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AIRAC AMDT 001/2025

Effective Date: **23 Jan 2025**

1. Amendment content:

GEN
GEN 0.2 Information updated
GEN 0.3 Information updated
GEN 0.4 Information updated
GEN 2.2 Information updated
GEN 2.5 Information updated
GEN 3.5 Information updated
GEN 4.2 Information updated

ENR
ENR 1.4 Information updated
ENR 1.6 Information updated
ENR 1.8 Information updated
ENR 2.1 Information updated
ENR 2.2 Information updated
ENR 6 Changes in aeronautical charts.

AD
AD 1.5 Information updated
UAAA 2.13, 2.20, 2.22 Information updated
UACC 2.20 Information updated
UATG 2.8, 2.20, 2.22 Information updated
UAAH 2.19 Information updated
UAKD 2.19 Information updated
UASZ 2.22 Information updated
UAKK 2.19 Information updated
UASP 2.8 Information updated
UASS 2.8, 2.19 Information updated
UATZ 2.4, 2.6, 2.7, 2.22, 2.23 Information updated
UAIT 2.20 Information updated
UASK 2.19 Information updated
UAII 2.19 Information updated
AD 2.24 Changes in aeronautical charts.

2. Hand corrections to the following pages:

Nil

3. Record entry of amendment in GEN 0.2.

4. This AIP amendment incorporates information contained in the following publications:

NOTAM series K:
K8383/24, K8473/24, K8499/24, K8607/24, K8876/24, K9308/24, K9309/24, K9310/24, K9331/24
NOTAM series A:
A6430/24, A6431/24, A6496/24
NOTAM incorporated to this AMDT will be cancelled by NOTAMC on the 07 FEB 2025
SUP:
Nil
AIC:
003/2024 - INTRODUCTION OF NEW SERIES OF NOTAMs

5. Insert / remove the pages as shown in list on the next page:

Insert the following pages		Remove the following pages	
GEN 0.2 - 1/2	23 JAN 2025	GEN 0.2 - 1/2	23 FEB 2023
GEN 0.3 - 1/2	23 JAN 2025	GEN 0.3 - 1/2	31 OCT 2024
GEN 0.4 - 1/2	23 JAN 2025	GEN 0.4 - 1/2	31 OCT 2024
GEN 0.4 - 3/4	23 JAN 2025	GEN 0.4 - 3/4	31 OCT 2024
GEN 0.4 - 5/6	23 JAN 2025	GEN 0.4 - 5/6	31 OCT 2024
GEN 0.4 - 7/8	23 JAN 2025	GEN 0.4 - 7/8	31 OCT 2024
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GEN 2.2 - 1/2	23 JAN 2025	GEN 2.2 - 1/2	03 DEC 2020
GEN 2.2 - 3/4	23 JAN 2025	GEN 2.2 - 3/4	03 DEC 2020
GEN 2.2 - 5/6	23 JAN 2025	GEN 2.2 - 5/6	03 DEC 2020
GEN 2.2 - 7/8	23 JAN 2025	GEN 2.2 - 7/8	03 DEC 2020
GEN 2.5 - 1/2	23 JAN 2025	GEN 2.5 - 1/2	15 JUN 2023
GEN 2.5 - 3/4	23 JAN 2025	GEN 2.5 - 3/4	31 OCT 2024
GEN 3.5 - 3/4	23 JAN 2025	GEN 3.5 - 3/4	08 AUG 2024
GEN 3.5 - 5/6	23 JAN 2025	GEN 3.5 - 5/6	08 AUG 2024
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ENR 1.6 - 3/4	23 JAN 2025	ENR 1.6 - 3/4	26 JAN 2023
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AD 2 UAAA - 15/16	23 JAN 2025	AD 2 UAAA - 15/16	31 OCT 2024
AD 2 UAAA - 17/18	23 JAN 2025	AD 2 UAAA - 17/18	31 OCT 2024
AD 2 UAAA - 19/20	23 JAN 2025	AD 2 UAAA - 19/20	31 OCT 2024
AD 2 UAAA - 21/22	23 JAN 2025	AD 2 UAAA - 21/22	31 OCT 2024
AD 2 UAAA ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UAAA ADC 2 24 1 - 1/2	31 OCT 2024
AD 2 UAAA ADC 2 24 4 1 - 1/2	23 JAN 2025	AD 2 UAAA ADC 2 24 4 1 - 1/2	31 OCT 2024
AD 2 UAAA ADC 2 24 4 2 - 1/2	23 JAN 2025	AD 2 UAAA ADC 2 24 4 2 - 1/2	31 OCT 2024
AD 2 UAAA ADC 2 24 6 - 1/2	23 JAN 2025	AD 2 UAAA ADC 2 24 6 - 1/2	05 SEP 2024
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AD 2 UACC - 9/10	23 JAN 2025	AD 2 UACC - 9/10	08 AUG 2024
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AD 2 UACC - 15/16	23 JAN 2025	AD 2 UACC - 15/16	31 OCT 2024
AD 2 UACC ADC 2 24 9 9 - 1/2	23 JAN 2025	AD 2 UACC ADC 2 24 9 9 - 1/2	10 AUG 2023
AD 2 UACC ADC 2 24 9 10 - 1/2	23 JAN 2025	AD 2 UACC ADC 2 24 9 10 - 1/2	10 AUG 2023
AD 2 UACC ADC 2 24 11 7 - 1/2	23 JAN 2025	AD 2 UACC ADC 2 24 11 7 - 1/2	16 MAY 2024
AD 2 UACC ADC 2 24 11 8 - 1/2	23 JAN 2025	AD 2 UACC ADC 2 24 11 8 - 1/2	31 OCT 2024
AD 2 UATG - 3/4	23 JAN 2025	AD 2 UATG - 3/4	30 NOV 2023
AD 2 UATG - 7/8	23 JAN 2025	AD 2 UATG - 7/8	08 AUG 2024
AD 2 UATG - 9/10	23 JAN 2025	AD 2 UATG - 9/10	08 AUG 2024
AD 2 UATG - 11/12	23 JAN 2025	AD 2 UATG - 11/12	31 OCT 2024
AD 2 UATG - 13/14	23 JAN 2025	AD 2 UATG - 13/14	31 OCT 2024
AD 2 UATG - 15/16	23 JAN 2025	AD 2 UATG - 15/16	31 OCT 2024
AD 2 UATG ADC 2 24 7 4 - 1/2	23 JAN 2025	AD 2 UATG ADC 2 24 7 4 - 1/2	31 OCT 2024
AD 2 UAAH - 5/6	23 JAN 2025	AD 2 UAAH - 5/6	08 AUG 2024
AD 2 UAAH - 9/10	23 JAN 2025	AD 2 UAAH - 9/10	21 MAR 2024
AD 2 UAAH ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UAAH ADC 2 24 1 - 1/2	15 JUN 2023
		AD 2 UAAH ADC 2 11 3 - 1/2	15 JUN 2023
		AD 2 UAAH ADC 2 11 4- 1/2	15 JUN 2023
AD 2 UAAH ADC 2 24 12 - 1/2	23 JAN 2025	AD 2 UAAH ADC 2 24 12 - 1/2	15 JUN 2023
AD 2 UAKK - 7/8	23 JAN 2025	AD 2 UAKK - 7/8	08 AUG 2024
AD 2 UAKK - 9/10	23 JAN 2025	AD 2 UAKK - 9/10	08 AUG 2024
AD 2 UAKK - 11/12	23 JAN 2025	AD 2 UAKK - 11/12	08 AUG 2024
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AD 2 UAKK ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UAKK ADC 2 24 1 - 1/2	05 OCT 2023
		AD 2 UAKK ADC 2 11 9 - 1/2	08 AUG 2024
		AD 2 UAKK ADC 2 11 10 - 1/2	23 FEB 2023
AD 2 UAKK ADC 2 24 12 - 1/2	23 JAN 2025	AD 2 UAKK ADC 2 24 12 - 1/2	11 JUL 2024
AD 2 UAUU ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UAUU ADC 2 24 1 - 1/2	31 OCT 2024
AD 2 UAOO ADC 2 24 11 3 - 1/2	23 JAN 2025	AD 2 UAOO ADC 2 24 11 3 - 1/2	31 OCT 2024
AD 2 UASP - 3/4	23 JAN 2025	AD 2 UASP - 3/4	08 AUG 2024
AD 2 UASP ADC 2 24 3 - 1/2	23 JAN 2025	AD 2 UASP ADC 2 24 3 - 1/2	04 NOV 2021
AD 2 UASS - 3/4	23 JAN 2025	AD 2 UASS - 3/4	08 AUG 2024
AD 2 UASS - 7/8	23 JAN 2025	AD 2 UASS - 7/8	31 OCT 2024
AD 2 UASS - 9/10	23 JAN 2025	AD 2 UASS - 9/10	31 OCT 2024
AD 2 UASS ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 1 - 1/2	10 AUG 2023
AD 2 UASS ADC 2 24 3 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 3 - 1/2	10 AUG 2023

Insert the following pages		Remove the following pages	
AD 2 UASS ADC 2 24 7 1 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 7 1 - 1/2	31 OCT 2024
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AD 2 UASS ADC 2 24 9 1 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 9 1 - 1/2	31 OCT 2024
AD 2 UASS ADC 2 24 9 2 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 9 2 - 1/2	31 OCT 2024
AD 2 UASS ADC 2 24 11 2 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 11 2 - 1/2	11 JUL 2024
AD 2 UASS ADC 2 24 11 3 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 11 3 - 1/2	11 JUL 2024
		AD 2 UASS ADC 2 24 11 4 - 1/2	08 AUG 2024
		AD 2 UASS ADC 2 24 11 5 - 1/2	11 JUL 2024
AD 2 UASS ADC 2 24 12 - 1/2	23 JAN 2025	AD 2 UASS ADC 2 24 12 - 1/2	11 JUL 2024
AD 2 UAII - 7/8	23 JAN 2025	AD 2 UAII - 7/8	08 AUG 2024
AD 2 UAII - 9/10	23 JAN 2025	AD 2 UAII - 9/10	31 OCT 2024
AD 2 UAII ADC 2 24 4 - 1/2	23 JAN 2025	AD 2 UAII ADC 2 24 4 - 1/2	31 OCT 2024
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AD 2 UAII ADC 2 24 11 6 - 1/2	23 JAN 2025	AD 2 UAII ADC 2 24 11 6 - 1/2	05 OCT 2023
AD 2 UATZ - 1/2	23 JAN 2025	AD 2 UATZ - 1/2	08 AUG 2024
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AD 2 UATZ - 11/12	23 JAN 2025	AD 2 UATZ - 11/12	21 MAR 2024
AD 2 UAIT - 7/8	23 JAN 2025	AD 2 UAIT - 7/8	08 AUG 2024
AD 2 UAIT ADC 2 24 6 - 1/2	23 JAN 2025	AD 2 UAIT ADC 2 24 6 - 1/2	31 OCT 2024
AD 2 UASK - 7/8	23 JAN 2025	AD 2 UASK - 7/8	31 OCT 2024
AD 2 UASK ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UASK ADC 2 24 1 - 1/2	05 SEP 2024
AD 2 UASK ADC 2 24 9 5 - 1/2	23 JAN 2025	AD 2 UASK ADC 2 24 9 5 - 1/2	31 OCT 2024
AD 2 UASK ADC 2 24 11 5 - 1/2	23 JAN 2025	AD 2 UASK ADC 2 24 11 5 - 1/2	31 OCT 2024
AD 2 UASK ADC 2 24 11 6 - 1/2	23 JAN 2025	AD 2 UASK ADC 2 24 11 6 - 1/2	31 OCT 2024
AD 2 UASK ADC 2 24 12 - 1/2	23 JAN 2025	AD 2 UASK ADC 2 24 12 - 1/2	31 OCT 2024
AD 2 UASZ - 5/6	23 JAN 2025	AD 2 UASZ - 5/6	05 SEP 2024
AD 2 UAKD - 5/6	23 JAN 2025	AD 2 UAKD - 5/6	05 SEP 2024
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AD 2 UAKD ADC 2 24 1 - 1/2	23 JAN 2025	AD 2 UAKD ADC 2 24 1 - 1/2	05 SEP 2024

GEN 0.2 RECORD OF AIP AMENDMENTS

AIRAC AIP AMENDMENT			
NR/Year	*Publication date*	*Effective date*	*Inserted by*
001/2017	16-Feb-2017	30-Mar-2017	
002/2017	13-Apr-2017	25-May-2017	
003/2017	08-Jun-2017	20-Jul-2017	
004/2017	03-Aug-2017	14-Sep-2017	
005/2017	28-Sep-2017	09-Nov-2017	
001/2018	21-Dec-2017	01-Feb-2018	
002/2018	15-Mar-2018	26-Apr-2018	
003/2018	10-May-2018	21-Jun-2018	
004/2018	05-Jul-2018	16-Aug-2018	
005/2018	27-Sep-2018	08-Nov-2018	
001/2019	20-Dec-2018	31-Jan-2019	
002/2019	17-Jan-2019	28-Feb-2019	
003/2019	14-Feb-2019	28-Mar-2019	
004/2019	11-Apr-2019	23-May-2019	
005/2019	06-Jun-2019	18-Jul-2019	
006/2019	12-Sep-2019	07-Nov-2019	
007/2019	24-Oct-2019	05-Dec-2019	
001/2020	05-Dec-2019	30-Jan-2020	
002/2020	12-Mar-2020	23-Apr-2020	
003/2020	04-Jun-2020	16-Jul-2020	
004/2020	16-Jul-2020	10-Sep-2020	
005/2020	08-Oct-2020	03-Dec-2020	
001/2021	14-Jan-2021	25-Feb-2021	
002/2021	08-Apr-2021	20-May-2021	
003/2021	03-Jun-2021	15-Jul-2021	
004/2021	01-Jul-2021	12-Aug-2021	
005/2021	23-Sep-2021	04-Nov-2021	
006/2021	21-Oct-2021	02-Dec-2021	
001/2022	13-Jan-2022	24-Feb-2022	
002/2022	07-Apr-2022	19-May-2022	
003/2022	30-Jun-2022	11-Aug-2022	
004/2022	25-Aug-2022	06-Oct-2022	
005/2022	20-Oct-2022	01-Dec-2022	
001/2023	15-Dec-2022	26-Jan-2023	
002/2023	12-Jan-2023	23-Feb-2023	

AIRAC AIP AMENDMENT			
NR/Year	*Publication date*	*Effective date*	*Inserted by*
003/2023	09-Mar-2023	20-Apr-2023	
004/2023	04-May-2023	15-Jun-2023	
005/2023	29-Jun-2023	10-Aug-2023	
006/2023	24-Aug-2023	05-Oct-2023	
007/2023	21-Sep-2023	02-Nov-2023	
008/2023	19-Oct-2023	30-Nov-2023	
001/2024	14-Dec-2023	25-Jan-2024	
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003/2024	04-Apr-2024	16-May-2024	
004/2024	30-May-2024	11-Jul-2024	
005/2024	27-Jun-2024	08-Aug-2024	
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001/2025	12-Dec-2024	23-Jan-2025	

GEN 0.3 RECORD OF AIP SUPPLEMENTS

NR/Year	Subject	AIP Section(s) Affected	Period of Validity	Cancellation Record
003/2023	Astana AD (UACC) – taxiing restriction	UACC AD	From 15-JUN-2023 to 06-AUG-2025	
004/2023	Turkistan AD (UAIT) – restrictions on RWY	UAIT AD	From 15-JUN-2023 to 06-AUG-2025	
005/2023	Taraz AD (UADD) – taxiway restrictions	UADD AD	From 15-JUN-2023 to 05-AUG-2026	
001/2024	Uralsk AD (UARR) – closure of taxiway and aircraft stands	UARR AD 2	From 25-JAN-2024 to 06-AUG-2025	
004/2024	Atyrau AD (UATG) - use of ILS on RWY 14	UATG AD	From 22-Jul-2024 to 31-Dec-2026	

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GEN 0.4 CHECKLIST OF AIP PAGES

PART 1 - GENERAL (GEN)

GEN 0

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GEN-0.1 - 3	30 JAN 2020	GEN-0.4 - 3	23 JAN 2025	GEN-0.5 - 1	30 MAR 2017
GEN-0.1 - 4	30 MAR 2017	GEN-0.4 - 4	23 JAN 2025	GEN-0.5 - 2	30 MAR 2017
GEN-0.2 - 1	23 FEB 2023	GEN-0.4 - 5	23 JAN 2025	GEN-0.6 - 1	10 SEP 2020
GEN-0.2 - 2	23 JAN 2025	GEN-0.4 - 6	23 JAN 2025	GEN-0.6 - 2	10 SEP 2020
GEN-0.3 - 1	23 JAN 2025	GEN-0.4 - 7	23 JAN 2025		
GEN-0.3 - 2	30 MAR 2017	GEN-0.4 - 8	23 JAN 2025		

GEN 1 NATIONAL REGULATIONS AND REQUIREMENTS

GEN-1.1 - 1	26 JAN 2023	GEN-1.3 - 1	07 NOV 2019	GEN-1.7 - 3	12 AUG 2021
GEN-1.1 - 2	26 JAN 2023	GEN-1.3 - 2	07 NOV 2019	GEN-1.7 - 4	12 AUG 2021
GEN-1.2 - 1	16 MAY 2024	GEN-1.4 - 1	25 FEB 2021	GEN-1.7 - 5	12 AUG 2021
GEN-1.2 - 2	16 MAY 2024	GEN-1.4 - 2	25 FEB 2021	GEN-1.7 - 6	12 AUG 2021
GEN-1.2 - 3	25 FEB 2021	GEN-1.5 - 1	07 NOV 2019	GEN-1.7 - 7	12 AUG 2021
GEN-1.2 - 4	25 FEB 2021	GEN-1.5 - 2	07 NOV 2019	GEN-1.7 - 8	05 OCT 2023
GEN-1.2 - 5	11 JUL 2024	GEN-1.6 - 1	07 NOV 2019	GEN-1.7 - 9	05 OCT 2023
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GEN-1.2 - 7	11 JUL 2024	GEN-1.7 - 1	12 AUG 2021		
GEN-1.2 - 8	25 FEB 2021	GEN-1.7 - 2	12 AUG 2021		

GEN 2 TABLES AND CODES

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GEN-2.1 - 2	11 JUL 2024	GEN-2.5 - 1	23 JAN 2025	GEN-2.7 - 12	08 AUG 2024
GEN-2.1 - 3	16 MAY 2024	GEN-2.5 - 2	23 JAN 2025	GEN-2.7 - 13	08 AUG 2024
GEN-2.1 - 4	25 FEB 2021	GEN-2.5 - 3	23 JAN 2025	GEN-2.7 - 14	08 AUG 2024
GEN-2.2 - 1	07 NOV 2019	GEN-2.5 - 4	23 FEB 2023	GEN-2.7 - 15	08 AUG 2024
GEN-2.2 - 2	23 JAN 2025	GEN-2.6 - 1	21 JUN 2018	GEN-2.7 - 16	08 AUG 2024
GEN-2.2 - 3	23 JAN 2025	GEN-2.6 - 2	30 MAR 2017	GEN-2.7 - 17	08 AUG 2024
GEN-2.2 - 4	23 JAN 2025	GEN-2.7 - 1	08 AUG 2024	GEN-2.7 - 18	08 AUG 2024
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GEN-2.2 - 8	07 NOV 2019	GEN-2.7 - 5	11 JUL 2024	GEN-2.7 - 22	08 AUG 2024
GEN-2.3 - 1	16 JUL 2020	GEN-2.7 - 6	26 JAN 2023	GEN-2.7 - 23	08 AUG 2024
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GEN-2.3 - 4	16 AUG 2018	GEN-2.7 - 9	08 AUG 2024	GEN-2.7 - 26	08 AUG 2024
GEN-2.4 - 1	08 AUG 2024	GEN-2.7 - 10	08 AUG 2024		

GEN 3 SERVICES

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GEN-3.1 - 3	16 MAY 2024	GEN-3.4 - 2	15 JUN 2023	GEN-3.5 - 9	05 SEP 2024
GEN-3.1 - 4	31 OCT 2024	GEN-3.4 - 3	15 JUN 2023	GEN-3.5 - 10	08 AUG 2024
GEN-3.2 - 1	16 MAY 2024	GEN-3.4 - 4	16 JUL 2020	GEN-3.5 - 11	10 AUG 2023
GEN-3.2 - 2	07 NOV 2019	GEN-3.5 - 1	10 AUG 2023	GEN-3.5 - 12	10 AUG 2023
GEN-3.2 - 3	15 JUN 2023	GEN-3.5 - 2	08 AUG 2024	GEN-3.6 - 1	26 JAN 2023
GEN-3.2 - 4	18 JUL 2019	GEN-3.5 - 3	08 AUG 2024	GEN-3.6 - 2	01 DEC 2022
GEN-3.3 - 1	16 MAY 2024	GEN-3.5 - 4	23 JAN 2025	GEN-3.6 - 3	01 DEC 2022
GEN-3.3 - 2	26 JAN 2023	GEN-3.5 - 5	23 JAN 2025	GEN-3.6 - 4	01 DEC 2022
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GEN 4 CHARGES FOR AERODROMES/HELIPORTS AND AIR NAVIGATION SERVICES

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GEN-4.1 - 2	30 NOV 2023	GEN-4.2 - 1	23 JAN 2025	GEN-4.2 - 4	07 NOV 2019
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PART 2 - EN-ROUTE (ENR)

ENR 0

ENR-0.1 - 1	30 MAR 2017	ENR-0.2 - 1	30 MAR 2017	ENR-0.3 - 1	30 MAR 2017
ENR-0.1 - 2	30 MAR 2017	ENR-0.2 - 2	30 MAR 2017	ENR-0.3 - 2	30 MAR 2017

PART 3 - AERODROMES (AD)

AD 0

AD 1 AERODROMES/HELIPORTS - INTRODUCTION

AD 2 AERODROMES

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UAKD AD 2.24.11-3 - 1	31 OCT 2024				
UAKD AD 2.24.11-3 - 2	25 FEB 2021				
UAKD AD 2.24.11-4 - 1	11 JUL 2024				
UAKD AD 2.24.11-4 - 2	25 FEB 2021				
UAKD AD 2.24.11-5 - 1	11 JUL 2024				
UAKD AD 2.24.11-5 - 2	25 FEB 2021				
UAKD AD 2.24.11-6 - 1	31 OCT 2024				
UAKD AD 2.24.11-6 - 2	11 AUG 2022				
UAKD AD 2.24.11-7 - 1	11 JUL 2024				
UAKD AD 2.24.11-7 - 2	11 AUG 2022				
UAKD AD 2.24.11-8 - 1	11 JUL 2024				
UAKD AD 2.24.11-8 - 2	11 AUG 2022				
UAKD AD 2.24.12 - 1	05 SEP 2024				
UAKD AD 2.24.12 - 2	30 MAR 2017				
UAKD AD 2.24.14 - 1	11 JUL 2024				
UAKD AD 2.24.14 - 2	15 JUL 2021				

GEN 2.2 ABBREVIATIONS USED IN AERONAUTICAL INFORMATION PRODUCTS

Abbreviations marked by an asterisk (*) are either different or not contained in ICAO Doc 8400.

