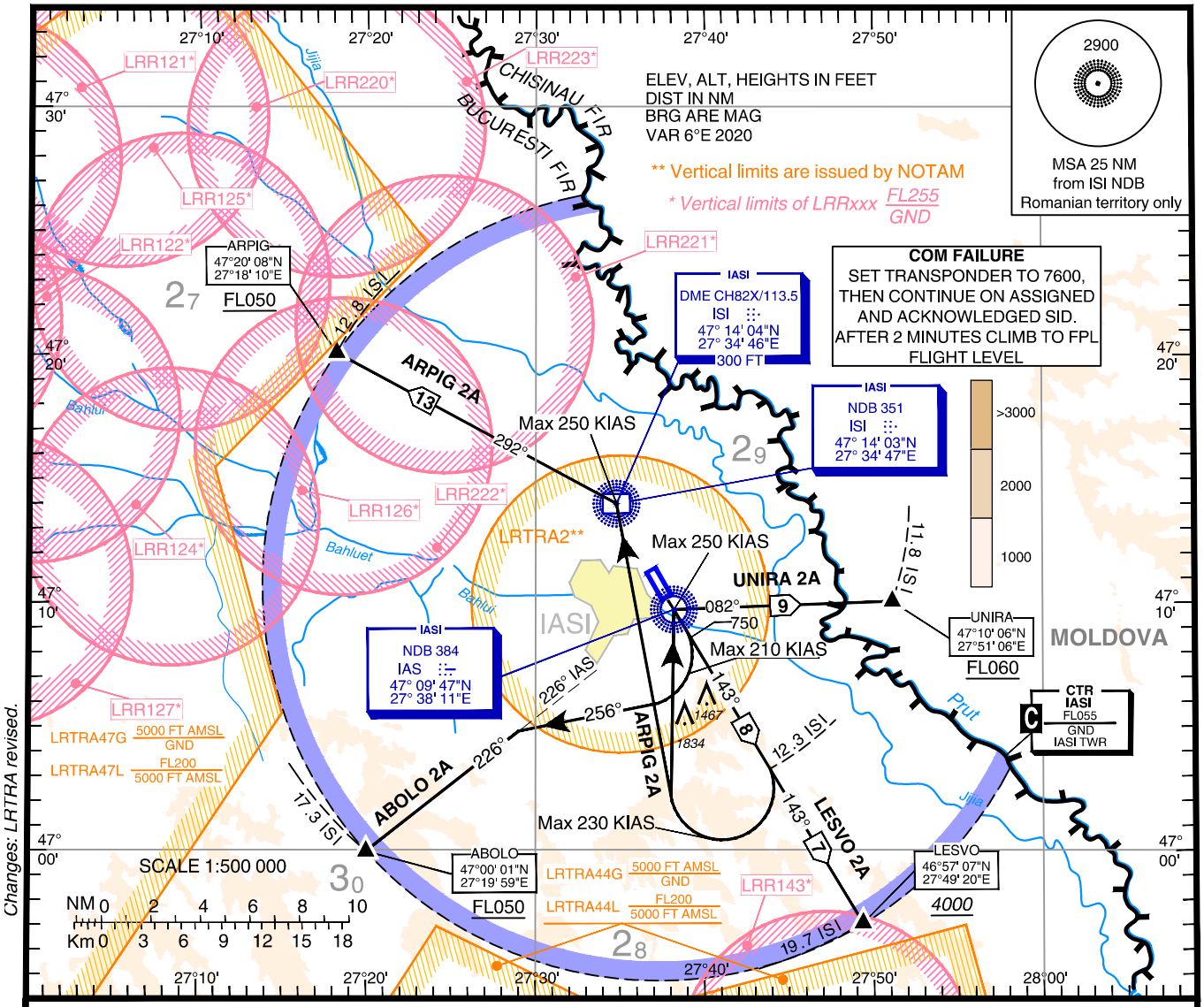
LEGEND	
APRON BOUNDARY	
ATC SERVICE BOUNDARY	
TAXYWAY DIRECTION	
SAFETY LINES	
FLOODLIGHT	
STAND IDENTIFIER	03
INS CHECK POINT	
LEAD-IN LINE LIGHT	

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

Transition Altitude 4000

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865
Bacau SECTOR	128.610
Bacau SECTOR ALTN	125.725

IAŞI / Iaşi (LRIA)
RWY 14
ABOLO 2A, ARPIG 2A, LESVO 2A, UNIRA 2A



SID Identifier	Description
ABOLO 2A	Climb on **runway axis**, at ***750*** (339) turn **RIGHT** (1) heading **256° M** to intercept and follow **QDR 226° IAS** to **ABOLO** at or above **FL050.** (1) Max **210 KIAS** for the turn. **PDG**: 5.7% up to FL050. **No turn before DER**
ARPIG 2A	Climb to **IAS**, then follow **QDR 143° IAS.** At **12.3 ISI** turn **RIGHT** (1) to **ISI** (2) then follow **QDR 292° ISI** to **ARPIG** at or above **FL050.** (1) Max **230 KIAS** for the turn. (2) Max **250 KIAS** for the turn. **PDG:** 5% up to *3000ft.*
LESVO 2A	Climb to **IAS**, then follow **QDR 143° IAS** to **LESVO** at or above ***4000*** (3589). **PDG:** 5% up to *3000ft.*
UNIRA 2A	Climb to **IAS**, then follow **QDR 143° IAS.** At **12.3 ISI** turn **RIGHT** (1) to **IAS** (2) then follow **QDR 082° IAS** to **UNIRA** at or above **FL060.** (1) Max **230 KIAS** for the turn. (2) Max **250 KIAS** for the turn. **PDG:** 5% up to *3000ft.*

IAȘI / Iași (LRIA)
SID RWY 14

AERONAUTICAL DATA TABULATION

SID RWY 14	
Fix/Point	**Coordinates**
ABOLO – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB	47°09'46.6"N 027°38'10.6"E
DER 14	47°10'11.5"N 027°37'48.5"E
BRG 143.00° IAS / 12.3 NM ISI	47°03'25.1"N 027°43'48.9"E

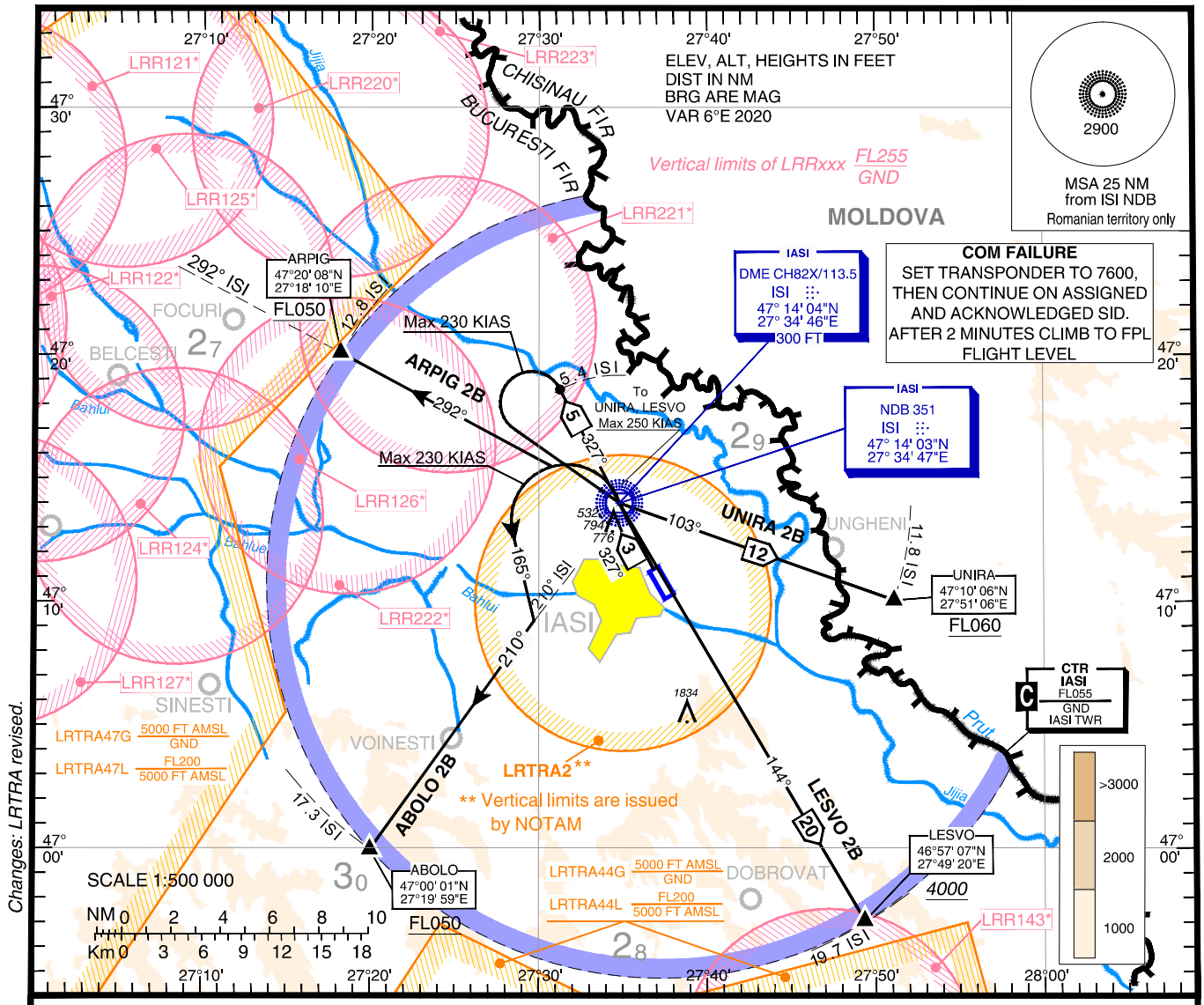
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

Transition Altitude 4000

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865
Bacau SECTOR	128.610
Bacau SECTOR ALTN	125.725

IAŞI / Iaşi (LRIA)
RWY 32
ABOLO 2B, ARPIG 2B, LESVO 2B, UNIRA 2B

Changes: LRTRA revised.



SID Identifier	Description
ABOLO 2B	Climb to **ISI**. At **ISI** turn **left** (1) heading **165° M** to intercept and follow **QDR 210° ISI** to **ABOLO** at or above **FL050**. (1) Max **230 KIAS** for the turn. **ATS climb gradient: 5.0**% up to **FL050**. Advise ATC if unable to ensure the ATS climb gradient. **PDG:** 3.5% up to 800ft.
ARPIG 2B	Climb to **ISI**. At **ISI** turn **LEFT** (1) to follow **QDR 292° ISI** to **ARPIG** at or above **FL050**. (1) Max **230 KIAS** for the turn. **ATS climb gradient: 5.0**% up to **ARPIG**. Advise ATC if unable to ensure the ATS climb gradient. **PDG:** 3.5% up to 800ft.
LESVO 2B	Climb to **ISI**, then follow **QDR 327° ISI**. At **5.4 ISI** turn **LEFT** (1) to **ISI** (2) then follow **QDR 144° ISI** to **LESVO** at or above **4000ft** (3589ft). (1) Max **230 KIAS** for the turn. (2) Max **250 KIAS** for the turn. **ATS climb gradient: 5.0**% up to **3000ft**. Advise ATC if unable to ensure the ATS climb gradient. **PDG:** 3.5% up to 800ft.
UNIRA 2B	Climb to **ISI**, then follow **QDR 327° ISI**. At **5.4 ISI** turn **LEFT** (1) to **ISI** (2) then follow **QDR 103° ISI** to **UNIRA** at or above **FL060**. (1) Max **230 KIAS** for the turn. (2) Max **250 KIAS** for the turn. **ATS climb gradient: 5.0**% up to **3000ft**. Advise ATC if unable to ensure the ATS climb gradient. **PDG:** 3.5% up to 800ft.

IAȘI / Iași (LRIA)
SID RWY 32

AERONAUTICAL DATA TABULATION

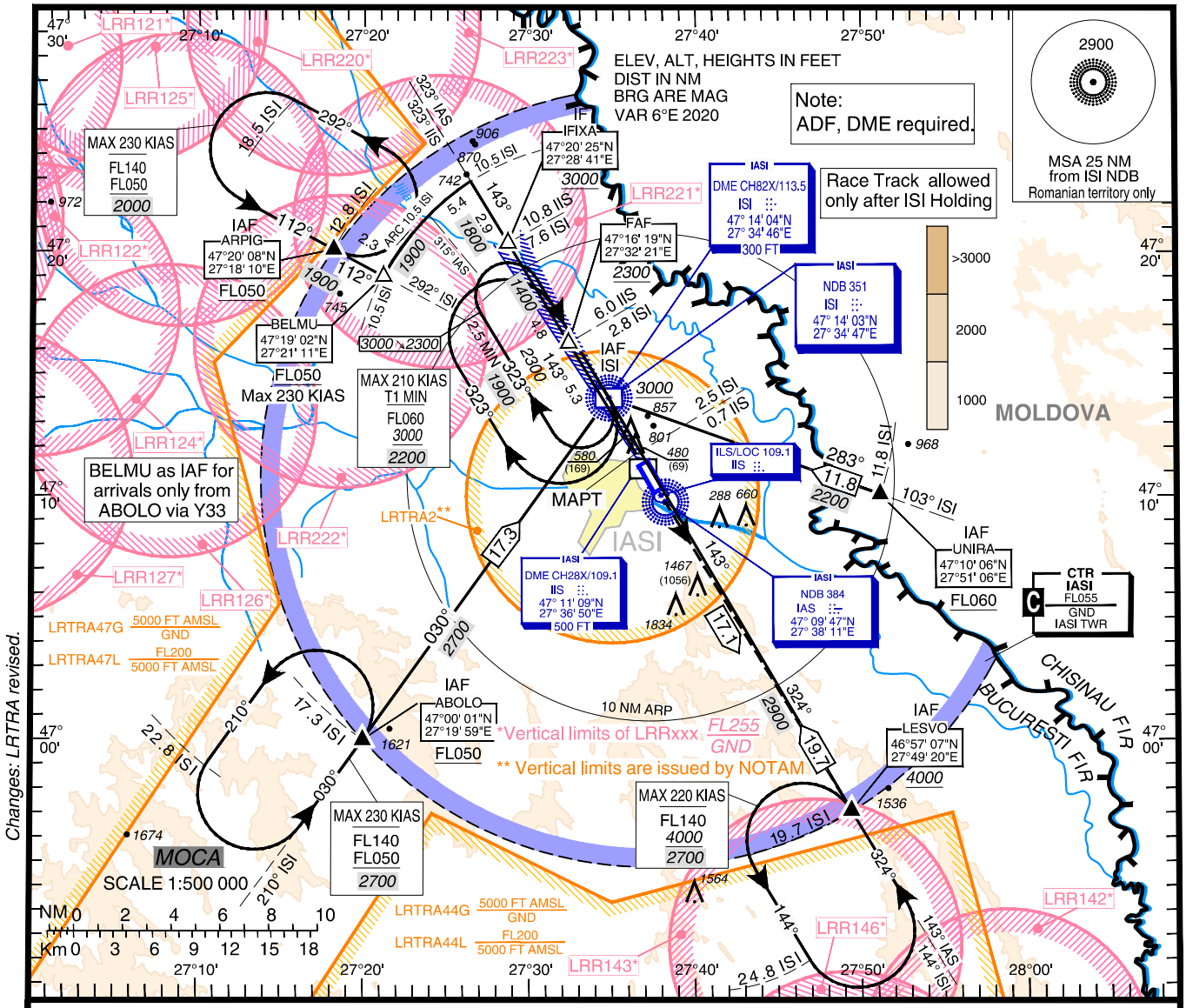
SID RWY 32	
Fix/Point	**Coordinates**
ABOLO – BRG 209.83° / 17.30NM ISI	47°00’01.0”N 027°19’59.0”E
ARPIG – BRG 292.36° / 12.84 NM ISI	47°20’08.0”N 027°18’10.0”E
LESVO - BRG 143.51° / 19.65 NM ISI	46°57’07.0”N 027°49’20.0”E
UNIRA – BRG 103.48° / 11.81 NM ISI	47°10’06.0”N 027°51’06.0”E
ISI NDB	47°14’03.4”N 027°34’46.9”E
ISI DME	47°14’03.5”N 027°34’45.9”E
DER 32	47°11’26.3”N 027°36’42.0”E
BRG 327.00° / 5.4 NM ISI	47°18’53.1”N 027°31’14.2”E

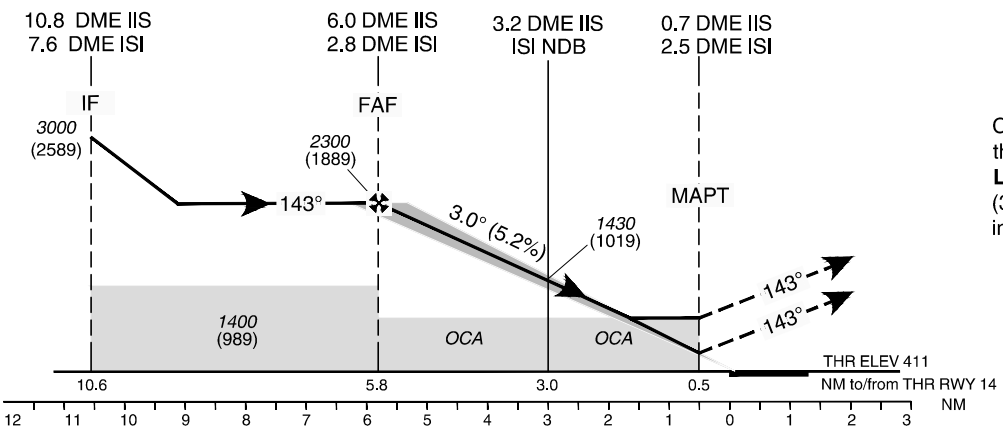
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **411 FT**
HEIGHTS RELATED TO THR ELEV

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)
ILS Z
RWY 14





Transition Altitude
4000

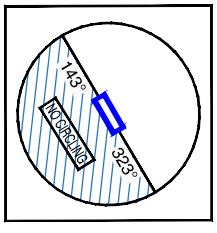
MISSED APPROACH

Climb on **RWY axis** until **IAS**, then follow **QDR 143° IAS** to **LESVO** climbing to ***4000*** (3589) and hold or follow ATC instructions.

ILS RDH 55

OCA(H)	A	B
ILS CAT I MA 2.5%	628 (217)	637 (226)
ILS CAT I MA 3.0%	570 (159)	577 (166)
GP INOP	830 (419)	
Circling (1)	1100	1160

(1) Circling West of airport prohibited.



Distance to DME IIS	NM	5	4	3	2
Altitude (Height)	FT	*1990* (1579)	*1670* (1259)	*1350* (939)	*1040* (629)

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF MAPT 5.3NM	MIN:SEC	4:33	3:32	3:11	2:39	2:16	1:59
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

For data tabulation see verso.

IAŞI / Iaşi (LRIA)
ILS Z RWY 14

AERONAUTICAL DATA TABULATION

ILS Approach to RWY14 from ABOLO, ARPIG, LESVO, UNIRA	
Fix/Point	**Coordinates**
ABOLO (IAF) – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF) – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO (IAF) – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF) – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB	47°09'46.6"N 027°38'10.6"E
BELMU – 292.24 ISI / 10.50NM ISI	47°19'02.0"N 027°21'11.0"E
BRG 323.00° IAS / 10.5NM ISI	47°22'55.6"N 027°26'32.1"E
IFIXA (IF) – BRG 328.79° / 10.80NM IIS	47°20'25.4"N 027°28'41.0"E
FAF (GP INOP) – BRG 328.79° / 6.00NM IIS	47°16'19.0"N 027°32'21.3"E
MAPT (GP INOP) – BRG 328.79° / 0.70NM IIS	47°11'47.1"N 027°36'23.5"E
IIS LOC	47°10'06.6"N 027°37'52.8"E
IIS GP	47°11'09.3"N 027°36'50.4"E
IIS DME	47°11'09.1"N 027°36'50.2"E
THR 14	47°11'22.10"N 027°36'45.71"E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

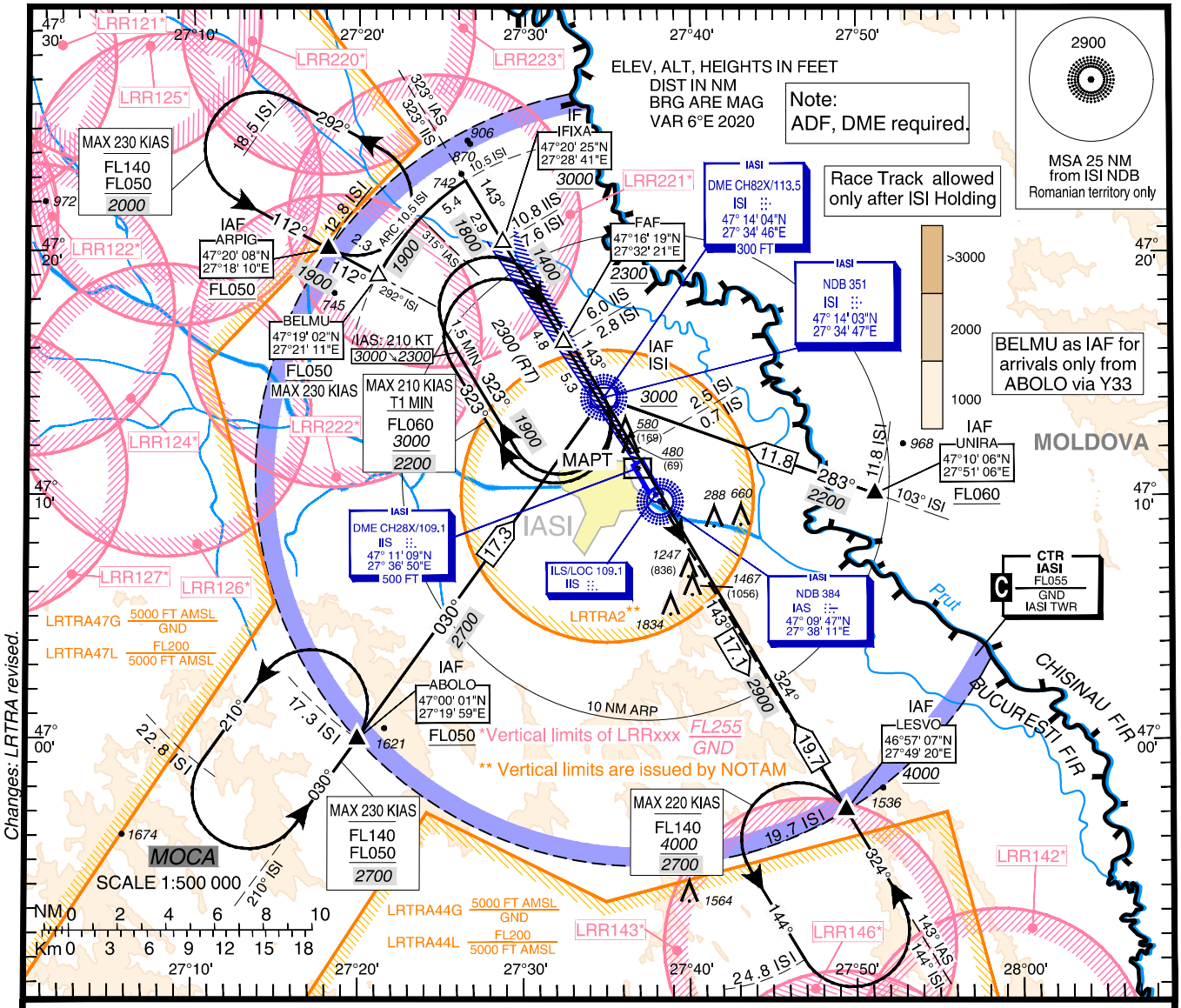
a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If ILS instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG / LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / LESVO) and hold 6 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If ILS instrument flight procedure was not assigned or received by ATC, for arrivals via ABOLO: set transponder 7600, proceed according to FPL to CTR entry point ABOLO – IAF, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
d) If ILS instrument flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to ISI NDB and hold 6 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

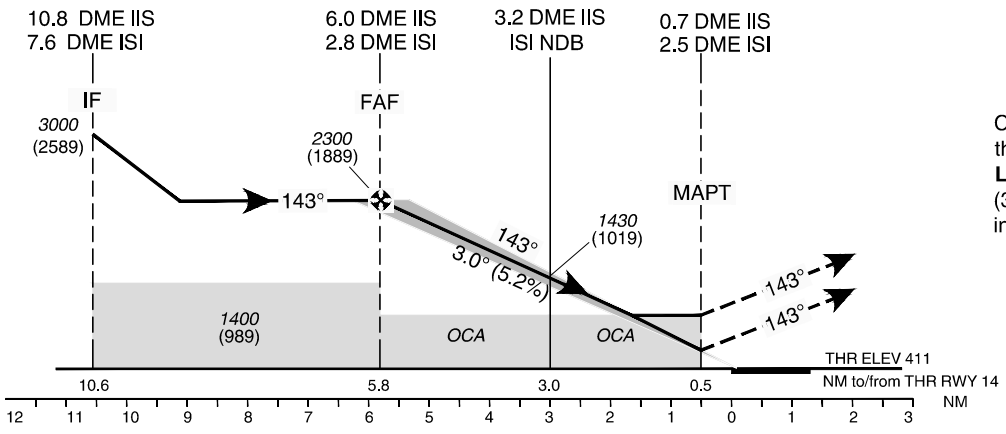
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **411 FT**
HEIGHTS RELATED TO THR ELEV

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)
ILS Y
RWY 14





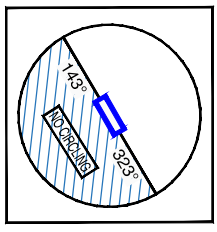
Transition Altitude 4000

MISSED APPROACH

Climb on **RWY axis** until **IAS**, then follow **QDR 143° IAS** to **LESVO** climbing to ***4000*** (3589) and hold or follow ATC instructions.

ILS RDH 55

OCA(H)	C	D
ILS CAT I MA 2.5%	648 (237)	660 (249)
ILS CAT I MA 3.0%	590 (179)	599 (188)
GP INOP	830 (419)	
Circling (1) (2)	1650	1860



(1) Circling West of airport prohibited.

(2) Circling CAT D ***MAX 195 KIAS***.

Distance to DME IIS	NM	5	4	3	2
Altitude (Height)	FT	*1990* (1579)	*1670* (1259)	*1350* (939)	*1040* (629)

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF MAPT 5.3NM	MIN:SEC	4:33	3:32	3:11	2:39	2:16	1:59
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

For data tabulation see verso.

IAŞI / Iaşi (LRIA)
ILS Y RWY 14

AERONAUTICAL DATA TABULATION

ILS Approach to RWY14 from ABOLO, ARPIG, LESVO, UNIRA	
Fix/Point	**Coordinates**
ABOLO (IAF) – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF) – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO (IAF) – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF) – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB	47°09'46.6"N 027°38'10.6"E
BELMU – 292.24 ISI / 10.50NM ISI	47°19'02.0"N 027°21'11.0"E
BRG 323.00° IAS / 10.5NM ISI	47°22'55.6"N 027°26'32.1"E
IFIXA (IF) – BRG 328.79° / 10.80NM IIS	47°20'25.4"N 027°28'41.0"E
FAF (GP INOP) – BRG 328.79° / 6.00NM IIS	47°16'19.0"N 027°32'21.3"E
MAPT (GP INOP) – BRG 328.79° / 0.70NM IIS	47°11'47.1"N 027°36'23.5"E
IIS LOC	47°10'06.6"N 027°37'52.8"E
IIS GP	47°11'09.3"N 027°36'50.4"E
IIS DME	47°11'09.1"N 027°36'50.2"E
THR 14	47°11'22.10"N 027°36'45.71"E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If ILS instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG / LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / LESVO) and hold 6 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If ILS instrument flight procedure was not assigned or received by ATC, for arrivals via ABOLO: set transponder 7600, proceed according to FPL to CTR entry point ABOLO – IAF, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
d) If ILS instrument flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to ISI NDB and hold 6 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

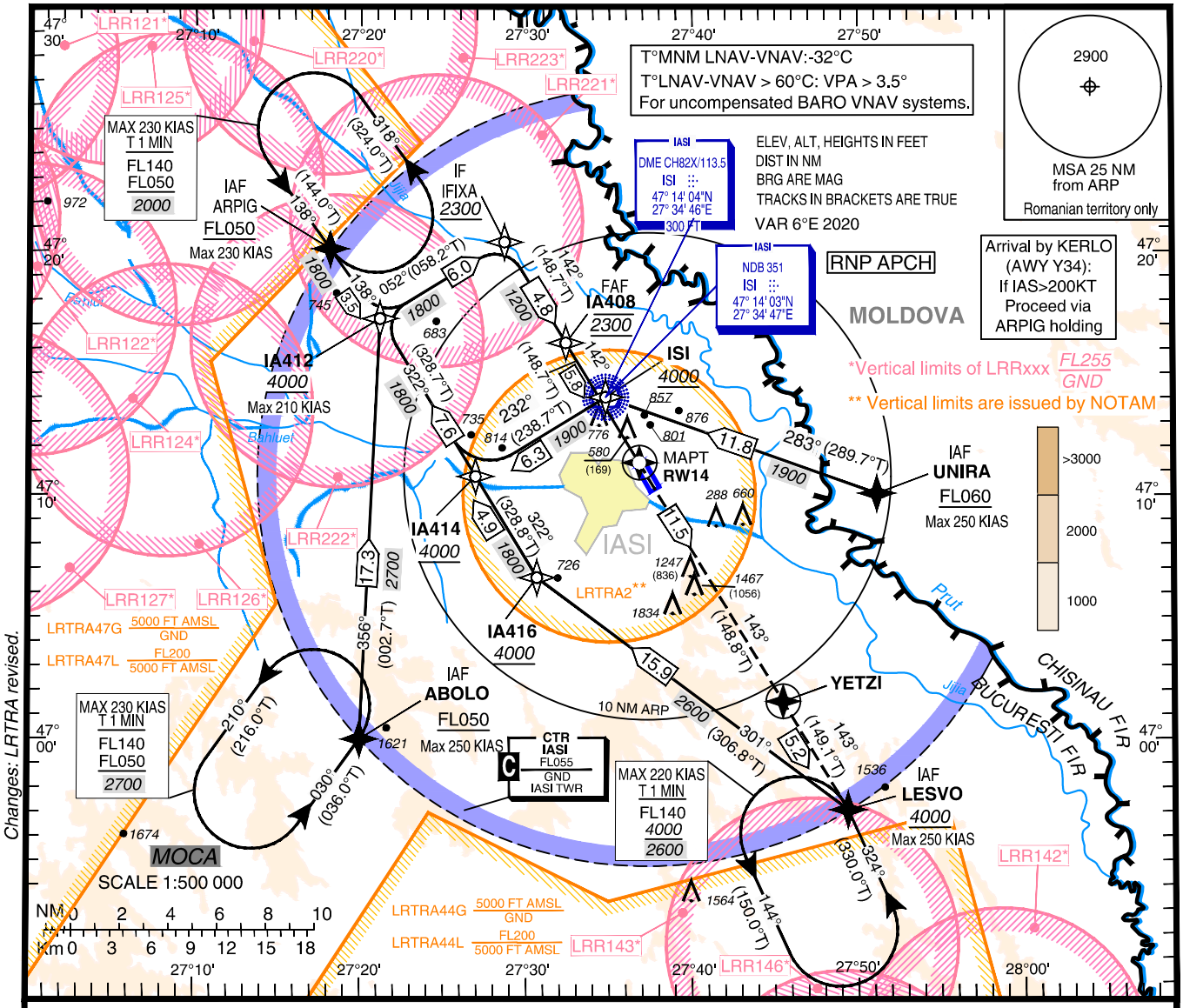
EGNOS CH: 83842 E14A

AERODROME ELEV. 411 FT
HEIGHTS RELATED TO THR ELEV

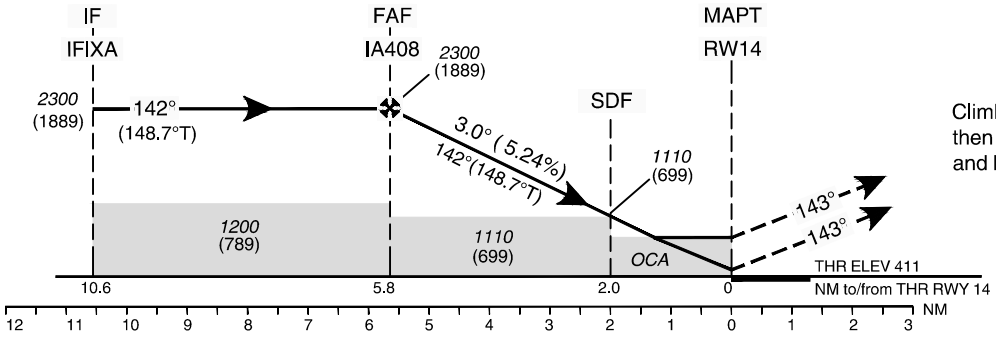
IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)

RNP RWY 14



SBAS CAT I OPERATIONS NOT APPROVED



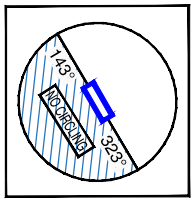
Transition Altitude 4000

MISSED APPROACH

Climb to **YETZI** on course **143° M** then to **LESVO** up to ***4000*** *(3589)* and hold or follow ATC instructions .

RDH 55

OCA (H)		A	B	C	D
LPV	MA 2.5%	*748* (337)	*760* (349)	*768* (357)	*779* (368)
	MA 3.0%	681 (270)	694(283)	702 (291)	712 (301)
LNAV/VNAV		*710* (299)	*730* (319)	*740* (329)	*770* (359)
LNAV		*830* (419)	*830* (419)	*860* (449)	*880* (469)
LNAV w/o SDF		*1110* (699)			
Circling (1)(2)		*1100*	*1160*	*1650*	*1860*



Distance to THR	NM	5	4	3	2
Altitude (Height)	FT	*2060* (1649)	*1740* (1329)	*1420* (1009)	*1110* (699)

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF - MAPT 5.8NM	MIN:SEC	4:56	3:50	3:27	2:53	2:28	2:10
Rate of descent (5.24%)	FT/MIN	370	480	530	640	740	850

(1) Circling West of airport prohobited.

(2) Circling CAT D ***MAX 195 KIAS***.

For data tabulation see verso.

IAŞI / Iași (LRIA)
RNP RWY 14

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY14	
Fix/Waypoint Name	**Coordinates**
ABOLO (IAF)	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF)	47°20'08.0"N 027°18'10.0"E
IFIXA	47°20'25.4"N 027°28'41.0"E
LESVO (IAF)	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF)	47°10'06.0"N 027°51'06.0"E
YETZI (IF)	47°01'34.2"N 027°45'26.7"E
IA408 (FAF)	47°16'17.4"N 027°32'22.6"E
IA412	47°17'16.2"N 027°21'10.8"E
IA414	47°10'48.2"N 027°26'57.1"E
IA416	47°06'38.7"N 027°30'38.9"E
ISI NDB	47°14'03.4"N 027°34'45.9"E
SDF	47°13'04.2"N 027°35'14.9"E
RW14 (MAPT)	47°11'22.10"N 027°36'45.71"E

RADIO COMMUNICATION FAILURE

a) If RNP RWY 14 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP RWY 14 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP RWY 14 instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG / ABOLO / LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / ABOLO / LESVO) and hold 6 minutes, then continue the RNP RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If RNP RWY 14 instrument flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL and continue the RNP RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

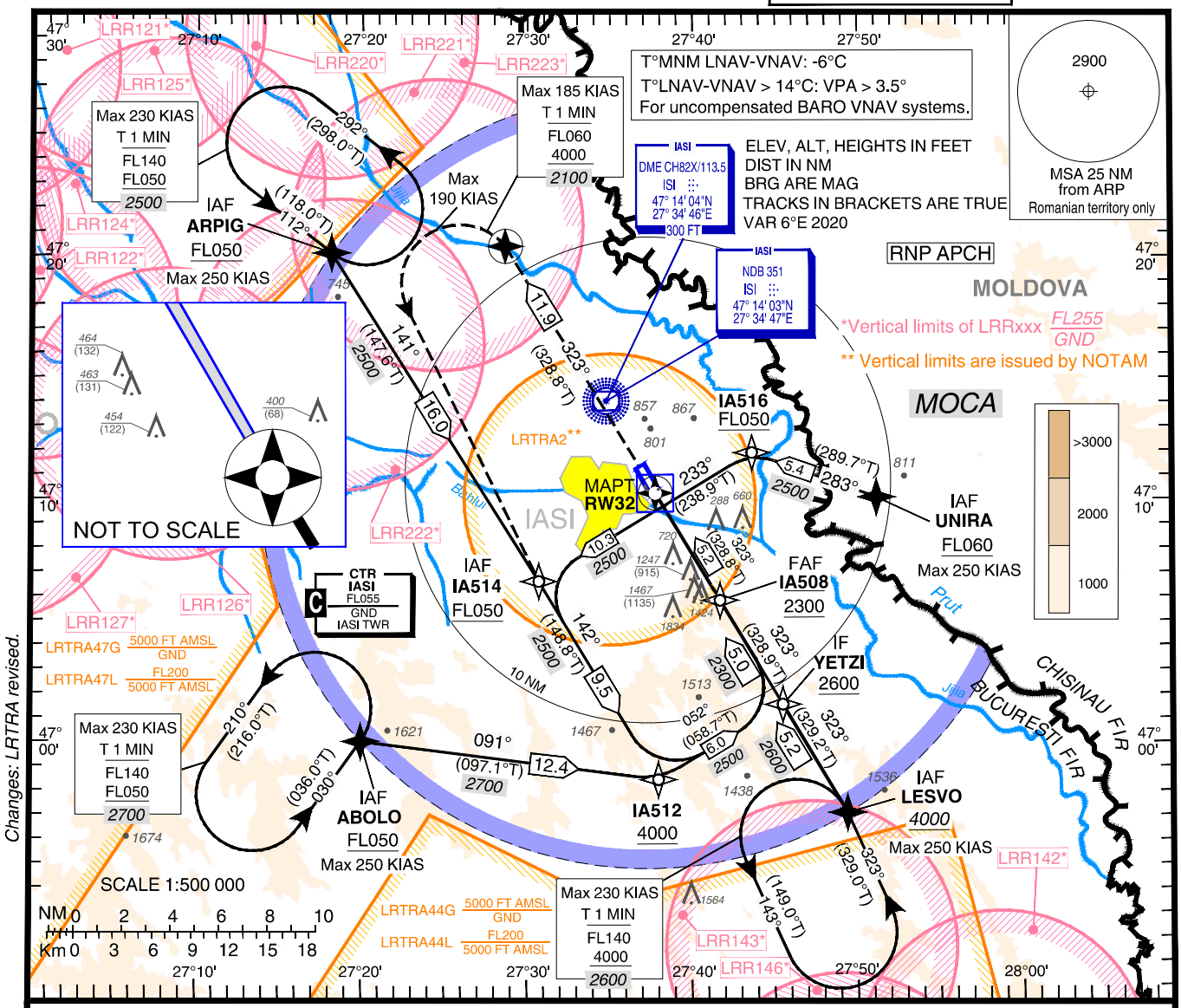
EGNOS CH: 43151 E32A

AERODROME ELEV. 411 FT
HEIGHTS RELATED TO
THR RWY 32 - ELEV 332 FT

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)

RNP RWY 32

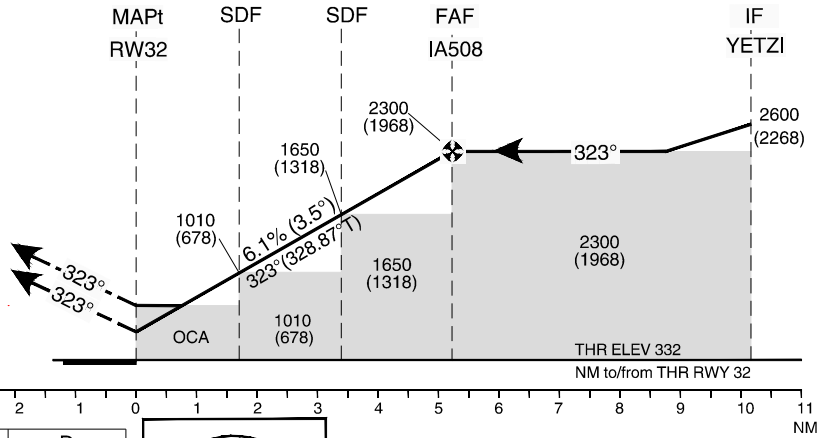


SBAS CAT I OPERATIONS NOT APPROVED

Transition Altitude 4000

MISSED APPROACH

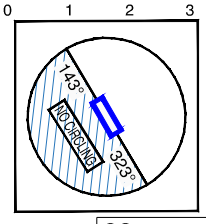
Climb to **IFIXA** on course 323° M then turn **left** direct to ***IA514*** *(Max **190 KIAS**)* climbing to **FL050** to initiate a new approach.



OCA (H)	A	B	C	D
LPV	*600 (268)*	*615 (283)*	*625 (293)*	*637 (305)*
LNAV/VNAV	*590 (258)*	600 (268)	620 (288)	*640 (308)*
LNAV	*650 (318)*	*650 (318)*	*680 (348)*	700 (368)
LNAV w/o SDF	*1650 (1318)*			
Circling(1)(2)	*1100*	*1160*	*1650*	1860

(1) Circling West of airport prohobited.
(2) Circling CAT D ***MAX 195 KIAS.***

For data tabulation see verso.



Dist THR	NM	1	2	3	4	5
Altitude (Height)	FT	*750* (418)	*1120* (788)	*1500* (1168)	*1870* (1538)	2240 (1908)

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF MAPT 5.2 NM	MIN:SEC	4:25	3:26	3:06	2:35	2:13	1:56
Rate of descent (6.1%)	FT/MIN	430	560	620	740	860	990

IAȘI / Iași (LRIA)
RNP RWY 32

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY32	
Fix/Waypoint Name	**Coordinates**
ABOLO (IAF)	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF)	47°20'08.0"N 027°18'10.0"E
IFIXA	47°20'25.4"N 027°28'41.0"E
LESVO (IAF)	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF)	47°10'06.0"N 027°51'06.0"E
YETZI (IF)	47°01'34.2"N 027°45'26.7"E
IA508 (FAF)	47°05'50.8"N 027°41'39.7"E
IA512	46°58'27.7"N 027°37'56.8"E
IA514	47°06'37.3"N 027°30'43.7"E
IA516	47°11'55.7"N 027°43'35.1"E
SDF 3.4	47°07'21.2"N 027°40'19.6"E
SDF 1.7	47°08'48.4"N 027°39'02.2"E
RW32 (MAPT)	47°10'15.64"N 027°37'44.79"E

RADIO COMMUNICATION FAILURE

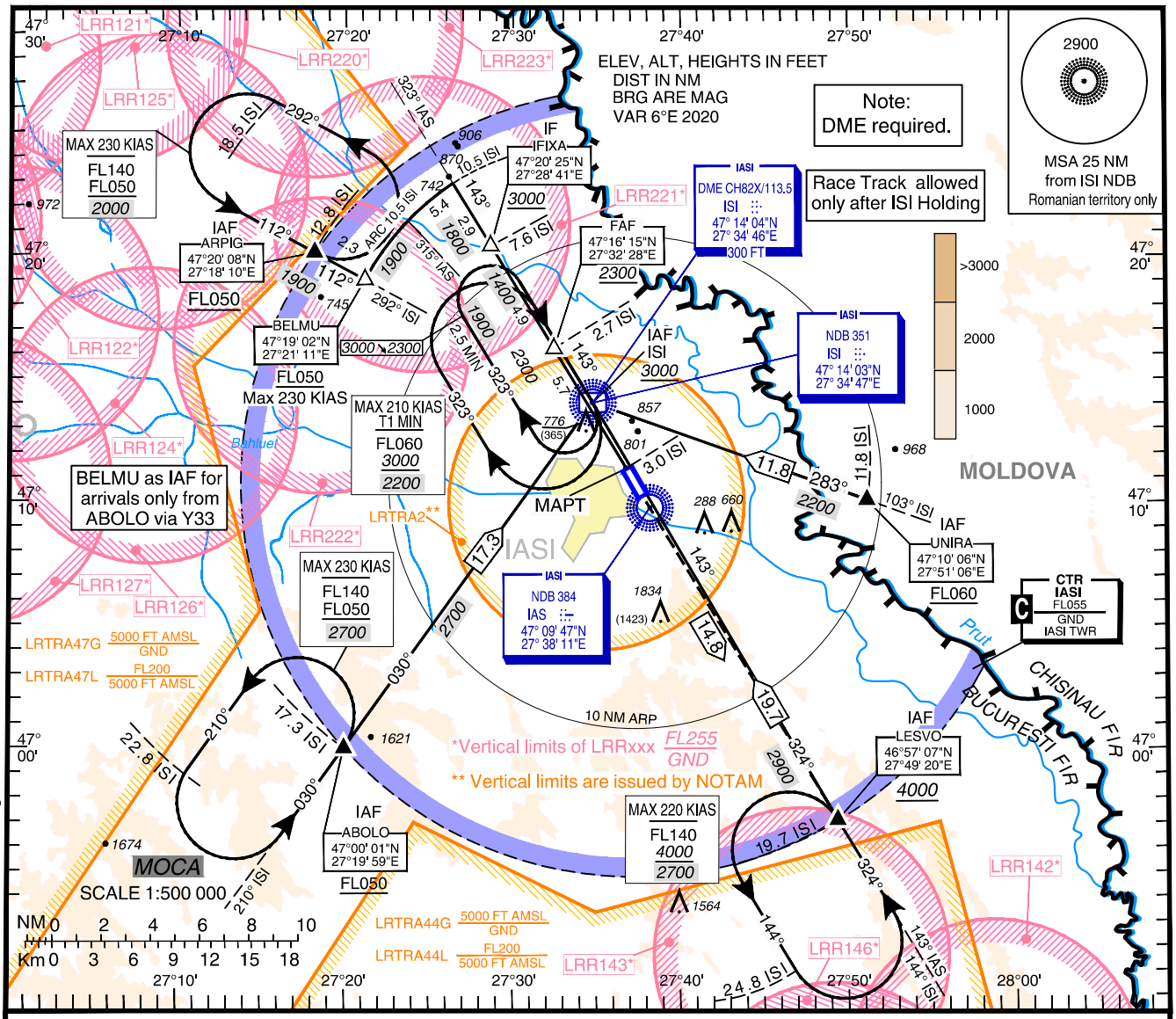
a) If RNP RWY 32 instrument approach procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP RWY 32 instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP RWY 32 instrument approach procedure was not assigned or received by ATC, for arrivals via ARPIG / ABOLO / LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / ABOLO / LESVO) and hold 6 minutes, then continue the RNP RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If RNP RWY 32 instrument approach procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to IA514, then continue the RNP RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

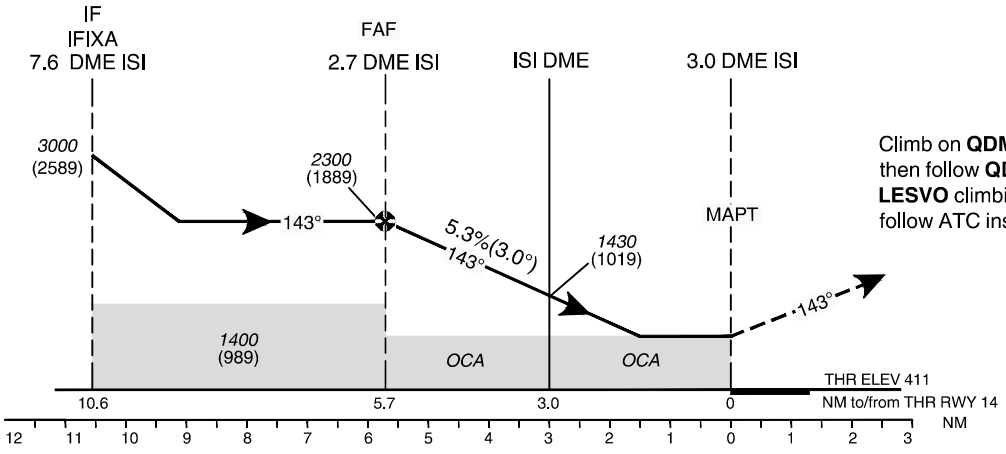
AERODROME ELEV. **411 FT**
HEIGHTS RELATED TO THR ELEV

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)
NDB Z
RWY 14



Changes: LRTRA revised.

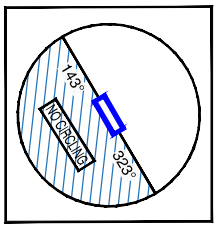


Transition Altitude 4000

MISSED APPROACH

Climb on **QDM 143° IAS** (143° M) until **IAS**, then follow **QDR 143° IAS** (143° M) to **LESVO** climbing to ***4000*** (3589) and hold or follow ATC instructions.

OCA(H)	A	B
MA 2.5%	1050 (639)	1080 (669)
MA 3.0%	1030 (619)	
Circling (1)	1100	1160



(1) Circling West of airport prohibited.

Distance to DME ISI	NM	2	1	0	1
Altitude (Height)	FT	*2070* (1659)	*1750* (1339)	*1430* (1019)	*1110* (699)

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF MAPT 5.7NM	MIN:SEC	4:52	3:47	3:25	2:50	2:26	2:08
Rate of descent (5.32%)	FT/MIN	380	480	540	650	750	860

For data tabulation see verso.

IAŞI / Iaşi (LRIA)
NDB Z RWY 14

AERONAUTICAL DATA TABULATION

NDB Approach to RWY14 from ABOLO, ARPIG, LESVO, UNIRA	
Fix/Point	**Coordinates**
ABOLO (IAF) – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF) – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO (IAF) – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF) – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB (IAF)	47°09'46.6"N 027°38'10.6"E
BELMU – 292.24 ISI / 10.50NM ISI	47°19'02.0"N 027°21'11.0"E
BRG 323.00° IAS / 10.50NM ISI	47°22'55.6"N 027°26'32.1"E
IFIXA (IF) – BRG 323.00° IAS / 7.60NM ISI	47°20'25.4"N 027°28'41.0"E
FAF – BRG 323.00° IAS / 2.70NM ISI	47°16'14.7"N 027°32'27.8"E
MAPT – BRG 323.00° IAS / 3.00NM ISI	47°11'22.8"N 027°36'45.8"E
THR 14	47°11'22.10"N 027°36'45.71"E

Final approach descent gradient (angle): 5.3% (3.0°)

RADIO COMMUNICATION FAILURE

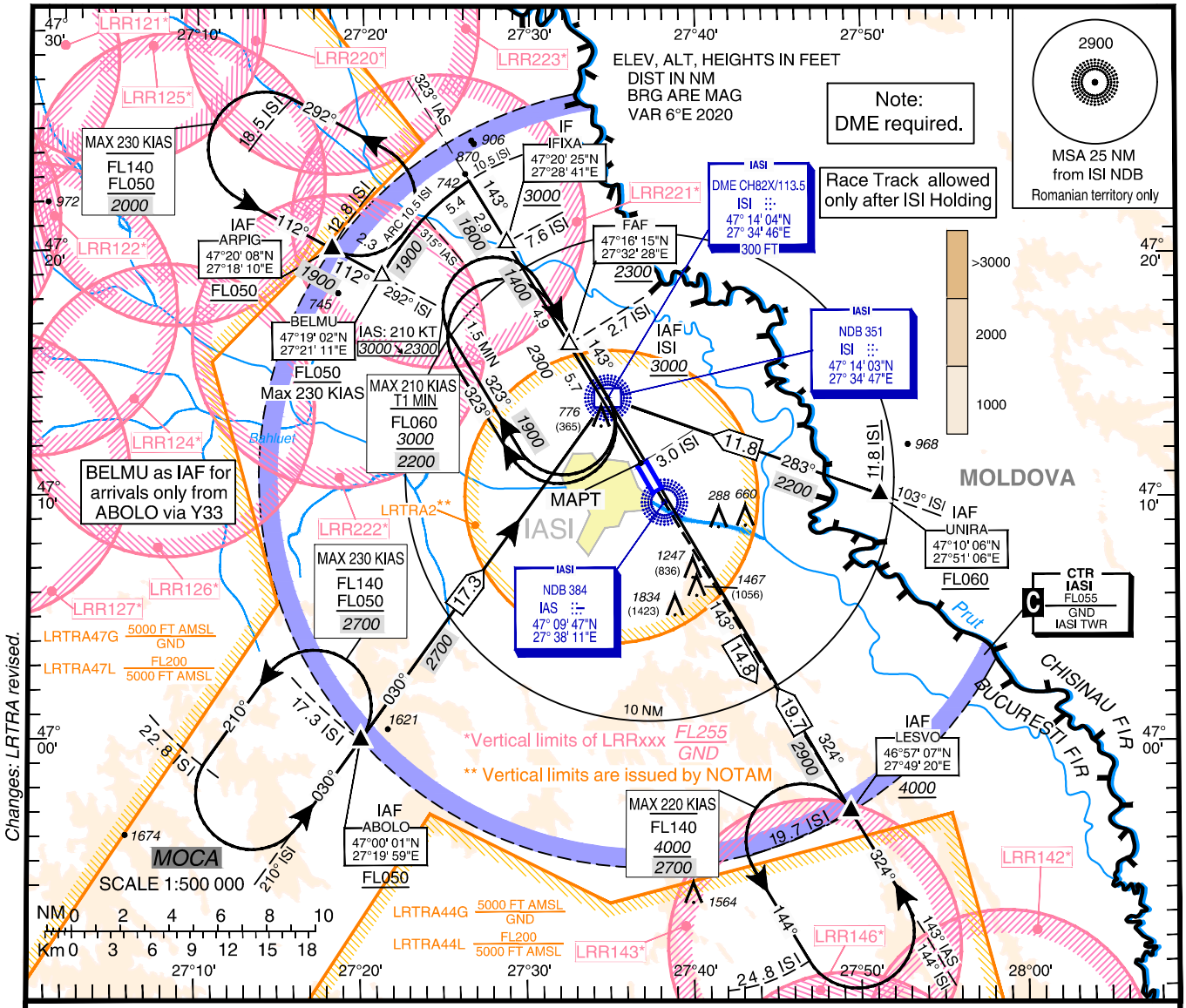
a) If NDB RWY 14 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB RWY 14 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB RWY 14 instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG/ LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / LESVO) and hold 6 minutes, then continue with NDB RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If NDB RWY 14 instrument flight procedure was not assigned or received by ATC, for arrivals via ABOLO: set transponder 7600, proceed according to FPL to CTR entry point ABOLO – IAF, then continue with NDB RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart
d) If NDB RWY 14 flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to ISI NDB and hold 6 minutes, then continue with NDB RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

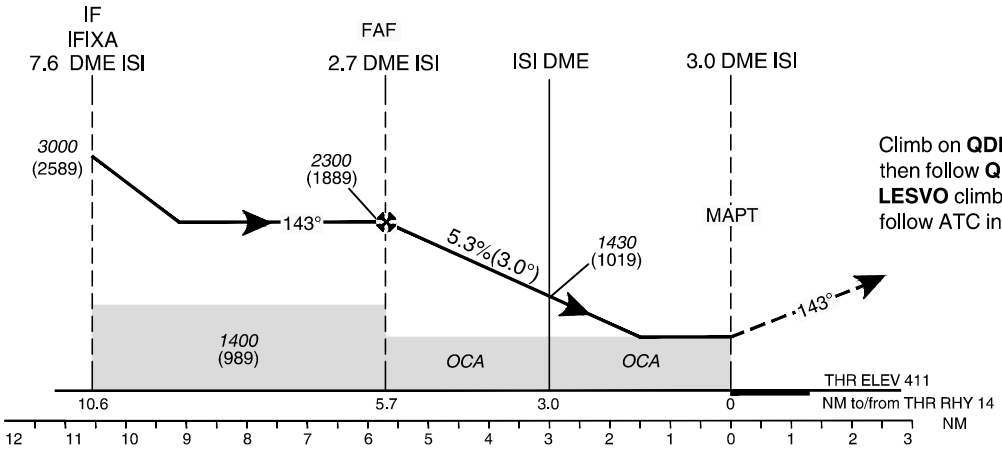
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **411 FT**
HEIGHTS RELATED TO THR ELEV

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)
NDB Y
RWY 14



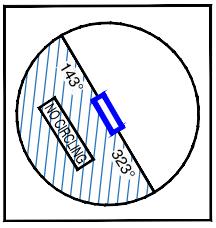


Transition Altitude 4000

MISSED APPROACH

Climb on **QDM 143° IAS** (143° M) until **IAS**, then follow **QDR 143° IAS** (143° M) to **LESVO** climbing to ***4000*** (3589) and hold or follow ATC instructions.

