

Publication Date: 18 SEP 2025

Effective Date: 30 OCT 2025

**AIRAC
AIP AMDT**

12 30 OCT 2025

AIRAC AIP AMENDMENT 12/25

I. Content

- GEN - record of AIP Supplements updated.
- AD - LRBC - new ILS/DME installed on RWY 16;
 - new IACs: ILS RWY 16.
- LRBM - low visibility procedures updated.
- LRIA - noise abatement procedures updated.
- LRSM - new SID on RWY 01/19;
 - new IACs: ILS, RNP, VOR on RWY 19, RNP on RWY 01.

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

Destroy the following pages and/or charts:

GEN 0.3-1	30 OCT 2025	GEN 0.3-1	02 OCT 2025
GEN 0.3-2	30 OCT 2025	GEN 0.3-2	02 OCT 2025
GEN 0.4-1	30 OCT 2025	GEN 0.4-1	02 OCT 2025
GEN 0.4-2	30 OCT 2025	GEN 0.4-2	02 OCT 2025
GEN 0.4-3	30 OCT 2025	GEN 0.4-3	02 OCT 2025
GEN 0.4-4	30 OCT 2025	GEN 0.4-4	02 OCT 2025
GEN 0.4-5	30 OCT 2025	GEN 0.4-5	02 OCT 2025
GEN 0.4-6	30 OCT 2025	GEN 0.4-6	02 OCT 2025
GEN 0.4-7	30 OCT 2025	GEN 0.4-7	02 OCT 2025
GEN 0.4-8	30 OCT 2025	GEN 0.4-8	02 OCT 2025
GEN 1.5-2	30 OCT 2025	GEN 1.5-2	22 MAY 2021
GEN 3.2-4	30 OCT 2025	GEN 3.2-4	02 OCT 2025
GEN 3.2-5	30 OCT 2025	GEN 3.2-5	04 SEP 2025
GEN 3.2-6	30 OCT 2025	GEN 3.2-6	04 SEP 2025
GEN 3.2-7	30 OCT 2025	GEN 3.2-7	02 OCT 2025
GEN 3.2-8	30 OCT 2025	GEN 3.2-8	04 SEP 2025
GEN 3.2-9	30 OCT 2025	GEN 3.2-9	04 SEP 2025
GEN 4.1-11a	30 OCT 2025	GEN 4.1-11a	20 FEB 2025
GEN 4.1-11b	30 OCT 2025	GEN 4.1-11b	22 MAY 2021
GEN 4.1-11c	30 OCT 2025	-----	
ENR 1.3-4	30 OCT 2025	ENR 1.3-4	04 SEP 2025
ENR 1.8-1	30 OCT 2025	ENR 1.8-1	24 MAY 2018
ENR 3.2-1	30 OCT 2025	ENR 3.2-1	02 OCT 2025

II.	Insert the following new pages and/or charts:		Destroy the following pages and/or charts:	
	ENR 3.2-3	30 OCT 2025	ENR 3.2-3	28 DEC 2023
	ENR 3.2-22	30 OCT 2025	ENR 3.2-22	15 JUN 2023
	ENR 4.4-4	30 OCT 2025	ENR 4.4-4	02 OCT 2025
	ENR 4.4-5	30 OCT 2025	ENR 4.4-5	02 OCT 2025
	ENR 4.4-7	30 OCT 2025	ENR 4.4-7	02 OCT 2025
	ENR 4.4-8	30 OCT 2025	ENR 4.4-8	02 OCT 2025
	ENR 4.4-9	30 OCT 2025	ENR 4.4-9	02 OCT 2025
	AD 2.1-1	30 OCT 2025	AD 2.1-1	17 APR 2025
	AD 2.1-9	30 OCT 2025	AD 2.1-9	18 MAY 2023
	AD 2.1-10	30 OCT 2025	AD 2.1-10	21 MAR 2024
	AD 2.2-10	30 OCT 2025	AD 2.2-10	04 SEP 2025
	AD 2.2-11	30 OCT 2025	AD 2.2-11	04 SEP 2025
	AD 2.2-12	30 OCT 2025	AD 2.2-12	04 SEP 2025
	AD 2.2-13	30 OCT 2025	AD 2.2-13	04 SEP 2025
	AD 2.2-14	30 OCT 2025	-----	
	AD 2.2-50	30 OCT 2025	-----	
	AD 2.2-50a	30 OCT 2025	-----	
	AD 2.2-50b	30 OCT 2025	-----	
	AD 2.2-50c	30 OCT 2025	-----	
	AD 2.2-51	30 OCT 2025	-----	
	AD 2.2-51a	30 OCT 2025	-----	
	AD 2.2-52	30 OCT 2025	-----	
	AD 2.2-52a	30 OCT 2025	-----	
	AD 2.3-1	30 OCT 2025	AD 2.3-1	15 MAY 2025
	AD 2.3-8	30 OCT 2025	AD 2.3-8	21 MAY 2020
	AD 2.3-9	30 OCT 2025	AD 2.3-9	31 OCT 2024
	AD 2.3-12	30 OCT 2025	AD 2.3-12	18 MAY 2023
	AD 2.3-13	30 OCT 2025	AD 2.3-13	18 MAY 2023
	-----		AD 2.3-14	31 OCT 2024
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	AD 2.5-21	30 OCT 2025	AD 2.5-21	02 OCT 2025
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	AD 2.5-23a	30 OCT 2025	AD 2.5-23a	03 OCT 2024
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	AD 2.10-3	30 OCT 2025	AD 2.10-3	31 OCT 2024
	AD 2.10-9	30 OCT 2025	AD 2.10-9	31 OCT 2024
	AD 2.10-13	30 OCT 2025	AD 2.10-13	31 OCT 2024
	AD 2.10-20	30 OCT 2025	AD 2.10-20	31 OCT 2024
	AD 2.10-20a	30 OCT 2025	AD 2.10-20a	31 OCT 2024
	AD 2.12-1	30 OCT 2025	AD 2.12-1	17 APR 2025
	AD 2.12-4	30 OCT 2025	AD 2.12-4	17 APR 2025
	AD 2.12-5	30 OCT 2025	AD 2.12-5	17 APR 2025
	AD 2.12-6	30 OCT 2025	AD 2.12-6	17 APR 2025
	AD 2.12-7	30 OCT 2025	-----	
	AD 2.12-20	30 OCT 2025	AD 2.12-20	17 APR 2025
	AD 2.12-22	30 OCT 2025	AD 2.12-22	17 APR 2025

II.	Insert the following new pages and/or charts:	Destroy the following pages and/or charts:
	AD 2.12-25 30 OCT 2025	AD 2.12-25 17 APR 2025
	AD 2.12-26 30 OCT 2025	AD 2.12-26 17 APR 2025
	AD 2.12-30 30 OCT 2025	-----
	AD 2.12-30a 30 OCT 2025	-----
	AD 2.12-31 30 OCT 2025	-----
	AD 2.12-31a 30 OCT 2025	-----
	AD 2.12-51 30 OCT 2025	AD 2.12-51 17 APR 2025
	AD 2.12-51a 30 OCT 2025	AD 2.12-51a 16 AUG 2018
	AD 2.12-52 30 OCT 2025	AD 2.12-52 17 APR 2025
	AD 2.12-52a 30 OCT 2025	AD 2.12-52a 16 AUG 2018
	AD 2.12-71 30 OCT 2025	-----
	AD 2.12-71a 30 OCT 2025	-----
	AD 2.12-71b 30 OCT 2025	-----
	AD 2.12-71c 30 OCT 2025	-----
	AD 2.12-72 30 OCT 2025	-----
	AD 2.12-72a 30 OCT 2025	-----
	AD 2.12-72b 30 OCT 2025	-----
	AD 2.12-72c 30 OCT 2025	-----
	AD 2.12-81 30 OCT 2025	AD 2.12-81 17 APR 2025
	AD 2.12-81a 30 OCT 2025	AD 2.12-81a 16 AUG 2018
	AD 2.12-82 30 OCT 2025	AD 2.12-82 17 APR 2025
	AD 2.12-82a 30 OCT 2025	AD 2.12-82a 16 AUG 2018
	AD 2.12-83 30 OCT 2025	AD 2.12-83 17 APR 2025
	AD 2.12-83a 30 OCT 2025	AD 2.12-83a 16 AUG 2018
	AD 2.14-72 30 OCT 2025	AD 2.14-72 17 APR 2025
	AD 2.15-1 30 OCT 2025	AD 2.15-1 17 APR 2025
	AD 2.15-5 30 OCT 2025	AD 2.15-5 31 OCT 2024
	AD 2.15-6 30 OCT 2025	AD 2.15-6 31 OCT 2024
	AD 2.17-1 30 OCT 2025	AD 2.17-1 17 APR 2025
	AD 2.17-12 30 OCT 2025	AD 2.17-12 28 NOV 2024
	AD 2.29-71 30 OCT 2025	AD 2.29-71 02 OCT 2025

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

IV. Information contained in the following NOTAM is incorporated in AIRAC AIP AMDT 12/25:
A4361/25, A4726/25.

END

GEN 0.3 RECORD OF AIP SUPPLEMENTS

No/Year	Subject	AIP section(s) affected	Period of validity	Cancellation record
1	2	3	4	5
AIRAC 02/18	BUCUREȘTI/Henri Coandă Airport, SID/STAR suspended.	AD 2.5	from: 16 AUG 2018 to: announced by NOTAM or SUP	
AIRAC 01/23	SATU MARE / Satu Mare Airport Local Aerodrome Regulations	AD 2.12	from: 23 FEB 2023 to: announced by NOTAM or SUP	
AIRAC 04/23	SATU MARE / Satu Mare, Aircraft Parking/Docking Chart - ICAO temporarily suspended.	AD 2.12	from: 20 APR 2023 to: 16 APR 2025	AIRAC AIP AMDT 04/25
AIRAC 03/24	BUCUREȘTI FIR - Alexandru Odobescu wind farms under construction	ENR 5.4, AD 2.4, AD 2.5, AD 2.8	from: 28 NOV 2024 to: 30 NOV 2026 EST	
AIRAC 04/24	BUCUREȘTI FIR - Gurbănești wind farm under construction	ENR 5.4, AD 2.4, AD 2.5	from: 28 NOV 2024 to: 30 NOV 2026 EST	
AIRAC 05/24	BUCUREȘTI FIR - Hârlău wind farm under construction	ENR 5.4, AD 2.14	from: 28 NOV 2024 to: 30 NOV 2026 EST	
AIRAC 06/24	BUCUREȘTI FIR - Deleni 1 wind farm and Scobinți wind farm under construction	ENR 5.4, AD 2.10	from: 28 NOV 2024 to: 30 NOV 2026 EST	
AIRAC 08/24	BUCUREȘTI FIR - Casimcea 1 wind farm and Casimcea 2 wind farm under construction	ENR 5.4, AD 2.8	from: 28 NOV 2024 to: 30 NOV 2026 EST	
AIRAC 09/24	BUCUREȘTI FIR - Cerchezu wind farm under construction	ENR 5.4, ENR 6-2, AD 2.8	from: 26 DEC 2024 to: 30 DEC 2026 EST	
AIRAC 10/24	BUCUREȘTI FIR - Cobadin wind farm and Pietreni wind farm under construction	ENR 5.4, AD 2.8	from: 26 DEC 2024 to: 30 NOV 2026 EST	
AIRAC 01/25	BUCUREȘTI FIR - Rugăria Eolian wind farm under construction	ENR 5.4, ENR 6-2, AD 2.2	from: 23 JAN 2025 to: 29 OCT 2025	AIRAC AIP SUP 16/25
01/25	CLUJ NAPOCA / Avram Iancu Airport, airport development charge.	GEN 4.1	from: 20 FEB 2025 to: 31 DEC 2028	
02/25	IAȘI / Iași Airport, airport development charge.	GEN 4.1	from: 20 FEB 2025 to: 29 OCT 2025	AIP SUP 05/25
AIRAC 02/25	BUCUREȘTI FIR - Beidaud Eolian wind farm under construction	ENR 5.4, AD 2.8	from: 20 MAR 2025 to: 31 DEC 2026 EST	
03/25	BAIA MARE / Maramureș 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 08/25	BUCUREȘTI FIR - Beidaud 2 Wind Farm under construction	ENR 5.4, AD 2.17	from: 12 JUN 2025 to: 30 JUN 2027 EST	

1	2	3	4	5
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 15/25	BUCUREȘTI FIR - Chirnogeni Wind Farm under construction.	ENR 5.4, AD 2.8	from: 30 OCT 2025 to: 31 DEC 2027 EST	
AIRAC 16/25	BUCUREȘTI FIR - Rugăria Eolian wind farm under construction.	ENR 5.4, ENR 6-2, AD 2.2	from: 30 OCT 2025 to: 31 DEC 2026 EST	
05/25	IAȘI / Iași Airport, airport development charge.	GEN 4.1	from: 30 OCT 2025 to: 31 DEC 2025	

GEN 0.4 CHECKLIST OF AIP PAGES

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GEN 0.1-1	15 JUL 2022	GEN 1.6-1	30 NOV 2023	GEN 2.2-7	10 SEP 2020
GEN 0.1-2	15 JUL 2022	GEN 1.6-2	30 NOV 2023	GEN 2.2-8	10 JUN 2004
GEN 0.1-3	15 JUL 2022	GEN 1.6-3	30 NOV 2023	GEN 2.2-9	10 SEP 2020
GEN 0.2-1	29 JAN 1998	GEN 1.6-4	30 NOV 2023	GEN 2.2-10	07 SEP 2023
GEN 0.2-2	29 JAN 1998	GEN 1.6-5	30 NOV 2023	GEN 2.2-11	01 APR 2024
GEN 0.2-3	10 JUN 2004	GEN 1.6-6	30 NOV 2023	GEN 2.2-12	02 JUL 2010
GEN 0.2-4	02 AUG 2007	GEN 1.6-7	15 JUL 2025	GEN 2.2-13	02 JUL 2010
GEN 0.2-5	02 AUG 2007	GEN 1.6-8	15 JUL 2025	GEN 2.2-14	28 MAR 2019
GEN 0.2-6	25 MAR 2012	GEN 1.6-9	15 JUL 2025	GEN 2.2-15	15 JUN 2023
GEN 0.2-7	25 MAR 2012	GEN 1.6-10	15 JUL 2025	GEN 2.2-16	02 JUL 2010
GEN 0.2-8	10 NOV 2016	GEN 1.6-11	15 JUL 2025	GEN 2.2-17	20 JUN 2019
GEN 0.2-9	10 NOV 2016	GEN 1.6-12	15 JUL 2025	GEN 2.2-18	02 JUL 2010
GEN 0.2-10	20 MAY 2021	GEN 1.6-13	15 JUL 2025	GEN 2.2-19	07 SEP 2023
GEN 0.2-11	20 MAY 2021	GEN 1.6-14	15 JUL 2025	GEN 2.2-20	07 SEP 2023
GEN 0.2-12	26 DEC 2024	GEN 1.6-15	15 JUL 2025	GEN 2.2-21	28 JAN 2021
GEN 0.2-13	26 DEC 2024	GEN 1.6-16	15 JUL 2025	GEN 2.2-22	02 JUL 2010
GEN 0.3-1	30 OCT 2025	GEN 1.6-17	15 JUL 2025	GEN 2.2-23	01 APR 2024
GEN 0.3-2	30 OCT 2025	GEN 1.6-18	15 JUL 2025	GEN 2.2-24	15 JUL 2022
GEN 0.4-1	30 OCT 2025	GEN 1.6-19	15 JUL 2025	GEN 2.2-25	09 AUG 2024
GEN 0.4-2	30 OCT 2025	GEN 1.6-20	15 JUL 2025	GEN 2.2-26	01 APR 2024
GEN 0.4-3	30 OCT 2025	GEN 1.6-21	15 JUL 2025	GEN 2.2-27	30 MAR 2017
GEN 0.4-4	30 OCT 2025	GEN 1.6-22	15 JUL 2025	GEN 2.3-1	15 JUN 2023
GEN 0.4-5	30 OCT 2025	GEN 1.6-23	01 NOV 2024	GEN 2.3-2	07 MAY 2009
GEN 0.4-6	30 OCT 2025	GEN 1.6-24	01 NOV 2024	GEN 2.3-3	26 MAR 2020
GEN 0.4-7	30 OCT 2025	GEN 1.7-1	15 JUL 2025	GEN 2.3-4	06 APR 2012
GEN 0.4-8	30 OCT 2025	GEN 1.7-2	15 JUL 2025	GEN 2.3-5	18 NOV 2010
GEN 0.5-1	15 MAY 2025	GEN 1.7-3	30 NOV 2023	GEN 2.4-1	04 SEP 2025
GEN 0.6-1	15 JUL 2022	GEN 1.7-4	15 JUL 2025	GEN 2.4-2	04 SEP 2025
GEN 0.6-2	15 JUL 2022	GEN 1.7-5	15 JUL 2025	GEN 2.5-1	02 OCT 2025
GEN 1		GEN 1.7-6	30 NOV 2023	GEN 2.5-2	23 JAN 2025
GEN 1.1-1	15 MAY 2025	GEN 1.7-7	15 JUL 2025	GEN 2.5-3	20 MAR 2025
GEN 1.1-2	15 MAY 2025	GEN 1.7-8	15 JUL 2025	GEN 2.6-1	29 JAN 1998
GEN 1.2-1	24 MAR 2022	GEN 1.7-9	30 NOV 2023	GEN 2.6-2	29 JAN 1998
GEN 1.2-2	24 MAR 2022	GEN 1.7-10	30 NOV 2023	GEN 2.7-1	04 SEP 2025
GEN 1.2-3	24 MAR 2022	GEN 1.7-11	15 JUL 2025	GEN 2.7-2	07 AUG 2025
GEN 1.2-4	24 MAR 2022	GEN 1.7-12	15 JUL 2025	GEN 2.7-3	07 AUG 2025
GEN 1.2-5	24 MAR 2022	GEN 1.7-13	15 JUL 2025	GEN 2.7-4	07 AUG 2025
GEN 1.2-6	01 DEC 2022	GEN 1.7-14	30 NOV 2023	GEN 2.7-5	07 AUG 2025
GEN 1.2-7	01 DEC 2022	GEN 1.7-15	15 JUL 2025	GEN 2.7-6	07 AUG 2025
GEN 1.2-8	01 DEC 2022	GEN 1.7-16	01 NOV 2024	GEN 2.7-7	07 AUG 2025
GEN 1.2-9	01 DEC 2022	GEN 1.7-17	01 NOV 2024	GEN 2.7-8	07 AUG 2025
GEN 1.2-10	24 MAR 2022	GEN 1.7-18	15 JUL 2025	GEN 2.7-9	07 AUG 2025
GEN 1.2-11	24 MAR 2022	GEN 1.7-19	15 JUL 2025	GEN 2.7-10	07 AUG 2025
GEN 1.2-12	24 MAR 2022	GEN 1.7-20	08 AUG 2024	GEN 2.7-11	07 AUG 2025
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GEN 1.3-2	23 JAN 2025	GEN 2.1-1	23 MAR 2023	GEN 2.7-16	07 AUG 2025
GEN 1.3-3	15 MAY 2025	GEN 2.1-2	01 JAN 2025	GEN 2.7-17	07 AUG 2025
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GEN 3.2-5	30 OCT 2025	GEN 4.1-20	15 JUL 2021	ENR 1.11-1	20 MAR 2025
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GEN 3.2-8	30 OCT 2025	GEN 4.2-1	01 JAN 2025	ENR 1.12-3	17 AUG 2017
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GEN 3.3-3	15 JUN 2023	GEN 4.2-7	23 APR 2020	ENR 2.1-3	28 FEB 2019
GEN 3.4-1	10 SEP 2020	GEN 4.2-8	01 JAN 2015	ENR 2.1-4	28 FEB 2019
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GEN 3.6-3	05 OCT 2023	ENR 1.2-1	20 MAY 2021	ENR 3.2-4	04 SEP 2025
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GEN 4.1-1	07 FEB 2013	ENR 1.2-3	24 MAY 2018	ENR 3.2-6	28 NOV 2024
GEN 4.1-2	06 APR 2012	ENR 1.3-1	17 AUG 2017	ENR 3.2-7	02 OCT 2025
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GEN 4.1-4a	20 MAR 2025	ENR 1.3-4	30 OCT 2025	ENR 3.2-10	02 OCT 2025
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Romanian CAA maintains extensive safety oversight over aircraft operations in BUCUREȘTI FIR and publishes or updates information on locations where aircraft not complying with the FM immunity requirements may be subjected to significant interferences.

Since the number of such locations has been determined as very low, and in accordance with ICAO State letter ref T17/11.E/3 – L00 _ 0928. AOP dated 7 Sept. 2000, state aircraft operating in civil aviation airspace and aerodromes may be granted exemptions upon request addressed to the Romanian military authorities who will issue such exemptions in coordination with Romanian CAA. Exemptions from the above equipment requirements will be considered only for those aerodromes/landing runways which have not been identified as posing a risk to non-FM immunity equipped state aircraft. Exemptions will also be considered for state aircraft operations planned in locations where a risk of significant FM interferences (ILS or VOR) has been identified but the state aircraft acknowledge that they are willing to restrict their operations to VMC, to PAR (where available) or to NDB procedures (where available).

State aircraft operators not complying with the FM immunity requirements may submit such exemption requests under the following conditions:

- a) overflight permit may be requested only for RNAV equipped aircraft which comply with the requirements and procedures set under AIP Romania GEN 1.5, para. 3, provided the RNAV capability does not depend on the use of VOR receivers;
- b) landing permit using the published ILS Approach Procedures (where available) may be requested for any of the aerodromes published in AIP Romania, with the exemption of:
 - LRBS, RWY 07

Aircraft operators who identify FM interferences while operating in Bucharest FIR are requested to follow the reporting procedure set under AIP Romania, GEN 1.6, Cap. 2.2, The identification, assessment and reporting of air navigation shortcomings and deficiencies.

3. Equipment to be carried by all types of flights

The following radio and navigation equipment shall be carried within BUCUREȘTI FIR:

Aircraft, other than State aircraft, operating on the ATS routes* within BUCUREȘTI FIR shall be equipped with, as a minimum, B-RNAV certified equipment meeting RNP 5 in accordance with the requirements set out in ICAO Doc 7030 Regional Supplementary Procedures (EUR, RAC section 14). Acceptable means of compliance are set out in the JAA (Joint Aviation Authorities) Technical Guidance Leaflet No 2 rev 1.

All aircraft must be equipped with an operational transponder when operating in controlled airspace.

* An ATS route is defined in ICAO Annex 11 as follows: "A specified route designated for channeling the flow of traffic as necessary for the provision of Air Traffic Services."

4. Equipment to be carried on all internal and on certain flights

TO BE DEVELOPED

5. Radio equipment requirements

As required by Commission Implementing Regulation (EU) 2023/1770 of 12 September 2023 laying down provisions on aircraft equipment required for the use of the Single European Sky airspace and operating rules related to the use of the Single European Sky airspace and repealing Regulation (EC) No 29/2009 and Implementing Regulations (EU) No 1206/2011, (EU) No 1207/2011 and (EU) No 1079/2012, aircraft operators shall ensure that all voice communication equipment put into service after 17 November 2013 includes the 8.33 kHz channel spacing capability and is able to tune to 25 kHz spaced channels.

According to the airspace classes, as those are state in Commission Implementing Regulation (EU) No 923/2012, in BUCUREȘTI FIR 8.33 KHz Voice Channel Spacing regulation provisions will be applied as follows:

a. IFR flights

The carriage and operation of VHF 8.33 kHz channel spacing aircraft radio equipment suitable to maintain continuous two-way radiotelephony communication with the appropriate ATC units is mandatory for IFR flights within the BUCUREȘTI FIR in airspace class A and C.

In class G airspace, IFR flights shall be capable of establishing air-ground voice communications on appropriate communication channel as required.

AACR supraveghează permanent siguranța zborurilor în FIR BUCUREȘTI, publicând și ținând la zi informațiile privind zonele unde aeronavele care nu îndeplinesc cerințele privind protecția la interferențe FM, pot fi supuse unor interferențe semnificative.

Deoarece numărul acestor zone este foarte mic și în conformitate cu ICAO State letter ref T17/11.E/3 – L00_0928. AOP din 7 Sept. 2000, AACR în mod coordonat cu autoritățile militare din România vor analiza acordarea la cerere a unor excepții pentru aeronavele de stat care operează în spațiul aerian repartizat aviației civile sau pe aerodromurile civile, în mod punctual. Excepțiile de la cerințele de echipament menționate mai sus, se vor acorda numai pentru aerodromurile/direcțiile de aterizare care nu prezintă nici un risc pentru aeronavele de stat dotate cu echipamente neprotejate la interferențe FM. Excepțiile pot fi acordate și pentru operațiuni planificate în zonele unde există un risc privind interferențele FM semnificative (ILS sau VOR), în condițiile în care aeronava de stat confirmă că se va limita la operațiuni în condiții VMC sau PAR (unde sunt disponibile) sau la proceduri NDB (unde sunt disponibile).

Operatorii aeronavelor de stat pot face o cerere de exceptare în următoarele condiții:

- a) aprobări de survol pot fi solicitate numai pentru aeronavele echipate RNAV care se conformează cerințelor și procedurilor descrise în AIP ROMÂNIA, GEN 1.5, paragraf 3, atunci când capacitatea RNAV nu depinde de utilizarea semnalelor VOR.
- b) aprobări pentru aterizări folosind proceduri de apropiere ILS (unde sunt disponibile) pot fi solicitate pentru toate aerodromurile publicate în AIP ROMÂNIA cu excepția:
- LRBS, RWY 07

Operatorii aeriени care identifică interferențe FM pe timpul operării în FIR BUCUREȘTI sunt obligați să urmeze procedura de raportare publicată în AIP ROMÂNIA, GEN 1.6, Cap. 2.2, Identificarea, evaluarea și raportarea lipsurilor și deficiențelor în navigația aeriană.

3. Echipamentul necesar pentru toate tipurile de zboruri

În FIR BUCUREȘTI trebuie folosite următoarele echipamente radio și de navigație:

Aeronavele, altele decât cele de stat, care operează pe rute ATS* în FIR BUCUREȘTI trebuie să fie dotate cel puțin cu echipament B-RNAV certificat pentru RNP 5, în conformitate cu cerințele operaționale stabilite în Documentul 7030 ICAO Regional Supplementary Procedures (EUR, RAC secțiunea 14). Operarea pe rute RNAV RNP 5 impune conformitatea echipamentelor de bord cu cerințele tehnice stabilite în JAA (Joint Aviation Authorities) Technical Guidance Leaflet No 2 rev 1.

Toate aeronavele trebuie echipate cu un transponder operațional atunci când operează în spațiu aerian controlat.

* O rută ATS este definită în Anexa 11 după cum urmează: "O rută specificată desemnată pentru direcționarea fluxului de trafic, pe care se asigură servicii de trafic aerian."

4. Echipamentul necesar pentru toate zborurile interne și pentru anumite zboruri

TO BE DEVELOPED

5. Cerințele echipamentului radio

În conformitate cu prevederile Regulamentul de punere în aplicare (UE) 2023/1770 al Comisiei din 12 septembrie 2023 de stabilire a unor dispoziții privind echipamentele aeronavelor necesare pentru utilizarea spațiului aerian al cerului unic european și a unor reguli de operare legate de utilizarea spațiului aerian al cerului unic european și de abrogare a Regulamentului (CE) nr. 29/2009 și a Regulamentelor de punere în aplicare (UE) nr. 1206/2011, (UE) nr. 1207/2011 și (UE) nr. 1079/2012, operatorii de aeronave trebuie să se asigure că toate echipamentele de comunicații de voce date în exploatare după 17 noiembrie 2013 includ capacitatea de utilizare a ecartului între canale de 8.33 kHz și sunt capabile să se conecteze la canale cu ecart de 25 kHz.

În conformitate cu clasele spațiului aerian, așa cum acestea sunt definite în Regulamentul de Implementare (UE) nr. 923/2012 al Comisiei, în FIR BUCUREȘTI prevederile regulamentului de stabilire a ecartului dintre canalele de voce 8.33 KHz, se vor aplica după cum urmează:

a. Zborurile IFR

Dotarea și operarea la bordul aeronavelor a echipamentelor de radiocomunicații VHF cu ecartul dintre canale 8.33 kHz, adecvate menținerii comunicațiilor radiotelefonice bilaterale cu unitățile ATC corespunzătoare, este obligatorie pentru toate zborurile IFR în cadrul FIR BUCUREȘTI în spațiul aerian clasa A și C.

În spațiul aerian clasa G, zborurile IFR trebuie să fie capabile să stabilească comunicații aer-sol prin voce pe canalul corespunzător conform cerințelor.

5. List of aeronautical charts available Lista hărților 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* (IAC)		ARAD/Arad		
	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/Maramureș	
	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		
			BRAȘOV/Brașov-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		
			BUCUREȘTI/Băneasa-Aurel Vlaicu	
	1:500 000	LRBS ILS RWY 07 A/B		
	1:500 000	LRBS ILS RWY 07 C/D		
	1:500 000	LRBS ILS RWY 25 A/B		
	1:500 000	LRBS ILS RWY 25 C/D		
	1:500 000	LRBS NDB RWY 07 A/B		
	1:500 000	LRBS NDB RWY 07 C/D		
	1:500 000	LRBS NDB RWY 25 A/B		
	1:500 000	LRBS NDB RWY 25 C/D		
			BUCUREȘTI/Henri Coandă	
	1:500 000	LROP ILS RWY 08R		
	1:500 000	LROP ILS RWY 08L		
	1:500 000	LROP ILS RWY 26R		
	1:500 000	LROP ILS RWY 26L		
	1:500 000	LROP NDB RWY 08R		
	1:500 000	LROP NDB RWY 08L		
	1:500 000	LROP NDB RWY 26R		
	1:500 000	LROP NDB RWY 26L		
			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			
		CONSTANȚA/Mihail Kogălniceanu - Constanța		
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			

1	2	3	4	
Instrument Approach Chart - ICAO* (IAC)		IAȘI/Iași		
	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/Ștefan 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 MUREȘ/Transilvania-Târgu Mureș	
	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		
			TIMIȘOARA/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	
	1:500 000	LRTC ILS RWY 34		
	1:500 000	LRTC VOR RWY 34		
	Instrument Approach Chart* (IAC)	1:500 000	BRAȘOV/Brașov-Ghimbav LRBV RNP RWY 03 Contingency	
	Aerodrome Chart - ICAO* (AC)	1:7 000	ARAD/Arad	
		1:20 000	ARAD/Charlie-Bravo Șiria	
		1:15 000	BACĂU/George Enescu	
		1:5 000	BAIA MARE/Maramureș	
		1:20 000	BISTRIȚA/Bistrița	
		1:5 000	BRAȘOV/Brașov-Ghimbav	
			BRAȘOV/Sânpetru	
			BUCUREȘTI/Băneasa-Aurel Vlaicu	
			BUCUREȘTI/Henri Coandă	
		1:10 000	CARANSEBEȘ/Banat-Caransebeș	
		1:5 000	CISNĂDIE/Măgura	
		1:6 000	CLINCENI/Clinceni	
		1:15 000	CLUJ NAPOCA/Avram Iancu	
		1:20 000	CONSTANȚA/Mihail Kogălniceanu-Constanța	
		CRAIOVA/Craiova		
1:5 000		CRAIOVA/Craiova-Sud		
1:10 000		DEVA/Săulești-Constantin Manolache		
1:5 000	DEZMIR/Dezmir			
1:8 000	GHEORGHENI/Remetea			



1	2	3	4
Aerodrome Chart - ICAO* (AC)	1:2 500	GRADIȘTEA/Grădișteea	
	1:15 000	IAȘI/Iași	
	1:4 000	IAȘI/Iași-Sud	
		ORADEA/Oradea	
	1:5 000	PITEȘTI/Geamăna	
	1:5 000	PLOIEȘTI/Gheorghe Valentin Bibescu-Ploiești	
		SATU-MARE/Satu-Mare	
		SIBIU/Sibiu	
	1:20 000	SUCEAVA/Ștefan cel Mare-Suceava	
	1:5000	TÂRGU MUREȘ/Mureșeni	
	1:15 000	TÂRGU MUREȘ/Transilvania-Târgu Mureș	
		TIMIȘOARA/Traian Vuia	
	1:20 000	TULCEA/Delta Dunării	
	1:7 000	TUZLA/Tuzla	
Heliport Chart - ICAO* (HC)	1:2 000	BRAȘOV/Cobrex	
	1:2 500	GHIMBAV/IAR Brașov	
	1:2 000	GHIMBAV/MIR AERO-Brașov	
	1:1 000	NĂVODARI/Midia-Constanța	
	1:500	ORADEA/SMURD BH 2	
	1:1 000	OȘORHEI/Dogaru	
	1:1 000	TUZLA/Tuzla	
Aircraft Parking/Docking Chart - ICAO*		ARAD/Arad - APRON 1/APRON 2	
		BACĂU/George Enescu	
		BAIA MARE/Maramureș	
		BRAȘOV/Brașov-Ghimbav	
		BUCUREȘTI/Băneasa-Aurel Vlaicu	
		BUCUREȘTI/Henri Coandă - APRON 1	
		BUCUREȘTI/Henri Coandă - APRON 2	
		BUCUREȘTI/Henri Coandă - APRON 3	
		CLUJ NAPOCA/Avram Iancu - APRON 1	
		CLUJ NAPOCA/Avram Iancu - APRON 2	
		CONSTANȚA/Mihail Kogălniceanu-Constanța	
		CRAIOVA/Craiova - APRON 1	
		CRAIOVA/Craiova - APRON 2	
		CRAIOVA/Craiova - APRON 3 / APRON 4	
		IAȘI/Iași	
		ORADEA/Oradea - APRON 1	
		ORADEA/Oradea - APRON 2	
		PLOIEȘTI/Gheorghe Valentin Bibescu-Ploiești	
		SATU MARE/Satu Mare	
		SIBIU/Sibiu	
	SUCEAVA/Ștefan cel Mare-Suceava - APRON 1		
	SUCEAVA/Ștefan cel Mare-Suceava - APRON 2		
	TÂRGU MUREȘ/Transilvania-Târgu Mureș - APRON 1		
	TÂRGU MUREȘ/Transilvania-Târgu Mureș - APRON 2		
	TIMIȘOARA/Traian Vuia - APRON		
	TULCEA/Delta Dunării		
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/Maramureș	AOC - A 09/27
	1:15 000	BRAȘOV/Brașov-Ghimbav	AOC - A 21/03
	1:15 000	BUCUREȘTI/Băneasa-Aurel Vlaicu	AOC - A 07
	1:15 000	BUCUREȘTI/Băneasa-Aurel Vlaicu	AOC - A 25
	1:15 000	BUCUREȘTI/Henri Coandă	AOC - A 08R/26L
	1:15 000	BUCUREȘTI/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	CONSTANȚA/Mihail Kogălniceanu-Constanța	AOC - A 36/18
	1:15 000	CRAIOVA/Craiova	AOC - A 08/26
	1:20 000	IAȘI/Iași	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/Ștefan cel Mare-Suceava	AOC - A 16/34
	1:15 000	TÂRGU MUREȘ/Transilvania - Târgu Mureș	AOC - A 07
	1:15 000	TÂRGU MUREȘ/Transilvania - Târgu Mureș	AOC - A 25
	1:15 000	TIMIȘOARA/Traian Vuia	AOC - A 11
	1:15 000	TIMIȘOARA/Traian Vuia	AOC - A 29
	1:15 000	TULCEA/Delta Dunării	AOC - A 16
	1:15 000	TULCEA/Delta Dunării	AOC - A 34



1	2	3	4
Aerodrome Ground Movement Chart - ICAO*	1:25 000	BUCUREȘTI/Henri Coandă CLUJ NAPOCA/Avram Iancu PLOIEȘTI/Gheorghe Valentin Bibescu-Ploiești TULCEA/Delta Dunării	
Visual Approach Chart - ICAO* (VAC)	NIL		
Precision Approach Terrain Chart - ICAO* (PATC)	1:2 500	ARAD/Arad LRAR PATC RWY 27 BACĂU/George Enescu LRBC PATC RWY 16 LRBC PATC RWY 34 BAIA MARE/Maramureș LRBM PATC RWY 09 BRAȘOV/Brașov-Ghimbav LRBV PATC RWY 21 BUCUREȘTI/Băneasa-Aurel Vlaicu LRBS PATC RWY 07 BUCUREȘTI/Henri Coandă LROP PATC RWY 08R LROP PATC RWY 08L CLUJ NAPOCA/Avram Iancu LRCL PATC RWY 25 CONSTANȚA/Mihail Kogălniceanu-Constanța LRCK PATC RWY 36 CRAIOVA/Craiova LRCV PATC RWY 26 IAȘI/Iași LRIA PATC RWY 14 SATU MARE/Satu Mare LRSM PATC RWY 19 SIBIU/Sibiu LRSB PATC RWY 27 SUCEAVA/Ștefan cel Mare-Suceava LRSV PATC RWY 34 TÂRGU MUREȘ/Transilvania-Târgu Mureș LRTM PATC RWY 07 TIMIȘOARA/Traian Vuia LRTR PATC RWY 11 LRTR PATC RWY 29 ORADEA/Oradea LROD PATC RWY 19	
RNAV Departure Chart*	1:500 000 1:500 000 1:500 000 1:500 000	ARAD/Arad LRAR RWY 09 LRAR RWY 27 BRAȘOV/Brașov-Ghimbav LRBV RWY 21 LRBV RWY 03 BUCUREȘTI/Băneasa-Aurel Vlaicu LRBS RWY 07 LRBS RWY 25 BUCUREȘTI/Henri Coandă LROP RWY 08L/R LROP RWY 26L/R CLUJ NAPOCA/Avram Iancu LRCL RWY 07 LRCL RWY 25 CRAIOVA/Craiova LRCV RWY 08 LRCV RWY 26 SIBIU/Sibiu LRSB RWY 09 LRSB RWY 27 TÂRGU MUREȘ/Transilvania-Târgu Mureș LRTM RWY 07 LRTM RWY 25 TIMIȘOARA/Traian Vuia LRTR RWY 11 LRTR RWY 29	
RNAV Arrival Chart*		ARAD/Arad LRAR RWY 09 LRAR RWY 27 BUCUREȘTI/Băneasa-Aurel Vlaicu LRBS RWY 07 LRBS RWY 25 BUCUREȘTI/Henri Coandă LROP RWY 08L/R LROP RWY 26L/R	

1	2	3	4
RNAV Arrival Chart*		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 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 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	
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	

7. Incentive schemes**7.1 Incentives for the operation of new routes:**

Airport charge	Y1 / W (%)	Y1 / S (%)	Y2 / W (%)	Y2 / S (%)
Landing charge	50	50	50	50
Passenger services charge	80	65	70	55
Lighting charge	60	50	60	50
Parking charge	80	80	80	80

where: Y = Year, W = Winter season, S = Summer season.

ELIGIBILITY CONDITIONS:

- A new route is considered any direct air connection, operated on a regular commercial basis, between Iași Airport and a destination that simultaneously meets the following conditions:
 - It has not been served from Iași Airport by any airline in the past 12 consecutive months prior to launch;
 - It connects to an airport located at least 100 km by road from any other airport already directly connected from Iași;
 - As an exception to the 100 km minimum distance condition, the discount scheme may also apply to connections to airports located less than 100 km away if they serve distinct metropolitan areas, offer significant traffic potential, or represent strategic interest for the development of Iași Airport Route Network, based on documented justification and subject to approval by Iași Airport;
- The route must be operated on a regular basis for a minimum of 12 consecutive months, with a minimum weekly frequency of 2 flights. By introducing the new route, the airline ensures a net increase in the number of destinations served;
- This discount scheme cannot be combined with other discount schemes applicable to the same route;
- If two airlines simultaneously announce their intention to open the same new route, the "first come, first served" principle will apply, based on the date the tickets are made available for sale in the reservation systems;
- Incentives will be calculated and granted annually, after the end of each 12-month period for which they apply;
- After the first 24 months the standard charges of Iași Airport will apply;
- In order to benefit from the discounts, the airline operator must submit a request (standardized form) including all relevant information.

7.2 Incentives for the operation of new charter routes:

Airport charge	Y1 / W (%)	Y1 / S (%)	Y2 / W (%)	Y2 / S (%)
Landing charge	50	50	50	50
Passenger services charge	65	50	65	50

where: Y = Year, W = Winter season, S = Summer season.

ELIGIBILITY CONDITIONS:

- Routes to/from Iași Airport are eligible for this incentive if no regular or charter flights have been operated on them in the past 12 consecutive months;
- The new charter route must be operated over a scheduled period of at least three months, with an average frequency of at least one flight per week;
- If two airlines simultaneously announce their intention to open the same new route, the "first come, first served" principle will apply, based on the date the complete application is submitted;
- This discount scheme cannot be combined with other discount schemes applicable to the same route.
- Discounts are granted after the end of the eligible season;
- After the first 24 months, Iași Airport's standard rates apply.

7.3 Incentives for the operation of new seasonal routes:

Airport charge	Y1 / W (%)	Y1 / S (%)	Y2 / W (%)	Y2 / S (%)
Landing charge	50	50	50	50
Passenger services charge	70	60	60	50
Lighting charge	60	50	60	50
Parking charge	70	70	70	70

where: Y = Year, W = Winter season, S = Summer season.

**7. Scheme de stimulente****7.1 Stimulente pentru operarea de rute noi:**

Tarife de aeroport	Y1 / W (%)	Y1 / S (%)	Y2 / W (%)	Y2 / S (%)
Tarif de aterizare	50	50	50	50
Tarif de servicii pentru pasageri	80	65	70	55
Tarif de iluminare	60	50	60	50
Tarif de staționare	80	80	80	80

în care: Y = anul, W = sezonul de iarnă, S = sezonul de vară.

CONDIȚII DE ELIGIBILITATE:

- O rută nouă este considerată orice conexiune aeriană directă, operată în regim comercial regulat, între Aeroportul Iași și o destinație care îndeplinește simultan următoarele condiții:
 - Nu a fost deservită de pe Aeroportul Iași de către nicio companie aeriană în ultimele 12 luni consecutive anterioare lansării;
 - Se realizează conexiunea cu un aeroport situat la cel puțin 100 km distanță rutieră de orice alt aeroport către care există deja o rută directă operată din Iași;
 - Prin excepție de la condiția privind distanța minimă de 100 km față de orice alt aeroport deservit direct de pe Aeroportul Iași, schema de discount se poate aplica și conexiunilor către aeroporturi situate la o distanță mai mică de 100 km, în cazul în care acestea deservesc zone metropolitane distincte, oferă un potențial semnificativ de trafic sau prezintă un interes strategic pentru dezvoltarea rețelei de rute a Aeroportului Iași, în baza unei justificări documentate și aprobate de Aeroportul Iași;
- Ruta va fi operată pe bază regulată, timp de minimum 12 luni consecutive cu o frecvență săptămânală de minimum 2 zboruri. Prin introducerea noii rute, operatorul aerian asigură creșterea netă a numărului de destinații;
- Prezenta schemă de reduceri nu se cumulează cu alte scheme de reduceri aplicabile pentru ruta respectivă;
- În cazul în care două companii aeriene anunță simultan intenția de a deschide aceeași rută nouă, se va aplica principiul "primul venit, primul servit" în funcție de data punerii în vânzare a biletelor în sistemele de rezervări;
- Stimulentele vor fi calculate și acordate anual, după încheierea fiecărei perioade de 12 luni pentru care acestea se aplică;
- După primele 24 de luni se aplică tarifele standard ale Aeroportului Iași;
- Pentru a beneficia de reduceri, operatorul de transport aerian trebuie să depună o solicitare (formular standardizat), care să conțină toate informațiile relevante.

7.2 Stimulente pentru operarea de noi rute charter:

Tarife de aeroport	Y1 / W (%)	Y1 / S (%)	Y2 / W (%)	Y2 / S (%)
Tarif de aterizare	50	50	50	50
Tarif de servicii pentru pasageri	65	50	65	50

în care: Y = anul, W = sezonul de iarnă, S = sezonul de vară.

CONDIȚII DE ELIGIBILITATE:

- Sunt eligibile pentru acest stimulent rutele către/dinspre Aeroportul Iași pentru care nu au fost operate zboruri regulate sau charter în ultimele 12 luni consecutive;
- Noua rută charter trebuie operată pe o perioadă programată de cel puțin trei luni, cu o frecvență medie de minimum un zbor pe săptămână;
- În cazul în care două companii aeriene anunță simultan intenția de a deschide aceeași rută nouă, se va aplica principiul "primul venit, primul servit" în funcție de data transmiterii aplicației complete;
- Prezenta schemă de reduceri nu se cumulează cu alte scheme de reduceri aplicabile pentru ruta respectivă;
- Reducerile se acordă după încheierea fiecărui sezon eligibil;
- După primele 24 de luni se aplică tarifele standard ale Aeroportului Iași.