A

A/A	Air-to-air
A/G	Air-to-ground
A1	Radiotelephony without the use of a modulating audio
A2	Radiotelephony by the on-off keying of an amplitude-modulating audio frequency
A3	Radiotelephony
AA	All After
AB	All Before
ABM	Abeam
ABN	Aerodrome beacon
ABT	About
ABV	Above
AC	Altocumulus
ACC	Area control centre
ACCID	Notification of an aircraft accident
ACFT	Aircraft
ACL	Altimeter check location
ACN	Aircraft classification number
ACP	Acceptance (message type designator)
ACPT	Accept or accepted
ACT	Active or activated or activity
AD	Aerodrome
ADA	Advisory area
ADDN	Addition or additional
ADF	Automatic direction finding equipment
ADIZ	(to be pronounced "AY-DIZ") Air defence identification zone
ADJ	Adjacent
ADR	Advisory route
ADS	Address
ADZ	Advise
AFIL	Flight plan filed in the air
AFIS	Aerodrome flight information service
AFS	Aeronautical fixed service
AFT	After...(time or place)
AFTN	Aeronautical fixed telecommunication network
AGL	Above ground level
AGN	Again
AIC	Aeronautical information circular
AIP	Aeronautical information publication
AIRAC	Aeronautical information regulation and control
AIREP	Air-report
AIS	Aeronautical information services
ALA	Alighting area
ALERFA	Alert phase
ALR	Alerting (message type designator)
ALS	Approach lighting system
ALT	Altitude
ALTN	Alternate (aerodrome)
AMD	Amend or amended
AMDT	Amendment (AIP Amendment)
AMS	Aeronautical mobile service
AMSL	Above mean sea level
ANY*	Any day
AOC	Aerodrome obstacle chart
AP	Airport
APCH	Approach
APP	Approach control office
APR	April
APRX	Approximate or approximately
AR	End of transmission
ARFOR	Area forecast
ARO	Air traffic services reporting office
ARP	Aerodrome reference point
ARP (2)	Air-report (message type designator)
ARQ	Automatic error correction
ARR	Arrival (message type designator)
AS	Altostratus
ASC	Ascent to or ascending to
ASDA	Accelerate stop distance available
ASPH	Asphalt
ATA	Actual time of arrival
ATC	Air traffic control (in general)
ATD	Actual time of departure
ATFM	Air traffic flow management
ATFMU	Air traffic flow management unit
ATIS	Automatic terminal information service
ATP	At...(time or place)
ATS	Air traffic services
ATTN	Attention
ATZ	Aerodrome traffic zone
AUG	August
AUW	All up weight
AUX	Auxiliary
AVBL	Available or availability
AVG	Average
AVGAS	Aviation gasoline
AWY	Airway
AZM	Azimuth

B

BA	Braking action
BASE	Cloud base
BCFG	Fog patches
BCN	Beacon (aeronautical ground light)
BCST	Broadcast
BDRY	Boundary
BKN	Broken
BLDG	Building
BLO	Below clouds
BLSN	Blowing snow
BLW	Below...
BN	All between…and…

BR	Mist
BRG	Bearing
BRKG	Braking
BS	Commercial broadcasting station
BT	Separative sign
BTL	Between layers
BTN	Between
	C
C	Degrees Celsius (Centigrade)
CAT	Clear air turbulence
CAVOK	(to be pronounced “KAV-OH-KAY”) visibility, cloud and present weather better than prescribed values or conditions
CB	Cumulonimbus
CC	Cirrocumulus
CD	Candela
CDN	Co-ordination (message type designator)
CDO	Continuous descent operations
CFM	Confirm
CH	Channel
CHG	Modification (message type designator)
CI	Cirrus
CIS	Commonwealth of Independent States
CIV	Civil
CL	I am closing the station
CLA	Clear type of ice formation
CLBR	Calibration
CLD	Cloud
CLR	Clear(s) or cleared to ... or clearance
CLSD	Close or closed or complete
CM	Centimetre
CMPL	Completion or completed or complete
CMV*	Converted meteorological visibility
CNL	Cancel or cancelled
CNL (2)	Flight plan cancellation message
COM	Communications
CONC	Concrete
COND	Condition
CONT	Continue or continued
COP	Change over point
COR	Correct or correction or corrected
COR (2)	Technical correction massage
COV	Cover or covered or covering
CPL	Current flight plan (message type designator)
CQ	General call
CRS	Course
CS	Cirrostratus
CS (2)	Call-sign
CTA	Control area
CTAM	Climb to and maintain
CTN	Caution
CTR	Control zone
CU	Cumulus
CUST	Customs
CW	Continuous wave
CWY	Clearway
	D
D	Danger area (followed by identification)
DA	Decision altitude/height
DBS	Double side band
DCD	Double channel duplex
DCS	Double channel simplex
DCT	Direct (in relation to flight plan clearances and type of approach)
DE	From (used to precede the call-sign of the calling station)
DEC	December
DEG	Degrees
DEP	Depart or departure
DEP (2)	Departure (message type designator)
DES	Descend to or descending to
DEST	Destination
DFTI	Distances from touch down indicator
DIST	Distance
DLA	Delay or delayed
DLA (2)	Delay (message type designator)
DME	Distance measuring equipment
DNG	Danger or dangerous
DP	Dew point temperature
DR	Dead reckoning
DRG	During
DTAM	Descend to and maintain
DTG	Date-time group
DETRESFA	Distress phase
DTRT	Deteriorate or deteriorating
DUPE	This is duplicate message
DUR	Duration
DVOR	Doppler VOR
DZ	Drizzle
	E
E	East or eastern longitude
EAT	Expected approach time
EEE	Error
EET	Estimated elapsed time
eFPL	Filed flight plan exchanged via flight and flow - information for collaborative environment (FF-ICE) services
EHF	Extremely high frequency (30 000 to 300 000 MHz)
EGM	The Earth Gravitational Model
ELBA	Emergency location beacon-aircraft
ELEV	Elevation
EM	Emission
EMERG	Emergency
ENG	Engine
ENR	En route
EQPT	Equipment

ER	Here…or herewith
EST	Estimated time over (significant point) or estimated or estimate
EST (2)	Boundary estimated message
ETA	Estimated time of arrival or estimating arrival
ETD	Estimated time of departure or estimating departure
eTOD	Electronic terrain and obstacle data
EV	Every
EXC	Except
EXER	Exercises or exercising or to exercise
EXP	Expect or expected or expecting
EXTD	Extend or extending

F

F	Degrees Fahrenheit
FAC	Facilities
FAF	Final approach fix
FAL	Facilitation of international air transport
FAP	Final approach point
FAX	Facsimile transmission
FBL	Light (used to qualify ice)
FCST	Forecast
FEB	February
FG	Fog
FIC	Flight information centre
FIR	Flight information region
FIS	Flight information service
FL	Flight level
FLG	Flashing
FLR	Flares
FLT	Flight
FLTCK	Flight check
FLUC	Fluctuating or fluctuation or fluctuated
FLW	Follow(s) or following
FLY	Fly or flying
FM	From
FNA	Final approach
FPL	Filed flight plan exchanged via aeronautical fixed service (AFS)
FPM	Feet per minute
FREQ	Frequency
FRI	Friday
FRNG	Firing
FRQ	Frequent
FSL	Full stop landing
FSS	Flight service
FST	First
FT	Feet (dimensional unit)
FU	Smoke
FZ	Freezing
FZDZ	Freezing drizzle
FZFG	Freezing fog
FZRA	Freezing rain

G

G/A	Ground-to-air
G/A/G	Ground-to-air and air-to-ground
GA	Go ahead
GEN	General
GEO	Geographic or true
GLD	Glider
GMT	Greenwich mean time
GND	Ground
GNDCK	Ground check
GP	Glide path
GR	Hail or soft hail
GRADU	Gradual or gradually
GRASS	Grass landing area
GRVL	Gravel
GS	Ground speed

H

H24	Continuous day and night service
HBN	Hazard beacon
HDF	High frequency direction-finding station
HDG	Heading
HEL	Helicopter
HF	High frequency
HGT	height or height above
HJ	Sunrise to sunset
HLDG	Holding
HN	Sunset to sunrise
HO	Service available to meet operational requirements
HOL	Holiday
HOSP	Hospital aircraft
HPA	Hectopascal
HR	Hours
HS	Service available during hours of scheduled operations
HVY	Heavy
HX	No specific working hour
HZ	Haze
HZ (2)	Hertz (cycle per second)

I

IAF	Initial approach fix
IAL	Instrument approach and landing chart
IAO	In and out of clouds
IAR	Intersection of air routes
IAS	Indicated air speed
IATA	International Air Transport Association
IBN	Identification beacon
ICAO	International Civil Aviation Organization
ICE	Icing
ID	Identifier or identify
IDENT	Identification
IF	Intermediate approach fix
IFF	Identification friend/foe
IFR	Instrument flight rules
IGA	International general aviation
ILS	Instrument landing system
IM	Inner marker

IMC	Instrument meteorological conditions
IMG	Immigration
IMI	Interrogation sign
IMPR	Improve or improving
IMT	Immediate or immediately
INA	Initial approach
INDB	Inbound
INCERFA	Uncertainty phase
INFO	Information
INOP	Inoperative
INP	If not possible
INPR	In progress
INS	Inches (dimensional unit)
INS (2)	Inertial navigation system
INSTL	Install or installed or installation
INSTR	Instrument
INT	Intersection
INTER	Intermittent
INTL	International
INTRG	Interrogator
INTRP	Interrupt or interruption or interrupted
INTSF	Intensify or intensifying
INTST	Intensity
IR	Ice on runway
ISA	International standard atmosphere
ISOL	Isolated

J

JAN	January
JTST	Jet stream
JUL	July
JUN	June

K

K	Invitation to transmit
KG	Kilograms
KHZ	Kilohertz
KM	Kilometres
KMH	Kilometres per hour
KPA	Kilopascal
KT	Knots
KW	Kilowatts

L

L	Left (runway identification)
L(1)	Locator
LAN	Inland
LAT	Latitude
LB	Pounds (weight)
LCA	Local or locally or location or located
LCN	Load Classification Number
LDA	Landing distance available
LDG	Landing
LDI	Landing direction indicator
LEFT	Left (direction of tern)
LEN	Length
LF	Low frequency
LGT	Light or lighting
LGTD	Lighted
LIH	Light intensity high
LIL	Light intensity low
LIM	Light intensity medium
LMM	Locator middle
LMT	Local mean time
LNG	Long
LOC	Localizer
LOM	Locater outer
LONG	Longitude
LR	Last message received by me was…
LRG	Long range
LS	Last message sent by me was…
LSQ	Line squall
LTD	Limited
LV	Light and variable (relating to wind)
LVP	Low Visibility Procedures
LYR	Layer or layered

M

M	Metres
MAG	Magnetic
MAINT	Maintenance
MAP	Aeronautical maps and charts
MAPt	Missed approach point
MAR	March
MAX	Maximum
MAY	May
MB	Millibars
MDA	Minimum descent altitude
MDH	Minimum descent height
MEA	Minimum en-route altitude
MEHT	Minimum eye height over threshold
MET	Meteorological or meteorology
METAR	Aviation routine weather report
MF	Medium frequency
MHZ	Megahertz
MIFG	Shallow fog
MIL	Military
MIN	Minutes
MIS	Missing
MKR	Marker radio beacon
MLS	Microwave landing system
MM	Middle marker
MNM	Minimum
MNPS	Minimum navigation performance specifications
MNT	Monitor or monitoring or monitored
MNTN	Maintain
MOC	Minimum obstacle clearance
MOD	Moderate
MON	Monday
MOTNE	Meteorological Operational Telecommunications Network Europe
MOV	Move or moving or movement
MPa	MegaPascal
MPH	Statute miles per hour
MPS	Metres per second
MRG	Medium range
MS	Minus

MSA	Minimum sector altitude
MSG	Message
MSL	Mean sea level
MTOW	Maximum take-off weight
MWO	Meteorological watch office
	N
N	North or northern latitude
NAV	Navigation
NC	No change
NDB	Non-directional radio beacon
NGT	Night
NIL	None
NM	Nautical miles
NML	Normal
NOF	International NOTAM office
NONFUA*	Non-flexible use of airspace
NOSIG	No significant change
NOTAM	Notice to airmen
NOV	November
NR	Number
NS	Nimbostratus
NXT	Next
	O
O/R	On request
OAS	Obstacle assessment surface
OBS	Observe or observed or observation
OBSC	Observe or obscured or obscuring
OBST	Obstacle
OCA	Obstacle clearance altitude
OCH	Obstacle clearance height
OCL	Obstacle clearance limit
OCNL	Occasional
OCS	Obstacle clearance surface
OCT	October
OM	Out marker
OPC	The control indicated is operational control
OPN	Open
OPR	Operator or operative
OPS	Operations
OTP	On top
OVC	Overcast
	P
P	Prohibited area
PANS	Procedures for air navigation services
PAPI	Precision approach path indicator
PAR	Precision approach radar
PARL	Parallel
PCN	Pavement classification number
PE	Ice pellets
PERM	Permanent
PIB	Pre-flight information bulletin
PJE	Parachute jumping exercise
PN	Prior notice required
PO	Dust devils
POB	Persons on board
PPI	Plan position indicator
PPR	Prior permission required
PPSGR	Passenger
PRKG	Parking
PROB	Probability
PROC	Procedure
PROV	Provisional
PS	Plus
PSN	Position
PTN	Procedure turn
PWR	Power
	Q
QBI	Compulsory IFR flight
QDM	Magnetic heading (zero wind)
QDR	Magnetic bearing
QFE	Atmospheric pressure at aerodrome elevation (or at runway threshold)
QFU	Magnetic orientation of runway
QNH	Altimeter sub-scale setting to obtain elevation when on the ground
QTE	True bearing
QUAD	Quadrant
	R
R	Right (runway identification)
R	Restricted area (followed by identification)
RA	Rain
RAC	Rules or the air and air traffic services
RAG	Ragged
RAI	Runway alignment indicator
RASH	Rain showers
RCA	Reach cruising altitude
RCC	Rescue co-ordination centre
RCF	Radio communication failure
RCL	Runway centre line
RDH	Reference datum height (for ILS)
RDL	Radial
RDO	Radio
RE	Recent
REC	Receive or receiver
REF	Reference to... or refer to...
REQ	Request or requested
RESA	Runway end safety area
RMK	Remark
RMS	Radio beacon landing system
RMZ*	Radio mandatory zone
RNAV	Area navigation
RPL	Repetitive flight plan
RPLC	Replace or replaced
RQ	Indication of a request
RQS	Request supplementary flight plan
RSR	En-route surveillance radar
RTD	Delayed
RTF	Radiotelephone
RTG	Radiotelegraph
RVR	Runway visual range
RVSM	Reduced vertical separation minimum (300 m (1 000 ft)) between FL

	290 and FL 410
RWY	Runway
	S
SA	Sand
SALS	Simple approach lighting system
SAN	Sanitary
SAP	As soon as possible
SAR	Search and rescue
SARPS	Standards and recommended practices (ICAO)
SAT	Saturday
SCT	Scattered
SEC	Seconds
SEP	September
SER	Service or servicing or served
SEV	Severe
SFC	Surface
SG	Snow grains
SGL	Signal
SH	Showers
SID	Standard instrument departure
SIGMET	Information concerning en-route weather phenomena which may affect the safety of operations
SKC	Sky clear
SKED	Schedule or scheduled
SLW	Slow
SMC	Surface movement control
SNOWTAM	A special series NOTAM notifying the presence or removal of hazardous conditions due to snow
SPECI	Aviation selected special weather report
SPL	Supplementary flight plan
SPOT	Spot wind
SR	Sunrise
SRR	Search and rescue region
SS	Sunset
SSR	Secondary surveillance radar
SST	Supersonic transport
STA	Straight-in approach
STAR	Standard instrument arrival
STF	Stratiform
STN	Station
STOL	Short take-off and landing
STS	Status
SUN	Sunday
SVC	Service message
SVCBL	Serviceable
SWY	Stop way
	T
T	Temperature
TA	Transition altitude
TAF	Aerodrome forecast
TAIL	Tail wind
TAS	True airspeed
TDZ	Touchdown zone
TEMPO	Temporary or temporarily
TEND	Trend forecast
TFC	Traffic
TGS	Taxiing guidance system
THR	Threshold
THU	Thursday
TIL	Until
TIBA	Traffic information broadcast by aircraft
TKOF	Take off
TMA	Terminal control area
TODA	Take-off distance available
TORA	Take-off run available
TP	Turning point
TRA	Temporary reserved airspace
TUE	Tuesday
TURB	Turbulence
TVOR	Terminal VOR
TWR	Aerodrome control tower or aerodrome control
TWY	Taxiway
TYP	Type of aircraft
	U
U/S	Unserviceable
UAC	Upper area control centre
UDF	Ultra high frequency direction-finding station
UFN	Until further notice
UHF	Ultra high frequency
UIR	Upper flight information centre
UNL	Unlimited
UNREL	Unreliable
UTC	Co-ordinated universal time
	V
VAL	In valleys
VAR	Magnetic variation
VASIS	Visual approach slope indicator system
VDF	Very high frequency direction-finding station
VER	Vertical
VFR	Visual flight rules
VHF	Very high frequency
VIA	By way of…
VIP	Very important person
VIS	Visibility
VLF	Very low frequency
VMC	Visual meteorological conditions
VOLMET	Meteorological information for aircraft in flight
VOR	VHF omni directional radio range
VRB	Variable
VSA	By visual reference to the ground
VSP	Vertical speed
	W
WAC	World aeronautical chart-ICAO
WBAR	Wing bar lights
WDI	Wind direction indicator
WED	Wednesday
WEF	With effect from or effective from
WGS	World Geodetic System

WI	Within
WIE	With immediate effect or effective immediately
WIP	Work in progress
WPT	Way-point
WX	Weather

Z

Z	Zulu time

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GEN 2.5 LIST OF RADIO NAVIGATION AIDS

Decode			
ID	Station name	Aid	Purpose
AKT	AKTAU	DVOR/DME	AE
T	AKTAU	NDB	A
IAU	AKTAU	ILS/DME	A
ITA	AKTAU	ILS/DME	A
AKB	AKTOBE	DVOR/DME	AE
ABN	AKTOBE	NDB	A
ITU	AKTOBE	ILS/DME	A
IAT	AKTOBE	ILS/DME	A
ATA	ALMATY	DVOR/DME	AE
AAN	ALMATY	NDB	A
IAA	ALMATY	ILS/DME	A
IMA	ALMATY	ILS/DME	A
ILM	ALMATY	ILS/DME	A
IAL	ALMATY	ILS/DME	A
ARL	ARALSK	DVOR/DME	E
ARK	ARKALYK	DVOR/DME	E
AST	ASTANA	DVOR/DME	AE
M	ASTANA	NDB	A
IAK	ASTANA	ILS/DME	A
IMO	ASTANA	ILS/DME	A
ATR	ATYRAU	DVOR/DME	AE
ITY	ATYRAU	ILS/DME	A
IAY	ATYRAU	ILS/DME	A
AGZ	AYAGUZ	VOR/DME	E
BLH	BALKHASH	DVOR/DME	AE
BNU	BEINEU	VOR/DME	E
JRK	JARKENT	VOR/DME	E
KRG	KARAGANDA	DVOR/DME	AE
IKA	KARAGANDA	ILS/DME	A
IRG	KARAGANDA	ILS/DME	A
KTU	KOKSHETAU	VOR/DME	AE
IOT	KOKSHETAU	ILS/DME	A
IKW	KOKSHETAU	ILS/DME	A
KST	KOSTANAY	DVOR/DME	AE

Encode			
Station name	Aid	ID	Purpose
AKTAU	DVOR/DME	AKT	AE
AKTAU	NDB	T	A
AKTAU	ILS/DME	IAU	A
AKTAU	ILS/DME	ITA	A
AKTOBE	DVOR/DME	AKB	AE
AKTOBE	NDB	ABN	A
AKTOBE	ILS/DME	ITU	A
AKTOBE	ILS/DME	IAT	A
ALMATY	DVOR/DME	ATA	AE
ALMATY	NDB	AAN	A
ALMATY	ILS/DME	IAA	A
ALMATY	ILS/DME	IMA	A
ALMATY	ILS/DME	ILM	A
ALMATY	ILS/DME	IAL	A
ARALSK	DVOR/DME	ARL	E
ARKALYK	DVOR/DME	ARK	E
ASTANA	DVOR/DME	AST	AE
ASTANA	NDB	M	A
ASTANA	ILS/DME	IAK	A
ASTANA	ILS/DME	IMO	A
ATYRAU	DVOR/DME	ATR	AE
ATYRAU	ILS/DME	ITY	A
ATYRAU	ILS/DME	IAY	A
AYAGUZ	VOR/DME	AGZ	E
BALKHASH	DVOR/DME	BLH	AE
BEINEU	VOR/DME	BNU	E
JARKENT	VOR/DME	JRK	E
KARAGANDA	DVOR/DME	KRG	AE
KARAGANDA	ILS/DME	IKA	A
KARAGANDA	ILS/DME	IRG	A
KOKSHETAU	VOR/DME	KTU	AE
KOKSHETAU	ILS/DME	IOT	A
KOKSHETAU	ILS/DME	IKW	A
KOSTANAY	DVOR/DME	KST	AE