OCA(H)	C	D
MA 2.5%	1110 (689)	1120 (709)
MA 3.0%	1030 (619)	
Circling (1) (2)	1650	1860



(1) Circling West of airport prohibited.
(2) Circling CAT D ***Max 195 KIAS***.

Distance to DME ISI	NM	2	1	0	1
Altitude (Height)	FT	*2070* (1659)	*1750* (1339)	*1430* (1019)	*1110* (699)

Timing not authorized for defining the MAPt.

GS	KT	70	90	100	120	140	160
FAF MAPT 5.7NM	MIN:SEC	4:52	3:47	3:25	2:50	2:26	2:08
Rate of descent (5.32%)	FT/MIN	380	480	540	650	750	860

For data tabulation see verso.

IAŞI / Iaşi (LRIA)
NDB Y RWY 14

AERONAUTICAL DATA TABULATION

NDB Approach to RWY14 from ABOLO, ARPIG, LESVO, UNIRA	
Fix/Point	**Coordinates**
ABOLO (IAF) – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF) – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO (IAF) – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF) – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB (IAF)	47°09'46.6"N 027°38'10.6"E
BELMU – 292.24 ISI / 10.50NM ISI	47°19'02.0"N 027°21'11.0"E
BRG 323.00° IAS / 10.50NM ISI	47°22'55.6"N 027°26'32.1"E
IF (IFIXA) – BRG 323.00° IAS / 7.60NM ISI	47°20'25.4"N 027°28'41.0"E
FAF – BRG 323.00° / 2.70NM ISI	47°16'14.7"N 027°32'27.8"E
MAPT – BRG 323.00° / 3.00NM ISI	47°11'22.8"N 027°36'45.8"E
THR 14	47°11'22.10"N 027°36'45.71"E

Final approach descent gradient (angle): 5.3% (3.0°)

RADIO COMMUNICATION FAILURE

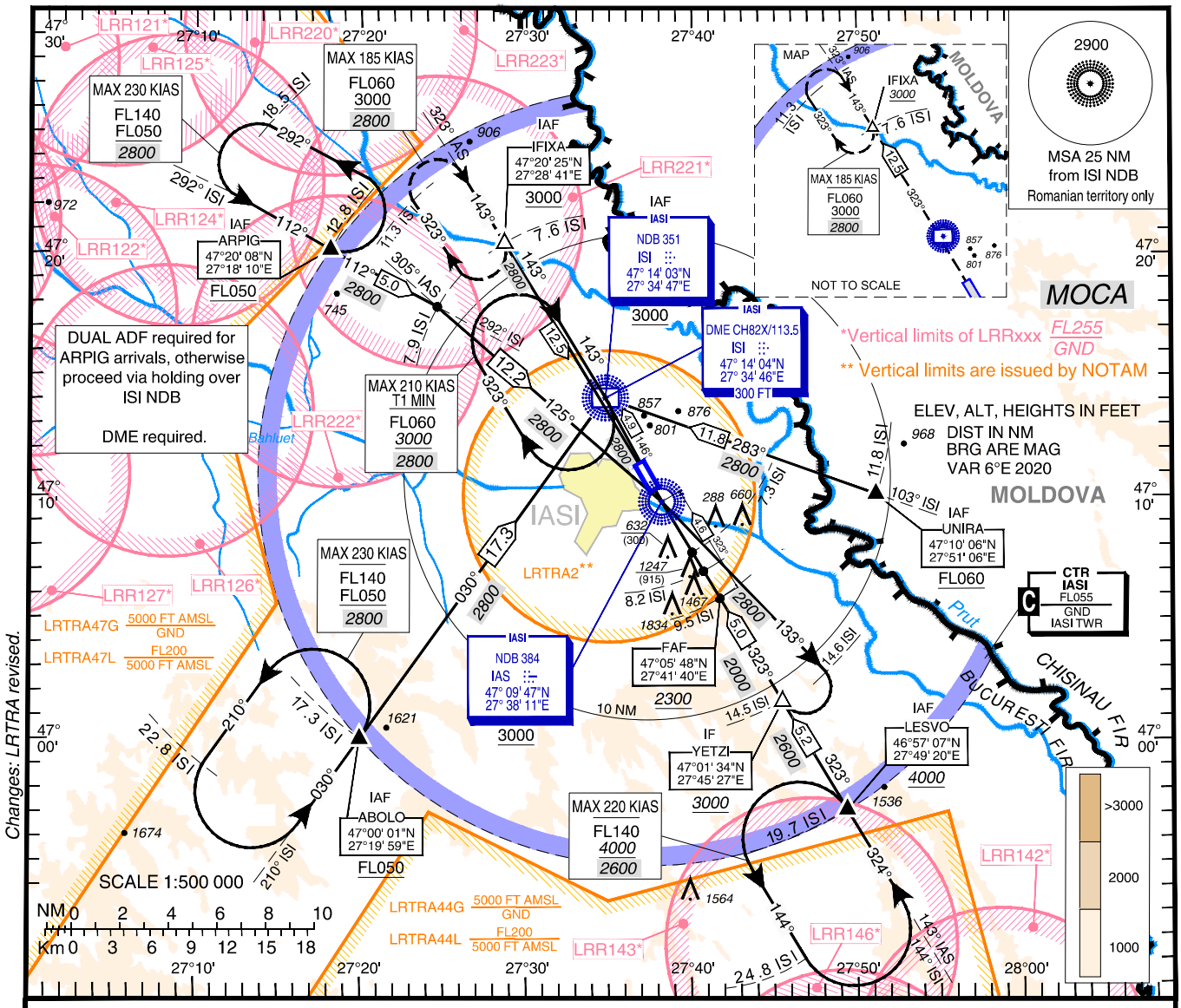
a) If NDB RWY 14 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB RWY 14 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB RWY 14 instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG/ LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / LESVO) and hold 6 minutes, then continue with NDB RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If NDB RWY 14 instrument flight procedure was not assigned or received by ATC, for arrivals via ABOLO: set transponder 7600, proceed according to FPL to CTR entry point ABOLO – IAF, then continue with NDB RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart
d) If NDB RWY 14 flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to ISI NDB and hold 6 minutes, then continue with NDB RWY 14 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **411 FT**
HEIGHTS RELATED TO
THR RWY 32 - ELEV 332 FT

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

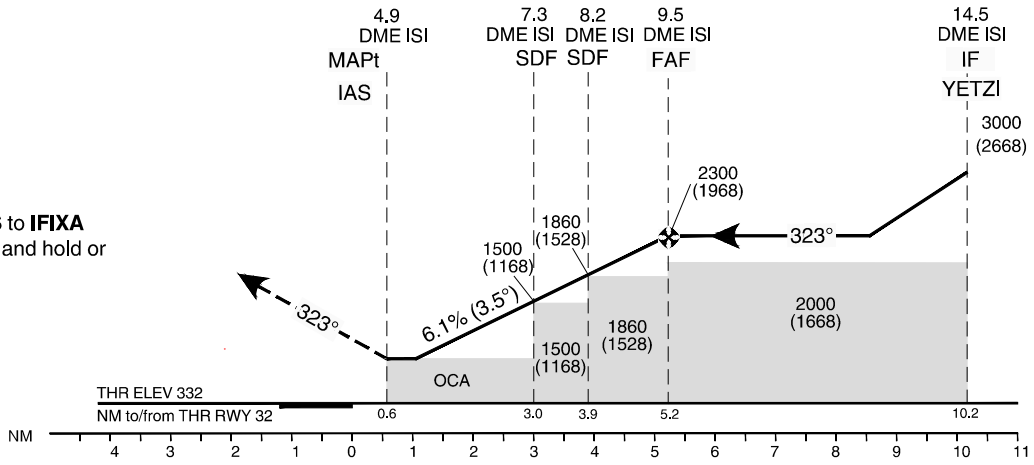
IAŞI / Iaşi (LRIA)
NDB Z
RWY 32



Transition Altitude
4000

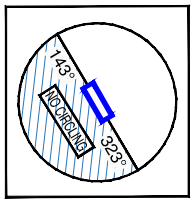
MISSED APPROACH

Climb on **QDR 323° IAS** to **IFIXA** climbing to **3000** (2668) and hold or follow ATC instructions.



OCA (OCH)	A	B
NDB	840 (508)	
NDB w/o SDF	1860 (1528)	
Circling (1)	1100	1160

(1) Circling West of airport prohibited.



Dist DME ISI	NM	6	7	8	9
Altitude (Height)	FT	*1010* (678)	*1380* (1048)	*1750* (1418)	*2120* (1788)

GS	KT	70	90	100	120	140	160
FAF - MAPT 4.6 NM	MIN:SEC	3:58	3:05	2:47	2:19	1:59	1:44
Rate of descent (6.07%)	FT/MIN	430	550	610	740	860	980

Timing not authorized for defining the MAPt.

For data tabulation see verso.

IAŞI / Iaşi (LRIA)
NDB Z RWY 32

AERONAUTICAL DATA TABULATION

NDB Approach to RWY32 from ABOLO, ARPIG, LESVO, UNIRA	
Fix/Point	**Coordinates**
ABOLO (IAF) – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF) – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO (IAF) – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF) – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB (IAF)	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB	47°09'46.6"N 027°38'10.6"E
IFIXA (**IAF)** – BRG 323.00° IAS / 7.60NM ISI	47°20'25.4"N 027°28'41.0"E
BRG 292.36° ISI / 305.00° IAS / 7.90NM ISI	47°17'46.8"N 027°24'37.3"E
YETZI (**IF)** – BRG 143.00° IAS / 14.50NM ISI	47°01'34.2"N 027°45'26.7"E
FAF – BRG 143.00° IAS / 9.50NM ISI	47°05'48.3"N 027°41'40.2"E
SDF 1 – BRG 143.00° IAS / 8.20NM ISI	47°06'55.2"N 027°40'41.5"E
SDF 2 – BRG 143.00° IAS / 7.30NM ISI	47°07'41.5"N 027°40'00.8"E
IAS NDB (MAPT)	47°09'46.6"N 027°38'10.6"E
THR 32	47°10'15.64"N 027°37'44.79"E

Final approach descent gradient (angle): 6.1% (3.5°)

RADIO COMMUNICATION FAILURE

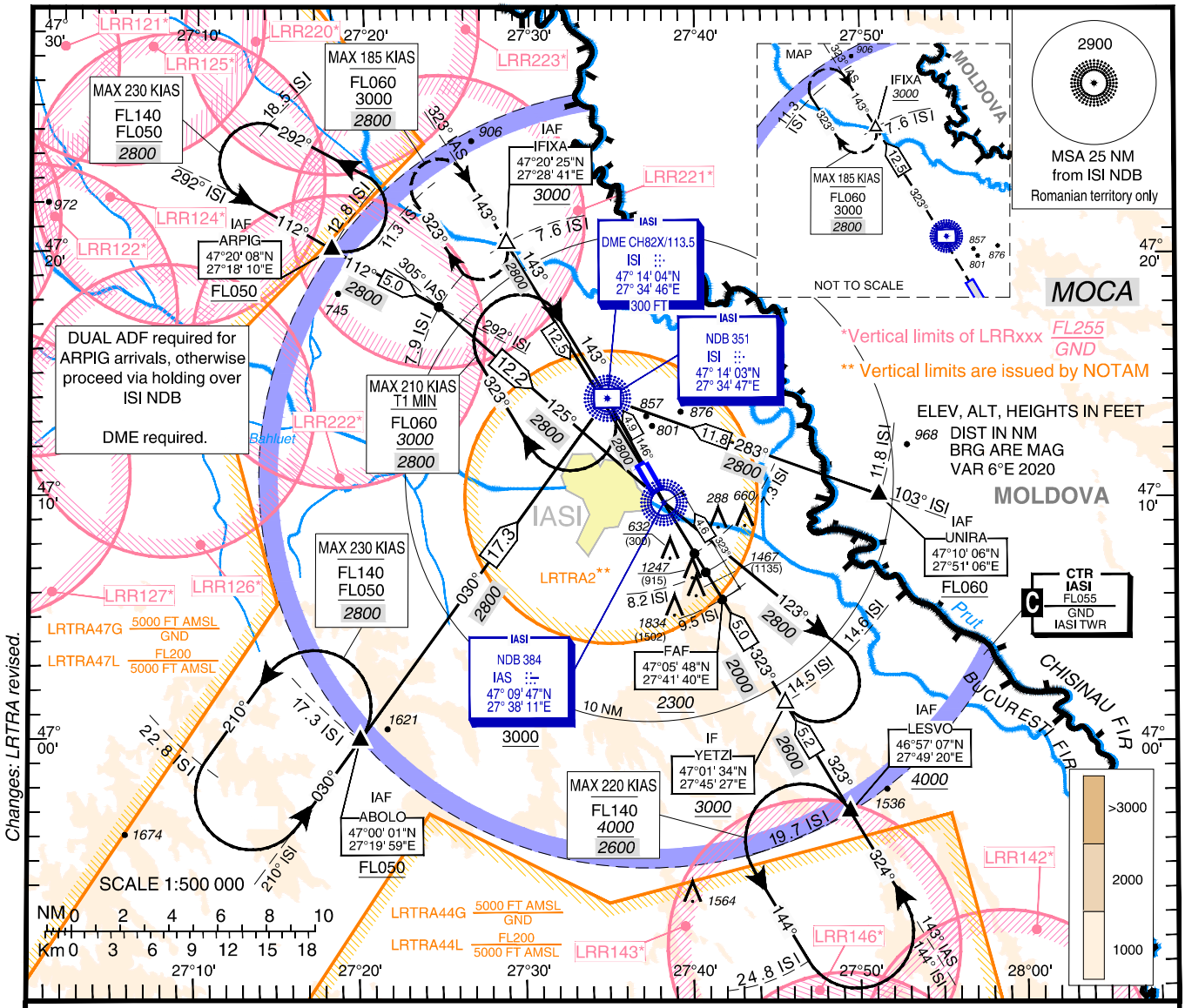
a) If NDB RWY 32 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB RWY 32 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB RWY 32 instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG/ LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / LESVO) and hold 6 minutes, then continue with NDB RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
c) If NDB RWY 32 instrument flight procedure was not assigned or received by ATC, for arrivals via ABOLO: set transponder 7600, proceed according to FPL to CTR entry point ABOLO and continue with NDB RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
d) If NDB RWY 32 flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to ISI NDB and hold 6 minutes, then continue with NDB RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **411 FT**
HEIGHTS RELATED TO
THR RWY 32 - ELEV 332 FT

IASI Tower	119.955
IASI Tower ALTN	119.200
IASI ATIS	122.865

IAŞI / Iaşi (LRIA)
NDB Y
RWY 32

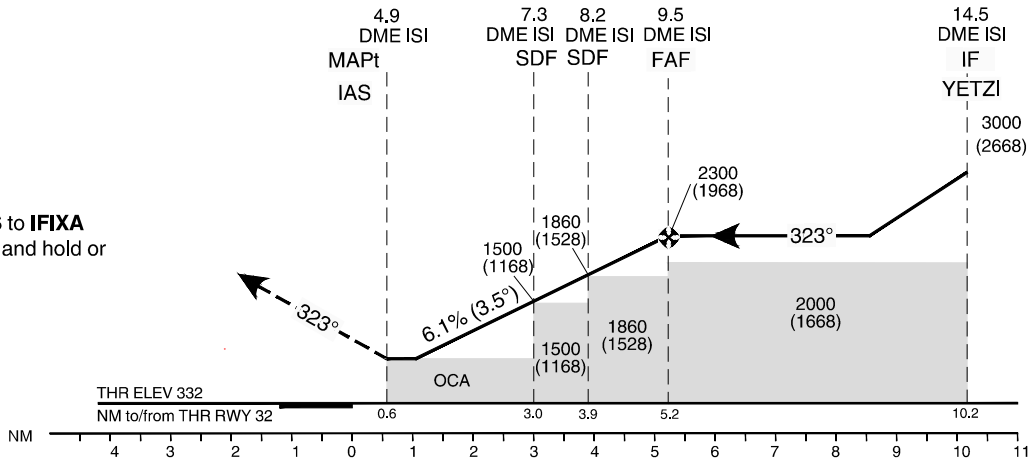


Changes: LRTRA revised.

Transition Altitude
4000

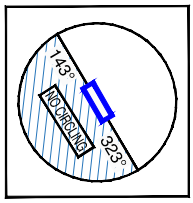
MISSED APPROACH

Climb on **QDR 323° IAS** to **IFIXA** climbing to **3000** (2668) and hold or follow ATC instructions.



OCA (OCH)	C	D
NDB	840 (508)	
NDB w/o SDF	1860 (1528)	
Circling (1) (2)	1650	1860

(1) Circling West of airport prohobited.
(2) Circling CAT D ***MAX 195 KIAS***.



Dist DME ISI	NM	6	7	8	9
Altitude (Height)	FT	*1010* (678)	*1380* (1048)	*1750* (1418)	*2120* (1788)

GS	KT	70	90	100	120	140	160
FAF - MAPT 4.6 NM	MIN:SEC	3:58	3:05	2:47	2:19	1:59	1:44
Rate of descent (6.07%)	FT/MIN	430	550	610	740	860	980

Timing not authorized for defining the MAPt.

For data tabulation see verso.

IAŞI / Iaşi (LRIA)
NDB Y RWY 32

AERONAUTICAL DATA TABULATION

NDB Approach to RWY32 from ABOLO, ARPIG, LESVO, UNIRA	
Fix/Point	**Coordinates**
ABOLO (IAF) – BRG 209.83° / 17.30NM ISI	47°00'01.0"N 027°19'59.0"E
ARPIG (IAF) – BRG 292.36° / 12.84NM ISI	47°20'08.0"N 027°18'10.0"E
LESVO (IAF) – BRG 143.51° / 19.65NM ISI	46°57'07.0"N 027°49'20.0"E
UNIRA (IAF) – BRG 103.48° / 11.81NM ISI	47°10'06.0"N 027°51'06.0"E
ISI NDB (IAF)	47°14'03.4"N 027°34'46.9"E
ISI DME	47°14'03.5"N 027°34'45.9"E
IAS NDB	47°09'46.6"N 027°38'10.6"E
IFIXA (**IAF)** – BRG 323.00° IAS / 7.60NM ISI	47°20'25.4"N 027°28'41.0"E
BRG 292.36° ISI / 305.00° IAS / 7.90NM ISI	47°17'46.8"N 027°24'37.3"E
YETZI (**IF)** – BRG 143.00° IAS / 14.50NM ISI	47°01'34.2"N 027°45'26.7"E
FAF – BRG 143.00° IAS / 9.50NM ISI	47°05'48.3"N 027°41'40.2"E
SDF 1 – BRG 143.00° IAS / 8.20NM ISI	47°06'55.2"N 027°40'41.5"E
SDF 2 – BRG 143.00° IAS / 7.30NM ISI	47°07'41.5"N 027°40'00.8"E
IAS NDB (MAPT)	47°09'46.6"N 027°38'10.6"E
THR 32	47°10'15.64"N 027°37'44.79"E

Final approach descent gradient (angle): 6.1% (3.5°)

RADIO COMMUNICATION FAILURE

a) If NDB RWY 32 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated NDB RWY 32 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If NDB RWY 32 instrument flight procedure was not assigned or received by ATC, for arrivals via ARPIG/ LESVO: set transponder 7600, proceed according to FPL to CTR entry point (ARPIG / LESVO) and hold 6 minutes, then continue with NDB RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
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d) If NDB RWY 32 flight procedure was not assigned or received by ATC, for arrivals via UNIRA: set transponder 7600, proceed according to FPL to ISI NDB and hold 6 minutes, then continue with NDB RWY 32 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

LRSM AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRSM - SATU MARE / Satu Mare

LRSM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	474212N 0225308E Runway center.
2	*Direction and distance from city*	14 km South from Satu Mare
3	*Elevation/Reference temperature/mean low temperature*	414 FT / 30.4°C / -13.8°C
4	*Geoid undulation at AD ELEV PSN*	128 FT
5	*MAG VAR/ Annual rate of change*	5°E (2017) / 7.2'E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	Aeroportul Satu Mare Satu Mare, Şos. Satu Mare - Zalău, km 9.5. Tel: +40-(0)261-768640; +40-(0)261-768846 Fax: +40-(0)261-768776 AFS: LRSMRAYD
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRSM AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	W: 0500 - 1700; S: 0400 - 1600 Days of operation: MON - SAT
2	*Customs and immigration*	As AD Operator
3	*Health and sanitation*	As AD Operator
4	*AIS Briefing Office*	NIL
5	*ATS Reporting Office (ARO)*	As AD Operator
6	*MET Briefing Office*	As AD Operator
7	*ATS*	As AD Operator
8	*Fuelling*	As AD Operator
9	*Handling*	As AD Operator
10	*Security*	H24
11	*De-icing*	As AD Operator
12	*Remarks*	Outside these hours, services are available O/R. Request to be submitted to the AD with 24 hours in advance.

LRSM AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	3 self-propelled passenger stairs, 1 towed passenger stairs, 1 self-propelled conveyorbelt, 1 equipment towing tractor, 6 baggage trailers, 2 mobile GPU 115/200V-400HZ and 28V, 1 mobile GPU 28V, 1 air start unit, 1 air cabin heater unit, 1 lavatory service trailer, 1 forklift
2	*Fuel/Oil types*	JET A1 / NIL
3	*Fuelling facilities/capacity*	JET A1 - 1 refueling truck 20000 l
4	*De-icing facilities*	2 de-icing units with fluid type I and type II
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	Handling services available within AD hours, or by arrangement with the AD.

LRSM AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Snack bar on the airport, restaurants in the city.
3	*Transportation*	Buses, taxis from the AD.
4	*Medical facilities*	First aid at AD. Hospitals in the city.
5	*Bank and Post Office*	Bank and Post Office in the city.
6	*Tourist Office*	In the city.
7	*Remarks*	NIL

LRSM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 5, O/R CAT 7 not later than 24 hours before.
2	*Rescue equipment*	1 hydraulic rescue tools kit - spreader, cutter, rescue ram; 1 battery driven rescue tools kit - spreader, cutter, rescue ram;
3	*Capability for removal of disabled aircraft*	Cranes AVBL via contractor. Local Action Coordinator: +40-744 615 674 for substitute: +40-723 250 296 e-mail: ops@aeroportulsm.ro
4	*Remarks*	NIL

LRSM AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	*Types of clearing equipment*	2 snow ploughs with brush and blower; 1 snow plough; 2 snow blowers; 1 spreader for liquid de-icing materials.
2	*Clearance priorities*	1. RWY 01/19 and associated TWY to Apron 2. Apron 3. ACFT stands
3	*Use of material for movement area surface tratment*	Generic fluids used for movement area de/anti-icing: 1. KFOR (potassium formate fluid); 2. KAC (potassium acetate fluid).
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Information regarding Runway surface condition provided by Runway Condition Report (RCR) and SNOWTAM, according to Global Reporting Format (GRF) method. See also the snow plan in section AD 1.2.2.

LRSM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	Surface: Strength:	Concrete PCN 61/R/C/W/T		
2	*Taxiway designation, width, surface and strength*	Width: Surface: Strength:	23 M Concrete PCN 61/R/C/W/T		
3	*ACL location and elevation*	Location: Elevation:	Apron 407FT(124M)	THR01 414FT(126M)	THR19 407FT(124M)
4	*VOR checkpoints*	NIL			
5	*INS checkpoints*	See AD 2.12-22			
6	*Remarks*	RWY turning bay:	Location: THR 01, THR 19 Surface: Asphalt Dimensions: 100 M x 15 M Strength: PCN 61/R/C/W/T		

LRSM AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	*Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands*	Taxiing guidance signs at intersection with TWY. Mandatory instructions markings. Guide lines at apron. For all stands parking guidance provided by marshallers. Visual docking guidance system for aircraft stands: NIL.
2	*RWY and TWY markings and LGT*	RWY: - markings: designation, THR, TDZ, aiming point, centre line, side stripes; - lights: THR, centre line, edge, runway end, TDZ lights on RWY19; TWY A: - markings: centre line, enhanced centre line, edge, holding position at TWY/RWY intersection; - lights: centre line, edge;
3	*Stop bars and runway guard lights*	TWY A: Stop bar and runway guard lights at holding position
4	*Other RWY protection measure*	NIL
5	*Remarks*	RWY turn pads: - markings: color yellow: centre line, edge line; - lights: centre line, edge;

LRSM AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	*OBST type*	*OBST position*	*ELEV/HGT*	*Markings/ Type, colour*	*Remarks*
a	b	c	d	e	f
6	Antenna	474243.6N 0225324.3E	425/21 FT	MARKED/LGTD R	
8	Antenna	475115.4N 0225829.6E	856/446 FT	NIL	
9	Antenna	475117.8N 0225824.3E	862/452 FT	NIL	
10	Antenna	474240.8N 0225312.0E	414/9 FT	MARKED/LGTD R	
11	Antenna	474240.4N 0225311.2E	439/35 FT	MARKED/LGTD R	
12	Antenna	474239.9N 0225311.0E	440/36 FT	MARKED/LGTD R	
34	Antenna	474719.2N 0225222.2E	745/339 FT	NIL	
39	Building	474240.8N 0225324.1E	414/9 FT	NIL/LGTD R	
99	Building	474200.9N 0225449.6E	506/95 FT	NIL	
101	Building	474059.9N 0225150.9E	489/76 FT	NIL	
102	Building	474107.2N 0225101.2E	538/133 FT	NIL	
103	Building	473816.6N 0225312.5E	639/155 FT	NIL	
104	Building	473858.1N 0225641.9E	836/61 FT	NIL	
105	Building	473949.5N 0225720.6E	691/115 FT	NIL	
269	Building	473912.0N 0225725.5E	691/58 FT	NIL	
270	Building	473911.5N 0225725.2E	689/56 FT	NIL	
311	Antenna	473910.2N 0225323.4E	594/112 FT	MARKED/LGTD R	
312	Antenna	473857.5N 0225640.9E	878/108 FT	MARKED/LGTD R	
318	Antenna	474346.7N 0225231.5E	502/100 FT	MARKED/LGTD R	
319	Antenna	474342.6N 0225233.2E	513/111 FT	MARKED/LGTD R	
344	Antenna	474241.0N 0225323.5E	452/48 FT	MARKED/LGTD R	
354	Tree	474315.0N 0225339.7E	464/59 FT	NIL	
363	Pole	474347.9N 0225217.7E	498/97 FT	NIL	
394	Pole	473820.4N 0225829.3E	774/135 FT	NIL	
396	Pole	474348.2N 0225213.2E	494/92 FT	NIL	

In Area 3					
OBST ID/ Designation	*OBST type*	*OBST position*	*ELEV/HGT*	*Markings/ Type, colour*	*Remarks*
a	b	c	d	e	f
Not available					

LRSM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	*Associated MET Office*	SATU MARE
2	*Hours of service* *MET Office outside hours*	H24 -
3	*Office responsible for TAF preparation* *Periods of validity* *Interval of issuance*	LROM 9 HR 3 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: +40-(0)261-770010 Fax: +40-(0)261-770010
9	*ATS units provided with information*	SATU MARE TWR
10	*Additional information (limitation of service, etc.)*	NIL

LRSM 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
01	013.03°	2500 x 45	61/R/C/W/T Asphalt	474132.87N 0225254.64E 474251.72N 0225321.73N GUND 128 FT	THR 414 FT	0% (1250 M) -0.1% (1250 M)
19	193.03°	2500 x 45	61/R/C/W/T Asphalt	474251.72N 0225321.73E 474132.87N 0225254.64E GUND 128.4 FT	THR 407.5 FT TDZ 408.6 FT	0.1% (1250 M) 0% (1250 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	400 x 240	2620 x 280	180 x 90	NIL	NIL	NIL
NIL	400 x 240	2620 x 280	180 x 90	NIL	NIL	NIL

LRSM AD 2.13 DECLARED DISTANCES

RWY designator	*TORA (M)*	*TODA (M)*	*ASDA (M)*	*LDA (M)*	*Remarks*
1	2	3	4	5	6
01	2500	2900	2500	2500	NIL
19	2500	2900	2500	2500	NIL

LRSM 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
01	SALS 420M, LIH	Green -	PAPI Left/3° (46 FT)	Nil	1600M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1900M, 59M, White, LIH 600M, 59M, Yellow, LIH	Red -	NIL	LED lights are exclusively used for lighting systems described in columns 2,3,7,8
19	CAT II 900M, LIH	Green WBAR	PAPI Left/3° (49 FT)	White 900M	1600M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1900M, 59M, White, LIH 600M, 59M, Yellow, LIH	Red -	NIL	

LRSM 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 Anemometer at 150 M from THR 19, HJ.
3	*TWY edge and centre line lighting*	TWY edge blue omnidirectional lights LIL. TWY centre line green/green; yellow/green lights, 15M (7.5M) spacing.
4	*Secondary power supply/switch-over time*	Secondary power supply to all lighting at AD. Switch-over time: 1 SEC.
5	*Remarks*	NIL

LRSM AD 2.16 HELICOPTER LANDING AREA

1	*Coordinates 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

LRSM AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	SATU MARE CTR 474738N 0222632E - FIR boundary - 474437N 0222510E - 473332N 0223120E - 472706N 0224758E - 472929N 0230730E - 474140N 0230939E - 475910N 0230200E - FIR boundary - 474738N 0222632E
2	*Vertical limits*	SFC to FL55
3	*Airspace classification*	C
4	*ATS unit call sign* *Language(s)*	Satu Mare Tower English, Romanian
5	*Transition altitude*	4000 FT (1200 M) AMSL
6	*Hours of aplicability*	As ATS
7	*Remarks*	NIL

LRSM AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	*Call sign*	*Channel/ Frequency*	*SATVOICE*	*Logon address*	*Hours of operation*	*Remarks*
1	2	3	4	5	6	7
TWR	Satu Mare Tower	119.655 118.800 MHz ALTN 121.500 MHz EMERG	NIL	NIL	W: 0500 - 1700 S: 0400 - 1600	Days of operation: Monday - Saturday Exempted 8.33 kHz State aircraft.
APP	Satu Mare Tower	118.800 MHz	NIL	NIL	W: 0500 - 1700 S: 0400 - 1600	Procedural service Days of operation: Monday - Saturday

LRSM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS give declination)	*ID*	*Frequency*	*Hours of operation*	*Site of Transmitting antenna coordinates*	*Elevation of DME transmitting antenna*	*Remarks*
1	2	3	4	5	6	7
DVOR/DME (5°E/2017)	SAT	108.400 MHz (CH 21X)	H24	474338.7N 0225337.9E	500 FT	009° MAG / 0.8 NM from THR 19 Coverage 150 NM (assumed)
LOC 19 (5°E/2017) ILS CAT II	ISM	110.950 MHz	H24	474123.7N 0225251.8E		Front course angle 4.31°
GP 19	-	330.650 MHz	H24	474241.1N 0225323.5E		GP Angle 3° ILS RDH 54 FT
DME 19	ISM	CH 46Y	H24	474240.9N 0225323.7E	400 FT	

LRSM AD 2.20 LOCAL AERODROME REGULATIONS

- NIL -

LRSM AD 2.21 NOISE ABATEMENT PROCEDURES

See AD 1.1-3

LRSM AD 2.22 FLIGHT PROCEDURES

- NIL -

LRSM AD 2.23 ADDITIONAL INFORMATION

- NIL -

LRSM AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO ..... AD 2.12-20
Aircraft Parking/Docking Chart - ICAO ..... AD 2.12-22
Aerodrome Obstacle Chart - ICAO – Type A ..... AD 2.12-25
Instrument Approach Charts - ICAO
RWY 19 ILS CAT A, B ..... AD 2.12-51
RWY 19 ILS CAT C, D ..... AD 2.12-52
RWY 19 VOR CAT A, B ..... AD 2.12-81
RWY 19 VOR CAT C, D ..... AD 2.12-82
RWY 01 VOR ..... AD 2.12-83

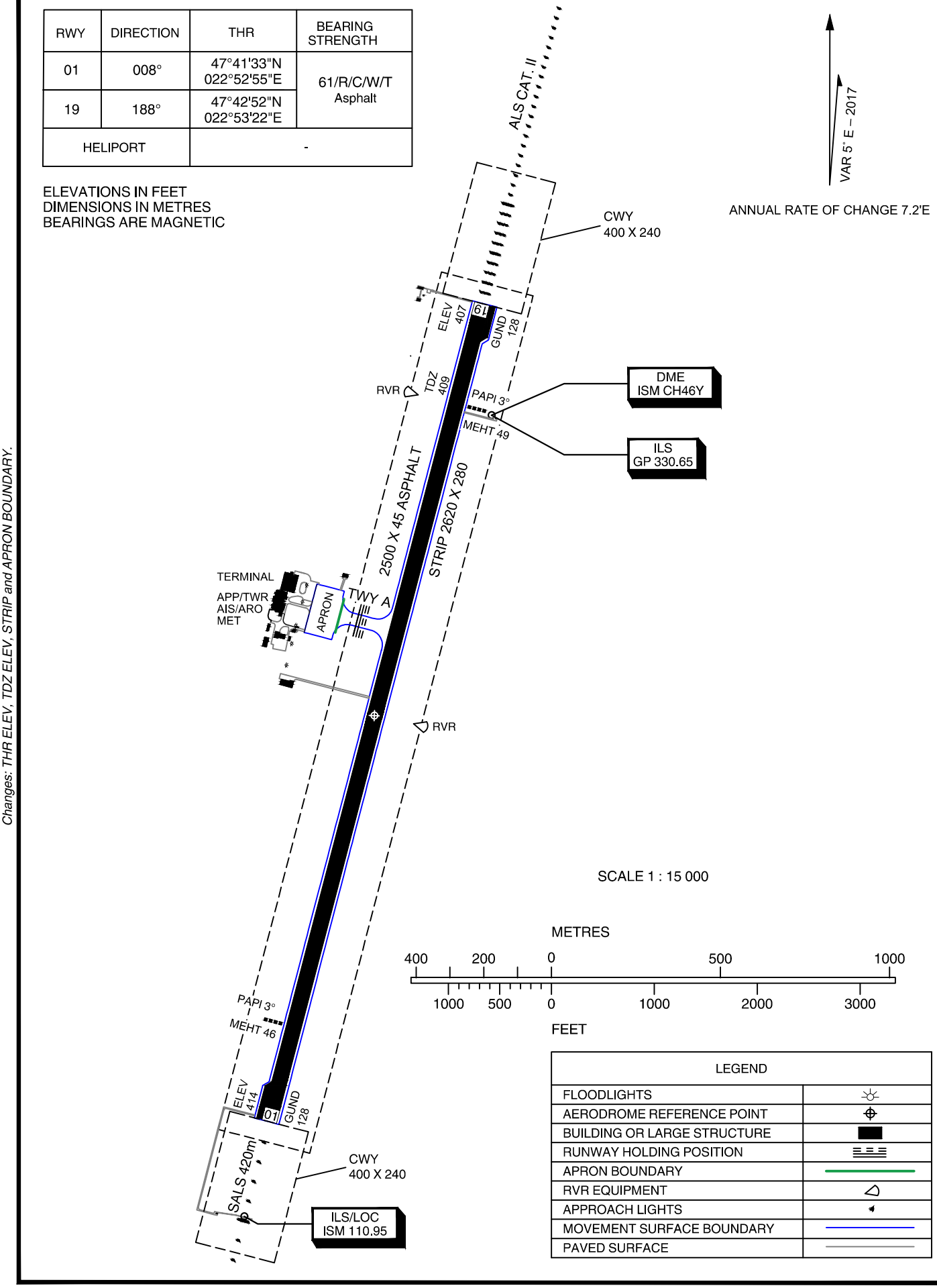
AERODROME CHART - ICAO | 47° 42' 12" N 022° 53' 08" E | **ELEV 414FT**

Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

SATU MARE / Satu Mare (LRSM)

RWY	DIRECTION	THR	BEARING STRENGTH
01	008°	47°41'33"N 022°52'55"E	61/R/C/W/T Asphalt
19	188°	47°42'52"N 022°53'22"E	
HELIPORT		-	

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



LEGEND	
FLOODLIGHTS	
AERODROME REFERENCE POINT	
BUILDING OR LARGE STRUCTURE	
RUNWAY HOLDING POSITION	
APRON BOUNDARY	
RVR EQUIPMENT	
APPROACH LIGHTS	
MOVEMENT SURFACE BOUNDARY	
PAVED SURFACE	

Changes: THR ELEV, TDZ ELEV, STRIP and APRON BOUNDARY.

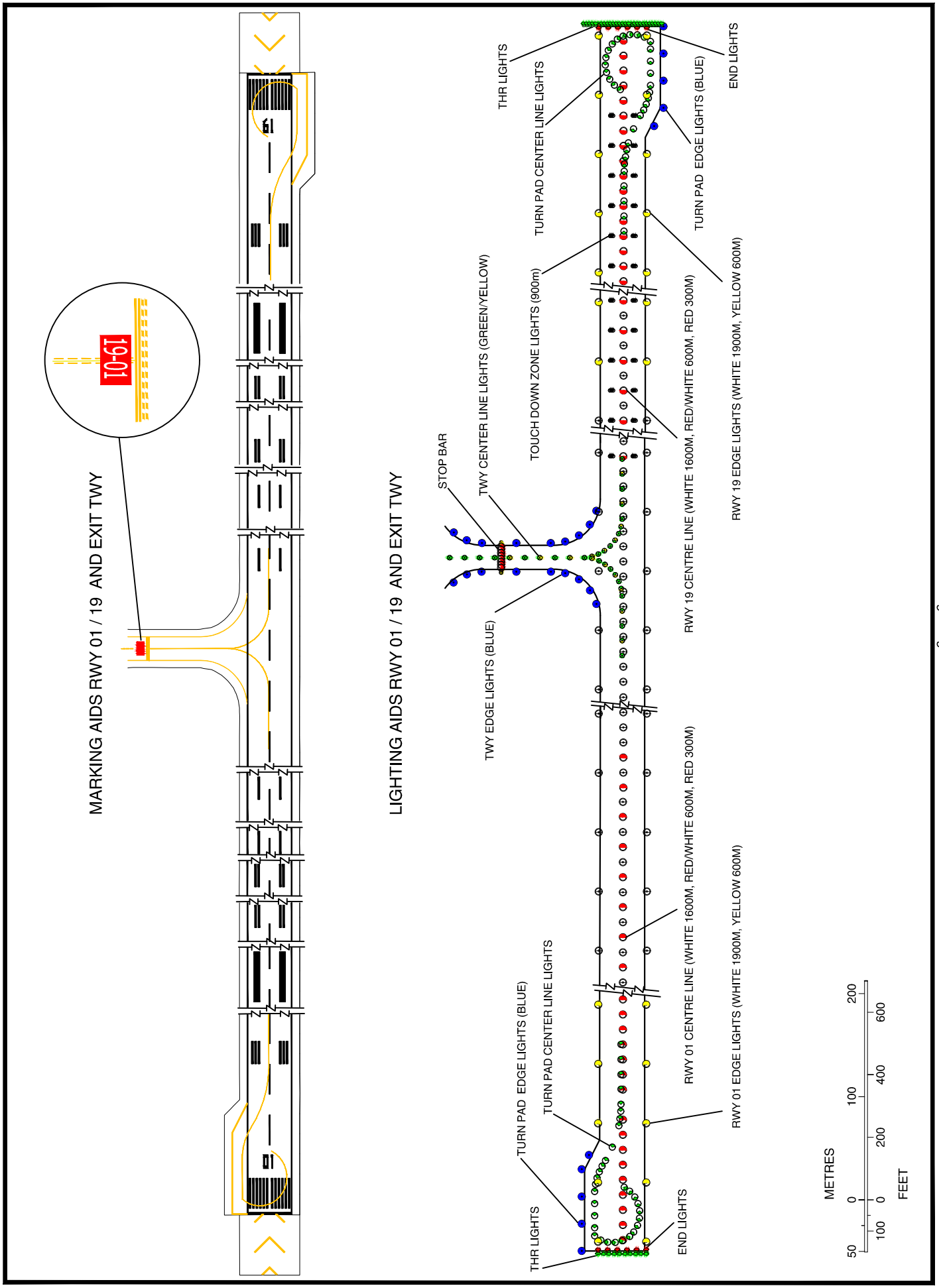
SATU MARE /
Satu Mare (LRSM)

47° 42' 12" N
022° 53' 08" E

ELEV 414FT

Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

AERODROME CHART - ICAO



Changes: Lights revised.

AIRCRAFT PARKING / DOCKING CHART - ICAO

APRON ELEV 407FT

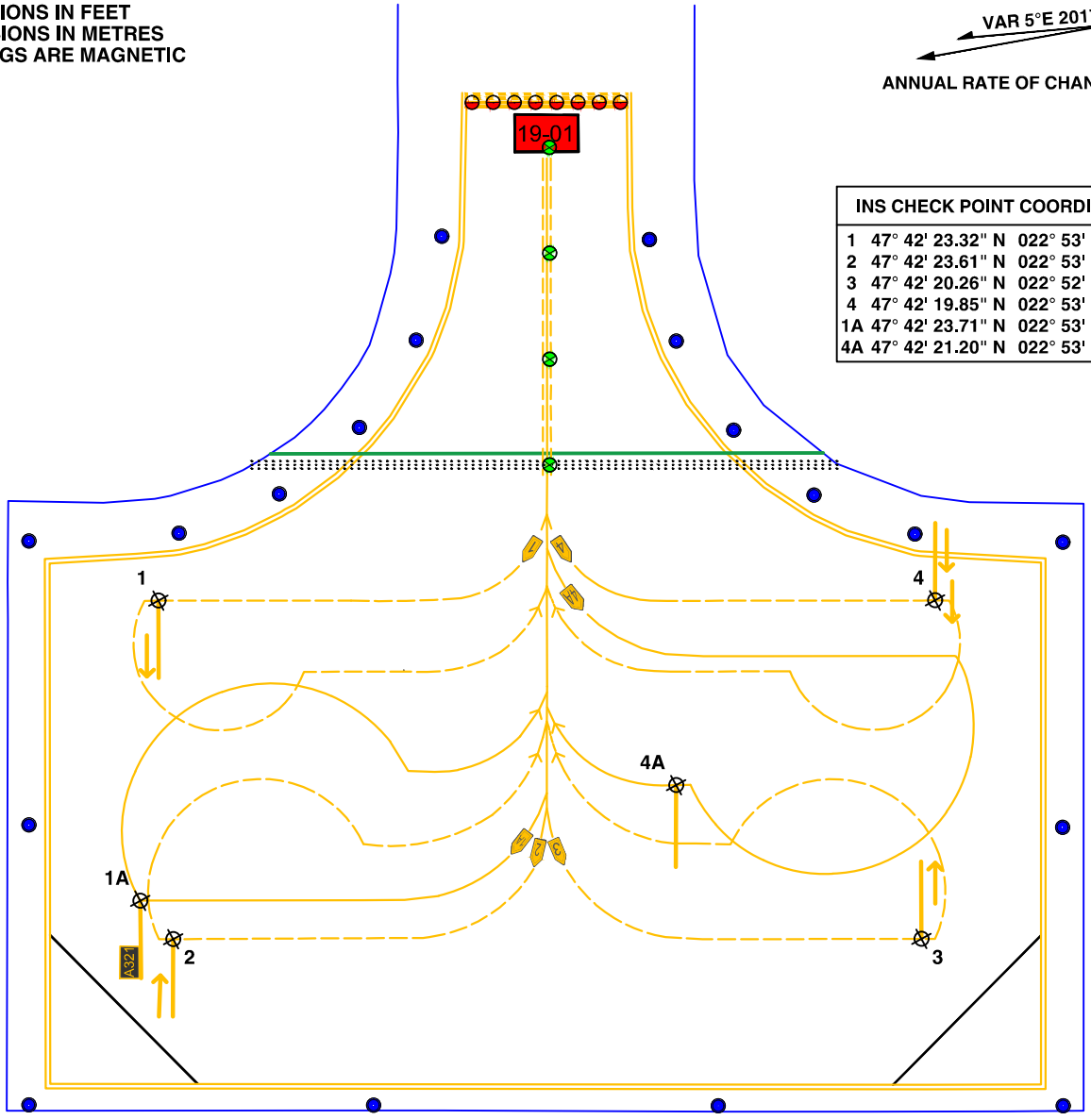
Satu Mare Tower		119.655
Satu Mare Tower	ALTN	118.800

SATU MARE / Satu Mare (LRSM)

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 5°E 2017

ANNUAL RATE OF CHANGE 7.2'E



INS CHECK POINT COORDINATES	
1	47° 42' 23.32" N 022° 53' 02.52" E
2	47° 42' 23.61" N 022° 53' 00.25" E
3	47° 42' 20.26" N 022° 52' 59.11" E
4	47° 42' 19.85" N 022° 53' 01.33" E
1A	47° 42' 23.71" N 022° 53' 00.56" E
4A	47° 42' 21.20" N 022° 53' 00.50" E

Stand no.	Aircraft	Maximum Aircraft Type
1	Aircraft with wingspan = 26.5m (Code letter C)	ATR 42 / SAAB 2000
2	Aircraft with wingspan = 29m (Code letter C)	ATR 72 / B 735 / F - 100
3	Aircraft with wingspan = 29m (Code letter C)	ATR 72 / B 735 / F - 100
4	Aircraft with wingspan = 26.5m (Code letter C)	ATR 42 / SAAB 2000
1A, 4A	Aircraft with wingspan = 36m (Code letter C)	A 321 / B 739

At all stands parking will be performed with marshaller assistance.

TAXIWAY 23 m WIDE
BEARING STRENGHT FOR STANDS 61/R/C/W/T
BEARING STRENGHT FOR TAXIWAY 61/R/C/W/T

METRES
30 20 10 0 50
100 0 100 200
FEET

LEGEND	
INS CHECK POINT	
AIRCRAFT STAND	1
TAXIWAY EDGE LIGHT	
STOP BAR LIGHT	
TAXYWAY CENTRE LINE LIGHT	
TO AIRCRAFT STAND	4A
TAXI HOLDING POSITION	
ENHACED TAXIWAY CENTRE LINE	
TAXI GUIDANCE LINE	
MOVEMENT SURFACE BOUNDARY	
ATC SERVICE BOUNDARY	
SAFETY LINE	
APRON BOUNDARY	

Changes: Markings and INS check points coordinates 1A and 4A.

AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

SATU MARE / Satu Mare (LRSM)

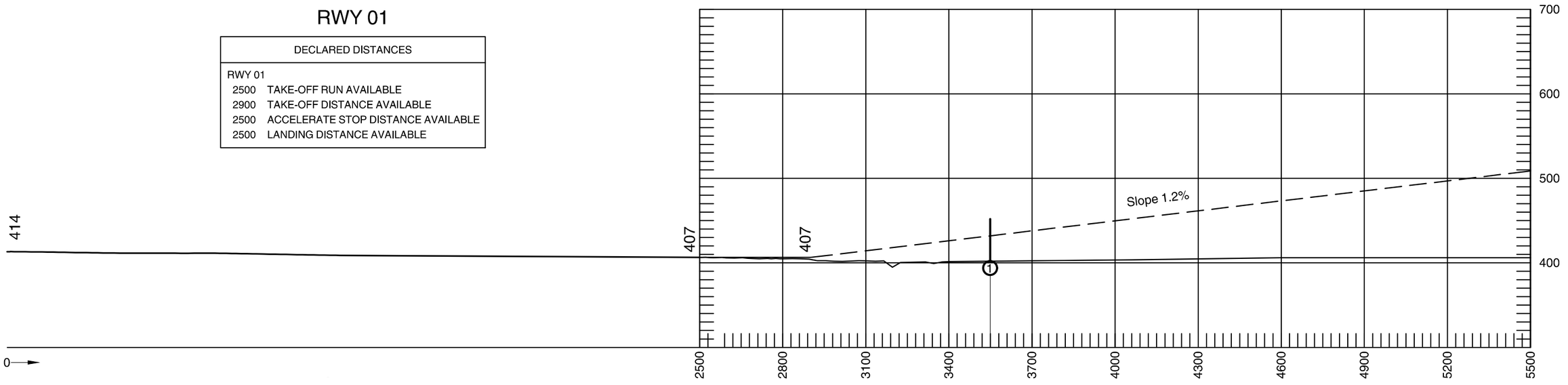
ELEVATIONS IN FEET AND LINEAR DIMENSION IN METERS

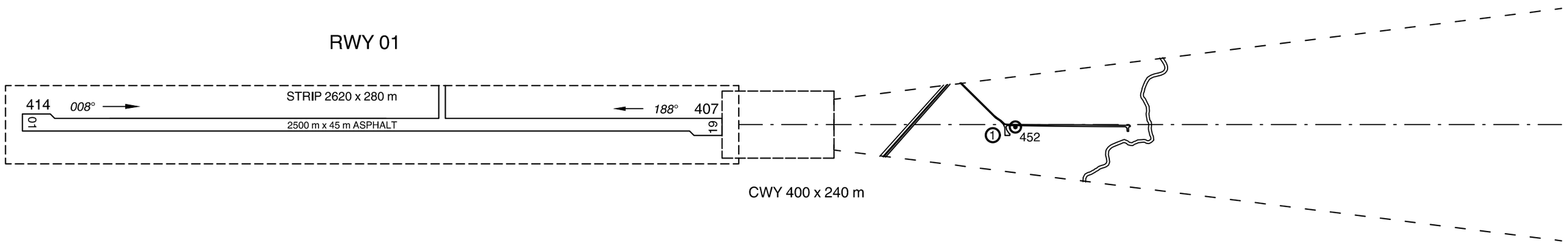
MAGNETIC VARIATION 5° E - 2017

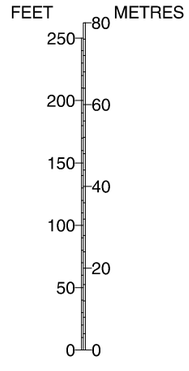
Changes: THR ELEV and STRIP.