7.3 Stimulente pentru operarea de noi rute sezoniere:

Tarife de aeroport	Y1 / W (%)	Y1 / S (%)	Y2 / W (%)	Y2 / S (%)
Tarif de aterizare	50	50	50	50
Tarif de servicii pentru pasageri	70	60	60	50
Tarif de iluminare	60	50	60	50
Tarif de staționare	70	70	70	70

în care: Y = anul, W = sezonul de iarnă, S = sezonul de vară.

**ELIGIBILITY CONDITIONS:**

- a) Routes to/from IAS are eligible for this incentive if no regular flights have been operated on them during the past 12 consecutive months;
- b) The new route must be operated for an IATA season, with an average frequency of at least two flights per week over a minimum period of four consecutive months;
- c) If two airlines simultaneously announce their intention to open the same new route, the "first come, first served" principle will apply, based on the date the complete application is submitted;
- d) This discount scheme cannot be combined with other discount schemes applicable to the respective route;
- e) Discounts will be granted after the completion of each eligible season;
- f) After the first 24 months the standard charges of Iași Airport will apply.

7. 4 Incentives for Additional Frequencies:

Airport charge	IATA Season (%)
Landing charge	50
Lighting charge	60
Parking charge	50

ELIGIBILITY CONDITIONS:

- a) The new frequency must be operated for at least one full IATA flight season;
- b) Actual increase compared to the previous IATA season:
The airline must add at least 1 (one) additional weekly frequency on an already existing route, previously operated with a minimum of two weekly frequencies, compared to the same IATA season of the previous year (e.g. summer-to-summer, winter-to-winter).
For calculation purposes, additional frequencies will be determined as the difference between the number of flights operated during the eligible IATA season and the number of flights operated in the corresponding IATA season of the previous year.
The additional frequency must be both scheduled and effectively operated.
- c) Operational consistency:
Frequencies that merely restore a previously reduced route to its former level are not eligible;
Only the net increase in frequencies compared to the average operated level in the previous IATA season is considered eligible.
- d) Compliance with the approved schedule:
The airline must operate at least 80% of the scheduled flights, according to the schedule approved by Iași Airport. Failure to meet this threshold may result in the withdrawal of the incentive;
- e) Discounts will be granted after the completion of each eligible season;

8. Payment and application rules

8.1 All flights will initially be charged at the standard values.

8.2 The payment of airport charges for the airlines with non scheduled flights or for airlines without a valid operational contract concluded with the airport, will be made in cash or by credit card before take-off.

8.3 The payment of airport charges, for the airlines with schedule flights and providing a valid operational contract concluded with Iași l'nal Airport, will be made by bank transfer according to the contract agreements

8.4 For airport landing, lighting and parking charges - whose charging base is tonne - the tonne fractions less than 500 Kg are neglected, and the highest of 500 Kg are considered a tonne. Aircraft with maximum take-off mass less than 500 kg will be charged as a tonne.

8.5 Stationary charge is applied for each hour or fraction of an hour of stationary aircraft at the airport, except for the first three hours after landing. The fraction of time is set at 15 minutes.

8.6 Charges for passenger services, airport security and development are applied per passenger boarded from Iași l'nal Airport. Children under the age of two are exempt from payment of these charges.



CONDIȚII DE ELIGIBILITATE:

- a) Sunt eligibile pentru acest stimulente rutele către/dinspre Aeroportul Iași pentru care nu au fost operate zboruri regulate în ultimele 12 luni consecutive;
- b) Noua rută trebuie operată pe un sezon IATA, cu o frecvență medie de minimum două zboruri pe săptămână, pe o perioadă de minimum 4 luni consecutive;
- c) În cazul în care două companii aeriene anunță simultan intenția de a deschide aceeași rută nouă, se va aplica principiul "primul venit, primul servit" în funcție de data transmiterii aplicației complete;
- d) Prezenta schemă de reduceri nu se cumulează cu alte scheme de reduceri aplicabile pentru ruta respectivă;
- e) Reducerile se acordă după încheierea fiecărui sezon eligibil;
- f) După primele 24 de luni se aplică tarifele standard ale Aeroportului Iași.

7. 4 Stimulente pentru Frecvențe Suplimentare:

Airport charge	Sezon IATA (%)
Tarif de aterizare	50
Tarif de iluminare	60
Tarif de staționare	50

CONDIȚII DE ELIGIBILITATE:

- a) Frecvența nouă trebuie operată pe durata a cel puțin un sezon de zbor IATA.
- b) Creștere reală față de sezonul IATA anterior:
Operatorul trebuie să adauge cel puțin 1 (una) frecvență săptămânală suplimentară pe o rută deja existentă, deservită cu minimum două frecvențe săptămânale, în comparație cu același sezon IATA al anului anterior (ex. vară cu vară, iarnă cu iarnă). Pentru calcul, frecvențele suplimentare vor fi determinate ca diferența dintre numărul de zboruri operate în sezonul IATA eligibil și numărul de zboruri operate în sezonul IATA corespunzător din anul anterior.
Frecvența suplimentară trebuie să fie programată și operată efectiv.
- c) Consistența operării:
Nu sunt eligibile frecvențele care doar readuc ruta la nivelul anterior după o reducere realizată în anul precedent. Se consideră eligibilă doar creșterea netă a frecvențelor față de nivelul mediu operat în sezonul IATA anterior.
- d) Respectarea programului aprobat:
Operatorul trebuie să respecte minimum 80% dintre zborurile programate, conform orarului aprobat de Aeroportul Iași. Nerespectarea acestui prag poate duce la revocarea stimulentei;
- e) Reducerile se acordă după încheierea fiecărui sezon eligibil;

8. Mod de plată și reguli de aplicare

8.1 Toate zborurile vor fi inițial taxate la nivelul tarifelor standard.

8.2 Plata tarifelor de aeroport, pentru companiile aeriene care efectuează zboruri ocazionale sau care nu au contracte valide semnate cu aeroportul, se face cash sau prin card, înainte de decolare.

8.3 Plata tarifelor de aeroport, pentru companiile aeriene care efectuează zboruri regulate și care au contracte valide semnate cu aeroportul, se face prin transfer bancar, în conformitate cu prevederile contractuale.

8.4 Pentru tarifele aeroportuare de aterizare, iluminare și staționare a căror bază de tarifare este tona, fracțiunile de tonă mai mici de 500 Kg se neglijează, iar cele mai mari de 500 Kg se consideră o tonă. Aeronavele cu masa maximă de decolare mai mică de 500 Kg vor fi tarifate pentru o tonă.

8.5 În cazul tarifului de staționare, acesta se percepe pentru fiecare oră sau fracțiune de oră de staționare a aeronavei pe aeroport, cu excepția primelor trei ore după aterizare. Frațiunea de oră se stabilește la 15 minute.

8.6 Tarifele de servicii pentru pasageri, de securitate aeroportuară și de dezvoltare se percep pentru fiecare pasager îmbarcat de pe Aeroportul Internațional Iași. Copiii mai mici de 2 ani sunt exceptați de la plata acestor tarife.



8.7 Additional conditions associated with landing, passenger services and development charges apply uniform and non-discriminatory to all airlines operating at Iași I'nal Airport.

8.8 Charge application is carried out in compliance with national and community laws and by respecting the already settled condition through the approved notifications by The Competition Council and European Commission.

8.9 General conditions for granting discounts and incentives

1. If an operator meets the conditions for multiple discount schemes, they shall apply provided that each passenger/operation benefits from only one discount on each fare type;
2. Volume-based discounts apply only to regular commercial flights;
3. In determining the level of volume-based discounts, all boarded passengers are considered, but the discount is applied only to those not benefiting from other discount schemes;
4. In determining the level of volume-based discounts, all landings are considered, but the discount is applied only to those landings not benefiting from other discount schemes;
5. The passenger services charge discount is applied to the amount remaining after deducting the fees collected for the supervision of safety-related objectives (OMT no. 7/2014) and SITA.

8.10 Current charges do not include VAT.

8.11 Airlines that consider they should be exempted from VAT, must provide to airport administration:

- a copy of AOC (Air Operator's Certificate);
- a copy of company's Certificate of Registration as a tax payer for VAT.

8.12 According to Romanian Air Code, the following categories of aircraft are exempt from paying airport passenger, security, development, transit, transfer, landing, parking and lighting fees:

- Romanian military aircrafts;
- aircraft of a NATO member state performing military flights, in which case the exemption must be justified by indicating the flight status in the flight plan;
- aircraft performing special flights, only in the case of dignitaries on official missions;
- aircraft nominated through the S.A.C. Program, militarily registered;
- aircraft performing flights for the benefit of the United Nations or other international organizations to which Romania is a party, respectively for the benefit of non-governmental organizations operating for humanitarian purposes, recognized by Romania;
- civil aircraft performing search and rescue flights, authorized according to the specific applicable regulations;
- aircraft performing humanitarian flights, authorized in accordance with the procedure provided for in art. 13 para. (1) of the Air Code;
- aircraft landing in case of force majeure;
- aircraft landing for cargo verification at the disposal of a Romanian authority;
- flights carried out with aircraft taking off and returning to the same aerodrome;
- other categories of aircraft, according to the treaties to which Romania is a party.



8.7 Condițiile suplimentare asociate tarifelor de aterizare, de servicii pentru pasageri și de dezvoltare se aplică tuturor companiilor aeriene care operează pe Aeroportul Iași, în mod unitar și nediscriminatoriu.

8.8 Aplicarea tarifelor se face cu respectarea legislației naționale și comunitare și cu respectarea condițiilor stabilite prin notificări aprobate de Consiliul Concurenței și Comisia Europeană.

8.9 Condiții generale pentru acordarea de reduceri și stimulente

1. În cazul în care un operator îndeplinește condițiile pentru mai multe scheme de reduceri, acestea se aplica cu condiția ca fiecare pasager / operațiune să beneficieze de o singură reducere pe fiecare tip de tarif.
2. Reducerile de volum se acordă doar pentru zboruri comerciale regulate.
3. Pentru stabilirea nivelului reducerilor de volum se iau în calcul toți pasagerii îmbarcați, dar se aplica doar pasagerilor care nu beneficiază de alte scheme de reduceri la tariful de servicii pasageri.
4. Pentru stabilirea nivelului reducerilor de volum se iau în calcul toate aterizările efectuate, dar se aplică doar aterizărilor care nu beneficiază de alte scheme de reduceri.
5. Reducerea pentru tariful de servicii pasageri se aplică la suma rămasă după deducerea taxelor colectate pentru supravegherea obiectivelor necesare siguranței pasagerilor (OMT nr. 7/2014) și SITA.

8.10 Tarifele prezentate nu conțin TVA.

8.11 Operatorii aerieni care consideră că trebuie să fie scutiți de TVA, trebuie să prezinte administrației aeroportului următoarele documente:

- copie a AOC (Air Operator's Certificate);
- codul de înregistrare fiscal (CIF), conform certificatului de înregistrare în scopuri TVA.

8.12 Conform Codului Aerian al României aeronavele specificate mai jos sunt scutite de la plata tarifelor aeroportuare de pasager, securitate, dezvoltare, tranzit, transfer, aterizare, staționare și iluminat următoarele categorii de aeronave:

- aeronavele de stat românești;
- aeronavele unui stat membru al NATO care execută zboruri militare, situație în care scutirea trebuie justificată prin indicarea statutului zborului în planul de zbor;
- aeronavele care execută zboruri speciale, numai în cazul demnitarilor aflați în misiuni oficiale;
- aeronavele nominalizate prin Programul S.A.C., înmatriculate militar;
- aeronavele care execută zboruri în folosul Organizației Națiunilor Unite sau al altor organizații internaționale la care România este parte, respectiv în folosul unor organizații neguvernamentale activând în scop umanitar, recunoscute de România;
- aeronavele civile care efectuează zboruri de căutare-salvare, autorizate conform reglementărilor specifice aplicabile;
- aeronavele care efectuează zboruri umanitare, autorizate în conformitate cu procedura prevăzută la art. 13 alin. (1) din Codul Aerian;
- aeronavele care sunt nevoite să aterizeze din cauza unor situații de forță majoră;
- aeronavele care aterizează pentru verificarea încărcăturii din dispoziția unei autorități române;
- zborurile efectuate cu aeronavele care decolează și se întorc pe același aerodrom;
- alte categorii de aeronave, conform tratatelor la care România este parte.

COMPULSORY Arrival / Departure Connecting Routes

COMPULSORY ARRIVAL CONNECTING ROUTES		
COMPULSORY Arrival Connecting Route	STAR first point /Intermediate Point	Airport
MIKVI Z650 REDKU	REDKU	LRBC
FOCSA T74 KENUX	KENUX	
POGAV Z650 DIRCO	DIRCO	
ABOLO T74 GUXVA	GUXVA	
ADMEC T4 SALAC	SALAC	
PELES T4 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		
NAVOD T226 PANZU		
GUXVA T74 ABOLO	ABOLO	LRIA
TOMUC P133 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 Z650 MIKVI
	KENUX	KENUX T74 FOCSA
	DIRCO	DIRCO Z650 POGAV
	GUXVA	GUXVA T74 ABOLO
	SALAC	SALAC T4 ADMEC
	TULNU	TULNU T4 PELES
	IBGIR	IBGIR Z924 APTAN
	GAROC	GAROC Z933 INBID
LRBM	VELSE	VELSE T995 RUMUK
	BUZZE	BUZZE T33 REPTO
	SOMET	SOMET T33 SAT
	FABZO	FABZO T995 OKLIV
LRBS	IDARU	IDARU 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 T74 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	IDARU	IDARU 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 1.8 REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030)

1. General

The ICAO EUR Regional Supplementary Procedures (Doc 7030/4-EUR) applies to Bucharest FIR.

2. Radio equipment requirements

2.1 In BUCURESTI FIR carriage of 8.33 kHz channel spacing radio equipment is mandatory for aircraft operating as follows:

- IFR flights operating in Classes A, C and G airspace;
- VFR flights operating in Class C.

2.2 Exemptions from 8.33 kHz channel spacing capable radio equipment requirement are granted for State aircraft operated as GAT in BUCURESTI FIR, on condition that these flights are equipped with 25 kHz VHF radio communications capability and are able to establish and maintain two-way radio with the appropriate ATC unit prior to entering the airspace, as instructed.

There are no UHF accommodation capabilities for State aircraft operated as GAT in BUCURESTI FIR. Exemptions for State aircraft are granted under [R\(EU\) 2017/373](#) and [R\(EU\) 2023/1770](#) provisions.

3. ACAS (TCAS, ACAS II) performance monitoring programme - Reporting ACAS events

European ACAS policy is to require the mandatory carriage and operation of an ACAS conforming to ICAO SARPS in the airspace of ECAC member States. An implementation schedule has been adopted, in principle, for mandatory carriage and operation of ACAS II so that:

- with effect from 1 January 2000, all civil fixed-wing turbine-engined aircraft having a maximum take-off mass exceeding 15.000 kg or maximum approved passenger seating configuration of more than 30 seats will be required to be equipped with ACAS II, and

- with effect from 1 January 2005, all civil fixed-wing turbine-engined aircraft having a maximum take-off mass exceeding 5.700 kg or maximum approved passenger seating configuration of more than 19 seats will be required to be equipped with ACAS II.

The continued contribution of operational personnel, both pilots and ATCOs, who take time to complete and return ACAS report forms, is essential because it provides the only reliable means to monitor the ACAS implementation and to assess the operational performance of improved TCAS II software versions in the European airspace environment. Therefore, for all aircraft already equipped with ACAS flying within BUCUREȘTI FIR, flight crew and controllers shall report to the monitoring authority all RAs and, if appropriate, any significant TA's for flight safety, using the ACAS report forms provided on page ENR 1.8-2, ENR 1.8-3. This requirement is in force at all times, irrespective of the ACAS II mandatory carriage target dates.

Aircraft operators and ATS units are requested to submit by fax, mail or directly completed ACAS report forms to:

ROMANIAN CIVIL AERONAUTICAL AUTHORITY
Air Navigation Services Directorate
(see GEN 1.1 paragraph)

Individual data will only be used for ACAS analysis and will be treated as confidential.

Any explicit request for a comprehensive traffic situation analysis submitted by an airspace user together with a report of an ACAS RA shall be treated correspondingly by the monitoring authority and the airspace user shall be subsequently informed of the findings.

ACAS reports shall be filled in and submitted to the monitoring authority irrespective of AIRPROX reports or of other incident reports that are subject to separate specific procedures.

Requests for supplementary information regarding the ACAS II performance monitoring programme may be addressed to the same address as above.

ENR 1.8 PROCEDURI REGIONALE SUPLIMENTARE (DOC 7030)

1. General

În FIR București se aplică Procedurile Suplimentare Regionale Europene (OACI Doc. 7030/4-EUR).

2. Cerințele echipamentului radio

2.1 În FIR BUCUREȘTI dotarea cu echipament radio cu ecartul dintre canale de 8.33 kHz este obligatorie pentru aeronavele care operează după cum urmează:

- zborurile IFR operate în clasele de spațiu aerian A, C și G;
- zborurile VFR operate în clasa de spațiu aerian C.

2.2 Excepții de la dotarea cu echipament radio cu ecartul dintre canale de 8.33 kHz sunt acordate pentru aeronavele de stat care operează GAT în FIR BUCUREȘTI, cu condiția ca acestea să fie dotate cu echipamente de comunicații VHF cu ecart de 25 kHz și să fie capabile să stabilească și să mențină legătura radio bilaterală cu unitatea ATC corespunzătoare înaintea intrării în spațiul aerian al acesteia, conform instrucțiunilor.

Nu există infrastructură UHF pentru acomodarea aeronavelor de stat care operează GAT în FIR BUCUREȘTI.

Excepțiile pentru aeronavele de stat sunt acordate în temeiul dispozițiilor din **R(UE) 2017/373 și R(UE) 2023/1770**.

3. Programul de monitorizare a performanțelor sistemelor ACAS (TCAS, ACAS II) - Raportarea evenimentelor ACAS

Politica europeană privind sistemele ACAS constă în introducerea obligativității folosirii sistemelor ACAS la bordul aeronavelor care operează în spațiul aerian ECAC, în conformitate cu prevederile ICAO SARPs. Un program referitor la introducerea utilizării obligatorii a fost în principiu adoptat, el fiind compus din două faze, după cum urmează:

- Începând de la 1 ianuarie 2000, toate aeronavele civile echipate cu motoare cu turbină cu o masă maximă la decolare care depășește 15.000 kg sau care au o configurație de cel puțin 30 locuri pasageri vor fi echipate cu sisteme ACAS II;

- Începând cu 1 ianuarie 2005, toate aeronavele civile echipate cu motoare cu turbină, cu o masă maximă la decolare mai mare de 5.700 kg, sau care au o configurație de cel puțin 19 locuri pasageri vor fi echipate cu sisteme ACAS II.

O contribuție susținută din partea personalului operațional, atât piloții cât și controlorii de trafic, care se ocupă cu completarea și returnarea formularelor referitoare la RA este esențială deoarece este singura formă viabilă de a monitoriza implementarea ACAS și de a stabili performanțele operaționale ale versiunii îmbunătățite a software-ului pentru TCAS II în spațiul aerian european. Așadar, pentru toate aeronavele deja echipate cu ACAS, care zboară în FIR BUCUREȘTI, echipajele și controlorii trebuie să semnaleze către autoritate toate RA-urile și, dacă este cazul, și eventuale TA-uri semnificative din punct de vedere al siguranței zborului, prin completarea formularelor ACAS de la pagina ENR 1.8-2, ENR 1.8-3. Această cerință se aplică deja și ea este independentă de termenele specificate pentru echiparea obligatorie cu ACAS II.

Operatorii aerieni și furnizorii de servicii de trafic aerian vor trimite rapoartele ACAS completate la:

AUTORITATEA AERONAUTICĂ CIVILĂ ROMÂNĂ
Direcția Servicii de Navigație Aeriană
(vezi paragraful GEN 1.1)

Datele transmise vor fi utilizate numai pentru analiza sistemelor ACAS și vor fi tratate în mod confidențial.

Orice cerere înaintată în mod explicit de un utilizator al spațiului aerian, împreună cu un raport de avertizare ACAS, spre a fi analizată o anumită situație de trafic aerian, va fi tratată în mod corespunzător de către autoritate, iar utilizatorului spațiului aerian i se vor comunica ulterior concluziile.

Rapoartele ACAS vor fi completate și înaintate autorității în mod independent față de rapoartele AIRPROX sau de alte rapoarte de incidente, pentru care există proceduri specifice separate.

Informații suplimentare referitoare la programul de monitorizare a performanțelor sistemelor ACAS II se pot obține de la aceeași adresă.

ENR 3.2 AREA NAVIGATION ROUTES

Index of RNAV Routes

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



Route designator (RNP type) Name of significant points Coordinates	Way-point IDENT of VOR/DME RDL/DIST(NM) ELEV DME(FT) Antenna	Magnetic bearing Geodesic DIST NM	Upper limits Lower limits Airspace classification	Direction of cruising levels		Navigation accuracy requirement	Remarks Controlling unit Frequency
				Odd	Even		
1	2	3	4	5		6	7
L130 (RNAV 5)		46.4					
▲ CETUL 444151N0283737E	TLA 183°/23.1 300	003° 8.2	FL105 FL55		↓	+/- 5NM	TIRVO IAR T77, Z934, Z935 Segment TIRVO - BADKA:avbl.EVEN levels only (See ENR 6-2,note 1)
△ TURIR 444958N0283922E	TLA 183°/14.9 300	183° 014°	Class C			+/- 5NM	
△ TIRVO 445933N0284411E	TLA 161°/5.3 300	10.2 194°	FL105 FL65	↑		+/- 5NM	
△ LOBKI 451041N0285457E	TLA 049°/10.6 300	028° 13.5	Class C		↓	+/- 5NM	
▲ BADKA (FIR BDRY) 452239N0290639E	TLA 037°/24.7 300	- 029°	FL105 FL55			+/- 5NM	
			Class C				
							For continuation, see AIP UKRAINE

1	2	3	4	5		6	7
L622 (RNAV 5)		9.2					
▲ KOMAN (FIR BDRY) 435900N0261300E	OPT 196°/39.4 300	319° 9.2	FL105 FL75		↓	+/- 5NM	
▲ OBUGA 440632N0260539E	OPT 209°/35.3 300	-	Class C				

1	2	3	4	5	6	7
M423 (RNAV 5)		118.1				
▲ARCAZ 463320N0212726E	DVA 300°/76.7 900	025° 9.4	<u>FL105</u> <u>FL55</u> Class C	↓	+/- 5NM	AGMEL IAR Y572 ORADEA NDB (ORA) IAR Y559, Z942 RULES IAR Z941 URNEQ IAR Z921 ROMAG IAR Z932 TISAD IAR Z949 SATU MARE DVOR/DME (SAT) IAR T33, T90 RUMUK IAR T995
△AGMEL 464126N0213416E	DVA 307°/77.9 900	025° 8.3			+/- 5NM	
▲TUVNU 464836N0214024E	ARD 025°/43.5 400	026° 20.3			+/- 5NM	
△ORADEA NDB (ORA) 470601N0215527E	SAT 221°/54.6 500	041° 8.3			+/- 5NM	
△RULES 471146N0220411E	SAT 221°/46.3 500	041° 3.7			+/- 5NM	
▲URNEQ 471420N0220807E	SAT 221°/42.6 500	040° 16.0			+/- 5NM	
△ROMAG 472522N0222507E	CLJ 298°/67.4 1600	040° 9.6			+/- 5NM	
▲TISAD 473159N0223522E	CLJ 307°/65.9 1600	041° 17.0			+/- 5NM	
△SATU MARE DVOR/DME (SAT) 474339N0225338E	CLJ 321°/66.6 1600	039° 25.5			+/- 5NM	
▲RUMUK (FIR BDRY) 480136N0232036E	CLJ 341°/75.8 1600	219°			+/- 5NM	
				↑		
						For continuation, see AIP UKRAINE

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

1	2	3	4
CETUL	444151N 0283737E	L130, SID/IAC LRCK	FRA (A): LRCK, LRCT FRA (D): LRCK, LRCT 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 LRCT	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)
DOHAC	443515N 0283109E	IAC LRCK	NIL
DOKUD	462807N 0245721E	Z650, SID/STAR LRCL, SID/STAR LRBS, SID/STAR LRTM	FRA (A): LRCL, LRBS, LRTM FRA (D): LRCL, LRBS, 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 LRBS, SID LRTM	NIL
DUNAV	450738N 0282855E	Z934, IAC LRCT	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 LRBS, STAR LRTM	FRA (A): LRCL, LRBS, 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

1	2	3	4
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	T4	FRA (I)
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)
GIRIL	473001N 0230253E	IAC LRSM	NIL
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
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	T74, SID/IAC LRBC	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	Z924	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
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

1	2	3	4
IDOMO	434816N 0244850E	NIL	FRA (I)
IFIXA	472025N 0272841E	IAC LRIA	NIL
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 LRBS, 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 LRBS, SID LRTM	FRA (A): LROP FRA (D): LRCL, LRBS, 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
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)
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

1	2	3	4
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	Z650	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 LRBS, STAR LRTM	FRA (A): LRCL, LRBS, 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
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
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
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
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)
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	T4	FRA (A): LRBC FRA (D): LRBC FRA (I)
PELUR	451712N 0252918E	NIL	FRA (I)
PEMOK	442153N 0242054E	T285, T899, IAC LRCV, SID LRCV	FRA (A): LROP FRA (I)
PEMUT	474107N 0231253E	IAC LRBM	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
PEVIL	472902N 0224838E	IAC LRSM	NIL
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	Z650, 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): LRCK 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
ROBTI	443005N 0255635E	Otopeni CTR, VFR route	NIL
RUCCU	475149N 0261629E	IAC LRSV	NIL
RUZAT	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 LRBS	FRA (I): FL175-FL660
RUTUV	462425N 0240613E	STAR LRTR	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): LRCK 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
TERTI	450518N 0283952E	IAC LRTC	NIL
TESTU	444506N 0260411E	STAR LROP	NIL
TEVRO	442047N 0253007E	STAR LRBS, LROP	FRA (I): FL175-FL660
TEVSA	465234N 0271212E	T74, 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	Z650, Z922	FRA (A): LRBV FRA (D): LRBV FRA (I)
TOMPU	464511N 0232710E	SID LRTR	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	T4, 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
TUVEK	445355N 0284014E	IAC LRTC	NIL
TUVNU	464836N 0214024E	M423	FRA (I)
UBAXI	453042N 0221247E	SID LRTR	NIL
UBOGU	444547N 0244006E	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 LRBS	FRA (D): LRBS 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
UPOLI	455306N 0240753E	STAR LRBS	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
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 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 LRBS	NIL
XEBUN	454647N 0242615E	STAR LRBS	NIL
YETZI	470134N 0274527E	IAC LRIA	NIL
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

AD 2. AERODROMES**LRAR AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRAR - ARAD / Arad****LRAR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

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

LRAR AD 2.3 OPERATIONAL HOURS

1	AD Operator	H24
2	Customs and immigration	H24
3	Health and sanitation	H24
4	AIS Briefing Office	H24, see GEN 3.1-5
5	ATS Reporting Office (ARO)	H24, see ENR 1.10-3
6	MET Briefing Office	H24
7	ATS	W: 0500-1700; S: 0400-1600
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	H24
12	Remarks	Outside the operational hours of ATS services are available O/R, submitted to the AD Operator with at least 24 hours in advance.

LRAR AD 2.4 HANDLING SERVICES AND FACILITIES

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

LRAR AD 2.5 PASSENGER FACILITIES

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

LRAR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

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

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

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

LRAR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

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

LRAR AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

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

LRAR AD 2.10 AERODROME OBSTACLES

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

LRAR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	ARAD
2	Hours of service MET Office outside hours	As ATS -
3	Office responsible for TAF preparation Periods of validity Interval of issuance	LROM 9 HR 3 HR, during aerodrome operational hours
4	Type of landing forecast Interval of issuance	NIL -
5	Briefing / consultation provided	Self-briefing; briefing/consultation on request (see row 8)
6	Flight documentation Language(s) used	Charts, Tabular form, abbreviated plain language text Romanian, English
7	Charts and other information available for briefing or consultation	SWC, W/T Charts, SIGMET, METAR, TAF.
8	Supplementary equipment available for providing information	Tel: +40-(0)257-281532 Fax: +40-(0)257-281532
9	ATS units provided with information	ARAD TWR
10	Additional information (limitation of service, etc.)	NIL

LRAR 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	THR elevation and highest elevation of TDZ of precision	Slope of RWY-SWY	
				RWY end coord THR geoid undulation	APP RWY		
1	2	3	4	5	6	7	
09	095.28°	2000 x 45	41/R/C/W/T Concrete	461038.57N 0211456.86E 461033.14N 0211621.34E GUND 141 FT	THR 345 FT	0.1%	
27	275.30°	2000 x 45	41/R/C/W/T Concrete	461033.14N 0211621.34E 461038.57N 0211456.86E GUND 143 FT	THR 351 FT	-0.1%	
SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of ARST system		OFZ	Remarks
8	9	10	11	12	13	14	
NIL	NIL	2120 x 300	220 x 90	NIL	Yes	The transverse slopes of the RWY are not symmetrical along the RWY length. Certain determined values do not fall within the 1-1.5% limits.	
NIL	500 x 180	2120 x 300	240 x 90	NIL	Yes		

LRAR AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
09	1820	1820	1820	1820	NIL
27	2000	2500	2000	1820	NIL

LRAR AD 2.14 APPROACH AND RWY LIGHTING

RWY Designator	APCH LGT type	THR LGT colour	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	SWY LGT LEN (M) colour	Remarks
	INTST	WBAR	PAPI	LEN	colour, INTST	colour, INTST	WBAR	colour	
1	2	3	4	5	6	7	8	9	10
09	CAT I 720 M LIH	Green	PAPI Left/3°	NIL	900M, 15M, White, LIH 600M, 15M, White/Red, LIH 300M, 15M, Red, LIH	1200M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red	NIL	NIL
27	CAT II 570 M LIH	Green	PAPI Left/3°	900 M LIH	1100M, 15M, White, LIH 600M, 15M, White/Red, LIH 300M, 15M, Red, LIH	1400M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red	NIL	TURN PAD LIH GREEN

LRAR 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 NIL
3	TWY edge and centre line lighting	TWY A: edge lights, blue, LED, centre line, green lights and alternate green-yellow exit to TWY A, LED, stop bar, red lights, LED.
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at AD, switch-over time 1 SEC.
5	Remarks	Lighting panels "NO ENTRY".

LRAR AD 2.16 HELICOPTER LANDING AREA

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

LRAR AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	ARAD CTR 461630N 0210625E - 461453N 0213131E - 460420N 0213007E - 460617N 0205955E - 461559N 0210113E - FIR BOUNDARY - 461630N 0210625E
2	Vertical limits	GND TO 2500 FT AMSL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Arad Tower English, Romanian
5	Transition altitude	9000 FT (2750 M) AMSL
6	Hours of applicability	W: 0500-1700; S: 0400-1600
7	Remarks	1. CTR established during hours of operation of ATS. See NOTAMs for changes. 2. Outside hours of operation of ATS airspace classification is G. 3. Outside hours of operation of ATS it is recommended to monitor Arad TWR FREQ and check on FIS FREQ about CTR status.

LRAR 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	Arad Tower	118.230 130.200 MHz ALTN	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
APP	Arad Approach	121.500 MHz EMERG 123.530 126.350 MHz ALTN	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.

LRBC AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
16	2500	2500	2500	2500	NIL
34	2500	2500	2500	2500	NIL

LRBC 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
16	ALSF-2 CAT II 900M LIH	Green Yes	PAPI 3° (53FT)	900M, 30M, White	1600M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1900M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red LIH	NIL	RWY 16/34, LED lights used in the full length of the ALS.
34	ALSF-2 CAT II 900M LIH	Green Yes	PAPI 3° (50FT)	900M, 30M, White	1600M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1900M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red LIH	NIL	

LRBC 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 NIL
3	TWY edge and centre line lighting	TWY A, B, E: edge TWY C, D, F: centre line, edge TWY F: edge West only
4	Secondary power supply/switch-over time	Secondary power supply to all lighting on the AD, switch-over time below 1 sec.
5	Remarks	NIL

LRBC 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	RWY 34/16 to be used.

LRBC AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	BACĂU CTR A circle, radius 15NM centred at 463119N 0265437E(ARP)
2	Vertical limits	SFC to 6500 FT STD
3	Airspace classification	C
4	ATS unit call sign Language(s)	Bacău Tower English, Romanian
5	Transition altitude	5000 FT AMSL
6	Hours of applicability	As ATS
7	Remarks	NIL

LRBC 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	Bacău Tower	120.980 118.600 MHz ALTN	NIL	NIL	H24	Exempted 8.33 kHz State aircraft.
APP	Bacău Tower	121.500 MHz EMERG 120.980 118.600 MHz ALTN	NIL	NIL	H24	Procedural service Exempted 8.33 kHz State aircraft.

LRBC 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 operatio n	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
DVOR/DME (7°E/2020)	BCU	109.400 MHz CH 31X	H24	463039.3N 0264932.0E	1800 FT	NIL	Coverage 175 NM (assumed)
LOC 16 (7°E/2020) ILS CAT II (II.T.3)	IBA	108.300 MHz	H24	463030.0N 0265455.9E	-	NIL	Front course angle 4.36°.
GP 16	-	334.100 MHz	H24	463146.9N 0265419.8E	-	NIL	GP Angle 3° ILS RDH 54 FT
DME 16	IBA	- CH 20X	H24	463146.8N 0265419.5E	700 FT	NIL	NIL
LOC 34 (7°E/2020) ILS CAT II (II.T.3)	IBC	110.700 MHz	H24	463207.5N 0265417.6E	-	NIL	Front course angle 4.36°.
GP 34	-	330.200 MHz	H24	463048.3N 0265442.8E	-	NIL	GP Angle 3° ILS RDH 54 FT
DME 34	IBC	- CH 44X	H24	463048.4N 0265442.5E	700 FT	NIL	NIL
NDB(LM)	B	520 KHZ	H24	463005.2N 0265505.6E	-	NIL	158°MAG/0.60NM from THR 34
DME	BAC	1145.000 MHz CH 121X	H24	463005.4N 0265505.2E	700 FT	NIL	117.4 MHz Ghost frequency Coverage 100 NM** Unusable in sector 210°-290°
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.

LRBC AD 2.20 LOCAL AERODROME REGULATIONS

1. AIRPORT REGULATIONS / REGLEMENTĂRI AEROPORT

1.1 Taxiing to and from stands

a. Taxiing to and from stands shall be in accordance with the standard routes published in LRBC AD 2.20 Local Aerodrome Regulations.

1.1 Rulajul la și de la standuri

a. Rulajul la și de la standuri se efectuează conform rutelor standard publicate la LRBC AD 2.20 Local Aerodrome Regulations.

- b. FOLLOW ME vehicle assistance, may be requested by the pilot via TWR.
 - c. Entry to the stand for aircraft shall be made with guidance by the ground dispatcher;
 - d. Upon arrival, helicopters will land on the runway and run on the ground / air according to standard runways. From the entrance on TWY F, the commander of the aircraft follows the markings to the point where he sees the ground dispatcher, following his signals until he stop.
 - e. If the pilot of a aircraft, operating on TWY F, does not have the ground dispatcher in sight, near the parking position communicated by TWR, he stops the aircraft and requests ATC, his presence.
 - f. The starting of the engines will be performed at the signals of the ground dispatcher only.
 - g. For aircraft with the letter code "A" or "B": exit from the stand without "push-back" if possible from the point of view of the maneuvering space, is performed only under the guidance of the ground dispatcher.
 - h. For aircraft with the code letters "C" and "D": exit from the stand is performed only with push-back or with its own engines if the push-back equipment is not operational and there is maneuvering space.
 - i. The helicopters, for departure, taxi on the ground /air, following the marking, from the parking position to the runway.
- 1.2 Helicopter parking area
- a. Helicopters will be parked on the platform in a marked / unmarked position with the guidance of the ground dispatcher.
 - b. Repositioning of helicopters on the platform is permitted with air / ground taxiing in compliance with the ground dispatcher's signals.
- 1.3 Taxi - limitations
- a. For aircraft with code letters C and D, after landing in direction 16, turning is permitted only with the use of the turnpad.
 - b. Military transport aircrafts which after landing on direction 34, require entry on TWY A and B will taxi on the following routes:
 - RWY - TWY C - TWY F - TWY D - RWY
 - RWY - TWY D - TWY F - TWY C - RWY
 - c. Military transport aircraft requesting entry to the runway for take-off from TWY A and B, on direction 16, will taxi on the following route:
 - TWY A or B - RWY - TWY C - TWY F - TWY D - RWY
 - d. When stands are not available, TWY C is designated as a waiting area for incoming aircraft.
 - e. In order to avoid the effect of the jet blast on the circulation of vehicles and aircraft, the taxi for the departure from the stands, will be performed with the engines in "Idle" mode.
- 1.4 Use of the aerodrome by aircraft exceeding the certified design characteristics of the aerodrome:
- a. On request, it is allowed to operate aircraft A 330-200, after obtaining the approval of the aerodrome operator;
 - b. The request will be sent to dispatch@bacauairport.ro, at least 15 days before the flight;
 - c. Crews operating aircraft must pay attention to the free wheel height above the threshold when following the PAPI signal;
 - d. When landing on heading 34/16, THE exit from the runway will be on TWY D;
- b. Asistența vehicului „FOLLOW ME” poate fi solicitată de pilot prin TWR.
 - c. Intrarea la stand se va face cu dirijare de către dispecerul de sol;
 - d. Pentru sosire, elicopterele vor ateriza pe pistă și vor rula la sol/aerian conform rutelor standard de rulare. De la intrarea pe TWY F comandantul aeronavei urmează marcajele până la punctul în care are la vedere dispecerul de sol, urmând semnalele acestuia până la oprire.
 - e. În cazul în care pilotul unei aeronave, aflată în rula pe TWY F, nu are la vedere dispecerul de sol, în dreptul poziției de parcare comunicate de TWR, oprește aeronava și solicită ATC, prezența acestuia.
 - f. Pornirea motoarelor se va executa la semnalele dispecerului de sol.
 - g. Pentru aeronave cu litera de cod „A” sau „B”: ieșirea din stand fără „push-back” dacă este posibil din punct de vedere al spațiului de manevră, se efectuează numai sub dirijarea dispecerului de sol.
 - h. Pentru aeronave cu litera de cod „C” și „D”: ieșirea din stand se efectuează numai cu „push-back” sau cu propriile motoare dacă echipamentul „push-back” nu este operațional și există spațiu de manevră.
 - i. Elicopterele, pentru plecare, rulează la sol/aerian, urmând marcajul, de la poziția de parcare până la pistă.
- 1.2 Zona de parcare pentru elicoptere
- a. Elicopterele vor fi parcate pe platformă pe o poziție marcată/nemarcată la semnalele dispecerului de sol.
 - b. Repoziționarea elicopterelor pe platformă este permisă cu rula aerian/la sol cu respectarea semnalelor dispecerului de sol.
- 1.3 Rulare - limitări
- a. Pentru aronavele cu litera de cod C și D, după aterizarea pe direcția 16, întoarcerea este permisă doar cu folosirea buzunarului de întoarcere.
 - b. Aeronavele militare de transport care după aterizarea pe direcția 34, solicită intrarea pe TWY A și B se vor deplasa pe următoarele trasee:
 - RWY - TWY C - TWY F - TWY D - RWY
 - RWY - TWY D - TWY F - TWY C - RWY
 - c. Aeronavele militare de transport care solicită intrarea la pista pentru decolare de pe TWY A și B, pe direcția 16, se vor deplasa pe următorul traseu:
 - TWY A sau B - RWY - TWY C - TWY F - TWY D - RWY
 - d. Când standurile nu sunt disponibile, TWY C este desemnată ca zonă de așteptare pentru aeronavele care sosesc.
 - e. Pentru evitarea efectului suflului motoarelor asupra circulației autovehiculelor și aeronavelor, rulajul pentru plecarea de la standuri, se va efectua cu motoarele în regim „Idle”.
- 1.4 Utilizarea aerodromului de către aeronave care depășesc caracteristicile de proiectare certificate ale aerodromului:
- a. La cerere, se permite operarea aeronavelor A 330-200, după obținerea aprobării operatorului de aerodrom;
 - b. Solicitarea va fi transmisă pe adresa dispatch@bacauairport.ro, cu minim 15 zile înaintea zborului;
 - c. Echipajele trebuie să acorde atenție înalțimii libere la roata deasupra pragului când urmează semnalul PAPI;
 - d. La aterizarea pe direcția 34/16, ieșirea de pe pistă se va efectua pe TWY D;



- e. When landing on heading 16 or take-off on heading 34, on the 180 degree turn on the turn pad at the end of the runway, the aircraft will initiate the turn to align with the runway before the mark so that the "aircraft nose" is aligned with the mark instead of jamb.
- f. Exit from the parking position and entry to the runway will be on TWY D.
- e. La aterizarea pe direcția 16 sau la alinierea pentru decolare pe direcția 34, la virajul de 180 de grade în buzunarul din capătul pistei, aeronava va iniția virajul de aliniere cu pista înainte de marcaj, astfel încât "aircraft nose" să fie aliniat cu marcajul în loc de jamba.
- f. ieșirea din poziția de parcare și intrarea la pistă se va efectua pe TWY D.

2. STANDARD TAXI ROUTES / RUTELE STANDARD DE RULARE

The following taxi routes are available for taxiing on LRBC.

Următoarele rute de rulare sunt disponibile pe LRBC.

2.1 ARRIVAL INFORMATION/ INFORMAȚII LA SOSIRE

	Taxiways to be followed / Traseu de urmat			STD route	Remarks / Remarci	LVO	
	TO	APRON	On				
ARR on RWY 16	TO	APRON	On	TWY D, F	ARR1	-	Used for LVP
				TWY C, F	ARR2	-	Used for LVP
ARR on RWY 34	TO	APRON	On	TWY D, F	ARR1	-	Used for LVP
				TWY C, F	ARR2	-	Used for LVP

2.2 DEPARTURE INFORMATION/INFORMAȚII LA PLECARE

	Taxiways to be followed / Traseu de urmat			STD route	Remarks / Remarci	LVO	
	TO	RWY 16	On				
DEP from APRON	TO	RWY 16	On	TWY F, D	DEP1	-	Used for LVP
DEP from APRON	TO	RWY 34	On	TWY F, D	DEP1	-	Used for LVP
				TWY F, C	DEP2	-	Used for LVP

LRBC AD 2.21 NOISE ABATEMENT PROCEDURES

See AD 1.1-3

LRBC AD 2.22 FLIGHT PROCEDURES

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

1.1 Description of facilities

- (a) Runway 16 is equipped with ILS/DME with the characteristics specified at LRBC AD 2.19 RADIO NAVIGATION AND LANDING AIDS and 3 transmitters (threshold, middle and end)
- (b) Runway 34 is equipped with ILS/DME with the characteristics specified at LRBC AD 2.19 RADIO NAVIGATION AND LANDING AIDS and 3 transmitters (threshold, middle and end)

1.2 Criteria for the initiation and termination of LVP

(a) Approach and landing

- (1) The preparation phase will be triggered when in meteorological messages the RVR value is 800m or less, or, in the absence of RVR, the horizontal visibility value is 1500m or less, or the base of the ceiling/vertical visibility value is 150m (500ft) or less.
- (2) The operational phase will be triggered only when in meteorological messages the RVR is 550m or less, or, in the absence of RVR, the horizontal visibility value is 800m or less, or the base of the ceiling/vertical visibility value is 60m (150ft) or less.

- (3) Procedures in low visibility conditions will be terminated when in meteorological messages, the RVR value is 800m or more, or, in the absence of RVR, the horizontal visibility value is 1500 m or more, and the base of the ceiling/vertical visibility value is 300m (90ft) or more.

(b) Take-off

- (1) The triggering of the LVP shall be requested at least 30 minutes prior to EOBT/CTOT, to allow for appropriate preparations.