Decode			
ID	Station name	Aid	Purpose
IKT	KOSTANAY	ILS/DME	A
INA	KOSTANAY	ILS/DME	A
KZO	KYZYLORDA	DVOR/DME	AE
IKZ	KYZYLORDA	ILS/DME	A
PVL	PAVLODAR	DVOR/DME	AE
IPW	PAVLODAR	ILS/DME	A
IPT	PETROPAVLOVSK	ILS/DME	A
PSK	PETROPAVLOVSK	DVOR/DME	AE
SEM	SEMEY	DVOR/DME	AE
ISP	SEMEY	ILS/DME	A
SMK	SHYMKENT	DVOR/DME	AE
SKN	SHYMKENT	NDB	A
IIM	SHYMKENT	ILS/DME	A
IEN	SHYMKENT	ILS/DME	A
TDK	TALDYKORGAN	DVOR/DME	AE
TAR	TARAZ	DVOR/DME	AE
IMB	TARAZ	ILS/DME	A
IYL	TARAZ	ILS/DME	A
TGZ	TENGIZ	VOR/DME	A
KI	TENGIZ	NDB	A
TRK	TURKISTAN	DVOR/DME	AE
ITR	TURKISTAN	ILS/DME	A
ITK	TURKISTAN	ILS/DME	A
URL	URALSK	DVOR/DME	AE
IUR	URALSK	ILS/DME	A
ISK	URALSK	ILS/DME	A
UGN	URDZHAR	NDB	AE
Ш	USHARAL	NDB	A
R	USHARAL	NDB	A
UKM	UST-KAMENOGORSK	DVOR/DME	AE
ISI	UST-KAMENOGORSK	ILS/DME	A
IUS	UST-KAMENOGORSK	ILS/DME	A
ZSN	ZAISAN	NDB	AE

Encode			
Station name	Aid	ID	Purpose
KOSTANAY	ILS/DME	IKT	A
KOSTANAY	ILS/DME	INA	A
KYZYLORDA	DVOR/DME	KZO	AE
KYZYLORDA	ILS/DME	IKZ	A
PAVLODAR	DVOR/DME	PVL	AE
PAVLODAR	ILS/DME	IPW	A
PETROPAVLOVSK	ILS/DME	IPT	A
PETROPAVLOVSK	DVOR/DME	PSK	AE
SEMEY	DVOR/DME	SEM	AE
SEMEY	ILS/DME	ISP	A
SHYMKENT	DVOR/DME	SMK	AE
SHYMKENT	NDB	SKN	A
SHYMKENT	ILS/DME	IIM	A
SHYMKENT	ILS/DME	IEN	A
TALDYKORGAN	DVOR/DME	TDK	AE
TARAZ	DVOR/DME	TAR	AE
TARAZ	ILS/DME	IMB	A
TARAZ	ILS/DME	IYL	A
TENGIZ	VOR/DME	TGZ	A
TENGIZ	NDB	KI	A
TURKISTAN	DVOR/DME	TRK	AE
TURKISTAN	ILS/DME	ITR	A
TURKISTAN	ILS/DME	ITK	A
URALSK	DVOR/DME	URL	AE
URALSK	ILS/DME	IUR	A
URALSK	ILS/DME	ISK	A
URDZHAR	NDB	UGN	AE
USHARAL	NDB	Ш	A
USHARAL	NDB	R	A
UST-KAMENOGORSK	DVOR/DME	UKM	AE
UST-KAMENOGORSK	ILS/DME	ISI	A
UST-KAMENOGORSK	ILS/DME	IUS	A
ZAISAN	NDB	ZSN	AE

Decode			
ID	**Station name**	**Aid**	**Purpose**
DZG	ZHEZKAZGAN	DVOR/DME	AE
IGN	ZHEZKAZGAN	ILS/DME	A
ZN	ZHEZKAZGAN	NDB	A
ZKN	ZHEZKAZGAN	NDB	A

Encode			
Station name	**Aid**	**ID**	**Purpose**
ZHEZKAZGAN	DVOR/DME	DZG	AE
ZHEZKAZGAN	ILS/DME	IGN	A
ZHEZKAZGAN	NDB	ZN	A
ZHEZKAZGAN	NDB	ZKN	A

(A) Aerodrome aid
(AE) Aerodrome and en-route aid

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Table 1: Meteorological observations and reports

Name of station/ Location indicator	Type & frequency of observation/ automatic observing equipment	Types of meteorological reports and additionally included information	Observation System & Site(s)	Hours of operation	Climatological information
1	2	3	4	5	6
TALDYKORGAN /UAAT	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	HO	Climatological tables AVBL
TARAZ/UADD	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	H24	Climatological tables AVBL
TURKISTAN/ UAIT	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	H24	Nil
URALSK/UARR	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	H24	Climatological tables AVBL
URDZHAR/ UASU	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	HO	Nil
USHARAL/UAAL	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	HO	Nil
UST-KAMENOGORSK/UASK	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	H24	Climatological tables AVBL
ZAISAN/UASZ	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	HO	Nil
ZHEZKAZGAN/ UAKD	Half hourly routine plus special observations/ automatic: Nil	METAR SPECI TREND	Automated meteorological information-measuring system[1]	HO	Nil

1.AWOS «KRAMS-4» is designed for automatic remote observation and monitoring of main meteorological conditions at an aerodrome, processing of this information, generation of meteorological reports, displaying, recording and dissemination of meteorological information through telecommunication channels to departing and arriving aircraft.

4. TYPES OF SERVICES

Personal briefing and meteorological consultation for flight crews members and/or other flight operation personnel are provided by aerodrome meteorological office at all airports listed in the AD 1.3

Limited flight documentation is normally provided for domestic flights. For international flights, the flight documentation comprises a significant weather chart, an upper wind and upper air temperature chart, and the latest available aerodrome forecast for the destination and its alternate aerodromes.

Automated computer systems, telephone communication, AFTN communication channels and meteorological telecommunication network are used for the meteorological information exchange between aerodrome services and other users concerned. ATIS is used for broadcasting meteorological information to aircraft in flight. Actual meteorological information is broadcasted regularly and continuously according to the GEN 3.5.7.

Aerodrome meteorological office provides products, distributed in the framework of the WAFS (SIGWX chart FL 250-630, wind and temperature chart issued by WAFC LONDON or HYDROMETEOROLOGICAL CENTRE OF RUSSIA four times a day at 00.00, 06.00, 12.00 and 18.00 UTC).

Information about volcanic ash and a tropical cyclone are based on Advisory information provided by the relevant VAAC and TCAC.

Terminal aerodrome forecast (TAF) is issued in the prescribed time and comprises short message about expected weather conditions at an aerodrome during a specified period.

For the planning of low level flights below flight level 100, forecasts are issued in GAMET format. They are issued every day and kept up to date every 3 hours starting from 00.00 UTC. AIRMET messages are issued concerning the occurrence and/or expected occurrence of specified en-route weather phenomena, which have not been included in Section I of the GAMET forecast.

Area of responsibility for GAMET/AIRMET issued:

Note: Boralday aerodrome belongs to the A5 FIC Area

Name of aerodrome meteorological office/ Location indicator	FIC area	Lateral limits
1	2	3
AKTOBE/UATT	T1 FIC Area	N505800 E0613000 - N502331 E0622455 - N500137 E0622819 - N483738 E0624054 - N475001 E0593111 - N465000 E0570000 - N485000 E0551000 - N485930 E0522738 - N504318 E0551552 then along the state BDRY with Russia to N505800 E0613000
	T3 FIC Area	N483738 E0624054 - N471135 E0643220 - N461214 E0614508 - N460903 E0613915 - N445159 E0600655 - then along the state BDRY with Uzbekistan to - N452307 E0574000 - N454418 E0574000 - N463851 E0564100 - N465000 E0570000 - N475001 E0593111 - N483738 E0624054
ATYRAU/UATG	T2 FIC Area	N485930 E0522738 – N485000 E0551000 – N465000 E0570000 – N463851 E0564100 – N454418 E0574000 – N452307 E0574000 – N452130 E0534647 – N455500 E0493000 – N460800 E0492600 – N461400 E0492600 – N461800 E0491600 – N462130 E0491148 – N462224 E0491112 then along the state BDRY with Russia to N490704 E0470207 – N485930 E0522738
	T7 FIC Area	N463851 E0564100 – N454418 E0574000 – N452307 E0574000 then along the state BDRY with Uzbekistan to N435141 E0555948 – N445034 E0541914 – N452130 E0534647 – N463851 E0564100

Name of aerodrome meteorological office/ Location indicator	FIC area	Lateral limits
1	2	3
AKTAU/UATE	T5 FIC Area	N453219 E0523200 – N444919 E0520844 – N442238 E0520908 – N434133 E0522455 – N422611 E0502811 – N425000 E0493000 – N455500 E0493000 – N453219 E0523200
	T6 FIC Area	N453219 E0523200 – N452130 E0534647 – N445034 E0541914 – N435141 E0555948 then along the state BDRY with Uzbekistan to N411900 E0560000 then along the state BDRY with Turkmenistan to N414700 E0522800 – N420000 E0513000 – N422611 E0502811 – N434133 E0522455 – N442238 E0520908 – N444919 E0520844 - N453219 E0523200
URALSK/UARR	T4 FIC Area	N504318 E0551552 - N485930 E0522738 - N490704 E0470207 then along the state BDRY with Russia to N504318 E0551552
ASTANA/UACC	N1 FIC Area	N522006 E0672830 - N522724 E0681000 - N523100 E0684500 - N523730 E0702500 - N524548 E0713006 – N524630 E0715024 – N524724 E0723406 – N523548 E0734324 – N513148 E0734848 – N511706 E0734530 – N510200 E0740200 – N505342 E0741748 – N504948 E0743606 – N504730 E0745900 – N503331 E0753513 – N501116 E0723844 – N503136 E0680751 – N521149 E0673350 - N522006 E0672830
KOKSHETAU/UACK	N2 FIC Area	N540653 E0710841 - then along the state BDRY with Russia to - N532838 E0733027- N524612 E0734430 - N524218 E0734248 - N523548 E0734324 - N524724 E0723406 - N524630 E0715024 - N524548 E0713006 - N523730 E0702500 - N523100 E0684500 - N522724 E0681000 - N522006 E0672830 - N532806 E0664618 - N540306 E0690830 - N540500 E0704712 - N540653 E0710841
PETROPAVLOVSK/UACP	N3 FIC Area	N543735 E0660017 - then along the state BDRY with Russia to - N540653 E0710841 - N540500 E0704712 - N540306 E0690830 - N532806 E0664618 - N543735 E0660017
KOSTANAY/UAUU	N4 FIC Area	N543735 E0660017 - N532806 E0664618 - N521149 E0673350 – N512154 E0675222 - N502331 E0622455 - N505800 E0613000 - then along the state BDRY with Russia to - N543735 E0660017
	N5 FIC Area	N512154 E0675222 - N503136 E0680751 - N494400 E0683100 - N493036 E0670430 - N491230 E0663936 - N485848 E0654236 - N483738 E0624054 - N502331 E0622455 - N512154 E0675222
KARAGANDA/UAKK	N6 FIC Area	N503331 E0753513 - N494800 E0761100 - N485000 E0761100 - N480759 E0741658 - N480000 E0714900 - N483700 E0704200 - N494100 E0693200 – N494400 E0683100 – N503136 E0680751 – N501116 E0723844 – N503331 E0753513

Name of aerodrome meteorological office/ Location indicator	FIC area	Lateral limits
1	2	3
ZHEZKAZGAN/UAKD	N7 FIC Area	N494400 E0683100 - N494100 E0693200 - N483700 E0704200 - N480000 E0714900 - N450440 E0715506 - N452504 E0692427 - N471135 E0643220 - N483738 E0624054 - N485848 E0654236 - N491230 E0663936 - N493036 E0670430 - N494400 E0683100
PAVLODAR/UASP	N8 FIC Area	N533000 E0733000 - then along the state BDRY with Russia to – N510142 E0795110 – N505513 E0791803 – N504125 E0781025 – N494800 E0761100 – N503331 E0753513 – N504730 E0745900 – N504948 E0743606 – N505342 E0741748 – N510200 E0740200 – N511706 E0734530 – N513148 E0734848 – N523548 E0734324 – N524218 E0734248 – N524612 E0734430 - N533000 E0733000
ALMATY/UAAA	A1 FIC Area	N432236 E0770503 - N433001 E0804359 – then along the state BDRY with P.R. of China – N421239 E0801028 – then along the state BDRY with Kyrgyzstan to - N431348 E0741934 – N434446 E0741052 – N432236 E0770503
	A2 FIC Area	N462000 E0812000 - N453000 E0821955 - then along the state BDRY with P.R. of China to - N442731 E0802042 - N440745 E0780904 – N462000 E0812000
	A3 FIC Area	N463927 E0775115 - N461807 E0783955 - N462000 E0812000 – N440745 E0780904 - N442731 E0802042 - then along the state BDRY with P.R. of China to - N433001 E0804359 - N432236 E0770503 - N463927 E0775115
	A4 FIC Area	N440648 E0744228 - N432236 E0770503 - N434446 E0741052 - N440648 E0744228
	A5 FIC Area	N485000 E0761100 - N465357 E0771718 - N463927 E0775115 – N432236 E0770503 - N440648 E0744228 - N441502 E0745425 - N450440 E0715506 - N480000 E0714900 - N480759 E0741658 - N485000 E0761100
SEMEY/UASS	A6 FIC Area	N510142 E0795110 - then along the state BDRY with Russia to – N504706 E0815242 – N503130 E0813218 – N493500 E0810300 – N484600 E0805300 – N475508 E0802710 – N461942 E0802000 – N461808 E0784001 – N465357 E0771718 – N485000 E0761100 – N494800 E0761100 – N504125 E0781025 – N505513 E0791803 - N510142 E0795110
UST-KAMENOGORSK/UASK	A7 FIC Area	N490654 E0871718 - then along the state BDRY with P.R. of China to - N453313 E0821612 - N462000 E0812000 - N461942 E0802000 - N475508 E0802710 - N484600 E0805300 - N493500 E0810300 - N503130 E0813218 - N504706 E0815242 – then along the state BDRY with Russia to - N490654 E0871718
SHYMKENT/UAII	D1 FIC Area	N432534 E0672754 - N431800 E0682200 - N431932 E0683446 - N430659 E0693632 - N422000 E0705300 - then along the state BDRY with Kyrgyzstan to - then along the state BDRY with Uzbekistan to - N430221 E0654313 - N432534 E0672754

GEN 4.2 AIR NAVIGATION SERVICES CHARGES

1. GENERAL

The charges for the air navigation services for aircraft flying en-route and in the terminal area of the Republic of Kazakhstan are collected by Republic State Enterprise on to rights of economic activity “Kazaeronagivatsia” of the Civil Aviation Committee of Ministry of industry and infrastructural development of the Republic of Kazakhstan (RSE “Kazaeronavigatsia”).

Legal and postal address:

010014, Astana city, Esil district,
E522 street, 15 building
BIN 130940015918
TIN 620500027274
Phone: +7 (717) 2773404
Fax: +7 (717) 2773566
AFS: UAAKDDXX

The charges for the air navigation services (ANS) are collected from all users of the airspace of the Republic of Kazakhstan, regardless of its state ownership, the type of property and subordination.

2. CHARGES FOR EN-ROUTE AIR NAVIGATION SERVICES AND IN TERMINAL AREA.

Tariffs for air navigation services for foreign users of the airspace of the Republic of Kazakhstan operating international flights en-route and in the terminal area:

Tariffs and rate of charges for air navigation services	MTOW, tons	Tariffs (rate of charges) per 100 km of the great circle distance, USD
En –route	up to 50,0	51
	50,1 – 100,0	69
	100,1 – 200,0	85
	200,1 – 300,0	92
	above 300,0	96
Terminal area	Per 1 ton of maximum take-off weight	5

Charges for air navigation services for aircraft flying en-route within FIRs depend on the maximum take-off weight (MTOW) and distance travelled by aircraft and are calculated by the following formula:
P=Tx(S:100)
Where:
P - amount of charges;
T - rate for 100 km of distance travelled
S – the flight distance is assembled from the segments of AWYs of the Republic of Kazakhstan, the length of which is calculated by orthodromy.
Flight distance on AWY segments is rounded to the whole tens within the FIR of the Republic of Kazakhstan.
The calculation of distance for flights executed outside of the AWYs is made by the following formula:
S= V x t
where:
S – flight distance. The distance is rounded to the whole tens within the FIR of the Republic of Kazakhstan.
V – flight execution speed (km/h)
t – flight execution time – flying hours (h).
The rounding of flight distance to the whole tens is made by the following:
Less than 5 km – rounded to the less side,
5 km and more – rounded to the larger side.

When landing at ADs of the Republic of Kazakhstan where air traffic service is provided by the ATS units of

RSE “Kazaeronavigatsia” branches, the distance travelled on the route segments to/from the AD is reduced by 20 km for each take-off and landing.

The amount of the charge for air navigation services for aircraft in the terminal area (in the take-off and landing zone) depends on the maximum take-off weight (MTOW) and is calculated by the following formula:
P=TxW
where:
P – amount of charges;
T – rate of charges per 1 ton of maximum take-off weight (MTOW) of an aircraft
W – MTOW in tons to be rounded off to decimals.

For the charging purpose for air navigation services en-route and in the terminal area, the MTOW is rounded to the tenth of a ton in the following order: less than 50 kg - rounded down (to zero), 50 kg or more - rounded up (up to 0.1 ton).

Information about the fleet in operation, including registration marks and MTOW, is required to be submitted by users of the airspace of the Republic of Kazakhstan in advance to the RSE "Kazaeronavigatsia".

MTOW for each type of aircraft is taken into account, in the case the airspace user does not submit a real MTOW for a particular aircraft flying in the airspace of the Republic of Kazakhstan.

Tariffs and rates for the air navigation services en-route and in the terminal area of the Republic of Kazakhstan, except for international flights are approved by the authorized state body in the sphere of the natural monopoly.

3. EXEMPTIONS/REDUCTIONS

The following categories of flights in the airspace of the Republic of Kazakhstan is exempted from payment of air navigation facility charges:

a. aircraft suffering or having suffered a distress, as well as aircraft whose routes have been changed due to an emergency on board, failure or malfunction of the equipment on board, from the moment of determining the location of the aircraft;

b. aircraft on search and rescue operations, as well as aircraft involved in the search and rescue exercises, according to the contract with ANS provider;

c. aircraft on medical and (or) humanitarian aid to the population in natural disasters;

d. aircraft of State Aviation of the Republic of Kazakhstan;

e. aircraft carrying the President of the Republic of Kazakhstan, the Prime Minister of the Republic of Kazakhstan, royalty, heads of states and government of foreign states.

f. in accordance with international treaties ratified by the Republic of Kazakhstan, if exemption of payment for the air navigation services provided by the clauses;

g. Light and ultralight aircraft (aircraft - up to 5 700 kg, helicopters - up to 3 180 kg).

4. METHODS OF PAYMENT

Invoices with a statement of the executed flights for the air navigation services provided to the foreign users of the airspace of the Republic of Kazakhstan are billed in US dollars twice a month on the 15th and the last date of the month. Payment for the air navigation services is made by transferring to RSE Kazaeronavigatsia bank account the fee in US dollars or tenge (KZT) according to the official exchange rate of National Bank of the Republic of Kazakhstan and fixed on a date of payment.

Scheduled flights in the airspace of the Republic of Kazakhstan is carried on terms of payment upon the execution of flights, in accordance with the invoices provided by RSE “Kazaeronavigatsia”. Payment must be made within 10 banking days from the date of the invoice receipt.

Non- scheduled (charter) flights in the airspace of the Republic of Kazakhstan are carried under the conditions of 100% advance payment on the basis of the invoice issued by the RSE "Kazaeronavigatsia" for preliminary payment.

In accordance with limited terms of storage of control facilities, on which statements and credit notes for the

ENR 1.4 ATS AIRSPACE CLASSIFICATION AND DESCRIPTION

1. ATS AIRSPACE CLASSIFICATION

The common transition altitude is established on the altitude at 10000 feet (3050 meters) within State border of the Republic of Kazakhstan, and also beyond the Republic of Kazakhstan borders, where the responsibility for air traffic management is placed on ATS of the Republic of Kazakhstan. Transition level (the lowest usable flight level) is determined depending on the QNH value at the aerodrome (en - route). Horizontal flights in transition layer, between the transition altitude and the transition level, are prohibited.

The airspace of the Republic of Kazakhstan is classified as follows:

1. The airspace from the common transition altitude 10000 feet (3050 meters) (excluding) to FL510, as well as airspace of TMA of controlled aerodromes is classified as class C airspace;

2. The airspace of the control zones (CTR) of the aerodromes in Astana, Almaty and Boralday, responsibility area of Almaty local ATC unit are classified as class D airspace, the airspace of the CTR of other aerodromes of the Republic of Kazakhstan is classified as class C airspace;

3. Airspace from the common transition altitude 10000 feet (from minimal altitude in areas with terrain higher than common transition altitude) (including) and below, as well as airspace above FL510 (excluding) is classified as class G airspace;

4. The airspace of UAP is not classified;

5. The airspace of UAR and UAD, if there are no operations, is classified as an airspace class outside these areas.

Class G airspace is uncontrolled airspace. Aircraft owner or operator shall make SAR reports.To receive flight information service, a preliminary request is made to the relevant air traffic control unit in one of the following methods:

1. In the FPL – field 18/RMK;

2. By telephone;

3. On the working frequency.

The boundaries of the established classes in the airspace of the Republic of Kazakhstan are published in the section ENR 2.

