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Publication Date: **17 SEP 2026**

Effective Date: **29 OCT 2026**

AIRAC AIP AMDT
11
29 OCT 2026

AIRAC AIP AMENDMENT 11/26

I. **Content**

ENR - list of significant points updated.

AD - LRBS - AD obstacles updated;
- RWY THR ELEV/COORD changed;
- electronic obstacle data sets for Area 2, Area 3 and Area 4 available;
- new IAC (ILS/LOC/RNP/NDB) available.

- LROP - AD obstacles updated;
- RWY THR ELEV/COORD changed;
- LVP updated;
- electronic obstacle data sets for Area 2, Area 3 and Area 4 available;
- new IAC (ILS/LOC/RNP/NDB) available.

- LROD - local AD regulations updated.
- LRTR - establishment of new apron - APRON WEST;
- establishment of helicopter landing area;
- local AD regulations updated.

II.

Insert the following new pages and/or charts:		**Destroy the following pages and/or charts:**	
GEN 0.3-1	29 OCT 2026	GEN 0.3-1	03 SEP 2026
GEN 0.3-2	29 OCT 2026	GEN 0.3-2	03 SEP 2026
GEN 0.4-1	29 OCT 2026	GEN 0.4-1	01 OCT 2026
GEN 0.4-2	29 OCT 2026	GEN 0.4-2	01 OCT 2026
GEN 0.4-3	29 OCT 2026	GEN 0.4-3	01 OCT 2026
GEN 0.4-4	29 OCT 2026	GEN 0.4-4	01 OCT 2026
GEN 0.4-5	29 OCT 2026	GEN 0.4-5	01 OCT 2026
GEN 0.4-6	29 OCT 2026	GEN 0.4-6	01 OCT 2026
GEN 0.4-7	29 OCT 2026	GEN 0.4-7	01 OCT 2026
GEN 0.4-8	29 OCT 2026	GEN 0.4-8	01 OCT 2026
GEN 0.4-9	29 OCT 2026	----------	
GEN 0.5-1	29 OCT 2026	GEN 0.5-1	03 SEP 2026
GEN 2.5-1	29 OCT 2026	GEN 2.5-1	02 OCT 2025
GEN 2.5-2	29 OCT 2026	GEN 2.5-2	23 JAN 2025
GEN 2.5-3	29 OCT 2026	GEN 2.5-3	20 MAR 2025
GEN 3.2-4	29 OCT 2026	GEN 3.2-4	06 AUG 2026
GEN 3.2-5	29 OCT 2026	GEN 3.2-5	06 AUG 2026
GEN 3.2-6	29 OCT 2026	GEN 3.2-6	03 SEP 2026

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	GEN 3.2-7	29 OCT 2026	GEN 3.2-7	11 JUN 2026
	GEN 3.2-8	29 OCT 2026	GEN 3.2-8	11 JUN 2026
	GEN 3.2-9	29 OCT 2026	GEN 3.2-9	06 AUG 2026
	GEN 3.2-10	29 OCT 2026	GEN 3.2-10	11 JUN 2026
	ENR 1.3-4	29 OCT 2026	ENR 1.3-4	11 JUN 2026
	ENR 3.2-1	29 OCT 2026	ENR 3.2-1	11 JUN 2026
	ENR 3.2-9	29 OCT 2026	ENR 3.2-9	11 JUN 2026
	ENR 3.2-11	29 OCT 2026	ENR 3.2-11	11 JUN 2026
	ENR 3.2-17	29 OCT 2026	ENR 3.2-17	11 JUN 2026
	ENR 3.2-20	29 OCT 2026	ENR 3.2-20	11 JUN 2026
	ENR 4.1-1	29 OCT 2026	ENR 4.1-1	04 SEP 2025
	ENR 4.1-2	29 OCT 2026	ENR 4.1-2	20 MAR 2025
	ENR 4.4-1	29 OCT 2026	ENR 4.4-1	11 JUN 2026
	ENR 4.4-2	29 OCT 2026	ENR 4.4-2	11 JUN 2026
	ENR 4.4-3	29 OCT 2026	ENR 4.4-3	11 JUN 2026
	ENR 4.4-4	29 OCT 2026	ENR 4.4-4	06 AUG 2026
	ENR 4.4-5	29 OCT 2026	ENR 4.4-5	11 JUN 2026
	ENR 4.4-6	29 OCT 2026	ENR 4.4-6	11 JUN 2026
	ENR 4.4-7	29 OCT 2026	ENR 4.4-7	11 JUN 2026
	ENR 4.4-8	29 OCT 2026	ENR 4.4-8	11 JUN 2026
	ENR 4.4-9	29 OCT 2026	ENR 4.4-9	11 JUN 2026
	ENR 4.4-10	29 OCT 2026	ENR 4.4-10	19 FEB 2026
	ENR 6-100	29 OCT 2026	ENR 6-100	03 SEP 2026
	AD 2.4-1	29 OCT 2026	AD 2.4-1	20 MAR 2025
	AD 2.4-2	29 OCT 2026	AD 2.4-2	25 DEC 2025
	AD 2.4-3	29 OCT 2026	AD 2.4-3	16 MAY 2024
	AD 2.4-4	29 OCT 2026	AD 2.4-4	16 MAY 2024
	AD 2.4-5	29 OCT 2026	AD 2.4-5	17 APR 2025
	AD 2.4-6	29 OCT 2026	AD 2.4-6	10 JUL 2025
	AD 2.4-7	29 OCT 2026	AD 2.4-7	10 JUL 2025
	AD 2.4-8	29 OCT 2026	AD 2.4-8	07 AUG 2025
	AD 2.4-9	29 OCT 2026	AD 2.4-9	16 MAY 2024
	AD 2.4-10	29 OCT 2026	AD 2.4-10	16 MAY 2024
	AD 2.4-11	29 OCT 2026	AD 2.4-11	16 MAY 2024
	AD 2.4-12	29 OCT 2026	----------	
	AD 2.4-13	29 OCT 2026	----------	
	AD 2.4-14	29 OCT 2026	----------	
	AD 2.4-15	29 OCT 2026	----------	
	AD 2.4-16	29 OCT 2026	----------	
	AD 2.4-17	29 OCT 2026	----------	
	AD 2.4-18	29 OCT 2026	----------	
	AD 2.4-19	29 OCT 2026	----------	
	AD 2.4-19a	29 OCT 2026	----------	
	AD 2.4-19b	29 OCT 2026	----------	
	AD 2.4-19c	29 OCT 2026	----------	
	AD 2.4-20	29 OCT 2026	AD 2.4-20	25 DEC 2025
	AD 2.4-20a	29 OCT 2026	AD 2.4-20a	21 APR 2022
	AD 2.4-22	29 OCT 2026	AD 2.4-22	25 DEC 2025
	AD 2.4-22a	29 OCT 2026	AD 2.4-22a	06 AUG 2026
	AD 2.4-25	29 OCT 2026	AD 2.4-25	08 NOV 2018
	AD 2.4-26	29 OCT 2026	AD 2.4-26	08 NOV 2018
	AD 2.4-29	29 OCT 2026	AD 2.4-29	08 APR 2010
	AD 2.4-30	29 OCT 2026	AD 2.4-30	03 SEP 2026
	AD 2.4-30a	29 OCT 2026	----------	
	AD 2.4-31	29 OCT 2026	AD 2.4-31	03 SEP 2026

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.4-31a	29 OCT 2026	----------	
	AD 2.4-32	29 OCT 2026	AD 2.4-32	17 APR 2025
	AD 2.4-32a	29 OCT 2026	----------	
	AD 2.4-33	29 OCT 2026	AD 2.4-33	17 APR 2025
	AD 2.4-33a	29 OCT 2026	----------	
	AD 2.4-34	29 OCT 2026	AD 2.4-34	03 SEP 2026
	AD 2.4-34a	29 OCT 2026	AD 2.4-34a	01 JAN 2017
	AD 2.4-34b	29 OCT 2026	----------	
	AD 2.4-35	29 OCT 2026	AD 2.4-35	03 SEP 2026
	AD 2.4-35a	29 OCT 2026	AD 2.4-35a	13 NOV 2014
	AD 2.4-35b	29 OCT 2026	----------	
	AD 2.4-36	29 OCT 2026	AD 2.4-36	17 APR 2025
	AD 2.4-36a	29 OCT 2026	AD 2.4-36a	07 FEB 2013
	AD 2.4-36b	29 OCT 2026	----------	
	AD 2.4-36c	29 OCT 2026	----------	
	AD 2.4-37	29 OCT 2026	AD 2.4-37	17 APR 2025
	AD 2.4-37a	29 OCT 2026	AD 2.4-37a	01 JAN 2017
	AD 2.4-37b	29 OCT 2026	----------	
	AD 2.4-37c	29 OCT 2026	----------	
	AD 2.4-45	29 OCT 2026	AD 2.4-45	03 SEP 2026
	AD 2.4-50	29 OCT 2026	----------	
	AD 2.4-50a	29 OCT 2026	----------	
	AD 2.4-51	29 OCT 2026	AD 2.4-51	17 APR 2025
	AD 2.4-51a	29 OCT 2026	AD 2.4-51a	05 APR 2012
	AD 2.4-52	29 OCT 2026	AD 2.4-52	17 APR 2025
	AD 2.4-52a	29 OCT 2026	AD 2.4-52a	05 APR 2012
	AD 2.4-53	29 OCT 2026	AD 2.4-53	17 APR 2025
	AD 2.4-53a	29 OCT 2026	AD 2.4-53a	05 APR 2012
	AD 2.4-54	29 OCT 2026	AD 2.4-54	17 APR 2025
	AD 2.4-54a	29 OCT 2026	AD 2.4-54a	05 APR 2012
	AD 2.4-55	29 OCT 2026	----------	
	AD 2.4-55a	29 OCT 2026	----------	
	AD 2.4-56	29 OCT 2026	----------	
	AD 2.4-56a	29 OCT 2026	----------	
	AD 2.4-57	29 OCT 2026	----------	
	AD 2.4-57a	29 OCT 2026	----------	
	AD 2.4-71	29 OCT 2026	----------	
	AD 2.4-71a	29 OCT 2026	----------	
	AD 2.4-71b	29 OCT 2026	----------	
	AD 2.4-71c	29 OCT 2026	----------	
	AD 2.4-72	29 OCT 2026	----------	
	AD 2.4-72a	29 OCT 2026	----------	
	AD 2.4-72b	29 OCT 2026	----------	
	AD 2.4-72c	29 OCT 2026	----------	
	AD 2.4-91	29 OCT 2026	AD 2.4-91	17 APR 2025
	AD 2.4-91a	29 OCT 2026	AD 2.4-91a	05 APR 2012
	AD 2.4-92	29 OCT 2026	AD 2.4-92	17 APR 2025
	AD 2.4-92a	29 OCT 2026	AD 2.4-92a	05 APR 2012
	AD 2.4-93	29 OCT 2026	AD 2.4-93	17 APR 2025
	AD 2.4-93a	29 OCT 2026	AD 2.4-93a	10 DEC 2015
	AD 2.4-94	29 OCT 2026	AD 2.4-94	17 APR 2025
	AD 2.4-94a	29 OCT 2026	AD 2.4-94a	10 DEC 2015
	AD 2.5-1	29 OCT 2026	AD 2.5-1	20 MAR 2025
	AD 2.5-2	29 OCT 2026	AD 2.5-2	16 APR 2026
	AD 2.5-4	29 OCT 2026	AD 2.5-4	10 AUG 2023
	AD 2.5-5	29 OCT 2026	AD 2.5-5	07 SEP 2023
	AD 2.5-6	29 OCT 2026	AD 2.5-6	16 APR 2026

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.5-7	29 OCT 2026	AD 2.5-7	12 JUN 2025
	AD 2.5-8	29 OCT 2026	AD 2.5-8	16 APR 2026
	AD 2.5-9	29 OCT 2026	AD 2.5-9	16 APR 2026
	AD 2.5-10	29 OCT 2026	AD 2.5-10	30 OCT 2025
	AD 2.5-11	29 OCT 2026	AD 2.5-11	02 OCT 2025
	AD 2.5-12	29 OCT 2026	AD 2.5-12	03 SEP 2026
	AD 2.5-13	29 OCT 2026	AD 2.5-13	02 OCT 2025
	AD 2.5-14	29 OCT 2026	AD 2.5-14	02 OCT 2025
	AD 2.5-15	29 OCT 2026	AD 2.5-15	02 OCT 2025
	AD 2.5-16	29 OCT 2026	AD 2.5-16	01 OCT 2026
	AD 2.5-17	29 OCT 2026	AD 2.5-17	01 OCT 2026
	AD 2.5-18	29 OCT 2026	AD 2.5-18	01 OCT 2026
	AD 2.5-19	29 OCT 2026	----------	
	AD 2.5-19a	29 OCT 2026	----------	
	AD 2.5-19b	29 OCT 2026	----------	
	AD 2.5-19c	29 OCT 2026	----------	
	AD 2.5-19d	29 OCT 2026	----------	
	AD 2.5-19e	29 OCT 2026	----------	
	AD 2.5-19f	29 OCT 2026	----------	
	AD 2.5-19g	29 OCT 2026	----------	
	AD 2.5-19h	29 OCT 2026	----------	
	AD 2.5-20	29 OCT 2026	AD 2.5-20	02 OCT 2025
	AD 2.5-21	29 OCT 2026	AD 2.5-21	16 APR 2026
	AD 2.5-21a	29 OCT 2026	AD 2.5-21a	16 APR 2026
	AD 2.5-22	29 OCT 2026	AD 2.5-22	16 APR 2026
	AD 2.5-23	29 OCT 2026	AD 2.5-23	16 APR 2026
	AD 2.5-24	29 OCT 2026	AD 2.5-24	31 OCT 2024
	AD 2.5-25	29 OCT 2026	AD 2.5-25	13 SEP 2018
	AD 2.5-26	29 OCT 2026	AD 2.5-26	22 APR 2021
	AD 2.5-27	29 OCT 2026	----------	
	AD 2.5-28	29 OCT 2026	AD 2.5-28	08 DEC 2016
	AD 2.5-29	29 OCT 2026	AD 2.5-29	22 APR 2021
	AD 2.5-30	29 OCT 2026	AD 2.5-30	03 SEP 2026
	AD 2.5-30a	29 OCT 2026	----------	
	AD 2.5-31	29 OCT 2026	AD 2.5-31	03 SEP 2026
	AD 2.5-31a	29 OCT 2026	----------	
	AD 2.5-32	29 OCT 2026	AD 2.5-32	17 APR 2025
	AD 2.5-32a	29 OCT 2026	----------	
	AD 2.5-33	29 OCT 2026	AD 2.5-33	17 APR 2025
	AD 2.5-33a	29 OCT 2026	----------	
	AD 2.5-34	29 OCT 2026	AD 2.5-34	03 SEP 2026
	AD 2.5-34a	29 OCT 2026	AD 2.5-34a	25 JUN 2015
	AD 2.5-34b	29 OCT 2026	----------	
	AD 2.5-34c	29 OCT 2026	----------	
	AD 2.5-35	29 OCT 2026	AD 2.5-35	03 SEP 2026
	AD 2.5-35a	29 OCT 2026	AD 2.5-35a	26 JUN 2014
	AD 2.5-35b	29 OCT 2026	----------	
	AD 2.5-35c	29 OCT 2026	----------	
	AD 2.5-36	29 OCT 2026	AD 2.5-36	17 APR 2025
	AD 2.5-36a	29 OCT 2026	AD 2.5-36a	07 FEB 2013
	AD 2.5-36b	29 OCT 2026	----------	
	AD 2.5-36c	29 OCT 2026	----------	
	AD 2.5-36d	29 OCT 2026	----------	
	AD 2.5-36e	29 OCT 2026	----------	
	AD 2.5-37	29 OCT 2026	AD 2.5-37	17 APR 2025
	AD 2.5-37a	29 OCT 2026	AD 2.5-37a	26 JUN 2014
	AD 2.5-37b	29 OCT 2026	----------	

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	AD 2.5-37c	29 OCT 2026	----------	
	AD 2.5-37d	29 OCT 2026	----------	
	AD 2.5-37e	29 OCT 2026	----------	
	AD 2.5-45	29 OCT 2026	AD 2.5-45	03 SEP 2026
	AD 2.5-51	29 OCT 2026	AD 2.5-51	17 APR 2025
	AD 2.5-51a	29 OCT 2026	AD 2.5-51a	05 APR 2012
	AD 2.5-52	29 OCT 2026	----------	
	AD 2.5-52a	29 OCT 2026	----------	
	AD 2.5-53	29 OCT 2026	AD 2.5-53	17 APR 2025
	AD 2.5-53a	29 OCT 2026	AD 2.5-53a	05 APR 2012
	AD 2.5-54	29 OCT 2026	----------	
	AD 2.5-54a	29 OCT 2026	----------	
	AD 2.5-55	29 OCT 2026	AD 2.5-55	17 APR 2025
	AD 2.5-55a	29 OCT 2026	AD 2.5-55a	07 FEB 2013
	AD 2.5-57	29 OCT 2026	AD 2.5-57	17 APR 2025
	AD 2.5-57a	29 OCT 2026	AD 2.5-57a	05 APR 2012
	AD 2.5-71	29 OCT 2026	----------	
	AD 2.5-71a	29 OCT 2026	----------	
	AD 2.5-71b	29 OCT 2026	----------	
	AD 2.5-71c	29 OCT 2026	----------	
	AD 2.5-72	29 OCT 2026	----------	
	AD 2.5-72a	29 OCT 2026	----------	
	AD 2.5-72b	29 OCT 2026	----------	
	AD 2.5-72c	29 OCT 2026	----------	
	AD 2.5-73	29 OCT 2026	----------	
	AD 2.5-73a	29 OCT 2026	----------	
	AD 2.5-73b	29 OCT 2026	----------	
	AD 2.5-73c	29 OCT 2026	----------	
	AD 2.5-74	29 OCT 2026	----------	
	AD 2.5-74a	29 OCT 2026	----------	
	AD 2.5-74b	29 OCT 2026	----------	
	AD 2.5-74c	29 OCT 2026	----------	
	AD 2.5-91	29 OCT 2026	AD 2.5-91	17 APR 2025
	AD 2.5-91a	29 OCT 2026	AD 2.5-91a	05 APR 2012
	AD 2.5-93	29 OCT 2026	AD 2.5-93	17 APR 2025
	AD 2.5-93a	29 OCT 2026	AD 2.5-93a	05 APR 2012
	AD 2.5-95	29 OCT 2026	AD 2.5-95	17 APR 2025
	AD 2.5-95a	29 OCT 2026	AD 2.5-95a	07 FEB 2013
	AD 2.5-97	29 OCT 2026	AD 2.5-97	17 APR 2025
	AD 2.5-97a	29 OCT 2026	AD 2.5-97a	05 APR 2012
	AD 2.7-1	29 OCT 2026	AD 2.7-1	22 JAN 2026
	AD 2.7-2	29 OCT 2026	AD 2.7-2	22 JAN 2026
	AD 2.11-10	29 OCT 2026	AD 2.11-10	14 MAY 2026
	AD 2.11-11	29 OCT 2026	AD 2.11-11	14 MAY 2026
	AD 2.16-1	29 OCT 2026	AD 2.16-1	07 AUG 2025
	AD 2.16-2	29 OCT 2026	AD 2.16-2	11 JUN 2026
	AD 2.16-7	29 OCT 2026	AD 2.16-7	07 AUG 2025
	AD 2.16-8	29 OCT 2026	AD 2.16-8	10 JUL 2025
	AD 2.16-9	29 OCT 2026	AD 2.16-9	19 MAR 2026
	AD 2.16-10	29 OCT 2026	AD 2.16-10	19 MAR 2026
	AD 2.16-11	29 OCT 2026	AD 2.16-11	07 AUG 2025
	AD 2.16-12	29 OCT 2026	AD 2.16-12	03 SEP 2026
	AD 2.16-13	29 OCT 2026	AD 2.16-13	07 AUG 2025
	AD 2.16-14	29 OCT 2026	AD 2.16-14	07 AUG 2025
	AD 2.16-15	29 OCT 2026	AD 2.16-15	30 NOV 2023
	AD 2.16-16	29 OCT 2026	----------	
	AD 2.16-20	29 OCT 2026	AD 2.16-20	07 AUG 2025

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:
	AD 2.16-21	29 OCT 2026	----------
	AD 2.16-23	29 OCT 2026	----------

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

IV. **Hand amendments:**

See GEN 0.5 / 29 OCT 2026.

V. **Information contained in the following NOTAM is incorporated in AIRAC AIP AMDT 11/26:**

A4118/26.

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 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	
01/25	CLUJ NAPOCA / Avram Iancu Airport, airport development charge.	GEN 4.1	**from:** 20 FEB 2025 **to:** 31 DEC 2028	
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	
04/25	BUCUREȘTI / Băneasa-Aurel Vlaicu Airport, temporary changes of charges.	GEN 4.1	**from:** 17 APR 2025 **to:** 31 DEC 2027	
AIRAC 07/25	BUCUREȘTI FIR - Schela MTS Wind Farm under construction	ENR 5.4, AD 2.10	**from:** 12 JUN 2025 **to:** 30 JUN 2027 EST	
AIRAC 09/25	BUCUREȘTI FIR - Siminoc Wind Farm under construction	ENR 5.4, AD 2.8	**from:** 10 JUL 2025 **to:** 31 DEC 2026 EST	
AIRAC 10/25	BUCUREȘTI FIR - Bărăganu Wind Farm under construction.	ENR 5.4, AD 2.8	**from:** 10 JUL 2025 **to:** 31 MAY 2027 EST	
AIRAC 12/25	BUCUREȘTI FIR - Cogealac Wind Farm under construction.	ENR 5.4, AD 2.8	**from:** 10 JUL 2025 **to:** 30 JUN 2027 EST	
AIRAC 13/25	BUCUREȘTI FIR - Cilibia 1, Cilibia 2 and Gălbinași Wind Farms under construction.	ENR 5.4, AD 2.4, AD 2.5, AD 2.8	**from:** 02 OCT 2025 **to:** 31 DEC 2027 EST	
AIRAC 14/25	BUCUREȘTI FIR - Țăndărei Solar wind farm under construction.	ENR 5.4, AD 2.4, AD 2.5, AD 2.8	**from:** 02 OCT 2025 **to:** 30 NOV 2026 EST	
AIRAC 17/25	BUCUREȘTI FIR - Deleni Wind Farm under construction	ENR 5.4, AD 2.8	**from:** 27 NOV 2025 **to:** 31 DEC 2027 EST	
AIRAC 18/25	BUCUREȘTI FIR - Cobadin Wind Farm and Pietreni Wind Farm under construction	ENR 5.4, AD 2.8	**from:** 27 NOV 2025 **to:** 30 NOV 2026 EST	

1	2	3	4	5
AIRAC 19/25	BUCUREȘTI FIR - Rugăria Eolian wind farm under construction.	ENR 5.4, ENR 6-2, AD 2.2	**from:** 25 DEC 2025 **to:** 31 DEC 2026 EST	
01/26	IAȘI / Iași Airport, airport development charge.	GEN 4.1	**from:** 01 JAN 2026 **to:** 31 DEC 2030	
AIRAC 01/26	SATU MARE / Satu Mare, Aircaft Parking/Docking Chart - ICAO temporarily suspended.	AD 2.12	**from:** 11 JUN 2026 **to:** announced by NOTAM or SUP	
AIRAC 02/26	BUCUREȘTI FIR - Beidaud 2 Wind Farm under construction	ENR 5.4	**from:** 11 JUN 2026 **to:** 30 JUN 2027 EST	
AIRAC 03/26	BUCUREȘTI FIR - Smârdan Wind Farm under construction	ENR 5.4, AD 2.8	**from:** 09 JUL 2026 **to:** 30 JUN 2028 EST	
AIRAC 04/26	CLUJ NAPOCA/Avram Iancu Airport, Start of construction works for parking positions at Apron 1.	AD 2.7	**from:** 06 AUG 2026 **to:** 28 OCT 2026 EST	
AIRAC 05/26	BUCUREȘTI FIR - CEM VALU 1 Wind Farm under construction	ENR 5.4, AD 2.8	**from:** 06 AUG 2026 **to:** 30 JUN 2028 EST	
AIRAC 06/26	BUCUREȘTI FIR - Beidaud Eolian wind farm under construction	ENR 5.4, AD 2.8	**from:** 03 SEP 2026 **to:** 31 DEC 2026 EST	
AIRAC 07/26	BUCUREȘTI FIR - Chirnogeni Wind Farm under construction.	ENR 5.4, AD 2.8	**from:** 03 SEP 2026 **to:** 31 DEC 2027 EST	
AIRAC 08/26	BUCUREȘTI FIR - Cerchezu wind farm under construction	ENR 5.4, ENR 6-2, AD 2.8	**from:** 29 OCT 2026 **to:** 30 APR 2030 EST	

GEN 0.4 CHECKLIST OF AIP PAGES

PART 1-GENERAL(GEN)

GEN 0

Page	Date
GEN 0.1-1	15 JUL 2022
GEN 0.1-2	15 JUL 2022
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AD 2.16-52	17 APR 2025	AD 2.19-1	19 FEB 2026	AD 2.28-2	16 APR 2026
AD 2.16-52a	18 JUL 2019	AD 2.19-2	27 NOV 2025	AD 2.28-3	16 APR 2026
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AD 2.16-54	22 JAN 2026	AD 2.19-5	19 MAR 2026	AD 2.28-6	16 APR 2026
AD 2.16-54a	25 FEB 2021	AD 2.19-20	28 DEC 2023	AD 2.28-20	16 APR 2026
AD 2.16-91	17 APR 2025	AD 2.19-21	19 FEB 2026	AD 2.28-20a	16 APR 2026
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AD 2.16-93	22 JAN 2026	AD 2.20-1	22 JAN 2026	AD 2.29-1	31 OCT 2024
AD 2.16-93a	25 FEB 2021	AD 2.20-2	22 JAN 2026	AD 2.29-2	03 OCT 2024
AD 2.16-94	22 JAN 2026	AD 2.20-3	22 JAN 2026	AD 2.29-3	15 JUN 2023
AD 2.16-94a	25 FEB 2021	AD 2.20-4	22 JAN 2026	AD 2.29-4	15 JUN 2023
AD 2.17-1	16 APR 2026	AD 2.20-5	22 JAN 2026	AD 2.29-5	15 JUN 2023
AD 2.17-2	03 OCT 2024	AD 2.20-6	22 JAN 2026	AD 2.29-6	15 JUN 2023
AD 2.17-3	11 JUN 2026	AD 2.20-7	19 MAR 2026	AD 2.29-7	15 JUN 2023
AD 2.17-4	11 JUN 2026	AD 2.20-20	22 JAN 2026	AD 2.29-8	20 MAR 2025
AD 2.17-5	03 OCT 2024	AD 2.20-20a	22 JAN 2026	AD 2.29-9	20 FEB 2025
AD 2.17-6	03 OCT 2024	AD 2.20-40	22 JAN 2026	AD 2.29-10	17 APR 2025
AD 2.17-7	03 OCT 2024	AD 2.20-41	22 JAN 2026	AD 2.29-11	15 JUN 2023
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AD 2.17-52	11 JUN 2026	AD 2.24-40	18 APR 2024	AD 2.29-52	17 APR 2025
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AD 2.32-20	28 DEC 2023				
AD 2.32-40	18 APR 2024				
AD 2.33-1	07 AUG 2025				
AD 2.33-2	07 AUG 2025				
AD 2.33-3	04 SEP 2025				
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AD 2.33-5	19 MAR 2026				
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AD 2.35-1	03 SEP 2026				
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AD 2.35-3	27 NOV 2025				
AD 2.35-4	19 MAR 2026				
AD 2.35-20	27 NOV 2025				
AD 2.35-40	27 NOV 2025				
AD 2.36-1	19 MAR 2026				
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GEN 0.5 LIST OF HAND AMENDMENTS TO THE AIP

AIP page(s) Affected	*Amendment text*	*Introduced by AIP Amendment NO*
1	**2**	**3**
ENR 6-2 11 JUN 2026	EN-ROUTE CHART, Communication Facilities box, NERDI SECTOR: add channel 133.915.	AIRAC 09/26 03 SEP 2026
ENR 6-2 11 JUN 2026	EN-ROUTE CHART, Communication Facilities box, BANEASA GND, correct and read “129.960” instead of “129.950”.	AIRAC 11/26 29 OCT 2026

GEN 2.5 LIST OF RADIO NAVIGATION AIDS

ID	Station name	Facility	Purpose	Station name	ID	Facility	Purpose
ADM	ADAMCLISI	DME	AE	ADAMCLISI	ADM	DME	AE
ARD	ARAD/Arad	DVOR/DME	AE	ARAD/Arad	ARD	DVOR/DME	AE
ARN	ARINI	DME	AE	ARINI	ARN	DME	AE
B	BACĂU/George Enescu	NDB	A	BACĂU/George Enescu	B	NDB	A
BAC	BACĂU/George Enescu	DME	AE	BACĂU/George Enescu	BAC	DME	AE
BAI	BĂIŞOARA	DME	AE	BACĂU/George Enescu	BCU	DVOR/DME	AE
BCU	BACĂU/George Enescu	DVOR/DME	AE	BACĂU/George Enescu	IBA	ILS/DME	A
BMR	BAIA MARE/Maramureş	NDB	AE	BACĂU/George Enescu	IBC	ILS/DME	A
BRV	BRAŞOV	DVOR/DME	E	BAIA MARE/Maramureş	BMR	NDB	AE
BSE	BUCUREŞTI/Băneasa-Aurel Vlaicu	NDB	A	BAIA MARE/Maramureş	IBM	ILS/DME	A
BSW	BUCUREŞTI/Băneasa-Aurel Vlaicu	NDB	A	BAIA MARE/Maramureş	M	NDB	A
CHU	DEALUL CIUHII	DME	AE	BĂIŞOARA	BAI	DME	AE
CIC	CICĂU	DME	AE	BRAŞOV	BRV	DVOR/DME	E
CLJ	CLUJ NAPOCA/Avram Iancu	DVOR/DME	AE	BRAŞOV/Braşov-Ghimbav	VBV	DVOR/DME	A
CND	CONSTANŢA/Mihail Kogălniceanu-Constanţa	DVOR/DME	AE	BRAŞOV/Braşov-Ghimbav	IBV	ILS/DME	A
CNI	CENEI	DME	AE	BUCUREŞTI/Băneasa-Aurel Vlaicu	BSE	NDB	A
COM	COMANA	DME	AE	BUCUREŞTI/Băneasa-Aurel Vlaicu	BSW	NDB	A
CRV	CRAIOVA/Craiova	DVOR/DME	AE	BUCUREŞTI/Băneasa-Aurel Vlaicu	IBN	ILS/DME	A
DVA	DEVA	DVOR/DME	E	BUCUREŞTI/Băneasa-Aurel Vlaicu	IBS**	ILS/DME	A
FLR*	FLOREŞTI	VOR/DME	AE	BUCUREŞTI/Henri Coandă	ILL	ILS/DME	A
GLT	GALAŢI	DVOR/DME	E	BUCUREŞTI/Henri Coandă	IOE	ILS/DME	A
HDB	HADÂMBU	DME	AE	BUCUREŞTI/Henri Coandă	IOP	ILS/DME	A
HNU	HENIU	DME	AE	BUCUREŞTI/Henri Coandă	IRR	ILS/DME	A
IAS	IAŞI/Iaşi	NDB	A	BUCUREŞTI/Henri Coandă	OPE	NDB	A
IBA	BACĂU/George Enescu	ILS/DME	A	BUCUREŞTI/Henri Coandă	OPW	NDB	A
IBC	BACĂU/George Enescu	ILS/DME	A	BUCUREŞTI/Henri Coandă	OTL	NDB	A
IBM	BAIA MARE/Maramureş	ILS/DME	A	BUCUREŞTI/Henri Coandă	OTR	NDB	A
IBN	BUCUREŞTI/Băneasa-Aurel Vlaicu	ILS/DME	A	CENEI	CNI	DME	AE
IBS**	BUCUREŞTI/Băneasa-Aurel Vlaicu	ILS/DME	A	CICĂU	CIC	DME	AE
IBV	BRAŞOV/Braşov-Ghimbav	ILS/DME	A	CLUJ NAPOCA/Avram Iancu	CLJ	DVOR/DME	AE
ICK	CONSTANŢA/Mihail Kogălniceanu-Constanţa	ILS/DME	A	CLUJ NAPOCA/Avram Iancu	ICX	ILS/DME	A
ICV	CRAIOVA/Craiova	ILS/DME	A	COMANA	COM	DME	AE

ID	Station name	Facility	Purpose	Station name	ID	Facility	Purpose
ICX	CLUJ NAPOCA/Avram Iancu	ILS/DME	A	CONSTANŢA/Mihail Kogălniceanu-Constanţa	CND	DVOR/DME	AE
IIS	IAŞI/Iaşi	ILS/DME	A	CONSTANŢA/Mihail Kogălniceanu-Constanţa	ICK	ILS/DME	A
ILL	BUCUREŞTI/Henri Coandă	ILS/DME	A	CRAIOVA/Craiova	CRV	DVOR/DME	AE
IOD	ORADEA/Oradea	ILS/DME	A	CRAIOVA/Craiova	ICV	ILS/DME	A
IOE	BUCUREŞTI/Henri Coandă	ILS/DME	A	DEALUL CIUHII	CHU	DME	AE
IOP	BUCUREŞTI/Henri Coandă	ILS/DME	A	DEVA	DVA	DVOR/DME	E
IRR	BUCUREŞTI/Henri Coandă	ILS/DME	A	FLOREŞTI	FLR*	VOR/DME	AE
ISA	ISTRITA	DME	AE	GALAŢI	GLT	DVOR/DME	E
ISB	SIBIU/Sibiu	ILS/DME	A	HADÂMBU	HDB	DME	AE
ISI	IAŞI/Iaşi	DME	AE	HENIU	HNU	DME	AE
ISI	IAŞI/Iaşi	NDB	AE	IAŞI/Iaşi	IAS	NDB	A
ISM	SATU MARE/Satu Mare	ILS/DME	A	IAŞI/Iaşi	IIS	ILS/DME	A
ISV	SUCEAVA/Ştefan cel Mare-Suceava	ILS/DME	A	IAŞI/Iaşi	ISI	DME	AE
ITC	TULCEA/Delta Dunării	ILS/DME	A	IAŞI/Iaşi	ISI	NDB	AE
ITM	TÂRGU MUREŞ/Transilvania-Târgu Mureş	ILS/DME	A	ISTRITA	ISA	DME	AE
ITR	TIMIŞOARA/Traian Vuia	ILS/DME	A	LUGOJ	LGJ	DME	AE
ITS	TIMIŞOARA/Traian Vuia	ILS/DME	A	ODOBEȘTI	ODB	DME	AE
LGJ	LUGOJ	DME	AE	ORADEA/Oradea	IOD	ILS/DME	A
M	BAIA MARE/Maramureş	NDB	A	ORADEA/Oradea	O	NDB	A
O	ORADEA/Oradea	NDB	A	ORADEA/Oradea	ORA	NDB	AE
ODB	ODOBEȘTI	DME	AE	PĂLTINIȘ	PLT	DME	AE
OPE	BUCUREŞTI/Henri Coandă	NDB	A	PICIOR DE MUNTE	PMT	DME	AE
OPT	ROŞIORI	DVOR/DME	AE	ROŞIORI	OPT	DVOR/DME	AE
OPW	BUCUREŞTI/Henri Coandă	NDB	A	SACOȘU MARE	SAC	DME	AE
ORA	ORADEA/Oradea	NDB	AE	SATU MARE/Satu Mare	ISM	ILS/DME	A
OTL	BUCUREŞTI/Henri Coandă	NDB	A	SATU MARE/Satu Mare	SAT	DVOR/DME	AE
OTR	BUCUREŞTI/Henri Coandă	NDB	A	SIBIU/Sibiu	ISB	ILS/DME	A
PLT	PĂLTINIȘ	DME	AE	SIBIU/Sibiu	SBI	DVOR/DME	AE
PMT	PICIOR DE MUNTE	DME	AE	SIBIU/Sibiu	SIB	NDB	AE
SAC	SACOȘU MARE	DME	AE	STOLNICENI	STL	DME	AE
SAT	SATU MARE/Satu Mare	DVOR/DME	AE	STREJNIC	STJ	DVOR/DME	AE
SBI	SIBIU/Sibiu	DVOR/DME	AE	STRUNGA	STR	DME	AE

ID	Station name	Facility	Purpose	Station name	ID	Facility	Purpose
SCV	SUCEAVA/Ştefan cel Mare-Suceava	DVOR/DME	AE	SUCEAVA/Ştefan cel Mare-Suceava	SCV	DVOR/DME	AE
SIB	SIBIU/Sibiu	NDB	AE	SUCEAVA/Ştefan cel Mare-Suceava	ISV	ILS/DME	A
SIR	ȘIRIA	DME	AE	ȘIRIA	SIR	DME	AE
STJ	STREJNIC	DVOR/DME	AE	TÂRGU JIU	TGJ	VOR/DME	E
STL	STOLNICENI	DME	AE	TÂRGU MUREŞ/Transilvania-Târgu Mureş	ITM	ILS/DME	A
STR	STRUNGA	DME	AE	TÂRGU MUREŞ/Transilvania-Târgu Mureş	TGM	NDB	AE
TGJ	TÂRGU JIU	VOR/DME	E	TIMIŞOARA/Traian Vuia	ITR	ILS/DME	A
TGM	TÂRGU MUREŞ/Transilvania-Târgu Mureş	NDB	AE	TIMIŞOARA/Traian Vuia	ITS	ILS/DME	A
TIM	TIMIŞOARA/Traian Vuia	NDB	A	TIMIŞOARA/Traian Vuia	TIM	NDB	A
TLA	TULCEA/Delta Dunării	DVOR/DME	AE	TIMIŞOARA/Traian Vuia	TSR	NDB	AE
TPG	TOPOLOG	DME	AE	TOPOLOG	TPG	DME	AE
TSR	TIMIŞOARA/Traian Vuia	NDB	AE	TULCEA/Delta Dunării	ITC	ILS/DME	A
TZL	TUZLA	DME	AE	TULCEA/Delta Dunării	TLA	DVOR/DME	AE
VBV	BRAŞOV/Braşov-Ghimbav	DVOR/DME	A	TUZLA	TZL	DME	AE
ZLU	ZALĂU	DME	AE	ZALĂU	ZLU	DME	AE

A – Aerodrome
E – En-route
AE – dual purposes

* BUCURESTI TMA
** 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 with the FM immunity provisions as stated in sections 3.1.4 and 3.3.8 of Annex 10, Vol. I.

5. List of aeronautical charts available
Lista hărţilor aeronautice produse

Those charts series marked by an asterisk form part of the AIP.

Title of series	Scale	Name and/or number	Price (EUR)
1	2	3	4
Instrument Approach Chart - ICAO*		**ARAD/Arad**	
(IAC)	1:500 000	LRAR ILS RWY 27 A/B	
	1:500 000	LRAR ILS RWY 27 C/D	
	1:500 000	LRAR VOR RWY 09	
	1:500 000	LRAR VOR RWY 27 A/B	
	1:500 000	LRAR VOR RWY 27 C/D	
		BACĂU/George Enescu	
	1:500 000	LRBC ILS X RWY 16	
	1:500 000	LRBC ILS Z RWY 16	
	1:500 000	LRBC ILS Y RWY 16	
	1:500 000	LRBC ILS Z RWY 34	
	1:500 000	LRBC ILS Y RWY 34	
	1:500 000	LRBC RNP RWY 16	
	1:500 000	LRBC RNP RWY 34	
	1:500 000	LRBC NDB Z RWY 16	
	1:500 000	LRBC NDB Y RWY 16	
	1:500 000	LRBC NDB Z RWY 34	
	1:500 000	LRBC NDB Y RWY 34	
		BAIA MARE/Maramureş	
	1:500 000	LRBM ILS Y RWY 09 A, B	
	1:500 000	LRBM ILS Z RWY 09 C, D	
	1:500 000	LRBM RNP RWY 09	
	1:500 000	LRBM NDB W RWY 09 A, B	
	1:500 000	LRBM NDB X RWY 09 C, D	
	1:500 000	LRBM NDB Y RWY 09 A, B	
	1:500 000	LRBM NDB Z RWY 09 C, D	
		BRAŞOV/Braşov-Ghimbav	
	1:500 000	LRBV ILS RWY 21	
	1:500 000	LRBV RNP Z RWY 03	
	1:500 000	LRBV RNP X RWY 21	
	1:500 000	LRBV RNP Y RWY 21	
	1:500 000	LRBV RNP Z RWY 21	
	1:500 000	LRBV VOR RWY 21	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
	1:500 000	LRBS ILS Z RWY 07	
	1:500 000	LRBS LOC Z RWY 07	
	1:500 000	LRBS ILS Y RWY 07	
	1:500 000	LRBS LOC Y RWY 07	
	1:500 000	LRBS ILS Z RWY 25	
	1:500 000	LRBS LOC Z RWY 25	
	1:500 000	LRBS ILS Y RWY 25	
	1:500 000	LRBS LOC Y RWY 25	
	1:500 000	LRBS RNP RWY 07	
	1:500 000	LRBS RNP RWY 25	
	1:500 000	LRBS NDB Z RWY 07	
	1:500 000	LRBS NDB Y RWY 07	
	1:500 000	LRBS NDB Z RWY 25	
	1:500 000	LRBS NDB Y RWY 25	
		BUCUREŞTI/Henri Coandă	
	1:500 000	LROP ILS RWY 08L	
	1:500 000	LROP LOC RWY 08L	
	1:500 000	LROP ILS RWY 08R	
	1:500 000	LROP LOC RWY 08R	
	1:500 000	LROP ILS or LOC RWY 26L	
	1:500 000	LROP ILS or LOC RWY 26R	
	1:500 000	LROP RNP RWY 08L	
	1:500 000	LROP RNP RWY 08R	
	1:500 000	LROP RNP RWY 26L	
	1:500 000	LROP RNP RWY 26R	
	1:500 000	LROP NDB RWY 08L	
	1:500 000	LROP NDB RWY 08R	
	1:500 000	LROP NDB RWY 26L	
	1:500 000	LROP NDB RWY 26R	
		CLUJ-NAPOCA/Avram Iancu	
	1:500 000	LRCL ILS RWY 25	
	1:500 000	LRCL RNAV (GNSS) RWY 07	
	1:500 000	LRCL RNAV (GNSS) RWY 25	
	1:500 000	LRCL VOR RWY 07	

1	2	3	4
Instrument Approach Chart - ICAO* (IAC)		**CONSTANŢA/Mihail Kogălniceanu - Constanţa**	
	1:500 000	LRCK ILS RWY 36	
	1:500 000	LRCK RNP RWY 18	
	1:500 000	LRCK RNP RWY 36	
	1:500 000	LRCK VOR RWY 18	
	1:500 000	LRCK VOR RWY 36	
		CRAIOVA/Craiova	
	1:500 000	LRCV ILS Z RWY 26	
	1:500 000	LRCV ILS Y RWY 26	
	1:500 000	LRCV RNP RWY 08	
	1:500 000	LRCV RNP RWY 26	
	1:500 000	LRCV VOR Z RWY 26	
	1:500 000	LRCV VOR Y RWY 26	
	1:500 000	LRCV VOR Z RWY 08	
	1:500 000	LRCV VOR Y RWY 08	
		IAŞI/Iaşi	
	1:500 000	LRIA ILS Z RWY 14	
	1:500 000	LRIA ILS Y RWY 14	
	1:500 000	LRIA RNP RWY 14	
	1:500 000	LRIA RNP RWY 32	
	1:500 000	LRIA NDB Z RWY 14	
	1:500 000	LRIA NDB Y RWY 14	
	1:500 000	LRIA NDB Z RWY 32	
	1:500 000	LRIA NDB Y RWY 32	
		ORADEA/Oradea	
	1:500 000	LROD ILS Y RWY 19	
	1:500 000	LROD ILS Z RWY 19	
	1:500 000	LROD RNP RWY 19	
	1:500 000	LROD NDB Y RWY 19 A/B	
	1:500 000	LROD NDB Z RWY 19 C/D	
		SATU MARE/Satu Mare	
	1:500 000	LRSM ILS Y RWY 19 A/B	
	1:500 000	LRSM ILS Z RWY 19 C/D	
	1:500 000	LRSM RNP RWY 19	
	1:500 000	LRSM RNP RWY 01	
	1:500 000	LRSM VOR Y RWY 19 A/B	
	1:500 000	LRSM VOR Z RWY 19 C/D	
	1:500 000	LRSM VOR RWY 01	
		SIBIU/Sibiu	
	1:500 000	LRSB ILS RWY 27	
	1:500 000	LRSB NDB RWY 09	
		SUCEAVA/Ştefan Cel Mare-Suceava	
	1:500 000	LRSV ILS or LOC Z RWY 34	
	1:500 000	LRSV ILS or LOC Y RWY 34	
	1:500 000	LRSV RNP RWY 16	
	1:500 000	LRSV RNP RWY 34	
	1:500 000	LRSV VOR Z RWY 16	
	1:500 000	LRSV VOR Y RWY 16	
	1:500 000	LRSV VOR Z RWY 34	
	1:500 000	LRSV VOR Y RWY 34	
		TÂRGU MUREŞ/Transilvania-Târgu Mureş	
	1:500 000	LRTM ILS RWY 07 A/B	
	1:500 000	LRTM ILS RWY 07 C/D	
	1:500 000	LRTM NDB RWY 07 A/B	
	1:500 000	LRTM NDB RWY 07 C/D	
	1:500 000	LRTM NDB RWY 25 A/B	
	1:500 000	LRTM NDB RWY 25 C/D	
		TIMIŞOARA/Tarian Vuia	
	1:500 000	LRTR ILS RWY 11 A, B	
	1:500 000	LRTR ILS RWY 11 C, D	
	1:500 000	LRTR ILS RWY 29 A, B	
	1:500 000	LRTR ILS RWY 29 C, D	
	1:500 000	LRTR NDB RWY 11 A, B	
	1:500 000	LRTR NDB RWY 11 C, D	
	1:500 000	LRTR NDB RWY 29 A, B	
	1:500 000	LRTR NDB RWY 29 C, D	
		TULCEA/Delta Dunării Tulcea	
	1:500 000	LRTC ILS Z RWY 34	
	1:500 000	LRTC ILS Y RWY 34	
	1:500 000	LRTC RNP RWY 34	
	1:500 000	LRTC RNP RWY 16	
	1:500 000	LRTC VOR Z RWY 34	
	1:500 000	LRTC VOR Y RWY 34	

1	2	3	4
Instrument Approach Chart*		**BRAŞOV/Braşov-Ghimbav**	
(IAC)	1:500 000	LRBV RNP RWY 03 Contingency	
Aerodrome Chart - ICAO*		**ARAD/Arad**	
(AC)	1:7 000	**ARAD/Charlie-Bravo Şiria**	
	1:20 000	**BACĂU/George Enescu**	
	1:15 000	**BAIA MARE/Maramureş**	
	1:5 000	**BISTRIŢA/Bistriţa**	
	1:20 000	**BRAŞOV/Braşov-Ghimbav**	
		BRAŞOV/Sânpetru	
	1:4 000	**BRAŞOV/Corona**	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		BUCUREŞTI/Henri Coandă	
	1:10 000	**CARANSEBEŞ/Banat-Caransebeş**	
	1:5 000	**CISNĂDIE/Măgura**	
	1:6 000	**CLINCENI/Clinceni**	
	1:15 000	**CLUJ NAPOCA/Avram Iancu**	
	1:20 000	**CONSTANŢA/Mihail Kogălniceanu-Constanţa**	
		CRAIOVA/Craiova	
	1:5 000	**CRAIOVA/Craiova-Sud**	
	1:10 000	**DEVA/Săuleşti-Constantin Manolache**	
	1:5 000	**DEZMIR/Dezmir**	
	1:8 000	**GHEORGHENI/Remetea**	
	1:2 500	**GRADIŞTEA/Grădiştea**	
	1:15 000	**IAŞI/Iaşi**	
	1:4 000	**IAŞI/Iaşi-Sud**	
		ORADEA/Oradea	
	1:5 000	**PITEŞTI/Geamăna**	
	1:5 000	**PIATRA NEAMȚ/Zănești-Neamț**	
	1:5 000	**PLOIEŞTI/Gheorghe Valentin Bibescu-Ploieşti**	
		SATU-MARE/Satu-Mare	
		SIBIU/Sibiu	
	1:15 000	**SUCEAVA/Ştefan cel Mare-Suceava**	
	1:5000	**TÂRGU MUREŞ/Mureşeni**	
	1:15 000	**TÂRGU MUREŞ/Transilvania-Târgu Mureş**	
		TIMIŞOARA/Traian Vuia	
	1:20 000	**TULCEA/Delta Dunării Tulcea**	
	1:7 000	**TUZLA/Tuzla**	
Heliport Chart - ICAO*	1:2 000	**BRAŞOV/Cobrex**	
(HC)	1:2 500	**GHIMBAV/IAR Braşov**	
	1:2 000	**GHIMBAV/MIR AERO-Braşov**	
	1:500	**ORADEA/SMURD BH 2**	
	1:1 000	**OŞORHEI/Dogaru**	
		TIMIŞOARA/Traian Vuia	
Aircraft Parking/Docking Chart - ICAO*		**ARAD/Arad - APRON 1/APRON 2**	
		BACĂU/George Enescu	
		BAIA MARE/Maramureş	
		BRAŞOV/Braşov-Ghimbav	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		BUCUREŞTI/Henri Coandă - APRON 1	
		BUCUREŞTI/Henri Coandă - APRON 2	
		BUCUREŞTI/Henri Coandă - APRON 3	
		CLINCENI/Clinceni	
		CLUJ NAPOCA/Avram Iancu - APRON 1	
		CLUJ NAPOCA/Avram Iancu - APRON 2	
		CONSTANŢA/Mihail Kogălniceanu-Constanţa	
		CRAIOVA/Craiova - APRON 1	
		CRAIOVA/Craiova - APRON 2	
		CRAIOVA/Craiova - APRON 3 / APRON 4	
		IAŞI/Iaşi	
		ORADEA/Oradea - APRON 1	
		ORADEA/Oradea - APRON 2	
		PLOIEȘTI/Gheorghe Valentin Bibescu-Ploiești	
		SATU MARE/Satu Mare	
		SIBIU/Sibiu	
		SUCEAVA/Ştefan cel Mare-Suceava - APRON 1	
		SUCEAVA/Ştefan cel Mare-Suceava - APRON 2	
		TÂRGU MUREŞ/Transilvania-Târgu Mureş - APRON 1	
		TÂRGU MUREŞ/Transilvania-Târgu Mureş - APRON 2	
		TIMIŞOARA/Traian Vuia - APRON	
		TIMIŞOARA/Traian Vuia - APRON WEST	
		TULCEA/Delta Dunării Tulcea	

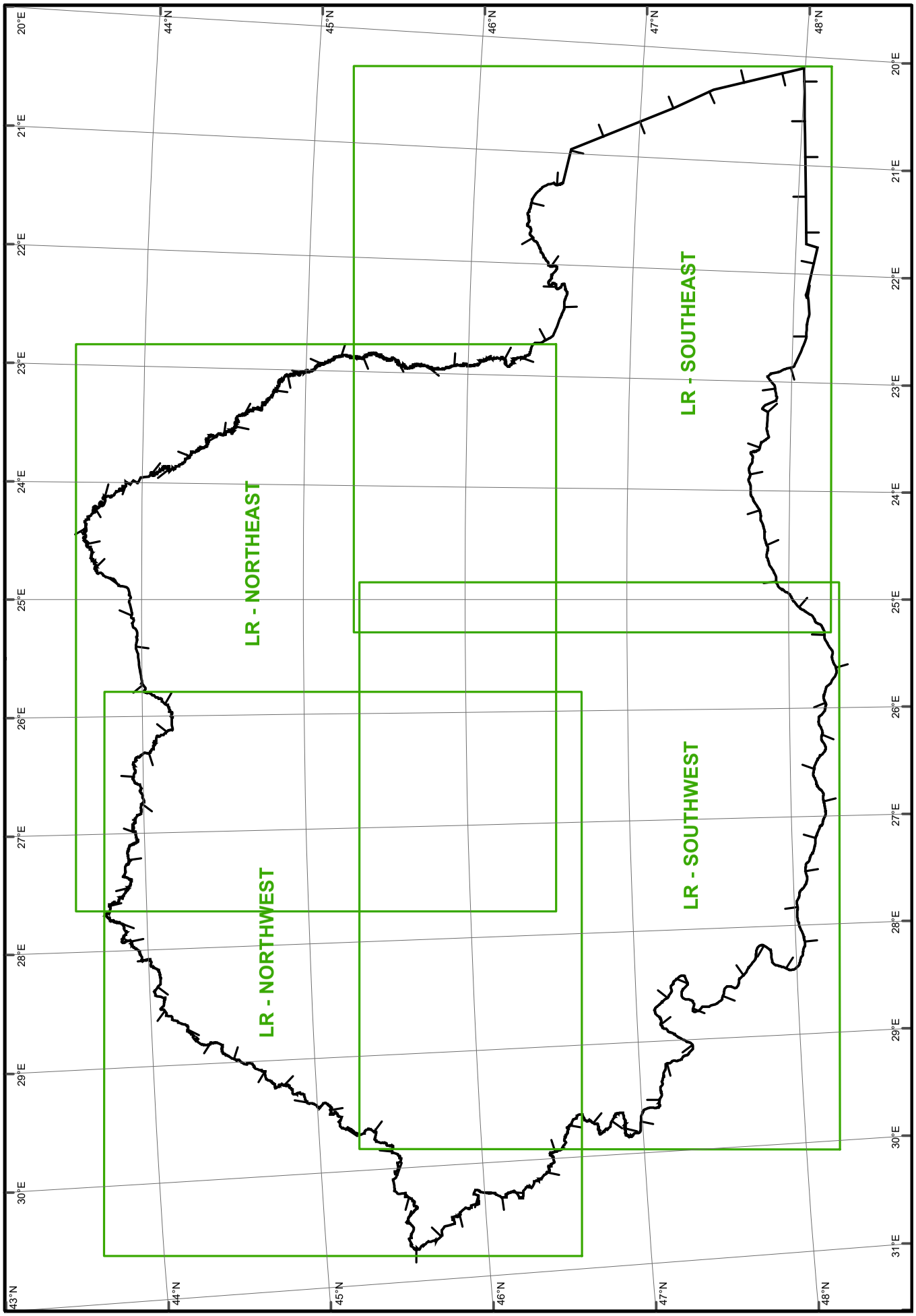
1	2	3	4
Aerodrome Obstacle Chart - ICAO* TYPE A (AOC)	1:10 000	**ARAD/Arad**	**AOC - A 27**
	1:10 000	**ARAD/Arad**	**AOC - A 09**
	1:15 000	**BACĂU/George Enescu**	**AOC - A 16**
	1:15 000	**BACĂU/George Enescu**	**AOC - A 34**
	1:15 000	**BAIA MARE/Maramureş**	**AOC - A 09/27**
	1:15 000	**BRAŞOV/Braşov-Ghimbav**	**AOC - A 21/03**
	1:15 000	**BUCUREŞTI/Băneasa-Aurel Vlaicu**	**AOC - A 07**
	1:15 000	**BUCUREŞTI/Băneasa-Aurel Vlaicu**	**AOC - A 25**
	1:15 000	**BUCUREŞTI/Henri Coandă**	**AOC - A 08R/26L**
	1:15 000	**BUCUREŞTI/Henri Coandă**	**AOC - A 08L/26R**
	1:15 000	**CLUJ NAPOCA/Avram Iancu**	**AOC - A 07**
	1:15 000	**CLUJ NAPOCA/Avram Iancu**	**AOC - A 25**
	1:15 000	**CONSTANŢA/Mihail Kogălniceanu-Constanţa**	**AOC - A 36/18**
	1:15 000	**CRAIOVA/Craiova**	**AOC - A 08/26**
	1:20 000	**IAŞI/Iaşi**	**AOC - A 14/32**
	1:15 000	**ORADEA/Oradea**	**AOC - A 01**
	1:15 000	**ORADEA/Oradea**	**AOC - A 19**
	1:15 000	**SATU MARE/Satu Mare**	**AOC - A 01**
	1:15 000	**SATU MARE/Satu Mare**	**AOC - A 19**
	1:15 000	**SIBIU/Sibiu**	**AOC - A 09**
	1:15 000	**SIBIU/Sibiu**	**AOC - A 27**
	1:20 000	**SUCEAVA/Ştefan cel Mare-Suceava**	**AOC - A 16/34**
	1:15 000	**TÂRGU MUREŞ/Transilvania - Târgu Mureş**	**AOC - A 07**
	1:15 000	**TÂRGU MUREŞ/Transilvania - Târgu Mureş**	**AOC - A 25**
	1:15 000	**TIMIŞOARA/Traian Vuia**	**AOC - A 11**
	1:15 000	**TIMIŞOARA/Traian Vuia**	**AOC - A 29**
	1:15 000	**TULCEA/Delta Dunării Tulcea**	**AOC - A 16**
	1:15 000	**TULCEA/Delta Dunării Tulcea**	**AOC - A 34**
Aerodrome Ground Movement Chart - ICAO*	1:25 000	**BUCUREŞTI/Henri Coandă**	
		CLUJ NAPOCA/Avram Iancu	
		PLOIEŞTI/Gheorghe Valentin Bibescu-Ploieşti	
		TULCEA/Delta Dunării Tulcea	
Visual Approach Chart - ICAO* (VAC)	NIL		
Precision Approach Terrain Chart - ICAO* (PATC)		**ARAD/Arad**	
	1:2 500	LRAR PATC RWY 27	
		BACĂU/George Enescu	
	1:2 500	LRBC PATC RWY 16	
	1:2 500	LRBC PATC RWY 34	
		BAIA MARE/Maramureş	
	1:2 500	LRBM PATC RWY 09	
		BRAŞOV/Braşov-Ghimbav	
	1:2 500	LRBV PATC RWY 21	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
	1:2 500	LRBS PATC RWY 07	
		BUCUREŞTI/Henri Coandă	
	1:2 500	LROP PATC RWY 08L	
	1:2 500	LROP PATC RWY 08R	
	1:2 500	LROP PATC RWY 26R	
		CLUJ NAPOCA/Avram Iancu	
		LRCL PATC RWY 25	
		CONSTANŢA/Mihail Kogălniceanu-Constanţa	
	1:2 500	LRCK PATC RWY 36	
		CRAIOVA/Craiova	
	1:2 500	LRCV PATC RWY 26	
		IAŞI/Iaşi	
	1:2 500	LRIA PATC RWY 14	
		SATU MARE/Satu Mare	
	1:2 500	LRSM PATC RWY 19	
		SIBIU/Sibiu	
	1:2 500	LRSB PATC RWY 27	
		SUCEAVA/Ştefan cel Mare-Suceava	
	1:2 500	LRSV PATC RWY 34	
		TÂRGU MUREŞ/Transilvania-Târgu Mureş	
	1:2 500	LRTM PATC RWY 07	
		TIMISOARA/Traian Vuia	
	1:2 500	LRTR PATC RWY 11	
	1:2 500	LRTR PATC RWY 29	
		ORADEA/Oradea	
	1:2 500	LROD PATC RWY 19	

1	2	3	4
RNAV Departure Chart*		**ARAD/Arad**	
		LRAR RWY 09	
		LRAR RWY 27	
		BRAŞOV/Braşov-Ghimbav	
	1:500 000	LRBV RWY 21	
	1:500 000	LRBV RWY 03	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		LRBS RWY 07	
		LRBS RWY 25	
		BUCUREŞTI/Henri Coandă	
		LROP RWY 08L/R	
		LROP RWY 26L/R	
		CLUJ NAPOCA/Avram Iancu	
		LRCL RWY 07	
		LRCL RWY 25	
		CRAIOVA/Craiova	
	1:500 000	LRCV RWY 08	
	1:500 000	LRCV RWY 26	
		SIBIU/Sibiu	
		LRSB RWY 09	
		LRSB RWY 27	
		TÂRGU MUREŞ/Transilvania-Târgu Mureş	
		LRTM RWY 07	
		LRTM RWY 25	
		TIMIŞOARA/Traian Vuia	
		LRTR RWY 11	
		LRTR RWY 29	
RNAV Arrival Chart*		**ARAD/Arad**	
		LRAR RWY 09	
		LRAR RWY 27	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		LRBS RWY 07	
		LRBS RWY 25	
		BUCUREŞTI/Henri Coandă	
		LROP RWY 08L/R	
		LROP RWY 26L/R	
		CLUJ NAPOCA/Avram Iancu	
		LRCL RWY 07	
		LRCL RWY 25	
		SIBIU/Sibiu	
		LRSB RWY 09	
		LRSB RWY 27	
		TÂRGU MUREŞ/Transilvania-Târgu Mureş	
		LRTM RWY 07	
		LRTM RWY 25	
		TIMIŞOARA/Traian Vuia	
		LRTR RWY 11	
		LRTR RWY 29	
Standard Departure Chart - Instrument - ICAO* (SID)		**ARAD/Arad**	
		LRAR RWY 09	
		LRAR RWY 27	
		BACĂU/George Enescu	
	1:500 000	LRBC RWY 16	
	1:500 000	LRBC RWY 34	
		BAIA MARE/Maramureş	
	1:500 000	LRBM RWY 09	
	1:500 000	LRBM RWY 27	
		BRAŞOV/Braşov-Ghimbav	
	1:500 000	LRBV RWY 21	
	1:500 000	LRBV RWY 03	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		LRBS RWY 07	
		LRBS RWY 25	
		BUCUREŞTI/Henri Coandă	
		LROP RWYs 08L/R	
		LROP RWYs 26L/R	
		CLUJ-NAPOCA/Avram Iancu	
		LRCL RWY 07/25	
		CONSTANŢA/Mihail Kogălniceanu - Constanţa	
		LRCK RWY 18	
		LRCK RWY 36	

1	2	3	4
Standard Departure Chart - Instrument - ICAO* (SID)		**CRAIOVA/Craiova**	
	1:500 000	LRCV RWY 26	
	1:500 000	LRCV RWY 08	
		IAŞI/Iaşi	
	1:500 000	LRIA RWY 14	
	1:500 000	LRIA RWY 32	
		SATU MARE/Satu Mare	
	1:500 000	LRSM RWY 19	
	1:500 000	LRSM RWY 01	
		SIBIU/Sibiu	
		LRSB RWY 09	
		LRSB RWY 27	
		SUCEAVA/Ştefan Cel Mare-Suceava	
	1:500 000	LRSV RWY 16	
	1:500 000	LRSV RWY 34	
		TÂRGU MUREŞ/Transilvania - Târgu Mureş	
		LRTM RWY 07	
		LRTM RWY 25	
		TIMIŞOARA/Traian Vuia-Timişoara	
		LRTR RWY 11	
		LRTR RWY 29	
		TULCEA/Delta Dunării Tulcea	
	1:500 000	LRTC RWY 34	
	1:500 000	LRTC RWY 16	
Standard Arrival Chart - Instrument - ICAO* (STAR)		**ARAD/Arad**	
		LRAR RWY 09	
		LRAR RWY 27	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		LRBS RWY 07	
		LRBS RWY 25	
		BUCUREŞTI/Henri Coandă	
		LROP RWYs 08L/R	
		LROP RWYs 26L/R	
		CLUJ-NAPOCA/Avram Iancu	
		LRCL RWY 07	
		LRCL RWY 25	
		CONSTANŢA/Mihail Kogălniceanu - Constanţa	
		LRCK RWY 18	
		LRCK RWY 36	
		SIBIU/Sibiu	
		LRSB RWY 27	
		TÂRGU MUREŞ/Transilvania - Târgu Mureş	
		LRTM RWY 07/25	
		TIMIŞOARA/Traian Vuia - Timişoara	
		LRTR RWY 11	
		LRTR RWY 29	
ATC Surveillance Minimum Altitude Chart - ICAO*		**ARAD/Arad**	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
		BUCUREŞTI/Henri Coandă	
		CLUJ-NAPOCA/Avram Iancu	
		CONSTANŢA/Mihail Kogălniceanu - Constanţa	
		SIBIU/Sibiu	
		TÂRGU MUREŞ/Transilvania - Târgu Mureş	
		TIMIŞOARA/Traian Vuia - Timişoara	
En-route Charts * / Area Charts * - ICAO	1:1 000 000	**ENROUTE CHART - LOWER AIRSPACE**	10
		Free Route Airspace	10
		Lateral and Vertical Limits of SEE FRA - BUCUREŞTI CTA within SEE FRA	
		ARAD TMA Lateral and vertical limits	
		BUCUREŞTI TMA Lateral and vertical limits	
		NAPOC TMA Lateral and vertical limits	
		Flight Information Service (FIS) Areas	
Index Charts *		**Prohibited, Restricted and Danger Areas - Upper Airspace**	
		Temporary Reserved Areas (TRA) Upper Airspace	
		Prohibited, Restricted and Danger Areas - Lower Airspace	
		Temporary Reserved/Segregated Areas (TRA/TSA) Lower Airspace	
		Sectors within BUCUREȘTI CTA BLW FL175	
		Sectors within BUCUREȘTI CTA BTN FL175 - FL245	
		Sectors within BUCUREȘTI CTA ABV FL245	
		Aerodromes and heliports - index chart	

1	2	3	4
VFR Chart - ICAO 1:500.000	1:500 000	**VFR Chart North-West ROMANIA (LR-NW)**	5
		VFR Chart North-East ROMANIA (LR-NE)	5
		VFR Chart South-East ROMANIA (LR-SE)	5
		VFR Chart South-West ROMANIA (LR-SW)	5
VFR Chart - ICAO 1:300.000 *	1:300 000	**NAPOC TMA VFR Routes**	5
Visual Operations Chart*		**ARAD/Arad**	
	1:35 000	LRAR Aerodrome traffic circuit	
		BUCUREŞTI/Băneasa-Aurel Vlaicu	
	1:70 000	LRBS RWY 07/25 Aerodrome traffic circuit - Aircraft categories A and H	
	1:150 000	LRBS VFR Routes - Aircraft categories A and H	
		BUCUREŞTI/Henri Coandă	
	1:200 000	LROP Aircraft categories A and H	
		CARANSEBEŞ/Banat-Caransebeş	
	1:35 000	LRCS RWY 10/28 Aerodrome traffic circuit	
		CISNĂDIE/Măgura	
	1:30 000	LRCD RWY 14/32 Aerodrome traffic circuit	
		PLOIEŞTI/Gheorghe Valentin Bibescu-Ploieşti	
	1:50 000	LRPW RWY 07/25 Aerodrome traffic circuit	
	1:50 000	LRPW Heliport traffic circuit 09/27	
		TUZLA/Tuzla	
	1:50 000	LRTZ RWY 04/22 Aerodrome traffic circuit	
	1:50 000	LRTZ FATO 16/34 Aerodrome traffic circuit	
		BRAŞOV/Sânpetru	
	1:25 000	LRSP RWY11/29 Aerodrome traffic circuit	
		PIATRA NEAMŢ/Zănești-Neamț	
	1:40 000	LRZN RWY 14/32 Aerodrome traffic circuit	
		PITEŞTI/Geamăna	
	1:50 000	LRPT RWY 05 Powered aircraft aerodrome traffic circuit	
	1:50 000	LRPT RWY 23 Glider aerodrome traffic circuit	
		DEVA/Săuleşti-Constantin Manolache	
	1:35 000	LRDV RWY 12/30 Aerodrome traffic circuit	
		ARAD/Charlie-Bravo Şiria	
	1:20 000	LRCB RWY 18/36 Aerodrome traffic circuit	
		BISTRIŢA/Bistriţa	
	1:25 000	LRBN RWY 05/23 Aerodrome traffic circuit	
		GRĂDIŞTEA/Grădiştea	
	1:30 000	LRBA RWY 04/22 Aerodrome traffic circuit	
		CLINCENI/Clinceni	
	1:40 000	LRCN RWY 06L/06R Aerodrome traffic circuit	
	1:40 000	LRCN RWY 24L/24R Aerodrome traffic circuit	
		DEZMIR/Dezmir	
	1:30 000	LRCJ RWY 08/26 Aerodrome traffic circuit	
		GHEORGHENI/Remetea	
	1:50 000	LRHR RWY 09/27 Aerodrome traffic circuit	
		CRAIOVA/Craiova-Sud	
	1:30 000	LRCW RWY 12/30 Aerodrome traffic circuit	
		IAŞI/Iaşi-Sud	
	1:35 000	LRIS RWY 13/31 Aerodrome traffic circuit	
		GHIMBAV/IAR BRAŞOV	
	1:30 000	**ORADEA/SMURD BH 2**	
		TÂRGU MUREŞ/Mureşeni	
	1:30 000	LRMS RWY 05/23 Aerodrome traffic circuit	
		BRAŞOV/Corona	
	1:50 000	LRCR RWY 17/35 Aerodrome traffic circuit	

6. Index to Aeronautical Chart - ICAO 1 : 500000



COMPULSORY Arrival / Departure Connecting Routes

COMPULSORY ARRIVAL CONNECTING ROUTES		
COMPULSORY Arrival Connecting Route	**STAR first point /Intermediate Point**	**Airport**
MIKVI Z78 REDKU	REDKU	LRBC
FOCSA T74 KENUX	KENUX	
POGAV Z650 DIRCO	DIRCO	
ABOLO T223 GUXVA	GUXVA	
ADMEC T4 SALAC	SALAC	
IMMOC T77 TULNU	TULNU	
RUMUK T995 VELSE	VELSE	LRBM
REPTO T33 BUZZE	BUZZE	
SAT T33 SOMET	SOMET	
OKLIV T995 FABZO	FABZO	
IRLOX DCT BIVBU DCT TOSVI	TOSVI	LROP
LAMIT DCT TOSVI		
VELIP DCT TOSVI		
PEMOK T899 TOSVI		
OVDOT T139 TITEK	TITEK	LRCV
LAMIT Z938 TITEK		
VAMON T285 PEMOK	PEMOK	
NAVOD T226 PANZU	PANZU	
GUXVA T223 ABOLO	ABOLO	LRIA
TOMUC P133 ARPIG	ARPIG	
ROMAG M423 URNEQ	URNEQ	LROD
CONWI Y559 RUPUG	RUPUG	
AGMEL M423 TUVNU	TUVNU	
OBARA Z941 ORXIK	ORXIK	
BUXLE Z942 BAVMA	BAVMA	
BADOR Z921 URNEQ	URNEQ	
ROMAG M423 TISAD	TISAD	LRSM
ANAVU T90 JIBOU	JIBOU	
RUMUK M423 SAT	SAT	
BUZZE T33 BMR T33 SOMET	SOMET	
KARIL Z949 TISAD	TISAD	
KARIL T33 SAT	SAT	
ADMEC T4 PASKA	PASKA	LRSV
ARPIG P133 TOMUC	TOMUC	
BUKOV DCT SCV	SCV	
HUMOR DCT SCV	SCV	
GLT Z934 DUNAV	DUNAV	LRTC
PILAT T77 DANUL	DANUL	
CETUL L130 TURIR	TURIR	

COMPULSORY DEPARTURE CONNECTING ROUTES		
Airport	**SID last point/Intermediate Point**	**COMPULSORY Departure Connecting Route**
LRBC	REDKU	REDKU Z78 **MIKVI**
	KENUX	KENUX T74 **FOCSA**
	DIRCO	DIRCO Z650 **POGAV**
	GUXVA	GUXVA T223 **ABOLO**
	SALAC	SALAC T4 **ADMEC**
	TULNU	TULNU T77 **IMMOC**
	IBGIR	IBGIR Z158 **APTAN**
	GAROC	GAROC Z933 **INBID**
LRBM	VELSE	VELSE T995 **RUMUK**
	BUZZE	BUZZE T33 **REPTO**
	SOMET	SOMET T33 **SAT**
	FABZO	FABZO T995 **OKLIV**
LRBS	ZEZUS	ZEZUS DCT **EFJAS**
LRCV	TITEK	TITEK Z938 **LAMIT**
	PEMOK	PEMOK T285 **VAMON**
	PEMOK	PEMOK T899 **TOSVI**
	LELTI	LELTI Y88 **ANASA**
	BACAM	BACAM T226 **SODGO**
LRIA	ARPIG	ARPIG P133 **TOMUC**
	ABOLO	ABOLO T223 **GUXVA**
LROD	URNEQ	URNEQ M423 **ROMAG**
	RUPUG	RUPUG Y559 **CONWI**
	TUVNU	TUVNU M423 **AGMEL**
	BAVMA	BAVMA Z942 **BUXLE**
	ORXIK	ORXIK Z941 **OBARA**
	URNEQ	URNEQ Z921 **BADOR**
LROP	ZEZUS	ZEZUS DCT **EFJAS**
LRSM	TISAD	TISAD M423 **ROMAG**
	JIBOU	JIBOU T90 **ANAVU**
	SAT	SAT M423 **RUMUK**
	SOMET	SOMET T33 BMR T33 **BUZZE**
	SAT	SAT T33 **KARIL**
LRSV	PASKA	PASKA T4 **ADMEC**
	TOMUC	TOMUC P133 **ARPIG**
LRTC	DUNAV	DUNAV Z934 **GLT**
	DANUL	DANUL T77 **PILAT**
	TURIR	TURIR L130 **CETUL**
	LOBKI	LOBKI L130 **BADKA**
	REBDI	REBDI Z935 **RIPGA**

ENR 3.2 AREA NAVIGATION ROUTES

Index of RNAV Routes

L130	Z78
L622	Z158
	Z650
M423	Z921
	Z922
P133	Z924
	Z930
T4	Z931
T33	Z932
T74	Z933
T77	Z934
T90	Z935
T139	Z936
T223	Z937
T226	Z938
T285	Z939
T899	Z940
T995	Z941
	Z942
Y32	Z943
Y33	Z944
Y34	Z945
Y88	Z946
Y559	Z947
Y572	Z948
Y574	Z949

1	2	3	4	5	6	7
T139 (RNAV 5)		63.4				
▲PANZU 440212N0240813E	CRV 146°/19.3 600	326° 19.3 -		↓	+/- 5NM	PANZU IAR T226
△CRAIOVA DVOR/DME (CRV) 441907N0235522E	TGJ 145°/51.2 900	300° 18.3 120°	FL105 FL55	↓ ↑	+/- 5NM	CRAIOVA DVOR/DME (CRV) IAR T285
▲TITEK 442936N0233426E	TGJ 158°/35.6 900	- 25.8 091°	Class C		+/- 5NM	TITEK IAR Z938
△OVDOT 443220N0225837E	TGJ 201°/34.8 900			↑		

1	2	3	4	5	6	7
T223 (RNAV 5)		36.1				
▲GUXVA 464448N0270407E	BCU 028°/17.4 1800	028° 9.6 209°	FL105 FL45	↓	+/- 5NM	
△TEVSA 465234N0271212E	BCU 028°/26.9 1800	029° 9.2 209°	Class C		+/- 5NM	TEVSA IAR Z931
▲ABOLO 470001N0271959E	BCU 028°/36.1 1800	029° 17.3 209°	FL105 FL85		+/- 5NM	ABOLO IAR Y33
△IAŞI NDB (ISI) 471403N0273447E	BCU 028°/53.4 1800		Class C	↑		IAŞI NDB (ISI) IAR P133, Y32

1	2	3	4	5	6	7
T226 (RNAV 5)		99.4				
▲NAVOD (FIR BDRY) 434521N0243335E	FLR 222°/66.8 400	308° 24.9 -		↓	+/- 5NM	
▲PANZU 440212N0240813E	CRV 146°/19.3 600	307° 22.3 -			+/- 5NM	PANZU IAR T139
△ELDET 441710N0234521E	CRV 250°/7.5 600	307° 16.3 -	FL105 FL55 Class C		+/- 5NM	ELDET IAR Y88
▲BACAM 442807N0232826E	TGJ 165°/36.0 900	307° 35.9 -			+/- 5NM	
△SODGO 445202N0225051E	TGJ 235°/23.8 900					

1	2	3	4	5	6	7
T285 (RNAV 5)		54.8				
△CRAIOVA DVOR/DME (CRV) 441907N0235522E	TGJ 145°/51.2 900	076° 18.5 256°	FL105 FL55 Class C	↓	+/- 5NM	CRAIOVA DVOR/DME (CRV) IAR T139
▲PEMOK 442153N0242054E	TGJ 128°/60.2 900	076° 14.4 255°	FL105 FL45 Class C		+/- 5NM	PEMOK IAR T899
△VAMON 442358N0244047E	STJ 234°/63.7 600	076° 21.9 256°	FL105 FL65		+/- 5NM	VAMON IAR Z943
▲ABRUT 442701N0251059E	FLR 256°/22.8 400		Class C	↑		

1	2	3	4	5	6	7
T899 (RNAV 5)		42.0				
▲PEMOK 442153N0242054E	CRV 076°/18.5 600	051° 42.0 -	FL105 FL45	↓	+/- 5NM	PEMOK IAR T285
▲TOSVI 444514N0250941E	FLR 296°/27.9 400		Class C			

1	2	3	4	5	6	7
T995 (RNAV 5)		46.4				
△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
▲VELSE 475150N0232040E	SAT 061°/20.0 500	355° 9.8 175°			+/- 5NM	
▲RUMUK (FIR BDRY) 480136N0232036E	SAT 040°/25.5 500			↑		RUMUK IAR M423
						For continuation, see AIP UKRAINE

1	2	3	4	5	6	7
Y32 (RNAV 5)		64.2				
△RAMIX 461722N0272019E	BCU 115°/25.1 1800	020° 36.0 200°	FL105 FL55 Class C	↓	+/- 5NM	
△PIRIG 464932N0274344E	BCU 056°/41.8 1800	020° 8.5 200°	FL105 FL35 Class C	↑	+/- 5NM	PIRIG IAR Z931
▲LESVO 465707N0274920E	BCU 050°/48.9 1800	323° 19.7 143°	FL105 FL85	↓	+/- 5NM	
△IAŞI NDB (ISI) 471403N0273447E	BCU 028°/53.4 1800		Class C	↑		IAŞI NDB (ISI) IAR P133, T223

1	2	3	4	5	6	7
Y33 (RNAV 5)		19.1				
▲ABOLO 470001N0271959E	BCU 028°/36.1 1800	355° 19.1 -	FL105 FL85 Class C	↓	+/- 5NM	ABOLO IAR T223
△BELMU 471902N0272111E	SCV 110°/45.7 1300					BELMU IAR P133

1	2	3	4	5	6	7
Y34 (RNAV 5)		55.5				
△UDSIG 465840N0260313E	BCU 305°/42.4 1800	060° 23.5 240°	FL105 FL85 Class C	↓	+/- 5NM	
▲ADMEC 470751N0263448E	SCV 158°/33.7 1300	060° 18.6 240°	FL105 FL55 Class C		+/- 5NM	ADMEC IAR T4
△KERLO 471502N0270000E	SCV 127°/36.3 1300	060° 13.4 241°	FL105 FL35		+/- 5NM	
△ARPIG 472008N0271810E	SCV 110°/43.3 1300		Class C	↑		ARPIG IAR P133

1	2	3	4	5	6	7
Y88 (RNAV 5)		115.0				
▲POLUN 441415N0251324E	FLR 226°/26.2 400	267° 24.5 -	FL105 FL85 Class C	↓	+/- 5NM	POLUN IAR Z944
△VIKBI 441531N0243921E	FLR 246°/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
Z933 (RNAV 5)		18.3				
▲GAROC 463728N0263447E	BCU 297°/12.2 1800	297° 18.3 116°	FL105 FL65	↓	+/- 5NM	
△INBID 464736N0261234E	BCU 297°/30.6 1800		Class C	↑		

1	2	3	4	5	6	7
Z934 (RNAV 5)		42.7				
△TIRVO 445933N0284411E	TLA 161°/5.3 300	301° 13.5 121°	FL105 FL65 Class C	↓	+/- 5NM	TIRVO IAR L130, T77, Z935
▲DUNAV 450738N0282855E	TLA 281°/10.1 300	301° 16.8 120°	FL105 FL45 Class C		+/- 5NM	
△VOSLE 451738N0280950E	TLA 293°/26.5 300	300° 12.4 120°	FL105 FL55		+/- 5NM	
△GALAŢI DVOR/DME (GLT) 452459N0275540E	TLA 295°/38.8 300		Class C	↑		

1	2	3	4	5	6	7
Z935 (RNAV 5)		37.4				
△TIRVO 445933N0284411E	TLA 161°/5.3 300	283° 11.8 -	FL105 FL65 Class C	↓	+/- 5NM	TIRVO IAR L130, T77, Z934
▲REBDI 450322N0282825E	TLA 256°/10.1 300	283° 25.6 -	FL105 FL55		+/- 5NM	
△RIPGA 451131N0275407E	GLT 178°/13.5 200		Class C			

1	2	3	4	5	6	7
Z936 (RNAV 5)		25.7				
▲DIRAL 443039N0273315E	CND 283°/42.0 300	282° 25.7 101°	FL105 FL55 Class C	↓	+/- 5NM	
▲IDARU 443825N0265854E	OPT 075°/18.3 300			↑		

1	2	3	4	5	6	7
Z937 (RNAV 5)		33.1				
▲SOMOV (FIR BDRY) 434200N0245100E	CRV 126°/54.7 600	046° 33.1 -	FL105 FL95 Class C	↓	+/- 5NM	
▲SORDU 440233N0252648E	FLR 196°/29.7 400					

1	2	3	4	5	6	7
Z938 (RNAV 5)		37.6				
▲TITEK 442936N0233426E	CRV 300°/18.3 600	342° 37.6 162°	FL105 FL55 Class C	↓	+/- 5NM	TITEK IAR T139
▲LAMIT 450614N0232229E	TGJ 028°/3.1 900			↑		

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 226°/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 183°/31.5 1800	030° 21.6 211°	FL105 FL45	↓	+/- 5NM	
△TULNU 461650N0270016E	BCU 145°/15.7 1800		Class C	↑		TULNU IAR T77

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 Z949
						For continuation, see AIP HUNGARY

1	2	3	4	5	6	7
Z949 (RNAV 5)		16.8				
▲TISAD 473159N0223522E	SAT 221°/17.0 500	333° 16.8 153°	FL105 FL55	↓	+/- 5NM	TISAD IAR M423
▲KARIL (FIR BDRY) 474738N0222632E	SAT 277°/18.7 500		Class C	↑		KARIL IAR Z948
						For continuation, see AIP HUNGARY

ENR 4. RADIO NAVIGATION AIDS/SYSTEMS

ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

Name of station (VOR/VAR)	*ID*	*FREQ (CH)*	*Hours of operation*	*Coordinates*	*ELEV DME antenna (FT)*	*Remarks*
1	2	3	4	5	6	7
ADAMCLISI DME	ADM	1077.000MHz (53X)	H24	440525N 0275739E	700	Coverage 100 NM*
ARAD DVOR/DME (5°E/2017)	ARD	109.000 MHz (CH 27X)	H24	461103N 0210837E	400	Coverage 175 NM*
ARINI DME	ARN	1060.000MHz (36Y)	H24	462246N 0270924E	1900	Coverage 100 NM*
BACĂU DME	BAC	1145.000 MHz (CH 121X)	H24	463005N 0265505E	700	Coverage 100 NM** Unusable in sector 210°-290°
BACĂU DVOR/DME (7°E/2020)	BCU	109.400 MHz (CH 31X)	H24	463039N 0264932E	1800	Coverage 175 NM* FRA (I)
BAIA MARE NDB	BMR	404 KHz	H24	474016N 0232045E		Coverage 100 NM** FRA (I)
BĂIŞOARA DME	BAI	1150.000 MHz (CH 126Y)	H24	462928N 0231412E	6000	Coverage 100 NM** Unusable in sector 140°-260°
BRAŞOV DVOR/DME (6°E/2019)	BRV	117.600 MHz (CH 123X)	H24	453403N 0253353E	5900	Coverage 175 NM* DVOR unusable over 20 NM bellow FL180 in sector 230°-080° clockwise FRA (I)
CENEI DME	CNI	1127.000 MHz (CH 103X)	H24	454258N 0205427E	300	Coverage 100 NM**
CICĂU DME	CIC	1083.000MHz (59Y)	H24	461940N 0233211E	3400	Coverage 100 NM* Unusable in sector 230°-340°
CLUJ DVOR/DME (5°E/2015)	CLJ	111.200 MHz (CH 49X)	H24	464800N 0234714E	1600	Coverage 175 NM*
COMANA DME	COM	1069.000MHz (45X)	H24	441033N 0260859E	400	Coverage 100 NM*
CONSTANŢA DVOR/DME (7°E/2021)	CND	112.700 MHz (CH 74X)	H24	441708N 0282842E	300	Coverage 150 NM* FRA (I): FL175 - FL660
CRAIOVA DVOR/DME (5°E/2019)	CRV	110.200 MHz (CH 39X)	H24	441907N 0235522E	600	Coverage 100 NM* FRA (I)
DEALUL CIUHII DME	CHU	1053.000 MHz (CH 29X)	H24	461059N 0244914E	2500	Coverage 100 NM** Unusable in sector 110°-205°
DEVA DVOR/DME (5°E/2019)	DVA	109.800 MHz (CH 35X)	H24	454941N 0225808E	900	Coverage 100 NM* FRA (I)
FLOREŞTI VOR/DME (6°E/2020)	FLR	112.200 MHz (CH 59X)	H24	443003N 0254229E	400	Coverage 150 NM* FRA (I): FL175 - FL660
GALAŢI DVOR/DME (6°E/2019)	GLT	108.200 MHz (CH 19X)	H24	452459N 0275540E	200	Coverage 175 NM* FRA (I) FRA (AD): LRTC

1	2	3	4	5	6	7
HADÂMBU DME	HDB	1046.000MHz (22X)	H24	470054N 0272526E	1500	Coverage 100 NM*
HENIU DME	HNU	1087.000 MHz (CH 63X)	H24	471639N 0244407E	5400	Coverage 100 NM** Unusable in sector 310°-075°
IAŞI DME	ISI	1106.000 MHz (CH 82X)	H24	471404N 0273446E	300	Coverage 100 NM** Unusable in sector 200°-230°
IAŞI NDB	ISI	351 KHz	H24	471403N 0273447E		Coverage 50 NM** FRA (I)
ISTRITA DME	ISA	1129.000MHz (105Y)	H24	450709N 0263235E	2500	Coverage 100 NM*
LUGOJ DME	LGJ	1091.000 MHz (CH 67X)	H24	454311N 0215942E	800	Coverage 100 NM** Unusable in sector 065°-180°
ODOBEȘTI DME	ODB	1054.000MHz (30Y)	H24	464152N 0271000E	1600	Coverage 100 NM*
ORADEA NDB	ORA	418 KHz	H24	470601N 0215527E		Coverage 100 NM** FRA (I)
PĂLTINIȘ DME	PLT	1102.000MHz (78X)	H24	453832N 0235637E	5800	Coverage 100 NM* Unusable in sector 90°-92° and 190°-260°
PICIOR DE MUNTE DME	PMT	1118.000MHz (94X)	H24	444638N 0252308E	900	Coverage 100 NM*
ROŞIORI DVOR/DME (6°E/2020)	OPT	117.100 MHz (CH 118X)	H24	443533N 0263337E	300	Coverage 80 NM* FRA (I): FL175 - FL660
SACOȘU MARE DME	SAC	1072.000MHz (48X)	H24	453346N 0214324E	1300	Coverage 100 NM*
SATU MARE DVOR/DME (5°E/2017)	SAT	108.400 MHz (CH 21X)	H24	474339N 0225338E	500	Coverage 150 NM* FRA (I) FRA (AD): LRBM
SIBIU DVOR/DME (5°E/2010)	SBI	114.000 MHz (CH 87X)	H24	454651N 0240516E	1500	Coverage 150NM DVOR Coverage 100NM DME
SIBIU NDB	SIB	381 KHz	H24	454706N 0240909E		Coverage 100 NM** FRA (I): FL175 - FL660
STOLNICENI DME	STL	1100.000MHz (76X)	H24	473409N 0271521E	800	Coverage 100 NM*
STREJNIC DVOR/DME (6°E/2020)	STJ	113.200 MHz (CH 79X)	H24	445507N 0255837E	600	Coverage 80 NM* FRA (I): FL175 - FL660
STRUNGA DME	STR	1049.000MHz (25X)	H24	470940N 0265637E	1200	Coverage 100 NM*
SUCEAVA DVOR/DME (7°E/2020)	SCV	112.300 MHz (CH 70X)	H24	474020N 0262139E	1300	Coverage 175 NM* FRA (I)
ȘIRIA DME	SIR	1117.000MHz (93X)	H24	461555N 0213950E	1800	Coverage 100 NM*
TÂRGU JIU VOR/DME (5°E/2019)	TGJ	115.300 MHz (CH 100X)	H24	450339N 0232003E	900	Coverage 150 NM*
TÂRGU MUREŞ NDB	TGM	428 KHz	H24	462649N 0241823E		Coverage 80 NM** FRA (I): FL175 - FL660

ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS

Name-code designator	Coordinates	ATS route or other route	Remarks
1	2	3	4
~~ABATU~~	~~443241N 0254029E~~	~~STAR, IAC LROP~~	~~NIL~~
ABIDA	460400N 0204345E	STAR LRAR, STAR LRTR	NIL
ABIMO	464917N 0235008E	STAR, IAC LRCL	NIL
~~ABNEK~~	~~445259N 0252455E~~	~~SID LROP~~	~~NIL~~
ABOLO	470001N 0271959E	T223, Y33, SID LRIA, IAC LRIA	FRA (A): LRBC FRA (D): LRBC FRA (I)
ABORA	443308N 0262027E	STAR, IAC LRBS	NIL
ABRUT	442701N 0251059E	T285, STAR LRBS	FRA (A): LRBS FRA (I): FL175-FL660 FRA (X): FL105-FL175: ODD
ABTER	461511N 0255030E	NIL	FRA (I)
ACMUQ	474648N 0234849E	NIL	FRA (I)
ADINA	434812N 0303018E	NIL	FRA (E): FL195-FL660: EVEN FRA (X): FL195-FL660: ODD
ADMEC	470751N 0263448E	T4, Y34	FRA (A): LRBC, LRSV FRA (D): LRBC, LRSV FRA (I)
ADUKU	465526N 0220000E	NIL	FRA (I)
~~ADULI~~	~~442719N 0255211E~~	~~STAR, IAC LRBS~~	~~NIL~~
ADUXI	455900N 0210407E	STAR LRAR, STAR LRTR	NIL
AFOPE	445358N 0284547E	IAC LRTC	NIL
AGASU	455252N 0214829E	STAR LRAR, STAR LRTR	NIL
AGMEL	464126N 0213416E	M423, Y572	FRA (A): LROD FRA (D): LROD FRA (I)
AGNEP	452700N 0225735E	NIL	FRA (I)
AKLEF	475538N 0252659E	NIL	FRA (E):ODD FRA (X) EVEN
AKUPO	470004N 0242344E	P133, SID/STAR LRCL, STAR LRSB, STAR LRTM	FRA (A): LRCL, LRSB, LRTM FRA (D): LRCL FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
ALENO	435809N 0295029E	NIL	FRA (I)
ALOXU	454653N 0242029E	STAR LRSB	FRA (I): FL175-FL660
AMLAV	440943N 0294558E	NIL	FRA (I)
AMODA	443154N 0263004E	STAR LRBS/LROP	NIL
AMSIT	443251N 0263527E	STAR LRBS/LROP	NIL
ANASA	441843N 0223319E	Y88	FRA (D): LRCV FRA (X): EVEN
ANAVU	471539N 0231921E	T90	FRA (A): LRSM FRA (D): LRSM FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
APROB	435824N 0250009E	NIL	FRA (I)
APSAM	470535N 0232156E	STAR/IAC LRCL, STAR LRTM	FRA (I): FL175-FL660
APTAN	462315N 0262056E	Z158	FRA (D): LRBC FRA (I)
ARCAZ	463320N 0212726E	M423	FRA (A): LRAR, LRTR FRA (D): LRAR, LRTR FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
ARGES	440456N 0264936E	Z946	FRA (I): FL175-FL660
ARHOP	442718N 0255212E	IAC LRBS	NIL
ARMOX	444050N 0262233E	ENTRY/EXIT POINT CTR LROP	NIL
ARNAX	442243N 0254946E	STAR LRBS	NIL
ARPIG	472008N 0271810E	P133, Y34, SID LRIA, IAC LRIA	FRA (A): LRSV FRA (D): LRSV FRA (I)

1	2	3	4
ASECA	453228N 0253229E	IAC LRBV	NIL
ASKUT	462411N 0281416E	NIL	FRA (I)
ASNEL	443212N 0261948E	NIL	FRA (I): FL175-FL660
ASTOD	463740N 0272337E	Z650	FRA (I)
ATSOS	465945N 0225115E	Z941, STAR LRCL, STAR LRTM	FRA (A): LRCL, LRTM FRA (I): FL175-FL660 FRA (X): FL105-FL175: ODD
AXUTA	465517N 0231251E	STAR LRCL, STAR LRTM	FRA (I): FL175-FL660
BABAK	442658N 0254629E	ENTRY/EXIT POINT CTR LRBS	NIL
BACAM	442807N 0232826E	T226, SID LRCV	FRA (I)
BADKA	452239N 0290639E	L130	FRA (D): LRTC FRA (E): ODD FRA (X): EVEN
BADOR	473425N 0220629E	Z921, Z932	FRA (A): LROD FRA (D): LROD FRA (I)
BAGRI	451112N 0294812E	NIL	FRA (E): ODD
BALBI	445418N 0254515E	NIL	FRA (I): FL175-FL660
BAMUD	475432N 0241235E	NIL	FRA (E): ODD FRA (X): EVEN
BAPGU	464727N 0271743E	NIL	FRA (I)
BARID	460832N 0210047E	IAC LRAR	NIL
BARUK	443229N 0283411E	NIL	FRA (I): FL175-FL660
BAVMA	464654N 0220338E	Z942	FRA (I)
~~BEGAL~~	~~443602N 0254619E~~	~~STAR LROP~~	~~NIL~~
~~BEKLU~~	~~441748N 0260730E~~	~~SID LRBS~~	~~NIL~~
BELMU	471902N 0272111E	P133, Y33, IAC LRIA	NIL
BEPES	452053N 0281920E	NIL	FRA (E): EVEN FRA (X): ODD
BESVA	460031N 0210842E	STAR LRAR, STAR LRTR	NIL
BIBOR	471609N 0250821E	P133	FRA (I)
BILRO	460706N 0241347E	SID LRSB	NIL
BINBI	434306N 0293808E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
BIRLU	440334N 0284509E	STAR LRCK	FRA (I): FL175-FL660
BIVBU	445514N 0241954E	NIL	FRA (I)
BOGVI	444203N 0263808E	STAR LRBS, LROP	NIL
BOKDO	470721N 0233839E	SID LRCL, SID LRTM	FRA (I): FL175-FL660
BRATY	473046N 0262555E	IAC LRSV	NIL
BUCSA	463012N 0262202E	Z78	FRA (I)
BUDOP	464115N 0212948E	Y572	FRA (I)
BUKAN	463154N 0225330E	Y559, Z939	FRA (I)
BUKEL	450440N 0254333E	SID LRBS/LROP	FRA (A): LRBV FRA (D): LRBS, LROP FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
BUKOV	475706N 0255730E	T4, SID LRSV, IAC LRSV	FRA (A): LRSV FRA (D): LRSV FRA (E): ODD FRA (X): EVEN
BUKUR	470713N 0252843E	NIL	FRA (I)
BULEN	434500N 0254900E	NIL	FRA (I): FL175-FL660 FRA (X): FL105-FL175: ODD
~~BUNIR~~	~~444247N 0255039E~~	~~STAR LROP~~	~~NIL~~
BUSES	465533N 0280622E	Z924, Z940	FRA (I)
~~BUSOK~~	~~443157N 0263603E~~	~~STAR LROP/LRBS~~	~~NIL~~
BUXLE	462750N 0221143E	Z942	FRA (A): LROD FRA (D): LROD FRA (I)
BUZZE	473851N 0234737E	T33, SID/IAC LRBM	FRA (A): LRSM FRA (D): LRSM FRA (I)
CANJE	464138N 0265033E	IAC LRBC	NIL

1	2	3	4
CETUL	444151N 0283737E	L130, SID/IAC LRCK	FRA (A): LRCK, LRTC FRA (D): LRCK, LRTC FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175
CONWI	464339N 0223345E	Y559, Y572	FRA (A): LROD FRA (D): LROD FRA (I)
COZMU	460656N 0254542E	Z922	FRA (I)
DANUL	445424N 0282723E	T77, IAC LRTC	FRA (I)
DACXU	450434N 0251529E	NIL	FRA (I)
DEGET	462937N 0211602E	NIL	FRA (I): FL175-FL660
DENAK	450008N 0262608E	T74, 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
DENUB	440359N 0292636E	SID/STAR LRCK	FRA (A): LRCK FRA (D): LRCK FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
DESUX	445623N 0255005E	SID LRBS, ~~LROP~~	NIL
DEXIM	444233N 0264514E	STAR LROP	NIL
DEXUD	443225N 0253725E	STAR LROP	NIL
DIDIX	455320N 0210114E	SID/STAR LRTR	FRA (I): FL175-FL660
DIKER	443010N 0254928E	STAR LROP	NIL
~~DILAS~~	~~443322N 0254915E~~	~~STAR, IAC LROP~~	~~NIL~~
DILIM	443713N 0265038E	STAR LROP, LRBS	NIL
DINBA	443814N 0283134E	IAC LRCK	NIL
DINRO	434200N 0284830E	SID LRCK	FRA (D): LRCK FRA (I): FL175-FL660
DIPUX	455318N 0215202E	STAR LRAR, STAR LRTR	NIL
DIRAL	443039N 0273315E	Z936, SID/STAR LRCK	FRA (A): LRCK FRA (D): LRCK FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
DIRCO	463558N 0271517E	Z650, SID/IAC LRBC	FRA (I)
DIRER	445918N 0212435E	NIL	FRA (X): EVEN
DITAX	452808N 0222014E	SID LRAR, SID LRTR	FRA (D): LRAR, LRTR FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD
DIVEL	453119N 0211825E	STAR LRAR, LRTR	NIL
DOBOK	472936N 0272810E	NIL	FRA (I)
DOGUV	443323N 0254917E	STAR, IAC LROP	NIL
DOHAC	443515N 0283109E	IAC LRCK	NIL
DOKUD	462807N 0245721E	Z78, SID/STAR LRCL, SID/STAR LRSB, SID/STAR LRTM	FRA (A): LRCL, LRSB, LRTM FRA (D): LRCL, LRSB, LRTM FRA (I): FL175-FL660 FRA (E): FL105-FL175: ODD FRA (X): FL105-FL175: EVEN
DONOX	441105N 0255424E	STAR LROP, LRBS	NIL
DOTEV	462327N 0240124E	STAR LRSB, SID LRTM	NIL
DUNAV	450738N 0282855E	Z934, IAC LRTC	FRA (I)
EBCOL	455918N 0254909E	Z922, SID/STAR LRBV	FRA (I)
EBEKU	442645N 0280729E	STAR LRCK	FRA (I): FL175-FL660
EBILO	465123N 0233125E	STAR LRCL, STAR LRTM	FRA (I): FL175-FL660
EDETA	454608N 0245552E	STAR LRCL, STAR LRSB, STAR LRTM	FRA (A): LRCL, LRSB, LRTM FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
EFJAS	440107N 0273009E	NIL	FRA (D): LRBS / LROP
EKNAB	454340N 0223003E	NIL	FRA (I): FL175-FL660
EKRAT	462626N 0240819E	SID LRCL, STAR LRTM	NIL
~~EKSUN~~	~~445514N 0261708E~~	~~SID LRBS, LROP~~	~~FRA (I): FL175-FL660~~

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ELDET	441710N 0234521E	T226, Y88	FRA (I)
ELROM	464431N 0230155E	Y572, Z939, SID LRCL, SID LRTM	FRA (D): LRCL, LRTM FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
ELSEK	460755N 0240708E	SID LRSB	NIL
ELTIX	454018N 0251850E	IAC LRBV	NIL
ELVAB	440952N 0250527E	NIL	FRA (I)
EMBIB	455332N 0233814E	STAR LRCL, STAR LRTM	NIL
EMPOS	454728N 0234348E	STAR LRSB	FRA (I): FL175-FL660
ENIMA	450446N 0245409E	NIL	FRA (I)
ENITU	465442N 0233738E	STAR LRCL, STAR LRTM	NIL
ENOSO	462745N 0244541E	STAR LRCL, SID LRTM	NIL
EPCAR	464916N 0264213E	T4	FRA (I)
EPUPO	454948N 0243055E	STAR LRSB	NIL
EPURA	454642N 0243018E	STAR LRCL	NIL
ERBIZ	481039N 0261939E	NIL	FRA (E): ODD FRA (X): EVEN
EROMO	475713N 0235647E	NIL	FRA (E): ODD FRA (X): EVEN
ERUKO	454951N 0220528E	STAR LRAR, STAR LRTR	FRA (I): FL175-FL660
ESUXU	442731N 0262606E	STAR LRBS, LROP	NIL
ETEPA	463140N 0244320E	STAR LRTM	FRA (I): FL175-FL660
ETOGO	444812N 0263949E	SID LRBS, LROP	NIL
~~ETUXA~~	~~444935N 0261757E~~	~~SID LRBS, LROP~~	~~NIL~~
EVIKA	453645N 0273050E	T77	FRA (I)
EVJOC	440835N 0272621E	NIL	FRA (I): FL175-FL660
EVNUR	461131N 0210110E	IAC LRAR	NIL
EVRIK	462107N 0221432E	Z939, Z942, Z945	FRA (I)
FABZO	472612N 0232659E	T995, SID/IAC LRBM	FRA (I)
FIKHU	471337N 0215739E	IAC LROD	NIL
FOCSA	455941N 0264123E	T74, Z947	FRA (A): LRBC FRA (D): LRBC FRA (I)
GALMI	440800N 0300132E	NIL	FRA (I)
GANNA	464207N 0220541E	Z942	FRA (I)
GAROC	463728N 0263447E	Z933	FRA (I)
GESBA	455522N 0214724E	NIL	FRA (I): FL175-FL660
GIKUN	444013N 0233811E	Z943	FRA (I)
GITMU	455349N 0211852E	NIL	FRA (I): FL175-FL660
GOMDI	445154N 0255640E	SID LRBS, ~~LROP~~	NIL
GORER	444651N 0260448E	ENTRY/EXIT POINT CTR LROP	NIL
GOTOB	443555N 0261603E	Otopeni CTR, VFR route	NIL
GOVIN	453842N 0210852E	SID LRAR, SID LRTR	FRA (I): FL175-FL660
GOVOX	453619N 0211823E	STAR LRTR	NIL
GOXGE	462216N 0211149E	NIL	FRA (I): FL175-FL660
GUDIV	443151N 0253838E	STAR LROP	NIL
GUPRO	452719N 0215341E	SID LRAR, SID LRTR	FRA (I): FL175-FL660
GURSA	443026N 0260716E	STAR LROP	NIL
GUXVA	464448N 0270407E	T223	FRA (A): LRIA FRA (D): LRIA FRA (I)
HUMOR	473053N 0255235E	P133, T33, SID LRSV, IAC LRSV	FRA (A): LRSV FRA (D): LRSV FRA (I)
IBAVA	460217N 0241503E	STAR LRCL, STAR LRTM	NIL
IBGIR	462639N 0263359E	Z158	FRA (I)
IBINU	455505N 0231644E	STAR LRCL, STAR LRSB, STAR LRTM	FRA (A): LRCL, LRSB, LRTM FRA (I): FL175-FL660 FRA (X): FL105-FL175: ODD
ICJAV	473818N 0245409E	NIL	FRA (I)
IDARU	443825N 0265854E	Z936, ~~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

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IDOMO	434816N 0244850E	NIL	FRA (I)
IFIXA	472025N 0272841E	IAC LRIA	NIL
IMMOC	460000N 0271311E	T77	FRA (A): LRBC FRA (D): LRBC FRA (I)
INBID	464736N 0261234E	Z933	FRA (D): LRBC FRA (I)
INDOR	443945N 0260644E	STAR LROP	NIL
INGOP	452555N 0210859E	SID LRAR, SID LRTR	FRA (I): FL175-FL660
INVED	460928N 0202405E	NIL	FRA (I): FL175-FL660
IPDIS	460941N 0241423E	STAR LRCL, STAR LRTM	NIL
IPRAS	444123N 0262849E	STAR LRBS, LROP	NIL
IPTOL	461728N 0240241E	STAR LRSB, SID LRTM	FRA (I): FL175-FL660
IRDUM	434324N 0292322E	NIL	FRA (I): FL175-FL660
IRLIT	470544N 0231313E	IAC LRCL	NIL
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	NIL
IRMAM	451331N 0284323E	T77	FRA (E): ODD
ITVAX	454926N 0242826E	STAR LRCL, STAR LRTM	NIL
ITVUK	442801N 0263303E	STAR LRBS, LROP	NIL
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
IZDUW	472039N 0215524E	NIL	FRA (I)
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	NIL
KAJNA	442715N 0255730E	Băneasa CTR, VFR route	NIL
KEDZE	475245N 0225646E	IAC LRSM	NIL
KENUX	461732N 0264604E	T74, SID/IAC 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	NIL
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)
LEHID	443522N 0262435E	STAR, IAC LROP	NIL
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	NIL
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	NIL
~~LIVGA~~	~~443643N 0262440E~~	~~SID LROP~~	~~NIL~~
LOBKI	451041N 0285457E	L130	FRA (I)
LOMOS	435000N 0231500E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
~~LOVIS~~	~~443710N 0264010E~~	~~STAR LROP~~	~~NIL~~
LUGEB	434408N 0283004E	NIL	FRA (I): FL175-FL660

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LUPUK	442446N 0293646E	NIL	FRA (I)
LUROD	443829N 0263243E	STAR LRBS/LROP	NIL
LUSOM	452449N 0212658E	SID LRAR, SID LRTR	FRA (I): FL175-FL660
LUTUP	442610N 0263058E	STAR LRBS	NIL
LUXOT	455113N 0213510E	STAR LRAR, STAR LRTR	NIL
MASEB	443209N 0254530E	STAR LRBS	NIL
MASTE	454726N 0254826E	IAC LRBV	NIL
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	NIL
MIKVI	462955N 0260733E	Z78	FRA (A): LRBC FRA (D): 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
MOPUG	460949N 0204229E	SID LRTR, SID LRAR	FRA (D): LRAR, LRTR FRA (I): FL175-FL660
MORAX	443021N 0261422E	Băneasa CTR, VFR route	NIL
MOSOP	434309N 0293149E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
NAMUV	442259N 0280459E	STAR LRCK	NIL
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	NIL
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	NIL
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
NOZOZ	442739N 0264024E	SID LRBS / LROP	NIL
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)

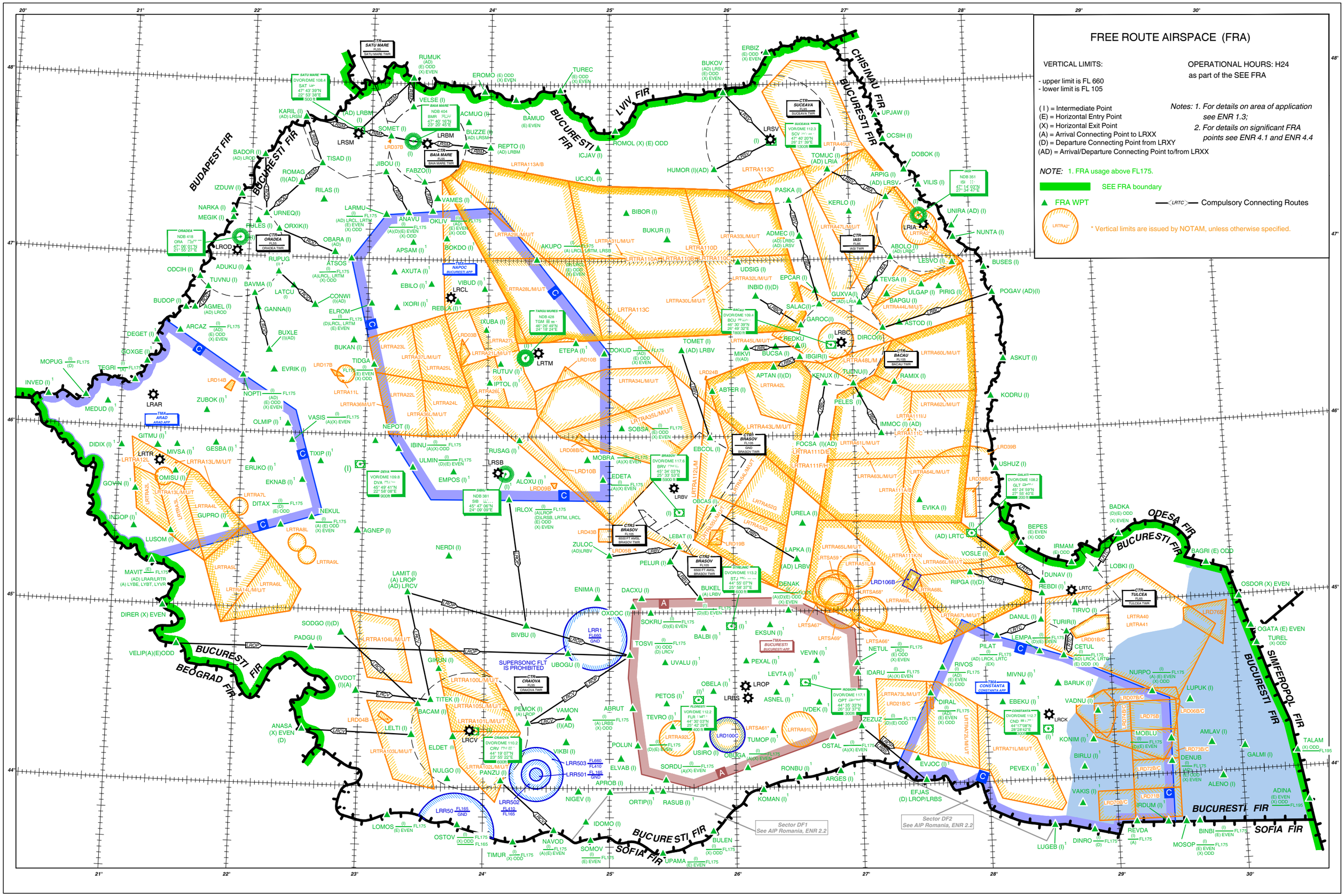
1	2	3	4
OBCAS	453455N 0255025E	SID/STAR LRBV	FRA (I)
~~OBELA~~	~~443244N 0254938E~~	~~STAR, IAC LROP~~	~~FRA (I): FL175-FL660~~
OBUDO	443804N 0261112E	Otopeni CTR	NIL
OBUGA	440632N 0260539E	L622, STAR LRBS/LROP	FRA (A): LRBS, LROP FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
OCSIH	474023N 0271748E	NIL	FRA (I)
ODCIH	465158N 0213606E	NIL	FRA (I)
OGATA	444846N 0300751E	NIL	FRA (E): EVEN
OGUPI	443632N 0260420E	Otopeni CTR, VFR route	NIL
OKAGO	444749N 0263420E	STAR LRBS, LROP	NIL
OKAXA	464911N 0235637E	SID LRTM	NIL
OKIGO	474118N 0231102E	IAC LRBM	NIL
OKLIV	471618N 0233121E	T995	FRA (A): LRBM FRA (D): LRBM FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
OLMIP	460243N 0222212E	NIL	FRA (I): FL175-FL660
OLNOR	442318N 0261918E	SID LRBS/LROP	NIL
OMABU	443243N 0254934E	STAR, IAC LROP	NIL
OMISU	454800N 0213612E	IAC LRTR	FRA (I): FL175-FL660
ORBUF	453447N 0252433E	IAC LRBV	NIL
ORSUT	441034N 0260433E	SID LRBS/LROP	NIL
ORTIP	435840N 0251959E	NIL	FRA (I): FL175-FL660
ORVET	442443N 0253926E	STAR LRBS	NIL
ORVIH	444639N 0261823E	SID LRBS / LROP	NIL
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	NIL
OVDOT	443220N 0225837E	T139	FRA (A): LRCV FRA (I)
OXDOC	450148N 0251114E	NIL	FRA (I)
OZZET	441918N 0241037E	IAC LRCV	NIL
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	NIL
PELES	461302N 0270312E	T77	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	NIL
PEQIN	463836N 0271338E	Z924	NIL
PETAV	443409N 0262442E	ENTRY/EXIT POINT CTR LROP	NIL
PETOS	442836N 0252715E	STAR LRBS	FRA (I): FL175-FL660
PEVEX	440412N 0282655E	IAC LRCK	FRA (I): FL175-FL660
~~PEXAL~~	~~444300N 0260529E~~	~~SID LROP~~	~~FRA (I): FL175-FL660~~
PIKUV	460330N 0240541E	STAR LRSB	NIL
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	NIL
PIRIG	464932N 0274344E	Y32, Z931	FRA (I)
PITIS	443435N 0283102E	STAR, IAC LRCK	NIL

1	2	3	4
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	NIL
PUBPE	473140N 0224932E	IAC LRSM	NIL
RAMIX	461722N 0272019E	Y32	FRA (I)
RAMOD	474954N 0261721E	IAC LRSV	NIL
~~RARIT~~	~~443604N 0262453E~~	~~STAR, IAC LROP~~	~~NIL~~
RASAR	443726N 0254443E	ENTRY/EXIT POINT CTR LROP	NIL
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	Z78, SID/IAC 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	NIL
RILAS	471944N 0223637E	NIL	FRA (I)
RIPGA	451131N 0275407E	Z935	FRA (D): LRTC FRA (I)
RIRUX	443202N 0260406E	Otopeni CTR, VFR route	NIL
RISUC	455251N 0254224E	IAC LRBV	NIL
RIVKA	474227N 0262959E	IAC LRSV	NIL
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	NIL
RONBU	440306N 0262954E	NIL	FRA (I): FL175-FL660
ROTBI	443005N 0255635E	Otopeni CTR, VFR route	NIL
RUCCU	475149N 0261629E	IAC LRSV	NIL
RUFID	443604N 0262451E	STAR, IAC LROP	NIL
~~RUKAT~~	~~443835N 0260940E~~	~~SID LROP~~	~~NIL~~
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, SID/IAC LRBC	FRA (I)
SETCU	462049N 0265843E	IAC LRBC	NIL
SISGU	442210N 0252753E	SID LRBS, ~~LROP~~	NIL
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

1	2	3	4
SONOB	443123N 0254558E	ENTRY/EXIT POINT CTR LROP	NIL
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	NIL
SOSIL	452105N 0211828E	SID/STAR LRTR	NIL
~~SUSUR~~	~~443647N 0264435E~~	~~STAR LROP~~	~~NIL~~
TALAM	440511N 0302619E	NIL	FRA (X): FL195-FL660: ODD
TEGRI	461546N 0210616E	STAR LRAR, STAR LRTR	FRA (A): LRAR, LRTR FRA (I): FL175-FL660
~~TESTU~~	~~444506N 0260411E~~	~~STAR LROP~~	~~NIL~~
TEVRO	442047N 0253007E	STAR LRBS, LROP	FRA (I): FL175-FL660
TEVSA	465234N 0271212E	T223, Z931	FRA (I)
TIDGA	462339N 0230347E	Y559, Z945	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN FRA (X): FL105-FL175: ODD
TIMUR	434120N 0241421E	Z944	FRA (I): FL175-FL660 FRA (X): FL105-FL175: ODD
TINPU	442141N 0281016E	SID LRCK	NIL
TIPOV	465051N 0235711E	STAR/IAC LRCL	NIL
TIRVO	445933N 0284411E	L130, T77, Z934, Z935	FRA (I)
TISAD	473159N 0223522E	M423, Z949, IAC LRSM	FRA (I)
TITEK	442936N 0233426E	T139, Z938, IAC LRCV, SID LRCV	FRA (I)
TIXIP	455015N 0223848E	Y574	FRA (I): FL175-FL660
TOBAG	442238N 0264210E	STAR LRBS, LROP	NIL
TOMET	462912N 0253532E	Z78, Z922	FRA (A): LRBV FRA (D): LRBV FRA (I)
TOMPU	464511N 0232710E	SID LRTM	NIL
TOMUC	473027N 0264934E	P133, SID, IAC LRSV	FRA (A): LRIA FRA (D): LRIA FRA (I)
TOSVI	444514N 0250941E	T899, STAR LROP	FRA (D): LRCV FRA (I): FL175-FL660 FRA (X): FL105-FL175: ODD
TULNU	461650N 0270016E	T77, Z947, SID/IAC LRBC	FRA (I)
TUMOP	441904N 0261750E	STAR LRBS, LROP	FRA (I): FL175-FL660
TUREC	475754N 0243459E	NIL	FRA (E): ODD FRA (X): EVEN
TUREL	444244N 0301010E	NIL	FRA (X): ODD
TURIR	444958N 0283922E	L130, IAC LRTC	FRA (I)
TUTIX	441424N 0253108E	STAR LRBS, LROP	NIL
TUVNU	464836N 0214024E	M423	FRA (I)
UBAXI	453042N 0221247E	SID LRTR	NIL
UBOGU	444547N 0244006E	NIL	FRA (I)
UCJOL	473023N 0245354E	NIL	FRA (I)
UCOBE	443503N 0283108E	IAC LRCK	NIL
UDRIB	443447N 0255531E	Otopeni CTR	NIL
UDSIG	465840N 0260313E	Y34	FRA (I)
ULGAP	465023N 0273503E	Z931, Z940	FRA (I)
ULMIN	454850N 0232353E	Y574, SID LRSB	FRA (D): LRSB FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
UNIRA	471006N 0275106E	P133, SID, IAC LRIA	FRA (A): LRIA FRA (D): LRIA FRA (I)
UNUSU	443211N 0261445E	Otopeni CTR, VFR route	NIL
UPAMA	433735N 0252506E	NIL	FRA (I): FL175-FL660 FRA (E): FL105-FL175: EVEN
UPJAW	474836N 0271412E	NIL	FRA (I)
UPOLI	455306N 0240753E	STAR LRSB	NIL
URELA	452948N 0263340E	T74	FRA (I)

1	2	3	4
URNEQ	471420N 0220807E	M423, Z921	FRA (I)
USIRO	441430N 0254553E	SID LRBS/~~LROP~~	FRA (I): FL175-FL660
USHUZ	454646N 0280828E	NIL	FRA (I)
UTIDI	441510N 0261402E	STAR LRBS, LROP	NIL
UTOKI	444439N 0255153E	SID LRBS, LROP	NIL
UVALU	444239N 0252639E	STAR LROP	FRA (I): FL175-FL660
UXULA	460200N 0241236E	STAR LRCL, STAR LRTM	NIL
VADBI	455454N 0210654E	IAC LRTR	NIL
VADNU	442225N 0285240E	STAR LRCK	FRA (I): FL175-FL660
VAKIS	435108N 0284329E	NIL	FRA (I): FL175-FL660
VAKUP	445436N 0261802E	SID/STAR LRBS/~~LROP~~, ~~STAR LRBS~~	NIL
VAMES	472048N 0233340E	NIL	FRA (I): FL175-FL660
VAMON	442358N 0244047E	T285, Z943	FRA (A): LRCV FRA (D): LRCV FRA (I)
VASIS	455712N 0222429E	Y574, STAR LRAR, STAR LRTR	FRA (A): LRAR, LRTR FRA (I): FL175-FL660 FRA (X): FL105-FL175: EVEN
~~VEDAP~~	~~445016N 0254306E~~	~~SID LRBS/LROP~~	~~NIL~~
VELIP	444618N 0213200E	NIL	FRA (A): LROP FRA (E): ODD
VELSE	475150N 0232040E	T995, SID/IAC LRBM	FRA (I)
VEVIN	444247N 0263907E	NIL	FRA (I): FL175-FL660
VIBUD	465031N 0235538E	STAR/IAC LRCL	FRA (I): FL175-FL660
VIKBI	441531N 0243921E	Y88	FRA (I)
VILIS	472424N 0273503E	NIL	FRA (I)
VOSLE	451738N 0280950E	Z934	FRA (I)
XANAN	460703N 0241403E	SID LRSB	NIL
XEBUN	454647N 0242615E	STAR LRSB	NIL
YETZI	470134N 0274527E	IAC LRIA	NIL
ZEZUZ	442000N 0270000E	SID LRBS / LROP	FRA (I): FL175-FL660 FRA (D): LROP, LRBS FRA (E): FL105-FL175: ODD
ZUBOK	460622N 0214212E	SID LRTR	FRA (I): FL175-FL660
ZULOC	451910N 0250000E		FRA (A): LRBV FRA (D): LRBV FRA (I)
ZUPZU	474110N 0231222E	IAC LRBM	NIL

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


FREE ROUTE AIRSPACE (FRA)
VERTICAL LIMITS:
- upper limit is FL 660
- lower limit is FL 105
OPERATIONAL HOURS: H24
as part of the SEE FRA
(I) = Intermediate Point
(E) = Horizontal Entry Point
(X) = Horizontal Exit Point
(A) = Arrival Connecting Point to LRXX
(D) = Departure Connecting Point from LRXY
(AD) = Arrival/Departure Connecting Point to/from LRXX
Notes: 1. For details on area of application see ENR 1.3;
2. For details on significant FRA points see ENR 4.1 and ENR 4.4
NOTE: 1. FRA usage above FL175.
SEE FRA boundary
FRA WPT
Compulsory Connecting Routes
* Vertical limits are issued by NOTAM, unless otherwise specified.
BUDAPEST FIR
BUCURESTI FIR
LVIV FIR
CHISINAU FIR
BEOGRAD FIR
SOFIA FIR
ODESA FIR
SIMFEROPOL FIR
LRSM
LRBM
LROD
LRAR
LRTR
LRSB
LRBV
LRCL
LRCV
LRTC
LRSV
LRIA
LRBC
LRCK
LROP
LRBS
LRTRA2*
LRTRA113A/B
LRTRA113C
LRTRA46U/T
LRTRA47L/M/U/T
LRTRA29L/M/U/T
LRTRA31L/M/U/T
LRTRA33L/M/U/T
LRTRA110A
LRTRA110B
LRTRA110C
LRTRA110D
LRTRA28L/M/U/T
LRTRA32L/M/U/T
LRTRA30L/M/U/T
LRTRA44L/M/U/T
LRTRA45L/M/U/T
LRTRA48L/M
LRTRA60L/M/U/T
LRTRA23L
LRTRA37L/M/U/T
LRTRA25L
LRTRA27L
LRTRA21L/M/U/T
LRTRA34L/M/U/T
LRTRA42L
LRTRA22L
LRTRA24L
LRTRA36L/M/U/T
LRTRA11L
LRTRA36U/T
LRTRA35L/M/U/T
LRTRA43L/M/U/T
LRTRA62L/M/U/T
LRTRA111J
LRTRA111C
LRTRA111D/E
LRTRA111F/H
LRTRA111K/N
LRTRA111A/B
LRTRA63L/M/U/T
LRTRA64L/M/U/T
LRTRA52G
LRTRA53G
LRTRA65L/M/U/T
LRTRA59*
LRTRA51L/M
LRTRA66L/M/U/T
LRTRA68L
LRTRA69L
LRTRA67L/M/U/T
LRTRA61L/M/U/T
LRTRA112L/M
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LRTRA41
LRTRA12L
LRTRA13L/M/U/T
LRTRA7L
LRTRA4L
LRTRA5L
LRTRA8L
LRTRA9L
LRTRA14L/M/U/T
LRTRA6L
LRD37B
LRD03B
LRD17B
LRD14B
LRD10B
LRD24B
LRD08B/C
LRD43B
LRD05B
LRD19B
LRD09B
LRD106B
LRD100C
LRD21B/C
LRD39B
LRD38B/C
LRD76B
LRD01B/C
LRD07B/C
LRD74B/C
LRD75B
LRD06B/C
LRD73B/C
LRD72B/C
LRD71B
LRD70B/C
LRR1 FL660 GND
LRR503 FL660 FL410
LRR501 FL165 GND
LRR502 FL410 FL165
LRR50 FL165 GND
SUPERSONIC FLT IS PROHIBITED
Sector DF1 See AIP Romania, ENR 2.2
Sector DF2 See AIP Romania, ENR 2.2
SATU MARE DVOR/DME 108.4 SAT 47° 43' 39"N 22° 53' 39"E 500 ft
BAIA MARE NDB 404 BMR 47° 40' 18"N 23° 20' 45"E
ORADEA NDB 418 ORA 47° 06' 01"N 21° 55' 27"E
DEVA VOR/DME 109.8 DVA 45° 49' 41"N 22° 58' 08"E 900ft
SIBIU NDB 381 SIB 45° 47' 06"N 24° 09' 09"E
CRAIOVA DVOR/DME 110.2 CRV 44° 19' 07"N 23° 55' 22"E 600ft
TARGU MURES NDB 428 TGM 46° 26' 49"N 24° 18' 24"E
BACAU DVOR/DME 109.4 BCU 46° 30' 39"N 26° 49' 32"E 1800 ft
BRASOV DVOR/DME 117.6 BRV 45° 34' 03"N 25° 33' 53"E 5900 ft
SUCEAVA VOR/DME 112.3 SCV 47° 40' 20"N 26° 21' 39"E 1300ft
GALATI DVOR/DME 108.2 GLT 45° 24' 59"N 27° 55' 40"E 200 ft
CONSTANTA DVOR/DME 112.7 CND 44° 17' 08"N 28° 28' 42"E 300ft
ROSIORI DVOR/DME 117.1 OPT 44° 35' 33"N 26° 33' 37"E 3000 ft
TULCEA DVOR/DME 113.2 STJ 44° 55' 07"N 25° 58' 37"E 3600 ft
IASI NDB 351 ISI 47° 14' 02"N 27° 34' 47"E
CTR SATU MARE FL55 SATU MARE TWR
CTR BAIA MARE FL55 BAIA MARE TWR
CTR ORADEA FL55 ORADEA TWR
CTR SUCEAVA FL55 SUCEAVA TWR
CTR IASI FL55 IASI TWR
CTR BACAU FL105 BACAU TWR
CTR BRASOV FL105 GND BRASOV TWR
CTR CRAIOVA FL55 CRAIOVA TWR
CTR TULCEA FL55 TULCEA TWR
CTR BRASOV FL105 6500 FT AMSL BRASOV TWR
CTR BRASOV FL105 6500 FT AMSL BRASOV TWR
TMA ARAD ARAD APP
TMA NAPOC BUCURESTI APP
TMA BUCURESTI BUCURESTI APP
TMA CONSTANTA CONSTANTA APP
ROMATSA
AIRAC AIP AMDT 11/26

TEMPORARY RESERVED AREAS	
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
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 - FL644
LRTRA111A	FL280 - FL645
LRTRA111B	FL280 - FL646
LRTRA111C	FL280 - FL647
LRTRA111D	FL280 - FL648
LRTRA111E	FL280 - FL649
LRTRA111F	FL280 - FL650
LRTRA111H	FL280 - FL651
LRTRA111I	FL280 - FL652
LRTRA111J	FL280 - FL653
LRTRA111K	FL280 - FL654
LRTRA111N	FL280 - FL655
LRTRA112L	FL280 - FL656
LRTRA112M	FL280 - FL657
LRTRA113A	FL280 - FL658
LRTRA113B	FL280 - FL659
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
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
LRD100C	GND - FL130
LRD106B	GND - FL130

LRBS AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRBS - BUCUREŞTI / Băneasa - Aurel Vlaicu

LRBS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	443013N 0260613E 070° MAG 1480 M from THR 07.
2	*Direction and distance from city*	8.5 km North from Bucureşti
3	*Elevation/Reference temperature/Mean low temperature*	299 FT / 32.9°C / -9°C
4	*Geoid undulation at AD ELEV PSN*	115 FT
5	*MAG VAR/ Annual rate of change*	6°E (2020) / 6.7'E
6	*AD Administration, address, telephone, telefax, e-mail, AFS, website*	Compania Naţională Aeroporturi Bucureşti Calea Bucureşti nr. 224 E, Otopeni, ILFOV Tel: +40-(0)21-2013304 +40-(0)21-2041000; +40-(0)21-2014000 Tel/Fax: +40-(0)21-2014990; +40-(0)21-3126866 AFS: LRBSRAYD SITA: OTPAPXH web: www.cnab.ro e-mail: contact@cnab.ro Aeroportul Internațional Bucureşti / Băneasa - Aurel Vlaicu Şos. Bucureşti-Ploieşti, nr. 40, sect. 1, Bucureşti Tel: +40-(0)21-2320020 Tel/Fax: +40-(0)21-2323687; +40-(0)21-2323762 (H24) AFS: LRBSRAYD SITA: BSAYDRO
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

LRBS AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	H24 see AD 2.21
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24
5	*ATS Reporting Office (ARO)*	H24
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fuelling*	H24
9	*Handling*	H24
10	*Security*	H24
11	*De-icing*	H24
12	*Remarks*	NIL

LRBS AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	4 wide-body stairs, 1 GPU 28V/115V, 1 heater, 1 air starter unit (on request 2 hours prior notice), 1 highloader, 1 luggage belt, 1 forklift, 1 lavatory service unit, 1 water toilet unit.
2	*Fuel/Oil types*	Kerosene JET A1 / NIL AVGAS 100LL/NIL
3	*Fuelling facilities/capacity*	JET A1: Storage: 100m^3 Refueler: 2 with 45t, 1 with 36t, 1 with 35t, 1 with 20t, 1 with 8t. Skid mob: 2 with 0.9t. AVGAS: Storage: 3 with 1t Refueler: 1 with 8t, 1 with 6.5t, 1 with 5.5t. Skid mob: 1 with 0.9t
4	*De-icing facilities*	2 de-icing units with fluid Type I and IV.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	NIL

LRBS AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Restaurants in the city.
3	*Transportation*	Buses, tram, taxis from the AD.
4	*Medical facilities*	First aid at the 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*	Terminal capacity is 160 pax/hour. Before filling LRBS as a destination or alternate airport contact airport administration at LRBSRAYD, BBU AVXH, contact@cnab.ro.