1.1 Descrierea facilităților

- (a) Pista 16 este echipată cu ILS/DME cu caracteristicile precizate la LRBC AD 2.19 RADIO NAVIGATION AND LANDING AIDS și 3 transmisiometre (prag, mijloc și end)
- (b) Pista 34 este echipată cu ILS/DME cu caracteristicile precizate la LRBC AD 2.19 RADIO NAVIGATION AND LANDING AIDS și 3 transmisiometre (prag, mijloc și end)

1.2 Criterii pentru inițierea și terminarea LVP

(a) Apropierea și aterizarea

- (1) Faza de pregătire va fi declanșată atunci când în mesajele meteorologice RVR are valoarea de 800m sau mai puțin, sau dacă RVR este indisponibil, vizibilitatea orizontală are valoarea de 1500m sau mai puțin, sau plafonul norilor/vizibilitatea verticală are valoarea de 150m (500ft) sau mai puțin.
- (2) Faza operațională a LVP se declanșează doar atunci când în mesajele meteorologice RVR are valoarea de 550 m sau mai puțin, sau dacă RVR este indisponibil, vizibilitatea orizontală are valoarea de 800 m sau mai puțin, sau plafonul norilor/vizibilitatea verticală are valoarea de 60m (200ft) sau mai puțin.

- (3) Procedurile în condiții de vizibilitate redusă vor fi încheiate atunci când în mesajele meteorologice, RVR are valoarea de 800m sau mai mult, sau, dacă RVR este indisponibil, vizibilitatea orizontală are valoarea de 1500m sau mai mult, și plafonul norilor/vizibilitatea verticală are valoarea de 300m (90ft) sau mai mult.

(b) Decolarea

- (1) Declanșarea LVP, va trebui solicitată cu minim 30 de minute înainte de EOBT/CTOT, pentru a permite pregătirile corespunzătoare.

1.3 Ground marking and lighting according to LRBC AD 2.9
SURFACE MOVEMENT GUIDANCE AND CONTROL
SYSTEM AND MARKINGS

1.4 Remarks

- (a) Details of runway exits
- (1) Pilots shall report "Runway Clear" only after the aircraft has passed the green/yellow light coded segment of the C and D taxiway axis.
- (b) Restrictions on ground movement
- (1) During the LVP operational phase, only one aircraft will be authorized to taxi on the maneuvering area of "George Enescu" Bacău International Airport
- (2) After obtaining taxi clearance, the aircraft shall enter the taxiway only when the green axial lights are on.
- (c) Simulated CAT II Approaches
- (1) Before performing a LVP approach simulation, the pilot is obliged to submit a request to ATCO TWR Bacău.

1.3 Marcaj și balizaj conform LRBC AD 2.9 SURFACE
MOVEMENT GUIDANCE AND CONTROL SYSTEM AND
MARKINGS

1.4 Remarci

- (a) Detalii privind iesirea de la pista
- (1) Piloții vor raporta "Pista liberă" numai după ce aeronava a depășit segmentul codat cu lumini verde/alben al axului căilor de rulare C și D.
- (b) Restricții privind mișcarea la sol
- (1) Pe timpul fazei operaționale LVP, pe suprafața de manevră a Aeroportului Internațional „George Enescu” Bacău va fi autorizat rulajul unei singure aeronave
- (2) După obținerea autorizării de rulare, aeronava va intra pe calea de rulare doar atunci când luminile verzi axiale sunt aprinse.
- (c) Apropieri CAT II în condiții LVP simulate
- (1) Înainte de efectuarea unei simulări de apropiere LVP, pilotul este obligat să transmită o solicitare către CTAO TWR Bacău.

LRBC AD 2.23 ADDITIONAL INFORMATION**1. Warning for bird hazard**

There may be concentrations of birds on or near "George Enescu" Bacău International Airport.

The feeding areas are delimited by the city's landfill and the minor riverbed of the Bistrița River in its vicinity. The agricultural area is used by birds especially in spring and autumn when agricultural work is carried out exposing seeds and small animals. The directions of movement of the birds and the maximum heights reached are represented on chart AD 2.2-46. Pilots are asked to be careful when taking off and while approaching for landing.

2. Removal of disabled aircraft

a) Bacău "George Enescu" International Airport does not have equipments of removal of the accidental blocked aircrafts in movement surface and adjacent safety strip.

b) Aircraft operators are responsible for removing accidentally immobilized aircraft on the moving surface and the adjacent safety strip.

c) Bacău "George Enescu" International Airport can provide airline operators with contact details of companies owning equipment and machinery capable of removing accidentally fixed aircraft.

1. Avertizare pentru pericol de păsări

Pot exista concentrații de păsări pe sau în apropierea Aeroportului Internațional „George Enescu” Bacău.

Zonele de hrănire sunt delimitate de groapa de gunoi a orașului și albia minoră a râului Bistrița din vecinătatea acesteia. Zona agricolă este folosită de păsări în special primăvara și toamna când se efectuează lucrări agricole care expun semințe și animale mici. Direcțiile de deplasare ale păsărilor și înălțimile maxime atinse sunt reprezentate pe harta AD 2.2-46. Piloții sunt rugați să fie precauți la decolare și în timp ce se apropie pentru aterizare.

2. Îndepărtarea aeronavelor imobilizate

a) Aeroportul Internațional "George Enescu" Bacău nu dispune de echipamente și utilaje de înlăturare a aeronavelor imobilizate accidental pe suprafața de mișcare și benzile de siguranță adiacente.

b) Operatorii aerieni sunt răspunzători de înlăturarea aeronavelor imobilizate accidental pe suprafața de mișcare și benzile de siguranță adiacente.

c) Aeroportul Internațional "George Enescu" Bacău poate pune la dispoziție operatorilor aerieni date de contact ale firmelor ce dețin echipamente și utilaje capabile să înlătore aeronavele imobilizate accidental.

LRBC AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO.....	AD 2.2-20
Aircraft Parking/Docking Chart - ICAO	AD 2.2-22
Aerodrome Obstacle Chart - ICAO - Type A	
RWY 16	AD 2.2-25
RWY 34	AD 2.2-26
Precision Approach Terrain Chart - ICAO	
RWY 16	AD 2.2-28
RWY 34	AD 2.2-29
Standard Departure Charts - Instrument - ICAO	
RWY 16	AD 2.2-30
RWY 34	AD 2.2-31
Bird concentrations in the vicinity of the aerodrome	AD 2.2-46
Instrument Approach Charts - ICAO	
ILS X RWY 16	AD 2.2-50
ILS Z RWY 16	AD 2.2-51
ILS Y RWY 16	AD 2.2-52
ILS Z RWY 34	AD 2.2-53
ILS Y RWY 34	AD 2.2-54
RNP RWY 16	AD 2.2-71
RNP RWY 34	AD 2.2-72
NDB Z RWY 16	AD 2.2-91
NDB Y RWY 16	AD 2.2-92
NDB Z RWY 34	AD 2.2-93
NDB Y RWY 34	AD 2.2-94



LRBC AD 2.25 VISUAL SEGMENT SURFACE (VSS) PENETRATION

Not applicable.

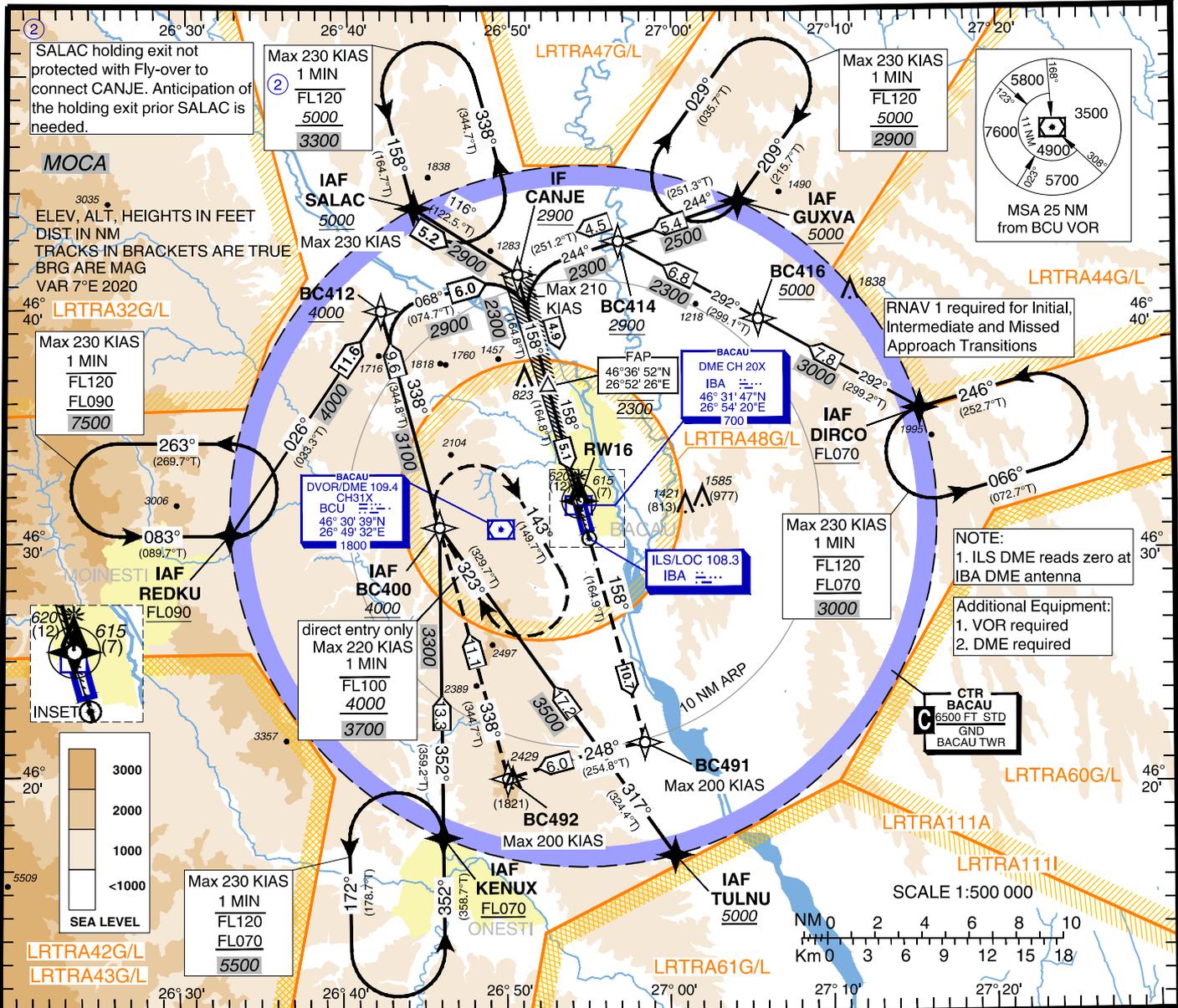


**INSTRUMENT
APPROACH
CHART - ICAO**

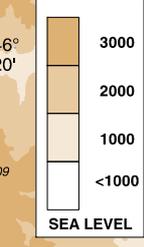
AERODROME ELEV. 608 ft
HEIGHTS RELATED TO AD ELEV

BACAU TOWER 120.980
BACAU TOWER ALTN 118.600

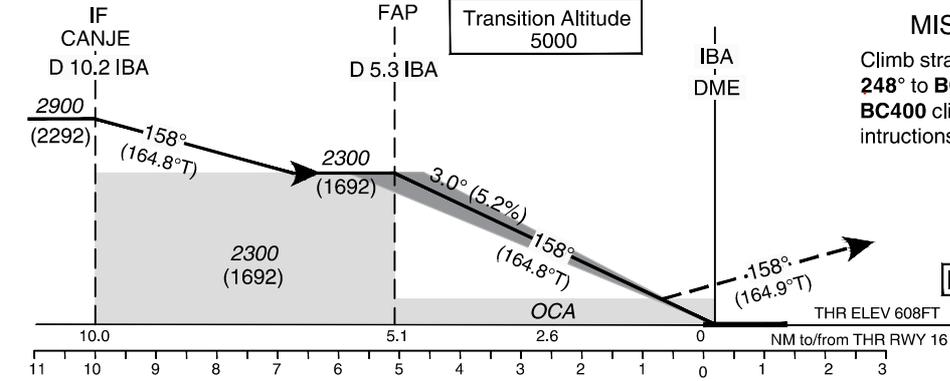
**BACĂU / George Enescu
(LRBC)
ILS X RWY 16**



New chart.



LRTRA42G/L
LRTRA43G/L



OCA (H)	MACG	A	B	C	D
CAT I	2.50%	1142 (534)	1152 (544)	1162 (554)	1172 (564)
	3.00%	918 (310)	928 (320)	938 (330)	948 (340)
	4.00%	752 (144)	762 (154)	772 (164)	781 (173)
CAT II	2.50%	1054 (446)	1070 (462)	1083 (475)	1097 (489)
	3.00%	830 (222)	846 (238)	859 (251)	872 (264)
	4.00%	659 (51)	675 (67)	688 (80)	701 (93)
Circling (1)			1820		1980

Timing not authorized for defining the MAPt.

GS	KIAS	70	90	100	120	140	160
FAP-THR 5.1 NM	min:s	4:22	3:24	3:04	2:33	2:11	1:55
Rate of descent (5.2%)	ft/min	372	478	531	637	744	850

Dist to IBA DME	NM	5	4	3	2	1
Altitudes (Heights)	FT	2200 (1592)	1880 (1272)	1560 (952)	1240 (632)	930 (322)

(1) Circling West of airport prohibited.

For data tabulation see verso.

**BACĂU / George Enescu (LRBC)
ILS X RWY 16****AERONAUTICAL DATA TABULATION**

ILS X RWY 16	
Fix/Point	Coordinates
SALAC (IAF)	46°44'27.0" N 026°44'07.0" E
GUXVA (IAF)	46°44'48.0" N 027°04'07.0" E
DIRCO (IAF)	46°35'58.0" N 027°15'17.0" E
TULNU (IAF)	46°16'50.0" N 027°00'16.0" E
KENUX (IAF)	46°17'32.0" N 026°46'04.0" E
REDKU (IAF)	46°30'24.0" N 026°32'56.0" E
BC400 (IAF)	46°30'47.6" N 026°45'47.2" E
BC416	46°39'47.0" N 027°05'22.1" E
BC414	46°43'05.0" N 026°56'43.9" E
BC412	46°40'03.2" N 026°42'08.2" E
CANJE (IF)	46°41'37.9" N 026°50'32.6" E
FAP	46°36'51.8" N 026°52'25.6" E
RW16	46°31'57.93" N 026°54'21.29" E
BC491 (MATF)	46°21'38.5" N 026°58'24.0" E
BC492 (MATF)	46°20'04.0" N 026°50'01.1" E

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

RADIO COMMUNICATION FAILURE

- If ILS X RWY16 instrument approach procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS X RWY16 instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- If ILS X RWY16 instrument approach procedure was not assigned or received by ATC, for arrivals via REDKU/ SALAC/ GUXVA/ DIRCO/ KENUX: set transponder 7600, proceed according to FPL to CTR entry point (REDKU/ SALAC/ GUXVA/ DIRCO/ KENUX) and hold at least 6 minutes, then continue to ILS X RWY16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
- If ILS X RWY16 instrument approach procedure was not assigned or received by ATC, for arrivals via TULNU: set transponder 7600, proceed according to FPL to CTR entry point TULNU (IAF), then BC400 and hold at least 6 minutes, then continue the ILS X RWY 16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

**BACĂU / George Enescu (LRBC)
ILS X RWY 16****Procedure Coding**

Serial No	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
010	IF	GUXVA			7.0E			+5000			RNAV 1
020	TF	BC414		244 (251.3)	7.0E	5.4		+2900			RNAV 1
030	TF	CANJE		244 (251.2)	7.0E	4.5		+2900	-210		RNAV 1
010	IF	SALAC			7.0E			+5000	-230		RNAV 1
020	TF	CANJE		116 (122.5)	7.0E	5.2		+2900	-210		RNAV 1
010	IF	DIRCO			7.0E			+FL070			RNAV 1
020	TF	BC416		292 (299.2)	7.0E	7.8		+5000			RNAV 1
030	TF	BC414		292 (299.1)	7.0E	6.8		+2900			RNAV 1
040	TF	CANJE		244 (251.2)	7.0E	4.5		+2900	-210		RNAV 1
010	IF	TULNU			7.0E			+5000			RNAV 1
020	TF	BC400		317 (324.4)	7.0E	17.2		+4000			RNAV 1
030	TF	BC412		338 (344.8)	7.0E	9.6		+4000			RNAV 1
040	TF	CANJE		068 (074.7)	7.0E	6.0		+2900	-210		RNAV 1
010	IF	KENUX			7.0E			+FL070			RNAV 1
020	TF	BC400		352 (359.2)	7.0E	13.3		+4000			RNAV 1
030	TF	BC412		338 (344.8)	7.0E	9.6		+4000			RNAV 1
040	TF	CANJE		068 (074.7)	7.0E	6.0		+2900	-210		RNAV 1
010	IF	REDKU			7.0E			+FL090			RNAV 1
020	TF	BC412		026 (033.3)	7.0E	11.6		+4000			RNAV 1
030	TF	CANJE		068 (074.7)	7.0E	6.0		+2900	-210		RNAV 1
010	IF	BC400			7.0E			+4000			RNAV 1
020	TF	BC412		338 (344.8)	7.0E	9.6		+4000			RNAV 1
030	TF	CANJE		068 (074.7)	7.0E	6.0		+2900	-210		RNAV 1



**BACĂU / George Enescu (LRBC)
ILS X RWY 16**

Procedure Coding

Serial No.	Path Descriptor	Waypoint ID	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
010	IF	CANJE			7.0E			+2900	-210		RNAV 1
020	CF	FAP		158 (164.8)	7.0E	4.9		@2300			CONVENTIONAL
030	CF	RW16	Y	158 (164.8)	7.0E	5.1		@662		-3.0/54	CONVENTIONAL
040	TF	BC491		158 (164.9)	7.0E	10.7			-200		RNAV 1
050	TF	BC492		248 (254.8)	7.0E	6.0			-200		RNAV 1
060	TF	BC400		338 (344.7)	7.0E	11.1		+4000			RNAV 1
070	HM	BC400		323 (329.7)	7.0E		R	-FL100 +4000	-220		RNAV 1

Path Descriptor	Waypoint ID	Inbund Course °M (°T)	Leg distance	Timing (min.)/ Waypoint Distance (NM)	Turn Direction	Minimum Altitude (ft)	Maximum Altitude (ft)	Speed limit (kts)	Navigation Specification
HM	SALAC	158 (164.7)	-	1/-	L	5000	FL120	-230	RNAV 1
HM	GUXVA	209 (215.7)	-	1/-	R	5000	FL120	-230	RNAV 1
HM	DIRCO	246 (252.7)	-	1/-	L	FL070	FL120	-230	RNAV 1
HM	KENUX	352 (358.7)	-	1/-	L	FL070	FL120	-230	RNAV 1
HM	REDKU	083 (089.7)	-	1/-	L	FL090	FL120	-230	RNAV 1

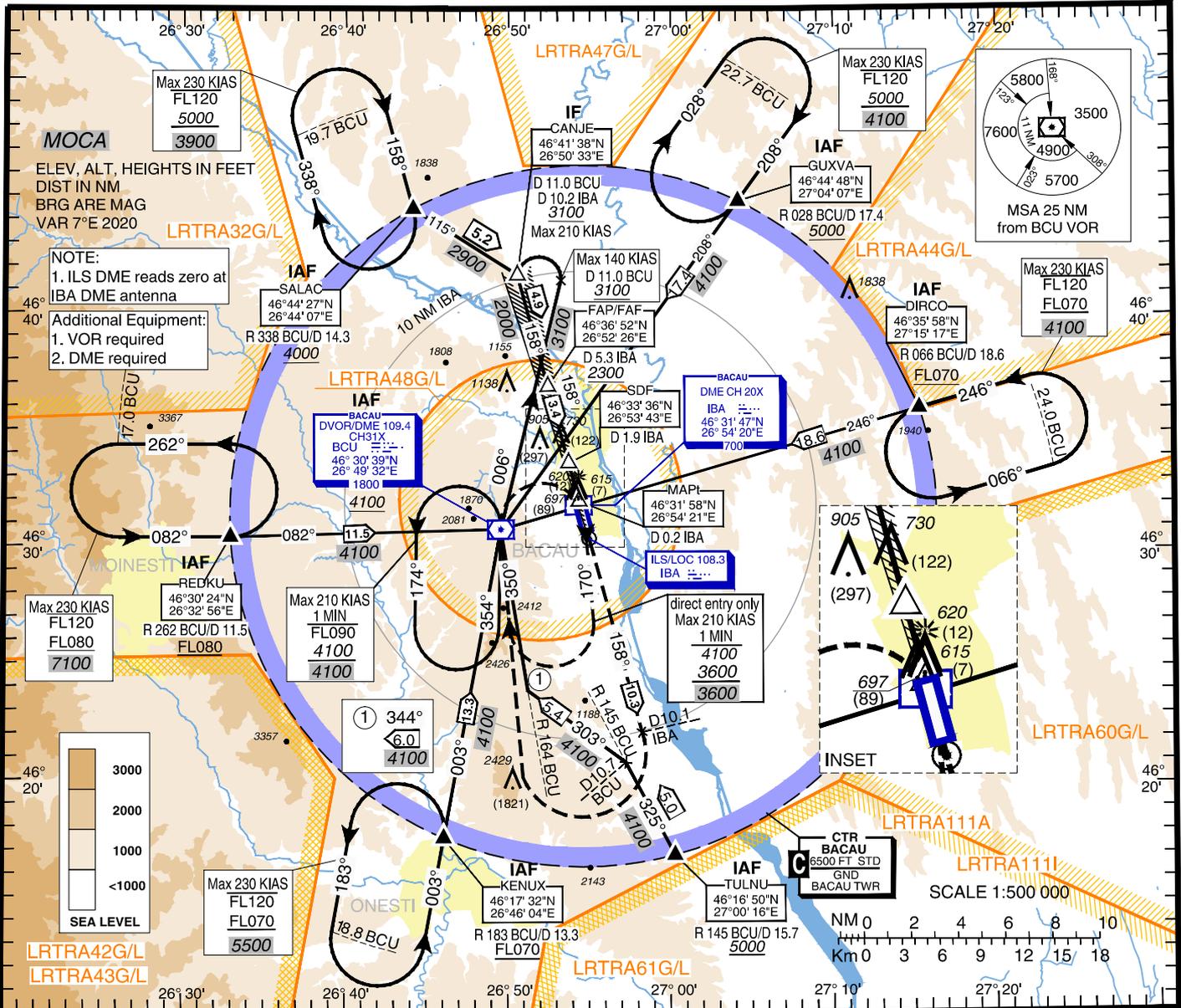


**INSTRUMENT
APPROACH
CHART - ICAO**

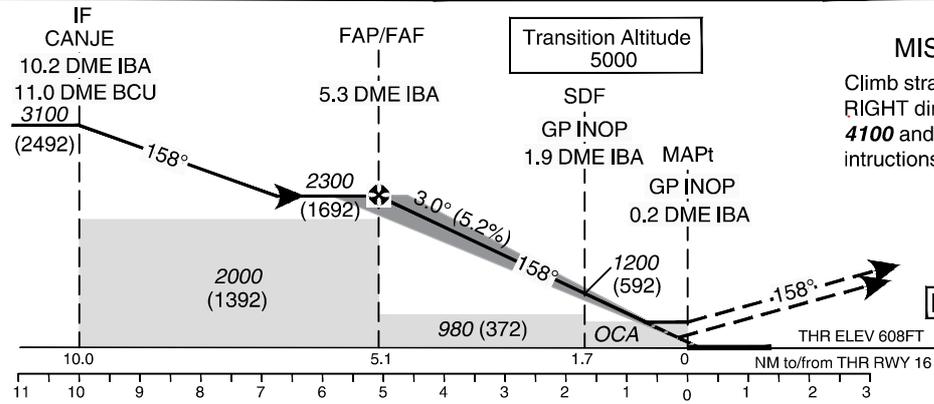
AERODROME ELEV. 608 ft
HEIGHTS RELATED TO AD ELEV

BACAU TOWER 120.980
BACAU TOWER ALTN 118.600

**BACĂU / George Enescu
(LRBC)
ILS Z RWY 16**



New chart.



OCA (H)	MACG	A	B
CAT I	2.50%	869 (261)	879 (271)
	3.00%	752 (144)	762 (154)
CAT II	2.50%	781 (173)	797 (189)
	3.00%	659 (51)	675 (67)
GP INOP with SDF	2.50%	930 (322)	
GP INOP w/o SDF	2.50%	980 (372)	
Circling (1)		1820	

Timing not authorized for defining the MAPt.

GS	KIAS	70	90	100	120	140	160
FAP-MAPT 5.1 NM	min:s	4:22	3:24	3:04	2:33	2:11	1:55
Rate of descent(5.2%)	ft/min	372	478	531	637	744	850

Dist to IBA DME	NM	5	4	3	2	1
Altitudes (Heights)	FT	2200 (1592)	1880 (1272)	1560 (952)	1240 (632)	930 (322)

(1) Circling West of airport prohibited.

For data tabulation see verso.

**BACĂU / George Enescu (LRBC)
ILS Z RWY 16****AERONAUTICAL DATA TABULATION****ILS Z Approach to RWY 16 from GUXVA, DIRCO, TULNU, KENUX, REDKU, SALAC**

Fix/Point	Coordinates
GUXVA (IAF) – BRG 028.29° BCU / D 17.36 BCU	46°44'48.0" N 027°04'07.0" E
DIRCO (IAF) – BRG 066.17° BCU / D 18.55 BCU	46°35'58.0" N 027°15'17.0" E
TULNU (IAF) – BRG 144.69° BCU / D 15.70 BCU	46°16'50.0" N 027°00'16.0" E
KENUX (IAF) – BRG 183.38° BCU / D 13.34 BCU	46°17'32.0" N 026°46'04.0" E
REDKU (IAF) – BRG 261.82° BCU / D 11.47 BCU	46°30'24.0" N 026°32'56.0" E
SALAC (IAF) – BRG 337.90° BCU / D 14.30 BCU	46°44'27.0" N 026°44'07.0" E
CANJE (IF) – BRG 158.16° IBA / D 10.20 IBA / D 11.00 BCU	46°41'37.9" N 026°50'32.6" E
FAP/FAF (GP INOP) – BRG 158.16° IBA / D 5.25 IBA	46°36'51.8" N 026°52'25.6" E
SDF (GP INOP) – BRG 158.17° IBA / D 1.87 IBA	46°33'35.8" N 026°53'42.8" E
THR RWY 16 (MAPT GP INOP) – BRG 158.17° IBA / D 0.19 IBA	46°31'57.93" N 026°54'21.29" E
D 10.1 IBA – BRG 158.23° IBA / D 10.07 IBA	46°22'04.6" N 026°58'13.8" E
IBA DME	46°31'46.8" N 026°54'19.5" E
GP 16	46°31'46.9" N 026°54'19.8" E
IBA LOC	46°30'30.0" N 026°54'55.9" E
BCU DVOR/DME	46°30'39.3" N 026°49'32.0" E

Final approach descent angle: 3.00°

TEMPORARY RESERVED AREAS (TRA)

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

RADIO COMMUNICATION FAILURE

- If ILS Z RWY16 instrument approach procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS Z RWY16 instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- If ILS Z RWY16 instrument approach procedure was not assigned or received by ATC, for arrivals via REDKU/ SALAC/ GUXVA/ DIRCO/ KENUX: set transponder 7600, proceed according to FPL to CTR entry point (REDKU/ SALAC/ GUXVA/ DIRCO/ KENUX) and hold at least 6 minutes, then continue to ILS Z RWY16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
- If ILS Z RWY16 instrument approach procedure was not assigned or received by ATC, for arrivals via TULNU: set transponder 7600, proceed according to FPL to CTR entry point TULNU (IAF), then BCU VOR and hold at least 6 minutes, then continue the ILS Z RWY 16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

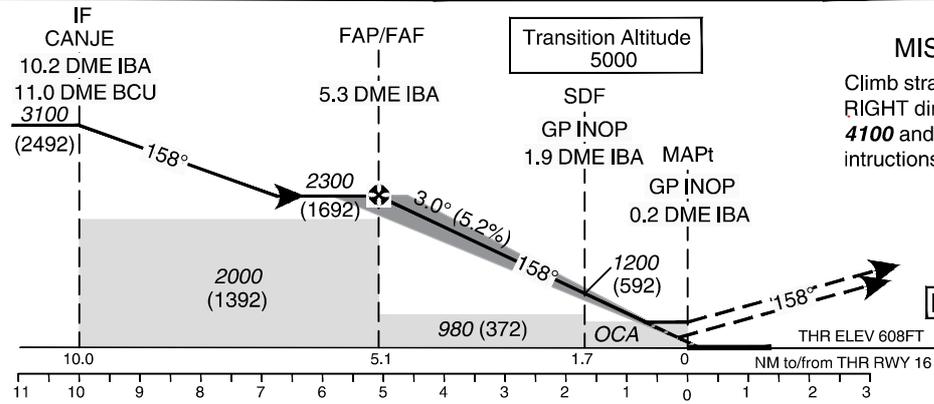
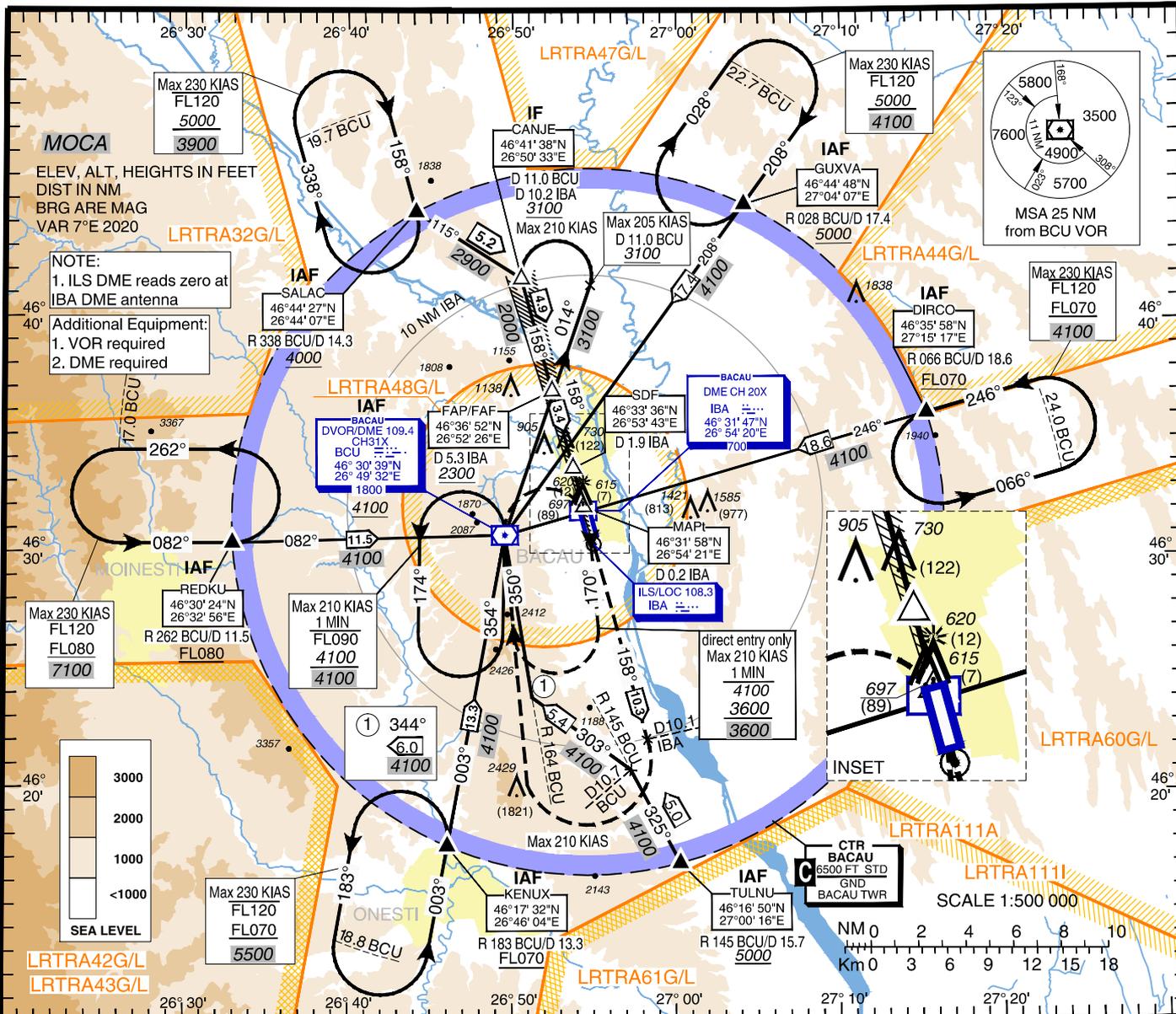


INSTRUMENT APPROACH CHART - ICAO

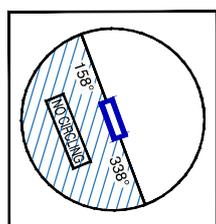
AERODROME ELEV. 608 ft
HEIGHTS RELATED TO AD ELEV

BACAU TOWER 120.980
BACAU TOWER ALTN 118.600

BACĂU / George Enescu (LRBC)
ILS Y RWY 16



MISSED APPROACH:
Climb straight ahead to D 10.1 IBA, then turn RIGHT direct to BCU DVOR/DME, climbing to 4100 and hold (inbound 350°) or follow ATC intructions.



OCA (H)	MACG	C	D
CAT I	2.50%	889 (281)	899 (291)
	3.00%	772 (164)	781 (173)
CAT II	2.50%	810 (202)	823 (215)
	3.00%	688 (80)	701 (93)
GP INOP with SDF	2.50%	930 (322)	
GP INOP w/o SDF	2.50%	980 (372)	
Circling (1)		1820	1980

Timing not authorized for defining the MAPt.

GS	KIAS	70	90	100	120	140	160
FAF-MAPT 5.1 NM	min:s	4:22	3:24	3:04	2:33	2:11	1:55
Rate of descent(5.2%)	ft/min	372	478	531	637	744	850

Dist to IBA DME	NM	5	4	3	2	1
Altitudes (Heights)	FT	2200 (1592)	1880 (1272)	1560 (952)	1240 (632)	930 (322)

(1) Circling West of airport prohibited.

For data tabulation see verso.

**BACĂU / George Enescu (LRBC)
ILS Y RWY 16****AERONAUTICAL DATA TABULATION****ILS Y Approach to RWY 16 from GUXVA, DIRCO, TULNU, KENUX, REDKU, SALAC**

Fix/Point	Coordinates
GUXVA (IAF) – BRG 028.29° BCU / D 17.36 BCU	46°44'48.0" N 027°04'07.0" E
DIRCO (IAF) – BRG 066.17° BCU / D 18.55 BCU	46°35'58.0" N 027°15'17.0" E
TULNU (IAF) – BRG 144.69° BCU / D 15.70 BCU	46°16'50.0" N 027°00'16.0" E
KENUX (IAF) – BRG 183.38° BCU / D 13.34 BCU	46°17'32.0" N 026°46'04.0" E
REDKU (IAF) – BRG 261.82° BCU / D 11.47 BCU	46°30'24.0" N 026°32'56.0" E
SALAC (IAF) – BRG 337.90° BCU / D 14.30 BCU	46°44'27.0" N 026°44'07.0" E
CANJE (IF) – BRG 158.16° IBA / D 10.20 IBA / D 11.00 BCU	46°41'37.9" N 026°50'32.6" E
FAP/FAF (GP INOP) – BRG 158.16° IBA / D 5.25 IBA	46°36'51.8" N 026°52'25.6" E
SDF (GP INOP) – BRG 158.17° IBA / D 1.87 IBA	46°33'35.8" N 026°53'42.8" E
THR RWY 16 (MAPT GP INOP) – BRG 158.17° IBA / D 0.19 IBA	46°31'57.93" N 026°54'21.29" E
D 10.1 IBA – BRG 158.23° IBA / D 10.07 IBA	46°22'04.6" N 026°58'13.8" E
IBA DME	46°31'46.8" N 026°54'19.5" E
GP 16	46°31'46.9" N 026°54'19.8" E
IBA LOC	46°30'30.0" N 026°54'55.9" E
BCU DVOR/DME	46°30'39.3" N 026°49'32.0" E

Final approach descent angle: 3.00°

TEMPORARY RESERVED AREAS (TRA)

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

RADIO COMMUNICATION FAILURE

- If ILS Y RWY16 instrument approach procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated ILS Y RWY16 instrument approach procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- If ILS Y RWY16 instrument approach procedure was not assigned or received by ATC, for arrivals via REDKU/ SALAC/ GUXVA/ DIRCO/ KENUX: set transponder 7600, proceed according to FPL to CTR entry point (REDKU/ SALAC/ GUXVA/ DIRCO/ KENUX) and hold at least 6 minutes, then continue to ILS Y RWY16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.
- If ILS Y RWY16 instrument approach procedure was not assigned or received by ATC, for arrivals via TULNU: set transponder 7600, proceed according to FPL to CTR entry point TULNU (IAF), then BCU VOR and hold at least 6 minutes, then continue the ILS Y RWY 16 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

LRBM AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRBM - BAI A MARE / Maramureş

LRBM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

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

LRBM AD 2.3 OPERATIONAL HOURS

1	AD Operator	MON-FRI W: 0500-1700, S: 0400-1600; SUN W: 0930-1330, S: 0830-1230.
2	Customs and immigration	As AD Operator
3	Health and sanitation	As AD Operator
4	AIS Briefing Office	As AD Operator (See GEN 3.1-5)
5	ATS Reporting Office (ARO)	As AD Operator (See ENR 1.10-3)
6	MET Briefing Office	As AD Operator
7	ATS	W: 0500-1700; S: 0400-1600
8	Fuelling	As AD Operator
9	Handling	As AD Operator
10	Security	As AD Operator
11	De-icing	As AD Operator
12	Remarks	Outside the operational hours of the AD, services listed above are available O/R, submitted to the AD and approved with at least 24 hours in advance.

LRBM AD 2.4 HANDLING SERVICES AND FACILITIES

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

LRBM AD 2.5 PASSENGER FACILITIES

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

LRBM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

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

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

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

LRBM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

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

LRBM AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

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

a	b	c	d	e	f
11077_LRBM	Pole	473655.8N 0233506.1E	1090/103 FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
105_LRBM	Church	473951.9N 0232732.6E	664/105 FT	NIL	
4427_LRBM	Church	473955.6N 0232756.3E	684/108 FT	NIL	
11155_LRBM	Tree	474037.3N 0233150.9E	2204/115 FT	NIL	
11069_LRBM	Pole	473810.4N 0232146.6E	909/120 FT	NIL	
11071_LRBM	Pole	473803.0N 0232143.2E	915/138 FT	NIL	
11112_LRBM	Antenna	473644.7N 0233507.4E	1094/139 FT	NIL	
11136_LRBM	Pole	473737.7N 0233525.1E	1034/154 FT	NIL	
5215_LRBM	Church	473929.5N 0233324.6E	846/163 FT	NIL	
11111_LRBM	Antenna	474017.7N 0232802.7E	972/164 FT	MARKED/LGTD	
11078_LRBM	Pole	473655.1N 0233509.0E	1164/165 FT	NIL	
2375_LRBM	Church	473940.5N 0233450.1E	918/183 FT	NIL	
2420_LRBM	Church	473931.2N 0233456.0E	936/199 FT	NIL	
11161_LRBM	Tower	473825.7N 0233117.8E	893/263 FT	NIL	
11544_LRBM	Antenna	475118.0N 0225824.4E	857/436 FT	NIL	
11543_LRBM	Antenna	475115.7N 0225829.8E	853/436 FT	NIL	
11545_LRBM	Pole	474855.0N 0231658.0E	1326/381 FT	NIL	
11546_LRBM	Antenna	475238.3N 0235634.6E	1350/349 FT	NIL	

In Area 3					
OBST ID/ Designation	OBST type	OBST position	ELEV/HGT	Markings/ Type, colour	Remarks
a	b	c	d	e	f
47006_LRBM	Building	473940.4N 0232756.5E	616.9/27.8 FT	NIL	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
5831_LRBM	Building	473939.5N 0232800.5E	671.3/71.6 FT	NIL	
47007_LRBM	Building	473938.6N 0232807.2E	632.3/32.6 FT	LGTD	
5167_LRBM	Building	473937.6N 0232809.8E	625.7/22.5 FT	NIL	
47367_LRBM	Fence	473939.5N 0232758.2E	609.5/9.8 FT	NIL	
47172_LRBM	Pole	473938.8N 0232757.6E	638.9/43.0 FT	MARKED/LGTD	
47173_LRBM	Pole	473938.5N 0232800.9E	641.4/43.0 FT	MARKED/LGTD	
47174_LRBM	Pole	473938.1N 0232804.3E	641.2/41.3 FT	MARKED/LGTD	
47175_LRBM	Pole	473937.3N 0232807.4E	642.6/40.8 FT	MARKED/LGTD	
47215_LRBM	Pole	473936.7N 0232810.7E	624.9/22.3 FT	NIL	
47216_LRBM	Pole	473937.2N 0232809.5E	623.2/19.5 FT	NIL	
47154_LRBM	PAPI 09	473935.8N 0232713.2E	565.6/3.2 FT	NIL	

a	b	c	d	e	f
47155_LRBM	PAPI 09	473936.1N 0232713.3E	565.6/3.2 FT	NIL	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
47156_LRBM	PAPI 09	473936.4N 0232713.3E	565.6/3.1 FT	NIL	
47157_LRBM	PAPI 09	473936.7N 0232713.4E	565.6/3.2 FT	NIL	
47162_LRBM	PAPI 27	473924.6N 0232826.3E	604.0/3.8 FT	NIL	
47163_LRBM	PAPI 27	473924.8N 0232826.4E	604.1/3.5 FT	NIL	
47164_LRBM	PAPI 27	473925.1N 0232826.4E	604.1/3.0 FT	NIL	
47165_LRBM	PAPI 27	473925.4N 0232826.5E	603.8/2.6 FT	NIL	

LRBM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	BAIA MARE
2	Hours of service MET Office outside hours	As ATS -
3	Office responsible for TAF preparation Periods of validity Interval of issuance	LROM 9 HR 3 HR, during aerodrome operational hours
4	Trend forecast Interval of issuance	NIL -
5	Briefing / consultation provided	Self-briefing; briefing/consultation on request (see row 8)
6	Flight documentation Language(s) used	Charts, tabular form, abbreviated plain language text Romanian, English
7	Charts and other information available for briefing or consultation	SWC, W/T Charts, SIGMET, METAR, TAF.
8	Supplementary equipment available for providing information	Tel: +40-(0)262-276260 Fax: +40-(0)262-276260
9	ATS units provided with information	BAIA MARE TWR
10	Additional information (limitation of service, etc.)	NIL

LRBM 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
09	99.09°	2150 x 45	57/R/D/W/T Asphalt	473936.14N 0232658.77E 473925.13N 0232840.51E GUND 129.3 FT	THR 555.3 FT TDZ 581.0 FT	0.75% (595 M) 1.11% (424 M) 0.62% (240 M) 0.91% (217 M) 0.53% (285 M) 0.25% (181 M) 0.31% (208 M)
27	279.11°	2150 x 45	57/R/D/W/T Asphalt	473925.13N 0232840.51E 473936.14N 0232658.77E GUND 129.6 FT	THR 605.5 FT	-0.31% (208 M) -0.25% (181 M) -0.53% (285 M) -0.91% (217 M) -0.62% (240 M) -1.11% (424 M) -0.75% (595 M)
SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of ARST system	OFZ	Remarks
8	9	10	11	12	13	14
NIL	NIL	2270 x 300	90 x 90	NIL	Yes	RWY 09 turn pad Surface:Asphalt Dimensions: 65 x 22 M Strength: 57/R/D/W/T
NIL	NIL	2270 x 300	240 x 90	NIL	NIL	RWY 27 turn pad Surface:Asphalt Dimensions: 65 x 22 M Strength: 57/R/D/W/T

LRBM AD 2.13 DECLARED DISTANCES

<i>RWY designator</i>	<i>TORA (M)</i>	<i>TODA (M)</i>	<i>ASDA (M)</i>	<i>LDA (M)</i>	<i>Remarks</i>
1	2	3	4	5	6
09	2150	2150	2150	2150	NIL
27	2150	2150	2150	2150	NIL

LRBM AD 2.14 APPROACH AND RWY LIGHTING

<i>RWY Designator</i>	<i>APCH LGT type</i>	<i>THR LGT colour</i>	<i>VASIS (MEHT)</i>	<i>TDZ, LGT</i>	<i>RWY Centre Line LGT Length, spacing, colour, INTST</i>	<i>RWY edge LGT LEN, spacing, colour, INTST</i>	<i>RWY End LGT colour</i>	<i>SWY LGT LEN (M)</i>	<i>Remarks</i>
1	2	3	4	5	6	7	8	9	10
09	CAT II 900M LIH	Green Yes	PAPI Left/3° (52FT)	900M	2150M, 15 M FM 0M-1245M White; FM 1245M-1845M Red/White; FM 1845M Red; LIH	2150M, 60M FM 0M-1560M White; FM 1560M Yellow; LIH	Red -	NIL	NIL
27	NIL	Green NIL	PAPI Left/3.6° (53FT)	NIL	2150M, 15M FM 0M-1250M White; FM 1250M-1850M Red/White; FM 1850M Red; LIH	2150M, 60M FM 0M-1550M White; FM 1550M Yellow; LIH	Red -	NIL	NIL

LRBM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	<i>ABN / IBN location, characteristics and hours of operation</i>	NIL
2	<i>LDI location and LGT</i> <i>Anemometer location and LGT</i>	LDI: NIL Anemometer: 300M from THR 09, not lighted.
3	<i>TWY edge and centre line lighting</i>	Edge: TWY A, B Edge: Apron TWY C, South only Centre line: TWY A, B, C
4	<i>Secondary power supply/switch-over time</i>	Secondary power supply to all lighting at AD. Switch-over time: 1 SEC
5	<i>Remarks</i>	NIL

LRBM AD 2.16 HELICOPTER LANDING AREA

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

LRBM AD 2.17 ATS AIRSPACE

1	<i>Designation and lateral limits</i>	BAIA MARE CTR 474632N 0231117E - arc of circle centred at 473930N 0232758E (ARP) and radius 13.3 NM - 473642N 0230846E - 474140N 0230939E - 474702N 0230719E - 474632N 0231117E
2	<i>Vertical limits</i>	SFC to FL55
3	<i>Airspace classification</i>	C
4	<i>ATS unit call sign</i> <i>Language(s)</i>	Baia Mare Tower English, Romanian
5	<i>Transition altitude</i>	4000 FT AMSL
6	<i>Hours of applicability</i>	W: 0500-1700; S: 0400-1600
7	<i>Remarks</i>	1. CTR established during hours of operation of ATS. See NOTAMs for changes. 2. Outside hours of operation of ATS airspace classification is G. 3. Outside hours of operation of ATS it is recommended to monitor Baia Mare TWR FREQ and check on FIS FREQ about CTR status.