RWY 01

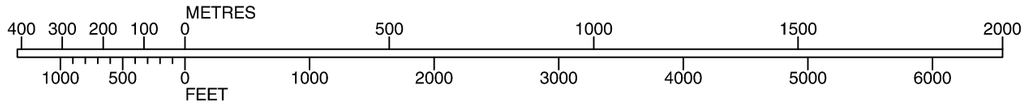
DECLARED DISTANCES	
RWY 01	
2500	TAKE-OFF RUN AVAILABLE
2900	TAKE-OFF DISTANCE AVAILABLE
2500	ACCELERATE STOP DISTANCE AVAILABLE
2500	LANDING DISTANCE AVAILABLE







HORIZONTAL SCALE 1:15000



ORDER OF ACCURACY
HORIZONTAL 0.5M
VERTICAL 0.5FT

LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, etc.	
BILDING OR LARGE STRUCTURE	
TREE OR SHRUB	
ROAD	
DITCH	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

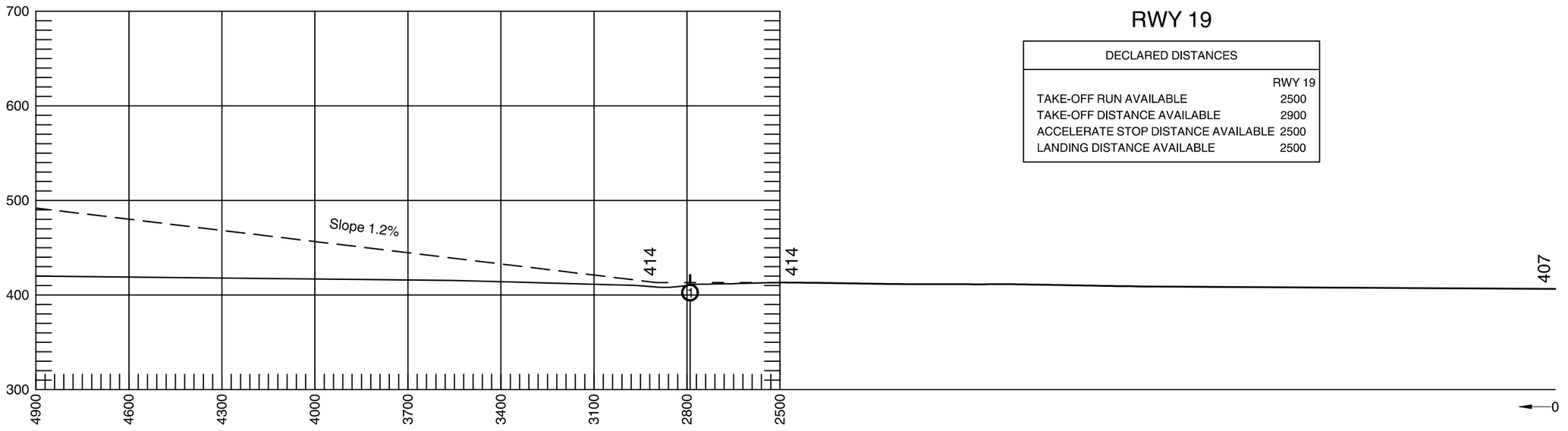
AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

SATU MARE / Satu Mare (LRSM)

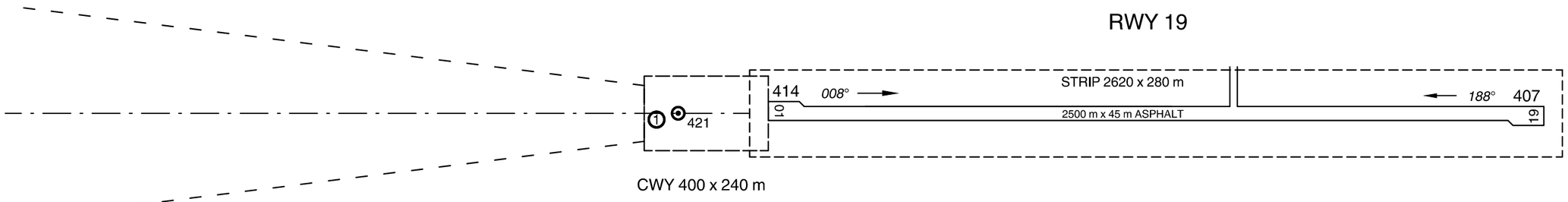
ELEVATIONS IN FEET AND LINEAR DIMENSIONS IN METRES

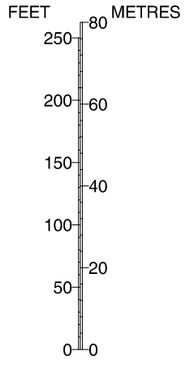
MAGNETIC VARIATION 5° E - 2017



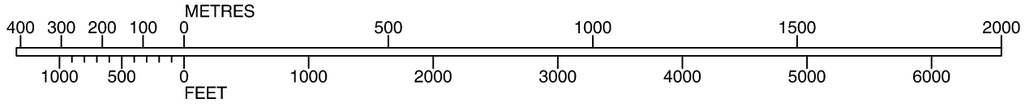
RWY 19

DECLARED DISTANCES	
	RWY 19
TAKE-OFF RUN AVAILABLE	2500
TAKE-OFF DISTANCE AVAILABLE	2900
ACCELERATE STOP DISTANCE AVAILABLE	2500
LANDING DISTANCE AVAILABLE	2500





HORIZONTAL SCALE 1:15000



ORDER OF ACCURACY
HORIZONTAL 0.5M
VERTICAL 0.5FT

LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, etc.	
BILDING OR LARGE STRUCTURE	
TREE OR SHRUB	
ROAD	
DITCH	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

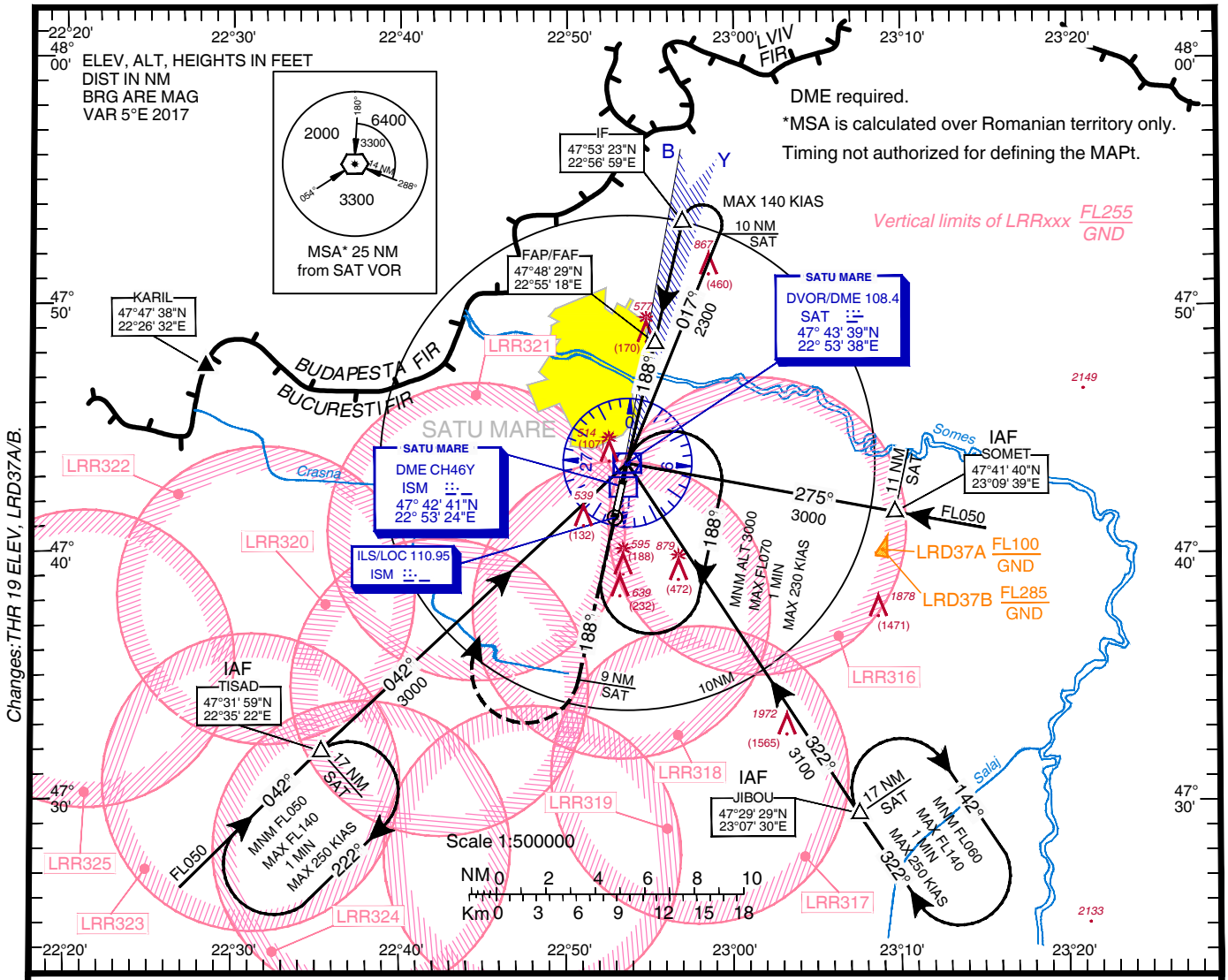
Changes: THR ELEV and STRIP.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **414 FT**
HEIGHTS RELATED TO THR19 - ELEV. 407FT

SATU MARE / Satu Mare (LRSM)
ILS
RWY 19
CAT A, B

Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

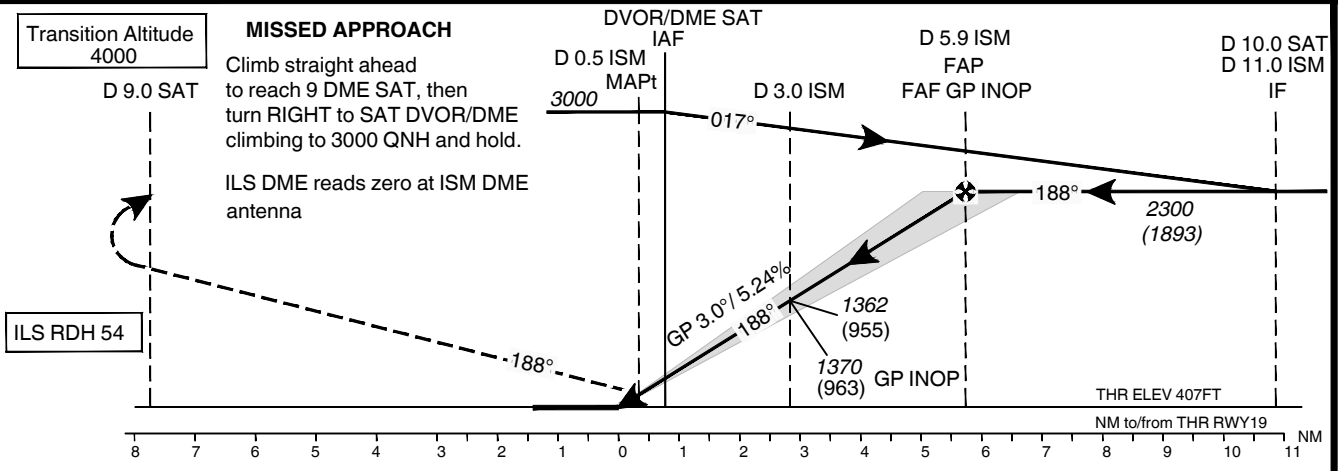


Transition Altitude 4000

MISSED APPROACH

Climb straight ahead to reach 9 DME SAT, then turn RIGHT to SAT DVOR/DME climbing to 3000 QNH and hold.

ILS DME reads zero at ISM DME antenna



OCA/H		A	B
Straight-in Approach	Cat I	586 (179)	596 (189)
	Cat II	497 (90)	514 (107)
	GP INOP	830 (423)	
	GP INOP Stepdown Fix (D 3.0 ISM)	770 (363)	
Circling		930	

GS	kts	70	90	100	120
FAF-MAPt 5.45 NM	min:s	4:40	3:38	3:16	2:44
Rate of descent	ft/min	372	478	531	637

Dist to ISM DME	NM	1	2	3	4
Altitude (Height)	FT	726 (319)	1044 (637)	1363 (956)	1681 (1274)

For data tabulation see verso

SATU MARE / Satu Mare (LRSM)
ILS RWY 19, CAT A, B

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 19, CAT A,B from TISAD, JIBOU, SOMET	
Fix/Point	**Coordinates**
TISAD (IAF) – R 221.75° / 17.00 NM SAT	47°31'58.7"N 022°35'21.6"E
JIBOU (IAF) – R 141.41° / 17.00 NM SAT	47°29'28.6"N 023°07'30.0"E
SOMET(IAF) – R 095.27° / 11.00 NM SAT	47°41'40.0"N 023°09'39.3"E
SAT VOR/DME	47°43'38.7"N 022°53'37.9"E
IF - R 008.06° / 10.00 NM SAT	47°53'22.8"N 022°56'59.5"E
5.9D ISM (FAP/FAF) – 5.93 NM ISM	47°48'29.2"N 022°55'17.9"E
3.0D ISM (SDF)	47°45'37.1"N 022°54'18.6"E
0.5D ISM (MAPT)	47°43'10.9"N 022°53'28.3"E
THR RWY 19	47°42'51.72"N 022°53'21.73"E
LOC	47°41'23.7"N 022°52'51.5"E

INSTRUMENT APPROACH CHART - ICAO

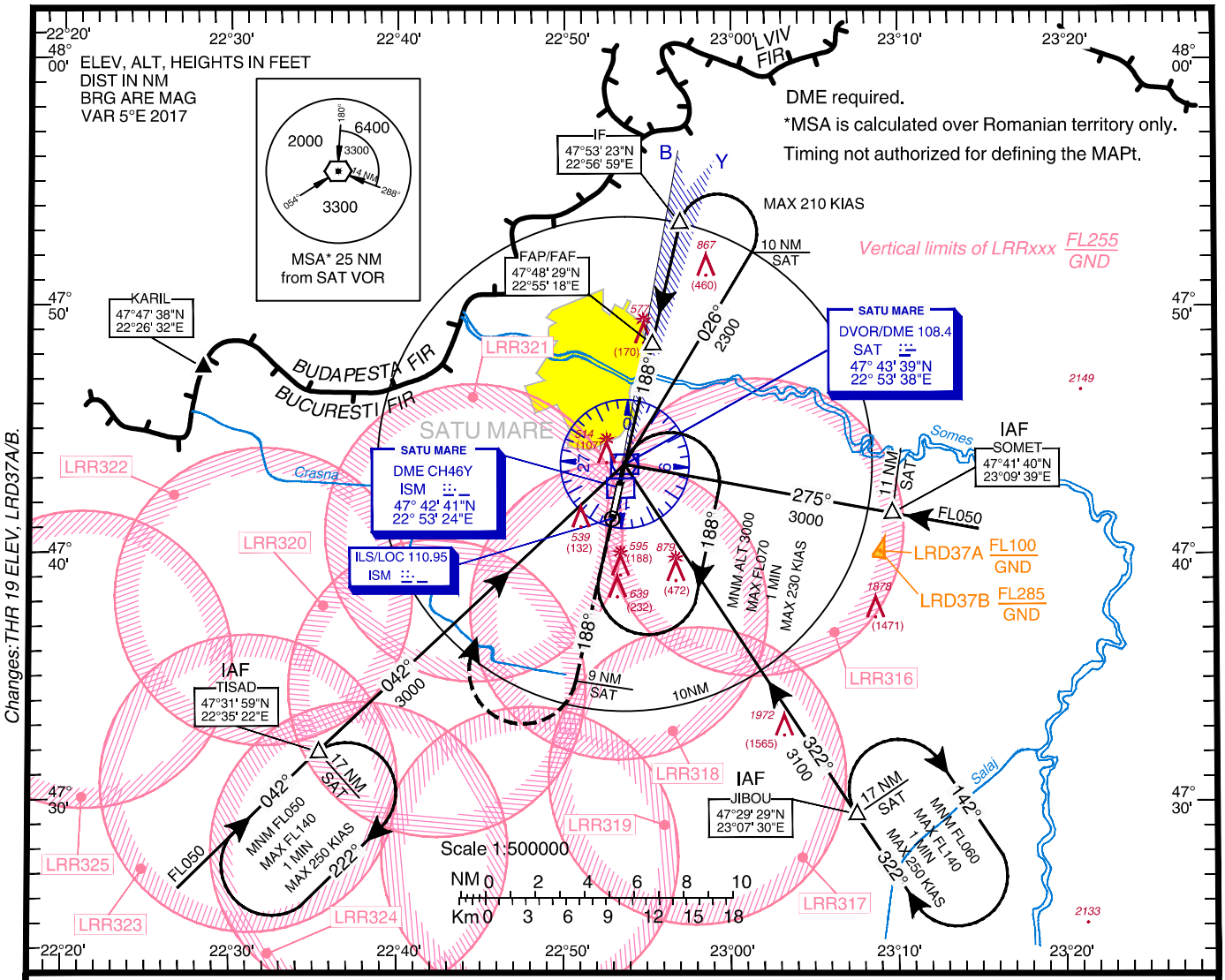
AERODROME ELEV. **414 FT**
HEIGHTS RELATED TO THR19 - ELEV. 407FT

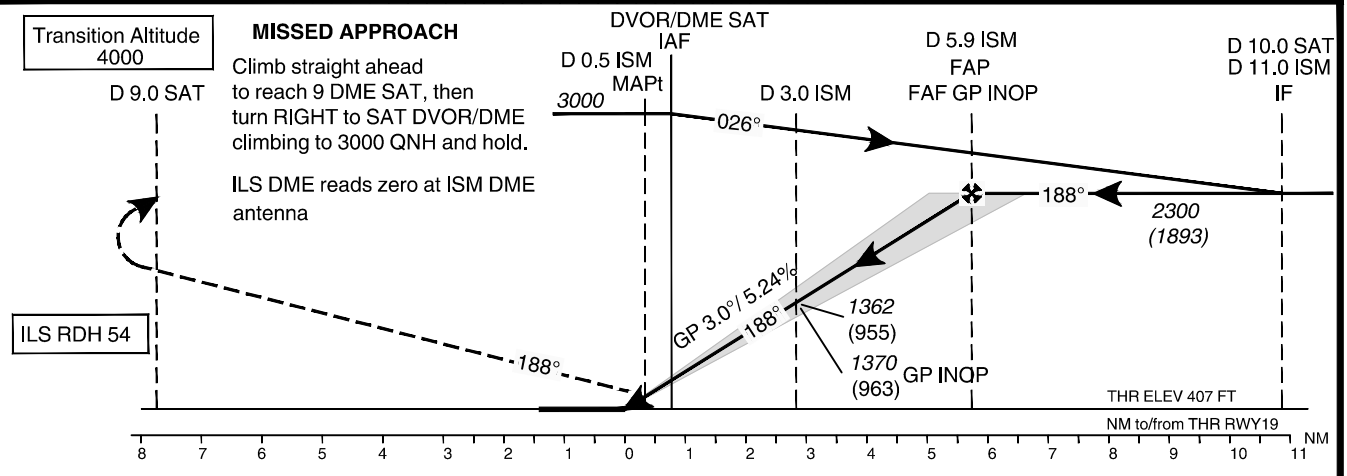
SATU MARE / Satu Mare (LRSM)

Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

ILS
RWY 19
CAT C, D

Changes: THR 19 ELEV, LRD37A/B.





OCA/H		C	D
Straight-in Approach	Cat I	606 (199)	615 (208)
	Cat II	527 (120)	540 (133)
	GP INOP	830 (423)	
	GP INOP Stepdown Fix (D 3.0 ISM)	770 (363)	
Circling		1280	

GS	kts	120	140	160
FAF-MAPt 5.45 NM	min:s	2:44	2:20	2:03
Rate of descent	ft/min	637	743	849

Dist to ISM DME	NM	1	2	3	4
Altitude (Height)	ft	726 (319)	1044 (637)	1363 (956)	1681 (1274)

For data tabulation see verso

SATU MARE / Satu Mare (LRSM)
ILS RWY 19, CAT C, D

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 19, CAT C, D from TISAD, JIBOU, SOMET	
Fix/Point	**Coordinates**
TISAD (IAF) – R 221.75° / 17.00 NM SAT	47°31'58.7"N 022°35'21.6"E
JIBOU (IAF) – R 141.41° / 17.00 NM SAT	47°29'28.6"N 023°07'30.0"E
SOMET(IAF) – R 095.27° / 11.00 NM SAT	47°41'40.0"N 023°09'39.3"E
SAT VOR/DME	47°43'38.7"N 022°53'37.9"E
IF - R 008.06° / 10.00 NM SAT	47°53'22.8"N 022°56'59.5"E
5.9D ISM (FAP/FAF) – 5.93 NM ISM	47°48'29.2"N 022°55'17.9"E
3.0D ISM (SDF)	47°45'37.1"N 022°54'18.6"E
0.5D ISM (MAPT)	47°43'10.9"N 022°53'28.3"E
THR RWY 19	47°42'51.72"N 022°53'21.73"E
LOC	47°41'23.7"N 022°52'51.5"E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **414 FT**

HEIGHTS RELATED TO THR19 - ELEV. 407FT

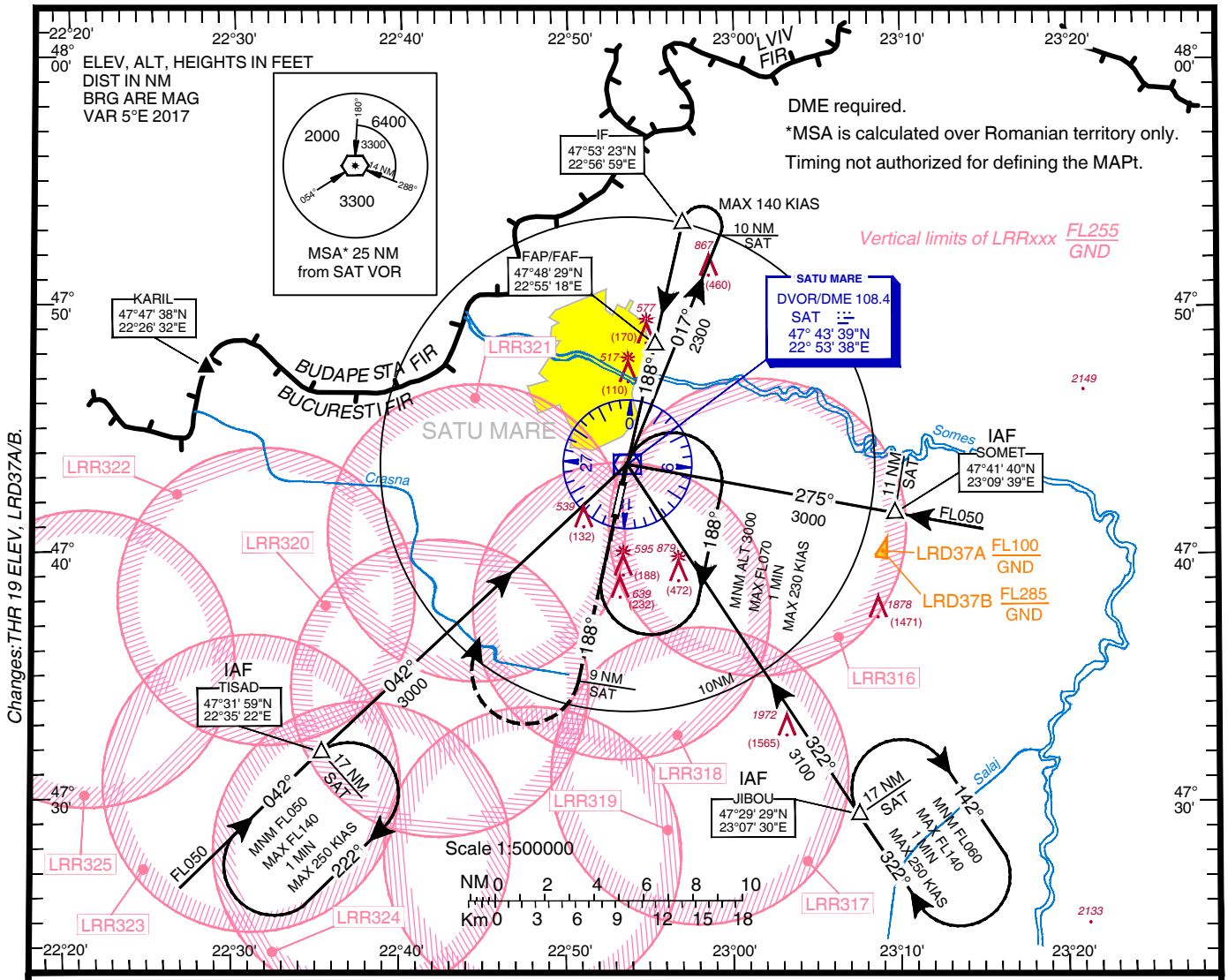
SATU MARE / Satu Mare (LRSM)

VOR

RWY 19

CAT A, B

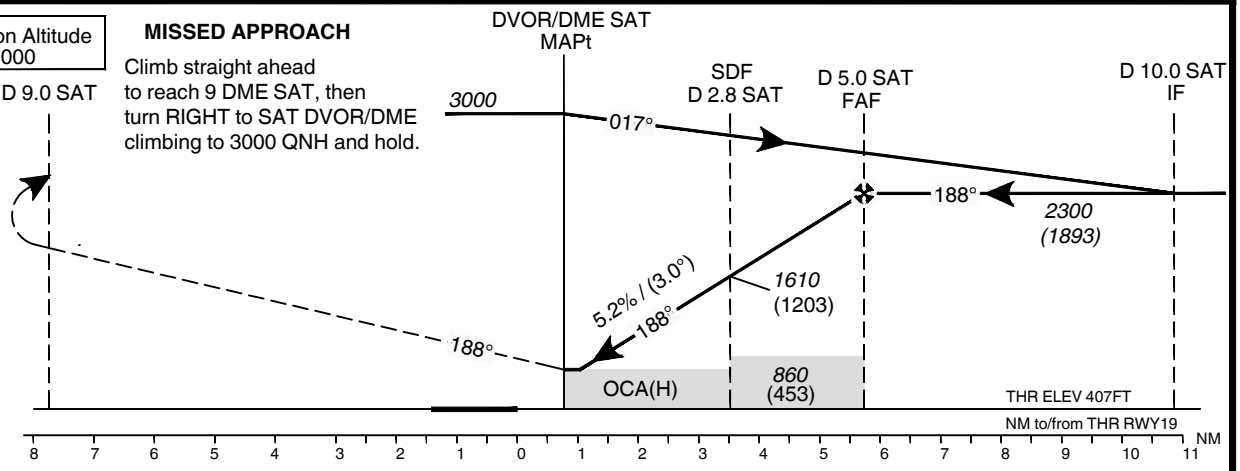
Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800



Transition Altitude 4000

MISSED APPROACH

Climb straight ahead to reach 9 DME SAT, then turn RIGHT to SAT DVOR/DME climbing to 3000 QNH and hold.



OCA/H		A	B
Straight-in Approach	Stepdown fix (D 2.8 SAT)	770 (363)	
	w/o stepdown fix	860 (453)	
Circling		930	

GS	kts	70	90	100	120	140	160
FAF-MAPt 4.97 NM	min:s	4:16	3:19	2:59	2:29	2:08	1:52
Rate of descent	ft/min	372	478	531	637	743	849

Dist to SAT DME	NM	1	2	2.8	3
Altitude (Height)	ft	1036 (629)	1354 (947)	1609 (1202)	1672 (1265)

For data tabulation see verso

SATU MARE / Satu Mare (LRSM)
VOR RWY 19, CAT A, B

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 19, CAT A, B from TISAD, JIBOU, SOMET	
Fix/Point	**Coordinates**
TISAD (IAF) – R 221.75° / 17.00 NM SAT	47°31’58.7”N 022°35’21.6”E
JIBOU (IAF) – R 141.41° / 17.00 NM SAT	47°29’28.6”N 023°07’30.0”E
SOMET(IAF) – R 095.27° / 11.00 NM SAT	47°41’40.0”N 023°09’39.3”E
SAT VOR/DME (MAPT)	47°43’38.7”N 022°53’37.9”E
10.0D SAT (IF) - R 008.06° / 10.00 NM SAT	47°53’22.8”N 022°56’59.5”E
5.0D SAT (FAF) – 5.00 NM SAT	47°48’29.2”N 022°55’17.9”E
2.8D SAT (Stepdown Fix)	47°46’22.3”N 022°54’34.2”E
THR RWY 19	47°42’51.72”N 022°53’21.73“E

Final approach descent angle: 3.00º

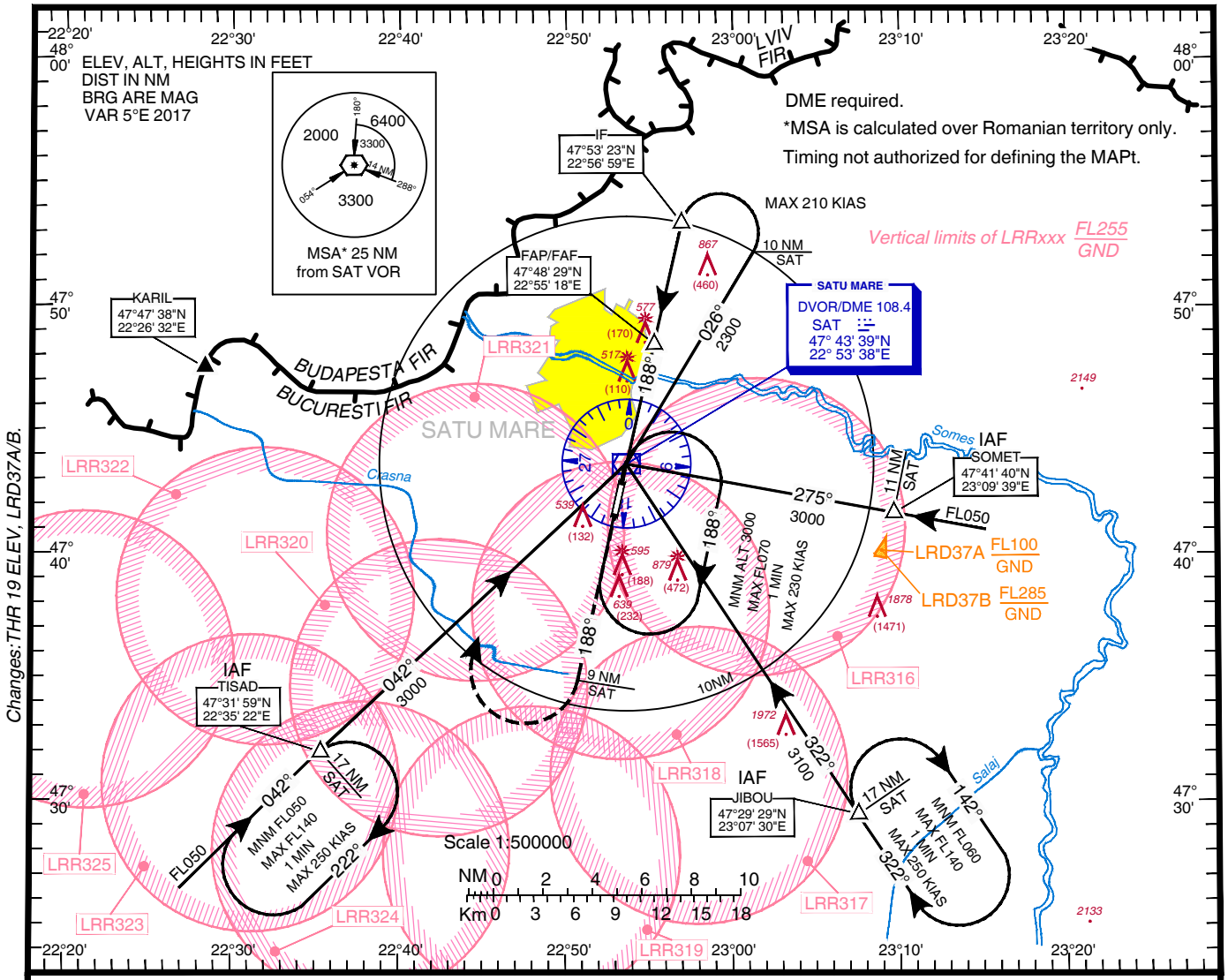
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **414 FT**
HEIGHTS RELATED TO THR19 - ELEV. 407FT

SATU MARE / Satu Mare (LRSM)

Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

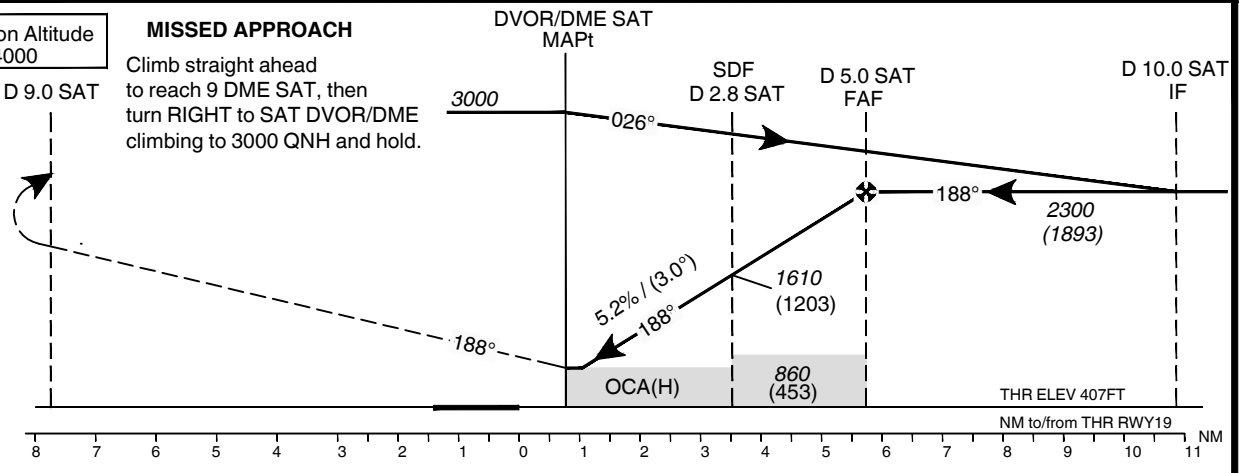
VOR
RWY 19
CAT C, D



Transition Altitude
4000

MISSED APPROACH

Climb straight ahead
to reach 9 DME SAT, then
turn RIGHT to SAT DVOR/DME
climbing to 3000 QNH and hold.



OCA/H		C	D
Straight-in Approach	Stepdown fix (D 2.8 SAT)	770 (363)	
	w/o stepdown fix	860 (453)	
Circling		1280	

GS	kts	70	90	100	120	140	160
FAF-MAPt 4.97 NM	min:s	4:16	3:19	2:59	2:29	2:08	1:52
Rate of descent	ft/min	372	478	531	637	743	849

Dist to SAT DME	NM	1	2	2.8	3
Altitude (Height)	ft	1036 (629)	1354 (947)	1609 (1202)	1672 (1265)

For data tabulation see verso

SATU MARE / Satu Mare (LRSM)
VOR RWY 19, CAT C, D

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 19, CAT C, D from TISAD, JIBOU, SOMET	
Fix/Point	**Coordinates**
TISAD (IAF) – R 221.75° / 17.00 NM SAT	47°31'58.7"N 022°35'21.6"E
JIBOU (IAF) – R 141.41° / 17.00 NM SAT	47°29'28.6"N 023°07'30.0"E
SOMET(IAF) – R 095.27° / 11.00 NM SAT	47°41'40.0"N 023°09'39.3"E
SAT VOR/DME (MAPT)	47°43'38.7"N 022°53'37.9"E
10.0D SAT (IF) - R 008.06° / 10.00 NM SAT	47°53'22.8"N 022°56'59.5"E
5.0D SAT (FAF) – 5.00 NM SAT	47°48'29.2"N 022°55'17.9"E
2.8D SAT (Stepdown Fix)	47°46'22.3"N 022°54'34.2"E
THR RWY 19	47°42'51.72"N 022°53'21.73"E

Final approach descent angle: 3.00°

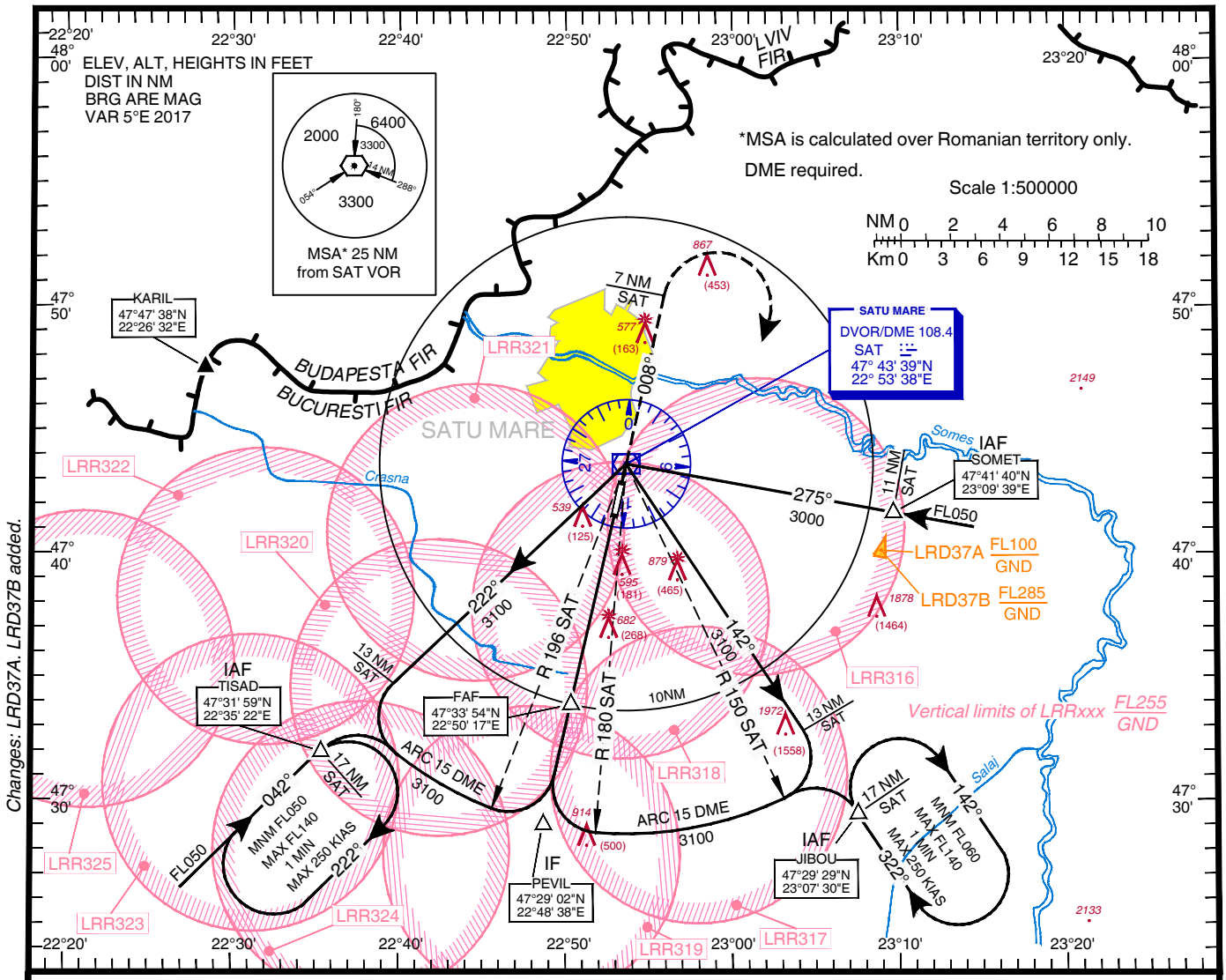
INSTRUMENT APPROACH CHART - ICAO

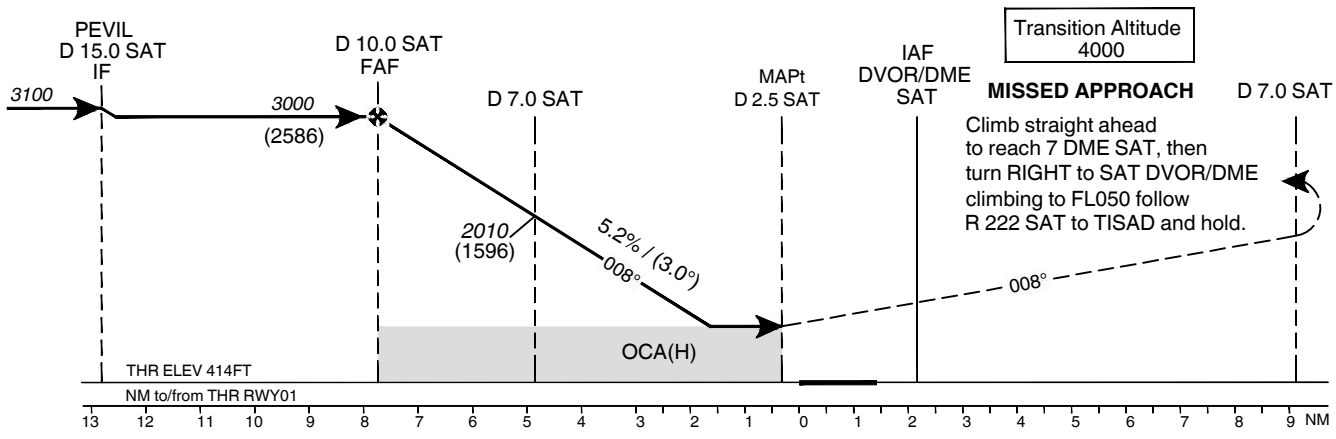
AERODROME ELEV. **414 FT**
HEIGHTS RELATED TO AD ELEV.

SATU MARE / Satu Mare (LRSM)

Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

VOR
RWY 01





OCA/H	A	B	C	D
Straight-in Approach	930 (516)			
Circling	930		1280	

GS	kts	70	90	100	120	140	160
FAF-MAPt 7.5 NM	min:s	6:26	5:00	4:30	3:45	3:13	2:49
Rate of descent	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to SAT DME	NM	9	8	7	6	5	4
Altitude (Height)	FT	2644 (2230)	2325 (1911)	2007 (1593)	1688 (1274)	1370 (956)	1052 (638)

For data tabulation see verso

SATU MARE / Satu Mare (LRSM)
VOR RWY 01

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 01 from TISAD, JIBOU, SOMET	
Fix/Point	**Coordinates**
TISAD (IAF) – R 221.75° / 17.00 NM SAT	47°31'58.7"N 022°35'21.6"E
JIBOU (IAF) – R 141.41° / 17.00 NM SAT	47°29'28.6"N 023°07'30.0"E
SOMET (IAF) – R 095.27° / 11.00 NM SAT	47°41'40.0"N 023°09'39.3"E
SAT VOR/DME	47°43'38.7"N 022°53'37.9"E
PEVIL (IF) – R188.08° / 15.00 NM SAT	47°29'02.4"N 022°48'37.6"E
FAF – R188.08° / 10.00 NM SAT	47°33'54.4"N 022°50'17.3"E
MAPT - R 188.08° / 2.50 NM SAT	47°41'12.6"N 022°52'47.6"E
THR RWY 01	47°41'32.87"N 022°52'54.64"E

Final approach descent angle: 3.00°

LRSB AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRSB - SIBIU / Sibiu

LRSB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	454709N 0240508E Runway centre.
2	*Direction and distance from city*	270°, 3 km from Sibiu.
3	*Elevation/Reference temperature/Mean low temperature*	1520 FT / 28.3°C / -17.4°C
4	*Geoid undulation*	138 FT
5	*MAG VAR/ Annual rate of change*	5°E (2010)
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	Aeroportul International Sibiu Şos. Alba Iulia, nr. 73, Sibiu, cod 550052 Tel: +40-372 055 861 (Info) +40-372 055 862 (Office) Fax: +40-(0)269-253047 (operational) AFS: LRSBRAYD
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRSB AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	H24
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24
5	*ATS Reporting Office (ARO)*	H24
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fueling*	H24
9	*Handling*	H24
10	*Security*	H24
11	*De-icing*	H24
12	*Remarks*	NIL

LRSB AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	5 tractor for equipments, 20 trailers, 1 dollies pallet, 3 self-propeller conveyor-belt loader, 4 self-propeller stairs, 2 tractable stairs, 1 highloader, 1 forklift.
2	*Fuel/Oil types*	Kerosene JET A1 / NIL AVGAS 100LL / NIL
3	*Fueling facilities/capacity*	Kerosene JET A1: 1 refueling truck of 20t / storage depot of 100 m^3 AVGAS 100LL: 1 unit 8m^3
4	*De-icing facilities*	Two units with liquid killfrost type ABC II plus minimal rate 120L/min
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	3 GPU units 115V and 28V 1 self-propeller lavatory service vehicle, 1 tractable lavatory service unit 1 self-propeller portable water vehicle, 1 tractable potable water unit 1 cabin/engine heater equipment 1 air start unit

LRSB AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Restaurant, snack bar on the AD, HO
3	*Transportation*	Buses, taxis and airport shuttle bus.
4	*Medical facilities*	1 ambulance and first aid on the AD. Hospitals in the city
5	*Bank and Post Office*	In the city.
6	*Tourist Office*	At the AD.
7	*Remarks*	NIL

LRSB AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 7.
2	*Rescue equipment*	1 rescue equipment type HOLMATRO
3	*Capability for removal of disabled aircraft*	Cranes AVBL via contractor. Local Action Coordinator: +40-(0)732-650 905 for substitute: +40-(0)732-650 918 email: operations@sibiuairport.ro
4	*Remarks*	NIL

LRSB AD 2.7 RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING, AND SNOW PLAN

1	*Types of clearing equipment*	2 trucks with brush, blade and snowblower, 1 autospreader de-icing, 1 truck with brush and snowblower, 3 small trucks with blade, cup and spreader de-icing.
2	*Clearance priorities*	1. RWY 09/27 2. TWY 3. Apron
3	*Use of material for movement area surface treatment*	Generic fluids and solid materials used for runway de/anti-icing are KAC (sodium formate) and NAAC (ammonium nitrate).
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Information about Runway surface condition in Global Reporting Format published by SNOWTAM. See also the snow plan in section AD 1.2.

LRSB AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	APRON 1 APRON 2 Surface: Concrete Concrete Strength: 110/R/D/W/T 56/R/D/W/T
2	*Taxiway designation, width, surface and strength*	Width: TWY E: 25 M ; TWY W, N: 18 M Surface: Concrete Strength: TWY E: 110/R/D/W/T, TWY W, N: 56/R/D/W/T
3	*ACL location and elevation*	Location: APRON1 Elevation: 1451 FT
4	*VOR checkpoints*	NIL
5	*INS checkpoints*	See Aircraft parking chart AD 2.13-22
6	*Remarks*	RWY turning bay: Location THR 09 and THR 27 Surface: Concrete Dimensions: 15M x 100M Strength : 110/R/D/W/T

LRSB AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	*Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands*	Taxiing guidance signs at intersection with TWY and RWY, at holding positions; guide lines on the apron.
2	*RWY and TWY markings and LGT*	RWY - markings: color white; designation, THR, TDZ, centre line, aiming point, edges, RWY end marked as appropriate. - lights: runway edges lights, THR lights, runway end lights, wing bar lights, runway centerline lights, TDZ lights on RWY 27, STOPWAY lights on RWY 09. TWY E, W - markings: color yellow; centre line, runway holding position, edges, enhanced centerline, runway designator marking. - lights: centerline lights, taxiway edges lights, stop bar lights, runway guard lights. TWY N - markings: color yellow; centre line, edges. - lights: centerline lights, taxiway edges lights.
3	*Stop bars*	Red stop bars at all intersections of TWYs with RWY.
4	*Remarks*	Illuminated wind direction indicators are located adjacent to TDZ of RWY 27 and RWY 09.

Changes: Apron Boundary added.

AERODROME CHART - ICAO

45° 47' 09" N
024° 05' 08" E

ELEV 1520 FT

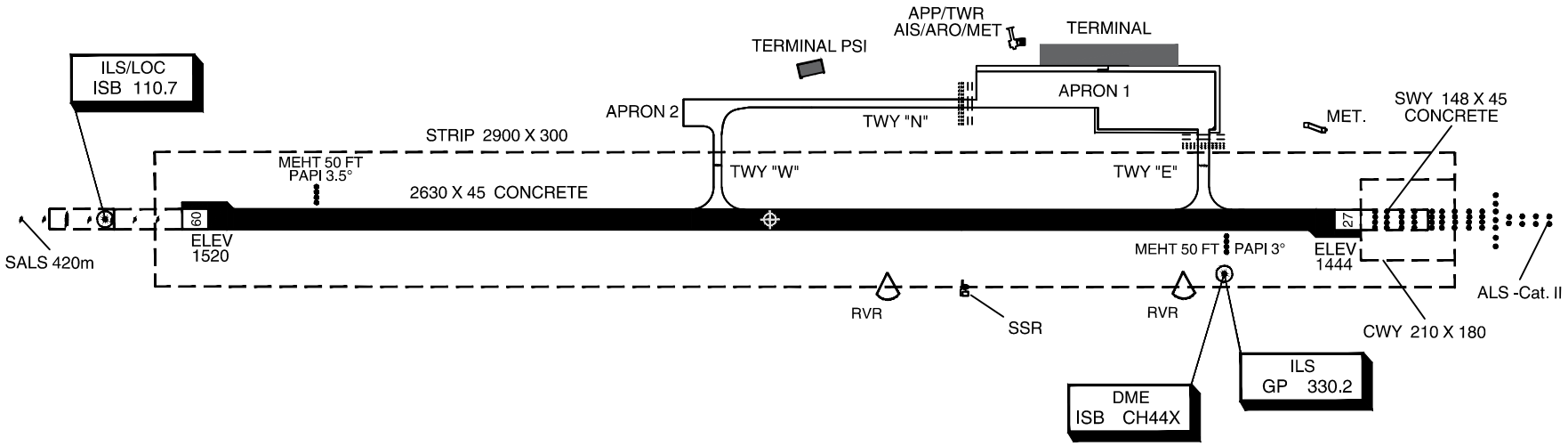
SIBIU TOWER 121.305
SIBIU TOWER ALTN 122.700

SIBIU / Sibiu(LRSB)

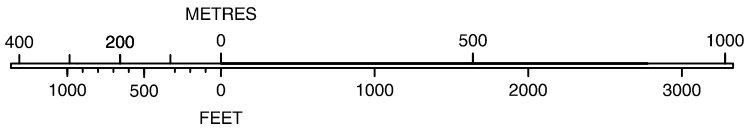
RWY	DIRECTION	THR	BEARING STRENGTH
09	087°	45°47'10"N 024°04'07"E	PCN 110/R/D/W/T Concrete
27	267°	45°47'08"N 024°06'09"E	
HELIPORT		-	

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 5°E 2010



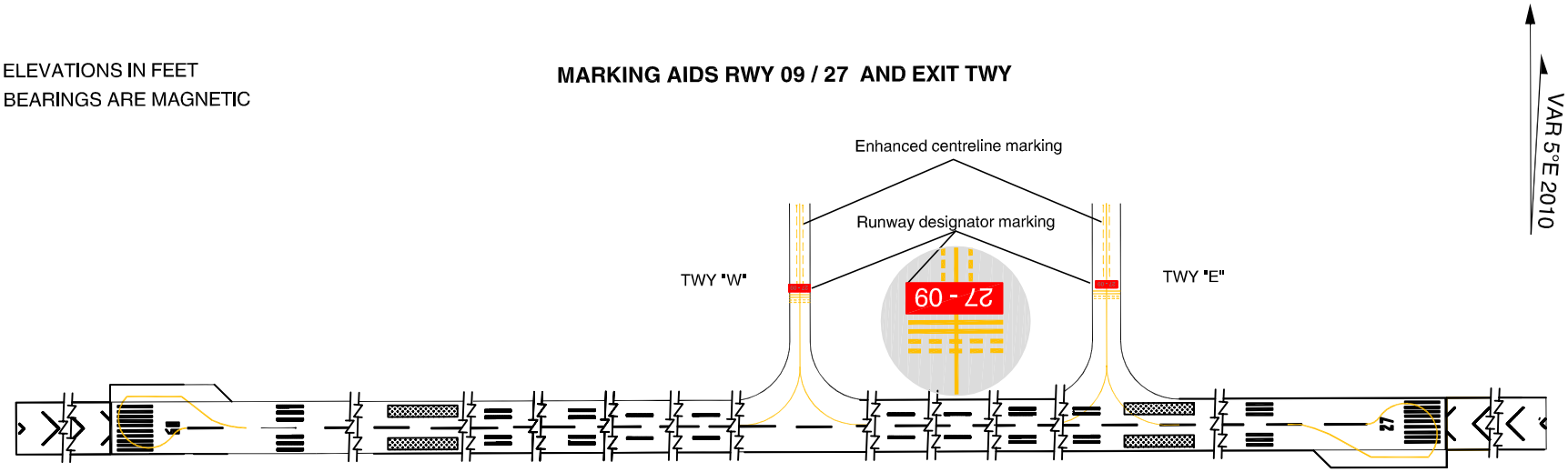
SCALE 1 : 15 000



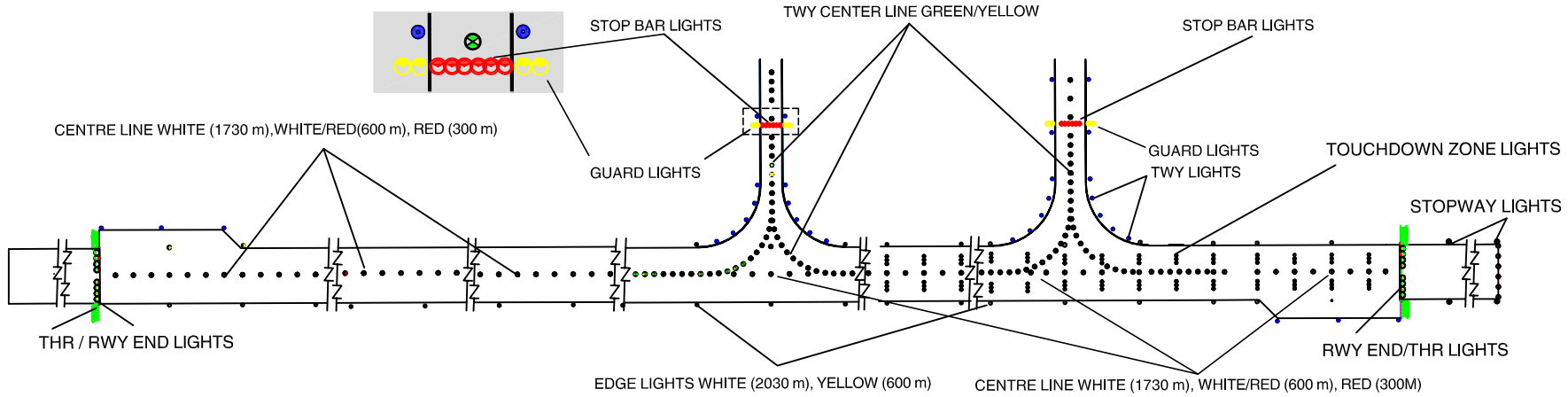
LEGEND	
ATC SERVICE BOUDARY	
APRON BOUNDARY	
AERODROME REFERENCE POINT	
BUILDING	

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MARKING AIDS RWY 09 / 27 AND EXIT TWY



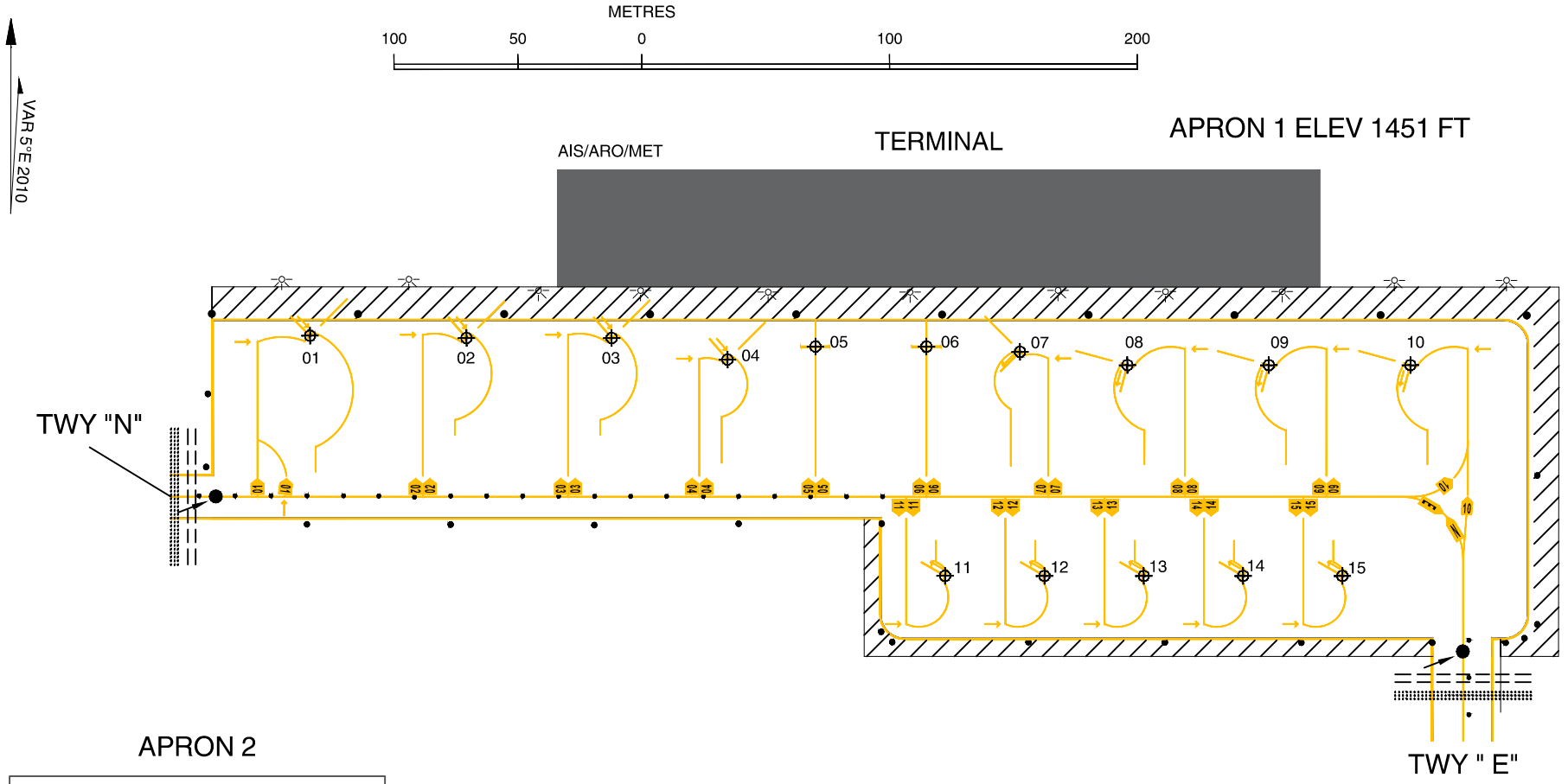
LIGHTING AIDS RWY 09 / 27 AND EXIT TWY



LEGEND	
RUNWAY GUARD LIGHTS	
RUNWAY-HOLDING POSITION	

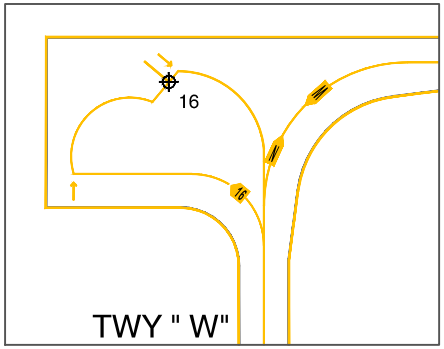
Changes: RWY Guard Lights, marking.

Changes: Apron Boundary added.