LRBS 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

LRBS AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	*Types of clearing equipment*	2 snow blower, 2 sweepers, 4 snow ploughs, 2 spreaders
2	*Clearance priorities*	1. RWY 07/25 and associated TWY to Apron 2. Apron, ACFT stands and other TWY.
3	*Remarks*	Information about Runway surface condition in Global Reporting Format published by SNOWTAM. See also the snow plan in section AD 1.2. Generic fluids and solid materials used for runway de/anti-icing are KAC (potassium acetate fluids) and NAAC (sodium acetate solids). Specially prepared winter runways - "Not applicable".

LRBS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	APRON and Apron flight school - for non commercial flights Surface: Concrete Strength: See details in chart AD 2.4-22		
2	*Taxiway designation, width, surface and strength*	TWY Width: 23M (A, D), 14M (S) Surface: Asphalt Strength: 76/R/D/W/T(A), 60/R/D/W/T(D), 24/R/D/Y/U (S)		
		APRON TWY Width: 18M (C, G) Surface: Concrete Strength: 41/R/D/W/T (C), 39/R/D/W/T (G)		
		Aicraft stand taxilane Width: 23M (F),18M (B, L), 7M (E) Surface: Concrete (B, L), Asphalt (E) Strength: 47/R/D/W/T (F), 45/R/D/W/T (B), 45/R/D/W/T (L), 17/R/C/W/T (E).		
3	*ACL location and elevation*	Location:	THR 07	THR 25
		Elevation:	298 FT	280 FT
4	*INS checkpoints*	See AD 2.4-22		
5	*Remarks*	NIL		

LRBS 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 all intersections with TWY and RWY and at all holding positions. Guide lines at apron. Parking guidance provided by marshallers.
2	*RWY and TWY markings and LGT*	RWY: - markings: Colour white - Designation, THR, TDZ, centre line, RWY side stripes, aiming points; - lights: THR and wing bar lights, centerline lights, end lights, edge lights, TDZ lights. TWY: - markings: Colour yellow - Runway Holding Position (RHP) markings and enhanced centerline marking on TWY A, D, - Centre line, on TWY A, B, C, D, E, F, G, L, S - Taxi edge on A, D, F, S - intermediate holding position and designation markings at TWYs intersections ~~A,~~ B, C, D, E, F, G, L, S - taxiing guide lines (apron); - lights: -TWY green centerline lights on TWY D and partial on TWY A and F, - blue edge lights installed at around 6 m from TWY A, D and F edge See following chart AD 2.4-20/20a.
3	*Stop bars and runway guard lights*	Stop bar at Runway Holding Position (RHP) an TWY D. Guard lights (LIH) at Runway Holding Position (RHP) on TWY A. See following chart AD 2.4-20/20a.
4	*Other RWY protection measure*	NIL
5	*Remarks*	NIL

LRBS 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
LRBS_600	BUILDING	443000.5N 0260632.0E	332/52FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_601	BUILDING	443001.7N 0260628.3E	333/56FT	NIL	
LRBS_602	BUILDING	442958.1N 0260633.8E	332/55FT	NIL	
LRBS_682	BUILDING	443024.4N 0260812.7E	372/91FT	NIL	
LRBS_683	BUILDING	443049.6N 0260737.6E	364/76FT	NIL	
LRBS_684	BUILDING	443052.2N 0260731.2E	351/61FT	NIL	
LRBS_685	BUILDING	443049.0N 0260754.8E	355/70FT	NIL	
LRBS_686	BUILDING	443049.7N 0260742.9E	354/67FT	NIL	
LRBS_688	BUILDING	443036.0N 0260644.2E	346/62FT	NIL	
LRBS_689	BUILDING	443052.0N 0260727.6E	346/59FT	NIL	
LRBS_690	BUILDING	443050.5N 0260726.8E	346/57FT	NIL	
LRBS_691	BUILDING	443032.3N 0260652.6E	342/59FT	NIL	
LRBS_692	BUILDING	443037.3N 0260641.7E	341/51FT	NIL	
LRBS_799	BUILDING	443048.2N 0260804.4E	372/86FT	NIL	
LRBS_849	BUILDING	442935.0N 0260449.0E	344/55FT	NIL	
LRBS_858	BUILDING	442937.2N 0260456.1E	347/54FT	NIL	
LRBS_883	BUILDING	442937.7N 0260459.0E	347/54FT	NIL	
LRBS_884	BUILDING	442941.2N 0260530.9E	361/71FT	NIL	
LRBS_934	BUILDING	442943.2N 0260443.0E	358/65FT	NIL	
LRBS_944	BUILDING	442936.7N 0260454.4E	345/54FT	NIL	
LRBS_960	BUILDING	442946.0N 0260453.4E	373/77FT	Marked W/R	
LRBS_973	BUILDING	442937.1N 0260449.7E	345/53FT	NIL	
LRBS_988	BUILDING	442936.6N 0260500.7E	349/58FT	NIL	
LRBS_1007	BUILDING	443039.6N 0260727.0E	341/53FT	NIL	
LRBS_1014	BUILDING	443047.0N 0260737.3E	346/62FT	NIL	
LRBS_1020	BUILDING	442941.2N 0260441.0E	389/96FT	NIL	
LRBS_1033	BUILDING	442938.5N 0260452.2E	362/71FT	NIL	
LRBS_1040	BUILDING	443053.3N 0260800.1E	347/61FT	NIL	
LRBS_1053	BUILDING	443034.5N 0260646.0E	344/61FT	NIL	
LRBS_1093	BUILDING	442940.6N 0260505.5E	348/55FT	NIL	
LRBS_1096	BUILDING	442939.3N 0260457.2E	370/77FT	NIL	
LRBS_1136	BUILDING	443004.5N 0260445.0E	348/54FT	NIL	
LRBS_1155	BUILDING	442938.3N 0260454.1E	346/53FT	NIL	
LRBS_1172	BUILDING	443021.9N 0260449.5E	366/65FT	NIL	
LRBS_1184	BUILDING	443002.0N 0260427.9E	362/64FT	NIL	
LRBS_1189	BUILDING	443017.3N 0260448.2E	376/81FT	NIL	
LRBS_1190	BUILDING	443037.0N 0260516.3E	377/79FT	NIL	
LRBS_1193	BUILDING	442936.6N 0260447.4E	364/72FT	NIL	
LRBS_1194	BUILDING	442943.0N 0260515.3E	359/70FT	NIL	
LRBS_1196	BUILDING	442942.1N 0260522.4E	356/68FT	NIL	
LRBS_1197	BUILDING	442939.7N 0260527.6E	357/67FT	NIL	
LRBS_1200	BUILDING	442943.6N 0260441.4E	359/64FT	NIL	
LRBS_1201	BUILDING	443049.7N 0260735.0E	353/63FT	NIL	
LRBS_1202	BUILDING	443045.7N 0260728.5E	352/61FT	NIL	
LRBS_1203	BUILDING	442944.0N 0260505.7E	375/83FT	LGTD	
LRBS_1204	BUILDING	442944.4N 0260448.4E	357/61FT	LGTD	
LRBS_1206	BUILDING	442935.5N 0260441.0E	354/59FT	NIL	
LRBS_1210	BUILDING	443015.7N 0260501.4E	345/54FT	NIL	
LRBS_1211	BUILDING	443021.1N 0260506.8E	350/54FT	NIL	
LRBS_1213	BUILDING	442936.6N 0260439.0E	350/53FT	NIL	
LRBS_1214	BUILDING	443049.0N 0260709.6E	346/53FT	NIL	
LRBS_1218	BUILDING	443047.2N 0260757.7E	336/50FT	NIL	
LRBS_1219	BUILDING	442935.5N 0260450.2E	340/50FT	NIL	
LRBS_1241	BUILDING	443010.8N 0260442.1E	369/78FT	NIL	
LRBS_2056	ANTENNA	442942.9N 0260453.1E	410/110FT	NIL	
LRBS_2057	POLE	443019.7N 0260458.6E	383/85FT	NIL	
LRBS_2058	POLE	443018.5N 0260457.6E	378/84FT	NIL	
LRBS_2069	SIGN	443009.9N 0260449.2E	343/49FT	NIL	
LRBS_2070	SIGN	443007.3N 0260448.8E	343/49FT	NIL	
LRBS_2104	BUILDING	443045.0N 0260648.6E	349/59FT	NIL	
LRBS_2110	BUILDING	442940.9N 0260457.6E	364/70FT	NIL	
LRBS_2121	SIGN	443009.0N 0260451.9E	344/49FT	NIL	
LRBS_2134	POLE	443021.4N 0260454.8E	361/61FT	NIL	
LRBS_2135	POLE	443022.4N 0260455.0E	361/60FT	NIL	
LRBS_2136	POLE	443022.5N 0260454.0E	359/58FT	NIL	
LRBS_2137	POLE	443021.5N 0260453.8E	361/61FT	NIL	
LRBS_2138	POLE	443018.5N 0260454.0E	361/65FT	NIL	
LRBS_2139	POLE	443019.5N 0260454.3E	361/63FT	NIL	
LRBS_2140	POLE	443020.4N 0260454.6E	361/62FT	NIL	
LRBS_2141	POLE	443020.5N 0260453.7E	362/63FT	NIL	
LRBS_2142	POLE	443019.6N 0260453.4E	362/64FT	NIL	
LRBS_2143	POLE	443018.6N 0260453.1E	361/64FT	NIL	

a	b	c	d	e	f
LRBS_2144	POLE	443016.6N 0260453.4E	357/62FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_2145	POLE	443017.6N 0260453.7E	360/64FT	NIL	
LRBS_2146	POLE	443017.7N 0260452.8E	360/64FT	NIL	
LRBS_2147	POLE	443016.8N 0260452.5E	358/62FT	NIL	
LRBS_2148	POLE	443014.7N 0260452.8E	352/56FT	NIL	
LRBS_2149	POLE	443015.7N 0260453.1E	355/60FT	NIL	
LRBS_2150	POLE	443015.8N 0260452.2E	355/60FT	NIL	
LRBS_2151	POLE	443014.8N 0260451.9E	352/57FT	NIL	
LRBS_2152	POLE	443013.8N 0260452.5E	349/53FT	NIL	
LRBS_2153	POLE	443013.9N 0260451.6E	349/54FT	NIL	
LRBS_2154	POLE	443012.8N 0260452.2E	345/49FT	NIL	
LRBS_2155	POLE	443013.0N 0260451.3E	345/50FT	NIL	
LRBS_2163	POLE	442946.3N 0260456.6E	349/54FT	Marked W/R; LGTD	
LRBS_2164	POLE	442945.8N 0260457.0E	345/51FT	Marked W/R; LGTD	
LRBS_2165	POLE	442945.6N 0260502.8E	369/75FT	Marked W/R; LGTD	
LRBS_2166	POLE	442945.0N 0260507.6E	371/77FT	Marked W/R; LGTD	
LRBS_2167	POLE	442944.5N 0260511.9E	368/77FT	Marked W/R; LGTD	
LRBS_2168	POLE	442944.4N 0260456.5E	347/54FT	Marked W/R; LGTD	
LRBS_2169	POLE	442947.0N 0260459.5E	348/54FT	Marked W/R; LGTD	
LRBS_2171	POLE	443041.3N 0260719.7E	342/49FT	NIL	
LRBS_2206	OTHER	443025.1N 0260607.7E	342/52FT	NIL	
LRBS_2207	OTHER	443022.7N 0260608.5E	344/53FT	NIL	
LRBS_2243	NAVAID	443005.4N 0260520.5E	333/58FT	Marked W/R LGTD	
LRBS_2244	NAVAID	443026.4N 0260702.6E	333/58FT	Marked W/R LGTD	
LRBS_2262	POLE	443022.6N 0260638.1E	333/58FT	Marked W/R LGTD	
LRBS_2263	POLE	443026.1N 0260654.3E	333/58FT	NIL	
LRBS_2264	BUILDING	443005.4N 0260520.9E	333/58FT	Marked W/R LGTD	
LRBS_2271	NAVAID	443026.8N 0260701.7E	333/58FT	Marked W/R LGTD	
LRBS_2274	NAVAID	443026.6N 0260702.4E	333/58FT	LGDT	
LRBS_2342	NAVAID	443004.6N 0260516.6E	333/58FT	LGDT	
LRBS_2343	NAVAID	443005.6N 0260520.6E	333/58FT	LGDT	
LRBS_2345	NAVAID	443006.4N 0260521.8E	333/58FT	Marked W/R LGTD	
LRBS_2347	POLE	443007.2N 0260523.2E	333/58FT	NIL	
LRBS_2349	ELECTRICAL EXIT LIGHT	443011.1N 0260544.5E	333/58FT	NIL	
LRBS_2350	NAVAID	443027.2N 0260706.4E	333/58FT	LGTD	
LRBS_2355	BUILDING	443026.9N 0260801.5E	326/37FT	NIL	
LRBS_2356	BUILDING	443028.5N 0260802.5E	324/31FT	NIL	
LRBS_2357	BUILDING	443031.3N 0260757.3E	319/32FT	NIL	
LRBS_2358	BUILDING	443026.9N 0260752.3E	319/31FT	NIL	
LRBS_2359	BUILDING	443026.3N 0260752.2E	317/29FT	NIL	
LRBS_2360	BUILDING	443031.7N 0260803.0E	316/28FT	NIL	
LRBS_2361	BUILDING	443029.9N 0260757.3E	316/27FT	NIL	
LRBS_2362	BUILDING	443029.7N 0260753.5E	315/30FT	NIL	
LRBS_2363	BUILDING	443027.0N 0260749.4E	313/24FT	NIL	
LRBS_2365	BUILDING	443030.7N 0260752.9E	310/25FT	NIL	
LRBS_2367	BUILDING	443039.8N 0260751.0E	323/33FT	NIL	
LRBS_2368	BUILDING	443031.5N 0260800.1E	318/30FT	NIL	
LRBS_2369	BUILDING	443027.7N 0260751.0E	321/35FT	NIL	
LRBS_2370	BUILDING	443029.5N 0260756.0E	320/31FT	NIL	
LRBS_2371	BUILDING	443030.3N 0260749.6E	306/22FT	NIL	
LRBS_2373	BUILDING	443029.7N 0260749.7E	306/23FT	NIL	
LRBS_2374	BUILDING	443040.7N 0260751.3E	325/35FT	NIL	
LRBS_2375	BUILDING	443029.3N 0260759.6E	314/26FT	NIL	
LRBS_2376	BUILDING	443030.1N 0260755.0E	308/21FT	NIL	
LRBS_2377	BUILDING	443040.2N 0260806.1E	325/40FT	NIL	
LRBS_2378	BUILDING	443028.5N 0260753.4E	315/26FT	NIL	
LRBS_2379	BUILDING	443039.0N 0260755.1E	323/34FT	NIL	
LRBS_2380	BUILDING	443038.6N 0260807.0E	322/33FT	NIL	
LRBS_2381	BUILDING	443035.3N 0260800.7E	318/29FT	NIL	
LRBS_2382	BUILDING	443029.9N 0260759.7E	315/26FT	NIL	
LRBS_2383	BUILDING	443029.6N 0260752.0E	306/21FT	NIL	
LRBS_2384	BUILDING	443038.5N 0260807.6E	317/27FT	NIL	
LRBS_2385	BUILDING	443025.5N 0260749.5E	319/29FT	NIL	
LRBS_2386	BUILDING	443028.7N 0260759.6E	320/31FT	NIL	
LRBS_2387	BUILDING	443037.2N 0260803.1E	322/34FT	NIL	
LRBS_2388	BUILDING	443041.6N 0260803.7E	331/42FT	NIL	
LRBS_2389	BUILDING	443037.5N 0260747.4E	323/33FT	NIL	
LRBS_2391	BUILDING	443038.1N 0260805.8E	323/33FT	NIL	
LRBS_2392	BUILDING	443034.3N 0260803.0E	315/27FT	NIL	
LRBS_2394	BUILDING	443032.7N 0260753.9E	313/25FT	NIL	
LRBS_2397	BUILDING	443039.2N 0260749.8E	318/28FT	NIL	

a	b	c	d	e	f
LRBS_2398	BUILDING	443039.4N 0260803.4E	318/29FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_2399	BUILDING	443036.1N 0260748.9E	310/23FT	NIL	
LRBS_2401	BUILDING	443027.7N 0260802.5E	318/37FT	NIL	
LRBS_2402	BUILDING	443031.1N 0260801.1E	318/28FT	NIL	
LRBS_2404	BUILDING	443044.2N 0260805.2E	321/34FT	NIL	
LRBS_2405	BUILDING	443027.0N 0260802.5E	320/37FT	NIL	
LRBS_2406	BUILDING	443039.4N 0260759.0E	326/37FT	NIL	
LRBS_2408	BUILDING	442947.8N 0260429.7E	333/41FT	NIL	
LRBS_2409	BUILDING	443036.1N 0260744.6E	319/30FT	NIL	
LRBS_2410	BUILDING	443035.4N 0260742.2E	304/15FT	NIL	
LRBS_2411	BUILDING	443039.0N 0260751.2E	314/24FT	NIL	
LRBS_2412	BUILDING	443035.0N 0260753.1E	316/27FT	NIL	
LRBS_2413	BUILDING	443043.0N 0260805.0E	327/41FT	NIL	
LRBS_2414	BUILDING	442945.9N 0260430.3E	333/42FT	NIL	
LRBS_2415	BUILDING	443028.4N 0260756.9E	319/30FT	NIL	
LRBS_2416	BUILDING	443025.9N 0260740.7E	314/29FT	NIL	
LRBS_2417	BUILDING	443039.8N 0260755.2E	320/31FT	NIL	
LRBS_2418	BUILDING	443036.2N 0260749.7E	312/24FT	NIL	
LRBS_2419	BUILDING	443034.3N 0260754.1E	316/27FT	NIL	
LRBS_2420	BUILDING	443036.5N 0260743.0E	315/26FT	NIL	
LRBS_2421	BUILDING	443036.5N 0260739.6E	320/31FT	NIL	
LRBS_2422	BUILDING	443025.8N 0260753.1E	326/37FT	NIL	
LRBS_2423	BUILDING	443035.7N 0260751.2E	315/27FT	NIL	
LRBS_2424	BUILDING	443038.9N 0260803.3E	321/33FT	NIL	
LRBS_2426	BUILDING	443037.7N 0260755.7E	321/33FT	NIL	
LRBS_2427	BUILDING	443029.3N 0260755.0E	312/23FT	NIL	
LRBS_2428	BUILDING	442959.6N 0260450.3E	309/12FT	Marked W/R; LGTD	
LRBS_2429	BUILDING	443043.5N 0260801.5E	320/35FT	NIL	
LRBS_2430	BUILDING	443044.4N 0260802.5E	315/29FT	NIL	
LRBS_2431	BUILDING	443026.1N 0260750.8E	315/26FT	NIL	
LRBS_2432	BUILDING	443037.8N 0260751.9E	318/29FT	NIL	
LRBS_2433	BUILDING	443036.3N 0260743.8E	317/27FT	NIL	
LRBS_2434	BUILDING	443038.7N 0260805.1E	321/33FT	NIL	
LRBS_2435	BUILDING	443026.2N 0260756.7E	325/35FT	NIL	
LRBS_2436	BUILDING	443026.7N 0260753.3E	322/34FT	NIL	
LRBS_2437	BUILDING	443029.6N 0260751.3E	306/22FT	NIL	
LRBS_2438	BUILDING	443043.2N 0260800.4E	318/32FT	NIL	
LRBS_2439	BUILDING	443040.0N 0260749.9E	319/29FT	NIL	
LRBS_2440	BUILDING	443033.5N 0260758.9E	321/33FT	NIL	
LRBS_2441	BUILDING	443039.6N 0260752.0E	318/29FT	NIL	
LRBS_2443	BUILDING	443030.5N 0260759.8E	314/26FT	NIL	
LRBS_2444	BUILDING	443027.2N 0260758.1E	314/25FT	NIL	
LRBS_2446	BUILDING	443028.9N 0260749.7E	308/23FT	NIL	
LRBS_2447	BUILDING	443033.9N 0260757.6E	318/31FT	NIL	
LRBS_2448	BUILDING	442948.9N 0260427.8E	337/52FT	NIL	
LRBS_2449	BUILDING	443043.3N 0260802.4E	314/28FT	NIL	
LRBS_2450	BUILDING	443027.5N 0260807.4E	316/29FT	NIL	
LRBS_2451	BUILDING	442944.7N 0260435.0E	331/38FT	NIL	
LRBS_2453	BUILDING	443030.6N 0260756.0E	313/25FT	NIL	
LRBS_2456	BUILDING	443032.5N 0260759.4E	320/32FT	NIL	
LRBS_2457	BUILDING	442943.5N 0260433.2E	330/37FT	NIL	
LRBS_2458	BUILDING	442944.6N 0260432.1E	330/38FT	NIL	
LRBS_2459	BUILDING	442958.7N 0260429.1E	325/28FT	NIL	
LRBS_2461	BUILDING	443028.2N 0260739.4E	296/11FT	NIL	
LRBS_2462	BUILDING	443044.1N 0260804.1E	330/45FT	NIL	
LRBS_2463	BUILDING	442954.9N 0260431.0E	340/44FT	NIL	
LRBS_2464	BUILDING	442943.5N 0260431.1E	336/44FT	NIL	
LRBS_2465	BUILDING	442946.0N 0260432.8E	335/43FT	NIL	
LRBS_2466	BUILDING	442943.7N 0260430.5E	334/43FT	NIL	
LRBS_2467	BUILDING	443041.8N 0260756.2E	334/43FT	NIL	
LRBS_2468	BUILDING	443038.6N 0260757.3E	320/31FT	NIL	
LRBS_2469	BUILDING	443041.3N 0260805.6E	331/42FT	NIL	
LRBS_2471	BUILDING	443040.4N 0260752.1E	331/41FT	NIL	
LRBS_2473	BUILDING	443026.3N 0260749.4E	330/40FT	NIL	
LRBS_2475	BUILDING	443027.4N 0260756.7E	319/30FT	NIL	
LRBS_2476	BUILDING	443038.3N 0260801.9E	315/27FT	NIL	
LRBS_2477	BUILDING	443034.7N 0260809.2E	320/33FT	NIL	
LRBS_2478	BUILDING	443041.4N 0260759.1E	327/37FT	NIL	
LRBS_2479	BUILDING	443040.2N 0260756.1E	327/37FT	NIL	
LRBS_2480	BUILDING	443041.0N 0260756.1E	326/37FT	NIL	
LRBS_2481	BUILDING	443029.9N 0260809.7E	320/37FT	NIL	
LRBS_2482	BUILDING	443034.0N 0260801.4E	325/37FT	NIL	
LRBS_2483	BUILDING	443031.2N 0260810.0E	319/37FT	NIL	
LRBS_2484	BUILDING	443040.2N 0260803.4E	325/36FT	NIL	
LRBS_2485	BUILDING	443033.7N 0260803.5E	325/36FT	NIL	
LRBS_2486	BUILDING	443027.8N 0260755.7E	310/22FT	NIL	

a	b	c	d	e	f
LRBS_2487	BUILDING	443039.6N 0260748.7E	315/25FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_2488	BUILDING	443033.5N 0260801.5E	324/35FT	NIL	
LRBS_2489	BUILDING	443037.1N 0260751.0E	314/25FT	NIL	
LRBS_2490	BUILDING	443042.4N 0260757.5E	322/35FT	NIL	
LRBS_2491	BUILDING	443041.1N 0260754.4E	324/34FT	NIL	
LRBS_2493	BUILDING	443037.7N 0260804.6E	323/34FT	NIL	
LRBS_2494	BUILDING	443028.1N 0260809.9E	317/34FT	NIL	
LRBS_2495	BUILDING	443040.8N 0260802.2E	316/29FT	NIL	
LRBS_2496	BUILDING	443041.1N 0260752.1E	323/33FT	NIL	
LRBS_2497	BUILDING	443039.5N 0260802.1E	316/28FT	NIL	
LRBS_2500	BUILDING	443037.9N 0260803.2E	321/33FT	NIL	
LRBS_2501	BUILDING	443039.3N 0260756.0E	322/33FT	NIL	
LRBS_2503	BUILDING	443043.2N 0260803.9E	319/32FT	NIL	
LRBS_2504	BUILDING	443037.3N 0260748.7E	321/32FT	NIL	
LRBS_2505	BUILDING	443033.6N 0260800.5E	321/32FT	NIL	
LRBS_2506	BUILDING	443038.8N 0260748.7E	322/32FT	NIL	
LRBS_2508	BUILDING	443036.8N 0260756.9E	320/31FT	NIL	
LRBS_2509	BUILDING	443028.2N 0260808.8E	316/31FT	NIL	
LRBS_2510	BUILDING	443035.5N 0260759.8E	320/31FT	NIL	
LRBS_2511	BUILDING	443030.3N 0260802.1E	319/31FT	NIL	
LRBS_2512	BUILDING	443038.2N 0260751.0E	321/31FT	NIL	
LRBS_2513	BUILDING	443036.6N 0260758.5E	320/30FT	NIL	
LRBS_2514	BUILDING	443035.4N 0260803.4E	319/30FT	NIL	
LRBS_2517	BUILDING	443040.3N 0260800.1E	318/30FT	NIL	
LRBS_2518	BUILDING	443039.5N 0260805.9E	318/29FT	NIL	
LRBS_2519	BUILDING	443037.1N 0260754.8E	318/29FT	NIL	
LRBS_2520	BUILDING	443037.0N 0260801.8E	318/29FT	NIL	
LRBS_2521	BUILDING	443027.6N 0260749.7E	315/28FT	NIL	
LRBS_2523	BUILDING	443038.5N 0260755.7E	317/28FT	NIL	
LRBS_2524	BUILDING	443037.6N 0260742.2E	318/28FT	NIL	
LRBS_2525	BUILDING	443028.3N 0260749.5E	314/28FT	NIL	
LRBS_2526	BUILDING	443041.8N 0260757.5E	317/28FT	NIL	
LRBS_2527	BUILDING	443031.6N 0260801.7E	316/28FT	NIL	
LRBS_2531	BUILDING	443034.2N 0260752.9E	316/27FT	NIL	
LRBS_2532	BUILDING	443035.9N 0260752.2E	316/27FT	NIL	
LRBS_2533	BUILDING	443042.1N 0260802.4E	314/27FT	NIL	
LRBS_2534	BUILDING	443036.5N 0260741.9E	316/27FT	NIL	
LRBS_2535	BUILDING	443039.7N 0260800.5E	315/27FT	NIL	
LRBS_2537	BUILDING	443029.3N 0260802.0E	315/27FT	NIL	
LRBS_2538	BUILDING	443035.2N 0260752.2E	315/26FT	NIL	
LRBS_2539	BUILDING	443035.7N 0260753.1E	316/26FT	NIL	
LRBS_2540	BUILDING	443041.5N 0260800.9E	314/26FT	NIL	
LRBS_2541	BUILDING	443040.9N 0260800.5E	314/26FT	NIL	
LRBS_2542	BUILDING	443035.0N 0260754.2E	315/26FT	NIL	
LRBS_2543	BUILDING	443038.4N 0260800.2E	314/26FT	NIL	
LRBS_2544	BUILDING	443036.1N 0260746.8E	318/28FT	NIL	
LRBS_2545	BUILDING	443038.1N 0260754.9E	315/26FT	NIL	
LRBS_2546	BUILDING	443026.6N 0260754.5E	315/25FT	NIL	
LRBS_2547	BUILDING	443035.8N 0260754.3E	315/25FT	NIL	
LRBS_2548	BUILDING	443039.0N 0260800.7E	313/25FT	NIL	
LRBS_2551	BUILDING	443033.4N 0260802.5E	313/25FT	NIL	
LRBS_2553	BUILDING	443029.4N 0260757.1E	313/25FT	NIL	
LRBS_2554	BUILDING	443025.0N 0260739.0E	309/24FT	NIL	
LRBS_2555	BUILDING	443025.1N 0260740.7E	309/24FT	NIL	
LRBS_2561	BUILDING	443035.5N 0260741.1E	308/19FT	NIL	
LRBS_2562	BUILDING	443035.6N 0260739.4E	307/18FT	NIL	
LRBS_2565	BUILDING	442949.6N 0260448.3E	316/24FT	NIL	
LRBS_2566	NAVAID	443026.3N 0260731.3E	293/13FT	Marked W/R; LGTD	
LRBS_2567	CONTROL_MONITORING_SYSTEM	443028.5N 0260730.0E	294/10FT	NIL	
LRBS_2568	POLE	443029.6N 0260735.7E	296/12FT	NIL	
LRBS_2569	POLE	443029.9N 0260737.0E	298/14FT	NIL	
LRBS_2570	POLE	443030.2N 0260738.3E	299/13FT	NIL	
LRBS_2571	POLE	443030.5N 0260739.6E	300/14FT	NIL	
LRBS_2572	POLE	443030.7N 0260740.9E	302/15FT	NIL	
LRBS_2573	POLE	443031.0N 0260742.3E	304/18FT	NIL	
LRBS_2574	POLE	443031.3N 0260743.6E	306/21FT	NIL	
LRBS_2575	POLE	443031.5N 0260744.9E	307/23FT	NIL	
LRBS_2576	POLE	444454.2N 0260554.7E	736/400FT	Marked W/R; LGTD	
LRBS_2577	POLE	443029.4N 0260734.4E	294/11FT	NIL	
LRBS_2583	POLE	442955.7N 0260451.7E	307/11FT	NIL	
LRBS_2584	POLE	442955.5N 0260450.3E	308/13FT	NIL	
LRBS_2585	POLE	442955.2N 0260449.1E	310/15FT	NIL	
LRBS_2586	POLE	442954.9N 0260447.7E	312/15FT	NIL	
LRBS_2587	POLE	442954.3N 0260444.9E	313/21FT	NIL	
LRBS_2588	POLE	442954.1N 0260443.6E	314/22FT	NIL	
LRBS_2589	POLE	442953.8N 0260442.3E	316/23FT	NIL	

a	b	c	d	e	f
LRBS_2590	POLE	442953.5N 0260441.1E	318/25FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_2591	POLE	442953.3N 0260439.8E	319/26FT	NIL	
LRBS_2592	POLE	442953.0N 0260438.5E	320/27FT	NIL	
LRBS_2593	POLE	442952.8N 0260437.3E	320/28FT	NIL	
LRBS_2594	POLE	442952.5N 0260436.0E	320/28FT	NIL	
LRBS_2600	POLE	442954.6N 0260446.1E	313/18FT	NIL	
LRBS_2602	POLE	442953.4N 0260447.1E	316/19FT	NIL	
LRBS_2603	POLE	442954.3N 0260447.4E	316/19FT	NIL	
LRBS_2604	POLE	442955.2N 0260447.6E	316/19FT	NIL	
LRBS_2605	POLE	442956.1N 0260447.8E	316/19FT	NIL	
LRBS_2606	POLE	442957.0N 0260448.0E	316/19FT	NIL	
LRBS_2607	POLE	442957.9N 0260448.3E	316/19FT	NIL	
LRBS_2608	POLE	442959.8N 0260448.7E	316/19FT	NIL	
LRBS_2609	POLE	442955.4N 0260446.5E	316/19FT	NIL	
LRBS_2610	POLE	442956.3N 0260446.7E	316/19FT	NIL	
LRBS_2611	POLE	442956.6N 0260446.6E	315/19FT	NIL	
LRBS_2612	POLE	442957.2N 0260446.9E	316/19FT	NIL	
LRBS_2613	POLE	442958.1N 0260447.1E	316/19FT	NIL	
LRBS_2614	POLE	442958.2N 0260447.0E	315/19FT	NIL	
LRBS_2615	POLE	442959.0N 0260447.4E	316/19FT	NIL	
LRBS_2616	POLE	442959.8N 0260447.4E	315/19FT	NIL	
LRBS_2617	POLE	442959.9N 0260447.6E	316/19FT	NIL	
LRBS_2618	POLE	442958.8N 0260448.5E	316/19FT	NIL	
LRBS_2619	POLE	442952.0N 0260445.5E	317/21FT	NIL	
LRBS_2620	POLE	442950.8N 0260445.1E	317/21FT	NIL	
LRBS_2621	POLE	442951.4N 0260445.2E	317/21FT	NIL	
LRBS_2622	POLE	442950.6N 0260446.7E	317/21FT	NIL	
LRBS_2623	POLE	442951.2N 0260446.8E	317/21FT	NIL	
LRBS_2624	POLE	442951.9N 0260446.8E	317/21FT	NIL	
LRBS_2625	POLE	442952.7N 0260445.8E	317/21FT	NIL	
LRBS_2626	POLE	442953.5N 0260445.8E	317/21FT	NIL	
LRBS_2627	POLE	442953.6N 0260446.0E	317/21FT	NIL	
LRBS_2628	POLE	442955.0N 0260446.2E	317/21FT	NIL	
LRBS_2629	SIGN	442950.7N 0260447.0E	318/21FT	NIL	
LRBS_2630	SIGN	442950.2N 0260444.4E	333/41FT	NIL	
LRBS_2631	SIGN	442948.1N 0260444.0E	325/31FT	NIL	
LRBS_2632	SIGN	442947.5N 0260444.0E	329/34FT	NIL	
LRBS_2633	SIGN	442947.0N 0260443.9E	322/28FT	NIL	
LRBS_2634	SIGN	442956.2N 0260448.1E	316/20FT	NIL	
LRBS_2635	SIGN	443000.4N 0260449.2E	316/20FT	NIL	
LRBS_2648	SIGN	442949.4N 0260447.0E	326/33FT	NIL	
LRBS_2649	SIGN	442950.8N 0260445.5E	317/24FT	NIL	
LRBS_2650	POLE	443000.7N 0260448.9E	316/19FT	NIL	
LRBS_2651	POLE	443000.8N 0260447.8E	316/19FT	NIL	
LRBS_2652	NAVAID	442957.9N 0260449.5E	308/12FT	Marked W/R; LGTD	
LRBS_2653	BUILDING	443000.4N 0260450.5E	307/10FT	Marked W/R; LGTD	
LRBS_2654	NAVAID	443000.1N 0260451.4E	308/11FT	Marked W/R; LGTD	
LRBS_2655	BUILDING	442959.6N 0260446.6E	335/40FT	NIL	
LRBS_2656	POLE	442949.9N 0260452.3E	326/29FT	Marked W/R; LGTD	
LRBS_2663	POLE	443033.7N 0260748.9E	312/28FT	NIL	
LRBS_2664	POLE	443034.2N 0260749.0E	312/28FT	NIL	
LRBS_2665	POLE	443034.8N 0260749.1E	314/28FT	NIL	
LRBS_2666	POLE	443035.4N 0260749.2E	314/28FT	NIL	
LRBS_2667	POLE	443035.5N 0260748.4E	314/28FT	NIL	
LRBS_2668	POLE	443034.9N 0260748.4E	314/28FT	NIL	
LRBS_2669	POLE	443034.3N 0260748.3E	312/28FT	NIL	
LRBS_2670	POLE	443033.7N 0260748.2E	312/28FT	NIL	
LRBS_2700	POLE	442947.6N 0260445.6E	333/33FT	NIL	
LRBS_2701	POLE	442948.3N 0260445.7E	334/33FT	NIL	
LRBS_2702	POLE	442949.1N 0260445.9E	333/33FT	NIL	
LRBS_2703	POLE	442949.2N 0260445.1E	329/33FT	NIL	
LRBS_2704	POLE	442948.4N 0260444.9E	330/33FT	NIL	
LRBS_2705	POLE	442947.7N 0260444.8E	331/33FT	NIL	
LRBS_2706	SIGN	442957.4N 0260447.1E	317/21FT	NIL	
LRBS_2707	BUILDING	443033.1N 0260748.8E	305/21FT	NIL	
LRBS_2708	BUILDING	443035.4N 0260746.1E	302/13FT	NIL	
LRBS_2709	BUILDING	443035.3N 0260743.4E	304/16FT	NIL	
LRBS_2710	POLE	443037.2N 0260741.6E	317/28FT	NIL	
LRBS_2711	POLE	443037.0N 0260743.4E	317/28FT	NIL	
LRBS_2712	POLE	443036.9N 0260745.1E	316/28FT	NIL	
LRBS_2713	POLE	443036.7N 0260747.9E	316/28FT	NIL	
LRBS_2714	POLE	443036.6N 0260750.0E	316/28FT	NIL	
LRBS_2715	POLE	443036.4N 0260752.3E	316/28FT	NIL	
LRBS_2716	POLE	443036.3N 0260754.1E	316/28FT	NIL	
LRBS_2717	POLE	443036.2N 0260756.1E	316/28FT	NIL	
LRBS_2718	POLE	443036.1N 0260758.0E	316/28FT	NIL	
LRBS_2719	POLE	443035.9N 0260800.0E	316/28FT	NIL	

a	b	c	d	e	f
LRBS_2720	POLE	443035.8N 0260801.8E	316/28FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_2721	POLE	443035.7N 0260803.6E	316/28FT	NIL	
LRBS_2722	BUILDING	443028.5N 0260752.5E	318/32FT	NIL	
LRBS_2723	BUILDING	443025.8N 0260751.7E	319/32FT	NIL	
LRBS_2724	BUILDING	443025.8N 0260752.2E	317/28FT	NIL	
LRBS_2725	BUILDING	443026.7N 0260750.9E	311/23FT	NIL	
LRBS_2726	POLE	444456.3N 0260601.5E	736/399FT	Marked W/R; LGTD	
LRBS_2728	POLE	444451.9N 0260623.2E	731/391FT	Marked W/R; LGTD	
LRBS_2729	POLE	444455.1N 0260617.2E	731/390FT	Marked W/R; LGTD	
LRBS_2731	POLE	444508.6N 0260611.6E	737/405FT	Marked W/R; LGTD	
LRBS_2732	POLE	444503.3N 0260610.8E	736/403FT	Marked W/R; LGTD	
LRBS_2734	POLE	444454.8N 0260556.7E	733/397FT	Marked W/R; LGTD	
LRBS_2735	POLE	444455.2N 0260558.1E	733/397FT	Marked W/R; LGTD	
LRBS_2736	POLE	444455.7N 0260559.5E	733/397FT	Marked W/R; LGTD	
LRBS_2738	POLE	444452.9N 0260621.4E	738/397FT	Marked W/R; LGTD	
LRBS_2739	POLE	444453.5N 0260620.2E	738/397FT	Marked W/R; LGTD	
LRBS_2740	POLE	444454.2N 0260618.9E	738/397FT	Marked W/R; LGTD	
LRBS_2743	POLE	444504.9N 0260610.9E	729/397FT	Marked W/R; LGTD	
LRBS_2744	POLE	444506.0N 0260611.1E	729/397FT	Marked W/R; LGTD	
LRBS_2745	POLE	444507.1N 0260611.3E	729/397FT	Marked W/R; LGTD	
LRBS_2937	ANTENNA	443201.2N 0260900.2E	428/145FT	NIL	
LRBS_2938	ANTENNA	443204.9N 0260852.9E	429/144FT	NIL	
LRBS_2939	ANTENNA	443050.5N 0260809.1E	398/113FT	NIL	
LRBS_2941	ANTENNA	443015.0N 0260821.5E	400/116FT	NIL	
LRBS_2942	ANTENNA	443216.5N 0260804.9E	430/143FT	NIL	
LRBS_2958	ANTENNA	442927.6N 0260731.2E	426/150FT	NIL	
LRBS_2978	STACK	442421.1N 0260910.2E	601/395FT	Marked W/R; LGTD	
LRBS_2979	STACK	442419.3N 0260909.3E	602/396FT	Marked W/R; LGTD	
LRBS_2980	STACK	442418.1N 0260914.6E	728/524FT	Marked W/R; LGTD	
LRBS_2981	STACK	442419.7N 0260916.0E	602/396FT	Marked W/R; LGTD	
LRBS_2982	STACK	442218.3N 0260630.5E	1081/826FT	Marked W/R; LGTD	
LRBS_2983	STACK	442525.1N 0255842.4E	886/588FT	Marked W/R; LGTD	
LRBS_2992	ANTENNA	442631.6N 0260218.5E	971/695FT	Marked W/R; LGTD	
LRBS_2993	ANTENNA	442836.9N 0260302.3E	642/353FT	Marked W/R; LGTD	
LRBS_2994	ANTENNA	442837.3N 0260309.6E	528/239FT	NIL	
LRBS_2996	ANTENNA	442945.7N 0260634.4E	399/116FT	Marked W/R	
LRBS_3157	ANTENNA	444016.1N 0260450.4E	949/627FT	Marked W/R; LGTD	
LRBS_4696	BUILDING	442827.0N 0260404.6E	519/233FT	NIL	
LRBS_4760	BUILDING	442828.1N 0260316.1E	453/162FT	NIL	
LRBS_5360	BUILDING	442947.5N 0260609.1E	349/63FT	NIL	
LRBS_5361	BUILDING	442947.0N 0260605.3E	348/60FT	NIL	
LRBS_5365	BUILDING	442943.1N 0260559.4E	336/51FT	NIL	
LRBS_5366	BUILDING	442953.8N 0260632.5E	332/50FT	NIL	
LRBS_5675	BUILDING	442950.9N 0260759.4E	422/160FT	NIL	
LRBS_5678	BUILDING	442920.0N 0260627.4E	449/160FT	NIL	
LRBS_5679	BUILDING	442920.7N 0260624.9E	404/116FT	NIL	
LRBS_5741	BUILDING	442905.4N 0260629.8E	427/140FT	NIL	
LRBS_5744	BUILDING	442837.2N 0260534.5E	462/190FT	NIL	
LRBS_5747	BUILDING	442919.2N 0260738.4E	442/163FT	NIL	
LRBS_5748	BUILDING	442921.9N 0260738.4E	442/163FT	NIL	
LRBS_5759	BUILDING	442917.5N 0260536.4E	416/137FT	NIL	
LRBS_5763	BUILDING	442843.1N 0260539.0E	414/149FT	NIL	
LRBS_5770	BUILDING	442917.8N 0260543.4E	406/122FT	NIL	
LRBS_5773	BUILDING	442917.5N 0260534.5E	403/123FT	NIL	
LRBS_5780	BUILDING	442913.0N 0260537.8E	397/120FT	NIL	
LRBS_5790	BUILDING	442918.5N 0260546.5E	391/101FT	NIL	
LRBS_5791	BUILDING	442917.3N 0260545.3E	391/104FT	NIL	
LRBS_5792	BUILDING	442915.9N 0260546.0E	391/104FT	NIL	
LRBS_5797	BUILDING	443049.4N 0260611.3E	384/89FT	NIL	
LRBS_5803	BUILDING	443125.5N 0260834.5E	382/95FT	NIL	
LRBS_5952	BUILDING	443054.5N 0260617.4E	373/77FT	NIL	
LRBS_6053	BUILDING	443106.4N 0260824.6E	371/85FT	NIL	
LRBS_6054	BUILDING	443104.8N 0260823.9E	371/86FT	NIL	
LRBS_6058	BUILDING	442913.5N 0260557.7E	371/89FT	NIL	
LRBS_6479	BUILDING	442919.8N 0260649.0E	365/79FT	NIL	
LRBS_6628	BUILDING	442922.9N 0260646.3E	363/79FT	NIL	
LRBS_6751	BUILDING	443052.6N 0260725.6E	361/73FT	NIL	
LRBS_6793	BUILDING	443057.6N 0260803.5E	347/60FT	NIL	
LRBS_7298	BUILDING	443052.7N 0260631.4E	354/59FT	NIL	
LRBS_7814	BUILDING	443100.4N 0260727.0E	347/62FT	NIL	
LRBS_7910	BUILDING	443058.9N 0260726.8E	346/59FT	NIL	
LRBS_9169	BUILDING	443103.9N 0260742.7E	331/50FT	NIL	
LRBS_9224	BUILDING	443010.4N 0260758.3E	330/50FT	NIL	
LRBS_10609	POLE	442955.2N 0260846.8E	383/98FT	NIL	
LRBS_10610	POLE	442954.5N 0260843.0E	382/98FT	NIL	
LRBS_10611	POLE	442959.4N 0260846.1E	380/98FT	NIL	

a	b	c	d	e	f
LRBS_10612	POLE	442959.0N 0260842.0E	381/98FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_10613	POLE	443002.7N 0260840.5E	395/112FT	NIL	
LRBS_10614	POLE	442954.3N 0260840.1E	390/115FT	NIL	
LRBS_10615	BUILDING	442918.3N 0260632.4E	386/99FT	NIL	
LRBS_10667	BUILDING	442927.2N 0260443.3E	400/128FT	NIL	
LRBS_10694	BUILDING	442922.1N 0260732.9E	370/92FT	NIL	
LRBS_10699	BUILDING	442924.5N 0260708.4E	400/120FT	NIL	
LRBS_10712	BUILDING	442927.5N 0260536.3E	374/86FT	NIL	
LRBS_10713	BUILDING	443018.1N 0260343.5E	387/84FT	NIL	
LRBS_10714	BUILDING	443025.0N 0260351.1E	384/81FT	NIL	
LRBS_10718	BUILDING	442925.1N 0260534.6E	367/78FT	NIL	
LRBS_10721	BUILDING	442935.1N 0260515.9E	345/57FT	NIL	
LRBS_10722	BUILDING	442936.6N 0260504.9E	387/95FT	NIL	
LRBS_10723	BUILDING	442905.2N 0260358.5E	471/181FT	NIL	
LRBS_10724	BUILDING	442853.2N 0260414.3E	645/359FT	LGTD	
LRBS_10725	BUILDING	442923.1N 0260429.3E	453/176FT	NIL	
LRBS_10729	ANTENNA	442842.8N 0260529.4E	448/180FT	NIL	
LRBS_10730	BUILDING	442614.1N 0260608.3E	600/337FT	LGTD	
LRBS_10732	ANTENNA	442712.6N 0260624.0E	687/417FT	Marked W/R; LGTD	
LRBS_10733	BUILDING	442848.9N 0260613.8E	582/307FT	NIL	
LRBS_10734	BUILDING	442840.7N 0260617.0E	726/455FT	LGTD	
LRBS_10735	BUILDING	442846.0N 0260608.3E	676/401FT	LGTD	
LRBS_10741	BUILDING	442533.4N 0260456.0E	681/394FT	NIL	
LRBS_10742	BUILDING	442539.0N 0260514.7E	622/337FT	NIL	
LRBS_12877	CHIMNEY	445254.7N 0260027.5E	1071/610FT	Marked W/R; LGTD	
LRBS_12878	REFINERY	445255.8N 0260031.9E	873/411FT	Marked W/R; LGTD	
LRBS_12881	REFINERY	445302.4N 0260002.9E	1123/648FT	Marked W/R; LGTD	
LRBS_12882	REFINERY	445307.0N 0260004.5E	1017/541FT	Marked W/R; LGTD	
LRBS_13072	BUILDING	442932.1N 0260558.4E	342/69FT	NIL	
LRBS_13073	BUILDING	442933.8N 0260605.7E	352/64FT	NIL	
LRBS_13074	BUILDING	442933.4N 0260607.4E	346/57FT	NIL	
LRBS_13079	BUILDING	442716.5N 0260452.3E	635/371FT	LGTD	
LRBS_13080	BUILDING	442707.6N 0260337.4E	647/370FT	LGTD	
LRBS_13083	BUILDING	442724.9N 0260623.7E	559/295FT	NIL	
LRBS_13157	BUILDING	442938.9N 0260424.3E	346/69FT	NIL	
LRBS_13858	BUILDING	443049.8N 0260632.9E	345/50FT	NIL	
LRBS_13879	BUILDING	443058.4N 0260755.0E	344/58FT	NIL	
LRBS_14387	BUILDING	443058.9N 0260702.4E	341/50FT	NIL	
LRBS_14732	BUILDING	442930.8N 0260504.8E	339/54FT	NIL	
LRBS_15127	BUILDING	442940.2N 0260535.8E	339/51FT	NIL	
LRBS_15215	BUILDING	443003.4N 0260728.8E	339/60FT	NIL	
LRBS_15719	BUILDING	442854.6N 0260656.4E	397/114FT	NIL	
LRBS_15883	BUILDING	443057.6N 0260644.2E	365/72FT	NIL	
LRBS_17382	BUILDING	442933.3N 0260506.3E	347/57FT	NIL	
LRBS_17599	BUILDING	442932.7N 0260458.6E	340/55FT	NIL	
LRBS_17991	BUILDING	442930.6N 0260747.8E	364/82FT	NIL	
LRBS_18942	BUILDING	442914.3N 0260525.0E	370/81FT	NIL	
LRBS_19729	BUILDING	442927.2N 0260547.2E	353/63FT	NIL	
LRBS_20096	BUILDING	443010.3N 0260806.3E	332/51FT	NIL	
LRBS_21339	BUILDING	442930.1N 0260442.6E	403/126FT	NIL	
LRBS_21814	BUILDING	442934.0N 0260509.5E	364/72FT	NIL	
LRBS_22163	BUILDING	442846.3N 0260619.3E	469/181FT	NIL	
LRBS_22222	BUILDING	442934.5N 0260453.7E	340/52FT	NIL	
LRBS_22737	BUILDING	442928.1N 0260520.5E	355/65FT	NIL	
LRBS_22902	BUILDING	443016.9N 0260818.0E	336/52FT	NIL	
LRBS_23932	BUILDING	443057.9N 0260620.9E	369/74FT	NIL	
LRBS_24536	BUILDING	442844.9N 0260605.1E	444/171FT	NIL	
LRBS_24740	BUILDING	442926.1N 0260726.0E	382/99FT	NIL	
LRBS_24816	BUILDING	442932.2N 0260502.6E	342/54FT	NIL	
LRBS_24925	BUILDING	443052.0N 0260530.4E	361/65FT	NIL	
LRBS_25341	BUILDING	442925.6N 0260511.7E	393/109FT	NIL	
LRBS_25757	BUILDING	443055.5N 0260521.8E	361/63FT	NIL	
LRBS_26867	BUILDING	442852.4N 0260708.4E	456/175FT	NIL	
LRBS_26999	BUILDING	443042.3N 0260610.8E	394/100FT	NIL	
LRBS_27243	BUILDING	442928.4N 0260525.8E	407/119FT	NIL	
LRBS_27439	BUILDING	442930.5N 0260447.2E	351/75FT	NIL	
LRBS_27905	BUILDING	442933.9N 0260457.4E	339/54FT	NIL	
LRBS_28115	BUILDING	443052.2N 0260521.9E	360/63FT	NIL	
LRBS_28270	BUILDING	442850.4N 0260719.1E	408/128FT	NIL	
LRBS_28502	BUILDING	442928.7N 0260537.9E	345/56FT	NIL	
LRBS_29221	BUILDING	443056.8N 0260611.8E	363/69FT	NIL	
LRBS_29255	BUILDING	442958.2N 0260411.0E	374/80FT	NIL	
LRBS_29281	BUILDING	442920.7N 0260701.3E	433/148FT	NIL	
LRBS_29489	BUILDING	443050.0N 0260608.1E	367/73FT	NIL	
LRBS_29506	BUILDING	443049.8N 0260631.3E	357/62FT	NIL	

a	b	c	d	e	f
LRBS_29682	BUILDING	443030.3N 0260410.5E	369/68FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_29877	BUILDING	442853.3N 0260615.6E	393/107FT	NIL	
LRBS_29882	BUILDING	442930.1N 0260503.1E	337/55FT	NIL	
LRBS_29900	BUILDING	442923.0N 0260518.8E	357/69FT	NIL	
LRBS_30143	BUILDING	442936.5N 0260733.4E	446/164FT	NIL	
LRBS_30444	BUILDING	443046.5N 0260639.2E	374/77FT	NIL	
LRBS_30799	BUILDING	443045.4N 0260627.7E	368/76FT	NIL	
LRBS_31011	BUILDING	443054.1N 0260703.1E	364/76FT	NIL	
LRBS_31242	BUILDING	443053.4N 0260530.4E	359/63FT	NIL	
LRBS_31535	BUILDING	443054.0N 0260707.8E	342/52FT	NIL	
LRBS_32104	BUILDING	442925.3N 0260524.2E	408/119FT	NIL	
LRBS_32182	BUILDING	442928.7N 0260532.9E	383/96FT	NIL	
LRBS_32383	BUILDING	442924.1N 0260521.1E	360/75FT	NIL	
LRBS_32690	BUILDING	442929.1N 0260546.2E	366/81FT	NIL	
LRBS_32807	BUILDING	442922.6N 0260510.8E	370/88FT	NIL	
LRBS_32846	BUILDING	442929.0N 0260455.6E	338/66FT	NIL	
LRBS_33649	BUILDING	442927.2N 0260521.7E	364/72FT	NIL	
LRBS_33868	BUILDING	443052.3N 0260639.3E	349/54FT	NIL	
LRBS_33942	BUILDING	443051.6N 0260654.9E	360/69FT	NIL	
LRBS_34033	BUILDING	443003.7N 0260723.9E	344/66FT	NIL	
LRBS_34123	BUILDING	442855.8N 0260614.9E	390/105FT	NIL	
LRBS_34165	BUILDING	443053.5N 0260522.8E	358/61FT	NIL	
LRBS_34511	BUILDING	443051.2N 0260520.6E	358/61FT	NIL	
LRBS_34529	BUILDING	442925.8N 0260443.0E	389/121FT	NIL	
LRBS_34893	BUILDING	442958.6N 0260402.5E	370/84FT	NIL	
LRBS_34928	BUILDING	442823.2N 0260356.3E	445/158FT	NIL	
LRBS_35101	BUILDING	442843.2N 0260711.2E	425/144FT	NIL	
LRBS_35263	BUILDING	442927.0N 0260530.0E	368/80FT	NIL	
LRBS_35561	BUILDING	442936.6N 0260517.2E	356/67FT	NIL	
LRBS_35858	BUILDING	443047.1N 0260606.5E	363/69FT	NIL	
LRBS_35928	BUILDING	443039.1N 0260410.6E	370/64FT	NIL	
LRBS_36262	BUILDING	443052.0N 0260524.8E	364/66FT	NIL	
LRBS_36326	BUILDING	443102.8N 0260823.1E	355/71FT	NIL	
LRBS_36386	BUILDING	443008.2N 0260743.9E	326/50FT	NIL	
LRBS_36517	BUILDING	442923.8N 0260706.5E	442/159FT	NIL	
LRBS_36651	BUILDING	442848.2N 0260345.3E	462/177FT	NIL	
LRBS_37204	BUILDING	443056.8N 0260613.4E	361/66FT	NIL	
LRBS_37334	BUILDING	442941.1N 0260753.7E	357/79FT	NIL	
LRBS_38213	BUILDING	442937.7N 0260731.4E	396/113FT	NIL	
LRBS_39064	BUILDING	442937.8N 0260514.5E	364/75FT	NIL	
LRBS_39565	BUILDING	442908.1N 0260605.3E	404/117FT	NIL	
LRBS_39654	BUILDING	442903.6N 0260530.6E	381/121FT	NIL	
LRBS_39660	BUILDING	443050.3N 0260628.3E	368/87FT	NIL	
LRBS_39689	BUILDING	443048.6N 0260628.1E	368/87FT	NIL	
LRBS_39721	BUILDING	442843.9N 0260621.7E	469/178FT	NIL	
LRBS_39741	BUILDING	442910.5N 0260618.6E	443/161FT	NIL	
LRBS_39743	BUILDING	443051.5N 0260610.3E	341/60FT	NIL	
LRBS_39816	BUILDING	443055.9N 0260533.2E	360/75FT	NIL	
LRBS_39856	BUILDING	442850.1N 0260650.1E	406/123FT	NIL	
LRBS_39876	BUILDING	443057.4N 0260531.7E	382/95FT	NIL	
LRBS_39884	BUILDING	443049.8N 0260610.0E	363/79FT	NIL	
LRBS_39899	BUILDING	443057.5N 0260530.0E	382/95FT	NIL	
LRBS_39920	BUILDING	443057.2N 0260533.5E	382/95FT	NIL	
LRBS_39981	BUILDING	442938.9N 0260522.9E	360/71FT	NIL	
LRBS_40028	BUILDING	443056.4N 0260530.2E	359/72FT	NIL	
LRBS_40122	BUILDING	443054.7N 0260532.2E	359/74FT	NIL	
LRBS_40181	BUILDING	443055.2N 0260530.3E	359/74FT	NIL	
LRBS_40349	BUILDING	443054.4N 0260608.5E	357/69FT	NIL	
LRBS_40351	BUILDING	443119.8N 0260840.6E	422/138FT	NIL	
LRBS_40407	BUILDING	443053.1N 0260610.4E	363/72FT	NIL	
LRBS_40552	BUILDING	443103.5N 0260749.6E	336/56FT	NIL	
LRBS_40740	BUILDING	443047.1N 0260627.9E	368/75FT	NIL	
LRBS_41203	BUILDING	442923.9N 0260531.0E	364/87FT	NIL	
LRBS_41432	BUILDING	443046.9N 0260609.3E	364/70FT	NIL	
LRBS_41588	BUILDING	443100.6N 0260822.1E	357/73FT	NIL	
LRBS_41602	BUILDING	442843.4N 0260649.8E	462/183FT	NIL	
LRBS_41603	BUILDING	442842.0N 0260658.0E	459/181FT	NIL	
LRBS_41604	BUILDING	442841.5N 0260654.6E	461/183FT	NIL	
LRBS_41605	BUILDING	442848.2N 0260659.3E	486/204FT	NIL	
LRBS_41606	BUILDING	442851.1N 0260704.3E	479/197FT	NIL	
LRBS_41614	BUILDING	442709.5N 0260500.1E	524/254FT	NIL	
LRBS_41615	BUILDING	442838.5N 0260417.2E	542/254FT	NIL	
LRBS_41617	BUILDING	442841.6N 0260415.7E	541/252FT	NIL	
LRBS_41619	BUILDING	442746.8N 0260523.7E	523/243FT	NIL	

a	b	c	d	e	f
LRBS_41620	BUILDING	442754.6N 0260514.1E	507/230FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_41624	BUILDING	442834.2N 0260622.1E	478/216FT	NIL	
LRBS_41625	BUILDING	442743.1N 0260322.4E	502/215FT	NIL	
LRBS_41626	BUILDING	442751.3N 0260423.6E	500/221FT	NIL	
LRBS_41630	BUILDING	442835.4N 0260250.3E	477/190FT	NIL	
LRBS_41648	BUILDING	442847.8N 0260621.9E	473/180FT	NIL	
LRBS_41649	BUILDING	442845.0N 0260621.0E	469/179FT	NIL	
LRBS_41651	BUILDING	442850.3N 0260236.6E	473/194FT	NIL	
LRBS_41664	BUILDING	442856.2N 0260330.9E	450/160FT	NIL	
LRBS_41665	BUILDING	442832.4N 0260410.6E	447/160FT	NIL	
LRBS_41666	BUILDING	442900.3N 0260657.3E	443/160FT	NIL	
LRBS_41679	BUILDING	442924.6N 0260518.9E	446/156FT	NIL	
LRBS_41680	BUILDING	442858.0N 0260719.2E	436/156FT	NIL	
LRBS_41694	BUILDING	442926.2N 0260704.7E	433/151FT	NIL	
LRBS_41707	BUILDING	442840.1N 0260604.4E	418/144FT	NIL	
LRBS_41717	BUILDING	442851.4N 0260609.2E	416/140FT	NIL	
LRBS_41735	BUILDING	443041.1N 0260439.8E	436/135FT	Marked W/R	
LRBS_41744	BUILDING	442925.2N 0260514.4E	423/134FT	NIL	
LRBS_41761	BUILDING	442834.6N 0260354.5E	420/131FT	NIL	
LRBS_41796	BUILDING	442844.5N 0260654.6E	406/127FT	NIL	
LRBS_41852	BUILDING	442852.5N 0260648.3E	405/123FT	NIL	
LRBS_41856	BUILDING	442843.2N 0260623.3E	415/123FT	NIL	
LRBS_41887	BUILDING	442840.4N 0260606.8E	417/146FT	NIL	
LRBS_42084	BUILDING	443055.7N 0260644.3E	409/115FT	NIL	
LRBS_42091	BUILDING	442928.3N 0260728.6E	395/115FT	NIL	
LRBS_42092	BUILDING	442928.6N 0260514.8E	405/114FT	NIL	
LRBS_42193	BUILDING	442851.6N 0260630.5E	394/109FT	NIL	
LRBS_42201	BUILDING	442928.2N 0260442.8E	382/109FT	NIL	
LRBS_42247	BUILDING	442927.1N 0260512.2E	394/107FT	NIL	
LRBS_42248	BUILDING	442929.3N 0260443.0E	382/107FT	NIL	
LRBS_42266	BUILDING	442854.7N 0260626.9E	395/106FT	NIL	
LRBS_42281	BUILDING	442916.0N 0260659.0E	386/105FT	NIL	
LRBS_42287	BUILDING	442922.4N 0260457.1E	375/105FT	NIL	
LRBS_42290	BUILDING	442925.8N 0260530.2E	393/105FT	NIL	
LRBS_42331	BUILDING	442901.1N 0260421.6E	383/103FT	NIL	
LRBS_42338	BUILDING	442902.2N 0260530.1E	383/103FT	NIL	
LRBS_42341	BUILDING	443044.3N 0260611.1E	397/103FT	NIL	
LRBS_42377	BUILDING	442926.0N 0260447.2E	373/101FT	NIL	
LRBS_42433	BUILDING	442910.1N 0260524.4E	376/99FT	NIL	
LRBS_42465	BUILDING	442929.4N 0260529.8E	386/99FT	NIL	
LRBS_42505	BUILDING	442914.5N 0260509.8E	379/97FT	NIL	
LRBS_42558	BUILDING	442913.6N 0260525.7E	380/95FT	NIL	
LRBS_42572	BUILDING	442928.5N 0260527.9E	382/94FT	NIL	
LRBS_42580	BUILDING	442907.0N 0260556.9E	373/94FT	NIL	
LRBS_42605	BUILDING	442928.6N 0260732.7E	372/92FT	NIL	
LRBS_42664	BUILDING	442920.5N 0260731.5E	369/90FT	NIL	
LRBS_42684	BUILDING	443056.9N 0260450.6E	393/90FT	NIL	
LRBS_42704	BUILDING	443053.5N 0260451.9E	393/89FT	NIL	
LRBS_42723	BUILDING	442943.8N 0260824.4E	365/88FT	NIL	
LRBS_42749	BUILDING	442944.3N 0260826.0E	365/87FT	NIL	
LRBS_42750	BUILDING	443001.7N 0260400.8E	375/87FT	NIL	
LRBS_42758	BUILDING	442927.5N 0260534.3E	374/87FT	NIL	
LRBS_42770	BUILDING	442907.2N 0260521.9E	367/86FT	NIL	
LRBS_42824	BUILDING	442926.5N 0260724.4E	367/84FT	NIL	
LRBS_42826	BUILDING	443054.1N 0260706.3E	377/84FT	NIL	
LRBS_42861	BUILDING	442935.1N 0260722.7E	366/83FT	NIL	
LRBS_42885	BUILDING	442923.5N 0260709.3E	364/83FT	NIL	
LRBS_42902	BUILDING	442922.8N 0260517.2E	370/82FT	NIL	
LRBS_42916	BUILDING	443021.9N 0260347.7E	385/82FT	NIL	
LRBS_43034	BUILDING	442932.1N 0260531.6E	355/65FT	NIL	
LRBS_43085	BUILDING	442927.4N 0260532.9E	365/78FT	NIL	
LRBS_43174	BUILDING	443037.5N 0260529.8E	374/76FT	NIL	
LRBS_43182	BUILDING	442926.2N 0260536.4E	364/76FT	NIL	
LRBS_43214	BUILDING	442929.5N 0260428.7E	356/75FT	NIL	
LRBS_43220	BUILDING	442926.1N 0260533.1E	364/75FT	NIL	
LRBS_43251	BUILDING	442924.3N 0260534.6E	363/74FT	NIL	
LRBS_43279	BUILDING	442926.5N 0260527.8E	363/74FT	NIL	
LRBS_43313	BUILDING	442926.5N 0260544.3E	363/73FT	NIL	
LRBS_43335	BUILDING	442927.5N 0260526.8E	361/73FT	NIL	
LRBS_43355	BUILDING	442931.5N 0260450.1E	348/73FT	NIL	
LRBS_43378	BUILDING	442938.5N 0260724.5E	365/83FT	NIL	
LRBS_43395	BUILDING	442921.0N 0260516.8E	362/72FT	NIL	
LRBS_43482	BUILDING	442957.5N 0260404.5E	355/71FT	NIL	
LRBS_43513	BUILDING	443044.3N 0260447.4E	371/71FT	NIL	
LRBS_43619	BUILDING	442922.7N 0260514.1E	359/70FT	NIL	
LRBS_43621	BUILDING	442924.6N 0260530.3E	358/70FT	NIL	
LRBS_43684	BUILDING	442937.3N 0260726.1E	365/82FT	NIL	

a	b	c	d	e	f
LRBS_43808	BUILDING	442938.4N 0260741.2E	389/106FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_43874	BUILDING	443053.1N 0260802.7E	353/67FT	NIL	
LRBS_44003	BUILDING	443052.8N 0260528.3E	363/66FT	NIL	
LRBS_44032	BUILDING	442940.7N 0260543.3E	354/66FT	NIL	
LRBS_44081	BUILDING	443056.2N 0260527.7E	363/66FT	NIL	
LRBS_44100	BUILDING	443014.9N 0260813.5E	351/66FT	NIL	
LRBS_44288	BUILDING	443056.2N 0260524.2E	362/64FT	NIL	
LRBS_44312	BUILDING	443050.5N 0260522.4E	361/64FT	NIL	
LRBS_44505	BUILDING	442938.0N 0260548.6E	347/63FT	NIL	
LRBS_44578	BUILDING	443023.6N 0260826.5E	345/62FT	NIL	
LRBS_44751	BUILDING	442932.0N 0260456.0E	340/61FT	NIL	
LRBS_45062	BUILDING	442935.2N 0260534.7E	348/60FT	NIL	
LRBS_45233	BUILDING	442939.2N 0260542.4E	347/59FT	NIL	
LRBS_45294	BUILDING	443104.4N 0260751.6E	345/59FT	NIL	
LRBS_45369	BUILDING	443049.3N 0260707.0E	346/58FT	NIL	
LRBS_45590	BUILDING	443058.7N 0260654.5E	372/80FT	NIL	
LRBS_45836	BUILDING	443001.6N 0260806.1E	331/56FT	NIL	
LRBS_46247	BUILDING	443059.6N 0260726.9E	340/55FT	NIL	
LRBS_46269	BUILDING	443054.8N 0260728.0E	340/55FT	NIL	
LRBS_46439	BUILDING	442934.2N 0260455.3E	341/54FT	NIL	
LRBS_46463	BUILDING	443057.7N 0260752.2E	338/54FT	NIL	
LRBS_46521	BUILDING	442932.2N 0260508.5E	344/54FT	NIL	
LRBS_46662	BUILDING	442930.4N 0260500.9E	335/54FT	NIL	
LRBS_46809	BUILDING	443048.4N 0260607.1E	347/53FT	NIL	
LRBS_46943	BUILDING	442928.2N 0260510.5E	341/53FT	NIL	
LRBS_47181	BUILDING	442930.5N 0260514.6E	342/53FT	NIL	
LRBS_47212	BUILDING	442935.8N 0260431.5E	342/52FT	NIL	
LRBS_47214	BUILDING	443101.1N 0260759.5E	338/52FT	NIL	
LRBS_47338	BUILDING	442931.7N 0260505.9E	340/52FT	NIL	
LRBS_47390	BUILDING	442943.6N 0260539.1E	341/52FT	NIL	
LRBS_47461	BUILDING	442938.0N 0260428.9E	342/52FT	NIL	
LRBS_47867	BUILDING	443054.1N 0260727.9E	336/51FT	NIL	
LRBS_47916	BUILDING	442933.7N 0260521.0E	338/51FT	NIL	
LRBS_47992	BUILDING	443052.4N 0260635.2E	345/50FT	NIL	
LRBS_48289	BUILDING	443007.3N 0260753.5E	328/50FT	NIL	
LRBS_83713	BUILDING	442928.0N 0260710.5E	417/137FT	NIL	
LRBS_83759	BUILDING	442945.7N 0260735.3E	339/55FT	NIL	
LRBS_97162	BUILDING	442922.8N 0260749.4E	401/132FT	NIL	
LRBS_97163	BUILDING	442919.1N 0260747.0E	398/130FT	NIL	
LRBS_97164	BUILDING	442921.8N 0260746.5E	373/105FT	NIL	
LRBS_97165	BUILDING	442920.5N 0260749.9E	372/104FT	NIL	
LRBS_100743	ANTENNA	442338.6N 0260726.6E	726/461FT	Marked W/R; LGTD	
LRBS_100744	ANTENNA	443034.5N 0260414.5E	553/251FT	NIL	
LRBS_100745	ANTENNA	443106.3N 0260434.5E	476/172FT	NIL	
LRBS_100747	ANTENNA	442937.8N 0260547.3E	421/133FT	NIL	
LRBS_100748	ANTENNA	442937.5N 0260549.8E	420/132FT	NIL	
LRBS_100749	ANTENNA	442937.5N 0260550.0E	419/131FT	NIL	
LRBS_100750	ANTENNA	443102.8N 0260445.3E	437/132FT	Marked W/R	
LRBS_100752	ANTENNA	442911.8N 0260606.4E	417/130FT	NIL	
LRBS_100753	ANTENNA	443117.7N 0260415.3E	429/119FT	NIL	
LRBS_100754	ANTENNA	443150.9N 0260831.7E	405/117FT	NIL	
LRBS_100755	BUILDING	442904.4N 0260359.1E	405/114FT	NIL	
LRBS_100756	BUILDING	442904.2N 0260359.2E	406/116FT	NIL	
LRBS_100757	BUILDING	442905.8N 0260358.3E	404/115FT	NIL	
LRBS_100760	BUILDING	442905.6N 0260535.4E	377/98FT	NIL	
LRBS_100766	ANTENNA	443002.0N 0260358.6E	461/161FT	NIL	
LRBS_100767	ANTENNA	443003.1N 0260402.0E	474/177FT	NIL	
LRBS_100854	BUILDING	443004.1N 0260414.8E	355/56FT	NIL	
LRBS_100857	POLE	443003.1N 0260839.6E	358/72FT	NIL	
LRBS_101051	BUILDING	442910.1N 0260600.4E	393/111FT	NIL	
LRBS_101109	BUILDING	443053.1N 0260617.1E	347/52FT	NIL	
LRBS_101123	BUILDING	442923.6N 0260513.6E	400/110FT	NIL	
LRBS_101131	BUILDING	443053.5N 0260511.5E	362/65FT	NIL	
LRBS_101136	BUILDING	443045.1N 0260643.0E	356/64FT	NIL	
LRBS_101143	BUILDING	442916.5N 0260523.6E	446/157FT	NIL	
LRBS_101144	ANTENNA	442916.2N 0260528.8E	394/107FT	NIL	
LRBS_101145	SIGN	442917.8N 0260528.5E	379/90FT	NIL	
LRBS_101146	SIGN	442919.8N 0260526.9E	372/83FT	NIL	
LRBS_101155	POLE	443025.2N 0260455.6E	353/51FT	NIL	
LRBS_101161	POLE	443025.4N 0260454.6E	353/51FT	NIL	
LRBS_101162	POLE	443024.4N 0260454.4E	355/53FT	NIL	
LRBS_101163	POLE	443023.3N 0260455.2E	359/57FT	NIL	
LRBS_101164	POLE	443023.4N 0260454.2E	357/55FT	NIL	
LRBS_101174	BUILDING	443055.0N 0260726.0E	337/50FT	NIL	
LRBS_101175	BUILDING	443056.6N 0260726.3E	335/51FT	NIL	
LRBS_101178	BUILDING	443053.0N 0260647.9E	343/51FT	NIL	
LRBS_101181	BUILDING	443058.9N 0260705.0E	345/56FT	NIL	

a	b	c	d	e	f
LRBS_101182	BUILDING	443057.7N 0260704.8E	345/56FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRBS_101183	BUILDING	443056.6N 0260704.7E	345/56FT	NIL	
LRBS_101184	BUILDING	443055.4N 0260704.5E	345/56FT	NIL	
LRBS_101185	BUILDING	443054.0N 0260704.3E	345/56FT	NIL	
LRBS_101186	BUILDING	443058.7N 0260707.2E	345/56FT	NIL	
LRBS_101187	BUILDING	443057.5N 0260707.0E	345/56FT	NIL	
LRBS_101188	BUILDING	443056.4N 0260706.8E	345/56FT	NIL	
LRBS_101189	BUILDING	443055.3N 0260706.5E	345/56FT	NIL	
LRBS_101192	BUILDING	443149.5N 0260837.8E	404/117FT	NIL	
LRBS_101193	BUILDING	443149.5N 0260841.2E	407/117FT	NIL	
LRBS_101213	BUILDING	443107.6N 0260436.2E	398/94FT	NIL	
LRBS_101229	BUILDING	442944.9N 0260421.6E	351/71FT	NIL	
LRBS_101231	BUILDING	442947.5N 0260359.2E	356/80FT	NIL	
LRBS_101232	BUILDING	442945.7N 0260419.6E	345/64FT	NIL	
LRBS_101233	BUILDING	442957.3N 0260410.7E	370/73FT	NIL	
LRBS_101298	BUILDING	443036.4N 0260821.7E	368/82FT	NIL	
LRBS_101300	BUILDING	443042.8N 0260823.6E	340/56FT	NIL	
LRBS_101301	BUILDING	443044.0N 0260820.7E	341/57FT	NIL	
LRBS_101302	BUILDING	443043.1N 0260820.3E	341/56FT	NIL	
LRBS_101303	BUILDING	443044.9N 0260820.8E	341/58FT	NIL	
LRBS_101304	BUILDING	443028.4N 0260818.0E	338/55FT	NIL	
LRBS_102141	BUILDING	443031.7N 0260813.6E	325/41FT	NIL	
LRBS_102154	BUILDING	442947.6N 0260417.6E	338/59FT	NIL	
LRBS_102158	BUILDING	442948.3N 0260421.7E	343/57FT	NIL	
LRBS_102167	BUILDING	443035.5N 0260811.3E	330/44FT	NIL	
LRBS_102203	BUILDING	443032.9N 0260813.9E	322/38FT	NIL	
LRBS_102400	BUILDING	443038.9N 0260812.9E	323/36FT	NIL	
LRBS_102447	BUILDING	443040.7N 0260812.7E	323/36FT	NIL	
LRBS_102602	BUILDING	443029.5N 0260818.6E	324/40FT	NIL	
LRBS_102686	BUILDING	442943.4N 0260423.6E	339/60FT	NIL	
LRBS_102717	BUILDING	443033.8N 0260810.1E	321/35FT	NIL	
LRBS_102751	BUILDING	443035.4N 0260814.2E	323/38FT	NIL	
LRBS_102862	BUILDING	442957.5N 0260409.5E	374/79FT	NIL	
LRBS_102904	BUILDING	443033.3N 0260815.8E	323/40FT	NIL	
LRBS_102932	BUILDING	443045.5N 0260805.4E	319/34FT	NIL	
LRBS_102937	BUILDING	442953.5N 0260419.5E	341/46FT	NIL	
LRBS_103190	BUILDING	442954.3N 0260415.0E	360/69FT	NIL	
LRBS_103755	BUILDING	442956.8N 0260413.7E	370/75FT	NIL	
LRBS_103767	BUILDING	443040.0N 0260810.9E	324/37FT	NIL	
LRBS_104723	BUILDING	442927.3N 0260343.1E	425/145FT	NIL	
LRBS_104735	BUILDING	442954.8N 0260417.2E	336/41FT	NIL	
LRBS_104746	BUILDING	442954.6N 0260404.2E	350/69FT	NIL	
LRBS_104755	BUILDING	442952.0N 0260418.8E	356/65FT	NIL	
LRBS_104761	BUILDING	442956.6N 0260408.6E	355/62FT	NIL	
LRBS_104825	BUILDING	442958.2N 0260420.8E	348/54FT	NIL	
LRBS_104860	BUILDING	443049.9N 0260816.5E	338/52FT	NIL	
LRBS_104979	BUILDING	443032.6N 0260817.0E	331/48FT	NIL	
LRBS_105088	BUILDING	442948.0N 0260426.1E	334/45FT	NIL	
LRBS_105089	BUILDING	443033.0N 0260820.5E	327/45FT	NIL	
LRBS_105260	BUILDING	443044.8N 0260808.6E	324/41FT	NIL	
LRBS_105284	BUILDING	443041.2N 0260808.1E	328/40FT	NIL	
LRBS_105298	BUILDING	443048.0N 0260813.9E	325/40FT	NIL	
LRBS_105305	BUILDING	443038.7N 0260816.9E	326/40FT	NIL	
LRBS_105319	BUILDING	443040.8N 0260811.2E	327/40FT	NIL	
LRBS_105440	BUILDING	443042.6N 0260813.7E	324/38FT	NIL	
LRBS_105847	BUILDING	443033.8N 0260811.5E	320/34FT	NIL	
LRBS_105995	BUILDING	443045.0N 0260806.4E	319/33FT	NIL	
LRBS_106245	BUILDING	443038.7N 0260808.8E	321/32FT	NIL	
LRBS_108847	BUILDING	443049.4N 0260820.7E	356/71FT	NIL	
LRBS_108849	POLE	443031.8N 0260746.2E	308/24FT	NIL	
LRBS_108862	BUILDING	442658.4N 0260404.5E	541/271FT	NIL	
LRBS_108911	ANTENNA	442932.6N 0260443.2E	469/184FT	Marked W/R; LGTD	
LRBS_108912	ANTENNA	443037.2N 0260806.1E	333/44FT	Marked W/R; LGTD	
LRBS_108913	ANTENNA	443034.8N 0260807.1E	333/44FT	Marked W/R; LGTD	
LRBS_108914	OTHER	442932.0N 0260452.4E	370/90FT	NIL	
LRBS_108915	OTHER	442931.6N 0260452.2E	368/90FT	NIL	
LRBS_108916	OTHER	442930.9N 0260458.2E	371/90FT	NIL	
LRBS_108917	OTHER	442930.9N 0260458.3E	371/90FT	NIL	
LRBS_108923	BUILDING	442922.1N 0260729.9E	372/93FT	NIL	
LRBS_108950	BUILDING	442848.7N 0260356.0E	681/394FT	NIL	

In Area 3

OBST ID/ Designation	*OBST type*	*OBST position*	*ELEV/HGT*	*Markings/ Type, colour*	*Remarks*
a	b	c	d	e	f
LRBS_852	BUILDING	442942.7N 0260459.0E	320.4/26.7FT	NIL	
LRBS_960	BUILDING	442946.0N 0260453.4E	373.4/76.6FT	LGTD	

a	b	c	d	e	f
LRBS_1122	BUILDING	442942.9N 0260455.2E	333.5/39.0FT	NIL	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
LRBS_1173	BUILDING	442944.2N 0260456.2E	311.7/18.2FT	NIL	
LRBS_1183	BUILDING	442949.4N 0260520.9E	307.2/20.0FT	Marked W/R	
LRBS_1325	BUILDING	442944.5N 0260500.8E	332.3/38.9FT	NIL	
LRBS_2061	SIGN	443006.3N 0260611.2E	290.8/3.4FT	NIL	
LRBS_2161	SIGN	442952.8N 0260502.6E	297.1/3.5FT	NIL	
LRBS_2162	SIGN	442951.0N 0260502.2E	296.5/3.3FT	NIL	
LRBS_2163	POLE	442946.3N 0260456.6E	348.8/54.0FT	Marked W/R; LGTD	
LRBS_2164	POLE	442945.8N 0260457.0E	345.2/50.6FT	Marked W/R; LGTD	
LRBS_2165	POLE	442945.6N 0260502.8E	368.5/74.8FT	Marked W/R; LGTD	
LRBS_2166	POLE	442945.0N 0260507.6E	370.6/77.5FT	Marked W/R; LGTD	
LRBS_2167	POLE	442944.5N 0260511.9E	367.6/77.5FT	Marked W/R; LGTD	
LRBS_2168	POLE	442944.4N 0260456.5E	347.5/54.0FT	Marked W/R; LGTD	
LRBS_2169	POLE	442947.0N 0260459.5E	347.9/53.9FT	Marked W/R; LGTD	
LRBS_2172	POLE	443004.6N 0260616.2E	319.5/33.2FT	NIL	
LRBS_2173	POLE	442959.6N 0260552.2E	324.5/33.0FT	NIL	
LRBS_2195	FENCE	443005.1N 0260617.0E	293.0/8.2FT	NIL	
LRBS_2196	FENCE	443004.5N 0260616.3E	294.2/8.2FT	NIL	
LRBS_2197	FENCE	443003.0N 0260608.6E	296.6/8.2FT	NIL	
LRBS_2198	FENCE	443000.4N 0260556.3E	298.7/8.2FT	NIL	
LRBS_2199	FENCE	442959.6N 0260552.2E	299.7/8.2FT	NIL	
LRBS_2200	FENCE	442958.0N 0260544.6E	297.3/8.2FT	NIL	
LRBS_2234	BUILDING	442949.6N 0260520.4E	307.6/17.2FT	NIL	
LRBS_2235	BUILDING	442949.3N 0260520.3E	308.1/18.0FT	NIL	
LRBS_2239	FENCE	442955.7N 0260533.8E	296.4/8.2FT	NIL	
LRBS_2240	FENCE	442956.8N 0260539.0E	296.8/8.2FT	NIL	
LRBS_2241	FENCE	442956.7N 0260538.2E	296.9/8.2FT	NIL	
LRBS_2242	POLE	442955.7N 0260533.8E	303.3/12.0FT	NIL	
LRBS_2251	POLE	443026.7N 0260721.4E	282.0/2.1FT	NIL	
LRBS_2252	SIGN	442956.9N 0260503.3E	299.4/3.4FT	NIL	
LRBS_2253	SIGN	443008.8N 0260614.7E	291.0/3.3FT	NIL	
LRBS_2254	SIGN	443008.9N 0260614.7E	291.0/3.3FT	NIL	
LRBS_2255	SIGN	443009.4N 0260617.3E	291.7/3.3FT	NIL	
LRBS_2256	SIGN	443009.4N 0260617.2E	291.0/2.7FT	NIL	
LRBS_2257	SIGN	443012.7N 0260619.6E	289.7/2.8FT	NIL	
LRBS_2265	ELECTRICAL SYSTEM	443021.2N 0260705.2E	282.3/3.1FT	NIL	
LRBS_2266	ELECTRICAL SYSTEM	443021.4N 0260705.0E	282.7/3.5FT	NIL	
LRBS_2267	ELECTRICAL SYSTEM	443021.7N 0260704.9E	283.0/3.5FT	NIL	
LRBS_2268	ELECTRICAL SYSTEM	443022.0N 0260704.8E	283.2/3.6FT	NIL	
LRBS_2351	ELECTRICAL SYSTEM	443004.6N 0260524.0E	295.2/3.4FT	NIL	
LRBS_2352	ELECTRICAL SYSTEM	443004.3N 0260524.1E	295.6/3.1FT	NIL	
LRBS_2353	ELECTRICAL SYSTEM	443003.8N 0260524.3E	295.9/3.0FT	NIL	
LRBS_2354	ELECTRICAL SYSTEM	443004.0N 0260524.2E	295.9/3.1FT	NIL	
LRBS_2583	POLE	442955.7N 0260451.7E	306.9/10.8FT	NIL	
LRBS_2601	SIGN	442956.0N 0260458.8E	299.7/3.4FT	NIL	
LRBS_2656	POLE	442949.9N 0260452.3E	325.8/28.8FT	Marked W/R; LGTD	
LRBS_2698	FENCE	442950.3N 0260451.0E	304.6/8.2FT	NIL	
LRBS_2699	FENCE	442950.0N 0260451.4E	304.8/8.2FT	NIL	

LRBS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	*Associated MET Office*	BUCUREŞTI/ Băneasa
2	*Hours of service* *MET Office outside hours*	H24 -
3	*Office responsable for TAF preparation* *Periods of validity* *Interval of issuance*	LROM 24 HR 6 HR, during aerodrome operational hours
4	*Type of landing forecast* *Interval of issuance*	TREND As necessary or at least every 30 MIN
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)21-2032153 Fax: +40-(0)21-2032152
9	*ATS units provided with information*	TWR Băneasa
10	*Additional information (limitation of service, etc.)*	NIL

LRBS 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
07	073.89°	3099 x 45	64/R/D/W/T Asphalt	442959.26N 0260508.66E 443025.87N 0260717.46E GUND 115.8 FT	THR 297.8 FT TDZ 297.8 FT	0,06% (138M) -0.29% (584M) 0.21% (360M) -0.29% (690M) -0.55% (240M) -0.11% (1087M)
25	253.91°	3099 x 45	64/R/D/W/T Asphalt	443025.87N 0260717.46E 442958.02N 0260502.67E GUND 115.4 FT	THR 280.3 FT TDZ 283.1 FT	0.11% (1087M) 0.55% (240M) 0.29% (690M) -0.21% (360M) 0.29% (584M) -0,06% (138M)

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	260 x 250	3219 x 300	240 x 300	NIL	YES	RWY turn pad Location: THR 25 Surface: Asphalt Dimensions: 67 x 190 M Strength: 64/R/D/W/T
NIL	NIL	3219 x 300	240 x 300	NIL	YES	NIL

LRBS AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
07	3099	3359	3099	2961	THR 07 displaced 138M
25	3099	3099	3099	3099	NIL

REDUCED DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	Remarks
1	2	3	4	6
25 “TWY D“	1664	1664	1664	NIL

LRBS 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
07	ALS-II 900 M	Green WBAR	PAPI 3° (55 FT)	White 900 M	2060M,15M, White, LIH; 600M, 15M, White/Red, LIH; 300M, 15M, Red, LIH	140M, 60M, Red/Yellow, LIH 2360M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	NIL
25	ALS-II 660 M	Green WBAR	PAPI 3° (48 FT)	White 900 M	2200M, 15M, White, LIH; 600M, 15M, White/Red, LIH; 300M, 15M, Red, LIH	2500M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	NIL

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	129.960	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 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*	*Elevation 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
LOC 07 (6°E/2020) ILS CAT II (II.T.3)	IBS	109.500 MHz	H24	443028.5N 0260730.3E	-	NIL	Front course angle 3.8°.
GP 07	-	332.600 MHz	H24	443005.6N 0260519.8E	-	NIL	GP Angle 3°, ILS RDH 56 FT (17 M)
DME 07	IBS	1056.000 MHz CH 32X	H24	443005.9N 0260519.8E	300 FT	NIL	NIL
LOC 25 (6°E/2020) ILS CAT II (II.T.3)	IBN	110.500 MHz	H24	442955.3N 0260449.5E	-	NIL	Front course angle 3.54°.
GP 25	-	329.600 MHz	H24	443026.5N 0260702.6E	-	NIL	GP Angle 3°, ILS RDH 53 FT
DME 25	IBN	1066.000 MHz CH 42X	H24	443026.7N 0260702.4E	300 FT	NIL	NIL
NDB(LO)	BSW	521 KHz	H24	442819.5N 0255707.2E	-	NIL	248°MAG / 5.98 NM from THR 07
NDB(LO)	BSE	256 KHz	H24	443146.7N 0261349.9E	-	NIL	068°MAG / 4.87 NM from THR 25
VOR/DME (6ºE/2020)	FLR	112.200 MHz CH 59X	H24	443003.1N 0254229.4E	400 FT	NIL	Coverage 150 NM (assumed)
DVOR/DME (6ºE/2020)	OPT	117.100 MHz CH 118X	H24	443532.6N 0263336.6E	300 FT	NIL	Coverage 80 NM (assumed)
DVOR/DME (6ºE/2020)	STJ	113.200 MHz CH 79X	H24	445506.8N 0255837.3E	600 FT	NIL	Coverage 80 NM (assumed)
DME	COM	1069.000 MHz CH 45X	H24	441032.9N 0260858.7E	400 FT	NIL	Coverage 100 NM (assumed)
DME	ISA	1129.000 MHz CH 105Y	H24	450709.1N 0263235.2E	2500 FT	NIL	Coverage 100 NM (assumed)
DME	PMT	1118.000 MHz CH 94X	H24	444637.8N 0252308.4E	900 FT	NIL	Coverage 100 NM (assumed)
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.

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.

2. STANDARD TAXI ROUTES / RUTELE STANDARD DE RULARE

2.1 ARRIVAL INFORMATION / INFORMAȚII LA SOSIRE

	Taxiways to be followed / Traseu de urmat	To / Către	Remarks
ARR on/pe RWY 07	TWY D, TAXILANE F, TWY C, TWY G, TAXILANE L	Stand 01-02, 02A, 03-06	
	TWY D, TAXILANE F, TWY C, TWY G	Stand 07-08	
	TWY D, TAXILANE F	Stand 09-13, 09A, 12A	
	TWY D, TAXILANE F, TWY C, TAXILANE B	Stand 14-15, 14A, 15A, 15B, 17-20, 20A	
	TWY D, TAXILANE F	Stand 16	
	TWY D, TAXILANE F, TWY C	Stand 21	
	TWY D, TAXILANE F, TWY C, TWY G	Stand 22-23	
	TWY D, TAXILANE F, TWY C, TWY G, TAXILANE E	Stand 24-28	
	TWY D; TWY S	Flight School Apron	
ARR on/pe RWY 25	TWY A, TWY C, TWY G TAXILINE L	Stand 01-02, 02A, 03-06	
	TWY A, TWY C, TWY G	Stand 07-08	
	TWY A, TAXILANE F	Stand 09-13, 09A, 12A	
	TWY A, TWY C, TAXILINE B	Stand 14-15, 14A, 15A, 15B, 17-20, 20A	
	TWYA A, TAXILANE F	Stand 16	
	TWY A, TWY C	Stand 21	
	TWY A, TWY C, TWY G	Stand 22-23	
	TWY A, TWY C, TWY G, TAXILANE E	Stand 24-28	
	TWY A, TAXILANE F, TWY D, TWY S	Flight School Apron	

TAXILANE = ‘Aircraft stand taxilane / cale de rulare de acces la poziţiile de staţionare

2.2 DEPARTURE INFORMATION / INFORMAȚII LA PLECARE

	To / catre	Taxiways to be followed / Traseu de urmat	Remarks
DEP on/pe RWY 07	Stand 01-02, 02A, 03-07	TAXILANE L, TWY G, TWY C, TWY A	
	Stand 08	TWY C, TWY A	
	Stand 09-15, 14A, 15A, 15B, 17-20, 20A, 20B	TAXILANE B, TWY C, TWY A	
	Stand 09A	TWY C, TWY A	
	Stand 12A	TAXILANE F, TWY A	
	Stand 16	TAXILANE B, TWY C, TWY A	
	Stand 21-23	TWY G, TWY C, TWY A	
	Stand 24-28	TAXILANE E, TWY G, TWY C, TWY A	
	Flight School Apron	TWY S, TWY D, TAXILANE F, TWY A	
DEP on/pe RWY 25	Stand 01-02, 02A, 03-07	TAXILANE L, TWY G, TWY C, TAXILANE F, TWY D	
	Stand 08	TWY C, TAXILANE F, TWY D	
	Stand 09-15, 14A, 15A, 15B, 17-20, 20A, 20B	TAXILANE B, TWY C, TAXILANE F, TWY D	
	Stand 09A	TWY C, TAXILANE F, TWY D	
	Stand 12A	TWY F, TAXILANE F, TWY D	
	Stand 16	TAXILANE B, TWY C, TAXILANE F, TWY D	
	Stand 21-23	TWY G, TWY C, TAXILANE F, TWY D	
	Stand 24-28	TAXILANE E, TWY G, TWY C, TAXILANE F, TWY D	
	Flight School Apron	TWY S, TWY D	

TAXILANE = ‘Aircraft stand taxilane / cale de rulare de acces la poziţiile de staţionare

3. PROCEDURES FOR DEPARTING AIRCRAFT / PROCEDURI PENTRU AERONAVE CARE PLEACĂ

Ground control service (start-up, push-back and taxi instructions) is provided by Băneasa Ground 129.950. Pilots shall only ask for start-up and push-back permission after obtaining confirmation from handling agent that is ready for the manoeuvre and at his signals. The anti-collision light must be switched on just prior to push-back.

Serviciul de control Ground (pornirea motoarelor, împingerea înapoi și instrucțiunile de rulaj) este asigurat de Băneasa Ground 129.950. Piloții vor solicita aprobarea de pornire a motoarelor și împingerea înapoi numai după ce vor obține confirmarea de la agentul handling că este pregătit pentru manevră și la semnalele acestuia. Luminile anti-coliziune trebuie aprinse imediat înaintea împingerii înapoi.

4. SCHOOL AND TRAINING FLIGHTS - TECHNICAL TEST FLIGHTS - USE OF RUNWAYS / ZBORURI ŞCOALĂ ŞI ANTRENAMENT - ZBORURI TEHNICE - FOLOSIREA PISTELOR

Touch & go school and/or training flights are permitted only based on a flight plan specifying this procedure.
Touch & go school or training flights and those that do not involve parking on the LRBS apron can be made only after receiving a confirmation from the airport regarding the payment or paying the value of the services in advance, in accordance with GEN 4.1-6

Zborurile școală și/sau antrenament de tip touch&go sunt permise numai în baza unui plan de zbor în care este specificată această procedură.
Zborurile scoală și/sau antrenament de tip touch & go și/sau care nu implică staționarea pe platforma LRBS pot fi efectuate numai după confirmarea din partea aeroportului de asumare a plății sau efectuarea plății contravalorii serviciilor în prealabil, in condițiile GEN 4.1-6

5. HELICOPTER TRAFFIC – LIMITATIONS / TRAFICUL ELICOPTERELOR – LIMITĂRI

Air taxing can be performed on TWY D, TWY A, TWY F, TWY S. On TWY B, TWY C, TWY H only ground taxing is permitted

Rulajul aerian se poate efectua pe TWY D, TWY A, TWY F, TWY S. Pe TWY B, TWY C, TWY H se poate efectua numai rulaj terestru.

LRBS AD 2.21 NOISE ABATEMENT PROCEDURES

In order to ensure noise abatement, the following rules and operating procedures shall be applied:

1. General rules

1.1. Each aircraft operator using the airport shall ensure at all times that the aircraft is operated in a manner calculated to cause the least disturbance practicable in areas surrounding the airport.

1.2. Engine tests on apron stands is permited only on idle. Engine tests in excess of idle must be conducted outside the apron.

2. Night-time restrictions applicable between 2200-0600 LT

2.1. Reverse thrust other than idle thrust shall only be used to an extent unavoidable for safety reasons.

2.2. Pilots will avoid the use of auxiliary engines or auxiliary power unit (APU).

2.3. The following operations are not permitted:

a. technical or training flights;

b. Ground testing in excess of idle is forbidden.

c. The APU is permitted functioning maximum 15 minutes after BLOCK ON TIME and may be started over 30 minutes before STD To minimize disturbance in areas adjacent to the airport, Captains are requested to avoid the use of reverse thrust after landing, consistent with safe operation of the aircraft, especially between 2200 and 0600 (local time).

2.4. The landing charges on BUCUREŞTI/Băneasa - Aurel Vlaicu are established in accordance with the MTOW of the aircraft and the applicable ICAO Annex 16 provisions, as specified in AIP ROMANIA GEN 4.1-6.

Următoarele reguli și proceduri de operare trebuie aplicate pentru reducerea zgomotului:

1. Reguli generale

1.1. Fiecare operator aerian care utilizează aeroportul trebuie să asigure permanent operarea aeronavei astfel încât să producă perturbații cât mai reduse în zonele învecinate aeroportului.

1.2. Testarea la sol a motoarelor la stand este permisă numai la turația de ralanti. Testarea motoarelor la o turație mai mare de ralanti se va efectua în afara standurilor.

2. Restricții de noapte aplicabile între 2200-0600 LT

2.1. Reversoarele de jet, cu excepția turației idle, vor fi utilizate numai pentru considerente de siguranță.

2.2. Piloții vor evita utilizarea motoarelor auxiliare sau APU.

2.3. Următoarele operațiuni nu sunt permise:

a. Zboruri tehnice sau de școală;

b. Testarea la sol a motoarelor la o turație mai mare de ralanti.

c. APU poate fi menţinut în funcţiune maxim 15 minute după BLOCK ON TIME şi poate fi pornit cu maximum 30 minute înainte de STD. Pentru a reduce disconfortul în zonele adiacente aeroportului, Comandanţii sunt rugaţi să evite folosirea inversorului de jet, după aterizare, în consens cu exploatarea în siguranţă a aeronavei, în special între 2200 şi 0600 (ora locală).

2.4. Tarifele de aterizare pe BUCUREȘTI/Băneasa - Aurel Vlaicu sunt stabilite în concordanță cu MTOW și prevederile aplicabile din Anexa 16 ICAO, așa cum este specificat în AIP secțiunea GEN 4.1-6.

LRBS AD 2.22 FLIGHT PROCEDURES
1. LOW VISIBILITY PROCEDURES (LVP)

1.1 Description of facilities

1.1.1 Runway 07 is equipped with ILS and is approved for CAT II operations only with RVR greater than 350m. Runways 07/25 are approved for LVTO, only with RVR greater than 350m.

1.2 Criteria for the initiation and termination of LVP

1.2.1 Approach and landing
a) The preparation phase will be implemented when RVR is 800 m or visibility falls below 1500m or ceiling/vertical visibility is 500ft (150m.)

b) The operations phase will be commenced when the RVR falls below 550 m (visibility falls below 800m) or ceiling/vertical visibility is below 200ft (60m).

c) LVP will be terminated when RVR is greater than 800 m (horizontal visibility is greater than 1500 m) and ceiling/vertical visibility is greater than 300ft.

1.2.2 Pilots will be informed by ATIS or RTF when LVP are in operation.

1.2.3 Low visibility operation simulated should be requested with 30 min prior to ETD/ETA.

1.3 Details of runway exits

1.3.1 Runway exits are equipped with green / yellow coded taxiway centerline lights. After landing on RWY 07, BSA TWR shall instruct the pilot to vacate the RWY via TWY A or TWY D.

1.4 Any ground movement restrictions

During LVP, taxiing is normally restricted to one aircraft movement at a time and Operation of vehicles, except Follow me car, on the manoeuvring area is not permitted during a/c taxiing.

1.5 Description of LVP

CAT II Approach and Landing
a) Pilots will be informed by ATIS or RTF when LVP are in operation;

b) The localizer sensitive area will be protected when a landing aircraft is within 4 NM from touchdown.

c) ATC will provide suitable spacing between aircraft on final approach to achieve this objective.

1.6 Other information

When available visual aids do not provide sufficient taxi information, pilots may ask for Follow Me car assistance.

1.1 Descrierea facilităţilor

1.1.1 Pista 07 este echipată cu ILS şi este autorizată pentru desfăşurarea operaţiunilor CAT II numai cu RVR peste 350 m. Pistele 07/25 sunt autorizate pentru LVTO, numai cu RVR peste 350m.

1.2 Criterii pentru iniţierea şi terminarea LVP

1.2.1 Apropierea şi aterizarea
a) Faza de pregătire va fi implementată atunci când RVR este 800 m, vizibilitatea scade sub 1500m sau plafonul/vizibilitatea verticală este de 500ft (150 m).

b) Faza operaţională va fi declanşată atunci când valoarea RVR scade sub 550 m (vizibilitatea orizontală scade sub 800m) sau plafonul/vizibilitatea verticală este sub 200ft (60 m)

c) Procedurile în condiţii de vizibilitate redusă vor fi incheiate atunci când valoarea RVR este mai mare de 800 m (vizibilitatea orizontală este mai mare de 1500 m) şi plafonul/vizibilitatea verticală este mai mare de 300 ft.

1.2.2 Piloţii vor fi informaţi prin ATIS sau RTF atunci când procedurile LVP sunt operaţionale.

1.2.3 Operarea în condiții simulate de vizibilitate redusă poate fi solicitată de pilot cu minimum 30 min înainte de ora estimată de decolare/aterizare.

1.3 Detalii privind eliberarea pistei

1.3.1 Racordurile pistei cu căile de rulare sunt echipate cu lumini axiale codificate verde/galben. După aterizare pe pista 07, BSA TWR va da instrucţiuni pilotului să degajeze pista prin TWY A sau TWY D.

1.4 Restricţii privind mişcarea la sol

În timpul LVP, rularea pe suprafaţa de manevră este restricţionată la o singură aeronavă și operarea vehiculelor cu excepția Follow me, pe suprafaţa de manevră nu este permisă simultan cu rulajul aeronavelor.

1.5 Descrierea procedurilor în condiţii de vizibilitate redusă

Apropierea şi aterizarea CAT II
a) Piloţii vor fi informaţi prin ATIS sau RTF atunci când procedurile LVP sunt operaţionale;

b) Zona sensibilă ILS va fi protejată atunci când o aeronavă care aterizează se află la 4NM de punctul de contact.

c) CTA va asigura eşalonarea corespunzătoare între aeronavele aflate pe apropierea finală în vederea îndeplinirii acestui obiectiv.

1.6 Alte informaţii

Atunci când mijloacele vizuale disponibile nu asigură suficiente informații pentru rulare, piloții pot solicita asistență Follow Me.

2. CLOSE-IN OBSTACLES

Nr. crt	Type	Latitude	Longitude	Elevation (FT)	Remarks
1	Pilar	443033.451N	0260729.566E	303	Departure RWY 07
2	Pilar	443049.420N	0260809.020E	383	Departure RWY 07
3	Antenna	443050.540N	0260809.100E	385	Departure RWY 07
4	Pilar	443048.700N	0260814.500E	387	Departure RWY 07
5	Building	443034.760N	0260826.680E	428	Departure RWY 07

3. BUCUREŞTI DIRECTOR SECTOR

3.1 Sector Limits
BUCUREȘTI DIRECTOR (EAST or WEST) activates depending on the runway(s) in use (see section ENR 2.1-5).
Vertical limits: 2000 FT AMSL - FL065.

3.2 Activation/deactivation
BUCUREŞTI DIRECTOR Sector will be activated at the initiative of the APP Bucharest Team Supervisor when the traffic forecast requires

3.1 Limite sector
Sectorul BUCUREŞTI DIRECTOR (EAST sau WEST) se activează în funcție de pista/pistele în serviciu (vezi secțiunea ENR 2.1-5).
Limite verticale: 2000 FT AMSL - FL065.

3.2 Activarea/dezactivarea
Sectorul BUCUREŞTI DIRECTOR va fi deschis la iniţiativa Supervizorului de echipă APP Bucureşti în cazul în care prognoza de trafic o impune.

4. VFR points and routes / Puncte şi rute VFR

VFR flights crossing the runway direction should be conducted along the following VFR routes:
VFR Route 1: ROTBI-KAJNA, MAX ALT 1500 FT
VFR Route 2: UNUSU-MORAX, MAX ALT 1500 FT
VFR Route 3 (only for State aircraft and special operations aircraft - search and rescue, SMURD): RIRUX-PATWA, MAX ALT 1500 FT
List of VFR navigation points:
TRESTIENI 44°29'50"N 025°45'30"E (South Trestieni)
OGREZENI 44°24'44"N 025°47'30"E (West Arges river, East Ogrezeni)
GRĂDINARI 44°24'01"N 025°50'04"E (East Grădinari, North forest)
KAJNA 44°27'15"N 025°57'30"E (West Chiajna, South railway bridge)
PATWA 44°28'40"N 026°04'22"E (roundabout Press House)
MORAX 44°30'21"N 026°14'22"E (North-West Moara Domnească)
BRANESTI 44°28'39"N 026°20'10"E (North Brănesti; forest limit)
ISLAZU 44°27'56"N 026°23'30"E (North Islaz, junction of old road to Constanţa with road to North)
COJEŞTI 44°30'30"N 026°24'30"E (North Cojeşti, on river)
ROTBI 44°30'05"N 025°56'35"E
UNUSU 44°32'11"N 026°14'45"E
RIRUX 44°32'02"N 026°04'06"E

Note: the VFR routes are extended into Otopeni CTR as follows:
VFR 1: KAJNA - ROTBI - SORUR
VFR 2: MORAX - UNUSU - GOTOB
VFR 3: PATWA - RIRUX - OGUPI.

Se recomandă ca zborurile VFR ce traversează direcţia pistei să fie efectuate pe următoarele rute VFR:
Ruta VFR 1: ROTBI-KAJNA, MAX ALT 1500 FT
Ruta VFR 2: UNUSU-MORAX, MAX ALT 1500 FT
Ruta VFR 3 (doar aeronave de stat şi aeronave operaţiuni speciale - căutare si salvare, SMURD): RIRUX-PATWA, MAX ALT 1500 FT
Lista punctelor VFR:
TRESTIENI 44°29'50"N 025°45'30"E (sud Trestieni)
OGREZENI 44°24'44"N 025°47'30"E (vest râu Argeş, est Ogrezeni)
GRĂDINARI 44°24'01"N 025°50'04"E (est Grădinari, colt nord pădure)
KAJNA 44°27'15"N 025°57'30"E (vest Chiajna, sud pod cale ferată)
PATWA 44°28'40"N 026°04'22"E (rond Casa Presei)
MORAX 44°30'21"N 026°14'22"E (nord-vest Moara Domnească)
BRANESTI 44°28'39"N 026°20'10"E (nord Brănesti; liziera pădurii)
ISLAZU 44°27'56"N 026°23'30"E (nord Islaz, intersecţie şoseaua veche Constanţa cu drumul spre nord)
COJEŞTI 44°30'30"N 026°24'30"E (nord Cojeşti, pe firul apei)
ROTBI 44°30'05"N 025°56'35"E
UNUSU 44°32'11"N 026°14'45"E
RIRUX 44°32'02"N 026°04'06"E

Notă: rutele VFR se prelungesc în CTR Otopeni astfel:

VFR 1: KAJNA - ROTBI - SORUR
VFR 2: MORAX - UNUSU - GOTOB
VFR 3: PATWA - RIRUX - OGUPI.

LRBS AD 2.23 ADDITIONAL INFORMATION

Bird flocks are flying within airport area during the whole year, but culminate between March to May and September to November.
Usually their flight is crossing runway, heading from North to South and vice versa. Mainly, their flight path is over the threshold and middle of the runway at an altitude of 500 m (1640 ft) AGL.
Caution advised when taking-off and landing.

Stolurile de păsări zboară în zona aeroportului pe tot parcursul anului, dar culminează între Martie - Mai și Septembrie - Noiembrie.
În mod obișnuit, zborul lor traversează pista, îndreptându-se de la Nord la Sud și invers. În principal, traiectoria lor de zbor este peste pragul și mijlocul pistei, la o altitudine de aproximativ 500 m (1640 ft) AGL.
Se recomandă precauție la decolare și aterizare.