LRBM 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	Baia Mare Tower	118.855 118.100 MHz ALTN 121.500 MHz EMERG	NIL	NIL	W: 0500-1700 S: 0400-1600	Exempted 8.33 kHz State aircraft.

LRBM 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 09 (6°E/2020) ILS CAT II (II.T.3)	IBM	109.300 MHz	H24	473924.4N 0232847.6E	-	NIL	Front course angle 5.22°.
GP 09	-	332.000 MHz	H24	473930.9N 0232710.9E	-	NIL	GP Angle 3.0°. ILS RDH 54.1 FT.
DME 09	IBM	1054.000 MHz CH 30X	H24	473930.7N 0232711.0E	600FT	NIL	NIL
NDB (LO)	BMR	404 KHz	H24	474016.4N 0232045.5E	-	NIL	Coverage 100 NM (declared).
NDB(LM)	M	266 KHz	H24	473941.3N 0232609.3E	-	NIL	NIL
GPS NPA	-	1575.420 MHz	H24	-	-	-	Transmitting antennas are satellite based. Maintained by the U.S. Department of Defense.
EGNOS LPV	-	1575.420 MHz	H24	-	-	-	Transmitting antennas are satellite based. Maintained by the European Satellite Services Provider - ESSP.

LRBM AD 2.20 LOCAL AERODROME REGULATIONS

1. Airport regulations

1.1. On runway 09 and runway 27 backtrack of aircraft with code letter C (wingspan between 24 and 36 metres) is allowed only using the runway turn pad marking and lights at each runway end.

1.2. All aircraft stand markings and lights are designed for self-maneuvering operation and COCKPIT OVER THE CENTERLINE manner of following guidelines.

1.3. Aircraft guidance by visual signals on apron provided by a marshaller only O/R of the pilot in command.

1.4. ATC boundary line is located on apron accordingly to aerodrome chart. ATC boundary line is parallel to apron TWY C centerline and located 26M North from TWY C centerline.

1. Reguli de aeroport

1.1. Pe pista 09 și pe pista 27 întoarcerea aeronavelor cu litera de cod C (anvergura aripilor între 24 și 36 de metri) este permisă numai utilizând marcajele și luminile platformelor de întoarcere de la fiecare capăt de pistă.

1.2. Toate marcajele de platformă și luminile aeronautice aferente sunt proiectate pentru operare în regim self-maneuvering. Mișcarea aeronavelor se va face respectând principiul COCKPIT OVER THE CENTERLINE.

1.3. La solicitarea pilotului aeronavei, se poate asigura dirijare manuală operată de un dispecer.

1.4. Pe harta de aerodrom se găsește marcată limita de responsabilitate a organului de trafic aerian. Această limită este paralelă cu calea de rulare de platformă C și este situată la 26 de metri nord față de axul căii de rulare C.

2. Standard Taxi Routes / Rutele standard de rulare la sol**2.1 Arrival information / Informații după aterizare**

Arrival on	Instruction given by ATC					Taxiway to be followed	Remarks
		Name of the Standard Taxi Route					
RWY 09 RWY 27	Taxi via Standard taxi route	Arrival 1	To	Apron	stand number 1	TWY A	
		Arrival 2			stand number 2	TWY A, TWY C	
		Arrival 3			stand number 3		

2.2 Departure information / Informații la decolare

Departure from	Instruction given by ATC					Taxiway to be followed	Remarks
		Name of the Standard Taxi Route					
Stand number 1	Taxi via Standard Taxi Route	Departure 1	To runway holding position on TWY	A	RWY 09 RWY 27	TWY A	
Stand number 2		Departure 2				TWY C, TWY A	
Stand number 3		Departure 3					

3. Parking Area For Helicopters / Zona de parcare pentru elicoptere

After landing on runway 09/27 helicopters will perform ground taxiing or air-taxiing to the designated stand on apron using the taxiways.

On departure helicopters will perform ground taxiing or air-taxiing to runway 09/27 using the taxiways.

Helicopter parking on apron is permitted only at visual signals provided by a marshaller.

După aterizarea pe pista 09/27, elicopterele vor efectua rulare la sol sau rulare aeriană spre standul alocat pe platformă utilizând căile de rulare.

La plecare, elicopterele vor efectua rulare la sol sau rulare aeriană până la pista 09/27 utilizând căile de rulare.

Parcarea elicopterelor pe platformă este permisă numai la semnalele dispecerului sol.

4. Apron - Taxiing During Winter Conditions / Platforma - rulare la sol în condiții de iarnă

During winter conditions when the taxiways, stands centre line lights and taxi guide lines and lights are not visible, guidance and parking with visual signals will be provided by a marshaller.

În condiții de iarnă când luminile axului căilor de rulare și marcajele și luminile de ghidare la sol ale pozițiilor de parcare nu sunt vizibile, dirijarea și parcare se face la semnalele dispecerului sol.

5. Helicopter Traffic - Limitations / Operarea elicopterelor – Limitări

Helicopters landings and take-offs are permitted only on runway.

Helicopters landings straight to / take-offs straight from apron stand are not permitted.

Aterizările și decolările elicopterelor sunt permise numai pe pistă.

Aterizările elicopterelor direct spre / decolările direct din poziția de parcare pe platformă nu sunt permise.

LRBM AD 2.21 NOISE ABATEMENT PROCEDURES

See AD 1.1-3



LRBM AD 2.22 FLIGHT PROCEDURES

1. Low visibility procedures - LVP

RWY 09, equipped with ILS approved for CAT II, will be used when visibility falls below 800 m and / or RVR is below 550 m to 300 m. In order to provide adequate protection of the ILS system, no vehicle or aircraft shall infringe the ILS sensitive areas when an arriving aircraft is within 2 NM of touchdown and has not completed its landing run.

Pilots will be informed by ATC when LVP are in progress and ATC will also provide details of any unavailability of equipment relevant to LVP.

Pilots will be informed by ATC when LVP are terminated.

The LVP preparation phase will start when:

- visibility falls below 1 500 m and/or
- RVR is at 800 m or lower and/or
- the ceiling is at or below 500 ft, and
- CAT II operations are expected within one hour.

The LVP operations phase will start when:

- RVR falls below 800 m or
- ceiling is at or below 200 ft.

The LVP procedures will be terminated when:

- RVR is greater than 800 m and
 - the ceiling is higher than 200 ft, and
 - a continuing improvement in these conditions is expected,
- or

- CAT II operations are no more expected after 30 minutes from the last landing or take-off.

For Low-Visibility Take-Off (LVTO) with an RVR less than 125 m, the ILS localiser signal does not meet the requirements for lateral guidance.

CAT II approach during normal operations is allowed; pilot must request it to ATC with minimum 20 minutes in advance prior the estimated time of landing.

1. Proceduri în condiții de vizibilitate redusă - LVP

Pista 09, echipată cu sistem ILS aprobat pentru CAT II, va fi utilizată atunci când vizibilitatea scade sub 800 m și / sau RVR scade sub 550 m până la 300 m. Pentru a asigura protecția adecvată a sistemului ILS, niciun vehicul sau aeronavă nu ar trebui să pătrundă în zonele sensibile ILS atunci când o aeronavă aflată în procedură de apropiere se află la mai puțin de 2 NM de pragul pistei și nu a finalizat rulajul după aterizare.

Piloții vor fi informați de către ATC atunci când sunt în desfășurare proceduri LVP iar ATC va furniza, de asemenea, detalii privind indisponibilitatea oricărui echipament relevant pentru LVP.

Piloții vor fi informați de către ATC când procedurile LVP sunt încheiate.

Faza de pregătire pentru LVP va începe atunci când:

- vizibilitatea scade sub 1 500 m și/sau
- RVR este de 800 m sau mai mic și/sau
- înălțimea plafonului este de 500 ft sau mai mică, și
- se anticipează operațiuni CAT II în următoarea oră.

Faza de operare LVP va începe atunci când:

- RVR scade sub 800 m sau
- înălțimea plafonului este de 200 ft sau mai mică.

Procedurile LVP se vor încheia atunci când:

- RVR este mai mare de 800 m și
 - înălțimea plafonului depășește 200 ft, și
 - se preconizează o îmbunătățire continuă a acestor condiții,
- sau

- nu se mai așteaptă operațiuni CAT II la 30 de minute după ultima aterizare sau decolare.

Pentru decolări în condiții de vizibilitate redusă (LVTO) cu un RVR mai mic de 125 m, semnalul locatorului ILS nu îndeplinește cerințele pentru asigurarea ghidajului lateral.

Apropierea CAT II în condiții normale de operare este permisă; pilotul trebuie să o solicite ATC cu minim 20 de minute înainte de ora estimată de aterizare.

LRBM AD 2.23 ADDITIONAL INFORMATION

There may be concentrations of birds on or near Maramures International Airport LRBM - Baia Mare.

Birds fly from the resting area (E of the airport) across the runway to their feeding area near the river (W of the airport).

The lands are used by birds especially in spring and autumn. Height varies from 0 - 1500 ft (0 - 450 m) AGL.

The directions of movement of the birds are represented on chart AD 2.3-46 LRBM.

As far as practicable, aerodrome control will inform pilots of this bird activity and the estimated heights AGL.

During the above periods pilots of aircraft are advised to be careful when taking off and while approaching for landing and, where the design limitations of aircraft installations permit, to operate landing lights in flight, within the terminal area and during take-off, approach-to-land and climb and descent procedures.

Dispersal activities include occasional playing back of distress calls from tape together with firing of shell crackers, supplemented by the use of electronic propane gas cannon.

Pot exista concentrații de păsări pe sau în apropierea Aeroportului Internațional Maramureș LRBM - Baia Mare.

Păsările se deplasează în zbor din zona de odihnă (est față de aeroport) peste pistă, spre zona lor de hrănire aflată lângă râu (vest față de aeroport).

Terenurile sunt folosite de păsări în special primăvara și toamna. Înălțimea zborului variază între 0 - 1500 ft (0 - 450 m) de la nivelul solului AGL.

Direcțiile de deplasare ale păsărilor sunt reprezentate pe harta AD 2.3-46 LRBM.

Pe cât posibil, turnul de control va informa piloții cu privire la activitatea păsărilor și înălțimea AGL de zbor a acestora.

În perioadele sus-menționate piloții aeronavelor sunt rugați să fie foarte atenți în timpul decolării și în timpul zborului de apropiere pentru aterizare și în plus, dacă instalațiile aeronavei o permit, să utilizeze luminile de aterizare în timpul zborului, în zonele de apropiere finală, de decolare și de apropiere, precum și la procedurile de urcare și de coborâre.

Activitățile de dispersie includ emiterea ocazională de sunete de pericol ale păsărilor înregistrate pe bandă, detonarea de petarde inclusiv efectuarea de trageri cu tunul electronic cu gaz propan.

LRBM AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO	AD 2.3-20
Aircraft Parking/Docking Chart - ICAO	AD 2.3-22
Aerodrome Obstacle Chart - ICAO - Type A	
RWY 09 / 27	AD 2.3-25
Precision Approach Terrain Chart - ICAO	
RWY 09	AD 2.3-28
Standard Departure Charts - Instrument - ICAO	
RWY 27	AD 2.3-31
Bird concentrations in the vicinity of the aerodrome	AD 2.3-46
Instrument Approach Charts - ICAO	
ILS Y RWY 09 CAT A, B	AD 2.3-51
ILS Z RWY 09 CAT C, D	AD 2.3-52
RNP RWY 09	AD 2.3-71
NDB W RWY 09 CAT A, B	AD 2.3-91
NDB X RWY 09 CAT C, D	AD 2.3-92
NDB Y RWY 09 CAT A, B	AD 2.3-93
NDB Z RWY 09 CAT C, D	AD 2.3-94

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 until 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 transponder control panel). Aircrews shall use the format as defined in field 7 f of 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 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):

- shall obtain aerodrome operator's prior approval; request will be sent at ops@cnab.ro, minimum 60 days before flight;
- ~~in TWY intersection N-C-G, will use orange markings and ONLY when RVR is greater than 350m;~~
- ~~aircraft with outer main gear wheel span (OMGWS) greater than 9 m are NOT allowed to taxi in intersection TWY P-C.~~

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

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).

leșirea aeronavelor din pozițiile de staționare nose-in (vezi AD 2.5-22 și AD 2.5-23, pozițiile de staționare 201-203) se face numai cu echipamente de tractare/împingere sau prin power back.

Utilizarea reversoarelor de tracțiune 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 specificațiile OACI (Anexa 10, volumul IV, 3.1.2.8.5.3 și 3.1.2.10.3.10).

Echipajele aeronavelor vor selecta codul Mod A alocat și vor activa Modul S selectând AUTO, ON, XPDR sau poziția echivalentă în funcție de echipamentul propriu și de codul Mod A alocat, în următoarele condiții:

- 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 performanța sistemelor bazate pe frecvențele SSR (inclusiv echipamentele TCAS de la bord și 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. Generalități

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 lățimea 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):

- trebuie să obțină în prealabil aprobarea operatorului de aerodrom; solicitarea va fi transmisă pe adresa ops@cnab.ro cu minim 60 zile înaintea zborului;
- ~~în intersecția TWY N-C-G, vor urma marcajele portocalii și NUMAI când RVR este mai mare de 350m;~~
- ~~aeronavele cu lățimea generală a trenului principal (OMGWS) mai mare de 9 m nu au voie să circule prin intersecția TWY P-C;~~

~~b) în cazul unei situații de urgență declarate, pot utiliza LROP fără aprobare prealabilă.~~

1.3.2. Restricții 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

Aeronave 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 situația 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) și 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 in 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.

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

DESCRIEREA SISTEMULUI

Sistemul Safedock este un dispozitiv de scanare cu laser controlat de un microprocesor, care direcționează o aeronavă care se apropie spre poziția de oprire la poarta de îmbarcare, printr-o unitate de afișare în timp real, vizibilă clar din cabina aeronavei.

Unitatea de afișare oferă pilotului informații despre poziționarea aeronavei cu referire la ritmul de apropiere de poziția de oprire, informații despre azimut cu referire la linia axială a porții de îmbarcare și informații text prin indicatori alfanumerici.

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

PROCEDURA DE ANDOCARE

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

ATENȚIE: Sistemul de dirijare pentru andocare Safedock are încorporat un program de detectare a erorilor pentru a informa piloții 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 puțin de 12 m înainte de poziția de oprire, unitatea de afișare va afișa două barete roșii în zona indicatoarelor de azimut și va afișa "STOP" apoi "WAIT" pe afișajul 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 situație, pilotul va contacta OTOPENI GROUND pentru a obține 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. Verificați dacă tipul corect de aeronavă este afișat. Săgețile iluminate secvențial 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. Urmăriți 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 informații de ghidare în azimut.

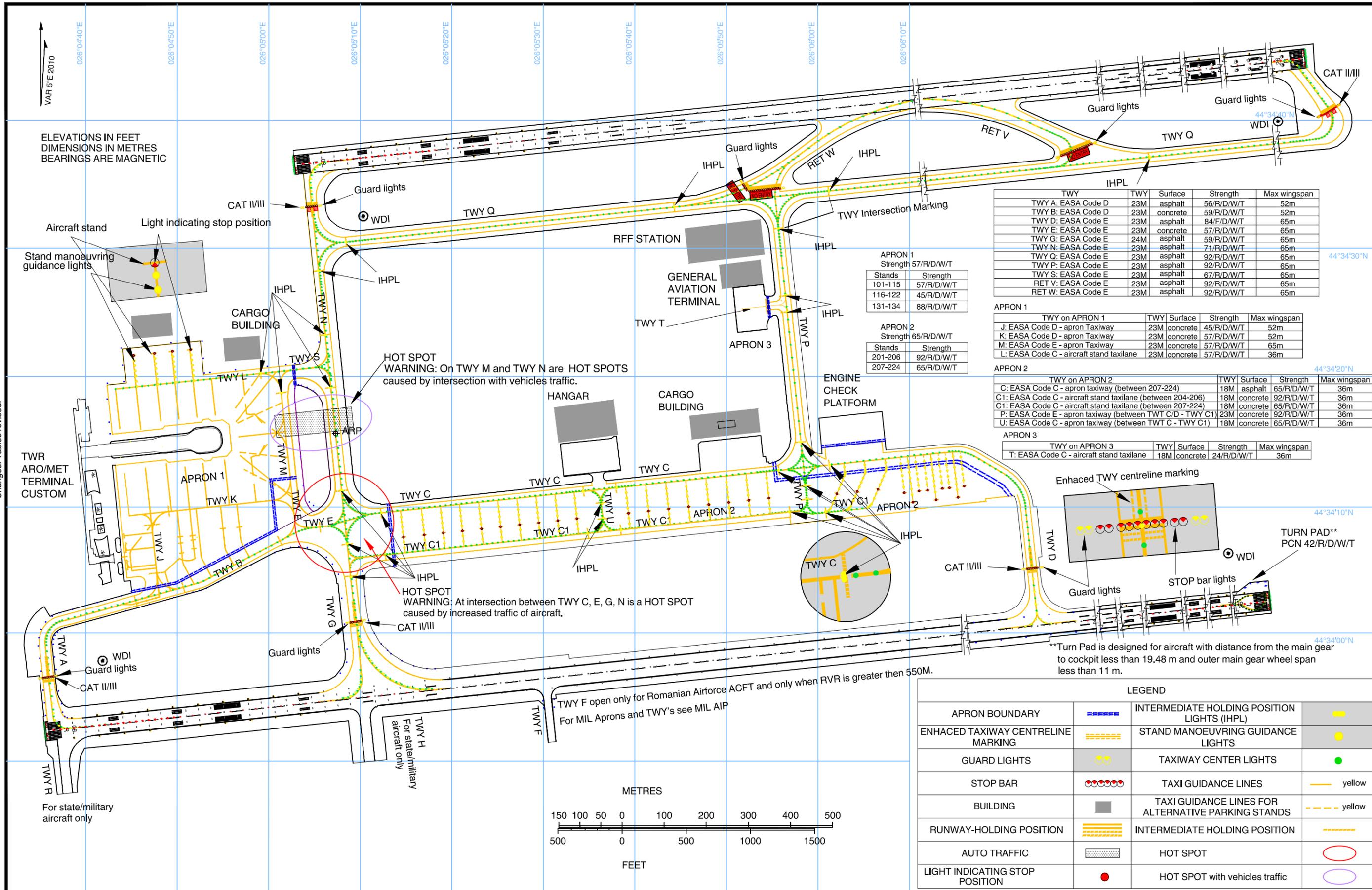
**AERODROME GROUND
MOVEMENT CHART - ICAO**

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

BUCUREȘTI / Henri Coandă (LROP)



TWY	TWY	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	71/R/D/W/T	65m
TWY Q: 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

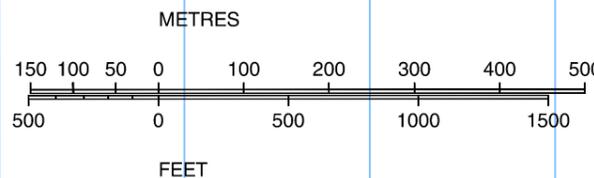
APRON 1 Strength 57/R/D/W/T	
Stands	Strength
101-115	57/R/D/W/T
116-122	45/R/D/W/T
131-134	88/R/D/W/T

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	TWY	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 taxiway	23M	concrete	57/R/D/W/T	36m

APRON 2				
TWY on APRON 2	TWY	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 taxiway (between 204-206)	18M	concrete	92/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxiway (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	TWY	Surface	Strength	Max wingspan
T: EASA Code C - aircraft stand taxiway	18M	concrete	24/R/D/W/T	36m



LEGEND			
APRON BOUNDARY	---	INTERMEDIATE HOLDING POSITION LIGHTS (IHPL)	●
ENHANCED 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	○

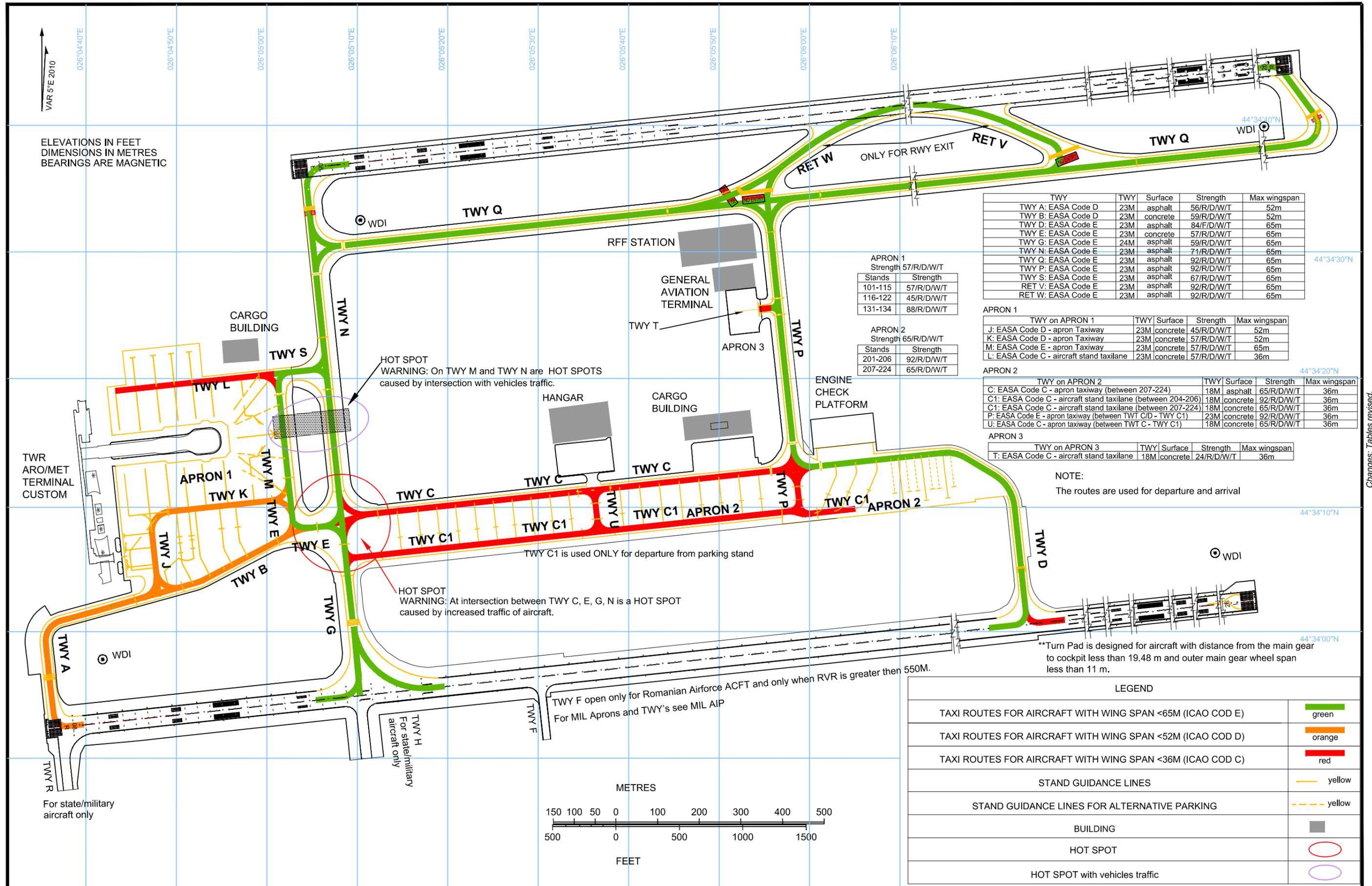
BUCUREȘTI / Henri Coandă (LROP)
TAXI ROUTES

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**



VAR 5°E 2010
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

TWY	TWY	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/R/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	71/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	TWY	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

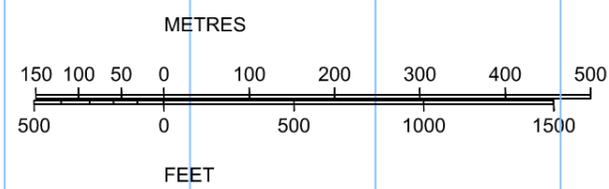
TWY on APRON 2	TWY	Surface	Strength	Max wingspan
C: EASA Code C - apron taxiway (between 207-224)	18M	asphalt	65/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 204-206)	18M	concrete	92/R/D/W/T	36m
C1: EASA Code C - aircraft stand taxilane (between 207-224)	18M	concrete	65/R/D/W/T	36m
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	TWY	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	grey
HOT SPOT	red circle
HOT SPOT with vehicles traffic	purple circle

Changes: Tables revised.

**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

**BUCUREȘTI / Henri Coandă (LROP)
APRON 2**



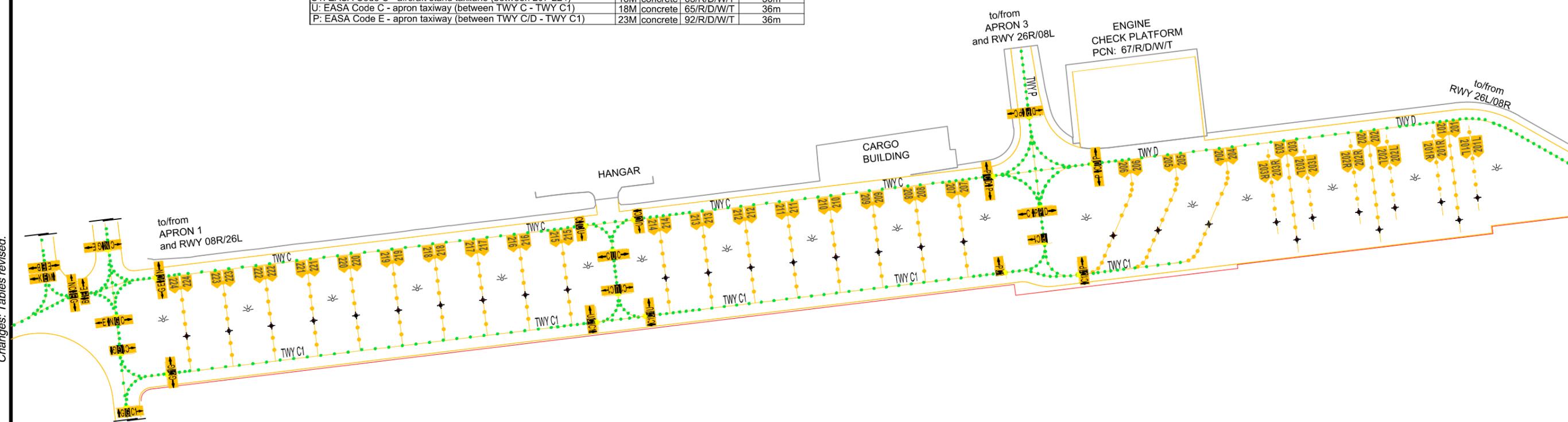
ANNUAL RATE OF CHANGE 2.1'E

Parking will be performed only with marshaller assistance.

APRON 2

TWY on APRON 2	TWY	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
U: EASA Code C - apron taxiway (between TWY C - TWY C1)	18M	concrete	65/R/D/W/T	36m
P: EASA Code E - apron taxiway (between TWY C/D - TWY C1)	23M	concrete	92/R/D/W/T	36m

Changes: Tables revised.



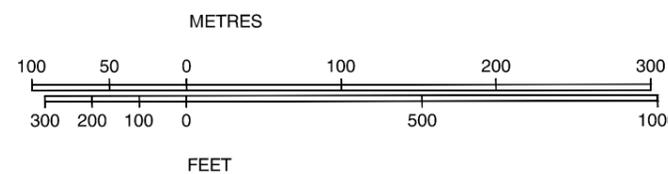
APRON 2

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

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

For INS Coordinates of Aircraft Stands see verso.

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	■



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	

LRIA AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRIA - IAȘI / Iași

LRIA AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	471049N 0273715E Runway centre.
2	Direction and distance from city	3.48 km East from IAȘI.
3	Elevation/Reference temperature/mean low temperature	411 FT / 30.3°C / -12.2°C
4	Geoid undulation at AD ELEV PSN	105 FT
5	MAG VAR/Annual rate of change	6° E (2020) / 7.2' E
6	AD Operator, address, telephone, telefax, e-mail, AFS, website	Aeroportul Iași R.A. Str. Moara de Vânt nr. 34, cod 700376 Tel: +40-(0)232-271590 Fax: +40-(0)232-271570 AFS: LRIARAYD SITA: IASAPXH operational@aeroport.ro handling@aeroport.ro iasi@aeroport.ro www.aeroport-iasi.ro
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	NIL

LRIA AD 2.3 OPERATIONAL HOURS

1	AD Operator	H24
2	Customs and immigration	H24
3	Health and sanitation	H24
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	H24
12	Remarks	Notification on requested services shall be addressed by fax, AFS or SITA address of AD Administration. Lack of prior notification may cause delays in service delivery.

LRIA AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	4 electric tractors, 1 diesel tractor, 19 bag carts, 4 GPU 115V/400Hz & 28.5V, 1 GPU 28.5V, 1 air starter unit, 1 aircraft heater, 2 self-propelled lavatory service vehicles, 1 self-propelled potable water vehicles, 2 catering products transportation vehicle, 5 self-propelled conveyor-belt loader, 12 towed passenger stairs, 1 equipment towing vehicle, 3 aircraft towing/ push-back tractors.
2	Fuel/Oil types	JET A1 / NIL AVGAS / NIL
3	Fuelling facilities/capacity	Storage: JET A1 - 180 m ³ Refueling equipments: JET A1 - 1 truck / 20 m ³ - 1 truck / 30 m ³ AVGAS - 1 mobile pump / 1 m ³
4	De-icing facilities	3 de-icing vehicles, type II ACFT de/anti-icing fluids.
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	On request, for BOEING 737 & AIRBUS A320 families. Major repairs by arrangement.
7	Remarks	1. Catering services available. Contact: iasi@aircatering.ro. 2. Preliminary briefing, requests of operating permissions on aerodrome and handling shall be sent by fax, AFS or SITA address of AD Administration. Any other way of contact may cause delays. 3. ACFT AVGAS refueling AVBL only based on prior request to AD Administration 24 hours before ETA.

LRIA AD 2.5 PASSENGER FACILITIES

1	<i>Hotels</i>	Hotels in the city.
2	<i>Restaurants</i>	Snack bar on the AD.
3	<i>Transportation</i>	Buses, taxis and rent-a-car on the AD.
4	<i>Medical facilities</i>	First aid on the AD. Hospitals in the city.
5	<i>Bank and Post Office</i>	Bank ATM on AD. Bank and Post office in the city.
6	<i>Tourist Office</i>	In the city.
7	<i>Remarks</i>	Rent-a-car offices on AD: Tel: +40-(0)731-630800; +40-(0)752-220222; +40-(0)728-228923; +40-(0)733-207554; +40-(0)748-110557; +40-(0)745-062158; +40-(0)740-175488; +40-(0)757-067182.

LRIA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD category for fire fighting</i>	CAT 7
2	<i>Rescue equipment</i>	2 Rescue and firefighting vehicles with extrication equipment.
3	<i>Capability for removal of disabled aircraft</i>	Limited by arrangement. Local Action Coordinator: +40-(0)790-678346 e-mail: iso@aeroport.ro
4	<i>Remarks</i>	NIL

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

1	<i>Types of clearing equipment</i>	4 snow ploughs with brush and blower sweeper, 1 tractor with snow blower; 1 spreader for liquid and solid de-icing materials, 2 mini trucks with snow brush/plough, snow blower and spreader for liquid and solid de-icing materials, 1 truck with plough, brush and spreader for liquid de-icing materials, 1 tractor with plough and spreader for solid de-icing materials.
2	<i>Clearance priorities</i>	1. RWY 14/32 2. TWY A 3. TWY D 4. APRON 1 5. TWY E 6. RWY14 intermediate runway turn pad
3	<i>Use of material for movement area surface treatment</i>	Generic fluids and solid materials used for movement area de/anti-icing: 1. KFOR(potassium formate fluid); 2. KAC (potassium acetate fluid), and 3. NAFO (sodium formate granular solid).
4	<i>Specially prepared winter runways</i>	NIL
5	<i>Remarks</i>	Runway Condition Report/SNOWTAM issued according to Global Reporting Format by Operational Safety Service tel: +40 728 060 757. See also the snow plan in section AD 1.2.2.

LRIA AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron designation, surface and strength</i>	APRON 1 Surface: Concrete Strength: 88/R/C/W/T - Stand 01-06 102/R/C/W/T - Stand 07-13
2	<i>Taxiway designation, width, surface and strength</i>	TWY A TWY B TWY D TWY E 23 M 48 M 23 M 23 M Surface: Asphalt Concrete Asphalt Asphalt Strength: 99/F/C/W/T 25/R/D/W/T 99/F/C/W/T 102/F/C/W/T
3	<i>Altimeter checkpoints location and elevation</i>	Location: APRON 1 Elevation: 362 FT (110 M)
4	<i>VOR checkpoints</i>	NIL
5	<i>INS checkpoints</i>	On each stand: see AD 2.10-22 LRIA Aircraft Parking/Docking Chart - ICAO - APRON 1
6	<i>Remarks</i>	NIL

LRIA 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	Nose-in aircraft stands with ID markings at the beginning of the lead-in lines. Stand 1 lead-in line lighted. Turning and lead-out lines: NIL. Visual docking guidance system of aircraft stands: NIL. Parking guidance provided by marshallsers.
2	RWY and TWY markings and LGT	RWY: - markings: designation, THR, TDZ, aiming point, centre line, edge, runway end, turn pad; - lights: THR, wingbar, TDZ, centre line, edge, runway end, turn pad. TWY A, E: - markings: centre line, edge, runway holding position, enhanced centre line, mandatory instruction, information; - lights: centre line, edge. TWY B: - markings: closed runway and closed taxiway; - lights: No entry red lights. TWY D: - markings: centre line, East only edge, information; - lights: centre line, East only edge.
3	Stop bars and runway guard lights	Stop bar and runway guard lights on TWY A and TWY E.
4	Other runway protection measures	Mandatory instruction signs on TWY A. Mandatory instruction markings and signs on TWY E.
5	Remarks	NIL

LRIA 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
LRIA_2	NAVAID	471109.1N 0273650.6E	409/13 FT	MARKED/LGTD R	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRIA_3	NAVAID	471112.7N 0273647.3E	413/12 FT	MARKED/LGTD R	
LRIA_5	NAVAID	471022.3N 0273731.4E	376/34 FT	MARKED	
LRIA_7	NAVAID	471109.3N 0273650.4E	456/59 FT	MARKED/LGTD R	
LRIA_8	NAVAID	471110.7N 0273651.1E	422/24 FT	MARKED	
LRIA_9	NAVAID	471025.8N 0273731.0E	369/24 FT	MARKED	
LRIA_118	BUILDING	470714.9N 0274039.6E	636/22 FT	NIL	
LRIA_119	BUILDING	470714.5N 0274039.4E	638/18 FT	NIL	
LRIA_160	POLE	470515.5N 0274045.7E	1387/98 FT	NIL	
LRIA_161	POLE	470521.1N 0274041.7E	1394/98 FT	NIL	
LRIA_162	POLE	470528.2N 0274036.5E	1388/98 FT	NIL	
LRIA_163	POLE	470535.4N 0274031.0E	1384/98 FT	NIL	
LRIA_164	POLE	470543.9N 0274030.3E	1386/98 FT	NIL	
LRIA_165	POLE	470632.4N 0273957.5E	1242/98 FT	NIL	
LRIA_166	POLE	470642.4N 0273952.9E	1247/98 FT	NIL	
LRIA_167	POLE	470651.2N 0273946.8E	1237/98 FT	NIL	
LRIA_168	POLE	470655.5N 0273942.4E	1211/98 FT	NIL	
LRIA_169	POLE	470659.4N 0273939.4E	1162/98 FT	NIL	
LRIA_170	POLE	470705.4N 0273934.9E	1060/98 FT	NIL	
LRIA_217	NATURAL HIGHPOINT	470637.6N 0274130.5E	856/13 FT	NIL	
LRIA_218	NATURAL HIGHPOINT	470538.0N 0274040.8E	1349/13 FT	NIL	
LRIA_219	MONUMENT	470736.7N 0274106.4E	723/67 FT	LGTD R	
LRIA_220	ANTENNA	470736.1N 0274105.9E	757/100 FT	MARKED/LGTD R	
LRIA_221	TREE	471139.6N 0273618.2E	478/63 FT	NIL	
LRIA_222	TREE	471140.3N 0273618.1E	478/62 FT	NIL	
LRIA_223	TREE	471140.4N 0273617.3E	473/61 FT	NIL	
LRIA_224	TREE	471141.6N 0273621.4E	456/24 FT	NIL	
LRIA_225	TREE	471141.7N 0273621.9E	462/29 FT	NIL	
LRIA_226	TREE	471141.8N 0273622.2E	462/27 FT	NIL	
LRIA_227	TREE	471141.8N 0273622.5E	464/28 FT	NIL	
LRIA_228	TREE	471141.8N 0273622.8E	462/25 FT	NIL	
LRIA_229	TREE	471141.9N 0273623.2E	461/23 FT	NIL	
LRIA_230	TREE	471141.9N 0273623.6E	470/31 FT	NIL	
LRIA_231	TREE	471142.0N 0273624.0E	471/31 FT	NIL	
LRIA_232	TREE	471142.1N 0273624.4E	470/28 FT	NIL	
LRIA_233	BUILDING	471157.2N 0273630.6E	491/13 FT	NIL	
LRIA_234	BUILDING	471201.8N 0273627.7E	507/18 FT	NIL	
LRIA_235	BUILDING	471206.8N 0273606.5E	495/17 FT	NIL	
LRIA_236	BUILDING	471214.0N 0273603.0E	511/18 FT	NIL	
LRIA_237	BUILDING	471208.5N 0273607.7E	512/19 FT	NIL	
LRIA_238	BUILDING	471208.6N 0273607.3E	502/11 FT	NIL	



a	b	c	d	e	f
LRIA_239	BUILDING	471206.9N 0273607.0E	494/10 FT	NIL	Electronic form of obstacle data sets for Area 2 are available (see GEN 3.1.6)
LRIA_240	BUILDING	471212.9N 0273602.7E	499/13 FT	NIL	
LRIA_241	BUILDING	471210.8N 0273604.1E	495/13 FT	NIL	
LRIA_242	BUILDING	471210.8N 0273603.5E	492/13 FT	NIL	
LRIA_243	BUILDING	471210.8N 0273602.8E	500/26 FT	NIL	
LRIA_244	BUILDING	471211.4N 0273603.2E	497/17 FT	NIL	
LRIA_246	BUILDING	471211.0N 0273605.1E	502/13 FT	NIL	
LRIA_250	BUILDING	471207.6N 0273607.2E	505/17 FT	NIL	
LRIA_251	BUILDING	471210.5N 0273608.7E	512/12 FT	NIL	
LRIA_252	BUILDING	471211.4N 0273610.8E	524/20 FT	NIL	
LRIA_253	BUILDING	471211.2N 0273611.4E	521/17 FT	NIL	
LRIA_254	BUILDING	471210.8N 0273611.5E	524/20 FT	NIL	
LRIA_255	BUILDING	471212.0N 0273611.8E	523/13 FT	NIL	
LRIA_256	BUILDING	471213.3N 0273615.7E	543/25 FT	NIL	
LRIA_257	BUILDING	471213.9N 0273616.8E	542/21 FT	NIL	
LRIA_258	BUILDING	471214.4N 0273617.7E	549/25 FT	NIL	
LRIA_259	BUILDING	471211.1N 0273620.5E	527/10 FT	NIL	
LRIA_260	BUILDING	471215.6N 0273610.1E	527/11 FT	NIL	
LRIA_261	BUILDING	471215.4N 0273611.7E	533/15 FT	NIL	
LRIA_262	BUILDING	471211.2N 0273619.7E	538/21 FT	NIL	
LRIA_263	BUILDING	471213.8N 0273613.2E	545/31 FT	NIL	
LRIA_264	BUILDING	471211.3N 0273606.7E	511/14 FT	NIL	
LRIA_265	BUILDING	471211.8N 0273606.5E	522/24 FT	NIL	
LRIA_266	BUILDING	471214.4N 0273614.7E	548/30 FT	NIL	
LRIA_267	BUILDING	471214.9N 0273615.1E	543/23 FT	NIL	
LRIA_268	BUILDING	471212.6N 0273606.6E	528/26 FT	NIL	
LRIA_269	BUILDING	471212.6N 0273610.1E	526/18 FT	NIL	
LRIA_270	BUILDING	471214.6N 0273611.3E	536/19 FT	NIL	
LRIA_271	BUILDING	471216.2N 0273612.2E	543/23 FT	NIL	
LRIA_272	BUILDING	471214.8N 0273607.2E	545/35 FT	NIL	
LRIA_273	BUILDING	471212.9N 0273608.3E	518/12 FT	NIL	
LRIA_274	BUILDING	471213.3N 0273610.0E	522/12 FT	NIL	
LRIA_277	BUILDING	471202.3N 0273625.7E	502/11 FT	NIL	
LRIA_278	BUILDING	471157.0N 0273629.6E	493/15 FT	NIL	
LRIA_279	BUILDING	471201.2N 0273626.2E	500/13 FT	NIL	
LRIA_280	BUILDING	471201.0N 0273625.4E	502/15 FT	NIL	
LRIA_282	FENCE	471141.2N 0273623.4E	448/10 FT	NIL	
LRIA_283	FENCE	471143.1N 0273632.6E	463/10 FT	NIL	
LRIA_284	FENCE	471143.2N 0273633.9E	463/10 FT	NIL	
LRIA_285	FENCE	471143.5N 0273636.2E	466/10 FT	NIL	
LRIA_286	FENCE	471143.5N 0273636.5E	466/10 FT	NIL	
LRIA_287	FENCE	471142.1N 0273639.8E	465/10 FT	NIL	
LRIA_288	FENCE	471140.6N 0273622.0E	443/10 FT	NIL	
LRIA_289	FENCE	471140.2N 0273620.8E	441/10 FT	NIL	
LRIA_297	BUILDING	471148.9N 0273621.5E	466/13 FT	NIL	
LRIA_298	BUILDING	471156.0N 0273617.1E	477/14 FT	NIL	
LRIA_299	BUILDING	471151.5N 0273623.2E	486/14 FT	NIL	
LRIA_300	BUILDING	471150.3N 0273618.0E	462/14 FT	NIL	
LRIA_302	BUILDING	471159.3N 0273617.9E	489/15 FT	NIL	
LRIA_303	BUILDING	471157.4N 0273611.0E	469/15 FT	NIL	
LRIA_304	BUILDING	471204.0N 0273611.2E	495/15 FT	NIL	
LRIA_306	BUILDING	471205.5N 0273624.6E	516/16 FT	NIL	
LRIA_307	BUILDING	471159.0N 0273615.3E	487/16 FT	NIL	
LRIA_309	BUILDING	471204.9N 0273624.3E	514/16 FT	NIL	
LRIA_311	BUILDING	471155.7N 0273616.3E	476/16 FT	NIL	
LRIA_312	BUILDING	471151.2N 0273612.9E	451/17 FT	NIL	
LRIA_313	BUILDING	471155.6N 0273622.0E	484/17 FT	NIL	
LRIA_314	BUILDING	471158.3N 0273612.7E	475/17 FT	NIL	
LRIA_316	BUILDING	471159.9N 0273614.5E	489/17 FT	NIL	
LRIA_317	BUILDING	471154.0N 0273611.7E	464/17 FT	NIL	
LRIA_318	BUILDING	471159.9N 0273619.9E	493/17 FT	NIL	
LRIA_321	BUILDING	471205.4N 0273608.2E	495/18 FT	NIL	
LRIA_322	BUILDING	471151.9N 0273623.1E	477/18 FT	NIL	
LRIA_323	BUILDING	471202.3N 0273607.7E	485/18 FT	NIL	
LRIA_324	BUILDING	471153.1N 0273611.6E	456/18 FT	NIL	
LRIA_325	BUILDING	471157.1N 0273619.1E	488/19 FT	NIL	
LRIA_326	BUILDING	471204.7N 0273608.1E	495/19 FT	NIL	
LRIA_329	BUILDING	471150.4N 0273613.1E	450/19 FT	NIL	
LRIA_331	BUILDING	471202.6N 0273611.4E	499/20 FT	NIL	
LRIA_332	BUILDING	471203.0N 0273611.5E	499/20 FT	NIL	
LRIA_333	BUILDING	471154.1N 0273629.6E	490/20 FT	NIL	
LRIA_334	BUILDING	471155.6N 0273615.1E	476/20 FT	NIL	

a	b	c	d	e	f
LRIA 4493	POLE	471038.7N 0273704.1E	398.1/36.4 FT	NIL	Electronic form of obstacle data sets for Area 3 are available (see GEN 3.1.6)
LRIA 4494	POLE	471037.7N 0273704.8E	398.2/37.4 FT	NIL	
LRIA 4497	POLE	471036.6N 0273705.3E	403.1/42.6 FT	NIL	
LRIA 4508	NAVAID	471040.2N 0273708.4E	389.8/24.4 FT	NIL	
LRIA 4510	FENCE	471032.1N 0273707.5E	368.5/10.5 FT	NIL	
LRIA 4511	FENCE	471031.7N 0273707.8E	367.1/10.5 FT	NIL	
LRIA 4512	FENCE	471031.4N 0273707.9E	367.6/10.5 FT	NIL	
LRIA 4515	BUILDING	471035.6N 0273704.9E	379.3/23.4 FT	NIL	
LRIA 4516	BUILDING	471036.8N 0273704.0E	379.4/23.5 FT	NIL	
LRIA 4517	BUILDING	471037.5N 0273703.2E	384.4/25.3 FT	NIL	
LRIA 4519	POLE	471035.1N 0273705.1E	401.6/40.7 FT	NIL	
LRIA 4520	POLE	471027.8N 0273710.5E	387.2/41.0 FT	NIL	
LRIA 4724	NAVAID	471022.1N 0273732.4E	349.4/7.9 FT	NIL	
LRIA 4725	BUILDING	471023.7N 0273714.8E	425.0/85.9 FT	NIL	
LRIA 4726	BUILDING	471025.8N 0273711.5E	381.1/34.8 FT	NIL	
LRIA 4727	BUILDING	471034.8N 0273706.8E	384.4/23.1 FT	NIL	
LRIA 4728	ANTENNA	471038.5N 0273703.2E	441.5/87.9 FT	NIL	
LRIA 4729	BUILDING	471040.7N 0273703.0E	372.2/10.4 FT	NIL	
LRIA 4730	ANTENNA	471035.9N 0273703.9E	397.1/35.8 FT	NIL	
LRIA 4732	NAVAID	471109.1N 0273650.2E	416.1/20.0 FT	MARKED/LGTD R	
LRIA 4758	NAVAID	471022.2N 0273733.4E	346.4/5.4 FT	NIL	