SIBIU TOWER 121.305
SIBIU TOWER ALTN 122.700

APRON 2



STANDS	CODE LETTER	TYPE of A/C
1,16	C	
2,3		B737-900W
4		A318
5,6	B	
7		SAAB 2000
8, 9,10		B737-800W
11,12,13, 14,15	B	

TWY's AND APRON's BEARING STRENGTH :

APRON 1 110/R/D/W/T
APRON 2 56/R/D/W/T
TWY E 110/R/D/W/T
TWY N 56/R/D/W/T
TWY W 56/R/D/W/T

TWY "N" 18 m WIDE
TWY "E" 25 m WIDE
TWY "W" 18 m WIDE

LEGEND	
HOLD FOR FOLLOW-ME	
ATC SERVICE BOUDARY	
APRON BOUNDARY	
AIRCRAFT STAND	01
TAXIWAY/APRON LIGHT	
INS CHECK POINT	
FLOODLIGHTS	
BUILDING	

SIBIU / Sibiu (LRSB)

AERONAUTICAL DATA TABULATION

INS COORDINATES FOR AIRCRAFT STANDS

INS 01	45°47'19.31"N	024°05'31.55"E
INS 02	45°47'19.23"N	024°05'34.46"E
INS 03	45°47'19.19"N	024°05'37.17"E
INS 04	45°47'18.87"N	024°05'39.32"E
INS 05	45°47'19.01"N	024°05'40.97"E
INS 06	45°47'18.98"N	024°05'43.03"E
INS 07	45°47'18.89"N	024°05'44.77"E
INS 08	45°47'18.85"N	024°05'47.07"E
INS 09	45°47'18.63"N	024°05'49.43"E
INS 10	45°47'18.59"N	024°05'52.07"E
INS 11	45°47'15.98"N	024°05'43.26"E
INS 12	45°47'15.95"N	024°05'45.11"E
INS 13	45°47'15.92"N	024°05'46.96"E
INS 14	45°47'15.89"N	024°05'48.81"E
INS 15	45°47'15.86"N	024°05'50.67"E
INS 16	45°47'17.50"N	024°05'01.25"E

LRSV AD 2.1 AERODROME LOCATION INDICATOR AND NAME

LRSV - SUCEAVA / Ştefan cel Mare - Suceava

LRSV AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	474111N 0262116E Runway center.
2	*Direction and distance from city*	8 km East from Suceava
3	*Elevation//Reference temperature/ Mean low temperature*	1375 FT / 28.5°C / -12°C
4	*Geoid undulation at AD ELEV PSN*	112 FT
5	*MAG VAR /Annual rate of change*	7°E (2020) / 7'E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	Aeroportul SUCEAVA / Ştefan cel Mare - Suceava, Romania Tel.: +40-(0)230-529999; +40-(0)230-529962 +40-(0)230-529621 Fax: +40-(0)230-529999; +40-(0)230-529621 AFS: LRSVRAYD E-mail: office@aeroportsuceava.ro Web: www.aeroportsuceava.ro
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRSV AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	H24
2	Customs and immigration	As AD Operator.
3	*Health and sanitation*	As AD Operator.
4	*AIS Briefing Office*	H24, see GEN 3.1-5.
5	*ATS Reporting Office (ARO)*	H24, see ENR 1.10-2.
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fuelling*	As AD Operator.
9	*Handling*	As AD Operator.
10	*Security*	H24
11	*De-icing*	As AD Operator
12	*Remarks*	NIL

LRSV AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	2 baggage tractors, 20 baggage carts, 2 GPU 28,5 VDC units, 2 GPU 115 VAC/400Hz & 28,5 VDC, 1 air starter unit, 1 aircraft heater, 1 self propelled lavatory service vehicle, 1 self propelled potable water vehicle, 3 towed passenger stair, 1 self propelled telescopic passenger stair, 2 self propelled conveyor belt loader, 1 aircraft towing/push-back tractor, 1 ambulift.
2	*Fuel/Oil types*	JET A1, AVGAS / NIL
3	*Fuelling facilities/capacity*	Refueling equipments: JET A1 - 810 L/min. AVGAS - 80-100 L/min Storage: JET A1 - 50000 L AVGAS - 35000 L
4	*De-icing facilities*	2 de-icing/anti-icing vehicles with type II liquid.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	NIL

LRSV AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Snack bar on the airport, restaurants in the city.
3	*Transportation*	Buses, taxis from the AD, rent-a-car office at the AD.
4	*Medical facilities*	Ambulance and first aid on the AD. Hospitals in the city.
5	*Bank and Post Office*	In the city.
6	*Tourist Office*	In the city.
7	*Remarks*	NIL

LRSV AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 7.
2	*Rescue equipment*	NIL
3	*Capability for removal of disabled aircraft*	NIL
4	*Remarks*	NIL

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

1	*Types of clearing equipment*	3 snow plough with brush and sweeper blower, 1 tractor with plough, brush and spreader for solid de-icing materials, 1 tractor with spreader for liquid de-icing materials, 3 snow blowers.
2	*Clearance priorities*	Fire station, TWY A, TWY B towards RWY, Apron 1, TWY D, APRON 2 and other TWY and surfaces.
3	*Use of material for movement area surface tratment*	LSRV is using KFOR and UREA as deicing substances.
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Information about Runway surface condition in Global Reporting Format published by SNOWTAM. See also the snow plan in section AD 1.2.

LRSV AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*		APRON 1	APRON 2
		Surface:	Concrete	Concrete
		Strength:	73/R/A/W/T	5.7 t
2	*Taxiway designation, width, surface and strength*	Width:	TWY A, B, C:	23 M
			TWY D:	11 M
		Surface:	TWY A, B:	Asphalt
			TWY C:	Concrete
		Strength:	TWY A, B:	110/F/C/W/T
			TWY C:	73/R/A/W/T
			TWY D:	5.7 t
3	*ACL location and elevation*	NIL		
4	*VOR checkpoints*	NIL		
5	*INS checkpoints*	INS1:	474113.11N	0262101.90E
		INS2:	474111.67N	0262102.55E
		INS3:	474110.24N	0262103.19E
		INS4:	474108.80N	0262103.84E
		INS5:	474107.24N	0262106.40E
		INS6:	474117.40N	0262058.89E
		INS7:	474116.17N	0262059.64E
6	*Remarks*	RWY turning bay:	Location: THR 16, THR 34	
			Surface: Asphalt	
			Dimensions: 117 M x 33 M	
			Strength: 110/F/C/W/T	

LRSV AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

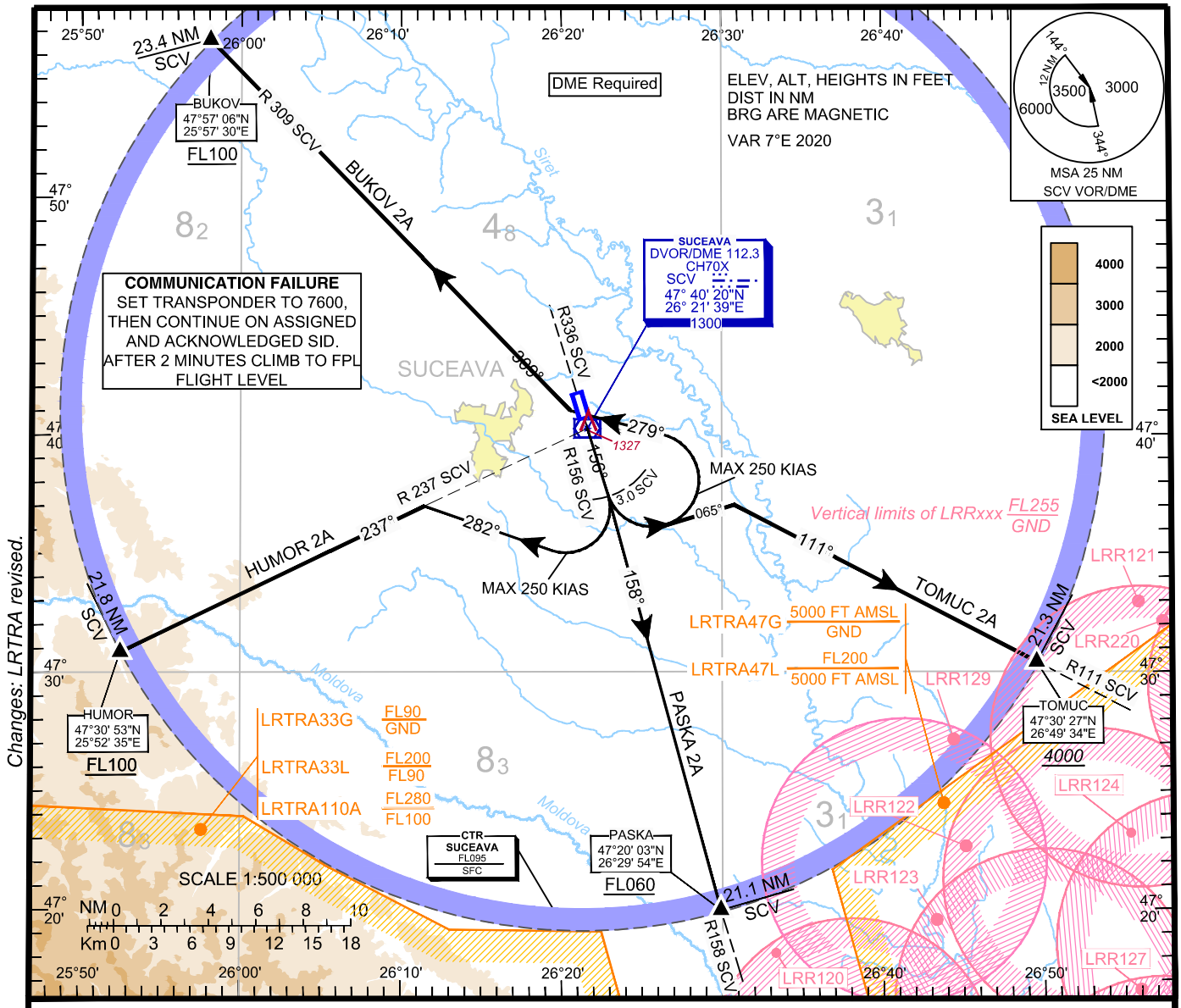
1	*Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system at aircraft stands*	Taxiing guidance signs at intersection with TWY, guide lines on the apron. Mandatory instructions Marshaller signals.
2	*RWY and TWY markings and LGT*	RWY: - markings: designation, THR, TDZ, centre line, edge lines, aiming point. - lights: THR, center line, TDZ, Edge, END, displaced THR. TWY A, B: - markings: centre line, holding position , edge line. - lights: edge, center line. TWY C: - markings: centre line, edge line. - lights: edge on East Side. TWY D: - markings: centre line, holding position, edge line, intermediate holding position. - lights: edge, intermediate holding position.
3	*Stop bars*	Red stop bar on TWY A Red stop bar on TWY B
4	*Other runway protection measures*	Mandatory instruction signs on TWY A, B, C, D.
5	*Remarks*	THR 34 displaced 420 m

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 5000 FT

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

SUCEAVA/Ştefan cel Mare (LRSV)
RWY 16
BUKOV 2A, HUMOR 2A, PASKA 2A, TOMUC 2A



SID RWY 16	DESCRIPTION
BUKOV 2A	Climb on **R 336° SCV** (156°M) until SCV, then follow **R 156° SCV** (156°M). At **3.0 SCV**, turn **left** heading **279°M** (**Max 250 KIAS**) to intercept and follow **R 309° SCV** (309°M) to **BUKOV** at or above **FL100** (1). **(1) ATS climb gradient: 4.8%** up to the En-ROUTE safety altitude, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
HUMOR 2A	Climb on **R 336° SCV** (156°M) until **SCV**, then follow **R 156° SCV** (156°M). **At 3.0 SCV**, turn **right** heading **282°M** (**Max 250 KIAS**) to intercept and follow **R 237° SCV** (237°M) to **HUMOR** at or above **FL100** (1). **(1) ATS climb gradient: 6.3%** up to the En-ROUTE safety altitude, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
PASKA 2A	Climb on **R 336° SCV** (156°M) until **SCV**, then follow **R 156° SCV** (156°M). **At 3.0 SCV**, intercept and follow **R 158° SCV** (158°M) to **PASKA** at or above **FL060** (1). **(1) ATS climb gradient: 3.6%** up to the En-ROUTE safety altitude, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
TOMUC 2A	Climb on **R 336° SCV** (156°M) until **SCV**, then follow **R 156° SCV** (156°M). **At 3.0 SCV**, turn **left** heading **065°M** (**Max 250 KIAS**) to intercept and follow **R 111° SCV** (111°M) to **TOMUC** at or above **4000**.

SUCEAVA / Ștefan cel Mare (LRSV)
SID RWY 16

AERONAUTICAL DATA TABULATION

SID RWY 16	
Fix/Waypoint Name	**Coordinates**
SCV VORDME	47°40'20.4"N 026°21'39.0"E
BUKOV - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
DER 16	47°40'33.2"N 026°21'33.2"E

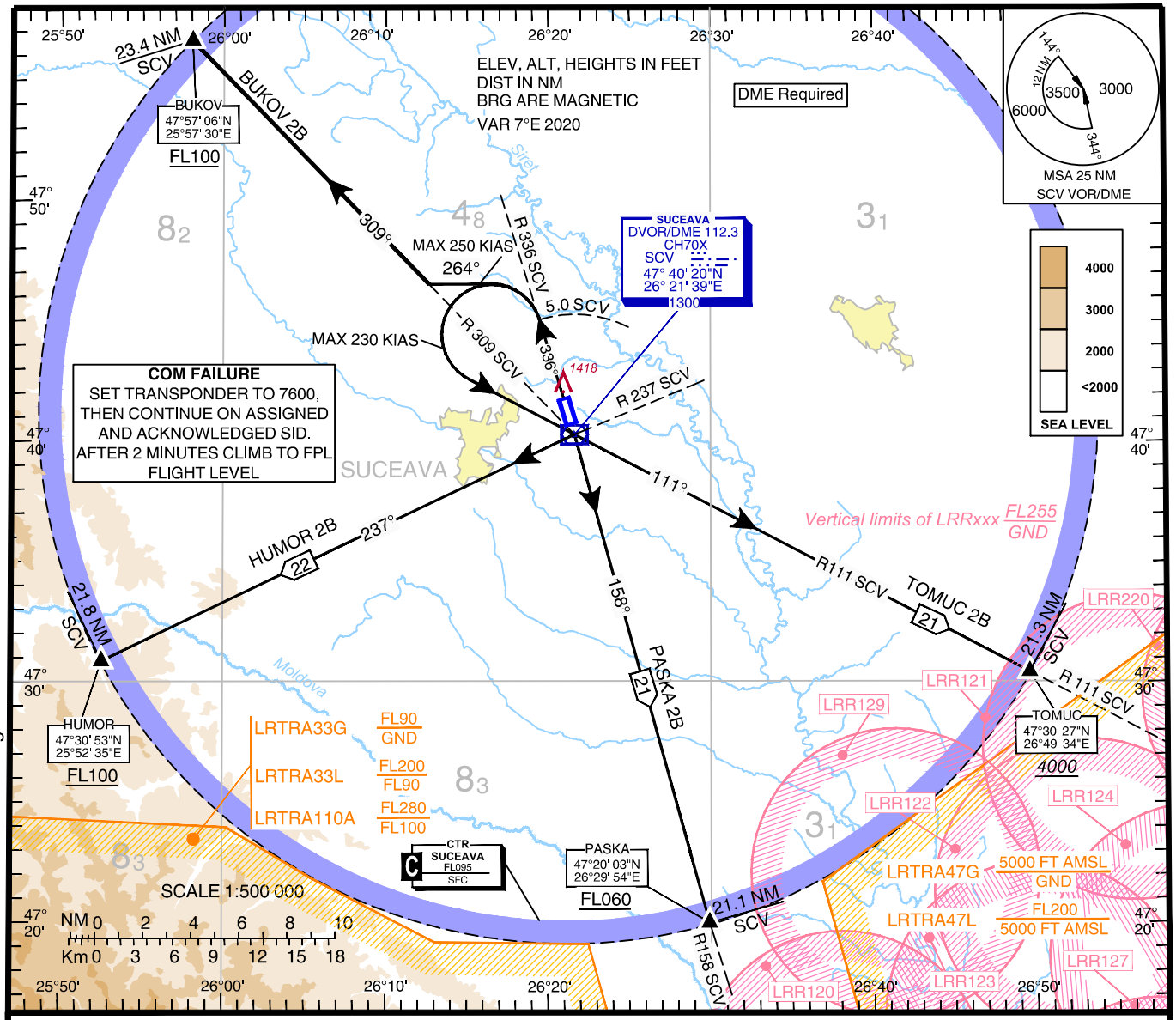
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 5000 FT

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

SUCEAVA/Ştefan cel Mare (LRSV)
RWY 34
BUKOV 2B, HUMOR 2B, PASKA 2B, TOMUC 2B

Changes: LRTRA revised.



SID RWY 34	DESCRIPTION
BUKOV 2B	Climb on **R 336° SCV** (336°M). At **5.0 SCV**, turn **left** heading **264°M** (Max **250 KIAS**) to intercept and follow **R 309° SCV** (309°M) to **BUKOV** at or above **FL100** (1). **(1) ATS climb gradient: 6.9%** up to the En-ROUTE safety altitude, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
HUMOR 2B	Climb on **R 336° SCV** (336°M). At **5.0 SCV**, turn **left** direct to **SCV** (Max **230 KIAS**), then intercept and follow **R 237° SCV** (237°M) to **HUMOR** at or above **FL100** (1). **(1) ATS climb gradient: 4.7%** up to the En-ROUTE safety altitude, due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
PASKA 2B	Climb on **R 336° SCV** (336°M). At **5.0 SCV**, turn **left** direct to SCV (Max **230 KIAS**), then intercept and follow **R 158° SCV** (158°M) to **PASKA** at or above **FL060.**
TOMUC 2B	Climb on **R 336° SCV** (336°M). At **5.0 SCV**, turn **left** direct to **SCV** (Max **230 KIAS**), then intercept and follow **R 111° SCV** (111°M) to **TOMUC** at or above **4000.**

SUCEAVA / Ștefan cel Mare (LRSV)
SID RWY 34

AERONAUTICAL DATA TABULATION

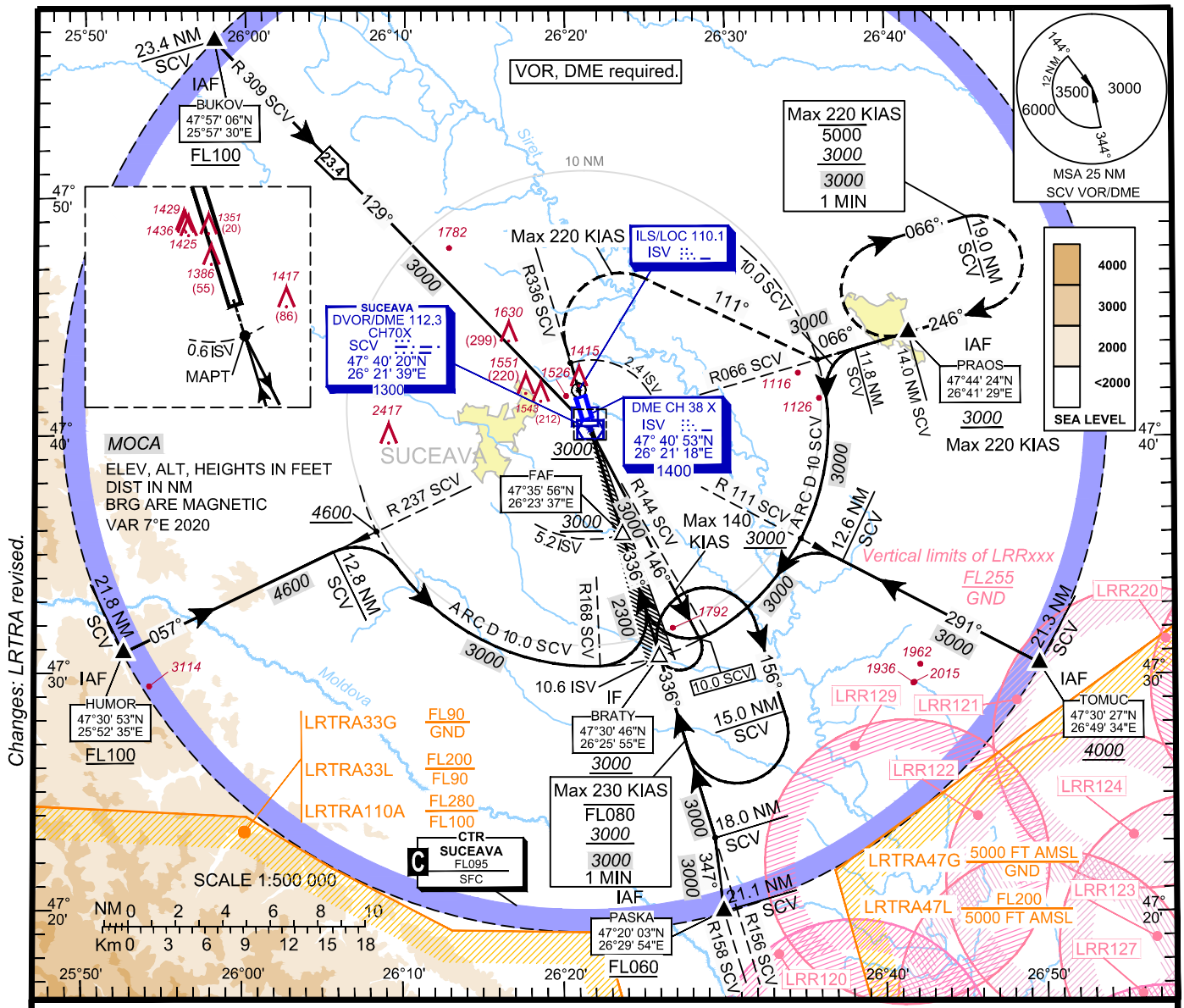
SID RWY 34	
Fix/Waypoint Name	**Coordinates**
SCV VORDME	47°40'20.4"N 026°21'39.0"E
BUKOV - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
DER 34	47°41'54.0"N 026°20'57.0"E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1375 ft**
HEIGHTS RELATED TO
THR RWY 34 - ELEV 1331

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

SUCEAVA/Ştefan cel Mare (LRSV)
ILS or LOC Z
RWY 34

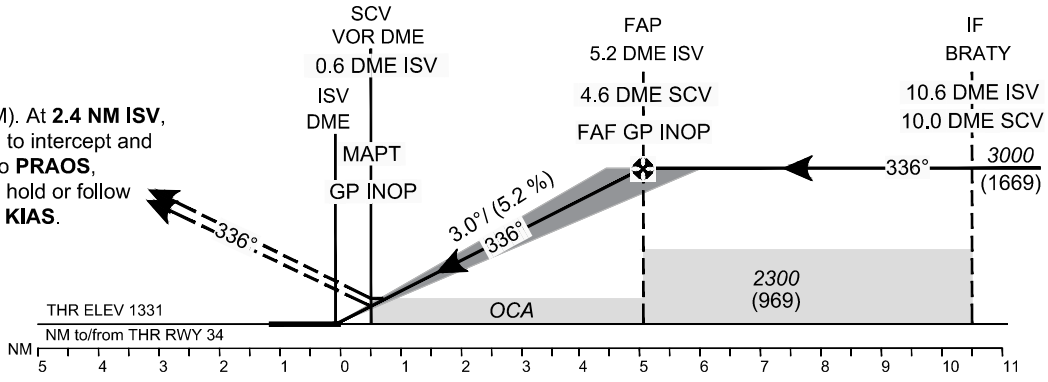


Transition Altitude
5000

MISSED APPROACH

Climb on **R336 SCV** (336°M). At **2.4 NM ISV**, turn **RIGHT** heading **111°M** to intercept and follow **R066 SCV** (066°M) to **PRAOS**, climbing to **3000** (1669)and hold or follow ATC instructions. MAX **220 KIAS**.

ILS RDH 54



OCA/(H)		A	B
Straight-in Approach	ILS CAT I	*1480* (149)	*1491* (160)
	ILS CAT II	*1390* (59)	*1404* (73)
	ILS GP INOP	*1600* (269)	
Circling		*1840*	*1870*

GS	KT	70	90	100	120	140	160
FAF-MAPT 4.6 NM	MIN:SEC	3:57	3:04	2:46	2:18	1:58	1:43
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Dist. to ISV DME	NM	1.0	2.0	3.0	4.0	5.0
Altitudes (Heights)	FT	*1660* (329)	*1980* (649)	*2290* (959)	*2610* (1279)	*2930* (1599)

Timing not authorised for defining the MAPt

SUCEAVA / Ştefan cel Mare (LRSV)
ILS or LOC Z RWY 34

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 34 from BUKOV, TOMUC, PASKA, HUMOR, PRAOS.	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF) - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC (IAF) - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA (IAF) - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR (IAF) - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
PRAOS (IAF) - BRG 066.00° / 14.00NM SCV	47°44'24.1"N 026°41'29.1"E
BRG 237.49° / 10.00NM SCV	47°36'01.4"N 026°08'18.8"E
BRG 156.00° / 18.00NM SCV	47°23'07.9"N 026°29'23.7"E
BRG 110.81° / 10.00NM SCV	47°35'43.0"N 026°34'45.5"E
BRG 066.00° / 10.00NM SCV	47°43'14.8"N 026°35'48.8"E
BRG 336.00° / 2.40NM ISV	47°43'12.0"N 026°20'21.2"E
BRATY (IF) – BRG 156.15° / 10.60NM ISV	47°30'46.3"N 026°25'55.3"E
FAF (LOC only) – BRG 156.15° / 5.20NM ISV	47°35'56.0"N 026°23'37.3"E
MAPT (LOC only) – BRG 156.15° / 0.60NM ISV	47°40'20.2"N 026°21'39.1"E
ISV LOC	47°41'59.4"N 026°20'54.6"E
ISV GP	47°40'53.4"N 026°21'18.2"E
THR 34	47°40'46.24"N 026°21'27.35"E

RADIO COMMUNICATION FAILURE

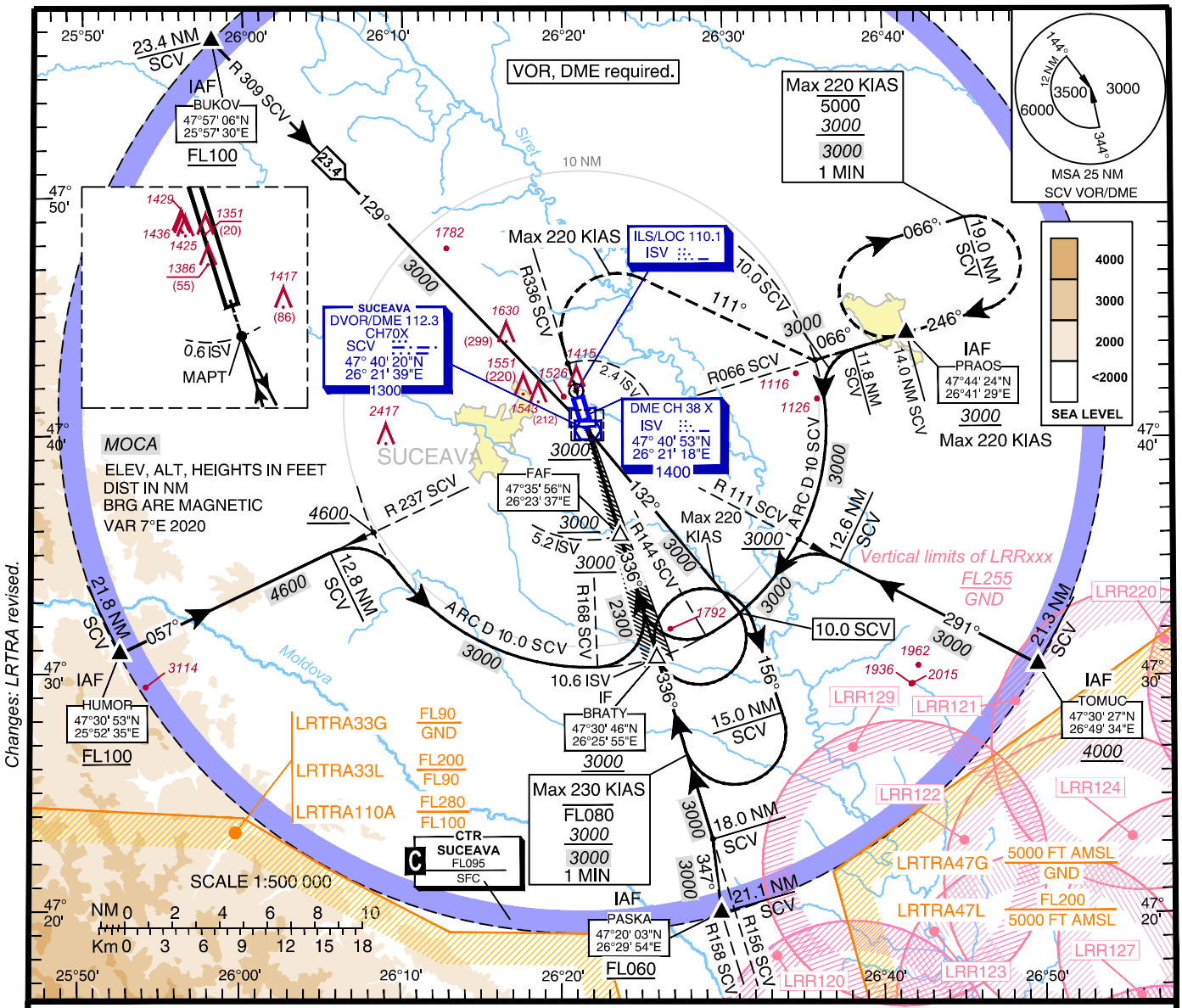
a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If ILS instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BRATY and hold 4 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1375 ft**
HEIGHTS RELATED TO
THR RWY 34 - ELEV 1331

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

SUCEAVA/Ştefan cel Mare (LRSV)
ILS or LOC Y
RWY 34



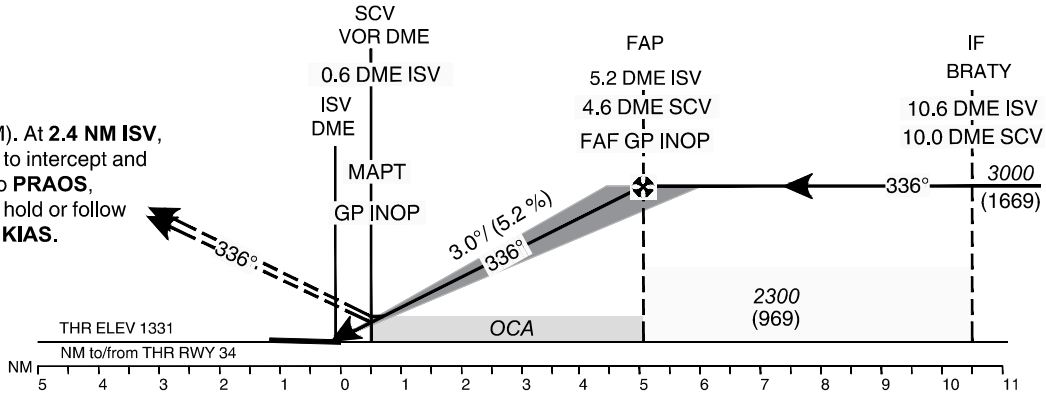
Changes: LRTRA revised.

Transition Altitude 5000

MISSED APPROACH

Climb on **R336 SCV** (336°M). At **2.4 NM ISV**, turn **RIGHT** heading **111°M** to intercept and follow **R066 SCV** (066°M) to **PRAOS**, climbing to **3000** (1669)and hold or follow ATC instructions. MAX **220 KIAS.**

ILS RDH 54



OCA/(H)		C	D
Straight-in Approach	ILS CAT I	*1504* (173)	*1518* (187)
	ILS CAT II	*1414* (83)	*1435* (104)
	ILS GP INOP	*1600* (269)	
Circling		*2030*	*2070*

GS	KT	70	90	100	120	140	160
FAF-MAPT 4.6 NM	MIN:SEC	3:57	3:04	2:46	2:18	1:58	1:43
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Dist. to ISV DME	NM	1.0	2.0	3.0	4.0	5.0
Altitudes (Heights)	FT	*1660* (329)	*1980* (649)	*2290* (959)	*2610* (1279)	*2930* (1599)

Timing not authorised for defining the MAPt

SUCEAVA / Ştefan cel Mare (LRSV)
ILS or LOC Y RWY 34

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 34 from BUKOV, TOMUC, PASKA, HUMOR, PRAOS.	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF) - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC (IAF) - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA (IAF) - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR (IAF) - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
PRAOS (IAF) - BRG 066.00° / 14.00NM SCV	47°44'24.1"N 026°41'29.1"E
BRG 237.49° / 10.00NM SCV	47°36'01.4"N 026°08'18.8"E
BRG 156.00° / 18.00NM SCV	47°23'07.9"N 026°29'23.7"E
BRG 110.81° / 10.00NM SCV	47°35'43.0"N 026°34'45.5"E
BRG 066.00° / 10.00NM SCV	47°43'14.8"N 026°35'48.8"E
BRG 336.00° / 2.40NM ISV	47°43'12.0"N 026°20'21.2"E
BRATY (IF) – BRG 156.15° / 10.60NM ISV	47°30'46.3"N 026°25'55.3"E
FAF (LOC only) – BRG 156.15° / 5.20NM ISV	47°35'56.0"N 026°23'37.3"E
MAPT (LOC only) – BRG 156.15° / 0.60NM ISV	47°40'20.2"N 026°21'39.1"E
ISV LOC	47°41'59.4"N 026°20'54.6"E
ISV GP	47°40'53.4"N 026°21'18.2"E
THR 34	47°40'46.24"N 026°21'27.35"E

RADIO COMMUNICATION FAILURE

a) If ILS instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If ILS instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BRATY and hold 4 minutes, then continue the ILS approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

EGNOS
CH68680
E16A

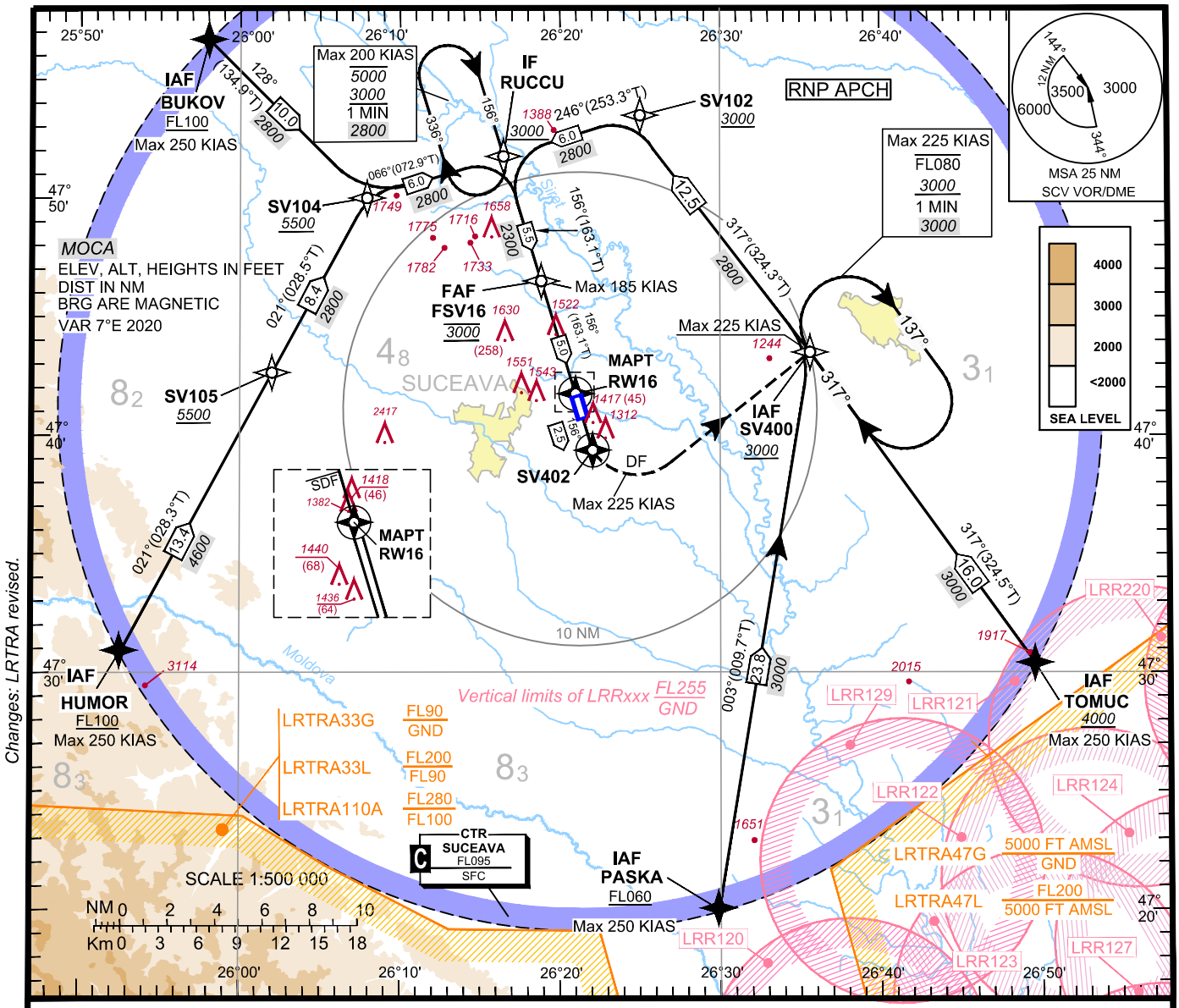
AERODROME ELEVATION 1375
HEIGHTS RELATED TO
THR RWY 16 - ELEV 1372

T° MNM LNAV - VNAV: -33°C
T° LNAV - VNAV>58°C: VPA>3.5°
For uncompensated BARO VNAV systems

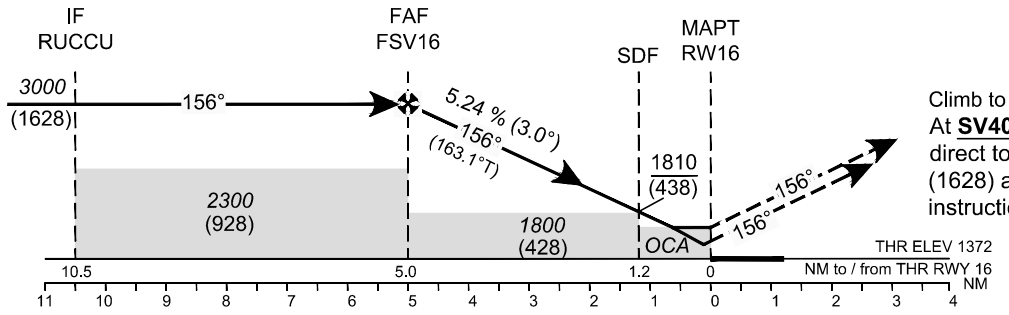
SUCEAVA/Ştefan cel Mare (LRSV)

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

RNP RWY 16



Changes: LRTRA revised.



Transition Altitude 5000

MISSED APPROACH
Climb to **SV402** on course **156°M.**
At **SV402** turn **LEFT** (Max **225 KIAS**) direct to **SV400**, climbing to ***3000*** (1628) and hold or follow ATC instructions.

RDH 50

OCA (H)		A	B	C	D
LPV		*1570* (198)	*1580* (208)	*1590* (218)	*1600* (228)
LNAV/VNAV	2.5%	*1680* (308)	*1690* (318)	*1710* (338)	*1740* (368)
	3.0%	*1560* (178)	*1570* (198)	*1590* (218)	*1610* (238)
LNAV		*1670* (298)			
LNAV w/o SDF		*1800* (428)			
Circling		*1840*	*1870*	*2030*	*2070*

SBAS CAT I OPERATIONS NOT APPROVED

Dist to RW16	NM	4.0	3.0	2.0	1.0
Altitudes (Heights)	FT	*2700* (1328)	*2380* (1008)	*2060* (688)	*1740* (368)

GS	KT	70	90	100	120	140	160
FAF-MAPT 5.0 NM	MIN:SEC	4:15	3:18	2:58	2:29	2:07	1:51
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorised for defining the MAPt

SUCEAVA / Ștefan cel Mare (LRSV)
RNP RWY 16

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY16	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF)	47°57'06.0"N 025°57'30.0"E
FSV16 (FAF)	47°46'33.8"N 026°18'51.3"E
HUMOR (IAF)	47°30'53.1"N 025°52'35.2"E
PASKA (IAF)	47°20'03.0"N 026°29'54.0"E
RUCCU (IF)	47°51'49.3"N 026°16'29.1"E
RW16 (MAPT)	47°41'49.46"N 026°20'59.00"E
SV102	47°53'33.3"N 026°25'00.8"E
SV104	47°50'03.9"N 026°07'57.8"E
SV105	47°42'40.9"N 026°02'01.1"E
SV400 (IAF)	47°43'27.1"N 026°35'48.5"E
SV402	47°39'26.0"N 026°22'03.3"E
TOMUC (IAF)	47°30'27.0"N 026°49'34.0"E

RADIO COMMUNICATION FAILURE

a) If RNP RWY 16 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP RWY 16 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP RWY 16 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to RUCCU and hold 4 minutes, then continue the RNP RWY 16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

EGNOS
CH68503
E34A

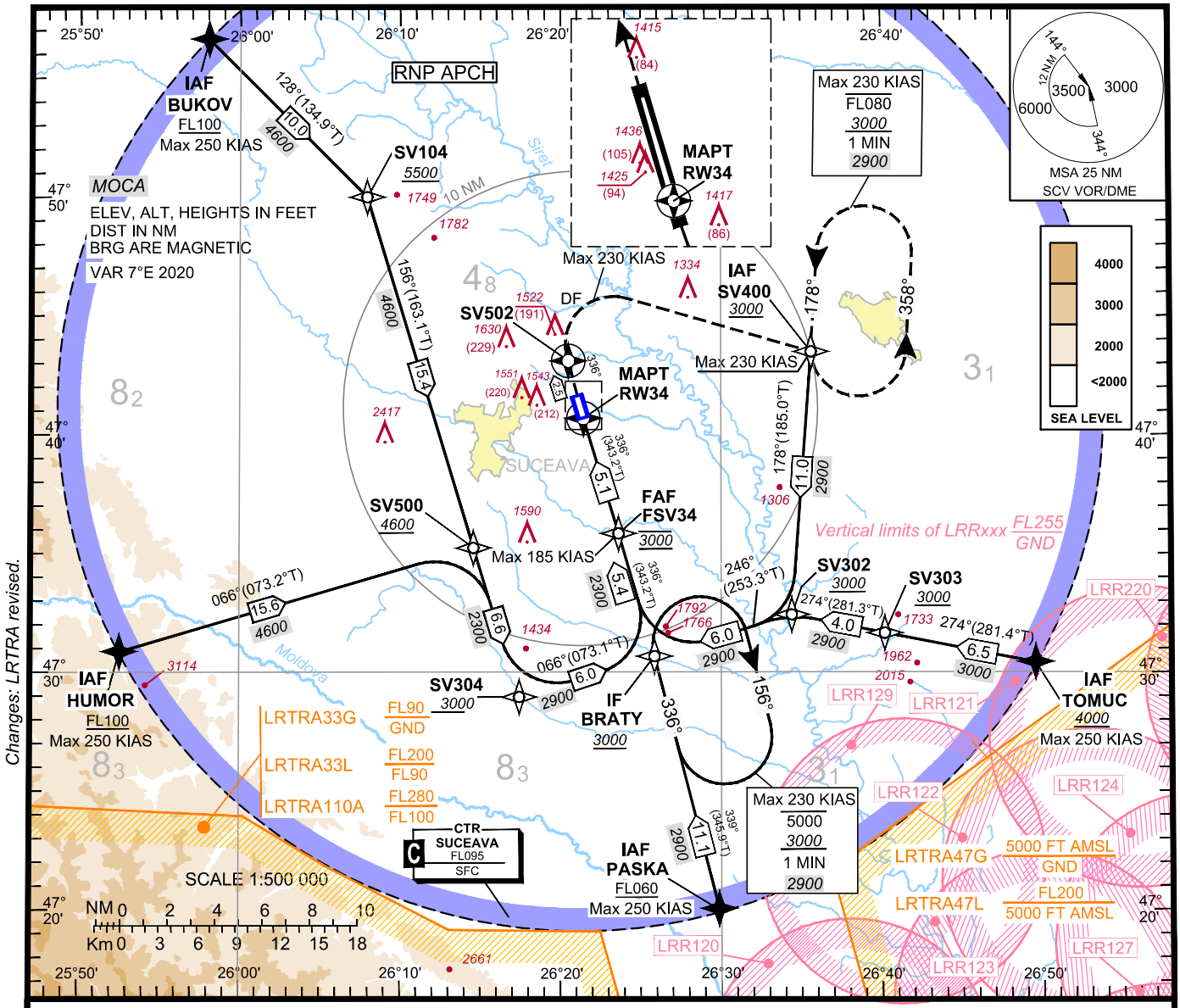
AERODROME ELEVATION 1375
HEIGHTS RELATED TO
THR RWY 34 - ELEV 1331

T° MNM LNAV - VNAV: -33°C
T° LNAV - VNAV>58°C: VPA>3.5°
For uncompensated BARO VNAV systems

SUCEAVA/Ştefan cel Mare (LRSV)

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

RNP RWY 34

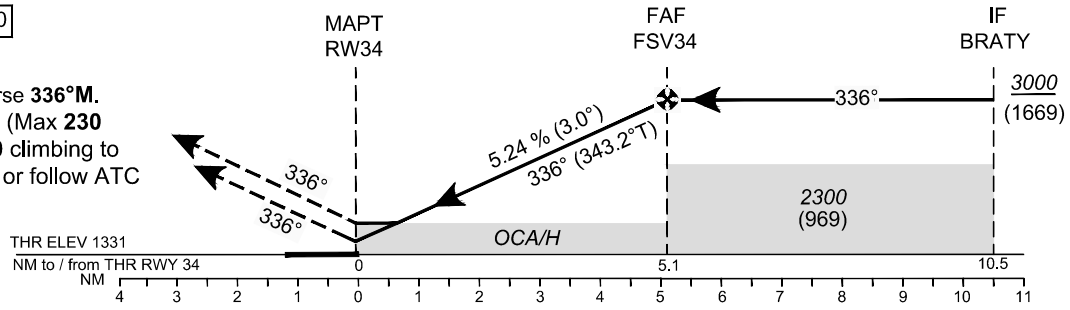


Changes: LRTRA revised.

Transition Altitude 5000

MISSED APPROACH

Climb to **SV502** on course **336°M.** At **SV502** turn **RIGHT** (Max **230 KIAS**) direct to **SV400** climbing to ***3000*** (1669) and hold or follow ATC instructions.



RDH 54

OCA (H)	A	B	C	D
LPV	*1570* (239)	*1580* (249)	*1590* (259)	*1600* (269)
LNAV/VNAV	*1550* (219)	*1560* (229)	*1580* (249)	*1600* (269)
LNAV	*1670* (339)		*1680* (349)	*1690* (359)
Circling	*1840*	*1870*	*2030*	*2070*

SBAS CAT I OPERATIONS NOT APPROVED

Dist to RW34	NM	1.0	2.0	3.0	4.0	5.0
Altitudes (Heights)	FT	*1700* (369)	*2020* (689)	*2340* (1009)	*2660* (1329)	*2980* (1649)

GS	KT	70	90	100	120	140	160
FAF-MAPT 5.1 NM	MIN:SEC	4:21	3:23	3:03	2:32	2:10	1:54
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorised for defining the MAPt

SUCEAVA / Ștefan cel Mare (LRSV)
RNP RWY 34

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY34	
Fix/Waypoint Name	**Coordinates**
BRATY (IF)	47°30'46.3"N 026°25'55.3"E
BUKOV (IAF)	47°57'06.0"N 025°57'30.0"E
FSV34 (FAF)	47°35'55.2"N 026°23'37.6"E
HUMOR (IAF)	47°30'53.1"N 025°52'35.2"E
PASKA (IAF)	47°20'03.0"N 026°29'54.0"E
RW34 (MAPT)	47°40'46.24"N 026°21'27.35"E
SV104	47°50'03.9"N 026°07'57.8"E
SV302	47°32'29.9"N 026°34'24.0"E
SV303	47°31'43.2"N 026°40'11.5"E
SV304	47°29'02.1"N 026°17'27.1"E
SV400 (IAF)	47°43'27.1"N 026°35'48.5"E
SV500	47°35'20.8"N 026°14'37.1"E
SV502	47°43'09.7"N 026°20'23.0"E
TOMUC (IAF)	47°30'27.0"N 026°49'34.0"E

RADIO COMMUNICATION FAILURE

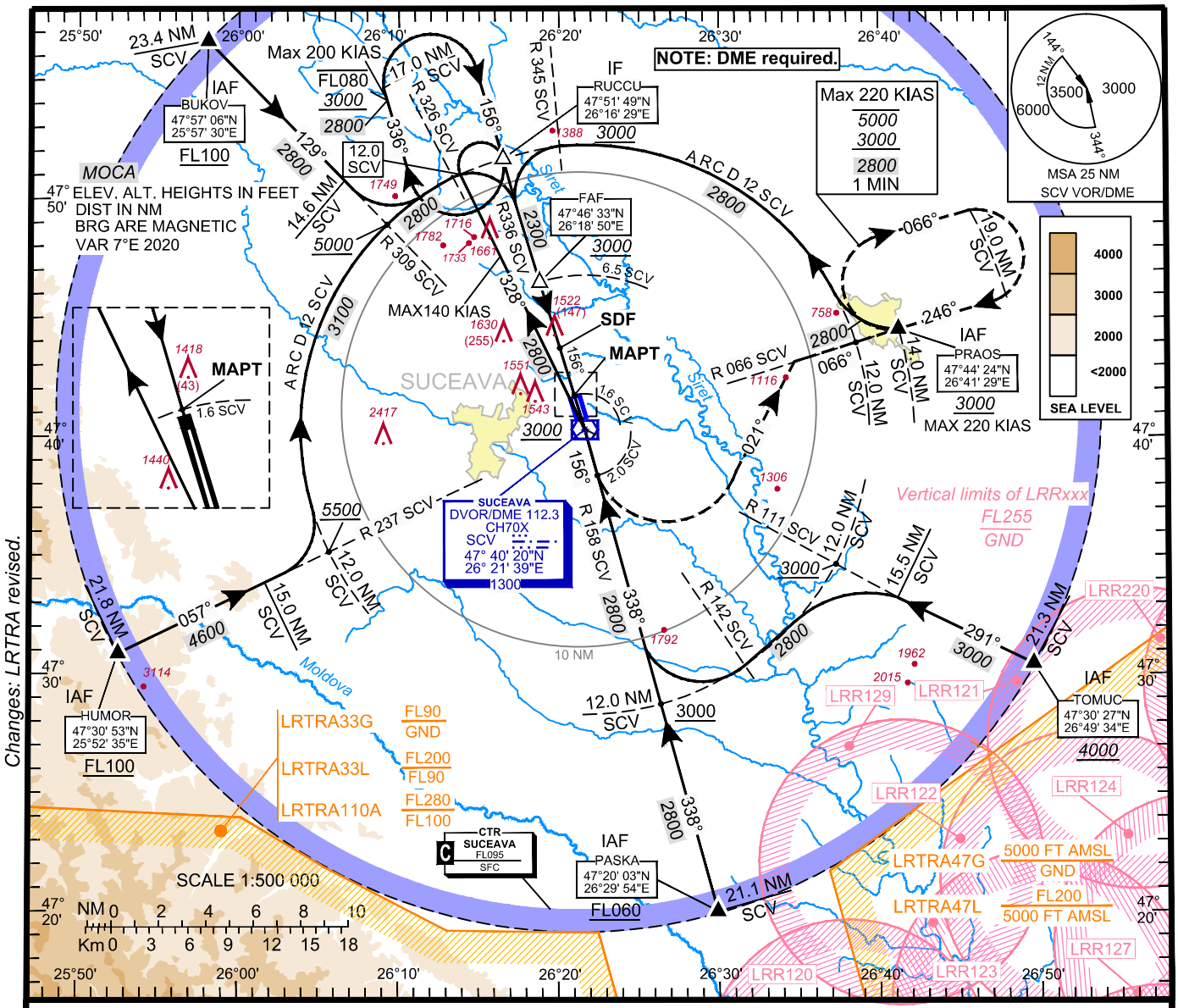
a) If RNP RWY 34 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP RWY 34 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If RNP RWY 34 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BRATY and hold 4 minutes, then continue the RNP RWY 34 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1375 ft**
HEIGHTS RELATED TO AD ELEV

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

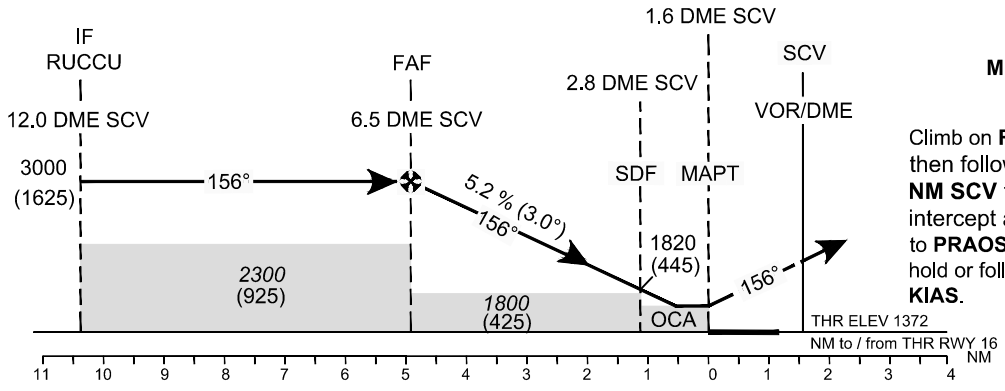
SUCEAVA/Ştefan cel Mare (LRSV)
VOR Z
RWY 16



Changes: LRTRA revised.

Transition Altitude
5000

MISSED APPROACH



Climb on **R336 SCV** (156°M) until **SCV**, then follow **R156 SCV** (156°M). At **2.0 NM SCV** turn **LEFT** heading **021°M** to intercept and follow **R066 SCV** (066°M) to **PRAOS**, climbing to ***3000*** (1625) and hold or follow ATC instructions. Max **220 KIAS**.