Airspace class	Type of flight	Separation	Service	Radio communication requirement	ATC clearance
C	IFR	IFR from IFR, IFR from VFR	Air traffic control service	Continuous two-way	Required
	VFR	VFR from IFR	Air traffic control service. VFR/ VFR traffic information (Traffic avoidance advice on-request)	Continuous two-way	Required

Airspace class	Type of flight	Separation	Service	Radio communication requirement	ATC clearance
D	IFR	IFR from IFR	Air traffic control service. VFR traffic information (Traffic avoidance advice on-request)	Continuous two-way	Required
	VFR	Not provided	Air traffic control service. IFR/VFR and VFR/VFR traffic information (Traffic avoidance advice on-request)	Continuous two-way	Required
G	IFR	Not provided	Flight information service	Continuous two-way	Not required
	VFR	Not provided	Flight information service	Not, except RMZ	Not required

2. ATS AIRSPACE DESCRIPTION

Nil

- the time the transponder is set to Code 7600, or
- the aircraft's failure to report its position over a compulsory reporting point, whichever is later and thereafter adjust level and speed in accordance with the filed flight plan.

c. when being radar vectored or having been directed by ATC to proceed offset using area navigation (RNAV) without a specified limit rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

d. proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome. Then it shall hold over this aid or fix until commencement of descent taking into account the provisions of below sub-item (e) if necessary;

e. commence descent from the navigation aid or fix at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;

f. complete a normal instrument approach procedure as specified for the designated navigation aid or fix;

g. lands, if possible, within 30 (thirty) minutes after the estimated time of arrival or the last acknowledged expected approach time, whichever is later.

In the case of communication failure with the TOWER controller while executing a missed approach, the crew shall switch to other frequency with the RADAR or APPROACH controller and follow his instructions.

If the aircraft has not appeared and has not landed within 30 min for landing, all limitations for other aircraft at the aerodrome are removed.

2. SECONDARY SURVEILLANCE RADAR (SSR)

2.1 Operating procedures

Operating procedures of ATC transponder in mode A (4096 code) and mode C are subject to compulsory implementation.

When entering the airspace of the Republic of Kazakhstan the pilot-in-command shall:

a. maintain the SSR code assigned by the controller of an ATC area adjacent to the territory of the Republic of Kazakhstan until a new code is assigned;

b. set mode A code 2000 five minutes before border crossing of the airspace of the Republic of Kazakhstan, if no SSR code was used in the adjacent area.

The pilot-in-command shall set the individual identification code assigned by ATC unit and switch-on the airborne identification equipment immediately after take-off from aerodromes of the Republic of Kazakhstan.

2.2 Emergency procedures

In emergency the pilot-in-command shall set the mode 7700 unless otherwise are directed by ATC.

If an unlawful interference occurred in crew performance and the aircraft are equipped with an SSR transponder, the pilot-in-command shall establish mode A code 7500.

If the failure of onboard SSR transponder was discovered before departure the pilot-in-command shall:

a. inform appropriate ATC unit about the aircraft transponder failure;

b. plan the flight to the landing aerodrome, where the transponder can be repaired;

c. insert a letter "N" in item 10 of the flight plan in the event of a total failure of transponder or indicate the nature of the failure in the event of a partial failure (in accordance with Doc 4444, Appendix 2).

2.3 Radio communication failure procedures

In case of aircraft radio receiver failure, the pilot-in-command shall set mode A code 7600 and follow the established procedures.

2.4 System of SSR code assignment

The following codes are designated for Republic of Kazakhstan according to SSR code management plan (Doc 023):
05, 06, 11, 34 - transit;
35, 57, 45, 72 - domestic.

International SSR codes within territory of Republic of Kazakhstan are assigned according to following table:

Table 1: TRANSIT CODES BETWEEN AIR TRAFFIC SERVICES

№	Departure aerodrome	Codes	№	Departure aerodrome	Codes
1	Astana	0601-0627	9	Shymkent	3430-3437
2	Karaganda	0630-0637	10	Aktobe	3440-3447
3	Pavlodar	0640-0645	11	Atyrau	3450-3457
4	Ust-Kamenogorsk	0650-0657	12	Aktau	3460-3467
5	Kostanay	0660-0665	13	Uralsk	3470-3473
6	Zhezkazgan	0670-0673	14	Kyzylorda	3474, 3475
7	Semey	0674-0677	15	Taraz	3476, 3477
8	Almaty	3401-3427	16	Turkistan	0646, 0647, 0666, 0667

Table 2: TRANSIT CODES BETWEEN FIRS OF REPUBLIC OF KAZAKHSTAN

№	FIR	Sector	Codes	№	FIR	Sector	Codes
1	Almaty	A3A	0501-0523	7	Aktobe	A2B	1140-1147
2	Almaty	A4A	0570-0577	8	Aktobe	A5B	1150-1164
3	Astana	A2C	0540-0557	9	Aktobe	A6B	1165-1177
4	Astana	A3C	0560-0567	10	Aktobe	A6BU	1165-1177
5	Aktobe	A1B	1101-1117	11	Shymkent	A1I	0524-0531
6	Aktobe	A4B	1120-1137	12	Shymkent	A2I	0532-0537

Table 3: DOMESTIC CODES BETWEEN AIR TRAFFIC SERVICES

№	Departure aerodrome	Codes	№	Departure aerodrome	Codes
1	Almaty	3501-3517	11	Kostanay	7230-7237
2	Balkhash	3520-3523	12	Pavlodar	7240-7247
3	Taraz	3524-3527	13	Ust-Kamenogorsk	7250-7253
4	Shymkent	3530-3537	14	Semey	7254-7257
5	Aktobe	3540-3547	15	Petropavlovsk	7260-7263
6	Aktau	3550-3557	16	Kokshetau	7264-7267
7	Atyrau	3560-3567	17	Kyzylorda	7270-7273

Table 1:1. Contact information of ATS units of the Republic of Kazakhstan

Authority providing service	Frequencies and telephones, AFTN of ATS units
Sector A3B	Aeronautical telecommunications of VHF: 119,0 MHz, 124,6 MHz, 121,5 MHz; Tel.: +7 7132 931023
Sector A4B	Aeronautical telecommunications of VHF: 131,4 MHz, 124,6 MHz, 121,5 MHz; Tel.: +7 7132 931083
Sector A5B	Aeronautical telecommunications of VHF: 134,3 MHz, 124,6 MHz, 121,5 MHz; Tel.: +7 7132 931144
Sector A6B	Aeronautical telecommunications of VHF: 119,8 MHz, 124,6 MHz, 121,5 MHz; Tel.: +7 7132 931144
Sector A6BU	Aeronautical telecommunications of VHF: 119,8 MHz, 124,6 MHz, 121,5 MHz; Tel.: +7 7132 931144
ATC Automated System Center of Shymkent	Flight Supervisor of Center Tel.: +7 7252 945153; AFTN: UAIIZRZX
Sector A1I	Aeronautical telecommunications of VHF: 132,7 MHz, 129,0 MHz, 121,5 MHz; Tel.: +7 7252 945133
Sector A2I	Aeronautical telecommunications of VHF: 127,3 MHz, 129,0 MHz, 121,5 MHz; Tel.: +7 7252 945151

Table 2:2.Contact information of ATS units of neighbouring states

Authority providing service	Frequencies and telephones of ATS units
Russian Federation	
Rostov FIR	Aeronautical telecommunications of VHF: 134,1 MHz, 127,9 MHz; Tel.: 8-8632723250, 8-8632528948
Novosibirsk FIR	Aeronautical telecommunications of VHF: 125,8 MHz; Tel.: 8-3833190951, 8-3833599031
Samara FIR	Aeronautical telecommunications of VHF: 132,9 MHz, 132,0 MHz; Tel.: 8-8462784796, 8-846-2-784-860
Ekaterinburg FIR	Aeronautical telecommunications of VHF: 119,7 MHz; Tel.: 8-3432526024, 8-3432268985
Azerbaijan	
Baku FIR	Aeronautical telecommunications of VHF: 129,0 MHz, 133,1 MHz; Tel.: 8-10994124971673
Turkmenistan	

Table 2:2.Contact information of ATS units of neighbouring states

Authority providing service	Frequencies and telephones of ATS units
Turkmenbashi FIR	Aeronautical telecommunications of VHF: 135,8 MHz; Tel.: 8-1099324330004
Uzbekistan	
Tashkent FIR	Aeronautical telecommunications of VHF: East–134,6 MHz, West – 133,3 MHz; Tel.: 8-10998711402784, 8-10998711402785, 8-10998781403814
Tashkent FIR	Aeronautical telecommunications of VHF: Sector «Nukus» 132,2 MHz; Tel.: 8-10998612220346, 8-10998617800189
Kyrgyzstan	
Bishkek FIR	Aeronautical telecommunications of VHF: 132,2 MHz; Tel.: 8-10996312393753, 8-10996312393551
China	
Urumqi FIR	Aeronautical telecommunications of VHF: 119,3 MHz, 128,15 MHz; Tel.: 8-10869913809603, 8-10869913809604, 8-10869913809610

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/ Purpose	Remarks
1	2	3	4	5
UATT FIR SECTOR A6BU 463851N 0564100E - 454418N 0574000E - 452307N 0574000E along border KAZAKHSTAN_UZBEKISTAN - 411900N 0560000E along border KAZAKHSTAN_TURKMENISTAN - 414700N 0522800E - 420000N 0513000E - 422611N 0502811E - 425000N 0493000E - 455500N 0493000E - 453219N 0523200E - 452130N 0534647E - 463851N 0564100E UNL / GND Class of airspace: Class C – BTN FL 510 and FL 120 Class G – 10000 FT and below, above FL 510	AKTOBE ACC	AKTOBE CONTROL EN, RU H24	119.8 MHZ Primary FREQ 124,6 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ	No specific working hours Publication in NOTAM is not provided

3. TERMINAL CONTROL AREAS

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
AKTAU TMA1 444901N 0515422E - 442238N 0520908E - 434133N 0522455E - 422611N 0502811E - 425000N 0493000E - 444424N 0493000E - 444901N 0515422E, Excluding the TMA2 Aktau FL 200 / 5000 FT ALT Class of airspace: C	AKTAU TWR	AKTAU TOWER EN, RU H24	120,7 MHZ Primary FREQ	124,6 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	AKTAU INFORMATION	AKTAU ATIS EN H24	130,1 MHZ Primary FREQ	
		AKTAU ATIS RU H24	126,2 MHZ Primary FREQ	
AKTAU TMA2 A circle radius 35 NM centered on 435220N 0510352E, Excluding the CTR Aktau 6000 FT ALT / 3000 FT ALT Class of airspace: C	AKTAU TWR	AKTAU TOWER EN, RU H24	120,7 MHZ Primary FREQ	124,6 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	AKTAU INFORMATION	AKTAU ATIS EN H24	130,1 MHZ Primary FREQ	
		AKTAU ATIS RU H24	126,2 MHZ Primary FREQ	
AKTOBE TMA 505530N 0574500E - 504530N 0580418E - 504842N 0583936E - 500334N 0581528E - 494259N 0575122E - 494006N 0565014E - 494300N 0563525E - 501721N 0560345E - 504000N 0560000E along border KAZAKHSTAN_RUSSIA - 505530N 0574500E, Excluding the CTR Aktobe and ATZ Khlebodarovka FL 150 / 3000 FT ALT Class of airspace: C	AKTOBE TWR	AKTOBE TOWER EN, RU H24	120,9 MHZ Primary FREQ	124,6 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	AKTOBE INFORMATION	AKTOBE ATIS EN H24	126 MHZ Primary FREQ	
		AKTOBE ATIS RU H24	127,8 MHZ Primary FREQ	
ALMATY TMA 1 442524N 0772618E – 441629N 0775521E – 440745N 0780904E – 440442N 0781350E – 434745N 0780816E – 433428N 0780356E – 432647N 0773915E – 431216N 0765439E – 431119N 0765000E – 431031N 0764534E – 431105N 0762805E – 431227N 0753730E – 432230N 0753237E – 433809N 0753149E – 434850N 0753952E – 435906N 0754739E – 441136N 0760830E – 441324N 0761312E – 442024N 0763206E – 442524N 0772618E FL 240 / 8000 FT ALT Class of airspace: C	ALMATY APP	ALMATY APPROACH EN, RU H24	118.3 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121,5 MHZ Emergency FREQ
	ALMATY INFORMATION	ALMATY ATIS EN H24	129,8 MHZ Primary FREQ	
		ALMATY ATIS RU H24	135,1 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
ALMATY TMA 2 431105N 0762805E then a clockwise arc radius 27,2 NM centered on 432120N 0770238E – 432647N 0773915E – 431216N 0765439E – 431119N 0765000E – 431031N 0764534E – 431105N 0762805E, Excluding the CTR ALMATY 8000 FT ALT / 4000 FT ALT Class of airspace: C	ALMATY RAD	ALMATY RADAR EN, RU H24	126.8 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121,5 MHZ Emergency FREQ
	ALMATY INFORMATION	ALMATY ATIS EN H24	129,8 MHZ Primary FREQ	
		ALMATY ATIS RU H24	135,1 MHZ Primary FREQ	
ASTANA TMA 1 520510N 0714507E - 511507N 0725620E - 510858N 0725804E - 501302N 0725127E - 501116N 0723844E - 501318N 0721545E - 495618N 0711236E - 500958N 0702609E - 504107N 0701250E - 504818N 0700112E - 511638N 0695651E - 512908N 0695453E - 515901N 0704103E - 520159N 0710114E - 520510N 0714507E, Excluding the ASTANA TMA 2 FL 240 / 6500 FT ALT Class of airspace C	ASTANA APP	ASTANA APPROACH EN, RU H24	124.6 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	ASTANA INFORMATION	ASTANA ATIS RU H24	129.5 MHZ Primary FREQ	
		ASTANA ATIS RU H24	128.3 MHZ Primary FREQ	
ASTANA TMA 2 A circle radius 27 NM centered on 510121N 0712758E,Excluding the ASTANA CTR 7500 FT / 3500 FT ALT Class of airspace C	ASTANA RDR	ASTANA RADAR EN, RU H24	120.7 MHZ Primary FREQ	129.0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	ASTANA INFORMATION	ASTANA ATIS EN H24	129.5 MHZ Primary FREQ	
		ASTANA ATIS RU H24	128.3 MHZ Primary FREQ	
ATYRAU TMA A circle radius 43,2 NM centered on 470838N 0514805E, Excluding the CTR Atyrau FL 150 / 3000 FT ALT Class of airspace: C	ATYRAU TWR	ATYRAU TOWER EN, RU H24	118,1 MHZ Primary FREQ	124,6 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	ATYRAU INFORMATION	ATYRAU ATIS EN H24	127,4 MHZ Primary FREQ	
		ATYRAU ATIS RU H24	126,6 MHZ Primary FREQ	
BALKHASH TMA 472631N 0754536E - 463355N 0762353E - 455616N 0743604E - 464445N 0735041E - 473425N 0741044E - 472631N 0754536E, Excluding the CTR Balkhash FL 140 / 3000 FT ALT Class of airspace: C	BALKHASH TWR	BALKHASH TOWER EN, RU ANY 04:00 - 13:00 UTC	128 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	BALKHASH INFORMATION	BALKHASH ATIS EN As AD	126,6 MHZ Primary FREQ	
		BALKHASH ATIS RU As AD	126,2 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
KARAGANDA TMA 502211N 0740032E - 500404N 0741911E then a clockwise arc radius 45 NM centered on 494018N 0732007E - 494940N 0721215E - 501318N 0721545E - 501116N 0723844E - 502211N 0740032E, Excluding the CTR Karaganda FL 210 / 6000 FT ALT Class of airspace: C (6000 FT ALT is not used for flights within Karaganda TMA)	KARAGANDA TWR	KARAGANDA TOWER EN, RU H24	122 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	KARAGANDA INFORMATION	KARAGANDA ATIS EN H24	135,8 MHZ Primary FREQ	
		KARAGANDA ATIS RU H24	127,8 MHZ Primary FREQ	
KOKSHETAU TMA 535811N 0690253E - 540225N 0694559E then a clockwise arc radius 43,2 NM centered on 531949N 0693544E - 535811N 0690253E, Excluding the CTR Kokshetau FL 140 / 3000 FT ALT Class of airspace: C	KOKSHETAU TWR	KOKSHETAU TOWER EN, RU See NOTAM	127,9 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	KOKSHETAU INFORMAITON	KOKSHETAU ATIS EN As AD	134,9 MHZ Primary FREQ	
		KOKSHETAU ATIS RU As AD	126 MHZ Primary FREQ	
KOSTANAY TMA 541942N 0641630E - 534140N 0650940E - 531631N 0652038E - 524814N 0651230E - 521459N 0642204E - 521213N 0625401E - 523517N 0620524E - 525758N 0615600E along border KAZAKHSTAN_RUSSIA - 541942N 0641630E, Excluding the CTR Kostanay FL 200 / 3000 FT ALT Class of airspace: C	KOSTANAY TWR	KOSTANAY TOWER EN, RU ANY 02:00 - 00:00 UTC	129,3 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	KOSTANAY INFORMATION	KOSTANAY ATIS EN As AD	118,5 MHZ Primary FREQ	
		KOSTANAY ATIS RU As AD	126,8 MHZ Primary FREQ	
KYZYLORDA TMA1 440535N 0650406E - 441450N 0644911E - 442221N 0643656E - 445208N 0643650E then a clockwise arc radius 43,2 NM centered on 444218N 0653550E - 440535N 0650406E, Excluding the TMA2 Kyzylorda FL 140 / 3000 FT ALT Class of airspace: C	KYZYLORDA TWR	KYZYLORDA TOWER EN, RU See NOTAM	120,9 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	KYZYLORDA INFORMATION	KYZYLORDA ATIS EN As AD	134,9 MHZ Primary FREQ	
		KYZYLORDA ATIS RU As AD	122.9 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
KYZYLORDA TMA2 A circle radius 30 NM centered on 444145N 0653349E, Excluding the CTR Kyzylorda 4000 FT ALT / 1200 FT ALT Class of airspace: C	KYZYLORDA TWR	KYZYLORDA TOWER EN, RU See NOTAM	120,9 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	KYZYLORDA INFORMATION	KYZYLORDA ATIS EN As AD	134,9 MHZ Primary FREQ	
		KYZYLORDA ATIS RU As AD	122.9 MHZ Primary FREQ	
PAVLODAR TMA 532233N 0762133E - 523757N 0780025E - 520044N 0781212E - 514549N 0775050E - 505523N 0763521E - 511351N 0754620E - 513524N 0751312E - 523230N 0750554E - 524618N 0751436E - 532233N 0762133E, Excluding the CTR Pavlodar FL 200 / 2000 FT ALT Class of airspace: C	PAVLODAR TWR	PAVLODAR TOWER EN, RU See NOTAM	119,8 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	PAVLODAR INFORMATION	PAVLODAR ATIS EN As AD	134,6 MHZ Primary FREQ	
		PAVLODAR ATIS RU As AD	133,6 MHZ Primary FREQ	
PETROPAVLOVSK TMA 545153N 0710000E - 541215N 0704523E - 540225N 0694559E - 540020N 0692425E - 535811N 0690253E - 542244N 0673738E - 545252N 0674540E along border KAZAKHSTAN_RUSSIA - 545153N 0710000E, Excluding the CTR Petropavlovsk FL 150 / 3000 FT ALT Class of airspace: C	PETROPAVLOVSK TWR	PETROPAVLOVSK TOWER EN, RU See NOTAM	123,7 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	PETROPAVLOVSK INFORMATION	PETROPAVLOVSK ATIS EN As AD	127,4 MHZ Primary FREQ	
		PETROPAVLOVSK ATIS RU As AD	118,3 MHZ Primary FREQ	
SEMEY TMA 504706N 0815242E - 503129N 0813218E - 493500N 0810300E - 493800N 0801801E - 493924N 0794524E - 495132N 0792510E - 501259N 0790755E - 503208N 0790845E - 505513N 0791803E - 510142N 0795110E along border KAZAKHSTAN_RUSSIA - 504706N 0815242E, Excluding the CTR Semey FL 140 / 3000 FT ALT Class of airspace: C	SEMEY TWR	SEMEY TOWER EN, RU See NOTAM	128 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	SEMEY INFORMATION	SEMEY ATIS EN As AD	118,5 MHZ Primary FREQ	
		SEMEY ATIS RU As AD	122,4 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
SHYMKENT TMA1 422220N 0692631E - 420200N 0681200E - 424519N 0682349E - 430659N 0693632E - 430202N 0694446E - 422220N 0692631E, Excluding the CTR Shymkent FL 140 / 3000 FT ALT Class of airspace: C	SHYMKENT TWR	SHYMKENT TOWER EN, RU H24	125,9 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	SHYMKENT INFORMATION	SHYMKENT ATIS EN H24	119,2 MHZ Primary FREQ	
		SHYMKENT ATIS RU H24	126,6 MHZ Primary FREQ	
SHYMKENT TMA2 422220N 0692631E - 430202N 0694446E - 422001N 0705259E along border KAZAKHSTAN_KYRGYZSTAN - 421548N 0705642E along border KAZAKHSTAN_UZBEKISTAN - 414210N 0694430E - 415702N 0691225E - 420200N 0681200E - 422220N 0692631E, Excluding the CTR Shymkent FL 140 / GND Class of airspace: C	SHYMKENT TWR	SHYMKENT TOWER EN, RU H24	125,9 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	SHYMKENT INFORMATION	SHYMKENT ATIS EN H24	119,2 MHZ Primary FREQ	
		SHYMKENT ATIS RU H24	126,6 MHZ Primary FREQ	
TALDYKORGAN TMA 443400N 0781634E then a clockwise arc radius 34.1 NM centered on 450721N 0782634E to 452242N 0790940E – 443400N 0781634E, Excluding the Taldykorgan CTR FL 140 / 6000 FT ALT Class of airspace: C	TALDYKORGAN TWR	TALDYKORGAN TOWER EN, RU See NOTAM	127,3 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
TARAZ TMA1 433055N 0705137E - 433248N 0711516E - 431806N 0720211E - 425757N 0715001E - 425214N 0711654E - 430054N 0701555E - 433055N 0705137E, Excluding the CTR Taraz FL 140 / 6000 FT ALT Class of airspace: C	TARAZ APP	TARAZ APPROACH EN, RU H24	122,1 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	TARAZ TWR	TARAZ TOWER EN, RU H24	122,1 MHZ Primary FREQ	
	TARAZ INFORMATION	TARAZ ATIS EN H24	118,5 MHZ Primary FREQ	
		TARAZ ATIS RU H24	127,4 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
TARAZ TMA2 430054N 0701555E - 425214N 0711654E - 425757N 0715001E - 423515N 0713630E - 423629N 0705032E - 423702N 0702540E - 425030N 0700344E - 430054N 0701555E, Excluding the CTR Taraz FL 140 / GND Class of airspace: C	TARAZ APP	TARAZ APPROACH EN, RU H24	122,1 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	TARAZ TWR	TARAZ TOWER EN, RU H24	122,1 MHZ Primary FREQ	
	TARAZ INFORMATION	TARAZ ATIS EN H24	118,5 MHZ Primary FREQ	
		TARAZ ATIS RU H24	127,4 MHZ Primary FREQ	
TURKISTAN TMA1 440832N 0681511E - 440138N 0684518E - 433800N 0692440E - 432935N 0690140E then a clockwise arc radius 22 NM centered on 4319325N 0683446E - 433823N 0681903E - 435819N 0675447E - 440832N 0681511E FL 140 / 8000 FT ALT Class of airspace: C	TURKISTAN TWR	TURKISTAN TOWER EN, RU H24	131,3 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	TURKISTAN INFORMATION	TURKISTAN ATIS EN H24	124,4 MHZ Primary FREQ	
		TURKISTAN ATIS RU H24	118,3 MHZ Primary FREQ	
TURKISTAN TMA2 435819N 0675447E - 433823N 0681903E then a clockwise arc radius 22 NM centered on 431932N 0683446E - 432935N 0690140E - 433800N 0692440E - 432530N 0694508E - 430659N 0693632E - 431935N 0683446E - 434530N 0672931E - 435819N 0675447E, Excluding the CTR Turkistan FL 140 / 5000 FT ALT Class of airspace: C	TURKISTAN TWR	TURKISTAN TOWER EN, RU H24	131,3 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	TURKISTAN INFORMATION	TURKISTAN ATIS EN H24	124,4 MHZ Primary FREQ	
		TURKISTAN ATIS RU H24	118,3 MHZ Primary FREQ	
TURKISTAN TMA3 434530N 0672931E - 431935N 0683446E - 430659N 0693632E - 424519N 0682349E - 422217N 0681732E - 422426N 0681456E - 430738N 0672650E - 434530N 0672931E, Excluding the CTR Turkistan FL 140 / 3000 FT ALT Class of airspace: C	TURKISTAN TWR	TURKISTAN TOWER EN, RU H24	131,3 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	TURKISTAN INFORMATION	TURKISTAN ATIS EN H24	124,4 MHZ Primary FREQ	
		TURKISTAN ATIS RU H24	118,3 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
URALSK TMA 512708N 0523504E then a clockwise arc radius 43,2 NM centered on 510846N 0513222E - 512551N 0502912E along border KAZAKHSTAN_RUSSIA - 512708N 0523504E, Excluding the CTR Uralsk FL 150 / 2000 FT ALT Class of airspace: C	URALSK TWR	URALSK TOWER EN, RU See NOTAM	119,7 MHZ Primary FREQ	124,6 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ At another time of TMA Uralsk, Aktobe ACC A4B sector is responsible for ATS on airways at FL120 - FL150 in IFR (SVFR) flights within horizontal limits
	URALSK INFORMATION	URALSK ATIS EN As AD	124,8 MHZ Primary FREQ	
		URALSK ATIS RU As AD	134,9 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
URDZHAR TMA 471636N 0813956E - 470423N 0821646E - 465406N 0821630E - 464032N 0811930E - 465500N 0810200E - 470234N 0810051E - 471030N 0810118E - 471748N 0810819E - 471636N 0813956E, Excluding the CTR Urdzhar FL 140 / 6000 FT ALT Class of airspace: C	URDZHAR TWR	URDZHAR VYSHKA RU See NOTAM	123 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ Radar in the aerodrome area is not provided. In the aerodrome area of takeoff and landing simultaneously must be no more than one aircraft. In the aerodrome area for IFR flights at the same level (height) must be no more than one aircraft
USHARAL TMA 460325N 0812316E – 460413N 0810915E – 460437N 0810210E – 460436N 0804815E – 454954N 0803253E then clockwise arc radius 24.6 NM centered on 461127N 0804952E to 460325N 0812316E, Excluding the Usharal CTR FL 140 / 4000 FT ALT Class of airspace: C	USHARAL TWR	USHARAL TOWER EN, RU See NOTAM	118.1 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121,5 MHZ Emergency FREQ