LRIA AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	IAȘI
2	Hours of service MET Office outside hours	H24 -
3	Office responsible for TAF preparation Periods of validity Interval of issuance	LROM 9 HR 3 HR, during aerodrome operational hours
4	Type of landing forecast Interval of issuance	NIL -
5	Briefing / consultation provided	Self-briefing; briefing/consultation on request (see row 8)
6	Flight documentation Language(s) used	Charts, tabular form, abbreviated plain language text Romanian, English
7	Charts and other information available for briefing or consultation	SWC, W/T Charts, SIGMET, METAR, TAF.
8	Supplementary equipment available for providing information	Tel: +40-(0)232-271530 Fax: +40-(0)232-271530
9	ATS units provided with information	IAȘI TWR
10	Additional information (limitation of service, etc.)	NIL

LRIA 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
14	148.85°	2400 x 45	99/F/C/W/T Asphalt	471122.10N 0273645.71E 471015.64N 0273744.79E GUND 106.1 FT	THR 411.1 FT TDZ 411.1 FT	-1.0%
32	328.86°	2400 x 45	99/F/C/W/T Asphalt	471015.64N 0273744.79E 471122.10N 0273645.71E GUND 106.1 FT	THR 332.3 FT	1.0%
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	150 x 180	2520 x 280	155 x 150	NIL	NIL	RWY end turn pad Dimensions: 122 x 33 M Intermediate turn pad Dimensions: 97 x 22 M
NIL	150 x 180	2520 x 280	190 x 150	NIL	NIL	RWY end turn pad Dimensions: 122 x 33 M



LRIA AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
14	2400	2550	2400	2400	NIL
32	2400	2550	2400	2400	NIL

REDUCED DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	Remarks
1	2	3	4	5
32 TWY E	2051	2201	2051	349 M FROM THR 32

LRIA AD 2.14 APPROACH AND RWY LIGHTING

RWY Designator	APCH LGT type	THR LGT colour	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour	RWY End LGT colour	SWY LGT LEN(M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
14	ALSF II 720M LIH	Green WBAR	PAPI 3° (54 FT)	900M, 30M, White	1500M, 15M White, LIH 600M, 15M White/Red, LIH 300M, 15M Red, LIH	1800M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	RWY 14/32 - Incandescent lamps used in the full length of ALS.
32	ALSF II 720M LIH	Green WBAR	PAPI 3.5° (60 FT)	900M, 30M, White	1500M, 15M White, LIH 600M, 15M White/Red, LIH 300M, 15M Red, LIH	1800M, 60M, White, LIH 600M, 60M, Yellow, LIH	Red -	NIL	

LRIA 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 110°, 440 M from THR 14, LGT 247°, 320 M from THR 32, LGT
3	TWY edge and centre line lighting	TWY A, E: edge, centre line. TWY D: edge East only, centre line.
4	Secondary power supply/switch-over time	Secondary power supply for all lighting on the AD. Switch-over time 1 SEC.
5	Remarks	TWY A, E: coded centre line lights showing alternating green and yellow from the perimeter of ILS critical/sensitive area.

LRIA 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

LRIA AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	IAȘI CTR A circle, radius 16 NM centered at 471049N 0273715E, limited by FIR boundary.
2	Vertical limits	SFC to 5500 FT STD
3	Airspace classification	C
4	ATS unit call sign Language(s)	Iași Tower English, Romanian
5	Transition altitude	4000 FT AMSL
6	Hours of applicability	H24
7	Remarks	NIL

2. Standard Taxi Routes / Rutele Standard de Rulare

2.1. Arrival information

Arrival on	Instruction given by ATC				Taxiway to be followed	Remarks
		Name of the Standard Taxi Route	To	Stands: 1 - 13		
RWY 14	Taxi via standard taxi route	Arrival 14	To	Stands: 1 - 13	TWY E - TWY D	NIL
RWY 32	Taxi via standard taxi route	Arrival 32A	To	Stands: 1 - 11	BACKTRACK RWY 32 - TWY A - TWY D	
		Arrival 32B		Stands: 12, 13	BACKTRACK RWY 32 - TWY A	

2.2. Departure information

Departure from	Instruction given by ATC				Taxiway to be followed	Remarks
		Name of the Standard Taxi Route	From	Stands: 12, 13		
APRON 1	Taxi via standard taxi route	Departure 14A	From	Stands: 12, 13	TWY A - BACKTRACK RWY 14	NIL
		Departure 14B	From	Stands: 1 - 11	TWY D - TWY A - BACKTRACK RWY 14	
		Departure 32	From	Stands: 1 - 13	TWY D - TWY E - BACKTRACK RWY 32	

LRIA AD 2.21 NOISE ABATEMENT PROCEDURES

1. On Departure - see AD 1.1-3

1. La decolare - vezi AD 1.1-3

2. On the ground

- (1) The use of the APU is allowed for a maximum of 15 MIN after Actual In Block Time and a maximum of 30 MIN before the Scheduled Off Block Time.
- (2) Aircraft engines ground run-ups are allowed between 0600 LT and 2300 LT.
- (3) For aircraft which takes off in the early hours of the morning, engines ground run-ups are allowed before 0600 LT with the minimum necessary time, idle running and with Safety Officer approval only.

2. La sol

- (1) Este permisă utilizarea APU maximum 15 MIN după Actual In Block Time și maximum 30 MIN înainte de Scheduled Off Block Time.
- (2) Testarea la sol a motoarelor aeronavelor este permisă între orele 0600 LT și 2300 LT.
- (3) Pentru aeronavele care decolează la primele ore ale dimineții, este permisă testarea la sol a motoarelor înainte de ora 0600 LT cu timpul minim necesar, doar la ralanti și numai cu aprobarea Inspectorului de Siguranță Operațională.

LRIA AD 2.22 FLIGHT PROCEDURES

LOW VISIBILITY PROCEDURES / PROCEDURI ÎN CONDIȚII DE VIZIBILITATE REDUSĂ

1. Low Visibility Procedures applied for LVTO

LRIA establishes LVP applied for LVTO.
In Low Visibility Conditions, runway capacity is expected to decrease due to restrictions on ground movements.

1.1 Description of facilities

- a) Runway 14 is provided with facilities for LVTO with RVR not less than 125 M.
- b) Runway 32 is provided with facilities for LVTO with RVR not less than 125 M.
- c) Runway, runway turn pads, taxiways and lead-in line to stand 1 are provided with axial lights and marginal lights, as appropriate, spaced at intervals suitable for use in conditions with RVR less than 350 M.
- d) To prevent runway incursions, during LVP the STOP-BAR lights are permanently on.

1. Proceduri în condiții de vizibilitate redusă aplicate pentru LVTO

LRIA instituie LVP aplicată pentru LVTO.
În condiții de vizibilitate redusă este de așteptat o reducere a capacității pistei din cauza restricțiilor privind mișcările la sol.

1.1 Descrierea facilităților

- a) Pista 14 este prevăzută cu facilități pentru LVTO cu RVR nu mai mică de 125 M.
- b) Pista 32 este prevăzută cu facilități pentru LVTO cu RVR nu mai mică de 125 M.
- c) Pista, platformele de întoarcere la pistă, căile de rulare și linia de intrare la standul 1 sunt prevăzute cu lumini axiale și lumini marginale, după caz, distanțate la intervale adecvate pentru utilizare în condiții cu RVR mai mică de 350 M.
- d) Pentru a preveni incursiunile la pistă, pe durata LVP luminile STOP-BAR sunt aprinse permanent.



1.2 Criteria for the initiation and termination of LVP

- LVP Preparation Phase is initiated when RVR decreases to 800M (visibility decreases at 1500 M), with continued decreasing trends or cloud base height decreases to 500 FT, with continued decreasing trends.
- LVP Operations Phase are in force when RVR decreases to 550 M (visibility decreases at 800 M) or cloud base height/vertical visibility decreases to 200 FT.
- LVP Termination is initiated when RVR increases above 800 M (visibility increases above 1500 M), cloud base height increases above 300 FT and continuous improvement in weather conditions is forecast.
- If LVP is not in force, LVTO must be required at least 30 MIN before EOBT/CTOT to allow the completion of LVP Preparation Phase.

1.3 LVP description

1.3.1 Low-Visibility Take-Off

- Aircraft exiting the stand will start taxiing to RWY only after receiving ATC clearance.
- After clearance to enter runway, aircraft will start taxiing only when the axial lights are on.
- All clearances and instructions sent to flight crews by CTA will be acknowledged by READ BACK.
- In Low Visibility Conditions intersection take-off is not permitted.

1.3.2 CAT II Approach and Landing – NOT AVAILABLE

- CAT II is not available.
- Flight crews will be informed by CTA about the establishment of the LVP procedure at the aerodrome, specifying that LVP is in force only for LVTO.

1.3.3 CAT II simulated approach – NOT AVAILABLE

CTA will inform the flight crews that runway 14 is certified for CAT I precision approaches, so clearance for CAT II simulated approaches cannot be granted.

1.3.4 Restrictions on ground movement

- It is strictly forbidden to pass the RWY Holding Position when the STOP BAR lights are on.
- RWY Holding Position accidental passing must be reported to ATC.
- If a STOP BAR is unserviceable, only one aircraft movement will be cleared on the manoeuvring area at a time.
- Separation will be done in such a way that there are not two aircraft at the same time on a taxiway. Only one aircraft is allowed to operate on a taxiway at a time.

1.2 Criterii pentru inițierea și terminarea LVP

- Faza de Pregătire a LVP este declanșată atunci când RVR scade la 800 M (vizibilitatea scade la 1500 M), cu tendințe de scădere continuă sau înălțimea bazei norilor scade la 500 FT, cu tendințe de scădere continuă.
- Faza Operațională a LVP este în vigoare atunci când RVR scade la 550 M (vizibilitatea scade la 800 M) sau înălțimea bazei norilor/vizibilitatea verticală scade la 200 FT.
- Încetarea LVP este declanșată atunci când RVR crește peste 800 M (vizibilitatea crește peste 1500 M), înălțimea bazei norilor crește peste 300 FT și este prognozată îmbunătățirea continuă a condițiilor meteo.
- Dacă LVP nu este declanșată, LVTO trebuie solicitată cu cel puțin 30 MIN înainte EOBT/CTOT pentru a permite finalizarea Fazei de Pregătire a LVP.

1.3 Descrierea LVP

1.3.1 Decolarea cu vizibilitate redusă

- Aeronavele care ies din stand vor începe rularea spre pistă numai după ce primesc aprobarea CTA.
- După autorizarea intrării la pistă, aeronava va începe să ruleze doar atunci când luminile axiale sunt aprinse.
- Toate autorizările și instrucțiunile transmise echipajelor de zbor de către CTA vor fi confirmate prin READ BACK.
- În condiții de vizibilitate redusă nu este permisă decolarea de la intersecție.

1.3.2 Apropiere și aterizare CAT II - INDISPONIBIL

- CAT II este indisponibilă.
- Echipajele de zbor vor fi informate de către CTA despre instituirea procedurii LVP pe aerodrom, specificând faptul că LVP este în vigoare numai pentru LVTO.

1.3.3 Apropiere CAT II simulată - INDISPONIBILĂ

CTA va informa echipajele de zbor despre faptul că pista 14 este certificată pentru apropieri de precizie CAT I, astfel încât nu pot fi autorizate apropieri în condiții simulate CAT II.

1.3.4 Restricții privind mișcarea la sol

- Este strict interzisă traversarea poziției de așteptare la pistă atunci când luminile STOP BAR sunt aprinse.
- Depășirea poziției de așteptare la pistă trebuie raportată către CTA.
- Dacă o bareță STOP BAR este inutilizabilă, va fi autorizată o singură mișcare de aeronavă pe suprafața de manevră la un moment dat.
- Eșalonarea la sol se va face astfel încât să nu fie două aeronave în același timp pe o cale de rulare. Pe o cale de rulare este permisă operarea unei singure aeronave la un moment dat.

AERODROME CHART-ICAO 47°10'49"N
027°37'15"E
Elev 411 FT

IASI TOWER	119.955
IASI TOWER ALTN	119.200
IASI ATIS	122.865

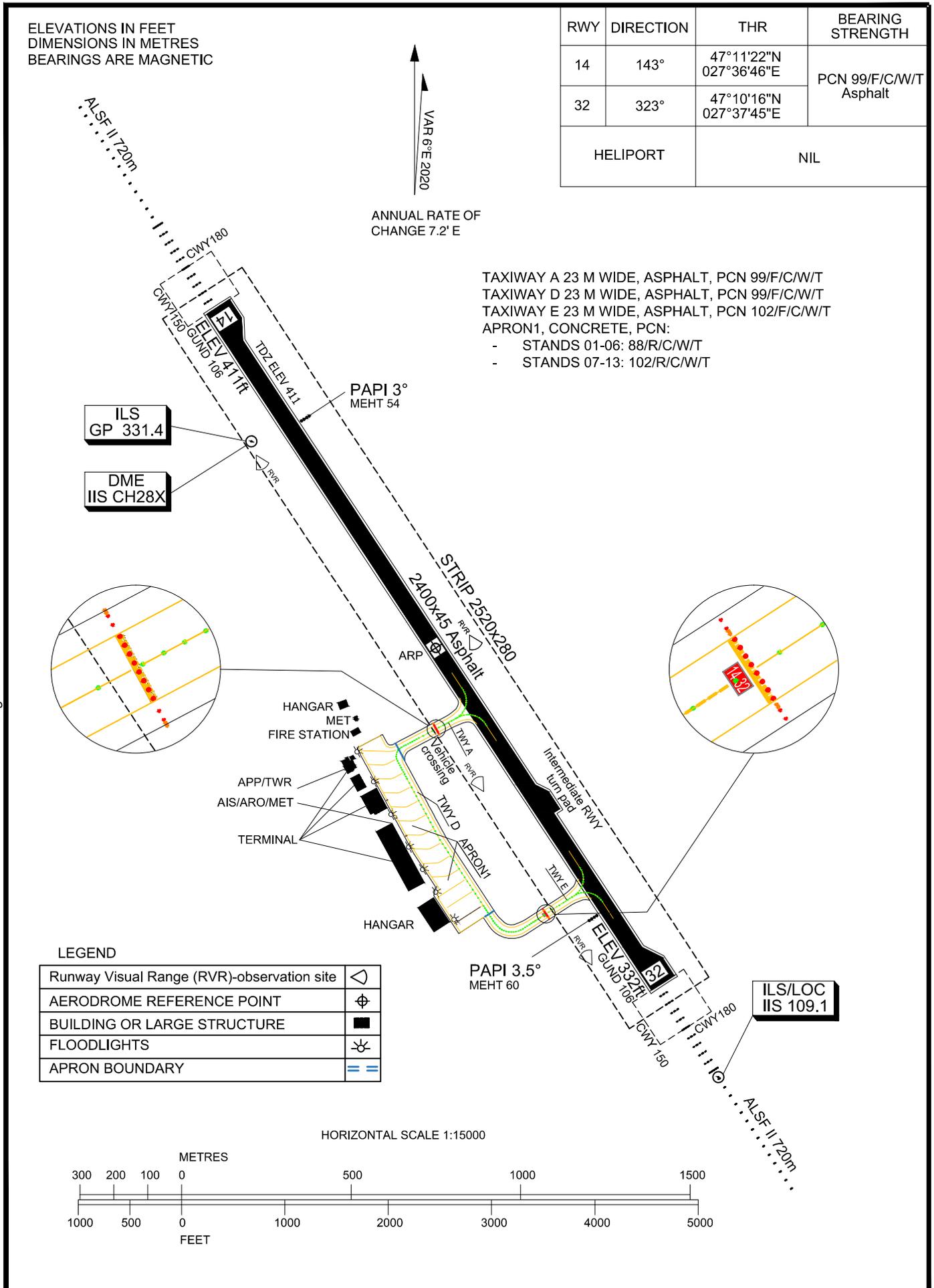
IAȘI/Iași (LRIA)

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

RWY	DIRECTION	THR	BEARING STRENGTH
14	143°	47°11'22"N 027°36'46"E	PCN 99/F/C/W/T Asphalt
32	323°	47°10'16"N 027°37'45"E	
HELIPORT		NIL	

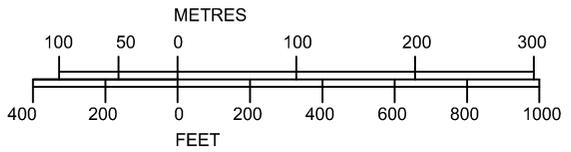
↑
VAR 6°E 2020
ANNUAL RATE OF CHANGE 7.2' E

TAXIWAY A 23 M WIDE, ASPHALT, PCN 99/F/C/W/T
TAXIWAY D 23 M WIDE, ASPHALT, PCN 99/F/C/W/T
TAXIWAY E 23 M WIDE, ASPHALT, PCN 102/F/C/W/T
APRON1, CONCRETE, PCN:
- STANDS 01-06: 88/R/C/W/T
- STANDS 07-13: 102/R/C/W/T

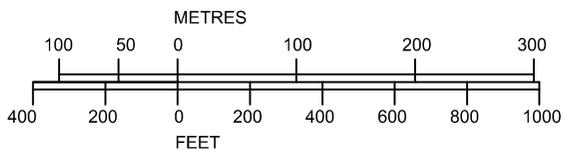
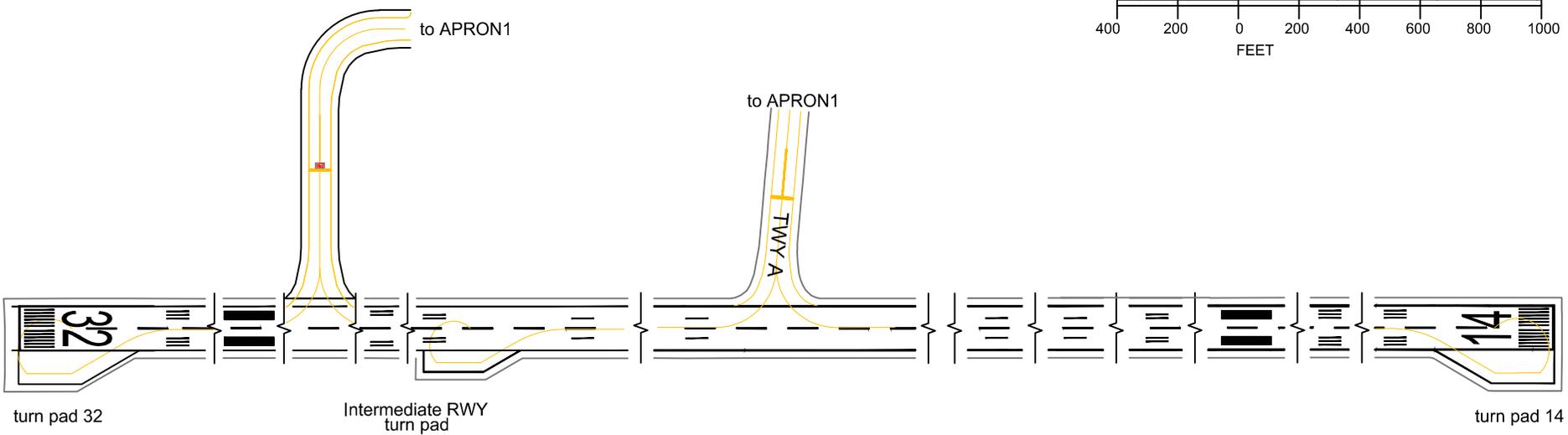


Changes: chart redrawn.

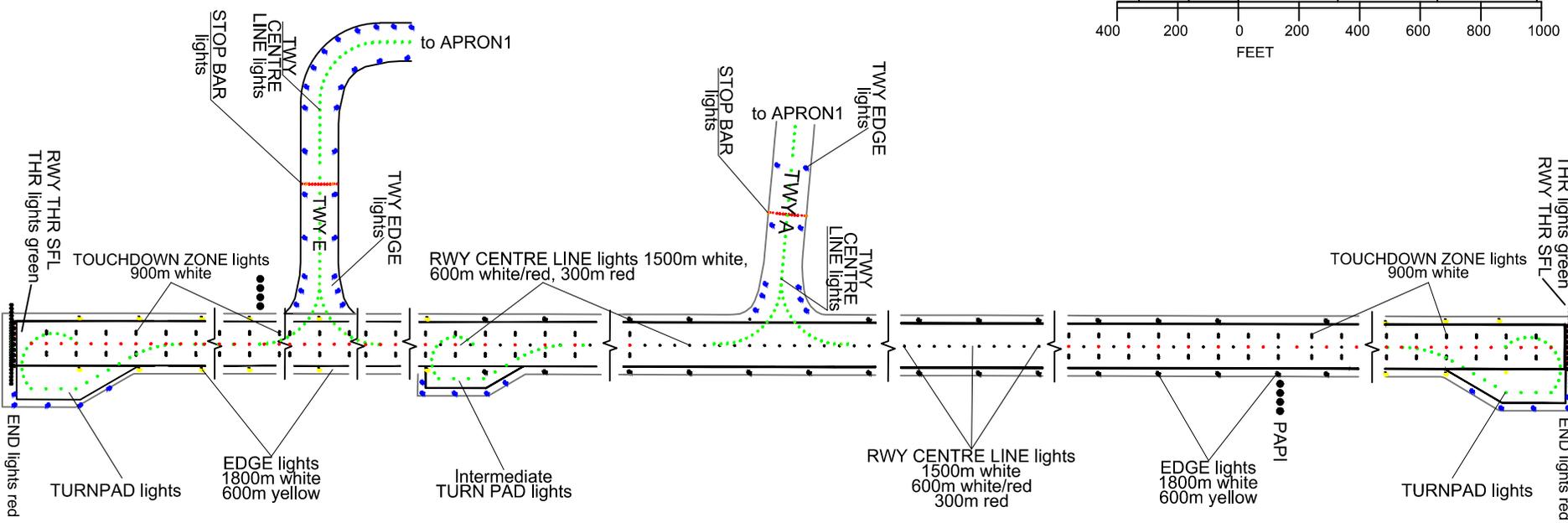
IASI TOWER	119.955
IASI TOWER ALTN	119.200
IASI ATIS	122.865



MARKING AIDS RWY 14-32 AND EXIT TWY



LIGHTING AIDS RWY 14-32 AND EXIT TWY



Changes: Chart updated.

LRSM AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRSM - SATU MARE / Satu Mare

LRSM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	474212N 0225308E Runway center.
2	Direction and distance from city	14 km South from Satu Mare
3	Elevation/Reference temperature/mean low temperature	414 FT / 30.4°C / -13.8°C
4	Geoid undulation at AD ELEV PSN	128 FT
5	MAG VAR/ Annual rate of change	6°E (2020) / 6.6'E
6	AD Operator, address, telephone, telefax, e-mail, AFS, website	Aeroportul Satu Mare Satu Mare, Șos. Satu Mare - Zalău, km 9.5. Tel: +40-(0)261-768640; +40-(0)261-768846 Fax: +40-(0)261-768776 AFS: LRSMRAYD
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	NIL

LRSM AD 2.3 OPERATIONAL HOURS

1	AD Operator	W: 0500 - 1700; S: 0400 - 1600 Days of operation: MON - SAT
2	Customs and immigration	As AD Operator
3	Health and sanitation	As AD Operator
4	AIS Briefing Office	As AD Operator (See GEN 3.1-5)
5	ATS Reporting Office (ARO)	As AD Operator (See ENR 1.10-3)
6	MET Briefing Office	As AD Operator
7	ATS	W: 0500 - 1700; S: 0400 - 1600 Days of operation: MON - SAT
8	Fuelling	As AD Operator
9	Handling	As AD Operator
10	Security	H24
11	De-icing	As AD Operator
12	Remarks	Outside these hours, services are available O/R. Request to be submitted to the AD with 24 hours in advance.

LRSM AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	3 self-propelled passenger stairs, 1 towed passenger stairs, 1 self-propelled conveyorbelt, 1 equipment towing tractor, 6 baggage trailers, 2 mobile GPU 115/200V-400HZ and 28V, 1 mobile GPU 28V, 1 air start unit, 1 air cabin heater unit, 1 lavatory service trailer, 1 forklift
2	Fuel/Oil types	JET A1 / NIL
3	Fuelling facilities/capacity	JET A1 - 1 refueling truck 20000 l
4	De-icing facilities	2 de-icing units with fluid type I and type II
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	Handling services available within AD hours, or by arrangement with the AD.

LRSM AD 2.5 PASSENGER FACILITIES

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

LRSM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD category for fire fighting</i>	Within AD HR: CAT 5, O/R CAT 7 not later than 24 hours before.
2	<i>Rescue equipment</i>	1 hydraulic rescue tools kit - spreader, cutter, rescue ram; 1 battery driven rescue tools kit - spreader, cutter, rescue ram;
3	<i>Capability for removal of disabled aircraft</i>	Cranes AVBL via contractor. Local Action Coordinator: +40-744 615 674 for substitute: +40-723 250 296 e-mail: ops@aeroportulsm.ro
4	<i>Remarks</i>	NIL

LRSM AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	<i>Types of clearing equipment</i>	2 snow ploughs with brush and blower; 1 snow plough; 2 snow blowers; 1 spreader for liquid de-icing materials.
2	<i>Clearance priorities</i>	1. RWY 01/19 and associated TWY to Apron 2. Apron 3. ACFT stands
3	<i>Use of material for movement area surface treatment</i>	Generic fluids used for movement area de/anti-icing: 1. KFOR (potassium formate fluid); 2. KAC (potassium acetate fluid).
4	<i>Specially prepared winter runways</i>	NIL
5	<i>Remarks</i>	Information regarding Runway surface condition provided by Runway Condition Report (RCR) and SNOWTAM, according to Global Reporting Format (GRF) method. See also the snow plan in section AD 1.2.2.

LRSM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron designation, surface and strength</i>	Surface: Concrete Strength: PCN 61/R/C/W/T
2	<i>Taxiway designation, width, surface and strength</i>	Width: 23 M Surface: Concrete Strength: PCN 61/R/C/W/T
3	<i>ACL location and elevation</i>	Location: Apron THR01 THR19 Elevation: 407FT(124M) 414FT(126M) 407FT(124M)
4	<i>VOR checkpoints</i>	NIL
5	<i>INS checkpoints</i>	See AD 2.12-22
6	<i>Remarks</i>	RWY turning bay: Location: THR 01, THR 19 Surface: Asphalt Dimensions: 100 M x 15 M Strength: PCN 61/R/C/W/T

LRSM AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands</i>	Taxiing guidance signs at intersection with TWY. Mandatory instructions markings. Guide lines at apron. For all stands parking guidance provided by marshalls. Visual docking guidance system for aircraft stands: NIL.
2	<i>RWY and TWY markings and LGT</i>	RWY: - markings: designation, THR, TDZ, aiming point, centre line, side stripes; - lights: THR, centre line, edge, runway end, TDZ lights on RWY19; TWY A: - markings: centre line, enhanced centre line, edge, holding position at TWY/RWY intersection; - lights: centre line, edge;
3	<i>Stop bars and runway guard lights</i>	TWY A: Stop bar and runway guard lights at holding position
4	<i>Other RWY protection measure</i>	NIL
5	<i>Remarks</i>	RWY turn pads: - markings: color yellow: centre line, edge line; - lights: centre line, edge;



LRSM AD 2.10 AERODROME OBSTACLES

<i>In Area 2</i>					
<i>OBST ID/ Designation</i>	<i>OBST type</i>	<i>OBST position</i>	<i>ELEV/HGT</i>	<i>Markings/ Type, colour</i>	<i>Remarks</i>
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
6	Antenna	474243.6N 0225324.3E	425/21 FT	MARKED/LGTD R	
8	Antenna	475115.4N 0225829.6E	856/446 FT	NIL	
9	Antenna	475117.8N 0225824.3E	862/452 FT	NIL	
10	Antenna	474240.8N 0225312.0E	414/9 FT	MARKED/LGTD R	
11	Antenna	474240.4N 0225311.2E	439/35 FT	MARKED/LGTD R	
12	Antenna	474239.9N 0225311.0E	440/36 FT	MARKED/LGTD R	
34	Antenna	474719.2N 0225222.2E	745/339 FT	NIL	
39	Building	474240.8N 0225324.1E	414/9 FT	NIL/LGTD R	
99	Building	474200.9N 0225449.6E	506/95 FT	NIL	
101	Building	474059.9N 0225150.9E	489/76 FT	NIL	
102	Building	474107.2N 0225101.2E	538/133 FT	NIL	
103	Building	473816.6N 0225312.5E	639/155 FT	NIL	
104	Building	473858.1N 0225641.9E	836/61 FT	NIL	
105	Building	473949.5N 0225720.6E	691/115 FT	NIL	
269	Building	473912.0N 0225725.5E	691/58 FT	NIL	
270	Building	473911.5N 0225725.2E	689/56 FT	NIL	
311	Antenna	473910.2N 0225323.4E	594/112 FT	MARKED/LGTD R	
312	Antenna	473857.5N 0225640.9E	878/108 FT	MARKED/LGTD R	
318	Antenna	474346.7N 0225231.5E	502/100 FT	MARKED/LGTD R	
319	Antenna	474342.6N 0225233.2E	513/111 FT	MARKED/LGTD R	
344	Antenna	474241.0N 0225323.5E	452/48 FT	MARKED/LGTD R	
354	Tree	474315.0N 0225339.7E	464/59 FT	NIL	
363	Pole	474347.9N 0225217.7E	498/97 FT	NIL	
394	Pole	473820.4N 0225829.3E	774/135 FT	NIL	
396	Pole	474348.2N 0225213.2E	494/92 FT	NIL	

<i>In Area 3</i>					
<i>OBST ID/ Designation</i>	<i>OBST type</i>	<i>OBST position</i>	<i>ELEV/HGT</i>	<i>Markings/ Type, colour</i>	<i>Remarks</i>
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
Not available					

LRSM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	SATU MARE
2	Hours of service MET Office outside hours	As ATS -
3	Office responsible for TAF preparation Periods of validity Interval of issuance	LROM 9 HR 3 HR, during aerodrome operational hours
4	Type of landing forecast Interval of issuance	NIL -
5	Briefing / consultation provided	Self-briefing; briefing/consultation on request (see row 8)
6	Flight documentation Language(s) used	Charts, tabular form, abbreviated plain language text Romanian, English
7	Charts and other information available for briefing or consultation	SWC, W/T Charts, SIGMET, METAR, TAF.
8	Supplementary equipment available for providing information	Tel: +40-(0)261-770010 Fax: +40-(0)261-770010
9	ATS units provided with information	SATU MARE TWR
10	Additional information (limitation of service, etc.)	NIL

LRSM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coord	THR elevation and highest elevation of TDZ of precision	Slope of RWY-SWY
				RWY end coord THR geoid undulation	APP RWY	
1	2	3	4	5	6	7
01	013.03°	2500 x 45	61/R/C/W/T Asphalt	474132.87N 0225254.64E 474251.72N 0225321.73E GUND 128 FT	THR 414 FT	0% (1250 M) -0.1% (1250 M)
19	193.03°	2500 x 45	61/R/C/W/T Asphalt	474251.72N 0225321.73E 474132.87N 0225254.64E GUND 128.4 FT	THR 407.5 FT TDZ 408.6 FT	0.1% (1250 M) 0% (1250 M)
SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of ARST system	OFZ	Remarks
8	9	10	11	12	13	14
NIL	400 x 240	2620 x 280	180 x 90	NIL	NIL	NIL
NIL	400 x 240	2620 x 280	180 x 90	NIL	NIL	NIL

LRSM AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
01	2500	2900	2500	2500	NIL
19	2500	2900	2500	2500	NIL

LRSM AD 2.14 APPROACH AND RWY LIGHTING

RWY Designator	APCH LGT type	THR LGT colour	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
	LEN INTST	WBAR	PAPI	LEN	colour, INTST	colour, INTST	WBAR	colour	
1	2	3	4	5	6	7	8	9	10
01	SALS 420M, LIH	Green -	PAPI Left/3° (46 FT)	Nil	1600M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1900M, 59M, White, LIH 600M, 59M, Yellow, LIH	Red -	NIL	LED lights are exclusively used for lighting systems described in columns 2,3,7,8
19	CAT II 900M, LIH	Green WBAR	PAPI Left/3° (49 FT)	White 900M	1600M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1900M, 59M, White, LIH 600M, 59M, Yellow, LIH	Red -	NIL	

LRSM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN / IBN location, characteristics and hours of operation	NIL
2	LDI location and LGT Anemometer location and LGT	NIL Anemometer at 150 M from THR 19, HJ.
3	TWY edge and centre line lighting	TWY edge blue omnidirectional lights LIL. TWY centre line green/green; yellow/green lights, 15M (7.5M) spacing.
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at AD. Switch-over time: 1 SEC.
5	Remarks	NIL

LRSM AD 2.16 HELICOPTER LANDING AREA

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

LRSM AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	SATU MARE CTR 474738N 0222632E - FIR boundary - 474437N 0222510E - 473332N 0223120E - 472706N 0224758E - 472929N 0230730E - 474140N 0230939E - 475910N 0230200E - FIR boundary - 474738N 0222632E
2	Vertical limits	SFC to FL55
3	Airspace classification	C
4	ATS unit call sign Language(s)	Satu Mare Tower English, Romanian
5	Transition altitude	4000 FT (1200 M) AMSL
6	Hours of aplicability	W: 0500-1700 S: 0400-1600 Days of operation: MON-SAT
7	Remarks	1. CTR established during hours of operation of ATS. See NOTAMs for changes. 2. Outside hours of operation of ATS airspace classification is G. 3. Outside hours of operation of ATS it is recommended to monitor Satu Mare TWR FREQ and check on FIS FREQ about CTR status.

LRSM AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Channel/ Frequency	SATVOICE	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
TWR	Satu Mare Tower	119.655 118.800 MHz ALTN	NIL	NIL	W: 0500 - 1700 S: 0400 - 1600	Days of operation: Monday - Saturday Exempted 8.33 kHz State aircraft.
APP	Satu Mare Tower	121.500 MHz EMERG 118.800 MHz	NIL	NIL	W: 0500 - 1700 S: 0400 - 1600	Procedural service Days of operation: Monday - Saturday

LRSM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR Type of supported OPS ILS classification GBAS classification (For VOR/ILS/MLS give declination)	ID	Frequency / Channel	Hours of operatio n	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
DVOR/DME (6°E/2020)	SAT	108.400 MHz (CH 21X)	H24	474338.7N 0225337.9E	500 FT	NIL	007° MAG / 0.8 NM from THR 19 Coverage 150 NM (assumed)
LOC 19 (6°E/2020) ILS CAT II (II.T.3)	ISM	110.950 MHz	H24	474123.7N 0225251.5E	-	NIL	Front course angle 4.31°
GP 19	-	330.650 MHz	H24	474241.1N 0225323.5E	-	NIL	GP Angle 3° ILS RDH 54 FT
DME 19	ISM	CH 46Y	H24	474240.9N 0225323.7E	400 FT	NIL	NIL
GPS NPA	-	1575.420 MHz	H24	-	-	NIL	Transmitting antennas are satellite based. Maintained by the U.S. Department of Defense.
EGNOS LPV	-	1575.420 MHz	H24	-	-	NIL	Transmitting antennas are satellite based. Maintained by the European Satellite Services Provider – ESSP.

LRSM AD 2.20 LOCAL AERODROME REGULATIONS

- NIL -

LRSM AD 2.21 NOISE ABATEMENT PROCEDURES

See AD 1.1-3

LRSM AD 2.22 FLIGHT PROCEDURES

- NIL -



LRSM AD 2.23 ADDITIONAL INFORMATION

- NIL -

LRSM AD 2.24 CHARTS RELATED TO THE AERODROME

Aerodrome Chart - ICAO	AD 2.12-20
Aircraft Parking/Docking Chart - ICAO	AD 2.12-22
Aerodrome Obstacle Chart - ICAO - Type A	
RWY 01	AD 2.12-25
RWY 19	AD 2.12-26
Precision Approach Terrain Chart – ICAO	
RWY 19	AD 2.12-28
Standard Departure Chart - Instrument - ICAO	
RWY 19	AD 2.12-30
RWY 01	AD 2.12-31
Instrument Approach Charts - ICAO	
RWY 19 ILS Y A/B.....	AD 2.12-51
RWY 19 ILS Z C/D.....	AD 2.12-52
RWY 19 RNP.....	AD 2.12-71
RWY 01 RNP.....	AD 2.12-72
RWY 19 VOR Y A/B	AD 2.12-81
RWY 19 VOR Z C/D	AD 2.12-82
RWY 01 VOR.....	AD 2.12-83

AERODROME CHART - ICAO

47° 42' 12" N
022° 53' 08" E

ELEV 414FT

Satu Mare Tower 119.655
Satu Mare Tower ALTN 118.800

**SATU MARE /
Satu Mare (LRSM)**

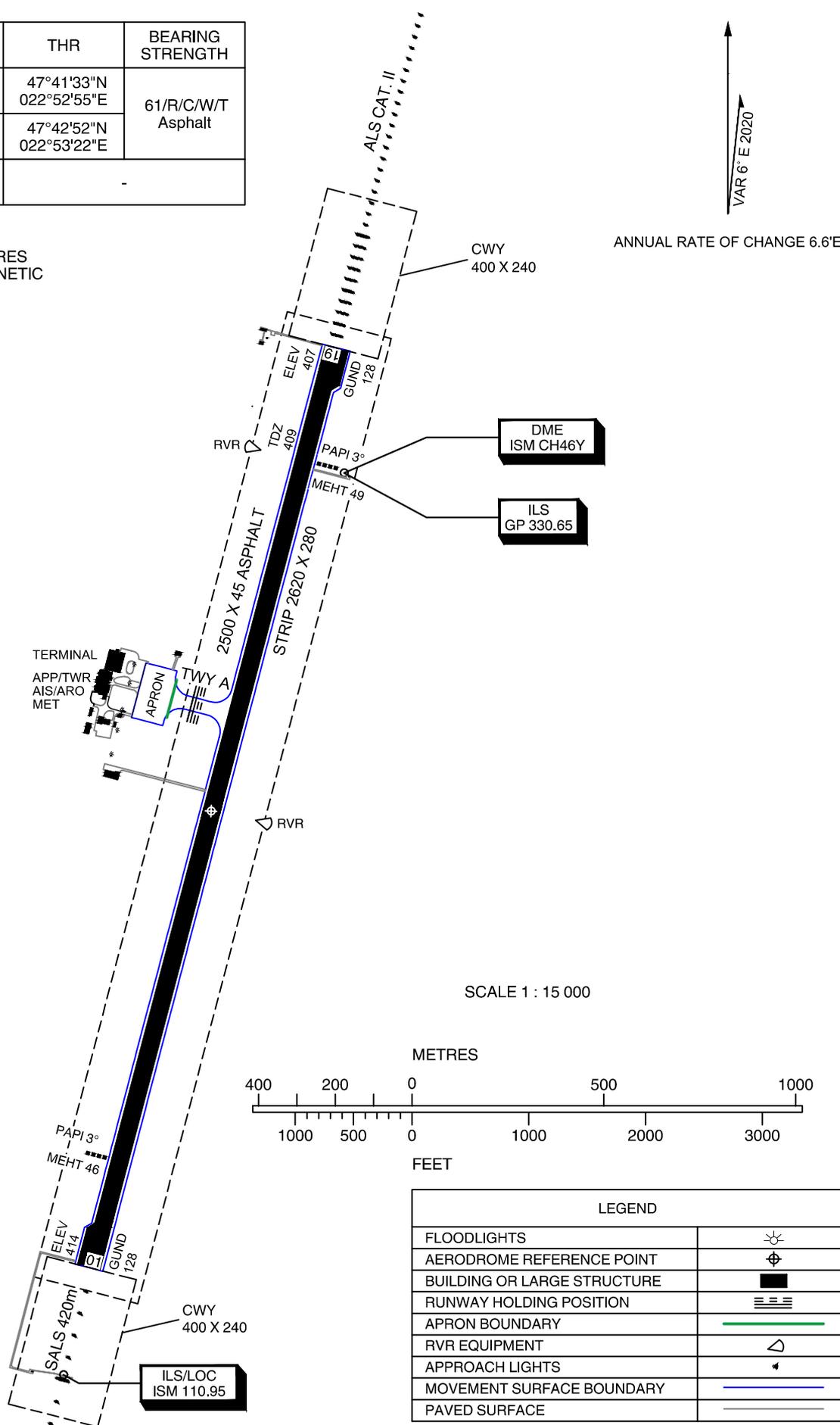
RWY	DIRECTION	THR	BEARING STRENGTH
01	007°	47°41'33"N 022°52'55"E	61/R/C/W/T Asphalt
19	187°	47°42'52"N 022°53'22"E	
HELIPORT		-	

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

ANNUAL RATE OF CHANGE 6.6'E



Changes: MAG VAR and RWY direction.