LRBS AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO ..... AD 2.4-20
Aircraft Parking/Docking Chart - ICAO ..... AD 2.4-22
Aerodrome Obstacle Chart - ICAO - Type A
RWY 07 ..... AD 2.4-25
RWY 25 ..... AD 2.4-26
Precision Approach Terrain Chart - ICAO
RWY 07 ..... AD 2.4-29
Standard Departure Charts - Instrument - ICAO
RWY 07 ..... AD 2.4-30
RWY 25 ..... AD 2.4-31
Standard Arrival Charts - Instrument - ICAO
RWY 07 ..... AD 2.4-32
RWY 25 ..... AD 2.4-33
RNAV Standard Departure Chart - Instrument - ICAO
RWY 07 ..... AD 2.4-34
RWY 25 ..... AD 2.4-35
RNAV Standard Arrival Chart - Instrument - ICAO
RWY 07 ..... AD 2.4-36
RWY 25 ..... AD 2.4-37
Visual Operations Chart - RWY 07/25 Aerodrome traffic circuit - Aircraft categories A and H ..... AD 2.4-40
Visual Operations Chart - VFR Routes - Aircraft categories A and H ..... AD 2.4-41
ATC Surveillance Minimum Altitude Chart - ICAO ..... AD 2.4-45
Instrument Approach Charts - ICAO
ILS Z RWY 07 ..... AD 2.4-50
ILS Y RWY 07 ..... AD 2.4-51
LOC Z RWY 07 ..... AD 2.4-52
LOC Y RWY 07 ..... AD 2.4-53
ILS Z RWY 25 ..... AD 2.4-54
ILS Y RWY 25 ..... AD 2.4-55
LOC Z RWY 25 ..... AD 2.4-56
LOC Y RWY 25 ..... AD 2.4-57
RNP RWY 07 ..... AD 2.4-71
RNP RWY 25 ..... AD 2.4-72
NDB Z RWY 07 ..... AD 2.4-91
NDB Y RWY 07 ..... AD 2.4-92
NDB Z RWY 25 ..... AD 2.4-93
NDB Y RWY 25 ..... AD 2.4-94

LRBS AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

Not applicable

AERODROME CHART - ICAO

44° 30' 13" N
026° 06' 13" E
ELEV 299FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960

BUCUREŞTI / Băneasa - Aurel Vlaicu (LRBS)

Changes: RWY direction, THR ELEV, MAG VAR and BANEASA GROUND CH.

RWY	DIRECTION	THR	BEARING STRENGTH
07	068°	44°29'59"N 026°05'09"E	PCN 64/R/D/W/T ASPHALT
25	248°	44°30'26"N 026°07'17"E	
HELIPORT		-	

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

HOT SPOT
CAUTION: Runway Incursion Hazard. Pilots MUST NOT enter on TWY A without being instructed to do so by ATC

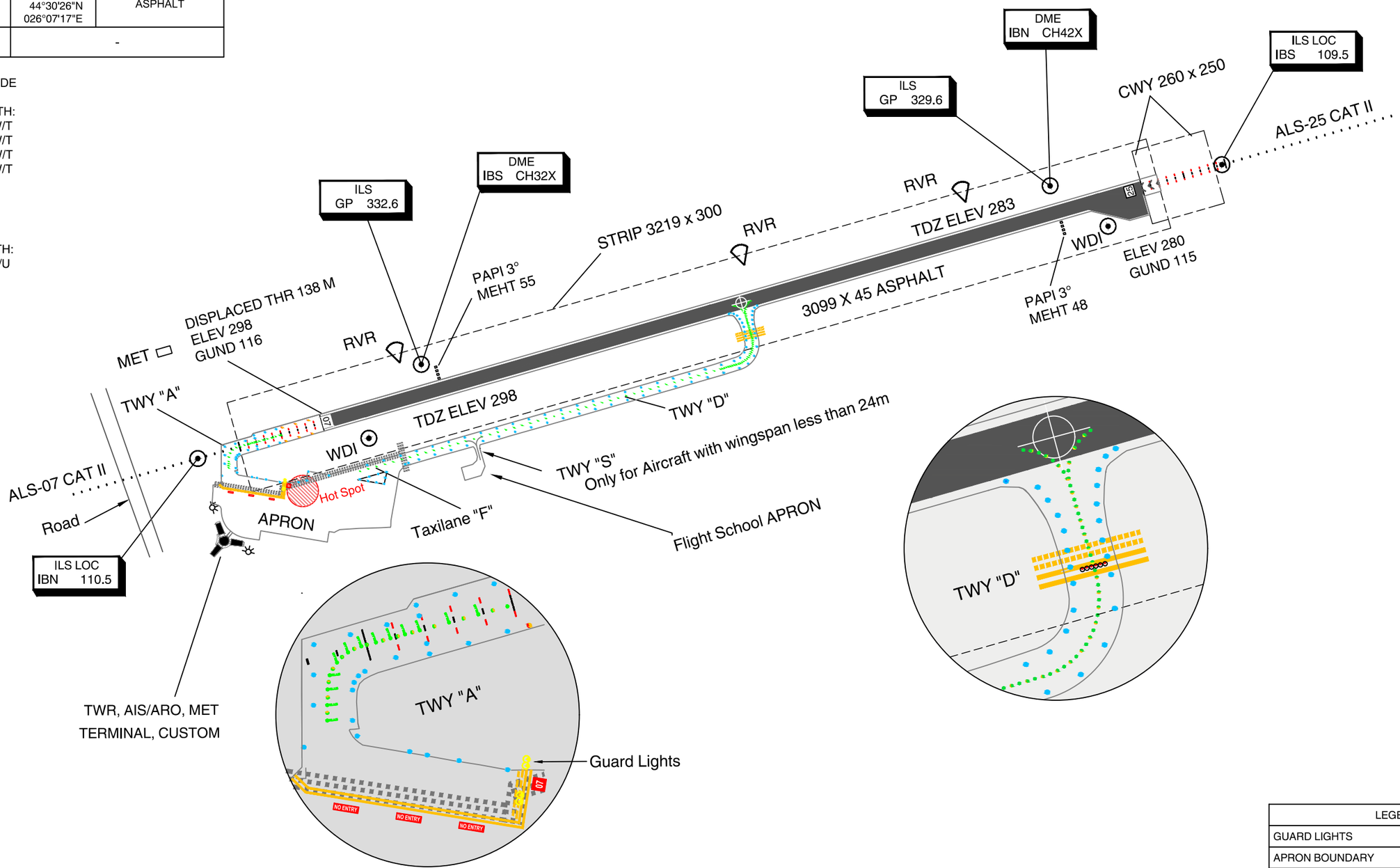
TWY A, D, F 23 M WIDE

BEARINGS STRENGTH:
TWY A 76/R/D/W/T
TWY D 60/R/D/W/T
TWY F 47/R/D/W/T
TURN PAD 64/R/D/W/T

TWY S 14M WIDE

BEARINGS STRENGTH:
TWY S 24/R/D/Y/U

VAR 6°E 2020
ANNUAL RATE OF CHANGE 6.7°E



METRES
300 150 0 500 1000
1000 500 0 1000 2000 3000
FEET

LEGEND	
GUARD LIGHTS	
APRON BOUNDARY	
RUNWAY-HOLDING POSITION	
RUNWAY VISUAL RANGE (RVR) OBSERVATION SITE	
FLOODLIGHT	
AERODROME REFERENCE POINT	
BUILDING	

BUCUREŞTI / Băneasa - Aurel Vlaicu (LRBS)

44° 30' 13" N
026° 06' 13" E
ELEV 299FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960

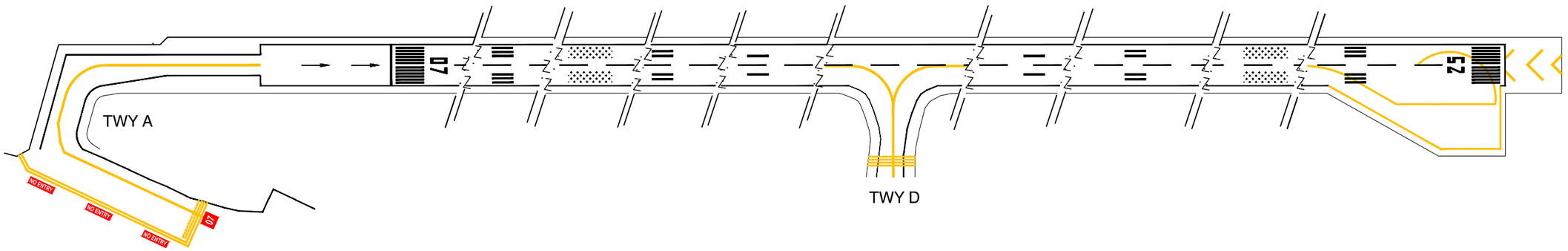
AERODROME CHART - ICAO

RWY	DIRECTION	THR	BEARING STRENGTH
07	068°	44°29'59"N 026°05'09"E	PCN 64/R/D/W/T ASPHALT
25	248°	44°30'26"N 026°07'17"E	
HELIPORT		-	

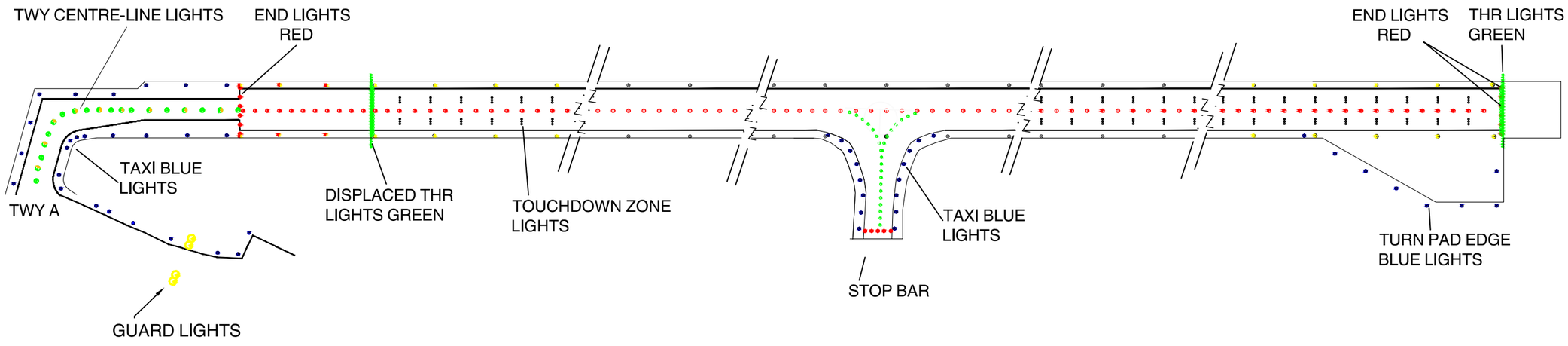
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 6°E 2020
ANNUAL RATE
OF CHANGE 6.7'E

MARKINGS AIDS RWY 07/25 AND EXIT TWY



LIGHTING AIDS RWY 07 / 25 AND EXIT TWY



LEGEND	
GUARD LIGHTS	
RUNWAY-HOLDING POSITION	

Changes: RWY direction, MAG VAR and BANEASA GROUND CH.

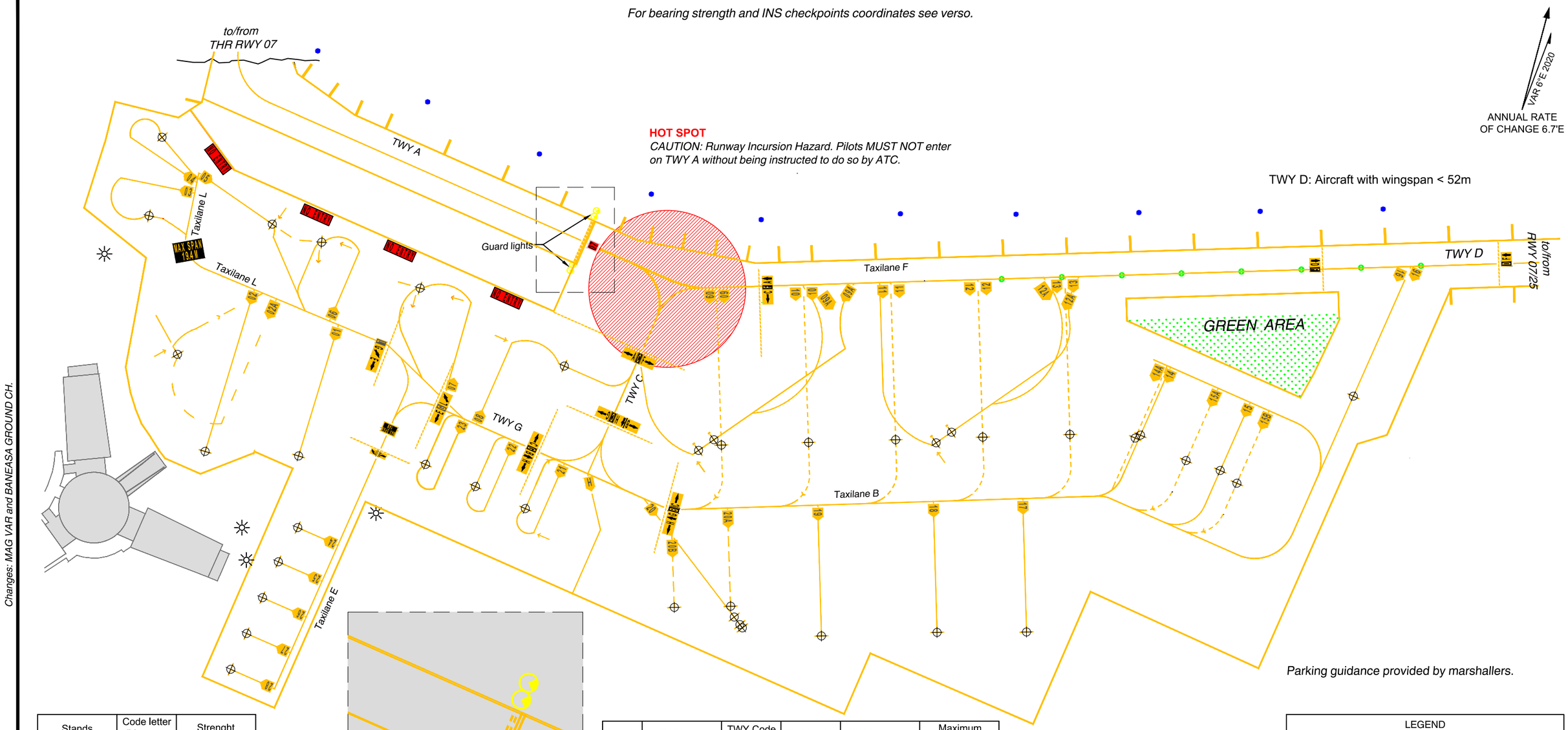
AIRCRAFT PARKING / DOCKING CHART - ICAO

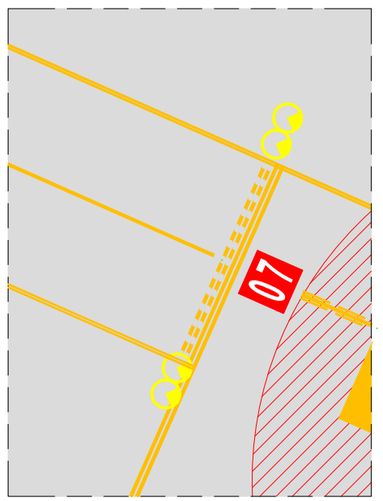
APRON ELEV
298FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960

BUCUREŞTI / Băneasa - Aurel Vlaicu (LRBS)

For bearing strength and INS checkpoints coordinates see verso.





Guard lights on TWY A

Parking guidance provided by marshallers.

Stands	Code letter /Maxspan	Strenght
01-02, 02A	C	47/R/D/W/T
03	B/17.65M	38/R/D/W/T
04	A	38/R/D/W/T
05	B/19.4M	39/R/D/W/T
06	A/14.57M	39/R/C/W/T
07	B/21.2M	39/R/D/W/T
08	C/27.5M	39/R/D/W/T
09-15	C	46/R/D/W/T
09A, 12A	D	46/R/D/W/T
14A, 15A, 15B	B	46/R/D/W/T
16	B/L<28M	under surveillance
17-20	C	39/R/D/W/T
20A, 20B	B/21.2M	39/R/D/W/T
21-23	A	39/R/D/W/T
24-28	A/12M	17/R/C/W/T

TWY ID	TWY type	TWY Code letter	TWY width	TWY strenght	Maximum wingspan/ d max
A	taxiway	D	23M	76/R/D/W/T	52M
D	taxiway	D	23M	60/R/D/W/T	52M
B	taxilane	C	18M	45/R/D/W/T	36M
C	apron taxiway	C	18M	41/R/D/W/T	36M
E	taxilane	A	7M	17/R/C/W/T	12M
F	taxilane	D	23M	47/R/D/W/T	52M
G	apron taxiway	C	18M	39/R/D/W/T	36M
L	taxilane	C	18M	45/R/D/W/T	36M
H	ground taxiway	helicopter	44M	44/R/D/W/T	

METRES
100 50 40 30 20 10 0 100 200

LEGEND	
GUARD LIGHTS	
AIRCRAFT RESTRICTION	MAX SPAN 19.6M
TWY MARKING FOR ALTERNATE STANDS	
TAXI GUIDANCE LINE	
TO AIRCRAFT STAND	20
FLOODLIGHT	
APRON EDGE LIGHTS	
TWY CENTRE-LINE LIGHTS	
INTERMEDIATE HOLDING POSITION	
BUILDING	
INS CHECK POINT	
RUNWAY-HOLDING POSITION	

Changes: MAG VAR and BANEASA GROUND CH.

Rezistenţa suprafeţei/ Strength	Coordonate INS poziţii de staționare/ INS coordinates of stands			Procedura de parcare/Parking procedure
	Poziție de staționare/ Stand	Latitudine/latitude	Longitudine/longitude	Remarks
47/R/D/W/T	01	44°29'47.58"N	026°04'57.48"E	Marshaller assistance
	02	44°29'48.53"N	026°04'54.32"E	Marshaller assistance
	02A	44°29'48.65"N	026°04'54.35"E	Marshaller assistance
38/R/D/W/T	03	44°29'50.65"N	026°04'52.99”E	Marshaller assistance
	04	44°29'51.90"N	026°04'52.84”E	Marshaller assistance
39/R/D/W/T	05	44°29'51.01"N	026°04'55.66"E	Marshaller assistance
	06	44°29'50.92"N	026°04'56.80"E	Marshaller assistance
	07	44°29'50.61"N	026°04'59.15"E	Marshaller assistance
	08	44°29'49.99"N	026°05'02.64"E	Marshaller assistance
46/R/D/W/T	09	44°29'49.40"N	026°05'06.41"E	Marshaller assistance
	09A-1	44°29'49.45"N	026°05'06.22"E	Marshaller assistance
	09A-2	44°29'49.23"N	026°05'05.95"E	Marshaller assistance
	10	44°29'49.78"N	026°05'08.25"E	Marshaller assistance
	11	44°29'50.16"N	026°05'10.09"E	Marshaller assistance
	12	44°29'50.54"N	026°05'11.93"E	Marshaller assistance
	12A-1	44°29'50.50"N	026°05'11.24"E	Marshaller assistance
	12A-2	44°29'50.27"N	026°05'10.97"E	Marshaller assistance
	13	44°29'50.92"N	026°05'13.77"E	Marshaller assistance
	14	44°29'51.19"N	026°05'15.27"E	Marshaller assistance
	14A	44°29'51.12"N	026°05'15.17"E	Marshaller assistance
	15	44°29'50.96"N	026°05'17.16"E	Marshaller assistance
	15A	44°29'50.98"N	026°05'16.38"E	Marshaller assistance
	15B	44°29'50.83"N	026°05'17.58"E	Marshaller assistance
To be surveyed	16	44°29'52.61"N	026°05'19.58"E	Marshaller assistance
39/R/D/W/T	17	44°29'47.75"N	026°05'13.92"E	Marshaller assistance
	18	44°29'47.39"N	026°05'12.02"E	Marshaller assistance
	19	44°29'46.89"N	026°05'09.58"E	Marshaller assistance
	20-1	44°29'46.83"N	026°05'07.62"E	Marshaller assistance
	20-2	44°29'46.74"N	026°05'07.79"E	Marshaller assistance
	20-3	44°29'46.70"N	026°05'07.85"E	Marshaller assistance
	20A	44°29'46.98"N	026°05'07.49"E	Marshaller assistance
	20B	44°29'46.75"N	026°05'06.30"E	Marshaller assistance
	21	44°29'47.67"N	026°05'02.59"E	Marshaller assistance
	22	44°29'47.81"N	026°05'01.41"E	Marshaller assistance
	23	44°29'47.95"N	026°05'00.22"E	Marshaller assistance
To be surveyed	24	44°29'46.49"N	026°04'57.85"E	Marshaller assistance
	25	44°29'45.89"N	026°04'57.62"E	Marshaller assistance
	26	44°29'45.29"N	026°04'57.48"E	Marshaller assistance
	27	44°29'44.68"N	026°04'57.34"E	Marshaller assistance
	28	44°29'44.07"N	026°04'57.20"E	Marshaller assistance

Cale de rulare de platformă/ Apron taxilane	Rezistenţa suprafeţei/ Strength
taxilane B, L	45/R/D/W/T
TWY C	41/R/D/W/T
taxilane E	17/R/C/W/T
taxilane F	47/R/D/W/T
TWY G	39/R/D/W/T
taxilane H	44/R/D/W/T

AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

BUCUREŞTI / Băneasa - Aurel Vlaicu (LRBS)
RWY 07

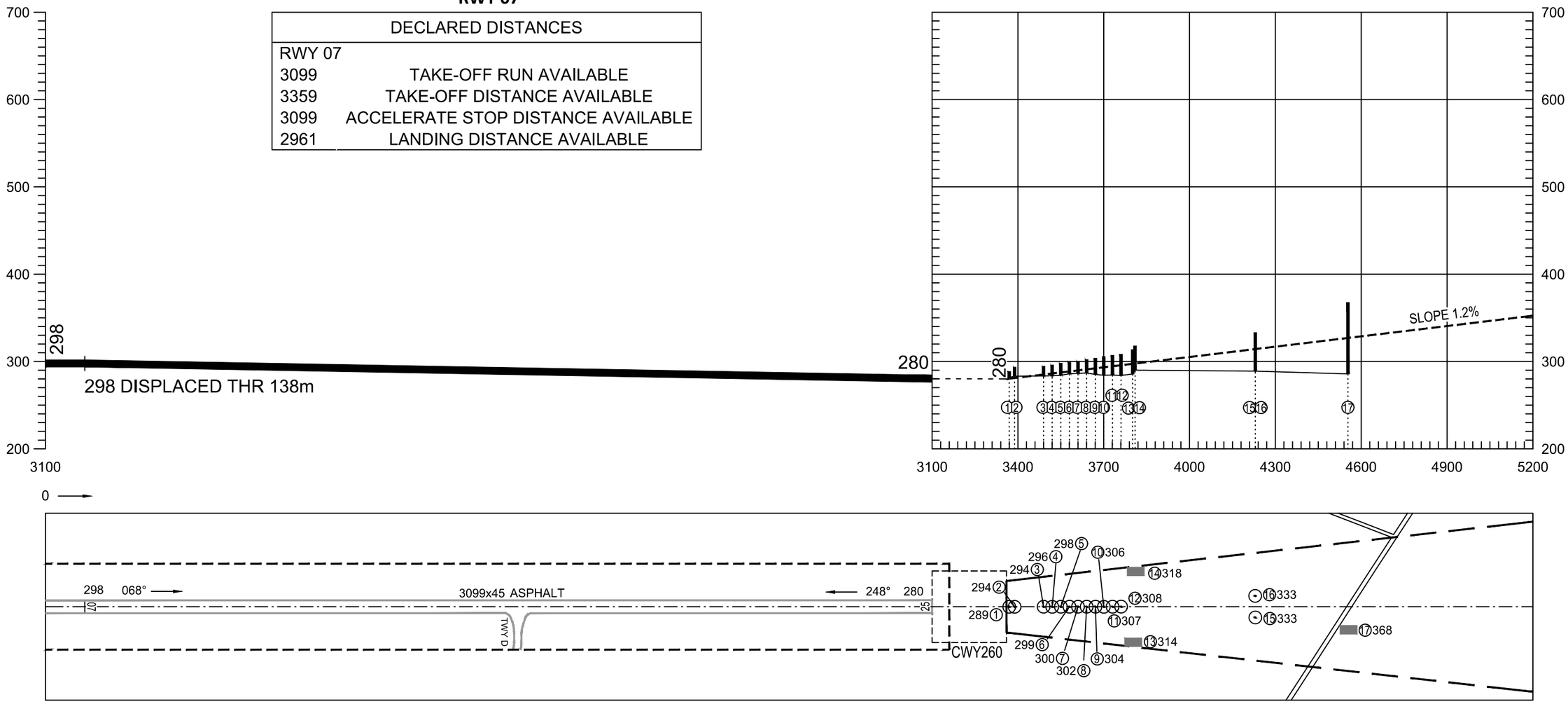
ELEVATIONS IN FEET AND LINEAR DIMENSIONS IN METRES

Changes: Chart revised.

MAGNETIC VARIATION 6° E - 2020

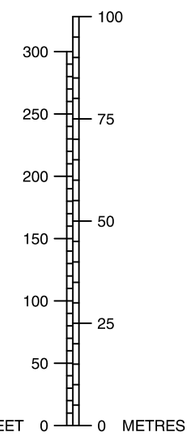
RWY 07

DECLARED DISTANCES	
RWY 07	
3099	TAKE-OFF RUN AVAILABLE
3359	TAKE-OFF DISTANCE AVAILABLE
3099	ACCELERATE STOP DISTANCE AVAILABLE
2961	LANDING DISTANCE AVAILABLE

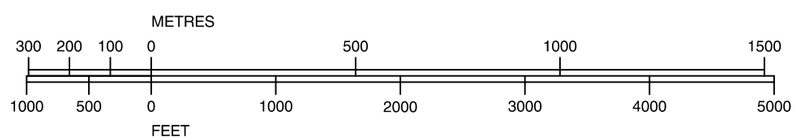


LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, FENCE	⊙
BUILDING OR LARGE STRUCTURE	▬
ROADS	═══
THREE OR SHRUB	⁂

VERTICAL SCALE 1:1500



HORIZONTAL SCALE 1:15000



ORDER OF ACCURACY

HORIZONTAL	0.5 METRES
VERTICAL	0.5 ft

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERODROME OBSTACLE CHART - ICAO

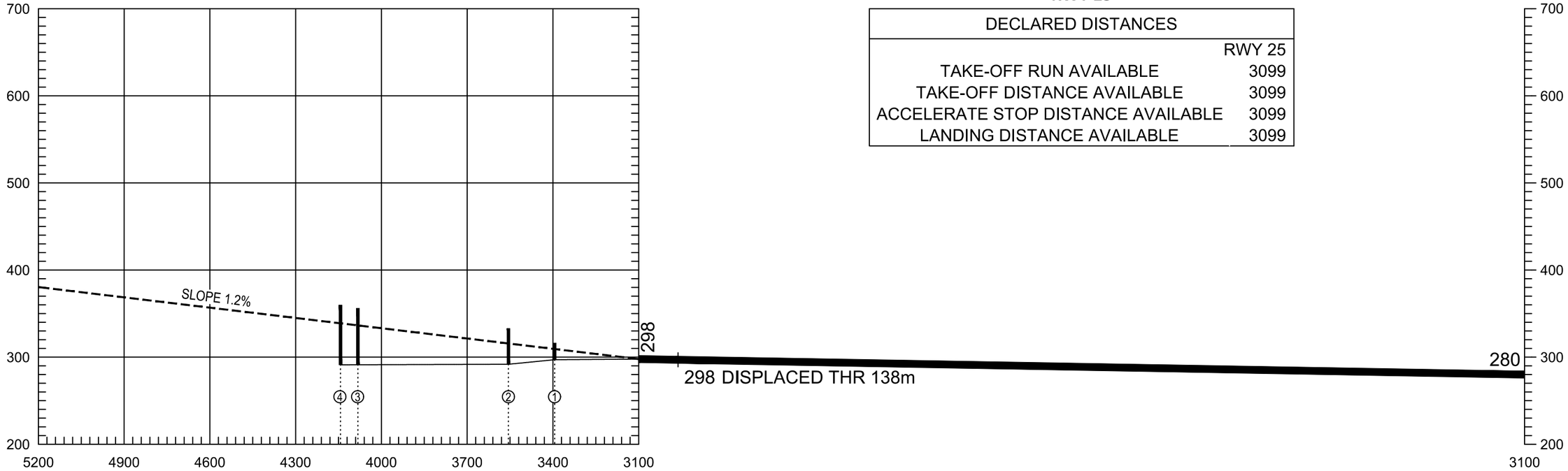
TYPE A (OPERATING LIMITATIONS)

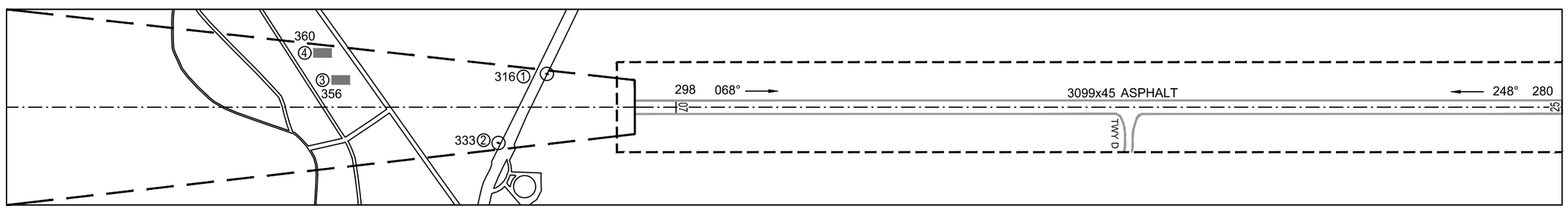
BUCUREŞTI / Băneasa - Aurel Vlaicu (LRBS)
RWY 25

ELEVATIONS IN FEET AND LINEAR DIMENSIONS IN METRES

Changes: Chart revised.

MAGNETIC VARIATION 6° E - 2020

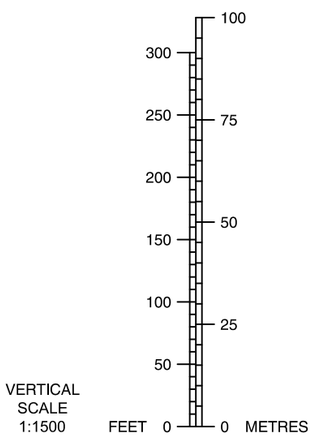




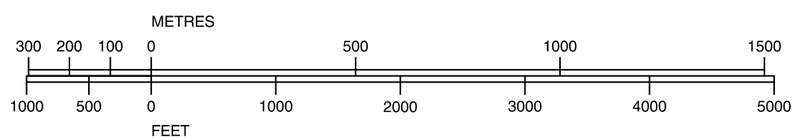
RWY 25

DECLARED DISTANCES	
	RWY 25
TAKE-OFF RUN AVAILABLE	3099
TAKE-OFF DISTANCE AVAILABLE	3099
ACCELERATE STOP DISTANCE AVAILABLE	3099
LANDING DISTANCE AVAILABLE	3099

LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, FENCE	⊙
BUILDING OR LARGE STRUCTURE	▬
ROADS	═══
THREE OR SHRUB	⁂



HORIZONTAL SCALE 1:15000



ORDER OF ACCURACY

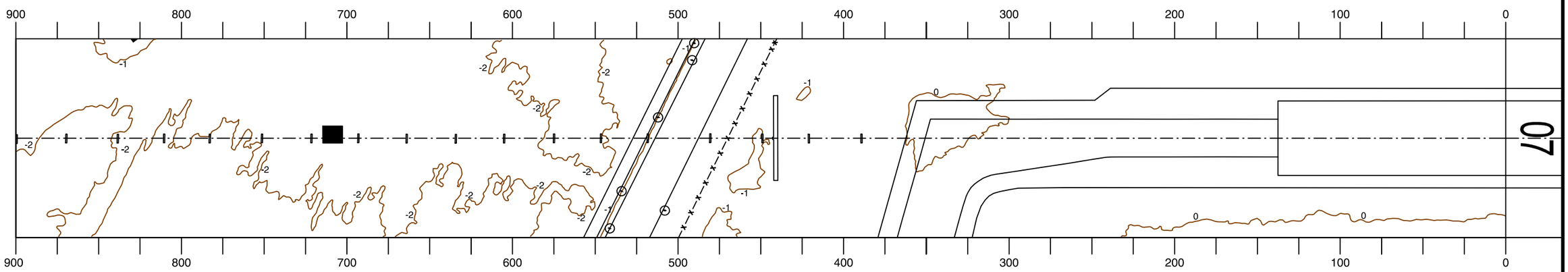
HORIZONTAL	0.5 METRES
VERTICAL	0.5 ft

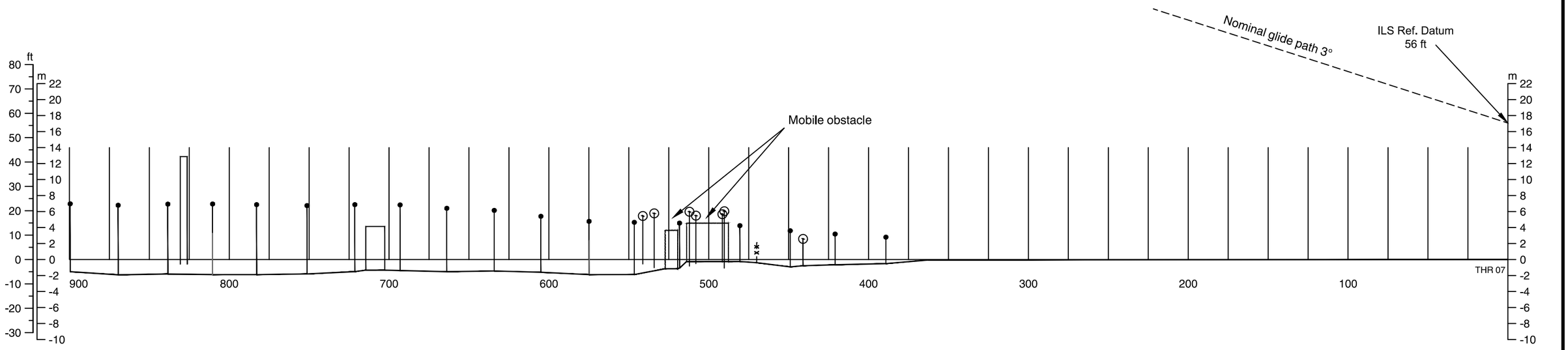
AMENDMENT RECORD		
NO.	DATE	ENTERED BY

PRECISION APPROACH TERRAIN CHART - ICAO

BUCUREŞTI / Băneasa - Aurel Vlaicu (LRBS)
RWY 07

DISTANCES AND HEIGHTS IN METRES





Changes: Chart revised.

LEGEND	
ROAD	
CONTOUR	
CENTRE-LINE PROFILE	
FENCE	
APPROACH LIGHTS	
POLE, TOWER, SPIRE, ANTENNA, FENCE	
BUILDING OR LARGE STRUCTURE	

HORIZONTAL SCALE 1:2.500
VERTICAL SCALE 1:500

CONTOURS AND HEIGHTS ARE RELATED
TO ELEVATION OF RWY THR 07

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

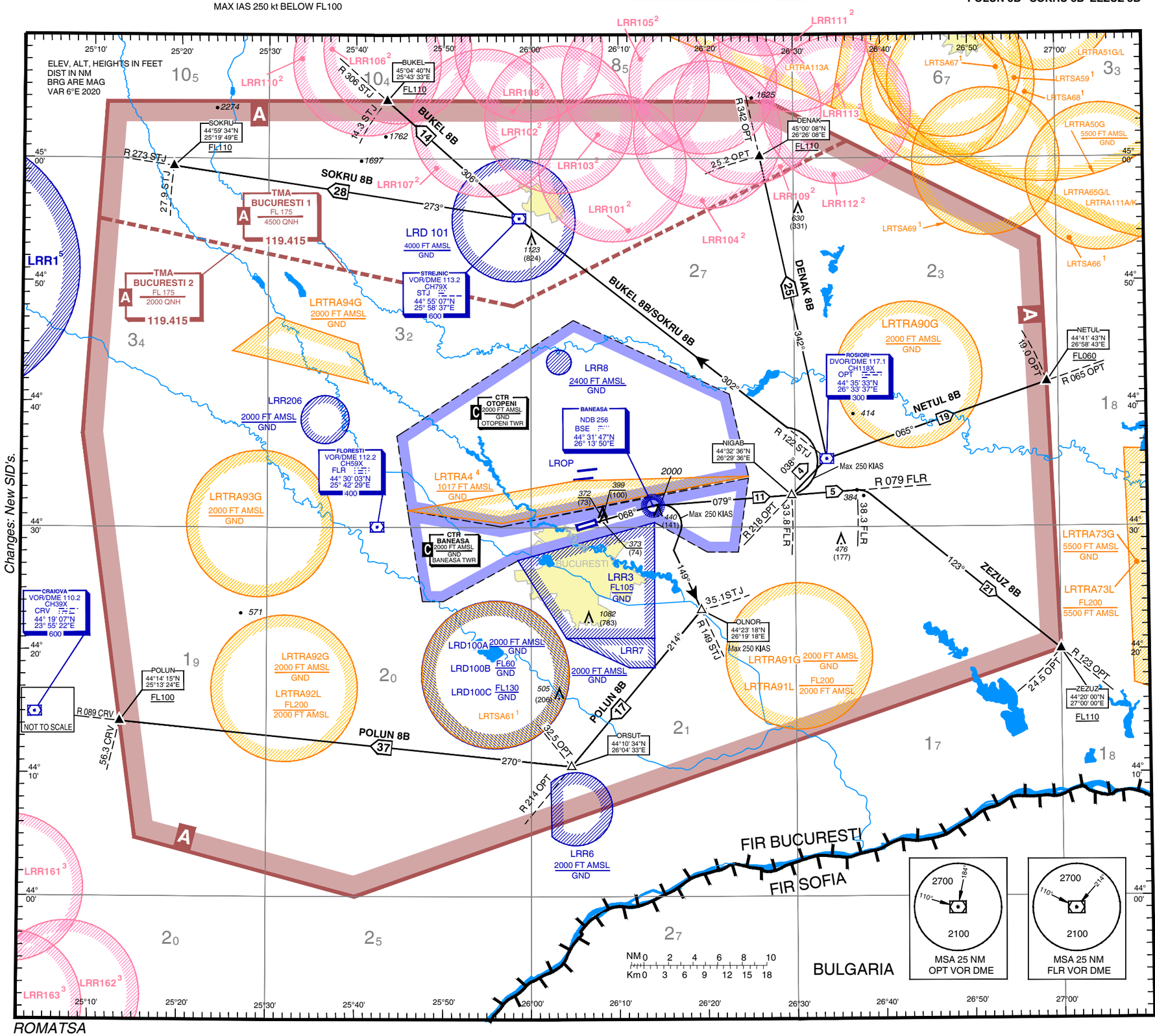
BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	126.080
	KOMAN ALTN	124.975

SECTOR		
	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RWY 07
BUKEL 8B DENAK 8B NETUL 8B
POLUN 8B SOKRU 8B ZEZUZ 8B



DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 8B	Climb on **QDM 068° BSE** to **BSE**. At **BSE** turn **right** to intercept and follow **R 079° FLR** (079°M) to **NIGAB**. At **NIGAB** turn **left** (1) to intercept and follow **R 122° STJ** (302°M) to **STJ**, then follow **R 306° STJ** (306°M) to **BUKEL**. Cross **BUKEL** at or above **FL110**. (1) Max **250 KIAS**. Not available for traffic to NEPOT.
DENAK 8B	Climb on **QDM 068° BSE** to **BSE**. At **BSE** turn **right** to intercept and follow **R 079° FLR** (079°M) to **NIGAB**. At **NIGAB** turn **left** (1) to intercept and follow **R 218° OPT** (038°M) to **OPT**. At **OPT** turn **left** to follow **R 342° OPT** (342°M) to **DENAK**. Cross **DENAK** at or above **FL110** (2). (1) Max **250 KIAS**. (2) **ATS climb gradient: 3.9%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 8B	Climb on **QDM 068° BSE** to **BSE**. At **BSE** turn **right** to intercept and follow **R 079° FLR** (079°M) to **NIGAB**. At **NIGAB** turn **left** (1) to intercept and follow **R 218° OPT** (038°M) to **OPT**. At **OPT** turn right to follow **R 065° OPT** (065°M) to **NETUL**. Cross **NETUL** at or above **FL060**. (1) Max **250 KIAS**.
POLUN 8B	Climb on runway axis, at ***2000*** (1701) turn right (1)(2) to intercept and follow **R 149° STJ** (149°M) to **OLNOR**. At **OLNOR** turn **right** (2) to intercept and follow **R 214° OPT** (214°M) to **ORSUT**. At **ORSUT** turn **right** to intercept and follow **R 089° CRV** (270°M) to **POLUN**. Cross **POLUN** at or above **FL100**. (1) No turn before DER. (2) IAS **250 KIAS**. Not available for traffic to MOPUG.
SOKRU 8B	Climb on **QDM 068° BSE** to **BSE**. At **BSE** turn **right** to intercept and follow **R 079° FLR** (079°M) to **NIGAB**. At **NIGAB** turn **left** (1) to intercept and follow **R 122° STJ** (302°M) to **STJ**. At **STJ** turn **left** to follow **R 273° STJ** (273°M) to **SOKRU**. Cross **SOKRU** at or above **FL110**. (1) Max **250 KIAS**. Not availablr for traffic to DIRER.
ZEZUZ 8B	Climb on **QDM 068° BSE** to **BSE**. At **BSE** turn **right** (1) to intercept and follow **R 079° FLR** (079°M). At **38.3NM FLR** turn **right** to intercept and follow **R 123° OPT** (123°M) to **ZEZUZ**. Cross **ZEZUZ** at or above **FL110** (2). (1) Max **250 KIAS**. (2) **ATS climb gradient: 4.2%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.

Initial departure
Disregarded close-in obstacle: Antenna (*399* ft) 1050 m from DER, 415 m left RWY axis.
Building (*373* ft) 900 m of DER, 380 m right RWY axis.

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

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.

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
SID RWY 07

AERONAUTICAL DATA TABULATION

Conventional SID RWY 07	
Fix/Point	**Coordinates**
CRV VORDME	44°19'07.0"N 023°55'21.9"E
FLR VORDME	44°30'03.0"N 025°42'29.4"E
OPT VORDME	44°35'32.6"N 026°33'36.6"E
STJ VORDME	44°55'06.8"N 025°58'37.3"E
BSE NDB	44°31'46.7"N 026°13'49.9"E
NIGAB – BRG 079.40° / 33.80NM FLR	44°32'36.0"N 026°29'36.0"E
OLNOR – BRG 148.99° / 35.07NM STJ	44°23'18.0"N 026°19'18.0"E
ORSUT – BRG 214.01° / 32.53NM OPT	44°10'34.0"N 026°04'33.0"E
BUKEL – BRG 305.86° / 14.34NM STJ	45°04'40.1"N 025°43'32.6"E
DENAK – BRG 341.83° / 25.16NM OPT	45°00'08.2"N 026°26'08.5"E
NETUL – BRG 064.83° / 18.96NM OPT	44°41'43.4"N 026°58'42.8"E
POLUN – BRG 088.51° / 56.27NM CRV	44°14'14.7"N 025°13'24.1"E
SOKRU – BRG 273.41° / 27.91NM STJ	44°59'34.0"N 025°19'49.0"E
ZEZUZ – BRG 123.28° / 24.47NM OPT	44°20'00.0"N 027°00'00.0"E
DER 07	44°30'28.2"N 026°07'28.8"E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - 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	129.960

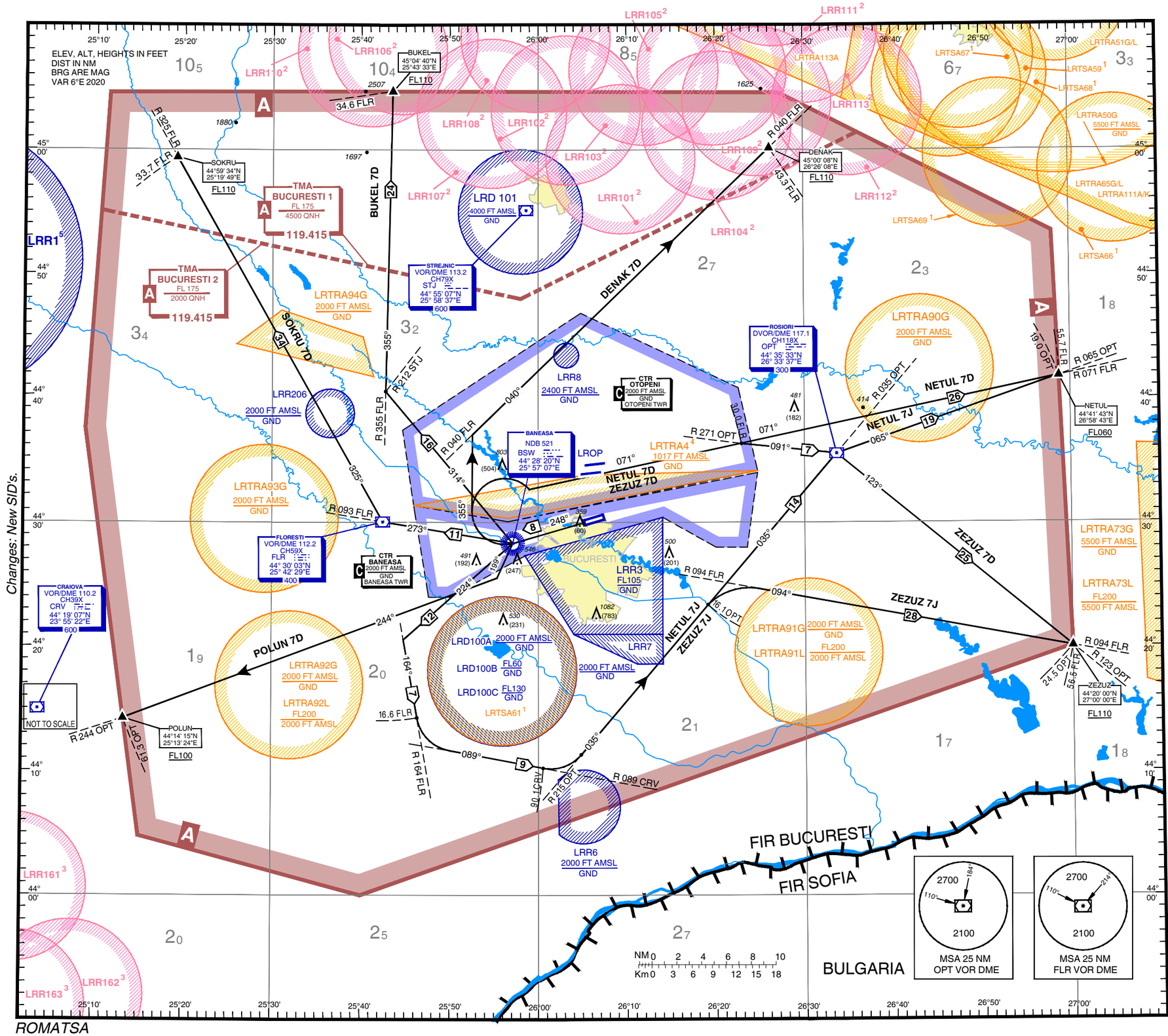
BANEASA ATIS	126.125
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

SECTOR	LOMOS	122.030
	LOMOS ALTN	126.080
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	126.080
	KOMAN ALTN	124.975

SECTOR	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RWY 25

BUKEL 7D DENAK 7D NETUL 7J NETUL 7D
POLUN 7D SOKRU 7D ZEZUZ 7D ZEZUZ 7J



DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 7D	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **right** (1) to follow **QDR 314° BSW**, then intercept **R 355° FLR** (355°M) to **BUKEL**. Cross **BUKEL** at or above **FL110** (2). (1) Max **250 KIAS**. (2) **ATS climb gradient: 3.9%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to NEPOT.
DENAK 7D	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **right** (1) heading **355°M** to intercept and follow **R 040° FLR** (040°M) to **DENAK**. Cross **DENAK** at or above **FL110** (2). (1) Max **250 KIAS**. (2) **ATS climb gradient: 3.9%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 7D	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **right** (1) to intercept and follow **R 071° FLR** (071°M) to **NETUL**. Cross **NETUL** at or above **FL060**. (1) Max **250 KIAS**.
NETUL 7J	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **left** (1) to follow **QDR 224° BSW**, then intercept and follow **R 164° FLR** (164°M). At **16.6NM FLR** turn **left** to intercept and follow **R 089° CRV** (089°M). At **90.1NM CRV** turn **left** to intercept and follow **R 215° OPT** (035°M) to **OPT**. At **OPT** turn **right** to follow **R 065° OPT** (065°M) to **NETUL**. Cross **NETUL** at or above **FL060**. (1) Max **250 KIAS**.
POLUN 7D	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **left** (1) heading **199°M** to intercept and follow **R 244° OPT** (244°M) to **POLUN**. Cross **POLUN** at or above **FL100** (2). (1) Max **250 KIAS**. (2) **ATS climb gradient: 4.2%** up to **FL100**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to MOPUG.
SOKRU 7D	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **right** (1) to follow **R 093° FLR** (273°M) to **FLR**. At **FLR** turn **right** to follow **R 325° FLR** (325°M) to **SOKRU**. Cross **SOKRU** at or above **FL110** (2). (1) Max **250 KIAS**. (2) **ATS climb gradient: 3.6%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
ZEZUZ 7D	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **right** (1) to intercept and follow **R 071° FLR** (071°M). At **30NM FLR** turn **right** to follow **R 271° OPT** (091°M) to **OPT**. At **OPT** turn **right** to follow **R 123° OPT** (123°M) to **ZEZUZ**. Cross **ZEZUS** at or above **FL110**. (1) Max **250 KIAS**.
ZEZUZ 7J	Climb on **QDM 248° BSW** to **BSW**. At **BSW** turn **left** (1) to follow **QDR 224° BSW** then intercept and follow **R 164° FLR** (164°M). At **16.6NM FLR** turn **left** to intercept and follow **R 089° CRV** (089°M). At **90.1NM CRV** turn **left** to intercept and follow **R 215° OPT** (035°M) to **OPT**. At **16.1NM OPT** turn **right** to intercept and follow **R 094° FLR** (094°M) to **ZEZUZ**. Cross **ZEZUS** at or above **FL110**. (1) Max **250 KIAS**.

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

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.

Changes: New SIDs.

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
SID RWY 25

AERONAUTICAL DATA TABULATION

Conventional SID RWY 25	
Fix/Point	**Coordinates**
CRV VORDME	44°19'07.0"N 023°55'21.9"E
FLR VORDME	44°30'03.0"N 025°42'29.4"E
OPT VORDME	44°35'32.6"N 026°33'36.6"E
STJ VORDME	44°55'06.8"N 025°58'37.3"E
BSW NDB	44°28'19.5"N 025°57'07.2"E
BUKEL – BRG 355.23° / 34.63NM FLR	45°04'40.1"N 025°43'32.6"E
DENAK – BRG 039.70° / 43.28NM FLR	45°00'08.2"N 026°26'08.5"E
NETUL – BRG 071.46° / 55.70NM FLR	44°41'43.4"N 026°58'42.8"E
POLUN – BRG 244.14° / 61.31NM OPT	44°14'14.7"N 025°13'24.1"E
SOKRU – BRG 325.44° / 33.65NM FLR	44°59'34.0"N 025°19'49.0"E
ZEZUZ – BRG 123.28° / 24.47NM OPT	44°20'00.0"N 027°00'00.0"E
DER 25	44°29'58.0"N 026°05'02.7"E

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
4000 FT

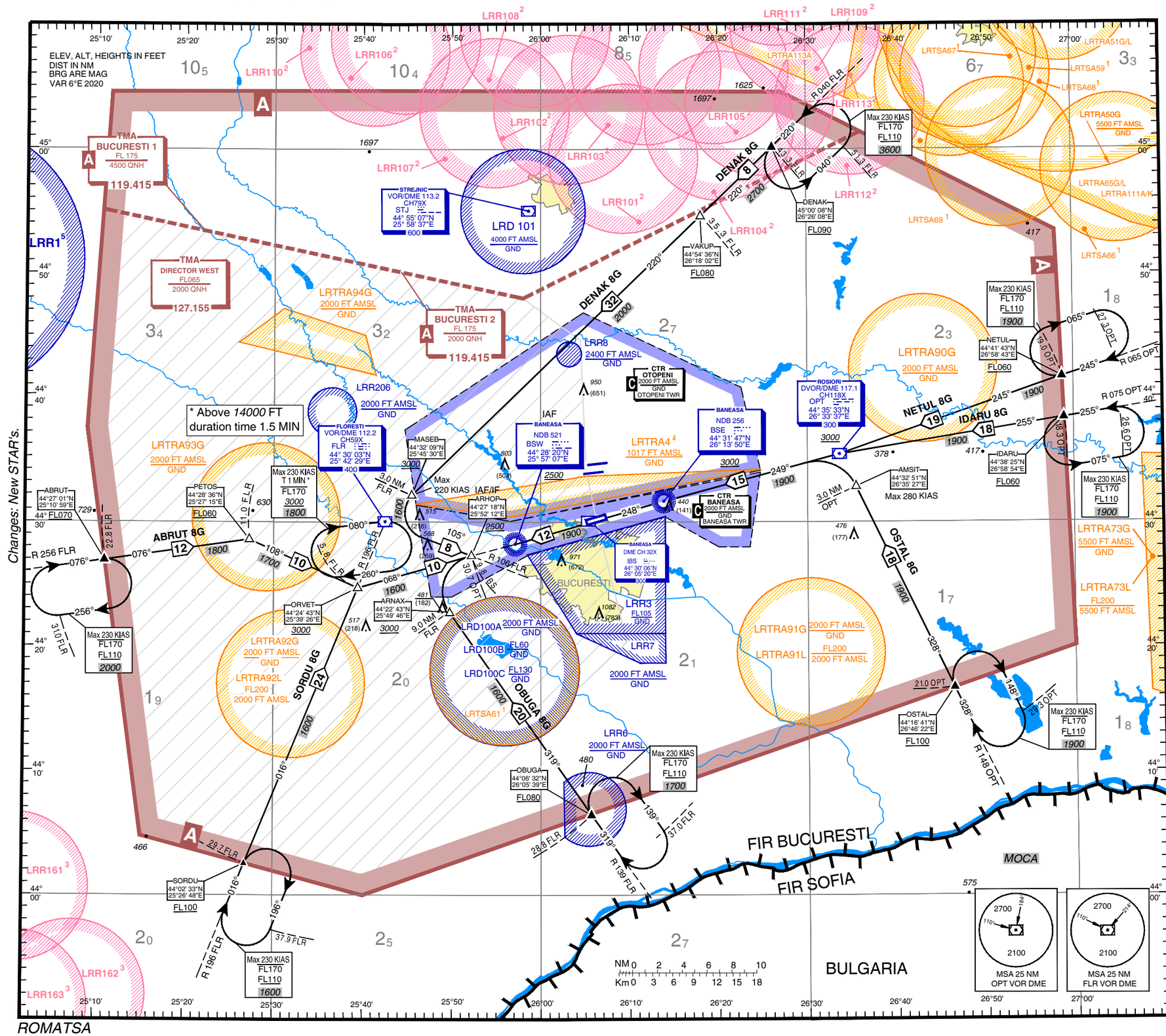
TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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 8G DENAK 8G IDARU 8G NETUL 8G
OBUGA 8G OSTAL 8G SORDU 8G



DESIGNATOR ARRIVAL ROUTE	ARRIVAL ROUTE AND LEVEL INSTRUCTIONS / REMARKS
ABRUT 8G	From ABRUT at or above FL070 to PETOS on course 076° at or above FL060 to ORVET on course 108° at or above 3000 to ARHOP on course 068° at or above 2500.
DENAK 8G	From DENAK at or above FL090 to VAKUP on course 220° at or above FL080 to MASEB on course 220° at or above 3000 and maximum 220 KIAS to ARHOP on course 105° at or above 2500.
IDARU 8G	From IDARU at or above FL060 to OPT on course 255° at or above 3000 to BSE on course 249° at or above 3000 to BSW on course 248° at or above 2500.
NETUL 8G	From NETUL at or above FL060 to OPT on course 245° at or above 3000 to BSE on course 249° at or above 3000 to BSW on course 248° at or above 2500.
OBUGA 8G	From OBUGA at or above FL080 to ARNAX on course 319° at or above 3000 to ARHOP on course 068° at or above 2500.
OSTAL 8G	From OSTAL at or above FL100 to AMSIT on course 328° and maximum 280 KIAS to OPT on course 328° at or above 3000 to BSE on course 249° at or above 3000 to BSW on course 248° at or above 2500.
SORDU 8G	From SORDU at or above FL100 to ORVET on course 016° at or above 3000 to ARHOP on course 068° at or above 2500.

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

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 ARHOP. Descending shall be executed in accordance with vertical restrictions specified on ATC Surveillance Minimum Altitude Chart, 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.

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RWY 07

AERONAUTICAL DATA TABULATION

STAR to RWY07 from ABRUT, DENAK, IDARU, NETUL, OBUGA, OSTAL, SORDU	
Fix/Point	**Coordinates**
ABRUT – BRG 256.52° / 22.76NM FLR	44°27'00.9"N 025°10'59.4"E
DENAK – BRG 341.84° / 25.16NM OPT	45°00’08.2"N 026°26’08.5"E
IDARU– BRG 074.84° / 18.30NM OPT	44°38’24.5"N 026°58’54.5"E
NETUL – BRG 064.83° / 18.96NM OPT	44°41’43.4"N 026°58’42.8"E
OBUGA – BRG 138.58° / 28.80NM FLR	44°06’32.4"N 026°05’39.4"E
OSTAL – BRG 148.07° / 20.97NM OPT	44°16’40.5"N 026°46’22.4"E
SORDU – BRG 196.38° / 29.72NM FLR	44°02’33.1"N 025°26’48.2"E
BSW (IAF) NDB	44°28'19.5"N 025°57'07.2"E
BSE NDB	44°31'46.7"N 026°13'49.9"E
IBS DME	44°30'05.4"N 026°05'20.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55’06.8"N 025°58’37.3"E
AMSIT – BRG 148.07° / 3.00NM OPT	44°32'50.8"N 026°35'26.6"E
ARNAX – BRG 138.58° / 9.00NM FLR	44°22'42.7"N 025°49'45.8"E
ORVET – BRG 196.38° / 5.77NM FLR	44°24'42.9"N 025°39'25.5"E
MASEB – BRG 039.70° / 3.00NM FLR	44°32'08.7"N 025°45'29.5"E
PETOS – BRG 256.52° / 11.0NM FLR	44°28'36.1"N 025°27'15.4"E
VAKUP – BRG 039.70° / 35.3NM FLR	44°54'36.3"N 026°18'01.6"E
ARHOP (IAF/IF) **–** BRG 247.80° BSW / 9.8NM IBS	44°27'17.8"N 025°52'12.1"E

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
4000 FT

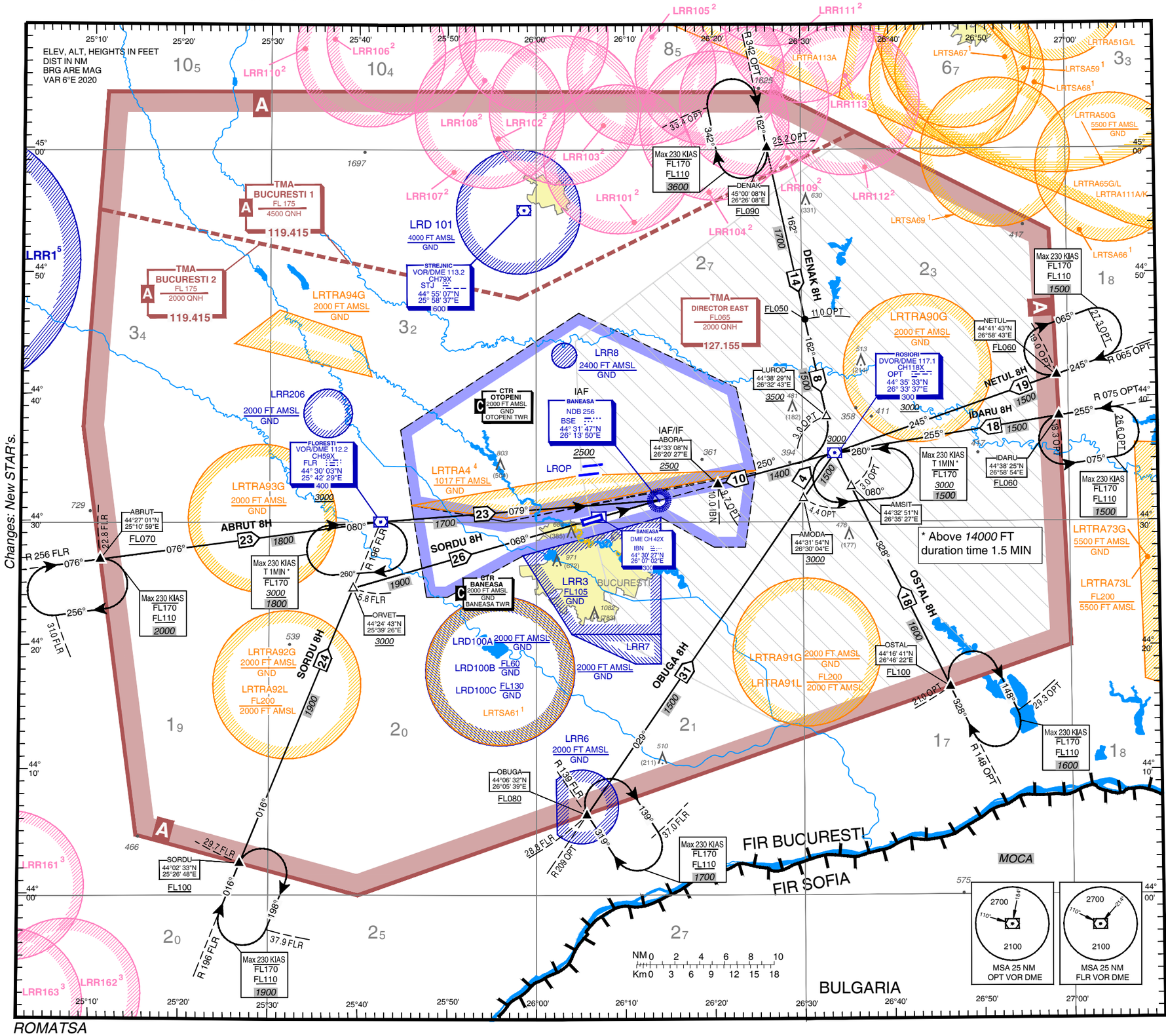
TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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 25

ABRUT 8H DENAK 8H IDARU 8H NETUL 8H
OBUGA 8H OSTAL 8H SORDU 8H



Changes: New STAR's.

DESIGNATOR ARRIVAL ROUTE	ARRIVAL ROUTE AND LEVEL INSTRUCTIONS / REMARKS
ABRUT 8H	From ABRUT at or above FL70 to FLR on course 076° at or above 3000 to BSE on course 079° at or above 2500
DENAK 8H	From DENAK at or above FL090 to DME 11.0 OPT on course 162° at or above FL050 to LUROD on course 162° at or above 3500 to OPT on course 162° at or above 3000 to ABORA on course 250° at or above 2500
IDARU 8H	From IDARU at or above FL060 to OPT on course 255° at or above 3000 to ABORA on course 250° at or above 2500
NETUL 8H	From NETUL at or above FL060 to OPT on course 245° at or above 3000 to ABORA on course 250° at or above 2500
OBUGA 8H	From OBUGA at or above FL080 to AMODA on course 029° at or above 3000 to OPT on course 029° at or above 3000 to hold over OPT and then to ABORA on course 250° at or above 2500
OSTAL 8H	From OSTAL at or above FL100 to AMSIT on course 328° to hold over OPT and then to OPT on course 328° at or above 3000 to ABORA on course 250° at or above 2500
SORDU 8H	From SORDU at or above FL100 to ORVET on course 016° at or above 3000 to BSE on course 068° at or above 2500

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

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 setiing 7600. Then proceed direct to OPT VOR/DME then ABORA. Descending shall be executed in accordance with vertical restrictions specified on ATC Surveillance Minimum Altitude Chart, 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.

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RWY 25

AERONAUTICAL DATA TABULATION

STAR to RWY25 from ABRUT, DENAK, IDARU, NETUL, OBUGA, OSTAL, SORDU	
Fix/Point	**Coordinates**
ABRUT – BRG 256.52° / 22.76NM FLR	44°27'00.9"N 025°10'59.4"E
DENAK – BRG 341.84° / 25.16NM OPT	45°00’08.2"N 026°26’08.5"E
IDARU– BRG 074.84° / 18.30NM OPT	44°38’24.5"N 026°58’54.5"E
NETUL – BRG 064.83° / 18.96NM OPT	44°41’43.4"N 026°58’42.8"E
OBUGA – BRG 138.58° / 28.80NM FLR	44°06’32.4"N 026°05’39.4"E
OSTAL – BRG 148.07° / 20.97NM OPT	44°16’40.5"N 026°46’22.4"E
SORDU – BRG 196.38° / 29.72NM FLR	44°02’33.1"N 025°26’48.2"E
IBN DME	44°29'55.3"N 026°04'49.5"E
BSE (IAF/IF) NDB	44°31'46.7"N 026°13'49.9"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
BRG 341.84° / 11.00NM OPT	44°46'17.7"N 026°30'21.5"E
AMODA – BRG 208.83° / 4.44NM OPT	44°31'54.0"N 026°30'04.0"E
AMSIT – BRG 148.07° / 3.00NM OPT	44°32'50.8"N 026°35'26.6"E
LUROD – BRG 341.84° / 3.0NM OPT	44°38'28.6"N 026°32'43.5"E
ORVET – BRG 196.38° / 5.77NM FLR	44°24'42.9"N 025°39'25.5"E
ABORA (IAF/IF) – BRG 249.71°/ 9.67NM OPT	44°33'08.0"N 026°20'27.1"E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
4000 ft

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

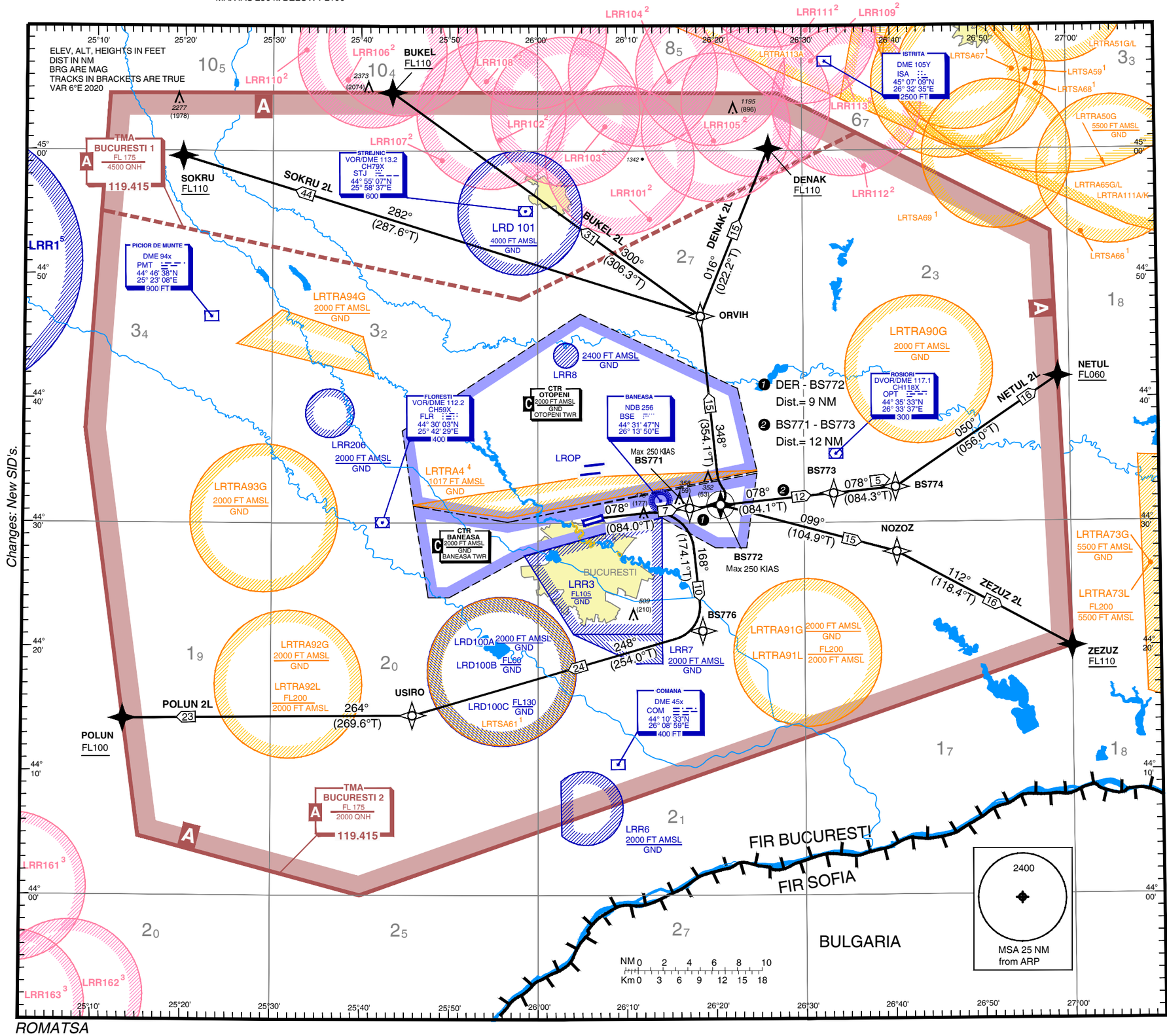
BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	126.080
	KOMAN ALTN	124.975

SECTOR	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNAV RWY 07
BUKEL 2L DENAK 2L NETUL 2L
POLUN 2L SOKRU 2L ZEZUZ 2L



DESIGNATOR	ROUTING
BUKEL 2L	Climb to **BS772** on course **078°M**, then to **ORVIH**, then to **BUKEL** at or above **FL110**. **ATS climb gradient: 3.4 %** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
DENAK 2L	Climb to **BS772** on course **078°M**, then to **ORVIH**, then to **DENAK** at or above **FL110**. ATS climb gradient: 4.9 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 2L	Climb to **BS771** on course **078°M**, then to **BS773**, then to **BS774**, then to **NETUL** at or above **FL060**.
POLUN 2L	Climb to **BS771** on course **078°M**, then to **BS776**, then to **USIRO**, then to **POLUN** at or above **FL100**. Not available for traffic to MOPUG.
SOKRU 2L	Climb to **BS772** on course **078°M**, then to **ORVIH**, then to **SOKRU** at or above **FL110**. Not available for traffic to DIRER.
ZEZUZ 2L	Climb to **BS772** on course **078°M**, then to **NOZOZ**, then to **ZEZUZ** at or above **FL110**. ATS climb gradient: 4.4 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.

Initial departure
Disregarded close-in obstacle: Antenna (*399* ft) 1050 m from DER, 415 m left RWY axis.
Building (*373* ft) 900 m of DER, 380 m right RWY axis.

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

RNAV1
GNSS or DME/DME required

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
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.

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
SID RNAV RWY 07

AERONAUTICAL DATA TABULATION

SID RNAV RWY 07	
Waypoint Identifier	***Coordinates***
BUKEL	45°04'40.1"N 025°43'32.6"E
DENAK	45°00'08.2"N 026°26'08.5"E
NETUL	44°41'43.4"N 026°58'42.8"E
POLUN	44°14'14.7"N 025°13'24.1"E
SOKRU	44°59'34.0"N 025°19'49.0"E
USIRO	44°14'30.0"N 025°45'53.0"E
ZEZUZ	44°20'00.0"N 027°00'00.0"E
BS771	44°31'11.4"N 026°17'06.2"E
BS772	44°31'26.8"N 026°20'34.9"E
BS773	44°32'22.4"N 026°33'19.6"E
BS774	44°32'52.2"N 026°40'17.6"E
BS776	44°21'17.7"N 026°18'32.0"E
NOZOZ	44°27'38.7"N 026°40'24.3"E
ORVIH	44°46'39.1"N 026°18'22.7"E
DER 07	44°30'28.2"N 026°07'28.8"E

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
SID RNAV RWY 07

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	BUKEL 2L	IF				6.0E						RNAV 1
20	BUKEL 2L	CF	BS772	Y	078 (084.0)	6.0E	9.4			-250		RNAV 1
30	BUKEL 2L	TF	ORVIH		348 (354.1)	6.0E	15.3					RNAV 1
40	BUKEL 2L	TF	BUKEL		300 (306.3)	6.0 E	30.6		+FL110			RNAV 1
10	DENAK 2L	IF				6.0E						RNAV 1
20	DENAK 2L	CF	BS772	Y	078 (084.0)	6.0E	9.4			-250		RNAV 1
30	DENAK 2L	TF	ORVIH		348 (354.1)	6.0E	15.3					RNAV 1
40	DENAK 2L	TF	DENAK		016 (022.2)	6.0E	14.6		+FL110			RNAV 1
10	NETUL 2L	IF				6.0E						RNAV 1
20	NETUL 2L	CF	BS771		078 (084.0)	6.0E	6.9			-250		RNAV 1
30	NETUL 2L	TF	BS773		078 (084.1)	6.0E	11.7					RNAV 1
40	NETUL 2L	TF	BS774		078 (084.3)	6.0E	5.0					RNAV 1
50	NETUL 2L	TF	NETUL		050 (056.0)	6.0E	15.9		+FL60			RNAV1
10	POLUN 2L	IF				6.0E						RNAV 1
20	POLUN 2L	CF	BS771		078 (084.0)	6.0E	6.9			-250		RNAV 1
30	POLUN 2L	TF	BS776		168 (174.1)	6.0E	9.9					RNAV 1
40	POLUN 2L	TF	USIRO		248 (254.0)	6.0E	24.4					RNAV 1
50	POLUN 2L	TF	POLUN		264 (269.6)	6.0E	23.4		+FL100			RNAV 1
10	SOKRU 2L	IF				6.0E						RNAV 1
20	SOKRU 2L	CF	BS772	Y	078 (084.0)	6.0E	9.4			-250		RNAV 1
30	SOKRU 2L	TF	ORVIH		348 (354.1)	6.0E	15.3					RNAV 1
40	SOKRU 2L	TF	SOKRU		282 (287.6)	6.0E	43.6		+FL110			RNAV 1
10	ZEZUZ 2L	IF				6.0E						RNAV 1
20	ZEZUZ 2L	CF	BS772	Y	078 (084.0)	6.0E	9.4			-250		RNAV 1
30	ZEZUZ 2L	TF	NOZOZ		099 (104.9)	6.0E	14.7					RNAV 1
40	ZEZUZ 2L	TF	ZEZUZ		112 (118.4)	6.0E	16.0		+FL110			RNAV 1

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

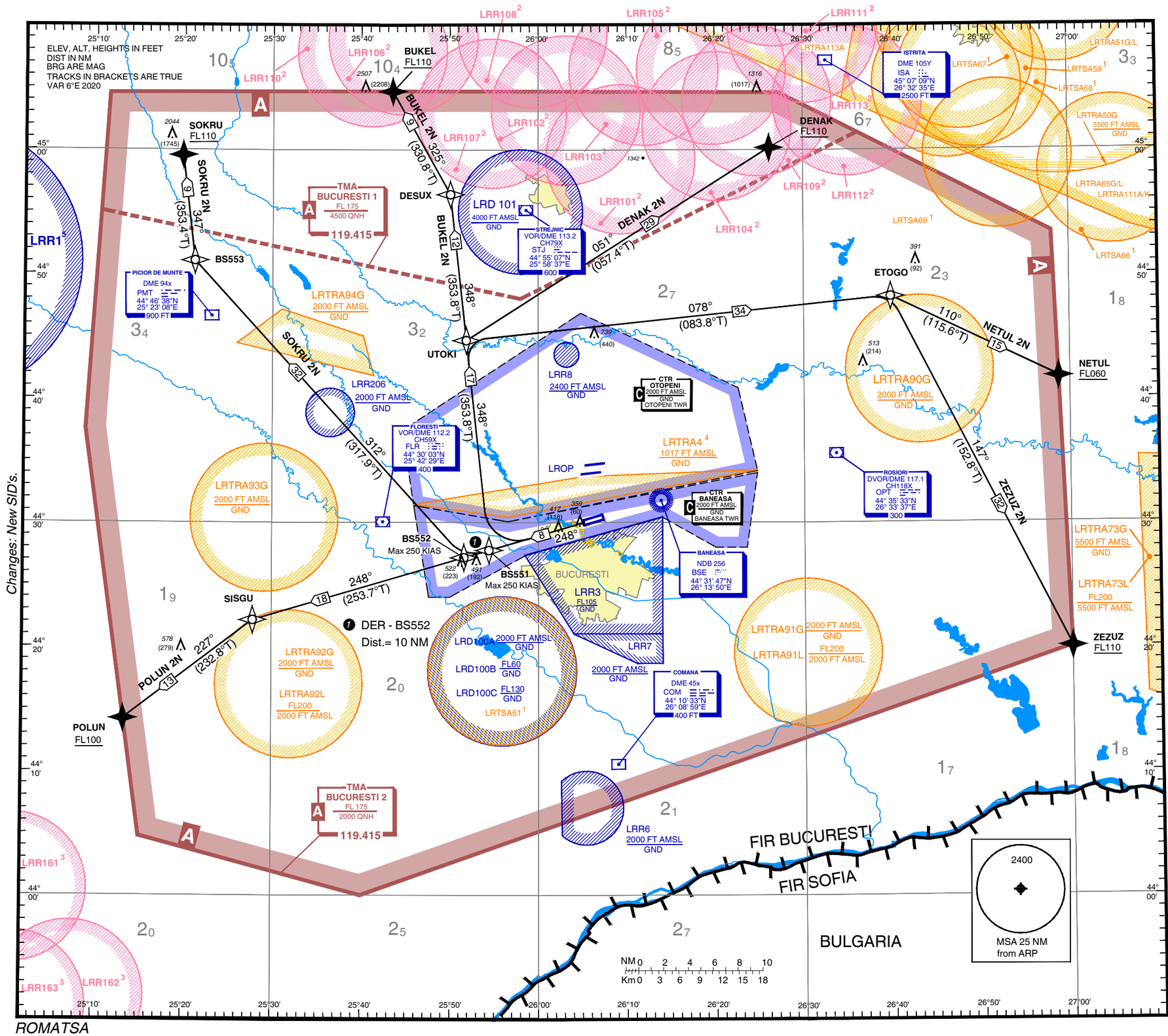
BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	126.080
	KOMAN ALTN	124.975

SECTOR	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNAV RWY 25
BUKEL 2N DENAK 2N NETUL 2N
POLUN 2N SOKRU 2N ZEZUZ 2N



DESIGNATOR	ROUTING
BUKEL 2N	Climb to BS551 on course 248°M, then to UTOKI, then to DESUX, then to BUKEL at or above FL110. ATS climb gradient: 3.9 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to NEPOT.
DENAK 2N	Climb to BS551 on course 248°M, then to UTOKI, then to DENAK at or above FL110.
NETUL 2N	Climb to BS551 on course 248°M, then to UTOKI, then to ETOGO, then to NETUL at or above FL060.
POLUN 2N	Climb to BS552 on course 248°M, then to SISGU, then to POLUN at or above FL100. ATS climb gradient: 4.0 % up to FL100. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to MOPUG.
SOKRU 2N	Climb to BS552 on course 248°M, then to BS553, then to SOKRU at or above FL110. ATS climb gradient: 3.5 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
ZEZUZ 2N	Climb to BS551 on course 248°M, then to UTOKI, then to ETOGO, then to ZEZUZ at or above FL110.

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

RNAV1
GNSS or DME/DME required

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
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 WPT climbing to FPL flight level.

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
SID RNAV RWY 25

AERONAUTICAL DATA TABULATION

SID RNAV RWY 25	
Waypoint Identifier	***Coordinates***
BUKEL	45°04'40.1"N 025°43'32.6"E
DENAK	45°00'08.2"N 026°26'08.5"E
DESUX	44°56'23.0"N 025°50'05.0"E
ETOGO	44°48'12.0"N 026°39'49.0"E
NETUL	44°41'43.4"N 026°58'42.8"E
POLUN	44°14'14.7"N 025°13'24.1"E
SISGU	44°22'10.0"N 025°27'53.0"E
SOKRU	44°59'34.0"N 025°19'49.0"E
UTOKI	44°44'39.0"N 025°51'53.0"E
ZEZUZ	44°20'00.0"N 027°00'00.0"E
BS551	44°27'46.0"N 025°54'27.1"E
BS552	44°27'10.7"N 025°51'37.8"E
BS553	44°51'05.4"N 025°21'11.7"E
DER 25	44°29'58.0"N 026°05'02.7"E

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
SID RNAV RWY 25

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	BUKEL 2N	IF				6.0E						RNAV 1
20	BUKEL 2N	CF	BS551		248 (254.0)	6.0E	9.6			-250		RNAV 1
30	BUKEL 2N	TF	UTOKI		348 (353.8)	6.0E	17.0					RNAV 1
40	BUKEL 2N	TF	DESUX		348 (353.8)	6.0 E	11.8					RNAV 1
50	BUKEL 2N	TF	BUKEL		325 (330.8)	6.0 E	9.5		+FL110			RNAV 1
10	DENAK 2N	IF				6.0E						RNAV 1
20	DENAK 2N	CF	BS551		248 (254.0)	6.0E	9.6			-250		RNAV 1
30	DENAK 2N	TF	UTOKI		348 (353.8)	6.0E	17.0					RNAV 1
40	DENAK 2N	TF	DENAK		051 (057.4)	6.0E	28.9		+FL110			RNAV 1
10	NETUL 2N	IF				6.0E						RNAV 1
20	NETUL 2N	CF	BS551		248 (254.0)	6.0E	9.6			-250		RNAV 1
30	NETUL 2N	TF	UTOKI		348 (353.8)	6.0E	17.0					RNAV 1
40	NETUL 2N	TF	ETOGO		078 (083.8)	6.0E	34.3					RNAV 1
50	NETUL 2N	TF	NETUL		110 (115.6)	6.0E	14.9		+FL60			RNAV1
10	POLUN 2N	IF				6.0E						RNAV 1
20	POLUN 2N	CF	BS552		248 (254.0)	6.0E	11.7			-250		RNAV 1
30	POLUN 2N	TF	SISGU		248 (253.7)	6.0E	17.7					RNAV 1
40	POLUN 2N	TF	POLUN		227 (232.8)	6.0E	13.1		+FL100			RNAV 1
10	SOKRU 2N	IF				6.0E						RNAV 1
20	SOKRU 2N	CF	BS552		248 (254.0)	6.0E	11.7			-250		RNAV 1
30	SOKRU 2N	TF	BS553		312 (317.9)	6.0E	32.3					RNAV 1
40	SOKRU 2N	TF	SOKRU		347 (353.4)	6.0E	8.5		+FL110			RNAV 1
10	ZEZUZ 2N	IF				6.0E						RNAV 1
20	ZEZUZ 2N	CF	BS551		248 (254.0)	6.0E	9.6			-250		RNAV 1
30	ZEZUZ 2N	TF	UTOKI		348 (353.8)	6.0E	17.0					RNAV 1
40	ZEZUZ 2N	TF	ETOGO		078 (083.8)	6.0E	34.3					RNAV 1
50	ZEZUZ 2N	TF	ZEZUZ		147 (152.8)	6.0E	31.7		+FL110			RNAV 1

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

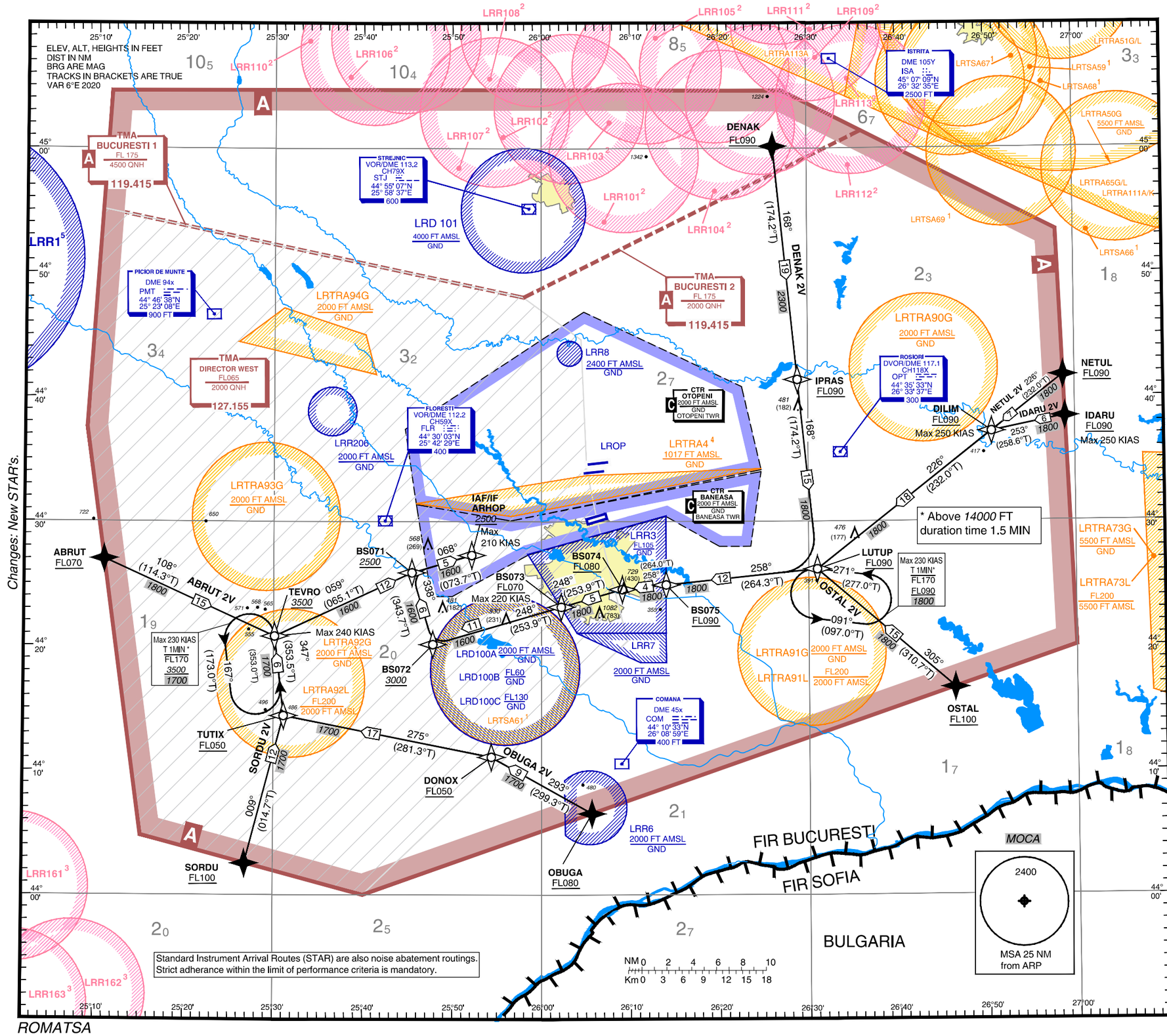
TRANSITION ALTITUDE
4000 ft

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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)
RNAV RWY 07
ABRUT 2V DENAK 2V IDARU 2V NETUL 2V
OBUGA 2V OSTAL 2V SORDU 2V



DESIGNATOR	ROUTING
ABRUT 2V	From ABRUT at or above FL070 to TEVRO at or above 3500 and maximum 240 KIAS to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS.
DENAK 2V	From DENAK to IPRAS at or above FL090 to LUTUP at or above FL090 to BS075 at or above FL090 to BS074 at or above FL080 to BS073 at or above FL070 and maximum 220 KIAS to BS072 at or above 3000 to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS.
IDARU 2V	From IDARU at or above FL090 and maximum 250 KIAS to DILIM at or above FL090 and maximum 250 KIAS to LUTUP at or above FL090 to BS075 at or above FL090 to BS074 at or above FL080 to BS073 at or above FL070 and maximum 220 KIAS to BS072 at or above 3000 to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS
NETUL 2V	From NETUL at or above FL090 to DILIM at or above FL090 and maximum 250 KIAS to LUTUP at or above FL090 to BS075 at or above FL090 to BS074 at or above FL080 to BS073 at or above FL070 and maximum 220 KIAS to BS072 at or above 3000 to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS
OBUGA 2V	From OBUGA at or above FL080 to DONOX at or above FL050 to TUTIX at or above FL050 to TEVRO at or above 3500 and maximum 240 KIAS to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS
OSTAL 2V	From OSTAL at or above FL100 to LUTUP at or above FL090 to BS075 at or above FL090 to BS074 at or above FL080 to BS073 at or above FL070 and maximum 220 KIAS to BS072 at or above 3000 to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS
SORDU 2V	From SORDU at or above FL100 to TUTIX at or above FL050 to TEVRO at or above 3500 and maximum 240 KIAS to BS071 at or above 2500 to ARHOP at or above 2500 and maximum 210 KIAS

1. Expect direct routing/shortcuts by ATC whenever possible, including shortcuts on downwind to final approach.
2. ARHOP is a tactical fix for non-standard approach, used only after request or approval by air crew.

RNAV1
GNSS or DME/DME required

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

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

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RNAV RWY 07

AERONAUTICAL DATA TABULATION

STAR RNAV RWY07	
Fix/Point	**Coordinates**
ABRUT	44°27'00.9"N 025°10'59.4"E
DENAK	45°00’08.2"N 026°26’08.5"E
IDARU	44°38’24.5"N 026°58’54.5"E
NETUL	44°41’43.4"N 026°58’42.8"E
OBUGA	44°06’32.4"N 026°05’39.4"E
OSTAL	44°16’40.5"N 026°46’22.4"E
SORDU	44°02’33.1"N 025°26’48.2"E
BS071	44°25'53.5"N 025°45'29.7"E
BS072	44°20'08.0"N 025°47'50.8"E
BS073	44°23'08.2"N 026°02'14.1"E
BS074	44°24'33.3"N 026°09'05.3"E
BS075	44°24'55.5"N 026°14'00.0"E
ARHOP	44°27'17.8"N 025°52'12.1"E
DILIM	44°37'13.0"N 026°50'38.0"E
DONOX	44°11'05.0"N 025°54'24.0"E
IPRAS	44°41'23.0"N 026°28'49.0"E
LUTUP	44°26'10.0"N 026°30'58.0"E
TEVRO	44°20'47.0"N 025°30'07.0"E
TUTIX	44°14'24.0"N 025°31'08.0"E

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RNAV RWY 07

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	ABRUT 2V	IF	ABRUT			6.0E			+FL70			RNAV 1
20	ABRUT 2V	TF	TEVRO		108 (114.3)	6.0E	15.1		+3500	-240		RNAV 1
30	ABRUT 2V	TF	BS071		059 (065.1)	6.0E	12.2		+2500			RNAV 1
40	ABRUT 2V	TF	ARHOP		068 (073.7)	6.0 E	5.0		+2500	-210		RNAV 1
10	DENAK 2V	IF	DENAK			6.0E			+FL90			RNAV 1
20	DENAK 2V	TF	IPRAS		168 (174.2)	6.0E	18.9		+FL90			RNAV 1
30	DENAK 2V	TF	LUTUP		168 (174.2)	6.0E	15.3		+FL90			RNAV 1
40	DENAK 2V	TF	BS075		258 (264.3)	6.0E	12.2		+FL90			RNAV 1
50	DENAK 2V	TF	BS074		258 (264.0)	6.0E	3.5		+FL80			RNAV 1
60	DENAK 2V	TF	BS073		248 (253.9)	6.0E	5.1		+FL70	-220		RNAV 1
70	DENAK 2V	TF	BS072		248 (253.9)	6.0E	10.8		+3000			RNAV 1
80	DENAK 2V	TF	BS071		338 (343.7)	6.0E	6.0		+2500			RNAV 1
90	DENAK 2V	TF	ARHOP		068 (073.7)	6.0E	5.0		+2500	-210		RNAV 1
10	IDARU 2V	IF	IDARU			6.0E			+FL90	-250		RNAV 1
20	IDARU 2V	TF	DILIM		253 (258.6)	6.0E	6.0		+FL90	-250		RNAV 1
30	IDARU 2V	TF	LUTUP		226 (232.0)	6.0E	17.9		+FL90			RNAV 1
40	IDARU 2V	TF	BS075		258 (264.3)	6.0E	12.2		+FL90			RNAV 1
50	IDARU 2V	TF	BS074		258 (264.0)	6.0E	3.5		+FL80			RNAV 1
60	IDARU 2V	TF	BS073		248 (253.9)	6.0E	5.1		+FL70	-220		RNAV 1
70	IDARU 2V	TF	BS072		248 (253.9)	6.0E	10.8		+3000			RNAV 1
80	IDARU 2V	TF	BS071		338 (343.7)	6.0E	6.0		+2500			RNAV 1
90	IDARU 2V	TF	ARHOP		068 (073.7)	6.0E	5.0		+2500	-210		RNAV 1
10	NETUL 2V	IF	NETUL			6.0E			+FL90			RNAV 1
20	NETUL 2V	TF	DILIM		226 (232.0)	6.0E	7.3		+FL90	-250		RNAV 1
30	NETUL 2V	TF	LUTUP		226 (232.0)	6.0E	17.9		+FL90			RNAV 1
40	NETUL 2V	TF	BS075		258 (264.3)	6.0E	12.2		+FL90			RNAV 1
50	NETUL 2V	TF	BS074		258 (264.0)	6.0E	3.5		+FL80			RNAV 1
60	NETUL 2V	TF	BS073		248 (253.9)	6.0E	5.1		+FL70	-220		RNAV 1
70	NETUL 2V	TF	BS072		248 (253.9)	6.0E	10.8		+3000			RNAV 1
80	NETUL 2V	TF	BS071		338 (343.7)	6.0E	6.0		+2500			RNAV 1
90	NETUL 2V	TF	ARHOP		068 (073.7)	6.0E	5.0		+2500	-210		RNAV 1

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RNAV RWY 07

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	OBUGA 2V	IF	OBUGA			6.0E			+FL80			RNAV 1
20	OBUGA 2V	TF	DONOX		293 (299.3)	6.0E	9.3		+FL50			RNAV 1
30	OBUGA 2V	TF	TUTIX		275 (281.3)	6.0E	17.1		+FL50			RNAV 1
40	OBUGA 2V	TF	TEVRO		347 (353.5)	6.0 E	6.4		+3500	-240		RNAV 1
50	OBUGA 2V	TF	BS071		059 (065.1)	6.0 E	12.2		+2500			RNAV 1
60	OBUGA 2V	TF	ARHOP		068 (073.7)	6.0 E	5.0		+2500	-210		RNAV 1
10	OSTAL 2V	IF	OSTAL			6.0E			+FL100			RNAV 1
20	OSTAL 2V	TF	LUTUP		305 (310.7)	6.0E	14.6		+FL90			RNAV 1
30	OSTAL 2V	TF	BS075		258 (264.3)	6.0E	12.2		+FL90			RNAV 1
40	OSTAL 2V	TF	BS074		258 (264.0)	6.0E	3.5		+FL80			RNAV 1
50	OSTAL 2V	TF	BS073		248 (253.9)	6.0E	5.1		+FL70	-220		RNAV 1
60	OSTAL 2V	TF	BS072		248 (253.9)	6.0E	10.8		+3000			RNAV 1
70	OSTAL 2V	TF	BS071		338 (343.7)	6.0E	6.0		+2500			RNAV 1
80	OSTAL 2V	TF	ARHOP		068 (073.7)	6.0E	5.0		+2500	-210		RNAV 1
10	SORDU 2V	IF	SORDU			6.0E			+FL100			RNAV 1
20	SORDU 2V	TF	TUTIX		009 (014.7)	6.0E	12.3		+FL50			RNAV 1
30	SORDU 2V	TF	TEVRO		347 (353.5)	6.0E	6.4		+3500	-240		RNAV 1
40	SORDU 2V	TF	BS071		059 (065.1)	6.0E	12.2		+2500			RNAV 1
50	SORDU 2V	TF	ARHOP		068 (073.7)	6.0E	5.0		+2500	-210		RNAV 1

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	LUTUP	271 (277.0)			L	FL090	FL170	-230	RNAV 1
HM	TEVRO	347 (353.0)			L	3500	FL170	-230	RNAV 1

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

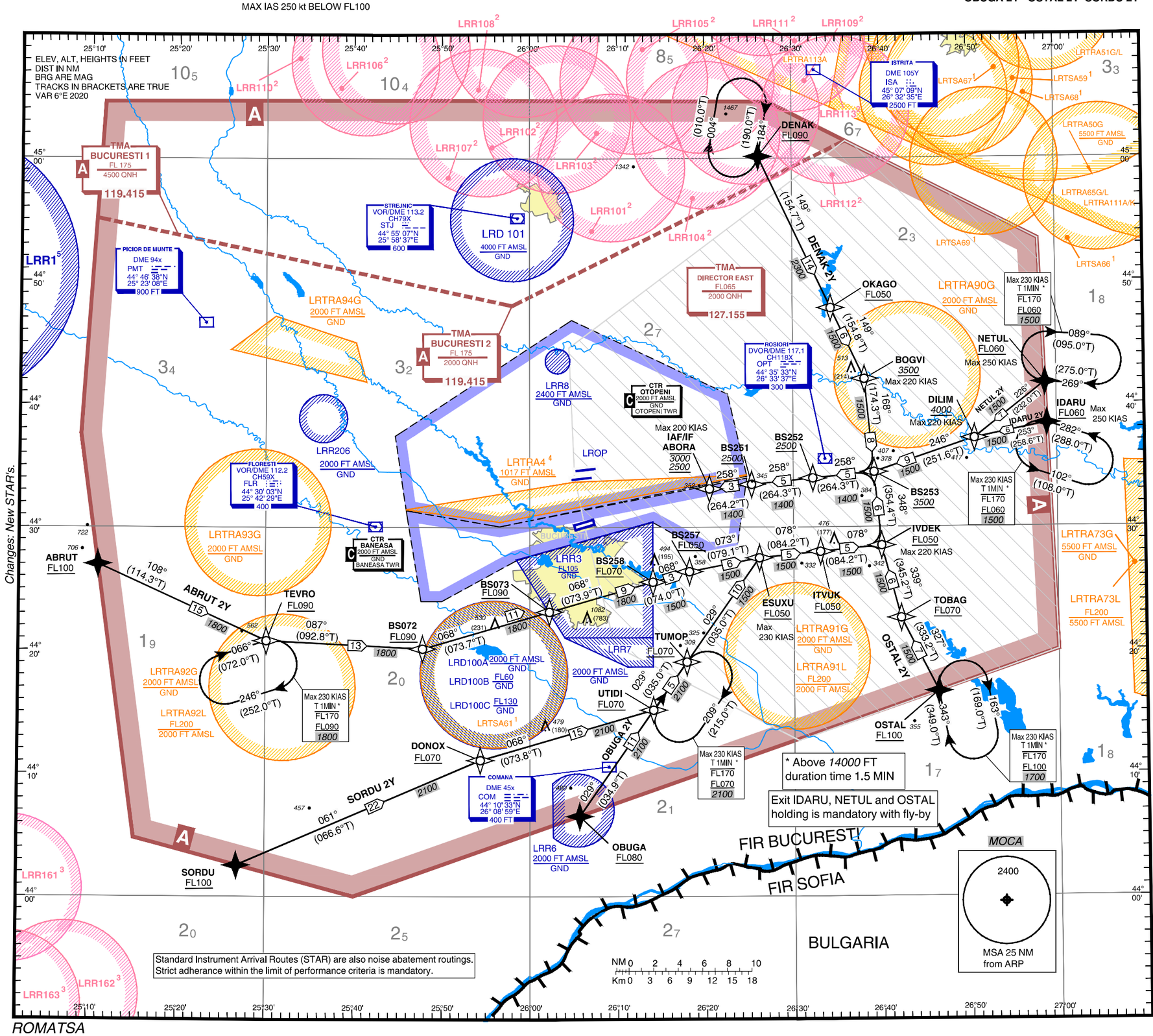
TRANSITION ALTITUDE
4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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)
RNAV RWY 25
ABRUT 2Y DENAK 2Y IDARU 2Y NETUL 2Y
OBUGA 2Y OSTAL 2Y SORDU 2Y



DESIGNATOR	ROUTING
ABRUT 2Y	From ABRUT at or above FL100 to TEVRO at or above FL090 to BS072 at or above FL090 to BS073 at or above FL090 to BS258 at or above FL070 to BS257 at or above FL050 to ESUXU at or above FL050 and maximum 230 KIAS to ITVUK at or above FL050 to IVDEK at or above FL050 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS.
DENAK 2Y	From DENAK at or above FL090 to OKAGO at or above FL050 to BOGVI at or above 3500 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS.
IDARU 2Y	From IDARU at or above FL060 and maximum 250 KIAS to DILIM at or above 4000 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS.
NETUL 2Y	From NETUL at or above FL060 and maximum 250 KIAS to DILIM at or above 4000 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS.
OBUGA 2Y	From OBUGA at or above FL080 to UTIDI at or above FL070 to TUMOP at or above FL070 to ESUXU at or above FL050 and maximum 230 KIAS to ITVUK at or above FL050 to IVDEK at or above FL050 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS.
OSTAL 2Y	From OSTAL at or above FL100 to TOBAG at or above FL070 to IVDEK at or above FL050 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS.
SORDU 2Y	From SORDU at or above FL100 to DONOX at or above FL070 to UTIDI at or above FL070 to TUMOP at or above FL070 to ESUXU at or above FL050 and maximum 230 KIAS to ITVUK at or above FL050 to IVDEK at or above FL050 and maximum 220 KIAS to BS253 at or above 3500 to BS252 at or above 2500 to BS251 at or above 2500 to ABORA between minimum 2500 and maximum 3000 and maximum 200 KIAS

1. Expect direct routing/shortcuts by ATC whenever possible, including shortcuts on downwind to final approach.
2. ABORA is a tactical fix for non-standard approach, used only after request or approval by air crew.

RNAV1
GNSS or DME/DME required

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

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

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RNAV RWY 25

AERONAUTICAL DATA TABULATION

STAR RNAV RWY25	
Fix/Point	**Coordinates**
ABRUT	44°27'00.9"N 025°10'59.4"E
DENAK	45°00’08.2"N 026°26’08.5"E
IDARU	44°38’24.5"N 026°58’54.5"E
NETUL	44°41’43.4"N 026°58’42.8"E
OBUGA	44°06’32.4"N 026°05’39.4"E
OSTAL	44°16’40.5"N 026°46’22.4"E
SORDU	44°02’33.1"N 025°26’48.2"E
ABORA	44°33'08.0"N 026°20'27.1"E
BOGVI	44°42'03.0"N 026°38'08.0"E
BS072	44°20'08.0"N 025°47'50.8"E
BS073	44°23'08.2"N 026°02'14.1"E
BS251	44°33'29.1"N 026°25'15.5"E
BS252	44°33'59.3"N 026°32'13.1"E
BS253	44°34'29.1"N 026°39'10.9"E
BS257	44°26'25.3"N 026°18'09.4"E
BS258	44°25'34.1"N 026°14'00.0"E
DILIM	44°37'13.0"N 026°50'38.0"E
DONOX	44°11'05.0"N 025°54'24.0"E
ESUXU	44°27'31.0"N 026°26'06.0"E
ITVUK	44°28'01.0"N 026°33'03.0"E
IVDEK	44°28'31.0"N 026°40'00.0"E
OKAGO	44°47'49.0"N 026°34'20.0"E
TEVRO	44°20'47.0"N 025°30'07.0"E
TOBAG	44°22'38.0"N 026°42'10.0"E
TUMOP	44°19'04.0"N 026°17'50.0"E
UTIDI	44°15'10.0"N 026°14'02.0"E

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RNAV RWY 25

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	ABRUT 2Y	IF	ABRUT			6.0E			+FL100			RNAV 1
20	ABRUT 2Y	TF	TEVRO		108 (114.3)	6.0E	15.1		+FL90			RNAV 1
30	ABRUT 2Y	TF	BS072		087 (092.8)	6.0E	12.7		+FL90			RNAV 1
40	ABRUT 2Y	TF	BS073		068 (073.7)	6.0 E	10.8		+FL90			RNAV 1
50	ABRUT 2Y	TF	BS258		068 (073.9)	6.0 E	8.8		+FL70			RNAV 1
60	ABRUT 2Y	TF	BS257		068 (074.0)	6.0 E	3.1		+FL50			RNAV 1
70	ABRUT 2Y	TF	ESUXU		073 (079.1)	6.0 E	5.8		+FL50	-230		RNAV 1
80	ABRUT 2Y	TF	ITVUK		078 (084.2)	6.0 E	5.0		+FL50			RNAV 1
90	ABRUT 2Y	TF	IVDEK		078 (084.2)	6.0 E	5.0		+FL50	-220		RNAV 1
100	ABRUT 2Y	TF	BS253		348 (354.4)	6.0 E	6.0		+3500			RNAV 1
110	ABRUT 2Y	TF	BS252		258 (264.3)	6.0 E	5.0		+2500			RNAV 1
120	ABRUT 2Y	TF	BS251		258 (264.3)	6.0 E	5.0		+2500			RNAV 1
130	ABRUT 2Y	TF	ABORA		258 (264.2)	6.0 E	3.5		-3000 +2500	-200		RNAV 1
10	DENAK 2Y	IF	DENAK			6.0E			+FL90			RNAV 1
20	DENAK 2Y	TF	OKAGO		149 (154.7)	6.0E	13.6		+FL50			RNAV 1
30	DENAK 2Y	TF	BOGVI		149 (154.8)	6.0E	6.4		+3500	-220		RNAV 1
40	DENAK 2Y	TF	BS253		168 (174.3)	6.0E	7.6		+3500			RNAV 1
50	DENAK 2Y	TF	BS252		258 (264.3)	6.0E	5.0		+2500			RNAV 1
60	DENAK 2Y	TF	BS251		258 (264.3)	6.0E	5.0		+2500			RNAV 1
70	DENAK 2Y	TF	ABORA		258 (264.2)	6.0E	3.5		-3000 +2500	-200		RNAV 1
10	IDARU 2Y	IF	IDARU			6.0E			+FL60	-250		RNAV 1
20	IDARU 2Y	TF	DILIM		253 (258.6)	6.0E	6.0		+4000	-220		RNAV 1
30	IDARU 2Y	TF	BS253		246 (251.6)	6.0E	8.6		+3500			RNAV 1
40	IDARU 2Y	TF	BS252		258 (264.3)	6.0E	5.0		+2500			RNAV 1
50	IDARU 2Y	TF	BS251		258 (264.3)	6.0E	5.0		+2500			RNAV 1
60	IDARU 2Y	TF	ABORA		258 (264.2)	6.0E	3.5		-3000 +2500	-200		RNAV 1
10	NETUL 2Y	IF	NETUL			6.0E			+FL60	-250		RNAV 1
20	NETUL 2Y	TF	DILIM		226 (232.0)	6.0E	7.3		+4000	-220		RNAV 1
30	NETUL 2Y	TF	BS253		246 (251.6)	6.0E	8.6		+3500			RNAV 1
40	NETUL 2Y	TF	BS252		258 (264.3)	6.0E	5.0		+2500			RNAV 1
50	NETUL 2Y	TF	BS251		258 (264.3)	6.0E	5.0		+2500			RNAV 1
60	NETUL 2Y	TF	ABORA		258 (264.2)	6.0E	3.5		-3000 +2500	-200		RNAV 1

BUCUREȘTI / Băneasa-Aurel Vlaicu (LRBS)
STAR RNAV RWY 25

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	OBUGA 2Y	IF	OBUGA			6.0E			+FL80			RNAV 1
20	OBUGA 2Y	TF	UTIDI		029 (034.9)	6.0E	10.5		+FL70			RNAV 1
30	OBUGA 2Y	TF	TUMOP		029 (035.0)	6.0E	4.8		+FL70			RNAV 1
40	OBUGA 2Y	TF	ESUXU		029 (035.0)	6.0 E	10.3		+FL50	-230		RNAV 1
50	OBUGA 2Y	TF	ITVUK		078 (084.2)	6.0 E	5.0		+FL50			RNAV 1
60	OBUGA 2Y	TF	IVDEK		078 (084.2)	6.0 E	5.0		+FL50	-220		RNAV 1
70	OBUGA 2Y	TF	BS253		348 (354.4)	6.0 E	6.0		+3500			RNAV 1
80	OBUGA 2Y	TF	BS252		258 (264.3)	6.0 E	5.0		+2500			RNAV 1
90	OBUGA 2Y	TF	BS251		258 (264.3)	6.0 E	5.0		+2500			RNAV 1
100	OBUGA 2Y	TF	ABORA		258 (264.2)	6.0 E	3.5		-3000 +2500	-200		RNAV 1
10	OSTAL 2Y	IF	OSTAL			6.0E			+FL100			RNAV 1
20	OSTAL 2Y	TF	TOBAG		327 (333.2)	6.0E	6.7		+FL70			RNAV 1
30	OSTAL 2Y	TF	IVDEK		339 (345.2)	6.0E	6.1		+FL50	-220		RNAV 1
40	OSTAL 2Y	TF	BS253		348 (354.4)	6.0E	6.0		+3500			RNAV 1
50	OSTAL 2Y	TF	BS252		258 (264.3)	6.0E	5.0		+2500			RNAV 1
60	OSTAL 2Y	TF	BS251		258 (264.3)	6.0E	5.0		+2500			RNAV 1
70	OSTAL 2Y	TF	ABORA		258 (264.2)	6.0E	3.5		-3000 +2500	-200		RNAV 1
10	SORDU 2Y	IF	SORDU			6.0E			+FL100			RNAV 1
20	SORDU 2Y	TF	DONOX		061 (066.6)	6.0E	21.6		+FL70			RNAV 1
30	SORDU 2Y	TF	UTIDI		068 (073.8)	6.0E	14.7		+FL70			RNAV 1
40	SORDU 2Y	TF	TUMOP		029 (035.0)	6.0E	4.8		+FL70			RNAV 1
50	SORDU 2Y	TF	ESUXU		029 (035.0)	6.0E	10.3		+FL50	-230		RNAV 1
60	SORDU 2Y	TF	ITVUK		078 (084.2)	6.0E	5.0		+FL50			RNAV 1
70	SORDU 2Y	TF	IVDEK		078 (084.2)	6.0E	5.0		+FL50	-220		RNAV 1
80	SORDU 2Y	TF	BS253		348 (354.4)	6.0E	6.0		+3500			RNAV 1
90	SORDU 2Y	TF	BS252		258 (264.3)	6.0E	5.0		+2500			RNAV 1
100	SORDU 2Y	TF	BS251		258 (264.3)	6.0E	5.0		+2500			RNAV 1
110	SORDU 2Y	TF	ABORA		258 (264.2)	6.0E	3.5		-3000 +2500	-200		RNAV 1

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	DENAK	184 (190.0)			R	FL090	FL170	-230	RNAV 1
HM	NETUL	269 (275.0)			R	FL060	FL170	-230	RNAV 1
HM	IDARU	282 (288.0)			L	FL060	FL170	-230	RNAV 1
HM	OSTAL	343 (349.0)			R	FL100	FL170	-230	RNAV 1
HM	TUMOP	029 (035.0)			R	FL070	FL170	-230	RNAV 1
HM	TEVRO	060 (066.0)			R	FL090	FL170	-230	RNAV 1

ATC SURVEILLANCE

MINIMUM ALTITUDE CHART - ICAO

SECTOR ARGES	121.285
ARGES	122.365
ARGES ALTN	124.975
NERDI	135.360
NERDI	133.915
NERDI ALTN	123.890

SECTOR LOMOS	122.030
LOMOS ALTN	126.080
LOMOS ALTN	124.975
KOMAN	130.315
KOMAN	122.030
KOMAN ALTN	126.080
KOMAN ALTN	124.975

AERODROME ELEV 299 FT

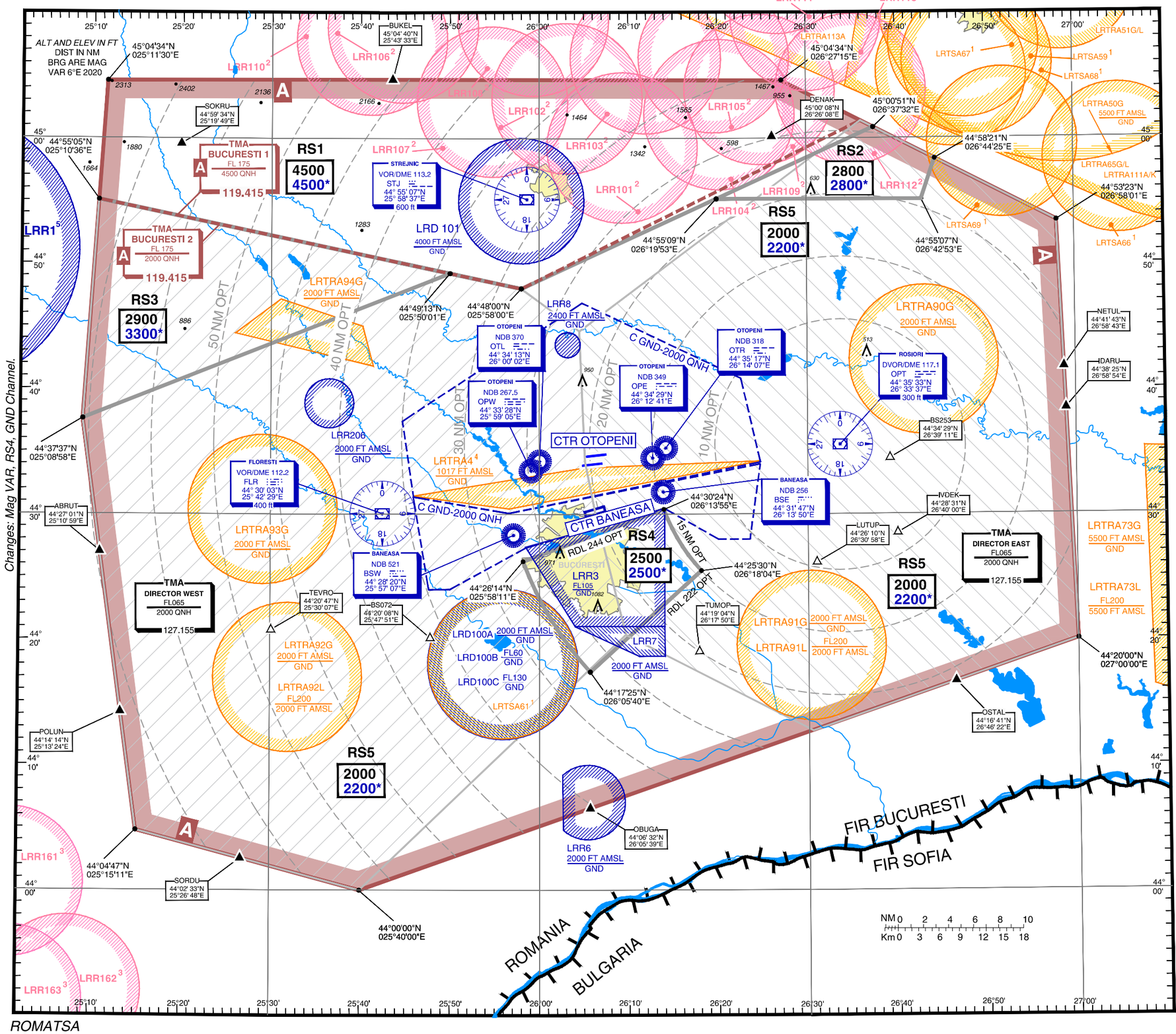
TRANSITION ALTITUDE
4000 FT

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GND	129.960

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)



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 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
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

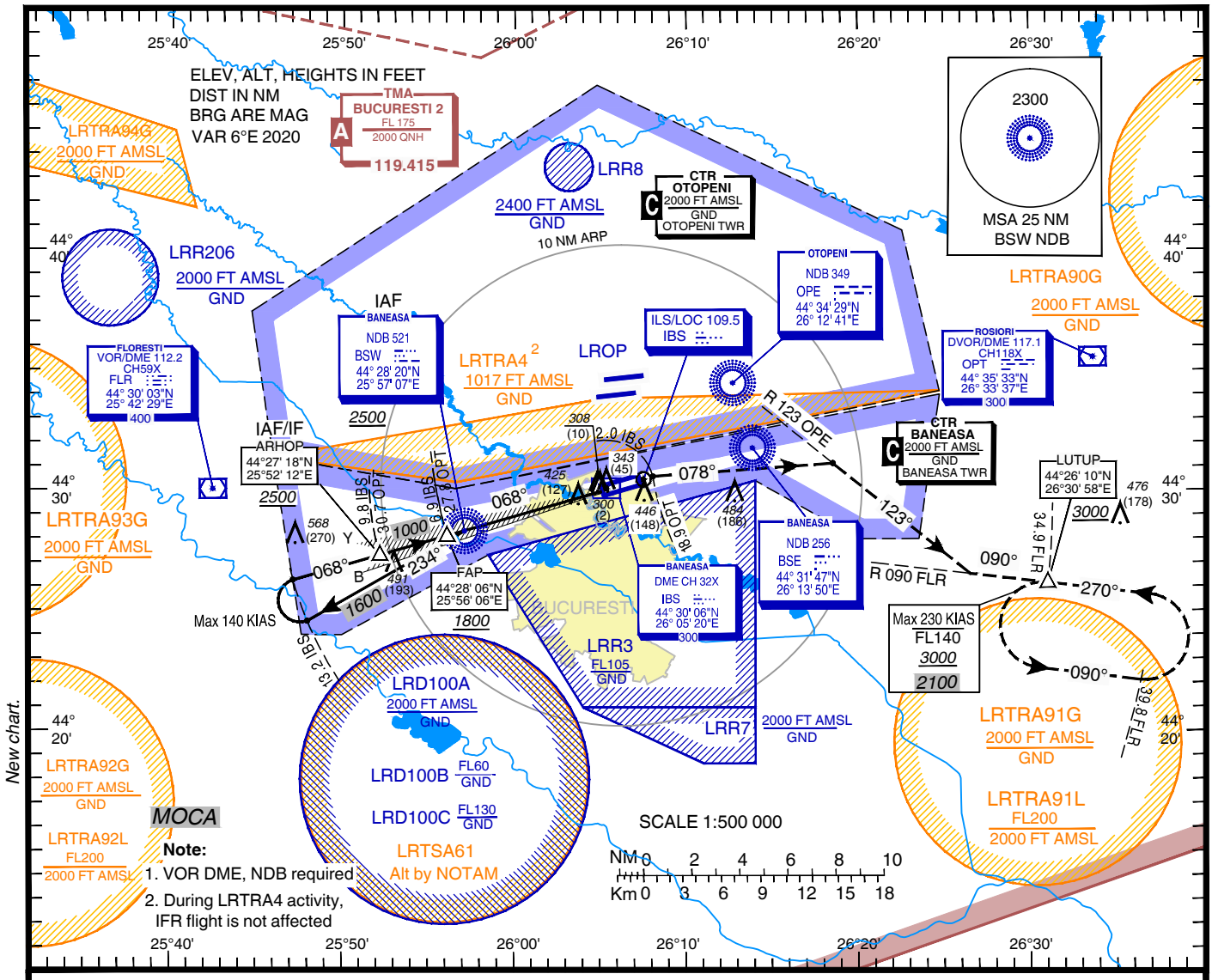
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
DTHR RWY 07 - ELEV 298 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

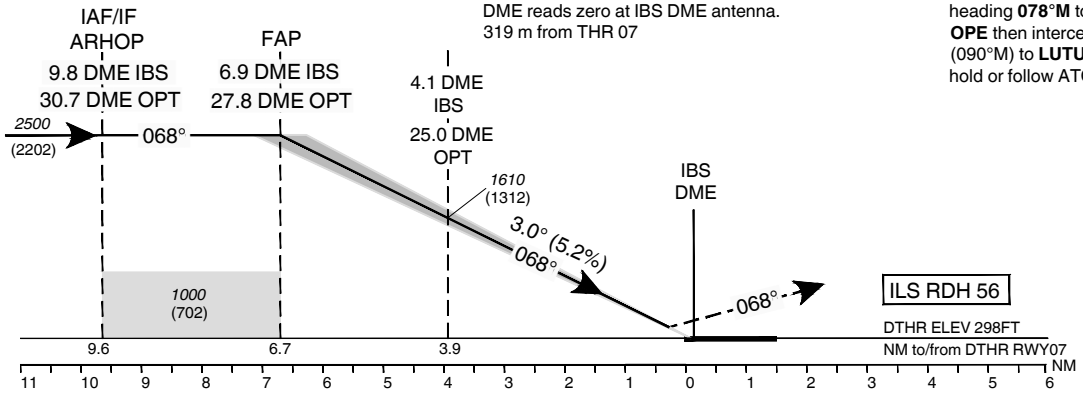
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
ILS Z RWY 07



Transition Altitude
4000

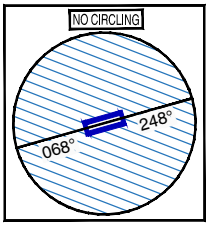
DME reads zero at IBS DME antenna.
319 m from THR 07



MISSED APPROACH

Climb on **runway axis**. At **2.0NM IBS**, turn **right** heading **078°M** to intercept and follow **QDR 123° OPE** then intercept and follow **R 090° FLR** (090°M) to **LUTUP** climbing to ***3000*** (2702), and hold or follow ATC instructions. Max **230 KIAS**.