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
UST-KAMENOGORSK TMA1 504706N 0815242E - then along border KAZAKHSTAN_RUSSIA - 504510N 0823525E - then a clockwise arc radius 43.2 NM centered on 500212N 0822937E - 503638N 0831013E - 502611N 0825806E - then a clockwise arc radius 30 NM centered on 500158N 0823031E - 501717N 0831039E - 501313N 0825954E - then a clockwise arc radius 22 NM centered on 500158N 0823031E - 495942N 0830427E - 495850N 0831647E - then a clockwise arc radius 30 NM centered on 500158N 0823031E - 495421N 0831528E - 495104N 0833417E - then a clockwise arc radius 43.2 NM centered on 500212N 0822937E - 492602N 0815315E - 493500N 0810300E - 503129N 0813218E - 504706N 0815242E, Excluding the CTR Ust-Kamenogorsk FL 140 / 6000 FT ALT Class of airspace: C	UST-KAMENOGORSK TWR	UST-KAMENOGORSK TOWER EN, RU See NOTAM	130,1 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121,5 MHZ Emergency FREQ
	UST-KAMENOGORSK INFORMATION	UST-KAMENOGORSK ATIS EN As AD	124.2 MHZ Primary FREQ	
		UST-KAMENOGORSK ATIS RU As AD	127.7 MHZ Primary FREQ	
UST-KAMENOGORSK TMA2 503638N 0831013E - then a clockwise arc radius 43.2 NM centered on 500212N 0822937E - 495104N 0833417E - 495421N 0831528E - then a counter clockwise arc radius 30 NM centered on 500158N 0823031E - 495850N 0831647E - 495942N 0830427E - then a counter clockwise arc radius 22 NM centered on 500158N 0823031E - 501313N 0825954E - 501717N 0831039E - then a counter clockwise arc radius 30 NM centered on 500158N 0823031E - 502611N 0825806E - 503638N 0831013E FL 140 / 8000 FT ALT Class of airspace: C	UST-KAMENOGORSK TWR	UST-KAMENOGORSK TOWER EN, RU See NOTAM	130,1 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121,5 MHZ Emergency FREQ
	UST-KAMENOGORSK INFORMATION	UST-KAMENOGORSK ATIS EN As AD	124.2 MHZ Primary FREQ	
		UST-KAMENOGORSK ATIS RU As AD	127.7 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
ZAISAN TMA 473129N 0841336E then a clockwise arc radius 27 NM centered on 472915N 0845316E - 472914N 0853302E - 472219N 0851250E - 472206N 0843351E - 473129N 0841336E, Excluding the CTR Zaisan FL 140 / 6000 FT ALT Class of airspace: C	ZAISAN TWR	ZAISAN VYSHKA RU See NOTAM	118,7 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ Radar in the aerodrome area is not provided. In the aerodrome area of takeoff and landing simultaneously must be no more than one aircraft. In the aerodrome area for IFR flights at the same level (height) must be no more than one aircraft
ZHEZKAZGAN TMA A circle radius 43,2 NM centered on 474311N 0674530E, Excluding the CTR Zhezkazgan FL 150 / 3000 FT ALT Class of airspace: C	ZHEZKAZGAN TWR	ZHEZKAZGAN TOWER EN. RU See NOTAM	127,1 MHZ Primary FREQ	129,0 MHZ Secondary FREQ O/R or at ATC discretion 121.5 MHZ Emergency FREQ
	ZHEZKAZGAN INFORMATION	ZHEZKAZGAN ATIS EN As AD	131,4 MHZ Primary FREQ	
		ZHEZKAZGAN ATIS RU As AD	122,4 MHZ Primary FREQ	

4. CONTROL AREA

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
ALMATY CTA Within the lateral limits of UAAA FIR FL 510 / FL 120 Class of airspace: C	ALMATY ACC	ALMATY CONTROL EN, RU H24		
AKTOBE CTA Within the lateral limits of UATT FIR FL 510 / FL 120 Class of airspace: C	AKTOBE ACC	AKTOBE CONTROL EN, RU H24		
ASTANA CTA Within the lateral limits of UACN FIR FL 510 / FL 120 Class of airspace: C	ASTANA ACC	ASTANA CONTROL EN, RU H24		
SHYMKENT CTA Within the lateral limits of UAII FIR FL 510 / FL 120 Class of airspace: C	SHYMKENT ACC	SHYMKENT CONTROL EN, RU H24		

5. AERODROME TRAFFIC ZONES AND CONTROL ZONES

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
BALAPAN ATZ 500018N 0732258E - 500022N 0733303E - 494506N 0732413E - 494102N 0731359E - 494107N 0730509E - 494411N 0730641E - 494558N 0731419E - 495014N 0731405E - 500018N 0732258E 3000 FT ALT / GND Class of airspace: G	AFIS BALAPAN	BALAPAN INFORMATION RU According to the regulations	125 MHZ Primary FREQ	Flight information service
	KARAGANDA TWR	KARAGANDA TOWER EN, RU Outside of work regulations AFIS BALAPAN	122 MHZ Primary FREQ	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
BORALDAY CTR 432621N 0765114E - 432715N 0765631E - 432102N 0765419E - 431853N 0765356E - 431659N 0764807E - 431729N 0764725E then a clockwise arc radius 5.4 NM centered on 432105N 0765257E - 432621N 0765114E 4000 FT ALT / GND Class of airspace: D	BORALDAY TWR	BORALDAY TOWER EN, RU NOTAM	118.9 MHZ Primary FREQ	Dispatch service
D ISLAND CTR 470132N 0521834E - 461827N 0524636E - 460519N 0520434E - 465304N 0512521E then a clockwise arc radius 22 NM centered on 470838N 0514805E - 470132N 0521834E 3000 FT ALT / GND Class of airspace: C (3000 FT ALT is not used for flights within Atyrau TMA)	D ISLAND TWR	D ISLAND TOWER EN, RU According to the regulations: 02:00 - 14:00 UTC	131.175 MHZ Primary FREQ 127.925 MHZ Secondary FREQ	Air traffic control service. When planning flights to CTR D ISLAND outside of the work regulations, Air traffic control service is provided upon a preliminary request sent by AFTN to UATGYKYD, UATGYKYX
KHLEBODAROVKA1 ATZ 503141N 0571037E - 502657N 0570235E - 501901N 0564315E - 503110N 0565449E - 503141N 0571037E 2000 FT ALT / GND Class of airspace: C	Flight operations management group of Air Defense Force Military Institute	RU NOTAM	Training flights	
KHLEBODAROVKA ATZ 505733N 0564705E - 505800N 0571800E - 504700N 0572800E - 504300N 0573000E - 503141N 0571037E - 503110N 0565449E - 501901N 0564315E - 501232N 0562740E - 503042N 0561237E - 505733N 0564705E 10000 FT ALT / GND Class of airspace: C	Flight operations management group of Air Defense Force Military Institute	RU NOTAM	Training flights	

Name Lateral limits Vertical limits Class of airspace	Unit providing service	Call sign Languages Area and conditions of use Hours of service	Frequency/Purpose	Remarks
1	2	3	4	5
ZHOLAMAN ATZ 511506N 0712100E - 512835N 0711239E - 513035N 0712629E - 512355N 0714219E - 511359N 0713317E - 511506N 0712100E 1300 FT QFE / GND Class of airspace: G	AFIS ZHOLAMAN	ZHOLAMAN INFORMATION RU HJ	120.3 MHZ Primary FREQ 133.6 MHZ Secondary FREQ	Flight information service

ENR 2.2 OTHER REGULATED AIRSPACE

1. DELEGATION OF THE RESPONSIBILITY FOR PROVISION OF ATS

Delegated airspace within Aktobe FIR to Orsk APP:	Delegated airspace within Almaty FIR to Bishkek APP:
N504842 E0583936 - N504530 E0580418 - N505530 E0574500 - then along the state BDRY with Russia to - N510750 E0575000 - then along the state BDRY with Russia to - N504842 E0583936	N431348 E0741934 - N433103 E0741440 - N432218 E0750715 - N425000 E0751800 - then along the state BDRY with Kyrgyzstan to - N431348 E0741934
FL 130 **GND**	FL 195 GND

Delegated airspace within Shymkent FIR to Tashkent ACC:	Delegated airspace within Shymkent FIR to Tashkent APP:
N411942 E0690118 - then along the state BDRY with Uzbekistan to - N414636 E0663312 - N413436 E0680213 - N412300 E0684800 - N411942 E0690118	N414210 E0694430 then along the state BDRY with Uzbekistan to - N405117 E0683451 - N405900 E0681400 - N411700 E0675600 - N420200 E0681200 - N415707 E0691127 - N414210 E0694430
UNL GND	**FL 140** **GND**

Delegated airspace within Bishkek FIR to Taraz APP:	Delegated airspace within Uzbekistan to Shymkent FIR:
N424904 E0714443 - N423515 E0713630 - N423614 E0710515 - then along the state BDRY with Kyrgyzstan to - N424904 E0714443	N430221 E0654313 - N423000 E0635000 - N433000 E0620000 - then along the state BDRY with Uzbekistan to - N430221 E0654313
FL 140 **GND**	UNL GND

Delegated airspace within Shymkent FIR to Bishkek APP:	Delegated airspace within Shymkent FIR to Bishkek ACC:
N430234 E0733602 - N433420 E0735429 - N433103 E0741440 - N431348 E0741934 - then along the state BDRY with Kyrgyzstan to - N430234 E0733602	N424000 E0723500 - N424749 E0733030 - then along the state BDRY with Kyrgyzstan to - N424000 E0723500
FL 195 GND	**FL 410** **GND**

2. BORDERS OF RESPONSIBILITY AREAS OF LOCAL ATC UNIT

Local ATC Unit Call sign FREQ Phone Hours of operation	ATS region	Lateral limits	Vertical limits	Remark
1	2	3	4	5
AKTAU “Aktau rayon” HF – 5536 kHz VHF – 124.2 MHz Phone: +7 (7292) 463133, 463153, 421178 from 03:30 to 14:30 UTC*	Aktobe FIR	N452130 E0534647 - N445034 E0541914 - N435141 E0555948 - along border KAZAKHSTAN_UZBEKISTAN – N411900 E0560000 – along border KAZAKHSTAN_TURKMENISTAN - N414700 E0522800 - N420000 E0513000 - N423800 E0500000 - N425000 E0493000 - N455500 E0493000 - N452130 E0534647	FL 120 - FL 130	Excluding the TMA Aktau.
* - Outside the regulation of the Local ATC unit “Aktau”, air traffic service at FL120 - FL130 is provided by Aktobe ACC “A5B” and “A6B” or “A6BU” (in case of combine the “A5B” and “A6B” sectors into a single “A6BU” sector) sector ATC, within their lateral limits.				
AKTOBE “Ambarchik” HF – 4656 kHz “Aktobe rayon” VHF – 128.0 MHz Phone: +7 (7132) 931134 from 03:30 to 14:30 UTC*	Aktobe FIR	N505800 E0613000 - N502331 E0622455 - N500137 E0622819 - N483738 E0624054 - N471135 E0643220 - N461214 E0614508 - N460903 E0613915 - N445159 E0600655 - along border KAZAKHSTAN_UZBEKISTAN - N452307 E0574000 - N454418 E0574000 - N463851 E0564100 - N465000 E0570000 - N485000 E0551000 - N485930 E0522738 - N504318 E0551552 - along border KAZAKHSTAN_RUSSIA - N505800 E0613000	FL 120 - FL 130	Excluding the TMA Aktobe and part of airspace delegated to Orsk APP.
* - Outside the regulation of the Local ATC unit “Aktobe”, air traffic service at FL120 - FL130 is provided by Aktobe ACC “A1B” and “A3B” sector ATC, within their lateral limits.				
ALMATY “Almaty rayon” HF – 4736 kHz HF alter. – 6607 kHz VHF – 134.3 MHz Phone: +7 (727) 2573474, 2573764, 2573774 (alter.) H24	Almaty FIR	431105N 0762805E then a clockwise arc radius 27,2 NM centered on 432120N 0770238E до 432647N 0773915E – 433428N 0780356E – 434745N 0780816E – 440442N 0781350E – 440745N 0780904E – 441629N 0775521E – 442524N 0772618E – 442024N 0763206E – 441324N 0761312E – 441136N 0760830E – 435906N 0754739E – 434850N 0753952E – 433809N 0753149E – 432230N 0753237E – 431227N 0753730E – 431105N 0762805E	6000 FT ALT – 8000 FT ALT	Excluding the prohibited and restricted areas. Class of airspace: D

Local ATC Unit Call sign FREQ Phone Hours of operation	ATS region	Lateral limits	Vertical limits	Remark
1	2	3	4	5
ATYRAU “Atyrau rayon” HF – 4688 kHz HF alter. – 4830 kHz “Atyrau rayon” VHF – 132.3 MHz VHF alter. – 124.6 MHz Phone: +7 (7122) 983133, 983153 - Air Traffic Manager from 03:30 to 14:30 UTC*	Aktobe FIR	N485930 E0522738 - N485000 E0551000 - N465000 E0570000 - N463851 E0564100 - N454418 E0574000 - N452307 E0574000 - along border KAZAKHSTAN_UZBEKISTAN - N435141 E0555948 - N445034 E0541914 - N452130 E0534647 - N455500 E0493000 - N460800 E0492600 - N461400 E0492600 - N461800 E0491600 - N462130 E0491148 - N462224 E0491112 - along border KAZAKHSTAN_RUSSIA - N490704 E0470207 - N485930 E0522738	FL 120 - FL 130	Excluding the TMA Atyrau.
* - Outside the regulation of the Local ATC unit “Atyrau”, air traffic service at FL120 - FL130 is provided by Aktobe ACC “A2B” and “A6B” or “A6BU” (in case of combine the “A5B” and “A6B” sectors into a single “A6BU” sector) sector ATC, within their lateral limits				
KOSTANAY “Kostanay rayon” HF – 4680 kHz HF alter. – 4815 kHz VHF – 135.1 MHz Phone: +7 (7142) 270133, +7 (777) 9008606 from 03:00 to 13:00 UTC	Astana FIR	543735N 0660017E - 532806N 0664618E - 522006N 0672830E - 521149N 0673350E - 503136N 0680751E - 494400N 0683100E - 493036N 0670430E - 491230N 0663936E - 485848N 0654236E - 483738N 0624054E - 502331N 0622455E - 505800N 0613000E along border KAZAKHSTAN_RUSSIA - 543735N 0660017E	FL 120 - FL 130	Excluding the TMA Kostanay.

3. BORDERS OF RESPONSIBILITY AREAS OF FLIGHT INFORMATION CENTERS (FIC)

FIC Call sign FREQ Phone Hours of operation	ATS region	Lateral limits	Vertical limits	Remark
1	2	3	4	5
AKTAU “Aktau rayon” HF – 5536 kHz VHF – 124.2 MHz Phone: +7 (7292) 463133, 463153, 421178 from 03:15 to 14:15 UTC*	Aktobe FIR	N452130 E0534647 - N445034 E0541914 - N435141 E0555948 - along border KAZAKHSTAN_UZBEKISTAN – N411900 E0560000 – along border KAZAKHSTAN_TURKMENISTAN - N414700 E0522800 - N420000 E0513000 - N423800 E0500000 - N425000 E0493000 - N455500 E0493000 - N452130 E0534647	GND – 10000 FT ALT	Excluding the TMA and CTR Aktau.
* - When planning flights at another time Flight information service provided on preliminary request sent AFTN UATEZAZX				
AKTOBE “Ambarchik” HF – 4656 kHz “Aktobe rayon” VHF – 128.0 MHz Phone: +7(7132)931134 According to the regulations*	Aktobe FIR	N505800 E0613000 - N502331 E0622455 - N500137 E0622819 - N483738 E0624054 - N471135 E0643220 - N461214 E0614508 - N460903 E0613915 - N445159 E0600655 - along border KAZAKHSTAN_UZBEKISTAN - N452307 E0574000 - N454418 E0574000 - N463851 E0564100 - N465000 E0570000 - N485000 E0551000 - N485930 E0522738 - N504318 E0551552 - along border KAZAKHSTAN_RUSSIA - N505800 E0613000	GND – 10000 FT ALT	Excluding the TMA and CTR Aktobe
* - When planning flights at another time Flight information service provided on preliminary request sent AFTN UATTZRZX				
ALMATY “Almaty rayon” HF – 4736 kHz HF alter. – 6607 kHz VHF – 134.3 MHz Phone: +7 (727) 2573474, 2573764, 2573774 (reserve) H24	Almaty FIR	HF - 4736 kHz: 453205N 0821649E along border KAZAKHSTAN_CHINA - 421239N 0801028E along border KAZAKHSTAN_KYRGYZSTAN - 431248N 0741934E - 434446N 0741052E - 441502N 0745425E - 450440N 0715506E - 480000N 0714900E - 480759N 0741658E - 485000N 0761100E - 465357N 0771718E - 461808N 0784001E - 462000N 0812000E - 453205N 0821649E VHF - 134.3 MHz, HF - 4736 kHz: 435614N 0780645E - 442125N 0802300E - 433953N 0803700E - 432843N 0781244E - 435614N 0780645E	GND – 10000 FT ALT In the areas with AMA higher than 10000 FT ALT (3050m) – upper limit of FIC is equal to AMA value.	Within the borders of Almaty local ATC unit outside of the area around the Zhetygen aerodrome (a circle with a radius of 15 kilometers centered on 434411N 0770717E, CTR Boralday, CTR, TMA 1 and TMA 2 Almaty, CTR and TMA Balkhash, CTR and TMA Taldykorgan, CTR and TMA Usharal, airspace delegated to Bishkek APP, prohibited and restricted areas. Class of airspace: G

ENROUTE CHART

Change: Edit.