SATU MARE /
Satu Mare (LRSM)

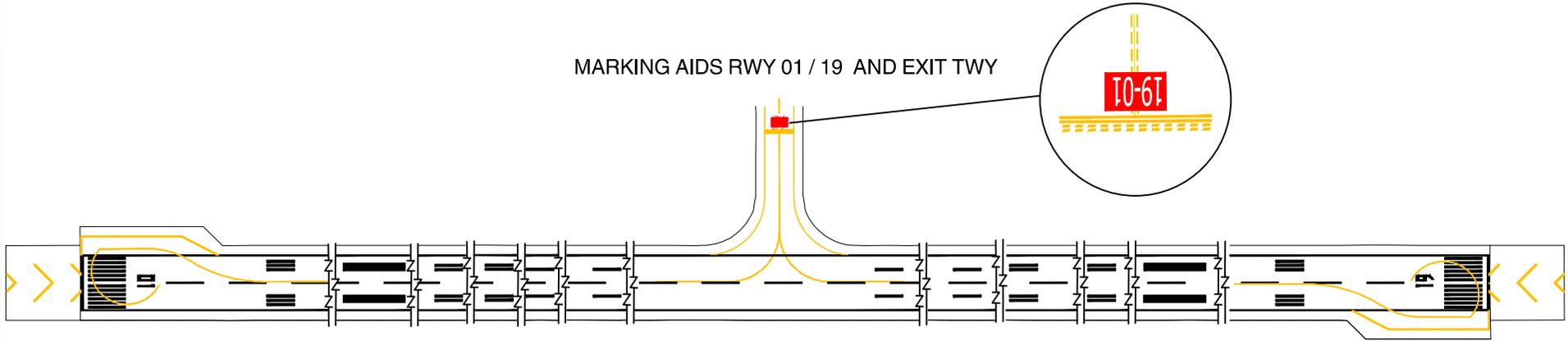
47° 42' 12" N
022° 53' 08" E

ELEV 414FT

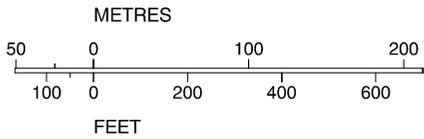
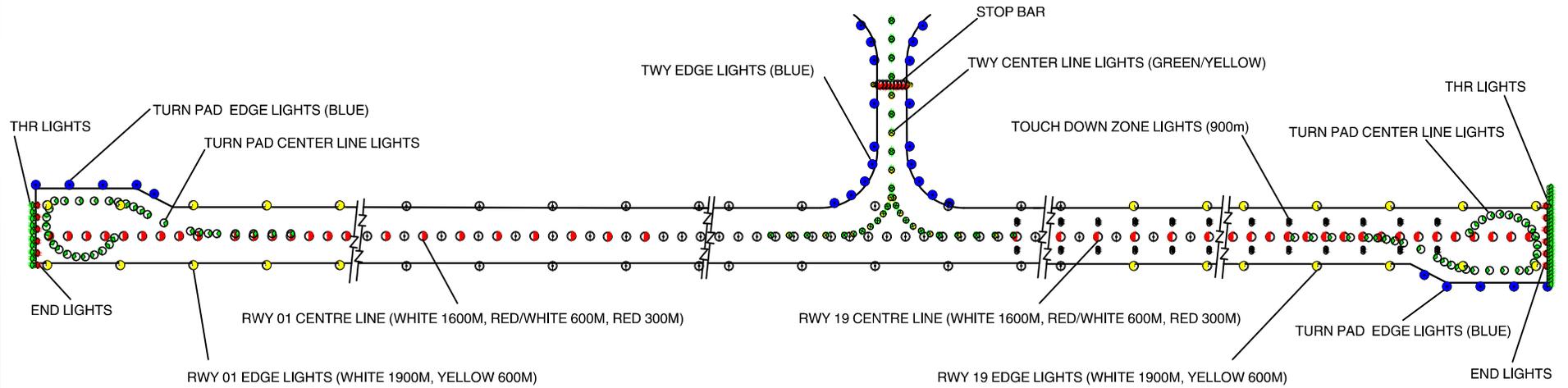
Satu Mare Tower
Satu Mare Tower ALTN 119,655
118,800

AERODROME CHART - ICAO

MARKING AIDS RWY 01 / 19 AND EXIT TWY



LIGHTING AIDS RWY 01 / 19 AND EXIT TWY



Changes: Lights revised.

AIRCRAFT PARKING /
DOCKING CHART - ICAO

APRON ELEV
407FT

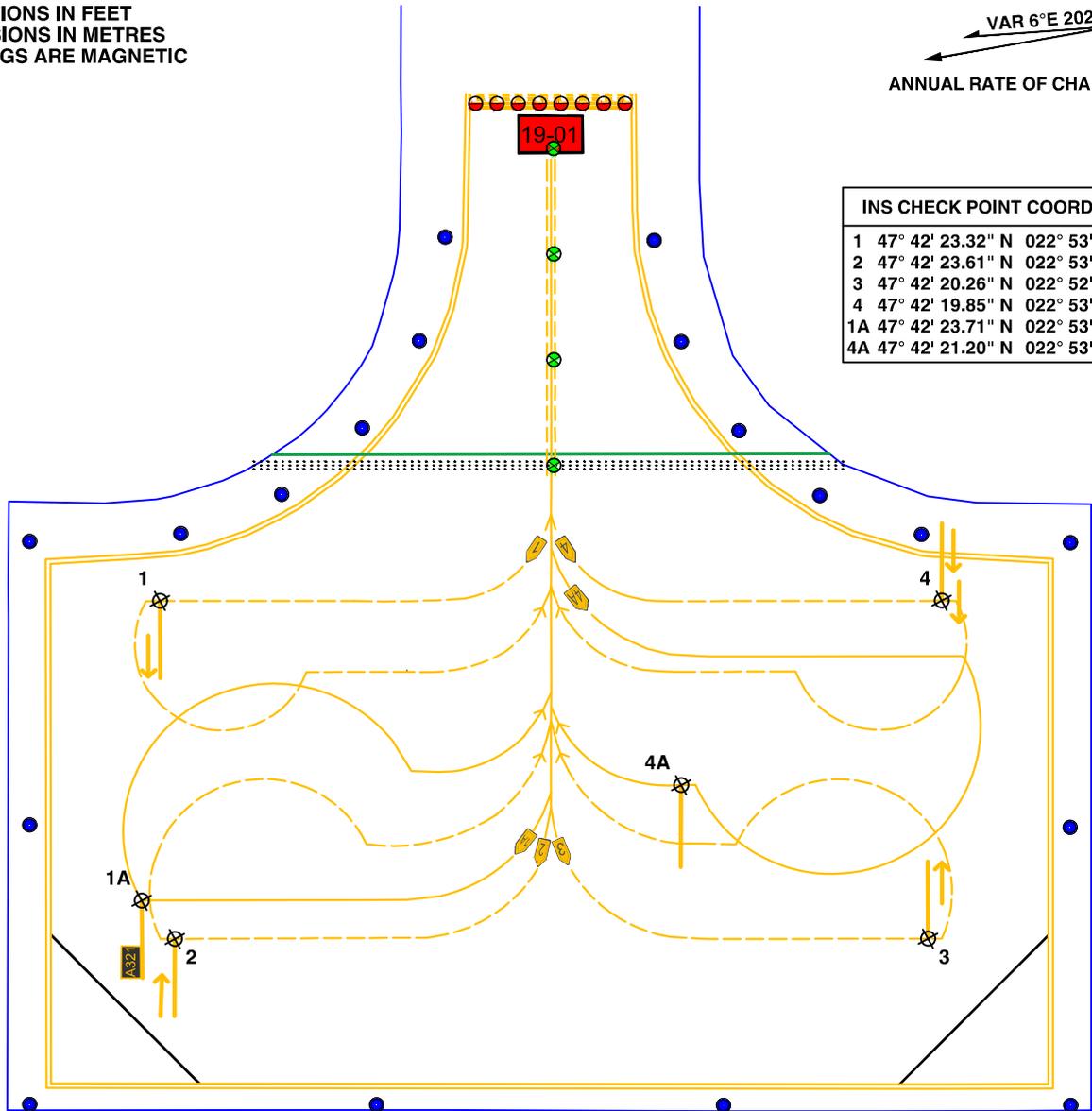
Satu Mare Tower	119.655
Satu Mare Tower ALTN	118.800

SATU MARE / Satu Mare (LRSM)

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 6°E 2020
ANNUAL RATE OF CHANGE 6.6'E

INS CHECK POINT COORDINATES	
1	47° 42' 23.32" N 022° 53' 02.52" E
2	47° 42' 23.61" N 022° 53' 00.25" E
3	47° 42' 20.26" N 022° 52' 59.11" E
4	47° 42' 19.85" N 022° 53' 01.33" E
1A	47° 42' 23.71" N 022° 53' 00.56" E
4A	47° 42' 21.20" N 022° 53' 00.50" E



Changes: MAG VAR.

Stand no.	Aircraft	Maximum Aircraft Type
1	Aircraft with wingspan = 26.5m (Code letter C)	ATR 42 / SAAB 2000
2	Aircraft with wingspan = 29m (Code letter C)	ATR 72 / B 735 / F - 100
3	Aircraft with wingspan = 29m (Code letter C)	ATR 72 / B 735 / F - 100
4	Aircraft with wingspan = 26.5m (Code letter C)	ATR 42 / SAAB 2000
1A, 4A	Aircraft with wingspan = 36m (Code letter C)	A 321 / B 739

At all stands parking will be performed with marshaller assistance.

TAXIWAY 23 m WIDE
BEARING STRENGTH FOR STANDS 61/R/C/W/T
BEARING STRENGTH FOR TAXIWAY 61/R/C/W/T



LEGEND	
INS CHECK POINT	
AIRCRAFT STAND	
TAXIWAY EDGE LIGHT	
STOP BAR LIGHT	
TAXIWAY CENTRE LINE LIGHT	
TO AIRCRAFT STAND	
TAXI HOLDING POSITION	
ENHANCED TAXIWAY CENTRE LINE	
TAXI GUIDANCE LINE	
MOVEMENT SURFACE BOUNDARY	
ATC SERVICE BOUNDARY	
SAFETY LINE	
APRON BOUNDARY	

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

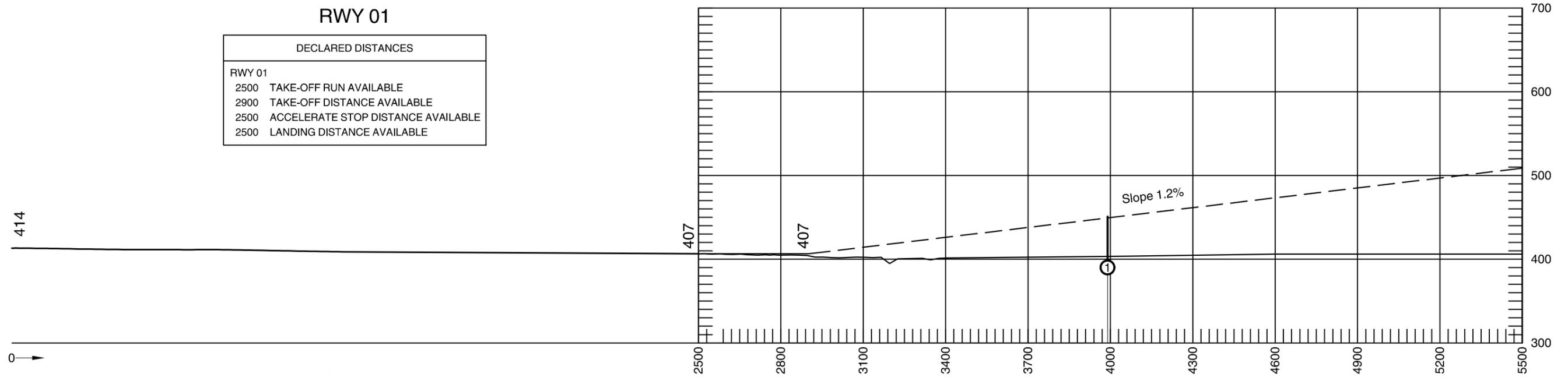
SATU MARE / Satu Mare (LRSM)

ELEVATIONS IN FEET AND LINEAR DIMENSION IN METRES

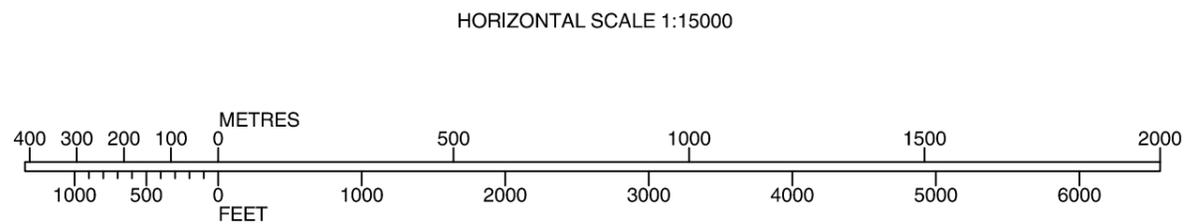
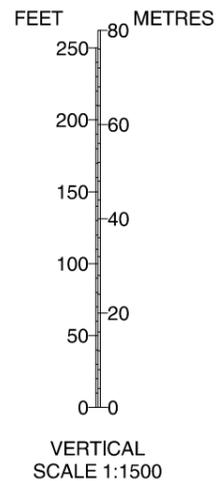
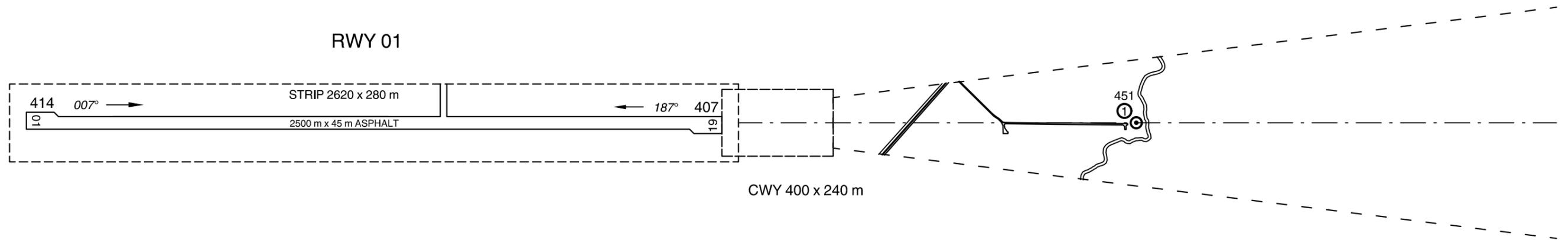
MAGNETIC VARIATION 6° E - 2020

RWY 01

DECLARED DISTANCES	
RWY 01	
2500	TAKE-OFF RUN AVAILABLE
2900	TAKE-OFF DISTANCE AVAILABLE
2500	ACCELERATE STOP DISTANCE AVAILABLE
2500	LANDING DISTANCE AVAILABLE



RWY 01



ORDER OF ACCURACY
HORIZONTAL 0.5 M
VERTICAL 1 FT

LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, etc.	●
ROAD	══
DITCH	~

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

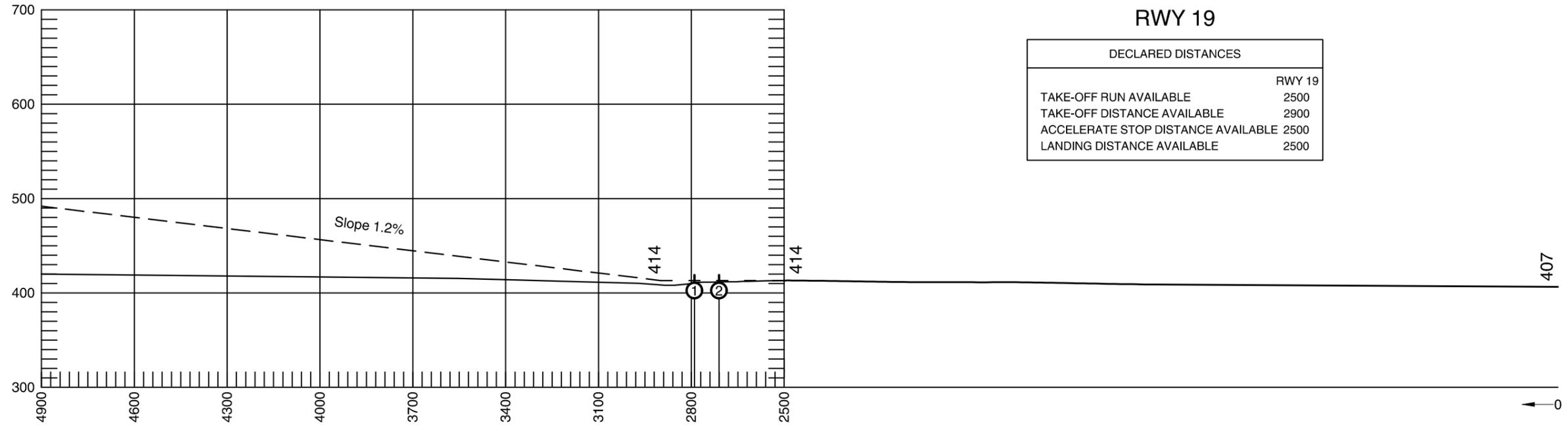
Changes: Chart revised.

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

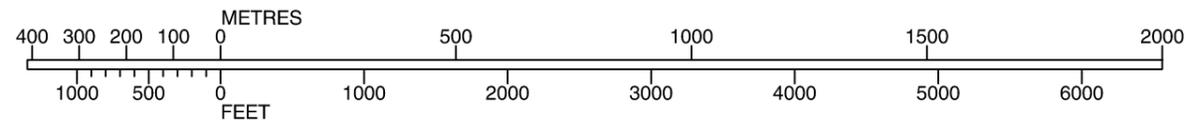
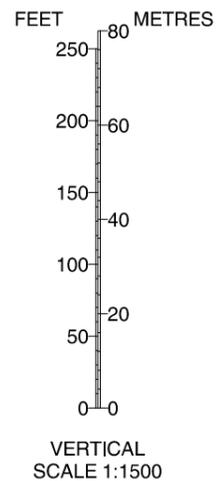
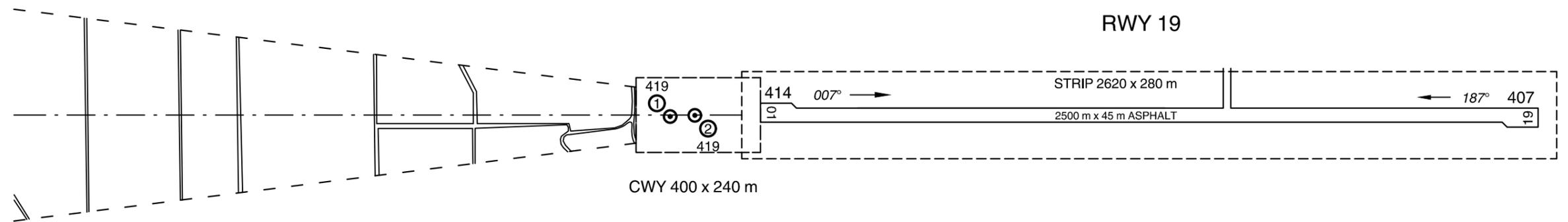
SATU MARE / Satu Mare (LRSM)

ELEVATIONS IN FEET AND LINEAR DIMENSION IN METRES

MAGNETIC VARIATION 6° E - 2020



DECLARED DISTANCES	
	RWY 19
TAKE-OFF RUN AVAILABLE	2500
TAKE-OFF DISTANCE AVAILABLE	2900
ACCELERATE STOP DISTANCE AVAILABLE	2500
LANDING DISTANCE AVAILABLE	2500



LEGEND	
IDENTIFICATION NUMBER	①
POLE, TOWER, SPIRE, ANTENNA, etc.	●
ROAD	—
DITCH	~

ORDER OF ACCURACY
HORIZONTAL 0.5 M
VERTICAL 1 FT

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

Changes: Chart revised.

STANDARD DEPARTURE CHART

TRANSITION ALTITUDE
4000

SATU MARE / Satu Mare (LRSM)

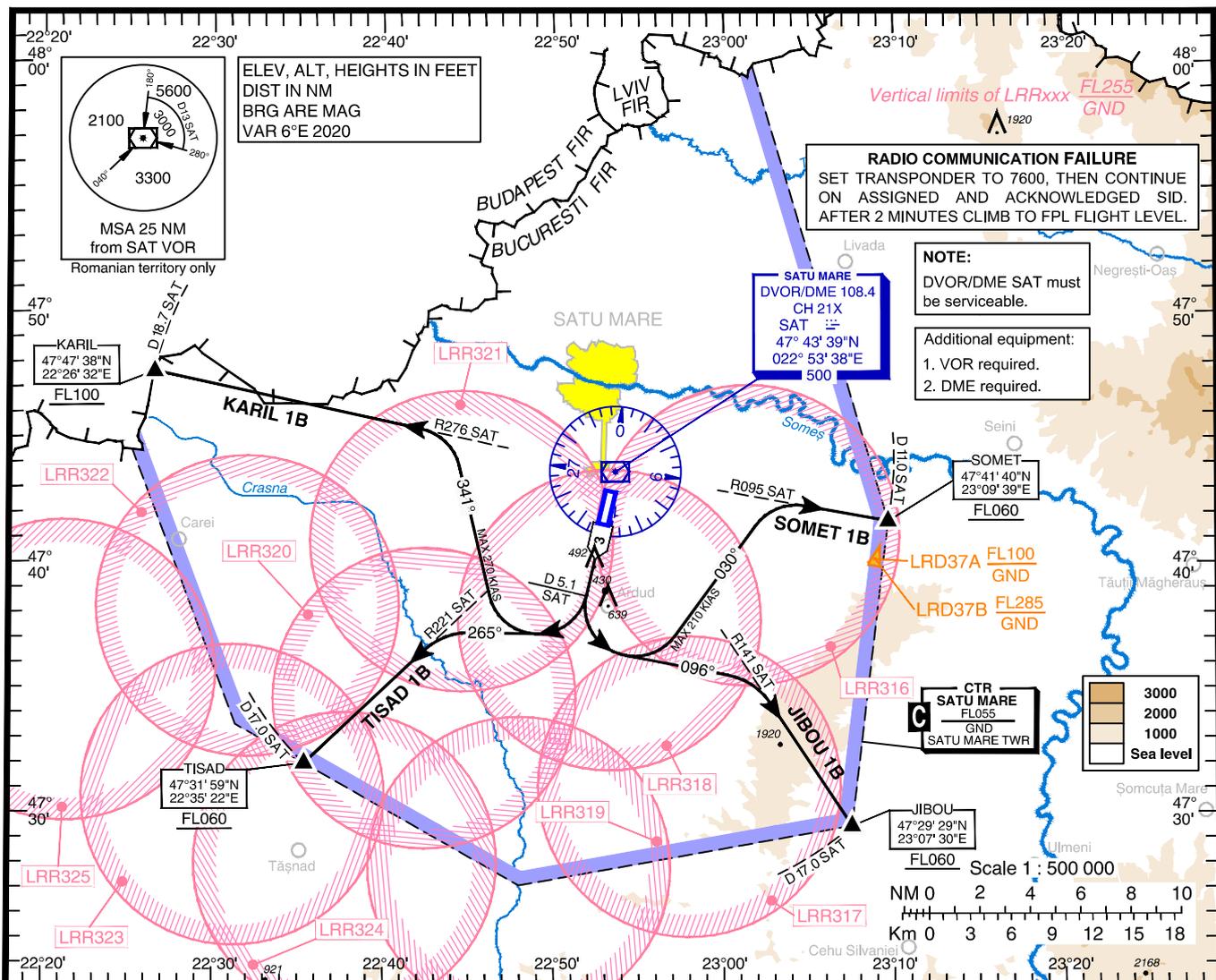
RWY 19

INSTRUMENT (SID) - ICAO

SATU MARE TOWER	119.655	BUDOP SECTOR	130.230
SATU MARE TOWER ALTN	118.800	BUDOP SECTOR ALTN	124.100

SOMET 1B JIBOU 1B

TISAD 1B KARIL 1B



Changes: New chart.

DESIGNATOR	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
SOMET 1B	Climb on runway track to D 5.1 SAT. Turn LEFT on track 030° to intercept R 095 SAT to SOMET; Cross SOMET at or above FL060 (1). Departure turn limited to MAX 210 KIAS. (1) ATS climb gradient: 6.6% up to SOMET due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
JIBOU 1B	Climb on runway track to D 5.1 SAT. Turn LEFT on track 096° to intercept R 141 SAT to JIBOU; Cross JIBOU at or above FL060 (1). (1) ATS climb gradient: 5.8% up to JIBOU due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
TISAD 1B	Climb on runway track to D 5.1 SAT. Turn RIGHT on track 265° to intercept R 221 SAT to TISAD; Cross TISAD at or above FL060 (1). (1) ATS climb gradient: 6.1% up to TISAD due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
KARIL 1B	Climb on runway track to D 5.1 SAT. Turn RIGHT on track 341° to intercept R 276 SAT to KARIL; Cross KARIL at or above FL100 (1). Departure turn limited to MAX 270 KIAS. (1) ATS climb gradient: 7.6% up to KARIL due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.



**SATU MARE / Satu Mare (LRSM)
SID RWY 19**

AERONAUTICAL DATA TABULATION

SID RWY 19	
Waypoint Identifier	Coordinates
DER19 – D 2.37 SAT	47°41'20.24"N 022°52'50.31"E
D 5.1 SAT	47°38'40.8"N 022°51'55.6"E
SOMET – BRG 094.53° / D 11.00 SAT	47°41'40.0"N 023°09'39.0"E
JIBOU – BRG 140.63° / D 16.99 SAT	47°29'29.0"N 023°07'30.0"E
TISAD – BRG 220.58° / D 16.99 SAT	47°31'59.0"N 022°35'22.0"E
KARIL – BRG 276.21 ° / D 18.71 SAT	47°47'38.0"N 022°26'32.0"E
SAT DVOR/DME	47°43'38.7"N 022°53'37.9"E

Leg	Distance [NM]	True Track [°]	Magnetic Track [°]
SOMET 1B			
DER19 – D 5.1 SAT	2.73	193.03	187.08
D 5.1 SAT – SOMET	17.2	100.47	094.53 from DVOR/DME SAT
JIBOU 1B			
DER19 – D 5.1 SAT	2.73	193.03	187.08
D 5.1 SAT – JIBOU	15.71	146.57	140.63 from DVOR/DME SAT
TISAD 1B			
DER19 – D 5.1 SAT	2.73	193.03	187.08
D 5.1 SAT – TISAD	14.00	226.52	220.58 from DVOR/DME SAT
KARIL 1B			
DER19 – D 5.1 SAT	2.73	193.03	187.08
D 5.1 SAT – KARIL	25.96	282.15	276.20 from DVOR/DME SAT

STANDARD DEPARTURE CHART

TRANSITION ALTITUDE
4000

SATU MARE / Satu Mare (LRSM)

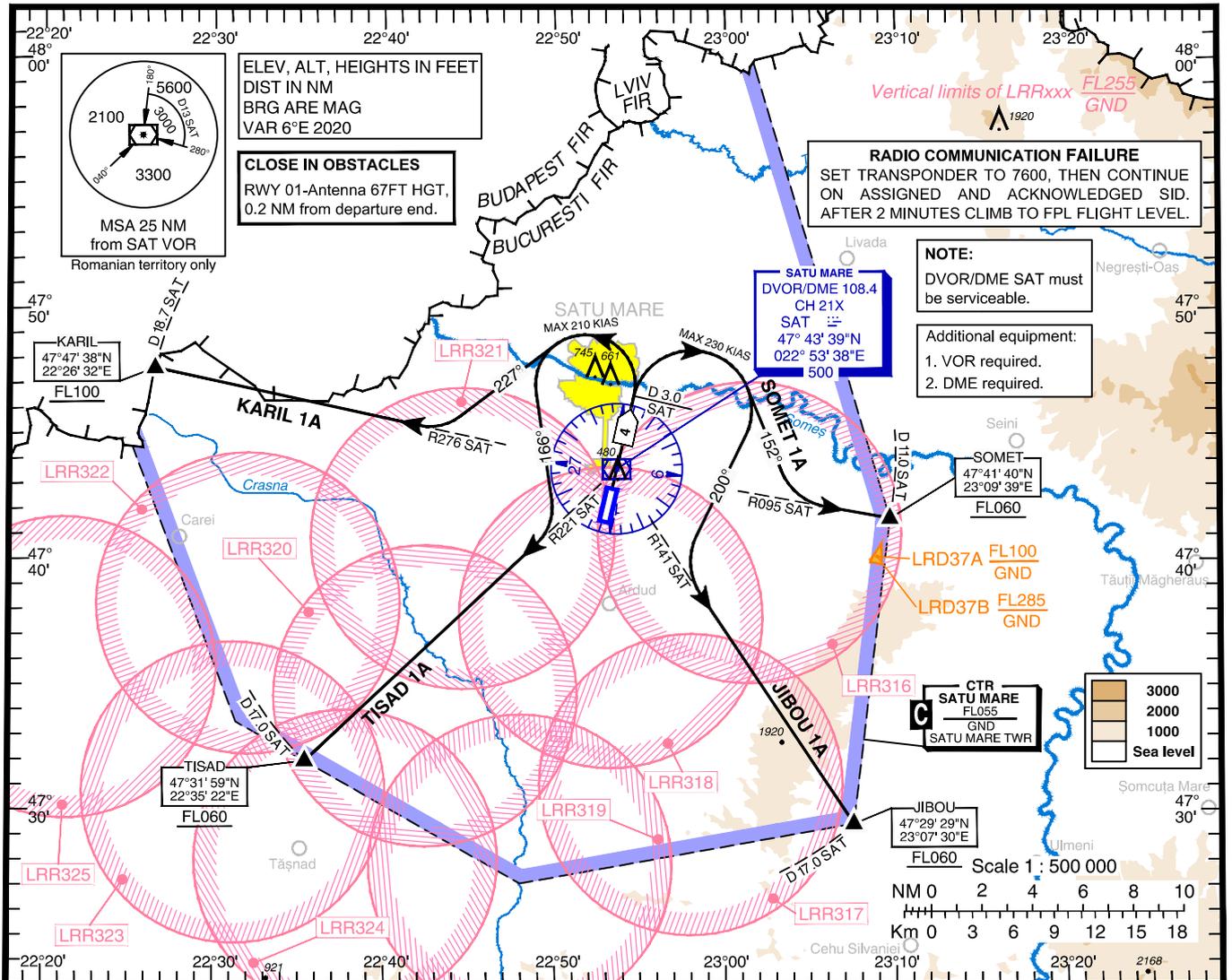
RWY 01

INSTRUMENT (SID) - ICAO

SATU MARE TOWER	119.655	BUDOP SECTOR	130.230
SATU MARE TOWER ALTN	118.800	BUDOP SECTOR ALTN	124.100

SOMET 1A JIBOU 1A

TISAD 1A KARIL 1A



DESIGNATOR	DEPARTURE ROUTE AND LEVEL INSTRUCTIONS / REMARKS
SOMET 1A	Climb on runway track to D 3.0 SAT. Turn RIGHT on track 152° to intercept R 095 SAT to SOMET; Cross SOMET at or above FL060 (1). Departure turn limited to MAX 230 KIAS. (1) ATS climb gradient: 6.9% up to SOMET due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
JIBOU 1A	Climb on runway track to D 3.0 SAT. Turn RIGHT on track 200° to intercept R 141 SAT to JIBOU; Cross JIBOU at or above FL060 (1). Departure turn limited to MAX 230 KIAS. (1) ATS climb gradient: 4.3% up to JIBOU due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
TISAD 1A	Climb on runway track to D 3.0 SAT. Turn LEFT on track 166° to intercept R 221 SAT to TISAD; Cross TISAD at or above FL060 (1). Departure turn limited to MAX 210 KIAS. (1) ATS climb gradient: 4.2% up to TISAD due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.
KARIL 1A	Climb on runway track to D 3.0 SAT. Turn LEFT on track 227° to intercept R 276 SAT to KARIL; Cross KARIL at or above FL100 (1). Departure turn limited to MAX 210 KIAS. (1) ATS climb gradient: 7.5% up to KARIL due to airspace restriction. Advise ATC if unable to ensure the ATS climb gradient.



SATU MARE / Satu Mare (LRSM)
SID RWY 01

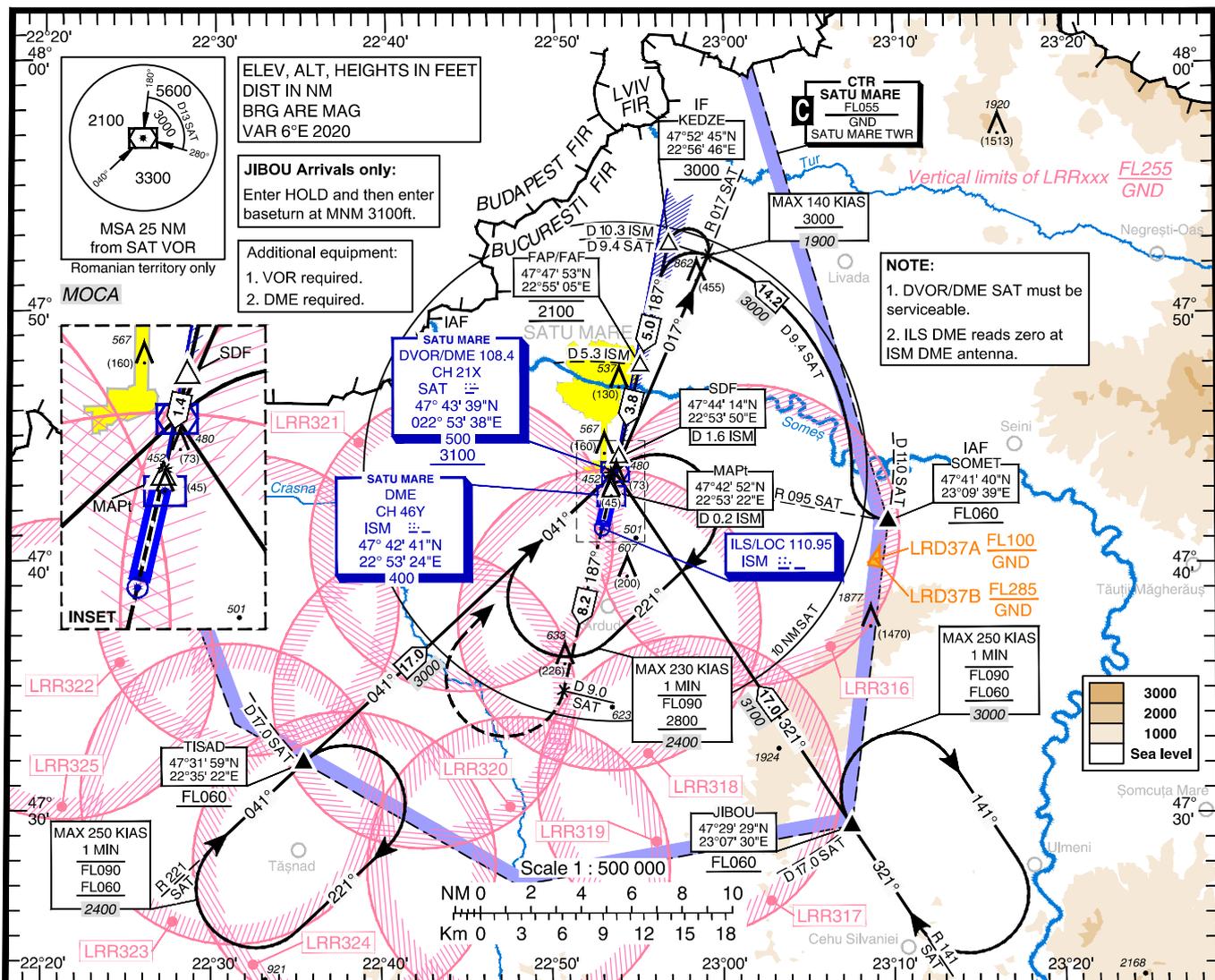
AERONAUTICAL DATA TABULATION

SID RWY 01	
Waypoint Identifier	Coordinates
DER01 – D 0.59 SAT	47°43'04.34"N 022°53'26.07"E
D 3.0 SAT	47°46'34.0"N 022°54'38.2"E
SOMET – BRG 094.53° / D 11.00 SAT	47°41'40.0"N 023°09'39.0"E
JIBOU – BRG 140.63° / D 16.99 SAT	47°29'29.0"N 023°07'30.0"E
TISAD – BRG 220.58° / D 16.99 SAT	47°31'59.0"N 022°35'22.0"E
KARIL – BRG 276.21 ° / D 18.71 SAT	47°47'38.0"N 022°26'32.0"E
SAT DVOR/DME	47°43'38.7"N 022°53'37.9"E

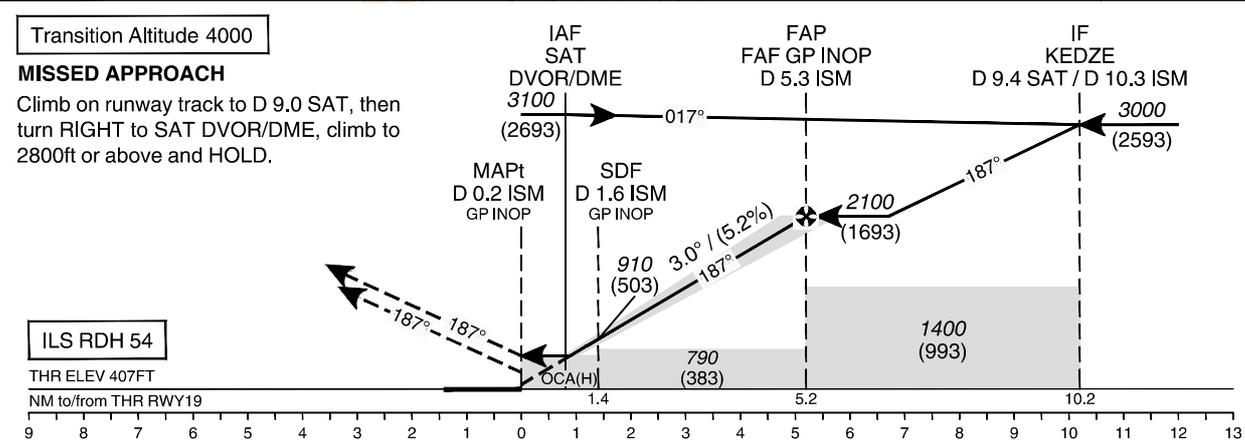
Leg	Distance [NM]	True Track [°]	Magnetic Track [°]
SOMET 1A			
DER01 – D 3.0 SAT	3.59	013.08	007.13
D 3.0 SAT – SOMET	15.28	100.47	094.53 from DVOR/DME SAT
JIBOU 1A			
DER01 – D 3.0 SAT	3.59	013.08	007.13
D 3.0 SAT – JIBOU	27.98	146.57	140.63 from DVOR/DME SAT
TISAD 1A			
DER01 – D 3.0 SAT	3.59	013.08	007.13
D 3.0 SAT – TISAD	27.96	226.52	220.58 from DVOR/DME SAT
KARIL 1A			
DER01 – D 3.0 SAT	3.59	013.08	007.13
D 3.0 SAT – KARIL	22.64	282.15	276.20 from DVOR/DME SAT

AERODROME ELEV. 414 FT SATU MARE / Satu Mare (LRSM)
INSTRUMENT APPROACH CHART - ICAO
 HEIGHTS RELATED TO THR RWY 19 - ELEV 407 FT
ILS Y RWY 19 CAT A, B

SATU MARE TOWER 119.655
 SATU MARE TOWER ALTN 118.800



Changes: New procedure.