OCA (H)		A	B
Straight-in Approach	ILS CAT I	*485* (187)	*497* (199)
	ILS CAT II	*397* (99)	*415* (117)
Circling PROHIBITED			



GS	KT	70	90	100	120
FAP - THR 6.7 NM	MIN:SEC	5:47	4:30	4:03	3:22
Rate of descent (5.24%)	FT/MIN	371	478	531	637

Distance to IBS DME	NM	6	5	4	3	2
Altitudes (Heights)	FT	2210 (1912)	1890 (1592)	1580 (1282)	1260 (962)	940 (642)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS Z RWY 07

AERONAUTICAL DATA TABULATION

ILS approach to RWY 07 from IAF/IF 07 and BSW NDB	
Fix/Point	**Coordinates**
BSW (IAF) NDB	44°28’19.5’’N 025°57’07.2’’E
OPE NDB	44°34’29.2"N 026°12’40.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
ARHOP (IAF/IF) – BRG 247.88° IBS / 9.80NM IBS	44°27’17.8’’N 025°52’12.1’’E
FAP – 2500FT/ GP	44°28’06.4’’N 025°56’06.3’’E
IBS LOC	44°30’28.5’’N 026°07’30.3’’E
IBS GP	44°30’05.6’’N 026°05’19.8’’E
IBS DME	44°30’05.9’’N 026°05’19.8’’E
LUTUP – BRG 090.10° FLR / 34.93NM FLR	44°26’10.0’’N 026°30’58.0’’E
BSE NDB	44°31’46.7’’N 026°13’49.9’’E
DTHR 07	44°29’59.26’’N 026°05’08.66’’E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V. If unable RNAV, after LUTUP proceed to BSE, then to BSW for a new approach.

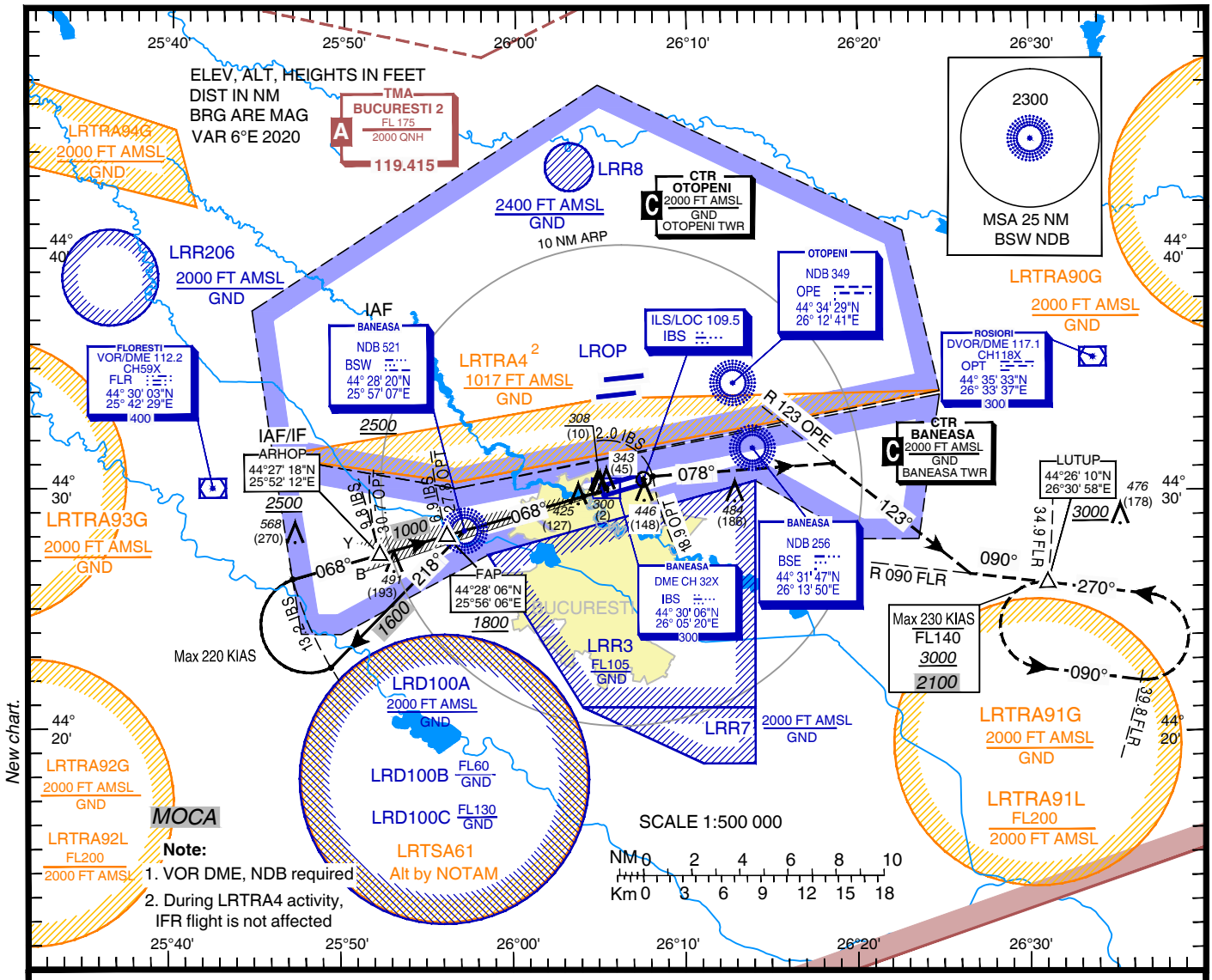
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
DTHR RWY 07 - ELEV 298 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

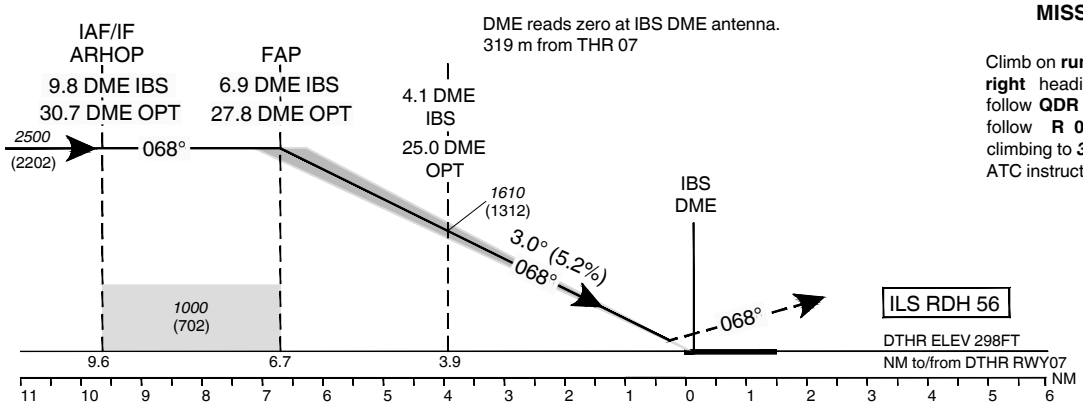
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
ILS Y RWY 07



Transition Altitude
4000

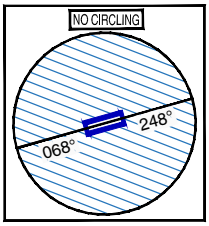
DME reads zero at IBS DME antenna.
319 m from THR 07



MISSED APPROACH

Climb on **runway axis**. At **2.0NM IBS**, turn **right** heading **078°M** to intercept and follow **QDR 123° OPE** then intercept and follow **R 090° FLR** (090°M) to **LUTUP** climbing to ***3000*** (2702), and hold or follow ATC instructions. Max 2**30 KIAS**.

OCA (H)		C	D/DL
Straight-in Approach	ILS CAT I	*506* (208)	*516* (218)
	ILS CAT II	*426* (128)	*441* (143)
Circling PROHIBITED			



GS	KT	100	120	140	160
FAP - MAPt 6.7 NM	MIN:SEC	4:03	3:22	2:53	2:32
Rate of descent (5.24%)	FT/MIN	531	637	743	849

Distance to IBS DME	NM	6	5	4	3	2
Altitudes (Heights)	FT	2210 (1912)	1890 (1592)	1580 (1282)	1260 (962)	940 (642)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS Y RWY 07

AERONAUTICAL DATA TABULATION

ILS approach to RWY 07 from IAF/IF 07 and BSW NDB	
Fix/Point	**Coordinates**
BSW (IAF) NDB	44°28’19.5’’N 025°57’07.2’’E
OPE NDB	44°34’29.2"N 026°12’40.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
ARHOP (IAF/IF) – BRG 247.88° IBS / 9.80NM IBS	44°27’17.8’’N 025°52’12.1’’E
FAP – 2500FT/ GP	44°28’06.4’’N 025°56’06.3’’E
IBS LOC	44°30’28.5’’N 026°07’30.3’’E
IBS GP	44°30’05.6’’N 026°05’19.8’’E
IBS DME	44°30’05.9’’N 026°05’19.8’’E
LUTUP – BRG 090.10° FLR / 34.93NM FLR	44°26’10.0’’N 026°30’58.0’’E
BSE NDB	44°31’46.7’’N 026°13’49.9’’E
DTHR 07	44°29’59.26’’N 026°05’08.66’’E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V. If unable RNAV, after LUTUP proceed to BSE, then to BSW for a new approach.

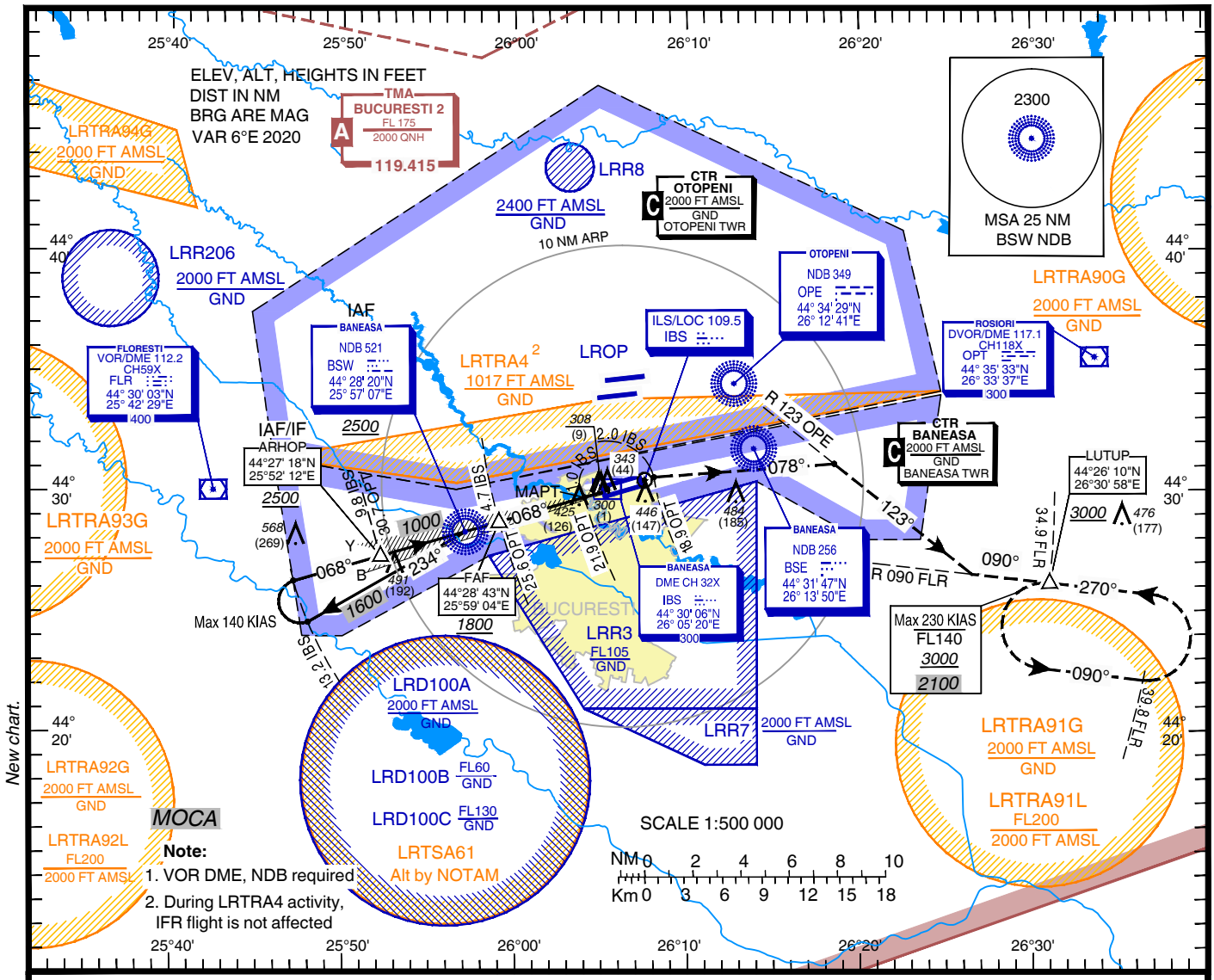
INSTRUMENT APPROACH CHART - ICAO

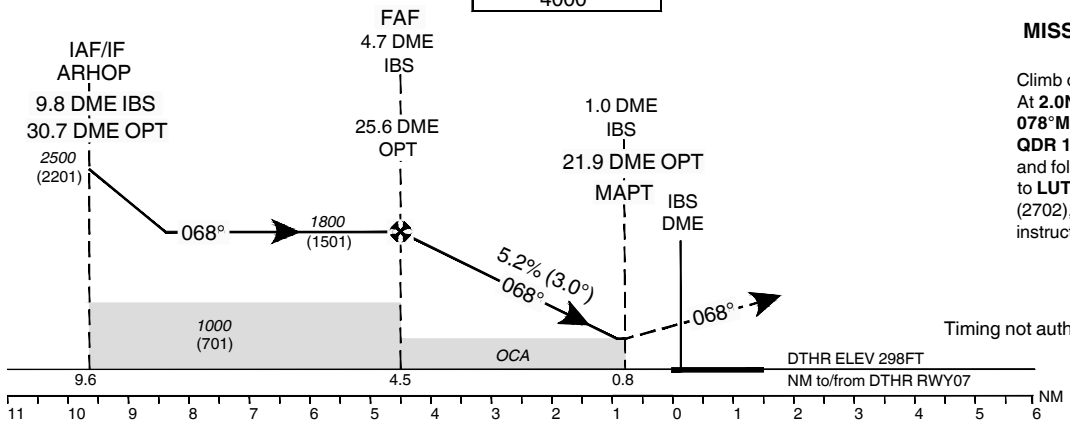
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO AD ELEV

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
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)
LOC Z RWY 07



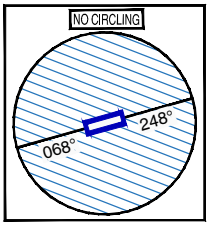


MISSED APPROACH

Climb on **runway axis**.
At **2.0NM IBS**, turn **right** heading **078°M** to intercept and follow **QDR 123° OPE** then intercept and follow **R 090° FLR** (090°M) to **LUTUP** climbing to ***3000*** (2702), and hold or follow ATC instructions. Max **230 KIAS**.

Timing not authorised for defining the MAPt.

OCA (H)		A	B
Straight-in Approach	ILS GP INOP	*680* (381)	
Circling PROHIBITED			



GS	KT	70	90	100	120
FAF - MAPt 3.7 NM	MIN:SEC	3:10	2:28	2:13	1:51
Rate of descent (5.24%)	FT/MIN	371	478	531	637

Distance to IBS DME	NM	4	3	2
Altitudes (Heights)	FT	1580 (1281)	1260 (961)	940 (641)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
LOC Z RWY 07

AERONAUTICAL DATA TABULATION

LOC approach to RWY 07 from IAF/IF 07 and BSW NDB	
Fix/Point	**Coordinates**
BSW (IAF) NDB	44°28’19.5’’N 025°57’07.2’’E
OPE NDB	44°34’29.2"N 026°12’40.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
ARHOP (IAF/IF) – BRG 247.88° IBS / 9.80NM IBS	44°27’17.8’’N 025°52’12.1’’E
FAF (GP INOP) – BRG 247.88° IBS / 4.70NM IBS	44°28’43.4’’N 025°59’03.6’’E
MAPT (GP INOP) – BRG 247.88° IBS / 1.00NM IBS	44°29’45.3’’N 026°04’01.6’’E
IBS LOC	44°30’28.5’’N 026°07’30.3’’E
IBS GP	44°30’05.6’’N 026°05’19.8’’E
IBS DME	44°30’05.9’’N 026°05’19.8’’E
LUTUP – BRG 090.10° FLR / 34.93NM FLR	44°26’10.0’’N 026°30’58.0’’E
BSE NDB	44°31’46.7’’N 026°13’49.9’’E
DTHR 07	44°29’59.26’’N 026°05’08.66’’E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V. If unable RNAV, after LUTUP proceed to BSE, then to BSW for a new approach.

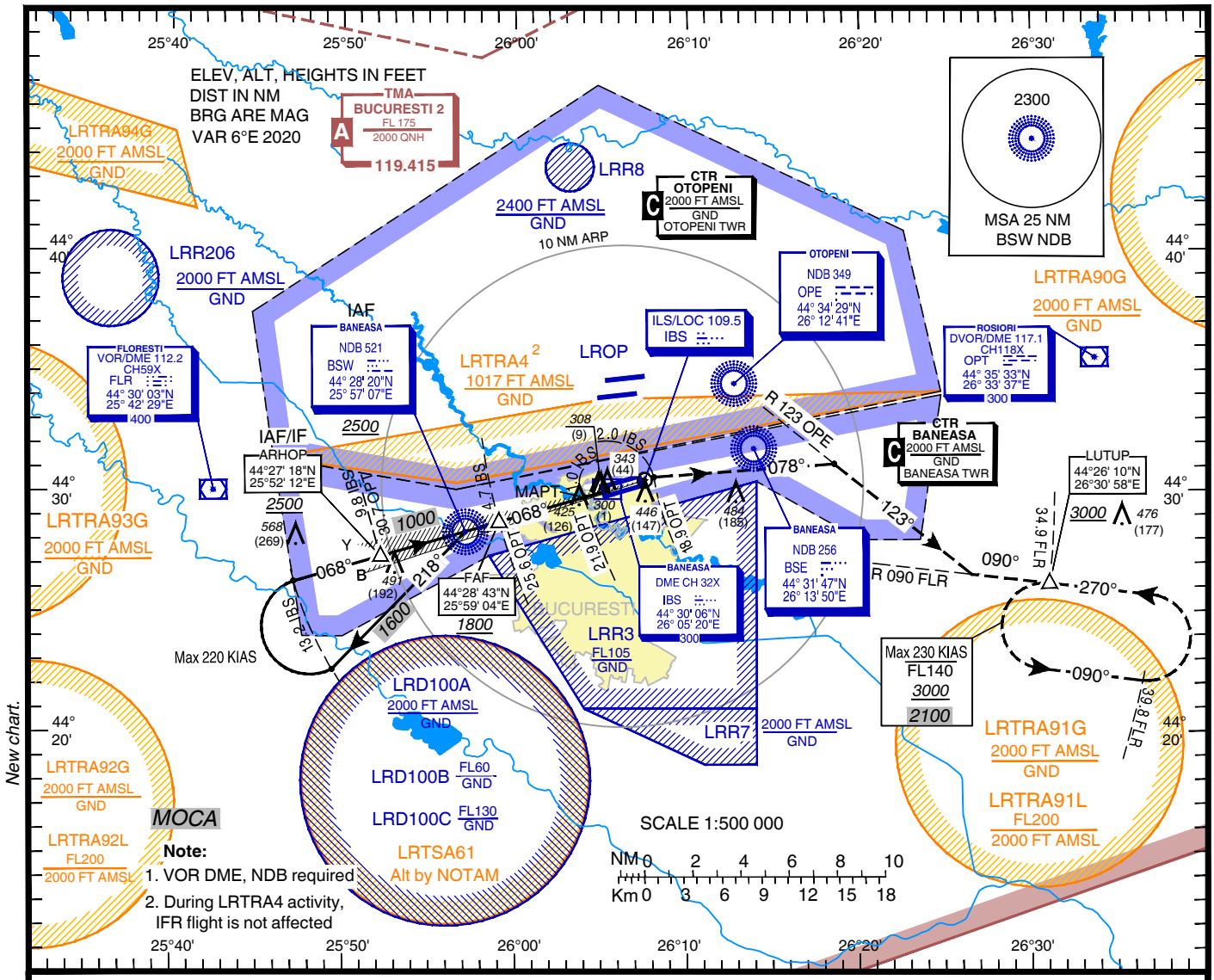
INSTRUMENT APPROACH CHART - ICAO

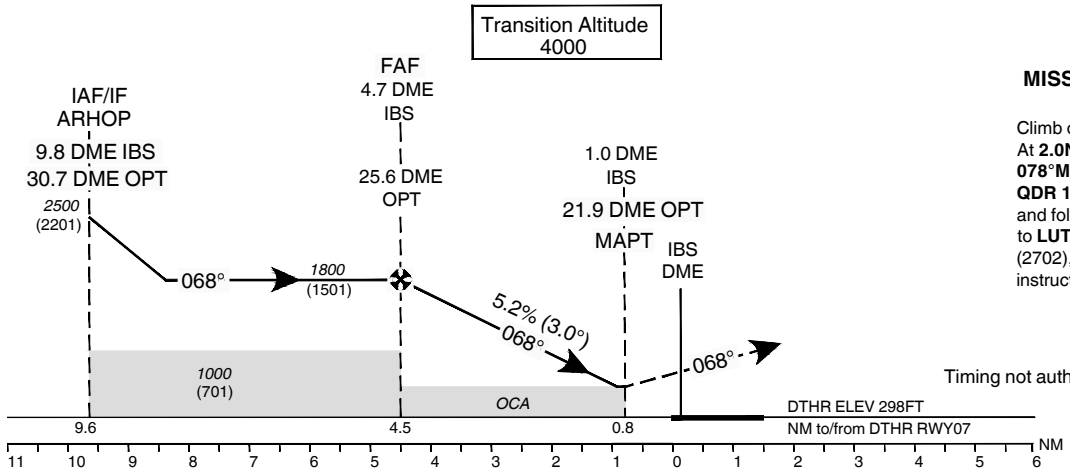
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO AD ELEV

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
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)
LOC Y RWY 07



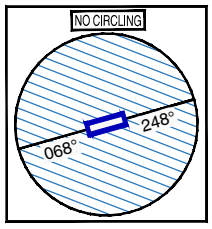


MISSED APPROACH

Climb on **runway axis**.
At **2.0NM IBS**, turn **right** heading **078°M** to intercept and follow **QDR 123° OPE** then intercept and follow **R 090° FLR** (090°M) to **LUTUP** climbing to ***3000*** (2702), and hold or follow ATC instructions. Max **230 KIAS**.

Timing not authorised for defining the MAPt.

OCA (H)		C	D
Straight-in Approach	ILS GP INOP	*680* (381)	
Circling PROHIBITED			



GS	KT	100	120	140	160
FAF - MAPt 3.7 NM	MIN:SEC	2:13	1:51	1:35	1:23
Rate of descent (5.24%)	FT/MIN	531	637	743	849

Distance to IBS DME	NM	4	3	2
Altitudes (Heights)	FT	1580 (1281)	1260 (961)	940 (641)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
LOC Y RWY 07

AERONAUTICAL DATA TABULATION

LOC approach to RWY 07 from IAF/IF 07 and BSW NDB	
Fix/Point	**Coordinates**
BSW (IAF) NDB	44°28’19.5’’N 025°57’07.2’’E
OPE NDB	44°34’29.2"N 026°12’40.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
ARHOP (IAF/IF) – BRG 247.88° IBS / 9.80NM IBS	44°27’17.8’’N 025°52’12.1’’E
FAF (GP INOP) – BRG 247.88° IBS / 4.70NM IBS	44°28’43.4’’N 025°59’03.6’’E
MAPT (GP INOP) – BRG 247.88° IBS / 1.00NM IBS	44°29’45.3’’N 026°04’01.6’’E
IBS LOC	44°30’28.5’’N 026°07’30.3’’E
IBS GP	44°30’05.6’’N 026°05’19.8’’E
IBS DME	44°30’05.9’’N 026°05’19.8’’E
LUTUP – BRG 090.10° FLR / 34.93NM FLR	44°26’10.0’’N 026°30’58.0’’E
BSE NDB	44°31’46.7’’N 026°13’49.9’’E
DTHR 07	44°29’59.26’’N 026°05’08.66’’E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V. If unable RNAV, after LUTUP proceed to BSE, then to BSW for a new approach.

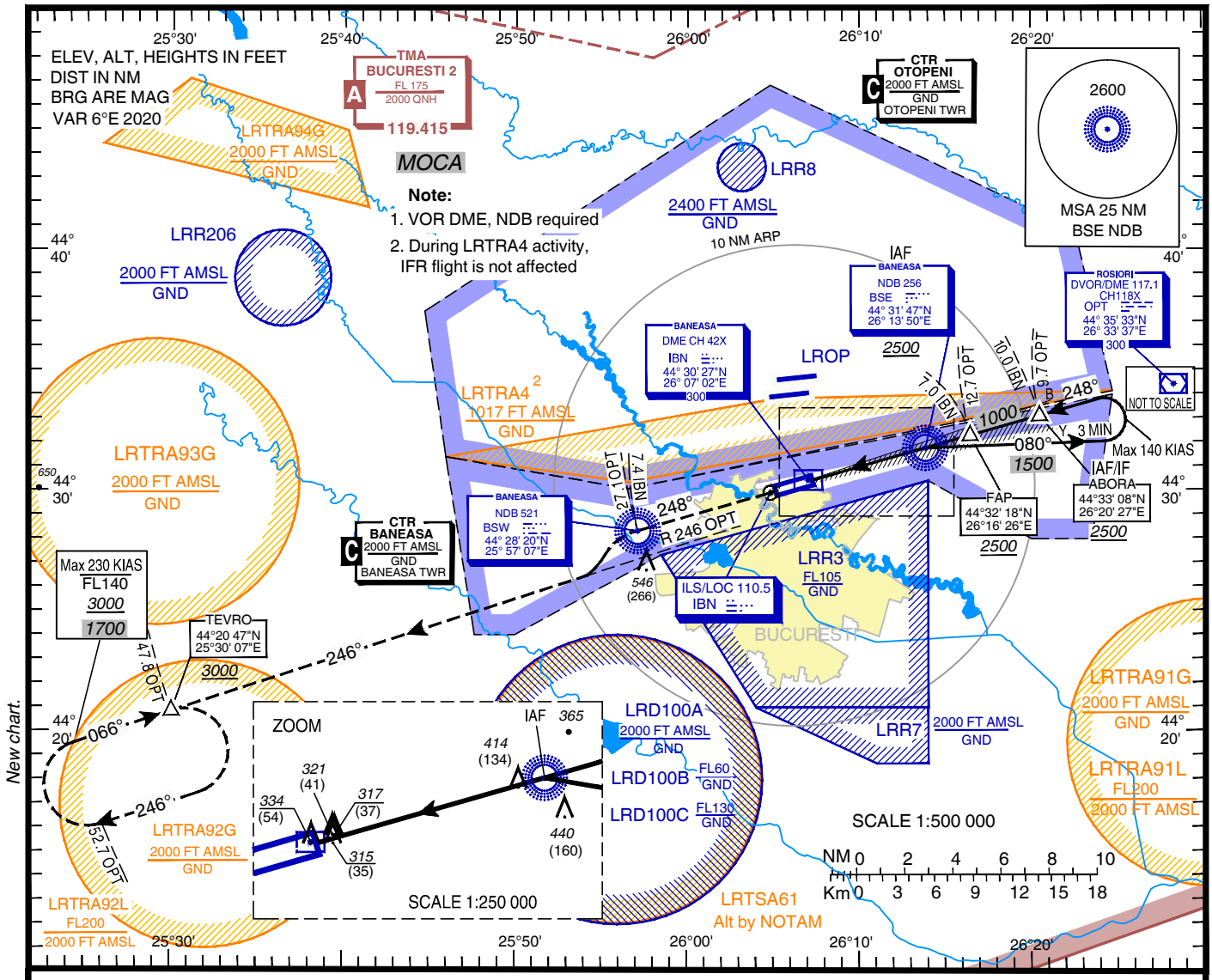
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 280 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
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 Z RWY 25

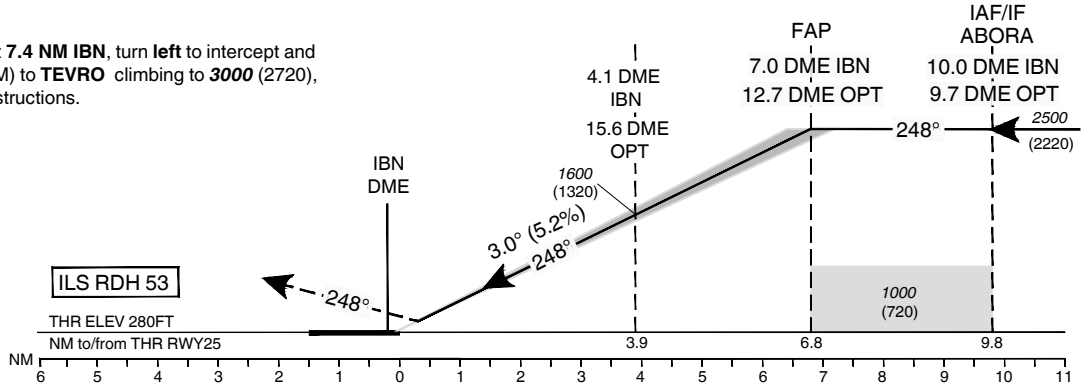


Transition Altitude
4000

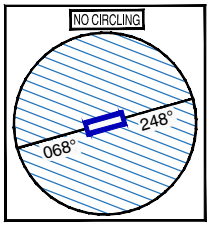
DME reads zero at IBN DME antenna
(327 m from THR 25)

MISSED APPROACH

Climb on **runway axis**. At **7.4 NM IBN**, turn **left** to intercept and follow **R 246° OPT** (246°M) to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions.
Max 2**30 KIAS**.



OCA (H)		A	B
Straight-in Approach	ILS CAT I	*430* (150)	*441* (161)
Circling PROHIBITED			



GS	KT	70	90	100	120
FAP - THR 6.8 NM	MIN:SEC	5:50	4:32	4:05	3:24
Rate of descent (5.24%)	FT/MIN	372	478	531	637

Distance to IBN DME	NM	1	2	3	4	5	6	7
Altitudes (Heights)	FT	600 (320)	920 (640)	1230 (950)	1550 (1270)	1870 (1590)	2190 (1910)	2510 (2230)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS Z RWY 25

AERONAUTICAL DATA TABULATION

ILS approach to RWY 25 from IAF/IF 25 and BSE NDB	
Fix/Point	**Coordinates**
BSE (IAF) NDB	44°31’46.7”N 026°13’49.9”E
OPT VOR/DME	44°35'32.6”N 026°33'36.6”E
ABORA (IAF**/**IF**)** – BRG 067.91° IBN / 10.00NM IBN	44°33’08.0”N 026°20’27.1”E
FAP – 2500 FT/ GP	44°32’18.4”N 026°16’26.0”E
IBN LOC	44°29’55.3”N 026°04’49.5”E
IBN GP	44°30’26.5”N 026°07’02.6”E
IBN DME	44°30’26.7”N 026°07’02.4”E
TEVRO – BRG 246.39° / 47.8NM OPT	44°20’47.0”N 025°30’07.0”E
BSW NDB	44°28’19.5’’N 025°57’07.2’’E
THR 25	44°30’25.87”N 026°07’17.46”E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y. If unable RNAV, after TEVRO proceed to BSW, then to BSE for a new approach.

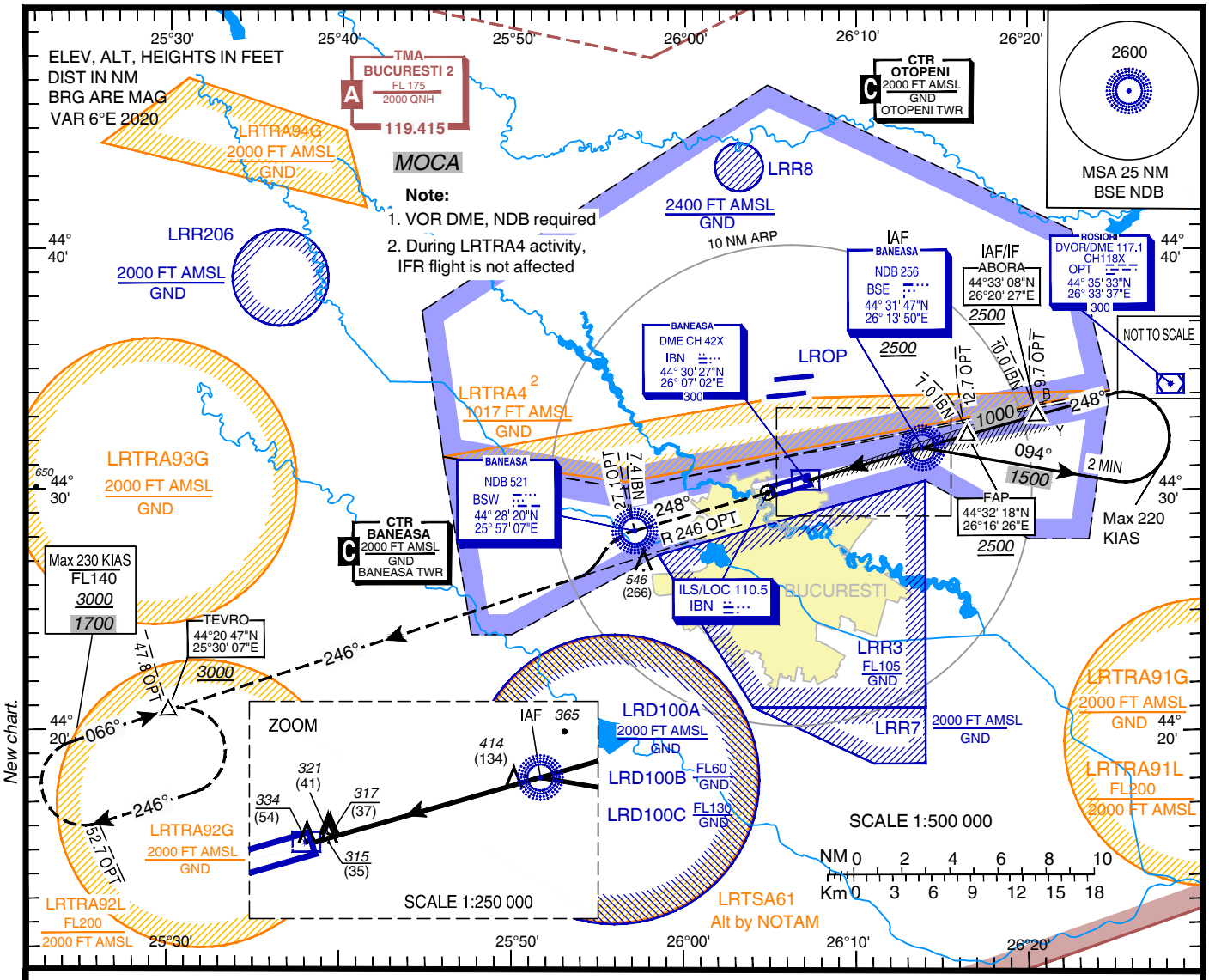
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 280 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
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 Y RWY 25

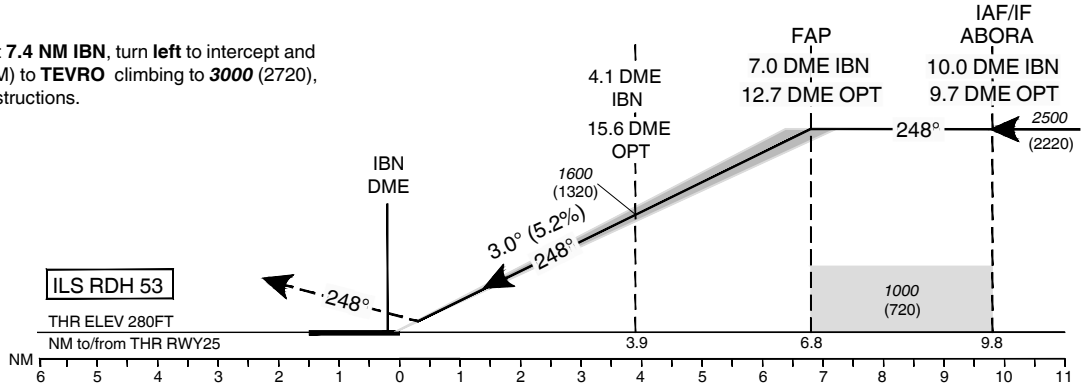


Transition Altitude
4000

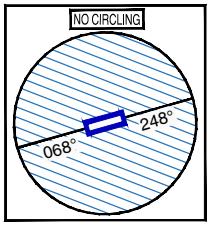
DME reads zero at IBN DME antenna
(327 m from THR 25)

MISSED APPROACH

Climb on **runway axis**. At **7.4 NM IBN**, turn **left** to intercept and follow **R 246° OPT** (246°M) to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions.
Max 2**30 KIAS**.



OCA (H)		C	D	DL
Straight-in Approach	ILS CAT I	*453* (173)	*466* (186)	*468* (188)
Circling PROHIBITED				



GS	KT	100	120	140	160
FAF - THR 6.8 NM	MIN:SEC	4:05	3:24	2:55	2:33
Rate of descent (5.24%)	FT/MIN	531	637	743	849

Distance to IBN DME	NM	1	2	3	4	5	6	7
Altitudes (Heights)	FT	600 (320)	920 (640)	1230 (950)	1550 (1270)	1870 (1590)	2190 (1910)	2510 (2230)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
ILS Y RWY 25

AERONAUTICAL DATA TABULATION

ILS approach to RWY 25 from IAF/IF 25 and BSE NDB	
Fix/Point	**Coordinates**
BSE (IAF) NDB	44°31’46.7”N 026°13’49.9”E
OPT VOR/DME	44°35'32.6”N 026°33'36.6”E
ABORA (IAF**/**IF**)** – BRG 067.91° IBN / 10.00NM IBN	44°33’08.0”N 026°20’27.1”E
FAP – 2500 FT/ GP	44°32’18.4”N 026°16’26.0”E
IBN LOC	44°29’55.3”N 026°04’49.5”E
IBN GP	44°30’26.5”N 026°07’02.6”E
IBN DME	44°30’26.7”N 026°07’02.4”E
TEVRO – BRG 246.39° / 47.8NM OPT	44°20’47.0”N 025°30’07.0”E
BSW NDB	44°28’19.5’’N 025°57’07.2’’E
THR 25	44°30’25.87”N 026°07’17.46”E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y. If unable RNAV, after TEVRO proceed to BSW, then to BSE for a new approach.

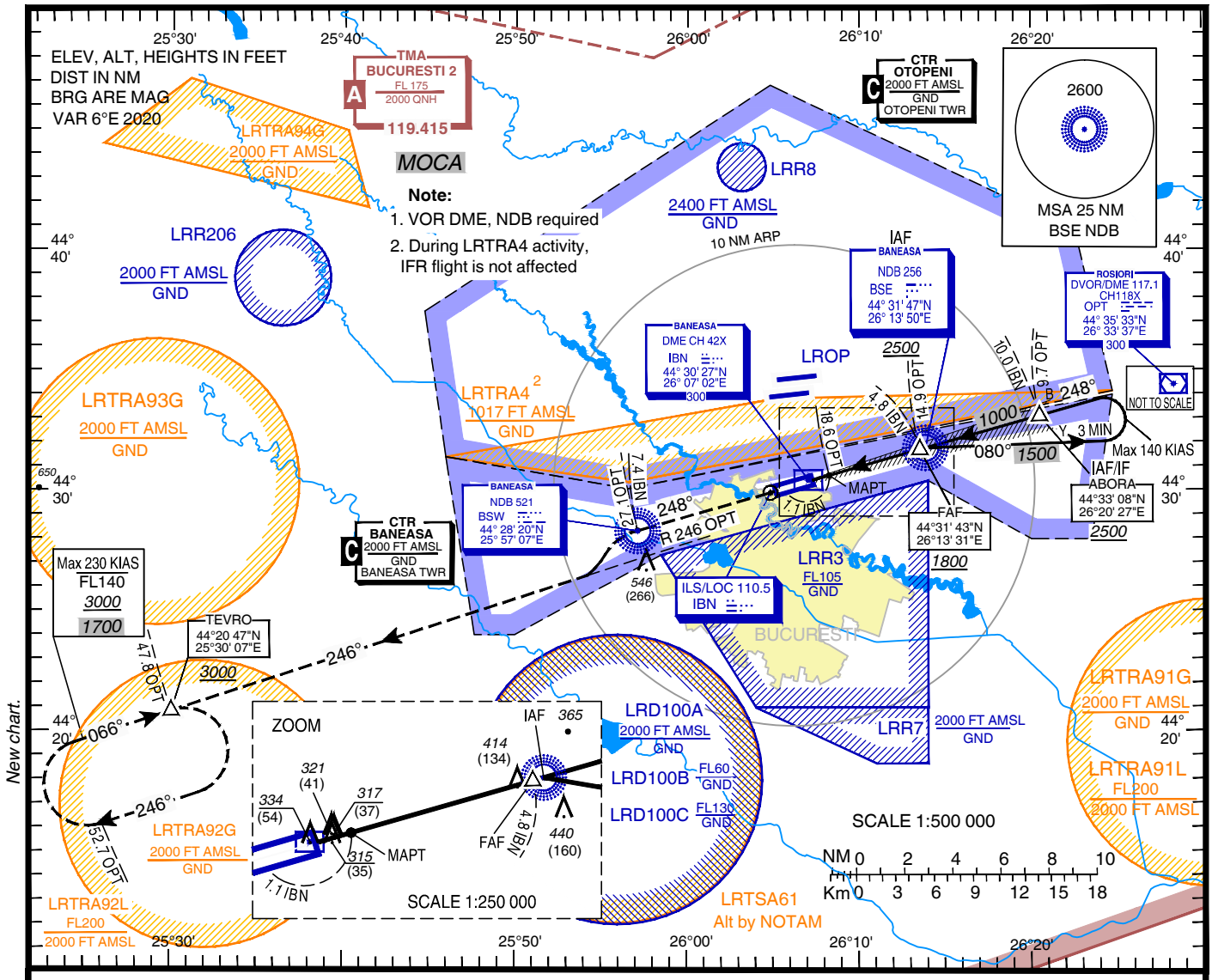
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 280 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

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

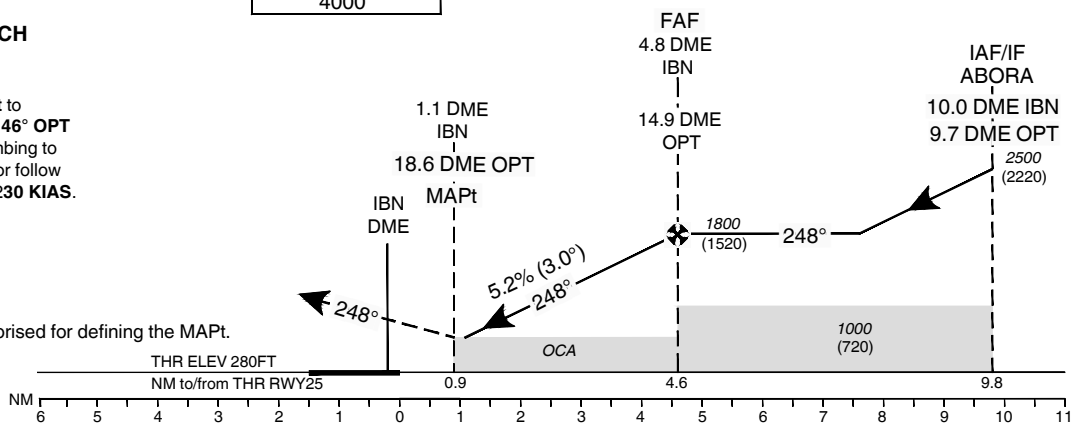
BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
LOC Z RWY 25



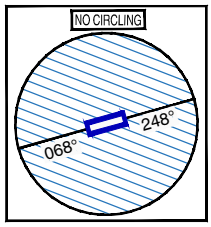
Transition Altitude
4000

MISSED APPROACH

Climb on **runway axis**.
At **7.4 NM IBN**, turn **left** to intercept and follow **R 246° OPT** (246°M) to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions. Max **230 KIAS**.



OCA (H)		A	B
Straight-in Approach	ILS GP INOP	*660* (380)	
Circling PROHIBITED			



GS	KT	70	90	100	120
FAF - MAPt 3.7 NM	MIN:SEC	3:10	2:28	2:13	1:51
Rate of descent (5.24%)	FT/MIN	372	478	531	637

Distance to IBN DME	NM	2	3	4
Altitudes (Heights)	FT	920 (640)	1230 (950)	1550 (1270)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
LOC Z RWY 25

AERONAUTICAL DATA TABULATION

LOC approach to RWY 25 from IAF/IF 25 and BSE NDB	
Fix/Point	**Coordinates**
BSE (IAF) NDB	44°31’46.7”N 026°13’49.9”E
OPT VOR/DME	44°35'32.6”N 026°33'36.6”E
ABORA (IAF**/**IF**)** – BRG 067.91° IBN / 10.00NM IBN	44°33’08.0”N 026°20’27.1”E
FAF (GP INOP) – BRG 067.91° IBN / 4.80NM IBN	44°31’42.5”N 026°13’30.9”E
MAPT (GP INOP) – BRG 067.91° IBN / 1.10NM IBN	44°30’41.3”N 026°08’32.5”E
IBN LOC	44°29’55.3”N 026°04’49.5”E
IBN GP	44°30’26.5”N 026°07’02.6”E
IBN DME	44°30’26.7”N 026°07’02.4”E
TEVRO – BRG 246.39° / 47.8NM OPT	44°20’47.0”N 025°30’07.0”E
BSW NDB	44°28’19.5”N 025°57’07.2”E
THR 25	44°30’25.87”N 026°07’17.46”E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y. If unable RNAV, after TEVRO proceed to BSW, then to BSE for a new approach.

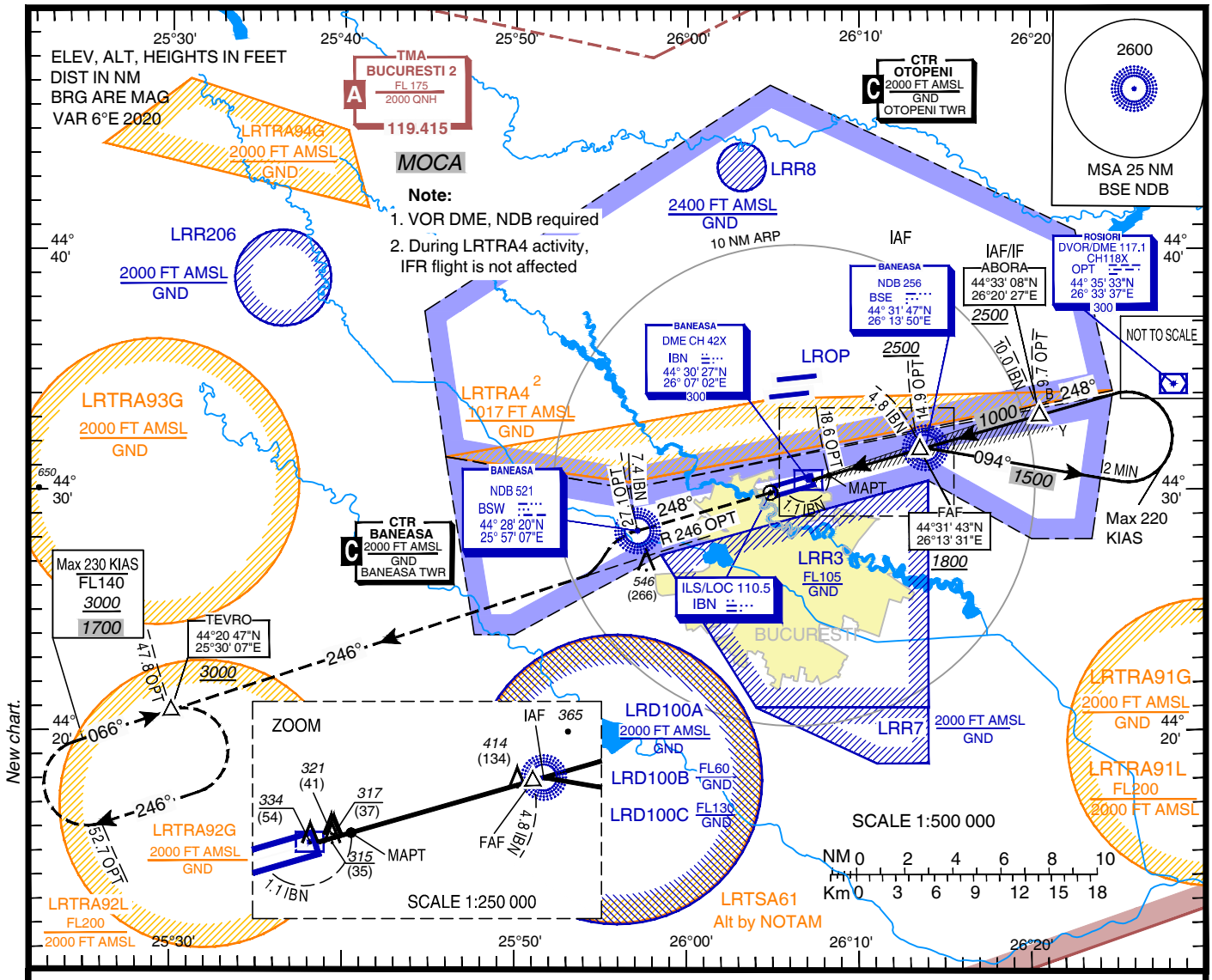
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 280 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

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

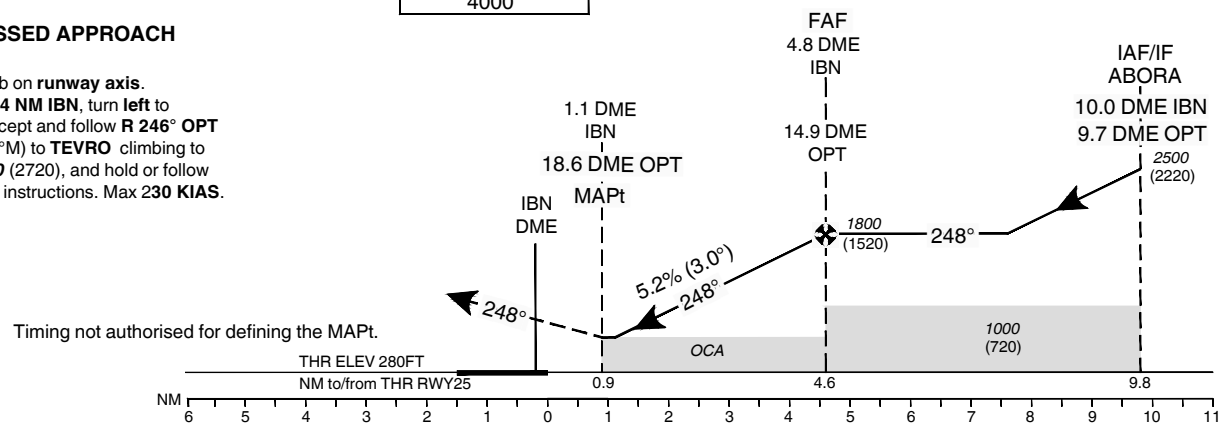
BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
LOC Y RWY 25



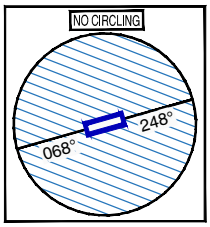
Transition Altitude
4000

MISSED APPROACH

Climb on **runway axis**.
At **7.4 NM IBN**, turn **left** to intercept and follow **R 246° OPT** (246°M) to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions. Max **230 KIAS**.



OCA (H)		C	D
Straight-in Approach	ILS GP INOP	*660* (380)	
Circling PROHIBITED			



GS	KT	100	120	140	160
FAF - MAPt 3.7 NM	MIN:SEC	2:13	1:51	1:35	1:23
Rate of descent (5.24%)	FT/MIN	531	637	743	849

Distance to IBN DME	NM	3	4
Altitudes (Heights)	FT	1230 (950)	1550 (1270)

For data tabulation see verso.

BUCURESTI / Baneasa-Aurel Vlaicu (LRBS)
LOC Y RWY 25

AERONAUTICAL DATA TABULATION

LOC approach to RWY 25 from IAF/IF 25 and BSE NDB	
Fix/Point	**Coordinates**
BSE (IAF) NDB	44°31’46.7”N 026°13’49.9”E
OPT VOR/DME	44°35'32.6”N 026°33'36.6”E
ABORA (IAF**/**IF**)** – BRG 067.91° IBN / 10.00NM IBN	44°33’08.0”N 026°20’27.1”E
FAF (GP INOP) – BRG 067.91° IBN / 4.80NM IBN	44°31’42.5”N 026°13’30.9”E
MAPT (GP INOP) – BRG 067.91° IBN / 1.10NM IBN	44°30’41.3”N 026°08’32.5”E
IBN LOC	44°29’55.3”N 026°04’49.5”E
IBN GP	44°30’26.5”N 026°07’02.6”E
IBN DME	44°30’26.7”N 026°07’02.4”E
TEVRO – BRG 246.39° / 47.8NM OPT	44°20’47.0”N 025°30’07.0”E
BSW NDB	44°28’19.5”N 025°57’07.2”E
THR 25	44°30’25.87”N 026°07’17.46”E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y. If unable RNAV, after TEVRO proceed to BSW, then to BSE for a new approach.

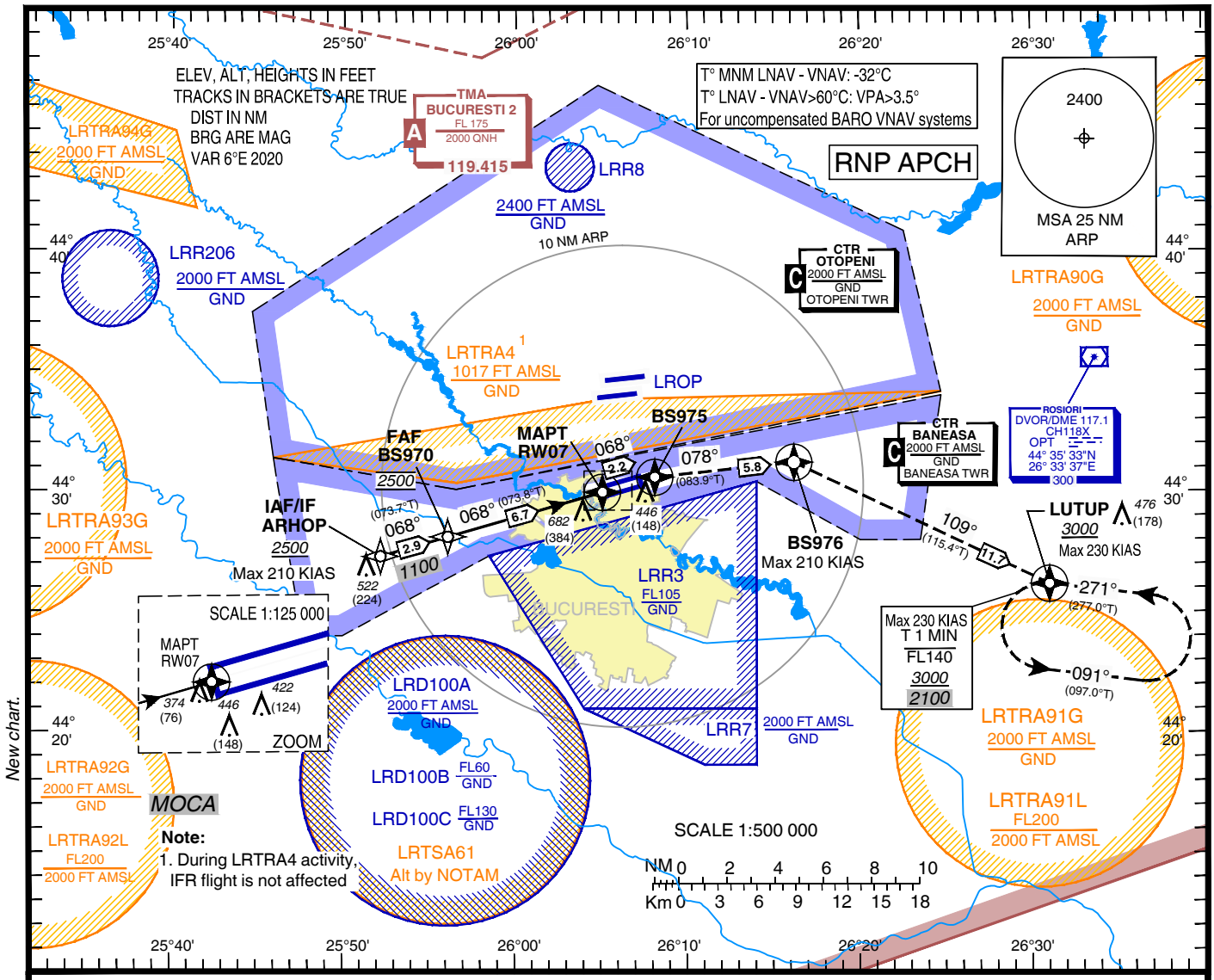
INSTRUMENT APPROACH CHART - ICAO

EGNOS CH75226 E07A

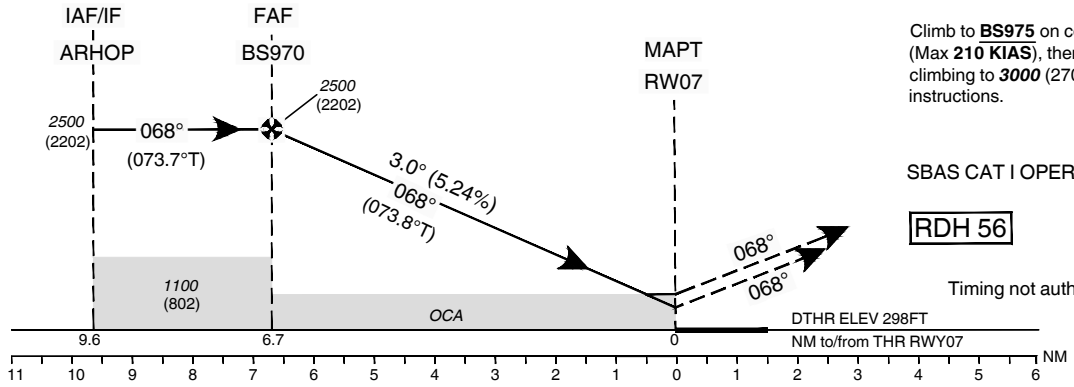
AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO DTHR RWY 07 - ELEV 298 FT

BANEASA TWR	125.205	BUCURESTI VOLMET	126.800
BANEASA TWR ALTN	120.800	BUCURESTI APPROACH	119.415
BANEASA GROUND	129.960	BUCURESTI DIRECTOR	127.155
BANEASA ATIS	126.125	BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 07



Transition Altitude
4000



MISSED APPROACH

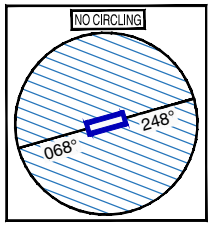
Climb to **BS975** on course **068°M**, then to **BS976** (Max **210 KIAS**), then to **LUTUP** (Max **230 KIAS**) climbing to ***3000*** (2702) and hold or follow ATC instructions.

SBAS CAT I OPERATIONS NOT APPROVED

RDH 56

Timing not authorised for defining the MAPt.

OCA (H)	A	B	C	D	DL
LPV	*510* (212)	*520* (222)	*530* (232)	*540* (242)	
LNAV/VNAV	*700* (402)		*710* (412)		-
LNAV	*730* (432)				-
Circling PROHIBITED					



GS	KT	70	90	100	120	140	160
FAF - MAPt 6.7 NM	MIN:SEC	5:47	4:30	4:03	3:22	2:53	2:32
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Distance to RWY 07	NM	6	5	4	3	2
Altitudes (Heights)	FT	*2260* (1962)	*1950* (1652)	*1630* (1332)	*1310* (1012)	*990* (692)

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 07

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RW07	
Fix/Waypoint Name	**Coordinates**
ARHOP (IAF/IF)	44°27'17.8"N 025°52'12.1"E
LUTUP	44°26'10.0"N 026°30'58.0"E
BS970 (FAF)	44°28'06.7"N 025°56'06.2"E
BS975	44°30'35.9"N 026°08'05.9"E
BS976	44°31'12.6"N 026°16'09.5"E
RW07 (MAPT)	44°29'59.26"N 026°05'08.66"E

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 07

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	R07	IF	ARHOP			6.00E			+2500	-210		RNP APCH
20	R07	TF	BS970		068 (073.7)	6.00E	2.9		@2500			RNP APCH
30	R07	TF	RW07	Y	068 (073.8)	6.00E	6.7		@354		-3.0/56	RNP APCH
10	R07	TF	BS975	Y	068 (073.9)	6.00E	2.2					RNP APCH
20	R07	TF	BS976	Y	078 (083.9)	6.00E	5.8			-210		RNP APCH
30	R07	TF	LUTUP	Y	109 (115.4)	6.00E	11.7		+3000	-230		RNP APCH

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	LUTUP	271(277.0)			L	3000	FL140	-230	RNAV 1

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 07

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LRBS
Runway	07
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E07A
LTP/FTP Latitude	442959.2600N
LTP/FTP Longitude	0260508.6600E
LTP/FTP Ellipsoidal Height (metres)	126.1
FPAP Latitude	443025.8700N
Delta FPAP Latitude (seconds)	26.6100
FPAP Longitude	0260717.4600E
Delta FPAP Longitude (seconds)	128.8000
Threshold Crossing Height	56.0
TCH Units Selector	0 (FEET)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	0
HAL (metres)	40.0
VAL (metres)	50.0

Output Data	
Data Block	10 13 02 12 0C 07 00 00 01 37 30 05 B8 E4 18 13 68 DD 31 0B ED 18 E4 CF 00 40 EE 03 30 02 2C 01 64 00 C8 FA 25 75 4E 48
Calculated CRC Value	25754E48

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	90.8

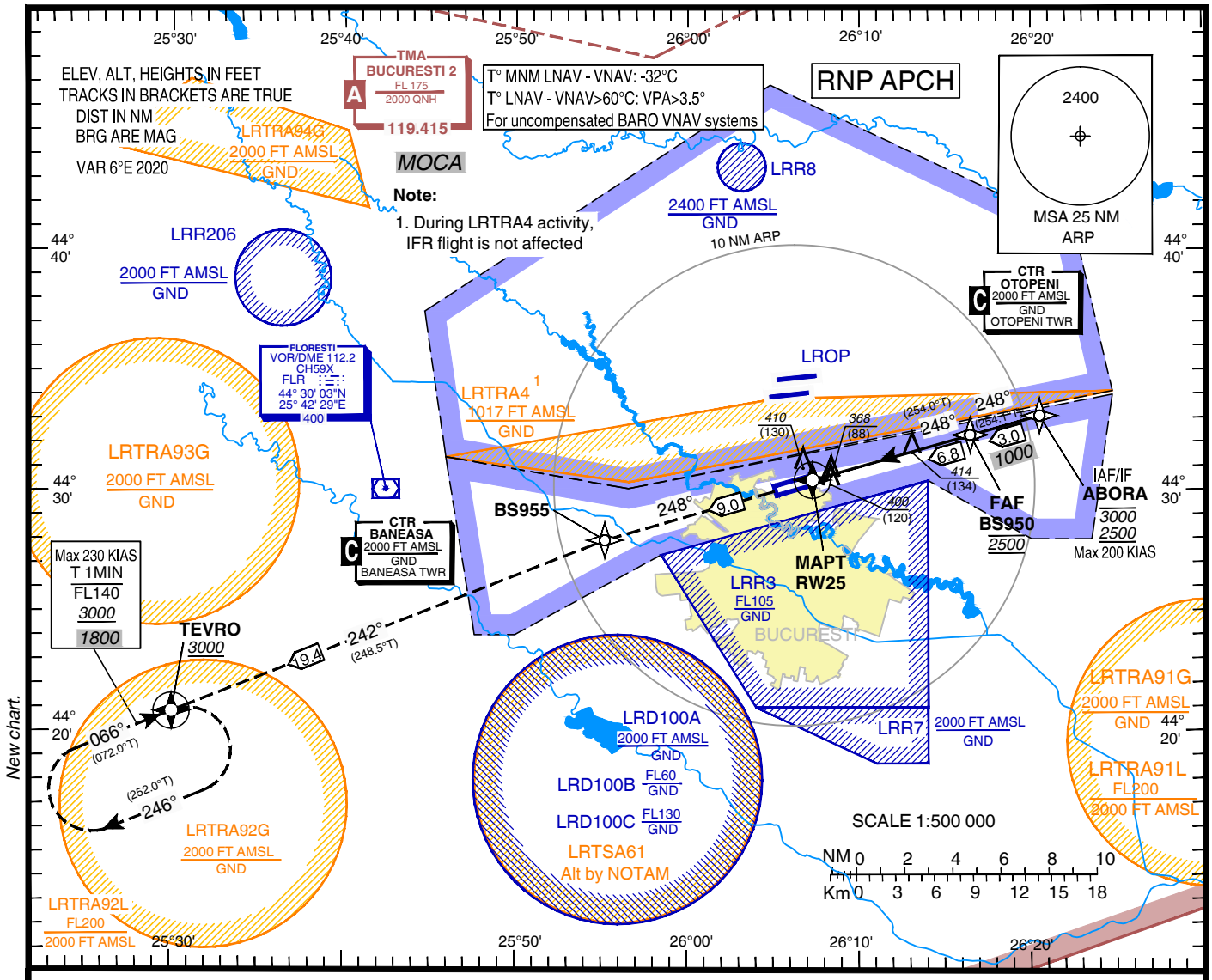
INSTRUMENT APPROACH CHART - ICAO

EGNOS CH95155 E25A

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO THR RWY 25 - ELEV 280 FT

BANEASA TWR	125.205	BUCURESTI VOLMET	126.800
BANEASA TWR ALTN	120.800	BUCURESTI APPROACH	119.415
BANEASA GROUND	129.960	BUCURESTI DIRECTOR	127.155
BANEASA ATIS	126.125	BUCURESTI DIRECTOR ALTN	120.600

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 25

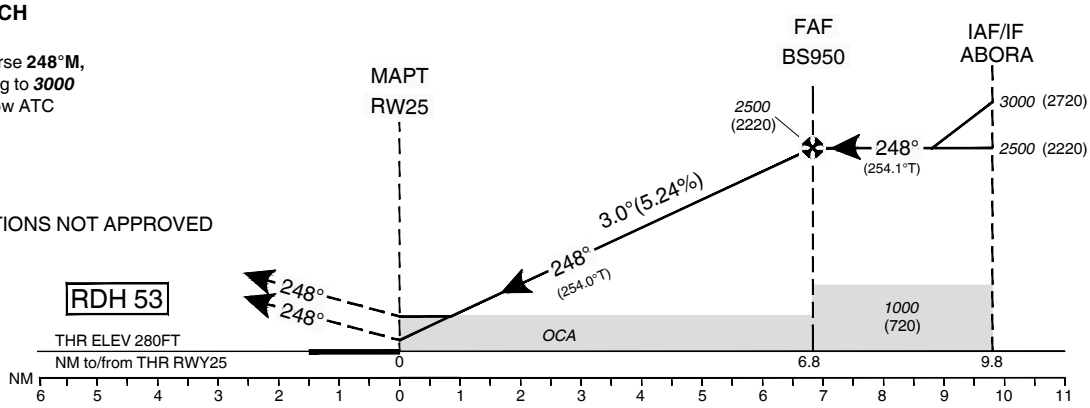


Transition Altitude 4000

MISSED APPROACH

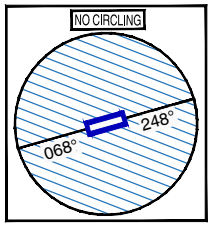
Climb to **BS955** on course **248°M,** then to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions.

SBAS CAT I OPERATIONS NOT APPROVED



Timing not authorised for defining the MAPt.

OCA (H)	A	B	C	D	DL
LPV	*500* (220)	*510* (230)	*520* (240)	*530* (250)	
LNAV/VNAV	*530* (250)	*550* (270)	*550* (270)	*570* (290)	-
LNAV	*660* (380)				-
Circling PROHIBITED					



GS	KT	70	90	100	120	140	160
FAF - MAPt 6.8 NM	MIN:SEC	5:50	4:32	4:05	3:24	2:55	2:33
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Distance to THR	NM	2	3	4	5	6
Altitudes (Heights)	FT	970 (690)	1290 (1010)	1610 (1330)	1930 (1650)	2240 (1960)

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 25

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RW25	
Fix/Waypoint Name	**Coordinates**
ABORA (IAF/IF)	44°33'08.0"N 026°20'27.1"E
TEVRO	44°20'47.0"N 025°30'07.0"E
BS950 (FAF)	44°32'18.7"N 026°16'25.9"E
BS955	44°27'55.6"N 025°55'12.9"E
RW25 (MAPT)	44°30'25.87"N 026°07'17.46"E

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 25

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	R25	IF	ABORA			6.00E			-3000 +2500	-200		RNP APCH
20	R25	TF	BS950		248 (254.1)	6.00E	3.0		@2500			RNP APCH
30	R25	TF	RW25	Y	248 (254.0)	6.00E	6.8		@333		-3.0/53	RNP APCH
10	R25	TF	BS955		248 (253.9)	6.00E	9.0					RNP APCH
20	R25	TF	TEVRO	Y	242 (248.5)	6.00E	19.4		+3000			RNP APCH

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	TEVRO	066(072.0)			R	3000	FL140	-230	RNAV 1

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
RNP RWY 25

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LRBS
Runway	25
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E25A
LTP/FTP Latitude	443025.8700N
LTP/FTP Longitude	0260717.4600E
LTP/FTP Ellipsoidal Height (metres)	120.7
FPAP Latitude	442958.0200N
Delta FPAP Latitude (seconds)	-27.8500
FPAP Longitude	0260502.6700E
Delta FPAP Longitude (seconds)	-134.7900
Threshold Crossing Height	53.0
TCH Units Selector	0 (FEET)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	0
HAL (metres)	40.0
VAL (metres)	50.0

Output Data	
Data Block	10 13 02 12 0C 19 00 00 01 35 32 05 9C B4 19 13 A8 CB 35 0B B7 18 6C 26 FF F4 E2 FB 12 02 2C 01 64 00 C8 FA A0 A6 F8 3C
Calculated CRC Value	A0A6F83C

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	85.4

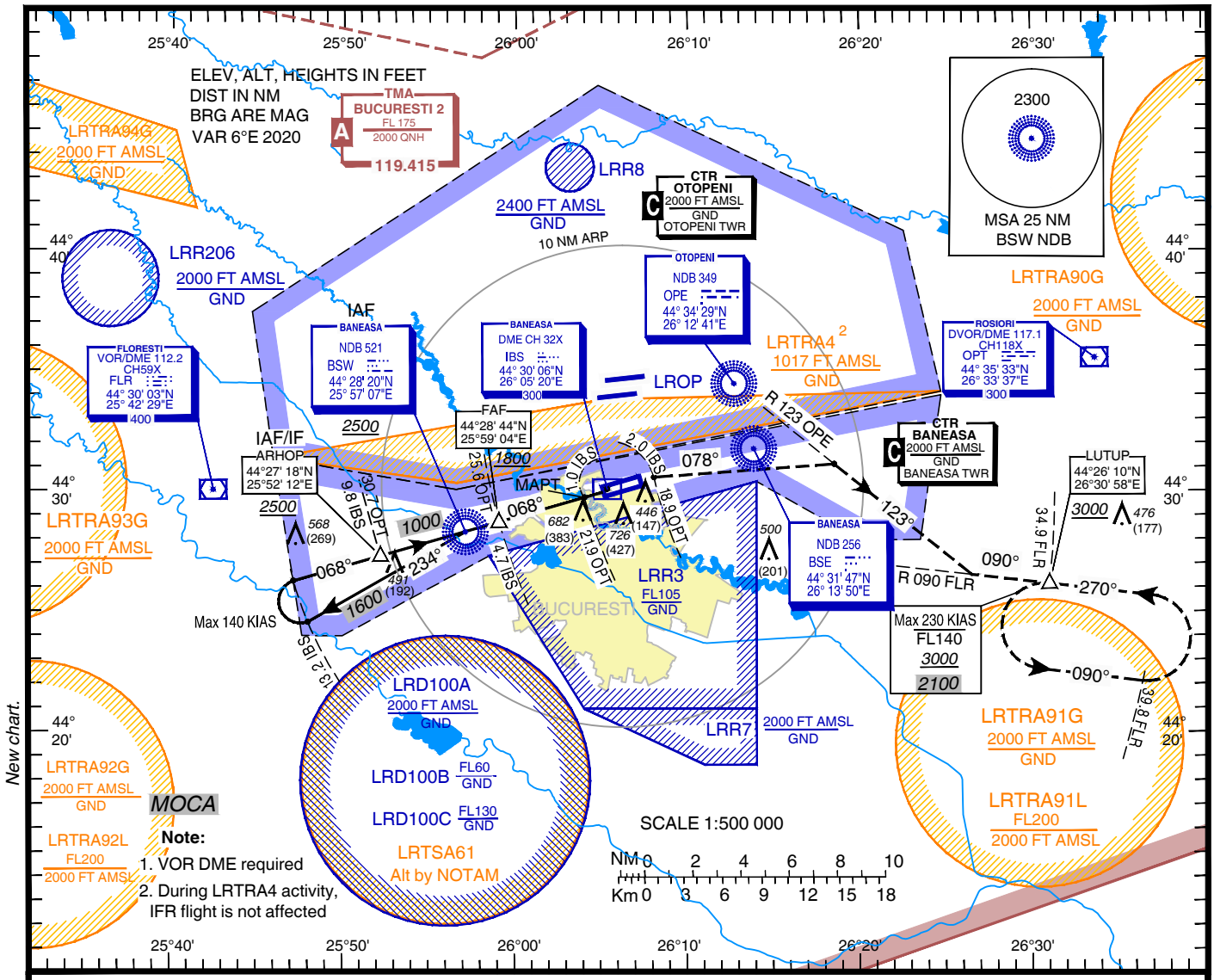
INSTRUMENT APPROACH CHART - ICAO

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

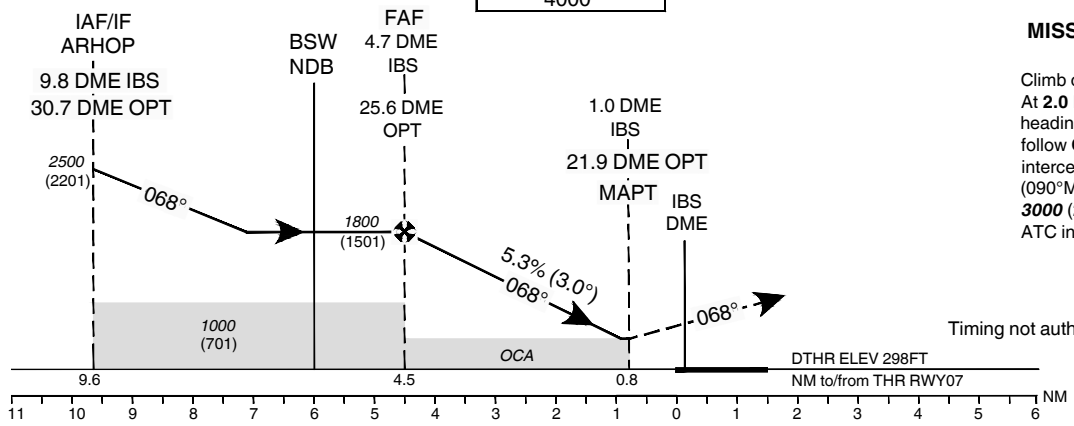
BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

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

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Z RWY 07



Transition Altitude
4000

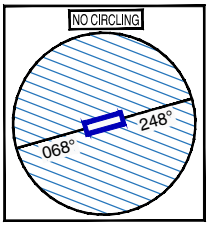


MISSED APPROACH

Climb on **QDR 068° BSW**.
At **2.0 NM IBS**, turn **right** heading **078°M** to intercept and follow **QDR 123° OPE** then intercept and follow **R 090° FLR** (090°M) to **LUTUP** climbing to ***3000*** (2701), and hold or follow ATC instructions. Max **230 KIAS**.

Timing not authorised for defining the MAPt.

OCA (H)		A	B
Straight-in Approach	NDB	*930* (631)	
Circling PROHIBITED			



GS	KT	70	90	100	120
FAF - MAPt 3.7 NM	MIN:SEC	3:10	2:28	2:13	1:51
Rate of descent (5.3%)	FT/MIN	376	483	537	644

Distance to IBS DME	NM	4	3	2
Altitudes (Heights)	FT	1560 (1261)	1240 (941)	930 (631)

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Z RWY 07

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 07 from IAF/IF 07 and BSW NDB	
Fix/Point	**Coordinates**
BSW (**IAF**) NDB	44°28’19.5’’N 025°57’07.2’’E
OPE NDB	44°34’29.2"N 026°12’40.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
ARHOP (IAF/IF) – BRG 067.80° BSW / 9.80NM IBS	44°27’17.8’’N 025°52’12.1’’E
LUTUP – BRG 090.10° FLR / 34.93NM FLR	44°26’10.0’’N 026°30’58.0’’E
FAF – BRG 067.80° BSW / 4.70NM IBS	44°28’43.7’’N 025°59’03.5’’E
MAPT – BRG 067.80° BSW / 1.00NM IBS	44°29’45.5’’N 026°04’01.5’’E
BSE NDB	44°31’46.7’’N 026°13’49.9’’E
DTHR 07	44°29’59.26’’N 026°05’08.66’’E

Final approach descent gradient (angle): 5.3% (3.03°)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V. If unable RNAV, after LUTUP proceed to BSE then to BSW for a new approach.

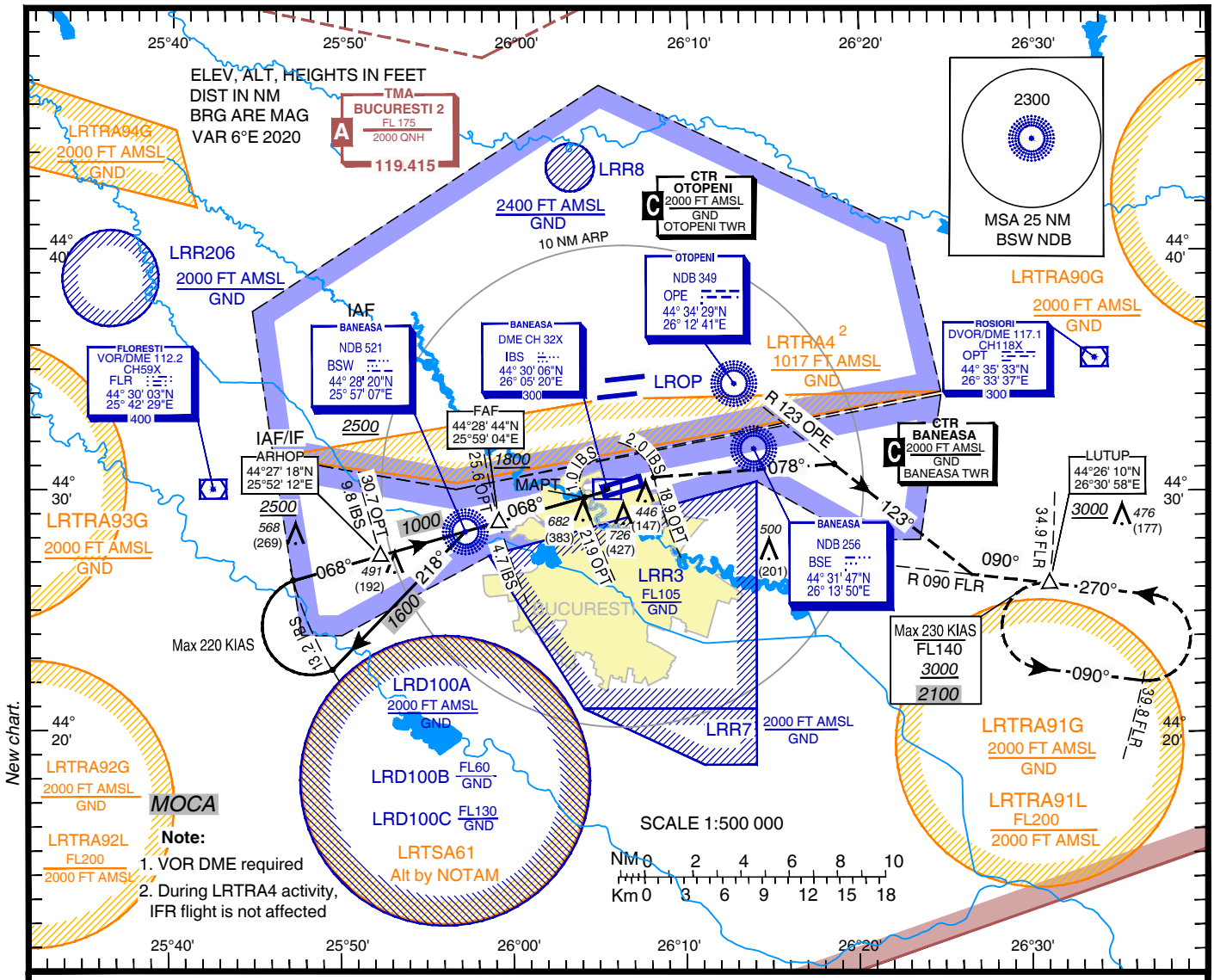
INSTRUMENT APPROACH CHART - ICAO

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

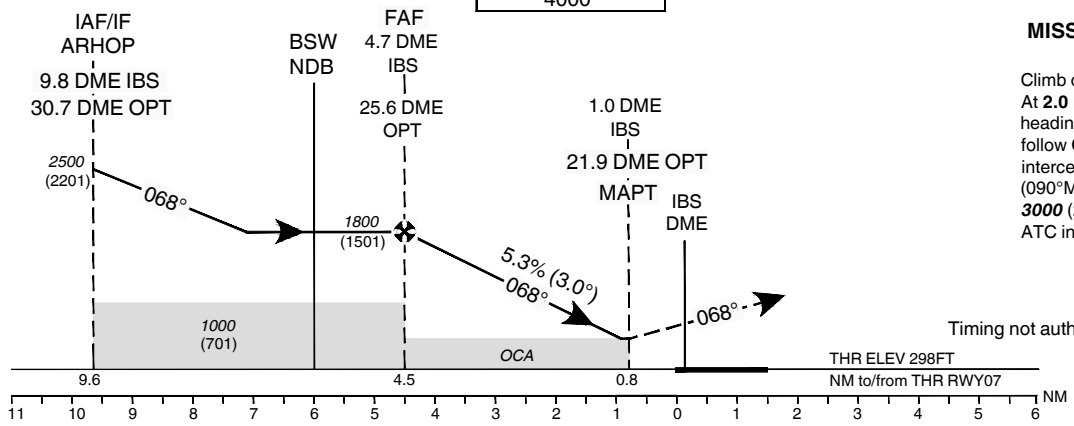
BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

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

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Y RWY 07



Transition Altitude
4000

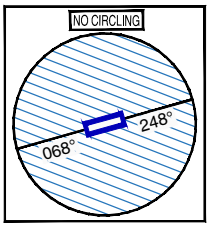


MISSED APPROACH

Climb on **QDR 068° BSW**.
At **2.0 NM IBS**, turn **right** heading **078°M** to intercept and follow **QDR 123° OPE** then intercept and follow **R 090° FLR** (090°M) to **LUTUP** climbing to ***3000*** (2701), and hold or follow ATC instructions. Max **230 KIAS**.

Timing not authorised for defining the MAPt.

OCA (H)		C	D
Straight-in Approach	NDB	*930* (631)	
Circling PROHIBITED			



GS	KT	100	120	140	160
FAF - MAPt 3.7 NM	MIN:SEC	2:13	1:51	1:35	1:23
Rate of descent (5.3%)	FT/MIN	537	644	751	859

Distance to IBS DME	NM	4	3	2
Altitudes (Heights)	FT	1560 (1261)	1240 (941)	930 (631)

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Y RWY 07

AERONAUTICAL DATA TABULATION

NDB Approach to RWY 07 from IAF/IF 07 and BSW NDB	
Fix/Point	**Coordinates**
BSW (**IAF**) NDB	44°28’19.5’’N 025°57’07.2’’E
OPE NDB	44°34’29.2"N 026°12’40.5"E
FLR VOR/DME	44°30'03.0"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
ARHOP (IAF/IF) – BRG 067.80° BSW / 9.80NM IBS	44°27’17.8’’N 025°52’12.1’’E
LUTUP – BRG 090.10° FLR / 34.93NM FLR	44°26’10.0’’N 026°30’58.0’’E
FAF – BRG 067.80° BSW / 4.70NM IBS	44°28’43.7’’N 025°59’03.5’’E
MAPT – BRG 067.80° BSW / 1.00NM IBS	44°29’45.5’’N 026°04’01.5’’E
BSE NDB	44°31’46.7’’N 026°13’49.9’’E
DTHR 07	44°29’59.26’’N 026°05’08.66’’E

Final approach descent gradient (angle): 5.3% (3.03°)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 07 instrument approach procedure. In case of missed approach, hold at LUTUP at 3000 ft for 4 minutes, then join RNAV STAR RWY 07 OSTAL 2V. If unable RNAV, after LUTUP proceed to BSE then to BSW for a new approach.

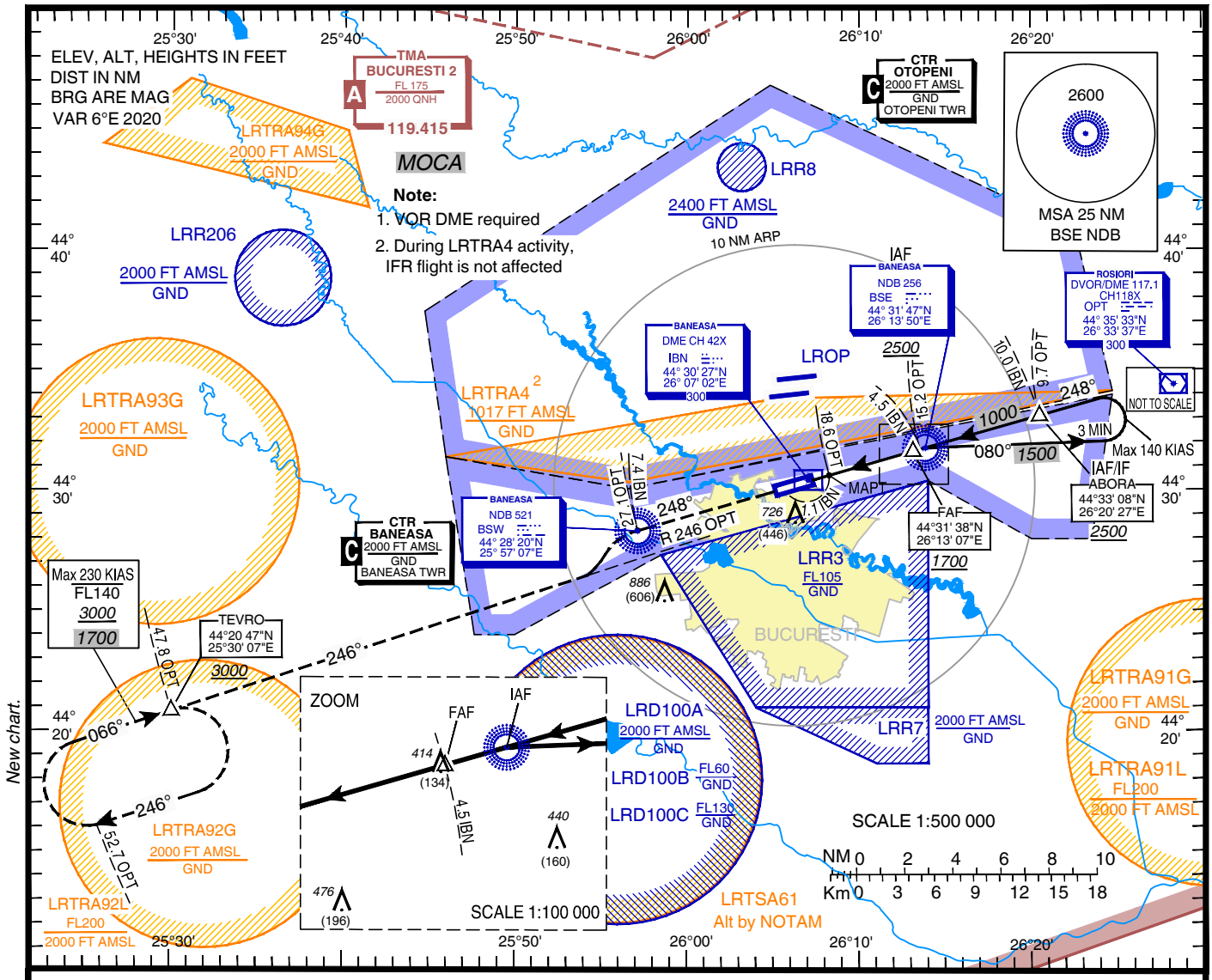
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 280 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

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

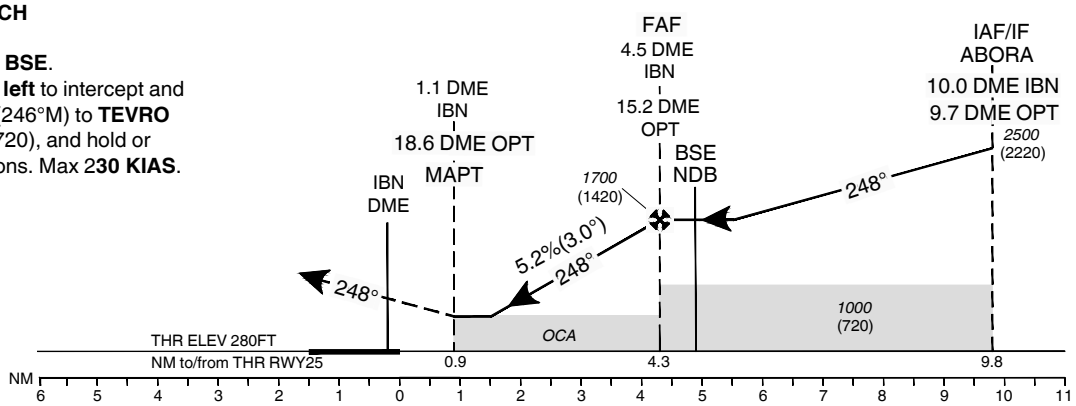
BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Z RWY 25



Transition Altitude
4000

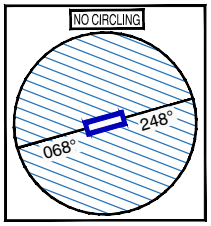
MISSED APPROACH

Climb on **QDR 248° BSE**.
At **7.4 NM IBN**, turn **left** to intercept and follow **R 246° OPT** (246°M) to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions. Max **230 KIAS**.



Timing not authorised for defining the MAPt.

OCA (H)		A	B
Straight-in Approach	NDB	*680* (400)	
Circling PROHIBITED			



GS	KT	70	90	100	120
FAF - MAPt 3.4 NM	MIN:SEC	2:55	2:16	2:03	1:42
Rate of descent (5.2%)	FT/MIN	369	474	527	632

Distance to IBN DME	NM	2	3	4
Altitudes (Heights)	FT	910 (630)	1220 (940)	1540 (1260)

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Z RWY 25

AERONAUTICAL DATA TABULATION

NDB Approach to RWY25 from IAF/IF 25 and BSE NDB	
Fix/Point	**Coordinates**
BSE (IAF) NDB	44°31’46.7’’N 026°13’49.9’’E
IBN (DME)	44°30’26.7’’N 026°07’02.4’’E
OPT VOR/DME	44°35'32.6’’N 026°33'36.6’’E
ABORA (IAF/IF) – BRG 067.98° BSE / 10.00NM IBN	44°33’08.0’’N 026°20’27.1’’E
TEVRO – BRG 246.39° / 47.8NM OPT	44°20’47.0’’N 025°30’07.0’’E
FAF– BRG 247.98°BSE / 4.50NM IBN	44°31’37.9’’N 026°13’07.0’’E
MAPT - BRG 247.98° BSE / 1.10NM IBN	44°30’41.3’’N 026°08’32.5’’E
BSW NDB	44°28’19.5’’N 025°57’07.2’’E
THR 25	44°30’25.87’’N 026°07’17.46’’E

Final approach descent gradient (angle): 5.2% (2.98°)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to NDB RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y. If unable RNAV, after TEVRO proceed to BSW then to BSE for a new approach.

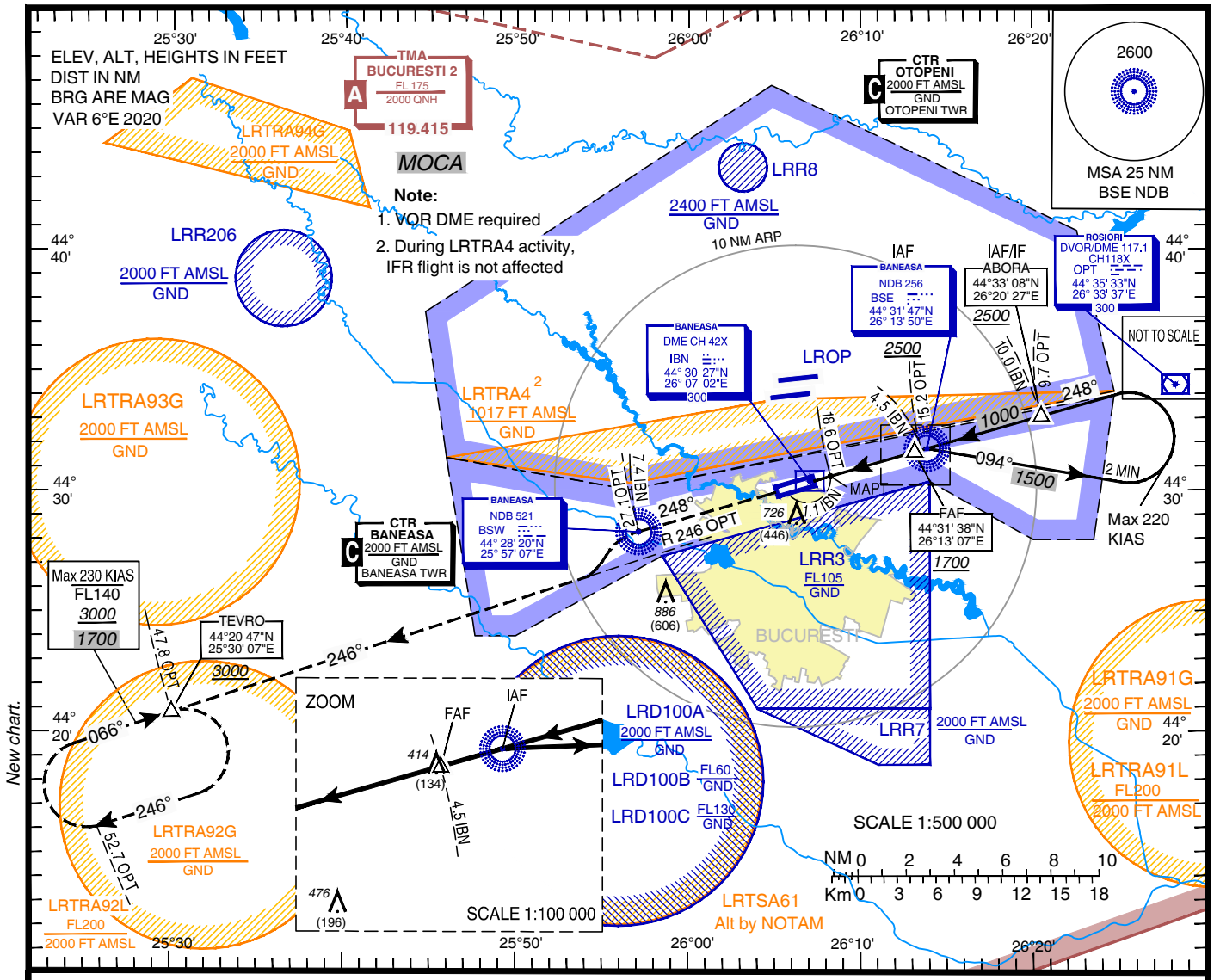
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **299 FT**
HEIGHTS RELATED TO
THR RWY 25 - ELEV 280 ft

BANEASA TWR	125.205
BANEASA TWR ALTN	120.800
BANEASA GROUND	129.960
BANEASA ATIS	126.125

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

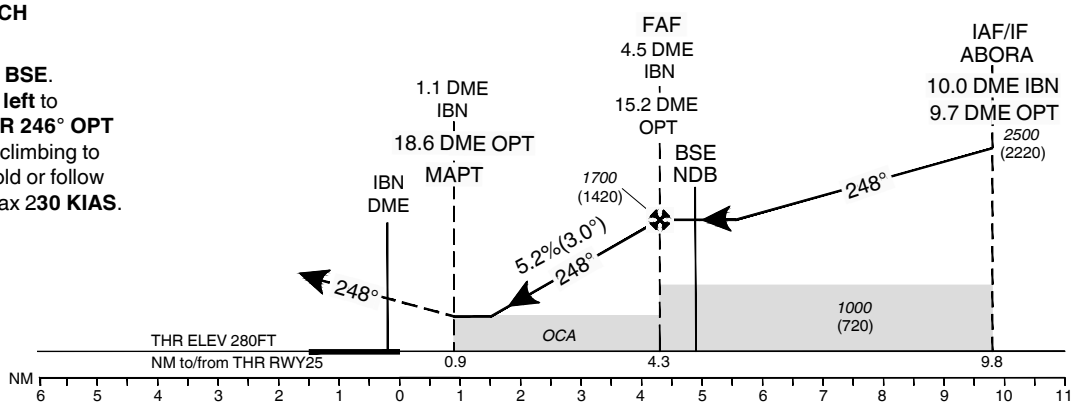
BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Y RWY 25



Transition Altitude
4000

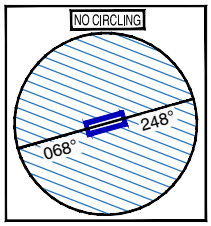
MISSED APPROACH

Climb on **QDR 248° BSE**.
At **7.4 NM IBN**, turn **left** to intercept and follow **R 246° OPT** (246°M) to **TEVRO** climbing to ***3000*** (2720), and hold or follow ATC instructions. Max **230 KIAS**.



Timing not authorised for defining the MAPt.

OCA (H)		C	D
Straight-in Approach	NDB	*710* (430)	*730* (450)
Circling PROHIBITED			



GS	KT	100	120	140	160
FAF - MAPt 3.4 NM	MIN:SEC	2:03	1:42	1:28	1:17
Rate of descent (5.2%)	FT/MIN	527	632	737	843

Distance to IBN DME	NM	2	3	4
Altitudes (Heights)	FT	910 (630)	1220 (940)	1540 (1260)

For data tabulation see verso.

BUCUREŞTI / Băneasa-Aurel Vlaicu (LRBS)
NDB Y RWY 25

AERONAUTICAL DATA TABULATION

NDB Approach to RWY25 from IAF/IF 25 and BSE NDB	
Fix/Point	**Coordinates**
BSE (IAF) NDB	44°31’46.7’’N 026°13’49.9’’E
IBN (DME)	44°30’26.7’’N 026°07’02.4’’E
OPT VOR/DME	44°35'32.6’’N 026°33'36.6’’E
ABORA (IAF/IF) – BRG 067.98° BSE / 10.00NM IBN	44°33’08.0’’N 026°20’27.1’’E
TEVRO – BRG 246.39° / 47.8NM OPT	44°20’47.0’’N 025°30’07.0’’E
FAF– BRG 247.98°BSE / 4.50NM IBN	44°31’37.9’’N 026°13’07.0’’E
MAPT - BRG 247.98° BSE / 1.10NM IBN	44°30’41.3’’N 026°08’32.5’’E
BSW NDB	44°28’19.5’’N 025°57’07.2’’E
THR 25	44°30’25.87’’N 026°07’17.46’’E

Final approach descent gradient (angle): 5.2% (2.98°)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to NDB RWY 25 instrument approach procedure. In case of missed approach, hold at TEVRO at 3000 ft for 4 minutes, then join RNAV STAR RWY 25 ABRUT 2Y. If unable RNAV, after TEVRO proceed to BSW then to BSE for a new approach.

LROP AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LROP - BUCUREŞTI / Henri Coandă

LROP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	443416N 0260506E On TWY "N".
2	*Direction and distance from city*	16.5 km North from Bucureşti
3	*Elevation /Reference temperature/Mean low temperature*	314 FT / 32.5°C / -10.2°C
4	*Geoid undulation at AD ELEV PSN*	114 FT
5	*MAG VAR/ Annual rate of change*	6°E (2020) / 6.7'E
6	*AD Administration, address, telephone, telefax, e-mail address, AFS address, website address*	Compania Națională Aeroporturi București Aeroportul Bucureşti/Henri Coandă Calea Bucureşti nr. 224E, Otopeni, Jud. Ilfov Tel : +40-(0)21-2013304; +40-(0)21-2041000; +40-(0)21-2014000 Fax: +40-(0)21-2014990; +40-(0)21-3126866 AFS: LROPRAYD SITA: OTPAPXH web: www.cnab.ro e-mail: contact@cnab.ro
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	1. Military administration: Adress: Str. Zborului, nr.1, Otopeni, jud. ILFOV. Tel. +40 21 3505517 Fax. +40 21 3511862 AFS: LROPYWYX E-mail: um01961coba@roaf.ro URL: http://www.aamn.ro 2. For acces in MIL area, MIL PPR is neccesary. PPR form, 48hours in advance. For military regulation and PPR form, see MIL AIP ROMANIA, GEN 1.2. Entry of military Aircraft.

LROP AD 2.3 OPERATIONAL HOURS

1	*AD Administration*	H24
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24
5	*ATS Reporting Office (ARO)*	H24 ; Tel: +40-(0)21-2032122 / +40-(0)21-2032127 / +40-(0)21-3114315 Fax: +40-(0)21-2032127 / +40-(0)21-3114316
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fueling*	H24
9	*Handling*	H24
10	*Security*	H24
11	*De-icing*	H24
12	*Remarks*	NIL

LROP AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	5 forklift, 19 highloaders, 35 conveyor belts, 61 tractors, 81 pallet dolly, 130 cargo cart, 98 cargo dolly, 38 mail containers, 24 ULD dollies LD4.
2	*Fuel/Oil types*	Kerosene: JET A1, NATO Code F34, NATO Code F35, JP8 Fuel Additive: Icing inhibitor, High Flash Point, with Anti-Corrosion & Lubricating Additive - Nycosol 131; AL48. Static Dissipator - Stadis 450. Oil: NIL
3	*Fueling facilities/capacity*	Storage: - Kerosene - 9300 m^3 in-line Additiving Skid; - NATO Code F34 - Additive in stock for 2600 m^3 - Kerosene JET A1 - 2800 m^3 Refueling equipments: - Kerosene JET A1 - 17 trucks - Kerosene JP8 (F34) - 2 trucks
4	*De-icing facilities*	10 de-icing units with type II liquid. 9 de-icing units with type I/II fluid.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	On request / subject of availability
7	*Remarks*	Airlines or operators are advised that before landing on airport or before filing LROP as an alternate, they are required to have made arrangements for ground handling, specially for towing ops.

LROP AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in town.
2	*Restaurants*	Restaurants and bars (23 airside + 14 landside): H24
3	*Transportation*	Buses, taxis from the AD.
4	*Medical facilities*	Doctor, 1 surgery, 1 rest room with 2 beds, 2 ambulances, hospital in town.
5	*Bank and Post Office*	Bank Office: 0700 - 1500. Post Office: 0700 - 1500. Exchange Office: H24
6	*Tourist Office*	Tourist Office at the AD.
7	*Remarks*	Rent-a-car office at the AD.

LROP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 9
2	*Rescue equipment*	7 airport firetrucks equiped with specific equipment for rescue and firefighting
3	*Capability for removal of disabled aircraft*	NIL
4	*Remarks*	NIL

LROP AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	*Types of clearing equipment*	21 snow ploughs with brush and blower, 5 snow blowers, 3 trucks/plugs/spreaders for liquid/solid de-icing materials. 6 compact snow ploughs with brush, blower, spreader liquid/solid deicing mat. 1 spreader for liquid de-icing materials 7 small plough-brush and spreader (3 solid deicing, 4 liquid deicing).
2	*Clearance priorities*	1. RWY 08R/26L and associated TWYs and apron 2. RWY 08L/26R and associated TWYs and apron
3	*Remarks*	Information about Runway surface condition in Global Reporting Format published by SNOWTAM. See also the snow plan in section AD 1.2. Specially prepared winter runways - “Not applicable”. Generic fluids and solid materials used for runway de/anti-icing are KAC (potassium acetate fluids) and NAAC (sodium acetate solids).

LROP AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	Apron 1 / Apron 2 / Apron 3 Surface: Concrete / Concrete / Concrete Strength: 45/R/D/W/T (stands 116-122), 57/R/D/W/T (stands 101-115), 88/R/D/W/T (stands 131-134) / 92/R/D/W/T (stands 201-206), 65/R/D/W/T (stands 207-224) / 24/R/D/W/T
2	*Taxiway designation, width, surface and strength*	TWY: Width: 23 M (A, B, D, E, N, Q, P, S, V, W) and 24 M (G). Surface: Asphalt (A, D, G, N, Q, P, S, V, W) and concrete (B, E). Strength: 56/R/D/W/T(A), 59/R/D/W/T(B, G), 84/F/D/W/T(D), 57/R/D/W/T(E), 92/R/D/W/T(N, P, Q, V, W), 67/R/D/W/T(S). Apron TWY: Width: 18 M (C, U), 23 M (J, K, M, P-between C and C1). Surface: Asphalt (C) and concrete (J, K, M, P-between C and C1, U). Strength: 65/R/D/W/T(C, U), 45/R/D/W/T(J), 57/R/D/W/T(K, M), 92/R/D/W/T (P-between C and C1). Aircraft stand taxilane: Width: 18 M (C1, T), 23 M (L). Surface: Concrete (C1, L, T). Strength: 92/R/D/W/T (C1 between 204-206), 65/R/D/W/T (C1 between 207-224), 57/R/D/W/T(L), 24/R/D/W/T(T).
3	*ACL location and elevation*	Location: THR RWY 08R / Elevation: 313 FT / Location: THR RWY 08L / Elevation: 314 FT Location: THR RWY 26L / Elevation: 302 FT / Location: THR RWY 26R / Elevation: 304 FT
4	*VOR checkpoints*	NIL
5	*INS checkpoints*	See Aircraft Parking/Docking Chart, AD 2.5-22, AD 2.5-23
6	*Remarks*	1. RWY turn pad Location: THR 26L; Surface: Asphalt; Dimensions: 33.7 M x 72 M; Strength: 42/R/D/W/T 2. For details on MIL TWYs R, H, F see MIL AIP, AD section.

LROP AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	*Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands*	Taxiing guidance signs at all intersections with TWY, RWY, APRONs and at all holding positions. Guide lines at apron. APRON 1: Stand entry guidance (SEG) is provided by SAFEDOCK T1 at 101-107, 109-115 stands on Apron 1 - see details in AD 2.5-22. At all others stands parking guidance provided by marshallers. APRON 2: For Aircraft parking at stands 201 to 224 and at all alternative stands parking guidance provided by marshallers.
2	*RWY and TWY markings and LGT*	RWY: - markings: Color white: designation, THR, TDZ, centerline, side stripes, aiming points. - lights: THR and wing bar lights, centerline lights, end lights, edge lights, TDZ lights for 08R, 08L and 26R, rapid exit taxiway indicator lights (RETIL~~) - LED lights for rapid exit taxiway (RET) W and V~~. See following chart AD 2.5-20/20a. TWY: - markings: - Color yellow: RHP markings and enhanced centerline marking on TWY A, D, G, R, H, F, N and Q, NO ENTRY markings on RET W and V, centerline markings, intermediate holding position and designation markings at TWYs intersections; ~~- Color orange: alternate center line in TWY intersection N-C-G, for aircraft with outer main gear wheel span (OMGWS) greater than 9m.~~ - lights: TWY centerline lights, edge lights, intermediate holding position lights (IHPL)~~, RWY guard lights (LIH)~~. See following charts AD 2.5-20/20a and AD 2.5-21.
3	*Stop bars and runway guard lights*	Red STOP bars and RWY guard lights (LIH) at all intersection of TWYs with RWYs and NO ENTRY bar on RET W and V. ~~STOP bar LED lights on TWY N, Q and NO entry Bar LED on RET W and V.~~
4	*Other runway protection measures*	NO ENTRY bar on RET W and V.
5	*Remarks*	1. At pier, pilots should not enter an aircraft stand unless the Stand Entry Guidance (SEG) is illuminated or a marshaller has signaled clearance to proceed. In the event of there being no activated SEG displayed upon approach to the stand, flight crews should contact Otopeni Ground to request marshalling assistance. Aircrew must not attempt to self-park if the SEG is not illuminated or calibrated for their aircraft type. 2. For details on MIL Aprons see MIL AIP, AD section.