OCA/H	A	B
Straight-in Approach	1670 (295)	
w/o SDF	1800 (425)	
Circling	1840	1870

Dist to SCV DME	NM	6.0	5.0	4.0	3.0
Altitudes (Heights)	FT	2840 (1465)	2520 (1145)	2200 (825)	1880 (505)

	KTS	70	90	100	120	140	160
FAF-MAPT 4.9 NM	MIN:S	4:12	3:16	2:56	2:27	2:06	1:50
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorised for defining the MAPt

SUCEAVA / Ștefan cel Mare (LRSV)
VOR Z RWY 16

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 16 from BUKOV, TOMUK, PASKA, HUMOR, PRAOS.	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF) - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC (IAF) - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA (IAF) - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR (IAF) - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
PRAOS (IAF) - BRG 066.00° / 14.00NM SCV	47°44'24.1"N 026°41'29.1"E
BRG 110.81° SCV / 12.00NM SCV	47°34'47.4"N 026°37'22.6"E
BRG 066.00° SCV / 12.00NM SCV	47°43'49.5"N 026°38'38.9"E
BRG 157.54° SCV / 12.00NM SCV	47°28'46.7"N 026°26'21.9"E
BRG 237.49° SCV / 12.00NM SCV	47°35'09.4"N 026°05'39.0"E
BRG 309.00° SCV / 12.00NM SCV	47°48'57.4"N 026°09'16.9"E
BRG 156.00° SCV / 2.00NM SCV	47°38'25.7"N 026°22'30.8"E
RUCCU (IF) - BRG 336.00° / 12.00NM SCV	47°51'49.3"N 026°16'29.1"E
FAF - BRG 336.00° / 6.50NM SCV	47°46'33.1"N 026°18'49.9"E
MAPT - BRG 336.00° / 1.60NM SCV	47°41'52.1"N 026°20'57.4"E
SCV VOR/DME	47°40'20.4"N 026°21'39.0"E
THR 16	47°41'49.46"N 026°20'59.00"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 16 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 16 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 16 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to RUCCU and hold 4 minutes, then continue the VOR RWY 16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

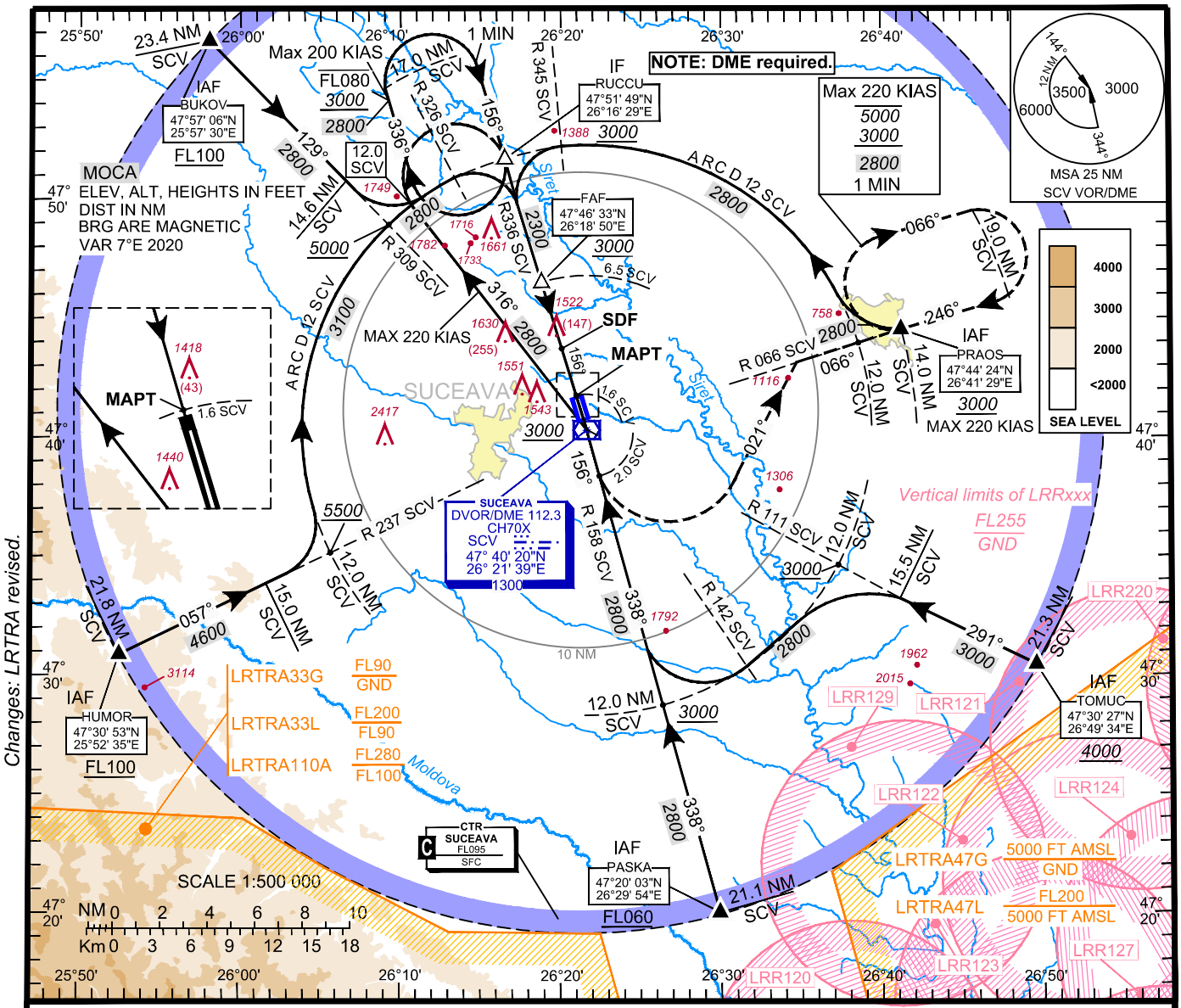
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1375 ft**

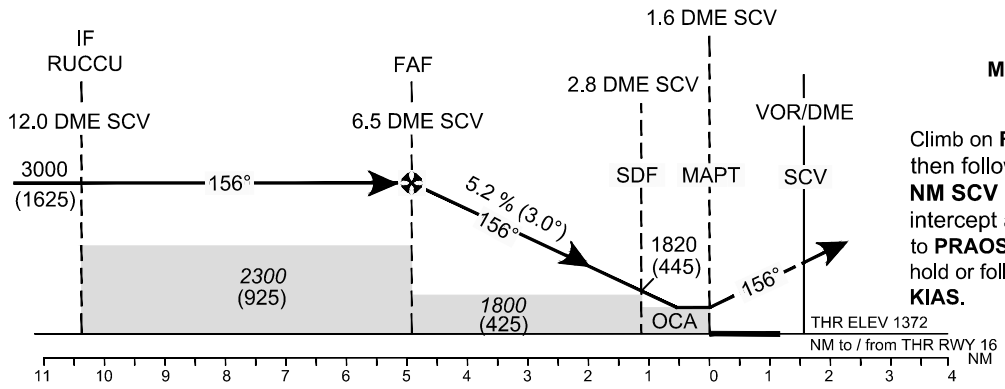
HEIGHTS RELATED TO AD ELEV

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

SUCEAVA/Ştefan cel Mare (LRSV)
VOR Y
RWY 16



Transition Altitude 5000



MISSED APPROACH

Climb on **R336 SCV** (156°M) until **SCV**, then follow **R156 SCV** (156°M). At **2.0 NM SCV** turn **LEFT** heading **021°M** to intercept and follow **R066 SCV** (066°M) to **PRAOS**, climbing to **3000** (1625) and hold or follow ATC instructions. Max **220 KIAS.**

OCA/H	C	D
Straight-in Approach	*1670* (295)	
w/o SDF	*1800* (425)	
Circling	*2030*	*2070*

Dist to SCV DME	NM	6.0	5.0	4.0	3.0
Altitudes (Heights)	FT	*2840* (1465)	*2520* (1145)	*2200* (825)	*1880* (505)

	KTS	70	90	100	120	140	160
FAF-MAPT 4.9 NM	MIN:S	4:12	3:16	2:56	2:27	2:06	1:50
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorised for defining the MAPt

SUCEAVA / Ștefan cel Mare (LRSV)
VOR Y RWY 16

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 16 from BUKOV, TOMUK, PASKA, HUMOR, PRAOS.	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF) - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC (IAF) - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA (IAF) - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR (IAF) - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
PRAOS (IAF) - BRG 066.00° / 14.00NM SCV	47°44'24.1"N 026°41'29.1"E
BRG 110.81° SCV / 12.00NM SCV	47°34'47.4"N 026°37'22.6"E
BRG 066.00° SCV / 12.00NM SCV	47°43'49.5"N 026°38'38.9"E
BRG 157.54° SCV / 12.00NM SCV	47°28'46.7"N 026°26'21.9"E
BRG 237.49° SCV / 12.00NM SCV	47°35'09.4"N 026°05'39.0"E
BRG 309.00° SCV / 12.00NM SCV	47°48'57.4"N 026°09'16.9"E
BRG 156.00° SCV / 2.00NM SCV	47°38'25.7"N 026°22'30.8"E
RUCCU (IF) - BRG 336.00° / 12.00NM SCV	47°51'49.3"N 026°16'29.1"E
FAF - BRG 336.00° / 6.50NM SCV	47°46'33.1"N 026°18'49.9"E
MAPT - BRG 336.00° / 1.60NM SCV	47°41'52.1"N 026°20'57.4"E
SCV VOR/DME	47°40'20.4"N 026°21'39.0"E
THR 16	47°41'49.46"N 026°20'59.00"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 16 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 16 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 16 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to RUCCU and hold 4 minutes, then continue the VOR RWY 16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

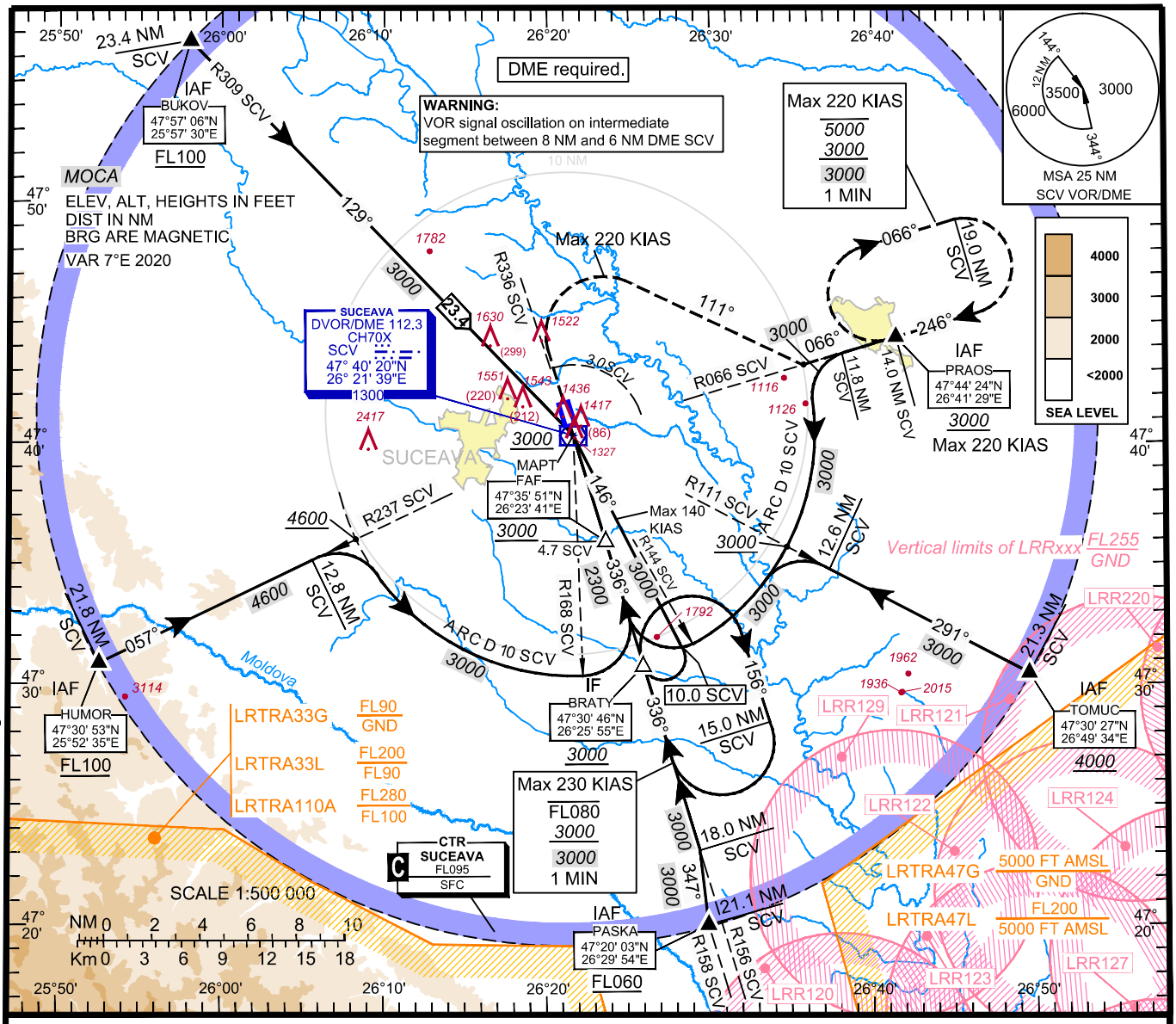
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1375 ft**
HEIGHTS RELATED TO
THR RWY 34 - ELEV 1331

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

SUCEAVA/Ştefan cel Mare (LRSV)
VOR Z
RWY 34

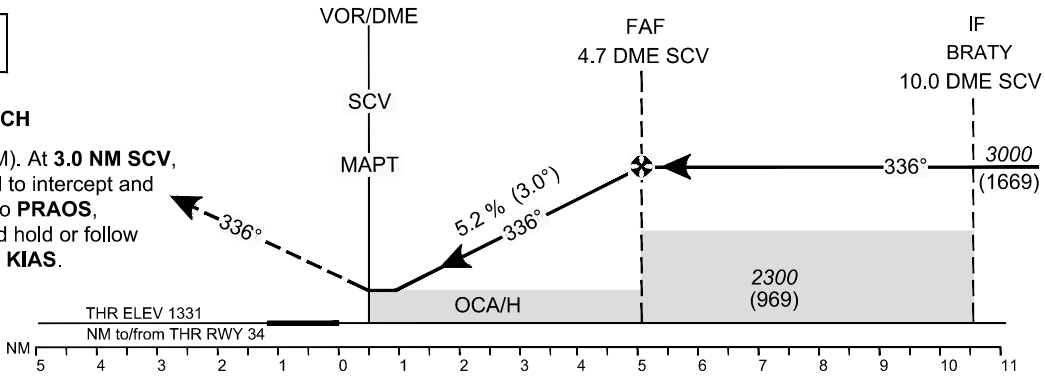
Changes: LRTRA revised.



Transition Altitude
5000

MISSED APPROACH

Climb on **R336 SCV** (336°M). At **3.0 NM SCV**, turn **RIGHT** heading **111°M** to intercept and follow **R066 SCV** (066°M) to **PRAOS**, climbing to **3000** (1669) and hold or follow ATC instructions. MAX **220 KIAS**.



OCA/H	A	B
Straight-in Approach	*1580* (249)	*1610* (279)
Circling	*1840*	*1870*

GS	KT	70	90	100	120	140	160
FAF-MAPT 4.7 NM	MIN:SEC	4:02	3:08	2:49	2:21	2:01	1:46
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Dist. to SCV DME	NM	1.0	2.0	3.0	4.0
Altitudes (Heights)	FT	*1840* (509)	*2160* (829)	*2480* (1149)	*2800* (1469)

Timing not authorised for defining the MAPt

SUCEAVA / Ștefan cel Mare (LRSV)
VOR Z RWY 34

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 34 from BUKOV, TOMUK, PASKA, HUMOR, PRAOS.	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF) - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC (IAF) - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA (IAF) - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR (IAF) - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
PRAOS (IAF) - BRG 066.00° / 14.00NM SCV	47°44'24.1"N 026°41'29.1"E
BRG 237.49° / 10.00NM SCV	47°36’01.4"N 026°08’18.8"E
BRG 156.00° / 18.00NM SCV	47°23’07.9"N 026°29’23.7"E
BRG 110.81° / 10.00NM SCV	47°35’43.0"N 026°34’45.5"E
BRG 066.00° / 10.00NM SCV	47°43’14.8"N 026°35’48.8"E
BRG 336.00° / 3.00NM SCV	47°43’12.4"N 026°20’21.0"E
BRATY (IF) - BRG 156.00° / 10.00NM SCV	47°30'46.3"N 026°25'55.3"E
FAF - BRG 156.00° / 4.70NM SCV	47°35'50.8"N 026°23'40.8"E
SCV (MAPT) VOR/DME	47°40'20.4"N 026°21'39.0"E
THR 34	47°40'46.24"N 026°21'27.35"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

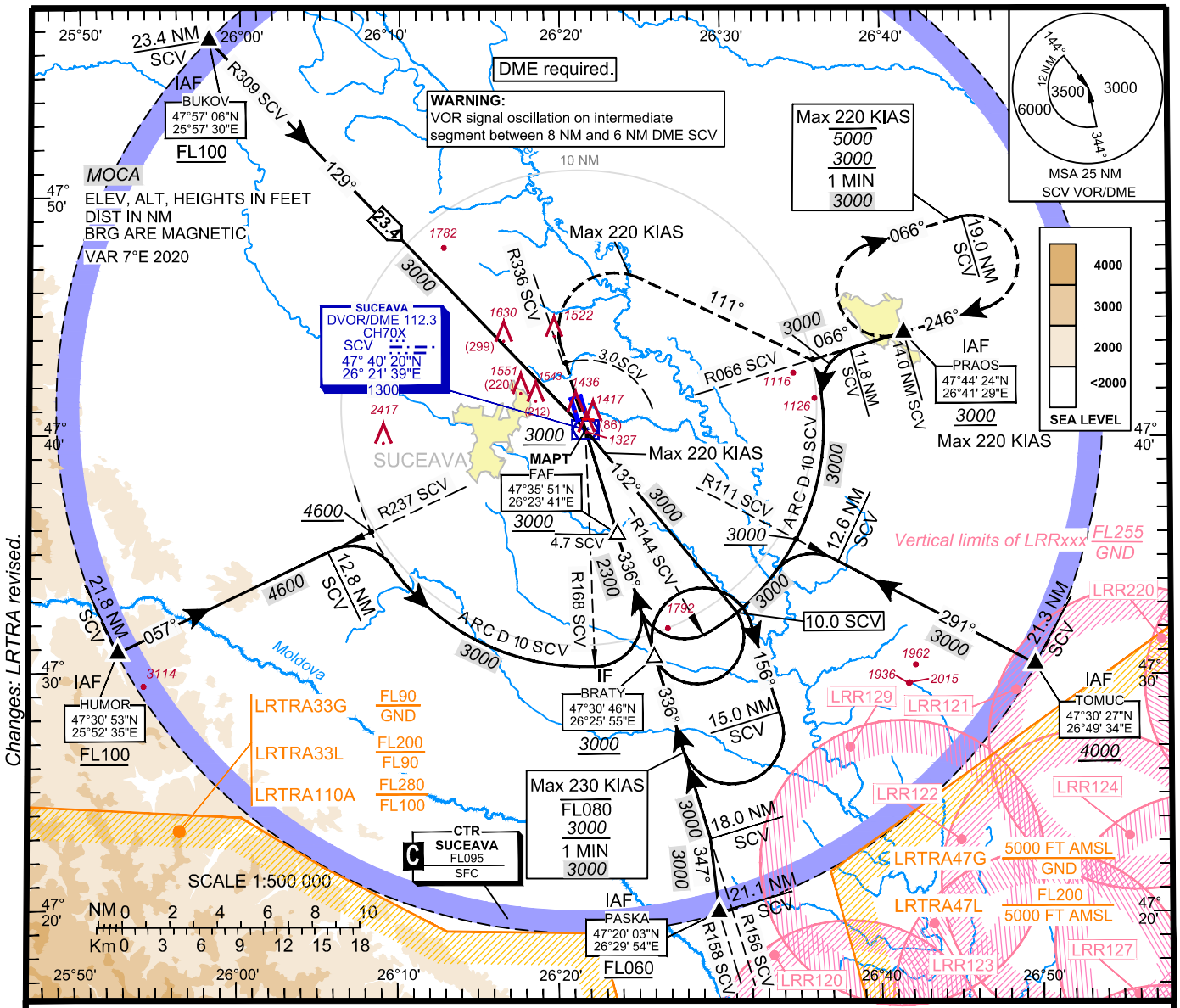
a) If VOR RWY 34 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 34 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 34 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BRATY and hold 4 minutes, then continue the VOR RWY 34 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **1375 ft**
HEIGHTS RELATED TO
THR RWY 34 - ELEV 1331

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

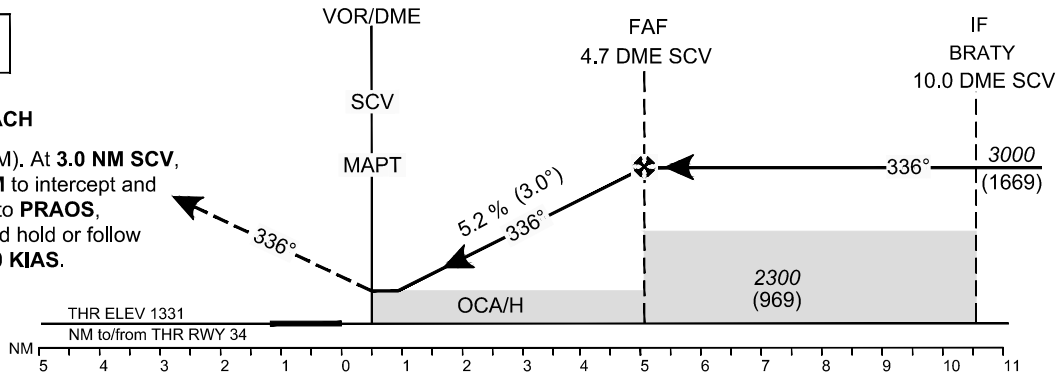
SUCEAVA/Ştefan cel Mare (LRSV)
VOR Y
RWY 34



Transition Altitude
5000

MISSED APPROACH

Climb on **R336 SCV** (336°M). At **3.0 NM SCV**, turn **RIGHT** heading **111°M** to intercept and follow **R066 SCV** (066°M) to **PRAOS**, climbing to **3000** (1669) and hold or follow ATC instructions. MAX **220 KIAS**.



OCA/H	C	D
Straight-in Approach	*1630* (299)	*1670* (339)
Circling	*2030*	*2070*

GS	KT	70	90	100	120	140	160
FAF-MAPT 4.7 NM	MIN:SEC	4:02	3:08	2:49	2:21	2:01	1:46
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Dist. to SCV DME	NM	1.0	2.0	3.0	4.0
Altitudes (Heights)	FT	*1840* (509)	*2160* (829)	*2480* (1149)	*2800* (1469)

Timing not authorised for defining the MAPt

SUCEAVA / Ștefan cel Mare (LRSV)
VOR Y RWY 34

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 34 from BUKOV, TOMUK, PASKA, HUMOR, PRAOS.	
Fix/Waypoint Name	**Coordinates**
BUKOV (IAF) - BRG 309.00° / 23.37NM SCV	47°57'06.0"N 025°57'30.0"E
TOMUC (IAF) - BRG 110.81° / 21.34NM SCV	47°30'27.0"N 026°49'34.0"E
PASKA (IAF) - BRG 157.54° / 21.06NM SCV	47°20'03.0"N 026°29'54.0"E
HUMOR (IAF) - BRG 237.49° / 21.83NM SCV	47°30'53.1"N 025°52'35.2"E
PRAOS (IAF) - BRG 066.00° / 14.00NM SCV	47°44'24.1"N 026°41'29.1"E
BRG 237.49° / 10.00NM SCV	47°36’01.4"N 026°08’18.8"E
BRG 156.00° / 18.00NM SCV	47°23’07.9"N 026°29’23.7"E
BRG 110.81° / 10.00NM SCV	47°35’43.0"N 026°34’45.5"E
BRG 066.00° / 10.00NM SCV	47°43’14.8"N 026°35’48.8"E
BRG 336.00° / 3.00NM SCV	47°43’12.4"N 026°20’21.0"E
BRATY (IF) - BRG 156.00° / 10.00NM SCV	47°30'46.3"N 026°25'55.3"E
FAF - BRG 156.00° / 4.70NM SCV	47°35'50.8"N 026°23'40.8"E
SCV (MAPT) VOR/DME	47°40'20.4"N 026°21'39.0"E
THR 34	47°40'46.24"N 026°21'27.35"E

Final approach descent gradient (angle): 5.2% (3.00°)

RADIO COMMUNICATION FAILURE

a) If VOR RWY 34 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR RWY 34 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
b) If VOR RWY 34 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BRATY and hold 4 minutes, then continue the VOR RWY 34 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

LRTM AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRTM - TÂRGU MUREŞ / Transilvania - Târgu Mureş

LRTM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	462804N 0242445E Runway centre.
2	*Direction and distance from city*	225°, 14 km from Târgu Mureş.
3	*Elevation/Reference temperature/Mean low temperature*	963 FT / 29.8°C / -13.6°C
4	*Geoid undulation at AD ELEV PSN*	129 FT
5	*MAG VAR/ Annual rate of change*	5°E (2015) / 2.4'E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	Aeroportul Târgu Mureş/Transilvania, Loc. Vidrasău, Oraş Ungheni, cod 547612 Tel: + 40-(0)265-328888 (Office) + 40-(0)265-328259 (Information) Telefax: + 40-(0)265-263050 (Operations) + 40-(0)265-328258 (Handling) Fax: + 40-(0)265-328257 (Office) e-mail: office@transylvaniaairport.ro operations@transylvaniaairport.ro handling@transylvaniaairport.ro web: www.transylvaniaairport.ro AFS: LRTMRAYD SITA: TGMYDXH
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	Helicopter flights permitted.

LRTM AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	S: 0530-1700; W: 0630-1800
2	*Customs and immigration*	As AD Operator
3	*Health and sanitation*	As AD Operator
4	*AIS Briefing Office*	H24
5	*ATS Reporting Office (ARO)*	H24
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fueling*	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 services are available O/R submitted to the AD with 24 hours in advance.

LRTM AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	1 GPU 28.5V, 1 GPU 115V-200V, 400Hz, 2 GPU 115V/400 Hz and 28.5V, 1 air starter unit, 1 heater, 1 towed lavatory service vehicle, 1 towed potable water vehicle, 1 ambulift vehicle, 2 conveyor belt truck up to 3,5t, 2 conveyor electric baggage belt loader, 4 self propelled passengers stairs, 2 towed passenger stairs, 3 electric baggage/GSE tow tractors, 1 diesel baggage/GSE tow tractor, 6 baggage carts, 2 passenger crew minibus.
2	*Fuel/Oil types*	Jet A1 / NIL
3	*Fueling facilities/capacity*	1 refueling truck with 25.750 l capacity, refueling rate: 800 l /min 1 storage of fuel 80m^3
4	*De-icing facilities*	Available on parking stands on request. 1 truck with de-icing/anti-icing fluid Type II 1 truck with de-icing fluid Type I and anti-icing fluid Type II 1 heater unit with hot air for engines and landing gears.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	NIL

LRTM AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Snack-bar and restaurant on the AD.
3	*Transportation*	Buses, taxis.
4	*Medical facilities*	First aid on the AD. Ambulance on the AD~~, Surgery on AD~~. Hospitals in the city.
5	*Bank and Post Office*	Exchange office on AD, ATM on AD.
6	*Tourist Office*	In the city.
7	*Remarks*	Rent a car offices on AD.

LRTM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 7
2	*Resque equipment*	2 vehicle with extrication equipment.
3	*Capability for removal of disabled aircraft*	Limited by arrangement. Local Action Coordinator: +40-(0)744-790299 e-mail: ioan.pop@transylvaniaairport.ro
4	*Remarks*	NIL

LRTM AD 2.7 RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING, AND SNOW PLAN

1	*Types of clearing equipment*	5 tractors with blade and brush, 1 truck with plough, brush, turbo blower and liquid spreading runway deicing, 1 solid materials spreading equipment, 1 snow blower, 1 truck with plough, brush and turbo blower. 1 FOD runway sweeper, 1 FOD multi purpose sweeper, 1 FOD-BOOS sweeper.
2	*Clearance priorities*	1. RWY 07/25 2. TWY A, B, C 3. Apron 4. Other surfaces
3	*Use of material for movement area surface treatment*	Fluids used for RWY de/anti-icing: KFOR potassium formate. Solid materials used for RWY de/anti-icing: NAFO sodium formate.
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Information on RWYCC reported by SNOWTAM are issued in the context of the GRF. Information on the progress of the snow removal and the conditions of the movement area are provided by Ground Operations Service - Tel.: +40 758 222 530. See also the snow plan in section AD 1.2.2.

LRTM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	Designation: Apron Surface: Concrete Strength: Stands 1, 2 PCN 27/R/D/W/T Stands 3, 4 PCN 95/R/D/W/T Stands 5, 6, 7 PCN 79/R/D/W/T
2	*Taxiway designation, width, surface and strength*	TWY A: Width: 30 M; Surface: Asphalt; Strength: PCN 64/F/D/W/T TWY B: Width: 23 M; Surface: Asphalt; Strength: PCN 71/F/D/W/T TWY C: Width: 18 M; Surface: Concrete; Strength: PCN 79/R/D/W/T TAXILANE D: Width: 11 M; Surface: Concrete; Strength: PCN 27/R/D/W/T
3	*ACL location and elevation*	Location: Apron Elevation: 963 FT
4	*VOR checkpoints*	NIL
5	*INS checkpoints*	INS 1: 462807.39N 0242533.61E INS 2: 462805.73N 0242534.45E INS 3: 462805.94N 0242530.29E INS 4: 462805.43N 0242527.54E INS 5: 462804.52N 0242525.34E INS 6: 462804.46N 0242522.59E INS 7: 462803.91N 0242519.76E
6	*Remarks*	RWY turn pad: Location THR 07 and THR 25 Surface: Asphalt Strength: PCN 70/F/D/W/T

LRTM 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 at aircraft stands*	Aircraft stand ID markings at the beginning of the lead-in lines to stands: 1,2,3,4,5,6,7. TWY guide lines on the apron. Stand 1 : helicopters parking position. Stands 2,3,4,5,6,7 : angled nose out parking positions. Parking guidance provided by marshallers.
2	*RWY and TWY markings and LGT*	RWY: - markings: designation, THR, TDZ, centre line, aiming point, edges, turn pads. - lights: centre line, THR, TDZ on RWY 07, END, edges, wing bars, turn pads. TWY A, B: - markings: enhanced centre line, edges, holding position. - lights: centre line, edges, stop bar, runway guard lights. TWY C: - markings: enhanced center line, edge only North side (common with APRON). - lights: centre line, edge only North side (common with APRON). TAXILANE D: - markings: enhanced center line. - lights: centre line.
3	*Stop bars and runway guard lights*	TWY A, B: Stop bars and runway guard lights at holding positions.
4	*Other RWY protection measure*	NIL
5	*Remarks*	NIL

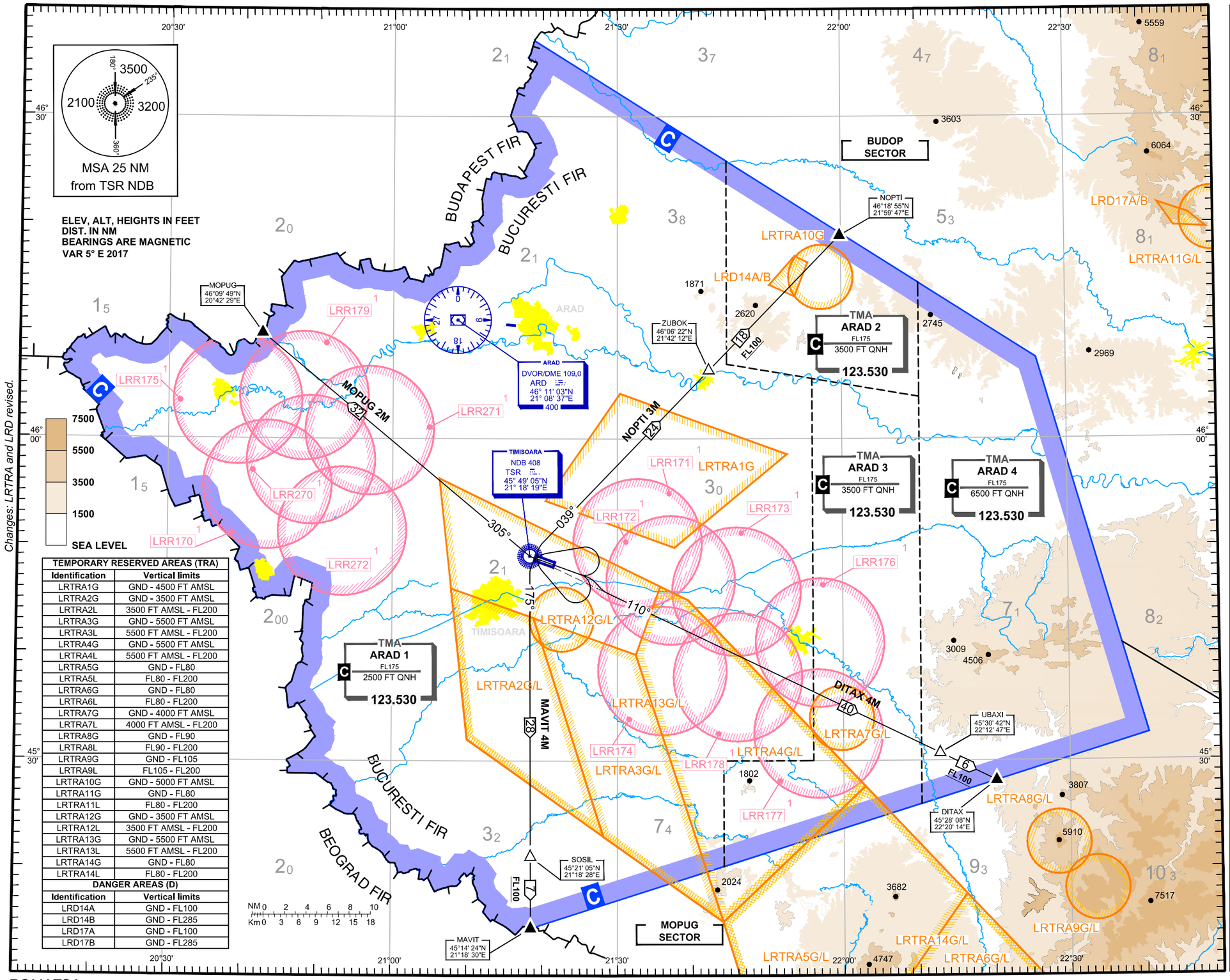
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

SECTOR	BUDOP	130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 11
DITAX 4M, MAVIT 4M, MOPUG 2M
NOPTI 3M



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level.

DITAX 4M / MAVIT 4M / MOPUG 2M / NOPTI 3M		
DESIGNATOR	**ROUTING**	**ALTITUDES**
DITAX 4M	On RWY track to 1700; RIGHT turn to intercept QDR 110 TSR; on QDR 110 TSR climb to FL100 or above at UBAXI, then to DITAX.	PDG min. 4.1%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 4M	On RWY track to 1700; LEFT turn to TSR NDB; LEFT turn, on QDR 175 TSR climb to FL100 or above at SOSIL, then to MAVIT.	PDG min. 3.8%* After departure climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 2M	On RWY track to 1700; RIGHT turn to TSR NDB; LEFT turn, on QDR 305 TSR to MOPUG.	After departure climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 3M	On RWY track to 1700; RIGHT turn to TSR NDB; RIGHT turn, on QDR 039 TSR climb to FL100 or above at ZUBOK, then to NOPTI.	PDG min. 4.4%* After departure climb initially 6000 ft QNH. Further climb only by ATC.

If unable to comply, contact ATC.
* Increased climb gradient due to TSR NDB coverage.

Expect direct routing/shortcuts by ATC whenever possible.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

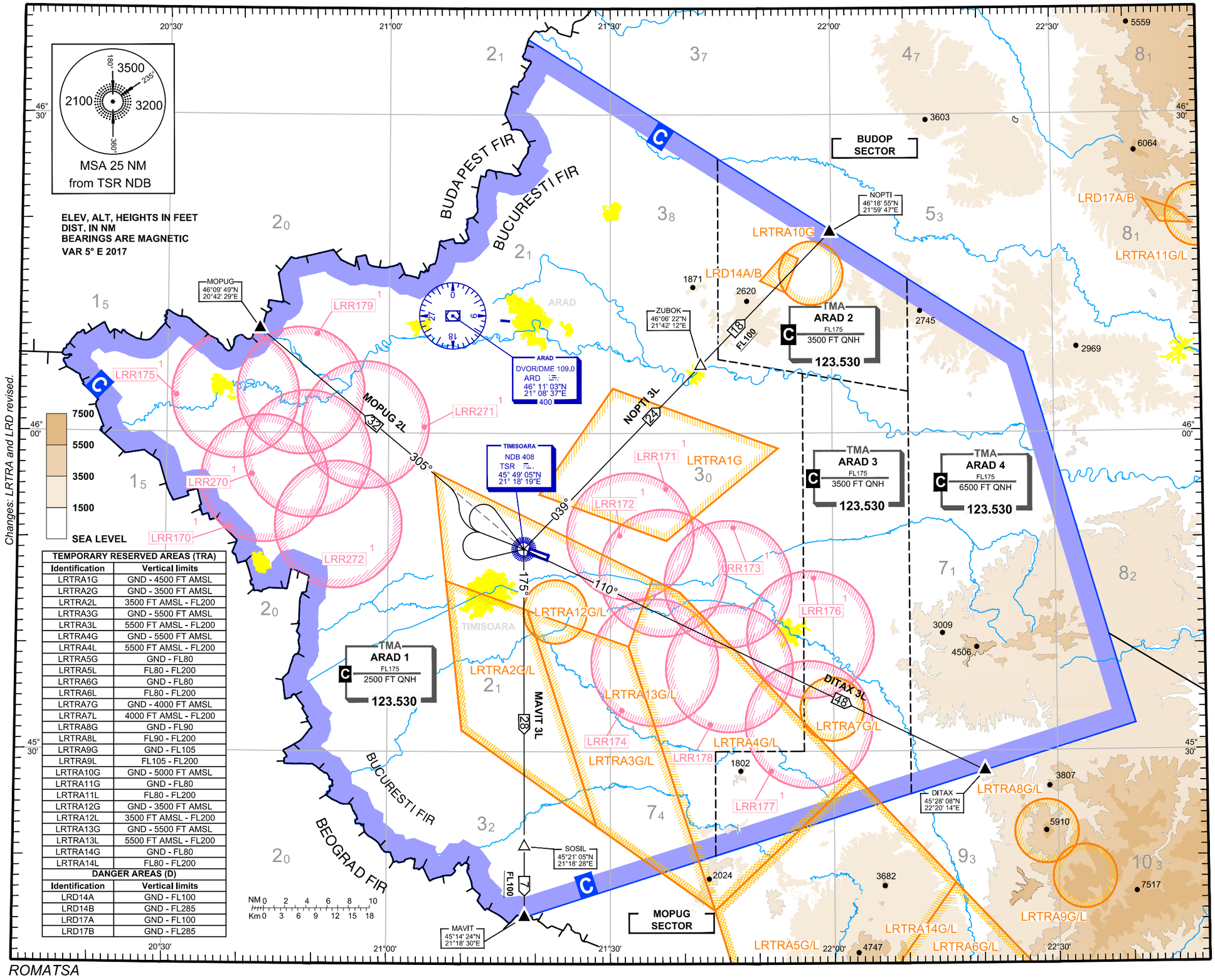
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

SECTOR	BUDOP	130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 29
DITAX 3L, MAVIT 3L, MOPUG 2L
NOPTI 3L



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:

a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.

b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level.

DITAX 3L / MAVIT 3L / MOPUG 2L / NOPTI 3L		
DESIGNATOR	**ROUTING**	**ALTITUDES**
DITAX 3L	On RWY track to 1700; RIGHT turn to TSR NDB; LEFT turn, on QDR 110 TSR to DITAX.	After departures climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 3L	On RWY track to 1700; RIGHT turn to TSR NDB; RIGHT turn, on QDR 175 TSR climb to FL100 or above at SOSIL, then to MAVIT.	PDG min. 4.2%** After departures climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 2L	On RWY track to 1700; RIGHT turn heading 335 to intercept QDR 305 TSR; on QDR 305 TSR to MOPUG.	PDG min. 5.2%* After departures climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 3L	On RWY track to 1700; LEFT turn to TSR NDB; LEFT turn, on QDR 039 TSR climb to FL100 or above at ZUBOK, then to NOPTI.	PDG min. 4.9%** After departures climb initially 6000 ft QNH. Further climb only by ATC.

If unable to comply, contact ATC.
* Increased climb gradient due to airspace structure.
** Increased climb gradient due to TSR NDB coverage.

Expect direct routing/shortcuts by ATC whenever possible.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

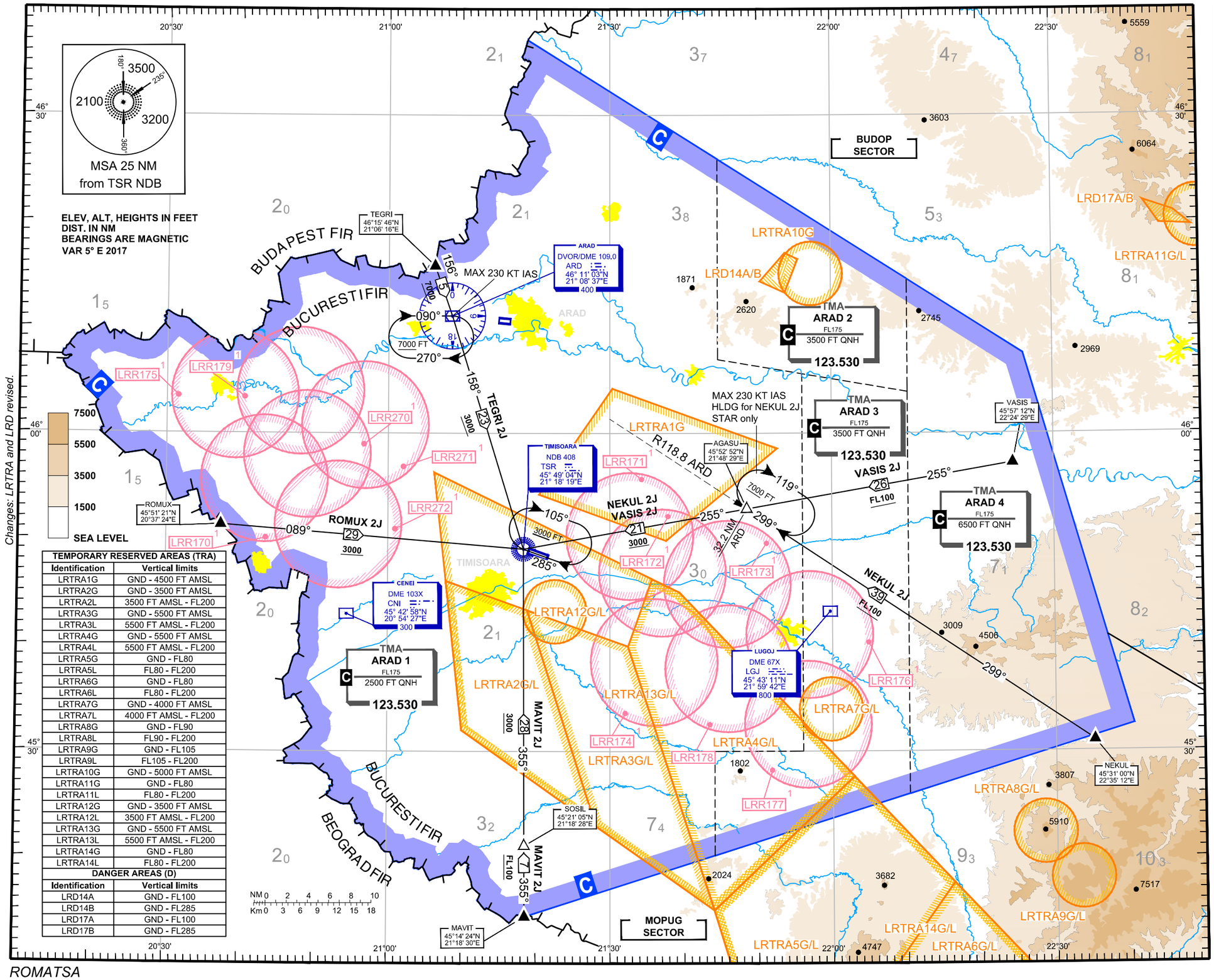
STANDARD ARRIVAL
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 11
MAVIT 2J, NEKUL 2J, ROMUX 2J,
TEGRI 2J, VASIS 2J



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

Set transponder to 7600. Maintain last assigned and acknowledged altitude/flight level for 2 minutes. Proceed *TSR NDB*, and commence descent in the holding pattern over *TSR NDB*, then execute approach and land. If landing is not possible, execute missed approach and proceed to *TSR NDB*, and execute approach and land on the most convenient RWY.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

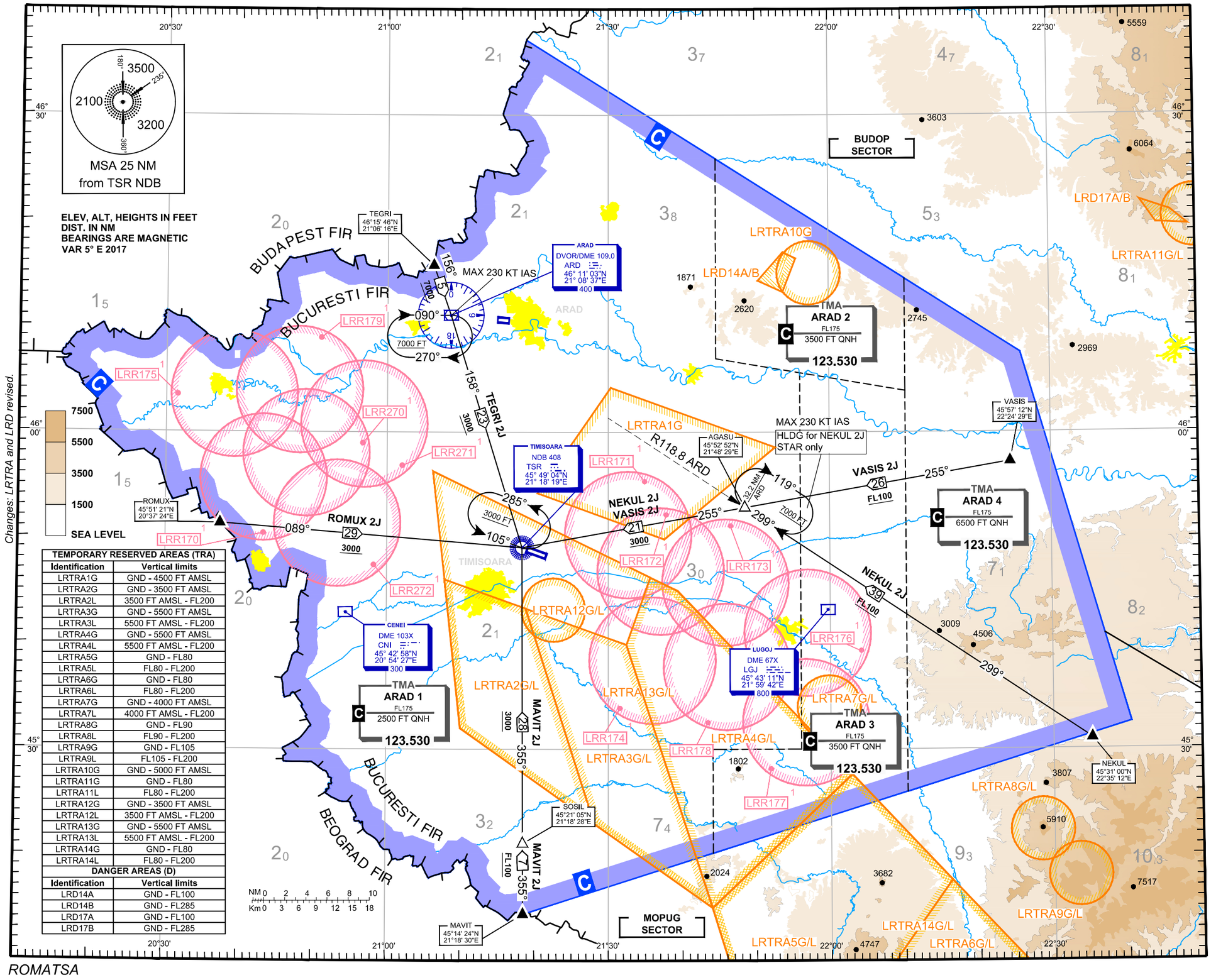
STANDARD ARRIVAL
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 29
MAVIT 2J, NEKUL 2J, ROMUX 2J,
TEGRI 2J, VASIS 2J



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

Set transponder to 7600. Maintain last assigned and acknowledged altitude/flight level for 2 minutes. Proceed *TSR NDB*, and commence descent in the holding pattern over *TSR NDB*, then execute approach and land. If landing is not possible, execute missed approach and proceed to *TSR NDB*, and execute approach and land on the most convenient RWY.

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

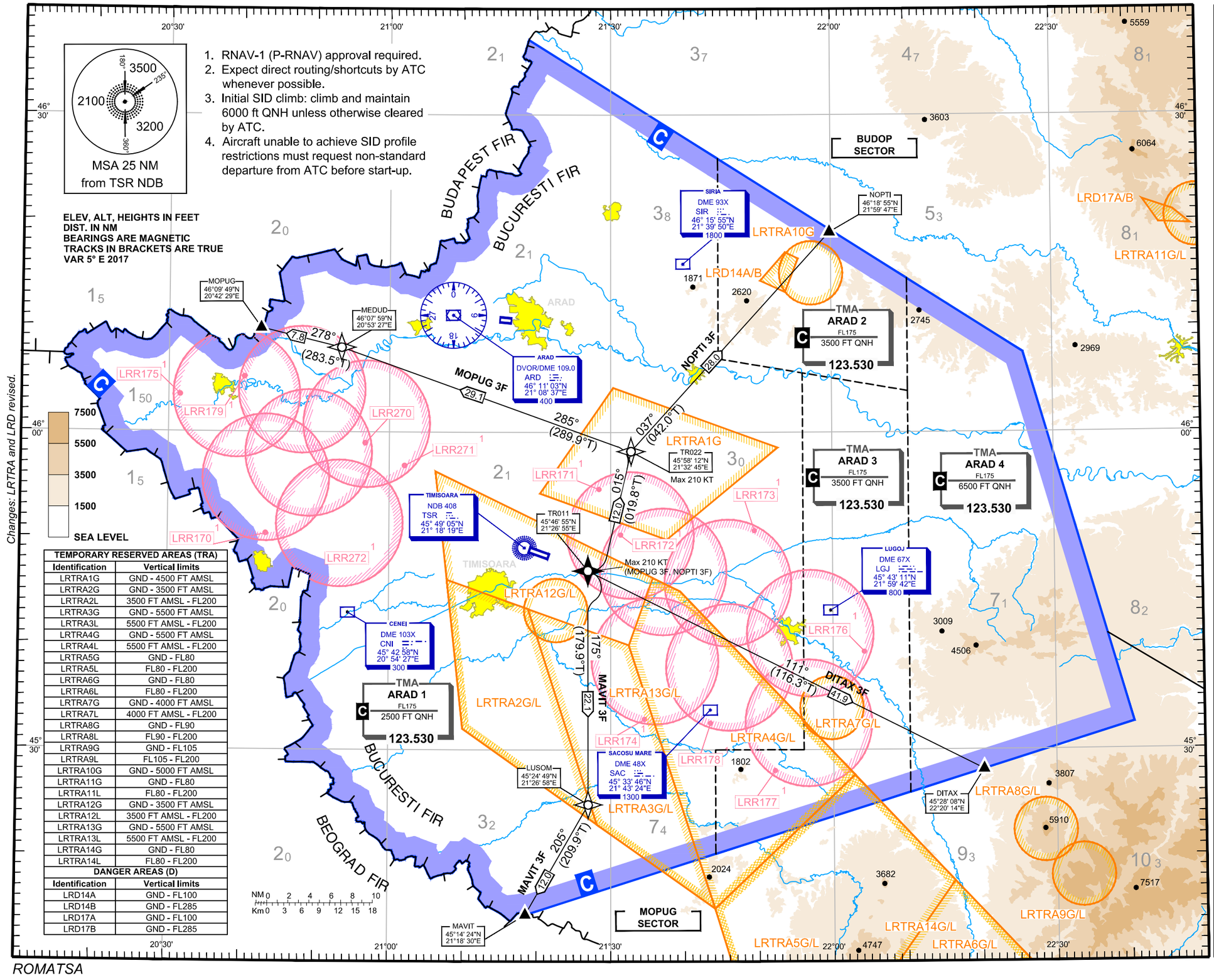
RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

SECTOR BUDOP		130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 11
DITAX 3F, MAVIT 3F, MOPUG 3F, NOPTI 3F



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

DITAX 3F / MAVIT 3F / MOPUG 3F / NOPTI 3F		
DESIGNATOR	**ROUTING**	**ALTITUDES**
DITAX 3F	TR011-DITAX	PDG min. 3.8%* After departures climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 3F	TR011-LUSOM-MAVIT	PDG min. 6.1%* After departures climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 3F	TR011[K210-]→ TR022[K210-]-MEDUD-MOPUG	After departures climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 3F	TR011[K210-]→ TR022[K210-]-NOPTI	PDG min. 4.0%* After departures climb initially 6000 ft QNH. Further climb only by ATC.

* Increased climb gradient due to airspace structure.
If unable to comply, contact ATC.

DITAX 3F		
TR011	N454655076	E0212654717
DITAX	N452808080	E0222013620
MAVIT 3F		
TR011	N454655076	E0212654717
LUSOM	N452448642	E0212658089
MAVIT	N451424000	E0211830000
MOPUG 3F		
TR011	N454655076	E0212654717
TR022	N455812266	E0213245225
MEDUD	N460759437	E0205326920
MOPUG	N460948500	E0204228979
NOPTI 3F		
TR011	N454655076	E0212654717
TR022	N455812266	E0213245225
NOPTI	N461855190	E0215946587

NOTE :
1. Vertical limits $\frac{FL255}{GND}$

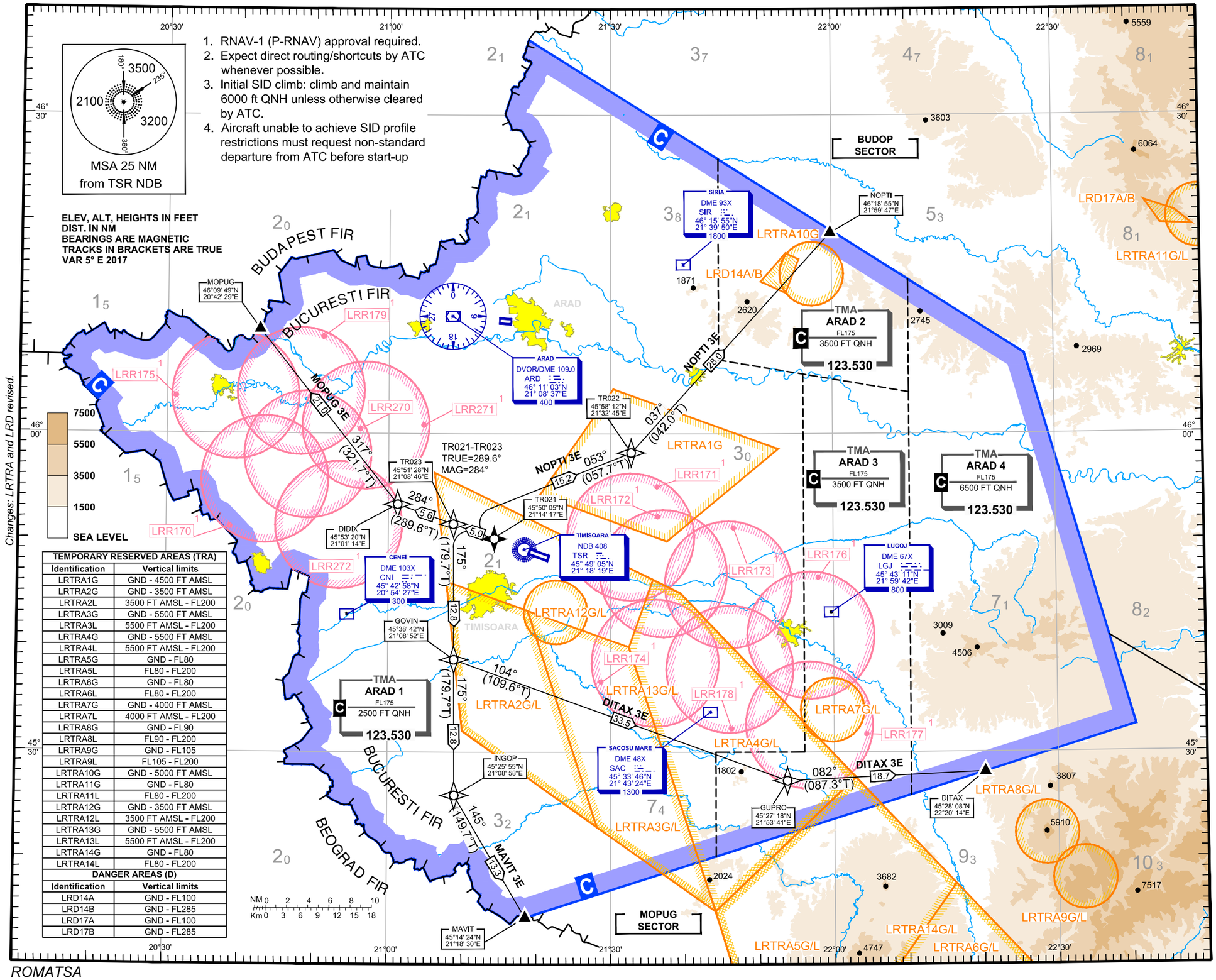
RNAV (DME/DME) DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

SECTOR BUDOP		130.230
	ALTN	124.100
	MOPUG	135.340
	ALTN	121.375

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 29
DITAX 3E, MAVIT 3E, MOPUG 3E, NOPTI 3E



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

Set transponder to 7600, then:
a) continue on assigned and acknowledged SID. After 2 minutes climb to FPL flight level.
b) If being vectored, continue on assigned heading for 2 minutes, then proceed direct to last SID WP climbing to FPL flight level.