OCA/H		A	B	GS						
Straight-in approach	CAT I	584 (177)	594 (187)	70	90	100	120			
	GP INOP with SDF	790 (323)		min:s	4:28	3:28	3:07	2:36		
	GP INOP w/o SDF	790 (383)		Rate of descent 5.2%	ft/min	372	478	531	637	
Circling		870	910	Timing not authorized for defining the MAPt.						
				Dist to ISM DME	NM	1	2	3	4	5
				Altitude (Height)	FT	720 (313)	1040 (633)	1360 (953)	1680 (1273)	2000 (1593)

For data tabulation see verso

**SATU MARE / Satu Mare (LRSM)
ILS Y RWY 19****AERONAUTICAL DATA TABULATION**

ILS Y Approach to RWY 19 from SOMET, JIBOU, TISAD	
Fix/Point	Coordinates
SOMET (IAF) – BRG 094.53° / D 11.00 SAT	47°41'40.0" N 023°09'39.0" E
JIBOU – BRG 140.63° / D 16.99 SAT	47°29'29.0" N 023°07'30.0" E
TISAD – BRG 220.58° / D 16.99 SAT	47°31'59.0" N 022°35'22.0" E
SAT DVOR/DME (IAF)	47°43'38.7" N 022°53'37.9" E
KEDZE (IF) – BRG 007.17° / D 10.32 ISM / D 9.35 SAT	47°52'44.7" N 022°56'46.2" E
FAP/FAF (GP INOP) – BRG 007.14° / D 5.32 ISM	47°47'52.6" N 022°55'05.3" E
SDF (GP INOP) – BRG 007.16° / D 1.57 ISM	47°44'13.5" N 022°53'49.9" E
THR RWY 19 (MAPT GP INOP) – BRG 187.12° / D 0.17 ISM	47°42'51.72" N 022°53'21.73" E
ISM LOC	47°41'23.7" N 022°52'51.5" E
GP 19	47°42'41.1" N 022°53'23.5" E
ISM DME	47°42'40.9" N 022°53'23.7" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

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

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

**INSTRUMENT APPROACH
CHART - ICAO**

AERODROME ELEV. 414 FT
HEIGHTS RELATED TO THR RWY 19 - ELEV 407 FT

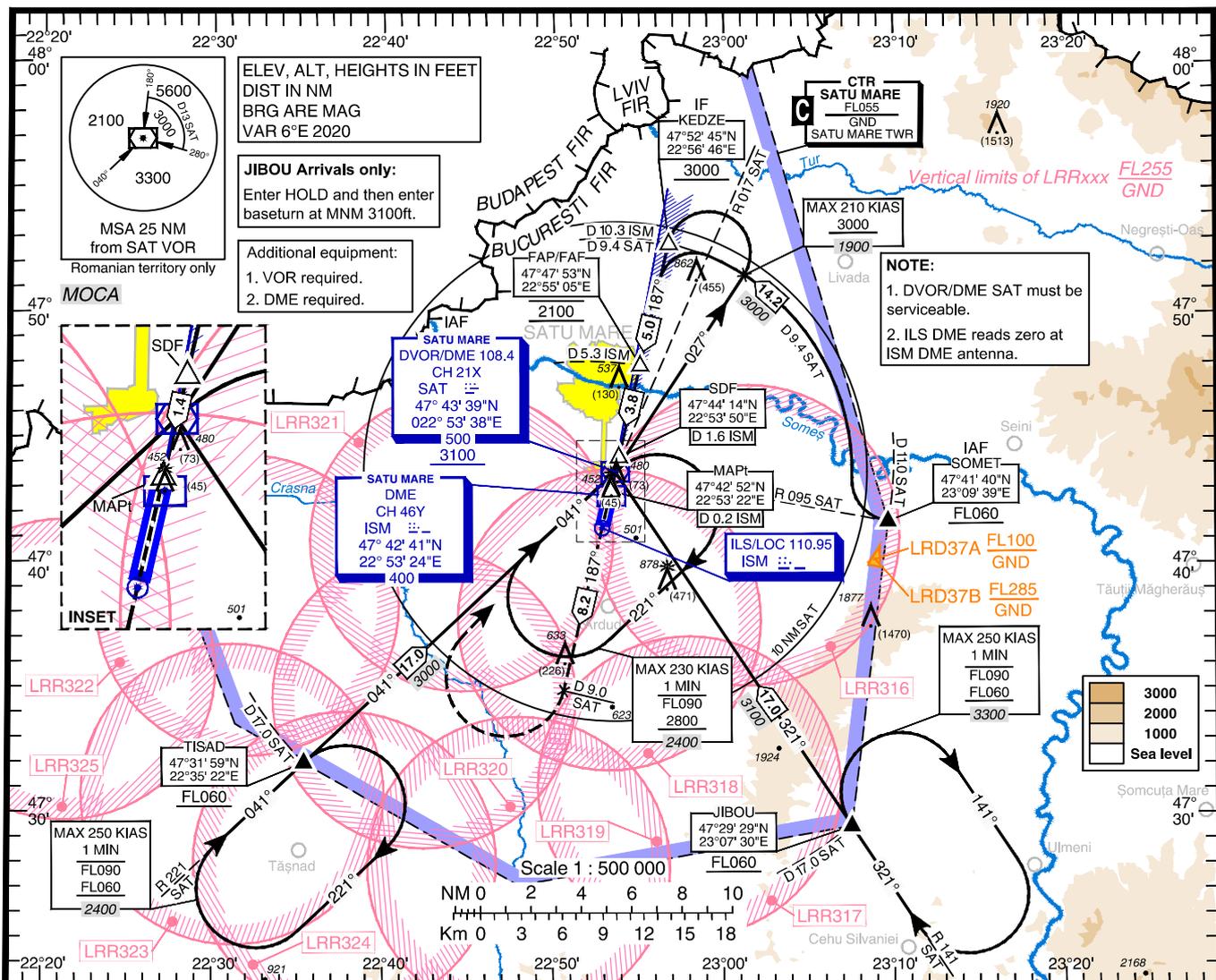
SATU MARE / Satu Mare (LRSM)

ILS Z

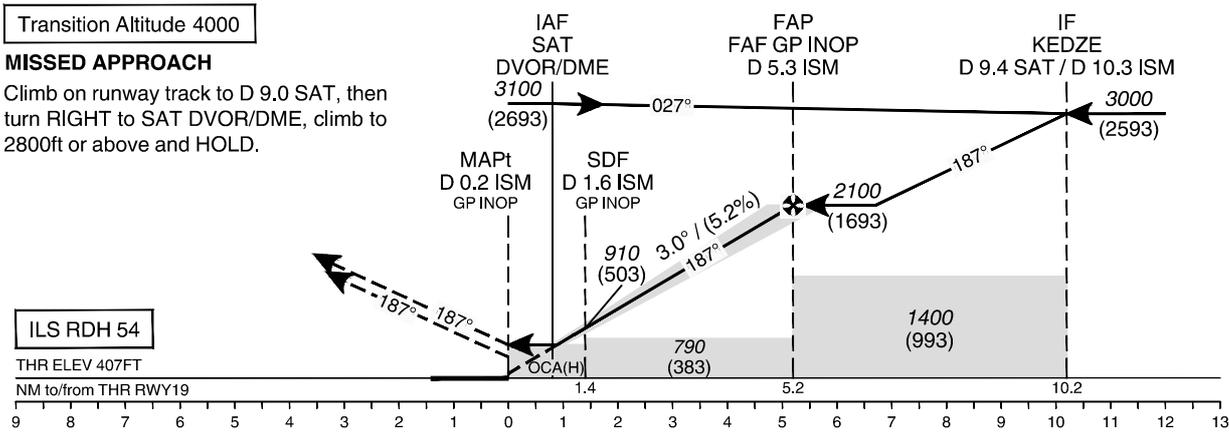
RWY 19

CAT C, D

SATU MARE TOWER 119.655
SATU MARE TOWER ALTN 118.800



Changes: New procedure.



OCA/H		C	D
Straight-in approach	CAT I	604 (197)	614 (207)
	GP INOP with SDF	790 (323)	
	GP INOP w/o SDF	790 (383)	
Circling		1280	

GS	fts	120	140	160
FAF-MAPt 5.2 NM	min:s	2:36	2:14	1:57
Rate of descent 5.2%	ft/min	637	743	849

Timing not authorized for defining the MAPt.

Dist to ISM DME	NM	1	2	3	4	5
Altitude (Height)	FT	720 (313)	1040 (633)	1360 (953)	1680 (1273)	2000 (1593)

For data tabulation see verso

SATU MARE / Satu Mare (LRSM)
ILS Z RWY 19

AERONAUTICAL DATA TABULATION

ILS Z Approach to RWY 19 from SOMET, JIBOU, TISAD	
Fix/Point	Coordinates
SOMET (IAF) – BRG 094.53° / D 11.00 SAT	47°41'40.0" N 023°09'39.0" E
JIBOU – BRG 140.63° / D 16.99 SAT	47°29'29.0" N 023°07'30.0" E
TISAD – BRG 220.58° / D 16.99 SAT	47°31'59.0" N 022°35'22.0" E
SAT DVOR/DME (IAF)	47°43'38.7" N 022°53'37.9" E
KEDZE (IF) – BRG 007.17° / D 10.32 ISM / D 9.35 SAT	47°52'44.7" N 022°56'46.2" E
FAP/FAF (GP INOP) – BRG 007.14° / D 5.32 ISM	47°47'52.6" N 022°55'05.3" E
SDF (GP INOP) – BRG 007.16° / D 1.57 ISM	47°44'13.5" N 022°53'49.9" E
THR RWY 19 (MAPT GP INOP) – BRG 187.12° / D 0.17 ISM	47°42'51.72" N 022°53'21.73" E
ISM LOC	47°41'23.7" N 022°52'51.5" E
GP 19	47°42'41.1" N 022°53'23.5" E
ISM DME	47°42'40.9" N 022°53'23.7" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

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

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

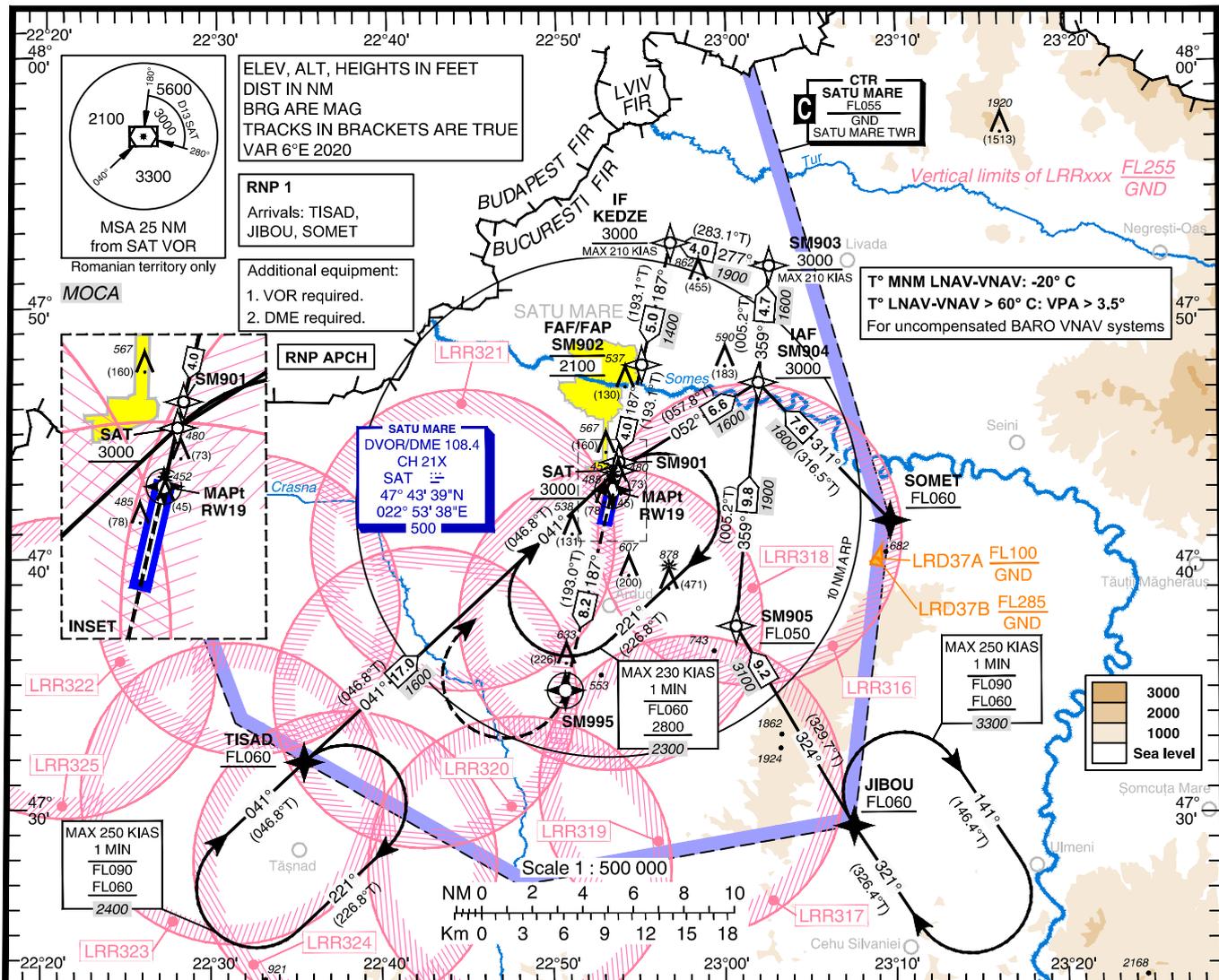
**INSTRUMENT APPROACH
CHART - ICAO**

AERODROME ELEV. 414 FT
HEIGHTS RELATED TO THR RWY 19 - ELEV 407 FT

SATU MARE / Satu Mare (LRSM)
RNP
RWY 19

SATU MARE TOWER 119.655
SATU MARE TOWER ALTN 118.800

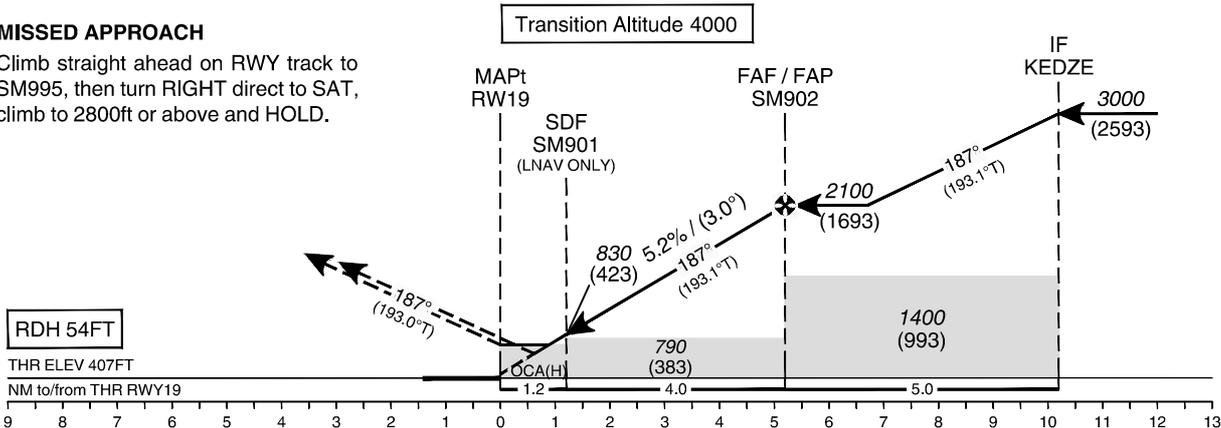
EGNOS
CH 83810
E19A



Changes: New chart.

MISSED APPROACH

Climb straight ahead on RWY track to SM995, then turn RIGHT direct to SAT, climb to 2800ft or above and HOLD.



OCA(H)	A	B	C	D
LPV (CAT I)	584 (177)	594 (187)	604 (197)	614 (207)
LNAV/VNAV	611 (204)	621 (214)	631 (224)	644 (237)
LNAV	730 (323)			
Circling	870	910	1280	

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

Timing not authorized for defining the MAPt.

Dist to RW19	NM	1	2	3	4	5
Altitude (Height)	FT	780 (373)	1100 (693)	1420 (1013)	1730 (1323)	2050 (1643)

For data tabulation see verso



SATU MARE / Satu Mare (LRSM)
RNP RWY 19

AERONAUTICAL DATA TABULATION

RNP RWY 19	
Waypoint Identifier	Coordinates
JIBOU	47°29'29.0" N 023°07'30.0" E
SOMET	47°41'40.0" N 023°09'39.0" E
TISAD	47°31'59.0" N 022°35'22.0" E
SM905	47°37'27.1" N 023°00'36.9" E
SM904 (IAF)	47°47'10.3" N 023°01'55.5" E
SM903	47°51'50.1" N 023°02'33.4" E
KEDZE (IF)	47°52'44.7" N 022°56'46.2" E
SM902 (FAF)	47°47'52.6" N 022°55'05.3" E
SM901 (SDF LNAV ONLY)	47°43'59.5" N 022°53'45.0" E
RW19	47°42'51.72" N 022°53'21.73" E
SM995	47°34'52.6" N 022°50'37.5" E
SAT	47°43'38.7" N 022°53'37.9" E

RADIO COMMUNICATION FAILURE

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



**SATU MARE / Satu Mare (LRSM)
RNP RWY 19**

PROCEDURE CODING

Serial No	Path Descriptor	Waypoint ID	Flyover	Course °M (°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
010	IF	JIBOU	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SM905	-	324 (329.7)	6.0 E	9.2	-	+FL050	-	-	RNP 1
030	TF	SM904	-	359 (365.2)	6.0 E	9.8	-	+3000	-	-	RNP 1
010	IF	SOMET	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SM904	-	311 (316.5)	6.0 E	7.6	-	+3000	-	-	RNP 1
010	IF	TISAD	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SAT	-	041 (046.8)	6.0 E	17.0	-	+3000	-	-	RNP 1
030	TF	SM904	-	052 (057.8)	6.0 E	6.6	-	+3000	-	-	RNP 1
010	IF	SM904	-	-	6.0 E	-	-	+3000	-	-	RNP APCH
020	TF	SM903	-	359 (005.2)	6.0 E	4.7	-	+3000	-210	-	RNP APCH
030	TF	KEDZE	-	277 (283.1)	6.0 E	4.0	-	+3000	-210	-	RNP APCH
040	TF	SM902	-	187 (193.1)	6.0 E	5.0	-	@2100	-	-	RNP APCH
050	TF	RW19	Y	187 (193.1)	6.0 E	5.2	-	@461	-	-3.0/ 54	RNP APCH
060	TF	SM995	Y	187 (193.0)	6.0 E	8.2	R	-	-	-	RNP APCH
070	DF	SAT	-	-	6.0 E	-	-	-FL060 +2800	-	-	RNP APCH
080	HM	SAT	-	041 (046.8)	6.0 E	-	R	-FL060 +2800	-230	-	RNP APCH

Path Descriptor	Waypoint ID	Inbound course °M (°T)	Leg distance	Timing(min.)/ Waypoint Distance (NM)	Turn direction	Minimum altitude	Maximum altitude	Speed limit	Navigation specification
HM	JIBOU	321 (326.4)	-	1/-	R	FL060	FL090	-250	RNAV 1
HM	TISAD	041 (046.8)	-	1/-	R	FL060	FL090	-250	RNAV 1



**SATU MARE / Satu Mare (LRSM)
RNP RWY 19**

LPV FAS DB

Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LRSM
Runway	19
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E19A
LTP/FTP Latitude	474251.7160N
LTP/FTP Longitude	0225321.7265E
LTP/FTP Ellipsoidal Height (metres)	163.3
FPAP Latitude	474132.8720N
Delta FPAP Latitude (seconds)	-78.8440
FPAP Longitude	0225254.6385E
Delta FPAP Longitude (seconds)	-27.0880
Threshold Crossing Height	54.2
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)	35.0

Output Data	
Data Block	10 0D 13 12 0C 13 00 00 01 39 31 05 88 0E 7A 14 7D B3 D2 09 61 1A 08 98 FD 60 2C FF 1E 02 2C 01 64 00 C8 AF AA E9 D0 71
Calculated CRC Value	AAE9D071

Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	124.2

AERODROME ELEV. 414 FT

SATU MARE / Satu Mare (LRSM)

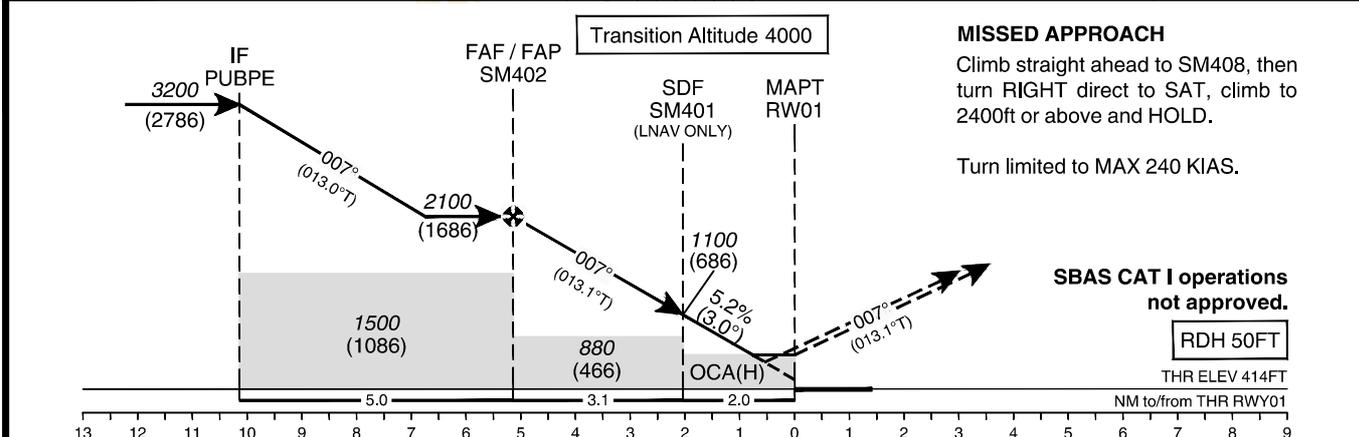
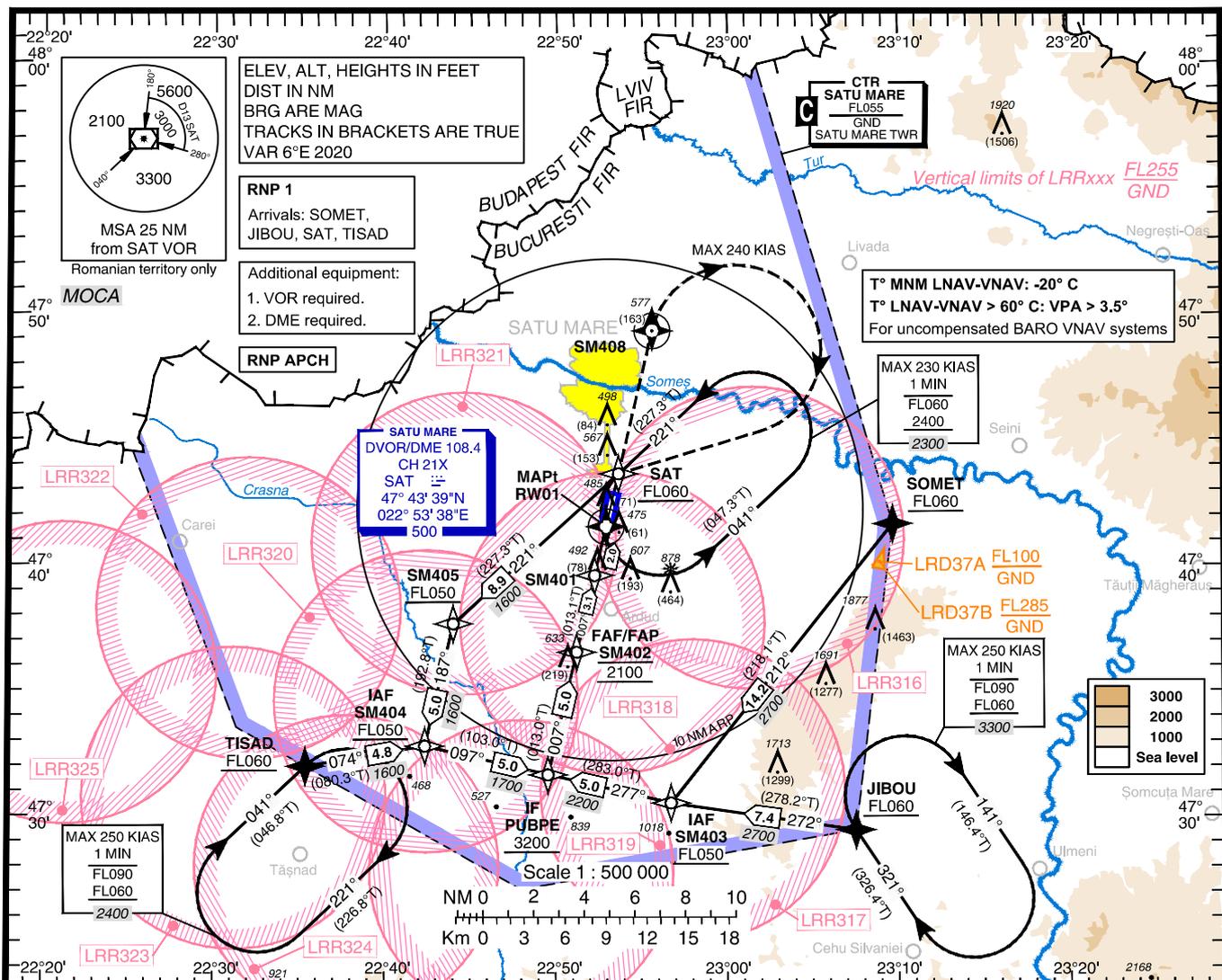
**INSTRUMENT APPROACH
CHART - ICAO**

HEIGHTS RELATED TO AD ELEV.

SATU MARE TOWER 119.655
SATU MARE TOWER ALTN 118.800

EGNOS
CH 95057
E01A

**RNP
RWY 01**



OCA(H)	A	B	C	D
LPV (APV I)	601 (187)	611 (197)	621 (207)	631 (217)
LNAV/VNAV	607 (193)	617 (203)	626 (212)	636 (222)
LNAV	740 (326)			
Circling	870	910	1280	

GS	fts	70	90	100	120	140	160
FAF-MAPt 5.1 NM	min:s	4:23	3:24	3:04	2:33	2:12	1:55
Rate of descent 5.2%	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to RW01	NM	5	4	3	2	1
Altitude (Height)	FT	2060 (1646)	1740 (1326)	1420 (1006)	1100 (686)	780 (366)

For data tabulation see verso



SATU MARE / Satu Mare (LRSM)
RNP RWY 01

AERONAUTICAL DATA TABULATION

RNP RWY 01	
Waypoint Identifier	Coordinates
TISAD	47°31'59.0" N 022°35'22.0" E
JIBOU	47°29'29.0" N 023°07'30.0" E
SOMET	47°41'40.0" N 023°09'39.0" E
SAT	47°43'38.7" N 022°53'37.9" E
SM405	47°37'40.0" N 022°43'58.9" E
SM404 (IAF)	47°32'47.6" N 022°42'20.3" E
SM403 (IAF)	47°30'32.6" N 022°56'43.1" E
PUBPE (IF)	47°31'40.3" N 022°49'31.8" E
SM402 (FAF)	47°36'32.5" N 022°51'11.7" E
SM401 (SDF LNAV ONLY)	47°39'36.0" N 022°52'14.5" E
RW01	47°41'32.87" N 022°52'54.64" E
SM408	47°49'20.2" N 022°55'35.6" E

RADIO COMMUNICATION FAILURE

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



**SATU MARE / Satu Mare (LRSM)
RNP RWY 01**

PROCEDURE CODING

Serial No	Path Descriptor	Waypoint ID	Flyover	Course °M (°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH (°/ft)	NAV SPEC
010	IF	TISAD	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SM404	-	074 (080.3)	6.0 E	4.8	-	+FL050	-	-	RNP APCH
030	TF	PUBPE	-	097 (103.0)	6.0 E	5.0	-	+3200	-	-	RNP APCH
010	IF	JIBOU	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SM403	-	272 (278.2)	6.0 E	7.4	-	+FL050	-	-	RNP APCH
030	TF	PUBPE	-	277 (283.0)	6.0 E	5.0	-	+3200	-	-	RNP APCH
010	IF	SOMET	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SM403	-	212 (218.1)	6.0 E	14.2	-	+FL050	-	-	RNP APCH
030	TF	PUBPE	-	277 (283.0)	6.0 E	5.0	-	+3200	-	-	RNP APCH
010	IF	SAT	-	-	6.0 E	-	-	+FL060	-	-	RNP 1
020	TF	SM405	-	221 (227.3)	6.0 E	8.9	-	+FL050	-	-	RNP 1
030	TF	SM404	-	187 (192.8)	6.0 E	5.0	-	+FL050	-	-	RNP APCH
040	TF	PUBPE	-	097 (103.0)	6.0 E	5.0	-	+3200	-	-	RNP APCH
010	IF	PUBPE	-	-	6.0 E	-	-	+3200	-	-	RNP APCH
020	TF	SM402	-	007 (013.0)	6.0 E	5.0	-	@2100	-	-	RNP APCH
030	TF	RW01	Y	007 (013.1)	6.0 E	5.1	-	@464	-	-3.0/ 50	RNP APCH
040	TF	SM408	Y	007 (013.1)	6.0 E	8.0	-	-	-240	-	RNP APCH
050	DF	SAT	-	-	6.0 E	-	R	-FL060 +2400	-	-	RNP APCH
060	HM	SAT	-	221 (227.3)	6.0 E	-	L	-FL060 +2400	-230	-	RNP APCH

Path Descriptor	Waypoint ID	Inbound course °M (°T)	Leg distance	Timing(min.)/ Waypoint Distance (NM)	Turn direction	Minimum altitude	Maximum altitude	Speed limit	Navigation specification
HM	JIBOU	321 (326.4)	-	1/-	R	FL060	FL090	-250	RNAV 1
HM	TISAD	041 (046.8)	-	1/-	R	FL060	FL090	-250	RNAV 1



**SATU MARE / Satu Mare (LRSM)
RNP RWY 19**

LPV FAS DB

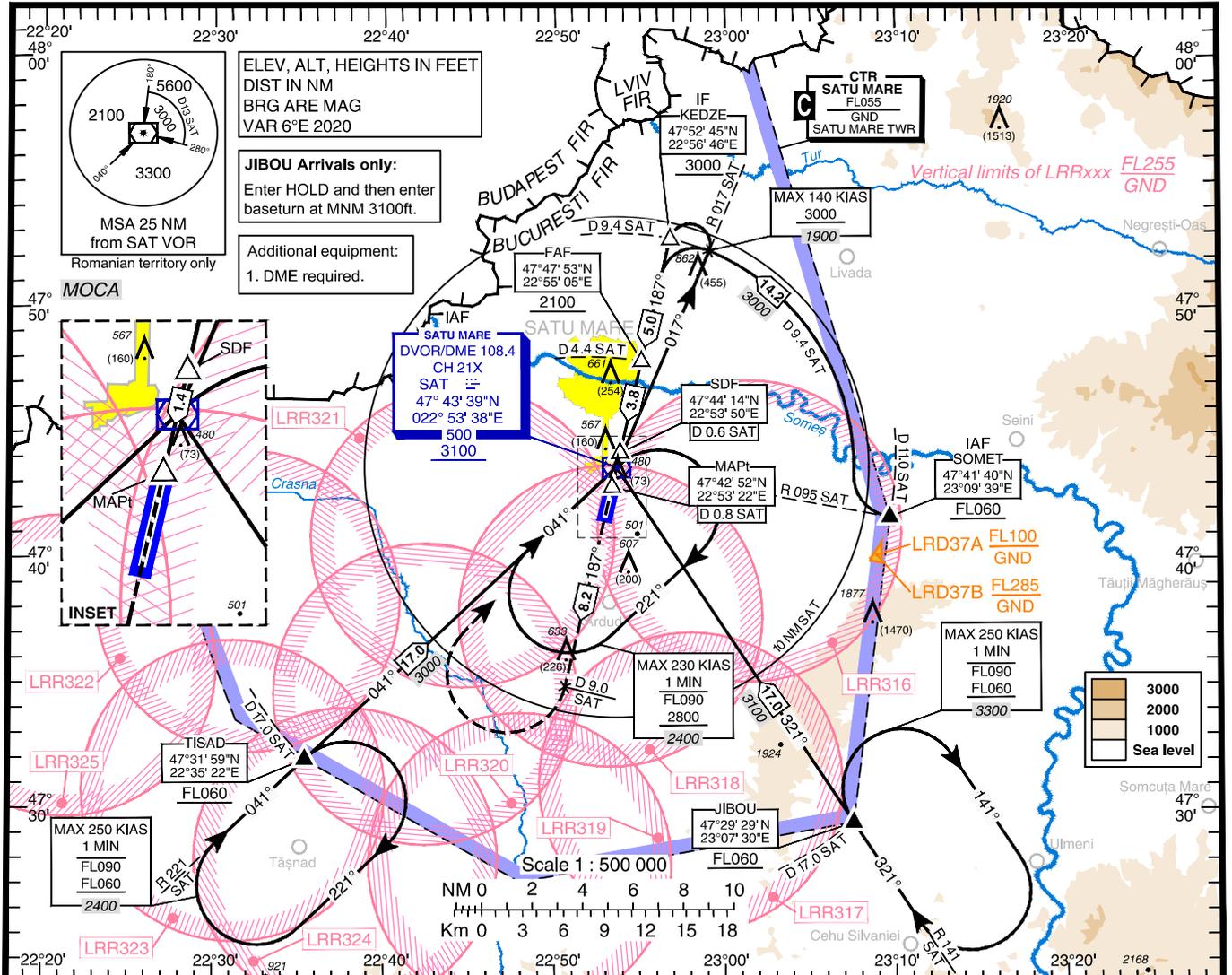
Input Data	
Parameters	Values
Operation Type	0
SBAS Provider	1 (EGNOS)
Airport Identifier	LRSM
Runway	19
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	E19A
LTP/FTP Latitude	474251.7160N
LTP/FTP Longitude	0225321.7265E
LTP/FTP Ellipsoidal Height (metres)	163.3
FPAP Latitude	474132.8720N
Delta FPAP Latitude (seconds)	-78.8440
FPAP Longitude	0225254.6385E
Delta FPAP Longitude (seconds)	-27.0880
Threshold Crossing Height	54.2
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)	35.0

Output Data	
Data Block	10 0D 13 12 0C 13 00 00 01 39 31 05 88 0E 7A 14 7D B3 D2 09 61 1A 08 98 FD 60 2C FF 1E 02 2C 01 64 00 C8 AF AA E9 D0 71
Calculated CRC Value	AAE9D071

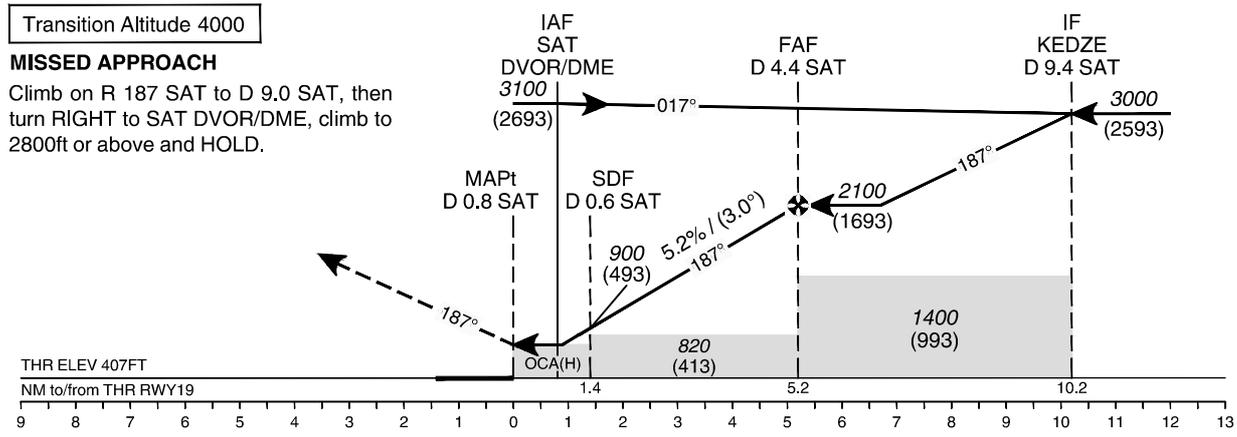
Required Additional Data	
Parameters	Values
ICAO Code	LR
LTP/FTP Orthometric Height (metres)	124.2

AERODROME ELEV. 414 FT SATU MARE / Satu Mare (LRSM)
INSTRUMENT APPROACH CHART - ICAO
 HEIGHTS RELATED TO THR RWY 19 - ELEV 407 FT
VOR Y RWY 19 CAT A, B

SATU MARE TOWER 119.655
 SATU MARE TOWER ALTN 118.800



Changes: New procedure.



		OCA/H	A	B
Straight-in approach	Stepdown fix (D 0.6 SAT)		730 (323)	
	w/o Stepdown fix		820 (413)	
	Circling		870	910

GS	kts	70	90	100	120
FAF-MAPt 5.2 NM	min:s	4:28	3:28	3:07	2:36
Rate of descent	ft/min	372	478	531	637

Timing not authorized for defining the MAPt.

Dist to SAT DME	NM	1	2	3	4
Altitude (Height)	FT	1030 (623)	1350 (943)	1670 (1263)	1990 (1583)

For data tabulation see verso



**SATU MARE / Satu Mare (LRSM)
VOR Y RWY 19**

AERONAUTICAL DATA TABULATION

VOR Y Approach to RWY 19 from SOMET, JIBOU, TISAD	
Fix/Point	Coordinates
SOMET (IAF) – BRG 094.53° / D 11.00 SAT	47°41'40.0" N 023°09'39.0" E
JIBOU – BRG 140.63° / D 16.99 SAT	47°29'29.0" N 023°07'30.0" E
TISAD – BRG 220.58° / D 16.99 SAT	47°31'59.0" N 022°35'22.0" E
SAT DVOR/DME (IAF)	47°43'38.7" N 022°53'37.9" E
KEDZE (IF) – BRG 007.17° / D 9.35 SAT	47°52'44.7" N 022°56'46.2" E
FAF – BRG 007.14° / D 4.35 SAT	47°47'52.6" N 022°55'05.3" E
SDF – BRG 007.16° / D 0.59 SAT	47°44'13.1" N 022°53'49.7" E
THR RWY 19 (MAPt)	47°42'51.72" N 022°53'21.73" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

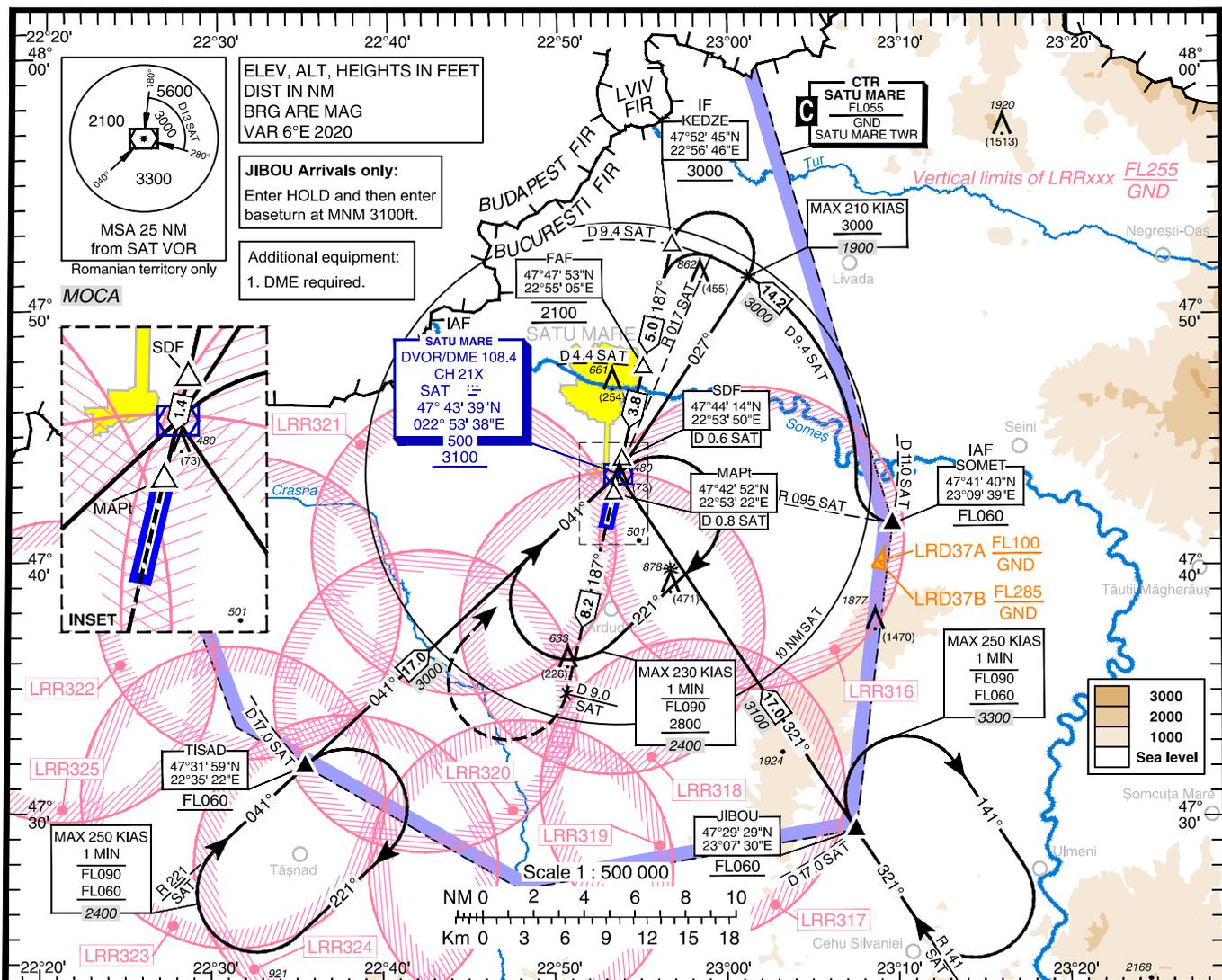
- a) If VOR RWY 19 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- b) If VOR RWY 19 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to SAT VOR/DME and hold 4 minutes, then continue the VOR approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH
CHART - ICAO

AERODROME ELEV. 414 FT
HEIGHTS RELATED TO THR RWY 19 - ELEV 407 FT

SATU MARE / Satu Mare (LRSM)
VOR Z
RWY 19
CAT C, D

SATU MARE TOWER 119.655
SATU MARE TOWER ALTN 118.800

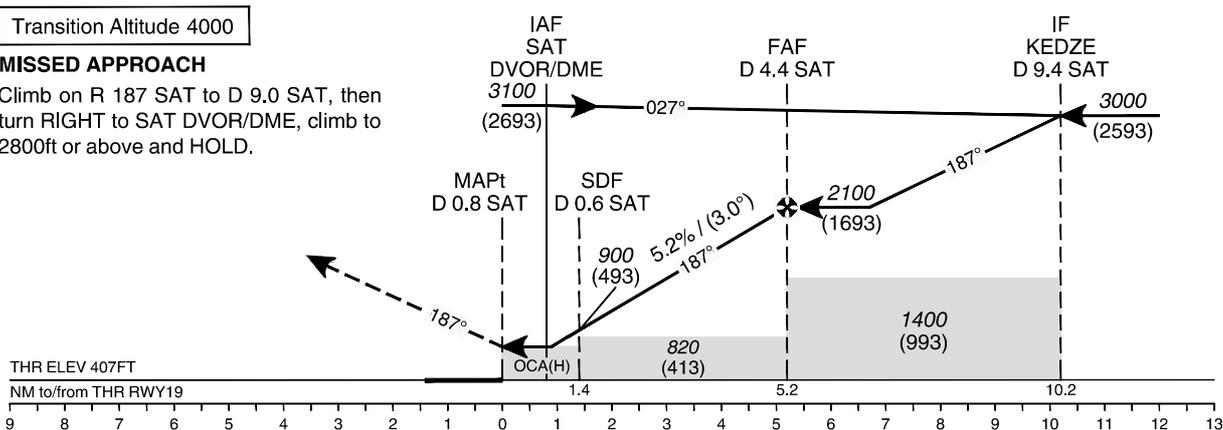


Changes: New procedure.

Transition Altitude 4000

MISSED APPROACH

Climb on R 187 SAT to D 9.0 SAT, then turn RIGHT to SAT DVOR/DME, climb to 2800ft or above and HOLD.



		OCA/H	C	D
Straight-in approach	Stepdown fix (D 0.6 SAT)	730 (323)		
	w/o Stepdown fix	820 (413)		
	Circling	1280		

GS	kts	120	140	160
FAF-MAPt 5.2 NM	min:s	2:36	2:14	1:57
Rate of descent	ft/min	637	743	849

Timing not authorized for defining the MAPt.