LROP AD 2.10 AERODROME OBSTACLES

In Area 2					
RWY 08R/26L					
OBST ID/ Designation	OBST type	OBST position	ELEV/HGT	Markings/ Type, colour	Remarks
a	b	c	d	e	f
LROP_1	POLE	444454.2N 0260554.7E	736/400FT	Marked W/R; LGTD	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_2	POLE	444456.3N 0260601.5E	736/399FT	Marked W/R; LGTD	
LROP_4	POLE	444451.9N 0260623.2E	731/391FT	Marked W/R; LGTD	
LROP_5	POLE	444455.1N 0260617.2E	731/390FT	Marked W/R; LGTD	
LROP_7	POLE	444508.6N 0260611.6E	737/405FT	Marked W/R; LGTD	
LROP_8	POLE	444503.3N 0260610.8E	736/403FT	Marked W/R; LGTD	
LROP_10	POLE	444454.8N 0260556.7E	733/397FT	Marked W/R; LGTD	
LROP_11	POLE	444455.2N 0260558.1E	733/397FT	Marked W/R; LGTD	
LROP_12	POLE	444455.7N 0260559.5E	733/397FT	Marked W/R; LGTD	
LROP_14	POLE	444452.9N 0260621.4E	738/397FT	Marked W/R; LGTD	
LROP_15	POLE	444453.5N 0260620.2E	738/397FT	Marked W/R; LGTD	
LROP_16	POLE	444454.2N 0260618.9E	738/397FT	Marked W/R; LGTD	
LROP_19	POLE	444504.9N 0260610.9E	729/397FT	Marked W/R; LGTD	
LROP_20	POLE	444506.0N 0260611.1E	729/397FT	Marked W/R; LGTD	
LROP_21	POLE	444507.1N 0260611.3E	729/397FT	Marked W/R; LGTD	
LROP_67	ANTENNA	443516.9N 0260424.0E	439/120FT	NIL	
LROP_75	ANTENNA	443230.0N 0260507.3E	419/116FT	Marked W/R	
LROP_77	ANTENNA	443523.3N 0260433.9E	460/142FT	Marked W/R	
LROP_171	ANTENNA	443547.4N 0260752.4E	440/136FT	Marked W/R	
LROP_230	ANTENNA	443513.6N 0260159.5E	499/170FT	Marked W/R	
LROP_236	BUILDING	443241.4N 0260403.8E	410/103FT	NIL	
LROP_237	ANTENNA	443234.7N 0260353.3E	443/134FT	Marked W/R	
LROP_264	STACK	442421.1N 0260910.2E	601/395FT	Marked W/R; LGTD	
LROP_265	STACK	442419.3N 0260909.3E	602/396FT	Marked W/R; LGTD	
LROP_266	STACK	442418.1N 0260914.6E	728/524FT	Marked W/R; LGTD	
LROP_267	STACK	442419.7N 0260916.0E	602/396FT	Marked W/R; LGTD	
LROP_268	STACK	442218.3N 0260630.5E	1081/826FT	Marked W/R; LGTD	
LROP_269	STACK	442525.1N 0255842.4E	886/588FT	Marked W/R; LGTD	
LROP_278	ANTENNA	442631.6N 0260218.5E	971/695FT	Marked W/R; LGTD	
LROP_357	ANTENNA	443511.3N 0260430.0E	461/146FT	NIL	
LROP_441	ANTENNA	444235.0N 0263639.0E	513/345FT	Marked W/R; LGTD	
LROP_515	ANTENNA	444016.1N 0260450.4E	949/627FT	Marked W/R; LGTD	
LROP_3782	ANTENNA	443211.0N 0260421.3E	458/152FT	Marked W/R	
LROP_3783	BRIDGE	443211.9N 0260435.7E	460/154FT	LGTD	
LROP_3914	BUILDING	443324.0N 0260418.2E	395/86FT	NIL	
LROP_3920	BUILDING	443404.5N 0260408.1E	391/76FT	LGTD	
LROP_266	STACK	442418.1N 0260914.6E	728/524FT	Marked W/R; LGTD	
LROP_267	STACK	442419.7N 0260916.0E	602/396FT	Marked W/R; LGTD	
LROP_268	STACK	442218.3N 0260630.5E	1081/826FT	Marked W/R; LGTD	
LROP_269	STACK	442525.1N 0255842.4E	886/588FT	Marked W/R; LGTD	
LROP_278	ANTENNA	442631.6N 0260218.5E	971/695FT	Marked W/R; LGTD	
LROP_357	ANTENNA	443511.3N 0260430.0E	461/146FT	NIL	
LROP_441	ANTENNA	444235.0N 0263639.0E	513/345FT	Marked W/R; LGTD	
LROP_515	ANTENNA	444016.1N 0260450.4E	949/627FT	Marked W/R; LGTD	
LROP_3782	ANTENNA	443211.0N 0260421.3E	458/152FT	Marked W/R	
LROP_3783	BRIDGE	443211.9N 0260435.7E	460/154FT	LGTD	
LROP_3914	BUILDING	443324.0N 0260418.2E	395/86FT	NIL	
LROP_3920	BUILDING	443404.5N 0260408.1E	391/76FT	LGTD	
LROP_3966	BUILDING	443315.2N 0260551.0E	378/78FT	NIL	
LROP_3967	BUILDING	443311.5N 0260550.5E	378/76FT	NIL	
LROP_3968	BUILDING	443312.4N 0260550.5E	378/76FT	NIL	
LROP_3969	BUILDING	443313.5N 0260550.9E	378/79FT	NIL	
LROP_3970	BUILDING	443314.4N 0260551.1E	378/79FT	NIL	
LROP_3971	BUILDING	443310.7N 0260550.8E	378/77FT	NIL	
LROP_4010	BUILDING	443314.5N 0260549.4E	376/74FT	NIL	
LROP_4011	BUILDING	443313.9N 0260549.6E	376/78FT	NIL	
LROP_4012	BUILDING	443315.2N 0260549.3E	376/78FT	NIL	
LROP_4013	BUILDING	443315.9N 0260549.1E	376/82FT	NIL	
LROP_4024	BUILDING	443327.0N 0260411.7E	375/64FT	NIL	
LROP_4287	BUILDING	443402.0N 0260406.8E	369/55FT	NIL	

a	b	c	d	e	f
LROP_4346	BUILDING	443405.2N 0260403.4E	368/55FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_4503	BUILDING	443359.3N 0260405.3E	366/55FT	NIL	
LROP_4562	BUILDING	443314.2N 0260435.4E	366/60FT	NIL	
LROP_4639	BUILDING	443410.4N 0260403.0E	364/49FT	NIL	
LROP_4662	BUILDING	443411.5N 0260404.1E	364/49FT	NIL	
LROP_4684	BUILDING	443408.9N 0260403.6E	364/49FT	NIL	
LROP_4690	BUILDING	443334.3N 0260347.7E	364/51FT	NIL	
LROP_4691	BUILDING	443331.8N 0260347.7E	364/50FT	NIL	
LROP_4800	BUILDING	443411.9N 0260402.5E	362/49FT	NIL	
LROP_4898	BUILDING	443320.5N 0260547.9E	361/58FT	NIL	
LROP_8981	BUILDING	443424.6N 0260458.0E	360/51FT	LGTD	
LROP_9080	BUILDING	442614.1N 0260608.3E	600/337FT	LGTD	
LROP_9082	ANTENNA	442712.6N 0260624.0E	687/417FT	Marked W/R; LGTD	
LROP_9084	BUILDING	442840.7N 0260617.0E	726/455FT	Marked W/R; LGTD	
LROP_9091	BUILDING	442533.4N 0260456.0E	681/394FT	NIL	
LROP_9092	BUILDING	442539.0N 0260514.7E	622/337FT	LGTD	
LROP_11879	CHIMNEY	445254.7N 0260027.5E	1071/610FT	Marked W/R; LGTD	
LROP_11880	CHIMNEY	445255.8N 0260031.9E	873/411FT	Marked W/R; LGTD	
LROP_11882	CHIMNEY	445307.0N 0260004.5E	1017/541FT	Marked W/R; LGTD	
LROP_11883	CHIMNEY	445302.4N 0260002.9E	1123/648FT	Marked W/R; LGTD	
LROP_12081	BUILDING	442716.5N 0260452.3E	635/371FT	NIL	
LROP_12082	BUILDING	442707.6N 0260337.4E	647/370FT	NIL	
LROP_12855	BUILDING	443344.8N 0260407.6E	328/14FT	NIL	
LROP_13352	BUILDING	443305.9N 0260410.3E	381/68FT	NIL	
LROP_14857	BUILDING	443345.2N 0260406.5E	330/15FT	NIL	
LROP_15770	POLE	443321.3N 0260346.6E	369/53FT	NIL	
LROP_16585	BUILDING	443344.7N 0260353.6E	354/39FT	NIL	
LROP_18981	BUILDING	443346.6N 0260406.6E	345/31FT	NIL	
LROP_20083	BUILDING	443344.1N 0260405.5E	335/22FT	NIL	
LROP_23893	BUILDING	443331.1N 0260525.5E	364/59FT	NIL	
LROP_24080	BUILDING	443321.6N 0260526.6E	359/53FT	NIL	
LROP_27065	BUILDING	443324.5N 0260459.8E	362/53FT	NIL	
LROP_31152	BUILDING	443303.4N 0260411.4E	380/66FT	NIL	
LROP_32719	BUILDING	443347.6N 0260407.0E	334/22FT	NIL	
LROP_41569	BUILDING	443302.0N 0260420.9E	411/98FT	NIL	
LROP_41583	BUILDING	443325.1N 0260454.2E	368/57FT	NIL	
LROP_41602	BUILDING	443308.8N 0260522.6E	377/69FT	NIL	
LROP_41703	BUILDING	443308.3N 0260427.5E	390/81FT	NIL	
LROP_42426	BUILDING	443336.9N 0260412.5E	380/67FT	LGTD	
LROP_43102	BUILDING	443344.1N 0260401.9E	360/47FT	NIL	
LROP_43257	BUILDING	443321.1N 0260418.8E	361/50FT	NIL	
LROP_45377	BUILDING	443336.9N 0260400.0E	389/76FT	NIL	
LROP_48005	BUILDING	443314.4N 0260410.3E	368/57FT	NIL	
LROP_48190	BUILDING	443322.7N 0260348.8E	371/56FT	NIL	
LROP_48671	BUILDING	443342.0N 0260359.4E	368/55FT	LGTD	
LROP_48771	POLE	443321.2N 0260528.9E	358/54FT	NIL	
LROP_49395	BUILDING	443322.9N 0260526.9E	358/53FT	NIL	
LROP_49912	BUILDING	443337.8N 0260425.0E	364/52FT	Marked W/R; LGTD	
LROP_50309	BUILDING	443322.3N 0260527.6E	357/51FT	NIL	
LROP_70273	BUILDING	443345.7N 0260406.1E	343/30FT	NIL	
LROP_77205	BUILDING	443354.2N 0260405.7E	339/26FT	NIL	
LROP_82249	BUILDING	443354.0N 0260404.5E	337/22FT	NIL	
LROP_90678	POLE	443417.9N 0260441.4E	382/70FT	Marked W/R; LGTD	
LROP_90679	POLE	443341.3N 0260500.4E	412/105FT	Marked W/R; LGTD	
LROP_90680	POLE	443340.8N 0260453.4E	414/105FT	Marked W/R; LGTD	
LROP_90681	POLE	443338.7N 0260445.4E	432/122FT	Marked W/R; LGTD	
LROP_90682	POLE	443413.5N 0260448.1E	454/145FT	Marked W/R; LGTD	
LROP_90683	POLE	443416.4N 0260455.6E	452/144FT	Marked W/R; LGTD	
LROP_90684	POLE	443412.4N 0260442.3E	381/70FT	Marked W/R; LGTD	
LROP_90685	POLE	443416.0N 0260441.7E	380/70FT	Marked W/R; LGTD	
LROP_90686	POLE	443413.5N 0260456.0E	454/145FT	Marked W/R; LGTD	
LROP_90687	POLE	443407.6N 0260453.6E	417/105FT	Marked W/R; LGTD	
LROP_90688	POLE	443410.6N 0260442.5E	383/71FT	Marked W/R; LGTD	
LROP_90689	POLE	443408.5N 0260442.9E	384/70FT	Marked W/R; LGTD	

a	b	c	d	e	f
LROP_90690	POLE	443406.8N 0260443.1E	385/70FT	Marked W/R; LGTD	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_90691	POLE	443405.0N 0260443.4E	385/70FT	Marked W/R; LGTD	
LROP_90692	POLE	443415.5N 0260447.8E	454/145FT	Marked W/R; LGTD	
LROP_90693	POLE	443418.4N 0260603.0E	374/70FT	Marked W/R; LGTD	
LROP_90694	POLE	443418.2N 0260600.0E	371/67FT	Marked W/R; LGTD	
LROP_90695	POLE	443415.9N 0260550.4E	372/65FT	Marked W/R; LGTD	
LROP_90696	POLE	443415.6N 0260547.1E	372/65FT	Marked W/R; LGTD	
LROP_90697	POLE	443422.9N 0260550.1E	366/57FT	Marked W/R; LGTD	
LROP_90698	POLE	443423.0N 0260551.3E	365/57FT	Marked W/R; LGTD	
LROP_90699	POLE	443423.1N 0260552.6E	365/56FT	Marked W/R; LGTD	
LROP_90715	CONTROL_TOWER	443412.6N 0260439.4E	471/160FT	LGTD	
LROP_90716	BUILDING	443408.0N 0260440.3E	385/72FT	LGTD	
LROP_90717	BUILDING	443418.3N 0260438.9E	374/61FT	NIL	
LROP_90719	POLE	443406.4N 0260434.1E	389/76FT	Marked W/R; LGTD	
LROP_90720	POLE	443411.3N 0260433.4E	388/76FT	Marked W/R; LGTD	
LROP_90721	POLE	443411.5N 0260436.8E	389/76FT	Marked W/R; LGTD	
LROP_90722	POLE	443406.7N 0260437.5E	389/76FT	Marked W/R; LGTD	
LROP_90723	BUILDING	443414.6N 0260448.8E	381/73FT	LGTD	
LROP_90725	CONTROL_TOWER	443414.0N 0260513.9E	390/80FT	LGTD	
LROP_90728	ANTENNA	443420.6N 0260513.4E	416/107FT	Marked W/R; LGTD	
LROP_90729	NAVAID	443419.0N 0260632.8E	434/130FT	Marked W/R; LGTD	
LROP_90764	ANTENNA	443354.1N 0260555.3E	326/22FT	Marked W/R; LGTD	
LROP_90765	ANTENNA	443354.2N 0260555.6E	332/28FT	Marked W/R; LGTD	
LROP_90776	BUILDING	443414.7N 0260531.3E	419/113FT	NIL	
LROP_90777	BUILDING	443425.8N 0260538.2E	391/83FT	NIL	
LROP_90804	BUILDING	443423.4N 0260527.7E	385/78FT	NIL	
LROP_90807	BUILDING	443427.9N 0260548.6E	362/52FT	LGTD	
LROP_90848	BUILDING	443423.2N 0260522.8E	381/71FT	NIL	
LROP_90850	BUILDING	443424.5N 0260522.3E	384/73FT	NIL	
LROP_90862	ANTENNA	443428.6N 0260548.8E	360/51FT	Marked W/R; LGTD	
LROP_90895	NAVAID	443403.9N 0260736.5E	314/15FT	Marked W/R	
LROP_90899	NAVAID	443359.9N 0260702.6E	317/17FT	Marked W/R; LGTD	
LROP_90902	NAVAID	443359.6N 0260658.5E	360/60FT	Marked W/R; LGTD	
LROP_90904	NAVAID	443358.8N 0260657.4E	338/38FT	Marked W/R; LGTD	
LROP_90906	OTHER	443408.4N 0260706.4E	323/23FT	Marked W/R; LGTD	
LROP_90929	NAVAID	443353.0N 0260414.6E	330/16FT	Marked W/R	
LROP_90930	BUILDING	443354.0N 0260412.5E	327/12FT	Marked W/R; LGTD	
LROP_90935	NAVAID	443349.2N 0260447.9E	327/17FT	Marked W/R; LGTD	
LROP_90937	NAVAID	443349.2N 0260453.6E	343/34FT	Marked W/R; LGTD	
LROP_90945	NAVAID	443349.8N 0260452.7E	367/58FT	Marked W/R; LGTD	
LROP_90961	ANTENNA	443351.7N 0260645.9E	358/58FT	Marked W/R; LGTD	
LROP_90968	NAVAID	443407.1N 0260801.1E	353/54FT	Marked W/R	
LROP_90969	NAVAID	443409.5N 0260800.9E	357/57FT	Marked W/R	
LROP_91013	POLE	443351.5N 0260420.0E	322/10FT	NIL	
LROP_91014	POLE	443351.4N 0260418.7E	324/12FT	NIL	
LROP_91015	POLE	443351.3N 0260417.4E	325/13FT	NIL	
LROP_91016	POLE	443351.2N 0260416.1E	326/14FT	NIL	
LROP_91017	POLE	443351.1N 0260414.8E	326/14FT	NIL	
LROP_91018	POLE	443351.0N 0260413.5E	328/14FT	NIL	
LROP_91019	POLE	443351.0N 0260412.3E	328/14FT	NIL	
LROP_91020	POLE	443350.8N 0260411.0E	330/15FT	NIL	
LROP_91021	POLE	443350.7N 0260409.6E	330/16FT	NIL	
LROP_91022	POLE	443350.6N 0260408.2E	329/16FT	NIL	
LROP_91023	POLE	443350.5N 0260406.9E	329/16FT	NIL	
LROP_91024	POLE	443350.4N 0260405.5E	329/16FT	NIL	
LROP_91509	BUILDING	443410.8N 0260406.6E	371/55FT	NIL	
LROP_92724	BUILDING	443413.6N 0260425.1E	400/86FT	NIL	
LROP_95523	BUILDING	443420.9N 0260416.1E	365/50FT	NIL	
LROP_107772	BUILDING	443413.6N 0260428.7E	409/95FT	NIL	
LROP_108007	POLE	443348.0N 0260409.8E	328/13FT	NIL	
LROP_108008	POLE	443348.4N 0260409.8E	327/13FT	NIL	
LROP_108009	POLE	443348.9N 0260409.9E	328/13FT	NIL	
LROP_108010	POLE	443349.4N 0260409.9E	329/13FT	NIL	
LROP_108011	POLE	443349.9N 0260409.9E	329/13FT	NIL	

a	b	c	d	e	f
LROP_108012	POLE	443350.8N 0260411.1E	329/13FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_108013	POLE	443350.6N 0260411.0E	330/14FT	NIL	
LROP_108014	POLE	443350.9N 0260410.0E	331/15FT	NIL	
LROP_108015	POLE	443351.1N 0260411.0E	329/13FT	NIL	
LROP_108016	POLE	443351.6N 0260411.1E	329/13FT	NIL	
LROP_108017	POLE	443351.8N 0260410.0E	330/14FT	NIL	
LROP_108018	POLE	443352.3N 0260410.0E	330/14FT	NIL	
LROP_108019	POLE	443352.0N 0260411.1E	329/13FT	NIL	
LROP_108020	POLE	443352.5N 0260411.1E	333/17FT	NIL	
LROP_108021	POLE	443352.8N 0260410.0E	330/14FT	NIL	
LROP_108022	POLE	443353.3N 0260410.1E	330/14FT	NIL	
LROP_108023	POLE	443353.0N 0260411.1E	329/13FT	NIL	
LROP_108024	POLE	443353.7N 0260409.1E	331/18FT	NIL	
LROP_108025	POLE	443353.8N 0260410.1E	329/14FT	NIL	
LROP_108026	POLE	443354.0N 0260411.2E	329/13FT	NIL	
LROP_108027	POLE	443355.5N 0260411.3E	353/37FT	NIL	
LROP_108028	POLE	443355.3N 0260410.2E	329/14FT	NIL	
LROP_108029	POLE	443355.7N 0260410.2E	329/14FT	NIL	
LROP_108030	POLE	443356.0N 0260410.2E	351/36FT	NIL	
LROP_108032	NAVAID	443337.3N 0260424.7E	393/78FT	Marked W; LGTD	
LROP_108033	BUILDING	443335.7N 0260436.6E	359/49FT	NIL	
LROP_108071	ANTENNA	442338.6N 0260726.6E	726/461FT	Marked W/R; LGTD	
LROP_108120	BUILDING	443342.5N 0260349.2E	360/26FT	NIL	
LROP_108123	BUILDING	443344.1N 0260400.5E	356/45FT	NIL	
LROP_108146	SIGN	443416.3N 0260410.2E	382/63FT	NIL	
LROP_108147	SIGN	443419.8N 0260410.8E	402/85FT	NIL	
LROP_108148	POLE	443422.6N 0260413.8E	369/52FT	NIL	
LROP_108149	POLE	443423.3N 0260412.8E	368/51FT	NIL	
LROP_108199	TOWER	443327.1N 0260457.7E	376/66FT	NIL	
LROP_108206	SIGN	443410.1N 0260410.1E	398/82FT	NIL	
LROP_108253	FENCE	443354.0N 0260411.5E	325/11FT	NIL	
LROP_108254	FENCE	443355.3N 0260414.5E	324/11FT	NIL	
LROP_108255	FENCE	443355.8N 0260415.1E	323/11FT	NIL	
LROP_108256	FENCE	443356.5N 0260415.6E	321/11FT	NIL	
LROP_108337	NAVAID	443356.3N 0260156.2E	452/124FT	Marked W; LGTD	
LROP_108641	POLE	443421.9N 0260444.4E	410/104FT	Marked W/R; LGTD	
LROP_108642	POLE	443422.0N 0260446.5E	409/103FT	Marked W/R; LGTD	
LROP_108643	POLE	443422.2N 0260448.5E	409/103FT	Marked W/R; LGTD	
LROP_108644	POLE	443422.3N 0260450.5E	409/102FT	Marked W/R; LGTD	
LROP_108645	POLE	443422.4N 0260452.4E	409/103FT	Marked W/R; LGTD	

In Area 2					
		RWY 08L/26R			
OBST ID/ Designation	*OBST type*	*OBST position*	*ELEV/HGT*	*Markings/ Type, colour*	*Remarks*
a	b	c	d	e	f
LROP_1	POLE	444454.2N 0260554.7E	736/400FT	Marked W/R; LGTD	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_2	POLE	444456.3N 0260601.5E	736/399FT	Marked W/R; LGTD	
LROP_4	POLE	444451.9N 0260623.2E	731/391FT	Marked W/R; LGTD	
LROP_5	POLE	444455.1N 0260617.2E	731/390FT	Marked W/R; LGTD	
LROP_7	POLE	444508.6N 0260611.6E	737/405FT	Marked W/R; LGTD	
LROP_8	POLE	444503.3N 0260610.8E	736/403FT	Marked W/R; LGTD	
LROP_10	POLE	444454.8N 0260556.7E	733/397FT	Marked W/R; LGTD	
LROP_11	POLE	444455.2N 0260558.1E	733/397FT	Marked W/R; LGTD	
LROP_12	POLE	444455.7N 0260559.5E	733/397FT	Marked W/R; LGTD	
LROP_14	POLE	444452.9N 0260621.4E	738/397FT	Marked W/R; LGTD	
LROP_15	POLE	444453.5N 0260620.2E	738/397FT	Marked W/R; LGTD	
LROP_16	POLE	444454.2N 0260618.9E	738/397FT	Marked W/R; LGTD	
LROP_19	POLE	444504.9N 0260610.9E	729/397FT	Marked W/R; LGTD	
LROP_20	POLE	444506.0N 0260611.1E	729/397FT	Marked W/R; LGTD	
LROP_21	POLE	444507.1N 0260611.3E	729/397FT	Marked W/R; LGTD	
LROP_22	BUILDING	442848.7N 0260356.0E	681/394FT	NIL	
LROP_61	POLE	443819.8N 0260432.2E	615/289FT	NIL	
LROP_62	POLE	443816.7N 0260432.6E	616/291FT	NIL	

a	b	c	d	e	f
LROP_67	ANTENNA	443516.9N 0260424.0E	439/120FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_77	ANTENNA	443523.3N 0260433.9E	460/142FT	Marked W/R	
LROP_171	ANTENNA	443547.4N 0260752.4E	440/136FT	Marked W/R	
LROP_230	ANTENNA	443513.6N 0260159.5E	499/170FT	Marked W/R	
LROP_235	ANTENNA	443517.0N 0260349.6E	421/103FT	Marked W/R; LGTD	
LROP_264	STACK	442421.1N 0260910.2E	601/395FT	Marked W/R; LGTD	
LROP_265	STACK	442419.3N 0260909.3E	602/396FT	Marked W/R; LGTD	
LROP_266	STACK	442418.1N 0260914.6E	728/524FT	Marked W/R; LGTD	
LROP_267	STACK	442419.7N 0260916.0E	602/396FT	Marked W/R; LGTD	
LROP_268	STACK	442218.3N 0260630.5E	1081/826FT	Marked W/R; LGTD	
LROP_269	STACK	442525.1N 0255842.4E	886/588FT	Marked W/R; LGTD	
LROP_278	ANTENNA	442631.6N 0260218.5E	971/695FT	Marked W/R; LGTD	
LROP_279	ANTENNA	442836.9N 0260302.3E	642/353FT	Marked W/R; LGTD	
LROP_357	ANTENNA	443511.3N 0260430.0E	461/146FT	NIL	
LROP_441	ANTENNA	444235.0N 0263639.0E	513/345FT	Marked W/R; LGTD	
LROP_515	ANTENNA	444016.1N 0260450.4E	949/627FT	Marked W/R; LGTD	
LROP_2411	POLE	443607.6N 0260920.9E	436/139FT	NIL	
LROP_2413	POLE	443600.2N 0260928.2E	431/139FT	NIL	
LROP_2415	POLE	443552.7N 0260935.4E	436/139FT	NIL	
LROP_2417	POLE	443545.0N 0260942.9E	438/139FT	NIL	
LROP_2419	POLE	443537.3N 0260950.5E	439/139FT	NIL	
LROP_2422	POLE	443514.0N 0261013.3E	431/139FT	NIL	
LROP_2424	POLE	443529.6N 0260958.1E	437/140FT	NIL	
LROP_3920	BUILDING	443404.5N 0260408.1E	391/76FT	LGTD	
LROP_4195	BUILDING	443506.0N 0260757.8E	370/68FT	NIL	
LROP_4389	BUILDING	443507.7N 0260445.2E	368/53FT	NIL	
LROP_5542	BUILDING	443436.1N 0260414.3E	353/39FT	NIL	
LROP_5659	BUILDING	443427.3N 0260432.8E	351/41FT	LGTD	
LROP_8981	BUILDING	443424.6N 0260458.0E	360/51FT	LGTD	
LROP_9074	BUILDING	442853.2N 0260414.3E	645/359FT	LGTD	
LROP_9080	BUILDING	442614.1N 0260608.3E	600/337FT	LGTD	
LROP_9082	ANTENNA	442712.6N 0260624.0E	687/417FT	Marked W/R; LGTD	
LROP_9084	BUILDING	442840.7N 0260617.0E	726/455FT	Marked W/R; LGTD	
LROP_9085	BUILDING	442846.0N 0260608.3E	676/401FT	Marked W/R; LGTD	
LROP_9091	BUILDING	442533.4N 0260456.0E	681/394FT	NIL	
LROP_9092	BUILDING	442539.0N 0260514.7E	622/337FT	LGTD	
LROP_11879	CHIMNEY	445254.7N 0260027.5E	1071/610FT	Marked W/R; LGTD	
LROP_11880	CHIMNEY	445255.8N 0260031.9E	873/411FT	Marked W/R; LGTD	
LROP_11882	CHIMNEY	445307.0N 0260004.5E	1017/541FT	Marked W/R; LGTD	
LROP_11883	CHIMNEY	445302.4N 0260002.9E	1123/648FT	Marked W/R; LGTD	
LROP_12081	BUILDING	442716.5N 0260452.3E	635/371FT	NIL	
LROP_12082	BUILDING	442707.6N 0260337.4E	647/370FT	NIL	
LROP_90678	POLE	443417.9N 0260441.4E	382/70FT	Marked W/R; LGTD	
LROP_90679	POLE	443341.3N 0260500.4E	412/105FT	Marked W/R; LGTD	
LROP_90680	POLE	443340.8N 0260453.4E	414/105FT	Marked W/R; LGTD	
LROP_90681	POLE	443338.7N 0260445.4E	432/122FT	Marked W/R; LGTD	
LROP_90682	POLE	443413.5N 0260448.1E	454/145FT	Marked W/R; LGTD	
LROP_90683	POLE	443416.4N 0260455.6E	452/144FT	Marked W/R; LGTD	
LROP_90684	POLE	443412.4N 0260442.3E	381/70FT	Marked W/R; LGTD	
LROP_90685	POLE	443416.0N 0260441.7E	380/70FT	Marked W/R; LGTD	
LROP_90686	POLE	443413.5N 0260456.0E	454/145FT	Marked W/R; LGTD	
LROP_90687	POLE	443407.6N 0260453.6E	417/105FT	Marked W/R; LGTD	
LROP_90688	POLE	443410.6N 0260442.5E	383/71FT	Marked W/R; LGTD	
LROP_90689	POLE	443408.5N 0260442.9E	384/70FT	Marked W/R; LGTD	
LROP_90690	POLE	443406.8N 0260443.1E	385/70FT	Marked W/R; LGTD	
LROP_90691	POLE	443405.0N 0260443.4E	385/70FT	Marked W/R; LGTD	
LROP_90692	POLE	443415.5N 0260447.8E	454/145FT	Marked W/R; LGTD	
LROP_90693	POLE	443418.4N 0260603.0E	374/70FT	Marked W/R; LGTD	
LROP_90694	POLE	443418.2N 0260600.0E	371/67FT	Marked W/R; LGTD	
LROP_90695	POLE	443415.9N 0260550.4E	372/65FT	Marked W/R; LGTD	
LROP_90696	POLE	443415.6N 0260547.1E	372/65FT	Marked W/R; LGTD	
LROP_90697	POLE	443422.9N 0260550.1E	366/57FT	Marked W/R; LGTD	
LROP_90698	POLE	443423.0N 0260551.3E	365/57FT	Marked W/R; LGTD	
LROP_90699	POLE	443423.1N 0260552.6E	365/56FT	Marked W/R; LGTD	

a	b	c	d	e	f
LROP_90715	CONTROL_TOWER	443412.6N 0260439.4E	471/160FT	LGTD	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_90716	BUILDING	443408.0N 0260440.3E	385/72FT	LGTD	
LROP_90717	BUILDING	443418.3N 0260438.9E	374/61FT	NIL	
LROP_90719	POLE	443406.4N 0260434.1E	389/76FT	Marked W/R; LGTD	
LROP_90720	POLE	443411.3N 0260433.4E	388/76FT	Marked W/R; LGTD	
LROP_90721	POLE	443411.5N 0260436.8E	389/76FT	Marked W/R; LGTD	
LROP_90722	POLE	443406.7N 0260437.5E	389/76FT	Marked W/R; LGTD	
LROP_90723	BUILDING	443414.6N 0260448.8E	381/73FT	LGTD	
LROP_90725	CONTROL_TOWER	443414.0N 0260513.9E	390/80FT	LGTD	
LROP_90728	ANTENNA	443420.6N 0260513.4E	416/107FT	Marked W/R; LGTD	
LROP_90729	NAVAID	443419.0N 0260632.8E	434/130FT	Marked W/R; LGTD	
LROP_90776	BUILDING	443414.7N 0260531.3E	419/113FT	NIL	
LROP_90777	BUILDING	443425.8N 0260538.2E	391/83FT	NIL	
LROP_90804	BUILDING	443423.4N 0260527.7E	385/78FT	NIL	
LROP_90807	BUILDING	443427.9N 0260548.6E	362/52FT	LGTD	
LROP_90848	BUILDING	443423.2N 0260522.8E	381/71FT	NIL	
LROP_90850	BUILDING	443424.5N 0260522.3E	384/73FT	NIL	
LROP_90862	ANTENNA	443428.6N 0260548.8E	360/51FT	Marked W/R; LGTD	
LROP_90869	NAVAID	443440.9N 0260515.9E	360/50FT	Marked W/R; LGTD	
LROP_90871	ANTENNA	443441.3N 0260517.1E	344/33FT	Marked W/R; LGTD	
LROP_90874	NAVAID	443440.6N 0260512.0E	330/20FT	Marked W/R; LGTD	
LROP_90875	TOWER	443442.2N 0260525.2E	330/16FT	NIL	
LROP_90876	POLE	443441.9N 0260521.3E	339/26FT	NIL	
LROP_90881	OTHER	443432.1N 0260509.9E	330/20FT	Marked W/R; LGTD	
LROP_90883	POLE	443428.8N 0260440.5E	333/21FT	NIL	
LROP_90885	NAVAID	443436.8N 0260444.0E	328/16FT	Marked W/R; LGTD	
LROP_90886	NAVAID	443434.5N 0260444.5E	324/10FT	Marked W/R; LGTD	
LROP_90887	NAVAID	443434.5N 0260444.3E	334/20FT	Marked W/R; LGTD	
LROP_90888	NAVAID	443449.0N 0260756.6E	312/10FT	Marked W/R; LGTD	
LROP_90889	NAVAID	443449.0N 0260756.8E	322/21FT	Marked W/R; LGTD	
LROP_90891	BUILDING	443447.7N 0260804.6E	323/22FT	Marked W/R; LGTD	
LROP_90948	OTHER	443443.1N 0260734.1E	326/23FT	Marked W/R; LGTD	
LROP_90949	ANTENNA	443451.0N 0260724.8E	339/38FT	NIL	
LROP_90951	NAVAID	443450.3N 0260726.0E	349/47FT	Marked W/R; LGTD	
LROP_90954	NAVAID	443447.7N 0260640.6E	325/19FT	Marked W/R; LGTD	
LROP_90957	ANTENNA	443446.3N 0260621.6E	348/40FT	Marked W/R; LGTD	
LROP_90959	NAVAID	443444.3N 0260556.0E	328/19FT	Marked W/R; LGTD	
LROP_90963	BUILDING	443446.4N 0260622.1E	320/12FT	Marked W/R	
LROP_90967	NAVAID	443450.5N 0260729.6E	322/20FT	Marked W/R; LGTD	
LROP_90969	NAVAID	443409.5N 0260800.9E	357/57FT	Marked W/R	
LROP_91078	POLE	443434.1N 0260439.5E	321/10FT	NIL	
LROP_91079	POLE	443434.0N 0260438.2E	322/12FT	NIL	
LROP_91080	POLE	443433.9N 0260436.8E	323/12FT	NIL	
LROP_91081	POLE	443433.8N 0260435.4E	323/11FT	NIL	
LROP_91082	POLE	443433.7N 0260434.1E	324/12FT	NIL	
LROP_91083	POLE	443433.6N 0260432.7E	325/13FT	NIL	
LROP_91084	POLE	443433.5N 0260431.4E	326/13FT	NIL	
LROP_91202	BUILDING	443428.5N 0260439.1E	330/18FT	Marked W/R; LGTD	
LROP_91406	BUILDING	443438.5N 0260436.7E	330/16FT	LGTD	
LROP_91408	BUILDING	443428.4N 0260430.3E	328/16FT	NIL	
LROP_91412	BUILDING	443518.2N 0260421.8E	386/67FT	NIL	
LROP_91422	BUILDING	443432.6N 0260408.2E	353/39FT	NIL	
LROP_91446	BUILDING	443440.2N 0260410.3E	347/31FT	NIL	
LROP_91447	BUILDING	443433.2N 0260406.5E	348/34FT	NIL	
LROP_91450	BUILDING	443438.1N 0260410.3E	348/31FT	NIL	
LROP_91451	BUILDING	443438.6N 0260429.4E	345/30FT	NIL	
LROP_91455	BUILDING	443437.4N 0260424.9E	344/29FT	NIL	
LROP_91456	BUILDING	443436.4N 0260424.7E	346/31FT	NIL	
LROP_91458	BUILDING	443428.0N 0260428.0E	345/35FT	NIL	
LROP_91459	BUILDING	443439.0N 0260415.7E	342/26FT	NIL	
LROP_91460	BUILDING	443428.7N 0260416.2E	343/32FT	NIL	
LROP_91464	BUILDING	443433.5N 0260417.0E	339/24FT	NIL	
LROP_91465	BUILDING	443433.6N 0260416.0E	339/25FT	NIL	
LROP_91466	BUILDING	443428.2N 0260429.0E	343/32FT	NIL	

a	b	c	d	e	f
LROP_91467	BUILDING	443437.9N 0260416.5E	338/23FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_91470	BUILDING	443436.8N 0260429.4E	338/23FT	NIL	
LROP_91473	BUILDING	443435.9N 0260422.0E	340/25FT	NIL	
LROP_91474	BUILDING	443438.2N 0260430.8E	339/24FT	NIL	
LROP_91475	BUILDING	443434.7N 0260430.1E	338/25FT	NIL	
LROP_91477	BUILDING	443439.0N 0260419.0E	337/21FT	NIL	
LROP_91478	BUILDING	443437.0N 0260427.5E	339/24FT	NIL	
LROP_91479	BUILDING	443437.3N 0260429.7E	337/23FT	NIL	
LROP_91483	BUILDING	443435.8N 0260427.0E	335/20FT	NIL	
LROP_91486	BUILDING	443428.3N 0260427.1E	335/26FT	NIL	
LROP_91493	BUILDING	443438.0N 0260431.9E	330/16FT	NIL	
LROP_91495	BUILDING	443437.6N 0260434.4E	331/18FT	NIL	
LROP_91496	BUILDING	443423.9N 0260410.4E	352/37FT	NIL	
LROP_91497	BUILDING	443436.7N 0260425.4E	332/17FT	NIL	
LROP_91509	BUILDING	443410.8N 0260406.6E	371/55FT	NIL	
LROP_91754	BUILDING	443436.6N 0260434.4E	333/20FT	NIL	
LROP_91755	BUILDING	443436.3N 0260429.3E	335/21FT	NIL	
LROP_91756	BUILDING	443438.9N 0260420.3E	347/30FT	NIL	
LROP_91757	BUILDING	443450.3N 0260414.3E	369/54FT	NIL	
LROP_92281	BUILDING	443435.3N 0260416.3E	344/30FT	NIL	
LROP_92282	BUILDING	443437.2N 0260421.1E	354/39FT	NIL	
LROP_92289	BUILDING	443429.9N 0260428.9E	337/26FT	NIL	
LROP_92437	BUILDING	443439.1N 0260356.2E	369/51FT	NIL	
LROP_92438	BUILDING	443513.4N 0260432.3E	387/71FT	NIL	
LROP_92439	BUILDING	443429.3N 0260408.5E	352/38FT	NIL	
LROP_92461	BUILDING	443437.4N 0260435.5E	323/11FT	NIL	
LROP_92462	BUILDING	443432.9N 0260410.4E	354/39FT	NIL	
LROP_92463	BUILDING	443433.8N 0260410.1E	352/36FT	NIL	
LROP_92472	BUILDING	443437.8N 0260352.9E	360/42FT	NIL	
LROP_92484	BUILDING	443437.9N 0260422.4E	344/29FT	NIL	
LROP_92490	BUILDING	443439.0N 0260422.5E	339/22FT	NIL	
LROP_92492	BUILDING	443438.0N 0260420.0E	336/21FT	NIL	
LROP_92499	BUILDING	443436.4N 0260432.4E	335/23FT	NIL	
LROP_92558	BUILDING	443434.9N 0260426.9E	340/26FT	NIL	
LROP_92560	BUILDING	443426.9N 0260429.7E	333/23FT	NIL	
LROP_92564	BUILDING	443424.2N 0260408.2E	354/40FT	NIL	
LROP_92565	BUILDING	443423.1N 0260410.0E	357/41FT	NIL	
LROP_92724	BUILDING	443413.6N 0260425.1E	400/86FT	NIL	
LROP_94889	BUILDING	443436.5N 0260427.6E	350/36FT	NIL	
LROP_95519	BUILDING	443512.5N 0260418.4E	375/55FT	NIL	
LROP_95521	BUILDING	443500.4N 0260415.1E	370/54FT	NIL	
LROP_95523	BUILDING	443420.9N 0260416.1E	365/50FT	NIL	
LROP_95524	BUILDING	443452.2N 0260422.8E	366/50FT	NIL	
LROP_95896	BUILDING	443429.0N 0260430.2E	341/29FT	NIL	
LROP_104203	POLE	443501.3N 0260413.2E	399/79FT	Marked W/R	
LROP_104204	POLE	443503.7N 0260413.2E	400/79FT	Marked W/R	
LROP_104206	FUEL_SYSTEM	443449.1N 0260511.1E	364/51FT	LGTD	
LROP_104207	FUEL_SYSTEM	443448.5N 0260511.2E	367/53FT	NIL	
LROP_104208	FUEL_SYSTEM	443449.2N 0260517.2E	366/52FT	NIL	
LROP_104209	FUEL_SYSTEM	443449.4N 0260519.5E	365/51FT	NIL	
LROP_104210	FUEL_SYSTEM	443447.7N 0260519.7E	366/52FT	NIL	
LROP_107719	BUILDING	443514.4N 0260432.4E	398/82FT	NIL	
LROP_107735	BUILDING	443512.5N 0260432.4E	381/65FT	NIL	
LROP_107772	BUILDING	443413.6N 0260428.7E	409/95FT	NIL	
LROP_108032	NAVAID	443337.3N 0260424.7E	393/78FT	Marked W; LGTD	
LROP_108034	NAVAID	443452.7N 0260829.6E	338/41FT	Marked W/R; LGTD	
LROP_108036	NAVAID	443450.3N 0260830.0E	344/47FT	Marked W/R; LGTD	
LROP_108071	ANTENNA	442338.6N 0260726.6E	726/461FT	Marked W/R; LGTD	
LROP_108074	ANTENNA	443617.9N 0260408.7E	475/149FT	Marked W/R; LGTD	
LROP_108093	POLE	443529.5N 0260439.9E	422/104FT	NIL	
LROP_108094	POLE	443530.2N 0260439.6E	422/104FT	NIL	
LROP_108111	STACK	443532.0N 0260431.1E	410/91FT	NIL	
LROP_108143	NAVAID	443433.7N 0260418.8E	361/47FT	Marked W/R; LGTD	
LROP_108144	NAVAID	443431.3N 0260419.1E	362/49FT	Marked W/R; LGTD	

a	b	c	d	e	f
LROP_108145	BUILDING	443436.6N 0260422.1E	347/32FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LROP_108146	SIGN	443416.3N 0260410.2E	382/63FT	NIL	
LROP_108147	SIGN	443419.8N 0260410.8E	402/85FT	NIL	
LROP_108148	POLE	443422.6N 0260413.8E	369/52FT	NIL	
LROP_108149	POLE	443423.3N 0260412.8E	368/51FT	NIL	
LROP_108150	POLE	443424.8N 0260412.1E	367/30FT	NIL	
LROP_108151	POLE	443426.2N 0260412.4E	366/33FT	NIL	
LROP_108152	POLE	443427.9N 0260412.5E	363/36FT	NIL	
LROP_108153	POLE	443429.5N 0260412.5E	358/36FT	NIL	
LROP_108154	POLE	443430.1N 0260411.5E	353/37FT	NIL	
LROP_108155	POLE	443430.7N 0260412.5E	355/36FT	NIL	
LROP_108156	POLE	443432.2N 0260411.7E	355/37FT	NIL	
LROP_108159	BUILDING	443451.6N 0260534.3E	370/59FT	NIL	
LROP_108160	BUILDING	443451.6N 0260535.8E	375/64FT	NIL	
LROP_108206	SIGN	443410.1N 0260410.1E	398/82FT	NIL	
LROP_108212	FENCE	443441.9N 0260519.6E	325/11FT	NIL	
LROP_108213	FENCE	443442.0N 0260520.3E	325/11FT	NIL	
LROP_108214	FENCE	443442.5N 0260526.8E	325/11FT	NIL	
LROP_108226	FENCE	443454.5N 0260759.6E	311/11FT	NIL	
LROP_108641	POLE	443421.9N 0260444.4E	410/104FT	Marked W/R; LGTD	
LROP_108642	POLE	443422.0N 0260446.5E	409/103FT	Marked W/R; LGTD	
LROP_108643	POLE	443422.2N 0260448.5E	409/103FT	Marked W/R; LGTD	
LROP_108644	POLE	443422.3N 0260450.5E	409/102FT	Marked W/R; LGTD	
LROP_108645	POLE	443422.4N 0260452.4E	409/103FT	Marked W/R; LGTD	

		In Area 3			
OBST ID/ Designation	*OBST type*	*OBST position*	*ELEV/HGT*	*Markings/ Type, colour*	*Remarks*
a	b	c	d	e	f
LROP_90683	POLE	443416.4N 0260455.6E	451.7/144.3FT	Marked W/R; LGDT	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
LROP_90686	POLE	443413.5N 0260456.0E	453.5/145.3FT	Marked W/R; LGDT	
LROP_90687	POLE	443407.6N 0260453.6E	417.1/104.5FT	Marked W/R; LGDT	
LROP_90695	POLE	443415.9N 0260550.4E	372.2/65.3FT	Marked W/R; LGDT	
LROP_90696	POLE	443415.6N 0260547.1E	372.2/65.3FT	Marked W/R; LGDT	
LROP_90699	POLE	443423.1N 0260552.6E	364.7/56.1FT	Marked W/R; LGDT	
LROP_90700	POLE	443405.7N 0260515.4E	353.9/45.1FT	Marked W/R; LGTD	
LROP_90701	POLE	443406.0N 0260518.6E	352.4/44.4FT	Marked W/R; LGTD	
LROP_90702	POLE	443406.2N 0260521.8E	352.8/45.5FT	Marked W/R; LGTD	
LROP_90703	POLE	443406.4N 0260524.9E	351.1/44.7FT	Marked W/R; LGTD	
LROP_90704	POLE	443406.7N 0260528.1E	350.4/44.7FT	Marked W/R; LGTD	
LROP_90705	POLE	443406.9N 0260531.2E	349.8/44.3FT	Marked W/R; LGTD	
LROP_90706	POLE	443407.2N 0260534.4E	348.6/44.1FT	Marked W/R; LGTD	
LROP_90707	POLE	443407.4N 0260537.5E	348.2/43.8FT	Marked W/R; LGTD	
LROP_90708	POLE	443407.7N 0260540.7E	348.2/44.0FT	Marked W/R; LGTD	
LROP_90709	POLE	443407.9N 0260543.8E	348.3/44.4FT	Marked W/R; LGTD	
LROP_90710	POLE	443408.1N 0260547.0E	348.9/44.4FT	Marked W/R; LGTD	
LROP_90711	POLE	443408.4N 0260550.1E	349.9/44.4FT	Marked W/R; LGTD	
LROP_90712	POLE	443408.6N 0260553.3E	349.7/44.2FT	Marked W/R; LGTD	
LROP_90713	POLE	443408.9N 0260556.4E	349.8/44.4FT	Marked W/R; LGTD	
LROP_90714	POLE	443409.1N 0260559.6E	349.4/44.1FT	Marked W/R; LGTD	
LROP_90726	BUILDING	443415.7N 0260510.4E	319.5/13.1FT	NIL	
LROP_90727	BUILDING	443404.2N 0260443.2E	323.1/7.9FT	Marked W/R	
LROP_90737	SIGN	443402.3N 0260623.5E	306.1/3.6FT	NIL	
LROP_90738	SIGN	443402.9N 0260632.4E	306.1/3.9FT	NIL	
LROP_90739	SIGN	443405.1N 0260628.4E	305.8/3.3FT	NIL	
LROP_90740	SIGN	443405.6N 0260625.7E	305.8/3.6FT	NIL	
LROP_90741	SIGN	443405.8N 0260628.3E	306.1/3.9FT	NIL	
LROP_90742	ELECTRICAL_SYSTEM	443401.9N 0260652.9E	301.8/2.6FT	NIL	
LROP_90743	ELECTRICAL_SYSTEM	443401.6N 0260653.0E	301.8/3.0FT	NIL	
LROP_90744	ELECTRICAL_SYSTEM	443401.3N 0260653.0E	301.6/3.0FT	NIL	
LROP_90745	ELECTRICAL_SYSTEM	443401.0N 0260653.1E	300.9/2.6FT	NIL	
LROP_90746	ELECTRICAL_SYSTEM	443355.5N 0260456.6E	312.3/3.0FT	NIL	
LROP_90747	ELECTRICAL_SYSTEM	443355.8N 0260456.5E	311.8/3.0FT	NIL	

a	b	c	d	e	f
LROP_90748	ELECTRICAL_SYSTEM	443356.1N 0260456.5E	312.1/3.0FT	NIL	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
LROP_90749	ELECTRICAL_SYSTEM	443356.4N 0260456.4E	311.9/3.0FT	NIL	
LROP_90750	ELECTRICAL_SYSTEM	443445.2N 0260722.2E	305.1/2.6FT	NIL	
LROP_90751	ELECTRICAL_SYSTEM	443444.9N 0260722.2E	304.6/2.6FT	NIL	
LROP_90752	ELECTRICAL_SYSTEM	443444.6N 0260722.3E	304.3/2.6FT	NIL	
LROP_90753	ELECTRICAL_SYSTEM	443444.3N 0260722.3E	304.5/2.6FT	NIL	
LROP_90754	ELECTRICAL_SYSTEM	443439.3N 0260520.5E	312.6/3.0FT	NIL	
LROP_90755	ELECTRICAL_SYSTEM	443439.0N 0260520.6E	312.8/3.0FT	NIL	
LROP_90756	ELECTRICAL_SYSTEM	443438.7N 0260520.6E	312.8/3.0FT	NIL	
LROP_90757	ELECTRICAL_SYSTEM	443438.4N 0260520.6E	313.1/3.0FT	NIL	
LROP_90758	POLE	443350.5N 0260528.8E	331.8/24.6FT	NIL	
LROP_90759	POLE	443349.6N 0260513.5E	333.2/24.6FT	NIL	
LROP_90760	POLE	443349.3N 0260507.8E	333.6/24.6FT	NIL	
LROP_90774	SIGN	443351.2N 0260529.0E	308.4/3.6FT	NIL	
LROP_90775	SIGN	443351.3N 0260531.1E	309.7/3.6FT	NIL	
LROP_90788	POLE	443428.8N 0260523.5E	339.2/28.5FT	NIL	
LROP_90789	POLE	443428.9N 0260526.0E	340.2/28.5FT	NIL	
LROP_90790	POLE	443429.0N 0260527.3E	340.0/28.5FT	NIL	
LROP_90791	POLE	443429.1N 0260528.6E	340.5/28.5FT	NIL	
LROP_90792	POLE	443429.2N 0260530.0E	340.4/28.5FT	NIL	
LROP_90793	POLE	443429.3N 0260531.3E	339.9/28.5FT	NIL	
LROP_90794	POLE	443429.5N 0260532.6E	338.9/28.5FT	NIL	
LROP_90795	POLE	443429.6N 0260534.0E	338.2/28.5FT	NIL	
LROP_90796	POLE	443429.6N 0260535.3E	337.2/28.5FT	NIL	
LROP_90797	POLE	443429.7N 0260536.6E	337.2/28.5FT	NIL	
LROP_90798	POLE	443429.8N 0260538.0E	336.5/28.5FT	NIL	
LROP_90799	POLE	443429.9N 0260539.2E	335.4/28.5FT	NIL	
LROP_90800	POLE	443430.0N 0260540.5E	335.4/28.5FT	NIL	
LROP_90801	POLE	443430.1N 0260541.9E	335.5/28.5FT	NIL	
LROP_90859	BUILDING	443404.9N 0260513.3E	324.7/15.9FT	Marked W/R	
LROP_90860	SIGN	443401.1N 0260511.1E	312.7/3.9FT	NIL	
LROP_90861	SIGN	443400.8N 0260506.7E	313.3/3.9FT	NIL	
LROP_90863	ANTENNA	443430.7N 0260551.2E	340.2/31.9FT	Marked W/R; LGTD	
LROP_90865	BUILDING	443430.2N 0260551.5E	323.8/15.1FT	Marked W/R	
LROP_90868	BUILDING	443430.1N 0260551.8E	319.5/11.4FT	Marked W/R	
LROP_90879	POLE	443427.8N 0260502.2E	333.1/20.6FT	NIL	
LROP_90881	OTHER	443432.1N 0260509.9E	330.1/20.3FT	Marked W/R; LGDT	
LROP_90932	NAVAID	443345.2N 0260435.7E	330.7/20.9FT	LGDT	
LROP_90933	POLE	443345.9N 0260436.1E	331.5/21.8FT	NIL	
LROP_90934	POLE	443346.0N 0260441.3E	331.2/20.9FT	NIL	
LROP_90943	BUILDING	443345.0N 0260435.8E	322.2/12.5FT	NIL	
LROP_90948	OTHER	443443.1N 0260734.1E	326.1/23.3FT	Marked W/R; LGDT	
LROP_90964	SIGN	443440.6N 0260640.1E	308.0/3.6FT	NIL	
LROP_90965	SIGN	443438.7N 0260638.9E	309.1/3.6FT	NIL	
LROP_91000	POLE	443404.8N 0260715.2E	302.4/1.1FT	NIL	
LROP_91011	POLE	443352.7N 0260434.7E	313.8/1.1FT	NIL	
LROP_91059	POLE	443447.9N 0260741.6E	303.5/1.5FT	NIL	
LROP_91063	POLE	443435.7N 0260501.1E	314.1/1.5FT	NIL	
LROP_108197	SIGN	443356.8N 0260437.6E	315.5/3.9FT	NIL	
LROP_108198	SIGN	443356.6N 0260435.0E	316.3/3.9FT	NIL	
LROP_108201	SIGN	443445.7N 0260743.2E	304.1/3.3FT	NIL	
LROP_108202	SIGN	443444.2N 0260740.2E	306.4/3.6FT	NIL	
LROP_108228	FENCE	443431.8N 0260557.4E	316.6/10.7FT	NIL	
LROP_108229	FENCE	443431.3N 0260556.7E	316.9/10.7FT	NIL	
LROP_108230	FENCE	443419.6N 0260558.3E	316.3/10.7FT	NIL	
LROP_108238	FENCE	443406.6N 0260630.3E	312.2/10.7FT	NIL	
LROP_108249	FENCE	443346.0N 0260441.0E	320.8/10.7FT	NIL	
LROP_108250	FENCE	443345.2N 0260436.3E	321.5/10.7FT	NIL	
LROP_108251	FENCE	443345.8N 0260436.2E	320.7/10.7FT	NIL	
LROP_108285	FENCE	443421.5N 0260453.2E	320.7/10.7FT	NIL	
LROP_108286	FENCE	443422.2N 0260502.1E	321.6/10.7FT	NIL	
LROP_108287	FENCE	443422.7N 0260503.0E	321.7/10.7FT	NIL	
LROP_108288	FENCE	443427.1N 0260502.4E	314.0/10.7FT	NIL	
LROP_108289	FENCE	443427.2N 0260503.0E	322.9/10.7FT	NIL	

a	b	c	d	e	f
LROP_108290	FENCE	443427.5N 0260503.0E	322.3/10.7FT	NIL	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
LROP_108291	FENCE	443427.7N 0260502.2E	320.3/10.7FT	NIL	
LROP_108292	FENCE	443428.5N 0260502.1E	323.4/10.7FT	NIL	
LROP_108295	FENCE	443426.8N 0260508.3E	321.7/10.7FT	NIL	
LROP_108296	FENCE	443426.9N 0260507.4E	320.9/10.7FT	NIL	
LROP_108297	FENCE	443427.7N 0260507.5E	321.3/10.7FT	NIL	
LROP_108298	FENCE	443428.2N 0260508.8E	321.8/10.7FT	NIL	
LROP_108299	FENCE	443430.3N 0260535.4E	319.3/10.7FT	NIL	
LROP_108300	FENCE	443430.2N 0260541.6E	317.8/10.7FT	NIL	
LROP_108301	FENCE	443430.5N 0260546.4E	320.4/10.7FT	NIL	
LROP_108311	FENCE	443422.8N 0260552.6E	319.0/10.7FT	NIL	
LROP_108312	FENCE	443415.9N 0260553.6E	317.0/10.7FT	NIL	
LROP_108313	FENCE	443414.5N 0260552.2E	317.2/10.7FT	NIL	
LROP_108314	FENCE	443413.4N 0260538.1E	315.7/10.7FT	NIL	
LROP_108318	FENCE	443414.7N 0260531.3E	315.9/10.7FT	NIL	
LROP_108320	FENCE	443412.8N 0260530.3E	314.9/10.7FT	NIL	
LROP_108321	FENCE	443412.3N 0260524.0E	316.8/10.7FT	NIL	
LROP_108324	FENCE	443411.6N 0260511.3E	320.3/10.7FT	NIL	
LROP_108325	FENCE	443412.0N 0260510.5E	319.1/10.7FT	NIL	
LROP_108326	FENCE	443414.3N 0260510.2E	319.1/10.7FT	NIL	
LROP_108327	FENCE	443415.5N 0260510.0E	318.9/10.7FT	NIL	
LROP_108330	FENCE	443418.1N 0260509.6E	319.4/10.7FT	NIL	

LROP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	*Associated MET Office*	BUCUREŞTI / Otopeni
2	*Hours of service* *MET Office outside hours*	H24 -
3	*Office responsable for TAF preparation* *Periods of validity* *Interval of issuance*	LROM 24 HR 6 HR, during aerodrome operational hours
4	*Type of landing forecast* *Interval of issuance*	TREND As necessary or at least 30 MIN
5	*Briefing / consultation provided*	MET staff consultation, AWOS terminal, satellite terminal
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)21-2032153 / +40-(0)21-3114317 Tel/Fax: +40-(0)21-2032152 / +40-(0)21-3114318 +40-(0)21-2032166
9	*ATS units provided with information*	BUCUREŞTI APP, Otopeni TWR
10	*Additional information (limitation of service, etc.)*	NIL

LROP 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
08R	083.94°	3501 x 45	69/R/D/W/T Asphalt	443352.75N 0260436.02E 443404.71N 0260713.81E GUND 114 FT	THR 313.3 FT TDZ 313.3 FT	0% (1751M) -0.16% (1750M)
26L	263.97°	3501 x 45	69/R/D/W/T Asphalt	443404.71N 0260713.81E 443352.75N 0260436.02E GUND 114 FT	THR 302.2 FT TDZ 302.2 FT	0.16% (1750M) 0% (1751M)
08L	083.94°	3500 x 45	93/R/D/W/T Asphalt	443435.82N 0260502.49E 443447.75N 0260740.26E GUND 114 FT	THR 313.8 FT TDZ 313.8 FT	-0,2% (145M) -0,1% (2238M) -0,3% (488M) 0,3% (355M) -0,3% (274M)
26R	263.97°	3500 x 45	93/R/D/W/T Asphalt	443447.75N 0260740.26E 443435.82N 0260502.49E GUND 114 FT	THR 303.6 FT TDZ 305.6 FT	0,3 % (274M) -0,3 % (355M) 0,3 % (488M) 0,1 % (2238M) 0,2 % (145M)

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	260 x 205	3621 x 300	240 x 300	NIL	YES	RWY Shoulders: 7.5m on each side.
NIL	320 x 205	3621 x 300	240 x 300	NIL	YES	RWY Shoulders: 7.5m on each side.
NIL	250 x 225	3620 x 300	240 x 300	NIL	YES	RWY Shoulders: 7.5m on each side.
NIL	373 x 225	3620 x 300	240 x 300	NIL	YES	RWY Shoulders: 7.5m on each side.

LROP AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
08R	3501	3761	3501	3501	NIL
26L	3501	3821	3501	3501	NIL
08L	3500	3750	3500	3500	NIL
26R	3500	3873	3500	3500	NIL

REDUCED DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	Remarks
1	2	3	4	6
08R “TWY G”	2764	3024	2764	NIL
08R “TWY H” for MIL/state aircraft only	2764	3024	2764	NIL
26L “TWY D”	2489	2809	2489	NIL
08R ”TWY F” for MIL/state aircraft only	2326	2586	2326	NIL

LROP 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
08R	ALSF-II 900 M	Green	PAPI 2.7° (62 FT)	White, 900 M	2600 M, 15 M, white, LIH; 600 M, 15 M, white/red, LIH; 300 M, 15 M, red, LIH.	2900 M, 60 M, white, LIH; 600 M, 60 M, yellow, LIH.	Red	NIL	Turn pad lights
26L	CAT I 900 M, LIH	Green	PAPI 2.7° (64 FT)	NIL	2600 M, 15 M, white, LIH; 600 M, 15 M, white/red, LIH; 300 M, 15 M, red, LIH.	2900 M, 60 M, white, LIH; 600 M, 60 M, yellow, LIH.	Red	NIL	NIL
08L	ALSF-II 900 M	Green	PAPI 3° (56 FT*)	White, 900 M	2600 M, 15 M, white, LIH; 600 M, 15 M, white/red, LIH; 300 M, 15 M, red, LIH.	2900 M, 60 M, white, LIH; 600 M, 60 M, yellow, LIH.	Red	NIL	Rapid exit taxiway indicator lights installed for RET W and V
26R	ALSF-II 900 M, LIH	Green	PAPI 3° (59 FT*)	White, 900 M	2600 M, 15 M, white, LIH; 600 M, 15 M, white/red, LIH; 300 M, 15 M, red, LIH.	2900 M, 60 M, white, LIH; 600 M, 60 M, yellow, LIH.	Red	NIL	

***** For eye to wheel HGT of ACFT in APCH configuration with more than 10.5 M check wheel clearence. / Pentru aeronavele care în configurație de aterizare au distanța dintre ochii pilotului și roți, mai mare de 10.5 M, trebuie verificată distanța de la roți la sol.

LROP 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: Blue edge lights are installed on TWY A, B, G, ~~N~~, S, lights at around 6 m from TWY edge. Centre line lights: green on TWY A, B, D, E, G, N, P, Q, S, V, W. Distance between center line lights on TWY is 30m. Exit taxiway centre line lights: yellow/green. Intermediate holding position lights (IHPL), yellow lights at intersection TWY P/D/C and yellow LED lights at intersection of TWY's N/Q, P/Q/W, Q/V, P/T, N/C/G/E, TWY P/C1, TWY U/C and TWY U/C1. At all TWY intersection with RWY are installed RWY guard lights (LIH) Apron TWY lights: TWY C, P - between C and C1, U - green. TWY J,K,M – No center line lights. Aircraft stand taxilane: TWY C1 and L centre line lights: green.
4	*Secondary power supply/switch-over time*	Secondary power supply to all lighting on RWY's and TWY's, max. switch-over time 1 s.
5	*Remarks*	Aircraft stand lights: 131-134 stands centre line yellow lights and red lights for stop position. 201-224 and alternative stands 201R/L, 202R/L, 203R/L stand centerline LED yellow lights and red lights for stop position.

LROP AD 2.16 HELICOPTER LANDING AREA

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

LROP AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	OTOPENI CTR 444651N 0260448E - 444050N 0262233E - 443409N 0262442E - 443005N 0255635E - 443123N 0254558E - 443726N 0254443E - 444651N 0260448E
2	*Vertical limits*	SFC to 2000 FT (600 M) AMSL
3	*Airspace classification*	C
4	*ATS unit call sign* *Language(s)*	Otopeni Tower English
5	*Transition altitude*	4000 FT (1200 M) AMSL
6	*Hours of applicability*	As ATS
7	*Remarks*	NIL

LROP 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	Otopeni Tower	118.805 120.900 ALTN 121.500 EMERG	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
TWR	Otopeni Ground	121.855 121.700 ALTN	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
TWR	Otopeni Clearance Delivery	121.955 121.700 ALTN	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
APP/SRE	Bucureşti Approach	119.415 120.600 ALTN	NIL	NIL	H24	NIL
	Bucureşti Director	127.155 120.600 ALTN	NIL	NIL	HX	At ATC instruction only. For ARR TFC below FL065 and above 2000 FT AMSL
ATIS	Otopeni ATIS	118.500 MHz	NIL	NIL	H24	NIL

LROP 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
LOC 08R (6°E/2020) ILS CAT III (III.E.4)	IOP	110.300 MHz	H24	443406.4N 0260736.0E	-	NIL	Front course angle 3.06°
GP 08R	-	335.000 MHz	H24	443349.7N 0260452.8E	-	NIL	GP Angle 2.7°, ILS RDH 51 FT
DME 08R	IOP	1001.000 MHz CH 40X	H24	443349.7N 0260452.8E	400 FT	NIL	Collocated with GP 08R antenna
NDB(LO)	OPW	267.5 KHz	H24	443327.9N 0255904.7E	-	NIL	258°MAG/3.97NM from THR 08R
LOC 26L (6°E/2020) ILS CAT I (III.E.4)	IOE	109.100 MHz	H24	443351.2N 0260415.4E	-	NIL	Front course angle 3.02°
GP 26L	-	331.400 MHz	H24	443359.6N 0260658.9E	-	NIL	GP Angle 2.7°, ILS RDH 50 FT
DME 26L	IOE	989.000 MHz CH 28X	H24	443359.6N 0260658.9E	400 FT	NIL	Collocated with GP 26L antenna

1	2	3	4	5	6	7	8
NDB(LO)	OPE	349 KHz	H24	443429.2N 0261240.5E	-	NIL	078°MAG/3.91 NM from THR 26L
LOC 08L (6°E/2020) ILS CAT II (III.E.4)	ILL	110.900 MHz	H24	443449.0N 0260756.8E	-	NIL	Front course angle 3.18°
GP 08L	-	330.800 MHz	H24	443440.9N 0260515.9E	-	NIL	GP Angle 3°, ILS RDH 51 FT
DME 08L	ILL	1007 MHz CH 46X	H24	443440.9N 0260515.9E	400 FT	NIL	Collocated with GP 08L antenna
LOC 26R (6°E/2020) ILS CAT I (III.E.4)	IRR	110.700 MHz	H24	443434.4N 0260444.4E	-	NIL	Front course angle 3.14°
GP 26R	-	330.200 MHz	H24	443450.3N 0260726.0E	-	NIL	GP Angle 3°, ILS RDH 54 FT
DME 26R	IRR	1005.000 MHz CH 44X	H24	443450.5N 0260725.8E	400 FT	NIL	NIL
NDB(LO)	OTL	370 KHz	H24	443412.9N 0260002.2E	-	NIL	258°MAG/3.60 NM from THR 08L
~~LM~~	~~LL~~	~~659 KHz~~	~~H24~~	~~443432.5N 0260419.0E~~	~~-~~	~~NIL~~	~~260°MAG/0.51 NM from THR 08L~~
NDB(LO)	OTR	318 KHz	H24	443516.8N 0261407.3E	-	NIL	078°MAG/4.60 NM from THR 26R
VOR/DME (6°E/2020)	FLR	112.200 MHz CH 59X	H24	443003.1N 0254229.4E	400 FT	NIL	Coverage 150 NM (assumed)
DVOR/DME (6°E/2020)	OPT	117.100 MHz CH 118X	H24	443532.6N 0263336.6E	300 FT	NIL	Coverage 80 NM (assumed)
DVOR/DME (6°E/2020)	STJ	113.200 MHz CH 79X	H24	445506.8N 0255837.3E	600 FT	NIL	Coverage 80 NM (assumed)
DME	COM	1069.000 MHz CH 45X	H24	441032.9N 0260858.7E	400 FT	NIL	Coverage 100 NM (assumed)
DME	ISA	1129.000 MHz CH 105Y	H24	450709.1N 0263235.2E	2500 FT	NIL	Coverage 100 NM (assumed)
DME	PMT	1118.000 MHz CH 94X	H24	444637.8N 0252308.4E	900 FT	NIL	Coverage 100 NM (assumed)
NDB(LO)	BSE	256 KHz	H24	443146.7N 0261349.9E	-	NIL	-
NDB(LO)	BSW	521 KHz	H24	442819.5N 0255707.2E	-	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.

LROP AD 2.20 LOCAL AERODROME REGULATIONS / REGLEMENTĂRI DE AERODROM LOCALE

1. Airport regulations / Reglementări de aeroport

1.1. Taxiing of Aircraft on the Apron

On LROP the following taxiway are classified as Aircraft stand taxi lanes and apron taxiways:

C: EASA Code C - apron Taxiway
J: EASA Code D - apron Taxiway
K: EASA Code D - apron Taxiway
M: EASA Code E - apron Taxiway
P between TWY C and C1: EASA Code E - apron Taxiway
U: EASA Code C - apron taxiway
C1: EASA Code C - aircraft stand taxilane - only aircraft taxiing for exit from stands 204-224
L: EASA Code C - aircraft stand taxilane
T: EASA Code C - aircraft stand taxilanes

On these aircraft stand taxilanes, reduced wing-tip clearances of at least 4.5 m from obstacles have been defined for aircraft of EASA code A, B, C and 7.5 m for aircraft of EASA code D, E and F.

Because of distances from obstacles, the yellow taxi guide lines shall be strictly observed on the apron taxiways and on aircraft stand taxilanes. Taxi speed shall be adjusted accordingly.

1.1 Rularea aeronavelor pe platformă

Pe LROP următoarele căi de rulare sunt clasificate ca și căi de rulare de platformă (apron Taxiway) sau căi de rulare de acces la pozițiile de staționare (aircraft stand taxilane):

C: EASA Code C - apron Taxiway
J: EASA Code D - apron Taxiway
K: EASA Code D - apron Taxiway
M: EASA Code E - apron Taxiway
P between TWY C and C1: EASA Code E - apron Taxiway
U: EASA Code C - apron taxiway
C1: EASA Code C - aircraft stand taxilane - numai pentru rularea aeronavelor care ies de la standurile 204-224
L: EASA Code C - aircraft stand taxilane
T: EASA Code C - aircraft stand taxilanes

Pe aceste căi de rulare, distanțele de siguranță de la vârful planului la un obstacol sunt de 4.5 m pentru aeronave cod A, B, C (EASA) și 7.5 m pentru aeronave cod D, E, F (EASA).

Datorită distanțelor până la obstacole, marcajele galbene de ghidare trebuie respectate strict. Viteza de rulare va fi adaptată în consecință.

Aircraft are permitted to taxi on the apron without guidance by a follow-me car only if permanent radio contact with Otopeni Ground can be maintained during the entire taxiing maneuver. If Otopeni Ground advises 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 Otopeni Ground. Follow-me cars are identifiable by a functioning lighting signals ramp (Follow Me) and orange omni-directional light/flashing light.

On the aprons aircraft are permitted to taxi only at the indispensable minimum engine thrust.
When taxiing into aircraft stands, aircraft shall generally not stop in curves between the centerlines of apron taxiways or aircraft stand taxi lanes and the centerlines of aircraft stands so as to avoid the further appliance of break-away power.
Aircraft taxiing for exit from 204-224 shall generally not stop in curves, so as to avoid the further appliance of breakaway power.

Parking of aircraft at the positions is performed:
- according to the signals of the marshaller on APRON 1 at aircraft stands 108, 116-122, 131-134, alternative stands and on APRON 2 at all stands or
- by means of Stand Entry Guidance at aircraft stands 101-107, 109-115 on APRON 1;

Aircraft may leave nose-in positions (see AD 2.5-22 and AD 2.5-23, stands 201-203), only by the aid of towing cars or using power back.

Reverse thrust shall not be used. Aircraft operators shall make suitable arrangements.
Crews shall request start up/ pushback approval only when fully ready to push. This should include doors and hatches closed, steps or air bridge removed, tug attached and communications established with ground crew with confirmation that they are ready. To prevent incidents and back of stand vehicle traffic congestion, anti-collision beacons should only be switched on only after start up/ pushback approval has been obtained.

1.2 OPERATION OF MODE S TRANSPONDERS WHEN AIRCRAFT IS ON THE GROUND

Aircraft operators shall ensure that the Mode S transponders are able to operate when aircraft is on the ground, according to ICAO specifications (Annex 10, volume IV, 3.1.2.8.5.3 and 3.1.2.10.3.10).

Aircrews shall select the assigned Mode A code and activate the Mode S by selecting AUTO, ON, XPNDR, or the equivalent according to specific installation and assigned Mode A code under the following conditions:
- from request of push-back or taxi, whichever is earlier;
- after landing, continuously untill the aircraft is fully parked on the stand.

The transponder shall be switched off immediately after parking.
Whenever the aircraft is capable of reporting flight identification (i.e. call sign used in flight), the flight identification should also be entered from the request for push-back or taxi, whichever is earlier (through the FMS or the trannsponder control panel). Aircrews shall use the format as defined in field 7 f the ICAO flight plan for entry of the flight identification.
To ensure that the performance of the systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised, TCAS shall shall not be activated before receiving the clearance to line-up. After landing, it shall be deactivated after vacating the runway.

1.3 USE OF AIRPORT BY HIGHER CODE LETTER AIRCRAFT

1.3.1. General

LROP airport reference code letter is 4E.
In this context, aircraft with higher code than 4E, means wingspan greater than 65m or outer main gear wheel span greater (OMGWS) than 14m.
Aircraft with code higher than aerodrome code 4E (wingspan greater than 65m and outer main gear wheel span OMGWS greater than 14m):

a) shall obtain aerodrome operator's prior approval; request will be sent at ops@cnab.ro, minimum 60 days before flight;

b) in case of declared emergency situation may use LROP without prior approval.

Rularea aeronavelor pe platformă este permisă fără însoţire Follow Me numai dacă sunt în legătură radio permanentă cu Otopeni Ground pe toată perioada manevrelor de rulare. În situaţia în care Otopeni Ground recomandă 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 la Otopeni Ground.
Vehiculele Follow Me sunt identificabile prin rampele luminoase de semnalizare (Follow Me) şi girofar de culoare orange.
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, aeronavele nu vor opri în curbe, pentru a evita turarea suplimentară a motoarelor în vederea punerii în mişcare.

Aeronavele care rulează pentru ieșirea de la pozițiile de staționare 204-224 nu vor oprii în curbe pentru a evita turarea suplimentară a motoarelor pentru repunerea în mișcare.
Parcarea aeronavei la poziţiile de staţionare se face:
- în conformitate cu semnalele marshaler-ului pe APRON 1 la poziţiile de stationare 108, 116-122, 131-134, pozițiile alternative şi pe APRON 2 la toate poziţiile sau
- cu indicaţiile Stand Entry Guidance la poziţiile de staţionare 101-107 şi 109-115 pe APRON 1;

Ieşirea aeronavelor din poziţiile de staţionare nose-in (vezi AD 2.5-22 şi AD 2.5-23, pozițiile de staționare 201-203) se face numai cu echipamente de tractare/împingere sau prin power back.
Utilizarea reversoarelor de tracţiune este interzisă. Operatorii aerieni vor avea stabilite aranjamentele necesare.
Echipajele vor solicita autorizarea de pornire/ împingere înapoi numai dacă pregătirea aeronavei pentru plecare a fost finalizată. Aceasta include închiderea ușilor și a trapelor, scărilor și punților mobile de îmbarcare, remorcherul este cuplat și sunt stabilite comunicațiile cu personalul de sol care a confirmat că sunt pregătiți pentru manevră. Pentru a preveni producerea de incidente și aglomerări ale traficului rutier, luminile anti-coliziune vor fi pornite numai după obținerea aprobării de pornire/împingere înapoi.

1.2 OPERAREA TRANSPONDERELOR MOD S CÂND AERONAVA ESTE LA SOL

Operatorii aeronavelor se vor asigura că transpoderele Mod S sunt capabile să opereze când aeronava este la sol, în conformitate cu specificaţiile OACI (Anexa 10, volumul IV, 3.1.2.8.5.3 şi 3.1.2.10.3.10).
Echipajele aeronavelor vor selecta codul Mod A alocat şi vor activa Modul S selectând AUTO, ON, XPDR sau poziţia echivalentă în funcţie de echipamentul propriu şi de codul Mod A alocat, în următoarele condiţii:
- la cererea de "push-back" sau de rulaj, oricare ar fi prima;
- neîntrerupt după aterizare, până când aeronava este complet parcată la stand.

Transponderul va fi oprit imediat după parcare.
Atunci când aeronava este capabilă să raporteze identificarea zborului (ex. indicativul folosit în zbor) identificarea zborului trebuie de asemenea introdusă odată cu cererea de "push-back" sau de rulaj, oricare ar fi prima (prin intermediul FMS sau panoul de control al transponderului). Echipajele de zbor vor utiliza formatul definit în câmpul 7 al planului de zbor în format OACI pentru introducerea identificării zborului.
Pentru a asigura că nu este afectată performanţa sistemelor bazate pe frecvenţele SSR (inclusiv echipamentele TCAS de la bord şi radarele SSR), TCAS nu va fi activat înainte de primirea autorizării de aliniere. După aterizare, va fi dezactivat după eliberarea pistei.

1.3 UTILIZAREA AEROPORTULUI DE CĂTRE AERONAVE CU LITERĂ DE COD SUPERIOARĂ

1.3.1. Generalităţi

Litera de cod a LROP este 4E.
În acest context, aeronave de cod superior decât 4E, înseamnă aeronave cu anvergură mai mare de 65m sau lățime a trenului principal mai mare de 14m.
Aeronavele cu litera de cod superioară celei de referință a aerodromului 4E (anvergură mai mare de 65m și lățime totală a trenului principal OMGWS mai mare de 14m):

a) trebuie să obțină în prealabil aprobarea operatorului de aerodrom; solicitarea va fi transmisă pe adresa ops@cnab.ro cu minim 60 zile înaintea zborului;
b) în cazul unei situații de urgență declarate, pot utiliza LROP fără aprobare prealabilă.

1.3.2. Restrictions for turn pad on RWY 08R
Turn pad dimensions are 33.7m x 72m and strength is 42/R/D/W/T - see Aerodrome ground movement chart AD 2.5-21.

Visual aids on Turn pad 26L are designed for a/c with distance from main gear to cockpit less than 19.48m and outer main gear wheel span less than 11m.

Turn pad 26L should be used according to aircraft flight manual (AFM) and airline SOP limitations.

1.3.3. Use of RWY 08R/26L
Aircraft with wingspan greater than 52m and outer main gear wheel span OMGWS greater than 9m:
a) shall vacate RWY08R via TWY D; if not able, shall wait for towing and push-back procedures, and will shut down engine no.1 and no. 4 (if applicable).
If aircraft is not able to vacate RWY on TWY D, pilot may decide and request ATC to backtrack the runway using Turn pad 26L, according to aircraft flight manual (AFM) and airline SOP limitations.

b) for departure 26L, shall take off from TWY D intersection (TORA 2489m).

1.3.2. Restricţii pentru platforma de întoarcere de la RWY 08R
Dimensiunile platformei de întoarcere sunt 33.7m x 72m, iar rezistența pavajului este 42/R/D/W/T - vezi Aerodrome ground movement chart AD 2.5-21.
Mijloacele vizuale instalate pe Platforma de întoarcere 26L sunt proiectate pentru aeronave cu distanța dintre cockpit și trenul principal mai mică de 19.48m și lățimea trenului principal mai mică de 11m.
Platforma de întoarcere 26L ar trebui utilizată conform limitărilor din Manualul de zbor al aeronavei (AFM) și limitările procedurilor companiei aeriene (SOP).
1.3.3. Utilizarea pistei 08R/26L
Aeronavele cu anvergură mai mare de 52m și lățime totală a trenului principal OMGWS mai mare de 9m:
a) trebuie să degajeze pista 08R via TWY D; în caz contrar, trebuie să aștepte pentru procedura de împingere/tractare și va opri motoarele nr. 1 și nr. 4 (dacă este cazul).
În situatia în care aeronava nu reușește să degajeze pista pe TWY D, pilotul poate decide să efectueze o întoarcere de 180° pe platforma de întoarcere 26L în conformitate cu prevederile Manualului de zbor (AFM) si cu limitările procedurilor companiei aeriene (SOP).
b) pentru plecare 26L, trebuie să decoleze de la intersecția pistei cu TWY D (TORA 2489m).

2. TAXI ROUTES / RUTELE DE RULARE

On LROP following taxiing restrictions/limitations are in force:
- aircraft with wingspan greater than 52 m are NOT allowed to taxi on TWY A.
- aircraft departing from RWY 26L may line-up from TWY D (TORA 2489m) or may use 26L THR turn pad, according to airline's SOP. The 26L THR turn pad with dimensions of 33.7m x 72m, strength 43/R/D/W/T, is authorised for aircraft with distance from the main gear to cockpit less than 19.48m and outer main gear wheel span (OMGWS) less than 11m - see Aerodrome ground movement chart AD 2.5-21.
- taxi routes usable taking into account aircraft wingspan are represented în Aerodrome ground movement chart AD 2.5-21a.

Pe LROP sunt aplicabile următoarele restricții de rulare:
- aeronavele cu anvergura mai mare de 52 m nu au voie să ruleze pe TWY A.
- pentru decolarea de pe RWY 26L, aeronavele se pot alinia de la intersecția RWY 26L cu TWY D (TORA 2489m) sau pot utiliza platforma de întoarcere de la pragul 26L, conform procedurilor proprii ale companiei aeriene. Platforma de întoarcere de la pragul 26L, având dimensiunile 33.7m x 72m, rezistența pavajului 43/R/D/W/T, este autorizată pentru aeronave cu distanța dintre trenul principal și cabină de maximum 19.48m și lățime totală a trenului principal de 11m. vezi Harta suprafețelor de mișcare ale aerodromului AD 2.5-21.
- rutele pentru rularea aeronavelor în funcție de anvergura acestora sunt reprezentate în Harta suprafețelor de mișcare ale aerodromului AD 2.5-21a.

3. Operating of docking system / Operarea sistemului de andocare

At APRON 1, docking system type T1 is installed for stands 101-107 and 109-115.

SYSTEM DESCRIPTION
The SAFEDOCK System is a microprocessor controlled laser scanning device which directs an incoming aircraft to the terminal gate stopping position via a real time display unit, clearly visible from the aircraft cockpit.

The display unit provides the pilot with aircraft positional information with regard to closing rate to the stop position, azimuth information with regard to the terminal gate centre-line and text information via the alphanumeric indicators.

DOCKING PROCEDURE
At APRON 1, docking system type T1 is installed for stands 101-107 and 109-115.
CAUTION: The Safedock Docking Guidance System has a built-in error detection program to inform the aircraft pilots of possible hazards during the docking procedure. During the aircraft approach to the terminal gate, the docking guidance system automatically confirms the identification of the aircraft. The aircraft must be identified at least 12 m before the correct stop position. If this does not occur, the system displays "STOP" and then "WAIT" with two red, rectangular fields being lit in the azimuth guidance area of the display. While the aircraft is stopped, the system will attempt to identify it. If successful, the docking procedure will continue. If not, "WAIT" will be replaced with "STOP". If the display reverts to the "STOP" indication, the pilot must contact OTOPENI GROUND to obtain clearance to complete the docking procedure

La APRON 1, este instalat sistem de andocare tipul T1 pentru standurile 101-107 şi 109-115.

DESCRIEREA SISTEMULUI
Sistemul Safedock este un dispozitiv de scanare cu laser controlat de un microprocesor, care direcţionează o aeronavă care se apropie spre poziţia de oprire la poarta de îmbarcare, printr-o unitate de afişare în timp real, vizibilă clar din cabina aeronavei.
Unitatea de afişare oferă pilotului informaţii despre poziţionarea aeronavei cu referire la ritmul de apropiere de poziţia de oprire, informaţii despre azimut cu referire la linia axială a porţii de îmbarcare şi informaţii text prin indicatori alfanumerici.

PROCEDURA DE ANDOCARE
La APRON 1, este instalat sistem de andocare tipul T1 pentru standurile 101-107 şi 109-115.
ATENŢIE: Sistemul de dirijare pentru andocare Safedock are încorporat un program de detectare a erorilor pentru a informa piloţii aeronavelor despre posibile pericole pe perioada procedurii de andocare. În timpul apropierii aeronavei de poartă de îmbarcare, sistemul de dirijare pentru andocare confirmă automat identificarea aeronavei. Dacă identificarea nu a fost confirmată cu mai putin de 12 m înainte de poziţia de oprire, unitatea de afişare va afişa două barete roşii în zona indicatoarelor de azimut şi va afişa "STOP" apoi "WAIT" pe afişajul alfanumeric. În timpul în care aeronava este oprită, sistemul va încerca să o identifice. Dacă acest lucru se întâmplă, atunci procedura de andocare va continua. Altfel, "WAIT" va fi înlocuit cu "STOP". În această situaţie, pilotul va contacta OTOPENI GROUND pentru a obţine aprobarea de continuare a procedurii de andocare.

1. Check that the correct aircraft type is displayed. The scrolling arrows indicate that the system is activated.



1. Verificaţi dacă tipul corect de aeronavă este afişat. Săgeţile iluminate secvenţial indică că sistemul este activat.

2. Follow the lead in line. When the solid yellow closing rate field appears, the aircraft has been caught by the scanning unit. The scanning unit now checks that the aircraft is the correct type and the display provides azimuth guidance information.



2. Urmariţi linia axială spre poarta terminalului. Atunci când indicatorii ritmului de apropiere se colorează în galben, aeronava a fost interceptată de dispozitivul de baleiere cu laser. Sistemul acum verifică dacă tipul corect de aeronava se apropie de poartă iar pe ecran apar informaţii de ghidare în azimut.

3. Look for the flashing red arrow and solid yellow arrow which provide azimuth guidance information. The flashing red arrow shows which direction to steer, while solid yellow arrow gives an indication of how far the aircraft is off of the centreline.



3. Observaţi săgeata roşie care clipeşte şi săgeata galbenă aprinsă continuu care furnizeaza indicaţii de ghidare în azimut. Săgeata roşie indică direcţia care trebuie urmată iar săgeata galbenă indică cât de departe este aeronava de linia axială.

4. When the aircraft is 12 m from the stop position, closing rate information is given. "Distance to go" is indicated by turning off one row of LED's for each one half meter that the aircraft advances toward the stop position.



4. Informaţii despre ritmul de apropiere încep să fie funizate atunci când aeronava este la 12 m de poziţia de oprire. "Distanţa de parcurs" este indicată prin stingerea unui rând de LED-uri pentru fiecare jumatate de metru parcursă de aeronavă spre poziţia de oprire.

5. When the aircraft is approaching with to high speed, display will indicate “SLOW”.



5. Atunci când aeronava se apropie cu viteza prea mare, afişajul va indica “SLOW”.

6. When the correct stop position is reached all of the LED's for the closing rate field will be off, the word "STOP" will appear in the display and two red rectangular fields will light in the azimuth guidance area of the display.



6. Atunci când aeronava a atins pozitia corectă de oprire indicatorii ritmului de apropiere vor fi stinşi complet, afişajul alfanumeric va indica "STOP", iar în zona în care se dau informaţii de azimut vor apărea două barete colorate în roşu.

7. If the aircraft stops in the correct position, "OK" will be displayed after a few seconds.



7. Dacă aeronava se opreşte la poziţia corectă, după câteva secunde, pe afişajul alfanumeric va aparea mesajul "OK".

8. If the aircraft has gone past the correct stop position, the display will show "T-FAR" (too far).



8. Dacă aeronava depaşeşte poziţia corectă de oprire, afişajul alfanumeric va indica "T-FAR" (prea departe).

RESTRICTIONS

Upon arrival of an aircraft having APU out of service and standing at the passengers loading bridges, the functioning of the engine opposite the passengers loading bridges (i.e. the starboard) is permitted until the coupling of the GPU source.

RESTRICŢII

La sosirea unei aeronave care are APU defect şi care staţionează pentru deservire la burdufele de îmbarcare pasageri, este permisă menţinerea în funcţiune a motorului opus burdufului (de pe partea dreaptă a aeronavei) până la cuplarea sursei GPU.

4. Parking area for small aircraft / Zona de parcare pentru aeronavele mici (General aviation)
see AD 2.5-24 - APRON 3 - / vezi AD 2.5-24 - APRON 3 -

5. Parking area for helicopters / Zona de parcare pentru elicoptere
see AD 2.5-24 - APRON 3 / vezi AD 2.5-24 - APRON 3

6. Apron - taxiing during winter conditions / Apron - rularea în timpul condiţiilor de iarnă
- NIL -

7. Taxiing - limitations / Rulare - limitări

Taxiing of aircraft with wingspan greater than 52 m, is permited only with engines 1 and 4 on idle power.

Rularea aeronavelor cu anvergura mai mare de 52m, este permisă numai cu motoarele 1 şi 4 la turaţia de relanti.

8. School and training flights - technical test flights - use of runways / Zboruri şcoală şi antrenament - zboruri tehnice - folosirea pistelor
- NIL -

9. Helicopter traffic - limitations / Traficul elicopterelor - limitări
- TO BE DEVELOPED -

10. Removal of disabled aircraft from runways / Îndepărtarea aeronavelor de pe piste
- NIL -

LROP AD 2.21 NOISE ABATEMENT PROCEDURES

DEPARTURE
See AD 1.1.5

DECOLARE
Vezi AD 1.1.5

The APU is permitted functioning maximum 15 minutes after BLOCK ON TIME and may be started over 30 minutes before STD
To minimize disturbance in areas adjacent to the airport, Captains are requested to avoid the use of reverse thrust after landing, consistent with safe operation of the aircraft, especially between 2300 and 0700 (local time).
ATC will approve idle ground engine runs. Permission for ground testing in excess of idle must be requested through the marshaler, Ext 3426, at all times. All engine tests above idle must commence in the Engine Test Bay. Times of operation are 0600-2300 LT. Engine testing on the open airfield will only be allowed for Chapter 2 aircraft between 0900 and 1700 and Chapter 3 aircraft between 0600 and 2300. Propeller driven aircraft are to be classified as Chapter 3.

APU poate fi menţinut în funcţiune maxim 15 minute după BLOCK ON TIME şi poate fi pornit cu maximum 30 minute înainte de STD.
Pentru a reduce disconfortul în zonele adiacente aeroportului, Comandanţii sunt rugaţi să evite folosirea inversorului de jet, după aterizare, în consens cu exploatarea în siguranţă a aeronavei, în special între 2300 şi 0700 (ora locală).
TWR va aproba funcționarea cu motorul/motoarele la turația de relanti. Permisiunea pentru testarea la sol în plus faţă de relanti trebuie să fie solicitată la Int. 3426, înainte de orice operațiune de acest fel. Toate testele cu motorul/motoarele la o turație mai mare decât cea de relanti trebuie să se faca numai pe platforma incercări motoare. Intervalul orar de testare este 0600-2300 LT. Testarea motorului/motoarelor va fi permisă, pentru aeronave capitolul 2 numai între 0900 LT şi 1700 LT respectiv aeronave capitolul 3 numai între 0600 şi 2300 LT. Aeronavele cu elice se vor clasifica drept Capitolul 3.

LROP AD 2.22 FLIGHT PROCEDURES / PROCEDURI DE ZBOR

1. LOW VISIBILITY PROCEDURES / PROCEDURI ÎN CONDIŢII DE VIZIBILITATE REDUSĂ

1.1 DESCRIPTION OF FACILITIES

RWY 08R – instrument approach operation type B - CAT III: decision height lower than 30m (100ft) or no decision height and a runway visual range; RVR less than 300m or no runway visual range limitations;
RWY 26L – instrument approach operation type B - CAT I: decision height not lower than 60m (200ft) and with either a visibility not less than 800m or a runway visual range not less than 550m;
RWY 08L – instrument approach operation type B - CAT III: decision height lower than 30m (100ft) or no decision height and a runway visual range; RVR less than 300m or no runway visual range limitations;
RWY 26R – instrument approach operation type B - CAT III: decision height lower than 30m (100ft) or no decision height and a runway visual range; RVR less than 300m or no runway visual range limitations.

1.2 LOW VISIBILITY PROCEDURES

1.2.1 During periods of low visibility the overall ATC capacity is reduced. To guarantee aircraft safety and optimal use of ATC capacity, Henri Coandă Airport uses ATC low visibility procedures. These procedures are based on ICAO Doc 9476/1 (Surface Movement Guidance and Control Manual) and ICAO EUR Doc 013 (European Guidance Material on All Weather Operations at Aerodromes).

1.2.2 The preparation phase will be implemented when RVR is 800 m or horizontal visibility falls below 1500m or celling/ vertical visibility of 500 ft (150m).

1.2.3 The operations phase will be commenced when the RVR falls below 550 m (visibility falls below 800m) or ceiling/vertical visibility of is below 200ft (60m).

1.2.4 LVP will be terminated when RVR is greater than 800m (horizontal visibility is greater than 1500m) and ceiling/ vertical visibility is greater than 300ft (90m).

1.2.5 Simulated LVP should be requested 30 min prior to ETD/ETA.

1.2.6 If available visual aids do not provide sufficient taxi information, pilots may ask for Follow Me car assistance.

1.2.7. When RVR is less than 550 m, taxiing on TWY R and TWY H for acces to/from RWY is permited only with FOLLOW ME guidance. Taxiing on TWY F is permitted only for Romanian Air Force acft and only when RVR is greater than 550M.

1.3 DETAILS OF RUNWAY EXITS

All runway exits are equipped with green / yellow coded taxiway centerline lights. Pilots will report ‘runway vacated’ only when the aircraft has completely passed the end of the green/yellow color coded taxiway centre-line lights.

1.1 DESCRIEREA FACILITĂŢILOR

RWY 08R – operațiuni de apropiere instrumentală de tip B - CAT III: înălțime de decizie < 30m (100ft) sau fără înălțime de decizie; RVR mai mic de 300m sau fără limitări ale RVR;

RWY 26L – operațiuni de apropiere instrumentală de tip B - CAT I: înălțime de decizie ≥ 60m (200ft); vizibilitate ≥ 800m sau RVR ≥ 550m;

RWY 08L – operațiuni de apropiere instrumentală de tip B - CAT III: înălțime de decizie < 30m (100ft) sau fără înălțime de decizie; RVR mai mic de 300m sau fără limitări ale RVR;

RWY 26R – operațiuni de apropiere instrumentală de tip B - CAT III: înălțime de decizie < 30m (100ft) sau fără înălțime de decizie; RVR mai mic de 300m sau fără limitări ale RVR.

1.2 PROCEDURI DE OPERARE ÎN CONDIȚII DE VIZIBILITATE REDUSĂ

1.2.1 Pe timpul operării în condiții de vizibilitate redusă, capacitatea totală ATC este redusă. Pentru a asigura siguranța aeronavelor și o capacitate ATC optimă, Aeroportul Henri Coandă aplică proceduri de operare în condiții de vizibilitate redusă. Aceste proceduri se bazează pe ICAO Doc 9476/1 (Surface Movement Guidance and Control Manual) and ICAO EUR Doc 013 (European Guidance Material on All Weather Operations at Aerodromes).
1.2.2 Faza de pregătire va fi implementată atunci când RVR are valori de 800 m sau vizibilitatea orizontală scade sub 1500m sau plafonul norilor/vizibilitate verticală de 500 ft (150m).
1.2.3 Faza operaţională va fi declanşată atunci când valoarea RVR scade sub 550 m (vizibilitatea orizontală scade sub 800m) sau plafonul norilor/vizibilitate verticală este sub 200ft (60m).
1.2.4 Procedurile în condiţii de vizibilitate redusă vor fi incheiate atunci când valoarea RVR este mai mare de 800m (vizibilitatea orizontală este mai mare de 1500m) şi plafonul norilor/ vizibilitatea verticală este mai mare de 300ft (90m).
1.2.5 Operarea în condiții simulate de vizibilitate redusă poate fi solicitată de pilot cu minimum 30 min înainte de ETD/ETA.
1.2.6 Dacă mijloacele visuale disponibile nu asigură suficiente informații pentru rulare, piloții pot solicita asistență Follow Me

1.2.7. Atunci când RVR este mai mic de 550 m, rularea pe TWY R și TWY H pentru acces la/de la RWY este permisă numai cu FOLLOW ME. Rularea pe TWY F este permisă doar aeronavelor militare române și doar atunci când RVR este mai mare de 550 m.

1.3 DETALII PRIVIND ELIBERAREA PISTEI

Căile de rulare de ieșire din pistă sunt echipate cu lumini axiale codificate verde/galben. Piloţii vor raporta ‘pista liberă’ numai după ce aeronava a depăşit integral luminile axiale de culoare galben/verde.

2. CLOSE-IN OBSTACLES

Nr. crt	Type	Latitude	Longitude	Elevation (FT)	Remarks
1	Pilar	443355.509N	0260411.275E	353	Departure RWY 26L
2	Advertising panel	443343.600N	0260411.176E	354	Departure RWY 26L
3	Pilar	443440.030N	0260437.595E	347	Departure RWY 26R
4	Tree	443444.020N	0260435.300E	388	Departure RWY 26R
5	Tree	443429.500N	0260416.900E	410	Departure RWY 26R
6	Tree	443425.800N	0260416.700E	410	Departure RWY 26R
7	Advertising panel	443419.961N	0260410.775E	397	Departure RWY 26R

3. VFR points and routes / Puncte şi rute VFR

VFR flights crossing the 2 runways directions are recommended to be conducted along the following VFR routes:
VFR Route 1: SORUR - ROTBI, MAX ALT 1000FT.
VFR Route 2: GOTOB - UNUSU, MAX ALT 1000FT.
VFR Route 3 (only for State aircraft and special operations aircraft - search and rescue, HEMS): OGUPI - RIRUX.

List of VFR points - compulsory:
SORUR 443446N 0255357E (West of Samurcas Village)
ROTBI 443005N 0255635E (Chitila, forest corner)
GOTOB 443555N 0261603E (Creata, Village corner)
UNUSU 443211N 0261445E (Afumaţi, forest corner)
OGUPI 443632N 0260420E (Baloteşti, Highway junction) - where holding may be required to the West.
RIRUX 443202N 0260406E (DN1 road, beltway junction)

OBUDO 443804N 0261112E (Căciulaţi, Expressway junction) - where holding may be required to the East.

Balotești Train Station 443525N 0260555E (Balotești Train Station).
Aslan Junction 443504N 0260413E (Junction between DN1 and railway).
Military West 443334N 0260412E (Junction between DN1 and Zborului street) - where holding may be required to the West.
Military East 443344N 0261053E (Bridge over A3 Highway close to A0 Highway junction) - where holding may be required.
Libao 443504N 0260827E (Hotel Libao)

List of VFR points - on request:
Water Park 443342N 0260349E (Aqua Park Otopeni).
Buftea Stadium 443253N 0255846E (Football stadium Buftea).
Golf Club 444134N 0255609E (Golf Club).
Karting Club 443813N 0255412E (Karting Club).
Olympic Complex 443230N 0260451E (Otopeni Olympic Complex).
Tunari Stadium 443306N 0260831E (Tunari) Stadium).
A0 Junction 443307N 0261300E (Junction between A0 and DJ200).

In case of traffic congestion, VFR aircraft may obtain a clearance to hold over one of the following points:

OGUPI 443632N 0260420E (Baloteşti, Highway junction)

OBUDO 443804N 0261112E (Căciulaţi, Expressway junction)
Note: the VFR routes are extended into Baneasa CTR as follows:
VFR 1: SORUR - ROTBI - KAJNA.
VFR 2: GOTOB - UNUSU - MORAX.
VFR 3: OGUPI - RIRUX - PATWA.

Zborurile VFR ce traversează direcţiile celor 2 piste se recomandă a fi efectuate pe următoarele rute VFR:

Ruta VFR 1: SORUR - ROTBI, MAX ALT 1000FT.
Ruta VFR 2: GOTOB - UNUSU, MAX ALT 1000FT.
Ruta VFR 3 (doar aeronave de stat şi aeronave care execută operaţiuni speciale - căutare şi salvare, HEMS): OGUPI - RIRUX.
Lista punctelor VFR - obligatorii:
SORUR 443446N 0255357E (vest de comuna Samurcas)
ROTBI 443005N 0255635E (Chitila, colţul pădurii)
GOTOB 443555N 0261603E (Creata, colţul localităţii)
UNUSU 443211N 0261445E (Afumaţi, colţ pădure)
OGUPI 443632N 0260420E (Baloteşti, intersecţie autostradă) - unde poate fi solicitată așteptare către vest.
RIRUX 443202N 0260406E (şosea DN1, intersecţie centură)
OBUDO 443804N 0261112E (Căciulaţi, intersecţie autostradă cu drumul judeţean) - unde poate fi solicitată așteptare către Est.
Balotești Train Station 443525N 0260555E (Gara Balotești).
Aslan Junction 443504N 0260413E (Intersecția DN1 cu calea ferată).
Military West 443334N 0260412E (Intersecția DN1 cu str Zborului) - unde poate fi solicitată așteptare către Vest.

Military East 443344N 0261053E (Pod peste Autostrada A3 lângă intersecția cu Autostrada A0) - unde poate fi solicitată așteptare.
Libao 443504N 0260827E (Hotel Libao).

Lista punctelor VFR - la cerere:
Water Park 443342N 0260349E (Aqua Park Otopeni).
Buftea Stadium 443253N 0255846E (Stadionul de fotbal Buftea).
Golf Club 444134N 0255609E (Club de Golf).
Karting Club 443813N 0255412E (Club de Karting).
Olympic Complex 443230N 0260451E (Complexul Olimpic Otopeni).
Tunari Stadium 443306N 0260831E (Stadionul Tunari).
A0 Junction 443307N 0261300E (Intersecția A0 cu DJ200).

În cazul aglomerării traficului, aeronavele VFR pot obţine autorizare pentru procedura de aşteptare la unul dintre următoarele puncte:
OGUPI 443632N 0260420E (Baloteşti, intersecţie autostradă)
OBUDO 443804N 0261112E (Căciulaţi, intersecţie autostradă cu drumul judeţean)
Notă: rutele VFR se prelungesc în CTR Băneasa astfel:

VFR 1: SORUR - ROTBI - KAJNA.
VFR 2: GOTOB - UNUSU - MORAX.
VFR 3: OGUPI - RIRUX - PATWA.

4. BUCUREŞTI DIRECTOR SECTOR

4.1 Sector Limits
BUCUREŞTI DIRECTOR (EAST or WEST) activates depending on the runway(s) in use (see section ENR 2.1-5).
Vertical limits: 2000 FT AMSL - FL065.

4.2 Activation/deactivation
BUCUREŞTI DIRECTOR Sector will be activated at the initiative of the APP Bucharest Team Supervisor when the traffic forecast requires.

4.1 Limite sector
Sectorul BUCUREŞTI DIRECTOR (EAST sau WEST) se activează în funcţie de pista/pistele în serviciu (vezi secţiunea ENR 2.1-5).
Limite verticale: 2000 FT AMSL - FL065.

4.2 Activarea/dezactivare
Sectorul BUCUREŞTI DIRECTOR va fi deschis la iniţiativa Supervizorului de echipă APP Bucureşti în cazul în care prognoza de trafic o impune.

5. PROCEDURES FOR DEPARTING AIRCRAFT / PROCEDURI PENTRU AERONAVE CARE PLEACĂ

5.1 OTOPENI CLEARANCE DELIVERY (DEL)

En route clearance shall be requested to OTOPENI CLEARANCE DELIVERY MAX 20 minutes prior to EOBT or 35 minutes prior to CTOT. An en route clearance contains:

1. Callsign
2. Clearance limit: airport of destination
3. Standard instrument departure (SID)
4. Flight level
5. SSR-code
6. Additional departure instructions (if applicable)
7. CTOT (if applicable).

Example of an en route clearance: "ROT707 cleared to Paris, SOKRU1K Departure, FL 280, squawk A5405, Runway 08R, CTOT 25".

5.1 OTOPENI CLEARANCE DELIVERY (DEL)

Autorizarea de zbor pe rută poate fi cerută de la OTOPENI CLEARANCE DELIVERY cu MAX 20 minute anterior EOBT sau cu 35 minute anterior CTOT. Autorizarea de zbor pe rută conține:

1. Identificarea aeronavei
2. Limita autorizării: aeroportul de destinație
3. Standard instrument departure (SID)
4. Nivel de zbor
5. Cod SSR
6. Instrucțiuni suplimentare de decolare (dacă este cazul)
7. CTOT (dacă este cazul).

Exemplu de autorizare de zbor pe rută: "ROT707 cleared to Paris, SOKRU1K Departure, FL 280, squawk A5405, Runway 08R, CTOT 25".

5.2 OTOPENI GROUND
5.2.1 Start-up, push-back and taxi

Ground control service (start-up, push-back and taxi instructions) is provided by Otopeni Ground.

Pilots shall only ask for start-up and push-back permission after obtaining confirmation from handling agent that is ready for the manoeuvre. The anti-collision light must be switched on just prior to push-back.

ATC will consider every aircraft at the holding position as able to commence the line-up and take-off roll immediately after the departure clearance is issued. Pilots not able to comply shall advise Otopeni Ground as early as possible but ultimately before transfer to Otopeni Tower.

5.2 OTOPENI GROUND
5.2.1 Pornirea motoarelor, împingerea înapoi și rulajul
Serviciul de control Ground (pornirea motoarelor, împingerea înapoi și instrucțiunile de rulaj) este asigurat de Otopeni Ground.

Piloții vor solicita aprobarea de pornire a motoarelor și împingerea înapoi numai după ce vor obține confirmarea de la agentul handling că este pregătit pentru manevră. Luminile anti-coliziune trebuie aprinse imediat înaintea împingerii înapoi.

ATC vor considera că fiecare aeronavă care a ajuns la poziția de așteptare la pistă este gata să înceapă alinierea și decolarea imediată, îndată ce a fost emisă autorizarea de decolare. Piloții care nu sunt pregătiți să se conformeze trebuie să anunțe Otopeni Ground cât mai curând posibil, dar cel mai târziu înainte de a fi transferați la Otopeni Tower.

5.2.2 Operational use of intersection take-offs

1. In principle all jet aircraft must use the full runway length available for noise abatement reasons.
2. Take-offs from intersection with taxiway may be allowed at ATC discretion (for operational reasons) or pilot request.

5.2.2 Utilizarea operațională a decolărilor de la intersecție

1. În principiu, toate aeronavele jet trebuie să utilizeze toată lungimea disponibilă a pistei pentru motive de reducere a zgomotului.
2. Decolările de la intersecția cu o cale de rulare pot fi autorizate la discreția ATC (în scop operațional) sau la cererea pilotului.

5.2.3 Runway occupancy time

Pilots should be ready for line-up in sequence according to ATC instructions. Cockpit checks should be completed prior to line-up and any checks requiring completion whilst on the runway should be kept to the minimum required. Pilots should ensure that they are able to commence the take-off roll immediately after receiving take-off clearance.

When cleared for take off ATC will expect movement within MAX 30 seconds (of take off clearance being issued).

Pilots not able to comply with the above requirements shall notify ATC before entering the runway or immediatelly after.

Pilots who require to back-track the runway must notify ATC prior to arrival at the holding point.

5.2.4 Transfer to Otopeni Tower

Pilots of departing aircraft will be instructed by Otopeni Ground which channel they shall use.

5.3 OTOPENI TOWER

In addition to departing and arriving traffic, also aircraft crossing the runway and vehicles on the runway will have contact with the tower controller on the tower channel.

5.3.1 Additional departure instructions

Especially propeller-driven aircraft can expect additional departure instructions. These instructions may be added to the en route or take-off clearance and may comprise a specific heading or temporary altitude restriction. Such additives amend the relevant part of the SID only.

5.3.2 Transfer to Bucharest Approach

When changing channel from Otopeni Tower to Bucharest Approach, initial contact shall consist of Bucharest Approach, callsign, actual altitude and SID. If a flight is cleared on a heading for initial departure, the heading shall be used instead of the SID. Additional instructions e.g. altitude restrictions shall also be mentioned on initial contact with Bucharest Approach.

Pilots of departing aircraft shall remain on TWR channel until passing 2000 ft AMSL. Contact Bucharest Approach when passing 2000 ft AMSL and report altitude in order to verify SSR mode C (e.g. Approach ROT707, passing 2000 ft climbing FL 060 SOKRU1K Departure).

5.3.3 Exchange of Data with Network Manager Operations Center (NMOC) - Advanced ATC TWR

LROP exchanges information for departure flights by applying the Advanced ATC TWR procedures.

Message exchange from the local system to the ATM network using European Standard for A-CDM airports includes the following message types:

A-DPI: ATC departure planning information message, for all instrumental departure flights

C-DPI: Cancel DPI, cancellation of departure planning information, when required

LROP sends A-DPI messages to NMOC reporting TTOT in order to improve take-off time estimates.

5.2.3 Timp de ocupare al pistei

Piloții ar trebui să fie gata de aliniere în secvență conform instrucțiunilor ATC. Verificările de cabină ar trebui încheiate înaintea alinierii la pistă și orice verificări care necesită finalizarea pe pistă ar trebui menținute la minimum necesar. Piloții ar trebui să se asigure că vor fi gata de începerea rulajului de decolare imediat după recepționarea autorizării de decolare.

După emiterea autorizării de decolare, ATC se va aștepta la punerea în mișcare în MAX 30 secunde (de la emiterea autorizării de decolare).

Piloții care nu se pot conforma cu cerințele de mai sus trebuie să anunțe ATC înainte de intrarea pe pistă sau imediat după constatarea acestui lucru.

Piloții care solicită să întoarcă pe pistă vor anunța ATC înaintea ajungerii la poziția de așteptare la pistă.

5.2.4 Transferul către Otopeni Tower

Piloții aeronavelor care pleacă vor fi anunțați de Otopeni Ground frecvența radio pe care o vor utiliza.

5.3 OTOPENI TOWER

În plus față de aeronavele care pleacă și cele care sosesc, și aeronavele care traversează pista și vehiculele de pe pistă vor trebui să intre în contact radio cu controlorul turn pe frecvența de dirijare turn.

5.3.1 Instrucțiuni adiționale pentru decolare

În special aeronavele dotate cu motoare cu elice se pot aștepta la instrucțiuni suplimentare pentru decolare. Aceste instrucțiuni pot completa autorizarea de zbor pe rută sau de decolare și pot cuprinde un cap magnetic sau o restricție temporară de altitudine. Aceste completări amendează doar partea relevantă a SID.

5.3.2 Transferul către Bucharest Approach

La schimbarea frecvenței radio de la Otopeni Tower la Bucharest Approach, contactul inițial va consta în Bucharest Approach, identificarea aeronavei, altitudinea reală și SID. Dacă un zbor este autorizat să decoleze inițial pe un cap magnetic, acesta va fi transmis în locul SID. Instrucțiunile suplimentare, de ex. restricțiile de altitudine, vor fi de asemenea menționate la contactul radio inițial cu Bucharest Approach.

Piloții aeronavelor care pleacă vor rămâne pe frecvența TWR până la trecerea prin 2000 ft AMSL. Vor contacta Bucharest Approach la trecerea prin 2000 ft AMSL și vor reporta altitudinea pentru a se verifica codul SSR mod C (ex. Bucharest Approach, ROT707, passing 2000 ft climbing FL 060 SOKRU1K Departure).

5.3.3 Schimbul de date cu Network Manager Operations Center (NMOC) - Advanced ATC TWR

LROP schimbă informații privind zborurile de plecare prin aplicarea procedurilor Advanced ATC TWR.

Schimbul de mesaje de la sistemul local către rețeaua ATM, utilizând Standardul European pentru aeroporturile A-CDM, include următoarele tipuri de mesaje:

A-DPI: mesaj ATC cu informații privind planificarea plecării, pentru toate zborurile instrumentale

C-DPI: Anulare DPI, anularea informațiilor privind planificarea plecării, atunci când este necesar

LROP transmite mesaje A-DPI către NMOC, raportând TTOT, în scopul îmbunătățirii estimărilor privind ora de decolare.

After reception of the A-DPI, DLA or CHG messages that change the flight plan data shall not be accepted. If regulated, the CTOT assigned before receiving the A-DPI shall be maintained.
The FPL of aircraft that for any reason returns to stand after EOBT will be suspended in the ATM network with a C-DPI message. The aircraft operator will recieve a FLS message with reason “suspended by departure airport”. To revoke the suspension, operators shall update EOBT with a DLA or CHG message.

După primirea mesajului A-DPI, mesajele DLA sau CHG care modifică datele planului de zbor nu vor fi acceptate. Dacă este reglementat, CTOT-ul atribuit înainte de primirea mesajului A-DPI va fi menținut.
FPL-ul aeronavei care, din orice motiv, se întoarce la poziția de staționare după EOBT va fi suspendat în rețeaua ATM printr-un mesaj C-DPI. Operatorul aeronavei va primi un mesaj FLS cu motivul „suspendat de aeroportul de plecare”. Pentru a revoca suspendarea, operatorii trebuie să actualizeze EOBT cu un mesaj DLA sau CHG.

6. PROCEDURES FOR ARRIVING AIRCRAFT / PROCEDURI PENTRU AERONAVELE CARE SOSESC

6.1 Runway occupancy time
Pilots are reminded that rapid exit from the landing runway minimises the occurrences of go arounds and allows ATC to apply minimum spacing on final approach.

6.1 Timp de ocupare a pistei
Se reamintește piloților că eliberarea rapidă a pistei de aterizare minimizează apariția ratărilor aterizărilor și permite ATC aplicarea unor eșalonări minime în apropierile finale.

To ensure minimum runway occupancy time, pilots will avoid rolling slowly on runway.
ATC expect all aircraft to vacate the runways within timeframes detailed as follows:

08R / 26L – 90 sec
08L / 26R – 60 sec

If aircraft are not able to vacate runway within these time frames crews will notify ATC at once.

Pentru a asigura un timp minim de ocupare a pistei, piloții vor evita rularea cu viteză redusă pe pistă.
ATC se așteaptă ca toate aeronavele să elibereze pista în intervalele de timp specificate după cum urmează:

08R / 26L – 90 sec
08L / 26R – 60 sec

Dacă aeronavele nu sunt capabile să elibereze pista în aceste intervale de timp, echipajele vor anunța ATC imediat.

LROP AD 2.23 ADDITIONAL INFORMATION

If LRTRA4 is activated, military helicopters training activity goes up to 1017 FT MSL (310M AMSL). 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.

Când LRTRA4 este activată, zborul de antrenament al elicopterelor militare se desfăşoară până la 1017 FT MSL (310M AMSL). Zborurile sunt coordonate de către unităţile ATS civile şi militare. Helipunctul este situat în vecinătatea sudică a pistei 08R/26L. Zborurile care utilizează RWY 08R/26L nu sunt afectate.

Bird flocks are flying within airport area during the whole year, but culminates between March to May and September to November.
Usually their flight is crossing both runways, heading from North to South and vice versa. Mainly, their flight path is over the thresholds and middle of the runways at an altitude of 500 m (1640 ft) AGL.
Caution advised when taking-off and landing.

Stolurile de păsări zboară în zona aeroportului pe tot parcursul anului, dar culminează între Martie - Mai și Septembrie - Noiembrie.
În mod obișnuit, zborul lor traversează ambele piste, îndreptându-se de la Nord la Sud și invers. În principal, traiectoria lor de zbor este peste pragurile și mijlocul pistelor, la o altitudine de aproximativ 500 m (1640 ft) AGL.
Se recomandă precauție la decolare și aterizare.

LROP AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO ..... AD 2.5-20
Aerodrome Ground Movement Chart - ICAO ..... AD 2.5-21
Aircraft Parking/Docking Chart - ICAO
- APRON 1 ..... AD 2.5-22
- APRON 2 ..... AD 2.5-23
- APRON 3 ..... AD 2.5-24

Aerodrome Obstacle Chart - ICAO - Type A
- RWY 08L/26R ..... AD 2.5-25
- RWY 08R/26L ..... AD 2.5-26

Precision Approach Terrain Chart - ICAO
- RWY 08L ..... AD 2.5-27
- RWY 08R ..... AD 2.5-28
- RWY 26R ..... AD 2.5-29

Standard Departure Charts - Instrument - ICAO
- RWY 08L/R ..... AD 2.5-30
- RWY 26L/R ..... AD 2.5-31

Standard Arrival Charts - Instrument - ICAO
- RWY 08L/R ..... AD 2.5-32
- RWY 26L/R ..... AD 2.5-33

RNAV Standard Departure Chart - Instrument - ICAO
- RWY 08L/R ..... AD 2.5-34
- RWY 26L/R ..... AD 2.5-35

RNAV Standard Arrival Chart - Instrument - ICAO
- RWY 08L/R ..... AD 2.5-36
- RWY 26L/R ..... AD 2.5-37

Visual Operations Chart - Aircraft categories A and H ..... AD 2.5-40
ATC Surveillance Minimum Altitude Chart - ICAO ..... AD 2.5-45
Instrument Approach Charts - ICAO
- ILS RWY 08L ..... AD 2.5-51
- LOC RWY 08L ..... AD 2.5-52
- ILS RWY 08R ..... AD 2.5-53
- LOC RWY 08R ..... AD 2.5-54
- ILS or LOC RWY 26L ..... AD 2.5-55
- ILS or LOC RWY 26R ..... AD 2.5-57
- RNP RWY 08L ..... AD 2.5-71
- RNP RWY 08R ..... AD 2.5-72
- RNP RWY 26L ..... AD 2.5-73
- RNP RWY 26R ..... AD 2.5-74
- NDB RWY 08L ..... AD 2.5-91
- NDB RWY 08R ..... AD 2.5-93
- NDB RWY 26L ..... AD 2.5-95
- NDB RWY 26R ..... AD 2.5-97

LROP AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

Not applicable

AERODROME CHART - ICAO

44° 34' 16" N
026° 05' 06" E
ELEV 314FT

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

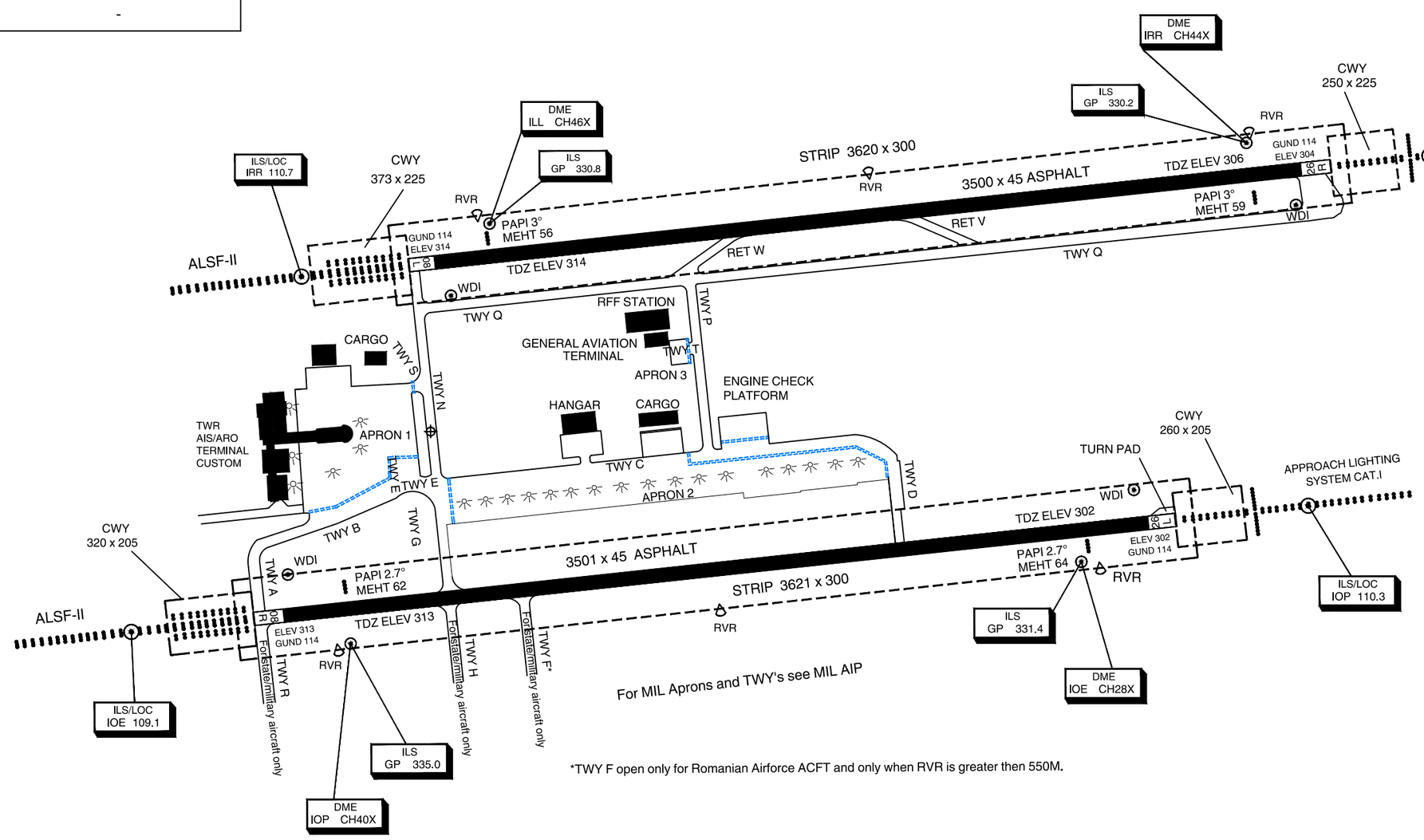
OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)

RWY	DIRECTION	THR	BEARING STRENGTH
08R	078°	44°33'53"N 026°04'36"E	PCN 69/R/D/W/T Asphalt
26L	258°	44°34'05"N 026°07'14"E	
08L	078°	44°34'36"N 026°05'02"E	PCN 93/R/D/W/T Asphalt
26R	258°	44°34'48"N 026°07'40"E	
HELIPORT		-	

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 6°E 2020
ANNUAL RATE OF CHANGE 6.7'E



*TWY F open only for Romanian Airforce ACFT and only when RVR is greater then 550M.

METRES
400 300 200 100 0 500 1000 1500
1000 500 0 1000 2000 3000 4000 5000
FEET

LEGEND	
RUNWAY VISUAL RANGE (RVR) OBSERVATION SITE	
FLOODLIGHT	
AERODROME REFERENCE POINT	
BUILDING	
APRON BOUNDARY	

Changes: MAG VAR, RWY directions, RWY 08L THR COORD, MEHT, THR and TDZ ELEV.

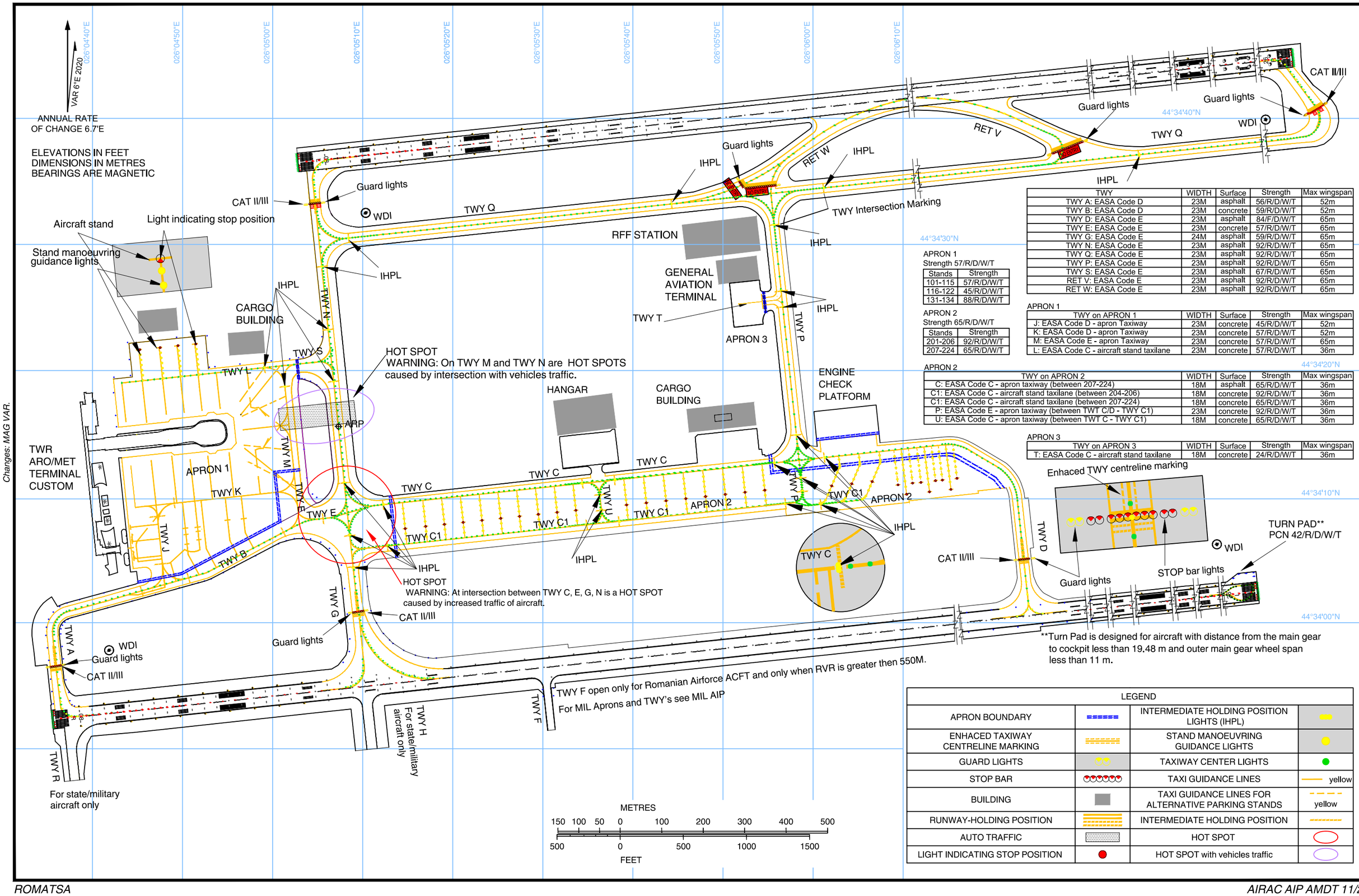
AERODROME GROUND MOVEMENT CHART - ICAO

APRON 1 ELEV **312 FT**
APRON 2 ELEV **308 FT**
APRON 3 ELEV **309 FT**

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

OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)



TWY	WIDTH	Surface	Strength	Max wingspan
TWY A: EASA Code D	23M	asphalt	56/R/D/W/T	52m
TWY B: EASA Code D	23M	concrete	59/R/D/W/T	52m
TWY D: EASA Code E	23M	asphalt	84/F/D/W/T	65m
TWY E: EASA Code E	23M	concrete	57/R/D/W/T	65m
TWY G: EASA Code E	24M	asphalt	59/R/D/W/T	65m
TWY N: EASA Code E	23M	asphalt	92/R/D/W/T	65m
TWY Q: EASA Code E	23M	asphalt	92/R/D/W/T	65m
TWY P: EASA Code E	23M	asphalt	92/R/D/W/T	65m
TWY S: EASA Code E	23M	asphalt	67/R/D/W/T	65m
RET V: EASA Code E	23M	asphalt	92/R/D/W/T	65m
RET W: EASA Code E	23M	asphalt	92/R/D/W/T	65m

APRON 1
Strength 57/R/D/W/T

Stands	Strength
101-115	57/R/D/W/T
116-122	45/R/D/W/T
131-134	88/R/D/W/T

APRON 2
Strength 65/R/D/W/T

Stands	Strength
201-206	92/R/D/W/T
207-224	65/R/D/W/T

APRON 1

TWY on APRON 1	WIDTH	Surface	Strength	Max wingspan
J: EASA Code D - apron Taxiway	23M	concrete	45/R/D/W/T	52m
K: EASA Code D - apron Taxiway	23M	concrete	57/R/D/W/T	52m
M: EASA Code E - apron Taxiway	23M	concrete	57/R/D/W/T	65m
L: EASA Code C - aircraft stand taxilane	23M	concrete	57/R/D/W/T	36m

APRON 2

TWY on APRON 2	WIDTH	Surface	Strength	Max wingspan
C: EASA Code C - apron taxiway (between 207-224)	18M	asphalt	65/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 204-206)	18M	concrete	92/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 207-224)	18M	concrete	65/R/D/W/T	36m
P: EASA Code E - apron taxiway (between TWT C/D - TWY C1)	23M	concrete	92/R/D/W/T	36m
U: EASA Code C - apron taxiway (between TWT C - TWY C1)	18M	concrete	65/R/D/W/T	36m

APRON 3

TWY on APRON 3	WIDTH	Surface	Strength	Max wingspan
T: EASA Code C - aircraft stand taxilane	18M	concrete	24/R/D/W/T	36m

**Turn Pad is designed for aircraft with distance from the main gear to cockpit less than 19.48 m and outer main gear wheel span less than 11 m.