DITAX 3E / MAVIT 3E/ MOPUG 3E / NOPTI 3E		
DESIGNATOR	**ROUTING**	**ALTITUDES**
DITAX 3E	TR023[K210-]→ GOVIN-GURPO-DITAX	After departures climb initially 6000 ft QNH. Further climb only by ATC.
MAVIT 3E	TR023[K210-]→ GOVIN-INGOP-MAVIT	PDG min. 5.0%* After departures climb initially 6000 ft QNH. Further climb only by ATC.
MOPUG 3E	TR023-DIDIX-MOPUG	PDG min.5.1%. After departures climb initially 6000 ft QNH. Further climb only by ATC.
NOPTI 3E	TR021[K210-]→ TR022-NOPTI	PDG min. 3.4%* After departures climb initially 6000 ft QNH. Further climb only by ATC.

* Increased climb gradient due to airspace structure. If unable to comply, contact ATC.

DITAX 3E		
TR023	N455128022	E0210846420
GOVIN	N453841982	E0210852487
GUPRO	N452718553	E0215340798
DITAX	N452808080	E0222013620
MAVIT 3E		
TR023	N455128022	E0210846420
GOVIN	N453841982	E0210852487
INGOP	N452554847	E0210858525
MAVIT	N451424000	E0211830000
MOPUG 3E		
TR023	N455128022	E0210846420
DIDIX	N455320418	E0210114029
MOPUG	N460948500	E0204228979
NOPTI 3E		
TR021	N455005365	E0211417518
TR022	N455812266	E0213245225
NOPTI	N461855190	E0215946587

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

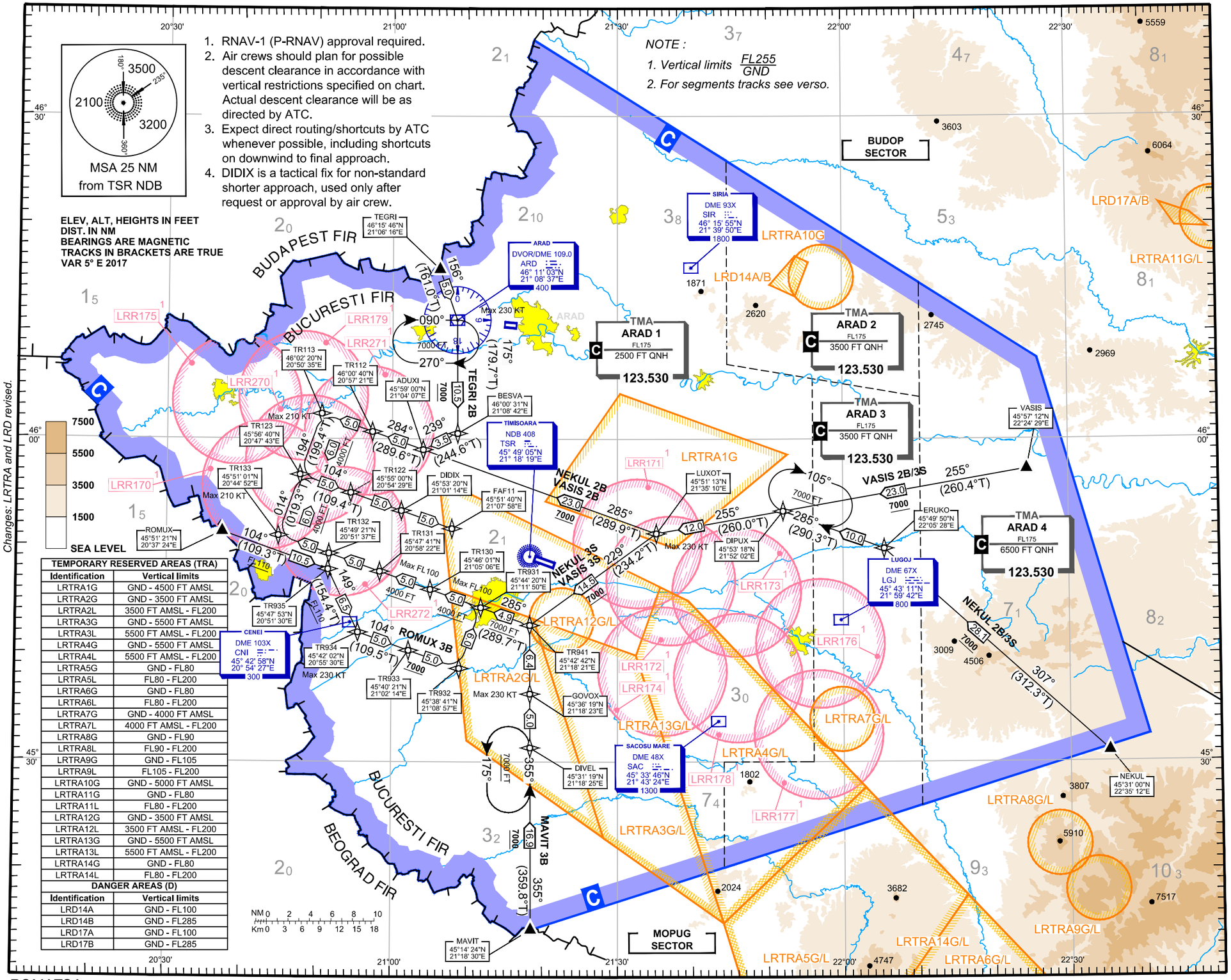
RNAV (DME/DME) ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 11
MAVIT 3B, NEKUL 2B, NEKUL 3S, ROMUX 3B, TEGRI 2B, VASIS 2B, VASIS 3S



Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

a) if STAR was assigned and acknowledged by air crew, set transponder to 7600, continue with FPL and assigned STAR, then execute approach (*ILS or NDB RWY11*) and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

b) If STAR was assigned and acknowledged by air crew and vectoring was initiated, set transponder to 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to DIDIX, then FAP/FAF and execute approach (*ILS or NDB RWY11*) and land. Descending shall be executed in accordance with vertical restrictions specified on chart.

c) If STAR was not assigned, set transponder to 7600, proceed according to FPL and FPL STAR, execute approach (*ILS or NDB RWY11*) and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600. If landing is not possible, execute missed approach and proceed to FAP/FAF of most convenient RWY, execute approach (ILS or NDB) and land.

Runway 11

DESIGNATOR	ROUTING
MAVIT 3B	MAVIT - DIVEL[A7000+] - GOVOX[K230-] - TR941 - TR931[A7000+] - TR130 - TR131[FL100-] - TR132 - TR133[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]
NEKUL 2B	NEKUL - ERUKO - DIPUX[A7000+] - LUXOT[K230-] - ADUXI[7000+] - TR112 - TR113[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]
NEKUL 3S	NEKUL - ERUKO - DIPUX[A7000+] - LUXOT[K230-] - TR941 - TR931[A7000+] - TR130 - TR131[FL100-] - TR132 - TR133[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]
ROMUX 3B	ROMUX - TR935 - TR934[FL110+;K230-] - TR933 - TR932 - TR931[A7000+] - TR130 - TR131[FL100-] - TR132 - TR133[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]
TEGRI 2B	TEGRI - ARD[A7000+; K230-] - BESVA - ADUXI[A7000+] - TR112 - TR113[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]
VASIS 2B	VASIS - DIPUX[A7000+] - LUXOT[K230-] - ADUXI[A7000+] - TR112 - TR113[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]
VASIS 3S	VASIS - DIPUX[A7000+] - LUXOT[K230-] - TR941 - TR931[A7000+] - TR130 - TR131[FL100-] - TR132 - TR133[K210-] - TR123[A4000+] - TR122 - DIDIX - FAF11[A3000]

STAR RWY 11 SEGMENTS TRACKS

SEGMENT	TRUE	MAGNETIC
NEKUL-ERUKO	312.28	307.1
ERUKO-DIPUX	290.3	285.12
VASIS-DIPUX	260.44	255.26
DIPUX-LUXOT	260.05	254.87
LUXOT-ADUXI	289.94	284.76
TEGRI-ARD	160.97	155.79
ARD-BESVA	179.68	174.5
BESVA-ADUXI	244.62	239.44
ADUXI-TR112	289.57	284.39
TR112-TR113	289.49	284.31
TR113-TR123	199.41	194.23
ROMUX-TR935	109.25	104.07
TR935-TR934	154.42	149.24
TR934-TR933	109.47	104.29
TR933-TR932	109.55	104.37
TR932-TR931	19.63	14.45
LUXOT-TR941	234.21	229.03
MAVIT-DIVEL	359.8	354.62
DIVEL-GOVOX	359.8	354.62
GOVOX-TR941	359.8	354.62
TR941-TR931	289.74	284.56
TR931-TR130	289.66	284.48
TR130-TR131	289.58	284.4
TR131-TR132	289.5	284.32
TR132-TR133	289.42	284.24
TR133-TR123	19.34	14.16
TR123-TR122	109.37	104.19
TR122-DIDIX	109.45	104.27
DIDIX-FAF11	109.53	104.35

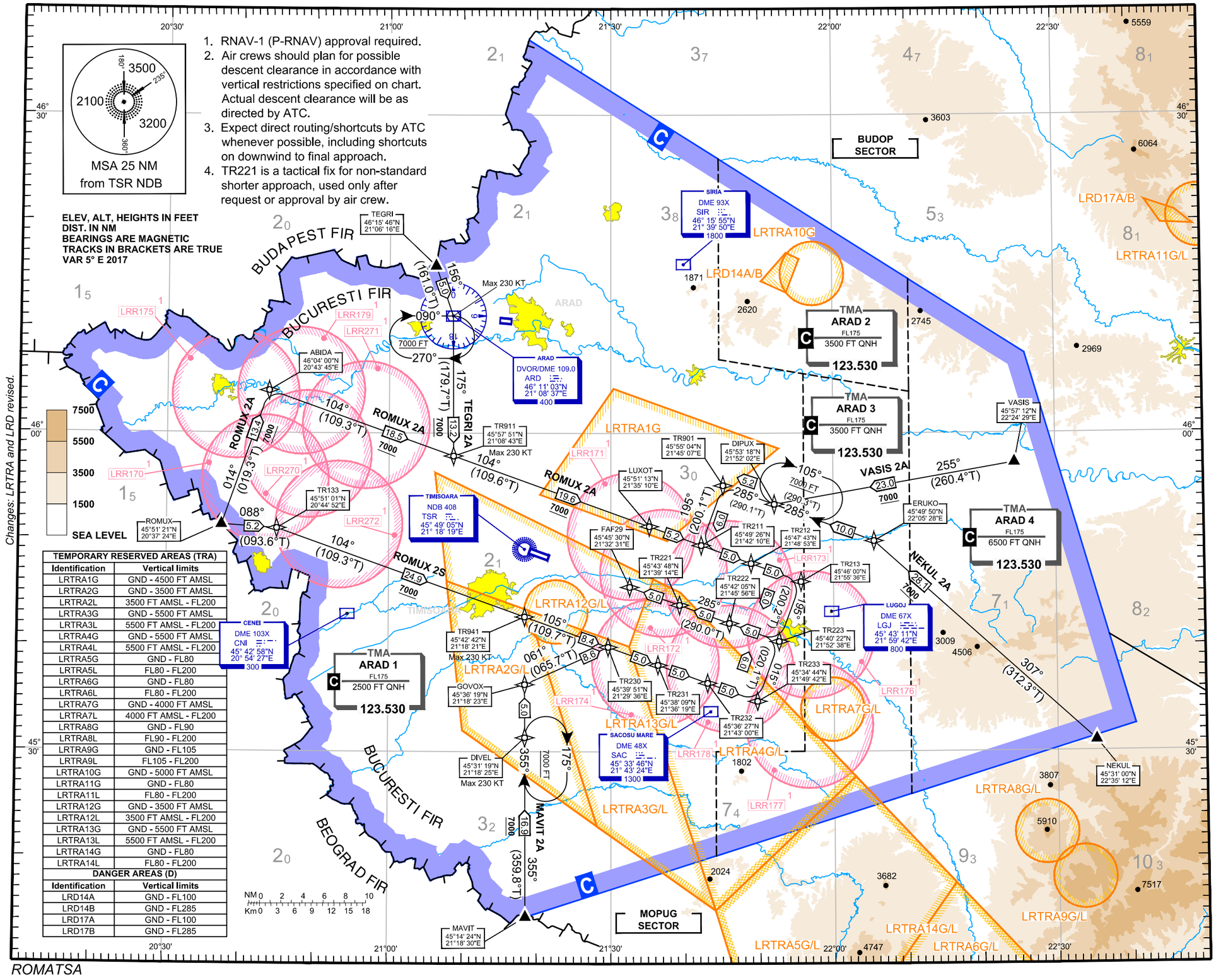
RNAV (DME/DME) ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

TMA SPEED LIMIT
MAX IAS 250KT BELOW FL100

TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)
RWY 29
MAVIT 2A, NEKUL 2A, ROMUX 2A,
ROMUX 2S, TEGRI 2A, VASIS 2A



TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

Standard Instrument Arrival Routes (STAR) are also noise abatement routings.

Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

a) if STAR was assigned and acknowledged by air crew, set transponder to 7600, continue with FPL and assigned STAR, then execute approach (*ILS or NDB RWY29*) and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.

b) If STAR was assigned and acknowledged by air crew and vectoring was initiated, set transponder to 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 min. from setting 7600. Then proceed direct to TR221, then FAP/FAF and execute approach (*ILS or NDB RWY29*) and land. Descending shall be executed in accordance with vertical restrictions specified on chart.

c) If STAR was not assigned, set transponder to 7600, proceed according to FPL and FPL STAR, execute approach (*ILS or NDB RWY29*) and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600. If landing is not possible, execute missed approach and proceed to FAP/FAF of most convenient RWY, execute approach (ILS or NDB) and land.

Runway 29	
DESIGNATOR	**ROUTING**
MAVIT 2A	MAVIT - DIVEL[A7000+; K230-] - GOVOX - TR230[A7000+] - TR231 - TR232 - TR233[K210-] - TR223[A4000+] - TR222 - TR221 - FAF29[A3000]
NEKUL 2A	NEKUL - ERUKO - DIPUX[A7000+; K230-] - TR901 - TR211 - TR212 - TR213[K210-] - TR223[A4000+] - TR222 - TR221 - FAF29[A3000]
ROMUX 2A	ROMUX - ABIDA - TR911[K230-] - LUXOT[A7000+] - TR211 - TR212 - TR213[K210-] - TR223[A4000+] - TR222 - TR221 - FAF29[A3000]
ROMUX 2S	ROMUX - TR133 - TR941[K230-] - TR230[A7000+] - TR231 - TR232 - TR233[K210-] - TR223[A4000+] - TR222 - TR221 - FAF29[A3000]
TEGRI 2A	TEGRI - ARD[A7000+; K230-] - TR911[K230-] - LUXOT[A7000+] - TR211 - TR212 - TR213[K210-] - TR223[A4000+] - TR222 - TR221 - FAF29[A3000]
VASIS 2A	VASIS - DIPUX[A7000+; K230-] - TR901 - TR211 - TR212 - TR213[K210-] - TR223[A4000+] - TR222 - TR221 - FAF29[A3000]

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

2. For segment track see verso.

STAR RWY 29 SEGMENTS TRACKS

SEGMENT	TRUE	MAGNETIC
NEKUL-ERUKO	312.28	307.1
ERUKO-DIPUX	290.3	285.12
VASIS-DIPUX	260.44	255.26
TEGRI-ARD	160.97	155.79
MAVIT-DIVEL	359.8	354.62
DIVEL-GOVOX	359.8	354.62
DIPUX-TR901	290.14	284.96
TR901-TR211	200.06	194.88
ARD-TR911	179.68	174.5
ROMUX-ABIDA	19.25	14.07
ABIDA-TR911	109.32	104.14
TR911-LUXOT	109.62	104.44
LUXOT-TR211	109.94	104.76
TR211-TR212	110.02	104.84
TR212-TR213	110.1	104.92
TR213-TR223	200.18	195.0
ROMUX-TR133	93.61	88.43
TR133-TR941	109.34	104.16
TR941-TR230	109.74	104.56
GOVOX-TR230	65.69	60.51
TR230-TR231	109.87	104.69
TR231-TR232	109.95	104.77
TR232-TR233	110.03	104.85
TR233-TR223	20.11	14.93
TR223-TR222	290.15	284.97
TR222-TR221	290.07	284.89
TR221-FAF29	290.04	284.86

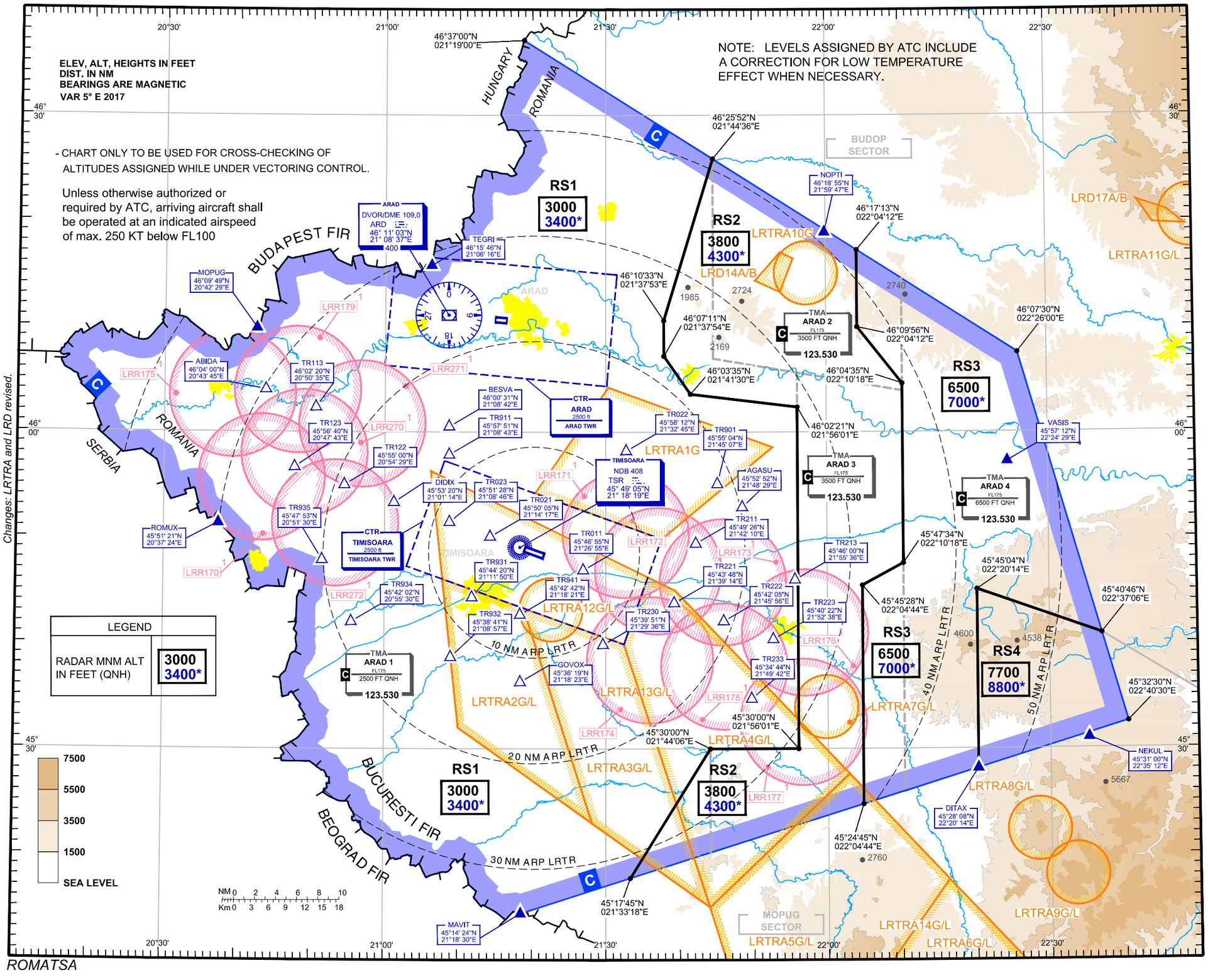
ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AERODROME ELEV
348 ft
TRANSITION ALTITUDE
9000 ft

Arad Approach	123.530
Arad Approach ALTN	126.350
Timisoara Tower	120.105
Timisoara Tower ALTN	129.450
Timisoara GND	121.600
Timisoara ATIS	123.125

SECTOR BUDOP	130.230
ALTN	124.100
MOPUG	135.340
ALTN	121.375

TIMIŞOARA / Traian Vuia - Timişoara (LRTR)



Changes: LRTRA and LRD revised.

RADIO COMMUNICATION FAILURE

a) SID communication failure procedure
Set transponder 7600. Continue on assigned heading for 2 minutes, then proceed direct to last SID REP climbing to FPL flight level. Climbing shall be executed in accordance with vertical restrictions specified on chart.

b) P-RNAV STAR communication failure procedure
Set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 minutes from setting 7600. Then proceed direct FAP/FAF and execute an instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.

c) Conventional STAR communication failure procedure
Set transponder 7600 and continue on assigned heading and last cleared and acknowledged altitude for 2 minutes from setting 7600. Then proceed direct *TSR NDB* and execute an instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.

Minimum altitudes integrating a correction for low temperatures from **+0°C and **lower**.*

NOTE :

1. Vertical limits $\frac{FL255}{GND}$

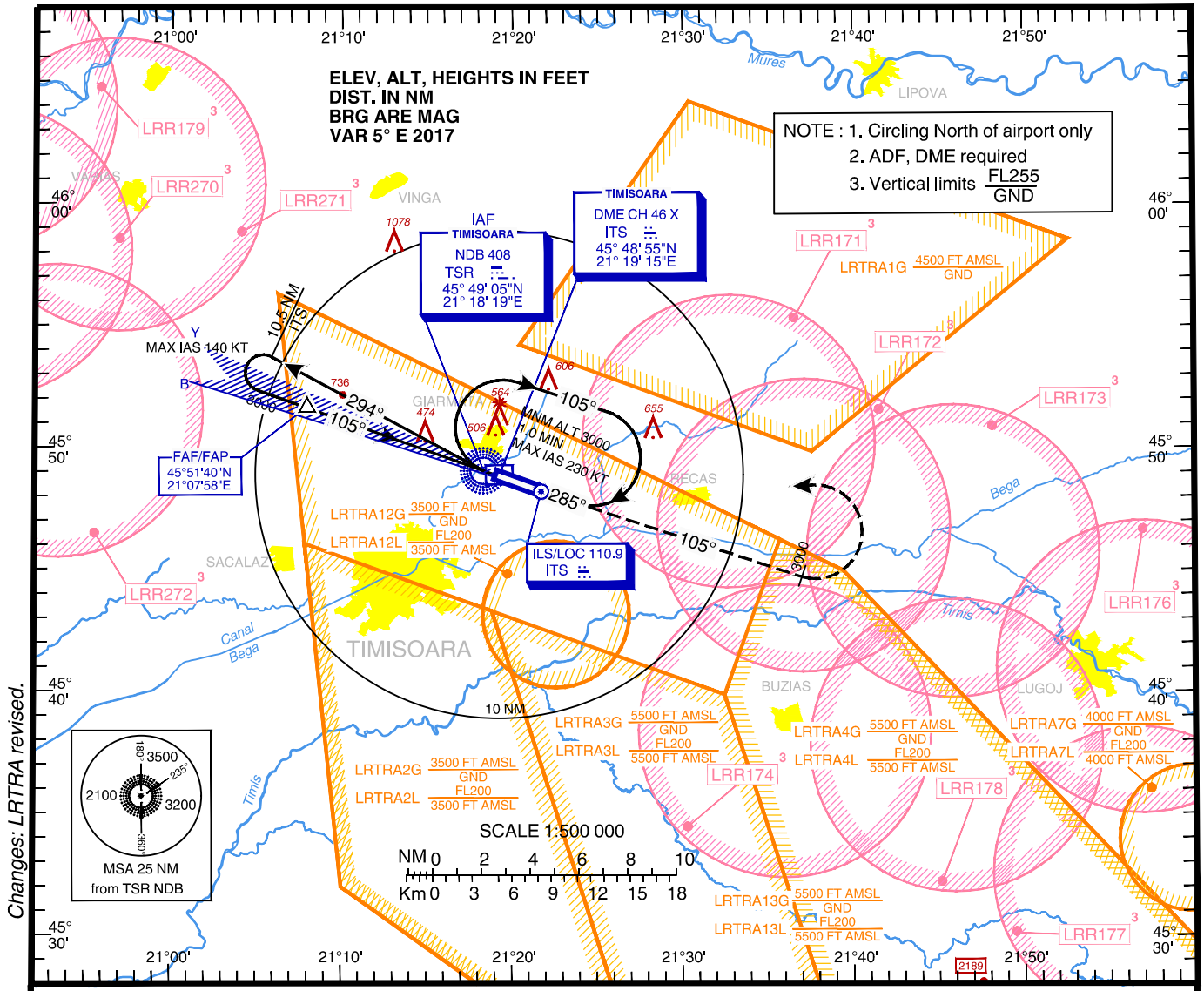
TEMPORARY RESERVED AREAS (TRA)	
Identification	**Vertical limits**
LRTRA1G	GND - 4500 FT AMSL
LRTRA2G	GND - 3500 FT AMSL
LRTRA2L	3500 FT AMSL - FL200
LRTRA3G	GND - 5500 FT AMSL
LRTRA3L	5500 FT AMSL - FL200
LRTRA4G	GND - 5500 FT AMSL
LRTRA4L	5500 FT AMSL - FL200
LRTRA5G	GND - FL80
LRTRA5L	FL80 - FL200
LRTRA6G	GND - FL80
LRTRA6L	FL80 - FL200
LRTRA7G	GND - 4000 FT AMSL
LRTRA7L	4000 FT AMSL - FL200
LRTRA8G	GND - FL90
LRTRA8L	FL90 - FL200
LRTRA9G	GND - FL105
LRTRA9L	FL105 - FL200
LRTRA10G	GND - 5000 FT AMSL
LRTRA11G	GND - FL80
LRTRA11L	FL80 - FL200
LRTRA12G	GND - 3500 FT AMSL
LRTRA12L	3500 FT AMSL - FL200
LRTRA13G	GND - 5500 FT AMSL
LRTRA13L	5500 FT AMSL - FL200
LRTRA14G	GND - FL80
LRTRA14L	FL80 - FL200
DANGER AREAS (D)	
Identification	**Vertical limits**
LRD14A	GND - FL100
LRD14B	GND - FL285
LRD17A	GND - FL100
LRD17B	GND - FL285

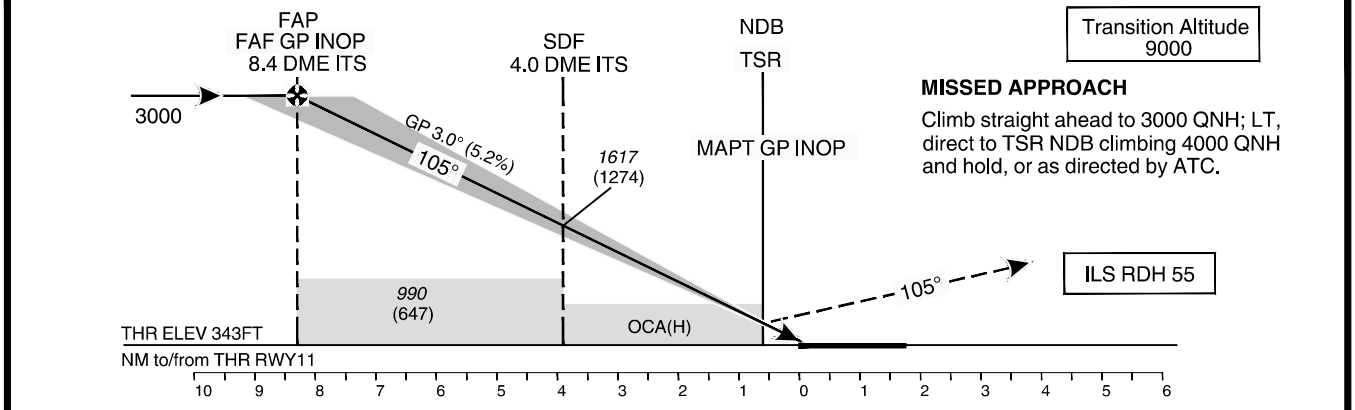
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV **348 ft**
HEIGHTS RELATED TO
THR RWY 11 ELEV 343

ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

TIMIŞOARA / Traian Vuia (LRTR)
ILS
RWY 11
CAT A, B





OCA(H)		A	B
Straight-in Approach	ILS CAT I	540 (197)	552 (209)
	ILS CAT II	452 (109)	469 (126)
	ILS GP INOP	720 (377)	
Circling		810	860

GS	kts	70	90	100	120
FAF - MAPT 7.7 NM	min:s	6:35	5:07	4:37	3:51
Rate of descent (5.2%)	ft/min	372	478	531	637

Dist to ITS DME	NM	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
Dist to THR 11		7.8	6.8	5.8	4.8	3.8	2.8	1.8	0.8
Altitude (Height)	FT	2891 (2548)	2572 (2229)	2254 (1911)	1935 (1592)	1617 (1274)	1299 (956)	980 (637)	662 (319)

CAT IIIA approved

Timing not authorized for defining MAPt

For data tabulation see verso

TIMIŞOARA / Traian Vuia (LRTR)
ILS RWY 11, CAT A, B

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 11, CAT A, B.	
Fix/Point	**Coordinates**
TSR NDB (IAF/MAPT GP INOP)	45°49'04.7"N 021°18'19.5"E
ITS LOC	45°48'13.7"N 021°21'42.6"E
ITS DME	45°48'55.0"N 021°19'15.4"E
10.5 D ITS – BRG 293.64° TSR	45°53'49.3"N 021°05'54.9"E
FAF/FAP – BRG 104.60° / D 8.35 ITS	45°51'40.0"N 021°07'58.4"E
SDF – BRG 104.60° / D 4.00 ITS	45°50'12.1"N 021°13'50.4"E
MAPt (TSR NDB)	45°49'04.7"N 021°18'19.5"E
THR RWY 11	45°48'54.57"N 021°19'00.06"E

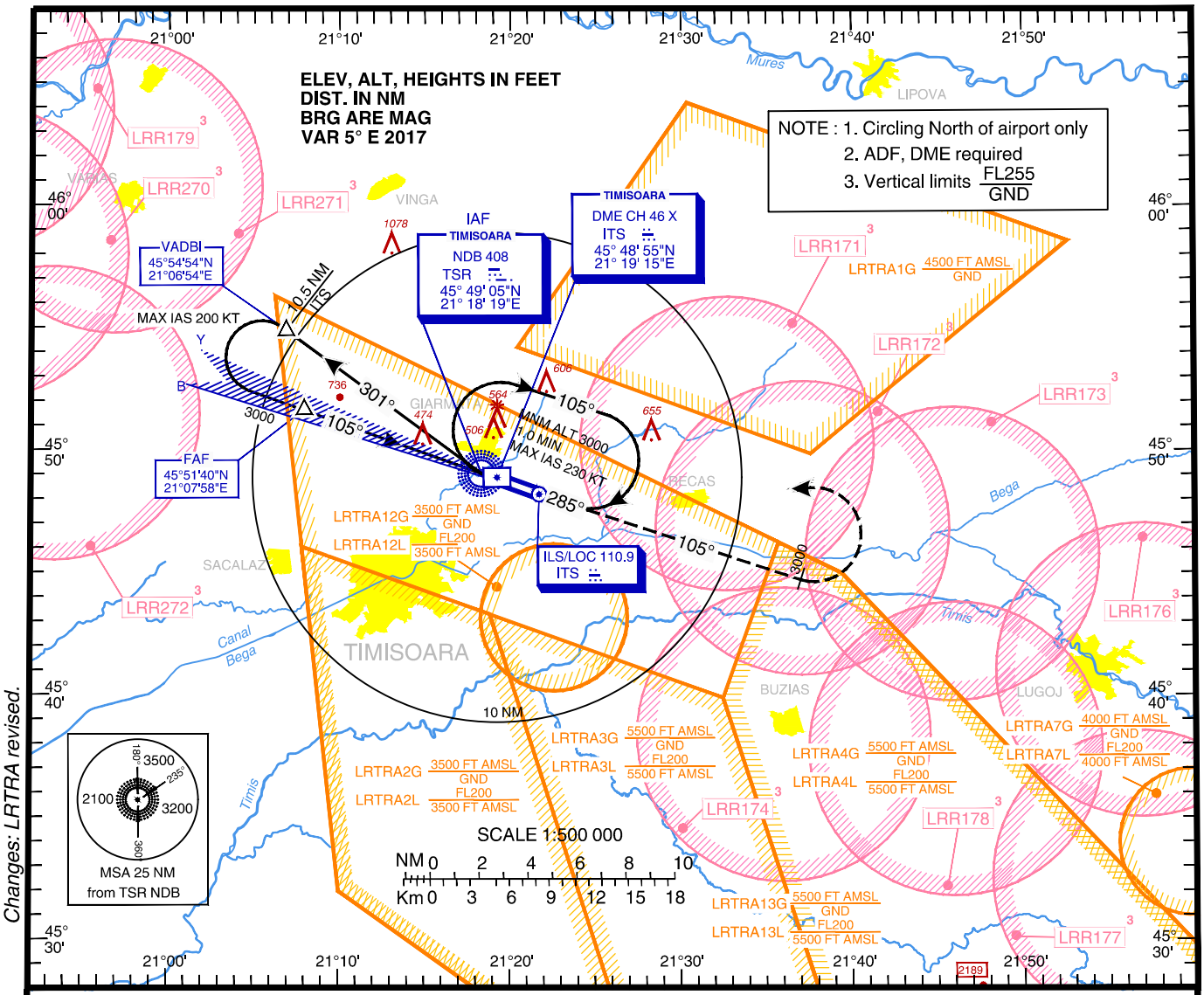
INSTRUMENT APPROACH CHART - ICAO

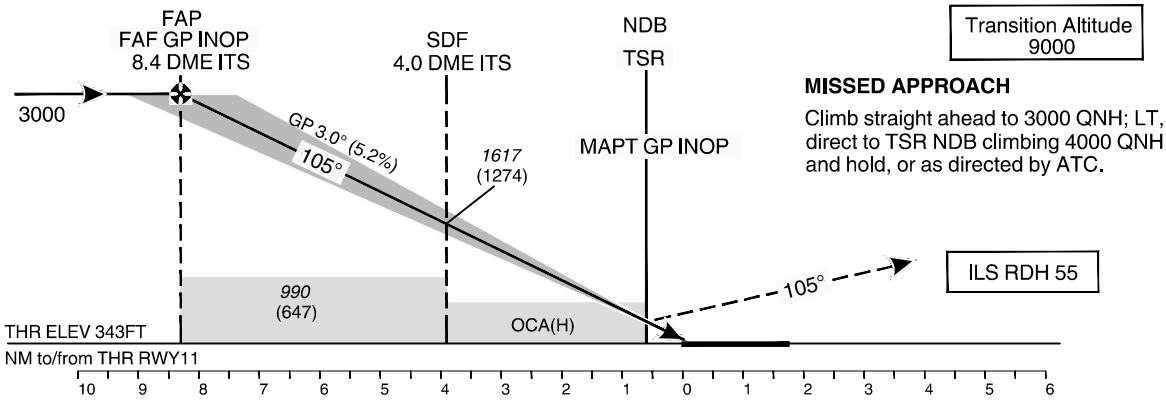
AERODROME ELEV **348 ft**
HEIGHTS RELATED TO
THR RWY 11 ELEV 343

ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

TIMIŞOARA / Traian Vuia (LRTR)
ILS
RWY 11
CAT C, D

Changes: LRTRA revised.





Transition Altitude 9000

MISSED APPROACH

Climb straight ahead to 3000 QNH; LT, direct to TSR NDB climbing 4000 QNH and hold, or as directed by ATC.

OCA(H)		C	D
Straight-in Approach	ILS CAT I	560 (217)	571 (228)
	ILS CAT II	481 (138)	496 (153)
	ILS GP INOP	720 (377)	
Circling		1000	1050

GS	kts	100	120	140	160
FAF - MAPT 7.7 NM	min:s	4:37	3:51	3:18	2:53
Rate of descent (5.2%)	ft/min	531	637	743	849

Dist to ITS DME	NM	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
Dist to THR 11		7.8	6.8	5.8	4.8	3.8	2.8	1.8	0.8
Altitude (Height)	FT	2891 (2548)	2572 (2229)	2254 (1911)	1935 (1592)	1617 (1274)	1299 (956)	980 (637)	662 (319)

CAT IIIA approved

Timing not authorized for defining MAPt

For data tabulation see verso

TIMIŞOARA / Traian Vuia (LRTR)
ILS RWY 11, CAT C, D

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 11, CAT C, D.	
Fix/Point	**Coordinates**
TSR NDB (IAF/MAPT GP INOP)	45°49'04.7"N 021°18'19.5"E
ITS LOC	45°48'13.7"N 021°21'42.6"E
ITS DME	45°48'55.0"N 021°19'15.4"E
VADBI – BRG 300.83° TSR	45°54'53.6"N 021°06'54.2"E
FAF/FAP – BRG 104.60° / D 8.35 ITS	45°51'40.0"N 021°07'58.4"E
SDF – BRG 104.60° / D 4.00 ITS	45°50'12.1"N 021°13'50.4"E
MAPt (TSR NDB)	45°49'04.7"N 021°18'19.5"E
THR RWY 11	45°48'54.57"N 021°19'00.06"E

AERODROME ELEV. 348 ft

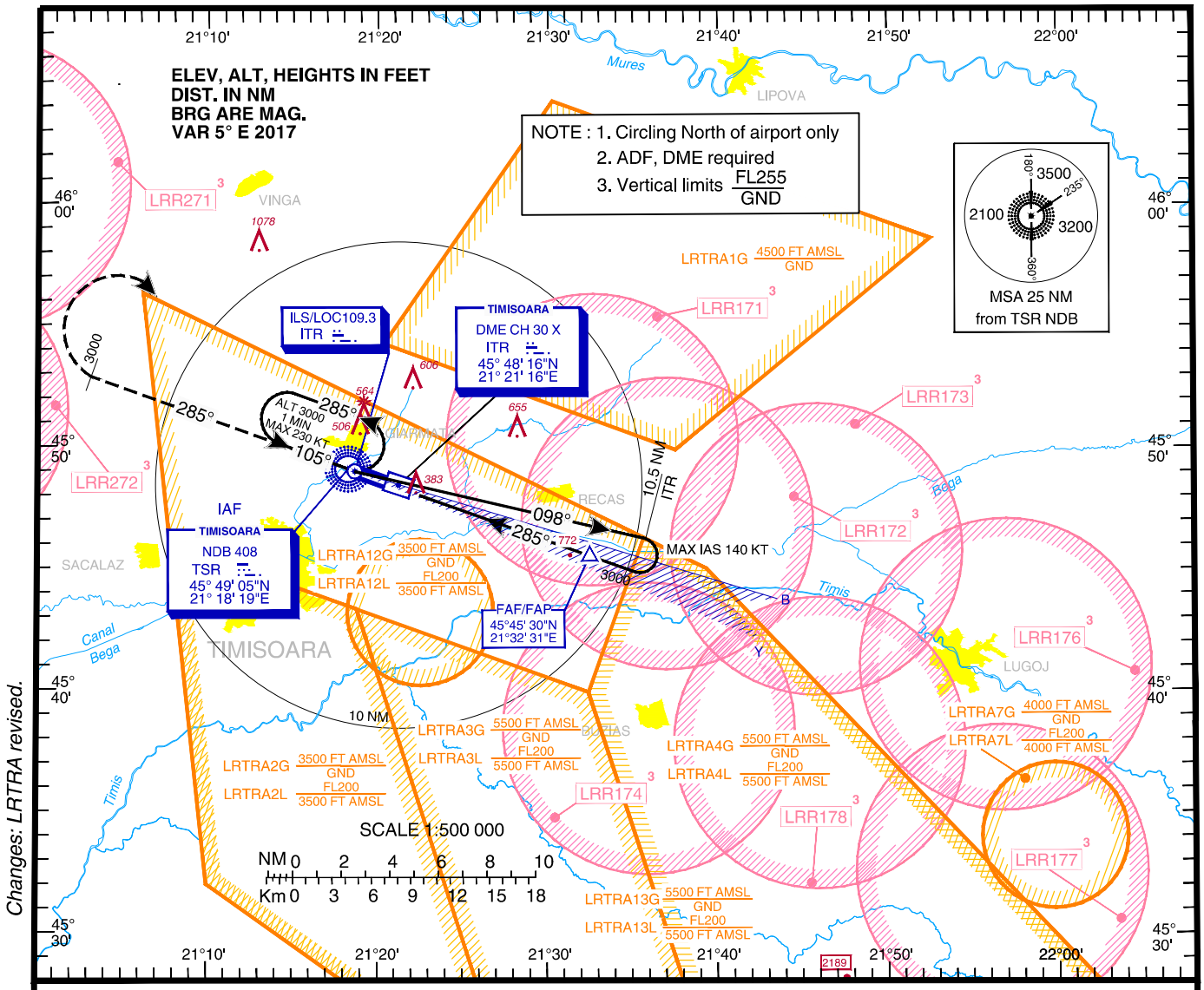
TIMIŞOARA / Traian Vuia (LRTR)

INSTRUMENT APPROACH CHART - ICAO

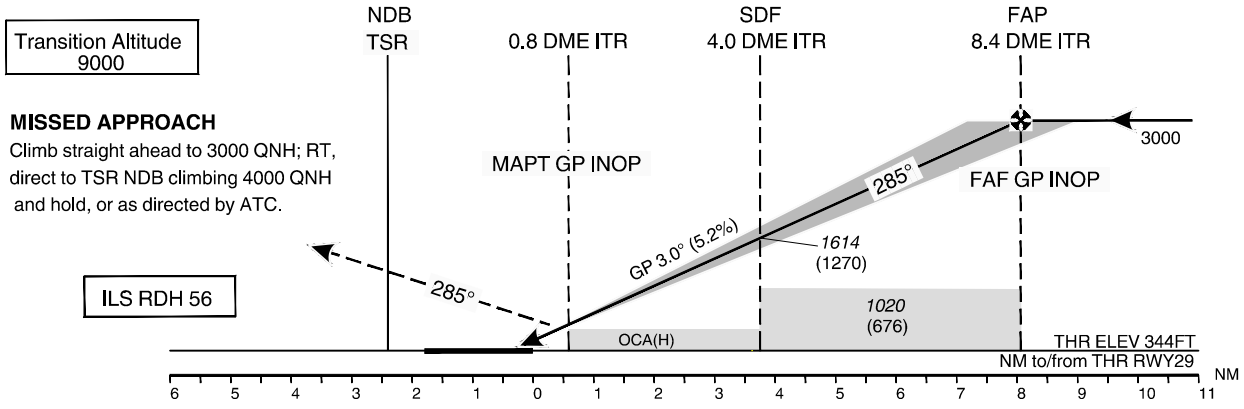
HEIGHTS RELATED TO THR RWY 29 - ELEV 344

ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

ILS
RWY 29
CAT A, B



Changes: LRTRA revised.



OCA(H)		A	B
Straight-in Approach	ILS CAT I	531 (187)	544 (200)
	ILS CAT II	443 (99)	461 (117)
	ILS GP INOP	630 (286)	
Circling		810	860

GS	kts	70	90	100	120
FAF - MAPT 7.55 NM	min:s	6:28	5:02	4:32	3:46
Rate of descent (5.2%)	ft/min	372	478	531	637

Dist to ITR DME	NM	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Dist to THR 29	NM	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8
Altitude (Height)	FT	659 (315)	977 (633)	1296 (952)	1614 (1270)	1933 (1589)	2251 (1907)	2570 (2226)	2888 (2544)

CAT IIIA approved

Timing not authorised for defining MAPt.

For data tabulation see verso

TIMISOARA / Traian Vuia (LRTR)
ILS RWY 29, CAT A, B

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 29, CAT A, B	
Fix/Point	**Coordinates**
TSR NDB (IAF)	45°49'04.7"N 021°18'19.5"E
ITR LOC	45°48'59.1"N 021°18'42.0"E
ITR DME	45°48'16.2"N 021°21'15.7"E
10.5 D ITR – BRG 097.57°TSR NDB	45°46'17.9"N 021°35'48.8"E
FAF/FAF - BRG 284.54° / D 8.35 ITR	45°45'30.3"N 021°32'30.8"E
SDF – BRG 284.56° / D 4.00 ITR	45°46'58.7"N 021°26'40.4"E
MAPt – BRG 284.56° / D 0.80 ITR	45°°48'03.8"N 021°22'22.0"E
THR RWY 29	45°48'16.24"N 021°21'32.61"E

INSTRUMENT APPROACH CHART - ICAO

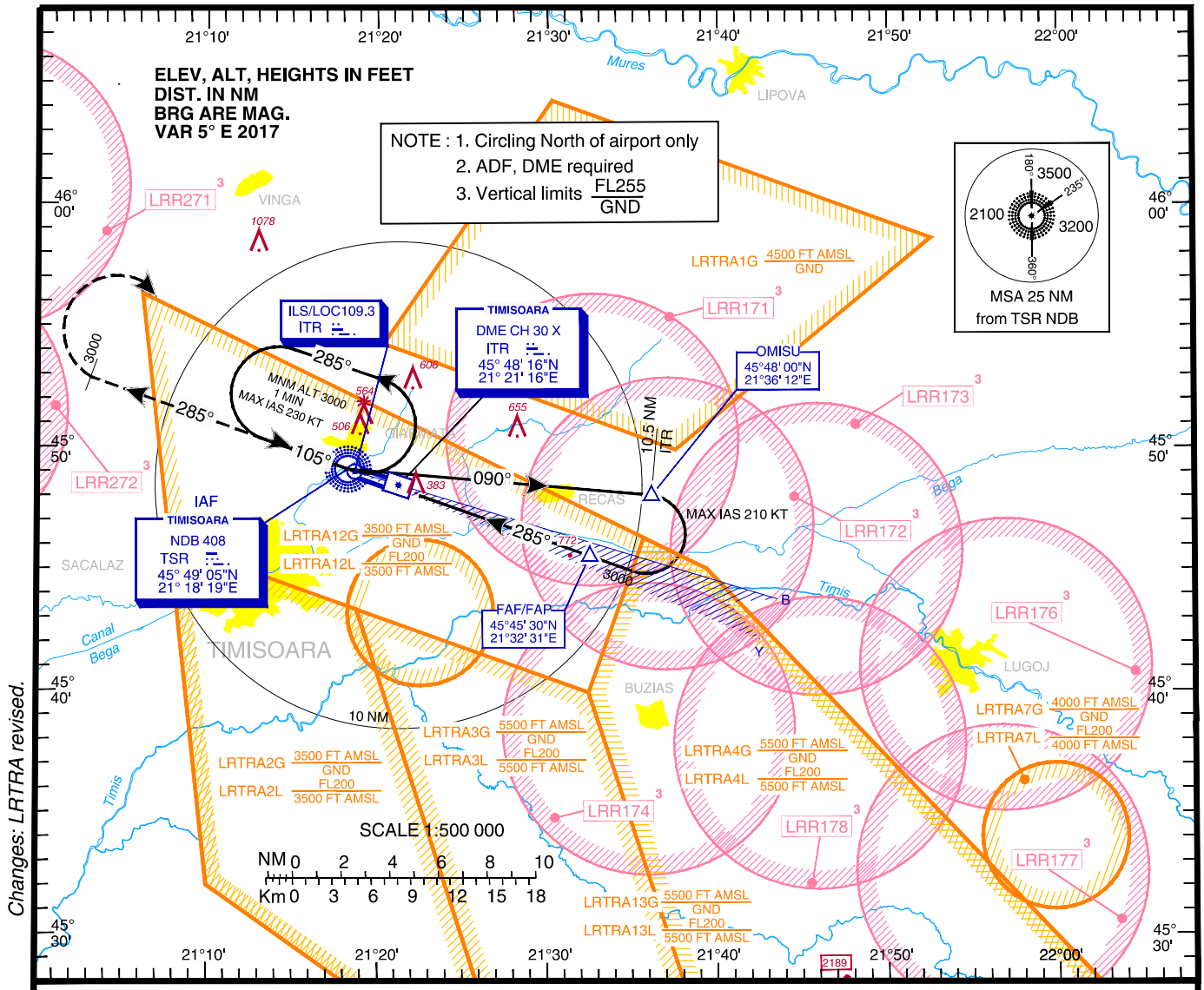
AERODROME ELEV. **348 ft**

HEIGHTS RELATED TO THR RWY 29 - ELEV 344

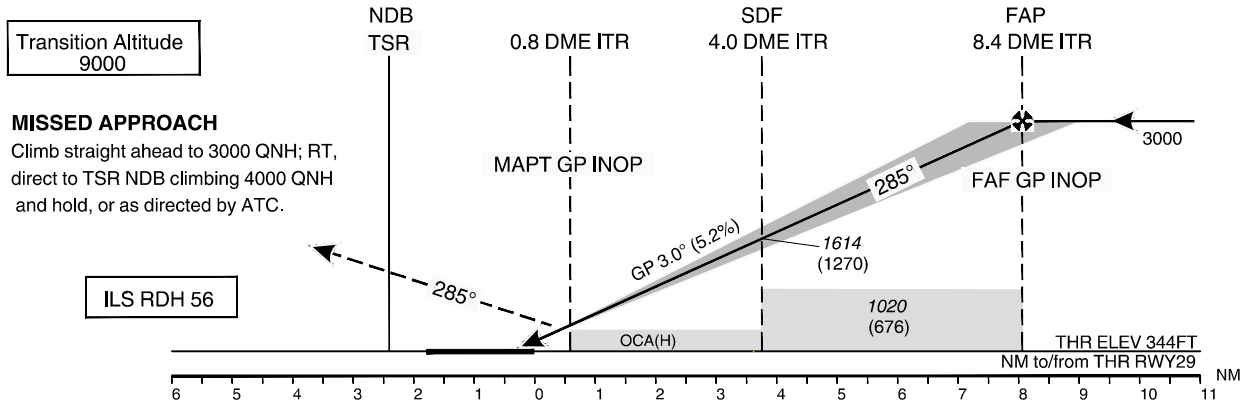
ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

TIMIŞOARA / Traian Vuia (LRTR)

ILS
RWY 29
CAT C, D



Changes: LRTRA revised.



OCA(H)		C	D
Straight-in Approach	ILS CAT I	552 (208)	562 (218)
	ILS CAT II	472 (128)	487 (143)
	ILS GP INOP	630 (286)	
Circling		1000	1050

CAT IIIA approved

GS	kts	100	120	140	160
FAF - MAPT 7.55 NM	min:s	4:32	3:46	3:14	2:50
Rate of descent	ft/min	531	637	743	849

Dist to ITR DME	NM	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Dist to THR 29	NM	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8
Altitude (Height)	FT	659 (315)	977 (633)	1296 (952)	1614 (1270)	1933 (1589)	2251 (1907)	2570 (2226)	2888 (2544)

Timing not authorised for defining MAPt.

For data tabulation see verso

TIMISOARA / Traian Vuia (LRTR)
ILS RWY 29, CAT C, D

AERONAUTICAL DATA TABULATION

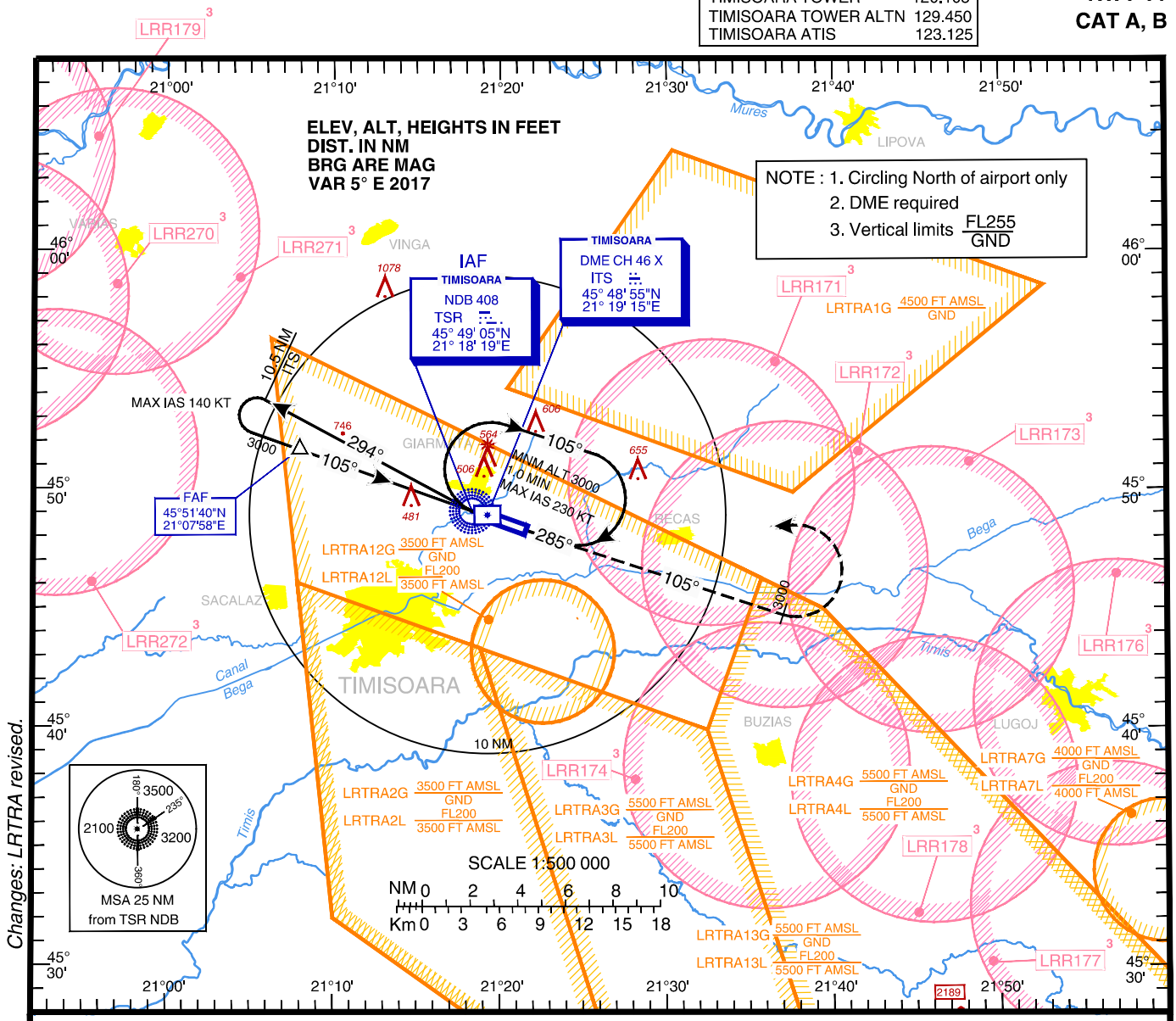
ILS Approach to RWY 29, CAT C, D	
Fix/Point	**Coordinates**
TSR NDB (IAF)	45°49'04.7"N 021°18'19.5"E
ITR LOC	45°48'59.1"N 021°18'42.0"E
ITR DME	45°48'16.2"N 021°21'15.7"E
OMISU – BRG 089.89° TSR NDB	45°47'59.6"N 021°36'12.1"E
FAF/FAP – BRG 284.54° / D 8.35 ITR	45°45'30.3"N 021°32'30.8"E
SDF – BRG 284.56° / D 4.00 ITR	45°46'58.7"N 021°26'40.4"E
MAPt – BRG 284.56° / D 0.80 ITR	45°48'03.8"N 021°22'22.0"E
THR RWY 29	45°48'16.24"N 021°21'32.61"E

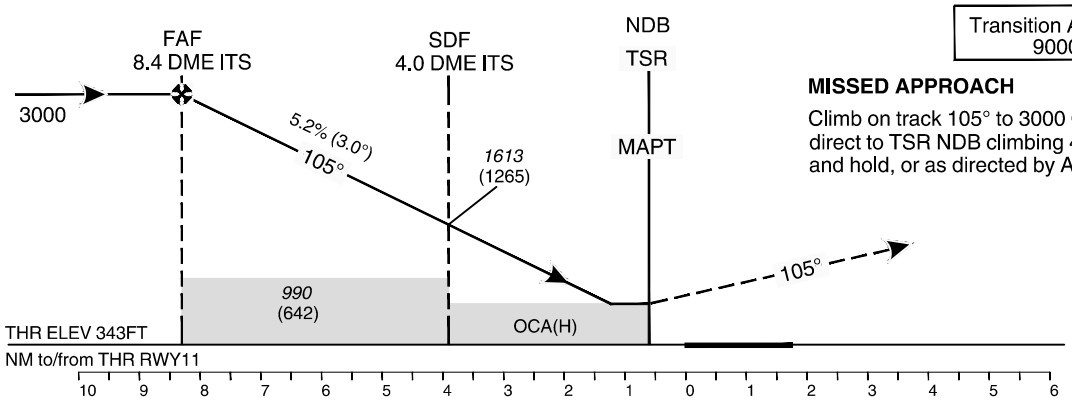
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **348 ft**
HEIGHTS RELATED TO AD ELEV.

ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

TIMIŞOARA / Traian Vuia (LRTR)
NDB
RWY 11
CAT A, B





Transition Altitude 9000

MISSED APPROACH

Climb on track 105° to 3000 QNH; LT, direct to TSR NDB climbing 4000 QNH and hold, or as directed by ATC.

OCA(H)	A	B
Straight-in Approach	730 (382)	
Circling	810	860

GS	kts	70	90	100	120
FAF - MAPT 7.7 NM	min:s	6:35	5:07	4:37	3:51
Rate of descent (5.2%)	ft/min	372	478	531	637

Dist to ITS DME	NM	8.0	7.0	6.0	5.0	4.0	3.0	2.0
Dist to THR 11		7.8	6.8	5.8	4.8	3.8	2.8	1.8
Altitude (Height)	FT	2887 (2539)	2568 (2220)	2250 (1902)	1931 (1583)	1613 (1265)	1295 (947)	976 (628)

Timing not authorized for defining MAPt

For data tabulation see verso

TIMIŞOARA / Traian Vuia (LRTR)
NDB RWY 11, CAT A,B

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 11, CAT A, B	
Fix/Point	**Coordinates**
TSR NDB (IAF, MAPT)	45°49'04.7"N 021°18'19.5"E
ITS DME	45°48'55.0"N 021°19'15.4"E
10.5 D ITS – BRG 293.64° TSR NDB	45°53'49.3"N 021°05'54.9"E
FAF – BRG 104.56° TSR NDB / D 8.35 ITS	45°51'40.0"N 021°07'58.4"E
SDF – BRG 104.55° TSR NDB / D 4.00 ITS	45°50'12.1"N 021°13'50.4"E
THR RWY 11	45°48'54.57"N 021°19'00.06"E

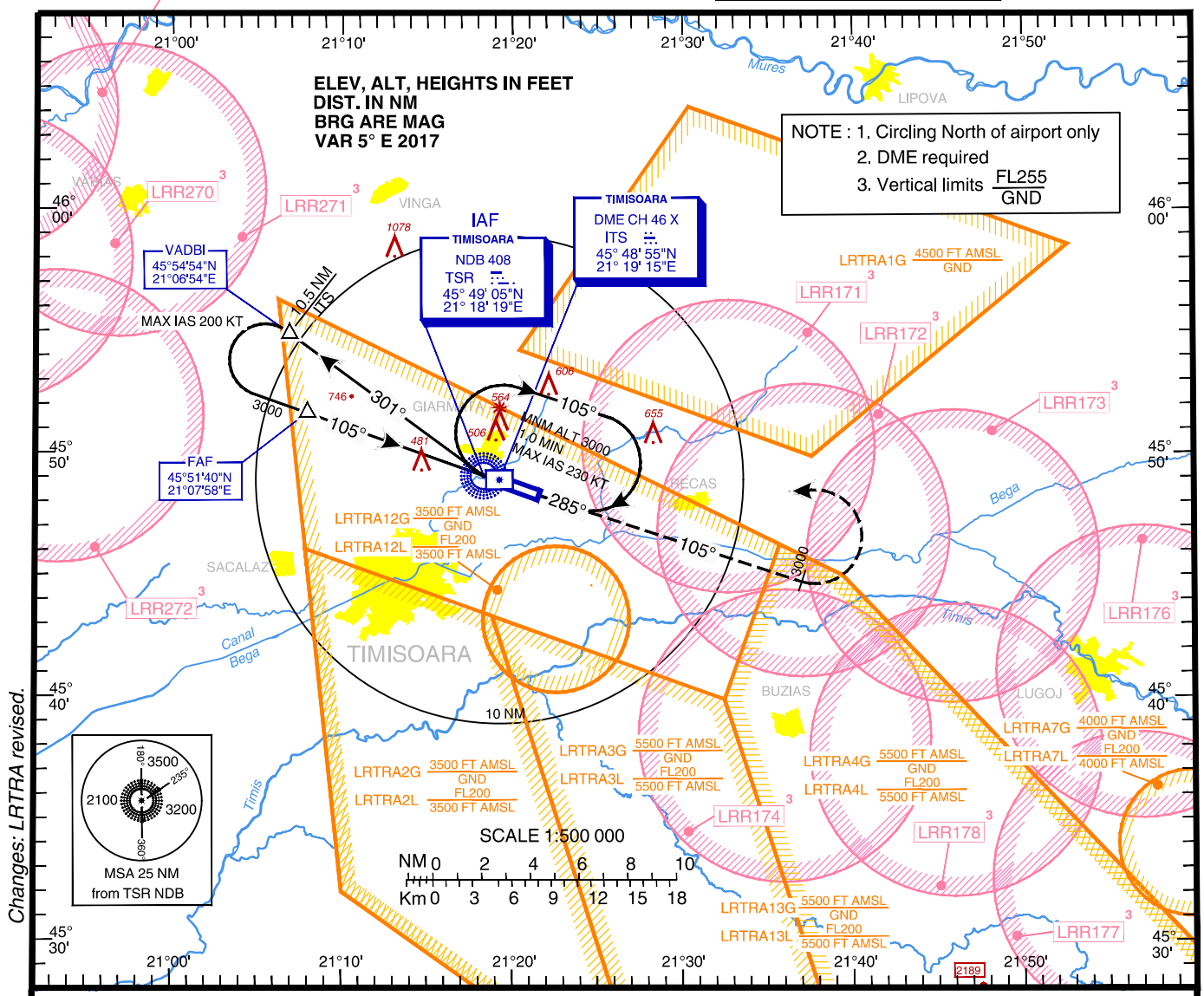
Final approach descent angle: 3.00°

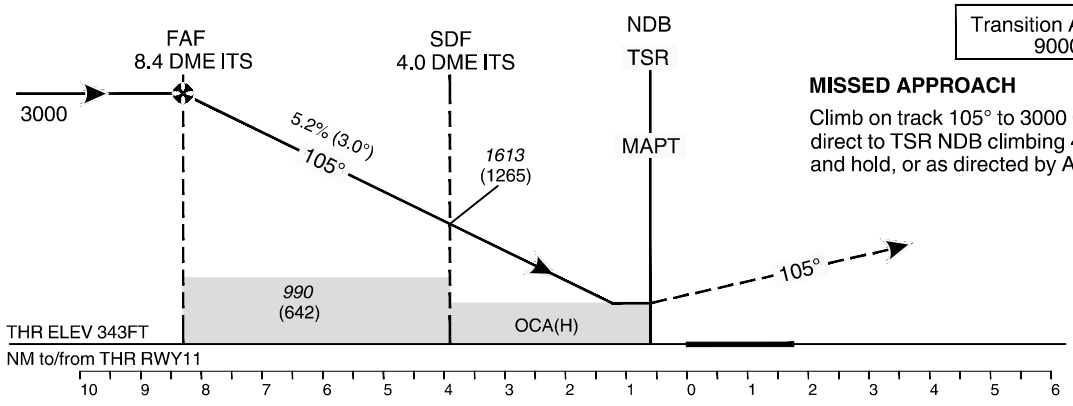
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **348 ft**
HEIGHTS RELATED TO AD ELEV.

ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

TIMIŞOARA / Traian Vuia (LRTR)
NDB
RWY 11
CAT C, D





Transition Altitude 9000

MISSED APPROACH

Climb on track 105° to 3000 QNH; LT, direct to TSR NDB climbing 4000 QNH and hold, or as directed by ATC.

OCA(H)	C	D
Straight-in Approach	730 (382)	
Circling	1000	1050

GS	kts	100	120	140	160
FAF - MAPT 7.7 NM	min:s	4:37	3:51	3:18	2:53
Rate of descent (5.2%)	ft/min	531	637	743	849

Dist to ITS DME	NM	8.0	7.0	6.0	5.0	4.0	3.0	2.0
Dist to THR 11		7.8	6.8	5.8	4.8	3.8	2.8	1.8
Altitude (Height)	FT	2887 (2539)	2568 (2220)	2250 (1902)	1931 (1583)	1613 (1265)	1295 (947)	976 (628)

Timing not authorized for defining MAPt

For data tabulation see verso

TIMIŞOARA / Traian Vuia (LRTR)
NDB RWY 11, CAT C, D

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 11, CAT C, D	
Fix/Point	**Coordinates**
TSR NDB (IAF, MAPT)	45°49'04.7"N 021°18'19.5"E
ITS DME	45°48'55.0"N 021°19'15.4"E
VADBI – BRG 300.83°TSR NDB	45°54'53.6"N 021°06'54.2"E
FAF – BRG 104.56° TSR NDB / D 8.35 ITS	45°51'40.0"N 021°07'58.4"E
SDF – BRG 104.55° TSR NDB / D 4.00 ITS	45°50'12.1"N 021°13'50.4"E
THR RWY 11	45°48'54.57"N 021°19'00.06"E

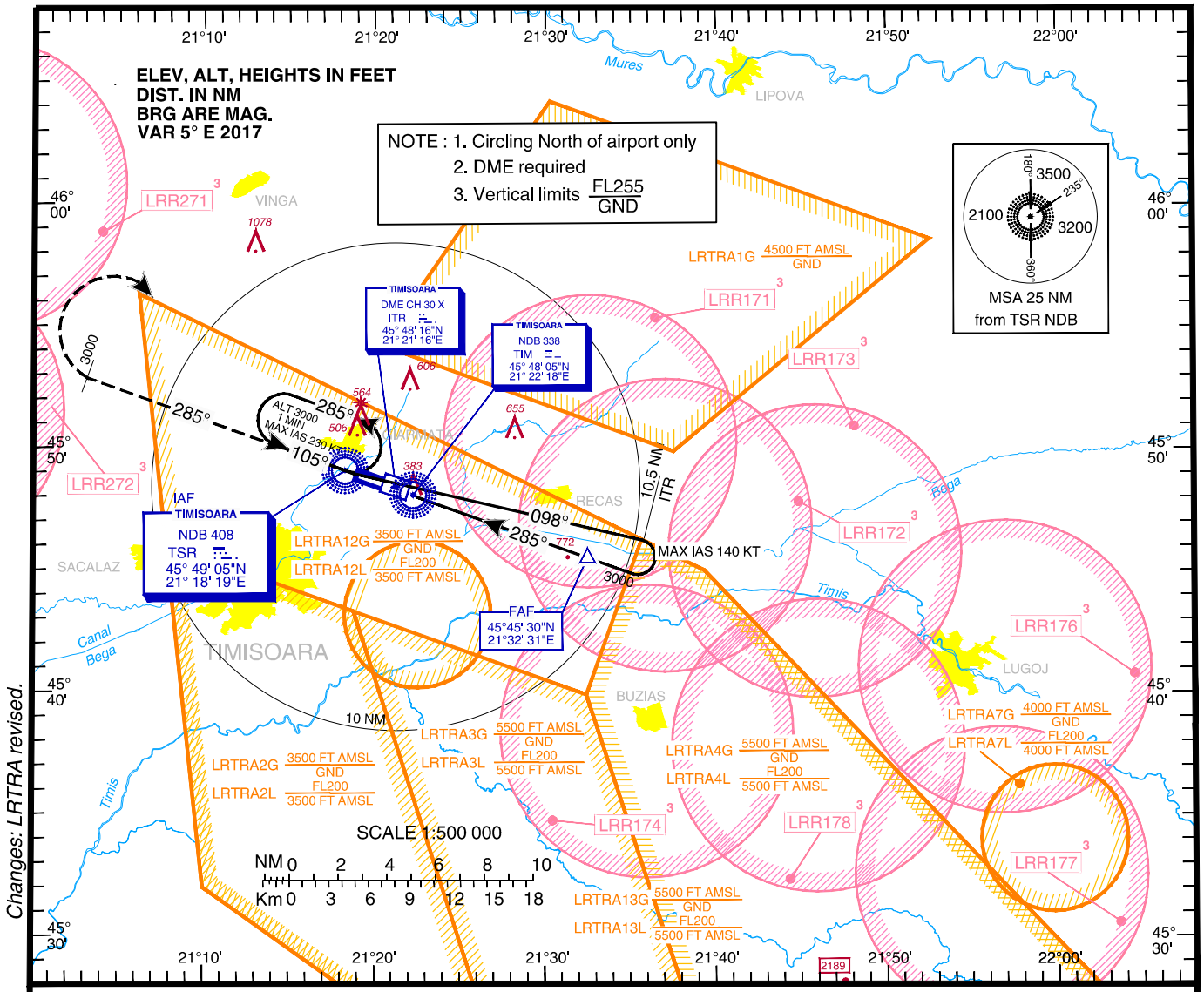
Final approach descent angle: 3.00°

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **348 ft**
HEIGHTS RELATED TO AD ELEV.

TIMIŞOARA / Traian Vuia (LRTR)
NDB
RWY 29
CAT A, B

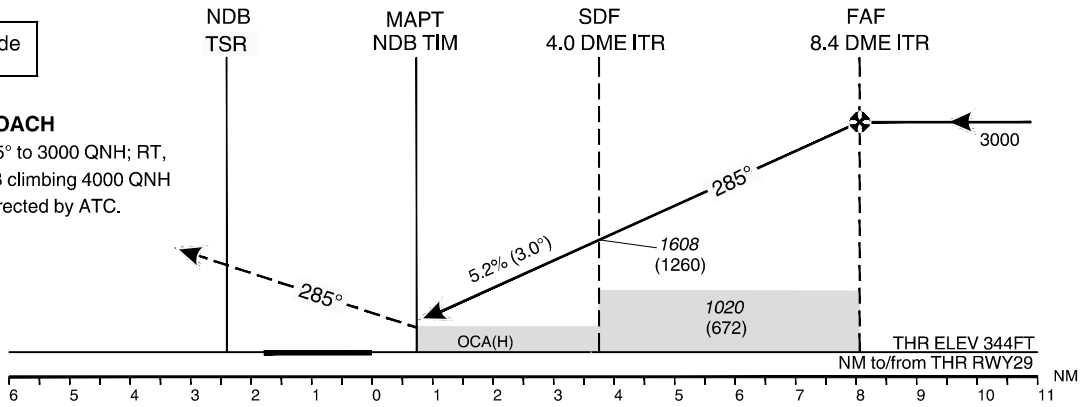
ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125



Changes: LRTRA revised.

Transition Altitude 9000

MISSED APPROACH
Climb on track 285° to 3000 QNH; RT, direct to TSR NDB climbing 4000 QNH and hold, or as directed by ATC.



OCA(H)	A	B
Straight-in Approach	630 (282)	
Circling	810	860

GS	kts	70	90	100	120
FAF - MAPT 7.6 NM	min:s	6:30	5:04	4:33	3:48
Rate of descent (5.2%)	ft/min	372	478	531	637

Dist to ITR DME	NM	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Dist to THR 29	NM	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8
Altitude (Height)	FT	653 (305)	971 (623)	1290 (942)	1608 (1260)	1927 (1579)	2245 (1897)	2564 (2216)	2882 (2534)

Timing not authorised for defining MAPt.

For data tabulation see verso

TIMISOARA / Traian Vuia (LRTR)
NDB RWY 29, CAT A, B

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 29, CAT A, B	
Fix/Point	**Coordinates**
TSR NDB (IAF)	45°49'04.7"N 021°18'19.5"E
TIM NDB (MAPt)	45°48'04.7"N 021°22'18.4"E
ITR DME	45°48'16.2"N 021°21'15.7"E
10.5 D ITR – BRG 097.57° TSR NDB	45°46'17.9"N 021°35'48.8"E
FAF – BRG 284.54° TSR NDB / D 8.35 ITR	45°45'30.3"N 021°32'30.8"E
SDF - BRG 284.56° TSR NDB / D 4.00 ITR	45°46'58.7"N 021°26'40.4"E
THR RWY 29	45°48'16.24"N 021°21'32.61"E

Final approach descent angle: 3.00**º**

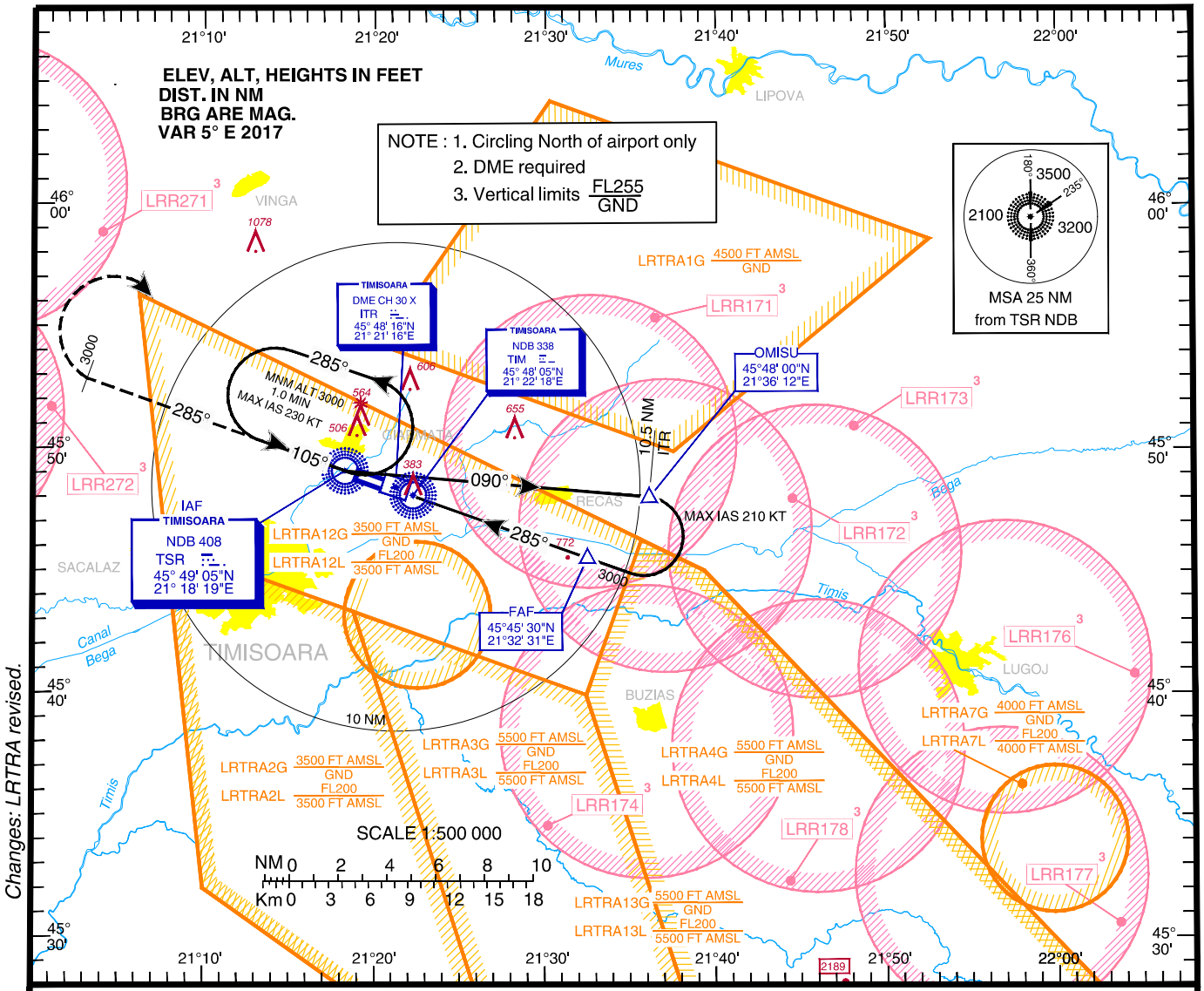
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **348 ft**
HEIGHTS RELATED TO AD ELEV.

TIMIŞOARA / Traian Vuia (LRTR)
NDB
RWY 29
CAT C, D

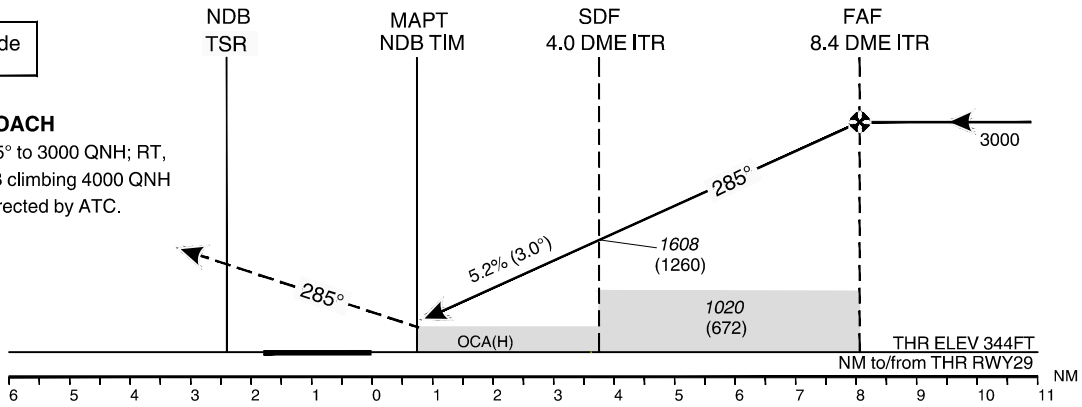
ARAD APPROACH	123.530
ARAD APPROACH ALTN	126.350
TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA ATIS	123.125

Changes: LRTRA revised.



Transition Altitude 9000

MISSED APPROACH
Climb on track 285° to 3000 QNH; RT, direct to TSR NDB climbing 4000 QNH and hold, or as directed by ATC.



OCA(H)	C	D
Straight-in Approach	630 (282)	
Circling	1000	1050

GS	kts	100	120	140	160
FAF - MAPT 7.6 NM	min:s	4:33	3:48	3:15	2:51
Rate of descent	ft/min	531	637	743	849

Dist to ITR DME	NM	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Dist to THR 29	NM	0.8	1.8	2.8	3.8	4.8	5.8	6.8	7.8
Altitude (Height)	FT	653 (305)	971 (623)	1290 (942)	1608 (1260)	1927 (1579)	2245 (1897)	2564 (2216)	2882 (2534)

Timing not authorised for defining MAPt.

For data tabulation see verso

TIMISOARA / Traian Vuia (LRTR)
NDB RWY 29, CAT C, D

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 29, CAT C, D	
Fix/Point	**Coordinates**
TSR NDB (IAF)	45°49'04.7"N 021°18'19.5"E
TIM NDB (MAPt)	45°48'04.7"N 021°22'18.4"E
ITR DME	45°48'16.2"N 021°21'15.7"E
OMISU - BRG 089.89° TSR NDB	45°47'59.6"N 021°36'12.1"E
FAF – BRG 284.54° TSR NDB / D 8.35 ITR	45°45'30.3"N 021°32'30.8"E
SDF - BRG 284.56° TSR NDB / D 4.00 ITR	45°46'58.7"N 021°26'40.4"E
THR RWY 29	45°48'16.24"N 021°21'32.61"E

Final approach descent angle: 3.00**º**

LRTC AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRTC - TULCEA / Delta Dunării

LRTC AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP co-ordinates and site at AD*	450346N 0284252E Runway centre.
2	*Direction and distance from city*	13 km South from Tulcea.
3	*Elevation/Reference temperature/Mean low temperature*	200 FT / 31.4°C / -11.4°C
4	*Geoid undulation at AD ELEV PSN*	105 FT
5	*MAG VAR/ Annual rate of change*	6°E (2019) / 7.2'E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	R. A. AEROPORTUL "DELTA DUNĂRII" TULCEA, Şos. Tulcea-Constanţa Km 15 Loc. Tulcea, Judeţul Tulcea, România Tel: +40-(0)240-512910; +40-(0)240-513552 Fax: +40-(0)240-511040; Tel/Fax TWR: +40-(0)240-511581 AFS: LRTCRAYD SITA: TCEAPXH e-mail: office@aeroportul-tulcea.ro; ops@aeroportul-tulcea.ro; handling@aeroportul-tulcea.ro web: www.aeroportul-tulcea.ro
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRTC AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	W: 0530-1730; S: 0430-1630
2	*Customs and immigration*	As AD Operator
3	*Health and sanitation*	As AD Operator
4	*AIS Briefing Office*	See GEN 3.1-6
5	*ATS Reporting Office (ARO)*	See ENR 1.10-3
6	*MET Briefing Office*	As AD Operator
7	*ATS*	As AD Operator
8	*Fuelling*	W: 0530-1730; S: 0430-1630
9	*Handling*	As AD Operator
10	*Security*	As AD Operator
11	*De-icing*	W: 0530-1730; S: 0430-1630
12	*Remarks*	Outside the operational hours services are available O/R, submitted to the AD not later than 1300.

LRTC AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	1 tractor 2.67 t, 1 GPU 115V AC 400HZ/28V DC/90KVA type GPU-4090-T-CUP, 1 GPU 28V DC/20KVA type GPU-600-S 6883 A-2, 1 ASU type ASU-600-150, 1 ACE type ACE302-H-cup, 1 water supply type WSC 300, 1 lavatory equipment type LSC 100/300, 1 towbar type DPTB 033/B737, 1 towbar - A320/321, 1 towbar AN24/AN26, 1 conveyor belt A/C type NBL, 1 passenger stair type PPS 30 (H.max 3.05m H.min 1.6m), 2 passenger stairs (H.max 4.9m H.min 2.8m), 1 towing tractor type TMX-150/12t, 10 baggage carts type BT 1500, 4 baggage carts type BDK 1520, 1 follow-me car, one airport surface friction tester ASFT/T10.
2	*Fuel/Oil types*	Kerosene JET A1/NIL
3	*Fuelling facilities/capacity*	Store house fuel/100t for JET A1. Skid on apron JET A1 500L per min.
4	*De-icing facilities*	2 de/anti-icing units, type II ACFT de/anti-icing fluide.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	NIL

LRTC AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Snack bar on the AD.
3	*Transportation*	Buses and minibuses from the city.
4	*Medical facilities*	1 ambulance on the airport, 1 first aid room on the airport, hospitals in the city.
5	*Bank and Post Office*	In the city.
6	*Tourist Office*	In the city.
7	*Remarks*	NIL

LRTC AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	CAT 7
2	*Rescue equipment*	2 Rescue and firefighting vehicles with extrication equipment.
3	*Capability for removal of disabled aircraft*	Cranes AVBL via contractor.
4	*Remarks*	NIL

LRTC AD 2.7 RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING, AND SNOW PLAN

1	*Types of clearing equipment*	1 combine equipment with plough, brush, sweep blower and de-icing liquid spreader, 1 snowblower, 1 small truck with blade, cup and spreader de-icing.
2	*Clearance priorities*	1. RWY 16/34 2. TWY A, C 3. Apron 4. Other surfaces
3	*Use of material for movement area surface treatment*	Generic fluids and solid materials used for runway de/anti-icing are KAC (potassium acetate) and NAAC (sodium acetate).
4	*Specially prepared winter runways*	NIL
5	*Remarks*	Information on RWY surface condition in Global Reporting Format is published by SNOWTAM. See also the snow plan in section AD 1.2.2. Unit of the airport operator providing information on the progress of the snow removal and the conditions of the movement area: Ground Operations Service - TEL: +40747658792.

LRTC AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	Surface: Strength:	Concrete 71/R/C/W/T Stands 1, 2 116/R/A/W/T Stands 3, 4 54/R/C/W/T Stands 5, 6
2	*Taxiway designation, width, surface and strength*	Width: Surface: Strength:	TWY A: 18 M TWY B: 18 M TWY C: 18 M TWY A, TWY B, TWY C: Concrete TWY A: 52/R/C/W/T TWY B: 54/R/C/W/T TWY C: 98/R/A/W/T
3	*ACL location and elevation*	NIL	
4	*VOR checkpoints*	NIL	
5	*INS checkpoints*	INS1: 450348.82N 0284303.07E INS2: 450350.26N 0284301.89E INS3: 450351.80N 0284301.41E INS4: 450353.34N 0284300.91E INS5: 450354.36N 0284259.52E INS6: 450354.99N 0284259.32E	
6	*Remarks*	RWY turning bay:	Location: THR 16, THR 34 Surface: Asphalt Dimensions: 100 M x 20 M Strength: THR 16 - 61/F/C/W/T THR 34 - 135/F/C/W/T

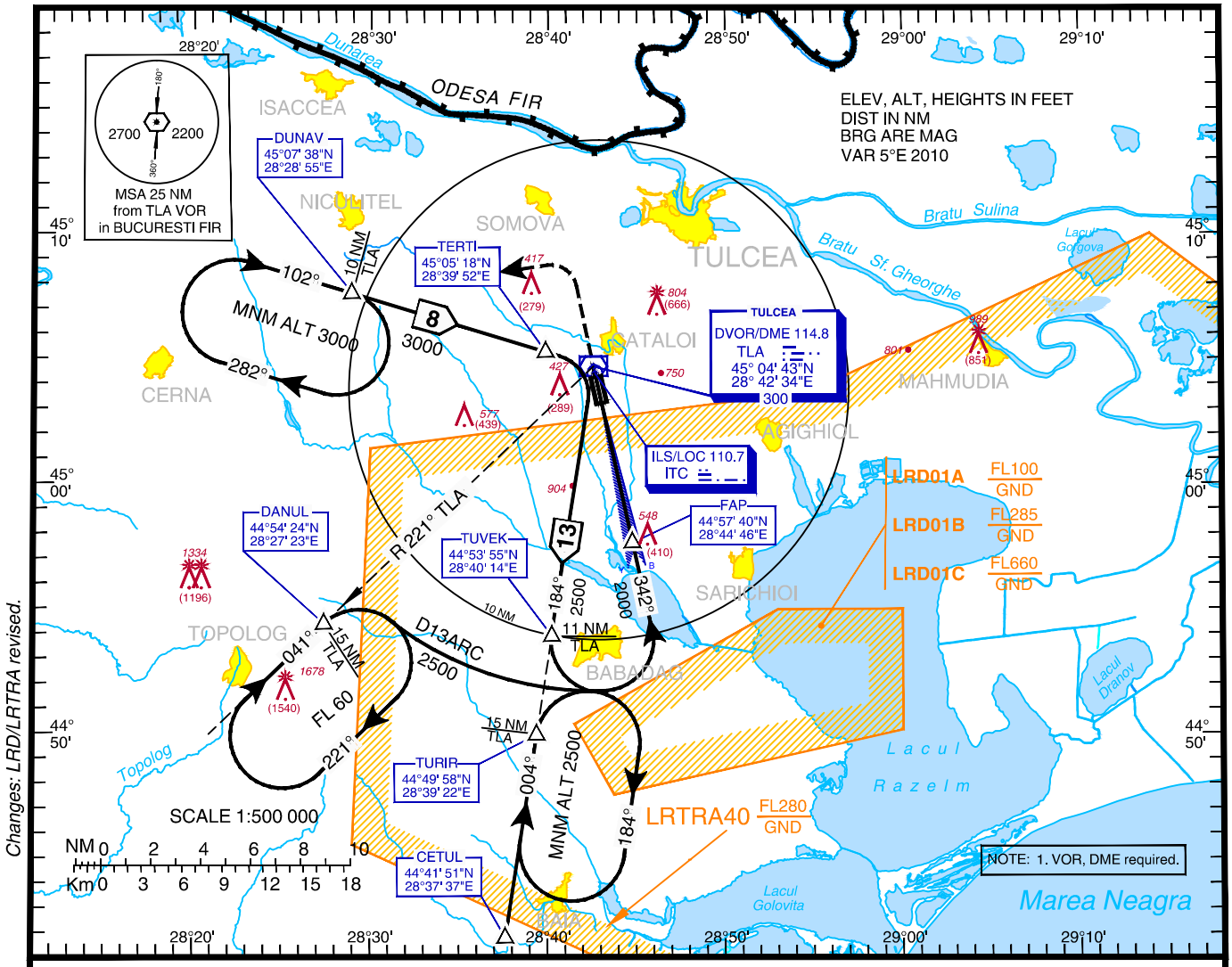
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **200 ft**
HEIGHTS RELATED TO
THR RWY 34 ELEV **138 ft**

TULCEA / DELTA DUNĂRII (LRTC)

TULCEA TOWER 119.755
TULCEA TWR ALTN 120.300

ILS
RWY 34



Changes: LRD/LRTRA revised.

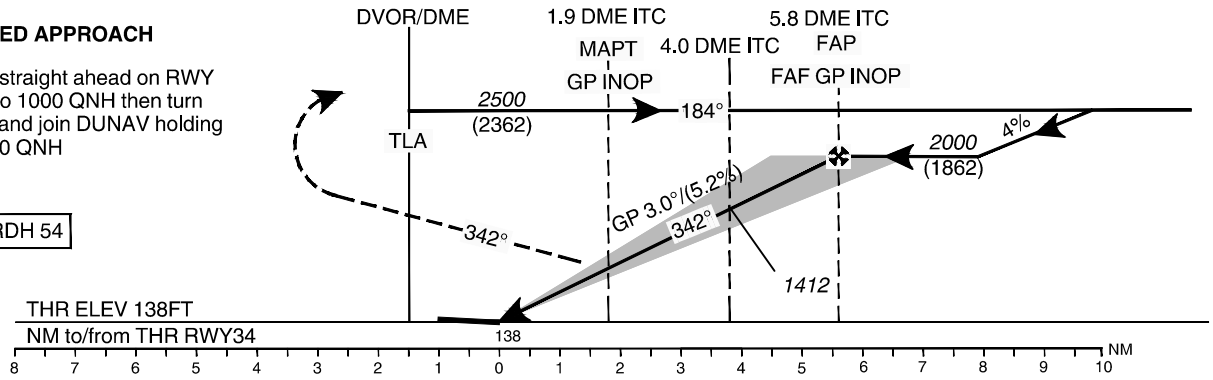
Transition Altitude 3000

ILS DME reads zero at ITC antenna (244 m beyond THR 34)

MISSED APPROACH

Climb straight ahead on RWY track to 1000 QNH then turn LEFT and join DUNAV holding at 3000 QNH

ILS RDH 54



OCA(H)		A	B	C	D
Straight-in	ILS	282 (144)	295 (157)	309 (171)	322 (184)
Approach	GP INOP	740 (602)			
Circling		1200		1300	

	kts	70	90	100	120	140	160
FAF - MAPT 3.9 NM	min:s	3:21	2:36	2:20	1:57	1:40	1:28
Rate of descent	ft/min	372	478	531	637	743	849

Dist to ITC	NM	3	4	5
Altitudes	ft	1093	1412	1730

For data tabulation see verso.

TULCEA / DELTA DUNĂRII (LRTC)
ILS RWY 34

AERONAUTICAL DATA TABULATION

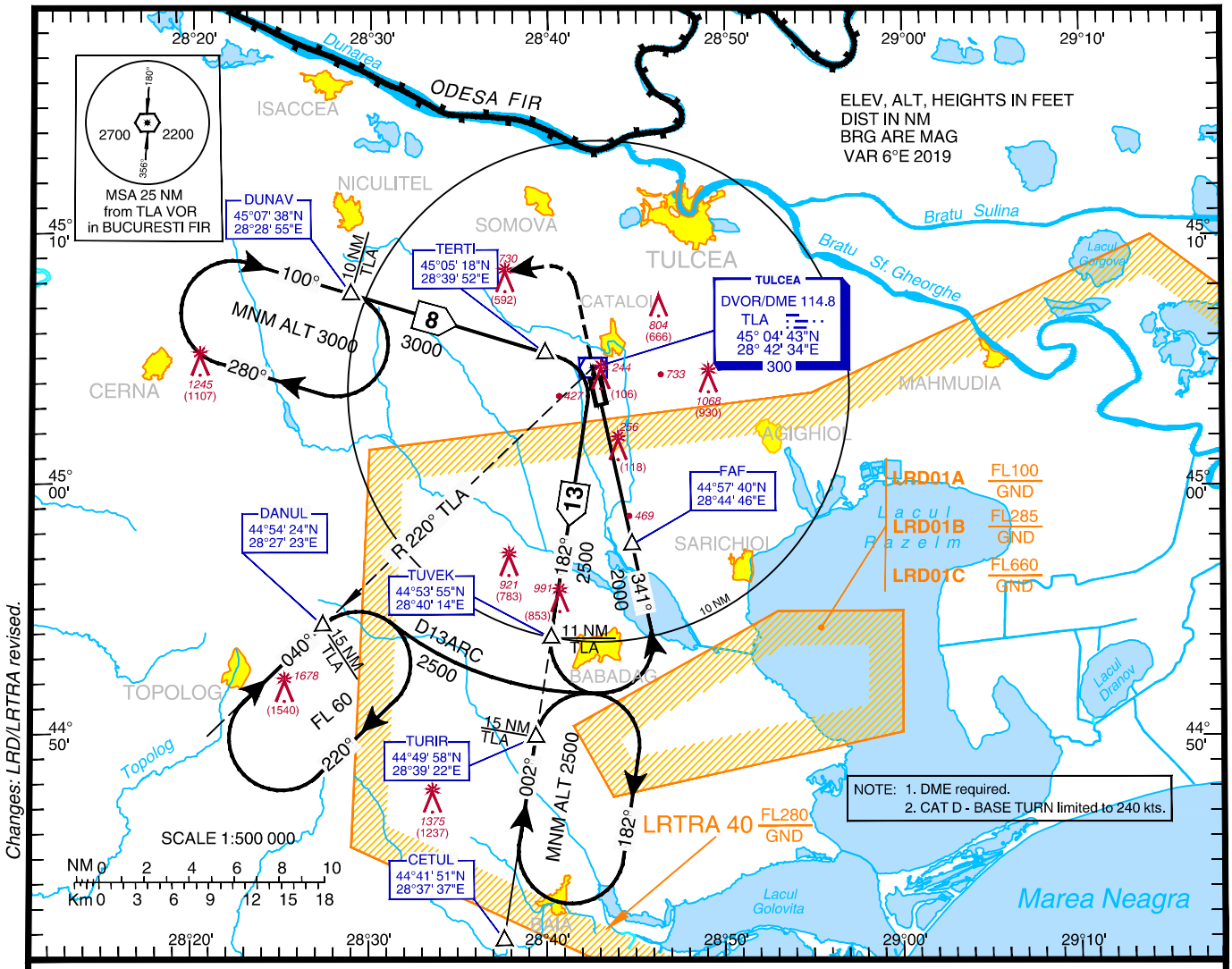
ILS Approach to RWY34 from TURIR, DANUL, DUNAV	
Fix/Point	**Coordinates**
TLA DVOR/DME	45°04’43.3”N 028°42’34.2”E
TURIR – BRG003.63 ^{o} / 14.93NM TLA	44°49’58.2”N 028°39’22.3”E
DANUL– BRG221.23 ^{o} / 14.93NM TLA	44°54’24.1”N 028°27’22.6”E
DUNAV – BRG101.55 ^{o} / 10.10NM TLA	45°07’37.8”N 028°28’55.2”E
TERTI – BRG101.68 ^{o} / 2.00NM TLA	45°05’18.0”N 028°39’52.1”E
TUVEK – BRG183.66 ^{o} / 10.93NM TLA	44°53’55.4”N 028°40’13.5”E
FAP (FAF GP INOP) – BRG342.44 ^{o} / 7.22NM TLA	44°57’40.1”N 028°44’46.1”E
MAPT – BRG342.42 ^{o} / 3.27NM TLA	45°01’31.9”N 028°43’34.0”E
D 4.0 ITC (Height check)	44°59’28.3”N 028°44’12.5”E
THR RWY 34	45°03’14.92”N 028°43’01.82”E
ITC LOC	45°04’27.2”N 028°42’39.3”E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **200 ft**
HEIGHTS RELATED TO
THR RWY 34 ELEV **138 ft**

TULCEA TOWER	119.755
TULCEA TWR ALTN	120.300

TULCEA / DELTA DUNĂRII (LRTC)
VOR
RWY 34

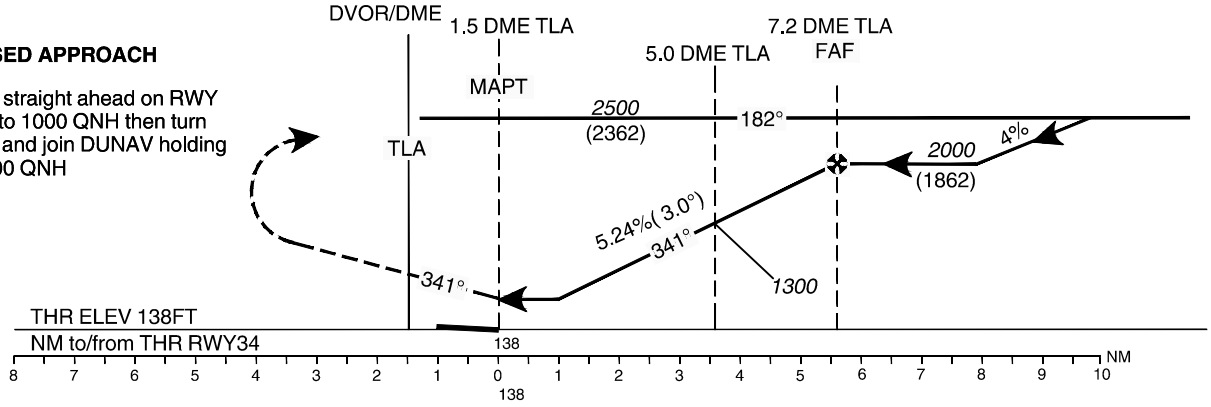


Changes: LRD/LRTRA revised.

Transition Altitude
3000

MISSED APPROACH

Climb straight ahead on RWY track to 1000 QNH then turn LEFT and join DUNAV holding at 3000 QNH



OCA(H)	A	B	C	D
Straight-in Approach	510 (372)			
Circling	1200		1300	1470

	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

Dist to TLA	NM	3	4	5	6	7
Altitudes	ft	664	982	1300	1619	1937

For data tabulation see verso.

TULCEA / DELTA DUNĂRII (LRTC)
VOR RWY 34

AERONAUTICAL DATA TABULATION

VOR Approach to RWY34 from TURIR, DANUL, DUNAV	
Fix/Point	**Coordinates**
TLA DVOR/DME	45°04'43.3"N 028°42'34.2"E
CETUL- BRG 002.33° / 23.14NM TLA	44°41'51.0"N 028°37'37.0"E
TURIR – BRG 002.31° / 14.92NM TLA	44°49'58.2"N 028°39'22.3"E
DANUL– R 219.70° / 14.92NM TLA	44°54'24.1"N 028°27'22.6"E
DUNAV – BRG 100.37° / 10.10NM TLA	45°07'37.8"N 028°28'55.2"E
TERTI – BRG 100.37° / 2.00NM TLA	45°05'18.0"N 028°39'52.1"E
TUVEK – BRG 182.28° / 10.92NM TLA	44°53'55.4"N 028°40'13.5"E
FAF – BRG 341.05° / 7.22NM TLA	44°57'40.1"N 028°44'46.1"E
D 5.0 TLA (Check point)	44°59'50.4"N 028°44'05.6"E
THR RWY 34 (MAPT)	45°03'14.96"N 028°43'01.80"E

Final approach descent angle: 3.00°

LRBV 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
3	*TWY edge and centre line lighting*	TWY edge: blue, omni-directional, LIL. TWY centre line: green, bi-directional, LIH.
4	*Secondary power supply/switch-over time*	Secondary power supply to all lighting on the AD, switch-over time below 1 sec.
5	*Remarks*	Apron floodlighting,obstacle lighting.

LRBV AD 2.16 HELICOPTER LANDING AREA

1	*Coordinates TLOF or THR of FATO*	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

LRBV AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	BRAȘOV CTR (CTR1+CTR2+CTR3) CTR 1 460129N 0254357E - 455156N 0260636E - 452648N 0254246E - 453151N 0253235E - 452737N 0252226E - 452913N 0251905E - 453100N 0252240E - 453500N 0251630E - 453500N 0251407E - 453801N 0251150E - 460129N 0254357E CTR 2 453151N 0253235E - 452648N 0254246E - 452036N 0253658E - 452737N 0252226E - 453151N 0253235E CTR 3 453500N 0251407E - 453500N 0251630E - 453100N 0252240E - 452913N 0251905E - 452940N 0251809E - 453500N 0251407E
2	*Vertical limits*	CTR 1 - GND to FL105 CTR 2 - 6500 FT AMSL to FL105 CTR 3 - 6500 FT AMSL to FL105
3	*Airspace classification*	C
4	*ATS unit call sign* *Language(s)*	Brașov Tower English, Romanian
5	*Transition altitude*	7000 FT AMSL
6	*Hours of applicability*	As ATS
7	*Remarks*	Airspace classification outside hours of operation of ATS is uncontrolled class G.

LRBV AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	*Call sign*	*Channel/ Frequency*	*SATVOICE*	*Logon address*	*Hours of operation*	*Remarks*
1	2	3	4	5	6	7
TWR/APP	Brașov Tower	118.630 120.135 ALTN 121.500 MHz EMERG	NIL	NIL	As ATS	 Emergency frequency for all services
ATIS	Brașov ATIS	124.530	NIL	NIL	As ATS	NIL

LRBV AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR Type of supported OPS ILS classification GBAS classification (For VOR/ILS/MLS give declination)	*ID*	*Frequency/ Channel*	*Hours of operation*	*Position of transmitting antenna coordinates*	*ELEV of DME transmitting antenna/ ELEV of GBAS reference point*	*Service volume radius from the GBAS reference point*	*Remarks*
1	2	3	4	5	6	7	8
DVOR (6°E/2022)	VBV	114.950 MHz	H24	454226.2N 0253117.5E	-	NIL	Coverage 40 NM (declared)
DME	VBV	CH 96Y	H24	454226.4N 0253117.0E	1800 FT	NIL	Coverage 40 NM (declared)
LOC 21 (6°E/2022) ILS CAT II (III.E.4)	IBV	110.100 MHz	H24	454138.2N 0253038.2E	-	NIL	Front course angle 3.94° No back course
GP 21	-	334.400 MHz	H24	454254.0N 0253150.8E	-	NIL	GP angle 3.0° ILS RDH 54 FT
DME 21	IBV	CH 38X	H24	454254.2N 0253150.6E	1800 FT	NIL	NIL
GPS NPA	-	1575.420 MHz	H24	-	-	NIL	Transmitting antennas are satellite based. Maintained by the U.S. Department of Defense.
EGNOS LPV	-	1575.420 MHz	H24	-	-	NIL	Transmitting antennas are satellite based. Maintained by the European Satellite Services Provider – ESSP.

LRBV AD 2.20 LOCAL AERODROME REGULATIONS

1. Airport regulations / Reglementări aeroport

1.1 Taxiing to and from stands

a. Taxiing to and from stands stands shall be in accordance with the standard routes published in LRBV AD 2.20 Local Aerodrome Regulations.
b. FOLLOW ME vehicle assistance, may be requested by the pilot via TWR
c. Entry to the stand for aircraft will be made with guidance by the ground dispatcher;
d. Upon arrival, helicopters will land on the runway and run on the ground / air according to standard runways. From the entrance on TWY A, the commander of the aircraft follows the markings to the point where he sees the ground dispatcher, following his signals until stop. The helicopters, for departure, taxi on the ground/air, following the marking, from the parking position to the runway.
f. If the pilot operating on TWY A, does not have the ground dispatcher in sight, near the parking position communicated by TWR, he stops the aircraft and requests ATC, his presence.
g. Starting of the engines will be performed at the signals of the ground dispatcher only.

1.1 Rulajul la și de la standuri

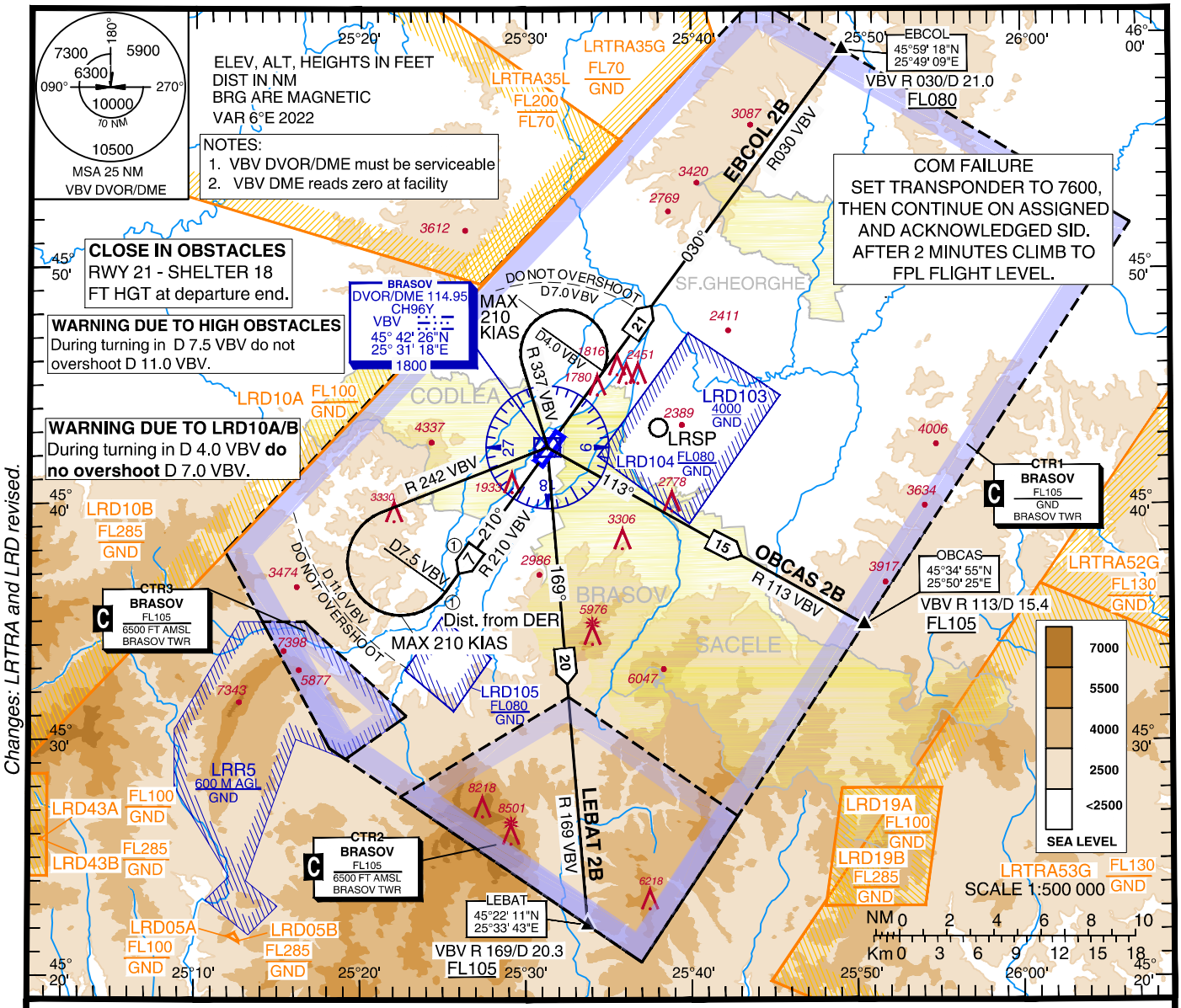
a. Rulajul la și de la standuri se efectuează conform rutelor standard publicate la LRBV AD 2.20 Local Aerodrome Regulations.
b. Asistența vehiculului „FOLLOW ME” poate fi solicitată de pilot prin TWR.
c. Intrarea la stand pentru aeronave se va face cu dirijare de către dispecerul de sol;
d. Pentru sosire, elicopterele vor ateriza pe pistă și vor rula la sol/aerian conform rutelor standard de rulare. De la intrarea pe TWY A comandantul aeronavei urmează marcajele până la punctul în care are la vedere dispecerul de sol, urmând semnalele acestuia până la oprire. Elicopterele, pentru plecare, rulează la sol/aerian, urmând marcajul, de la poziția de parcare până la pistă.
f. În cazul în care pilotul unei aeronave aflată în rulaj pe TWY A, nu are la vedere dispecerul de sol, în dreptul poziției de parcare comunicate de TWR, oprește aeronava și solicită ATC, prezența acestuia.
g. Pornirea motoarelor se va executa la semnalele dispecerului de sol.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
7000 FT

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAȘOV/Brașov - Ghimbav (LRBV)
RWY 21
EBCOL 2B, OBCAS 2B, LEBAT 2B



DESIGNATOR	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS/REMARKS
EBCOL 2B	Climb on **R 210 VBV** to **7.5 VBV**. Turn **RIGHT** to intercept **R242 VBV** to **VBV DVOR/DME,** continue on **R 030 VBV** to **EBCOL**. Cross **EBCOL** at or above **FL080**. PDG 5.5% until 6300 FT due to obstacles. Turns limited to MAX 210 KIAS. If unable to comply contact ATC before departure.
OBCAS 2B	Climb on **R 210 VBV** to **7.5 VBV**. Turn **RIGHT** to intercept **R 242 VBV** to **VBV DVOR/DME,** continue on **R 113 VBV to OBCAS**. Cross **OBCAS** at or above **FL105**. PDG min 5.5% until 6300 FT due to obstacles.Turns limited to MAX 210 KIAS. Contact ATC if unable to comply.
LEBAT 2B	Climb on **R 210 VBV** to **7.5 VBV**. Turn **RIGHT** to intercept **R242 VBV** to **VBV DVOR/DME,** continue on **R 030 VBV**. At **D 4.0 VBV** turn **LEFT** to VBV DVOR/DME intercepting **R 337 VBV** to **VBV DVOR/DME**, continue on **R169 VBV** to **LEBAT.** Cross **LEBAT** at or above **FL105.** PDG min 5.5% until FL105 due to obstacles. Turns limited to MAX 210 KIAS. If unble to comply contact ATC before departure .

Changes: LRTRA and LRD revised.