0 15 30 60 90 120 150 180 210 240 270 300 NM
0 30 60 120 180 240 300 360 420 480 KM

DIST in NM
ALT and ELEV in FT
BRG are MAG

Legend

Reporting point

- On Request
- Compulsory
- Aerodrome

Radionavigation aids

- DME
- NDB
- VOR
- Compass rose
- FIR - Flight information region
- State Boundary

Airspace

- ATZ - Aerodrome traffic zone
- CTR - Control zone
- FIR SECTOR
- TMA - Terminal Control Area
- Danger; Prohibited; Restricted Areas
- Delegated Airspace
- Hydrography

Area minimum altitude (AMA)

Example: 18600 FT - 18^{6}

WGS84
Lambert Conformal Conic Projection
The chart is True North orientated

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AD 1.5 STATUS OF CERTIFICATION OF AERODROMES

1 The table below shows the aerodromes certificates and their validity periods.

2 Accepted exceptions, exemptions and restrictions for each aerodrome have been published in AIP AD 2.23.

Aerodrome name Location indicator	Certification date	Certificate validity	Remarks
1	2	3	4
AKTAU UATE	03.07.2024	28.08.2026	Nil
AKTOBE UATT	14.09.2023	15.09.2025	Nil
ALMATY UAAA	19.04.2023	27.06.2025	Nil
ASTANA UACC	22.12.2022	24.12.2024	Nil
ATYRAU UATG	16.09.2022	10.10.2025	Nil
BALKHASH UAAH	29.09.2023	02.10.2024	Nil
KARAGANDA UAKK	29.09.2023	25.09.2025	Nil
KOKSHETAU UACK	12.07.2024	24.07.2026	Nil
KOSTANAY UAUU	24.10.2024	23.10.2026	Nil
KYZYLORDA UAOO	11.10.2024	09.10.2026	Nil
PAVLODAR UASP	02.08.2023	04.08.2025	Nil
PETROPAVLOVSK UACP	10.11.2023	13.11.2025	Nil
SEMEY UASS	26.10.2022	31.10.2025	Nil
SHYMKENT UAII	29.04.2024	24.04.2026	Nil
TALDYKORGAN UAAT	29.04.2024	18.07.2025	Nil
TARAZ UADD	22.08.2023	22.08.2025	Nil
TENGIZ UATZ	29.01.2024	31.07.2025	Nil

Aerodrome name Location indicator	Certification date	Certificate validity	Remarks
1	2	3	4
TURKISTAN UAIT	01.03.2024	30.05.2025	Nil
URALSK UARR	15.12.2023	30.10.2025	Nil
URDZHAR UASU	29.11.2023	29.11.2024	Nil
USHARAL UAAL	08.04.2024	04.07.2025	Nil
UST-KAMENOGORSK UASK	24.06.2022	14.02.2025	Nil
ZAISAN UASZ	07.06.2024	13.06.2025	Nil
ZHEZKAZGAN UAKD	19.12.2023	30.06.2026	Nil

RNAV
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
10000 FT

AKTAU TOWER 120.7
AKTAU ATIS (EN) 130.1
AKTAU ATIS (RU) 126.2

AGILA 1K, AKUKU 1K, ATNUR 1K, AZABI 1K, BALIG 1K, GASBI 1K, IPLED 1K, ITAKA 1K, LUMUR 1K, PIKAN 1K, PIRIM 1K, RALAN 1K, RIBMO 1K, ULSON 1K

AKTAU
RWY 29

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC
VAR 8°E

1800 FT
MSA 25NM
ARP

RNAV 1

(RNAV 1 SID BASED ON GNSS)

FL120
ATNUR
44°45'59"N
050°09'48"E

FL120
PIRIM
44°48'08"N
051°17'41"E

FL120
AGILA
44°49'01"N
051°54'22"E

FL120
RIBMO
44°22'38"N
052°09'08"E

FL120
ULSON
43°52'44"N
052°20'39"E

FL120
AZABI
44°44'24"N
049°30'00"E

FL120
RALAN
44°08'12"N
049°30'00"E

FL120
ITAKA
43°52'24"N
049°30'00"E

FL120
IPLED
43°23'48"N
049°30'00"E

FL120
PIKAN
42°53'00"N
049°30'00"E

FL120
GASBI
42°26'11"N
050°28'11"E

FL120
AKUKU
42°50'36"N
051°05'09"E

FL120
BALIG
43°19'44"N
051°50'18"E

FL120
LUMUR
43°06'39"N
051°29'53"E

DILOL
43°39'36"N
051°23'39"E

ATNUR 1K
PIRIM 1K
AGILA 1K
RIBMO 1K
ULSON 1K
AZABI 1K
RALAN 1K
ITAKA 1K
IPLED 1K
PIKAN 1K
GASBI 1K
AKUKU 1K
BALIG 1K
LUMUR 1K

UAR26
3200 FT MSL
GND

UAP6
6700 FT MSL
GND

UAP7
200 FL
GND

UAR284
2400 FTMSL
GND

UAR27
7100 FT MSL
GND

UAR25
9900 FT MSL
GND

152
232
180
800

128° (135.83°T)
164° (172.2°T)

SCALE 1:500 000
0 5 10 15 20 KM
0 2.5 5 10 NM

50°40'E 50°50'E 51°E 51°10'E 51°20'E 51°30'E
44°20'N 44°10'N 44°N 43°50'N 43°40'N 43°30'N 43°20'N

CHANGE: Add ATIS, editorial.

STANDARD DEPARTURE ROUTES – RNAV 1 (SID) AKTAU RWY 29	
PIRIM 1K Climb on RWY track to 800FT. Turn RIGHT direct to PIRIM. Cross PIRIM at or above FL120 or as instructed by ATC.	**GASBI 1K** Climb on RWY track to 800FT. Turn LEFT direct to GASBI. Cross GASBI at or above FL120 or as instructed by ATC.
AGILA 1K Climb on RWY track to 800FT. Turn RIGHT direct to AGILA. Cross AGILA at or above FL120 or as instructed by ATC.	**PIKAN 1K** Climb on RWY track to 800FT. Turn LEFT direct to PIKAN. Cross PIKAN at or above FL120 or as instructed by ATC.
RIBMO 1K Climb on RWY track to 800FT. Turn RIGHT direct to RIBMO. Cross RIBMO at or above FL120 or as instructed by ATC.	**IPLED 1K** Climb on RWY track to 800FT. Turn LEFT direct to IPLED. Cross IPLED at or above FL120 or as instructed by ATC.
ULSON 1K Climb on RWY track to 800FT. Turn RIGHT direct to ULSON. Cross ULSON at or above FL120 or as instructed by ATC.	**ITAKA 1K** Climb on RWY track to 800FT. Turn LEFT direct to ITAKA. Cross ITAKA at or above FL120 or as instructed by ATC.
BALIG 1K Climb on RWY track to 800FT. Turn RIGHT direct to DILOL. Then on track 128° to BALIG. Cross BALIG at or above FL120 or as instructed by ATC.	**RALAN 1K** Climb on RWY track to 800FT. Turn LEFT direct to RALAN. Cross RALAN at or above FL120 or as instructed by ATC.
LUMUR 1K Climb on RWY track to 800FT. Turn RIGHT direct to DILOL. Then on track 164° to LUMUR. Cross LUMUR at or above FL120 or as instructed by ATC.	**AZABI 1K** Climb on RWY track to 800FT. Turn LEFT direct to AZABI. Cross AZABI at or above FL120 or as instructed by ATC.
AKUKU 1K Climb on RWY track to 800FT. Turn LEFT direct to AKUKU. Cross AKUKU at or above FL120 or as instructed by ATC.	**ATNUR 1K** Climb on RWY track to 800FT. Turn RIGHT direct to ATNUR. Cross ATNUR at or above FL120 or as instructed by ATC.

WAYPOINT LIST

SID RWY 29	
Waypoint Identifier	**Coordinates**
DER	435402.6N 0510011.4E
PIRIM	444808.0N 0511741.0E
AGILA	444901.0N 0515422.0E
RIBMO	442238.0N 0520908.0E
ULSON	435244.0N 0522039.0E
DILOL	433936.0N 0512339.0E
BALIG	431944.0N 0515018.0E
LUMUR	430639.0N 0512953.0E
AKUKU	425036.0N 0510509.0E
GASBI	422611.0N 0502811.0E
PIKAN	425300.0N 0493000.0E
IPLED	432348.0N 0493000.0E
ITAKA	435224.0N 0493000.0E
RALAN	440812.0N 0493000.0E
AZABI	444424.0N 0493000.0E
ATNUR	444559.0N 0500948.0E

TABULAR DESCRIPTION

RNAV 1 SID RWY 29										
Serial Number	***Waypoint ID***	***Path Descriptor***	***Flyover***	***Course °M (°T)***	***Distance (NM)***	***Turn Direction***	***Altitude (ft)***	***Speed (kts)***	***VPA/TCH***	***Navigation Specification***
PIRIM 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	PIRIM	DF	-	-	-	R	+FL120	-	-	RNAV1
AGILA 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	AGILA	DF	-	-	-	R	+FL120	-	-	RNAV1
RIBMO 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	RIBMO	DF	-	-	-	R	+FL120	-	-	RNAV1
ULSON 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	ULSON	DF	-	-	-	R	+FL120	-	-	RNAV1
BALIG 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	DILOL	DF		-	-	R	-	-	-	RNAV1
030	BALIG	CF	-	128 (135.83)	-	-	+FL120	-	-	RNAV1
LUMUR 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	DILOL	DF		-	-	R	-	-	-	RNAV1
030	LUMUR	CF	-	164 (172.2)	-	-	+FL120	-	-	RNAV1
AKUKU 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	AKUKU	DF	-	-	-	L	+FL120	-	-	RNAV1
GASBI 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	GASBI	DF	-	-	-	L	+FL120	-	-	RNAV1
PIKAN 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	PIKAN	DF	-	-	-	L	+FL120	-	-	RNAV1
IPLED 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	IPLED	DF	-	-	-	L	+FL120	-	-	RNAV1
ITAKA 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	ITAKA	DF	-	-	-	L	+FL120	-	-	RNAV1
RALAN 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	RALAN	DF	-	-	-	L	+FL120	-	-	RNAV1
AZABI 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	AZABI	DF	-	-	-	R	+FL120	-	-	RNAV1
ATNUR 1K										
010	-	CA	-	295 (302.6)	3.6	-	+800	-	-	RNAV1
020	ATNUR	DF	-	-	-	R	+FL120	-	-	RNAV1

7	**Charts and other information AVBL for briefing or consultation**	S, U85, U70, U50, U40, U30, U25, U20, prognostic charts of wind and temperature at flight levels (FL), max wind, T, prognostic charts P85, P70, P50, P40, P30, P25, P20, SWH, SWM of WAFC, SWM+SWH, SWL of Kazakhstan;
8	**Supplementary equipment AVBL for providing information**	Doppler weather radar (METEOR-635C)
9	**ATS units provided with information**	Briefing, TWR, APP, ACC
10	**Additional information**	AIS “MeteoBriefing” for preparation of flight documentation and for meteorological service of crews distantly

UAAA AD 2.12 Runway Physical Characteristics

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates 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**
05R	55,81°	4400 X 45	65/R/B/X/T CONC+ASPH	432028.46N 0770102.85E - -148.3 FT	THR 2227.7 FT TDZ 2228 FT	See AOC type A
23L	235,84°	4400 X 45	65/R/B/X/T CONC+ASPH	432148.52N 0770344.44E - -149 FT	THR 2236.2 FT TDZ 2236 FT	
05L	55,82°	4500 X 45	51/R/A/W/T CEMENT/ CONC	432050.44N 0770130.67E - -148.6 FT	THR 2221.5 FT TDZ 2223 FT	See AOC type A
23R	235,85°	4500 X 45	51/R/A/W/T CEMENT/ CONC	432212.33N 0770416.00E - -149 FT	THR 2222.1 FT TDZ 2231 FT	

SWY dimensions	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of arresting system	OFZ	Remarks
8	**9**	**10**	**11**	**12**	**13**	**14**
Nil	300 X 150	4700 X 283	90 X 150	Nil	AVBL	The strip RWY 05R/23L not symmetrical extend transversely axis direction RWY at a distance: 150m fm the NW side, 133m fm the SE side
Nil	Nil	4700 X 283	90 X 150	Nil	AVBL	
Nil	300 X 150	4800 X 300	90 X 150	Nil	AVBL	Nil
Nil	300 X 150	4800 X 300	90 X 150	Nil	AVBL	Nil

UAAA AD 2.13 Declared Distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
05R	4400	4700	4400	4400	Nil
23L	3880	3880	4400	4400	Nil
05L	4500	4800	4500	4500	Nil
23R	4500	4800	4500	4500	Nil
TWY F - 23R	3528	3828	3528	Nil	Nil
TWY B - 05R	3681	3981	3681	Nil	Nil
TWY C - 05R	3085	3385	3085	Nil	Nil
TWY D - 05L	2957	3257	2957	Nil	Nil
TWY D - 23R	1543	1843	1543	Nil	Nil
TWY E - 05L	2010	2310	2010	Nil	Nil
TWY E - 23R	2490	2790	2490	Nil	Nil
TWY D - 05R	2320	2620	2320	Nil	Nil
TWY D - 23L	1560	1560	2080	Nil	Nil
TWY E - 05R	1010	1310	1010	Nil	Nil
TWY E - 23L	2870	2870	3390	Nil	Nil
TWY C - 23L	795	795	1315	Nil	Nil
Turning Bay A - 23L	2180	2180	2700	Nil	Nil
Turning Bay A - 05R	1700	2000	1700	Nil	Nil

UAAA AD 2.14 Approach And Runway 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, colour	Remarks
1	2	3	4	5	6	7	8	9	10
05 R	CAT I (PALS) 720 M LIH	GRN Nil	PAPI LEFT/3°	Nil	4400m, spacing 15m, 0-3500m white, 3500-4100m red/ white, 4100-4400m red	4400m, spacing 60m, 0-3798m white, last 600m yellow LIH	RED Nil	Nil	(Warning: ALS RWY 05 shortened to 720m)

- Taxiing and taxiing on MS 47 under tow.
- Taxiing onto/out of aircraft stands 57-58, 71-73 is carried out under its own power.
- Taxiing onto aircraft stands 59A, 60A (heading on south) is carried out under its own power when aircraft stands 58, 59, 60, is free, taxiing out is carried out by towing.
- Taxiing of aircraft that not exceeded the size of IL-76 onto aircraft stands 59-60, is carried out under its own power when aircraft stands 59A, 60A is free, taxiing out is carried out under its own power when aircraft stands 59A, 60A is free.
- Taxiing onto aircraft stands 59A, 60A is carried out by towing, taxiing out is carried out under its own power when aircraft stands 59, 60 is free.
- Taxiing onto aircraft stands 65-69 is carried out under its own power, taxiing out is carried out by towing.
- Taxiing onto/out of aircraft stand 79 is carried out under its own power after the “Follow-me” car.
- Taxiing onto aircraft stands 201-205, 204L/204R, 205L/205R is carried out under its own power, taxiing out is carried out by towing to starting point.

3. Limitations during taxiing

Aircraft turns with code C and higher from TWY B to RWY 05R/23L to the side of the threshold 05R and from runway 05R/23L to TWY B from the threshold 05R are prohibited.

Taxiing and towing of all aircraft types is allowed with a wingspan not exceeded of wingspan of B747-400.

Aircraft not higher than 10,4m are placed on aircraft stands 63.

Crossing of holding position marking of RWY 23L/05R and 05L/23R by aircraft taxiing via TWY-F, TWY-D and TWY-E without ATC clearance is prohibited.

Crossing of holding position marking of RWY 05L/23R by aircraft taxiing via TWY-K and TWY-L towards RWY 05L/23R without ATC clearance is prohibited.

Taxiing of a Boeing 747-800 (Boeing 747-8f and Boeing 747-8i) is possible only on apron № 2 via TWY - L. Further taxiing of a Boeing 747-800 (Boeing 747-8f and Boeing 747-8i) is possible from apron № 2 via TWY - B and TWY - H for arrival and departure, also taxiing is possible via RWY 05L/23R, RWY 05R/23L, TWY-C, TWY-D, TWY-E and TWY-F. Taxiing on aprons № 1, 3, 4, 5, 6 for this type of aircraft is prohibited.

The aircraft must leave the occupied parking area no later than 1 minute after receiving permission to tow.In case of delay in the start of towing, the responsible person, the apron service repeatedly requests permission or cancels towing.

4. Take-off and landing

When reaching the designated holding point close to runway the flight crew informs “Almaty Tower” ATC unit and reports the readiness for take-off.

After receiving the report from the flight crew about readiness for take-off “Almaty Tower” ATC unit may allow the flight crew to line up position and immediate take-off, depending on the air situation. The flight crew must inform the “Almaty Tower” ATC unit if they cannot perform immediate take-off.

When the RWY is occupied, or the absence of suitable intervals “Almaty Tower” ATC unit allows the flight crew only to line up.

The flight crew, which needs to conduct taxiing backwards on RWY 05R or 05L for the line-up position of RWY 23R or 23L from TWY A, TWY K, TWY D or TWY E, should be permitted to taxiing on RWY 05R or 05L by “Almaty Tower” ATC unit.

The RWY used for taxiing, performs the functions of TWY or main TWY for the lining-up or vacating the RWY. Herewith, aircraft crew must comply with all taxiing procedures in accordance with the requirements of the Aircraft Flight Manual and other regulatory documents, including taxiing speed:

- under the normal conditions of the environment and the RWY condition, should not exceed 30 knots

(55 km/h) at long distances on the runway and should not exceed 20 knots (37 km/h) at short distances on the runway;

- under the low visibility procedures and meteorological conditions contributing to the deterioration of the RWY condition should not exceed 10 knots (18 km/h).

Pre-flight checks by crew in the cockpit must be completed before the line-up position. Checks on the runway, should be minimized.

Flight crew preforms take-off immediately after receiving clearance for take-off. If the flight crew cannot comply with above requirement, they should inform about it the “Almaty Tower” ATC unit before taxiing onto the RWY, and to inform about the required delay time.

Depending on the air or the ground situation it is allowed to take-off from the intersection of TWY with the runway on-request of the flight crew or by initiative “Almaty Tower" ATC unit. Take-off is carried out from the point on the runway, where available characteristics of the runway is comply with required for the actual take-off mass of the aircraft and take-off conditions. The pilot-in-command takes the final decision about the take-off from the taxiway and runway intersection.

Warming-up and testing of engines before take-off is conducted on a runway or on taxiway by "Almaty Tower” ATC unit clearance after the request of the flight crew.

Tailwind takeoff and landing of aircraft is allowed for accelerating the traffic of airplanes flow on request of flight crew or at the initiative of ATSU. Responsibility for taking decision about such take-off or landing lies with the pilot-in-command of aircraft.

In order to reduce runway occupancy time, "Almaty Tower" ATC unit may issue a clearance to land beyond the landing area of the runway (except the aircraft of categories "heavy" and “superheavy”) or expedite vacating of the runway. If it is impossible to perform the required operation, the crew shall immediately inform the air traffic controller.

The pilot-in-command takes the final decision about take-off or landing in meteorological conditions are inconsistent with aerodrome operating minima. In this case the air traffic controller clearance for takeoff or landing is not pilot-in-command compelling to complete it and the responsibility for the final decision and the outcome of the take-off or landing lies with the pilot-in-command of aircraft.

Runway allocation is carried out by ATSU taking into account upwind landing or takeoff of aircraft, in case if accidents prevention concept, runway configuration, meteorological conditions and operating procedures of landing approach or air traffic conditions do not preferred another direction. To increase runway capacity it is allowed aircraft release with reverse course from operating direction of the runway (take-off and landing in opposite directions) under the following conditions:

- radar control;
- before reaching 3200 FT by departed aircraft and establishing contact with ATC unit it’s prohibited to arriving aircraft descent below 8000 FT;
- aircraft release is carried out according flight supervisor clearance and after provisional approval between the points of ATS aerodrome control center.

Turning pad and turning pad marking, with width 75m, are available on the RWY 05R/23L on the distance 2730m from RWY 05 THR.

RWY 05R/23L at surface condition code 4 and below TKOF and LDG prohibited.

5. Operations on parallel runways 05R / 23L and 05L / 23R

Both runways are intended for departures and arrivals.

Note: In view of the fact that the distance between the runway centerlines is 209 m, there are restrictive bearings and boundaries that do not allow establishing procedures for the divergence of the courses during take-off, the minimum time and linear intervals for all take-off and landing operations are set to the same as with a single runway; simultaneous take-offs and landings under any conditions with parallel runways are not performed.

Flight supervisor decides which runway in use based on analysis of the air and meteorological situation, surface condition, the operability of radio and lighting facilities, and meteorological equipment.