LEGEND			
APRON BOUNDARY		INTERMEDIATE HOLDING POSITION LIGHTS (IHPL)	
ENHACED TAXIWAY CENTRELINE MARKING		STAND MANOEUVRING GUIDANCE LIGHTS	
GUARD LIGHTS		TAXIWAY CENTER LIGHTS	
STOP BAR		TAXI GUIDANCE LINES	yellow
BUILDING		TAXI GUIDANCE LINES FOR ALTERNATIVE PARKING STANDS	yellow
RUNWAY-HOLDING POSITION		INTERMEDIATE HOLDING POSITION	
AUTO TRAFFIC		HOT SPOT	
LIGHT INDICATING STOP POSITION		HOT SPOT with vehicles traffic	

Changes: MAG VAR.

BUCUREŞTI / Henri Coandă (LROP)
TAXI ROUTES

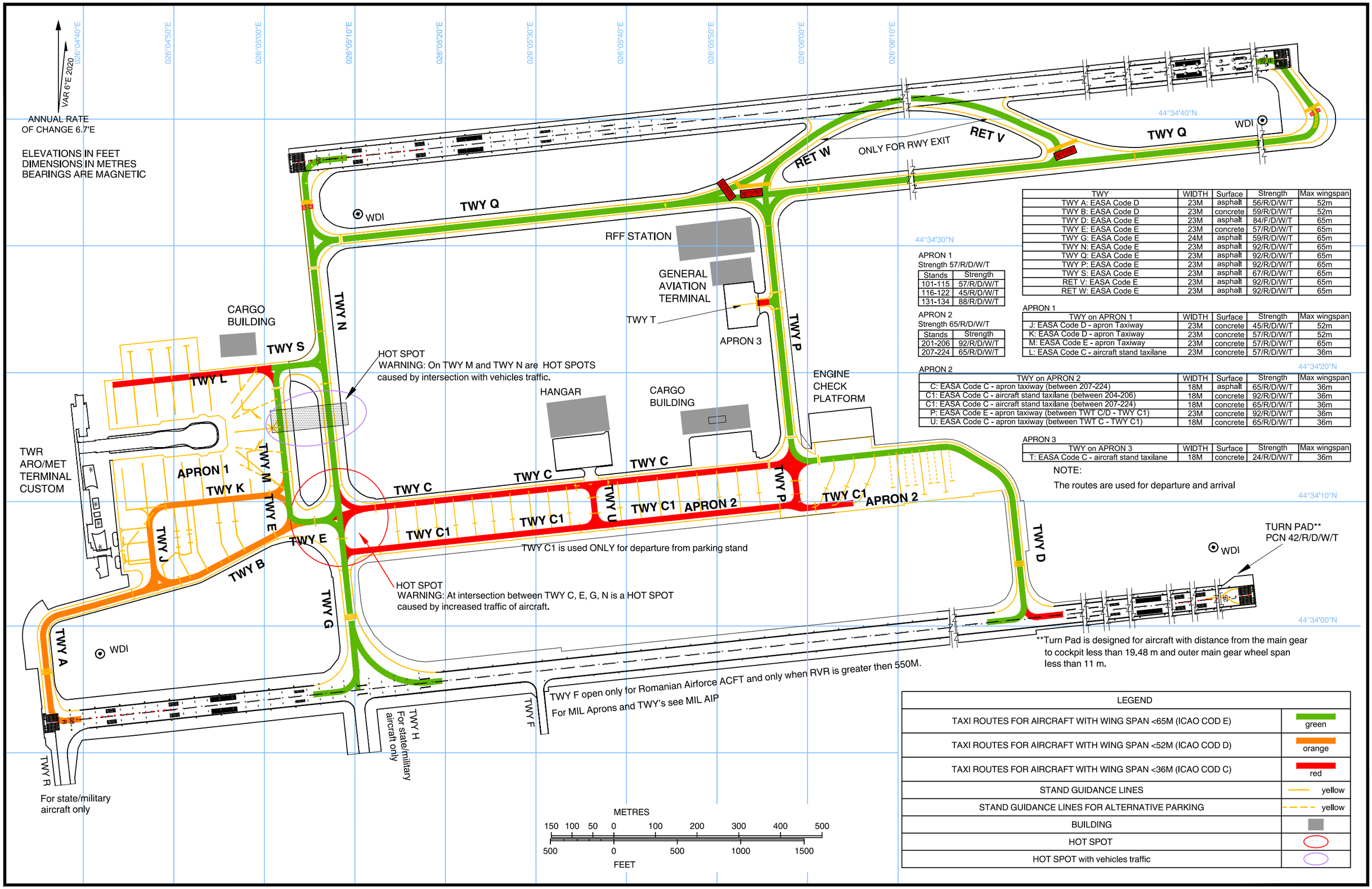
ELEV **314 FT**

44° 34' 16" N
026° 05' 06" E

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

OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

AERODROME GROUND MOVEMENT CHART - ICAO



TWY	WIDTH	Surface	Strength	Max wingspan
TWY A: EASA Code D	23M	asphalt	56/R/D/W/T	52m
TWY B: EASA Code D	23M	concrete	59/R/D/W/T	52m
TWY D: EASA Code E	23M	asphalt	84/F/D/W/T	65m
TWY E: EASA Code E	23M	concrete	57/R/D/W/T	65m
TWY G: EASA Code E	24M	asphalt	59/R/D/W/T	65m
TWY N: EASA Code E	23M	asphalt	92/R/D/W/T	65m
TWY Q: EASA Code E	23M	asphalt	92/R/D/W/T	65m
TWY P: EASA Code E	23M	asphalt	92/R/D/W/T	65m
TWY S: EASA Code E	23M	asphalt	67/R/D/W/T	65m
RET V: EASA Code E	23M	asphalt	92/R/D/W/T	65m
RET W: EASA Code E	23M	asphalt	92/R/D/W/T	65m

APRON 1
Strength 57/R/D/W/T

Stands	Strength
101-115	57/R/D/W/T
116-122	45/R/D/W/T
131-134	88/R/D/W/T

APRON 2
Strength 65/R/D/W/T

Stands	Strength
201-206	92/R/D/W/T
207-224	65/R/D/W/T

APRON 1

TWY on APRON 1	WIDTH	Surface	Strength	Max wingspan
J: EASA Code D - apron Taxiway	23M	concrete	45/R/D/W/T	52m
K: EASA Code D - apron Taxiway	23M	concrete	57/R/D/W/T	52m
M: EASA Code E - apron Taxiway	23M	concrete	57/R/D/W/T	65m
L: EASA Code C - aircraft stand taxilane	23M	concrete	57/R/D/W/T	36m

APRON 2

TWY on APRON 2	WIDTH	Surface	Strength	Max wingspan
C: EASA Code C - apron taxiway (between 207-224)	18M	asphalt	65/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 204-206)	18M	concrete	92/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 207-224)	18M	concrete	65/R/D/W/T	36m
P: EASA Code E - apron taxiway (between TWT C/D - TWY C1)	23M	concrete	92/R/D/W/T	36m
U: EASA Code C - apron taxiway (between TWT C - TWY C1)	18M	concrete	65/R/D/W/T	36m

APRON 3

TWY on APRON 3	WIDTH	Surface	Strength	Max wingspan
T: EASA Code C - aircraft stand taxilane	18M	concrete	24/R/D/W/T	36m

NOTE:
The routes are used for departure and arrival

**Turn Pad is designed for aircraft with distance from the main gear to cockpit less than 19.48 m and outer main gear wheel span less than 11 m.

LEGEND	
TAXI ROUTES FOR AIRCRAFT WITH WING SPAN <65M (ICAO COD E)	green
TAXI ROUTES FOR AIRCRAFT WITH WING SPAN <52M (ICAO COD D)	orange
TAXI ROUTES FOR AIRCRAFT WITH WING SPAN <36M (ICAO COD C)	red
STAND GUIDANCE LINES	yellow
STAND GUIDANCE LINES FOR ALTERNATIVE PARKING	yellow
BUILDING	
HOT SPOT	
HOT SPOT with vehicles traffic	

Changes: MAG VAR.

AIRCRAFT PARKING / DOCKING CHART - ICAO

APRON ELEV **312 FT**

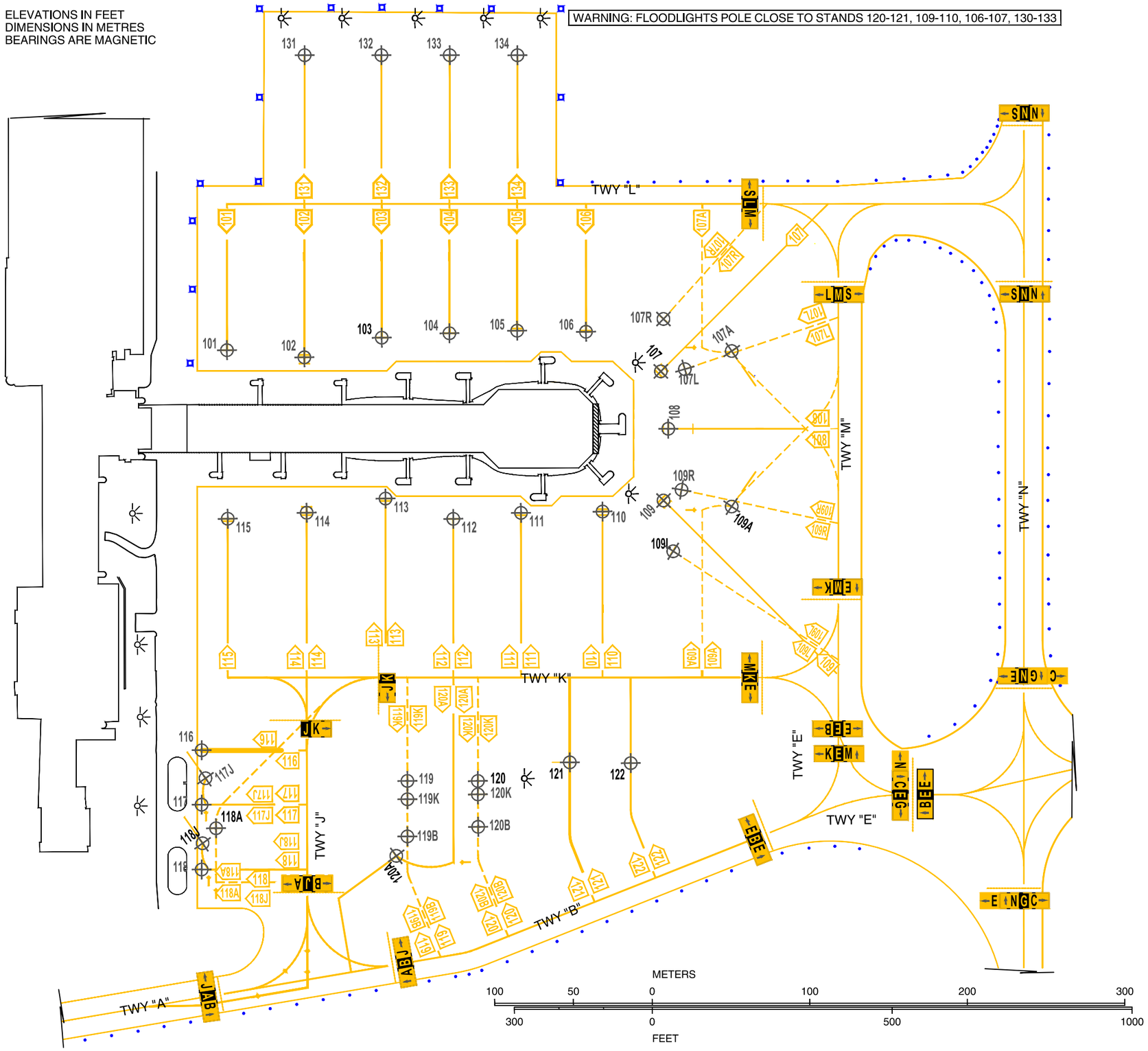
OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700

OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
APRON 1

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

WARNING: FLOODLIGHTS POLE CLOSE TO STANDS 120-121, 109-110, 106-107, 130-133



VAR 6°E 2020
ANNUAL RATE
OF CHANGE 6.7'E

APRON 1
Strength 57/R/D/W/T

Stands	Strength
101-115	57/R/D/W/T
116-122	45/R/D/W/T
131-134	88/R/D/W/T

TWY on APRON 1	WIDTH	Surface	Strength	Max wingspan
J: EASA Code D - apron Taxiway	23M	concrete	45/R/D/W/T	52m
K: EASA Code D - apron Taxiway	23M	concrete	57/R/D/W/T	52m
M: EASA Code E - apron Taxiway	23M	concrete	57/R/D/W/T	65m
L: EASA Code C - aircraft stand taxilane	23M	concrete	57/R/D/W/T	36m

Parking of aircraft at the stands 101-107, 109-115 is performed according with Stand Entry Guidance.

Parking of aircraft at the positions is performed according to the signals of the marshaller at aircraft stands 108, 116-122, 131-134 and alternative stands.

For INS Coordintes of Aircraft Stands see verso.

LEGEND	
APRON EDGE MARKERS	
TAXIWAY EDGE LIGHT	
TO AIRCRAFT STAND	101
FLOODLIGHT	
AIRCRAFT STAND	101
INS CHECK POINTS	
TAXI GUIDANCE LINES	(yellow)
TAXI GUIDANCE LINES FOR ALTERNATIVE PARKING STANDS	(dashed)
INTERMEDIATE HOLDING POSITION	
BUILDING	

Changes: MAG VAR.

Stand		INS COORDINATES OF AIRCRAFT STANDS		Remarks
Stand	Stop Bar	Latitude	Longitude	
101	1	443415.85N	0260443.84E	EXIT WITH PUSH-BACK ONLY
102	1	443415.92N	0260446.06E	EXIT WITH PUSH-BACK ONLY
	2	443415.87N	0260446.07E	
	3	443415.73N	0260446.09E	
103	1	443416.43N	0260448.21E	EXIT WITH PUSH-BACK ONLY
104	1	443416.64N	0260450.13E	EXIT WITH PUSH-BACK ONLY
105	1	443416.89N	0260452.04E	EXIT WITH PUSH-BACK ONLY
	2	443416.84N	0260452.05E	
106	1	443417.01N	0260454.00E	EXIT WITH PUSH-BACK ONLY
	2	443416.99N	0260454.01E	
107	1	443416.41N	0260456.34E	EXIT WITH PUSH-BACK ONLY
	2	443416.33N	0260456.25E	
	3	443416.28N	0260456.20E	
	4	443416.15N	0260456.04E	
	5	443416.02N	0260455.90E	
107A	1	443416.90N	0260458.22E	ALTERNATIVE PARKING STAND
107R	1	443417.35N	0260456.09E	ALTERNATIVE PARKING STANDS / EXIT WITH PUSH-BACK ONLY
107L	1	443416.41N	0260456.96E	
108	1	443415.21N	0260457.12E	EXIT WITH PUSH-BACK ONLY
	2	443415.18N	0260456.78E	
	3	443415.19N	0260456.64E	
	4	443415.17N	0260456.49E	
109	1	443413.65N	0260456.84E	EXIT WITH PUSH-BACK ONLY
	2	443413.72N	0260456.71E	
	3	443413.75N	0260456.66E	
	4	443414.04N	0260456.16E	
109A	1	443413.74 N	0260458.66E	ALTERNATIVE PARKING STAND
109R	1	443413.97N	0260457.28E	ALTERNATIVE PARKING STANDS / EXIT WITH PUSH-BACK ONLY
109L	1	443412.73N	0260457.17E	
110	1	443413.30N	0260455.01E	EXIT WITH PUSH-BACK ONLY
	2	443413.38N	0260455.00E	
	3	443413.42N	0260455.00E	
111	1	443413.12N	0260452.70E	EXIT WITH PUSH-BACK ONLY
	2	443413.17N	0260452.69E	
112	1	443412.90N	0260450.78E	EXIT WITH PUSH-BACK ONLY
113	1	443413.12N	0260448.80E	EXIT WITH PUSH-BACK ONLY
	2	443413.17N	0260448.79E	
114	1	443412.67N	0260446.60E	EXIT WITH PUSH-BACK ONLY
	2	443412.72N	0260446.59E	
	3	443412.83N	0260446.58E	
115	1	443412.37N	0260444.37E	EXIT WITH PUSH-BACK ONLY
	2	443412.39N	0260444.37E	
116	1	443407.64N	0260444.35E	EXIT WITH PUSH-BACK ONLY
117	1	443406.54N	0260444.51E	EXIT WITH PUSH-BACK ONLY
117J	1	443407.10N	0260444.49E	ALTERNATIVE PARKING STAND
118	1	443405.22N	0260444.67E	EXIT WITH PUSH-BACK ONLY
118A	1	443406.11N	0260444.95E	ALTERNATIVE PARKING STAND
118J	1	443405.77N	0260444.60E	ALTERNATIVE PARKING STAND / EXIT WITH PUSH-BACK ONLY
119	1	443407.37N	0260450.28E	NIL
119B	1	443406.34N	0260450.43E	ALTERNATIVE PARKING STANDS
119K	1	443407.11N	0260450.32E	
120	1	443407.52N	0260452.28E	NIL
120B	1	443406.69N	0260452.40E	ALTERNATIVE PARKING STAND
120K	1	443407.41N	0260452.29E	ALTERNATIVE PARKING STAND
120A	1	443405.92N	0260450.17E	ALTERNATIVE PARKING STAND
121	1	443408.10N	0260454.85E	NIL
122	1	443408.30N	0260456.57E	NIL
131	1	443421.56N	0260445.40E	EXIT WITH PUSH-BACK ONLY
132	1	443421.71N	0260447.42E	EXIT WITH PUSH-BACK ONLY
133	1	443421.86N	0260449.43E	EXIT WITH PUSH-BACK ONLY
134	1	443422.01N	0260451.43E	EXIT WITH PUSH-BACK ONLY

AIRCRAFT PARKING / DOCKING CHART - ICAO

APRON ELEV **308 FT**

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

OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
APRON 2

Changes: MAG VAR.

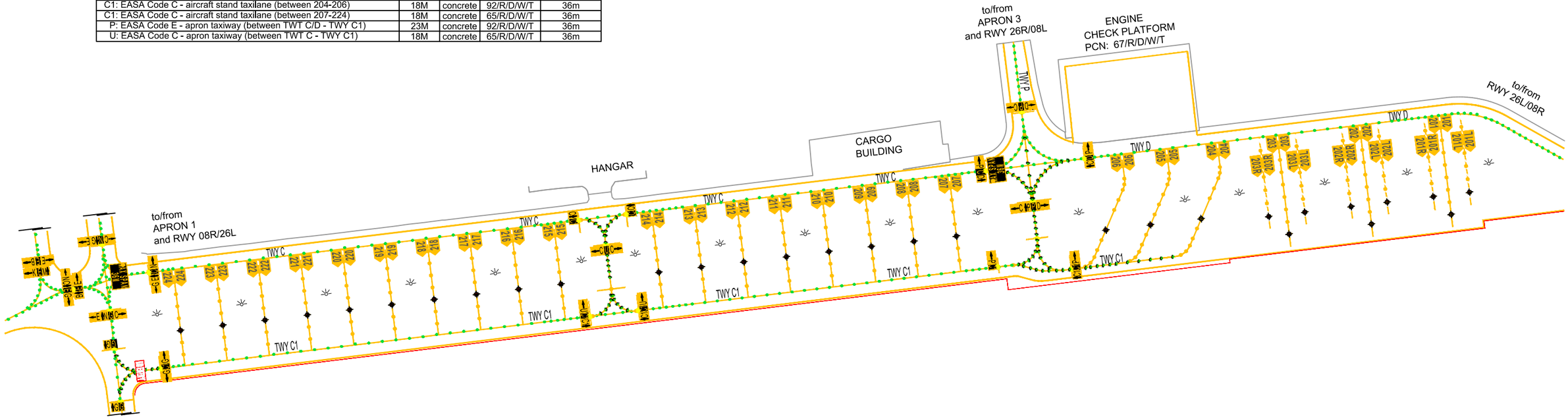
VAR 6°E 2020
ANNUAL RATE
OF CHANGE 6.7'E

APRON 2

Stands	Strength
201-206	92/R/D/W/T
207-224	65/R/D/W/T

APRON 2

TWY on APRON 2	WIDTH	Surface	Strength	Max wingspan
C: EASA Code C - apron taxiway (between 207-224)	18M	asphalt	65/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 204-206)	18M	concrete	92/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 207-224)	18M	concrete	65/R/D/W/T	36m
P: EASA Code E - apron taxiway (between TWT C/D - TWY C1)	23M	concrete	92/R/D/W/T	36m
U: EASA Code C - apron taxiway (between TWT C - TWY C1)	18M	concrete	65/R/D/W/T	36m



LEGEND	
TWY CENTER LINE	
INTERMEDIATE HOLDING POSITION LIGHTS (IHPL)	
AIRCRAFT STAND MANOEUVERING LIGHT	
LIGHT INDICATING STOP POSITION	
TO AIRCRAFT STAND	201
FLOODLIGHT	
INS CHECK POINTS	
TAXI GUIDANCE LINE FOR ALTERNATIVE PARKING STANDS	yellow
TAXI GUIDANCE LINE	yellow
BUILDING	

Stands no.	Aircraft	Maximum Aircraft Type
201 - 203	Aircraft with wingspan less than 65m (Code letter E)	B777-300 / A340-300
201 - 224 and alternative stands 201R/L, 202R/L, 203R/L	Aircraft with wingspan less than 36m (Code letter C)	B737-900 / A321

Parking will be performed only with marshaller assistace.

METRES
100 50 0 100 200 300
300 200 100 0 500 1000
FEET

For INS Coordinates of Aircraft Stands see verso.

INS COORDINATES OF AIRCRAFT STANDS

Ramp Stand	Latitude	Longitude	Remarks
201L	443411.65N	0260619.25E	ALTERNATIVE PARKING STANDS
201	443410.85N	0260618.29E	EXIT WITH PUSH-BACK
201R	443411.51N	0260617.40E	ALTERNATIVE PARKING STANDS
202L	443411.33N	0260615.03E	ALTERNATIVE PARKING STANDS
202	443410.54N	0260614.22E	EXIT WITH PUSH-BACK
202R	443411.19N	0260613.18E	ALTERNATIVE PARKING STANDS
203L	443411.01N	0260610.82E	ALTERNATIVE PARKING STANDS
203	443410.22N	0260610.00E	EXIT WITH PUSH-BACK
203R	443410.87N	0260608.97E	ALTERNATIVE PARKING STANDS
204	443410.83N	0260605.53E	
205	443410.63N	0260602.92E	
206	443410.45N	0260600.64E	
207	443410.31N	0260552.99E	
208	443410.15N	0260551.01E	
209	443409.98N	0260548.76E	
210	443409.83N	0260546.78E	
211	443409.66N	0260544.53E	
212	443409.51N	0260542.54E	
213	443409.33N	0260540.29E	
214	443409.18N	0260538.31E	
214R	443408.94N	0260535.20E	ALTERNATIVE PARKING STANDS
215	443408.68N	0260531.84E	
216	443408.53N	0260529.86E	
217	443408.34N	0260527.43E	
218	443408.19N	0260525.44E	
219	443408.00N	0260523.01E	
220	443407.85N	0260521.03E	
221	443407.66N	0260518.59E	
222	443407.51N	0260516.61E	
223	443407.33N	0260514.18E	
224	443407.17N	0260512.19E	

AIRCRAFT PARKING / DOCKING CHART - ICAO

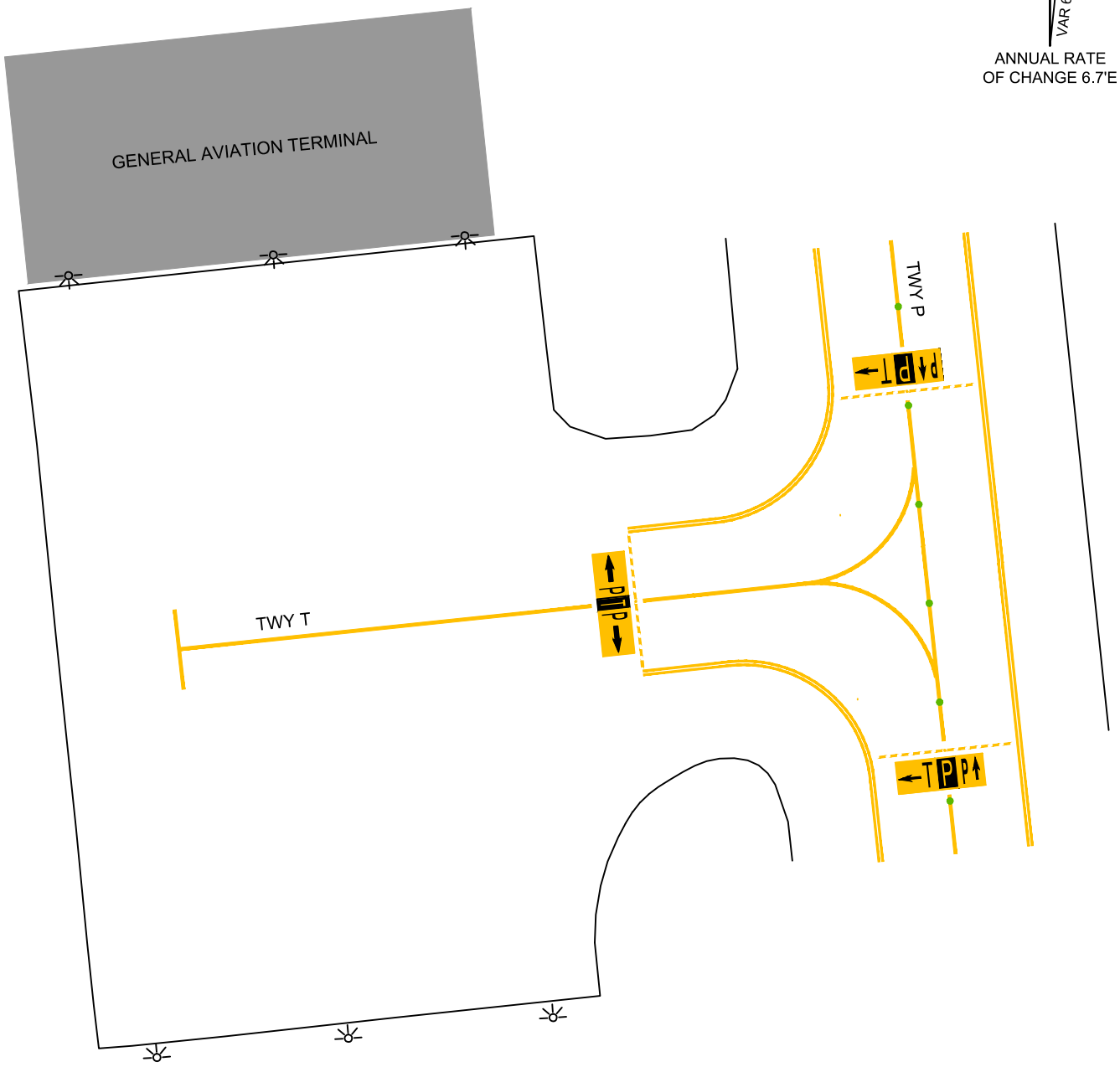
APRON ELEV
309 FT

OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI CLEARANCE DELIVERY	121.955
OTOPENI CLEARANCE DELIVERY ALTN	121.700

BUCUREŞTI / Henri Coandă (LROP)
APRON 3

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 6°E 2020
ANNUAL RATE
OF CHANGE 6.7'E



Changes: MAG VAR.

NOTE:
Aircraft intend to use APRON 3 will be stopped by marshaller on TWY T. Aircraft positioning on APRON 3 or in HANGAR will be executed by Ion Tiriac Air personnel with towing equipment.

APRON 3
Strenght 24/R/D/W/T

TWY on APRON 3	WIDTH	Surface	Strength	Max wingspan
T: EASA Code C - aircraft stand taxilane	18M	concrete	24/R/D/W/T	36m

METRES
20 10 0 10 20 30 40 50
50 0 50 100 150
FEET

LEGEND	
FLOODLIGHT	
TAXIWAY LIGHT	
TAXI GUIDANCE LINE (TL)	
INTERMEDIATE HOLDING POSITION	
BUILDING	

AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

BUCUREŞTI / Henri Coandă (LROP)

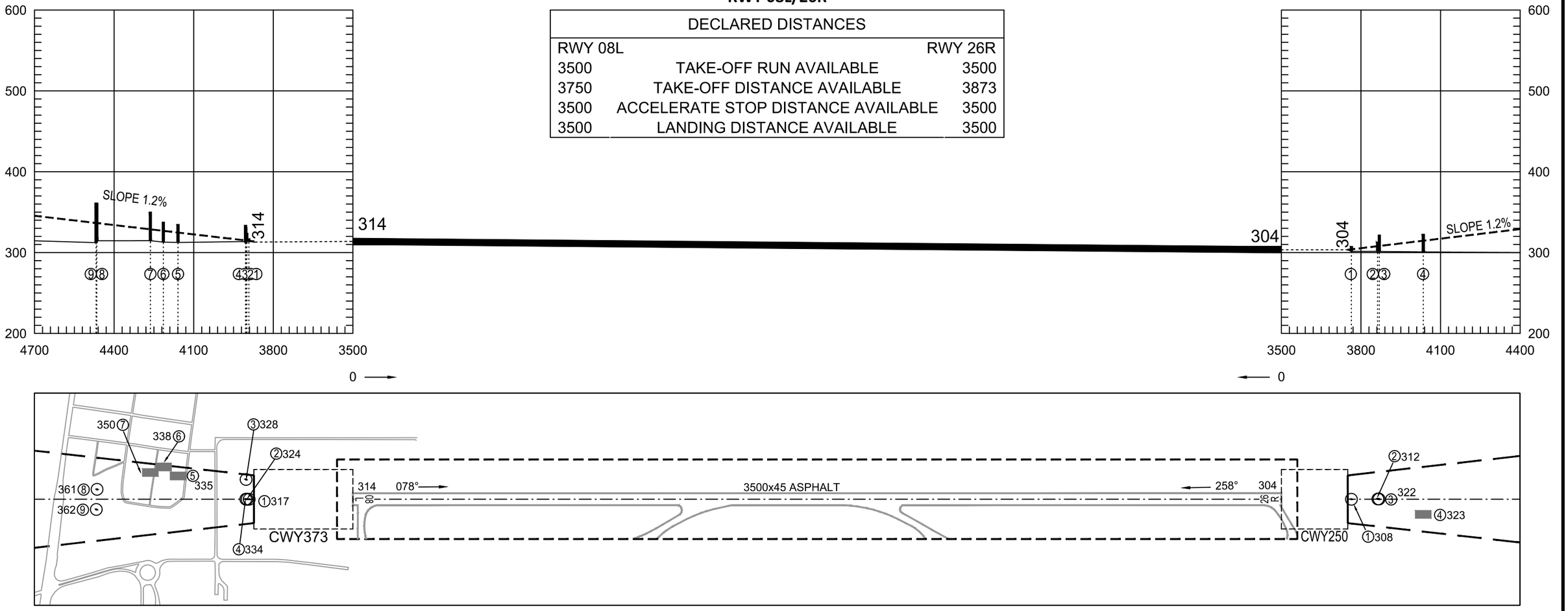
RWY 08L/26R

ELEVATIONS IN FEET AND LINEAR DIMENSIONS IN METRES

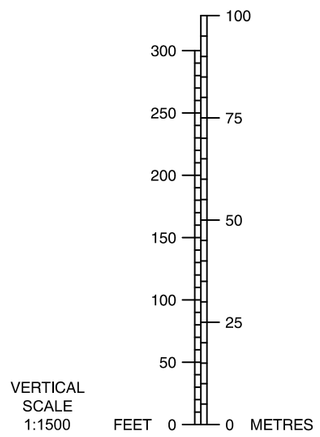
MAGNETIC VARIATION 6° E - 2020

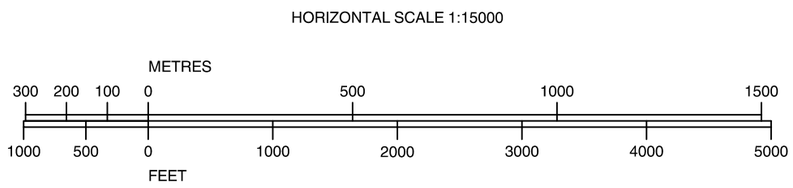
RWY 08L/26R

DECLARED DISTANCES		
RWY 08L		RWY 26R
3500	TAKE-OFF RUN AVAILABLE	3500
3750	TAKE-OFF DISTANCE AVAILABLE	3873
3500	ACCELERATE STOP DISTANCE AVAILABLE	3500
3500	LANDING DISTANCE AVAILABLE	3500



LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, FENCE	⊙
BUILDING OR LARGE STRUCTURE	▬
ROADS	═══
THREE OR SHRUB	⁂





ORDER OF ACCURACY

HORIZONTAL	0.5 METRES
VERTICAL	0.5 ft

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

Changes: Chart revised.

AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

BUCUREŞTI / Henri Coandă (LROP)

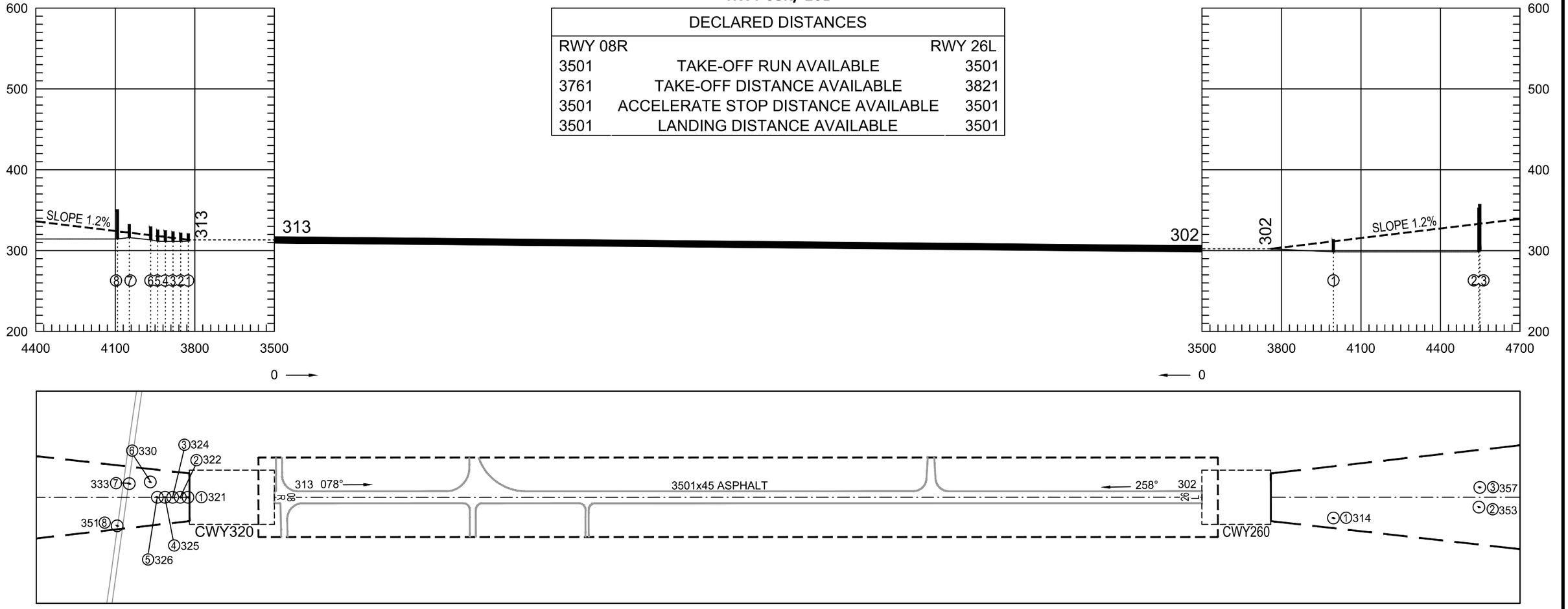
RWY 08R/26L

ELEVATIONS IN FEET AND LINEAR DIMENSIONS IN METRES

MAGNETIC VARIATION 6° E - 2020

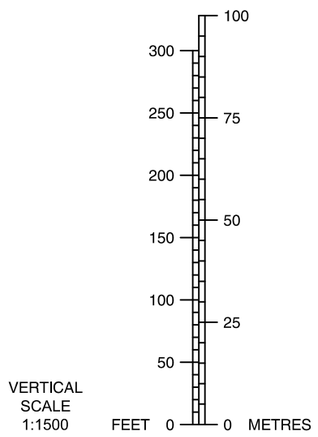
RWY 08R/ 26L

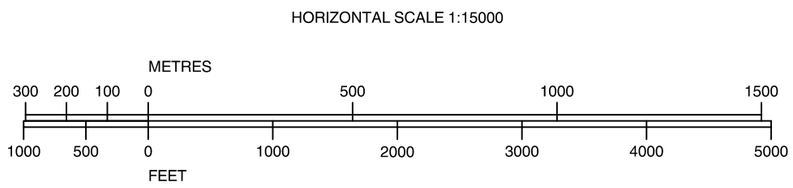
DECLARED DISTANCES		
RWY 08R		RWY 26L
3501	TAKE-OFF RUN AVAILABLE	3501
3761	TAKE-OFF DISTANCE AVAILABLE	3821
3501	ACCELERATE STOP DISTANCE AVAILABLE	3501
3501	LANDING DISTANCE AVAILABLE	3501



Changes: Chart revised.

LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, FENCE	⊙
BUILDING OR LARGE STRUCTURE	▬
ROADS	═══
THREE OR SHRUB	⁂





ORDER OF ACCURACY

HORIZONTAL 0.5 METRES
VERTICAL 0.5 ft

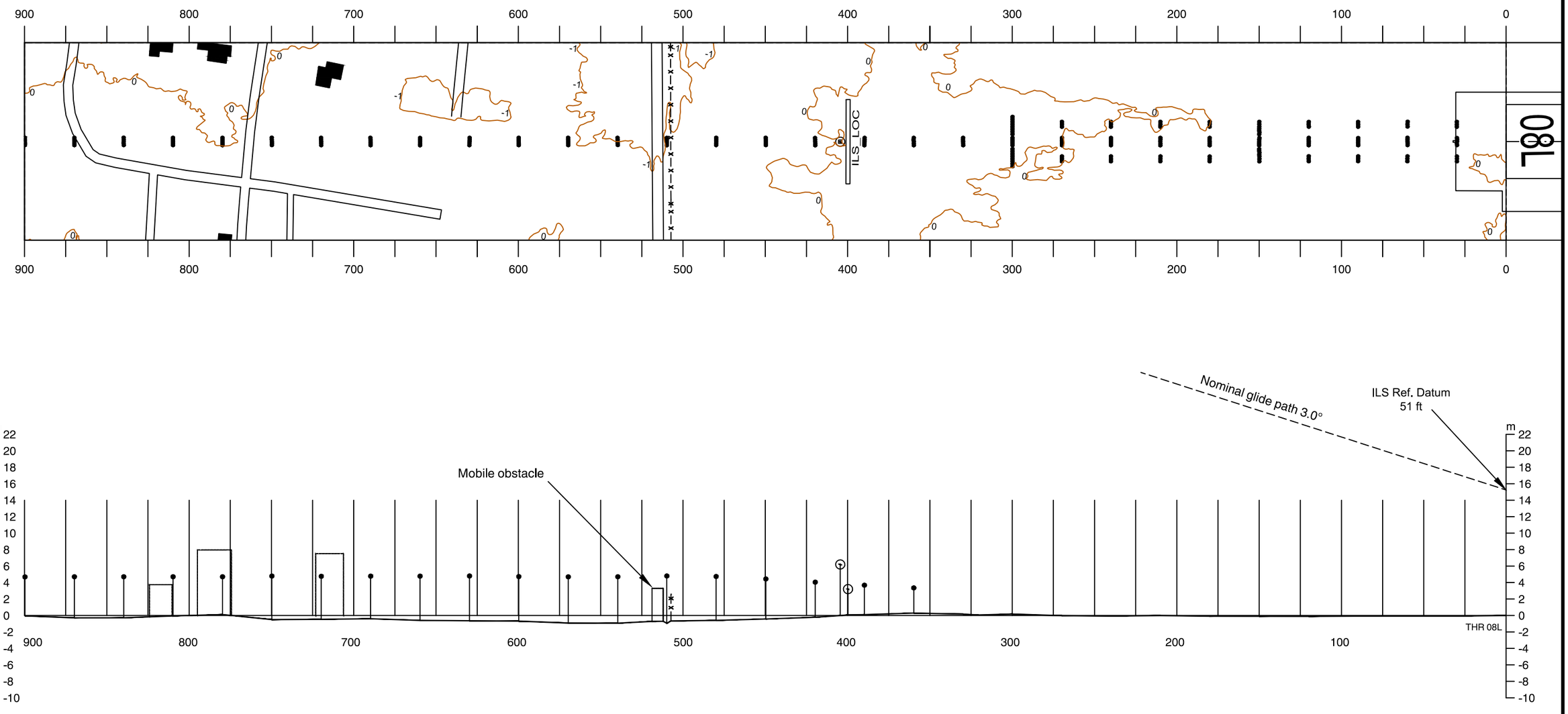
AMENDMENT RECORD		
NO.	DATE	ENTERED BY

PRECISION APPROACH TERRAIN CHART - ICAO

BUCUREŞTI / Henri Coandă (LROP)
RWY 08L

DISTANCES AND HEIGHTS IN METRES

Changes: Chart revised.



LEGEND	
ROAD	
CONTOUR	
CENTRE-LINE PROFILE	
FENCE	
APPROACH LIGHTS	
POLE, TOWER, SPIRE, ANTENNA, FENCE	
BUILDING OR LARGE STRUCTURE	

HORIZONTAL SCALE 1:2.500
VERTICAL SCALE 1:500

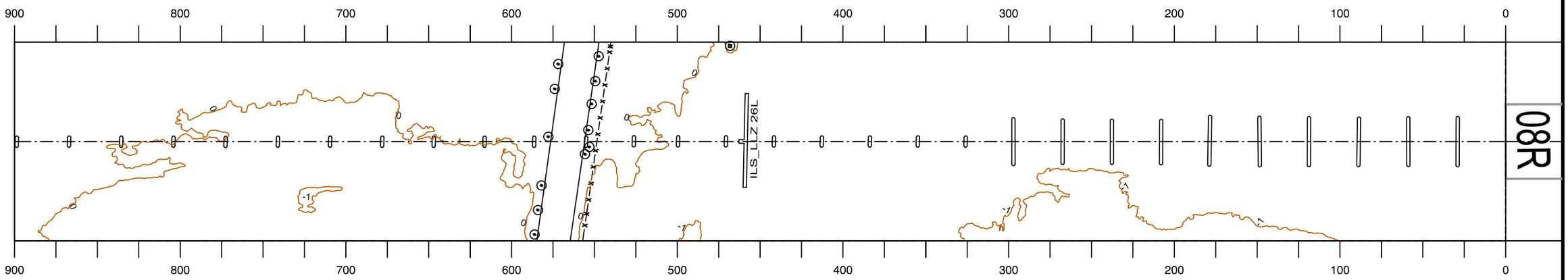
CONTOURS AND HEIGHTS ARE RELATED
TO ELEVATION OF RWY THR 08L

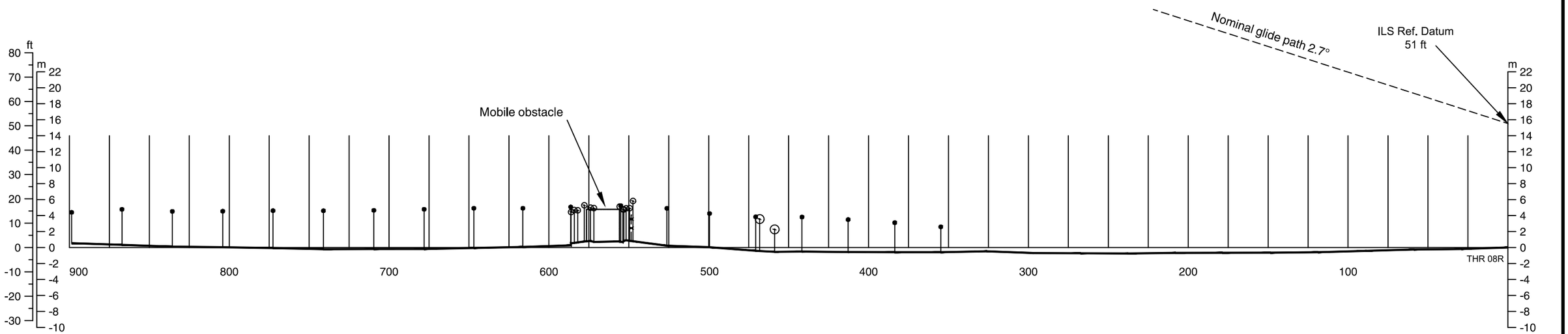
AMENDMENT RECORD		
NO.	DATE	ENTERED BY

PRECISION APPROACH TERRAIN CHART - ICAO

BUCUREŞTI / Henri Coandă (LROP)
RWY 08R

DISTANCES AND HEIGHTS IN METRES





Changes: Chart revised.

LEGEND	
ROAD	
CONTOUR	
CENTRE-LINE PROFILE	
FENCE	
APPROACH LIGHTS	
POLE, TOWER, SPIRE, ANTENNA, FENCE	
BUILDING OR LARGE STRUCTURE	

HORIZONTAL SCALE 1:2.500
VERTICAL SCALE 1:500

CONTOURS AND HEIGHTS ARE RELATED
TO ELEVATION OF RWY THR 08R

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

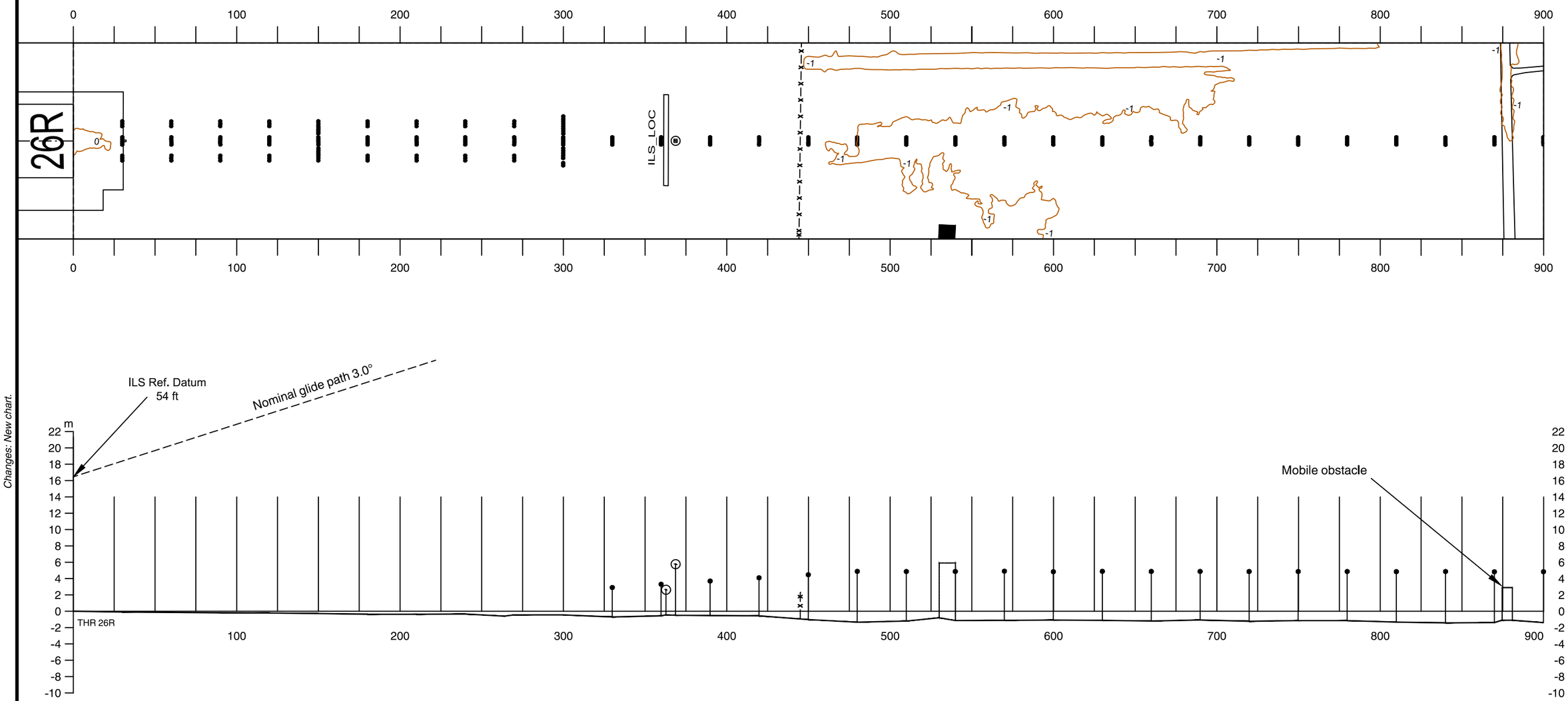
PRECISION APPROACH TERRAIN CHART - ICAO

BUCUREŞTI / Henri Coandă (LROP)

RWY 26R

DISTANCES AND HEIGHTS IN METRES

Changes: New chart.



LEGEND	
ROAD	
CONTOUR	
CENTRE-LINE PROFILE	
FENCE	
APPROACH LIGHTS	
POLE, TOWER, SPIRE, ANTENNA, FENCE	
BUILDING OR LARGE STRUCTURE	

HORIZONTAL SCALE 1:2.500
VERTICAL SCALE 1:500

CONTOURS AND HEIGHTS ARE RELATED
TO ELEVATION OF RWY THR 26R

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

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
BUCURESTI DIRECTOR	127.155
BUCURESTI DIRECTOR ALTN	120.600

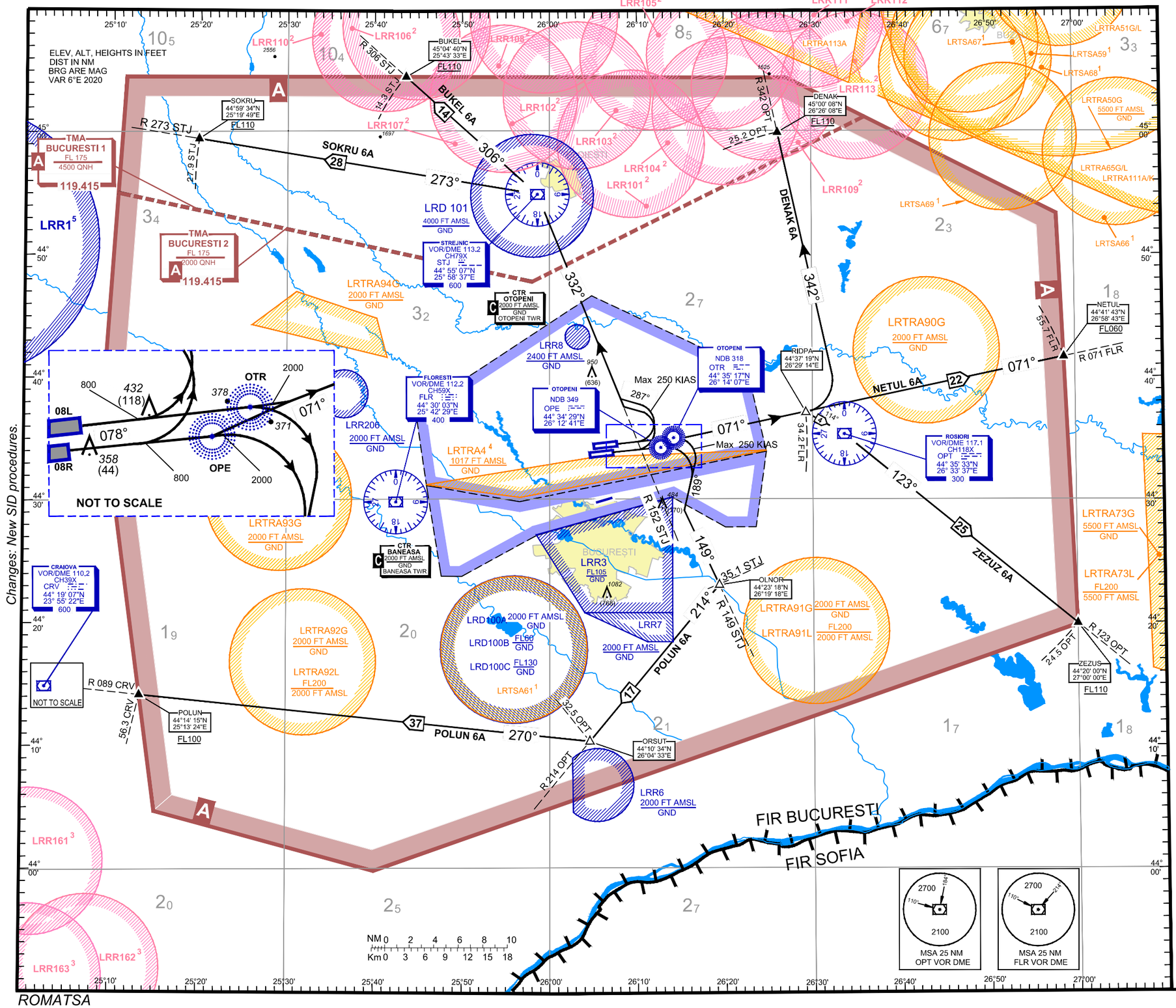
OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI DEL	121.955

SECTOR LOMOS	LOMOS	122.030
	LOMOS ALTN	126.080
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	126.080
	KOMAN ALTN	124.975

SECTOR ARGES	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

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

BUKEL 6A, DENAK 6A, NETUL 6A
POLUN 6A, SOKRU 6A, ZEZUZ 6A



Changes: New SID procedures.

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 6A	Climb on runway axis, at **800** (486) turn **left** (1) heading **287°M** to intercept and follow **R 152° STJ** (332°M) to **STJ**. At **STJ** turn **left** and follow **R 306° STJ** (306°M) to **BUKEL**. Cross **BUKEL** at or above **FL110** (2). (1) No turn before DER. Max 250 KIAS. (2) **ATS climb gradient: 5.2%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to NEPOT.
DENAK 6A	**RWY 08L** Climb on **QDM 078° OTR** to **OTR**. At **OTR** follow **QDR 078° OTR** to intercept and follow **R 071° FLR** (071°M) to **RIDPA**. At **RIDPA** turn **left** to intercept and follow **R 342° OPT** (342°M) to **DENAK**. Cross **DENAK** at or above **FL110** (1). (1) **ATS climb gradient: 5.3%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. **RWY 08R** Climb on **QDM 078° OPE** to **OPE**. At **OPE** turn **left** to intercept and follow **R 071° FLR (071°M)** to **RIDPA**. At **RIDPA** turn **left** to intercept and follow **R 342° OPT (342°M)** to **DENAK**. Cross **DENAK** at or above **FL110** (1). (1) **ATS climb gradient: 5.3%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 6A	**RWY 08L** Climb on **QDM 078° OTR** to **OTR**. At **OTR** follow **QDR 078° OTR** to intercept and follow **R 071° FLR** (071°M) to **NETUL**. Cross **NETUL** at or above **FL060**. **RWY 08R** Climb on **QDM 078° OPE** to **OPE**. At **OPE** turn **left** to intercept and follow **R 071° FLR** (071°M) to **NETUL**. Cross **NETUL** at or above **FL060**.
POLUN 6A	Climb on runway axis, at ***2000*** (1686) turn **right** (1) heading **189°M** to intercept and follow **R 149° STJ** (149°M) to **OLNOR**. At **OLNOR** turn **right** to intercept and follow **R 214° OPT** (214°M) to **ORSUT**. At **ORSUT** turn **right** to intercept and follow **R 089° CRV** (270°M) to **POLUN**. Cross **POLUN** at or above **FL100**. (1) No turn before DER. Max 250 KIAS. Not available for traffic to MOPUG.
SOKRU 6A	Climb on runway axis, at ***800*** (486) turn **left** (1) heading **287°M** to intercept and follow **R 152° STJ** (332°M) to **STJ**. At **STJ** turn **left** and follow **R 273° STJ** (273°M) to **SOKRU**. Cross **SOKRU** at or above **FL110** (2). (1) No turn before DER. Max 250 KIAS. (2) **ATS climb gradient: 5.1%** up to **FL045**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
ZEZUZ 6A	**RWY 08L** Climb on **QDM 078° OTR** to **OTR**. At **OTR** follow **QDR 078° OTR** to intercept and follow **R 071° FLR** (071°M) to **RIDPA**. At **RIDPA** turn right to intercept and follow **R 294° OPT** (114°M) to **OPT**. At **OPT** follow **R 123° OPT** (123°M) to **ZEZUZ**. Cross **ZEZUZ** at or above **FL110** (1). (1) **ATS climb gradient: 4.1%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. **RWY 08R** Climb on **QDM 078° OPE** to **OPE**. At **OPE** turn **left** to intercept and follow **R 071° FLR** (071°M) to **RIDPA**. At **RIDPA** turn **right** to intercept and follow **R 294° OPT** (114°M) to **OPT**. At **OPT** follow **R 123° OPT** (123°M) to **ZEZUZ**. Cross **ZEZUZ** at or above **FL110** (1). (1) **ATS climb gradient: 4.0%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.

TMA SPEED LIMIT MAX 250 KIAS BELOW FL100

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
$\frac{FL255}{GND}$ 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.

BUCUREȘTI / Henri Coanda (LROP)

SID RWY 08L/R

AERONAUTICAL DATA TABULATION

Conventional SID RWY 08L/R	
Fix/Waypoint Name	**Coordinates**
CRV VORDME	44°19’07.0”N 023°55’21.9”E
FLR VORDME	44°30’03.0”N 025°42’29.4”E
OPT VORDME	44°35’32.6”N 026°33’36.6”E
STJ VORDME	44°55’06.8”N 025°58’37.3”E
OTR NDB	44°35’16.8”N 026°14’07.3”E
OPE NDB	44°34’29.2”N 026°12’40.5”E
OLNOR – BRG 148.99° / 35.07NM STJ	44°23’18.0"N 026°19’18.0"E
ORSUT – BRG 214.01° / 32.53NM OPT	44°10'34.0"N 026°04'33.0"E
RIDPA – BRG 071.46° / 34.20NM FLR	44°37'19.0"N 026°29'14.0"E
BUKEL – BRG 305.86° / 14.34NM STJ	45°04'40.1"N 025°43'32.6"E
DENAK – BRG 341.84° / 25.16NM OPT	45°00'08.2"N 026°26'08.5"E
NETUL – BRG 071.46° / 55.70NM FLR	44°41'43.4"N 026°58'42.8"E
POLUN – BRG 088.51° / 56.27NM CRV	44°14'14.7"N 025°13'24.1"E
SOKRU – BRG 273.41° / 27.91NM STJ	44°59'34.0"N 025°19'49.0"E
ZEZUZ – BRG 123.28° / 24.47NM OPT	44°20'00.0"N 027°00'00.0"E
DER 08L	44°34'48.6"N 026°07'51.5"E
DER 08R	44°34'05.6"N 026°07'25.5"E

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

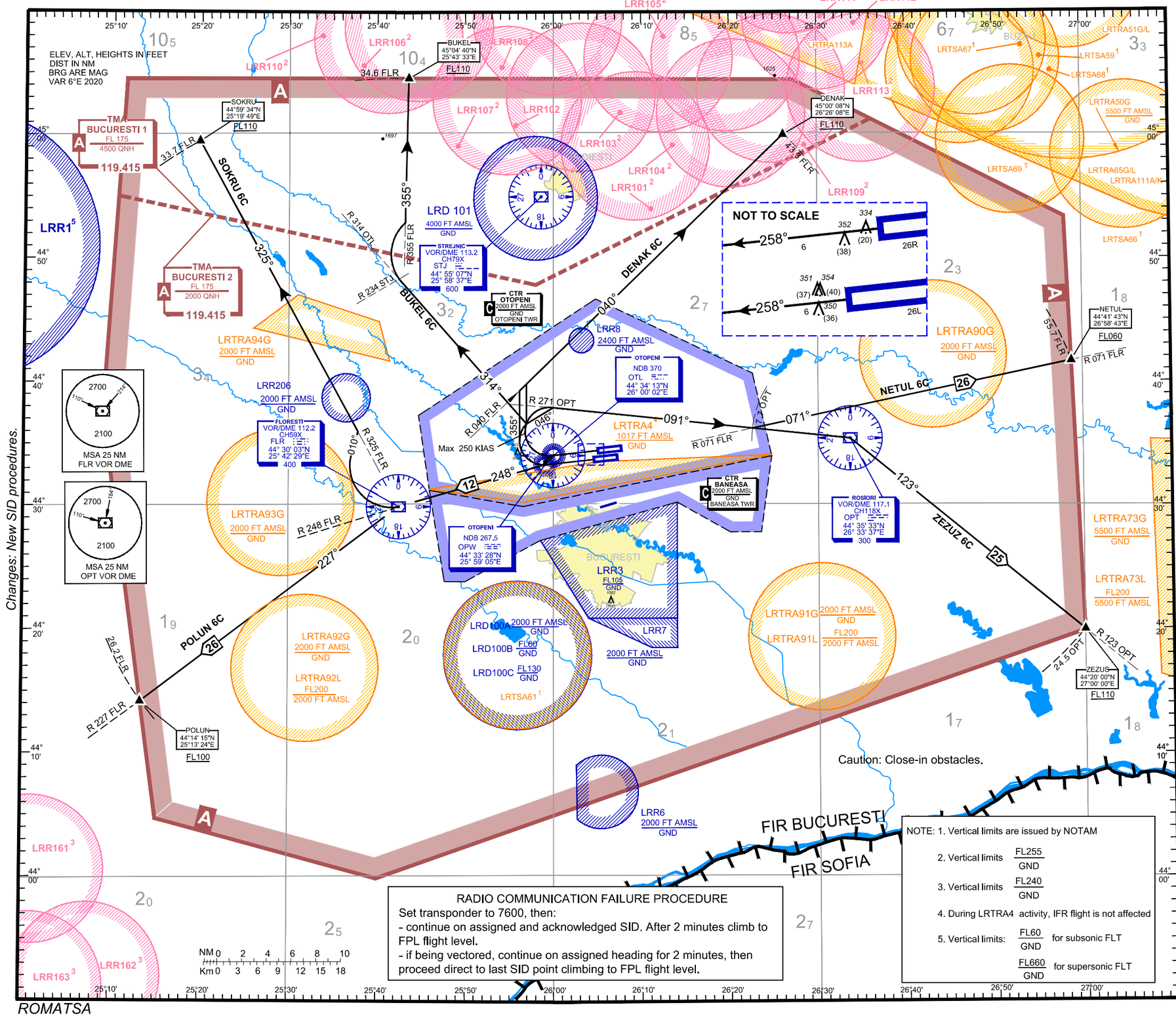
OTOPENI TWR	118.805
OTOPENI TWR ALTN	120.900
OTOPENI GND	121.855
OTOPENI GND ALTN	121.700
OTOPENI DEL	121.955

SECTOR		
LOMOS	LOMOS ALTN	LOMOS ALTN
122.030	126.080	124.975
KOMAN	KOMAN	KOMAN ALTN
130.315	122.030	126.080
KOMAN ALTN		
124.975		

SECTOR		
ARGES	ARGES ALTN	NERDI
121.285	122.365	124.975
NERDI	NERDI ALTN	
135.360	133.915	123.890

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

BUKEL 6C, DENAK 6C, NETUL 6C
POLUN 6C, SOKRU 6C, ZEZUZ 6C



Changes: New SID procedures.

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.

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

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

Initial departure

RWY 26R: **PDG 3.3%** disregarded close-in obstacle: Antenna (*334* ft) 30m of DER on RWY axis.
RWY 26L: **PDG 3.3%** disregarded close-in obstacles: Poles (*354* ft) 215m of DER, 140m on the right.

DESIGNATOR DEPARTURE ROUTE	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
BUKEL 6C	**RWY 26L** Climb on **QDM 258° OPW** to **OPW**. At **OPW** turn **right** (1) heading **355°M** to intercept and follow **QDR 314° OTL**. Crossing **R 234° STJ** (234°M) turn **right** and follow **R 355° FLR** (355°M) to **BUKEL**. Cross **BUKEL** at or above **FL110** (2). **RWY 26R** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **right** (1) to intercept and follow **QDR 314° OTL**. Crossing **R 234° STJ** (234°M) turn **right** and follow **R 355° FLR** (355°M) to **BUKEL**. Cross **BUKEL** at or above **FL110** (2). (1) Max 250 KIAS. (2) **ATS climb gradient: 6.0%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
DENAK 6C	**RWY 26L** Climb on **QDM 258° OPW** to **OPW**. At **OPW** turn **right** (1) heading **355°M** to intercept and follow **R 040° FLR** (040°M) to **DENAK**. Cross **DENAK** at or above **FL110** (2). **RWY 26R** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **right** (1) heading **355°M** to intercept and follow **R 040° FLR** (040°M) to **DENAK**. Cross **DENAK** at or above **FL110** (2). (1) Max 250 KIAS. (2) **ATS climb gradient: 4.9%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 6C	**RWY 26L** Climb on **QDM 258° OPW** to **OPW**. At **OPW** turn **right** (1) heading **046°M** to intercept and follow **R 271° OPT** (091°M). At **7.7NM OPT** turn **left** to intercept and follow **R 071° FLR** (071°M) to **NETUL**. Cross **NETUL** at or above **FL060**. **RWY 26R** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **right** (1) to intercept and follow **R 271° OPT** (091°M). At **7.7NM OPT** turn **left** to intercept and follow **R 071° FLR** (071°M) to **NETUL**. Cross **NETUL** at or above **FL060**. (1) Max 250 KIAS. (2) **ATS climb gradient: 4.9%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient.
POLUN 6C	**RWY 26L** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **left** (1) to intercept and follow **R 068° FLR** (248°M) to **FLR**. At **FLR** turn **left** and follow **R 227° FLR** (227°M) to **POLUN**. Cross **POLUN** at or above **FL100** (2). **RWY 26R** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **left** (1) to intercept and follow **R 068° FLR** (248°M) to **FLR**. At **FLR** turn **left** and follow **R 227° FLR** (227°M) to **POLUN**. Cross **POLUN** at or above **FL100** (2). (1) Max 250 KIAS. (2) **ATS climb gradient: 3.9%** up to **FL100**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to MOPUG.
SOKRU 6C	**RWY 26L** Climb on **QDM 258° OPW** to **OPW**. At **OPW** turn **left** (1) to follow **R 068° FLR** (248°M) to **FLR**. At **FLR** turn **right** heading **010°M** to intercept and follow **R 325° FLR** (325°M) to **SOKRU**. Cross **SOKRU** at or above **FL110** (2). **RWY 26R** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **left** (1) to intercept and follow **R 068° FLR** (248°M) to **FLR**. At **FLR** turn **right** heading **010°M** to intercept and follow **R 325° FLR** (325°M) to **SOKRU**. Cross **SOKRU** at or above **FL110** (2). (1) Max 250 KIAS. (2) **ATS climb gradient: 4.2%** up to **FL110**. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
ZEZUZ 6C	**RWY 26L** Climb on **QDM 258° OPW** to **OPW**. At **OPW** turn **right** (1) heading **046°M** to intercept and follow **R 271° OPT** (091°M) to **OPT**. At **OPT** turn **right** and follow **R 123° OPT** (123°M) to **ZEZUZ**. Cross **ZEZUZ** at or above **FL110**. **RWY 26R** Climb on **QDM 258° OTL** to **OTL**. At **OTL** turn **right** (1) to intercept and follow **R 271° OPT** (091°M) to **OPT**. At **OPT** turn **right** and follow **R 123° OPT** (123°M) to **ZEZUZ**. Cross **ZEZUZ** at or above **FL110** (2). (1) Max 250 KIAS. (2) **ATS climb gradient: 3.4%** up to FL110. Advise ATC if unable to ensure the ATS climb gradient.

TMA SPEED LIMIT MAX 250 KIAS BELOW FL100

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		

BUCUREȘTI / Henri Coandă (LROP)

SID RWY 26L/R

AERONAUTICAL DATA TABULATION

SID RWY 26L/R	
Fix/Waypoint Name	**Coordinates**
FLR VORDME	44°30'03.1"N 025°42'29.4"E
OPT VORDME	44°35'32.6"N 026°33'36.6"E
STJ VORDME	44°55'06.8"N 025°58'37.3"E
OPW NDB	44°33'27.9"N 025°59'04.7"E
OTL NDB	44°34'12.9"N 026°00'02.2"E
BUKEL – BRG 355.23° / 34.63NM FLR	45°04'40.1"N 025°43'32.6"E
DENAK – BRG 039.70° / 43.28NM FLR	45°00'08.2"N 026°26'08.5"E
NETUL – BRG 071.46° / 55.70NM FLR	44°41'43.4"N 026°58'42.8"E
POLUN – BRG 227.03° / 26.17NM FLR	44°14'14.7"N 025°13'24.1"E
SOKRU – BRG 325.44° / 33.65NM FLR	44°59'34.0"N 025°19'49.0"E
ZEZUZ – BRG 123.28° / 24.47NM OPT	44°20'00.0"N 027°00'00.0"E
DER 26L	44°33'51.7"N 026°04'21.6"E
DER 26R	44°34'34.5"N 026°04'45.7"E

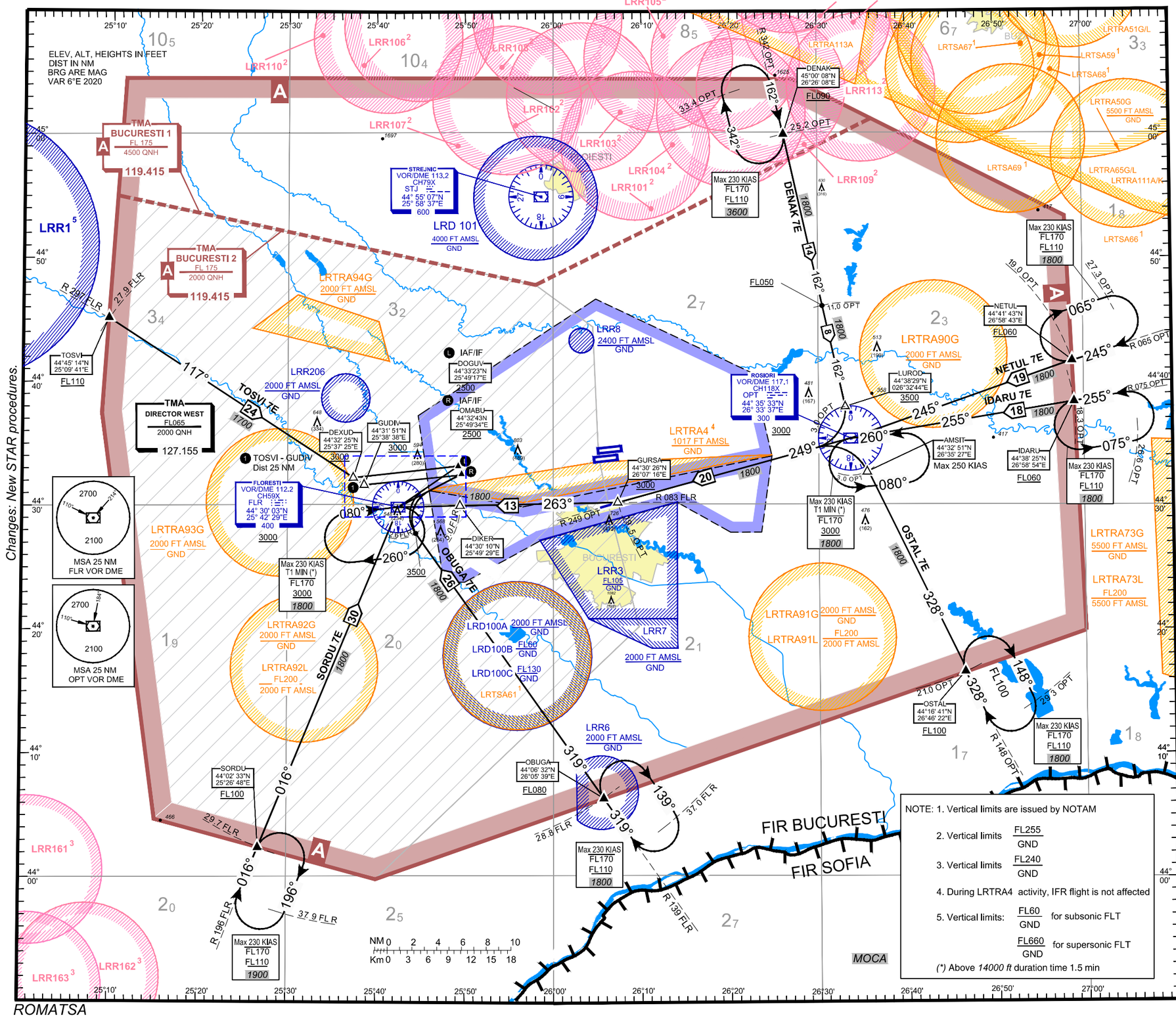
STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
4000 FT

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 7E, IDARU 7E, NETUL 7E
OBUGA 7E, OSTAL 7E, SORDU 7E, TOSVI 7E



Changes: New STAR procedures.

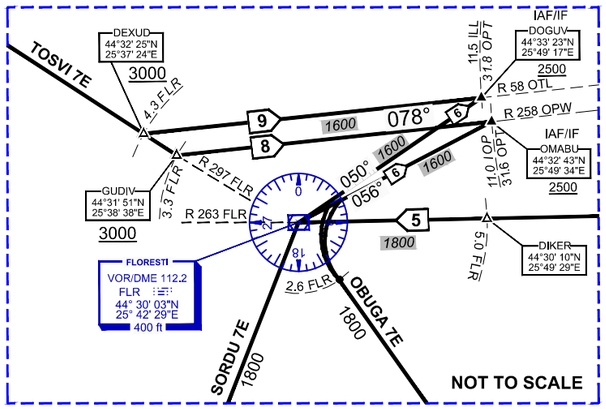
NOTE: 1. Vertical limits are issued by NOTAM
2. Vertical limits FL255 / GND
3. Vertical limits FL240 / GND
4. During LRTRA4 activity, IFR flight is not affected
5. Vertical limits: FL60 / GND for subsonic FLT; FL660 / GND for supersonic FLT
(*) Above *14000 ft* duration time 1.5 min

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

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 OMABU/DOGUV . Descending shall be executed in accordance with vertical restrictions specified on ATC Surveillance Minimum Altitude Chart, 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/REMARKS
DENAK 7E	From **DENAK** at or above **FL90** and max **250 KIAS** to **11 DME OPT** on course **162°** at or above **FL50** to **LUROD** on course **162°** at or above **3500** to **GURSA** on course **249°** at or above **3000** and max **250 KIAS** to **DIKER** on course **263°** to **FLR** on course **263°** at or above **3000** and hold. From **FLR** at or above **3000** (RWY08L) to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **OMABU** on course **056°** at or above **2500.**
IDARU 7E	From **IDARU** at or above **FL60** and max **250 KIAS** to **OPT** on course **255°** to **GURSA** on course **249°** at or above **3000** and max 250 **KIAS** to **DIKER** on course **263°** to **FLR** on course **263°** at or above **3000** and hold. From **FLR** at or above **3000** (RWY08L) to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **OMABU** on course **056°** at or above **2500.**
NETUL 7 E	From **NETUL** at or above **FL60** and max **250 KIAS** to **OPT** on course **245°** to **GURSA** on course **249°** at or above **3000** and max **250 KIAS** to **DIKER** on course **263°** to **FLR** on course **263°** at or above **3000** and hold. From **FLR** at or above **3000** (RWY08L) to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **OMABU** on course **056°** at or above **2500.**
OBUGA 7E	From **OBUGA** at or above **FL80** and max **250 KIAS** to **2.6 DME FLR** on course **319°** at or above **3500** (RWY08L) to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **OMABU** on course **056°** at or above **2500.**
OSTAL 7E	From **OSTAL** at or above **FL100** to **AMSIT** on course **328°** and max **250 KIAS** to **GURSA** on course **249°** at or above **3000** and max **250 KIAS** to **DIKER** on course **263°** to **FLR** on course **263°** at or above **3000** and hold. From **FLR** at or above **3000** (RWY08L) to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **OMABU** on course **056°** at or above **2500.**
SORDU 7E	From **SORDU** at or above **FL100** to **FLR** on course **016°** (RWY08L) to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **OMABU** on course **056°** at or above **2500.**
TOSVI 7E	From **TOSVI** at or above **FL110** (RWY08L) to **DEXUD** on course **117°** at or above 3000 to **DOGUV** on course **050°** at or above **2500.** (RWY08R) to **GUDIV** on course **117°** at or above 3000 to **OMABU** on course **056°** at or above **2500.**



TMA SPEED LIMIT MAX 250 KIAS BELOW FL100

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		

BUCUREȘTI / Henri Coandă (LROP)

STAR RWY 08L/R

AERONAUTICAL DATA TABULATION

STAR RWY 08L/R	
Fix/Waypoint Name	**Coordinates**
DENAK – BRG 341.84° / 25.16NM OPT	45°00’08.2’’N 026°26’08.5’’E
IDARU – BRG 074.84° / 18.30NM OPT	44°38’24.5’’N 026°58’54.5’’E
NETUL – BRG 064.83° / 18.96NM OPT	44°41’43.4’’N 026°58’42.8’’E
OBUGA – BRG 138.58° / 28.80NM FLR	44°06’32.4’’N 026°05’39.4’’E
OSTAL – BRG 148.07° / 20.97NM OPT	44°16’40.5’’N 026°46’22.4’’E
SORDU – BRG 196.38° / 29.72NM FLR	44°02’33.1’’N 025°26’48.2’’E
TOSVI – BRG 297.14° / 27.92NM FLR	44°45’14.0’’N 025°09’41.0’’E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
AMSIT – BRG 148.07° / 3.0 MN OPT	44°32'50.8"N 026°35'26.6"E
DEXUD – BRG 297.14° / 4.33NM FLR	44°32'25.0"N 025°37'25.0"E
DIKER – BRG 082.63° / 5.00NM FLR	44°30'09.9"N 025°49'28.5"E
GUDIV – BRG 297.14° / 3.29NM FLR	44°31'51.0"N 025°38'38.0"E
GURSA – BRG 248.96° / 19.52NM OPT	44°30'25.6"N 026°07'16.4"E
LUROD – BRG 341.84° / 3.00NM OPT	44°38'28.5"N 026°32'43.5"E
DOGUV (IAF/IF) - BRG 257.88° OTL / 11.50NM ILL	44°33’23.0’’N 025°49’17.0’’E
OMABU (IAF/IF) - BRG 257.92° OPW / 11.00NM IOP	44°32’43.2’’N 025°49’34.2’’E
DOGUV (IAF/IF) – BRG 257.95° / 11.50NM ILL	44°33’23.0’’N 025°49’17.0’’E
OMABU (IAF/IF) – BRG 257.93° / 11.00NM IOP	44°32’43.2’’N 025°49’34.2’’E

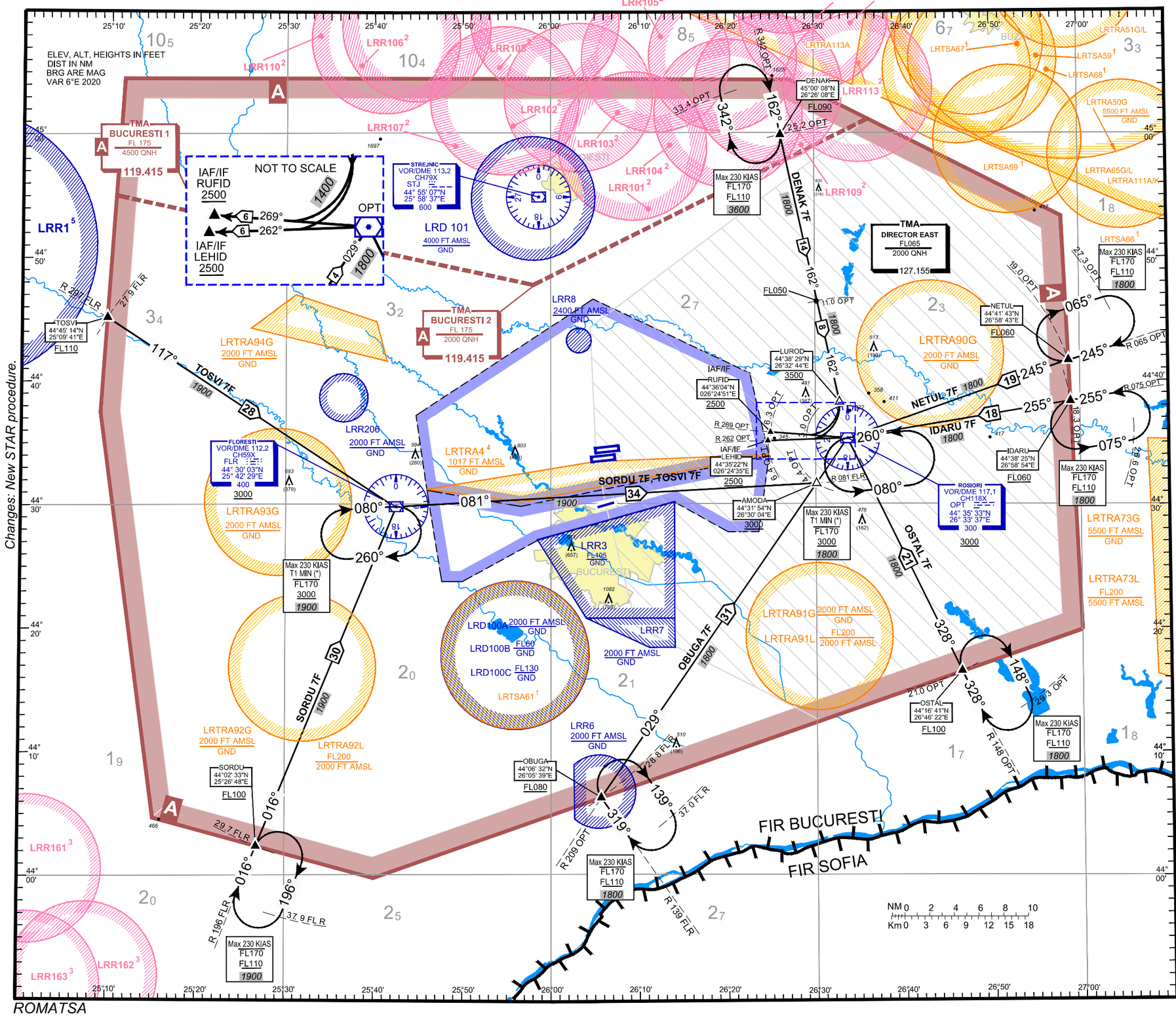
STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
4000 FT

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 7F, IDARU 7F, NETUL 7F
OBUGA 7F, OSTAL 7F, SORDU 7F, TOSVI 7F



Changes: New STAR procedure.

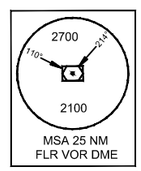
Standard Instrument Arrival Routes (STAR) are also noise abatement routings. Strict adherance within the limit of performance criteria is mandatory.

RADIO COMMUNICATION FAILURE

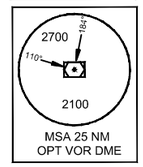
- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 min. from setting 7600.
- If RWY was assigned or received by ATC or ATIS and 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 RUFID / LEHID. Descending shall be executed in accordance with vertical restrictions specified on ATC Surveillance Minimum Altitude Chart, 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 7F	From **DENAK** at or above **FL90** and maximum **250 KIAS** to **11 DME OPT** on course **162°** at or above **FL50** to **LUROD** on course **162°** at or above **3500** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**
IDARU 7F	From **IDARU** at or above **FL60** and maximum **250 KIAS** to **OPT** on course **255°** at or above **3000** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**
NETUL 7F	From **NETUL** at or above **FL60** and maximum **250 KIAS** to **OPT** on course **245°** at or above **3000** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**
OBUGA 7F	From **OBUGA** at or above **FL80** and maximum **250 KIAS** to **AMODA** on course **029°** at or above **3000** to **OPT** on course **029°** at or above **3000** and hold. From **OPT** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**
OSTAL 7F	From **OSTAL** at or above **FL100** to **OPT** on course **328°** at or above **3000** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**
SORDU 7F	From **SORDU** at or above **FL100** to **FLR** on course **016°** at or above **3000** to **AMODA** on course **081°** at or above **3000** to **OPT** on course **029°** at or above **3000** and hold. From **OPT** at or above **3000** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**
TOSVI 7F	From **TOSVI** at or above **FL110** to **FLR** on course **117°** at or above **3000** to **AMODA** on course **081°** at or above **3000** to **OPT** on course **029°** at or above **3000** and hold. From **OPT** at or above **3000** (RWY26R) to **RUFID** on course **269°** at or above **2500.** (RWY26L) to **LEHID** on course **262°** at or above **2500.**

TMA SPEED LIMIT MAX 250 KIAS BELOW FL100



MSA 25 NM
FLR VOR DME



MSA 25 NM
OPT VOR DME

MOCA

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

(*) Above 14000 ft duration time 1.5 min

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		

BUCUREȘTI / Henri Coandă (LROP)

STAR RWY 26L/R

AERONAUTICAL DATA TABULATION

STAR RWY 26L/R	
Fix/Waypoint Name	**Coordinates**
DENAK – BRG 341.84° / 25.16NM OPT	45°00’08.2’’N 026°26’08.5’’E
IDARU – BRG 074.84° / 18.30NM OPT	44°38’24.5’’N 026°58’54.5’’E
NETUL – BRG 064.83° / 18.96NM OPT	44°41’43.4’’N 026°58’42.8’’E
OBUGA – BRG 138.58° / 28.80NM FLR	44°06’32.4’’N 026°05’39.4’’E
OSTAL – BRG 148.07° / 20.97NM OPT	44°16’40.5’’N 026°46’22.4’’E
SORDU – BRG 196.38° / 29.72NM FLR	44°02’33.1’’N 025°26’48.2’’E
TOSVI – BRG 297.14° / 27.92NM FLR	44°45’14.0’’N 025°09’41.0’’E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
AMODA – BRG 080.60° / 34.1NM FLR	44°31'54.3"N 026°30'04.3"E
LUROD – BRG 341.84° / 3.00NM OPT	44°38'28.5"N 026°32'43.5"E
LEHID (IAF/IF) – BRG 262.49° / 6.45NM OPT	44°35'22.1"N 026°24'34.8"E
RUFID (IAF/IF) – BRG 268.85° / 6.28NM OPT	44°36'04.2"N 026°24'50.7"E

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

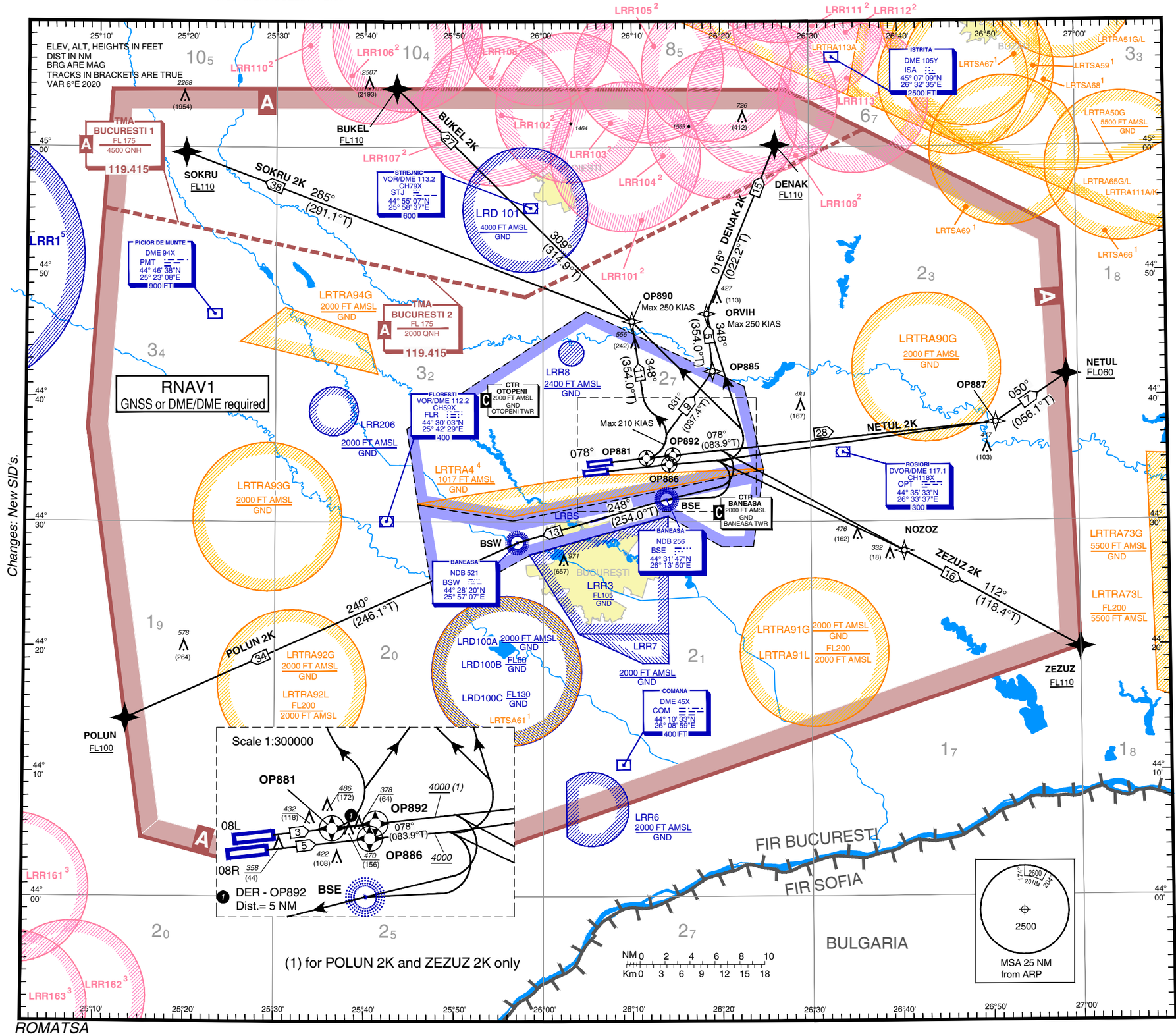
OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

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
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	126.080
	KOMAN ALTN	124.975

SECTOR		
	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

BUCUREŞTI / Henri Coandă (LROP)
RNAV RWY 08L/R
BUKEL 2K, DENAK 2K, NETUL 2K
POLUN 2K, SOKRU 2K, ZEZUS 2K



DESIGNATOR	ROUTING
BUKEL 2K	(RWY 08L): Climb to OP881 (Max 210 KIAS) on course 078°M, then to OP890 (Max 250 KIAS), then to BUKEL at or above FL110. ATS climb gradient: 4.4 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 08R): Climb to OP886 on course 078°M, at or above 4000 (3686) turn left direct to OP890 (Max 250 KIAS), then to BUKEL at or above FL110. ATS climb gradient: 3.9 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. Not available for traffic to DIRER.
DENAK 2K	(RWY 08L): Climb to OP881 (Max 210 KIAS) on course 078°M, then to OP885, then to ORVIH (Max 250 KIAS), then to DENAK at or above FL110. ATS climb gradient: 5.8 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 08R): Climb to OP886 on course 078°M, at or above 4000 (3686) turn left direct to ORVIH (Max 250 KIAS), then to DENAK at or above FL110. ATS climb gradient: 5.5 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 2K	(RWY 08L): Climb to OP881 on course 078°M, then to OP887, then to NETUL at or above FL060. (RWY 08R): Climb to OP886 on course 078°M, at or above 4000 (3686) turn left direct to OP887, then to NETUL at or above FL060.
POLUN 2K	(RWY 08L):Climb to OP892 on course 078°M, at or above 4000 (3686) turn right direct to BSE (Max 250 KIAS), then to BSW, then to POLUN at or above FL100. (RWY 08R):Climb to OP886 on course 078°M, at or above 4000 (3686) turn right direct to BSE (Max 250 KIAS), then to BSW, then to POLUN at or above FL100. Not available for traffic to MOPUG.
SOKRU 2K	(RWY 08L): Climb to OP881 (Max 210 KIAS) on course 078°M, then to OP890 (Max 250 KIAS), then to SOKRU at or above FL110. ATS climb gradient: 4.1 % up to 4500 (4186) then resume 3.3% up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 08R): Climb to OP886 on course 078°M, at or above 4000 (3686) turn left direct to OP890 (Max 250 KIAS), then to SOKRU at or above FL110. Not available for traffic to DIRER.
ZEZUZ 2K	(RWY 08L): Climb to OP892 on course 078°M, at or above 4000 (3686) turn right direct to NOZOZ, then to ZEZUZ at or above FL110. ATS climb gradient: 4.3 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 08R): Climb to OP886 on course 078°M, at or above 4000 (3686) turn right direct to NOZOZ, then to ZEZUZ at or above FL110. ATS climb gradient: 4.3 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.

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

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

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.

BUCUREȘTI / Henri Coandă (LROP)
SID RNAV RWY 08L/R

AERONAUTICAL DATA TABULATION

SID RNAV RWY 08L/R	
Waypoint Identifier	***Coordinates***
BUKEL	45°04'40.1"N 025°43'32.6"E
DENAK	45°00'08.2"N 026°26'08.5"E
NETUL	44°41'43.4"N 026°58'42.8"E
POLUN	44°14'14.7"N 025°13'24.1"E
SOKRU	44°59'34.0"N 025°19'49.0"E
ZEZUZ	44°20'00.0"N 027°00'00.0"E
BSE	44°31'46.7"N 026°13'49.9"E
BSW	44°28'19.5"N 025°57'07.2"E
OP881	44°35'05.5"N 026°11'36.7"E
OP885	44°42'01.6"N 026°19'03.3"E
OP886	44°34'36.0"N 026°14'09.6"E
OP887	44°37'54.5"N 026°50'45.2"E
OP890	44°46'02.1"N 026°10'00.2"E
OP892	44°35'18.7"N 026°14'32.3"E
NOZOZ	44°27'38.7"N 026°40'24.3"E
ORVIH	44°46'39.1"N 026°18'22.7"E
DER 08L	44°34'48.6"N 026°07'51.5"E
DER 08R	44°34'05.6"N 026°07'25.5"E

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	BUKEL 2K	CF	OP886	Y	078 (083.9)	6.0E	6.9					RNAV 1
20	BUKEL 2K	CA			078 (083.9)	6.0E			+4000			RNAV 1
30	BUKEL 2K	DF	OP890			6.0E		L		-250		RNAV 1
10	BUKEL 2K	CF	OP881	Y	078 (083.9)	6.0E	4.7			-210		RNAV 1
20	BUKEL 2K	TF	OP890		348 (354.0)	6.0 E	11.0			-250		RNAV 1
10	BUKEL 2K	IF	OP890			6.0E				-250		RNAV 1
20	BUKEL 2K	TF	BUKEL		309 (314.9)	6.0E	26.5		+FL110			RNAV 1
10	DENAK 2K	CF	OP886	Y	078 (083.9)	6.0E	6.9					RNAV 1
20	DENAK 2K	CA			078 (083.9)	6.0E			+4000			RNAV 1
30	DENAK 2K	DF	ORVIH			6.0E		L		-250		RNAV 1
10	DENAK 2K	CF	OP881	Y	078 (083.9)	6.0E	4.7			-210		RNAV 1
20	DENAK 2K	TF	OP885		031(037.4)	6.0E	8.7					RNAV 1
30	DENAK 2K	TF	ORVIH		348(354.1)	6.0E	4.7			-250		RNAV 1
10	DENAK 2K	IF	ORVIH			6.0E				-250		RNAV 1
20	DENAK 2K	TF	DENAK		016 (022.2)	6.0E	14.6		+FL110			RNAV 1
10	NETUL 2K	CF	OP886	Y	078 (083.9)	6.0E	6.9					RNAV 1
20	NETUL 2K	CA			078 (083.9)	6.0E			+4000			RNAV 1
30	NETUL 2K	DF	OP887			6.0E						RNAV 1
10	NETUL 2K	CF	OP881	Y	078 (083.9)	6.0E	4.7					RNAV 1
20	NETUL 2K	TF	OP887		078 (084.0)	6.0E	28.1					RNAV 1
10	NETUL 2K	IF	OP887			6.0E						RNAV 1
20	NETUL 2K	TF	NETUL		050 (056.1)	6.0E	6.8		+FL060			RNAV 1
10	POLUN 2K	CF	OP886	Y	078 (083.9)	6.0E	6.9					RNAV 1
20	POLUN 2K	CA			078 (083.9)	6.0E			+4000			RNAV 1
30	POLUN 2K	DF	BSE			6.0E		R		-250		RNAV 1
10	POLUN 2K	CF	OP892	Y	078 (083.9)	6.0E	6.8					RNAV 1
20	POLUN 2K	CA			078 (083.9)	6.0E			+4000			RNAV 1
30	POLUN 2K	DF	BSE			6.0E		R		-250		RNAV 1
10	POLUN 2K	IF	BSE			6.0E				-250		RNAV 1
20	POLUN 2K	TF	BSW		248(254.0)	6.0E	12.5					RNAV 1
30	POLUN 2K	TF	POLUN		240(246.1)	6.0E	34.4		+FL110			RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	SOKRU 2K	CF	OP886	Y	078(083.9)	6.0E	6.9					RNAV 1
20	SOKRU 2K	CA			078(083.9)	6.0E			+4000			RNAV 1
30	SOKRU 2K	DF	OP890			6.0E		L		-250		RNAV 1
10	SOKRU 2K	CF	OP881	Y	078(083.9)	6.0E	4.7			-210		RNAV 1
20	SOKRU 2K	TF	OP890		348(354.0)	6.0 E	11.0			-250		RNAV 1
10	SOKRU 2K	IF	OP890			6.0E				-250		RNAV 1
20	SOKRU 2K	TF	SOKRU		285(291.1)	6.0E	38.2		+FL110			RNAV 1
10	ZEZUZ 2K	CF	OP886	Y	078(083.9)	6.0E	6.9					RNAV 1
20	ZEZUZ 2K	CA			078(083.9)	6.0E			+4000			RNAV 1
30	ZEZUZ 2K	DF	NOZOZ			6.0E		R				RNAV 1
10	ZEZUZ 2K	CF	OP892	Y	078(083.9)	6.0E	6.8					RNAV 1
20	ZEZUZ 2K	CA			078(083.9)	6.0E			+4000			RNAV 1
30	ZEZUZ 2K	DF	NOZOZ			6.0E		R				RNAV 1
10	ZEZUZ 2K	IF	NOZOZ			6.0E						RNAV 1
20	ZEZUZ 2K	TF	ZEZUZ		112(118.4)	6.0E	16.0		+FL110			RNAV 1

STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 4000 FT

TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

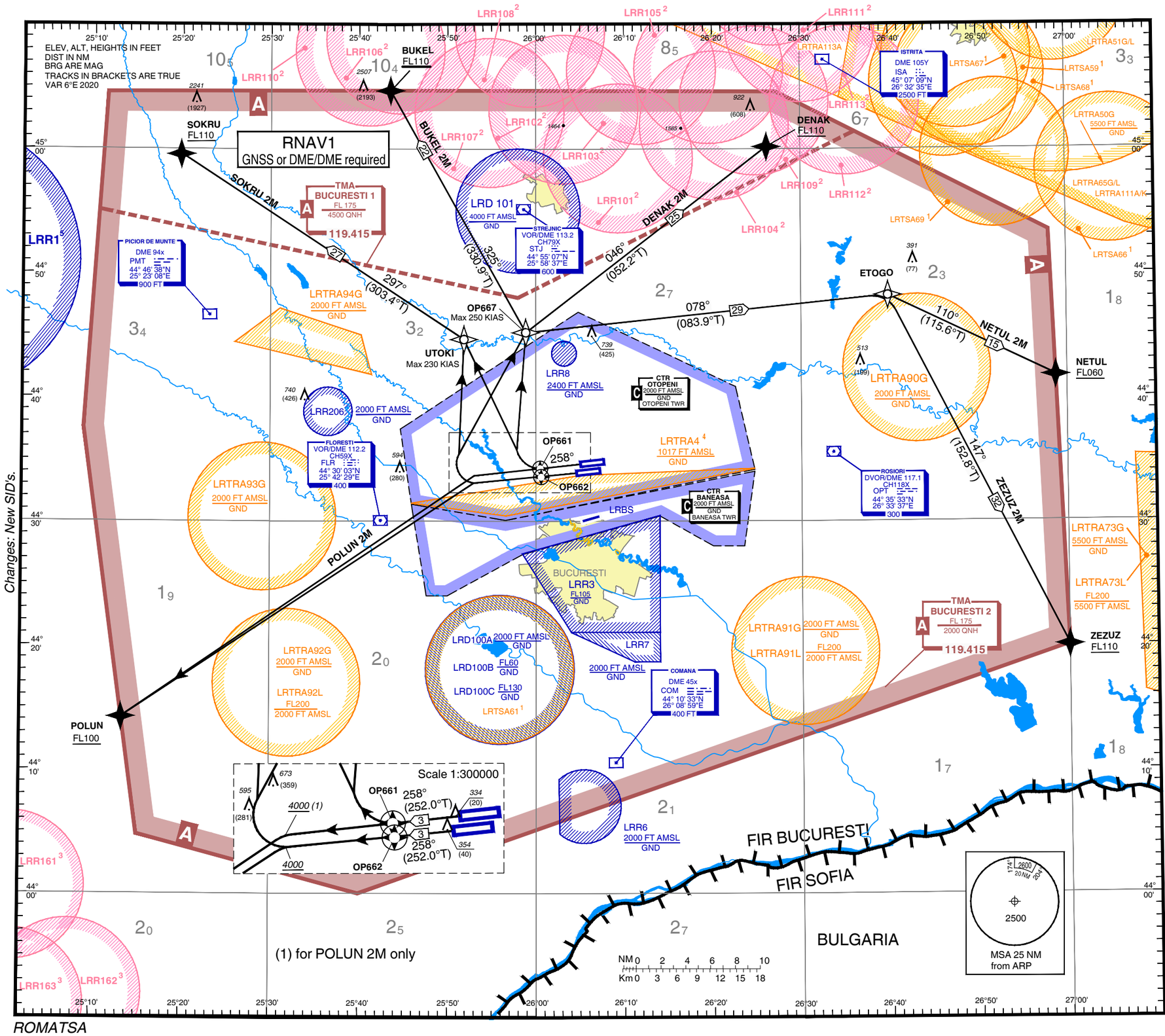
OTOPENI ATIS	118.500
BUCURESTI VOLMET	126.800
BUCURESTI APPROACH	119.415
BUCURESTI APP ALTN	120.600

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
	LOMOS ALTN	124.975
	KOMAN	130.315
	KOMAN	122.030
	KOMAN ALTN	
	KOMAN ALTN	

SECTOR	ARGES	121.285
	ARGES	122.365
	ARGES ALTN	124.975
	NERDI	135.360
	NERDI	133.915
	NERDI ALTN	123.890

BUCUREŞTI / Henri Coandă (LROP)
RNAV RWY 26L/R
BUKEL 2M, DENAK 2M, NETUL 2M
POLUN 2M, SOKRU 2M, ZEZUS 2M



DESIGNATOR	ROUTING
BUKEL 2M	(RWY 26R): Climb to OP661 on course 258°M, then turn right direct to OP667 (Max 250 KIAS), then to BUKEL at or above FL110. ATS climb gradient: 4.9 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 26L): Climb to OP662 on course 258°M, then at or above 4000 (3686) turn right direct to OP667 (Max 250 KIAS), then to BUKEL at or above FL110. ATS climb gradient: 4.2 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.
DENAK 2M	(RWY 26R): Climb to OP661 on course 258°M, then turn right direct to OP667 (Max 250 KIAS), then to DENAK at or above FL110. ATS climb gradient: 4.6 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 26L): Climb to OP662 on course 258°M, then at or above 4000 (3686) turn right direct to OP667 (Max 250 KIAS), then to DENAK at or above FL110. ATS climb gradient: 4.0 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.
NETUL 2M	(RWY 26R): Climb to OP661 on course 258°M, then turn right direct to OP667 (Max 250 KIAS), then to ETOGO, then to NETUL at or above FL060. (RWY 26L): Climb to OP662 on course 258°M, then at or above 4000 (3686) turn right direct to OP667 (Max 250 KIAS), then to ETOGO, then to NETUL at or above FL060.
POLUN 2M	(RWY 26R): Climb to OP661 on course 258°M, then at or above 4000 (3686) turn left direct to POLUN at or above FL100. ATS climb gradient: 3.7 % up to FL100. Advise ATC if unable to ensure the ATS climb gradient. (RWY 26L): Climb to OP662 on course 258°M, then at or above 4000 (3686) turn left direct to POLUN at or above FL100. ATS climb gradient: 3.9 % up to FL100. Advise ATC if unable to ensure the ATS climb gradient.
SOKRU 2M	(RWY 26R): Climb to OP661 on course 258°M, then turn right direct to UTOKI (Max 230 KIAS), then to SOKRU at or above FL110. ATS climb gradient: 4.2 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient. (RWY 26L): Climb to OP662 on course 258°M, then at or above 4000 (3686) turn right direct to UTOKI (Max 230 KIAS), then to SOKRU (Max 250 KIAS) at or above FL110. ATS climb gradient: 3.9 % up to FL110. Advise ATC if unable to ensure the ATS climb gradient.
ZEZUZ 2M	(RWY 26R): Climb to OP661 on course 258°M, then turn right direct to OP667 (Max 250 KIAS), then to ETOGO, then to ZEZUZ at or above FL110. (RWY 26L):Climb to OP662 on course 258°M, then at or above 4000 (3686) turn right direct to OP667 (Max 250 KIAS), then to ETOGO, then to ZEZUZ at or above FL110.

Initial departure
RWY 26R: **PDG 3.3%** disregard close-in obstacle: Antenna (*334 ft*) 30 m of DER on RWY axis.
RWY 26L: **PDG 3.3%** disregard close-in obstacles: Poles (*354 ft*) 215 m of DER, 140m on the right.

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

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:
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.

BUCUREȘTI / Henri Coandă (LROP)
SID RNAV RWY 26L/R

AERONAUTICAL DATA TABULATION

SID RNAV RWY 26L/R	
Waypoint Identifier	***Coordinates***
BUKEL	45°04'40.1"N 025°43'32.6"E
DENAK	45°00'08.2"N 026°26'08.5"E
NETUL	44°41'43.4"N 026°58'42.8"E
POLUN	44°14'14.7"N 025°13'24.1"E
SOKRU	44°59'34.0"N 025°19'49.0"E
ZEZUZ	44°20'00.0"N 027°00'00.0"E
ETOGO	44°48'12.0"N 026°39'49.0"E
UTOKI	44°44'39.0"N 025°51'53.0"E
OP661	44°34'15.1"N 026°00'30.4"E
OP662	44°33'34.5"N 026°00'36.5"E
OP667	44°45'12.0"N 025°58'52.0"E
DER 26R	44°34'34.5"N 026°04'45.7"E
DER 26L	44°33'51.7"N 026°04'21.6"E

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	BUKEL 2M	CF	OP661	Y	258(264.0)	6.0E	5.2					RNAV 1
20	BUKEL 2M	DF	OP667			6.0E				-250		RNAV 1
10	BUKEL 2M	CF	OP662		258(264.0)	6.0E	4.8					RNAV 1
20	BUKEL 2M	CA			258(264.0)	6.0 E			+4000			RNAV 1
30	BUKEL 2M	DF	OP667			6.0 E				-250		RNAV 1
10	BUKEL 2M	IF	OP667			6.0 E				-250		RNAV 1
20	BUKEL 2M	TF	BUKEL		325(330.9)	6.0 E	22.3		+FL110			RNAV 1
10	DENAK 2M	CF	OP662	Y	258(264.0)	6.0E	4.8					RNAV 1
20	DENAK 2M	CA			258(264.0)	6.0E			+4000			RNAV 1
30	DENAK 2M	DF	OP667			6.0E				-250		RNAV 1
10	DENAK 2M	CF	OP661	Y	258(264.0)	6.0E	5.2					RNAV 1
20	DENAK 2M	DF	OP667			6.0E				-250		RNAV 1
10	DENAK 2M	IF	OP667			6.0E				-250		RNAV 1
20	DENAK 2M	TF	DENAK		046(052.2)	6.0E	24.5		+FL110			RNAV 1
10	NETUL 2M	CF	OP661	Y	258(264.0)	6.0E	5.2					RNAV 1
20	NETUL 2M	DF	OP667			6.0E				-250		RNAV 1
10	NETUL 2M	CF	OP662	Y	258(264.0)	6.0E	4.8					RNAV 1
20	NETUL 2M	CA			258(264.0)	6.0E			+4000			RNAV 1
30	NETUL 2M	DF	OP667			6.0E				-250		RNAV1
10	NETUL 2M	IF	OP667			6.0E				-250		RNAV 1
20	NETUL 2M	TF	ETOGO		078(083.9)	6.0E	29.3					RNAV 1
30	NETUL 2M	TF	NETUL		110(115.6)	6.0 E	14.9		+FL060			RNAV 1
10	POLUN 2M	CF	OP662	Y	258(264.0)	6.0E	4.8					RNAV 1
20	POLUN 2M	CA			258(264.0)	6.0E			+4000	-250		RNAV 1
30	POLUN 2M	DF	POLUN			6.0E			+FL100			RNAV 1
10	POLUN 2M	CF	OP661	Y	258(264.0)	6.0E	5.2					RNAV 1
20	POLUN 2M	CA			258(264.0)	6.0E			+4000	-250		RNAV 1
30	POLUN 2M	DF	POLUN			6.0E			+FL100			RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	SOKRU 2M	CF	OP661	Y	258(264.0)	6.0E	5.2					RNAV 1
20	SOKRU 2M	DF	UTOKI			6.0E				-230		RNAV 1
10	SOKRU 2M	CF	OP662	Y	258(264.0)	6.0E	4.8					RNAV 1
20	SOKRU 2M	CA			258(264.0)	6.0 E			+4000			RNAV 1
30	SOKRU 2M	DF	UTOKI			6.0 E				-230		RNAV 1
10	SOKRU 2M	IF	UTOKI			6.0E				-230		RNAV 1
20	SOKRU 2M	TF	SOKRU		297(303.4)	6.0E	27.3		+FL110	-250		RNAV 1
10	ZEZUZ 2M	CF	OP661	Y	258(264.0)	6.0E	5.2					RNAV 1
20	ZEZUZ 2M	DF	OP667			6.0E				-250		RNAV 1
10	ZEZUZ 2M	CF	OP662	Y	258(264.0)	6.0E	4.8					RNAV 1
20	ZEZUZ 2M	CA			258(264.0)	6.0E			+4000			RNAV 1
30	ZEZUZ 2M	DF	OP667			6.0E				-250		RNAV 1
10	ZEZUZ 2M	IF	OP667			6.0E				-250		RNAV 1
20	ZEZUZ 2M	TF	ETOGO		078(083.9)	6.0E	29.3					RNAV 1
30	ZEZUZ 2M	TF	ZEZUZ		147(152.8)	6.0 E	31.7		+FL110			RNAV 1

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
4000 FT

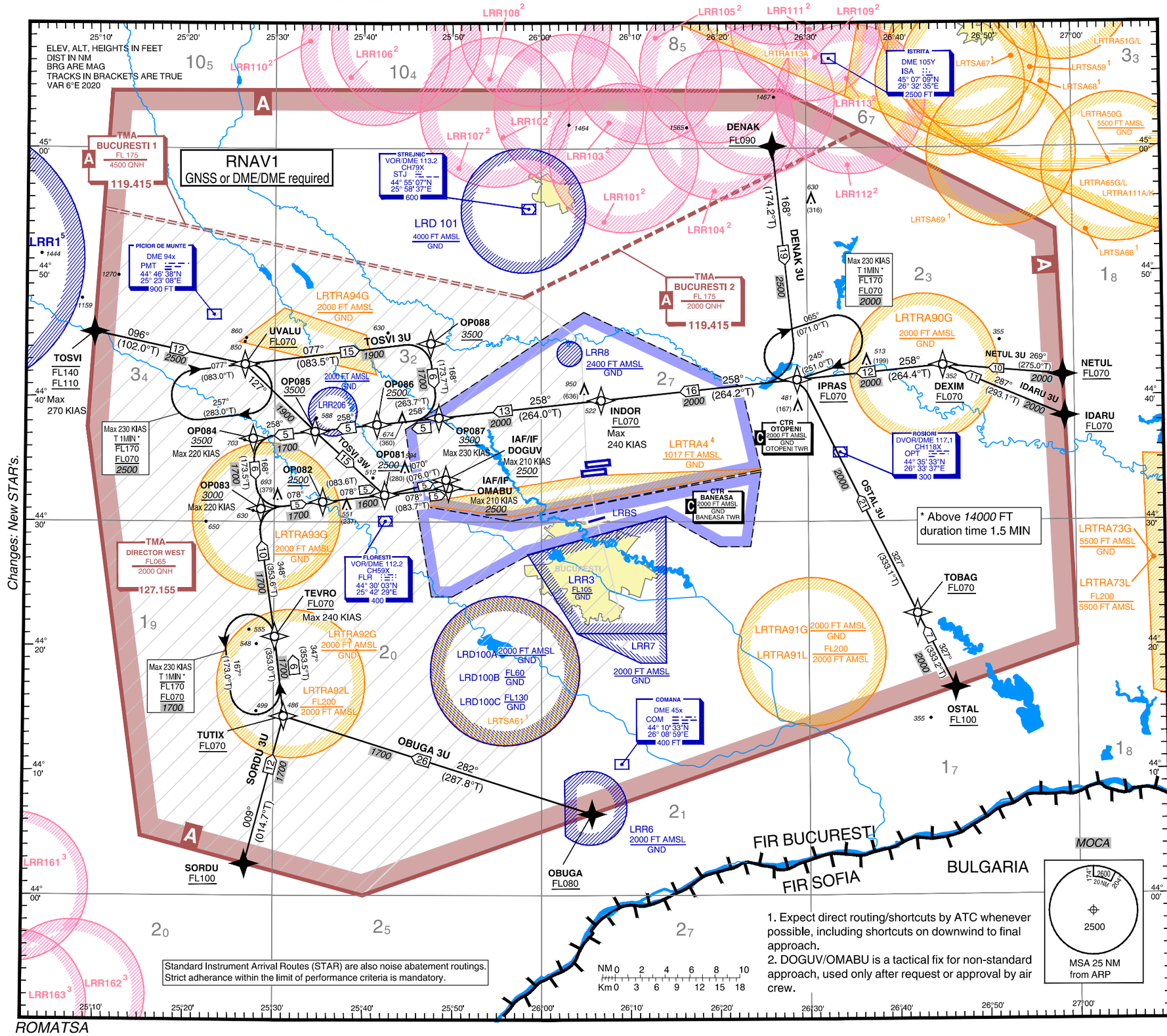
TMA SPEED LIMIT
MAX IAS 250 kt BELOW FL100

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

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

BUCUREŞTI / Henri Coandă (LROP)

RNAV RWY 08L/R
DENAK 3U, IDARU 3U, NETUL 3U, OBUGA 3U
OSTAL 3U, SORDU 3U, TOSVI 3U, TOSVI 3W



DESIGNATOR	ROUTING
DENAK 3U	From DENAK at or above FL90 and max 250 KIAS to IPRAS at or above FL70 to INDOR at or above FL70 and max 240 KIAS to OP087 at or above 3500 and max 230 KIAS to OP086 at or above 3500 to OP085 at or above 3500 to OP084 at or above 3500 and max 220 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
IDARU 3U	From IDARU at or above FL70 and max 250 KIAS to DEXIM at or above FL70 to IPRAS at or above FL70 to INDOR at or above FL70 and max 240 KIAS to OP087 at or above 3500 and max 230 KIAS to OP086 at or above 3500 to OP085 at or above 3500 to OP084 at or above 3500 and max 220 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
NETUL 3U	From NETUL at or above FL70 and max 250 KIAS to DEXIM at or above FL70 to IPRAS at or above FL70 to INDOR at or above FL70 and max 240 KIAS to OP087 at or above 3500 and max 230 KIAS to OP086 at or above 3500 to OP085 at or above 3500 to OP084 at or above 3500 and max 220 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
OBUGA 3U	From OBUGA at or above FL80 and max 250 KIAS to TUTIX at or above FL70 to TEVRO at or above FL70 and max 240 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
OSTAL 3U	From OSTAL at or above FL100 to TOBAG at or above FL70 to IPRAS at or above FL70 to INDOR at or above FL70 and max 240 KIAS to OP087 at or above 3500 and max 230 KIAS to OP086 at or above 3500 to OP085 at or above 3500 to OP084 at or above 3500 and max 220 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
SORDU 3U	From SORDU at or above FL100 to TUTIX at or above FL70 to TEVRO at or above FL70 and max 240 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
TOSVI 3U	From TOSVI between minimum FL110 and maximum FL140 and max 270 KIAS to UVALU at or above FL70 to OP088 between minimum 3500 and maximum FL125 and max 230 KIAS to OP087 at or above 3500 and max 230 KIAS to OP086 at or above 3500 to OP085 at or above 3500 to OP084 at or above 3500 and max 220 KIAS to OP083 at or above 3000 and max 220 KIAS to OP082 at or above 2500 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS
TOSVI 3W	From TOSVI between minimum FL110 and maximum FL140 and max 270 KIAS to UVALU at or above FL70 to OP081 at or above 2500 and max 220 KIAS (RWY08L) to DOGUV at or above 2500 and max 210 KIAS (RWY08R) to OMABU at or above 2500 and max 210 KIAS

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

- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated RNAV STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes 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 minutes from setting 7600. Then proceed direct to OP083, then OMABU / DOGUV. Descending shall be executed in accordance with vertical restrictions specified on ATC Surveillance Minimum Altitude Chart, 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 RNAV STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes from setting 7600.