Dist to SAT DME	NM	1	2	3	4
Altitude (Height)	FT	1030 (623)	1350 (943)	1670 (1263)	1990 (1583)

For data tabulation see verso

**SATU MARE / Satu Mare (LRSM)
VOR Z RWY 19****AERONAUTICAL DATA TABULATION**

VOR Z Approach to RWY 19 from SOMET, JIBOU, TISAD	
Fix/Point	Coordinates
SOMET (IAF) – BRG 094.53° / D 11.00 SAT	47°41'40.0" N 023°09'39.0" E
JIBOU – BRG 140.63° / D 16.99 SAT	47°29'29.0" N 023°07'30.0" E
TISAD – BRG 220.58° / D 16.99 SAT	47°31'59.0" N 022°35'22.0" E
SAT DVOR/DME (IAF)	47°43'38.7" N 022°53'37.9" E
KEDZE (IF) – BRG 007.17° / D 9.35 SAT	47°52'44.7" N 022°56'46.2" E
FAF – BRG 007.14° / D 4.35 SAT	47°47'52.6" N 022°55'05.3" E
SDF – BRG 007.16° / D 0.59 SAT	47°44'13.1" N 022°53'49.7" E
THR RWY 19 (MAPt)	47°42'51.72" N 022°53'21.73" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

- a) If VOR RWY 19 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- b) If VOR RWY 19 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to SAT VOR/DME and hold 4 minutes, then continue the VOR approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

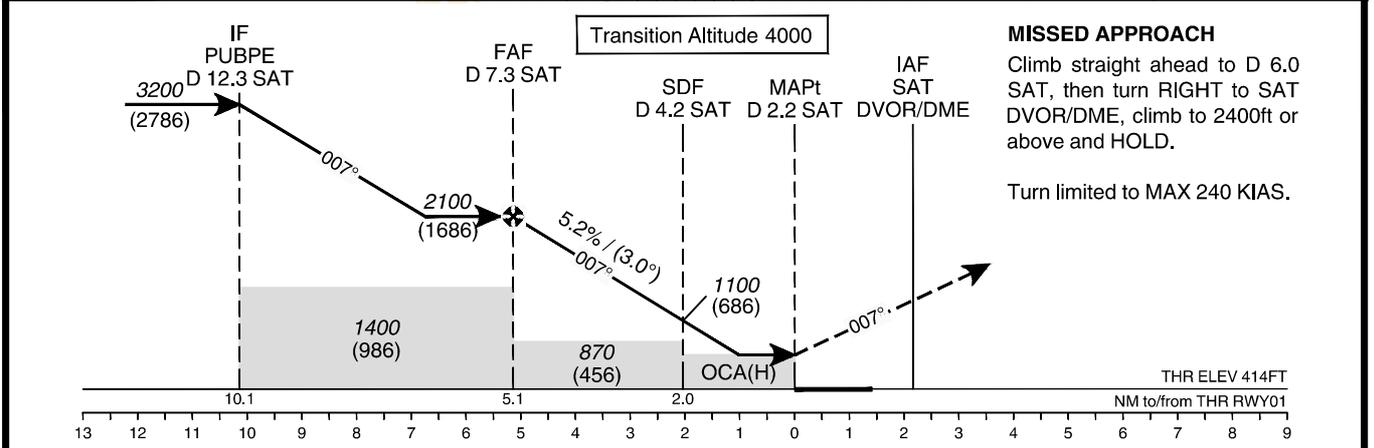
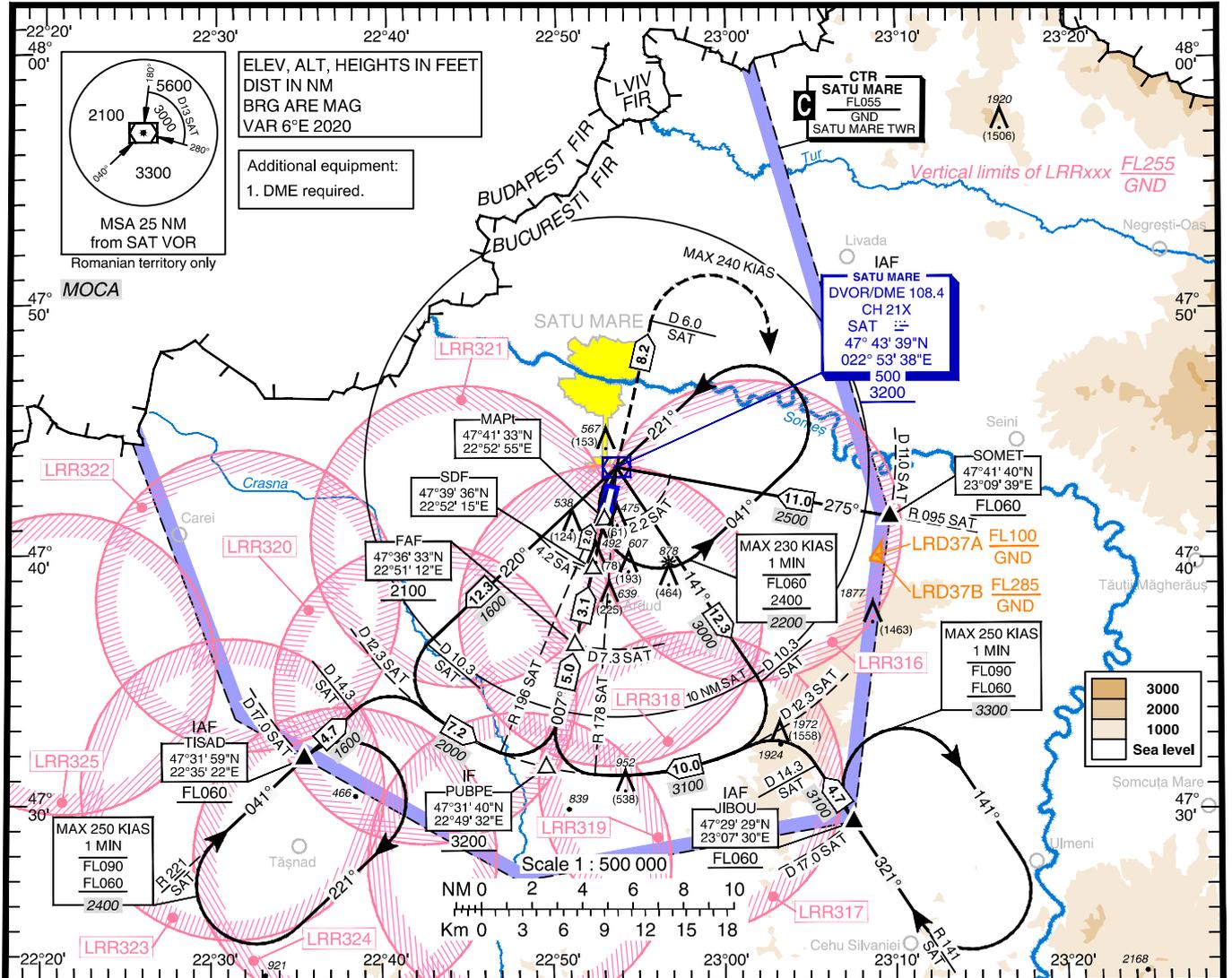


**INSTRUMENT APPROACH
CHART - ICAO**

AERODROME ELEV. 414 FT
HEIGHTS RELATED TO AD ELEV.

SATU MARE / Satu Mare (LRSM)
VOR
RWY 01

SATU MARE TOWER 119.655
SATU MARE TOWER ALTN 118.800



MISSED APPROACH
Climb straight ahead to D 6.0 SAT, then turn RIGHT to SAT DVOR/DME, climb to 2400ft or above and HOLD.
Turn limited to MAX 240 KIAS.

OCA/H		A	B	C	D
Straight-in	Stepdown Fix (D 4.2 SAT)		740 (326)		
	w/o Stepdown Fix		870 (456)		
Circling		870	910	1280	

GS	fts	70	90	100	120	140	160
FAF-MAPt 5.1 NM	min:s	4:22	3:24	3:04	2:33	2:11	1:55
Rate of descent (5.2%)	ft/min	372	478	531	637	743	849

Timing not authorized for defining the MAPt.

Dist to SAT DME	NM	7	6	5	4
Altitude (Height)	FT	2010 (1596)	1690 (1276)	1370 (956)	1050 (636)

For data tabulation see verso



SATU MARE / Satu Mare (LRSM)
VOR RWY 01

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 01 from TISAD, JIBOU, SOMET	
Fix/Point	Coordinates
TISAD (IAF) – BRG 220.58° / D 16.99 SAT	47°31'59.0" N 022°35'22.0" E
JIBOU (IAF) – BRG 140.63° / D 16.99 SAT	47°29'29.0" N 023°07'30.0" E
SOMET – BRG 094.53° / D 11.00 SAT	47°41'40.0" N 023°09'39.0" E
SAT VOR/DME (IAF)	47°43'38.7" N 022°53'37.9" E
PUBPE (IF) – BRG 187.07° / D 12.29 SAT	47°31'40.3" N 022°49'31.8" E
FAF – BRG 187.09° / D 7.30 SAT	47°36'32.5" N 022°51'11.7" E
SDF – BRG 187.12° / D 4.15 SAT	47°39'36.0" N 022°52'14.5" E
THR RWY 01 (MAPt)	47°41'32.87" N 022°52'54.64" E

Final approach descent angle: 3.00°

RADIO COMMUNICATION FAILURE

- a) If VOR RWY 01 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated VOR instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- b) If VOR RWY 01 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to SAT VOR/DME and hold 4 minutes, then continue the VOR approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEVATION 1375
HEIGHTS RELATED TO
THR RWY 34 - ELEV 1331

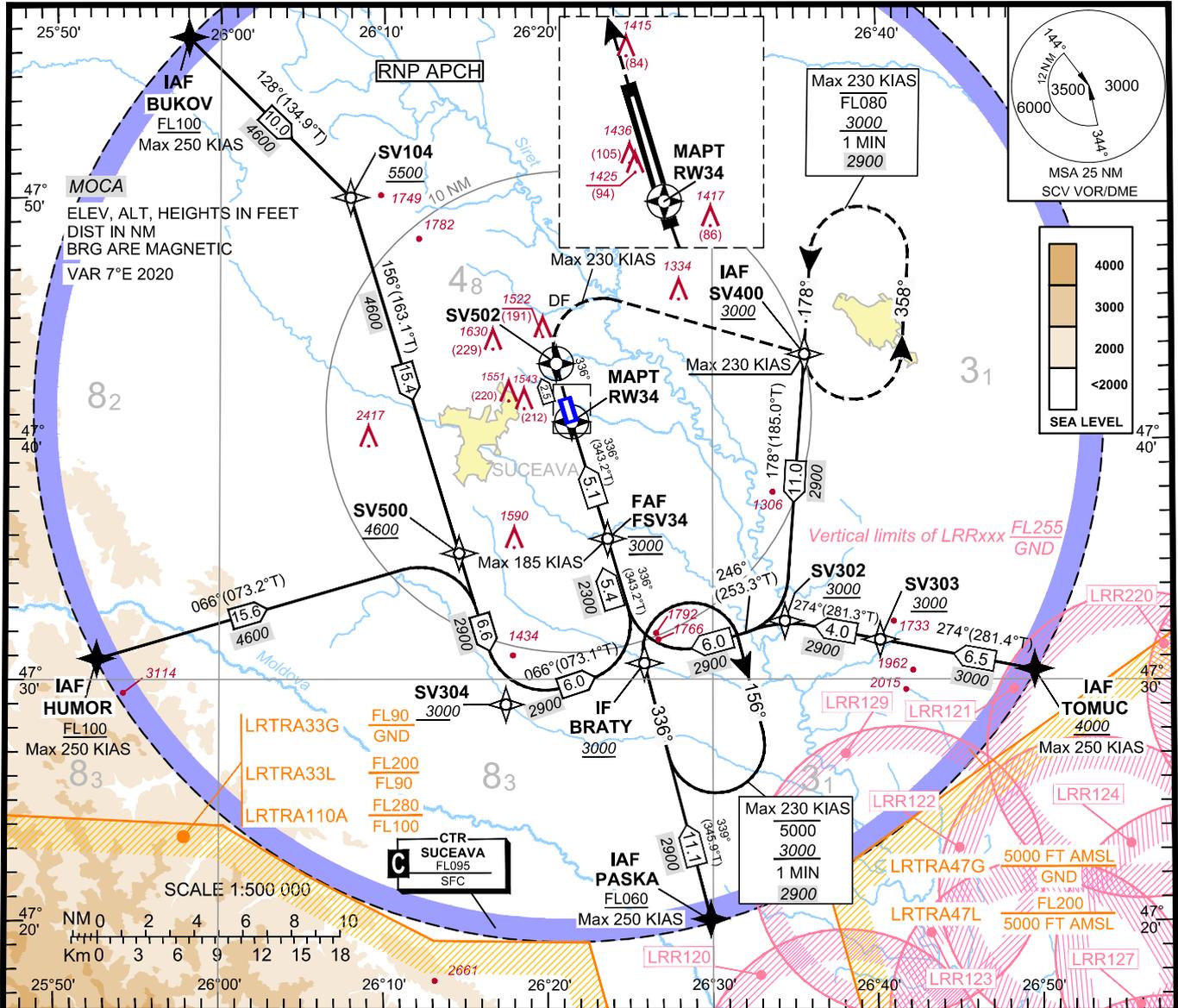
SUCEAVA/Ștefan cel Mare (LRSV)

SUCEAVA TWR 129.955
SUCEAVA TWR ALTN 118.300

RNP RWY 34

**EGNOS
CH68503
E34A**

T° MNM LNAV - VNAV: -33°C
T° LNAV - VNAV > 58°C: VPA > 3.5°
For uncompensated BARO VNAV systems



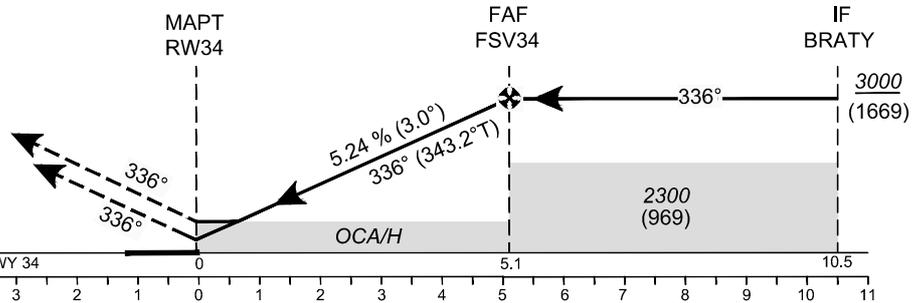
Transition Altitude 5000

MISSED APPROACH

Climb to **SV502** on course **336°M**.
At **SV502** turn **RIGHT** (Max **230 KIAS**) direct to **SV400** climbing to **3000** (1669) and hold or follow ATC instructions.

RDH 54

THR ELEV 1331
NM to / from THR RWY 34



SBAS CAT I OPERATIONS NOT APPROVED

OCA (H)	A	B	C	D
LPV	1570 (239)	1580 (249)	1590 (259)	1600 (269)
LNAV/VNAV	1550 (219)	1560 (229)	1580 (249)	1600 (269)
LNAV	1670 (339)		1680 (349)	1690 (359)
Circling	1840	1870	2030	2070

Dist to RW34	NM	1.0	2.0	3.0	4.0	5.0
Altitudes (Heights)	FT	1700 (369)	2020 (689)	2340 (1009)	2660 (1329)	2980 (1649)

GS	KT	70	90	100	120	140	160
FAF-MAPT 5.1 NM	MIN:SEC	4:21	3:23	3:03	2:32	2:10	1:54
Rate of descent (5.24%)	FT/MIN	371	478	531	637	743	849

Timing not authorised for defining the MAPT

SUCEAVA / Ștefan cel Mare (LRSV)
RNP RWY 34

AERONAUTICAL DATA TABULATION

LNAV, LNAV/VNAV and LPV approach to RWY34	
Fix/Waypoint Name	Coordinates
BRATY (IF)	47°30'46.3"N 026°25'55.3"E
BUKOV (IAF)	47°57'06.0"N 025°57'30.0"E
FSV34 (FAF)	47°35'55.2"N 026°23'37.6"E
HUMOR (IAF)	47°30'53.1"N 025°52'35.2"E
PASKA (IAF)	47°20'03.0"N 026°29'54.0"E
RW34 (MAPT)	47°40'46.24"N 026°21'27.35"E
SV104	47°50'03.9"N 026°07'57.8"E
SV302	47°32'29.9"N 026°34'24.0"E
SV303	47°31'43.2"N 026°40'11.5"E
SV304	47°29'02.1"N 026°17'27.1"E
SV400 (IAF)	47°43'27.1"N 026°35'48.5"E
SV500	47°35'20.8"N 026°14'37.1"E
SV502	47°43'09.7"N 026°20'23.0"E
TOMUC (IAF)	47°30'27.0"N 026°49'34.0"E

RADIO COMMUNICATION FAILURE

- a) If RNP RWY 34 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP RWY 34 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- b) If RNP RWY 34 instrument flight procedure was not assigned or received by ATC, set transponder 7600, proceed according to FPL to BRATY and hold 4 minutes, then continue the RNP RWY 34 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.

LRTM AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRTM - TÂRGU MUREȘ / Transilvania - Târgu Mureș

LRTM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	462804N 0242445E Runway centre.
2	Direction and distance from city	225°, 14 km from Târgu Mureș.
3	Elevation/Reference temperature/Mean low temperature	963 FT / 29.8°C / -13.6°C
4	Geoid undulation at AD ELEV PSN	129 FT
5	MAG VAR/ Annual rate of change	5°E (2015) / 2.4'E
6	AD Operator, address, telephone, telefax, e-mail, AFS, website	Aeroportul Târgu Mureș/Transilvania, Loc. Vidrasău, Oraș Ungheni, cod 547612 Tel: + 40-(0)265-328888 (Office) + 40-(0)265-328259 (Information) Telefax: + 40-(0)265-263050 (Operations) + 40-(0)265-328258 (Handling) Fax: + 40-(0)265-328257 (Office) e-mail: office@transylvaniaairport.ro operations@transylvaniaairport.ro handling@transylvaniaairport.ro web: www.transylvaniaairport.ro AFS: LRTMRAYD SITA: TGMYDXH
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Helicopter flights permitted.

LRTM AD 2.3 OPERATIONAL HOURS

1	AD Operator	S: 0530-1700; W: 0630-1800
2	Customs and immigration	As AD Operator
3	Health and sanitation	As AD Operator
4	AIS Briefing Office	H24 (See GEN 3.1-5)
5	ATS Reporting Office (ARO)	H24 (See ENR 1.10-3)
6	MET Briefing Office	H24
7	ATS	W: 0500 - 1700; S: 0400 - 1600
8	Fueling	As AD Operator
9	Handling	As AD Operator
10	Security	As AD Operator
11	De-icing	As AD Operator
12	Remarks	Outside the operational hours services of AD operator and/or ATS, services are available O/R submitted to the AD Operator with at least 24 hours in advance.

LRTM AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	1 GPU 28.5V, 1 GPU 115V-200V, 400Hz, 2 GPU 115V/400 Hz and 28.5V, 1 air starter unit, 1 heater, 1 towed lavatory service vehicle, 1 towed potable water vehicle, 1 ambulift vehicle, 2 conveyor belt truck up to 3,5t, 2 conveyor electric baggage belt loader, 4 self propelled passengers stairs, 2 towed passenger stairs, 3 electric baggage/GSE tow tractors, 1 diesel baggage/GSE tow tractor, 6 baggage carts, 2 passenger crew minibus.
2	Fuel/Oil types	Jet A1 / NIL
3	Fueling facilities/capacity	1 refueling truck with 25.750 l capacity, refueling rate: 800 l/min 1 storage of fuel 80m ³
4	De-icing facilities	Available on parking stands on request. 1 truck with de-icing/anti-icing fluid Type II 1 truck with de-icing fluid Type I and anti-icing fluid Type II 1 heater unit with hot air for engines and landing gears.
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

LRTM AD 2.5 PASSENGER FACILITIES

1	Hotels	Hotels in the city.
2	Restaurants	Snack-bar and restaurant on the AD.
3	Transportation	Buses, taxis.
4	Medical facilities	First aid on the AD. Ambulance on the AD, Surgery on AD. Hospitals in the city.
5	Bank and Post Office	Exchange office on AD, ATM on AD.
6	Tourist Office	In the city.
7	Remarks	Rent a car offices on AD.

LRTM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	<i>AD category for fire fighting</i>	Within AD HR: CAT 7
2	<i>Resque equipment</i>	2 vehicle with extrication equipment.
3	<i>Capability for removal of disabled aircraft</i>	Limited by arrangement. Local Action Coordinator: +40-(0)744-790299 e-mail: ioan.pop@transylvaniaairport.ro
4	<i>Remarks</i>	NIL

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

1	<i>Types of clearing equipment</i>	5 tractors with blade and brush, 1 truck with plough, brush, turbo blower and liquid spreading runway deicing, 1 solid materials spreading equipment, 1 snow blower, 1 truck with plough, brush and turbo blower. 1 FOD runway sweeper, 1 FOD multi purpose sweeper, 1 FOD-BOOS sweeper.
2	<i>Clearance priorities</i>	1. RWY 07/25 2. TWY A, B, C 3. Apron 4. Other surfaces
3	<i>Use of material for movement area surface treatment</i>	Fluids used for RWY de/anti-icing: KFOR potassium formate. Solid materials used for RWY de/anti-icing: NAFO sodium formate.
4	<i>Specially prepared winter runways</i>	NIL
5	<i>Remarks</i>	Information on RWYCC reported by SNOWTAM are issued in the context of the GRF. Information on the progress of the snow removal and the conditions of the movement area are provided by Ground Operations Service - Tel.: +40 758 222 530. See also the snow plan in section AD 1.2.2.

LRTM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	<i>Apron designation, surface and strength</i>	Designation: Apron Surface: Concrete Strength: Stands 1, 2 PCN 27/R/D/W/T Stands 3, 4 PCN 95/R/D/W/T Stands 5, 6, 7 PCN 79/R/D/W/T																				
2	<i>Taxiway designation, width, surface and strength</i>	<table border="1"> <thead> <tr> <th></th> <th>TWY A</th> <th>TWY B</th> <th>TWY C</th> <th>TAXILANE D</th> </tr> </thead> <tbody> <tr> <td>Width:</td> <td>30 M</td> <td>23 M</td> <td>18 M</td> <td>11 M</td> </tr> <tr> <td>Surface:</td> <td>Asphalt</td> <td>Asphalt</td> <td>Concrete</td> <td>Concrete</td> </tr> <tr> <td>Strength:</td> <td>PCN 64/F/D/W/T</td> <td>PCN 71/F/D/W/T</td> <td>PCN 79/R/D/W/T</td> <td>PCN 27/R/D/W/T</td> </tr> </tbody> </table>		TWY A	TWY B	TWY C	TAXILANE D	Width:	30 M	23 M	18 M	11 M	Surface:	Asphalt	Asphalt	Concrete	Concrete	Strength:	PCN 64/F/D/W/T	PCN 71/F/D/W/T	PCN 79/R/D/W/T	PCN 27/R/D/W/T
	TWY A	TWY B	TWY C	TAXILANE D																		
Width:	30 M	23 M	18 M	11 M																		
Surface:	Asphalt	Asphalt	Concrete	Concrete																		
Strength:	PCN 64/F/D/W/T	PCN 71/F/D/W/T	PCN 79/R/D/W/T	PCN 27/R/D/W/T																		
3	<i>ACL location and elevation</i>	Location: Apron Elevation: 963 FT																				
4	<i>VOR checkpoints</i>	NIL																				
5	<i>INS checkpoints</i>	INS 1: 462807.39N 0242533.61E INS 2: 462805.73N 0242534.45E INS 3: 462805.94N 0242530.29E INS 4: 462805.43N 0242527.54E INS 5: 462804.52N 0242525.34E INS 6: 462804.46N 0242522.59E INS 7: 462803.91N 0242519.76E																				
6	<i>Remarks</i>	RWY turn pad: Location THR 07 and THR 25 Surface: Asphalt Strength: PCN 70/F/D/W/T																				

LRTM AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system at aircraft stands</i>	Aircraft stand ID markings at the beginning of the lead-in lines to stands: 1,2,3,4,5,6,7. TWY guide lines on the apron. Stand 1 : helicopters parking position. Stands 2,3,4,5,6,7 : angled nose out parking positions. Parking guidance provided by marshallers.
2	<i>RWY and TWY markings and LGT</i>	RWY: - markings: designation, THR, TDZ, centre line, aiming point, edges, turn pads. - lights: centre line, THR, TDZ on RWY 07, END, edges, wing bars, turn pads. TWY A, B: - markings: enhanced centre line, edges, holding position. - lights: centre line, edges, stop bar, runway guard lights. TWY C: - markings: enhanced center line, edge only North side (common with APRON). - lights: centre line, edge only North side (common with APRON). TAXILANE D: - markings: enhanced center line. - lights: centre line.
3	<i>Stop bars and runway guard lights</i>	TWY A, B: Stop bars and runway guard lights at holding positions.
4	<i>Other RWY protection measure</i>	NIL
5	<i>Remarks</i>	NIL

LRTM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	TÂRGU MUREŞ
2	Hours of service MET Office outside hours	As ATS -
3	Office responsible for TAF preparation Periods of validity Interval of issuance	LROM 9 HR 3 HR, during aerodrome operational hours
4	Type of landing forecast Interval of issuance	NIL -
5	Briefing / consultation provided	Self-briefing; briefing/consultation on request (see row 8)
6	Flight documentation Language(s) used	Charts, tabular form, abbreviated plain language text Romanian, English
7	Charts and other information available for briefing or consultation	SWC, W/T Charts, SIGMET, METAR, TAF.
8	Supplementary equipment available for providing information	Tel./Fax: +40-(0)265-328262
9	ATS units provided with information	TÂRGU MUREŞ TWR
10	Additional information (limitation of service, etc.)	NIL

LRTM 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		Slope of RWY-SWY
					APP RWY		
1	2	3	4	5	6	7	
07	074.20°	2000 x 45	70/F/D/W/T Asphalt	462755.01N	THR 963 FT	-0.46%(200M)	
				0242400.25E	TDZ 963 FT	-0.19%(450M)	
				462812.59N		0.14%(150M)	
				0242530.19E		0.07%(350M)	
				GUND 129 FT		0.14%(350M)	
25	254.22°	2000 x 45	70/F/D/W/T Asphalt	462812.53N	THR 963 FT	-0.30%(200M)	
				0242529.92E		0.30%(200M)	
				462754.96N		-0.47%(300M)	
				0242359.98E		-0.14%(350M)	
				GUND 129 FT		-0.07%(350M)	
						0.19%(450M)	
						0.46%(200M)	
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	275 x 300	2120 x 280	220 x 150	NIL	Yes	NIL	
NIL	240 x 300	2120 x 280	240 x 150	NIL	NIL	NIL	

LRTM AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
07	2000	2275	2000	1994	NIL
25	2000	2240	2000	1994	NIL

REDUCED DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	Remarks
1	2	3	4	6
25 TWY B	1795	2035	1795	NIL

LRTM AD 2.14 APPROACH AND RWY LIGHTING

RWY Designator	APCH LGT type	THR LGT colour	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	SWY LGT LEN(M) colour	Remarks
	INTST	WBAR					WBAR		
1	2	3	4	5	6	7	8	9	10
07	ALS CAT II 900 M	Green WBAR	Left/3.0° (54FT)	White 900	1100M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1400M, 59M White, LIH 600M, 59M Yellow, LIH	Red -	NIL	Turn pad center line lights (green). Turn pad edge lights (blue). NIL
25	Simplified ALS 420 M	Green	Left/3.0° (53FT)	NIL	1100M, 15M, White, LIH 600M, 15M, Red/White, LIH 300M, 15M, Red, LIH	1400M, 59M White, LIH 600M, 59M Yellow, LIH	Red -	NIL	NIL

LRTM 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 315°, 160 M from touch down point RWY 07.
3	TWY edge and centre line lighting	TWY A, B, C (only North side) edge: blue. TWY A, B centre line: green/yellow, green/green. TWY C, TAXILANE D centre line: green/green.
4	Secondary power supply/switch-over time	Secondary power supply to all lighting on the AD. Switch-over time 1 s.
5	Remarks	Apron floodlighting. Obstacle lighting.

LRTM 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	RWY 07/25 to be used.

LRTM AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Târgu Mureş CTR 462804N 0240855E - 463348N 0243815E - 462509N 0244148E - 461925N 0241227E - 462804N 0240855E
2	Vertical limits	GND to 3000 FT AMSL
3	Airspace classification	Class C
4	ATS unit call sign Language(s)	Târgu Mureş Tower English, Romanian
5	Transition altitude	7000 FT QNH
6	Hours of applicability	W: 0500 - 1700; S: 0400 - 1600
7	Remarks	1. CTR established during hours of operation of ATS. See NOTAMs for changes. 2. Outside hours of operation of ATS airspace classification is G. 3. Outside hours of operation of ATS it is recommended to monitor Târgu Mureş TWR FREQ and Târgu Mureş ATIS FREQ and check on FIS FREQ about CTR status.

LRTC AD 2.1 AERODROME LOCATION INDICATOR AND NAME
LRTC - TULCEA / Delta Dunării

LRTC AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP co-ordinates and site at AD	450346N 0284252E Runway centre.
2	Direction and distance from city	13 km South from Tulcea.
3	Elevation/Reference temperature/Mean low temperature	200 FT / 31.4°C / -11.4°C
4	Geoid undulation at AD ELEV PSN	105 FT
5	MAG VAR/ Annual rate of change	6°E (2019) / 7.2'E
6	AD Operator, address, telephone, telefax, e-mail, AFS, website	R. A. AEROPORTUL "DELTA DUNĂRII" TULCEA, Șos. Tulcea-Constanța Km 15 Loc. Tulcea, Județul Tulcea, România Tel: +40-(0)240-512910; +40-(0)240-513552 Fax: +40-(0)240-511040; Tel/Fax TWR: +40-(0)240-511581 AFS: LRTCRAVD SITA: TCEAPXH e-mail: office@aeroportul-tulcea.ro; ops@aeroportul-tulcea.ro; handling@aeroportul-tulcea.ro web: www.aeroportul-tulcea.ro
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	NIL

LRTC AD 2.3 OPERATIONAL HOURS

1	AD Operator	W: 0530-1730; S: 0430-1630
2	Customs and immigration	As AD Operator
3	Health and sanitation	As AD Operator
4	AIS Briefing Office	As AD Operator (See GEN 3.1-6)
5	ATS Reporting Office (ARO)	As AD Operator (See ENR 1.10-3)
6	MET Briefing Office	As AD Operator
7	ATS	W: 0530-1730; S: 0430-1630
8	Fuelling	W: 0530-1730; S: 0430-1630
9	Handling	As AD Operator
10	Security	As AD Operator
11	De-icing	W: 0530-1730; S: 0430-1630
12	Remarks	Outside the operational hours services are available O/R, submitted to the AD not later than 1300.

LRTC AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	1 tractor 2.67 t, 1 GPU 115V AC 400HZ/28V DC/90KVA type GPU-4090-T-CUP, 1 GPU 28V DC/20KVA type GPU-600-S 6883 A-2, 1 ASU type ASU-600-150, 1 ACE type ACE302-H-cup, 1 water supply type WSC 300, 1 lavatory equipment type LSC 100/300, 1 towbar type DPTB 033/B737, 1 towbar - A320/321, 1 towbar AN24/AN26, 1 conveyor belt A/C type NBL, 1 passenger stair type PPS 30 (H.max 3.05m H.min 1.6m), 2 passenger stairs (H.max 4.9m H.min 2.8m), 1 towing tractor type TMX-150/12t, 10 baggage carts type BT 1500, 4 baggage carts type BDK 1520, 1 follow-me car, one airport surface friction tester ASFT/T10.
2	Fuel/Oil types	Kerosene JET A1/NIL
3	Fuelling facilities/capacity	Store house fuel/100t for JET A1. Skid on apron JET A1 500L per min.
4	De-icing facilities	2 de/anti-icing units, type II ACFT de/anti-icing fluide.
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

LRTC AD 2.5 PASSENGER FACILITIES

1	Hotels	Hotels in the city.
2	Restaurants	Snack bar on the AD.
3	Transportation	Buses and minibuses from the city.
4	Medical facilities	1 ambulance on the airport, 1 first aid room on the airport, hospitals in the city.
5	Bank and Post Office	In the city.
6	Tourist Office	In the city.
7	Remarks	NIL

LRTC AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 7
2	Rescue equipment	2 Rescue and firefighting vehicles with extrication equipment.
3	Capability for removal of disabled aircraft	Cranes AVBL via contractor.
4	Remarks	NIL

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

1	Types of clearing equipment	1 combine equipment with plough, brush, sweep blower and de-icing liquid spreader, 1 snowblower, 1 small truck with blade, cup and spreader de-icing.
2	Clearance priorities	1. RWY 16/34 2. TWY A, C 3. Apron 4. Other surfaces
3	Use of material for movement area surface treatment	Generic fluids and solid materials used for runway de/anti-icing are KAC (potassium acetate) and NAAC (sodium acetate).
4	Specially prepared winter runways	NIL
5	Remarks	Information on RWY surface condition in Global Reporting Format is published by SNOWTAM. See also the snow plan in section AD 1.2.2. Unit of the airport operator providing information on the progress of the snow removal and the conditions of the movement area: Ground Operations Service - TEL: +40747658792.

LRTC AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron designation, surface and strength	Surface: Concrete Strength: 71/R/C/W/T Stands 1, 2 116/R/A/W/T Stands 3, 4 54/R/C/W/T Stands 5, 6
2	Taxiway designation, width, surface and strength	Width: TWY A: 18 M TWY B: 18 M TWY C: 18 M Surface: TWY A, TWY B, TWY C: Concrete Strength: TWY A: 52/R/C/W/T TWY B: 54/R/C/W/T TWY C: 98/R/A/W/T
3	ACL location and elevation	NIL
4	VOR checkpoints	NIL
5	INS checkpoints	INS1: 450348.82N 0284303.07E INS2: 450350.26N 0284301.89E INS3: 450351.80N 0284301.41E INS4: 450353.34N 0284300.91E INS5: 450354.36N 0284259.52E INS6: 450354.99N 0284259.32E
6	Remarks	RWY turning bay: Location: THR 16, THR 34 Surface: Asphalt Dimensions: 100 M x 20 M Strength: THR 16 - 61/F/C/W/T THR 34 - 135/F/C/W/T

LRTC AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	TULCEA
2	Hours of service MET Office outside hours	As ATS
3	Office responsible for TAF preparation Periods of validity Interval of issuance	LROM 9 HR 3 HR, during aerodrome operational hours
4	Type of landing forecast Interval of issuance	NIL -
5	Briefing / consultation provided	Self-briefing; briefing/consultation on request (see row 8)
6	Flight documentation Language(s) used	Charts, tabular form, abbreviated plain language text Romanian, English
7	Charts and other information available for briefing or consultation	SWC, W/T Charts, SIGMET, METAR, TAF.
8	Supplementary equipment available for providing information	Tel: +40-(0)240-511420 Fax: +40-(0)240-511420
9	ATS units provided with information	TULCEA TWR
10	Additional information (limitation of service, etc.)	NIL

LRTC 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		THR elevation and highest elevation of TDZ of precision	Slope of RWY-SWY	
				RWY end coord	THR geoid undulation	APP RWY		
1	2	3	4	5		6	7	
34	347.53°	2060 x 45	61/F/C/W/T Asphalt	450314.96N	GUND 105 FT	THR 137.7 FT	1.4% (517 M)	
				0284301.80E		TDZ 175.2 FT		1.7% (544 M)
				450417.99N		0.9% (306 M)		
				0284242.13E		0.6% (693 M)		
16	167.53°	2060 x 45	61/F/C/W/T Asphalt	450417.99N	GUND 105 FT	THR 200.0 FT	-0.6% (693 M)	
				0284242.13E		-0.9% (306 M)		
				450312.83N		-1.7% (544 M)		
				0284302.47E		-1.4% (517 M)		
SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of ARST system		OFZ	Remarks	
8	9	10	11	12		13	14	
NIL	60 x 180	2180 x 280	228 x 150	NIL		NIL	Threshold displaced from the end of the runway by 67M. Slope on first quarter of RWY 34 exceeding 0.8%	
NIL	285 x 180	2180 x 280	228 x 150	NIL		NIL	NIL	

LRTC AD 2.13 DECLARED DISTANCES

RWY designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
34	2060	2120	2060	1993	NIL
16	2060	2345	2060	2060	NIL

LRTC AD 2.14 APPROACH AND RWY LIGHTING

RWY Designator	APCH LGT type	THR LGT colour	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	SWY LGT LEN(M) colour	Remarks
	INTST	WBAR	PAPI	LEN	colour, INTST	colour, INTST	WBAR	colour	
1	2	3	4	5	6	7	8	9	10
34	ALS-II 900M, LIH	Green WBAR	PAPI Left/3° (48 FT)	White, 900M	1080M, 15M, White, LIH 600M, 15M, White/Red, LIH 313M, 15M, Red, LIH	1380M, 60M, White, LIH 613M, 60M, Yellow, LIH	Red -	NIL	RWY 34 edge red 67M can be seen only to approach 180° turn path lighting at THR 34
16	SALS 420M, LIH	Green WBAR	PAPI Left/3° (45 FT)	NIL	1153M, 15M, White, LIH 600M, 15M, White/Red, LIH 307M, 15M, Red, LIH	1453M, 60M, White, LIH 607M, 60M, Yellow, LIH	Red -	NIL	180° turn path lighting at THR 16

LRTC 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	Landing direction indicator 337.5m FM THR 16 Landing direction indicator 337.5m FM THR 34 NIL
3	TWY edge and centre line lighting	TWY edge blue omnidirectional lights LIL, LED. TWY centre line green/green, yellow/green lights, LED.
4	Secondary power supply/switch-over time	Secondary power supply to all lighting on the AD; Switch-over time 1 SEC.
5	Remarks	NIL

LRTC AD 2.16 HELICOPTER LANDING AREA

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

LRTC AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	TULCEA CTR 451745N 0284737E - 450000N 0290557E - 444958N 0283922E - 445424N 0282723E - 451644N 0282959E - FIR boundary - 451745N 0284737E
2	Vertical limits	SFC to FL65
3	Airspace classification	C
4	ATS unit call sign Language(s)	Tulcea Tower English, Romanian
5	Transition altitude	3000 FT AMSL
6	Hours of applicability	W: 0530-1730 S: 0430-1630
7	Remarks	1. CTR established during hours of operation of ATS. See NOTAMs for changes. 2. Outside hours of operation of ATS airspace classification is G. 3. Outside hours of operation of ATS it is recommended to monitor Tulcea TWR FREQ and check on FIS FREQ about CTR status.

LRTC 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/TWR	Tulcea Tower	119.755 120.300 MHz ALTN 121.500 MHz EMERG	NIL	NIL	As ATS	Exempted 8.33 kHz State aircraft.

**INSTRUMENT APPROACH
CHART - ICAO**

AERODROME ELEV. 1764 ft

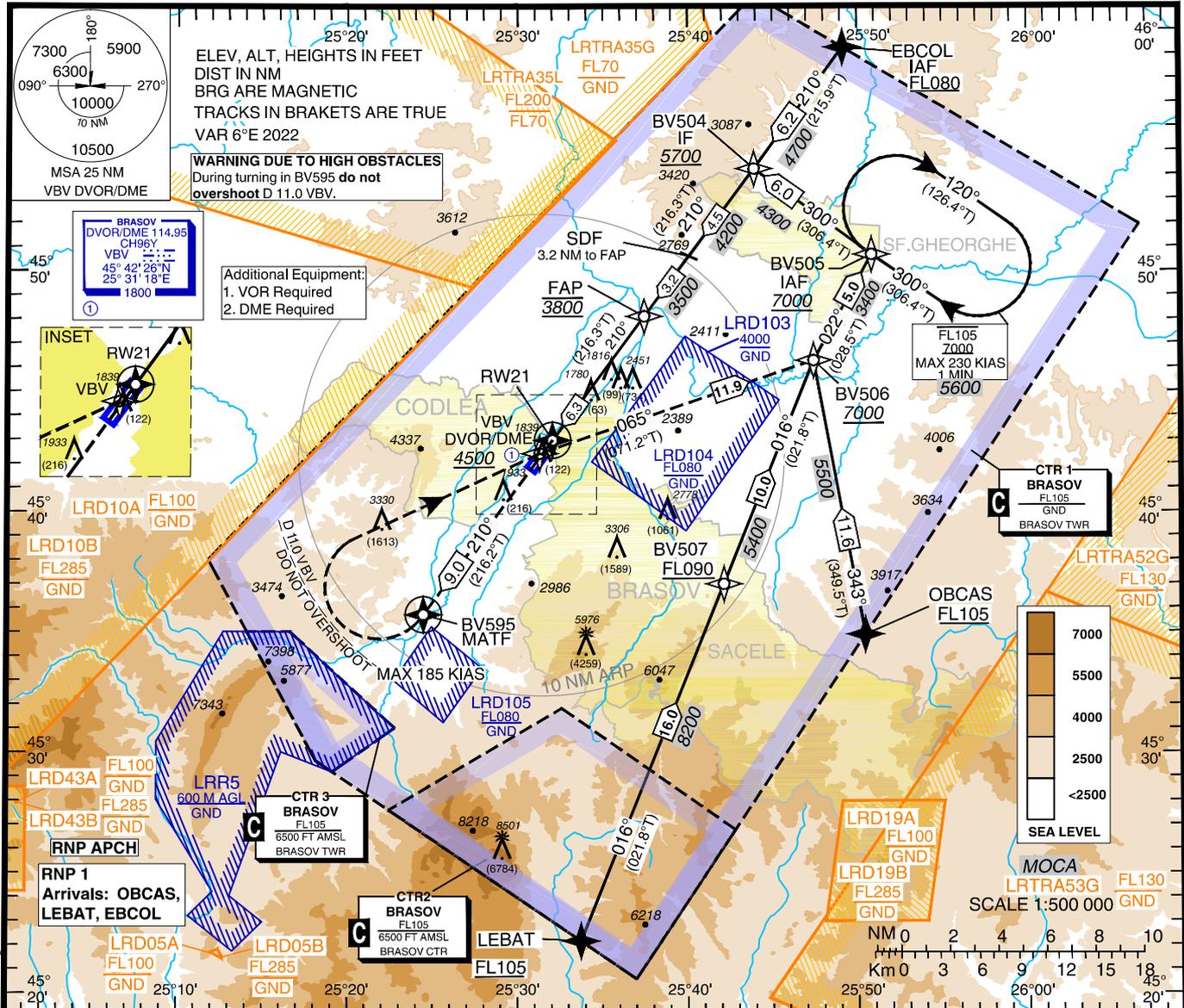
BRAȘOV/Brașov - Ghimbav (LRBV)

EGNOS
CH:60632
E21A

HEIGHTS RELATED TO
THR RWY 21 - ELEV 1717

BRASOV TWR 118.630
BRASOV TWR ALTN 120.135
BRASOV ATIS 124.530

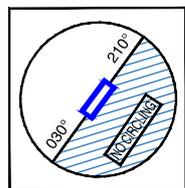
**RNP X RWY 21
(LPV only)**



MISSED APPROACH

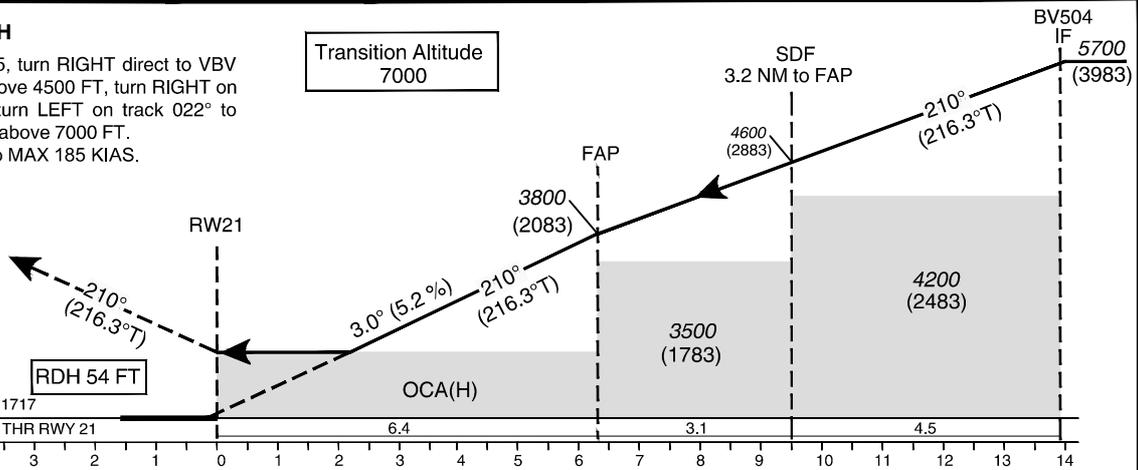
Climb straight to BV595, turn RIGHT direct to VBV and cross VBV at or above 4500 FT, turn RIGHT on track 065° to BV506, turn LEFT on track 022° to BV505 and HOLD at or above 7000 FT. Turn at BV595 limited to MAX 185 KIAS.

Transition Altitude
7000



THR ELEV 1717

NM to/from THR RWY 21



Timing not authorized for defining the MAPT.

OCA(H)	MACG	A	B	C	D
	2.50%	2238 (521)	2248 (531)	2258 (541)	2268 (551)
LPV (CAT I)	3.00%	1940 (223)	1950 (233)	1960 (243)	1970 (253)
	4.00%	1870 (153)	1880 (163)	1890 (173)	1900 (183)
Circling*		2380	2460	2740	NA

* Circling WEST of RWY only

GS	KT	70	90	100	120	140	160
FAP- THR 6.3 NM	min:s	5:24	4:12	3:47	3:09	2:42	2:22
Rate of descent 5.2%	ft/min	372	478	531	637	743	849

Dist to RWY21	NM	1	2	3	4	5	6
Altitude (Height)	FT	2090 (373)	2410 (693)	2730 (1013)	3050 (1333)	3370 (1653)	3680 (1963)

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RNP X RWY 21

AERONAUTICAL DATA TABULATION

RNP X RWY 21	
Waypoint Identifier	Coordinates
EBCOL (IAF)	45°59'18.0" N 025°49'09.4" E
OBCAS	45°34'55.2" N 025°50'25.2" E
LEBAT	45°22'10.8" N 025°33'42.6" E
BV507	45°37'01.3" N 025°42'07.1" E
BV506	45°46'18.4" N 025°47'25.2" E
BV505 (IAF)	45°50'42.0" N 025°50'49.8" E
BV504 (IF)	45°54'15.9" N 025°43'55.2" E
SDF	45°50'38.1" N 025°40'05.4" E
FAP	45°48'02.4" N 025°37'21.6" E
RW21	45°42'59.31" N 025°32'03.23" E
BV595 (MATF)	45°35'43.9" N 025°24'27.9" E
VBV	45°42'26.2" N 025°31'17.5" E

RADIO COMMUNICATION FAILURE

- a) If RNP X RWY 21 instrument flight procedure was assigned or received by ATC, set transponder 7600, proceed according assigned or designated RNP RWY 21 instrument flight procedure. Descending shall be executed in accordance with vertical restrictions specified on chart.
- b) If RNP X RWY 21 instrument flight procedure was not assigned or received by ATC, for arrivals via OBCAS, LEBAT, EBCOL: set transponder 7600, proceed according to FPL and continue the RNP RWY 21 approach. Descending shall be executed in accordance with vertical restrictions specified on chart.