When aircraft is on the holding position on taxiway C, taxiway D, taxiway E or taxiway F, the runway located behind the aircraft is considered as occupied and is not used for takeoff or landing.

Additional departure procedures:

- it is permitted to line-up on each runway at the same time; the aircraft that will take-off the second in sequence shall be informed about take-off delay;
- the permission for take-off at the same time from both runways is not issued;
- to prevent the approach of the aircraft in the case of missed approach of arriving aircraft, the permission for take-off from the parallel runway is not given if the linear separation between the arriving and departing aircraft is 2.2 NM or less.

Additional arriving procedures:

- pilots should conduct preliminary preparation for landing on each of the operating runway, if both runways are in use;
- if an ILS approach is performed on one runway, approach to second runway can be performed as DVOR DME, RNP approach or visual approach (simultaneous ILS operation on parallel runways is prohibited);
- redirection of aircraft to parallel runway during ILS, DVOR DME or RNP approach in IFR conditions after turn to the final approach leg and in VFR flight or IFR flight in VMC after 3 NM from landing RWY THR is not allowed;
- redirection of aircraft to parallel RWY in all cases shall be performed after flight crew report about readiness to approach to another RWY.

6. Training and practice flights, check-test and check flights (flyover)

Training and practice flights, check-test and check flights (flyover) of aircraft are carried out in accordance with the requirements established by the flight operation Regulations in Civil Aviation.

IFR flight is conducted in according to established procedures for instrumental take-off and landing approach. After take-off, the crew maintains the specified conditions given by the air traffic controller for entering the approach procedure. VFR flight is performed by an agreed route with the ATSU.

Number of aircraft carried out training or practice flight, check-test and check flights (flyover) within Almaty TMA 1, TMA 2 and CTR, is determined by the air traffic manager of the aerodrome based on the presence of prohibited and restriction areas, air and meteorological conditions.

Depending on the intensity of flights and activated restrictions, flight supervisor could limit the number of training aircraft, to suspend or prohibit the training flights.

Check-test aircraft flights are performed during the daytime with visibility at least 2000 m and the ceiling at least 650 ft for all types of aircraft.

7. Fuel draining

Fuel draining is conducted only in emergency situations that do not allow to decrease the aircraft landing mass by running out of fuel.

Fuel draining is conducted by the designated route of ATSU on height agreed with crew:

- Route 1: USUGA - ADABA - TIPSA - USUGA (not lower 8000 FT ALT);
- Route 2: DESOK - TIRBA -BAGNA - DESOK (not lower 10000 FT ALT).

In an emergency, the crew could drain the fuel out of the designated route.

If the flight crew needs a radio-silence during the fuel draining, the duration is agreed between the crew and

air traffic controller.

Aircraft separation when fuel draining is carried out in accordance with the Procedures for Air Navigation Services "Air Traffic Management" (PANS-ATM) doc 4444 ATM / 501.

8. Procedures in low visibility conditions

LVP are in effect when RVR is less than 550 m.

The beginning of LVP is reported by the ATIS or by the ATSU with following message: "Low visibility procedures" are in operation.

RWY 05R, RWY 05L, RWY 23R, RWY 23L are equipped for take-off in LVP conditions.

RWY 23R, RWY 23L are equipped for precise approach and landing by category II, IIIA and IIIB.

The crossing of the turned on lights of the line “STOP” is prohibited.

A-SMGCS based on SMR, SSR, MLAT and ADS-B supports surface movement operations based on established operational procedures.

The crew of the aircraft is informed by the ATS unit about change of the operational status of the radio technical, lighting and meteorological equipment.

In the conditions of categories II and III, ATS units apply additional horizontal separation of the aircraft.

When **RVR is less than 350 m**:

- turning of aircraft at 180° in the ends of 23R, 23L and in the extension “A” is **prohibited**.

When **RVR not less than 300 m**

- aircraft taxiing on aprons and taxiways (except for TWY C, TWY E, TWY D, TWY F) is carried out only after the “follow-me car”;
- RWY 23R and RWY 23L are used for precise approach and landing by category II.

When **RVR is less than 300 m**

- TWY B, TWY H, TWY E not equipped with RCL are not used for taxiing;
- RWY 23R and RWY 23L are used for precise approach and landing by category IIIA.

9. Helicopter flights

Helicopter taxiing is carried out taking into account wind limitations, according to the flight manual, with constant visibility of the landmarks ahead.

Helicopters with a trolley type of undercarriage move through the air from the parking place to the place of take-off and back along the route assigned by the dispatcher "Almaty taxiing" behind the escort vehicle under the responsibility of the helicopter commander.

Helicopter engines at parking spot №61-62 are started only for warming up and testing at low gas.

Helicopter engines for departure from parking spot №61-62 should be started at parking traverse parking spot №62 in front of TWY A.

Engines may be started, check hover, take-off/landing by helicopter during daytime from (to) parking spot near VIP-south building, from (to) apron №4 and conjunction TWY-B, at intersection TWY-B with TWY-H and at section TWY-H between TWY-K and TWY-L, in compliance with established intervals between takeoffs and landings of aircraft, provided the established weather minimum for flights under Air Approach Lane (special Air Approach Lane) is met. Responsibility for takeoff (landing) in this case rests with the helicopter commander.

Helicopters take off from the airfield after:

- the crew's request for a control hover and obtaining permission to perform it from the control tower

dispatcher;

- the helicopter crew completes a control hover;
- the crew's report of readiness for takeoff (by plane, by helicopter), and obtaining permission for takeoff from dispatcher the Tower a control tower controller.

For helicopter take-off, helicopter landing after control hover is not necessary. The helicopter commander determines the control hover altitude, but the helicopter performing the control hover should not interfere with other aircraft taking off and landing.

In the presence of weather conditions or smoke on part of the runway that reduce visibility to values below the established weather minimum for Air Approach Lane flights (special Air Approach Lane), it is permitted to land on that part of the runway where the weather conditions correspond to the minimum (beginning/middle/end). The helicopter commander is responsible for making such a landing.

Takeoff with run-up and landing with run-in, helicopter takeoff and landing at night and when performing Air Approach Lane flight are performed from/on the runway.

UAAA AD 2.21 Noise Abatement Procedures

NIL

UAAA AD 2.22 Flight Procedures

1. General provisions

In the aerodrome area of Almaty the flights are conducted on IFR and VFR.

While VFR and IFR flights in aerodrome control area of Almaty is necessary:

- Have a permission of ATSU prior to entry into the relevant area of responsibility;
- At the request of the ATSU to inform the location;
- Follow the instructions of the appropriate ATSU;
- To have and continuously support two-way radio communication in the VHF range.

IFR and VFR flights are conducted at assigned flight level (altitude) in accordance with the rules of vertical, longitudinal and lateral separation maintaining the established intervals.

IFR flights take precedence over the VFR flights.

If it is necessary, the arriving aircraft hold a course for to the holding area. To regulate the longitudinal intervals between aircraft crew can be instructed to conduct the flight in orbit (turn at 360 °) with statement of the place and side of the turn.

In the event of a threat to flight safety it is allowed to change assigned flight altitude (flight level) and crabbing from desired track. If you deviate from assigned desired track or flight altitude the pilot-in command immediately inform about their actions the ATS, which controls the aircraft.

During the initial contact with the “Almaty Approach” air traffic controller at a frequency of 118.3 MHz, the crew informs an index of current ATIS information and identification index of aircraft.

“Almaty Approach” or “Almaty Circuit” designate the information about activities of the forbidden zones, restricted flight area, danger areas, airdropping of parachutes and flight of balloons in the aerodrome area borders in real time, overflying permit and the go-around route "Almaty Approach" or " Almaty Circuit".

IFR flights are not carried out beyond the limiting bearing determined by the geographical coordinates 431116N 0763518E (R238° D24.5 ATA) - 431042N 0765041E (R217° D15 8. ATA) - 432229N 0770507E (DVOR/DME ATA) - 432733N 0774145E (R074° D27.2 ATA), below flight level FL190.

2. Procedures of IFR flights within an aerodrome control area (CTR)

Takeoff and initial climb is conducted by standard routes shown on the Standard Instrument Departure (SID) charts Runway 05R / L (runway 23L / R) or on trajectory defined by ATS.

Arrival is carried out by standard routes shown on the Standard instrument arrival (STAR) Runway 05R/L (runway 23L / R) or on trajectory defined by ATS.

The flight crew is required to withstand the prescribed standard route of Instrument departure (SID) and arrival (STAR), and in the case of deviations, go on an assigned track immediately.

If an aircraft, forces to standard Instrument departure route (SID) is issued a clearance for climb to (altitude), located above the flight level shown on the SID, an aircraft follows the published vertical profile of a SID, if such restrictions are prescribed standard route of Instrument departure.

In those cases, when arriving at a standard instrument arrival route (STAR) aircraft is cleared to descend to a flight level lower than flight level of the STAR, an aircraft follows the published vertical profile of STAR, if such restrictions are not cancelled by ATS.

The flight crew must withstand specified limit airspeed, if otherwise specified from the ATS. The translational indicated airspeed regulation of aircraft is applied for a traffic flow regulation in order to ensure intervals necessary for landing, taking into account the characteristics of the aircraft.

“Almaty Circuit” and “Almaty Tower” ATC units determine ability to perform visual landing approach based on the analysis of air condition and weather conditions.

3. VFR procedures within the aerodrome control zone (CTR)

Air traffic service in the control zone of the Almaty aerodrome is carried out by the controller of the “Tower” ATC unit. The aircraft flights within CTR are performed on absolute altitudes according to the QNH pressure of the Almaty airfield. Flight altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan.

Air traffic controller of “Tower” ATC unit assigns the altitude (flight level) of the flight, the functions of Air traffic service does not include ground and artificial obstacles collision avoidance.

The aircraft crew shall ensure that the clearance issued by the ATS unit in this regard is safe. Bypass of artificial obstacles by the aircraft crew is carried out independently.

Transit VFR flights of the aircraft through the CTR of the Almaty aerodrome are carried out with permission and under the control of the “Tower” ATC unit in accordance with the airspace classification.

Coordination of the entrance and the conditions for the transit of the CTR airspace of the Almaty aerodrome by the aircraft crews flying in uncontrolled airspace is carried out in accordance with the current rules. The aircraft crew, five minutes prior to the scheduled entry time into the aerodrome control zone, requests permission from the «Tower» ATC unit to enter, specifying the entry point and flight altitude. Entry is allowed only after obtaining approval under the conditions, conveyed by the «Tower» ATC unit.

Crossing the runway alignment, within Almaty CTR, is made only with the permission of the air traffic controller of the “Tower” ATC unit at a safe altitude according to the QNH pressure of the aerodrome.

Entry of aircraft of category A and helicopters flying in VFR at 5200ft and below to the control zone (CTR) is carried out only with the permission of the air traffic controller of the “Tower” ATC unit through the reference waypoint.

After passing the reference waypoint the air traffic controller of the “Tower” ATC unit issues permission to fly to the nearest turn of the corresponding flight circle.

When the aircraft enters the runway "05 Left" / "05 Right" (left flight circle), enter the circle:

- from reference waypoints MIKE, YANKEE, ZULU, PAPA, VICTOR, holding JULIETT – left hand turns
- from reference waypoints SIERRA, ROMEO, OSCAR, holding TANGO – right hand turns

When the aircraft enters the runway "23 Left" / "23 Right" (right flight circle), enter the circle:

- from reference waypoints MIKE, YANKEE, ZULU, PAPA, VICTOR, holding JULIETT – right hand turns
- from reference waypoints SIERRA, ROMEO, OSCAR, holding TANGO – left hand turns

Entry of aircraft into the flight circle for landing approach is carried out only with the permission of the air traffic controller of the “Tower” ATC unit.

The reference waypoints of CTR are used by the air traffic controller of the “Tower” ATC unit to regulate the sequence of aircraft landing at the Almaty aerodrome and as holding areas for aircraft of categories A and helicopters. Flights of aircraft in holding area are performed by the command of the air traffic controller of the “Tower” ATC unit at the specified altitude and are performed with a left turn. If the air situation requires the aircraft to hold in the immediate vicinity of the runway, the air traffic controller of the “Tower” ATC unit allows the orbit (left / right 360 ° turn) at any designated radial distance from DVOR / DME ATA.

Exit of aircraft of category A and helicopters flying in VFR at 5200ft and below from the control zone (CTR) is carried out at the shortest distance (unless otherwise prescribed by the the air traffic controller of the “Tower” ATC unit) through the reference waypoint.

When the aircraft departs from the runway “05 Left” / “05 Right”:

- to reference waypoints MIKE, YANKEE, ZULU, PAPA, VICTOR – left hand turns
- to reference waypoints SIERRA, ROMEO, OSCAR – right hand turns

When the aircraft departs from the runway “23 Left” / “23 Right”:

- to reference waypoints MIKE, YANKEE, ZULU, PAPA, VICTOR – right hand turns
- to reference waypoints SIERRA, ROMEO, OSCAR – left hand turns

Table 1: Visual reference of VFR flights within Almaty CTR

№	Waypoint name	Type	Visual reference	Geographical coordinates	Radial and distance from DVOR/DME «ATA»
1	OSCAR	Entry/exit	power transmission line pole	432152N 0771116E	093° / 4,5 NM
2	ROMEO	Entry/exit	SW outskirts of Alatau	432018N 0770807E	130° / 3,1 NM
3	SIERRA	Entry/exit	SE outskirts of Besagash	431749N 0770306E	192° / 4,9 NM
4	TANGO	Holding	Eastern outskirts of Tuzdybastau	431953N 0770453E	179° / 2,6 NM
5	VICTOR	Entry/exit	Water basin / lake of Zhalkamys river	432732N 0770743E	015° / 5,4 NM
6	PAPA	Entry/exit	Eastern outskirts of Kyzyltu	432504N 0770450E	350° / 2,6 NM
7	MIKE	Entry/exit	warehouse of “Metro” hypermarket	431853N 0765356E	241° / 8,9 NM
8	JULIETT	Holding	southern outskirts of Zhana Kuat cottage town	432318N 0770147E	284° / 2,6 NM
9	YANKEE	Entry/exit	Y-shaped road intersection (Burundaiskaya Street and Highway)	432102N 0765419E	255° / 8 NM

Table 1: Visual reference of VFR flights within Almaty CTR

№	Waypoint name	Type	Visual reference	Geographical coordinates	Radial and distance from DVOR/DME «ATA»
10	ZULU	Entry/exit	separate structure of utility building (south of the intersection of the Esentai and Baskarasu rivers)	432302N 0765829E	271° / 4,9 NM

4. Radar procedures within a aerodrome control area (CTR)

To regulate the order of the landing approach and compliance with safe intervals from any point of the scheme it is possible to control the movement of aircraft for altitude and direction by ATS air traffic controller by radar vectoring. Direction for reaching the flight level (altitudes) is carried out in accordance with the ATC Surveillance Minimum Altitude Chart ICAO.

Landing approach procedures with the help of surveillance radar is not applied.

In the absence of radar control, but the stable operation of the flight and navigation equipment the flight crew is allowed to conduct the landing approach in accordance with the published IFR approach procedures in accordance without radar or conduct a visual landing approach.

During IFR flights in the absence of radar control and unstable operation of aircraft navigation equipment the decrease from the lower safe flight level (FL200) is not allowed. In this case, the aircraft should follow the alternate aerodrome.

5. Radio contact loss (failure)

Warning: the procedures are conducted during radio contact loss (failure) have differences with standards, recommended practices and regulations of ICAO (Annex 2 ICAO).

When radio communication loss the crew must:

- switch on SOS-signal, set up code 7600;
- use the emergency frequency of 121.5 MHz, radio contact with other aircraft and ATS points;
- guard the frequency DVORATA (116,4 MHz) or locator beacon (763 kHz) for getting information and air traffic controller instruction;
- when radio contact losing after takeoff to land or follow the destination aerodrome in accordance with the conditions, issued by the ATS;
- conduct aerodrome approach and landing approach by approach procedure;
- when flight without a radio contact at night the location of aircraft denote by periodic switching on the landing lights or beacon lights flashing.

6. The emergency landing procedure

In the event of an emergency on the aircraft at takeoff phase, aircraft pilot-in-command determines the necessary manoeuvre in order to ensure the safety of aircraft.

7. Continuous Descent Operation

1. CDOs are performed during periods of low traffic density at ATC discretion.
2. CDOs are executed only by ACFT that use standard arrival procedures RNAV1 based on GNSS.
3. Although these procedures are designed as a closed path, they permit distance planning for CDO, allowing the ACFT Flight Management System/Computer (FMS/FMC) to accurately execute automated optimized descents when:

- ACFT is cleared to proceed to a waypoint or via a combination of waypoints in order to provide an optimum lateral flight path up to and including the FAP and thus the exact distance to the RWY is known prior to start of the continuous descent operation; or
- the pilots of the ACFT that to be vectored to final are provided with distance-to-go information.

4. CDOs are authorized only when following conditions are respected:
   - ILS of RWY intended for landing is in operation;
   - no adverse weather conditions that may affect CDO;
   - no system degradations that may affect GNSS or ILS operation.
5. After receiving “WHEN READY DESCEND TO (LEVEL)” or “DESCEND TO (LEVEL) AT PILOTS DISCRETION” clearance the pilot is allowed to plan/optimize vertical profile in order to apply CDO to FAP.
6. Depending on traffic, CDO may start from TOD or lower levels.
7. In accordance with appropriate ATC clearances, CDO can start from the TOD when ACFT is cleared to a waypoint or via a combination of waypoints for direct routing/shortcut and the horizontal trajectory is defined up to and including the FAP. Thus, the exact distance to RWY is known and the descent profile can be readily calculated by the appropriate on board system (FMS) prior to start of the CDO.
8. After clearance “WHEN READY DESCEND TO (LEVEL) " or “DESCEND TO (LEVEL) AT PILOTS DISCRETION” pilot should maintain the cruising/last assigned level until the optimal descent point/TOD that is determined by pilot or FMS, then start descent with no extra requests unless other ATC instructions are issued.
9. If necessary ATC may issue additional instructions: “WHEN READY DESCEND TO (LEVEL), REPORT LEAVING (or REPORT TOP-OF-DESCENT)”
10. Considering airspace structure, ATC issues an instruction to descend to level(s) above level of FAP. Wherein ATC issues further descent instruction prior to CDO flight reaching 3000 feet (900 m) above last assigned level.
11. It is preferable if CDO is commenced from top of descent. If it is not feasible due to traffic, CDO may be initiated from any lower level.
12. As a portion of the procedure consists of vectoring, the specific distance to RWY threshold is not known to a pilot prior to start of the CDO. In such cases, ATC will provide the pilot with an estimate of the flight track-miles to the RWY threshold as distance-to-go information. The pilot will use this information to determine the optimum descent rate to achieve a CDO.

UAAA AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Section 2. point 16. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan.	Runway strip physical characteristics	Runway strip for runway 05R/23L, has dimensions less than the established in legislation.	An equivalent level of safety has been approved 25.09.2020 to 31.12.2022
Section 10. point 168. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan.	The length of the approach lights	The length of the approach lights with landing direction 51* for runway 05R/23L is less than the established in legislation.	Does not affect for operations.
Section 2. point 43. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan.	Radius of turn-off curve	Radius of turn-off curve is less than the established in legislation.	Restrictions on turning-off for aircrafts with the code letter C and higher until the reconstruction of this section

2. Ornithological situation in the aerodrome area.

The ornithological situation in the aerodrome area is determined by the seasonal and daily migration of birds. The Almaty aerodrome is surrounded by fields and residential areas, and on the approach to RWY 23L, 23R by agricultural fields.

2.1 Seasonal migration of birds (time)

The period of spring migration - activity from late February to late May, the most active peak migration in April, but there bay be changes when the climatic conditions change. The danger is posed by rooks, jackdaws, pigeons, buzzards, kestrels, kites, pheasants, cranes, owls, rolling rollers, ducks, waders, etc. Bird activity is observed in the morning hours from 00:00 to 03:00 (UTC) and in the evening from 12:00 to 15:00 (UTC).

The period of autumn migration is active from mid-August to the end of November, also depending on the climate and sharp changes in weather conditions.

The danger is posed by rooks, jackdaws, pigeons, buzzards, kestrels, kites, pheasants, cranes, owls, rolling rollers, ducks, waders, etc.

The most active flight hours are from 23:00 to 03:00 (UTC), evening movements from 11:00 to 15:00 (UTC).

The intensity of bird migration increases during agricultural work and the maturation of cereals and other crops.

During these times, pilots are advised to turn on landing lights when flying in the aerodrome area, during takeoff, landing approach, and during climb and descent.

Spring and Autumn periods are characterized by movements of migratory birds: rooks flights 300-600 individuals from 01:00 to 03:00 hours (UTC) from west to east and from 12:00 to 15:00 (UTC) from east to west at the altitude of 200-600 FT.

In **summer**, in the morning and evening hours, a flight of flocks of birds of prey from 5 to 20 individuals is observed at a relative altitude of up to 600 FT and rollers at an altitude of 33 FT. All year round, there are flights of pigeons, corvids at relative altitude of up to 200 FT in flocks of 15-25 individuals and more.

2.2 Direction

The main directions of migration in spring are from southwest to northeast, in autumn in the opposite direction. In autumn, in the area of the aerodrome and at the aerodrome, a large number of mynah, black crows are accumulated, representing a serious danger for flights from sunrise to sunset.

On the territory of the airside area, the main flights occur from NW to SE and in the opposite direction.

2.3 Altitude

The altitude of flights depends on the season and weather conditions. Different types of birds fly at different heights.

Approximate heights of flights of various bird species found on the airfield and near the airside area and aerodrome:

- ducks - from 295 to 9842 FT;
- larks and various waders - from 131 to 4593 FT;
- birds of prey - from 328 to 26246 FT;
- lane and pink starlings - from 133 to 1509 FT;
- swallows - from 16 to 66 FT;
- seagulls - from 328 to 1640 FT;
- sparrows - from 16 to 49 FT;
- owls - from 16 to 98 FT;

- pheasants - from 3 to 16 FT;

2.4 Intensity of bird migration

Bird migration takes place around the clock.