BUCUREȘTI / Henri Coandă (LROP)
STAR RNAV RWY 08L/R

AERONAUTICAL DATA TABULATION

STAR RNAV RWY08L/R	
Fix/Point	**Coordinates**
DENAK	45°00’08.2"N 026°26’08.5"E
DEXIM	44°42'33.0"N 026°45'14.0"E
DOGUV	44°33'23.0"N 025°49'17.0"E
IDARU	44°38'24.5"N 026°58'54.5"E
INDOR	44°39'45.0"N 026°06'44.0"E
IPRAS	44°41'23.0"N 026°28'49.0"E
NETUL	44°41'43.4"N 026°58'42.8"E
OBUGA	44°06'32.4"N 026°05'39.4"E
OMABU	44°32'43.2"N 025°49'34.2"E
OSTAL	44°16'40.5"N 026°46'22.4"E
SORDU	44°02'33.1"N 025°26'48.2"E
TEVRO	44°20'47.0"N 025°30'07.0"E
TOBAG	44°22'38.0"N 026°42'10.0"E
TOSVI	44°45'14.0"N 025°09'41.0"E
TUTIX	44°14'24.0"N 025°31'08.0"E
UVALU	44°42'39.0"N 025°26'39.0"E
OP081	44°32'09.4"N 025°42'23.6"E
OP082	44°31'36.1"N 025°35'26.7"E
OP083	44°31'02.4"N 025°28'29.9"E
OP084	44°36'41.1"N 025°27'36.0"E
OP085	44°37'14.9"N 025°34'33.4"E
OP086	44°37'48.2"N 025°41'31.0"E
OP087	44°38'21.1"N 025°48'28.7"E
OP088	44°44'19.0"N 025°47'33.7"E

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	DENAK 3U	IF	DENAK			6.0E			+FL090	-250		RNAV 1
20	DENAK 3U	TF	IPRAS		168(174.2)	6.0E	18.9		+FL070			RNAV 1
30	DENAK 3U	TF	INDOR		258(264.2)	6.0E	15.8		+FL070	-240		RNAV 1
40	DENAK 3U	TF	OP087		258(264.0)	6.0E	13.1		+3500	-230		RNAV 1
50	DENAK 3U	TF	OP086		258(263.7)	6.0E	5.0		+3500			RNAV 1
60	DENAK 3U	TF	OP085		258(263.7)	6.0E	5.0		+3500			RNAV 1
70	DENAK 3U	TF	OP084		258(263.6)	6.0E	5.0		+3500	-220		RNAV 1
80	DENAK 3U	TF	OP083		168(173.5)	6.0E	5.7		+3000	-220		RNAV 1
90	DENAK 3U	TF	OP082		078(083.5)	6.0E	5.0		+2500			RNAV 1
100	DENAK 3U	TF	OP081		078(083.6)	6.0E	5.0		+2500	-220		RNAV 1
10	DENAK 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	DENAK 3U	TF	DOGUV		070(076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	DENAK 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	DENAK 3U	TF	OMABU		078(083.7)	6.0E	5.2		+2500	-210		RNAV 1
10	IDARU 3U	IF	IDARU			6.0E			+FL070	-250		RNAV 1
20	IDARU 3U	TF	DEXIM		287(293.1)	6.0E	10.6		+FL070			RNAV 1
30	IDARU 3U	TF	IPRAS		258(264.4)	6.0E	11.8		+FL070			RNAV 1
40	IDARU 3U	TF	INDOR		258(264.2)	6.0E	15.8		+FL070	-240		RNAV 1
50	IDARU 3U	TF	OP087		258(264.0)	6.0E	13.1		+3500	-230		RNAV 1
60	IDARU 3U	TF	OP086		258(263.7)	6.0E	5.0		+3500			RNAV 1
70	IDARU 3U	TF	OP085		258(263.7)	6.0E	5.0		+3500			RNAV 1
80	IDARU 3U	TF	OP084		258(263.6)	6.0E	5.0		+3500	-220		RNAV 1
90	IDARU 3U	TF	OP083		168(173.5)	6.0E	5.7		+3000	-220		RNAV 1
100	IDARU 3U	TF	OP082		078(083.5)	6.0E	5.0		+2500			RNAV 1
110	IDARU 3U	TF	OP081		078(083.6)	6.0E	5.0		+2500	-220		RNAV 1
10	IDARU 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	IDARU 3U	TF	DOGUV		070(076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	IDARU 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	IDARU 3U	TF	OMABU		078(083.7)	6.0E	5.2		+2500	-210		RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	NETUL 3U	IF	NETUL			6.0E			+FL70	-250		RNAV 1
20	NETUL 3U	TF	DEXIM		269 (275.0)	6.0E	9.7		+FL70			RNAV 1
30	NETUL 3U	TF	IPRAS		258 (264.4)	6.0E	11.8		+FL70			RNAV 1
40	NETUL 3U	TF	INDOR		258 (264.2)	6.0 E	15.8		+FL70	-240		RNAV 1
50	NETUL 3U	TF	OP087		258 (264.0)	6.0 E	13.1		+3500	-230		RNAV 1
60	NETUL 3U	TF	OP086		258 (263.7)	6.0E	5.0		+3500			RNAV 1
70	NETUL 3U	TF	OP085		258 (263.7)	6.0E	5.0		+3500			RNAV 1
80	NETUL 3U	TF	OP084		258 (263.6)	6.0E	5.0		+3500	-220		RNAV 1
90	NETUL 3U	TF	OP083		168 (173.5)	6.0E	5.7		+3000	-220		RNAV 1
100	NETUL 3U	TF	OP082		078 (083.5)	6.0E	5.0		+2500			RNAV 1
110	NETUL 3U	TF	OP081		078 (083.6)	6.0E	5.0		+2500	-220		RNAV 1
10	NETUL 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	NETUL 3U	TF	DOGUV		070 (076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	NETUL 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	NETUL 3U	TF	OMABU		078 (083.7)	6.0E	5.2		+2500	-210		RNAV 1
10	OBUGA 3U	IF	OBUGA			6.0E			+FL80	-250		RNAV 1
20	OBUGA 3U	TF	TUTIX		282 (287.8)	6.0E	26.1		+FL70			RNAV 1
30	OBUGA 3U	TF	TEVRO		347 (353.5)	6.0E	6.4		+FL70	-240		RNAV 1
40	OBUGA 3U	TF	OP083		348 (353.6)	6.0E	10.3		+3000	-220		RNAV 1
50	OBUGA 3U	TF	OP082		078 (083.5)	6.0E	5.0		+2500			RNAV 1
60	OBUGA 3U	TF	OP081		078 (083.6)	6.0E	5.0		+2500	-220		RNAV 1
10	OBUGA 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	OBUGA 3U	TF	DOGUV		070 (076.0)	6.0 E	5.1		+2500	-210		RNAV 1
10	OBUGA 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	OBUGA 3U	TF	OMABU		078 (083.7)	6.0E	5.2		+2500	-210		RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	OSTAL 3U	IF	OSTAL			6.0E			+FL100			RNAV 1
20	OSTAL 3U	TF	TOBAG		327 (333.2)	6.0E	6.7		+FL70			RNAV 1
30	OSTAL 3U	TF	IPRAS		327 (333.1)	6.0E	21.0		+FL70			RNAV 1
40	OSTAL 3U	TF	INDOR		258 (264.2)	6.0E	15.8		+FL70	-240		RNAV 1
50	OSTAL 3U	TF	OP087		258 (264.0)	6.0E	13.1		+3500	-230		RNAV 1
60	OSTAL 3U	TF	OP086		258 (263.7)	6.0E	5.0		+3500			RNAV 1
70	OSTAL 3U	TF	OP085		258 (263.7)	6.0E	5.0		+3500			RNAV 1
80	OSTAL 3U	TF	OP084		258 (263.6)	6.0E	5.0		+3500	-220		RNAV 1
90	OSTAL 3U	TF	OP083		168 (173.5)	6.0E	5.7		+3000	-220		RNAV 1
100	OSTAL 3U	TF	OP082		078 (083.5)	6.0E	5.0		+2500			RNAV 1
110	OSTAL 3U	TF	OP081		078 (083.6)	6.0E	5.0		+2500	-220		RNAV 1
10	OSTAL 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	OSTAL 3U	TF	DOGUV		070 (076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	OSTAL 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	OSTAL 3U	TF	OMABU		078 (083.7)	6.0E	5.2		+2500	-210		RNAV 1
10	SORDU 3U	IF	SORDU			6.0E			+FL100			RNAV 1
20	SORDU 3U	TF	TUTIX		009 (014.7)	6.0E	12.3		+FL70			RNAV 1
30	SORDU 3U	TF	TEVRO		347 (353.5)	6.0E	6.4		+FL70	-240		RNAV 1
40	SORDU 3U	TF	OP083		348 (353.6)	6.0E	10.3		+3000	-220		RNAV 1
50	SORDU 3U	TF	OP082		078 (083.5)	6.0E	5.0		+2500			RNAV 1
60	SORDU 3U	TF	OP081		078 (083.6)	6.0E	5.0		+2500	-220		RNAV 1
10	SORDU 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	SORDU 3U	TF	DOGUV		070 (076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	SORDU 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	SORDU 3U	TF	OMABU		078 (083.7)	6.0E	5.2		+2500	-210		RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	TOSVI 3U	IF	TOSVI			6.0E			-FL140 +FL110	-270		RNAV 1
20	TOSVI 3U	TF	UVALU		096 (102.0)	6.0E	12.4		+FL70			RNAV 1
30	TOSVI 3U	TF	OP088		077 (083.5)	6.0E	15.0		-FL125 +3500	-230		RNAV 1
40	TOSVI 3U	TF	OP087		168 (173.7)	6.0E	6.0		+3500	-230		RNAV 1
50	TOSVI 3U	TF	OP086		258 (263.7)	6.0E	5.0		+3500			RNAV 1
60	TOSVI 3U	TF	OP085		258 (263.7)	6.0E	5.0		+3500			RNAV 1
70	TOSVI 3U	TF	OP084		258 (263.6)	6.0E	5.0		+3500	-220		RNAV 1
80	TOSVI 3U	TF	OP083		168 (173.5)	6.0E	5.7		+3000	-220		RNAV 1
90	TOSVI 3U	TF	OP082		078 (083.5)	6.0E	5.0		+2500			RNAV 1
100	TOSVI 3U	TF	OP081		078 (083.7)	6.0E	5.0		+2500	-220		RNAV 1
10	TOSVI 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	TOSVI 3U	TF	DOGUV		070 (076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	TOSVI 3U	IF	OP081			6.0E			+2500	-220		RNAV 1
20	TOSVI 3U	TF	OMABU		078 (083.7)	6.0E	5.2		+2500	-210		RNAV 1
10	TOSVI 3W	IF	TOSVI			6.0E			-FL140 +FL110	-270		RNAV 1
20	TOSVI 3W	TF	UVALU		096 (102.0)	6.0E	12.4		+FL70			RNAV 1
30	TOSVI 3W	TF	OP081		127 (132.9)	6.0E	15.4		+2500	-220		RNAV 1
10	TOSVI 3W	IF	OP081			6.0E			+2500			RNAV 1
20	TOSVI 3W	TF	DOGUV		070 (076.0)	6.0E	5.1		+2500	-210		RNAV 1
10	TOSVI 3W	IF	OP081			6.0E			+2500			RNAV 1
20	TOSVI 3W	TF	OMABU		078 (083.7)	6.0E	5.2		+2500	-210		RNAV 1

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	IPRAS	245 (251.0)			R	FL070	FL170	-230	RNAV 1
HM	TEVRO	347 (353.0)			L	FL070	FL170	-230	RNAV 1
HM	UVALU	077 (083.0)			R	FL070	FL170	-230	RNAV 1

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

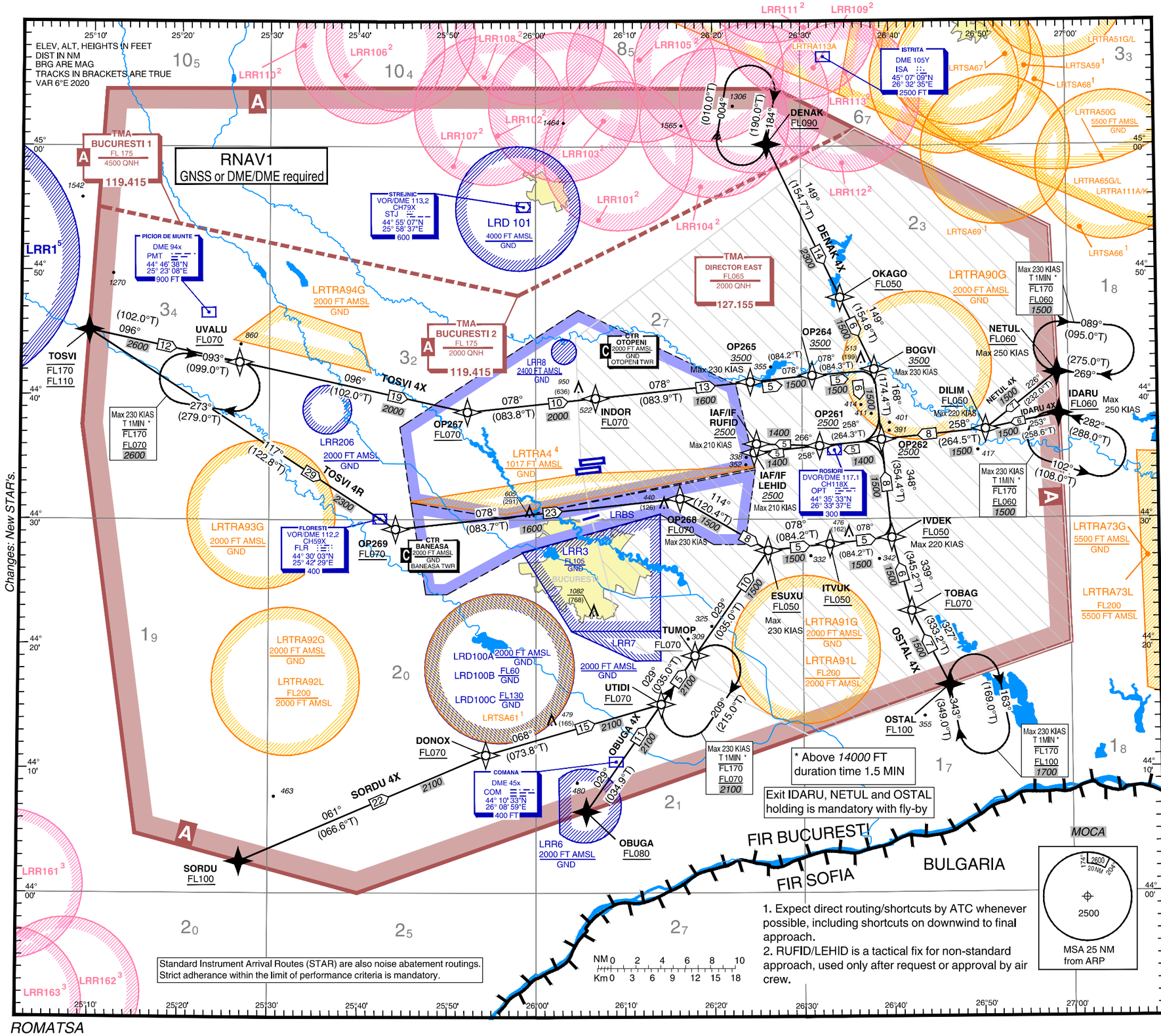
TRANSITION ALTITUDE
4000 FT

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

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

BUCUREŞTI / Henri Coandă (LROP)
RNAV RWY 26L/R
DENAK 4X, IDARU 4X, NETUL 4X, OBUGA 4X
OSTAL 4X, SORDU 4X, TOSVI 4R, TOSVI 4X



DESIGNATOR	ROUTING
DENAK 4X	From DENAK at or above FL90 and max 250 KIAS to OKAGO at or above FL50 to BOGVI at or above 3500 and max 230 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
IDARU 4X	From IDARU at or above FL60 and max 250 KIAS to DILIM at or above FL50 and max 220 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
NETUL 4X	From NETUL at or above FL60 and max 250 KIAS to DILIM at or above FL50 and max 220 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
OBUGA 4X	From OBUGA at or above FL80 and max 250 KIAS to UTIDI at or above FL70 to TUMOP at or above FL70 to ESUXU at or above FL50 and max 230 KIAS to ITVUK at or above FL50 to IVDEK at or above FL50 and max 220 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
OSTAL 4X	From OSTAL at or above FL100 to TOBAG at or above FL70 to IVDEK at or above FL50 and max 220 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
SORDU 4X	From SORDU at or above FL100 to DONOX at or above FL70 to UTIDI at or above FL70 to TUMOP at or above FL70 to ESUXU at or above FL50 and max 230 KIAS to ITVUK at or above FL50 to IVDEK at or above FL50 and max 220 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
TOSVI 4R	From TOSVI between minimum FL110 and maximum FL170 to OP269 at or above FL70 to OP268 at or above FL70 and max 230 KIAS to ESUXU at or above FL50 and max 230 KIAS to ITVUK at or above FL50 to IVDEK at or above FL50 and max 220 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS
TOSVI 4X	From TOSVI between minimum FL110 and maximum FL170 to UVALU at or above FL70 to OP267 at or above FL70 to INDOR at or above FL70 to OP265 at or above 3500 and max 230 KIAS to OP264 at or above 3500 to BOGVI at or above 3500 and max 230 KIAS to OP262 at or above 2500 to OP261 at or above 2500 (RWY26R) to RUFID at or above 2500 and max 210 KIAS (RWY26L) to LEHID at or above 2500 and max 210 KIAS

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

- If RWY was assigned or received by ATC or ATIS, set transponder 7600, proceed according FPL and assigned or designated RNAV STAR. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes 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 minutes from setting 7600. Then proceed direct to OP262, then RUFID / LEHID. Descending shall be executed in accordance with vertical restrictions specified on ATC Surveillance Minimum Altitude Chart, 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 RNAV STAR. Descending shall be executed in accordance with vertical estrictions specified on chart after 2 minutes from setting 7600.

BUCUREȘTI / Henri Coandă (LROP)
STAR RNAV RWY 26L/R

AERONAUTICAL DATA TABULATION

STAR RNAV RWY 26L/R	
Fix/Point	**Coordinates**
BOGVI	44°42'03.0"N 026°38'08.0"E
DENAK	45°00'08.2"N 026°26'08.5"E
DILIM	44°37'13.0"N 026°50'38.0"E
DONOX	44°11'05.0"N 025°54'24.0"E
ESUXU	44°27'31.0"N 026°26'06.0"E
IDARU	44°38'24.5"N 026°58'54.5"E
INDOR	44°39'45.0"N 026°06'44.0"E
ITVUK	44°28'01.0"N 026°33'03.0"E
IVDEK	44°28'31.0"N 026°40'00.0"E
LEHID	44°35'22.1"N 026°24'34.8"E
NETUL	44°41'43.4"N 026°58'42.8"E
OBUGA	44°06'32.4"N 026°05'39.4"E
OKAGO	44°47'49.0"N 026°34'20.0"E
OSTAL	44°16'40.5"N 026°46'22.4"E
RUFID	44°36'04.2"N 026°24'50.7"E
SORDU	44°02'33.1"N 025°26'48.2"E
TOBAG	44°22'38.0"N 026°42'10.0"E
TOSVI	44°45'14.0"N 025°09'41.0"E
TUMOP	44°19'04.0"N 026°17'50.0"E
UTIDI	44°15'10.0"N 026°14'02.0"E
UVALU	44°42'39.0"N 025°26'39.0"E
OP261	44°35'54.1"N 026°31'57.0"E
OP262	44°36'23.9"N 026°38'55.0"E
OP264	44°41'33.2"N 026°31'09.2"E
OP265	44°41'02.9"N 026°24'10.6"E
OP267	44°38'39.0"N 025°52'18.8"E
OP268	44°31'40.9"N 026°16'12.5"E
OP269	44°29'13.9"N 025°44'14.5"E

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	DENAK 4X	IF	DENAK			6.0E			+FL90	-250		RNAV 1
20	DENAK 4X	TF	OKAGO		149 (154.7)	6.0E	13.6		+FL50			RNAV 1
30	DENAK 4X	TF	BOGVI		149 (154.8)	6.0E	6.4		+3500	-220		RNAV 1
40	DENAK 4X	TF	OP262		168 (174.4)	6.0E	5.7		+2500			RNAV 1
50	DENAK 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	DENAK 4X	IF	OP261			6.0E			+2500			RNAV 1
20	DENAK 4X	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	DENAK 4X	IF	OP261			6.0E			+2500			RNAV 1
20	DENAK 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1
10	IDARU 4X	IF	IDARU			6.0E			+FL60	-250		RNAV 1
20	IDARU 4X	TF	DILIM		253 (258.6)	6.0E	6.0		+FL50	-220		RNAV 1
30	IDARU 4X	TF	OP262		258 (264.5)	6.0E	8.4		+2500			RNAV 1
40	IDARU 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	IDARU 4X	IF	OP261			6.0E			+2500			RNAV 1
20	IDARU 4X	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	IDARU 4X	IF	OP261			6.0E			+2500			RNAV 1
20	IDARU 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1
10	NETUL 4X	IF	NETUL			6.0E			+FL60	-250		RNAV 1
20	NETUL 4X	TF	DILIM		226 (232.0)	6.0E	7.3		+FL50	-220		RNAV 1
30	NETUL 4X	TF	OP262		258 (264.5)	6.0E	8.4		+2500			RNAV 1
40	NETUL 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	NETUL 4X	IF	OP261			6.0E			+2500			RNAV 1
20	NETUL 4X	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	NETUL 4X	IF	OP261			6.0E			+2500			RNAV 1
20	NETUL 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	OBUGA 4X	IF	OBUGA			6.0E			+FL80	-250		RNAV 1
20	OBUGA 4X	TF	UTIDI		029 (034.9)	6.0E	10.5		+FL70			RNAV 1
30	OBUGA 4X	TF	TUMOP		029 (035.0)	6.0E	4.8		+FL70			RNAV 1
40	OBUGA 4X	TF	ESUXU		029 (035.0)	6.0 E	10.3		+FL50	-230		RNAV 1
50	OBUGA 4X	TF	ITVUK		078 (084.2)	6.0 E	5.0		+FL50			RNAV 1
60	OBUGA 4X	TF	IVDEK		078 (084.2)	6.0E	5.0		+FL50	-220		RNAV 1
70	OBUGA 4X	TF	OP262		348 (354.4)	6.0E	7.9		+2500			RNAV 1
80	OBUGA 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	OBUGA 4X	IF	OP261			6.0E			+2500			RNAV 1
20	OBUGA 4X	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	OBUGA 4X	IF	OP261			6.0E			+2500			RNAV 1
20	OBUGA 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1
10	OSTAL 4X	IF	OSTAL			6.0E			+FL100			RNAV 1
20	OSTAL 4X	TF	TOBAG		327 (333.2)	6.0E	6.7		+FL70			RNAV 1
30	OSTAL 4X	TF	IVDEK		339 (345.2)	6.0E	6.1		+FL50	-220		RNAV 1
40	OSTAL 4X	TF	OP262		348 (354.4)	6.0E	7.9		+2500			RNAV 1
50	OSTAL 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	OSTAL 4X	IF	OP261			6.0E			+2500			RNAV 1
20	OSTAL 4X	TF	LEHID		258 (264.3)	6.0 E	5.3		+2500	-210		RNAV 1
10	OSTAL 4X	IF	OP261			6.0E			+2500			RNAV 1
20	OSTAL 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	SORDU 4X	IF	SORDU			6.0E			+FL100			RNAV 1
20	SORDU 4X	TF	DONOX		061 (066.6)	6.0E	21.6		+FL70			RNAV 1
30	SORDU 4X	TF	UTIDI		068 (073.8)	6.0E	14.7		+FL70			RNAV 1
40	SORDU 4X	TF	TUMOP		029 (035.0)	6.0E	4.8		+FL70			RNAV 1
50	SORDU 4X	TF	ESUXU		029 (035.0)	6.0E	10.3		+FL50	-230		RNAV 1
60	SORDU 4X	TF	ITVUK		078 (084.2)	6.0E	5.0		+FL50			RNAV 1
70	SORDU 4X	TF	IVDEK		078 (084.2)	6.0E	5.0		+FL50	-220		RNAV 1
80	SORDU 4X	TF	OP262		348 (354.4)	6.0E	7.9		+2500			RNAV 1
90	SORDU 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	SORDU 4X	IF	OP261			6.0E			+2500			RNAV 1
20	SORDU 4X	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	SORDU 4X	IF	OP261			6.0E			+2500			RNAV 1
20	SORDU 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1
10	TOSVI 4X	IF	TOSVI			6.0E			-FL170 +FL110			RNAV 1
20	TOSVI 4X	TF	UVALU		096 (102.0)	6.0E	12.4		+FL70			RNAV 1
30	TOSVI 4X	TF	OP267		096 (102.2)	6.0E	18.7		+FL70			RNAV 1
40	TOSVI 4X	TF	INDOR		078 (083.8)	6.0E	10.4		+FL70			RNAV 1
50	TOSVI 4X	TF	OP265		078 (083.9)	6.0E	12.5		+3500	-230		RNAV 1
60	TOSVI 4X	TF	OP264		078 (084.2)	6.0E	5.0		+3500			RNAV 1
70	TOSVI 4X	TF	BOGVI		078 (084.3)	6.0E	5.0		+3500	-230		RNAV 1
80	TOSVI 4X	TF	OP262		168 (174.4)	6.0E	5.7		+2500			RNAV 1
90	TOSVI 4X	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	TOSVI 4X	IF	OP261			6.0E			+2500			RNAV 1
20	TOSVI 4X	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	TOSVI 4X	IF	OP261			6.0E			+2500			RNAV 1
20	TOSVI 4X	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1

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

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	TOSVI 4R	IF	TOSVI			6.0E			-FL170 +FL110			RNAV 1
20	TOSVI 4R	TF	OP269		117 (122.8)	6.0E	29.4		+FL70			RNAV 1
30	TOSVI 4R	TF	OP268		078 (083.7)	6.0E	23.0		+FL70	-230		RNAV 1
40	TOSVI 4R	TF	ESUXU		114 (120.4)	6.0E	8.2		+FL50	-230		RNAV 1
50	TOSVI 4R	TF	ITVUK		078 (084.2)	6.0E	5.0		+FL50			RNAV 1
60	TOSVI 4R	TF	IVDEK		078 (084.2)	6.0E	5.0		+FL50	-220		RNAV 1
70	TOSVI 4R	TF	OP262		348 (354.4)	6.0E	7.9		+2500			RNAV 1
80	TOSVI 4R	TF	OP261		258 (264.3)	6.0E	5.0		+2500			RNAV 1
10	TOSVI 4R	IF	OP261			6.0E			+2500			RNAV 1
20	TOSVI 4R	TF	LEHID		258 (264.3)	6.0E	5.3		+2500	-210		RNAV 1
10	TOSVI 4R	IF	OP261			6.0E			+2500			RNAV 1
20	TOSVI 4R	TF	RUFID		266 (271.9)	6.0E	5.1		+2500	-210		RNAV 1

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	DENAK	184 (190.0)			R	FL090	FL170	-230	RNAV 1
HM	NETUL	269 (275.0)			R	FL060	FL170	-230	RNAV 1
HM	IDARU	282 (288.0)			L	FL060	FL170	-230	RNAV 1
HM	OSTAL	343 (349.0)			R	FL100	FL170	-230	RNAV 1
HM	TUMOP	029 (035.0)			R	FL070	FL170	-230	RNAV 1
HM	UVALU	093 (099.0)			R	FL070	FL170	-230	RNAV 1

ATC SURVEILLANCE

MINIMUM ALTITUDE CHART - ICAO

SECTOR LOMOS	122.030
LOMOS ALTN	126.080
LOMOS ALTN	124.975
KOMAN	130.315
KOMAN	122.030
KOMAN ALTN	126.080
KOMAN ALTN	124.975

SECTOR ARGES	121.285
ARGES	122.365
ARGES ALTN	124.975
NERDI	135.360
NERDI ALTN	133.915
NERDI ALTN	123.890

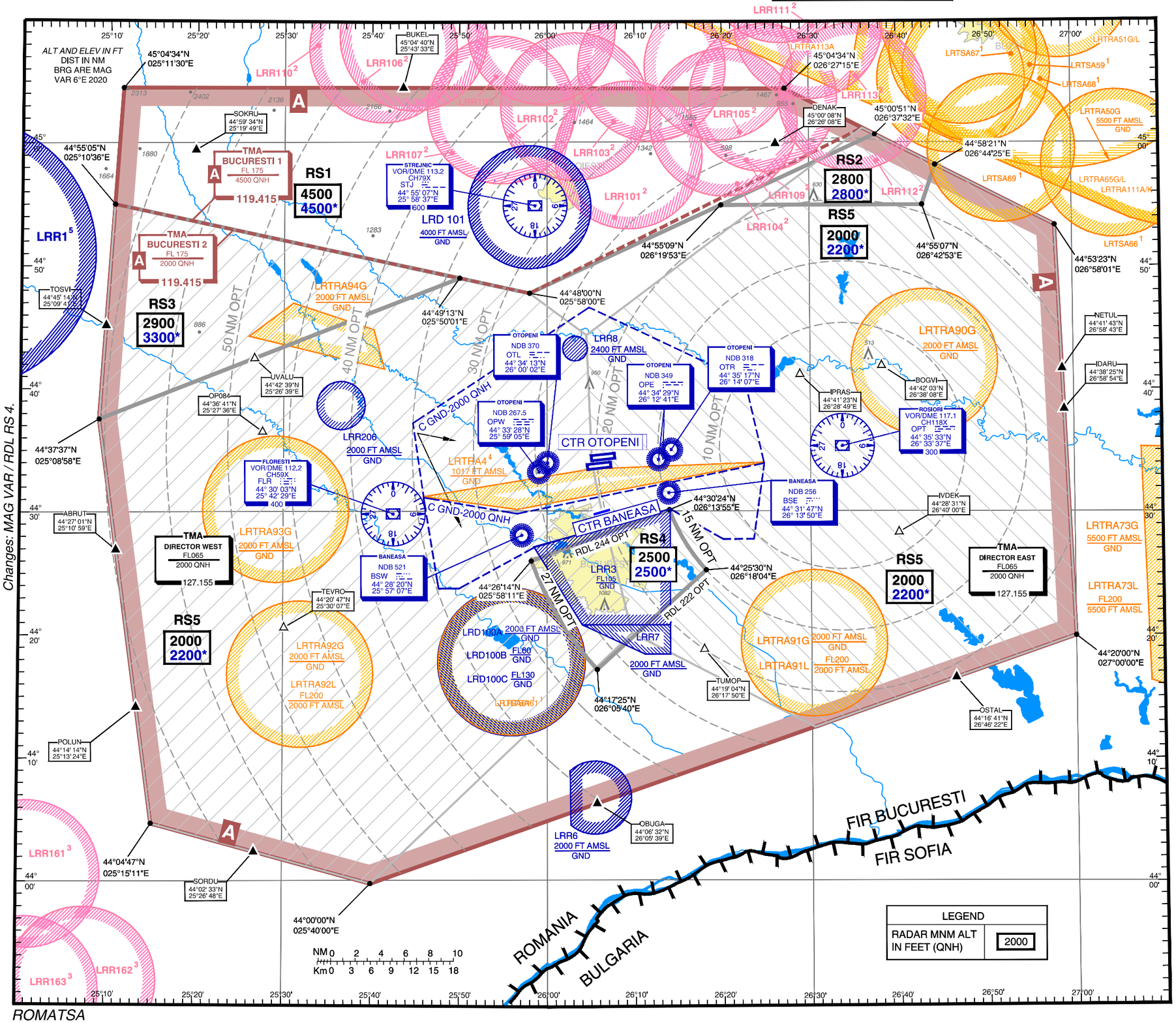
AERODROME ELEV 314 ft

TRANSITION ALTITUDE
4000 ft

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)



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		

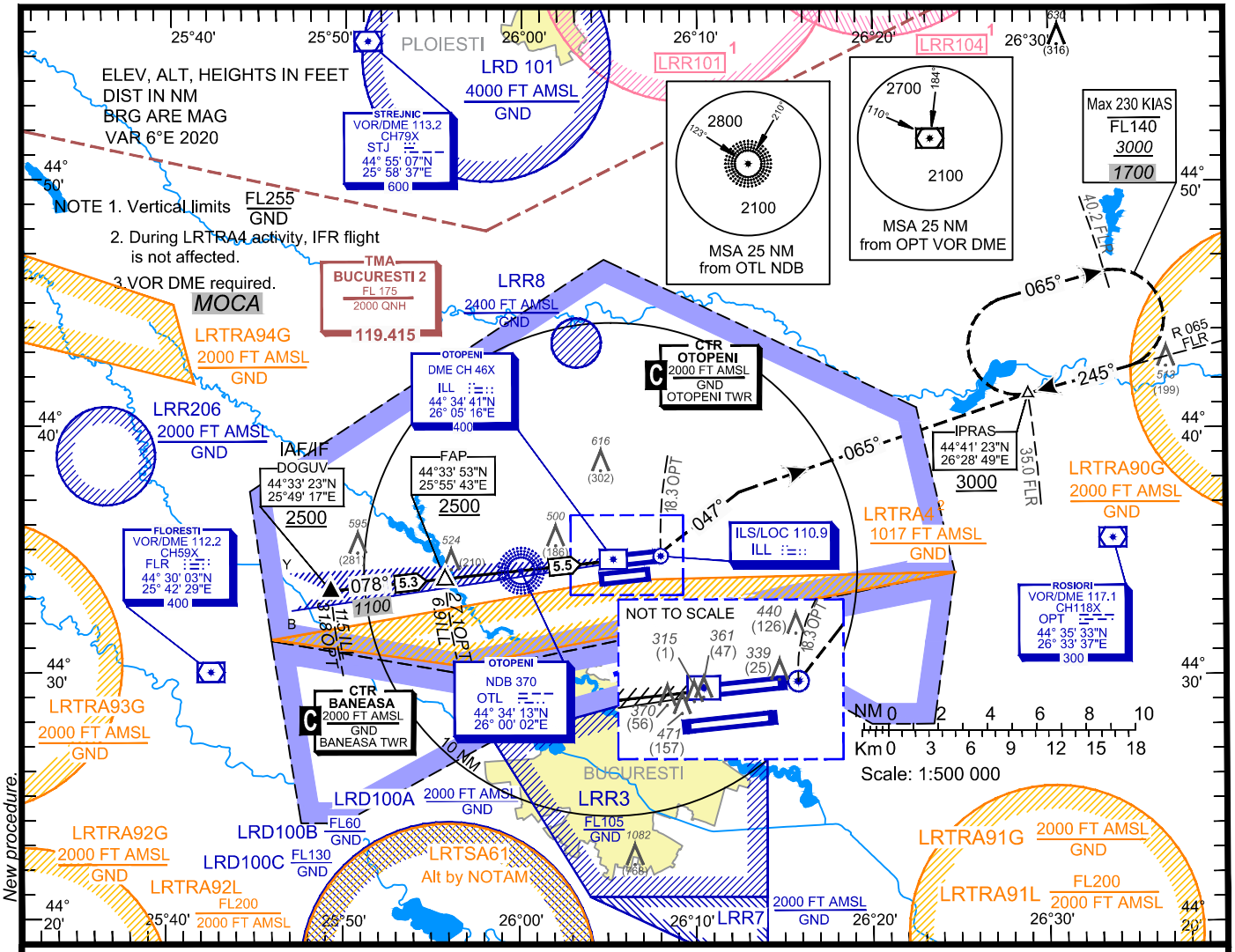
INSTRUMENT APPROACH CHART - ICAO

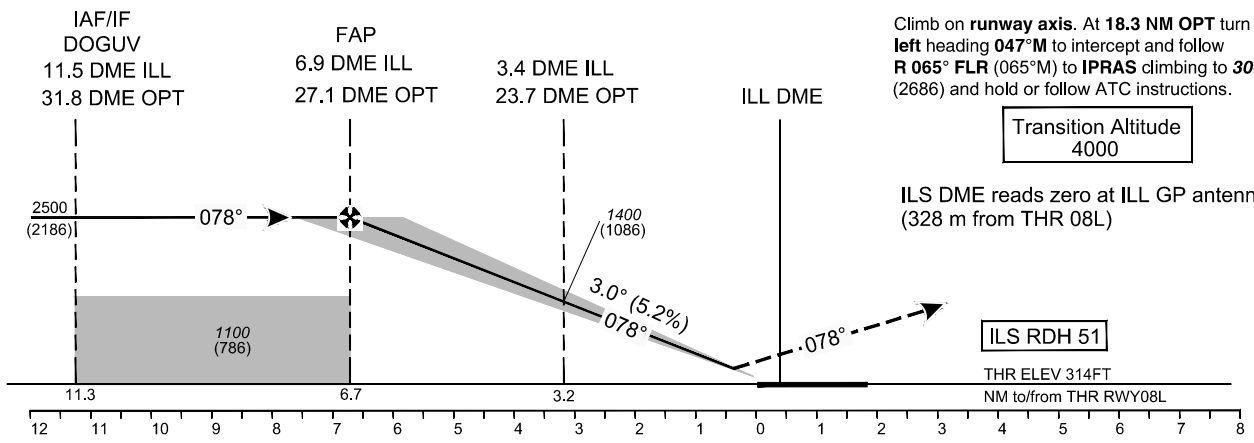
AERODROME ELEV. 314 FT
HEIGHTS RELATED TO
THR RWY 08L - ELEV. 314 FT

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





MISSED APPROACH

Climb on **runway axis**. At **18.3 NM OPT** turn **left** heading **047°M** to intercept and follow **R 065° FLR** (065°M) to **IPRAS** climbing to ***3000*** (2686) and hold or follow ATC instructions.

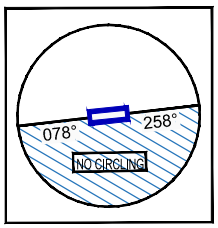
Transition Altitude
4000

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

ILS RDH 51
THR ELEV 314FT
NM to/from THR RWY08L

	OCA/H	A	B	C	D/DL
Straight-in approach	ILS CAT I	471 (157)	483 (169)	491 (177)	501 (187)
	ILS CAT II	383 (69)	400 (86)	412 (98)	426 (112)
	Circling*	770	810	1010	

CAT III approved



GS	kts	70	90	100	120	140	160
FAP-THR 6.7 NM	min:s	5:45	4:28	4:01	3:21	2:52	2:31
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Distance to ILL DME	NM	6	5	4	3	2	1
Altitude (Height)	ft	2220 (1906)	1900 (1586)	1590 (1276)	1270 (956)	950 (636)	630 (316)

* Circling prohibited in the South.

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
ILS RWY 08L

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 08L	
Fix/Point	**Coordinates**
DOGUV (IAF/IF) - BRG 257.95° / 11.50NM ILL	44°33'23.0"N 025°49'17.0"E
FAP – 2500ft / GP	44°33'52.7''N 025°55'42.9''E
THR 08L	44°34'35.82"N 026°05'02.49"E
ILL GP-DME	44°34'40.9"N 026°05'15.9"E
ILL LOC	44°34'49.0"N 026°07'56.8"E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
OTL NDB	44°34'12.9"N 026°00'02.2"E
IPRAS (MAHF) - BRG 064.83° / 34.99NM FLR	44°41'23.0"N 026°28'49.0"E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 08L instrument approach procedure. In case of missed approach, hold at IPRAS at 3000 ft for 4 minutes, then join RNAV1 STAR RWY 08 L/R OSTAL 3U. If unable RNAV1, from IPRAS direct to OPT VOR/DME, then via STAR RWY 08L/R DENAK 7E for a new approach.

INSTRUMENT APPROACH CHART - ICAO

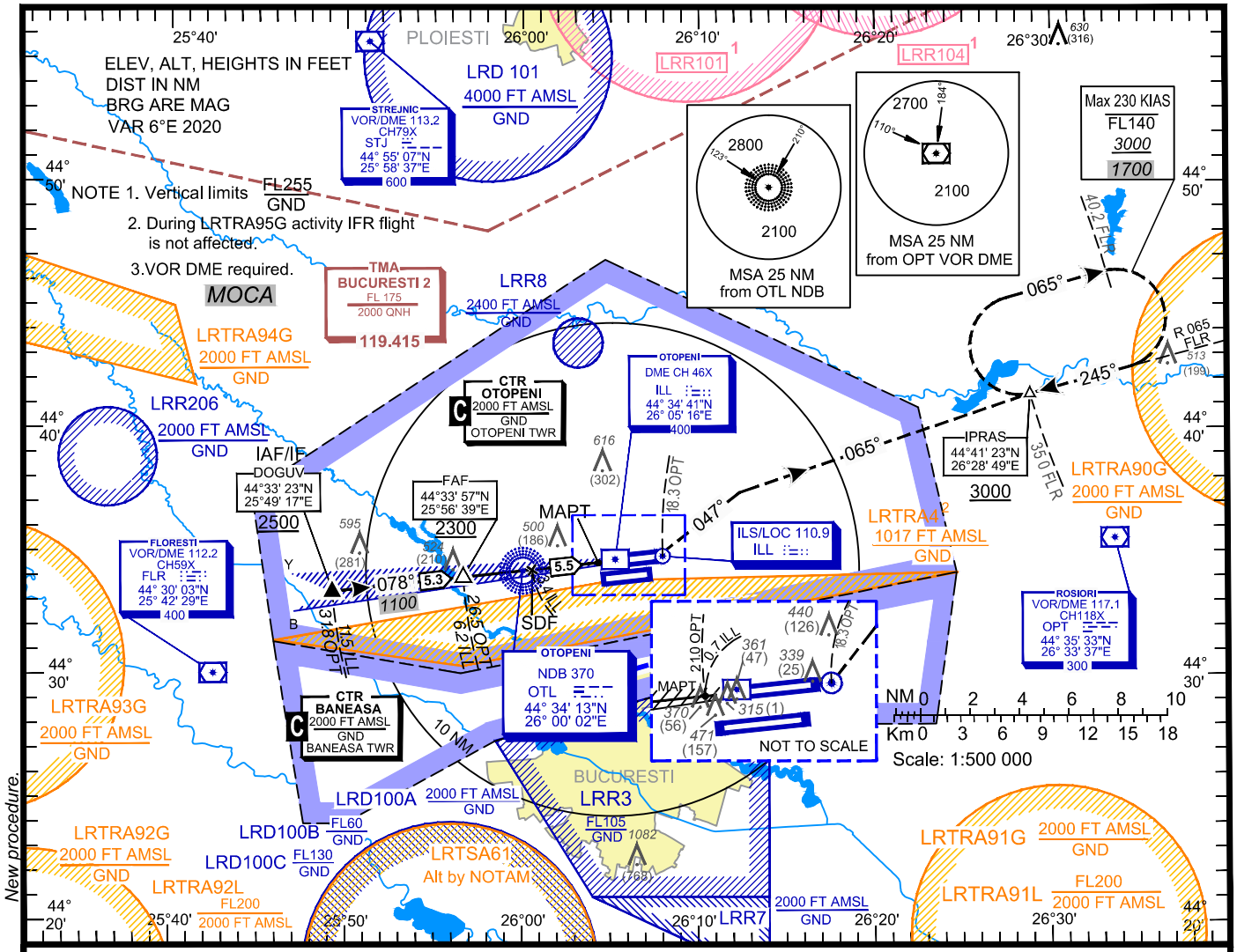
AERODROME ELEV. 314 FT
HEIGHTS RELATED TO AD ELEV

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)

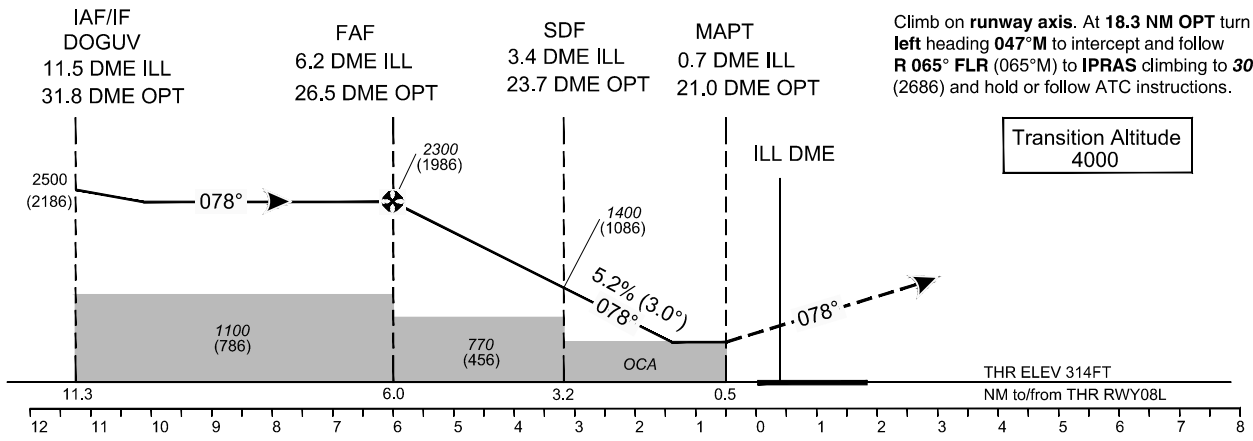
LOC RWY 08L



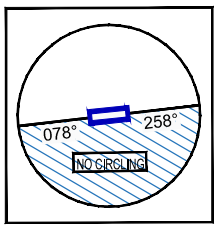
MISSED APPROACH

Climb on **runway axis**. At **18.3 NM OPT** turn **left** heading **047°M** to intercept and follow **R 065° FLR** (065°M) to **IPRAS** climbing to ***3000*** (2686) and hold or follow ATC instructions.

Transition Altitude 4000



OCA/H		A	B	C	D
Straight-in approach	GP INOP	620 (306)			
	GP INOP w/o SDF	770 (456)			
Circling*		770	810	1010	



GS	kts	70	90	100	120	140	160
FAP-MAPt 5.5 NM	min:s	4:43	3:40	3:18	2:45	2:22	2:04
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

Distance to ILL DME	NM	6	5	4	3	2	1
Altitude (Height)	ft	2220 (1906)	1900 (1586)	1590 (1276)	1270 (956)	950 (636)	630 (316)

* Circling prohibited in the South.

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
LOC RWY 08L

AERONAUTICAL DATA TABULATION

LOC Approach to RWY 08L	
Fix/Point	**Coordinates**
DOGUV (IAF/IF) - BRG 257.95° / 11.50NM ILL	44°33'23.0"N 025°49'17.0"E
FAF (GP INOP) - BRG 257.95° / 6.20NM ILL	44°33'57.1''N 025°56'39.1''E
(SDF)	44°34'15.1''N 026°00'32.8''E
MAPT (GP INOP) - BRG 257.95° / 0.70NM ILL	44°34'32.4''N 026°04'18.3''E
THR 08L	44°34'35.82"N 026°05'02.49"E
ILL GP-DME	44°34'40.9"N 026°05'15.9"E
ILL LOC	44°34'49.0"N 026°07'56.8"E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
OTL NDB	44°34'12.9"N 026°00'02.2"E
IPRAS (MAHF) - BRG 064.83° / 34.99NM FLR	44°41'23.0"N 026°28'49.0"E

Final approach descent angle: 3.0°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 08L instrument approach procedure. In case of missed approach, hold at IPRAS at 3000 ft for 4 minutes, then join RNAV1 STAR RWY 08L/R OSTAL 3U. If unable RNAV1, direct to OPT VOR/DME, then via STAR RWY08L/R DENAK 7E for a new approach.

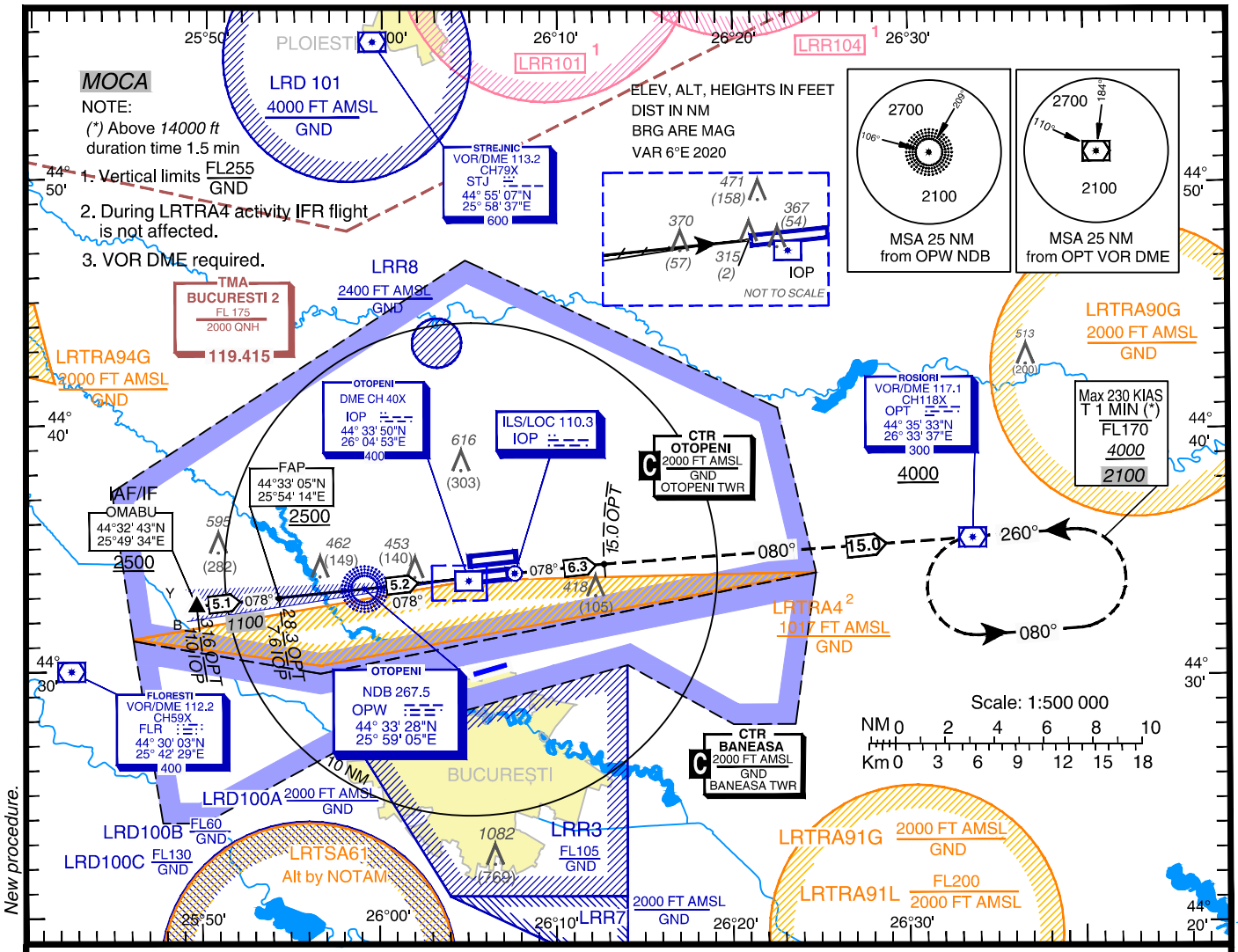
INSTRUMENT APPROACH CHART - ICAO

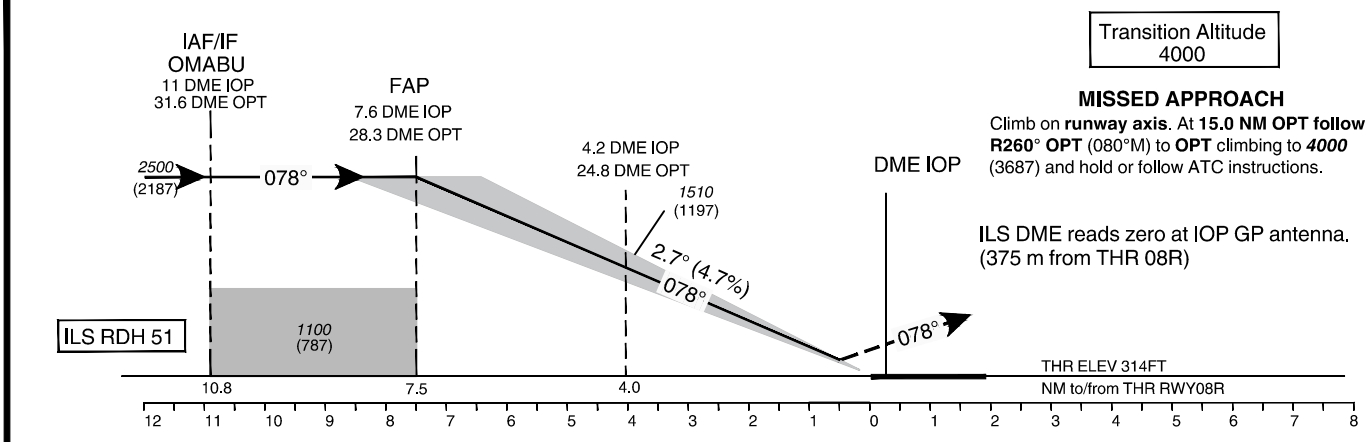
AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO
THR RWY 08R - ELEV 313 FT

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 08R





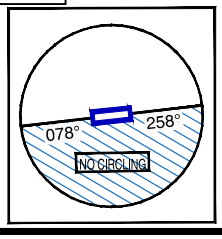
Transition Altitude
4000

MISSED APPROACH
Climb on **runway axis**. At **15.0 NM OPT follow R260° OPT** (080°M) to **OPT** climbing to ***4000*** (3687) and hold or follow ATC instructions.

ILS DME reads zero at IOP GP antenna. (375 m from THR 08R)

OCA/H		A	B	C	D	DL
Straight-in approach	ILS CAT I	458 (145)	468 (155)	477 (164)	488 (175)	489 (176)
	ILS CAT II	370 (57)	382 (69)	395 (82)	410 (97)	410 (97)
Circling*		770	810	1010		

GS	kts	70	90	100	120	140	160
FAF-THR 7.5 NM	min:s	6:23	4:58	4:28	3:44	3:12	2:48
Rate of descent (4.72%)	ft/min	334	430	478	573	669	764



Distance to IOP DME	NM	7	6	5	4	3	2
Altitude (Height)	ft	2310 (1997)	2030 (1717)	1740 (1427)	1450 (1137)	1170 (857)	880 (567)

Cat **III** approved.
* Circling prohibited in the South

For data tabulation see verso.

BUCURESTI / Henri Coandă (LROP)
ILS RWY 08R

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 08R	
Fix/Point	**Coordinates**
OMABU (IAF/IF) - BRG 257.93° / 11.00NM IOP	44°32'43.2"N 025°49'34.2"E
FAP - 2500ft / GP	44°33'04.6''N 025°54'13.9''E
THR 08R	44°33'52.75"N 026°04'36.02"E
IOP GP-DME	44°33'49.7"N 026°04'52.8"E
IOP LOC	44°34'06.4"N 026°07'36.0"E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT (MAHF) VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
OPW NDB	44°33'27.9"N 025°59'04.7"E

Final approach descent angle: 2.7°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 08R instrument approach procedure. In case of missed approach, hold at OPT VOR/DME at 4000 ft for 4 minutes, then direct to IPRAS at 4000 ft and join STAR RNAV1 RWY 08 L/R OSTAL 3U. If unable RNAV1, from OPT VOR/DME via STAR RWY 08 L/R DENAK 7E for a new approach.

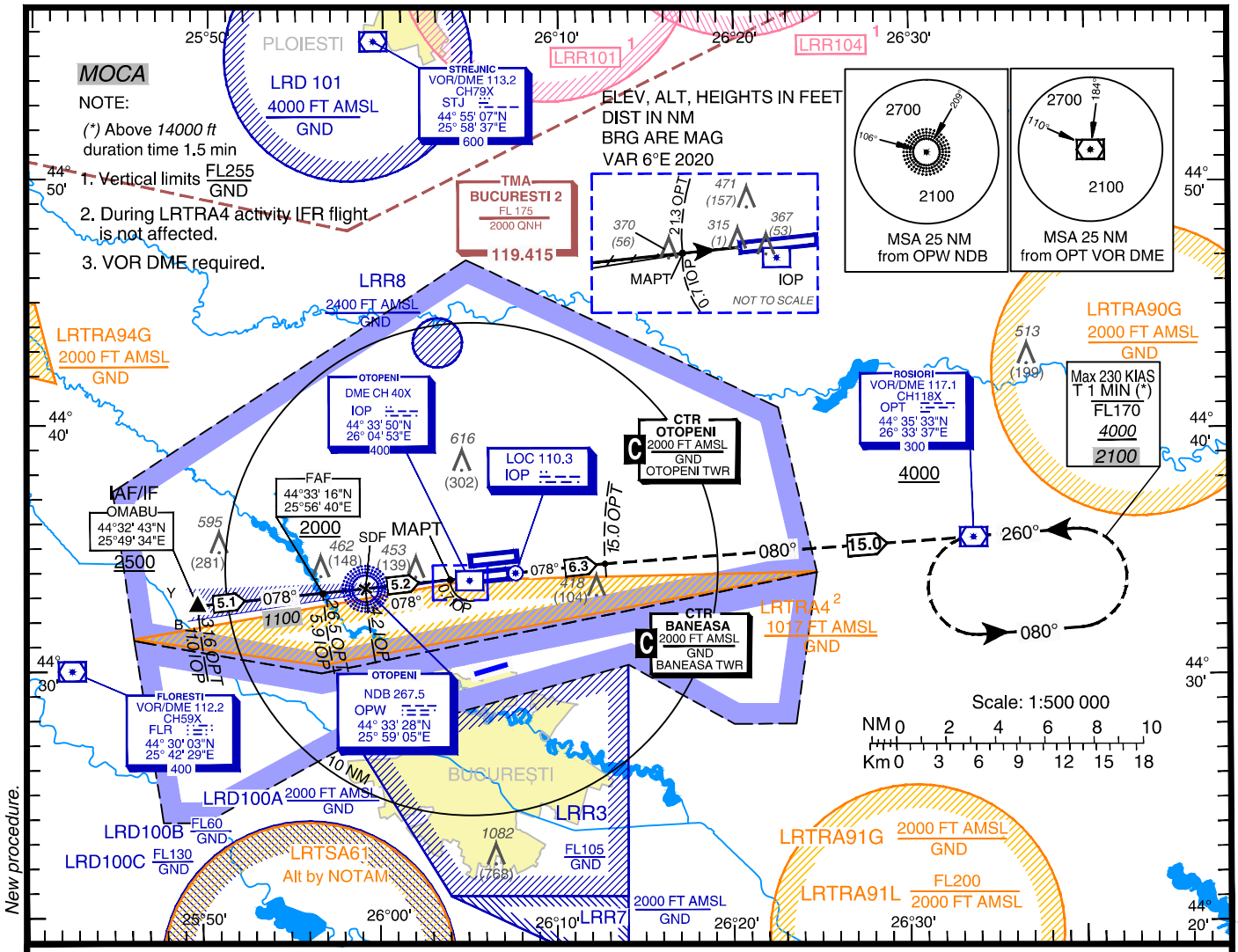
INSTRUMENT APPROACH CHART - ICAO

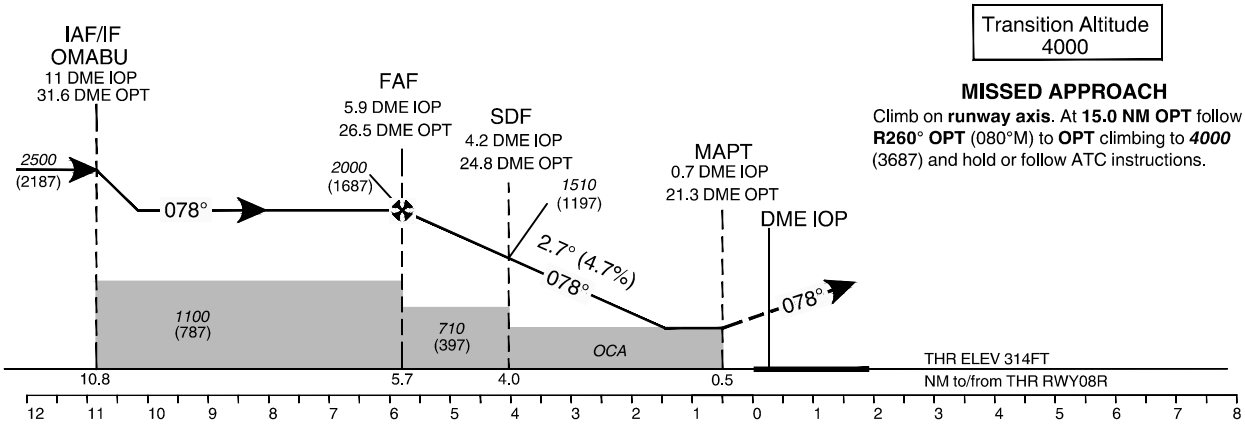
AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO AD ELEV

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)
LOC RWY 08R





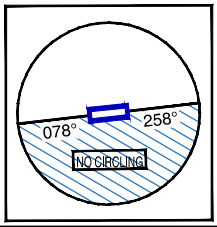
Transition Altitude
4000

MISSED APPROACH
Climb on **runway axis**. At **15.0 NM OPT** follow **R260° OPT** (080°M) to **OPT** climbing to ***4000*** (3687) and hold or follow ATC instructions.

OCA/H		A	B	C	D
Straight-in approach	GP INOP	700 (387)			
	GP INOP w/o SDF	710 (397)			
Circling*		770	810	1010	

GS	kts	70	90	100	120	140	160
FAF-MAPT 5.2 NM	min:s	4:28	3:28	3:07	2:36	2:14	1:57
Rate of descent (4.72%)	ft/min	334	430	478	573	669	764

Timing not authorized for defining the MAPt.



Distance to IOP DME	NM	5	4	3	2
Altitude (Height)	ft	1740 (1427)	1450 (1137)	1170 (857)	880 (567)

* Circling prohibited in the South

For data tabulation see verso.

BUCURESTI / Henri Coandă (LROP)
LOC RWY 08R

AERONAUTICAL DATA TABULATION

LOC Approach to RWY 08R	
Fix/Point	**Coordinates**
OMABU (IAF/IF) - BRG 257.93° / 11.00NM IOP	44°32'43.2"N 025°49'34.2"E
FAF (GP INOP) – BRG 257.93° / 5.90NM IOP	44°33’16.0’’N 025°56’39.9’’E
(SDF)	44°33’27.0’’N 025°59’01.7’’E
MAPT (GP INOP) – BRG 257.93° / 0.70NM IOP	44°33’49.4’’N 026°03’54.0’’E
THR 08R	44°33'52.75"N 026°04'36.02"E
IOP GP-DME	44°33'49.7"N 026°04'52.8"E
IOP LOC	44°34'06.4"N 026°07'36.0"E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT (MAHF) VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
OPW NDB	44°33'27.9"N 025°59'04.7"E

Final approach descent angle: 2.7°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 08R instrument approach procedure. In case of missed approach, hold at OPT VOR/DME at 4000 ft for 4 minutes, then direct to IPRAS at 4000 ft and join STAR RNAV1 RWY 08 L/R OSTAL 3U. If unable RNAV1, from OPT VOR/DME via STAR RWY 08 L/R DENAK 7E for a new approach.

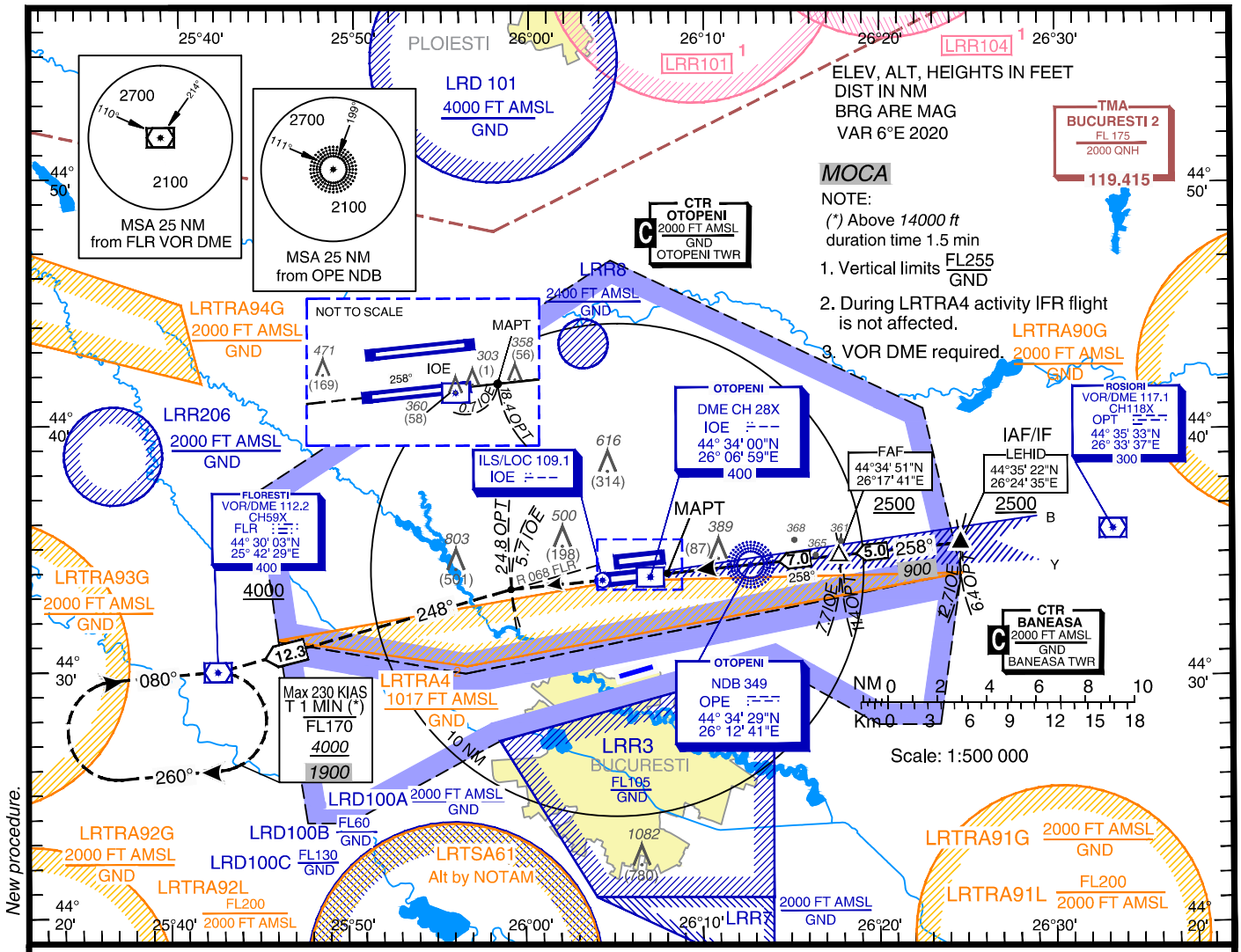
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **314FT**
HEIGHTS RELATED TO
THR RWY 26L - ELEV 302FT

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 or LOC RWY 26L

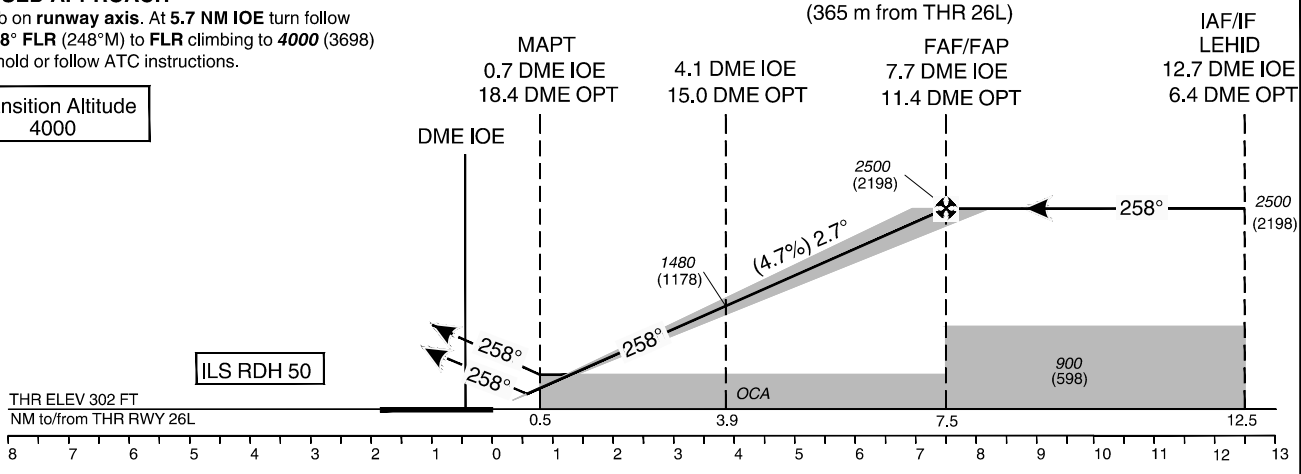


MISSED APPROACH

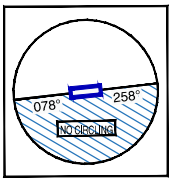
Climb on **runway axis**. At **5.7 NM IOE** turn follow **R 068° FLR** (248°M) to **FLR** climbing to ***4000*** (3698) and hold or follow ATC instructions.

Transition Altitude 4000

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



	OCA/H	A	B	C	D	DL
Straight-in approach	ILS CAT I	449 (147)	459 (157)	469 (167)	481 (179)	482 (180)
	Circling*	770	810	1010		



GS	kts	70	90	100	120	140	160
FAF-MAPT 7.0 NM	min:s	6:00	4:40	4:12	3:30	3:00	2:38
Rate of descent (4.71%)	ft/min	334	430	478	573	669	764

Timing not authorized for defining the MAPt.

Distance to IOE DME	NM	2	3	4	5	6	7
Altitude (Height)	ft	870 (568)	1150 (848)	1440 (1138)	1730 (1428)	2010 (1708)	2300 (1998)

For data tabulation see verso.

* Circling prohibited in the South.

BUCURESTI / Henri Coandă (LROP)
ILS RWY 26L

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 26L	
Fix/Point	**Coordinates**
LEHID (IAF/IF) - BRG 077.96° / 12.70NM IOE	44°35'22.1"N 026°24'34.8"E
FAF (GP INOP) – BRG 077.96° / 7.70NM IOE	44°34'51.3''N 026°17'40.8''E
MAPT (GP INOP) – BRG 077.96° / 0.70NM IOE	44°34'07.8''N 026°07'56.1''E
THR 26L	44°34'04.71"N 026°07'13.81"E
IOE GP-DME	44°33'59.6"N 026°06'58.9"E
IOE LOC	44°33'51.2"N 026°04'15.4"E
FLR (MAHF) VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
OPE NDB	44°34'29.2"N 026°12'40.5"E

Final approach descent angle: 2.7°

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to ILS RWY 26L instrument approach procedure. In case of missed approach, hold at FLR VOR/DME at 4000 ft for 4 minutes, then direct to OP269 at 4000 ft and join RNAV1 STAR RWY 26L/R TOSVI 4R. If unable RNAV1, from FLR VOR/DME via STAR RWY 26L/R TOSVI 7F for a new approach.

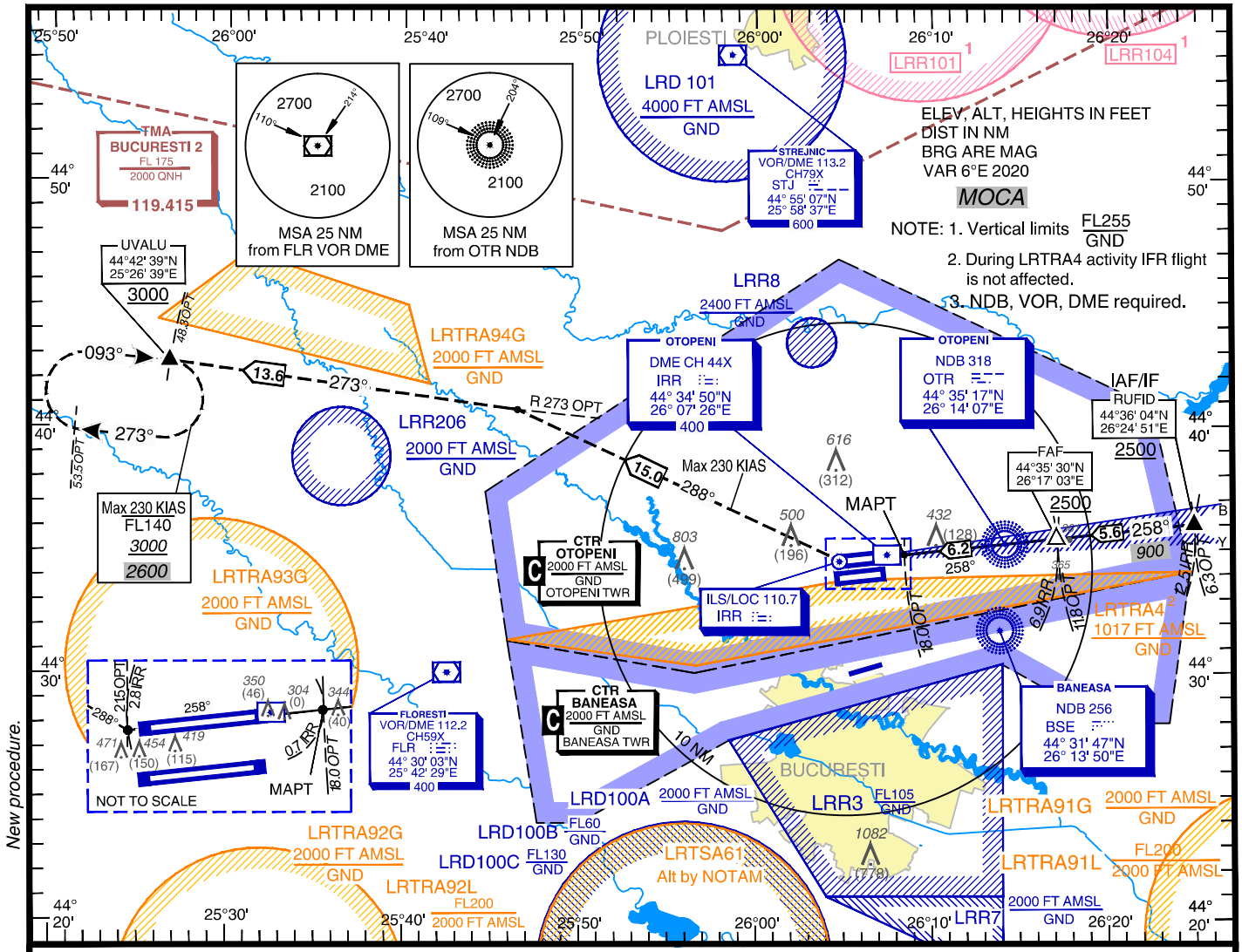
INSTRUMENT APPROACH CHART - ICAO

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

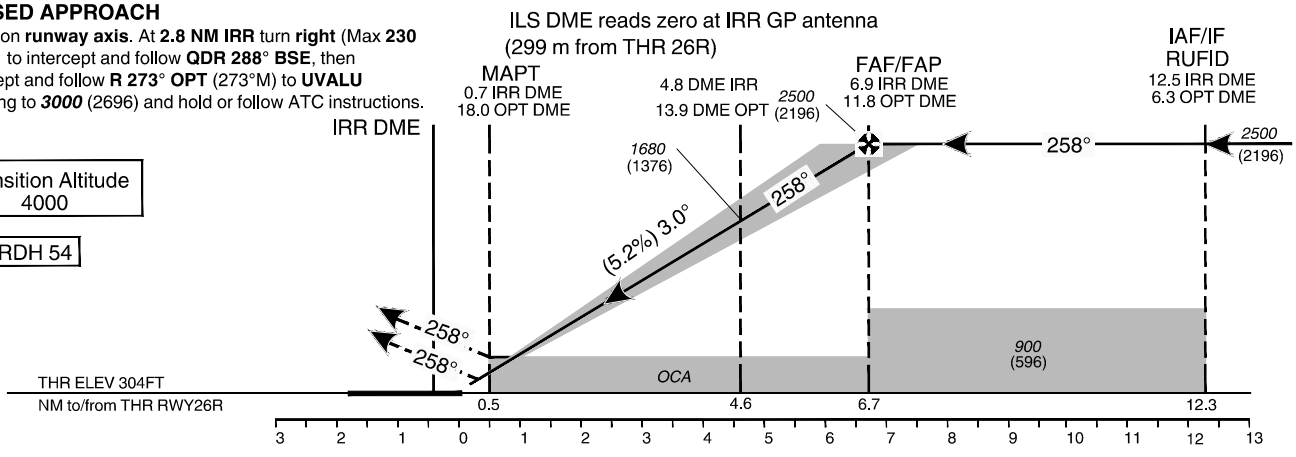
OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
ILS or LOC RWY 26R



MISSED APPROACH

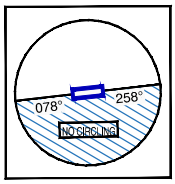
Climb on **runway axis**. At **2.8 NM IRR** turn **right** (Max **230 KIAS**) to intercept and follow **QDR 288° BSE**, then intercept and follow **R 273° OPT** (273°M) to **UVALU** climbing to ***3000*** (2696) and hold or follow ATC instructions.



Transition Altitude
4000

ILS RDH 54

OCA/H		A	B	C	D	DL
Straight-in approach	ILS CAT I	452 (148)	462 (158)	473 (169)	485 (181)	487 (183)
	ILS CAT II	363 (59)	375 (71)	388 (84)	404 (100)	406 (102)
	ILS GP INOP	680 (376)				
	Circling*	770	810	1010		



GS	kts	70	90	100	120	140	160
FAF-MAPT 6.2 NM	min:s	5:19	4:08	3:43	3:06	2:39	2:20
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849
Timing not authorized for defining the MAPt.							

Distance to IRR DME	NM	2	3	4	5	6
Altitude (Height)	ft	940 (636)	1260 (956)	1580 (1276)	1900 (1596)	2220 (1916)

Cat III approved.

* Circling prohibited in the South.

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
ILS RWY 26R

AERONAUTICAL DATA TABULATION

ILS Approach to RWY 26R	
Fix/Point	**Coordinates**
RUFID (IAF/IF) - BRG 077.98° / 12.50NM IRR	44°36'04.2"N 026°24'50.7"E
FAF (GP INOP) - BRG 077.98° / 6.90NM IRR	44°35'29.5''N 026°17'02.7''E
MAPT (GP INOP) - BRG 077.98° / 0.70NM IRR	44°34'51.0''N 026°08'24.7''E
THR 26R	44°34'47.75"N 026°07'40.26"E
IRR DME	44°34'50.5"N 026°07'25.8"E
IRR GP	44°34'50.3"N 026°07'26.0"E
IRR LOC	44°34'34.4"N 026°04'44.4"E
UVALU (MAHF) - BRG 272.85° / 48.32NM OPT	44°42'39.0"N 025°26'39.0"E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
BSE NDB	44°31'46.7"N 026°13'49.9"E
OTR NDB	44°35'16.8"N 026°14'07.3"E

Final approach descent angle: 3.0°

Set transponder 7600, proceed according to ILS RWY 26R instrument approach procedure. In case of missed approach, hold at UVALU at 3000 ft for 4 minutes, then join STAR RNAV1 RWY 26L/R TOSVI 4X. If unable RNAV1, from UVALU direct to FLR VOR/DME, then via STAR RWY 26L/R TOSVI 7F for a new approach.

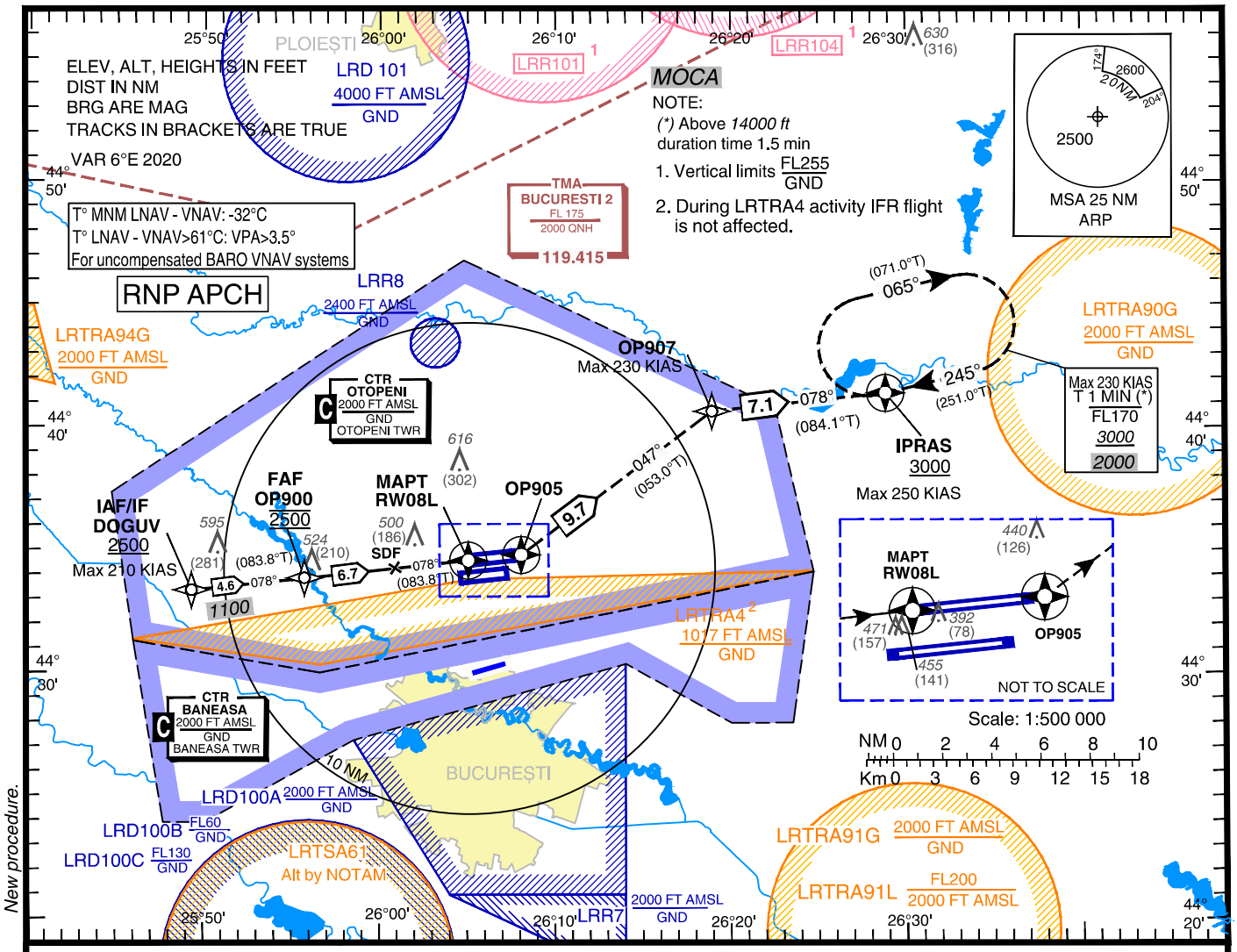
INSTRUMENT APPROACH CHART - ICAO | **EGNOS CH88624 E08A**

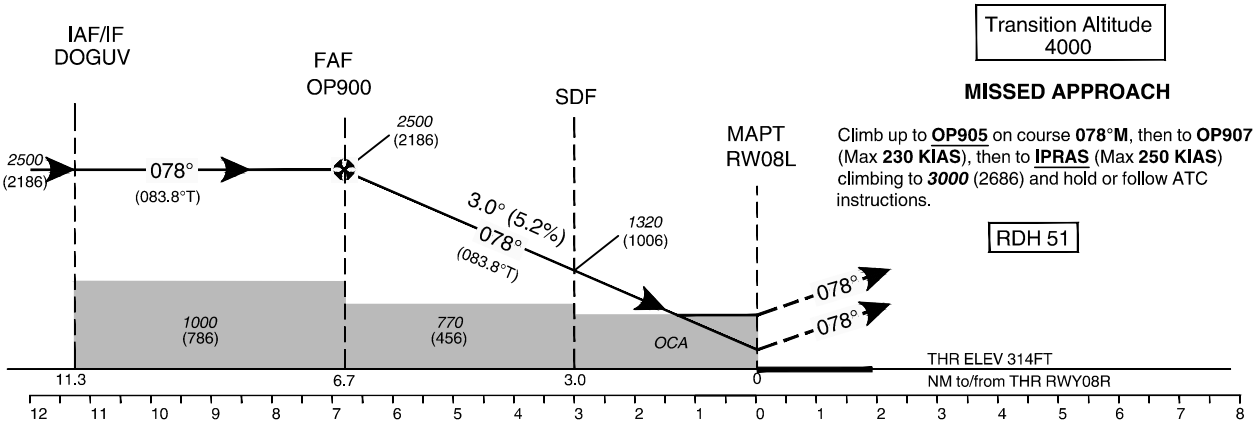
AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO
THR RWY 08L - ELEV 314 FT

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)
RNP RWY 08L





Transition Altitude
4000

MISSED APPROACH

Climb up to **OP905** on course **078°M**, then to **OP907** (Max **230 KIAS**), then to **IPRAS** (Max **250 KIAS**) climbing to ***3000*** (2686) and hold or follow ATC instructions.

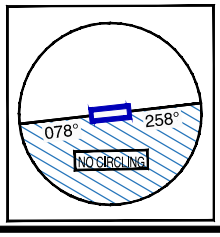
RDH 51

OCA/H	A	B	C	D	DL
LPV	530 (216)	540 (226)	550 (236)	560 (246)	560 (246)
LNAV/VNAV	610 (296)	620 (306)	630 (316)	640 (326)	
LNAV	720 (406)				
LNAV w/o SDF	770 (456)				
Circling*	770	810	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 (5.24%)	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

DIST RW08L	NM	6	5	4	3	2
Altitude (Height)	ft	2280 (1966)	1960 (1646)	1640 (1326)	1320 (1006)	1000 (686)



SBAS CAT I OPERATIONS NOT APPROVED

For data tabulation see verso.

* Circling prohibited in the South

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 08L

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RW08L	
Fix/Waypoint Name	**Coordinates**
DOGUV (IAF/IF)	44°33'23.0"N 025°49'17.0"E
IPRAS (MAHF)	44°41'23.0"N 026°28'49.0"E
OP900 (FAF)	44°33'53.0"N 025°55'42.9"E
(SDF)	44°34'16.8"N 026°00'52.1"E
OP905	44°34'49.5"N 026°08'03.3"E
OP907	44°40'39.6"N 026°18'55.6"E
RW08L (MAPT)	44°34'35.82"N 026°05'02.49"E

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 08L instrument approach procedure. In case of missed approach, hold at IPRAS at 3000 ft for 4 minutes, then join RNAV1 STAR RWY 08L/R OSTAL 3U.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 08L

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	RNP08L	IF	DOGUV			6.0E			+2500	-210		RNP APCH
20	RNP08L	TF	OP900		078 (083.8)	6.0E	4.6		@2500			RNP APCH
30	RNP08L	TF	RW08L	Y	078 (083.8)	6.0E	6.7		@365		-3.0/51	RNP APCH
40	RNP08L	TF	OP905	Y	078 (083.9)	6.0E	2.2					RNP APCH
50	RNP08L	TF	OP907		047 (085.0)	6.0E	9.7			-230		RNP APCH
60	RNP08L	TF	IPRAS	Y	078 (084.1)	6.0E	7.1		+3000	-250		RNP APCH

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	IPRAS	245 (251.0)			R	3000	FL170	-230	RNAV1

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 08L

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LROP
Runway	08
Runway Letter	3 (Left)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E08A
LTP/FTP Latitude	443435.8200N
LTP/FTP Longitude	0260502.4900E
LTP/FTP Ellipsoidal Height (metres)	130.4
FPAP Latitude	443447.9480N
Delta FPAP Latitude (seconds)	12.1280
FPAP Longitude	0260742.8885E
Delta FPAP Longitude (seconds)	160.3985
Threshold Crossing Height	51.0
TCH Units Selector	0 (FEET)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	56
HAL (metres)	40.0
VAL (metres)	50.0

Output Data	
Data Block	10 10 0F 12 0C C8 00 00 01 38 30 05 58 55 21 13 34 AD 31 0B 18 19 C0 5E 00 1D E5 04 FE 01 2C 01 64 07 C8 FA 8F 15 3D BC
Calculated CRC Value	8F153DBC

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	95.7

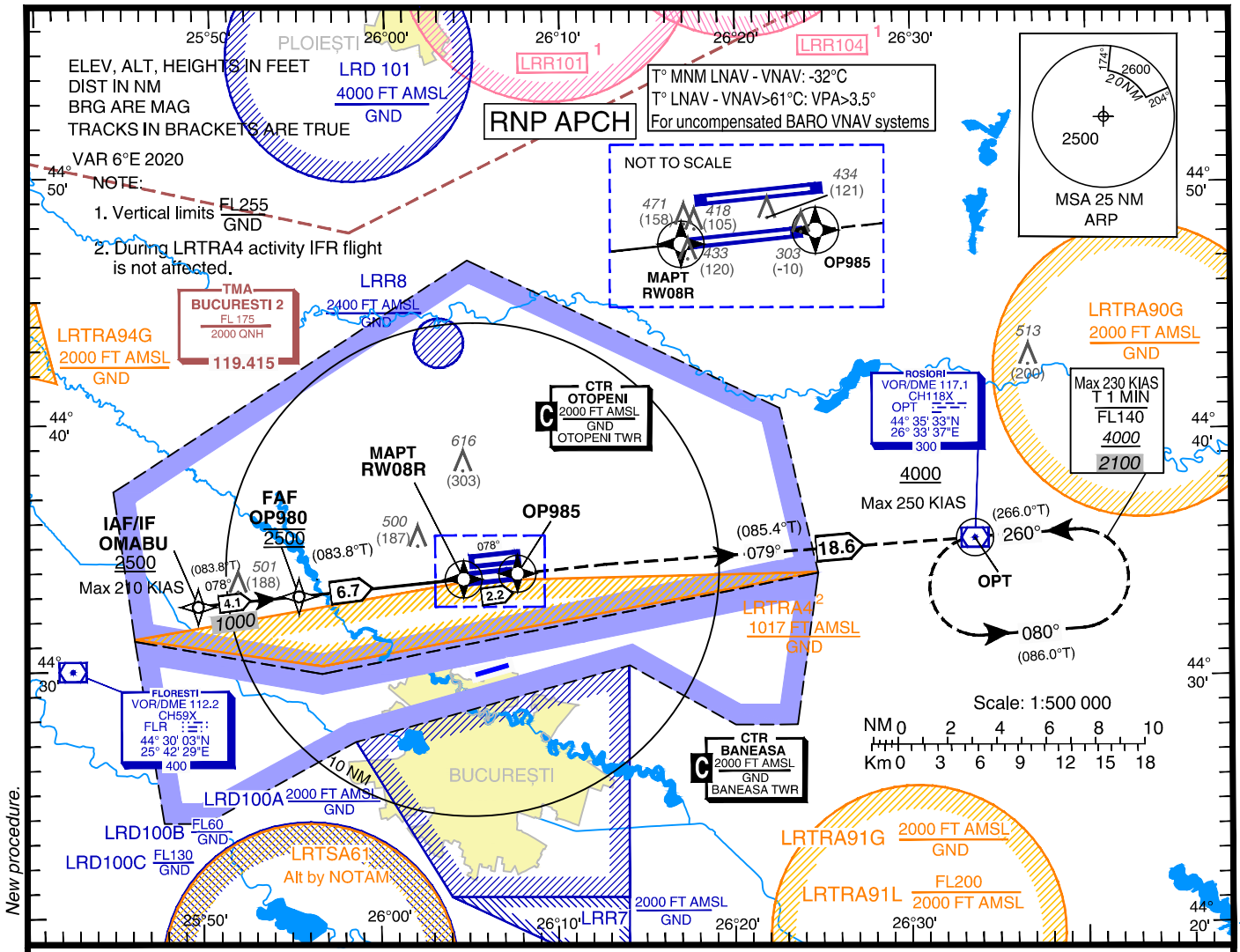
INSTRUMENT APPROACH CHART - ICAO | **EGNOS CH94064 E08B**

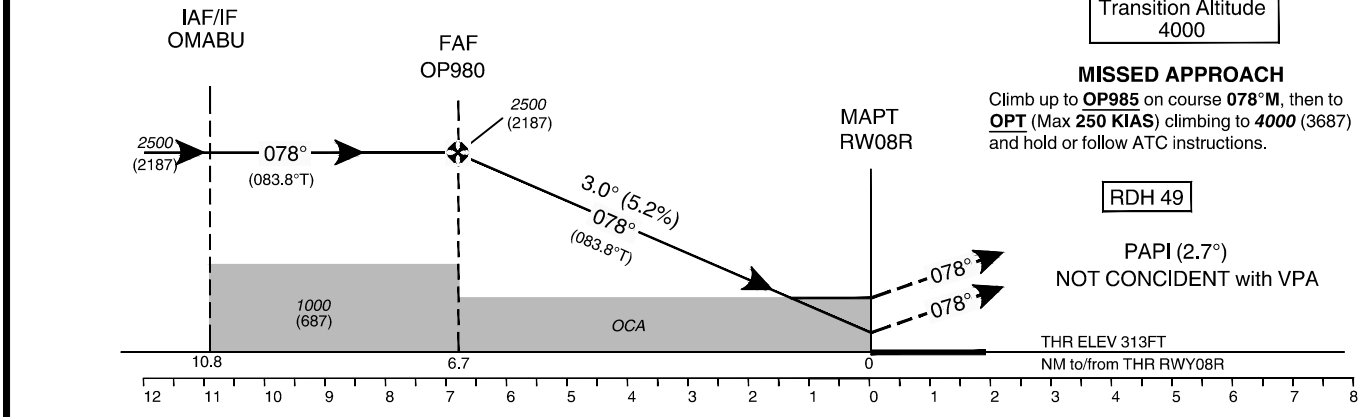
AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO
THR RWY 08R - ELEV 313 FT

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)
RNP RWY 08R

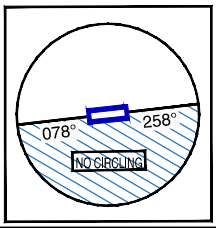




OCA/H	A	B	C	D	DL
LPV	550 (237)	560 (247)	570 (257)	580 (267)	600 (287)
LNAV/VNAV	600 (287)	610 (297)	630 (317)	640 (327)	
LNAV	720 (407)				
Circling*	770	810	1010		

SBAS CAT I OPERATIONS NOT APPROVED

* Circling prohibited in the South



GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:45	4:29	4:02	3:21	2:53	2:31
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

DIST RW08R	NM	6	5	4	3	2
Altitude (Height)	ft	2270 (1957)	1950 (1637)	1640 (1327)	1320 (1007)	1000 (687)

For data tabulation see verso.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 08R

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RW08R	
Fix/Waypoint Name	**Coordinates**
OMABU (IAF/IF)	44°32'43.2"N 025°49'34.2"E
OP980 (FAF)	44°33'09.8"N 025°55'15.9"E
OP985	44°34'06.6"N 026°07'38.9"E
OPT (MAHF)	44°35'32.6"N 026°33'36.6"E
RW08R (MAPT)	44°33'52.75"N 026°04'36.02"E

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 08R instrument approach procedure. In case of missed approach, hold at OPT VOR/DME at 4000 ft for 4 minutes, then direct to IPRAS at 4000 ft and join RNAV1 STAR RWY 08L/R OSTAL 3U.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 08R

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	RNP08R	IF	OMABU			6.0E			+2500	-210		RNP APCH
20	RNP08R	TF	OP980		078 (083.8)	6.0E	4.1		@2500			RNP APCH
30	RNP08R	TF	RW08R	Y	078 (083.8)	6.0E	6.7		@363		-3/49	RNP APCH
40	RNP08R	TF	OP985	Y	078 (083.9)	6.0E	2.2					RNP APCH
50	RNP08R	TF	OPT	Y	079 (085.4)	6.0E	18.6		+4000	-250		RNP APCH

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	OPT	260 (266.0)			L	4000	FL140	-230	RNAV1

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 08R

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LROP
Runway	08
Runway Letter	1 (Right)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E08B
LTP/FTP Latitude	443352.7500N
LTP/FTP Longitude	0260436.0200E
LTP/FTP Ellipsoidal Height (metres)	130.2
FPAP Latitude	443405.3455N
Delta FPAP Latitude (seconds)	12.5955
FPAP Longitude	0260722.2180E
Delta FPAP Longitude (seconds)	166.1980
Threshold Crossing Height	49.0
TCH Units Selector	0 (FEET)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	184
HAL (metres)	40.0
VAL (metres)	50.0

Output Data	
Data Block	10 10 0F 12 0C 48 00 00 02 38 30 05 DC 04 20 13 68 DE 30 0B 16 19 67 62 00 6C 12 05 EA 01 2C 01 64 17 C8 FA 73 94 A1 2C
Calculated CRC Value	7394A12C

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	99.5

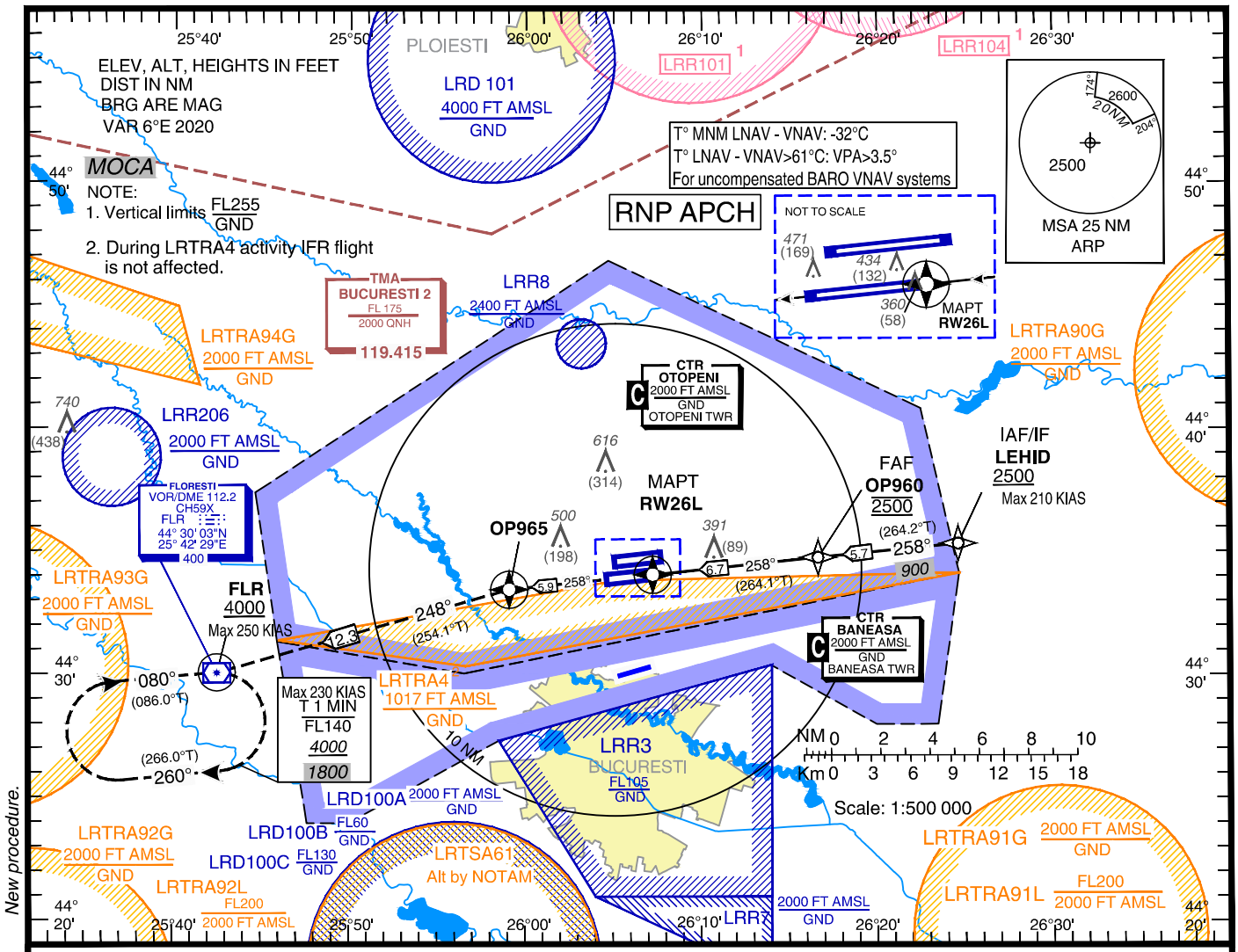
INSTRUMENT APPROACH CHART - ICAO | **EGNOS CH70071 E26A**

AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO
THR RWY 26L - ELEV 302 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)
RNP RWY 26L



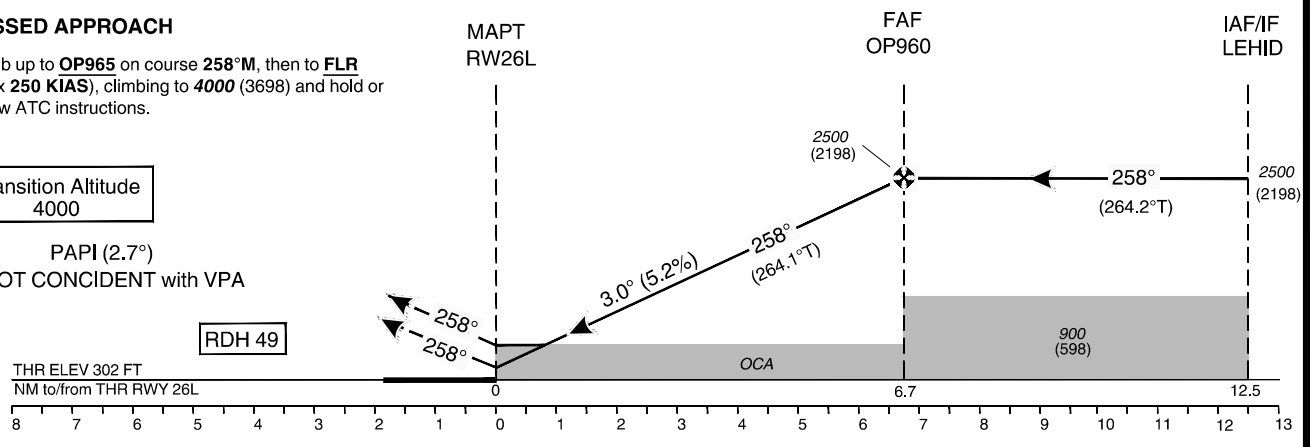
MISSED APPROACH

Climb up to **OP965** on course **258°M**, then to **FLR** (Max **250 KIAS**), climbing to ***4000*** (3698) and hold or follow ATC instructions.

Transition Altitude
4000

PAPI (2.7°)
NOT CONCIDENT with VPA

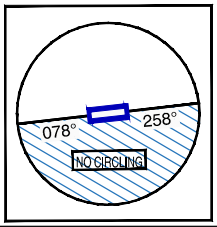
RDH 49



OCA/H	A	B	C	D	DL
LPV	510 (208)	520 (218)	530 (228)	540 (238)	600 (298)
LNAV/VNAV	530 (228)	540 (238)	560 (258)	590 (288)	
LNAV		640 (338)		660 (358)	
Circling*	770	810	1010		

SBAS CAT I OPERATIONS NOT APPROVED

* Circling prohibited in the South



GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:47	4:30	4:03	3:22	2:54	2:32
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

DIST RW26L	NM	1	2	3	4	5	6
Altitude (Height)	ft	670 (368)	990 (688)	1310 (1008)	1620 (1318)	1940 (1638)	2260 (1958)

For data tabulation see verso.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 26L

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RW26L	
Fix/Waypoint Name	**Coordinates**
LEHID (IAF/IF)	44°35'22.1"N 026°24'34.8"E
OP960 (FAF)	44°34'46.9"N 026°16'37.1"E
OP965	44°33'27.4"N 025°59'04.8"E
FLR (MAHF)	44°30'03.0"N 025°42'29.4"E
RW26L (MAPT)	44°34'04.71"N 026°07'13.81"E

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 26L instrument approach procedure. In case of missed approach, hold at FLR VOR/DME at 4000 ft for 4 minutes, then direct to OP269 at 4000 ft and join RNAV1 STAR RWY 26L/R TOSVI 4R.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 26L

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	RNP26L	IF	LEHID			6.0E			+2500	-210		RNP APCH
20	RNP26L	TF	OP960		258 (264.2)	6.0E	5.7		@2500			RNP APCH
30	RNP26L	TF	RW26L	Y	258 (264.1)	6.0E	6.8		@352		-3.0/49	RNP APCH
40	RNP26L	TF	OP965	Y	258 (264.0)	6.0E	5.9					RNP APCH
50	RNP26L	TF	FLR	Y	248 (254.1)	6.0E	12.3		+4000	-250		RNP APCH

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	FLR	080 (086.0)			R	4000	FL140	-230	RNAV1

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 26L

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LROP
Runway	26
Runway Letter	3 (Left)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E26A
LTP/FTP Latitude	443404.7100N
LTP/FTP Longitude	0260713.8100E
LTP/FTP Ellipsoidal Height (metres)	126.8
FPAP Latitude	443352.2235N
Delta FPAP Latitude (seconds)	-12.4865
FPAP Longitude	0260429.0905E
Delta FPAP Longitude (seconds)	-164.7195
Threshold Crossing Height	49.0
TCH Units Selector	0 (FEET)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	152
HAL (metres)	40.0
VAL (metres)	50.0

Output Data	
Data Block	10 10 0F 12 0C DA 00 00 01 36 32 05 4C 62 20 13 24 AF 35 0B F4 18 73 9E FF 21 F9 FA EA 01 2C 01 64 13 C8 FA A5 70 02 05
Calculated CRC Value	A5700205

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	92.1

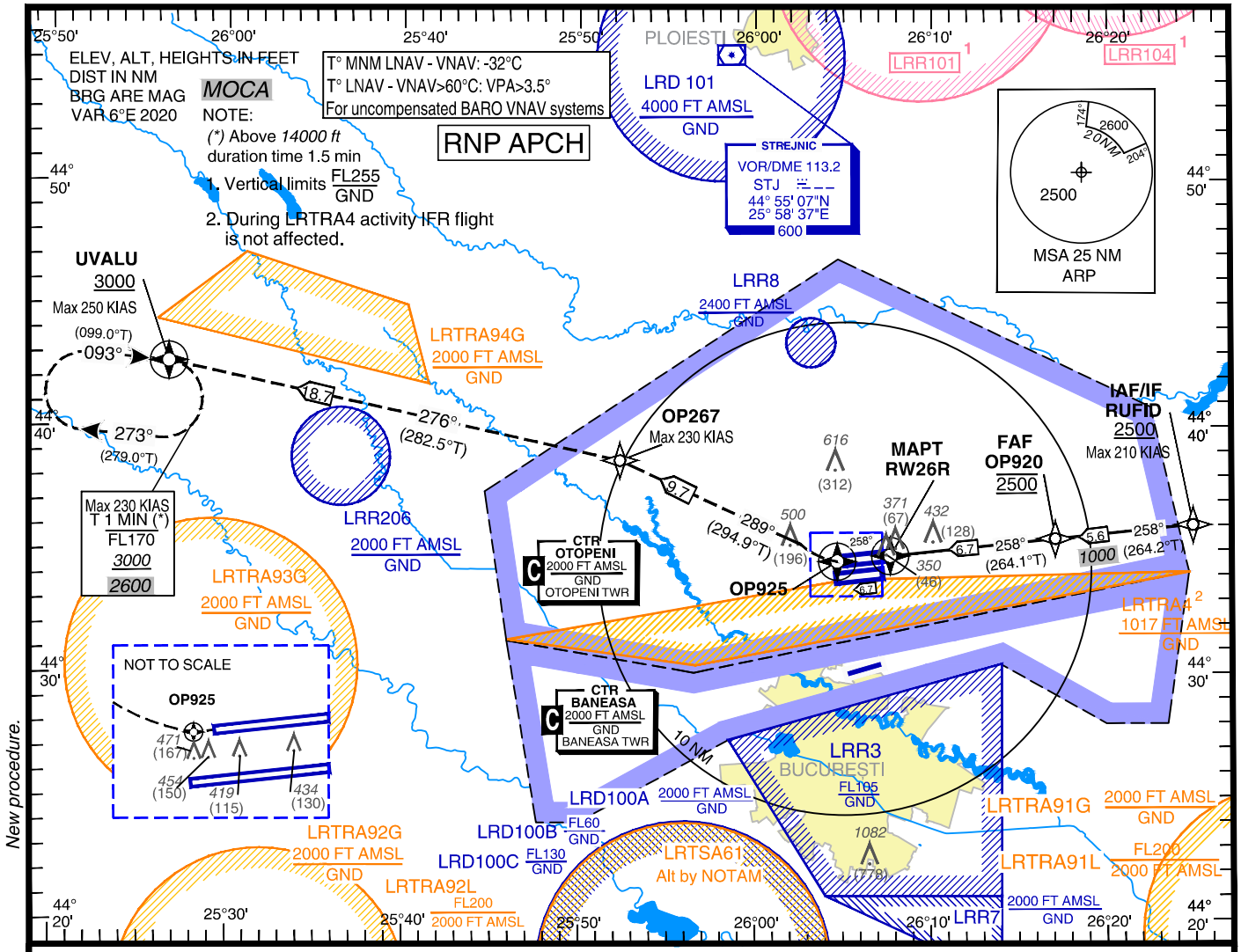
INSTRUMENT APPROACH CHART - ICAO | **EGNOS CH88997 E26B**

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)
RNP RWY 26R

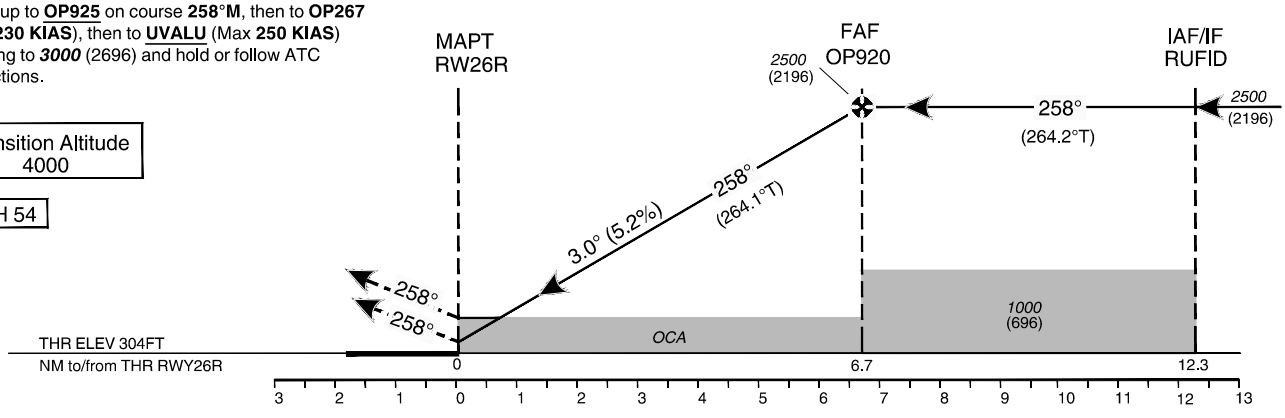


MISSED APPROACH

Climb up to **OP925** on course **258°M**, then to **OP267** (Max **230 KIAS**), then to **UVALU** (Max **250 KIAS**) climbing to ***3000*** (2696) and hold or follow ATC instructions.

Transition Altitude
4000

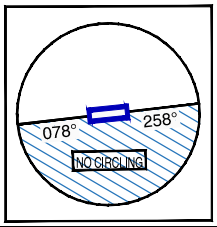
RDH 54



OCA/H	A	B	C	D	DL
LPV	530 (226)	550 (246)	560 (256)	570 (266)	
LNAV/VNAV	520 (216)	530 (226)	550 (246)	580 (276)	
LNAV	680 (376)				
Circling*	770	810	1010		

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.7 NM	min:s	5:46	4:29	4:02	3:22	2:53	2:31
Rate of descent (5.24%)	ft/min	372	478	531	637	743	849

DIST RW26R	NM	1	2	3	4	5	6
Altitude (Height)	ft	680 (376)	990 (686)	1310 (1006)	1630 (1326)	1950 (1646)	2270 (1966)



SBAS CAT I OPERATIONS NOT APPROVED

* Circling prohibited in the South

For data tabulation see verso.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 26R

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RW26R	
Fix/Waypoint Name	**Coordinates**
RUFID (IAF/IF)	44°36'04.2"N 026°24'50.7"E
UVALU (MAHF)	44°42'39.0"N 025°26'39.0"E
OP920 (FAF)	44°35'29.7"N 026°17'02.1"E
OP925	44°34'34.1"N 026°04'39.6"E
OP267	44°38'39.0"N 025°52'18.8"E
RW26R (MAPT)	44°34'47.75"N 026°07'40.26"E

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to RNP RWY 26R instrument approach procedure. In case of missed approach, hold at UVALU at 3000 ft for 4 minutes, then join RNAV1 STAR RWY 26L/R TOSVI 4X.