BRAȘOV / Brașov - Ghimbav (LRBV)
SID RWY 21

AERONAUTICAL DATA TABULATION

SID RWY 21	
Waypoint Identifier	**Coordinates**
DER 21	45°41'41.66" N 025°30'30.47" E
EBCOL (R 030/ D 21.0 VBV)	45°59'18.0" N 025°49'09.4" E
OBCAS (R 113/ D 15.4 VBV)	45°34'55.2" N 025°50'25.2" E
LEBAT (R 169/ D 20.3 VBV)	45°22'10.8" N 025°33'42.6" E
VBV DVOR/DME	45°42'26.2" N 025°31'17.5" E

Leg	Distance [NM]	True Track [°]	Magnetic Track [°]
EBCOL 2B			
DER21 – D 7.5 VBV	6.58	216.18	209.81 FROM DVORDME VBV
D 7.5 VBV – VBV DVOR/DME	15.37	-	-
VBV DVOR/DME – EBCOL	20.98	036.62	030.25 FROM DVORDME VBV
OBCAS 2B			
DER21 – D 7.5 VBV	6.58	216.18	209.81 FROM DVORDME VBV
D 7.5 VBV – VBV DVOR/DME	15.37	-	-
VBV DVOR/DME – OBCAS	15.38	119.37	113.00 FROM DVORDME VBV
LEBAT 2B			
DER21 – D 7.5 VBV	6.58	216.18	209.81 FROM DVORDME VBV
D 7.5 VBV – VBV DVOR/DME	15.37	-	-
VBV DVOR/DME – D 4.0 VBV	4.0	036.39	030.02 FROM DVORDME VBV
D 4.0 VBV – VBV DVOR/DME	12.15	-	-
VBV DVOR/DME – LEBAT	20.33	175.21	168.84 FROM DVORDME VBV

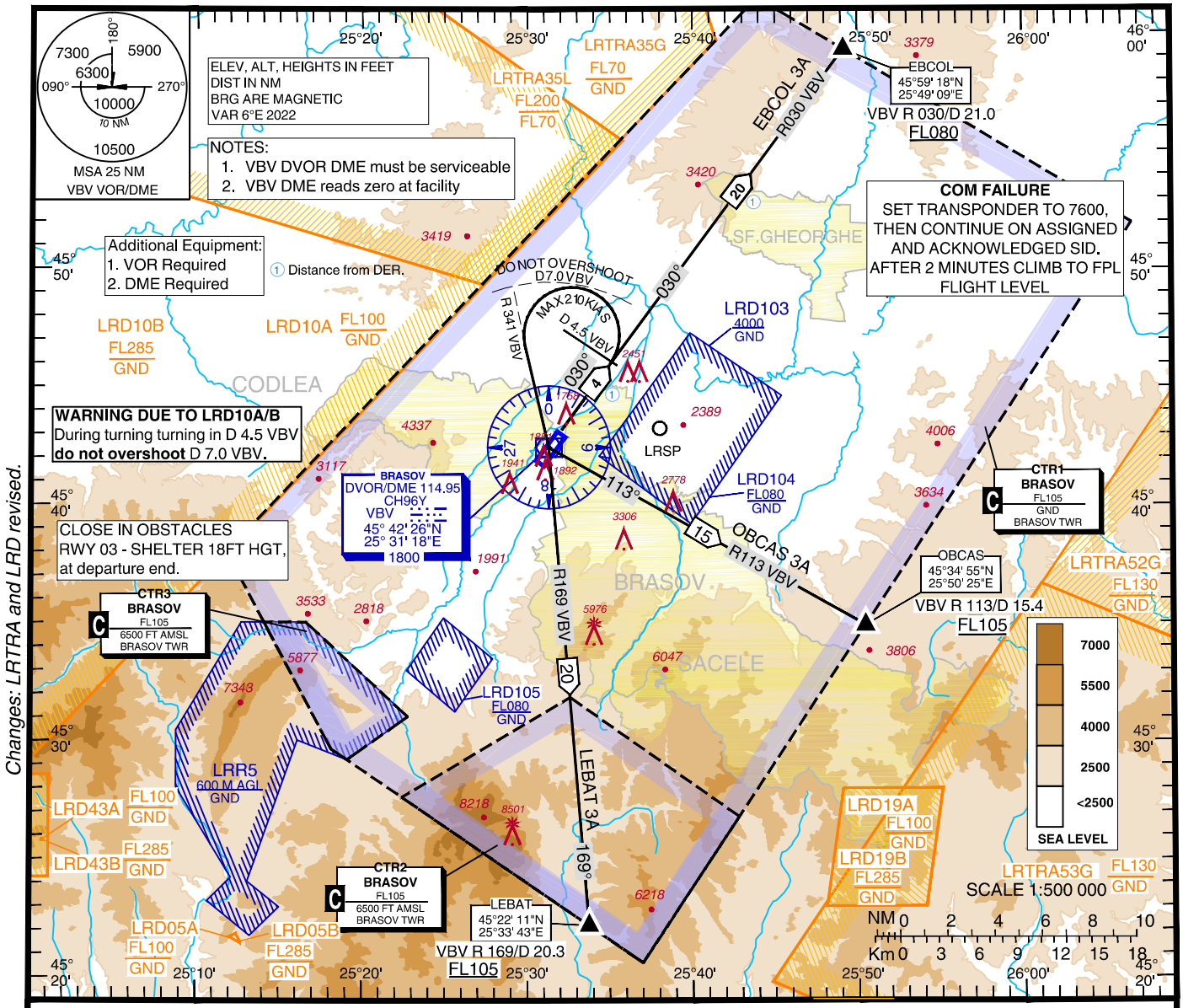
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 7000

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAŞOV/Braşov - Ghimbav (LRBV)
RWY 03
EBCOL 3A, OBCAS 3A, LEBAT 3A

Changes: LRTRA and LRD revised.



DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
EBCOL 3A	Climb on R 030 to EBCOL. Cross EBCOL at or above FL080. PDG min 5.2% due to airspace structure. If unable to comply contact ATC before departure.
OBCAS 3A	Climb on R 030 to D 4.5 VBV. Turn LEFT to intercept R 341 VBV to VBV DVOR/DME, continue on R 113 VBV to OBCAS. Cross OBCAS at or above FL105. PDG min 6.4% due to airspace structure. Turns limited to MAX 210 KIAS. If unable to comply contact ATC before departure.
LEBAT 3A	Climb on R 030 to D 4.5 VBV. Turn LEFT to intercept R 341 VBV DVOR/DME, continue on R 169 VBV to LEBAT. Cross LEBAT at or above FL105. PDG min 6.0% until FL105 due to obstacles. Turns limited to MAX 210 KIAS. If unable to comply contact ATC before departure.

BRAŞOV / Brasov – Ghimbav (LRBV)
SID 3A RWY 03

AERONAUTICAL DATA TABULATION

WAYPOINT LIST

SID 3A RWY 03	
Waypoint Identifier	**Coordinates**
DER 03	45°43'10.81" N 025°32'04.26" E
EBCOL (R 030 / D 21.0 VBV)	45°59'18.0" N 025°49'09.4" E
OBCAS (R 113 / D 15.4 VBV)	45°34'55.2" N 025°50'25.2" E
LEBAT (R 169 / D 20.3 VBV)	45°22'10.8" N 025°33'42.6" E
VBV DVOR/DME	45°42'26.2" N 025°31'17.5" E

LRBV DEPARTURE SEQUENCE SID 3A RWY 03

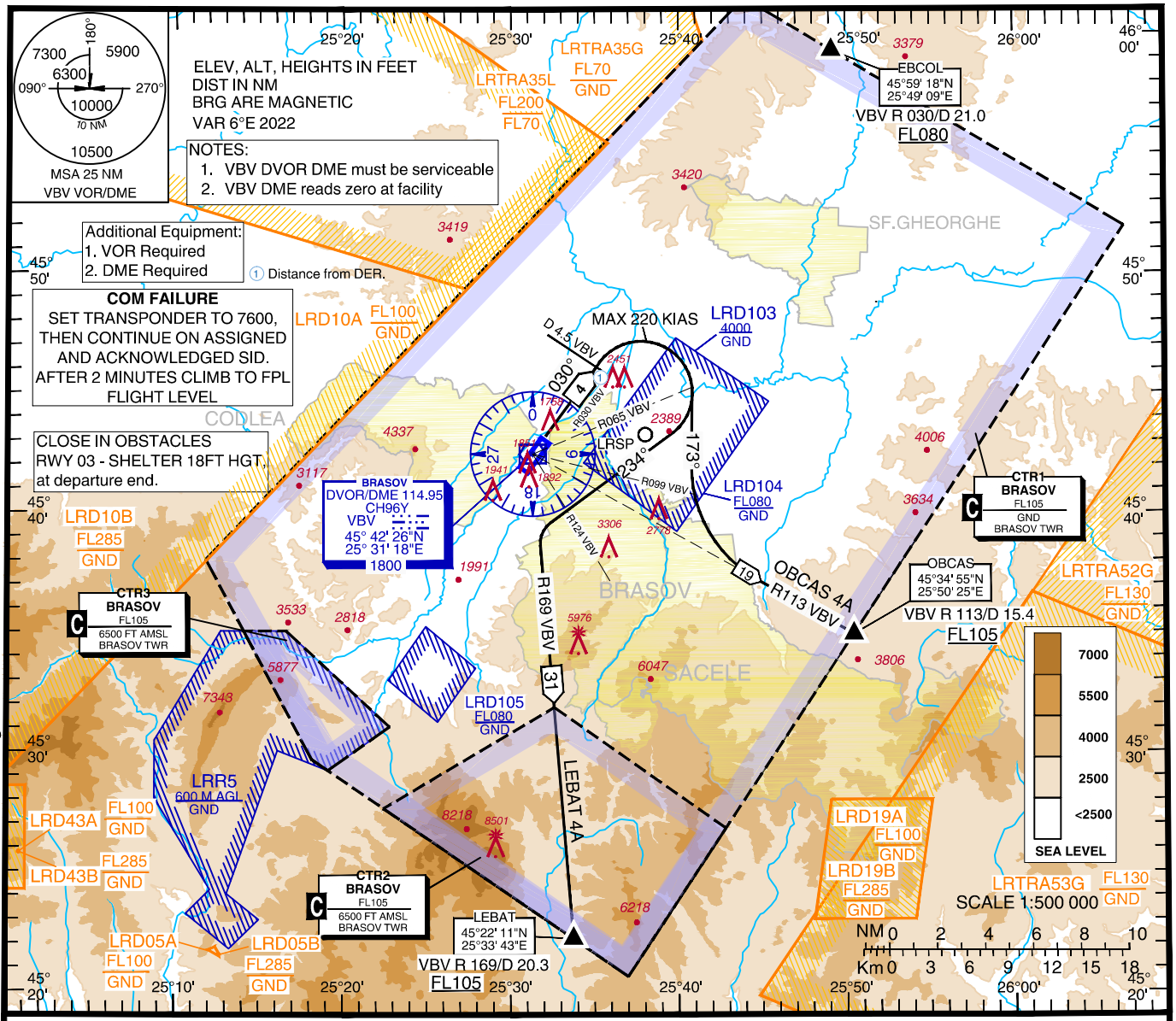
Leg	Distance [NM]	True Track [°]	Magnetic Track [°]
EBCOL 3A			
DER03 – EBCOL	20.06	036.62	030.25 FROM DVORDME VBV
OBCAS 3A			
DER03 – D 4.5 VBV	3.6	036.31	029.94 FROM DVORDME VBV
D 4.5 VBV – VBVDVOR/DME	12.69	344.11	337.74 FROM DVORDME VBV
VBV DVOR/DME – OBCAS	15.38	119.37	113.00 FROM DVORDME VBV
LEBAT 3A			
DER03 – D 4.5 VBV	3.6	036.31	029.94 FROM DVORDME VBV
D 4.5 VBV – VBV DVOR/DME	12.69	344.11	337.74 FROM DVORDME VBV
VBV DVOR/DME - LEBAT	20.33	175.22	168.85 FROM DVORDME VBV

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 7000

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAŞOV/Braşov - Ghimbav (LRBV)
RWY 03
OBCAS 4A, LEBAT 4A



Changes: LRTRA and LRD revised.

DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
OBCAS 4A	Climb on R 030 to D 4.5 VBV. Turn RIGHT on track 173° to intercept R 113 VBV to OBCAS. Cross OBCAS at or above FL105. PDG min 8.3% due to airspace structure. Turns limited to MAX 220 KIAS. Contact ATC if unable to comply.
LEBAT 4A	Climb on R 030 to D 4.5 VBV. Turn RIGHT on track 234° to intercept R 169 VBV to LEBAT. Cross LEBAT at or above FL105. PDG min 6.6% until FL105 due to obstacles. Turns limited to MAX 220 KIAS. Contact ATC if unable to comply.

BRAŞOV / Brașov - Ghimbav (LRBV)
SID 4A RWY 03

AERONAUTICAL DATA TABULATION

WAYPOINT LIST

SID 4A RWY 03	
Waypoint Identifier	**Coordinates**
DER 03	45°43'10.81" N 025°32'04.26" E
EBCOL (R 030 / D 21.0 VBV)	45°59'18.0" N 025°49'09.4" E
OBCAS (R 113 / D 15.4 VBV)	45°34'55.2" N 025°50'25.2" E
LEBAT (R 169 / D 20.3 VBV)	45°22'10.8" N 025°33'42.6" E
VBV DVOR/DME	45°42'26.2" N 025°31'17.5" E

LRBV DEPARTURE SEQUENCE SID 4A RWY 03

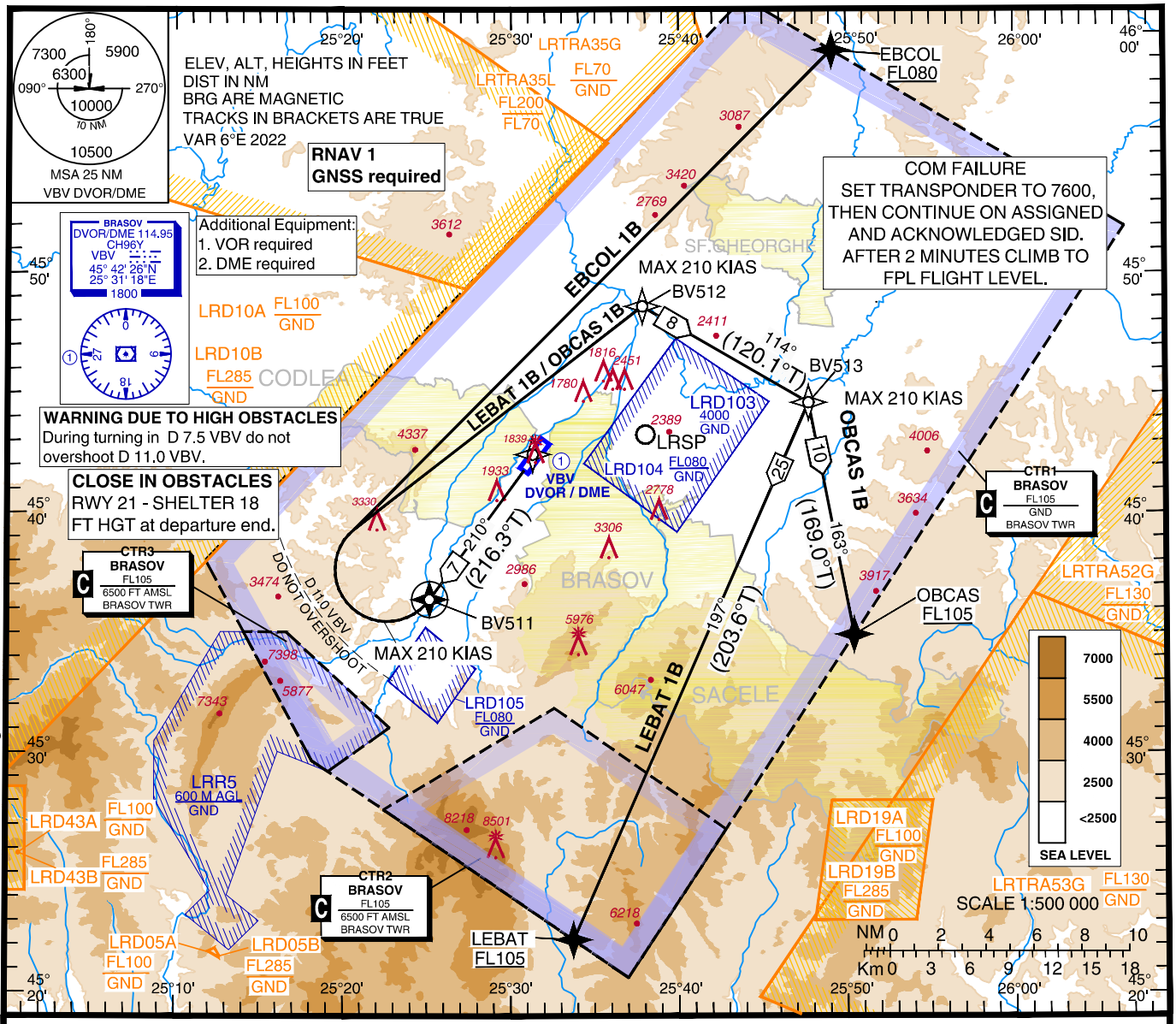
Leg	Distance [NM]	True Track [°]	Magnetic Track [°]
OBCAS 4A			
DER03 – D 4.5 VBV	3.6	036.31	029.94 FROM DVORDME VBV
D 4.5 VBV – OBCAS	19.13	119.37	113.00 FROM DVORDME VBV
LEBAT 4A			
DER03 – D 4.5 VBV	3.6	036.31	029.94 FROM DVORDME VBV
D 4.5 VBV – LEBAT	31.43	175.22	168.85 FROM DVORDME VBV

RNAV
STANDARD DEPARTURE CHART -
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
7000 FT

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAȘOV/Brașov - Ghimbav (LRBV)
RWY 21
EBCOL 1B, OBCAS 1B, LEBAT 1B



Changes: LRTRA and LRD revised.

DESIGNATOR	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS/REMARKS
EBCOL 1B	Climb on runway track to **BV511,** turn **RIGHT** direct to **EBCOL.** Cross **EBCOL** at or above **FL080**. PDG min 5.7% until 6000 FT due to obstacles. Turn limited to MAX 210 KIAS. If unable to comply contact ATC before departure.
OBCAS 1B	Climb on ruway track to **BV511**, turn **RIGHT** direct to **BV512**. Continue on track **114°** to **BV513**, then turn **RIGHT** on track **163°** to **OBCAS**. Cross **OBCAS** at or above **FL105**. PDG min 5.7% until 6000 FT due to obstacles.Turn limited to MAX 210 KIAS. If unable to comply contact ATC before departure.
LEBAT 1B	Climb on ruway track to **BV511**, turn **RIGHT** direct to **BV512**. Continue on track **114°** to **BV513**, then turn **RIGHT** on track **197°** to **LEBAT**. Cross **LEBAT** at or above **FL105**. PDG min 5.7% until 6000 FT due to obstacles.Turn limited to MAX 210 KIAS. If unable to comply contact ATC before departure.

BRAȘOV / Brașov - Ghimbav (LRBV)
RNAV SID RWY 21

AERONAUTICAL DATA TABULATION

RNAV SID RWY 21	
Waypoint Identifier	***Coordinates***
DER	45°41'37.8" N 025°30'37.9" E
BV511	45°36'23.3" N 025°25'09.1" E
BV512	45°48'36.6" N 025°37'50.1" E
BV513	45°44'36.2" N 025°47'43.8" E
EBCOL	45°59'18.0" N 025°49'09.4" E
OBCAS	45°34'55.2" N 025°50'25.2" E
LEBAT	45°22'10.8" N 025°33'42.6" E

TABULAR DESCRIPTION

RNAV SID RWY 21											
Serial Number	***Path Descriptor***	***Waypoint ID***	***Flyover***	***Course °M (°T)***	***Magnetic Variation***	***Distance (NM)***	***Turn Direction***	***Altitude (ft)***	***Speed (kts)***	***VPA/ TCH***	***Navigation Specification***
EBCOL 1B											
010	CF	BV511	Y	210 (216.3)	-6.4	6.5	-	-	-210	-	RNAV 1
020	DF	EBCOL	-	-	-6.4	-	R	+FL080	-	-	RNAV 1
OBCAS 1B											
010	CF	BV511	Y	210 (216.3)	-6.4	6.5	-	-	-210	-	RNAV 1
020	DF	BV512	-	-	-6.4	-	R	-	-	-	RNAV 1
030	TF	BV513	-	114 (120.1)	-6.4	8.0	R	-	-	-	RNAV 1
040	TF	OBCAS	-	163 (169.0)	-6.4	9.9	R	+FL105	-	-	RNAV 1
LEBAT 1B											
010	CF	BV511	Y	210 (216.3)	-6.4	6.5	-	-	-210	-	RNAV 1
020	DF	BV512	-	-	-6.4	-	R	-	-	-	RNAV 1
030	TF	BV513	-	114 (120.1)	-6.4	8.0	R	-	-	-	RNAV 1
040	TF	LEBAT	-	197 (203.6)	-6.4	24.5	R	+FL105	-	-	RNAV 1

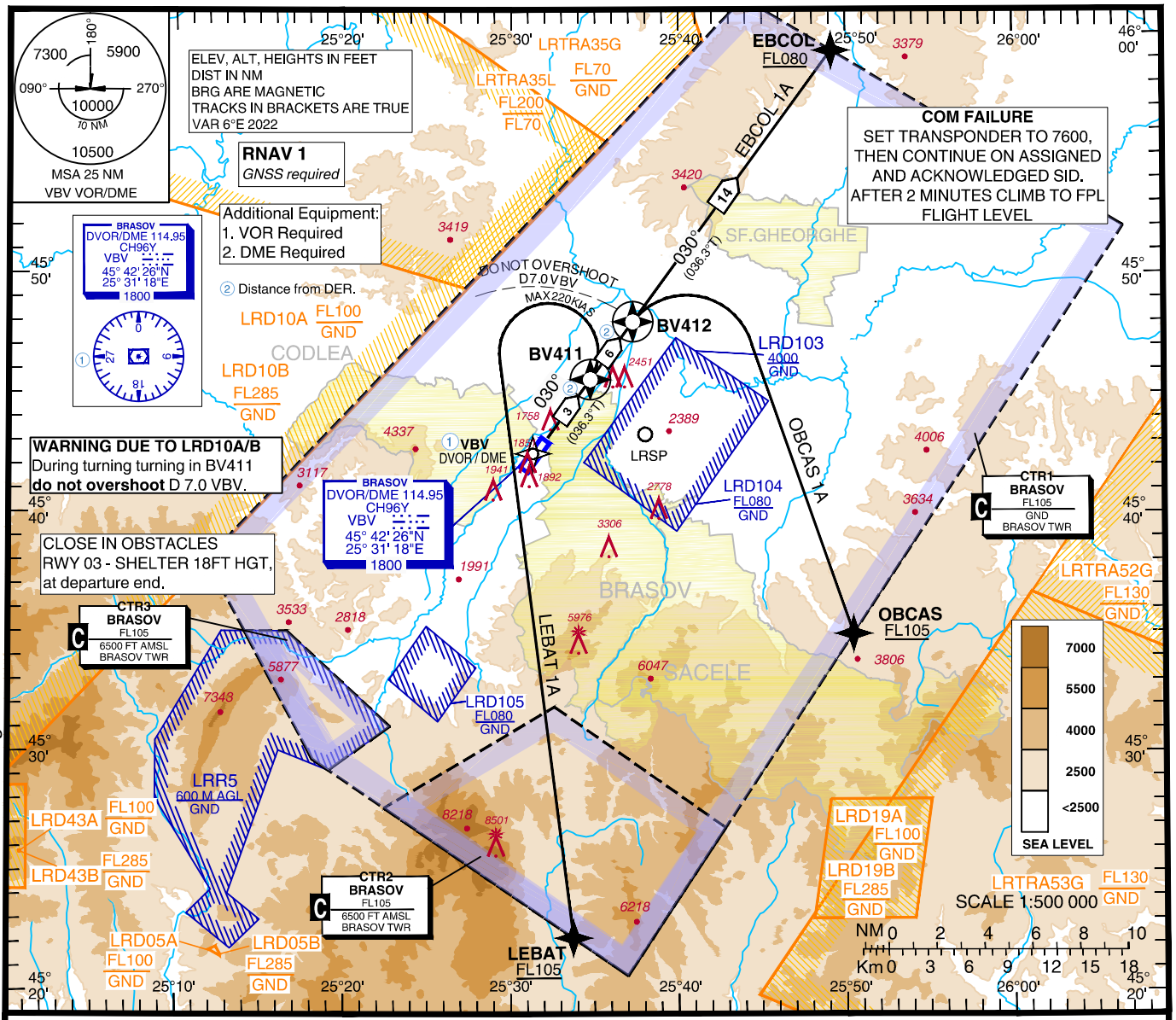
RNAV
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 7000

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAŞOV/Braşov - Ghimbav (LRBV)
RWY 03
EBCOL 1A, OBCAS 1A, LEBAT 1A

Changes: LRTRA and LRD revised.



DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
EBCOL 1A	Climb on runway track to BV412, continue on track 030° to EBCOL. Cross EBCOL at or above FL080. PDG min 5.2% due to airspace structure. If unable to comply contact ATC before departure.
OBCAS 1A	Climb on runway track to BV412, turn RIGHT direct to OBCAS. Cross OBCAS at or above FL105. PDG min 7.4% due to airspace structure. If unable to comply contact ATC before departure.
LEBAT 1A	Climb on runway track to BV411, turn LEFT direct to LEBAT. Cross LEBAT at or above FL105. PDG min 7.2% until FL100 due to obstacles. Turns limited to MAX 220 KIAS. During turning in BV411 do not overshoot D 7.0 VBV. If unable to comply contact ATC before departure.

BRAŞOV / Brașov - Ghimbav (LRBV)
SID 1A RWY 03

AERONAUTICAL DATA TABULATION

WAYPOINT LIST

RNAV SID 1A RWY 03	
Waypoint Identifier	**Coordinates**
DER	45°43'07.1" N 025°32'11.4" E
BV411	45°45'32.2" N 025°34'43.6" E
BV412	45°47'57.2" N 025°37'16.0" E
EBCOL	45°59'18.0" N 025°49'09.4" E
OBCAS	45°34'55.2" N 025°50'25.2" E
LEBAT	45°22'10.8" N 025°33'42.6" E

LRBV RNAV DEPARTURE SEQUENCE SID 1A RWY 03

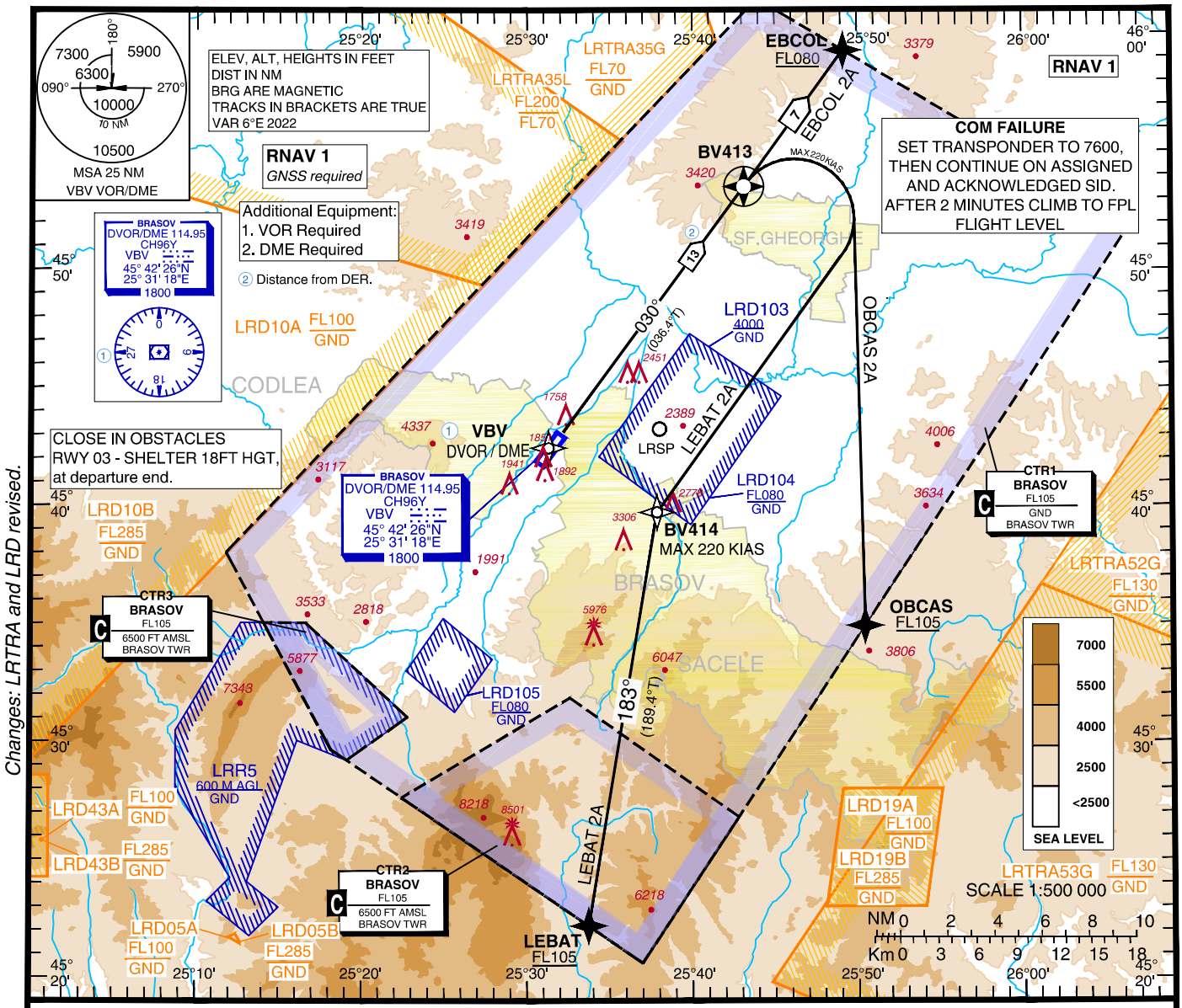
Serial Number	Path Descriptor	Waypoint ID	Flyover	Course °M (°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/ TCH	Navigation Specification
EBCOL 1A											
010	CF	BV412	Y	030 (036.3)	-6.4	6.0	-	-	-	-	RNAV 1
020	TF	EBCOL	-	030 (036.3)	-6.4	14.1	-	+FL080	-	-	RNAV 1
OBCAS 1A											
010	CF	BV412	Y	030 (036.3)	-6.4	6.0	-	-	-	-	RNAV 1
020	DF	OBCAS	-	-	-6.4	-	R	+FL105	-	-	RNAV 1
LEBAT 1A											
010	CF	BV411	Y	030 (036.3)	-6.4	3.0	-	-	-	-	RNAV 1
020	DF	LEBAT	-	-	-6.4	-	L	+FL105	-220	-	RNAV 1

RNAV
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 7000

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAŞOV/Braşov - Ghimbav (LRBV)
RWY 03
EBCOL 2A, OBCAS 2A, LEBAT 2A



DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
EBCOL 2A	Climb on runway track to BV413, continue on track 030° to EBCOL. Cross EBCOL at or above FL080. PDG min 5.2% due to airspace structure. If unable to comply contact ATC before departure.
OBCAS 2A	Climb on runway track to BV413, turn RIGHT direct to OBCAS. Cross OBCAS at or above FL105. PDG min 5.0% due to airspace structure. Turn limited to MAX 220 KIAS.If unable to comply contact ATC before departure.
LEBAT 2A	Climb on runway track to BV413, turn RIGHT direct to BV414, continue on track 183° to LEBAT. Cross LEBAT at or above FL105. PDG min 3.8% until FL105 due to obstacles. Turns limited to MAX 220 KIAS. If unable to comply contact ATC before departure.

Changes: LRTRA and LRD revised.

BRAŞOV / Braşov - Ghimbav (LRBV)
SID 2A RWY 03

AERONAUTICAL DATA TABULATION

WAYPOINT LIST

RNAV SID 2A RWY 03	
Waypoint Identifier	**Coordinates**
DER	45°43'07.1" N 025°32'11.4" E
BV413	45°53'30.9" N 025°43'07.7" E
BV414	45°39'42.9" N 025°37'51.0" E
EBCOL	45°59'18.0" N 025°49'09.4" E
OBCAS	45°34'55.2" N 025°50'25.2" E
LEBAT	45°22'10.8" N 025°33'42.6" E

LRBV RNAV DEPARTURE SEQUENCE SID 2A RWY 03

Serial Number	Path Descriptor	Waypoint ID	Flyover	Course °M (°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/ TCH	Navigation Specification
EBCOL 2A											
010	CF	BV413	Y	030 (036.4)	-6.4	12.9	-	-	-	-	RNAV 1
020	TF	EBCOL	-	030 (036.1)	-6.4	7.2	-	+FL080	-	-	RNAV 1
OBCAS 2A											
010	CF	BV413	Y	030 (036.4)	-6.4	12.9	-	-	-	-	RNAV 1
020	DF	OBCAS	-	-	-6.4	-	R	+FL105	-220	-	RNAV 1
LEBAT 2A											
010	CF	BV413	Y	030 (036.4)	-6.4	12.9	-	-	-	-	RNAV 1
020	DF	BV414	-	-	-6.4	-	R	-	-220		RNAV 1
030	TF	LEBAT	-	183 (189.4)	-6.4	17.8	-	+FL105	-220	-	RNAV 1

BRAȘOV/Brașov - Ghimbav (LRBV)

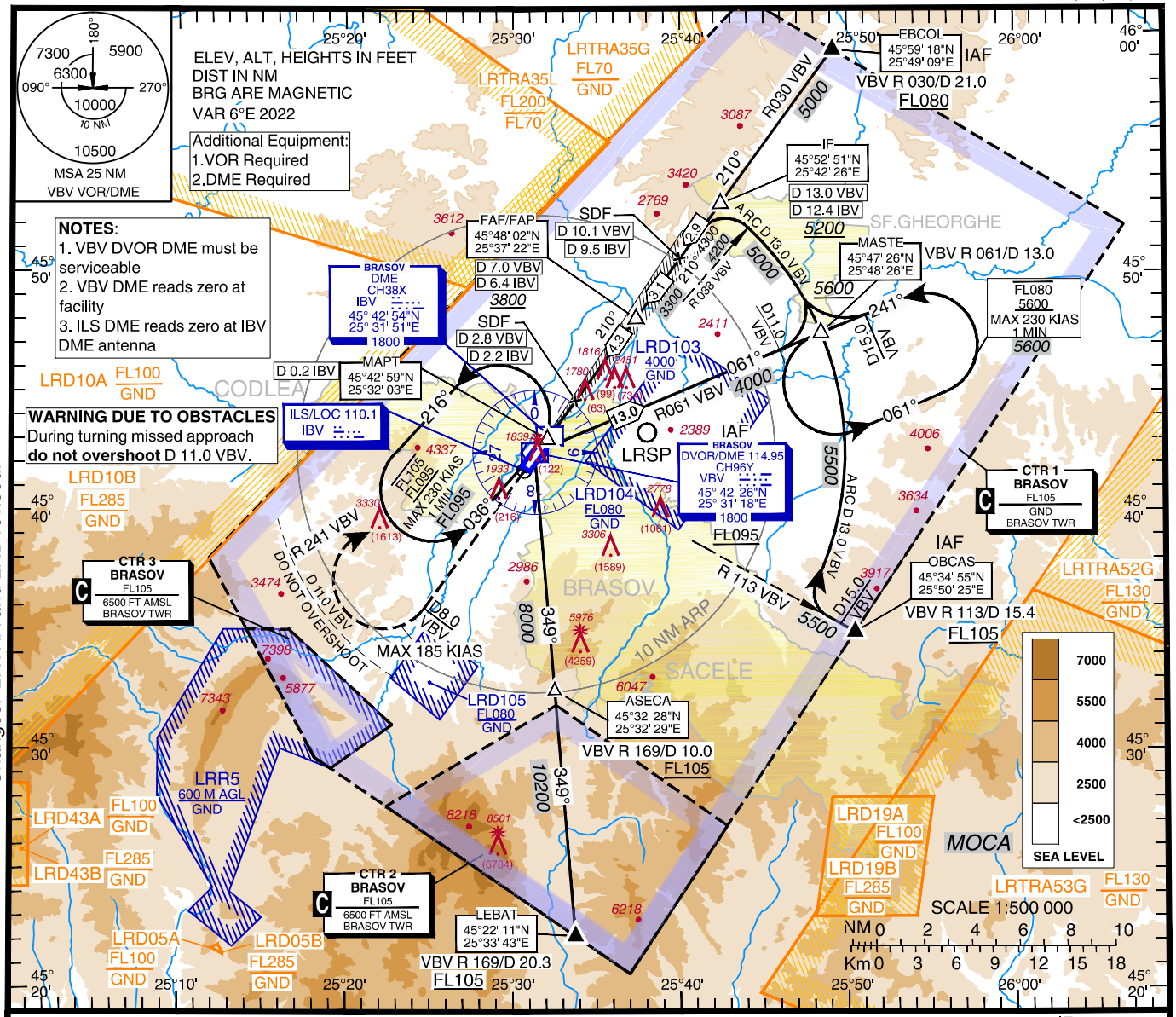
INSTRUMENT APPROACH CHART - ICAO

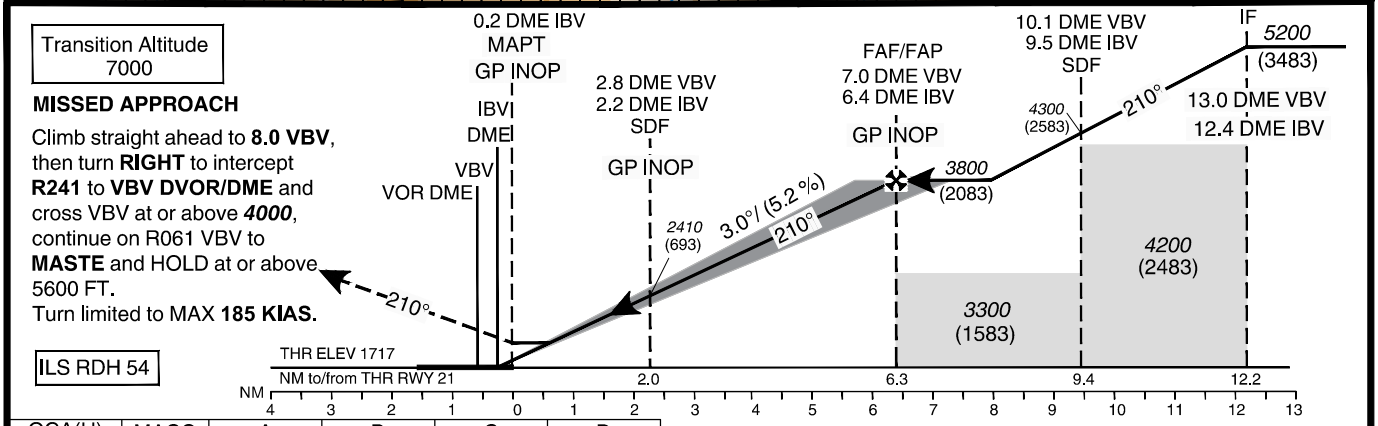
AERODROME ELEV. **1764 ft**
HEIGHTS RELATED TO
THR RWY 21 - ELEV 1717

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

ILS
RWY 21
CAT A, B, C, D

Changes: LRTRA and LRD revised.





OCA(H)	MACG	A	B	C	D
CAT I	2.50%	2349 (632)	2359 (642)	2368 (651)	2378 (661)
	3.00%	2072 (355)	2082 (365)	2092 (375)	2101 (384)
	4.00%	1870 (153)	1880 (163)	1890 (173)	1900(183)
CAT II	2.50%	2260 (543)	2277 (560)	2290 (573)	2303 (586)
	3.00%	1983 (266)	2000 (283)	2013 (296)	2026 (309)
	4.00%	1782 (65)	1798 (81)	1811 (94)	1824 (107)
GP INOP with SDF	2.50%	2510 (793)	2530 (813)	2560 (843)	2580 (863)
	3.00%	2150 (433)	2160 (443)	2190 (473)	2210 (493)
	4.00%	2150 (433)			
GP INOP w/o SDF	2.50%	2510 (793)	2530(813)	2560 (843)	2580 (863)
	3.00%	2190 (473)			2210 (493)
	4.00%	2190 (473)			
Circling*		2380	2460	2740	NA

GS	kts	70	90	100	120	140	160
FAF-MAPt 6.3 NM	min:s	5:24	4:12	3:47	3:09	2:42	2:22
Rate of descent	ft/min	372	478	531	637	743	849

Distance to IBV	NM	1	2	3	4	5	6
Altitude (Height)	FT	2040 (323)	2350 (633)	2670 (953)	2990 (1273)	3310 (1593)	3630 (1913)

* Circling WEST of RWY only

BRAȘOV / Brașov - Ghimbav (LRBV)
ILS RWY 21

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 21 from EBCOL, OBCAS, LEBAT and VBV DVOR/DME	
Fix/Point	**Coordinates**
LEBAT – BRG 168.99° VBV / D 20.33 VBV	45°22'10.8" N 025°33'42.6" E
ASECA – BRG 168.99° VBV / D 10.00 VBV	45°32'28.4" N 025°32'29.0" E
OBCAS (IAF) **–** BRG 113.14° VBV / D 15.38 VBV	45°34'55.2" N 025°50'25.2" E
EBCOL (IAF) **–** BRG 030.39° VBV / D 20.98 VBV	45°59'18.0" N 025°49'09.4" E
VBV DVOR/DME (IAF)	45°42'26.2" N 025°31'17.5" E
MASTE – BRG 061.26° VBV / D 13.00 VBV	45°47'26.1" N 025°48'26.0" E
IF – BRG 030.50° VBV / D 12.40 IBV / D 13.00 VBV	45°52'50.7" N 025°42'25.6" E
D 9.5 IBV (SDF) **–** BRG 030.60° VBV / D 9.53 IBV / D 10.13 VBV	45°50'32.1" N 025°39'59.4" E
FAP/FAF (GP INOP) **–** BRG 030.83° VBV / D 6.43 IBV / D 7.03 VBV	45°48'02.4" N 025°37'21.6" E
SDF (GP INOP) **–** BRG 032.09° VBV / D 2.16 IBV / D 2.76 VBV	45°44'36.0" N 025°33'44.7" E
THR RWY 21 (MAPt GP INOP)	45°42'59.31" N 025°32'03.23" E
IBV DME	45°42'54.2" N 025°31'50.6" E
GP 21	45°42'54.1" N 025°31'50.9" E
IBV LOC	45°41'38.2" N 025°30'38.2" E

Final approach descent angle: 3.00°

INSTRUMENT APPROACH CHART - ICAO

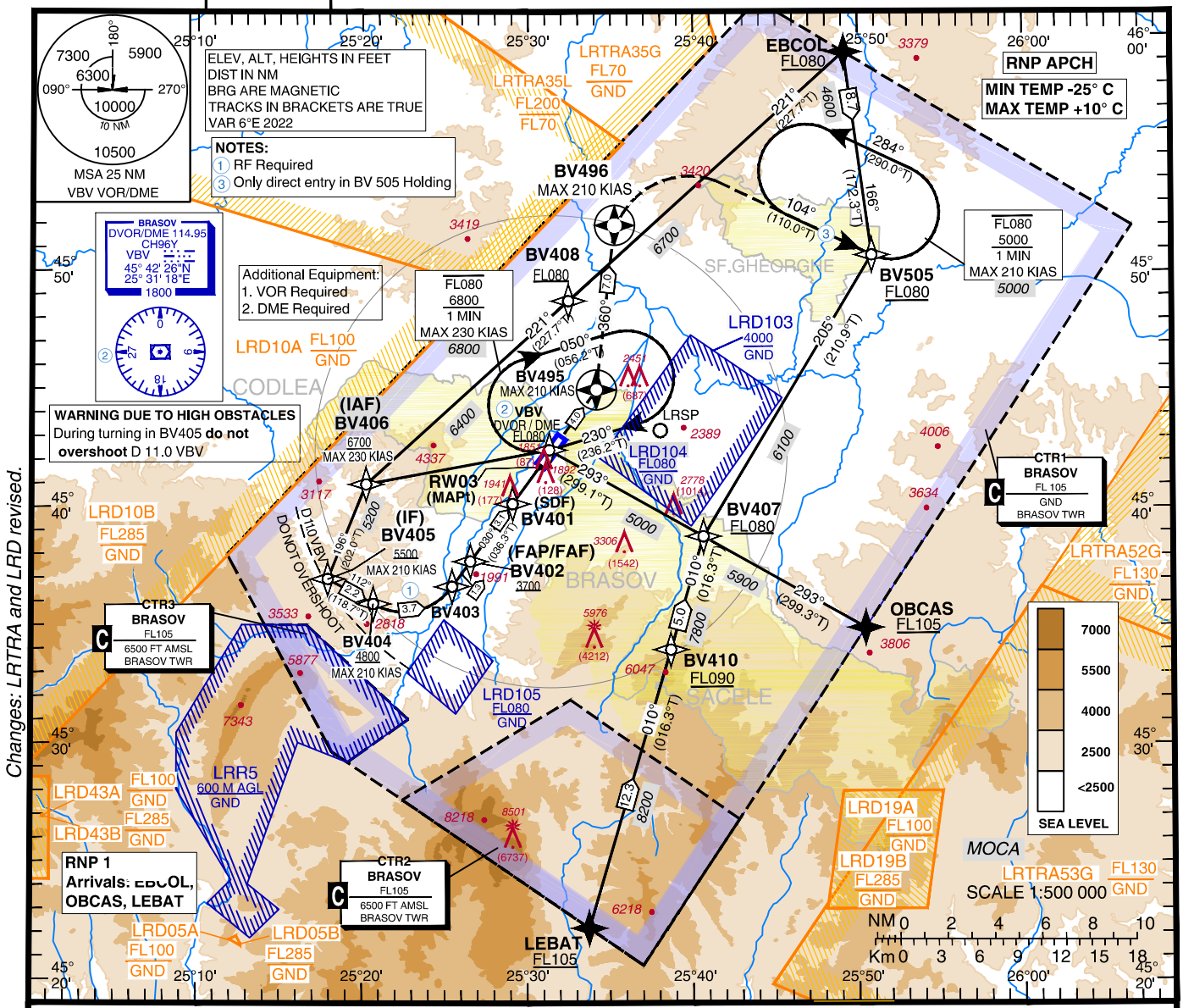
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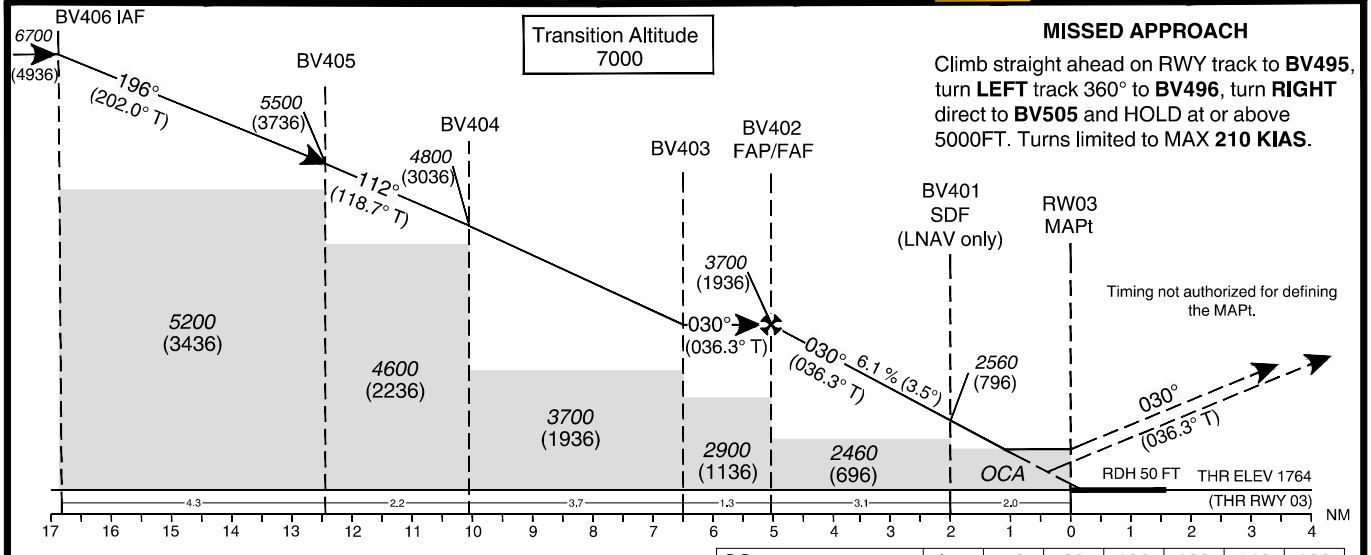
AERODROME ELEV. **1764 ft**
HEIGHTS RELATED TO
THR RWY 03 - ELEV 1764

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

BRAŞOV/Braşov - Ghimbav (LRBV)
RNP Z RWY 03
(LPV, LNAV Only)

Changes: LRTRA and LRD revised.





Transition Altitude
7000

MISSED APPROACH

Climb straight ahead on RWY track to **BV495**, turn **LEFT** track 360° to **BV496**, turn **RIGHT** direct to **BV505** and HOLD at or above 5000FT. Turns limited to MAX **210 KIAS**.

OCA (H)	A	B	C	D
LPV (CAT I)	1902 (138)	1914 (150)	1927 (163)	1939 (175)
LNAV	2310 (546)			
Circling*	2380	2460	2740	NA

* Circling WEST of RWY only

GS	kts	70	90	100	120	140	160
FAP-THR 5.1 NM	min:s	4:22	3:24	3:04	2:33	2:11	1:55
Rate of descent 6.1%	ft/min	434	557	619	743	867	991

Distance to THR 03	NM	5	4	3	2	1
Altitude (Height)	FT	3670 (1906)	3300 (1536)	2930 (1166)	2560 (796)	2190 (426)

BRAȘOV / Brașov - Ghimbav (LRBV)
RNP Z RWY 03

AERONAUTICAL DATA TABULATION

RNP Z RWY 03		
Waypoint Identifier	**Coordinates**	
EBCOL	45°59'18.0" N	025°49'09.4" E
OBCAS	45°34'55.2" N	025°50'25.2" E
LEBAT	45°22'10.8" N	025°33'42.6" E
BV410	45°33'58.7" N	025°38'38.9"E
BV408	45°48'45.2" N	025°32'26.6" E
BV407	45°38'47.1" N	025°40'36.7" E
VBV	45°42'26.2" N	025°31'17.5" E
BV406 (IAF)	45°40'58.6" N	025°20'13.8" E
BV405 (IF)	45°36'58.0" N	025°17'55.4" E
BV404 (SDF)	45°35'54.7" N	025°20'39.9" E
BV403	45°36'39.2" N	025°25'25.6" E
BV402 (FAF)	45°37'40.1" N	025°26'29.2" E
BV401 (SDF / LNAV Only)	45°40'08.9" N	025°29'04.8" E
RW03	45°41'45.67" N	025°30'46.05" E
BV495 (MATF)	45°44'59.1" N	025°34'09.0" E
BV496	45°51'56.5" N	025°35'15.1" E
BV505	45°50'42.0" N	025°50'49.8" E
RF Arc Centre Identifier	**Coordinates**	
BV409	45°38'11.2" N	025°22'26.6" E

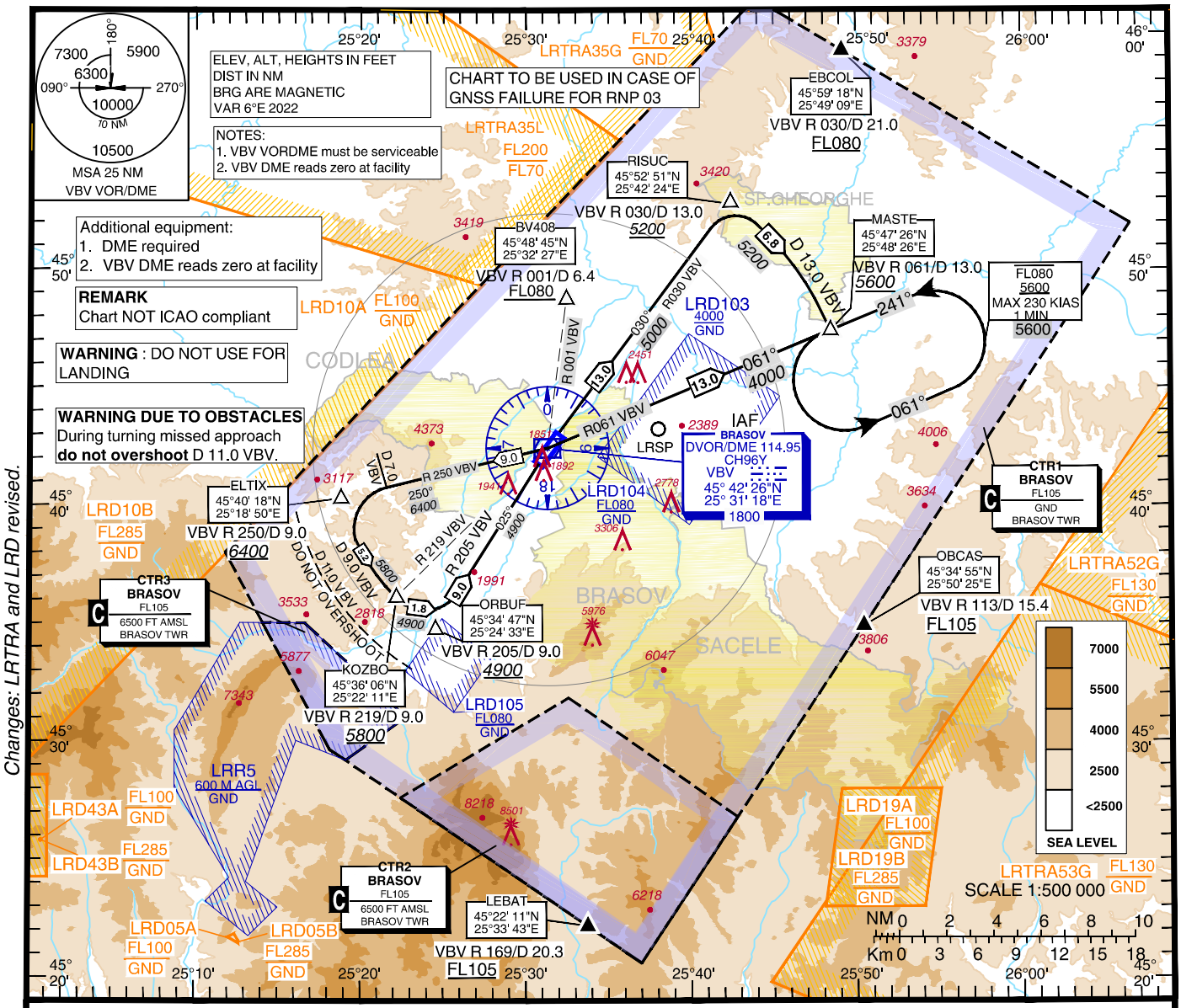
INSTRUMENT APPROACH CHART - CONTINGENCY RNP 03

AERODROME ELEV. **1764 ft**

BRAŞOV/Brașov - Ghimbav (LRBV)

BRASOV TWR	118.630
BRASOV TWR ALTN	120.135
BRASOV ATIS	124.530

CAT A, B, C, D



SIGNAL LOSS		INSTRUCTIONS
after **EBCOL**	before **BV408**	Turn **LEFT** direct to **VBV DVOR/DME**. At **VBV** intercept **R 250 VBV** and follow trajectories to enter hold at **MASTE** or as instructed by ATC.
	after **BV408**	Turn **LEFT** climbing to **FL080** direct to **VBV DVOR/DME** and, 1. If bellow **5000ft**, follow **VBV** on **R 030 VBV**, intercept **D 13.0 VBV** to **MASTE** and hold or as instructed by ATC. 2. If above **5000ft**, follow **VBV** on **R 061 VBV to MASTE** and hold or as instructed by ATC.
after **OBCAS**		Maintain altitude/flight level, proceed to **VBV DVOR/DME**, ATC instructions will be provided.
after **LEBAT**		Maintain altitude/flight level, proceed to **VBV DVOR/DME**, ATC instructions will be provided.

BRAŞOV / Brașov - Ghimbav (LRBV)
Contingency RNP RWY 03

AERONAUTICAL DATA TABULATION

WAYPOINT LIST

Contingency RNP 03 from EBCOL, OBCAS, LEBAT and VBV DVOR/DME	
Fix/Point	**Coordinates**
LEBAT – R 169 VBV / D 20.33 VBV	45°22'10.8" N 025°33'42.6" E
OBCAS – R 113 VBV / D 15.38 VBV	45°34'55.2" N 025°50'25.2" E
EBCOL – R 030 VBV / D 20.98 VBV	45°59'18.0" N 025°49'09.4" E
MASTE – R 061 VBV / D 13.00 VBV	45°47'26.1" N 025°48'26.0" E
RISUC – R 030 VBV / D 13.00 VBV	45°52'51.4" N 025°42'24.2" E
ORBUF – R 205 VBV / D 9.0 VBV	45°34'46.6" N 025°24'33.2" E
KOZBO – R 219 VBV / D 9.0 VBV	45°36'05.9" N 025°22'10.8" E
ELTIX – R 250 VBV / D 9.0 VBV	45°40'17.8" N 025°18'49.9" E
VBV DVOR/DME	45°42'26.2" N 025°31'17.5" E