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 26R

Procedure Coding

Serial No	APP ID	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
10	RNP26R	IF	RUFID			6.0E			+2500	-210		RNP APCH
20	RNP26R	TF	OP920		258 (264.2)	6.0E	5.6		@2500			RNP APCH
30	RNP26R	TF	RW26R	Y	258 (264.1)	6.0E	6.7		@358		-3.0/54	RNP APCH
40	RNP26R	TF	OP925	Y	258 (264.0)	6.0E	2.2					RNP APCH
50	RNP26R	TF	OP267		289 (294.9)	6.0E	9.7			-230		RNP APCH
60	RNP26R	TF	UVALU	Y	276 (282.5)	6.0E	18.7		+3000	-250		RNP APCH

Path Descriptor	Waypoint ID	Course °M(°T)	Leg Distance	Distance (NM)	Turn Direction	Altitude (ft)	Altitude (ft)	Speed (kts)	NAV SPEC
HM	UVALU	093 (099.0)			R	3000	FL170	-230	RNAV1

BUCUREŞTI / Henri Coandă (LROP)
RNP RWY 26R

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LROP
Runway	26
Runway Letter	1 (Right)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E26B
LTP/FTP Latitude	443447.7500N
LTP/FTP Longitude	0260740.2600E
LTP/FTP Ellipsoidal Height (metres)	127.2
FPAP Latitude	443435.4980N
Delta FPAP Latitude (seconds)	-12.2520
FPAP Longitude	0260458.2440E
Delta FPAP Longitude (seconds)	-162.0160
Threshold Crossing Height	54.0
TCH Units Selector	0 (FEET)
Glidepath Angle (degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	96
HAL (metres)	40.0
VAL (metres)	50.0

Output Data	
Data Block	10 10 0F 12 0C 5A 00 00 02 36 32 05 8C B2 21 13 C8 7D 36 0B F8 18 48 A0 FF 40 0E FB 1C 02 2C 01 64 0C C8 FA 36 28 E1 DE
Calculated CRC Value	3628E1DE

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	92.5

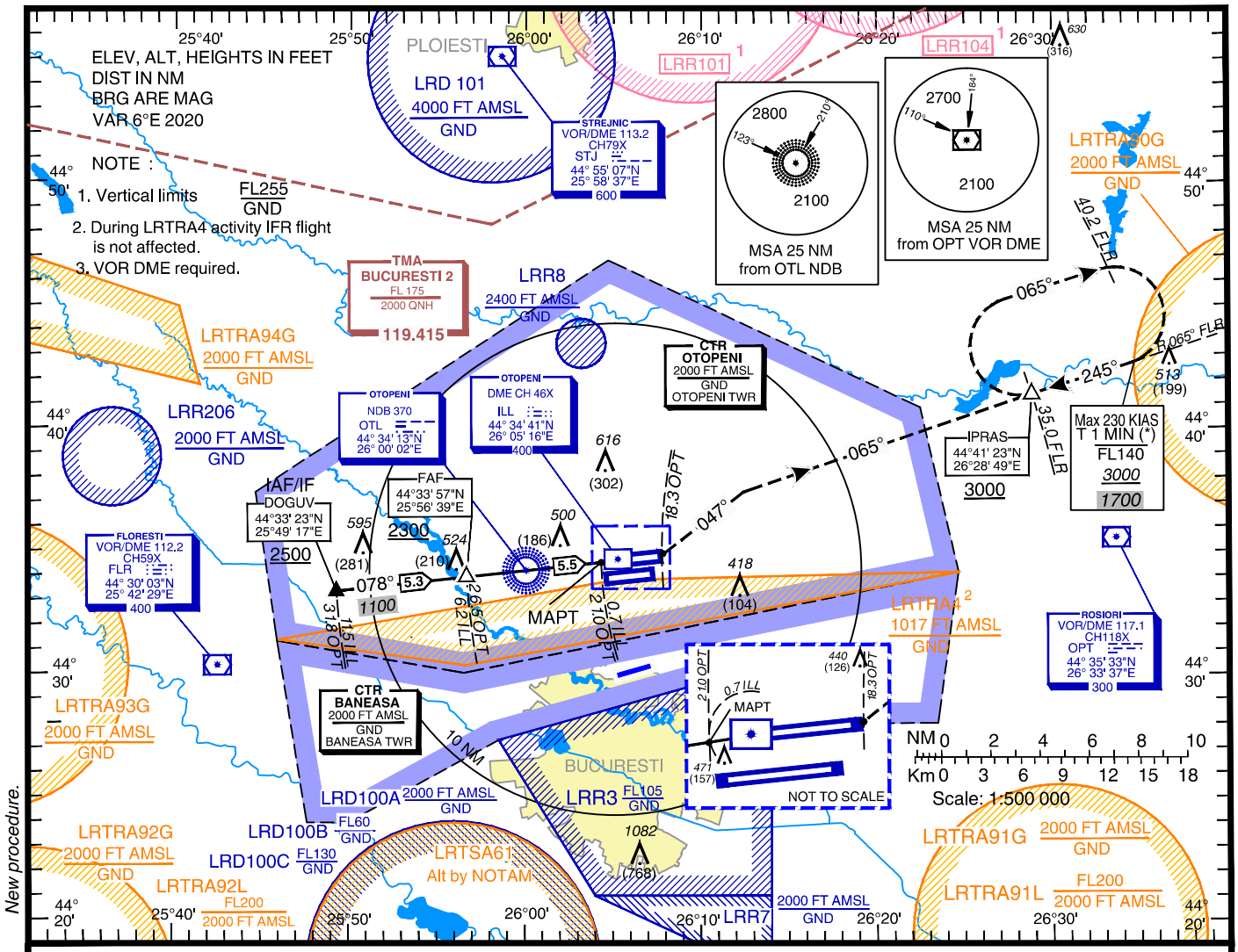
INSTRUMENT APPROACH CHART - ICAO

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

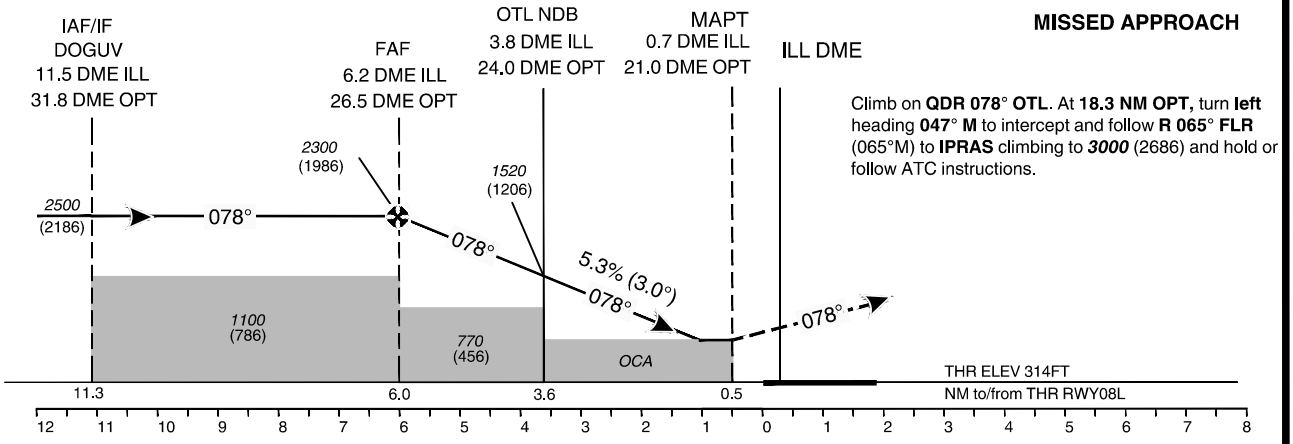
OTOPENI TOWER	118.805
OTOPENI TOWER ALTN	120.900
OTOPENI GROUND	121.855
OTOPENI GROUND ALTN	121.700
OTOPENI ATIS	118.500

BUCUREŞTI / Henri Coandă (LROP)
NDB RWY 08L



Transition Altitude 4000

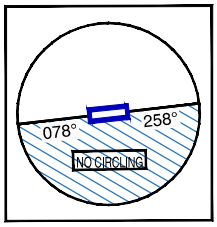
MISSED APPROACH



Climb on **QDR 078° OTL**. At **18.3 NM OPT,** turn **left** heading **047° M** to intercept and follow **R 065° FLR** (065°M) to **IPRAS** climbing to ***3000*** (2686) and hold or follow ATC instructions.

OCA/H	A	B	C	D
NDB	720 (406)			
NDB w/o SDF	770 (456)			
Circling*	770	810	1010	

* Circling prohibited in the South



GS	kts	70	90	100	120	140	160
FAF-MAPT 5.5 NM	min:s	4:43	3:40	3:18	2:45	2:22	2:04
Rate of descent (5.28%)	ft/min	374	481	535	642	749	856

Timing not authorized for defining the MAPt.

Distance to ILL	NM	6	5	4	3	2
Altitude (Height)	ft	2230 (1916)	1910 (1596)	1590 (1276)	1270 (956)	950 (636)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
NDB RWY 08L

AERONAUTICAL DATA TABULATION

NDB approach to RWY 08L	
Fix/Point	**Coordinates**
DOGUV (IAF/IF) - BRG 257.88° OTL / 11.50NM ILL	44º33'23.0'N 025º49'17.0'E
FAF - BRG 257.88° OTL / 6.20NM ILL	44º33'57.3'N 025º56'39.1'E
MAPT - BRG 077.88° OTL / 0.70NM ILL	44º34'32.5'N 026º04'18.3'E
THR 08L	44º34'35.82'N 026º05'02.49'E
OTL (SDF) NDB	44º34'12.9'N 026º00'02.2'E
ILL DME	44º34'40.9'N 026º05'15.9'E
FLR VOR/DME	44º30'03.1'N 025º42'29.4'E
OPT VOR/DME	44º35'32.6'N 026º33'36.6'E
STJ VOR/DME	44º55'06.8'N 025º58'37.3'E
IPRAS (MAHF) - BRG 064.83° OTL / 34.99NM FLR	44º41'23.0'N 026º28'49.0'E

Final approach descent angle: 5.3% (3.02º)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to NDB RWY 08L instrument approach procedure. In case of missed approach, hold at IPRAS at 3000 ft for 4 minutes, then join RNAV1 STAR RWY 08L/R OSTAL 3U. If unable RNAV1, from IPRAS direct to OPT VOR/DME, then via STAR RWY 08L/R DENAK 7E for a new approach.

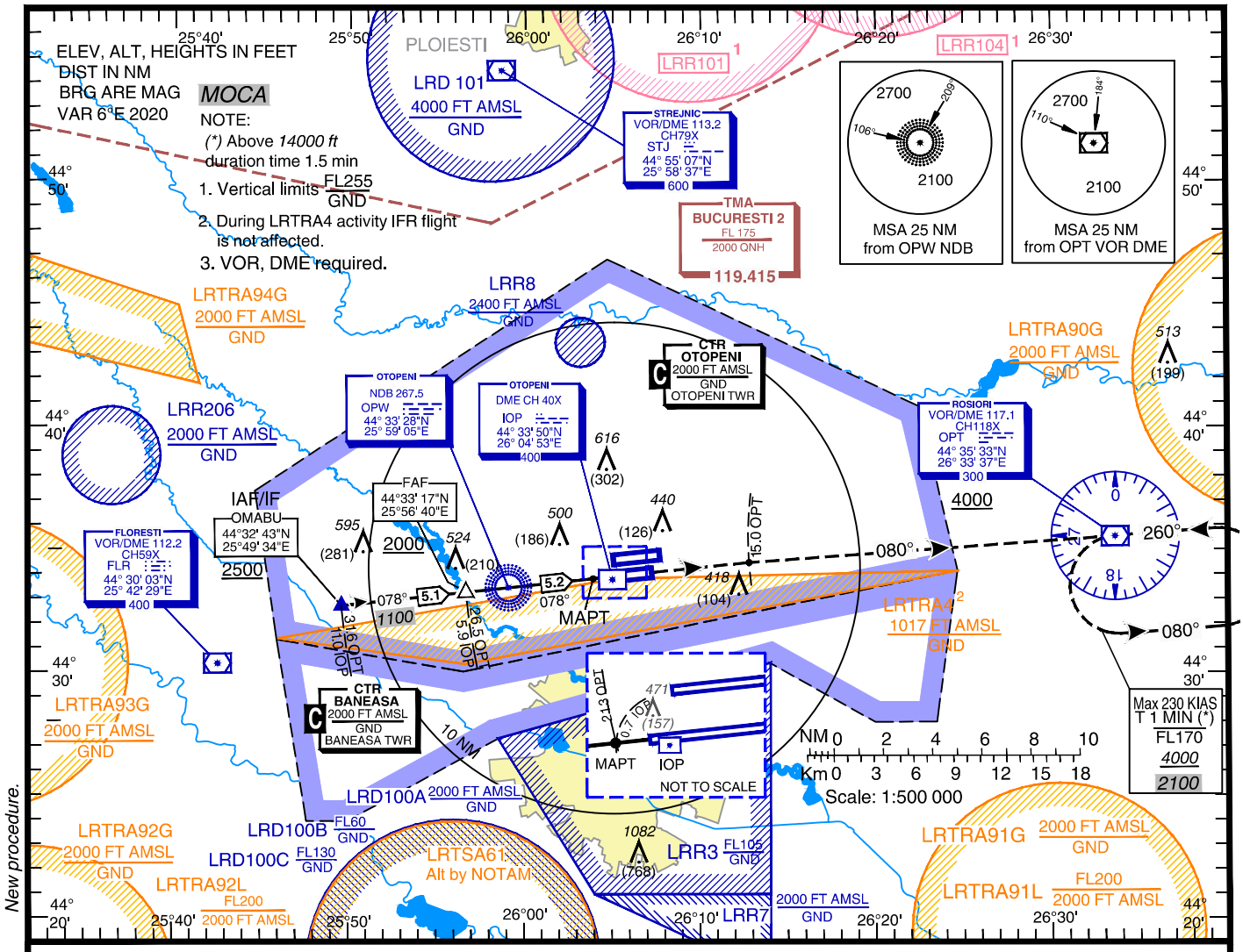
INSTRUMENT APPROACH CHART - ICAO

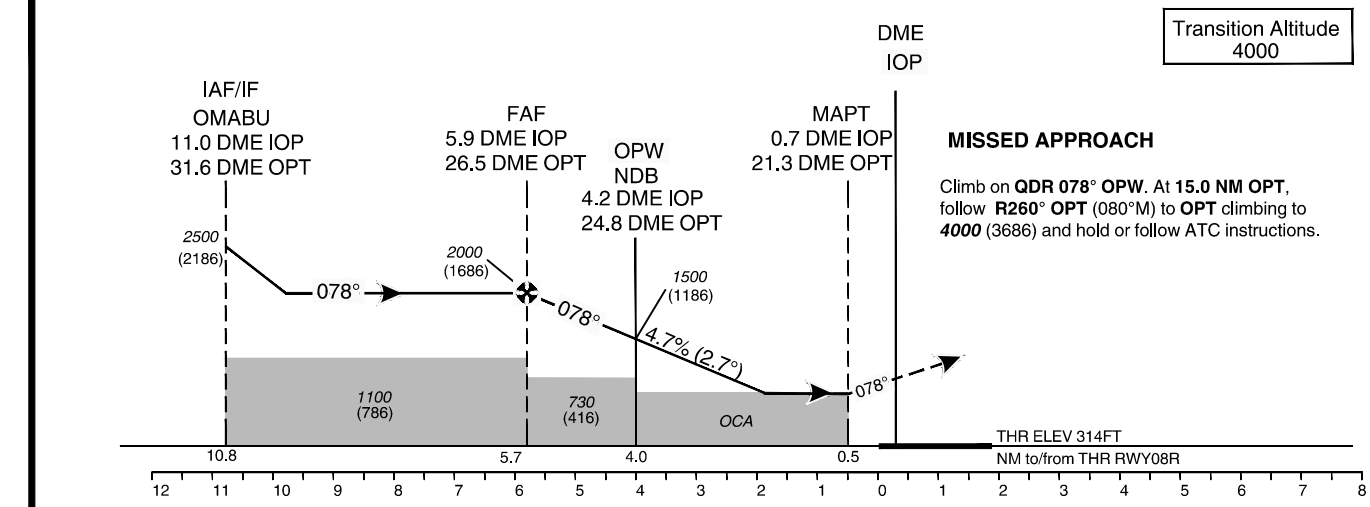
AERODROME ELEV. **314 FT**
HEIGHTS RELATED TO AD ELEV

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

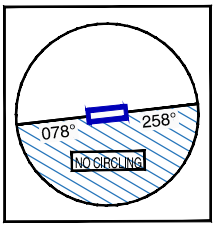
BUCUREŞTI / Henri Coandă (LROP)
NDB RWY 08R





OCA/H	A	B	C	D
NDB	720 (406)			
NDB w/o SDF	730 (416)			
Circling*	770	810	1010	

* Circling prohibited in the South



GS	kts	70	90	100	120	140	160
FAF-MAPT 5.2 NM	min:s	4:28	3:28	3:07	2:36	2:14	1:57
Rate of descent (4.72%)	ft/min	335	430	478	574	669	765

Timing not authorized for defining the MAPt.

Distance to IOP	NM	5	4	3	2
Altitude (Height)	ft	1740 (1426)	1450 (1136)	1170 (856)	880 (566)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
NDB RWY 08R

AERONAUTICAL DATA TABULATION

NDB approach to RWY 08R	
Fix/Point	**Coordinates**
OMABU (IAF/IF) - BRG 257.92° OPW / 11.00NM IOP	44º32'43.2'N 025º49'34.2'E
FAF - BRG 257.92° OPW / 5.90NM IOP	44º33'16.8'N 025º56'39.7'E
MAPT - BRG 077.92° OPW / 0.70NM IOP	44º33'49.8'N 026º03'54.0'E
THR 08R	44º33'52.75'N 026º04'36.02'E
OPT (MAHF) VOR/DME	44º35'32.6'N 026º33'36.6'E
OPW (SDF) NDB	44º33'27.9'N 025º59'04.7'E
FLR VOR/DME	44º30'03.1'N 025º42'29.4'E
STJ VOR/DME	44º55'06.8'N 025º58'37.3'E
IOP DME	44º33'49.7'N 026º04'52.8'E

Final approach gradient (angle): 4.7% (2.70º)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to NDB RWY 08R instrument approach procedure. In case of missed approach, hold at OPT VOR/DME at 4000 ft for 4 minutes, then direct to IPRAS at 4000 ft and join RNAV1 STAR RWY 08R OSTAL 3U. If unable RNAV1, from OPT VOR/DME via STAR RWY 08L/R DENAK 7E for a new approach.

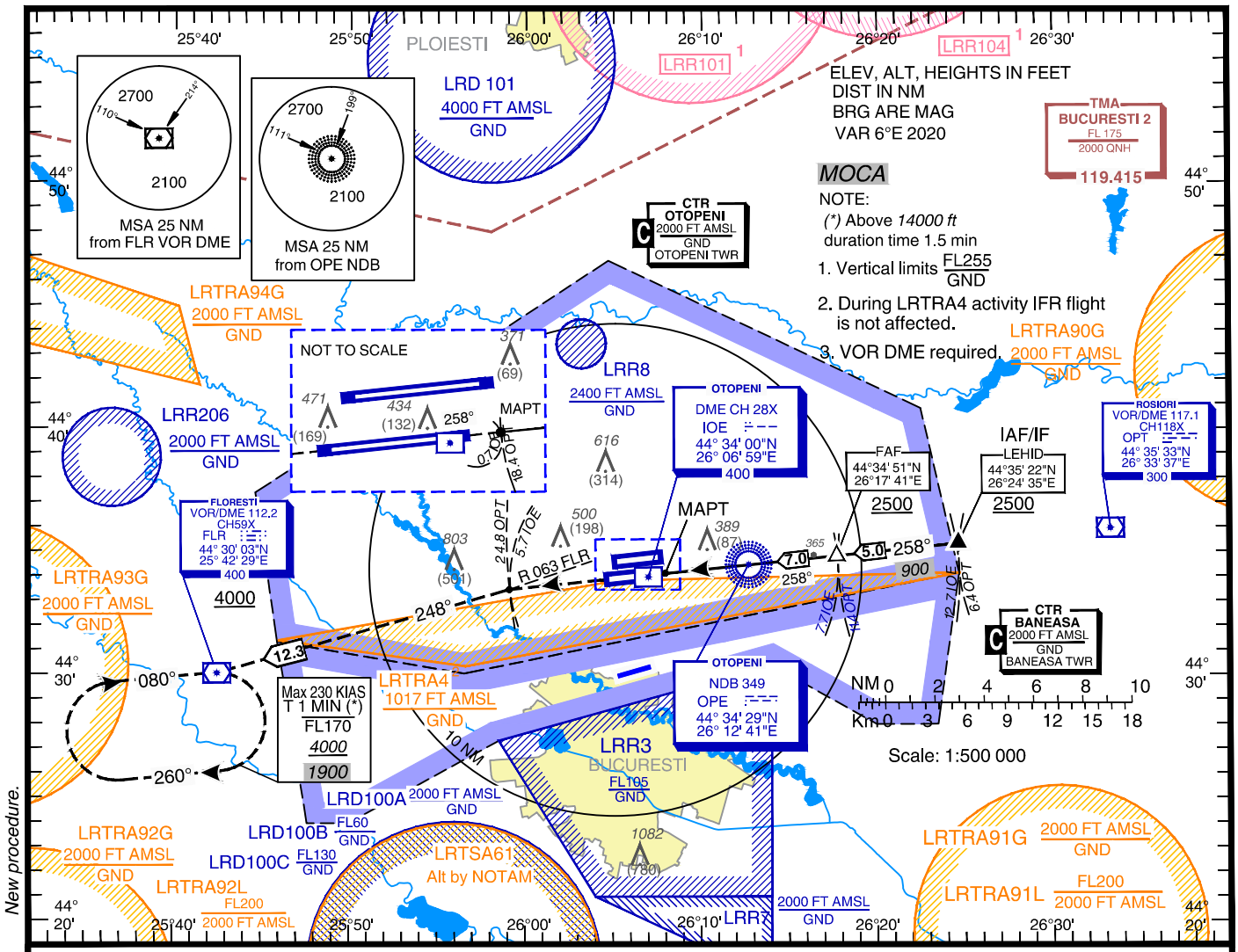
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. **314FT**
HEIGHTS RELATED TO
THR RWY 26L - ELEV 302FT

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

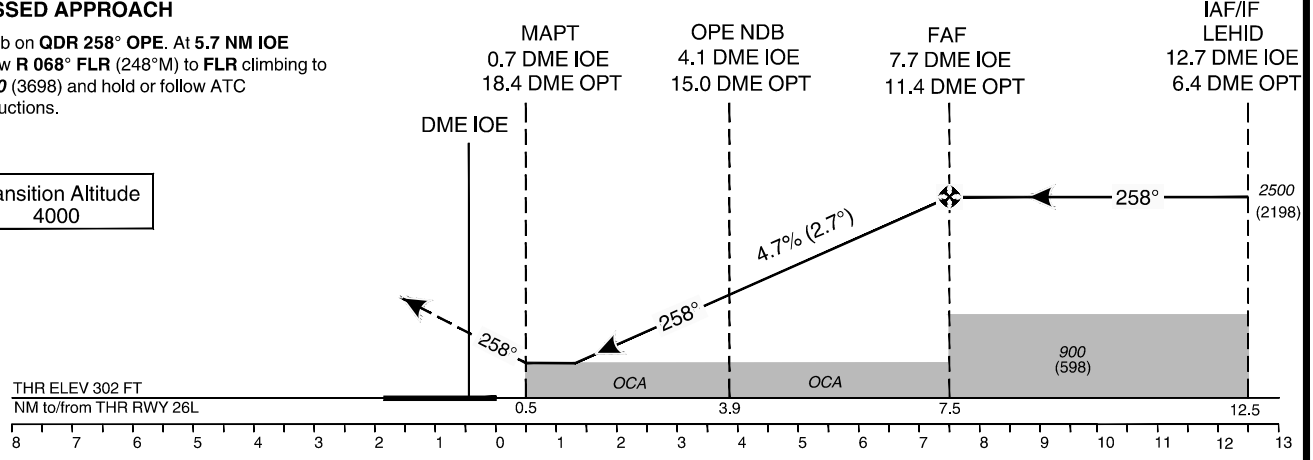
BUCUREŞTI / Henri Coandă (LROP)
NDB RWY 26L



MISSED APPROACH

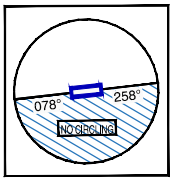
Climb on **QDR 258° OPE**. At **5.7 NM IOE** follow **R 068° FLR** (248°M) to **FLR** climbing to ***4000*** (3698) and hold or follow ATC instructions.

Transition Altitude
4000



OCA/H	A	B	C	D
NDB	680 (378)			
Circling*	770	810	1010	

For data tabulation see verso.



* Circling prohibited in the South.

GS	kts	70	90	100	120	140	160
FAF-MAPT 7.0 NM	min:s	6:00	4:40	4:12	3:30	3:00	2:38
Rate of descent (4.71%)	ft/min	334	429	477	572	668	763

Timing not authorized for defining the MAPt.

Distance to IOE DME	NM	2	3	4	5	6	7
Altitude (Height)	ft	870 (568)	1160 (858)	1440 (1138)	1730 (1428)	2010 (1708)	2300 (1998)

BUCURESTI / Henri Coanda (LROP)
NDB RWY 26L

AERONAUTICAL DATA TABULATION

NDB approach to RWY 26L	
LEHID (IAF/IF) - BRG 078.08° OPE / 12.70NM IOE	44°35’22.1’N 026°24’34.8’E
FAF - BRG 078.08° OPE / 7.70NM IOE	44°34’51.4’N 026°17’40.7’E
MAPT - BRG 258.08° OPE / 0.70NM IOE	44°34’08.0’N 026°07’56.0’E
THR RWY 26L	44°34’04.71’N 026°07’13.81’E
OPE NDB	44°34’29.2’N 026°12’40.5’E
FLR VOR/DME (MAHF)	44°30’03.1’N 025°42’29.4’E
OPT VOR/DME	44°35’32.6’N 026°33’36.6’E
IOE DME	44°33’59.6’N 026°06’58.9’E

Final approach gradient (angle): 4.7% (2.70°)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to NDB RWY 26L instrument approach procedure. In case of missed approach, hold at FLR VOR/DME at 4000 ft for 4 minutes, then direct to OP269 at 4000 ft and join RNAV1 STAR RWY 26L/R TOSVI 4R. If unable RNAV1, from FLR VOR/DME via STAR RWY 26L/R TOSVI 7F for a new approach.

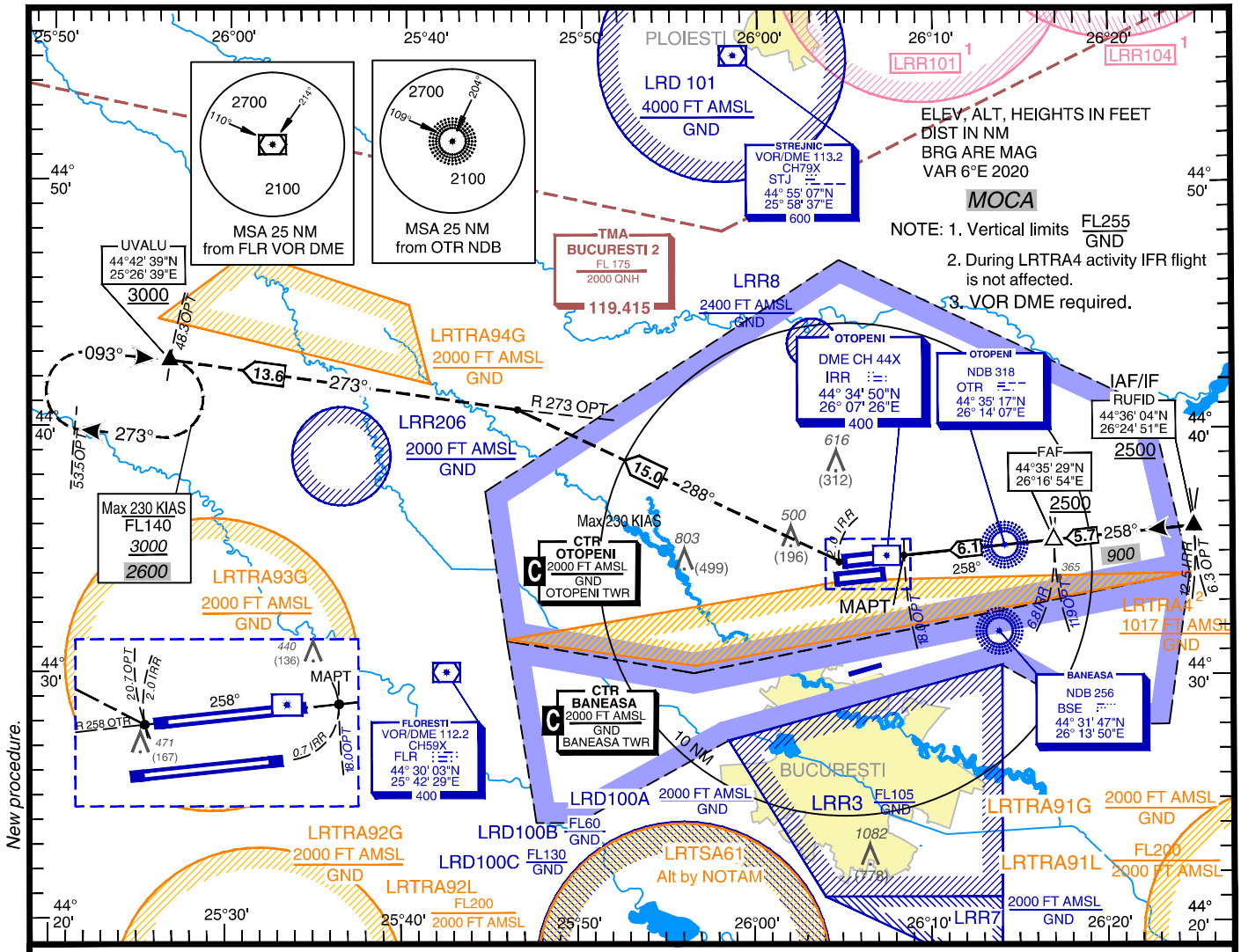
INSTRUMENT APPROACH CHART - ICAO

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

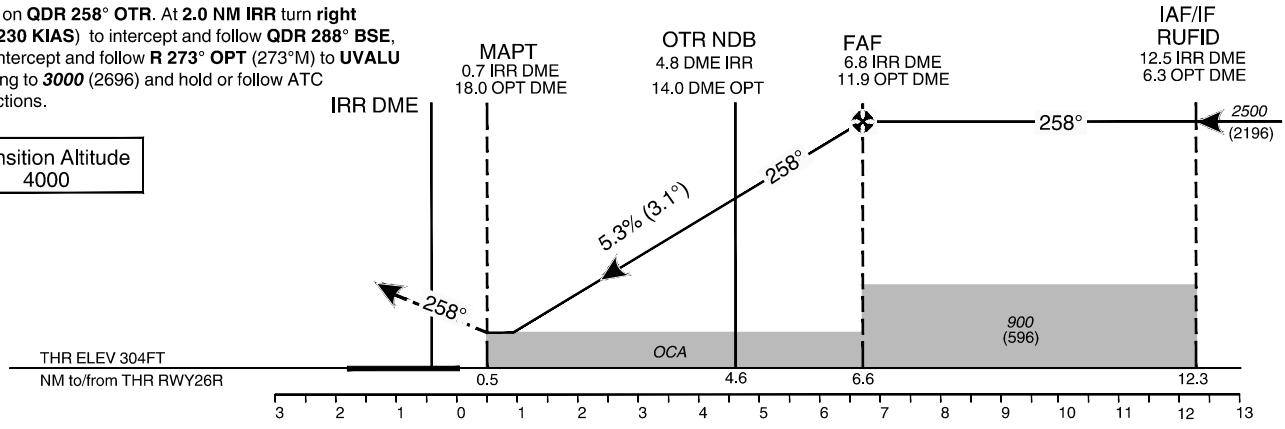
BUCUREȘTI / Henri Coandă (LROP)
NDB RWY 26R



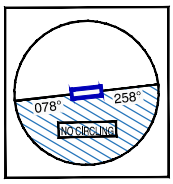
MISSED APPROACH

Climb on **QDR 258° OTR**. At **2.0 NM IRR** turn **right** (Max **230 KIAS**) to intercept and follow **QDR 288° BSE**, then intercept and follow **R 273° OPT** (273°M) to **UVALU** climbing to ***3000*** (2696) and hold or follow ATC instructions.

Transition Altitude 4000



OCA/H	A	B	C	D
NDB	690 (386)			
Circling*	770	810	1010	



* Circling prohibited in the South.

GS	kts	70	90	100	120	140	160
FAF-MAPT 6.1 NM	min:s	5:14	4:04	3:40	3:03	2:37	2:17
Rate of descent (5.33%)	ft/min	378	486	540	648	756	864
Timing not authorized for defining the MAPt.							

Distance to IRR DME	NM	2	3	4	5	6
Altitude (Height)	ft	950 (646)	1270 (966)	1590 (1286)	1920 (1616)	2240 (1936)

For data tabulation see verso.

BUCURESTI / Henri Coanda (LROP)
NDB RWY 26R

AERONAUTICAL DATA TABULATION

NDB approach to RWY 26R	
Fix/Point	**Coordinates**
RUFID (IAF/IF) - BRG 078.05° OTR / 12.50NM IRR	44°36'04.2"N 026°24'50.7"E
FAF - BRG 078.05° OTR / 6.80NM IRR	44°35'29.2"N 026°16'54.3"E
MAPT - BRG 258.05° OTR / 0.70NM IRR	44°34'51.1"N 026°08'24.7"E
THR RWY 26R	44°34'47.75"N 026°07'40.26"E
OTR NDB	44°35'16.8"N 026°14'07.3"E
IRR DME	44°34'50.5"N 026°07'25.8"E
FLR VOR/DME	44°30'03.1"N 025°42'29.4"E
OPT VOR/DME	44°35'32.6"N 026°33'36.6"E
STJ VOR/DME	44°55'06.8"N 025°58'37.3"E
BSE NDB	44°31'46.7"N 026°13'49.9"E
UVALU (MAHF) - BRG 272.85° / 48.32NM OPT	44°42'39.0"N 025°26'39.0"E

Final approach gradient (angle): 5.3% (3.05°)

RADIO COMMUNICATION FAILURE

Set transponder 7600, proceed according to NDB RWY 26R instrument approach procedure. In case of missed approach, hold at UVALU at 3000 ft for 4 minutes, then join RNAV1 STAR RWY 26L/R TOSVI 4X. If unable RNAV1, from UVALU direct to FLR VOR/DME, then via STAR RWY 26L/R TOSVI 7F for a new approach.

LRCL AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRCL - CLUJ NAPOCA / Avram Iancu

LRCL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP co-ordinates and site at AD*	464721N 0234132E on RWY centre line, 1457M from THR07
2	*Direction and distance from city*	9 km East from Cluj Napoca.
3	*Elevation/Reference temperature/mean low temperature*	1039 FT / 29.5°C / -13.4°C
4	*Geoid undulation at AD ELEV PSN*	133 FT
5	*MAG VAR/ Annual rate of change*	5°E (2015) / 7.0'E
6	*AD Operator, address, telephone, telefax, e-mail, AFS, website*	Aeroportul Internaţional Avram Iancu Cluj Str. Traian Vuia, nr. 149 , Cluj-Napoca, cod 400397 Tel: +40-(0)264-307500; Telex: 031288 AEROPCL R AFS: LRCLRAYD e-mail: office@airportcluj.ro SITA: CLJAPXH WEB: www.airportcluj.ro
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	Helicopter flights permitted

LRCL AD 2.3 OPERATIONAL HOURS

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

LRCL AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	10 electric tractors, 2 diesel tractors, 41 dollies, 12 pallet dollies, 7 self-propelled conveyor belts, 1 high loader, 3 forklifts, railway station in vicinity.
2	Fuel/Oil types	Kerosene JET A1/NIL
3	Fuelling facilities/capacity	5 trucks: 2 of 18000 L, 2 of 21000 L and 1 of 30000L Kerosene storage: 796m3.
4	*De-icing facilities*	5 diesel de/anti-icing units, with liquid type II. 2 electric de/anti-icing units, with liquid type II.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	NIL

LRCL AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in town.
2	*Restaurants*	Restaurant, buffets and snack bar in airport terminals.
3	*Transportation*	Buses, taxis, car hire from airport.
4	*Medical facilities*	First aid on the AD, Ambulance, hospitals in town.
5	*Bank and Post Office*	In departure terminal and in town. Exchange Offices in both terminals. ATM in arrival and departure terminals.
6	*Tourist Office*	Tourist Office in terminal.
7	*Remarks*	Rent-a-car Office: Tel: +40-(0)743-645046; +40-(0)744-795466; +40-(0)745-933498; +40-(0)742-879070; +40-(0)743-022591; +40-(0)749-151028; +40-(0)749-169401; +40-(0)752-012012; +40-(0)722-522128; +40-(0)725-605171; +40-(0)732-350515.

LRCL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	CAT 7
2	*Rescue equipment*	2 vehicles with extrication equipment.
3	*Capability for removal of disabled aircraft*	Rapid Recovery MULTISLING NARROW BODY LIFTING KIT COD C RESQTEC Aircraft Recovery TRAILER SYSTEM Ql30T/Ql20T COMBI RESQTEC RESQTEC R2S HIGH PRESSURE BAG SYSTEM RESQTEC LOW PRESSURE BAG SYSTEM e-mail: oper@airportcluj.ro.
4	*Remarks*	NIL

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

1	*Types of clearing equipment*	Mechanical: 7 trucks with plough, brush and sweep blower, 1 small equipment with plough, brush and snowblower, 1 snow blower. Chemical: 1 truck with solid/liquid de-icing material spreader, 1 truck with liquid de-icing material spreader, 1 tractor with solid de-icing material spreader.
2	*Clearance priorities*	1. RWY 07/25, emergency access road, associated TWYs and Aprons.
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 RWY surface condition in Global Reporting Format is published by SNOWTAM. See also the snow plan in section AD 1.2. 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.: +40 751 058 506;

LROD 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	Oradea Tower	118.455 120.200 MHz ALTN 121.500 MHz EMERG	NIL	NIL	W: 0500-1900 S: 0400-1800	Exempted 8.33 kHz State aircraft.
APP	Oradea Tower	120.200 MHz	NIL	NIL	W: 0500-1900 S: 0400-1800	Procedural service

LROD 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
LOC 19 6°E (2020) ILS CAT II (II.T.3)	IOD	109.500 MHz	H24	470031.5N 0215351.5E	-	NIL	Front course angle 4.19°
GP 19	-	332.600 MHz	H24	470149.5N 0215419.8E	-	NIL	GP angle 3° ILS RDH 52 FT
DME 19	IOD	CH 32X	H24	470149.3N 0215419.9E	500 FT	NIL	NIL
NDB(LO)	ORA	418 KHz	H24	470601.3N 0215526.9E	-	NIL	006° MAG/4.11 NM from THR 19 Coverage 100 NM (declared)
GPS NPA	-	1575.420 MHz	H24	-	-	NIL	Transmitting antennas are satellite based. Maintained by the U.S. Department of Defense.

LROD AD 2.20 LOCAL AERODROME REGULATIONS

1. Airport regulations / Reglementări de aeroport

1.1. Procedures for acceptance

(1) Prior to flight schedule, operators are asked to check the availability of ground handling services and parking space.

1.2. Taxiing the aircraft on the manoeuvring area

(1) Aircraft 180 DEG turn are only permitted on RWY END or INTERMEDIATE turn pads.

(2) Aircraft 180 DEG turn to the intermediate platform for take-off is prohibited. The platforms at the ends of the runway will be used for takeoff.

(3) Caution, comply with Oradea TWR instructions at the intermediate holding positions on TWY B and TWY C, otherwise an aircraft taxiing on TWY C and TWY B may collide with an aircraft holding at the runway holding position on TWY A.

1.3. Taxiing of aircraft on apron

(1) Taxiing of aircraft on apron shall be carried out under the direction of marshaller.

1.1. Proceduri de admisibilitate

(1) Înainte de programarea zborului, operatorii aerieni trebuie să verifice disponibilitatea serviciilor de handling şi a locului de parcare.

1.2. Rularea aeronavelor pe suprafața de manevră

(1) Întoarcerea aeronavelor cu 180 grade este permisă numai pe platformele de la capătul pistei sau pe cea intermediară.

(2) Întoarcerea aeronavelor cu 180 grade la platforma intermediară, pentru decolare, este interzisă. Pentru decolare se vor folosi platformele de la capetele pistei.

(3) Atenție, respectați indicațiile TWR Oradea la pozițiile intermediare de așteptate de pe TWY B și TWY C, în caz contrar o aeronavă ce rulează pe TWY C și TWY B poate intra în coliziune cu o aeronavă ce așteaptă la poziția de așteptare la pistă de pe TWY A.

1.3. Rularea aeronavelor pe platformă

(1) Rularea aeronavelor pe platformă se efectuează sub dirijarea dispecerului sol.

(2) Always the marshaller's signals prevail over the stand markings and guidance light.
(3) Speed on TWY C must be reduced as it is followed by a tight right junction with TWY D1.

1.4. Aircraft parking

(1) Parking positions on APRON 1:
- stands 01-02: parking position for code letter „C" aircraft (maximum 26.5 m wingspan)
- stands 03-04: parking position for code letter „C" aircraft (maximum 29 m wingspan)
- stands 05-10: parking position for code letter „C" aircraft (maximum 36.0 m wingspan).

(2) Parking positions on APRON 2:
- stands 01-04: nose-in parking position, for code letter „C" aircraft (maximum 36.0 m wingspan).

(3) Aircraft subject to an act of illegal intervention will be parked on runway holding position on TWY B, which will be closed to traffic.

1.5. Exiting the aircraft from the parking position

(1) The departure of the aircraft from the stands at APRON 1 is allowed by self-manoeuvring only with the direction of the aircraft provided by the ground dispatcher.
(2) The exit of the aircraft from the APRON 2 stands is done only by pushback.

1.6. Use of the aerodrome by aircraft exceeding the certified design characteristics of the aerodrome

1.6.1 General information

The aircraft exceeding the certified design characteristics of the aerodrome that can operate at Oradea Airport are: A300 B4 600 Freighter (code letter D); A300 B4 600R Freighter (code letter D); A300 C4 600 Freighter (code letter D); A300 C4 600R Freighter (code letter D); A300 F4 600 Freighter (code letter D); A300 F4 600R Freighter (code letter D); A330 200 Freighter (code letter E); A330 300 Freighter (code letter E); B767 200F (SF and BCF) (code letter D); B767 300F (code letter D); B767 300F (SF and BCF) (code letter D); B757-200PF(code letter D); B757-200SF/ B757-200PCF(code letter D); B777F(code letter E); Antonov AN 12(code letter D).

The aircraft exceeding the certified design characteristics of the aerodrome, exemplified above, will operate only on the following surfaces:
- RWY;
- TWY E;
- TWY F;
- APRON 2.

1.6.2. Taxiing on the movement area.

Given the limited dimensions of the turn pads, TWY E, TWY A, TWY B, TWY C, TWY D1, TWY D2, APRON 1 and APRON 2, aircraft will be towed from the runway to the parking position on APRON 2 and from the parking position to the runway as follows:

1.6.2.1. Operation of A300 B4 600 Freighter (code letter D); A300 B4 600R Freighter (code letter D); A300 C4 600 Freighter (code letter D); A300 C4 600R Freighter (code letter D); A300 F4 600 Freighter (code letter D); A300 F4 600R Freighter (code letter D); A330 200 Freighter (code letter E); A330 300 Freighter (code letter E); B767 200F (SF and BCF) (code letter D); B767 300F (code letter D); B767 300F (SF and BCF) (code letter D); B757-200PF(code letter D); B757-200SF/ B757-200PCF(code letter D); B777F(code letter E).

1.6.2.1.1. Aircraft arrival:
- After landing, the aircraft will turn on the turn pads, taxiing at a reduced speed and using the maximum turning angle due to the small radius of the centerline marking;
- The aircraft will taxi up to the centerline marking of TWY A, TWY B or TWY E, as instructed by Oradea TWR;
- While taxiing on the runway, Oradea TWR will instruct the pilot to stop at the beginning of the centerline marking of TWYA, TWY B or TWY E, as applicable;

(2) Semnalele dispecerului de sol prevalează întotdeauna asupra marcajelor standului și luminilor de ghidare.
(3) Viteza de rulare pe TWY C trebuie să fie redusă deoarece este urmată de o intersecție strânsă la dreapta cu TWY D1.

1.4. Parcarea aeronavelor

(1) Pozițiile de parcare de la APRON 1:
- standuri 01-02: poziții de parcare pentru aeronave cu litera de cod „C" (maximum 26.5 m anvergura aripilor).
- standuri 03-04: poziții de parcare pentru aeronave cu litera de cod „C" (maximum 29 m anvergura aripilor).
- standuri 05-10: poziții de parcare pentru aeronave cu litera de cod „C" (maximum 36 m anvergura aripilor).

(2) Pozițiile de parcare de la APRON 2:
- standuri 01-04: poziții de parcare nose-in, pentru aeronave cu litera de cod „C" (maximum 36 m anvergura aripilor).

(3) Aeronavele supuse unui act de intervenţie ilicită vor fi parcate pe poziţia de aşteptare la pistă de pe TWY B, care va fi inchisă traficului.

1.5. Ieșirea aeronavelor din poziția de parcare

(1) Iesirea de la standurile de la APRON 1 a aeronavelor este permisă prin self-manoeuvring doar cu dirijarea aeronavei asigurată de dispecerul de sol.
(2) Iesirea de la standurile de la APRON 2 a aeronavelor se face numai prin pushback.

1.6. Utilizarea aerodromului de către aeronave care depășesc caracteristicile de proiectare

1.6.1 Generalități

Aeronavele ce depășesc caracteristicile de proiectare certificate ale aerodromului care pot opera pe Aeroportul Oradea sunt: A300 B4 600 Freighter (literă de cod D); A300 B4 600R Freighter (literă de cod D); A300 C4 600 Freighter; A300 C4 600R Freighter (literă de cod D); A300 F4 600 Freighter (literă de cod. D); A300 F4 600R Freighter (literă de cod D); A330 200 Freighter (literă de cod E); A330 300 Freighter (literă de cod E); B767 200F (SF și BCF) (literă de cod D); B767 300F (literă de cod D); B767 300F (SF și BCF) (literă de cod D); B757-200PF (literă de cod D); B757-200SF/ B757-200PCF(literă de cod D); B777F(literă de cod E); Antonov AN 12(literă de cod D).

Aeronavele ce depășesc caracteristicile de proiectare certificate ale aerodromului, exemplificate mai sus, vor opera doar pe următoarele suprafețe:
- RWY;
- TWY E;
- TWY F;
- APRON 2.

1.6.2. Rulajul pe suprafața de mișcare.

Având în vedere dimensiunile reduse ale platformelor de întoarcere, a TWY E, TWY A, TWY B, TWY C, TWY D1, TWY D2, APRON 1 și APRON 2, aeronavele vor fi tractate de la pistă până la poziția de parcare de pe APRON 2 și de la poziția de parcare până la pistă după cum urmează:

1.6.2.1. Operarea aeronavelor A300 B4 600 Freighter(literă de cod D); A300 B4 600R Freighter(literă de cod D); A300 C4 600 Freighter; A300 C4 600R Freighter (literă de cod D); A300 F4 600 Freighter (literă de cod. D); A300 F4 600R Freighter (literă de cod D); A330 200 Freighter (literă de cod E); A330 300 Freighter (literă de cod E); B767 200F (SF și BCF) (literă de cod D); B767 300F (literă de cod D); B767 300F (SF și BCF) (literă de cod D); B757-200PF(code letter D); B757-200SF/ B757-200PCF(code letter D); B777F(literă de cod E).

1.6.2.1.1. Sosirea aeronavei:
- După aterizare aeronava va întoarce pe platformele de întoarcere, rulând cu o viteză redusă și utilizând un unghi maxim de întoarcere, raza marcajului axial fiind mică;
- Aeronava va rula până la marcajul axial al TWY A, TWY B sau TWY E, în funcție de indicațiile TWR Oradea;
- În timpul rulajului pe pistă TWR Oradea va instrui pilotul să oprească la începutul marcajului axial al TWY A, TWY B sau TWY E, după caz;

- The aircraft will stop at the beginning of the centerline marking of TWY A, TWY B or TWY E, as instructed by Oradea TWR;
- After the aircraft stops at the beginning of the centerline marking at the of TWYA, TWY B or TWY E, Oradea TWR will instruct the pilot to shut down the engines;
- The aircraft will shut down the engines and apply the brakes until coupling for towing;
- After connection, the aircraft will be towed to the parking position.

1.6.2.1.2. Aircraft departure:

- The aircraft will be towed from the parking position with engines off to the runway, up to the end area of the centre line marking of TWYA, TWY B or TWY E, as applicable;
- In this area, the aircraft engines will be started;
- The aircraft will wait until Oradea TWR grants taxi clearance onto the runway after the surface is opened via NOTAM;
- The aircraft will turn on the turning pad at low speed, using the maximum turn angle, as the centre line marking radius is small;
- The aircraft will take off after Oradea TWR grants takeoff clearance.

1.6.3. Visual slope:

Caution, the visual slope of the Precision Approach Path Indicator (PAPI) has been calculated taking into account the Boeing 737 Series 800 and Airbus A320 Series 200 aircraft.

1.6.4 Turn pads:

- Be advised: turn pads (at RWY 01 END and at 520M before RWY 19 END) centre line marking does not ensure 180-degree turn;
- The centre line marking of the turn pads does not ensure the taxiing of A330-200F, A330-300F, B767-300F, B767-300F (SF and BCF) and B777F aircraft with the geometric center of the aircraft cabin aligned along the entire length of the marking; the aircraft must maintain a constant turning angle both while on the marking and when exiting it

- Aeronava va opri la începutul marcajului axial de intrare pe TWY A, TWY B sau TWY E, în funcție de indicațiile TWR Oradea;
- După oprirea aeronavei la începutul marcajului axial de intrare la TWY A, TWY B sau TWY E, TWR Oradea va solicita pilotului oprirea motoarelor;
- Aeronava va opri motoarele și va acționa frânele până la cuplarea pentru tractare;
- După cuplare, aeronava va fi tractată până la poziția de parcare;

1.6.2.1.2. Plecarea aeronavei:

- Aeronava va fi tractată de la poziția de parcare, cu motoarele oprite până la pistă, în zona de final a marcajului axial al TWY A, TWY B sau TWY E, după caz;
- În această zonă motoarele aeronavei vor fi pornite;
- Aeronava va aștepta până când TWR Oradea va da aprobarea de rulaj pe pistă, după deschiderea suprafeței prin NOTAM;
- Aeronava va întoarce pe platforma de întoarcere cu viteză redusă utilizând un unghi de viraj maxim de întoarcere, raza marcajului axial fiind mică;
- Aeronava va decola după ce TWR Oradea va da aprobarea de decolare.

1.6.3. Panta vizuală:

Atenție, panta vizuală a Indicatorului traiectoriei de apropiere de precizie (PAPI) a fost calculată ținând cont de aeronavele Boeing 737 seria 800 și Airbus A320 seria 200.

1.6.4 Platformele de întoarcere:

- marcajul axial al platformelor de întoarcere (la capătul pistei 01 și la 520 m înainte de capătul pistei 19) nu asigură întoarcerea completă de 180 de grade;
- marcajul axial al platformelor de întoarcere nu asigură rulajul aeronavelor A330 seria 200F, A330 seria 300F, B767-300F, B767-300F (SF și BCF) și B777F cu centrul geometric al cabinei aeronavei pe întreaga lungime a marcajului, aeronavele trebuie sa utilizeze un unghi de virare constant atât pe marcaj cât și la ieșirea de pe acesta.

2. Standard Taxi Routes / Rutele Standard de Rulare

2.1. Arrival information

Arrival on	Instruction given by ATC					Taxiway to be followed	Remarks
	APRON		Name of the Standard Taxi Route				
RWY 01	APRON 1	Taxi via standard taxi route	Arrival 01A	To	Stands: 1-6	TWY B	NIL
			Arrival 01B		Stands: 7	TWY B - TWY C	
			Arrival 01C		Stands: 8-10	TWY B - TWY C - TWY D1	
			Arrival 01D		Stands: 1-5	TWY A - TWY B	
			Arrival 01E		Stand: 6	TWY A	
			Arrival 01F		Stand: 7	TWY A - TWY C	
			Arrival 01G		Stands: 8-10	TWY A - TWY C - TWY D1	
	APRON 2		Arrival 01H		Stands: 1	BACKTRACK RWY 01 - TWY E	
			Arrival 01I		Stands: 2-4	BACKTRACK RWY 01 TWY E - TWY F	
			Arrival 01J		Stands: 1	TWY E	
			Arrival 01K		Stands: 2-4	TWY E - TWY F	
RWY 19	APRON 1	Taxi via standard taxi route	Arrival 19A	To	Stands: 1-5	BACKTRACK RWY 19 - TWY A - TWY B	
			Arrival 19B		Stands: 6	BACKTRACK RWY 19 - TWY A	
			Arrival 19C		Stands: 7	BACKTRACK RWY 19 - TWY A - TWY C	
			Arrival 19D		Stands: 8-10	BACKTRACK RWY 19 - TWY A - TWY C - TWY D1	
	APRON 2		Arrival 19E		Stands: 1	BACKTRACK RWY 19 - TWY E	
			Arrival 19F		Stands: 2-4	BACKTRACK RWY 19 - TWY E - TWY F	
			Arrival 19G		Stands: 1	TWY E	
			Arrival 19H		Stands: 2-4	TWY E - TWY F	

2.2. Departure information

Departure from	Instruction given by ATC			Taxiway to be followed	Remarks
		Name of the Standard Taxi Route			
APRON 1	Taxi via standard taxi route	Departure 19A	From Stands: 1-5	TWY B - TWY A - BACKTRACK RWY 19	NIL
		Departure 19B	Stands: 1-5	TWY B	
		Departure 19C	Stands: 6	TWY B	
		Departure 19D	Stands: 6	TWY A - BACKTRACK RWY 19	
		Departure 19E	Stands: 7	TWY A - BACKTRACK RWY 19	
		Departure 19F	Stands: 7	TWY B	
		Departure 19G	Stands: 8-10	TWY D2 - TWY C - TWY A - BACKTRACK RWY 19	
		Departure 19H	Stands: 8-10	TWY D2 - TWY C - TWY B	
		Departure 01A	Stands: 1-5	TWY B - TWY A - BACKTRACK RWY 01	
		Departure 01B	Stands: 6	TWY A - BACKTRACK RWY 01	
		Departure 01C	Stands: 7	TWY A - BACKTRACK RWY 01	
		Departure 01D	Stands: 1-5	TWY B - TWY A - BACKTRACK RWY 01	
		Departure 01E	Stands: 8-10	TWY D2 - TWY C - TWY A - BACKTRACK RWY 01	
APRON 2	Taxi via standard taxi route	Departure 19I	From Stands: 1	TWY E - BACKTRACK RWY 19	
		Departure 19J	Stands: 2-4	TWY F - TWY E - BACKTRACK RWY 19	
		Departure 01F	Stands: 1	TWY E - BACKTRACK RWY 01	
		Departure 01G	Stands: 2-4	TWY F - TWY E - BACKTRACK RWY 01	

LROD AD 2.21 NOISE ABATEMENT PROCEDURES

See AD 1.1.5

LROD AD 2.22 FLIGHT PROCEDURES

1. LOW VISIBILITY PROCEDURES / PROCEDURI ÎN CONDIŢII DE VIZIBILITATE REDUSĂ

1. Description of facilities
1.1 Runway 19 is equipped with ILS and is authorised for CAT II operations (RVR not less than 300m).
1.2 Runway 19 approved for LVTO (RVR not less than 125m).

2. Criteria for the initiation and termination of LVP
2.1 The preparation phase will be triggered when the RVR is 800m (horizontal visibility 1500m) or the cloud ceiling/vertical visibility is 500ft and the initiation of CAT II operations is foreseen;
2.2 The initiation phase will be triggered when the value of RVR falls below 550m (horizontal visibility falls below 800m) or cloud ceiling/vertical visibility is 200ft or less;

2.3 LVP will be terminated when the value of RVR is greater than 800m (horizontal visibility is 1500m or higher) and cloud ceiling/vertical visibility is greater than 500ft and a continuing improvement of these conditions is anticipated

2.4 Take-off
LVTO will be triggered when the RVR is less than 550 m.

3. Details of runway exits
3.1 Runway connections with taxiways are equipped with green/yellow coded centerline lights.
3.2 Pilots will report "Runway Clear" only after the aircraft has passed the green/yellow light-coded segment of the centerline of taxiways A, B and E.

1. Descrierea facilităţilor
1.1 Pista 19 este echipată cu ILS şi este autorizată pentru desfăşurarea operaţiunilor CAT II (RVR nu mai mic de 300m).
1.2 Pista 19 autorizată pentru LVTO (RVR nu mai mic de 125m).

2. Criterii pentru iniţierea şi terminarea LVP
2.1 Faza de pregătire va fi declanșată atunci când RVR are valoarea de 800m (vizibilitate orizontală 1500m) sau plafonul norilor/vizibilitate verticală este de 500ft şi sunt prevăzute declanşarea operaţiunilor CAT II;
2.2 Faza de inițiere va fi declanşată atunci când valoarea RVR scade sub 550m (vizibilitatea orizontală scade sub 800m) sau plafonul norilor/vizibilitate verticală are valoare de 200ft sau mai puţin;
2.3 LVP vor fi încheiate atunci când valoarea RVR este mai mare de 800m (vizibilitate orizontală este 1500m sau mai mult) şi plafonul norilor/vizibilitate verticală este mai mare de 500ft şi este anticipată îmbunătăţirea continuă a acestor condiţii.
2.4 Decolarea
LVTO va fi declanşată atunci când RVR este mai mică de 550 m.

3. Detalii privind eliberarea pistei
3.1 Racordurile pistei cu căile de rulare sunt echipate cu lumini axiale codificate verde/galben.
3.2 Piloţii vor raporta "Pista liberă" numai după ce aeronava a depaşit segmentul codat cu lumini verde/galben al axului căilor de rulare A,B şi E.

LRTR AD 2.1 AERODROME LOCATION INDICATOR AND NAME

LRTR - TIMIŞOARA / Traian Vuia

LRTR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP co-ordinates and site at AD*	454835N 0212016E Runway center.
2	*Direction and distance from city*	45°, 11 km from Timişoara.
3	*Elevation/Reference temperature/Mean low temperature*	348 FT / 32°C / -10.2°C
4	*Geoid undulation at AD ELEV PSN*	142 FT
5	*MAG VAR/ Annual rate of change*	5°E (2017) / 7.2'E
6	*AD Administration, address, telephone, telefax, e-mail, AFS, website*	S.N. Aeroportul Internaţional Timişoara Traian Vuia S.A., Str. Aeroport Nr. 2, 307200 Ghiroda, România Call Center: + 40-(0)256-386089 Fax: + 40-(0)256-490705 Tel/Fax Dispecerat: + 40-(0)256-493123 e-mail: office@aerotim.ro AFS: LRTRRAYD SITA: TSRAP8X Website: www.aerotim.ro
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	For operational (OPS) requests, use e-mail dispatch@aerotim.ro (H24).

LRTR AD 2.3 OPERATIONAL HOURS

1	*AD Administration*	H24
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24, see GEN 3.1-6.
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*	Notification, on requested services, shall be addresed at: Fax: +40-(0)256-493123 (H24) AFTN: LRTRRAYD SITA: TSRAP8X (H24) Lack of prior notification may cause delays in service delivery. Aircraft having ACN higher than 46 are subject to prior permission request, in accordance with AD 2.20 Local aerodrome regulation point 1.1.2.

LRTR AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	1 hi-loader of 7t, 1 hi-loader of 5t, 5 conveyor belts, 2 fork-lifts, 6 ramp tractors, 20 cargo carts, 12 dollies for ULDs, 4 GPU, 1 Airstarter unit, 1 cooling/heating equipment, 1 potable water vehicle, 2 lavatory service vehicles, 3 airport passenger buses, 2 equipments for towing/push-back (1 with tow-bar for: ATR 42/72; CRJ-70,90,100; EMB170-195; A319,320,321; B737 200-800 and 1 towbarless for: A319,320,321; B737 300-800, B757).
2	*Fuel/Oil types*	Kerosene Th type JET A1/NIL
3	*Fuelling facilities/capacity*	NIL
4	*De-icing facilities*	2 de-icing/anti-icing units with type I and type II fluids
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	Preliminary briefing, requests of operating permissions on aerodrome and handling shall be sent only at: Fax: +40-(0)256-493123 (H24) AFTN: LRTRRAYD SITA: TSRAP8X (H24) Any other way of contact may cause delays.

LRTR AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotels in the city.
2	*Restaurants*	Restaurant on the AD.
3	*Transportation*	Buses, taxis, rent-a-car.
4	*Medical facilities*	Ambulance and first aid on the AD. Hospitals in the city,.
5	*Bank and Post Office*	ATM on the AD. Bank and Post Office in the city.
6	*Tourist Office*	In the city
7	*Remarks*	NIL

LRTR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	CAT 7
2	*Rescue equipment*	Hydraulic spreader SP 4240C, Hydraulic cutter CU 4035 NCT II, Ram RA 4321, Core hoses AH 10YU and C15 OU, Spreader accesories RA 4321, Lifting Airbag 18tf HLB 18, Pressure reducer PRV 823, Pulling chains (with hooks) for hydraulic spreader, Combined tool (cutter and spreader), Connnecting hydraulic hose, Chainsaw with disk, 2 x electric abrasive disk cutter - type EK 8100, 2 x combined electric device (spreader/cutter) type SC258E, 2 x electric oscillating mini chainsaw - type DJR183RFE.
3	*Capability for removal of disabled aircraft*	Cranes AVBL via contractor. Local Action Coordinator: + 40-(0)787-389449 substitute: + 40-(0)720-440851 (24/7) e-mail: dispatch@aerotim.ro
4	*Remarks*	NIL

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

1	*Types of clearing equipment*	1 snow blower, 2 tractors with snow plough and spreader for liquid and solid de-icing material, 2 high-capacity snow-clearing machines with four operations - removal / sweeping / vacuuming / spreding of liquid de-icing material, 1 small-capacity three-operations snow-clearing machine with snow brush / snow plough / spreader for liquid de-icing material.
2	*Clearance priorities*	1. RWY 11/29, ILS critical areas, RWY 11 END turn pad and access road from the fire station to RWY and TWY A or TWYs C, L. 2. TWY B and TWYs D, E from runway edge to the runway holding position. 3. Apron, Apron West and Heliport 4. Services roads.
3	*Use of material for movement area surface treatment*	RWY de/anti-icing substances type used: Potassium acetate fluid (KAC), Potassium formate fluid (KFOR) and UREA.
4	*Specially prepared winter runways*	NIL
5	*Remarks*	1.RCR is used for reporting assessed condition through the issuance of SNOWTAM, when necessary. See also the snow plan in section AD 1.2.2. 2. Snow removal operations are done with the RWY being temporarily closed (see NOTAMs in force for LRTR aerodrome).

LRTR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	*Apron designation, surface and strength*	Designation: Surface: Strength:	APRON Concrete 35/R/B/W/T	APRON WEST Asphalt 15/R/D/W/T
2	*Taxiway designation, width, surface and strength*	Width:	TWY A 23 M (38 M including shoulders) TWY B 23 M (38 M including shoulders) TWY C 33 M (35 M including shoulders) TWY L 23 M (25 M including shoulders) TWY M 23 M (74 M including safety strip) on APRON TWY A1 8 M (no shoulders) on APRON WEST	
		Surface:	Asphalt (A, B, A1), Concrete (C, L, M)	
		Strength:	71/R/D/W/T (A), 43/R/D/W/T (B), 54/R/D/W/T (C, L) 35/R/B/W/T (M), 15/R/D/WT (A1)	
3	*ACL location and elevation*	Location: Elevation:	At Apron. 341 FT / 104 M	
4	*INS checkpoints*	INS:	See AD 2.16-22, AD 2.16-23	
5	*Remarks*	RWY turning pad:	Location: RWY 11 END Surface: Concrete Dimensions: 100 M x 27 M Strength: 45/R/D/W/T	
		TWY P, TWY D and TWY E – available for military traffic only (MIL).		

LRTR 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*	Taxi directions into aircraft parking positions, taxi guidance lines with designators nose-in guidance at aircraft stands. Stands parking assistance provided by marshaller.
2	*RWY and TWY markings and LGT*	RWY: - markings: Color white: Designation, THR, TDZ, centre line, edges, aiming point and RWY side stripe. - lights: THR and wing bar lights, centre line lights, end lights, edge lights, TDZ lights for 11 and 29. TWY: - markings: Color yellow: centre line, RWY holding position, edges. Enhanced centre line marking on TWY A, TWY B and TWY C. - lights: TWY centre lights on TWY A, B, C, L, edge lights on TWY A, B, C, L.
3	*Stop bars and runway guard lights*	Stop bars on TWY A, TWY B and TWY C (that are permanently lighted red). Guard Lights on TWY A and TWY B (that are permanently lighted).
4	*Other RWY protection measure*	NIL
5	*Remarks*	TURN PAD (at RWY 11 END): - markings: Color yellow: centre line, edges. - lights: turn pad centre line green lights and edge blue lights.

LRTR 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
11	ALSF II 900M LIH	Green WBAR	PAPI Left/3° (66 FT)	White, 900M	2600M, 15M, White, LIH 600M, 15M, Red/White, LIH, 300M, 15M, Red, LIH	2900M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	Turn pad lights Green
29	ALSF II 900M LIH	Green WBAR	PAPI Left/3° (57 FT)	White, 900M	2600M, 15M, White, LIH 600M, 15M, Red/White, LIH, 300M, 15M, Red, LIH	2900M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	RWY 29, LED lights used in the full length of the ALS

LRTR 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 91°, 483 M THR 11, LGT. 271°, 445 M THR 29, LGT.
3	*TWY edge and centre line lighting*	TWY A: centre line green lights spaced 15M apart (7.5M in curve), RWY guard lights, stop bar, TWY blue edge lights, exit TWY centre line lights yellow/grean. TWY B: centre line green lights spaced 15M apart (7.5M in curve), RWY guard lights, stop bar, TWY blue edge lights, exit TWY centre line lights yellow/grean. TWY C: centre line green lights spaced 15M apart (7.5M in curve), stop bar, TWY blue edge lights, exit TWY centre line lights yellow/grean. TWY L: centre line green lights spaced 15M apart, TWY blue edge lights. Intensity 10, 30, 100 %. Apron TWY centre line green lights between TWY L and stand 08. Aircraft stand manoeuvring guidance green lights are installed at stand 08.
4	*Secondary power supply/switch-over time*	Secondary power supply to all lighting on the AD. Switch-over time 1 sec.
5	*Remarks*	Apron floodlights

LRTR AD 2.16 HELICOPTER LANDING AREA

1	*Co-ordinates TLOF or THR of FATO* *Geoid undulation*	TLOF: 454839.46N; 0211856.19E, GUND 140 FT FATO THR 32: 454839.08N; 0211856.58E, GUND 140 FT FATO THR 11: 454839.60N; 0211855.66E, GUND 140 FT
2	*TLOF and/or FATO elevation M/FT*	341 FT
3	*TLOF and FATO area dimensions, surface, strength, marking*	FATO: 24 x 24 m TLOF: 14 x 14 m Surface: Concrete Strength: - Dynamic load-bearing capacity : 8.00t - Static load-bearing capacity: 5.76t Marking: - Heliport identification marking - Touchdown/positioning marking - TLOF perimeter marking - FATO perimeter marking - Flight path alignment guidance markings - Dynamic load-bearing capacity marking - D-value marking - Helicopter ground taxiway centre line marking - Helicopter ground taxiway edge marking - Helicopter stand perimeter marking - Helicopter stand touchdown/positioning marking - Helicopter stand alignment line marking - Helicopter stand identification number marking
4	*True BRG of FATO*	FATO 11: 109.80º FATO 32: 324.73º
5	*Declared distance available*	FATO 11 TKOFF: TODAH: 32M; RTODAH: 32M; LDAH: NIL FATO 32 TKOFF: TODAH: 32M; RTODAH: 32M; LDAH: NIL FATO 11 APCH: TODAH: NIL; RTODAH: NIL; LDAH: 32M FATO 32 APCH: TODAH: NIL; RTODAH: NIL; LDAH: 32M
6	*APP and FATO lighting*	NIL
7	*Remarks*	The heliport is equipped with a stand (1H). The heliport is equipped with a helicopter ground taxiway (TWY H). See AD 2.16-21.

LRTR AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	TIMIȘOARA CTR 455716N 0210806E - 454717N 0210258E - 453954N 0213226E - 454952N 0213732E - 455716N 0210806E
2	*Vertical limits*	GND to 2500 FT AMSL
3	*Airspace classification*	C
4	*ATS unit call sign* *Language(s)*	Timișoara TWR English, Romanian
5	*Transition altitude*	9000 FT (2750 M) AMSL
6	*Hours of applicability*	H24
7	*Remarks*	NIL

LRTR 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
APP	Arad Approach	123.530 126.350 MHz ALTN	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
TWR	Timişoara Tower	120.105 129.450 MHz ALTN 121.500 MHz EMERG	NIL	NIL	H24	NIL
Ground control	Timişoara Ground	121.600 MHz	NIL	NIL	H24	NIL
ATIS	Timişoara ATIS	123.125 MHz	NIL	NIL	H24	NIL

LRTR 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*	*Elevation 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
LOC 29 (5°E/2017) ILS CAT III (III.E.4)	ITR	109.300 MHz	H24	454859.1N 0211842.0E	-	NIL	Front course angle 3,12°. No back course.
GP 29	-	332.000 MHz	H24	454816.2N 0212115.7E	-	NIL	GP Angle 3°. ILS RDH 56 FT
DME 29	ITR	109.300 MHz CH 30X	H24	454816.3N 0212115.9E	400 FT	NIL	NIL
LOC 11 (5°E/2017) ILS CAT III (III.E.4)	ITS	110.900 MHz	H24	454813.7N 0212142.6E	-	NIL	Front course angle 3,28°. No back course.
GP 11	-	330.800 MHz	H24	454854.7N 0211915.1E	-	NIL	GP Angle 3°. ILS RDH 55 FT
DME 11	ITS	110.900 MHz CH 46X	H24	454855.0N 0211915.4E	300 FT	NIL	NIL
NDB(LM)	TIM	338 KHz	H24	454804.7N 0212218.4E	-	NIL	106° MAG / 0.57 NM from THR 29
NDB(LM)	TSR	408 KHz	H24	454904.75N 0211819.46E	-	NIL	286° MAG / 0.51 NM from THR 11 Coverage 50NM (declared)
DVOR/DME (5°E/2017)	ARD	109.000 MHz CH 27X	H24	461102.7N 0210837.0E	400 FT	NIL	Coverage 175 NM (assumed)
DME	LGJ	1091.000 MHz CH 67X	H24	454311.0N 0215942.0E	800 FT	NIL	Coverage 100 NM (declared) Unusable in sector 065°-180°
DME	CNI	1127.000 MHz CH 103X	H24	454258.0N 0205427.0E	300 FT	NIL	Coverage 100 NM (declared)
DME	SAC	1072.000 MHz CH 48X	H24	453345.9N 0214323.9E	1300 FT	NIL	Coverage 100 NM (assumed)
DME	SIR	1117.000 MHz CH 93X	H24	461554.9N 0213949.5E	1800 FT	NIL	Coverage 100 NM (assumed)

LRTR AD 2.20 LOCAL AERODROME REGULATIONS

1. Airport regulations / Reglementări de aeroport

1.1 Procedures for acceptance of the aircraft on airfield pavements

1.1.1 Pavements bearing strength details:

- RWY 11: - first 2500m – PCN 72/R/D/W/T
  - last 1000m – PCN 44/R/D/W/T
- APRON
  - 1…3 – PCN 42/R/B/W/T
  - Stands 4…7 – PCN 35/R/B/W/T
  - Stands 8, 9 – PCN 54/R/B/W/T
  - Stands 10…14 – PCN 54/R/B/W/T
- APRON WEST
  - Stands 15…17 – PCN 15/R/D/W/T

1.1.2 Before landing at the airport or before declaring LRTR as an alternate, for aircraft with maximum ACN higher than 46 for rigid pavements subgrades D, operators are required to contact airport administration for authorization to operate at the aerodrome.

1.1 Proceduri de admisibilitate a aeronavelor pe suprafaţa de mişcare

1.1.1 Detalii asupra portanţei suprafeţelor de mişcare:

- RWY 11: - primii 2500m – PCN 72/R/D/W/T
  - ultimii 1000m – PCN 44/R/D/W/T
- APRON
  - Stands 1…3 – PCN 42/R/B/W/T
  - Stands 4…7 – PCN 35/R/B/W/T
  - Stands 8, 9 – PCN 54/R/B/W/T
  - Stands 10…14 – PCN 54/R/B/W/T
- APRON WEST
  - Stands 15…17 – PCN 15/R/D/W/T

1.1.2 Înainte de operarea pe aeroport sau înainte de a declara LRTR ca aeroport de rezervă, pentru aeronavele cu ACN maxim mai mare decât 46 pentru suprafaţă rigidă D, operatorii sunt avertizaţi să ia legătura cu administraţia aeroportului pentru obţinerea autorizării de a opera pe aerodrom.

1.1.3 Rules for aircraft with actual ACN higher than 46 for rigid pavements subgrades code D:

a) only land on RWY 29, unless the wind does not permit doing so;
b) will be parked on position 08, and stands 04-07 will be used as a reserve;
c) take off on RWY 11, unless the wind does not permit doing so.

1.2 Turn around on runway is permitted only at turn pad at RWY 11 END.

1.3 Apron West, including stands 15, 16, and 17, is operational only during the day and in visibility conditions (VMC).

1.4 Apron West is not intended for helicopter operations.

1.5 The heliport is:

- configured for VFR flight operations, only during the day and in visibility conditions (VMC);
- equipped with a stand (1H) designated for helicopters with a maximum mass of 5760 kg;
- equipped with a helicopter ground taxiway (TWY H).

1.6 Upon initiating radio contact with TWR Timișoara, the helicopters will be informed whether they are to land at the heliport or on the runway.

1.7 The heliport has no operational connection to the rest of the movement area. Direct air or ground taxiing of helicopters between the heliport and the rest of the movement area is not permitted.

1.8 Helicopters landing on the runway will be parked at the main apron.

1.1.3 Reguli pentru aeronavele cu ACN real mai mare de 46 pentru suprafaţă rigidă categoria D:

a) se va ateriza doar pe pista 29, cu excepţia cazului în care vântul nu permite a se proceda astfel;
b) vor fi parcate pe poziţia 08, şi ca rezervă vor fi utilizate standurile 04-07;
c) se va decola doar pe pista 11, cu excepţia cazului în care vântul nu permite a se proceda astfel.

1.2 Întoarcerea aeronavelor pe pistă este permisă doar pe platforma de întoarcere de la sfârşitul pistei 11.

1.3 Apron West (Platforma de Vest), cu pozițiile de parcare 15, 16, și 17, este operațională numai pe timp de zi și în condiții de vizibilitate (VMC).

1.4 Apron West (Platforma de Vest) nu este destinată operării elicopterelor.

1.5 Heliportul este:

- configurat pentru operațiuni de zbor VFR, numai pe timp de zi și în condiții de vizibilitate (VMC).
- echipat cu un stand (1H) destinat elicopterelor cu o masă maximă de 5760 kg.
- dotat cu o cale de rulare la sol pentru elicoptere (TWY H)

1.6 În momentul inițierii legăturii radio cu TWR Timișoara, elicopterele vor fi informate dacă vor veni la aterizare la heliport sau pistă.

1.7 Heliportul nu are legătură operațională cu restul suprafeței de mișcare. Rulajul aerian sau la sol direct al elicopterelor între heliport și restul suprafeței de mișcare nu sunt permise.

1.8 Elicopterele care vin la aterizare pe pistă vor fi parcate la platforma principală.

2. Standard Taxi Routes / Rutele Standard de Rulare

2.1 Arrival information

Arrival on	Instruction given by ATC				Taxiway to be followed	Remarks:
		Standard Taxi Route				
RWY 11	Taxi via standard taxi route	ARR 1A	To Apron	Stand number 01…14	TWY C, TWY L, TWY M	wing span ≤ 36m
		ARR 1B			Taxi to the end of RWY, turn 180º, TWY C, TWY L, TWY M	wing span ≤ 36m
		ARR 1C			Taxi to the end of RWY, turn 180º, TWY B, TWY M	wing span ≤ 52m
		ARR 1D			Taxi to the end of RWY, turn 180º, TWY A, TWY M	wing span ≤ 52m
		ARR 1E	To Apron West	Stand number 15…17	TWY C, TWY L, TWY M, TWY A, TWY A1	wing span ≤ 15m
		ARR 1F			Taxi to the end of RWY, turn 180º, TWY C, TWY L, TWY M, TWY A, TWY A1	wing span ≤ 15m
		ARR 1G			Taxi to the end of RWY, turn 180º, RWY backtrack to TWY B, TWY A,TWY A1	wing span ≤ 15m
		ARR 1H			Taxi to the end of RWY, turn 180º, RWY backtrack to TWY A, TWY A1	wing span ≤ 15m
RWY 29	Taxi via standard taxi route	ARR 2A	To Apron	Stand number 01…14	TWY C, TWY L, TWY M	wing span ≤ 36m
		ARR 2B			TWY B, TWY M	wing span ≤ 52m
		ARR 2C			TWY A, TWY M	wing span ≤ 52m
		ARR 2D	To Apron West	Stand number 15…17	TWY A, TWY A1	wing span ≤ 15m
		ARR 3E			TWY B, TWY A, TWY A1	wing span ≤ 15m
		ARR 4F			TWY C, TWY L, TWY M, TWY A, TWY A1	wing span ≤ 15m

2.2 Departure Information

Departure from	Instruction given by ATC					Taxiway to be followed	Remarks: Only for this aircraft category (in compliance with Annex 14 ICAO)
		Name of the Standard Taxi Route					
Apron	Taxi via standard taxi route	DEP 1A	To holding point	A	RWY 11	TWY A	wing span < 52m
		DEP 1B		B		TWY B, take off from TWY B intersection, TORA 3101m	wing span < 52m
		DEP 1C				TWY B, turn left, taxi to the end of RWY and line-up THR	wing span < 36m
		DEP 1D		C		TWY L, TWY C, take off from TWY C intersection, TORA 1920m	wing span < 36m
		DEP 1E				TWY L, TWY C, turn left, taxi to the end of RWY and line-up THR	wing span < 36m
	Taxi via standard taxi route	DEP 2A	To holding point	A	RWY 29	TWY A, turn right, taxi to the end of RWY and line-up THR	wing span < 52m
		DEP 2B		B		TWY B, turn right, taxi to the end of RWY and line-up THR	wing span < 52m
		DEP 2C		C		TWY L, TWY C, take off from TWY C intersection, TORA 1614m	wing span < 36m
		DEP 2D				TWY L, TWY C, turn right, taxi to the end of RWY and line-up THR	wing span < 36m
Apron West	Taxi via standard taxi route	DEP 1E	To holding point	A	RWY 11	TWY A1, TWY A	wing span ≤ 15m
		DEP 1F		B		TWY A1, turn right on TWY A, TWY B, take off from TWY B intersection, TORA 3101m	wing span ≤ 15m
		DEP 1G		C		TWY A1, turn right on TWY A, TWY M, TWY L, TWY C, take off from TWY C intersection, TORA 1920m	wing span ≤ 15m
		DEP 2E	To holding point	A	RWY 29	TWY A1, turn left on TWY A, turn right and taxi to the end of RWY and line-up THR	wing span ≤ 15m
		DEP 2F		B		TWY A1, turn right on TWY A, TWY B, turn right and taxi to the end of RWY and line-up THR	wing span ≤ 15m
		DEP 2G		C		TWY A1, turn right on TWY A, TWY M, TWY L, TWY C, turn right and taxi to the end of RWY and line-up THR	wing span ≤ 15m
		DEP 2H				TWY A1, turn right on TWY A, TWY M, TWY L, TWY C, take off from TWY C intersection, TORA 1614m	wing span ≤ 15m

3. APRON MANAGEMENT/ ADMINISTRAREA PLATFORMEI

3.1 At Timișoara - Traian Vuia Airport, the management of the aprons is coordinated between aerodrome operator and air traffic service provider.

3.2 Air to ground communications facilities designated to be used on aprons:

Service designation	Call sign	Channel(s) /frequency	Hours of operation	Remarks
Information on stand allocation	Timișoara Ground	According to LRTR AD 2.18 ATS COMMUNICATION FACILITIES		

3.1 Pe Aeroportul Timișoara - Traian Vuia, administrarea platformelor este coordonată între operatorul de aerodrom și furnizorul serviciilor de trafic aerian.

3.2 Facilitățile de comunicații aer-sol desemnate pentru a fi utilizate pe platforme:

Tip serviciu	Indicativ de apel	Canal(e) /frecvență	Ore de funcționare	Observaţii
Informarea privind alocarea poziție de parcare	Timișoara Ground	Conform LRTR AD 2.18 ATS COMMUNICATION FACILITIES		

Service designation	Call sign	Channel(s) /frequency	Hours of operation	Remarks
Start up clearences, push-back clearences if required, and taxi instructions	Timișoara Ground	According to LRTR AD 2.18 ATS COMMUNICATION FACILITIES		

3.3 Aircraft parking at stands shall be in accordance with marshaller signs and signals.
3.4 While aircraft are taxiing on the aprons, it is recommended to use engine thrust as low as possible.
3.5 Helicopters landing on RWY 11/29 will taxi to the main aircraft parking apron using the taxiways.
Helicopters with wheeled landing gear are not allowed to air-taxi on aprons.
Upon departing the aprons, the helicopters will taxi to RWY 11/29 for take-off using the taxiways.

3.6 Aircraft will exit nose-in parking position using aircraft towing/ pushing equipment, or by self-propulsion. During the period of the Low Visibility Procedures (LVP), exit from the parking position by self-propulsion is prohibited.

3.7 Aircrafts with dangerous goods on bord shall be parked at parking positions 09-14 or at the isolated parking position.
3.8 TWY A, TWY B and TWY L are designated holding areas for arriving aircraft if no parking positions are available on the aprons.
3.9 During Low Visibility Procedures, the entry into the stand is done by sequentially guiding the aircraft through signals by marshallers positioned successively on the centerline of TWY M. If the Pilot-in-command cannot clearly identify the marshallers' signals, the aircraft stops and will be towed into the stand. The aircraft taxis at reduced speed and with increased attention from the crew. On departure, when exiting the stand, the aircraft is pushed with the pushback equipment until the Pilot-in-command reports that he sees the centerline lights of the taxiway on which he is about to enter the maneuvering area.

Tip serviciu	Indicativ de apel	Canal(e) /frecvență	Ore de funcționare	Observaţii
Autorizații de pornire, împingerea aeronavei, dacă este cazul și de rulaj	Timișoara Ground	Conform LRTR AD 2.18 ATS COMMUNICATION FACILITIES		

3.3 Parcarea aeronavelor la standuri se face cu respectarea semnelor si semnalelor Dispecerului Sol.
3.4 Pe durata rulării aeronavelor pe platforme, se recomandă utilizarea motoarelor la o turație cât mai redusă.
3.5 Elicopterele care aterizează pe RWY 11/29 vor rula către platforma principală de parcare aeronave utilizând căile de rulare.
Pe platforme este interzis rulajul aerian pentru elicopterele cu tren de aterizare dotat cu roti.
La plecarea de pe platfome elicopterele vor rula către RWY 11/29 pentru decolare utilizând căile de rulare.
3.6 Aeronavele vor ieși din pozițiile de parcare nose-in cu ajutorul echipamentului de tractare/împingere aeronave, sau prin propulsie proprie. În perioada aplicării procedurilor de vizibilitate redusă (LVP), ieșirea din poziția de parcare prin propulsie proprie, este interzisă.
3.7 Aeronavele care dețin bunuri periculoase la bord, vor fi parcate pe pozițiile: 09-14 sau la poziția izolată de parcare.
3.8 TWY A, TWY B și TWY L sunt desemnate zone de așteptare pentru aeronave, dacă nu există locuri de parcare disponibile pe platforme.
3.9 În timpul Procedurilor de Vizibilitate Redusă, intrarea în poziția de parcare se face prin ghidarea secvențială a aeronavei prin semne și semnale de către dispeceri sol poziționați succesiv pe axul TWY M. Dacă pilotul comandant nu poate identifica clar semnalele dispecerilor sol, aeronava oprește și va fi tractată până la poziția de parcare. Aeronava rulează cu viteză redusă și cu atenție sporită din partea echipajului. La plecare, la ieșirea din poziția de parcare, aeronava este împinsă cu echipamentul de pushback până când pilotul comandant raportează că vede luminile axului căii de rulare pe care urmează să intre pe suprafața de manevră.

LRTR AD 2.21 NOISE ABATEMENT PROCEDURES

See AD 1.1.5

LRTR AD 2.22 FLIGHT PROCEDURES

1. LOW VISIBILITY PROCEDURES

1. Description of facilities
1.1 Runway 11 is equipped with ILS and is approved for CAT III A (RVR not less than 175 m) operations and for LVTO (RVR not less than 75m) operations.
Runway 29 is equipped with ILS and is approved for CAT III A (RVR not less than 175 m) operations and for LVTO (RVR not less than 75m) operations.
2. Criteria for the initiation and termination of LVP
2.1 Approach and landing
a) The preparation phase will be implemented when horizontal visibility falls below 1500m and is deteriorated to 800m or ceiling is 300ft and is deteriorated to 200ft and CAT II/III operations are expected.
b) The operations phase will be commenced when the RVR falls below to 550m (visibility falls below 800m) or ceiling is below 200ft.

1. PROCEDURI ÎN CONDIŢII DE VIZIBILITATE REDUSĂ

1. **Descrierea facilităţilor**
1.1 Pista 11 este echipată cu ILS şi este autorizată pentru desfaşurarea operaţiunilor CAT IIIA (RVR nu mai mic de 175m) şi pentru LVTO (RVR nu mai mic de 75m).
Pista 29 este echipată cu ILS şi este autorizată pentru desfaşurarea operaţiunilor CAT IIIA (RVR nu mai mic de 175m) şi pentru LVTO (RVR nu mai mic de 75m).
2. Criterii pentru iniţierea şi terminarea LVP
2.1 Apropierea si aterizarea
a) Faza de pregătire va fi implementată atunci când vizibilitatea orizontală scade sub 1500m şi are tendinţa de 800m sau plafonul este de 300ft şi are tendinţa de 200ft şi sunt prevăzute declanşarea operaţiunilor CAT II/III.
b) Faza operaţională va fi declanşată atunci când valoarea RVR scade sub 550m (vizibilitatea orizontală scade sub 800m) sau plafonul este sub 200ft

c) LVP will be terminated when RVR is greater than 1500m and ceiling is greater than 300ft and a continuing improvement in these conditions is anticipated.

2.2 Take-off
a) LVP operations will be provided when requested by an aircraft operator to conduct LVTO when the RVR is below 400M.
b) If LVP operations are not in force, LVTO must be requested a minimum of 30 minutes in advance to permit the appropriate preparations.

3. Details of runway exits

3.1 Runway exits are equipped with green / yellow coded taxiway centerline lights.

4. Any ground movement restrictions

4.1 Aircraft movements on manoeuvring area to/from RWY 11/29 should be made using the Standard Taxi-Routes.
4.2 Upon receiving taxi clearance, aircraft must only proceed when a green centreline path is illuminated.

4.3 During LVTO, taxiing is normally restricted to one aircraft movement at a time. Operation of vehicles on the manoeuvring area is not permitted when LVTO is in progress.

5. Description of LVP

5.1 CAT II/III Approach and Landing
a) Pilots will be informed by ATIS or RTF when LVP are in operation;
b) The localizer sensitive area will be protected when a landing aircraft is within 4 NM from touchdown . ATC will provide suitable spacing between aircraft on final approach to achieve this objective.
When an aircraft performing an instrument approach is at less than 4 NM on final and untill landing of that aircraft, taxi clearance on the maneuvering area of other aircraft shall not be given.
c) No aircraft will be holding on TWY B or C during ILS approaches on RWY 11.
d) After landing, the pilot will report to the Tower that "Runway is vacated via TWY __, out of CAT__holding point TWY __".

5.2 Low Visibility Take Off
a) Aircraft movements on the apron must be carried out with the direction of a “FOLLOW ME” car.
5.3 Simulated CAT II / III Approaches
a) Prior to performinig a simulated CAT II/III approach is mandatory that the pilot passes this request to the TWR. This request has to be made timely so the TWR can enforce all the relevant procedures. Timisoara TWR can authorize a simulated CAT II/III approach only after all relevant procedures are in force.

c) Procedurile în condiţii de vizibilitate redusă vor fi incheiate atunci când valoarea RVR este mai mare de 1500m şi plafonul este mai mare de 300ft şi este anticipată îmbunătăţirea continuă a acestor condiţii.
2.2 Decolarea
a) Operaţiunile în condiţii de vizibilitate redusă vor fi declanşate când există solicitarea unui operator aerian să decoleze când valoarea RVR este mai mică de 400m.
b) Dacă procedurile în condiţii de vizibilitate redusă nu sunt declanşate, LVTO trebuie solicitată cu 30 minute înainte pentru a permite pregătirile corespunzătoare LVTO.

3. Detalii privind eliberarea pistei

3.1 Racordurile pistei cu căile de rulare sunt echipate cu lumini axiale codificate verde/galben.

4. Restricţii privind mişcarea la sol

4.1 Toate mişcările pe suprafaţa de manevră spre/dinspre pista 11/29 trebuie făcute utilizând Rutele de Rulare Standard.
4.2 După obţinerea autorizării de rulare, aeronava trebuie să înceapă rularea doar atunci când luminile axiale au fost aprinse.
4.3 În timpul LVTO rularea pe suprafaţa de manevră este restricţionată la o singură aeronavă. Operarea vehiculelor pe suprfaţa de manevră nu este permisă când LVTO este în desfăşurare.

5. Descrierea procedurilor în condiţii de vizibilitate redusă

5.1 Apropierea şi aterizarea CAT II/III
a) Piloţii vor fi informaţi RTF atunci când procedurile LVP sunt operaţionale;
b) Zona sensibilă ILS va fi protejată atunci când o aeronavă care aterizează se află la 4NM de punctual de contact. CTA va asigura eşalonarea corespunzătoare între aeronavele aflate pe apropierea finală în vederea îndeplinirii acestui obiectiv.
Din momentul în care o aeronavă se află în procedura de apropiere la mai puțin de 4 NM față de zona de contact și până când aceasta aterizează, nu se autorizează rulajul altei aeronave pe suprafața de manevră.
c) Nu se permite prezența nici unei aeronave la pozițiile de așteptare pe căile de rulare „B” sau “C” în timpul apropierii pe direcția 11.
d) După aterizare pilotul trebuie să informeze CTA TWR cu privire la depășirea poziției de așteptare la pista CAT II.
5.2 Decolarea în condiţii de vizibilitate redusă
a) Mişcarea aeronavelor pe suprafaţa de parcare trebuie efectuată cu asistenţa serviciului “FOLLOW ME”.
5.3. Apropieri în condiții simulate LVO
a) Înainte de efectuarea unei simulări de apropiere CAT II/III, pilotul este obligat de a transmite solicitarea către TWR Timișoara. Această solicitare trebuie adresată la un moment de timp care să permită luarea tuturor măsurilor necesare efectuării acestui tip de apropiere. TWR Timișoara va aproba apropieri în condiții simulate LVO după îndeplinirea tuturor condițiilor.

2. P-RNAV REQUIREMENTS

RNAV SID and STAR procedures within ARAD TMA are based on DME-DME sensors and designed in accordance with RNAV-1 (P-RNAV) criteria. RNAV-1 (P-RNAV) approval is required to conduct these procedures without additional restrictions.
RNAV-1 (P-RNAV) approved aircraft operators shall insert designator “P” in Item 10 of the flight plan according to ICAO Doc 7030 Regional Supplementary Procedures.

Expect direct routing/shortcuts by ATC whenever possible (especially during off-peak hours). The turn to final approach is usually performed by radar vectors to expedite traffic handling and for separation reasons.

2. CERINŢE P-RNAV

În TMA Arad, procedurile SID și STAR RNAV sunt bazate pe senzori DME/DME și sunt proiectate în conformitate cu criteriile RNAV-1 (P-RNAV). Este necesară deținerea unei aprobări pentru operațiuni RNAV-1 (P-RNAV) pentru a utiliza aceste proceduri fără restricții suplimentare.
Operatorii aeronavelor certificați RNAV-1 (P-RNAV) trebuie să insereze indicatorul ”P” în câmpul 10 al planului de zbor în conformitate cu Doc. OACI 7030 – Proceduri regionale suplimentare.
ATC poate autoriza rute directe/mai scurte ori de câte ori este posibil (în special în afara perioadelor de vârf). Interceptarea direcției apropierii finale se face de obicei prin vectorizare radar pentru a facilita traficul, precum și în scopul asigurării eșalonării.

On both RWY directions, tactical points for non-standard shorter approach are established: for arrivals Timişoara RWY 11 - REP DIDIX, for arrivals Timişoara RWY 29 – WPT TR221. These points may be used only after request/approval of air crews.
Vertical planning information: 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.

In case a published climb gradient can not be respected, air crews should request non-standard departure before startup.

3. RADIO COMMUNICATION FAILURE PROCEDURE FOR IFR FLIGHTS

a) General procedure when no STARs are in use

Set transponder to 7600 and continue flight at the last flight level/altitude assigned by ATC to TSR NDB. Descend in holding pattern over TSR NDB, then execute an instrument approach procedure.

b) Communication failure procedure when conducting a P-RNAV or conventional SID

Set transponder to 7600. 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 (WPT or REP, as appropriate) climbing to FPL flight level.

c) Communication failure procedure when conducting a P-RNAV STAR

If STAR was assigned and acknowledged by air crew, set transponder to 7600, continue with FPL and assigned STAR, then execute an ILS or NDB approach and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes from setting 7600.

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 minutes from setting 7600. Then proceed direct FAP/FAF and execute an ILS or NDB approach and land. Descending shall be executed in accordance with vertical restrictions specified on chart.
If STAR was not assigned, set transponder to 7600, proceed according to FPL and FPL STAR, execute an ILS or NDB approach and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes from setting 7600. If landing is not possible execute missed approach and proceed to FAP/FAF of most convenient RWY, execute an ILS or NDB approach and land.

d) Communication failure procedure when conducting a CONVENTIONAL STAR

If STAR was assigned and acknowledged by air crew, set transponder to 7600, continue with FPL and assigned STAR, then execute an ILS or NDB approach and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes from setting 7600.

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 minutes from setting 7600. Then proceed direct to TSR NDB and execute an ILS or NDB approach and land. Descending shall be executed in accordance with vertical restrictions specified on chart.

Pe ambele direcții ale pistei sunt stabilite puncte tactice pentru apropieri non-standard mai scurte: pentru sosiri Timişoara RWY 11 - REP DIDIX, pentru sosiri Timişoara RWY 29 – WPT TR221. Aceste puncte pot fi utilizate doar după solicitare/aprobare de către pilot.
Informații privind planificarea profilului vertical: se recomandă ca pilotul să planifice profilul având în vedere o posibilă autorizare de coborâre în conformitate cu restricțiile de altitudine precizate pe hărțile STAR. ATC va da o autorizare de coborâre actualizată.
În cazul în care un gradient de urcare publicat nu poate fi respectat, se recomandă ca pilotul să solicite o plecare non-standard înainte de pornirea motoarelor.

3. PROCEDURA PENTRU ZBORURI IFR ÎN CAZUL ÎNTRERUPERII COMUNICAȚIILOR RADIO

a) Procedura generală pentru cazul când nu sunt disponibile rute STAR

Setați transponderul 7600 și continuați zborul la ultimul FL/altitudine alocat de ATC către TSR NDB. Coborâți în procedura de așteptare TSR NDB, apoi executați o procedură de apropiere instrumentală.

b) Procedura pentru cazul întreruperii comunicațiilor în timpul executării unei rute SID convenționale sau P-RNAV

Setați transponderul 7600. Continuați pe ruta SID alocată și confirmată. După 2 minute urcați la nivelul de zbor prevăzut în FPL. În cazul vectorizării, continuați pe capul alocat timp de 2 minute, apoi procedați direct către ultimul punct semnificativ al rutei SID, urcând la nivelul de zbor prevăzut în FPL.

c) Procedura pentru întreruperea comunicațiilor în timpul executării unei rute STAR P-RNAV

În cazul în care ruta STAR a fost alocată și confirmată de pilot, setați transponderul 7600, continuați conform FPL și rutei STAR alocate, apoi executați o procedură de apropiere instrumentală ILS sau NDB și aterizați. Coborârea trebuie executată în conformitate cu restricțiile verticale precizate pe hartă, după 2 minute de la setarea 7600.
În cazul în care ruta STAR a fost alocată și confirmată de pilot și a fost inițiată vectorizarea, setați transponderul 7600 și continuați pe capul alocat și ultima altitudine autorizată și confirmată timp de 2 minute de la setarea 7600. Apoi procedați direct către FAF/FAP și executați o procedură de apropiere instrumentală ILS sau NDB și aterizați. Coborârea trebuie executată în conformitate cu restricțiile verticale precizate pe hartă.
În cazul în care ruta STAR nu a fost alocată, setați transponderul 7600, procedați conform FPL și rutei STAR inclusă în FPL, executați o procedură de apropiere instrumentală ILS sau NDB, apoi aterizați. Coborârea trebuie executată în conformitate cu restricțiile verticale precizate pe hartă, după 2 minute de la setarea 7600. Dacă aterizarea nu este posibilă, executați procedura de întrerupere a apropierii și procedați către FAF\FAP al pistei celei mai convenabile, executați procedura de apropiere instrumentală ILS sau NDB și aterizați.

d) Procedura pentru întreruperea comunicațiilor pe timpul executării unei rute STAR convenționale

În cazul în care o rută STAR a fost alocată și confirmată de pilot, setați transponderul 7600, continuați conform FPL și rutei STAR alocate, apoi executați o procedură de apropiere instrumentală ILS sau NDB și aterizați. Coborârea trebuie executată în conformitate cu restricțiile verticale precizate pe hartă, după 2 minute de la setarea 7600.
În cazul în care ruta STAR a fost alocată și confirmată de pilot și a fost inițiată vectorizarea, setați transponderul 7600 și continuați pe capul alocat și ultima altitudine autorizată și confirmată timp de 2 minute de la setarea 7600. Apoi procedați direct către TSR NDB, executați o procedură de apropiere instrumentală ILS sau NDB și aterizați. Coborârea trebuie executată în conformitate cu restricțiile verticale precizate pe hartă.

If STAR was not assigned, set transponder to 7600, proceed according to FPL and FPL STAR, execute an ILS or NDB approach and land. Descending shall be executed in accordance with vertical restrictions specified on chart after 2 minutes from setting 7600.

În cazul în care ruta STAR nu a fost alocată, setați transponderul 7600, procedați conform FPL și rutei STAR incluse în FPL, executați procedura de apropiere instrumentală ILS sau NDB și aterizați. Coborârea trebuie executată în conformitate cu restricțiile verticale precizate pe hartă, după 2 minute de la setarea 7600.

LRTR AD 2.23 ADDITIONAL INFORMATION

1. Warning for bird hazard: bird concentration in the A/D area.

2. List of waypoints:

Designator/WPT	Latitude	Longitude
ABIDA	N460400151	E0204345154
DIPUX	N455317936	E0215202365
DIVEL	N453118652	E0211824871
ERUKO	N454950523	E0220528231
GOVOX	N453618707	E0211823350
LUXOT	N455112590	E0213510296
MAVIT	N451424000	E0211830000
NEKUL	N453100459	E0223512370
ROMUX	N455120581	E0203724025
SOSIL	N452105108	E0211827984
TEGRI	N461546028	E0210616335
TR011	N454655076	E0212654717
TR021	N455005365	E0211417518
TR022	N455812266	E0213245225
TR023	N455128022	E0210846420
TR112	N460039999	E0205720989
TR113	N460219891	E0205034850
TR122	N455500544	E0205428898
TR123	N455640270	E0204743363
TR130	N454600697	E0210506051
TR131	N454741054	E0205821921
TR132	N454921012	E0205137389
TR133	N455100572	E0204452456

Designator/WPT	Latitude	Longitude
TR211	N454925879	E0214210166
TR212	N454742949	E0214853159
TR213	N454559626	E0215535735
TR221	N454347561	E0213914135
TR222	N454204805	E0214556546
TR223	N454021658	E0215238543
TR230	N453951349	E0212936457
TR231	N453809158	E0213618699
TR232	N453626576	E0214300530
TR233	N453443603	E0214941950
TR901	N455504113	E0214506797
TR911	N455751031	E0210843371
TR931	N454419944	E0211149778
TR932	N453840837	E0210857063
TR933	N454021423	E0210213928
TR934	N454201612	E0205530392
TR935	N454752982	E0205130378
TR941	N454241734	E0211821405
TSR	N454904747	E0211819456
UBAXI	N453041780	E0221247065
VASIS	N455711595	E0222429070
ZUBOK	N460621516	E0214211619

LRTR AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO ..... AD 2.16-20
Heliport Chart - ICAO ..... AD 2.16-21
Aircraft Parking/Docking Chart - ICAO - APRON ..... AD 2.16-22
Aircraft Parking/Docking Chart - ICAO - APRON WEST ..... AD 2.16-23
Aerodrome Obstacle Chart - ICAO - Type A
RWY 11 ..... AD 2.16-25
RWY 29 ..... AD 2.16-26
Precision Approach Terrain Charts - ICAO
RWY 11 ..... AD 2.16-28
RWY 29 ..... AD 2.16-29
Standard Departure Charts - Instrument - ICAO
RWY 11 ..... AD 2.16-30
RWY 29 ..... AD 2.16-31
Standard Arrival Charts - Instrument - ICAO
RWY 11 ..... AD 2.16-32
RWY 29 ..... AD 2.16-33
RNAV Departure Charts - Instrument - ICAO
RWY 11 ..... AD 2.16-34
RWY 29 ..... AD 2.16-35
RNAV Arrival Charts - Instrument - ICAO
RWY 11 ..... AD 2.16-36
RWY 29 ..... AD 2.16-37
ATC Surveillnace Minimum Altitude Chart - ICAO ..... AD 2.16-45
Instrument Approach Charts - ICAO
RWY 11 ILS - CAT A, B ..... AD 2.16-51
RWY 11 ILS - CAT C, D ..... AD 2.16-52
RWY 29 ILS - CAT A, B ..... AD 2.16-53
RWY 29 ILS - CAT C, D ..... AD 2.16-54
RWY 11 NDB - CAT A, B. ..... AD 2.16-91
RWY 11 NDB - CAT C, D. ..... AD 2.16-92
RWY 29 NDB - CAT A, B ..... AD 2.16-93
RWY 29 NDB - CAT C, D ..... AD 2.16-94

Changes: New heliport, new APRON WEST and new TWY A1 added.

AERODROME CHART - ICAO

45° 48' 35" N
021° 20' 16" E
ELEV 348FT

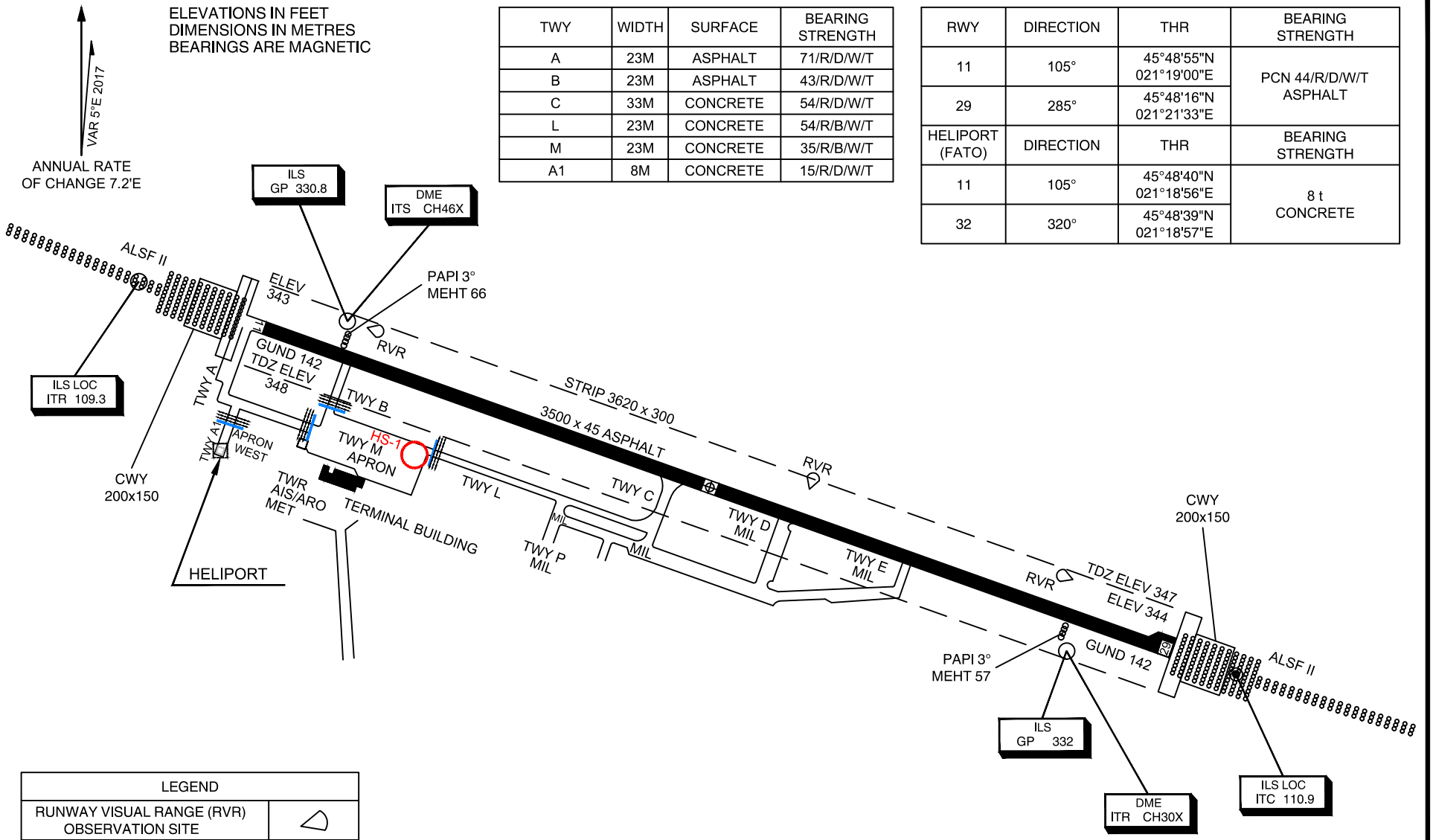
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 5°E 2017

ANNUAL RATE
OF CHANGE 7.2'E

TWY	WIDTH	SURFACE	BEARING STRENGTH
A	23M	ASPHALT	71/R/D/W/T
B	23M	ASPHALT	43/R/D/W/T
C	33M	CONCRETE	54/R/D/W/T
L	23M	CONCRETE	54/R/B/W/T
M	23M	CONCRETE	35/R/B/W/T
A1	8M	CONCRETE	15/R/D/W/T

RWY	DIRECTION	THR	BEARING STRENGTH
11	105°	45°48'55"N 021°19'00"E	PCN 44/R/D/W/T ASPHALT
29	285°	45°48'16"N 021°21'33"E	
HELIPORT (FATO)	DIRECTION	THR	BEARING STRENGTH
11	105°	45°48'40"N 021°18'56"E	8 t CONCRETE
32	320°	45°48'39"N 021°18'57"E	



LEGEND	
RUNWAY VISUAL RANGE (RVR) OBSERVATION SITE	
AERODROME REFERENCE POINT	
BUILDING	
HOT SPOT WITH IDENT	HS-1
ATC SERVICE BOUNDARY	
APRON BOUNDARY	

METRES
400 200 0 500 1000 1500
1000 500 0 1000 2000 3000 4000 5000
FEET

TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA GROUND	121.600

HOT SPOT

HS-1 ACFT exiting TWY L and entering APRON must turn LEFT

TIMIŞOARA / Traian Vuia (LRTR)

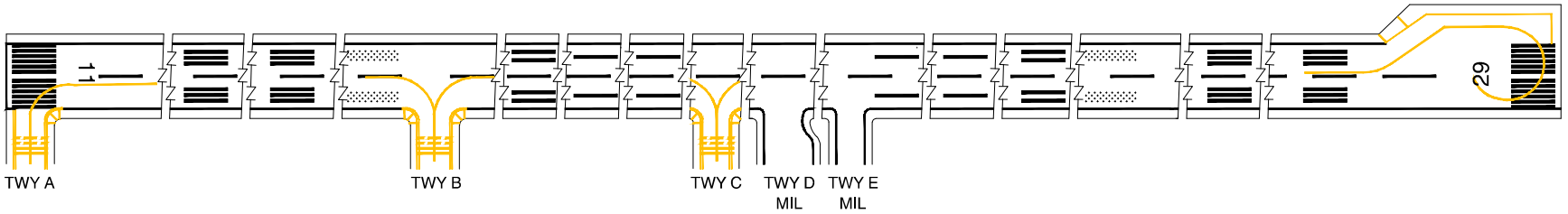
AERODROME CHART - ICAO

45° 48' 35" N
021° 20' 16" E
ELEV 348FT

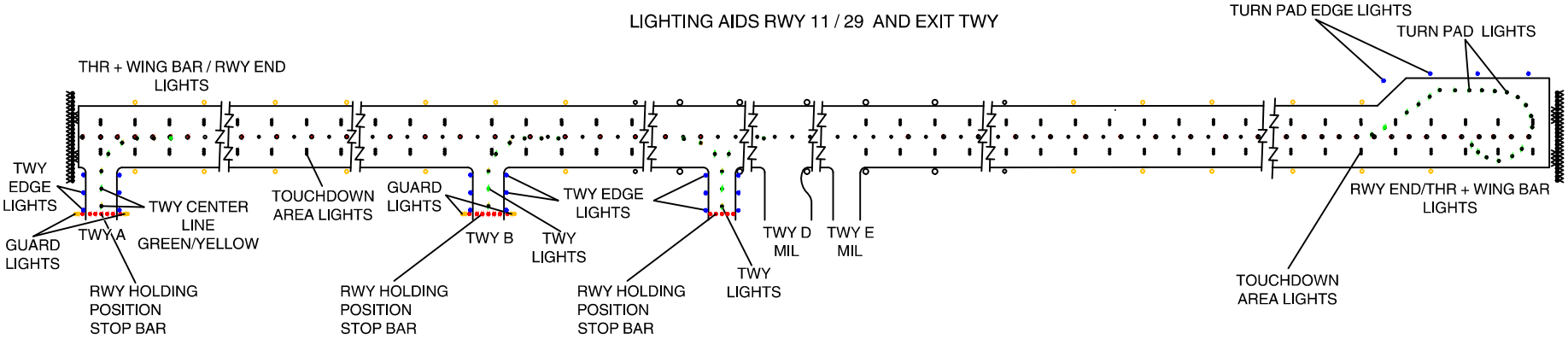
**TIMIŞOARA /
Traian Vuia (LRTR)**

TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA GROUD	121.600

MARKING AIDS RWY 11 / 29 AND EXIT TWY

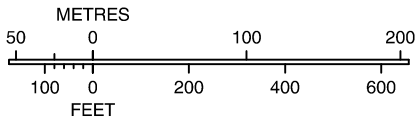


LIGHTING AIDS RWY 11 / 29 AND EXIT TWY



LEGEND	
AIMING POINT	
RUNWAY-HOLDING POSITION	

SCALE 1 : 5 000

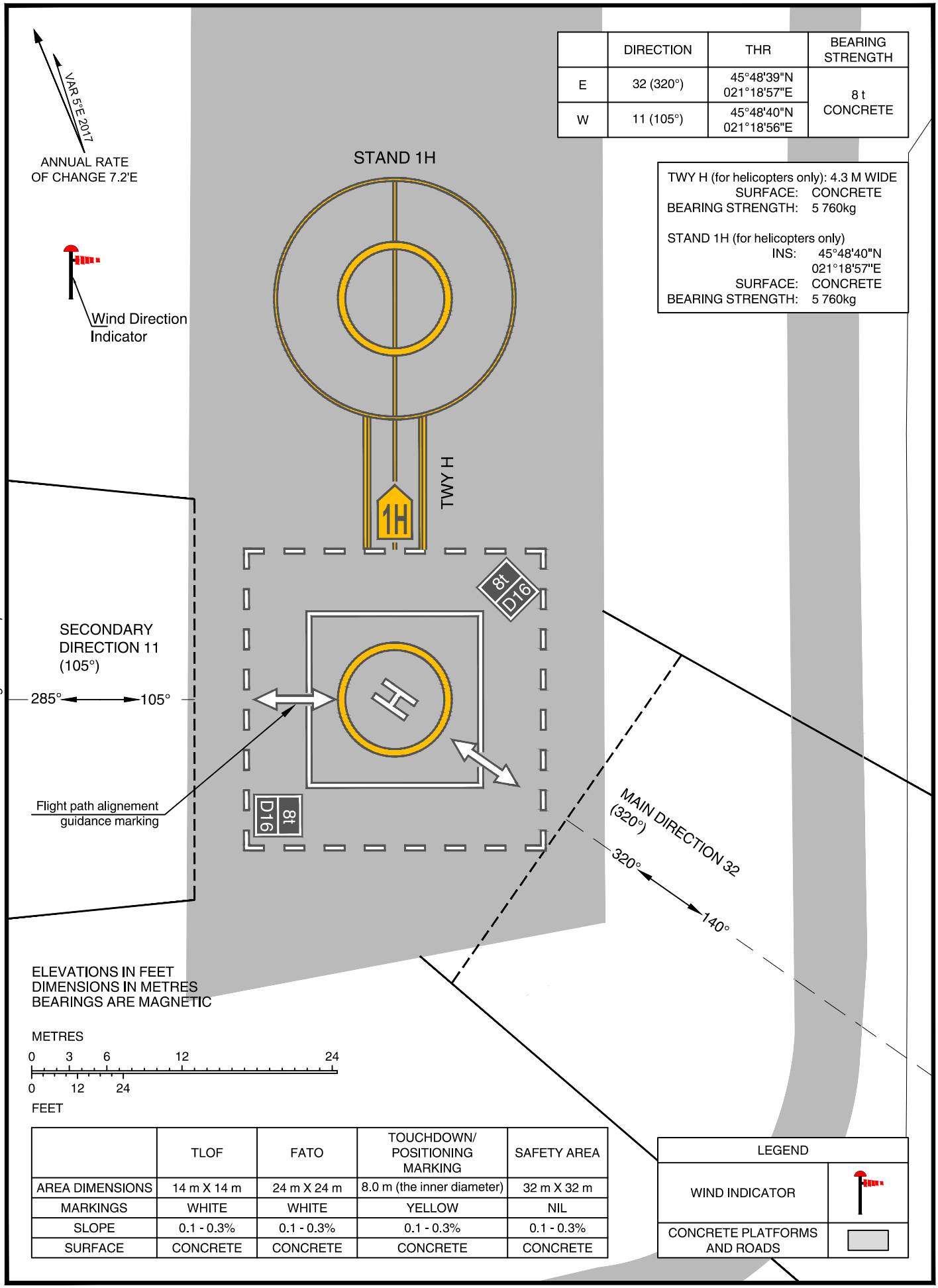


Changes: TWY D, E and P assigned MIL, RWY Guard Lights.

HELIPORT CHART - ICAO **ELEV 348FT**

TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA GROUND	121.600

TIMIŞOARA / Traian Vuia (LRTR)
SURFACE HELIPORT



	DIRECTION	THR	BEARING STRENGTH
E	32 (320°)	45°48'39"N 021°18'57"E	8 t CONCRETE
W	11 (105°)	45°48'40"N 021°18'56"E	

TWY H (for helicopters only): 4.3 M WIDE
SURFACE: CONCRETE
BEARING STRENGTH: 5 760kg

STAND 1H (for helicopters only)
INS: 45°48'40"N 021°18'57"E
SURFACE: CONCRETE
BEARING STRENGTH: 5 760kg

	TLOF	FATO	TOUCHDOWN/ POSITIONING MARKING	SAFETY AREA
AREA DIMENSIONS	14 m X 14 m	24 m X 24 m	8.0 m (the inner diameter)	32 m X 32 m
MARKINGS	WHITE	WHITE	YELLOW	NIL
SLOPE	0.1 - 0.3%	0.1 - 0.3%	0.1 - 0.3%	0.1 - 0.3%
SURFACE	CONCRETE	CONCRETE	CONCRETE	CONCRETE

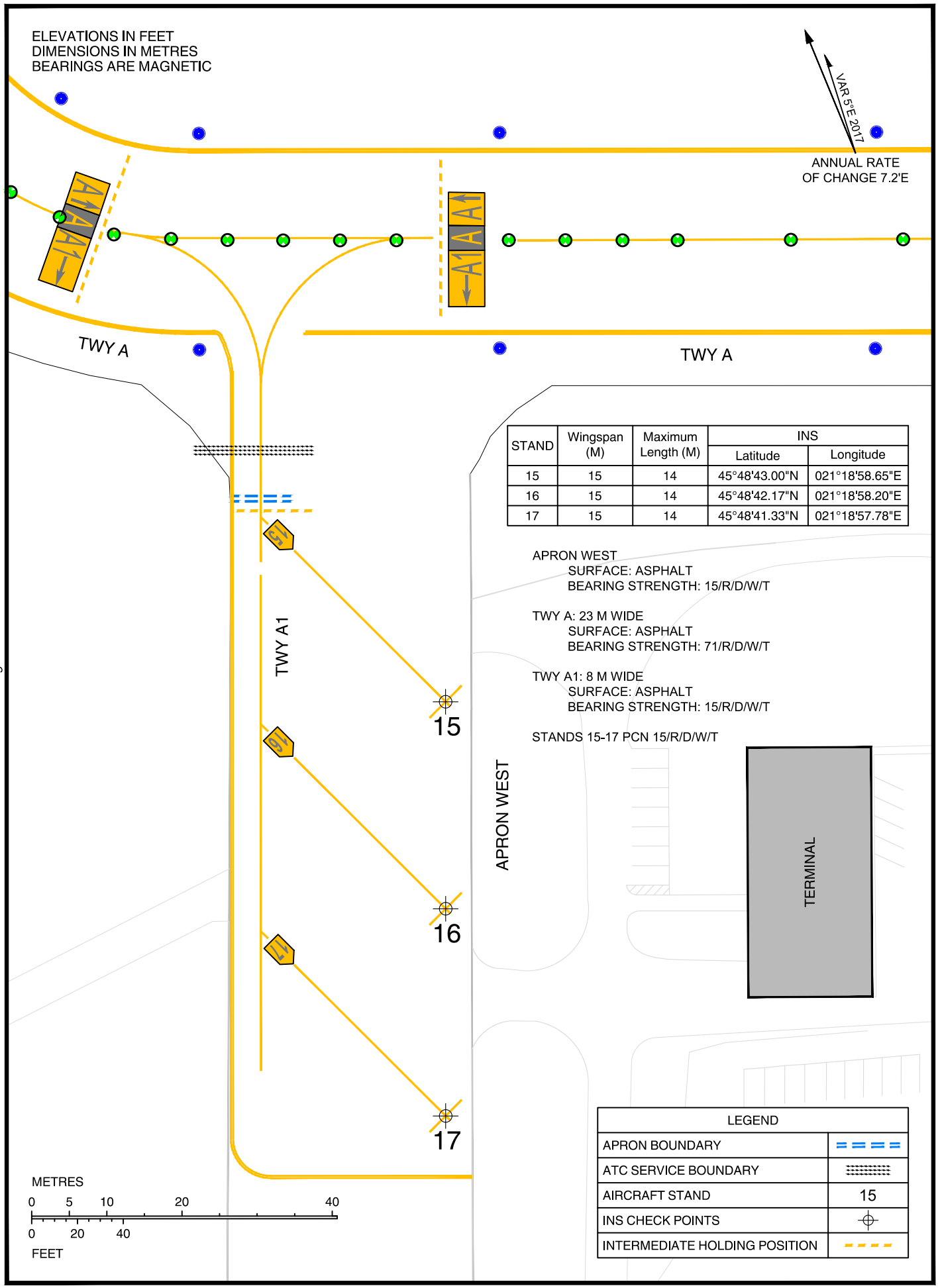
LEGEND	
WIND INDICATOR	
CONCRETE PLATFORMS AND ROADS	

AIRCRAFT PARKING / DOCKING CHART - ICAO

APRON ELEV
341FT

TIMISOARA TOWER	120.105
TIMISOARA TOWER ALTN	129.450
TIMISOARA GROUND	121.600

TIMIŞOARA / Traian Vuia (LRTR)
APRON WEST



STAND	Wingspan (M)	Maximum Length (M)	INS	
			Latitude	Longitude
15	15	14	45°48'43.00"N	021°18'58.65"E
16	15	14	45°48'42.17"N	021°18'58.20"E
17	15	14	45°48'41.33"N	021°18'57.78"E

APRON WEST
SURFACE: ASPHALT
BEARING STRENGTH: 15/R/D/W/T

TWY A: 23 M WIDE
SURFACE: ASPHALT
BEARING STRENGTH: 71/R/D/W/T

TWY A1: 8 M WIDE
SURFACE: ASPHALT
BEARING STRENGTH: 15/R/D/W/T

STANDS 15-17 PCN 15/R/D/W/T

LEGEND	
APRON BOUNDARY	
ATC SERVICE BOUNDARY	
AIRCRAFT STAND	15
INS CHECK POINTS	
INTERMEDIATE HOLDING POSITION	

Changes: New chart.