2.5 Daily migration of birds

2.5.1 Daily migration of birds (time)

From dawn to the onset of evening twilight

2.5.2 Direction

Flights over the terrain and to feeding bases with the intersection of the takeoff and landing course from NW to SE.

2.5.3 Altitude

Flights from 32 to 492 FT. Mass flights of corvids at altitudes of 164-1640 FT.

2.6 Radar control over the flying of birds

Radar control over the flying of birds in the area of the aerodrome in not provided.

2.7 Information transmission

Information about the ornithological situation is transmitted via the ATIS broadcasting channel in English and Russian and, if necessary, thorough the ATM dispatcher. In case of complication of the ornithological situation in the aerodrome area, it is possible for a short-term inclusion in the ATIS report of additional concretizing information about the peculiarities of the ornithological situation.

UAAA AD 2.24 Charts Related To An Aerodrome

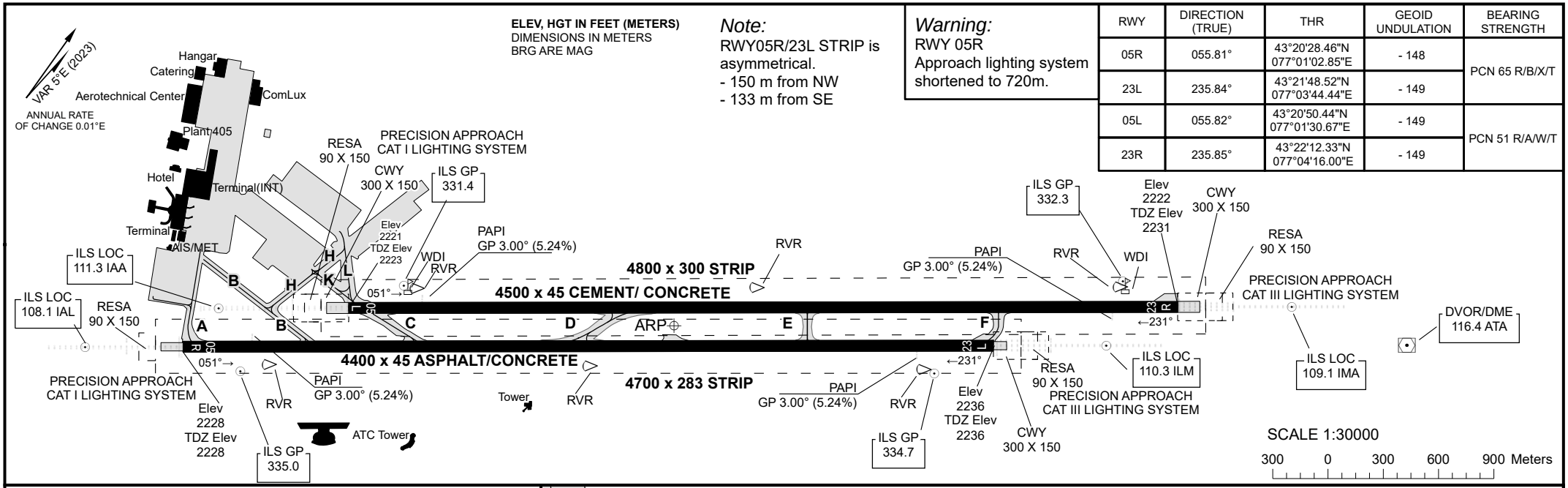
AERODROME CHART - ICAO

AD ELEV 2238FT (*682m*)

ARP 432120N 0770238E

TWR	119.4
GROUND	121.7

ALMATY

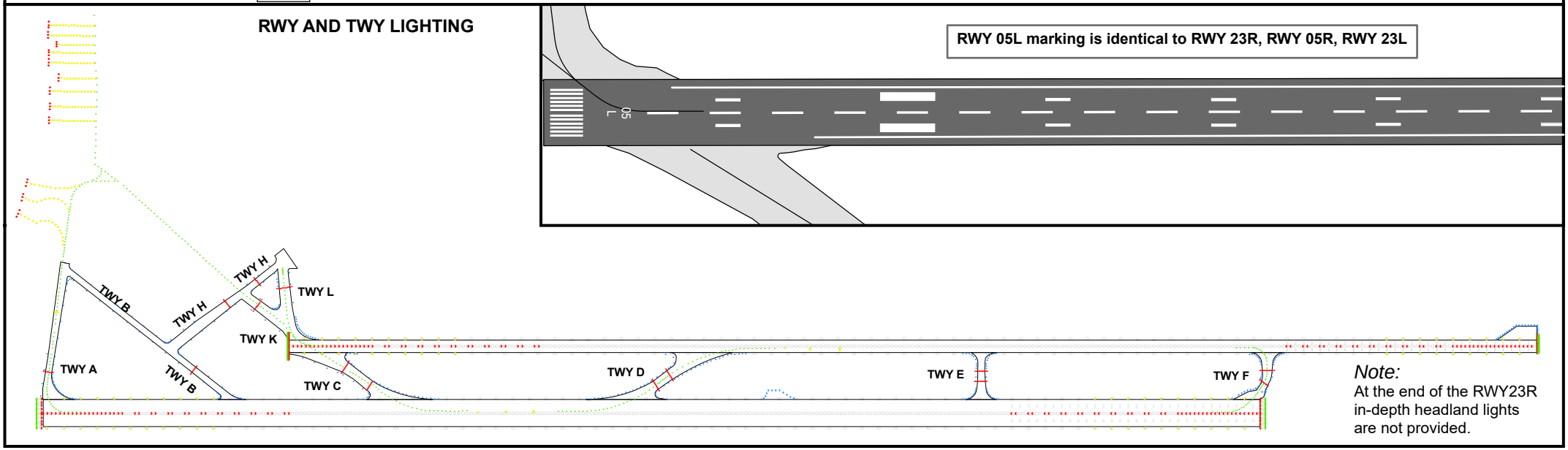


Note:
RWY05R/23L STRIP is asymmetrical.
- 150 m from NW
- 133 m from SE

Warning:
RWY 05R
Approach lighting system shortened to 720m.

RWY	DIRECTION (TRUE)	THR	GEOID UNDULATION	BEARING STRENGTH
05R	055.81°	43°20'28.46"N 077°01'02.85"E	- 148	PCN 65 R/B/X/T
23L	235.84°	43°21'48.52"N 077°03'44.44"E	- 149	
05L	055.82°	43°20'50.44"N 077°01'30.67"E	- 149	PCN 51 R/A/W/T
23R	235.85°	43°22'12.33"N 077°04'16.00"E	- 149	

RWY AND TWY LIGHTING



Note:
At the end of the RWY23R in-depth headland lights are not provided.

CHANGE: Stand lighting edit.

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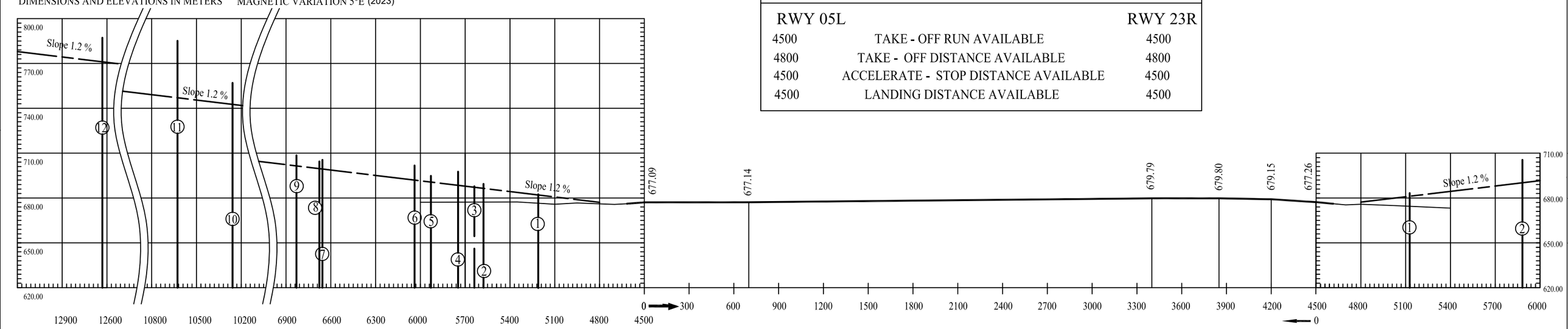
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

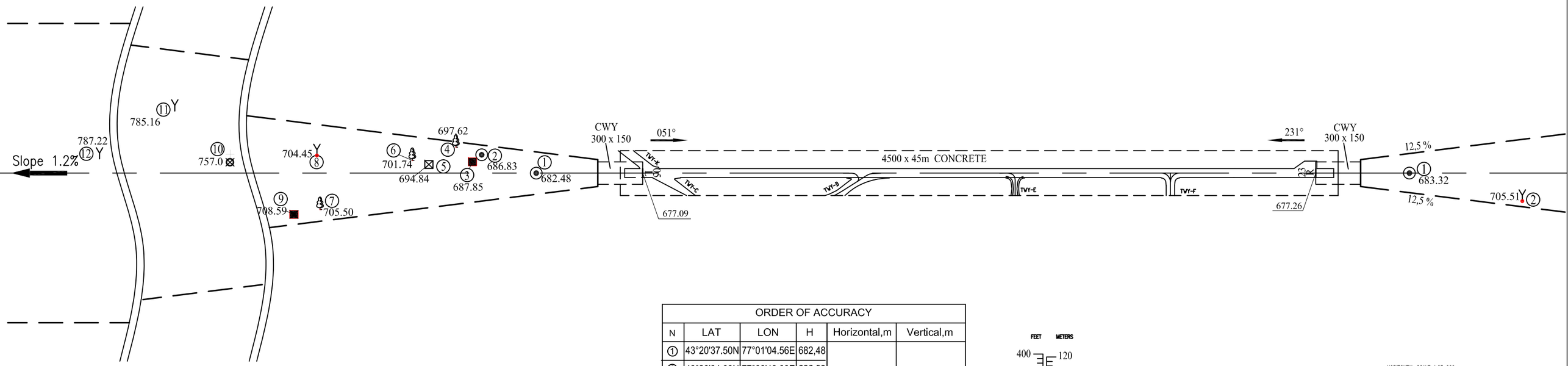
RWY 05L/23R

ALMATY/Almaty International Airport
RWY 05L/23R

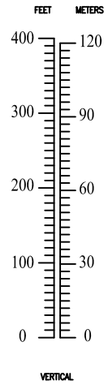
DIMENSIONS AND ELEVATIONS IN METERS MAGNETIC VARIATION 5°E (2023)

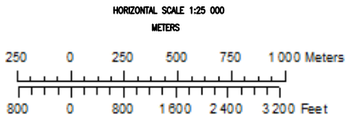
DECLARED DISTANCES		
RWY 05L		RWY 23R
4500	TAKE - OFF RUN AVAILABLE	4500
4800	TAKE - OFF DISTANCE AVAILABLE	4800
4500	ACCELERATE - STOP DISTANCE AVAILABLE	4500
4500	LANDING DISTANCE AVAILABLE	4500





ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
①	43°20'37.50N	77°01'04.56E	682,48	0.086	0.08
②	43°20'34.09N	77°00'48.03E	686,83		
③	43°20'31.73N	77°00'46.99E	687,85		
④	43°20'32.34N	77°00'40.47E	697,62		
⑤	43°20'25.92N	77°00'36.68E	694,84		
⑥	43°20'24.67N	77°00'31.97E	701,74		
⑦	43°20'04.64N	77°00'17.50E	705,50		
⑧	43°20'13.96N	77°00'07.76E	704,45		
⑨	43°20'00.57N	77°00'11.92E	708,59		
⑩	43°19'07.47N	76°57'57.39E	757,00		
⑪	43°19'09.91N	76°57'35.31E	785,16		
⑫	43°18'24.82N	76°56'29.78E	787,22		





ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
①	43°22'23.71N	77°04'39.00E	683.32	0.086	0.08
②	43°22'32.43N	77°05'11.41E	705.51		

LEGEND			
IDENTIFICATION NUMBER	①		
Antenna	⊙	Lantern	✱
Building	■	Church	○
Trees		Radiomast	Y
Pipe of thermal power station	◎	Hotel complex	⊠

CHANGE: MAG VAR Date

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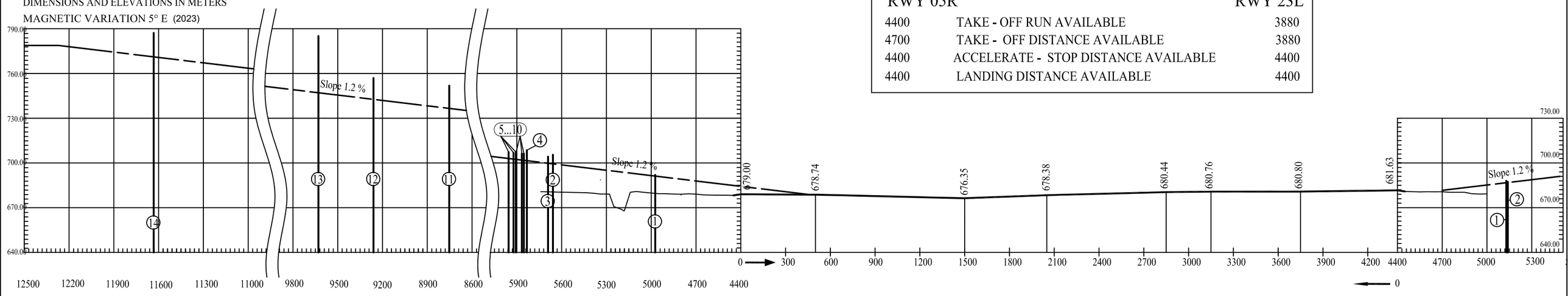
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

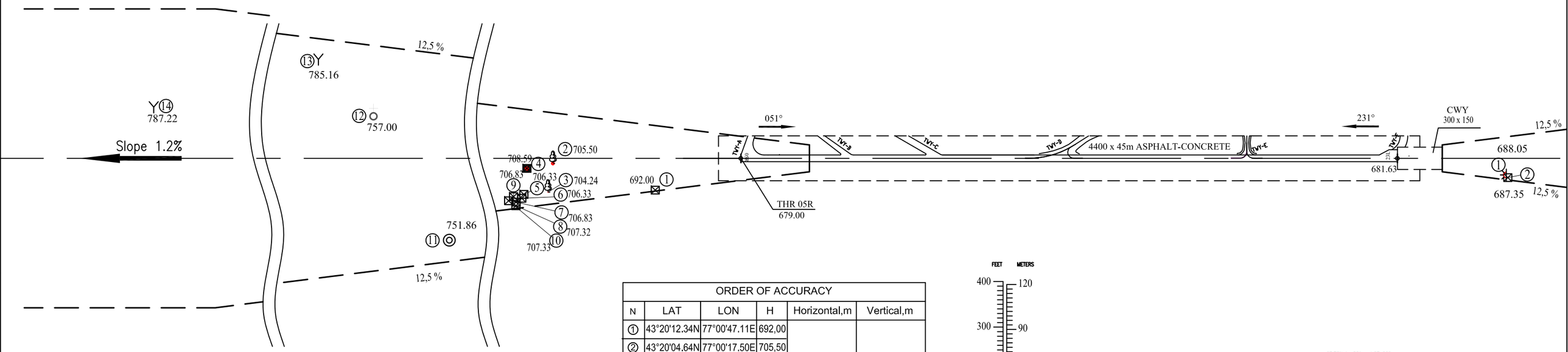
RWY 05R/23L

ALMATY/Almaty International Airport
RWY 05R/23L

DIMENSIONS AND ELEVATIONS IN METERS
MAGNETIC VARIATION 5° E (2023)

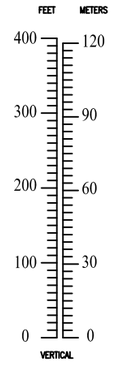
DECLARED DISTANCES		
RWY 05R		RWY 23L
4400	TAKE - OFF RUN AVAILABLE	3880
4700	TAKE - OFF DISTANCE AVAILABLE	3880
4400	ACCELERATE - STOP DISTANCE AVAILABLE	4400
4400	LANDING DISTANCE AVAILABLE	4400

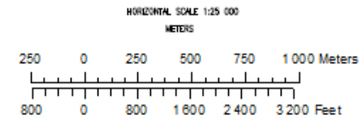




LEGEND		LEGEND	
IDENTIFICATION NUMBER	①		
Technical building	■	Mast of a projector	
Tree		Radiomast	Y
Pipe of thermal power station	◎	House	⊠
Church		Concrete pillar	

ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
①	43°20'12.34N	77°00'47.11E	692,00	0.086	0.08
②	43°20'04.64N	77°00'17.50E	705,50		
③	43°19'58.90N	77°00'21.11E	704,24		
④	43°20'00.57N	77°00'11.92E	708,59		
⑤	43°19'55.54N	77°00'15.53E	706,33		
⑥	43°19'54.59N	77°00'15.66E	706,33		
⑦	43°19'53.20N	77°00'14.88E	706,83		
⑧	43°19'52.54N	77°00'15.46E	707,32		
⑨	43°19'53.88N	77°00'13.37E	706,83		
⑩	43°19'52.54N	77°00'12.84E	707,33		
⑪	43°18'54.50N	76°58'36.73E	751,86		
⑫	43°19'07.47N	76°57'57.39E	757,00		
⑬	43°19'09.91N	76°57'35.31E	785,16		
⑭	43°18'24.82N	76°56'29.78E	787,22		





ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
①	43°21'58.82N	77°04'14.04E	688,05	0.086	0.08
②	43°21'58.53N	77°04'14.86E	687,35		

CHANGE: MAG VAR Date

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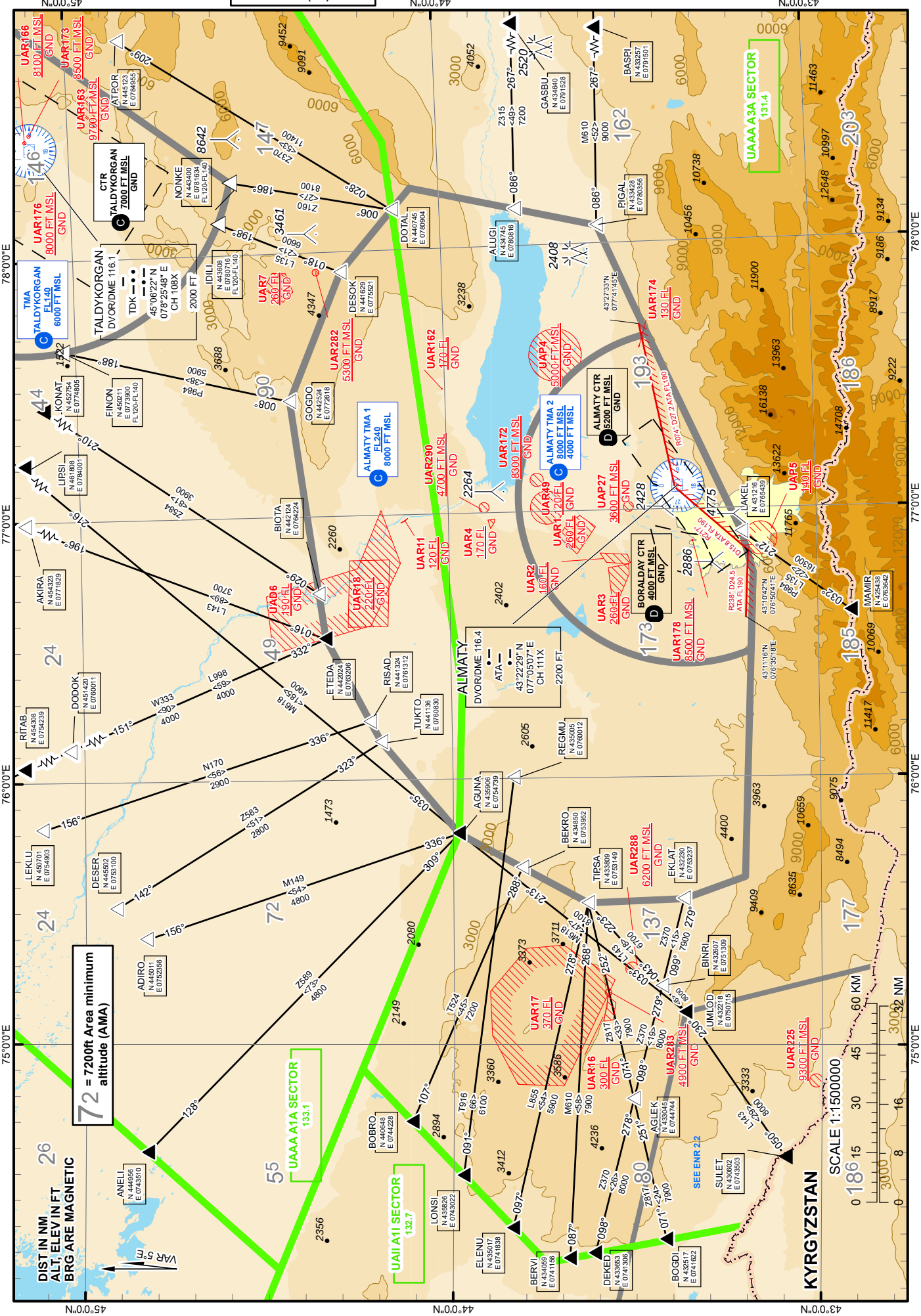
AREA CHART
ICAO

ALMATY APPROACH 118.3
ALMATY RADAR 126.8
ALMATY TOWER 119.4
ALMATY ATIS (EN) 129.8
ALMATY ATIS (RU) 135.1

TMA ALMATY



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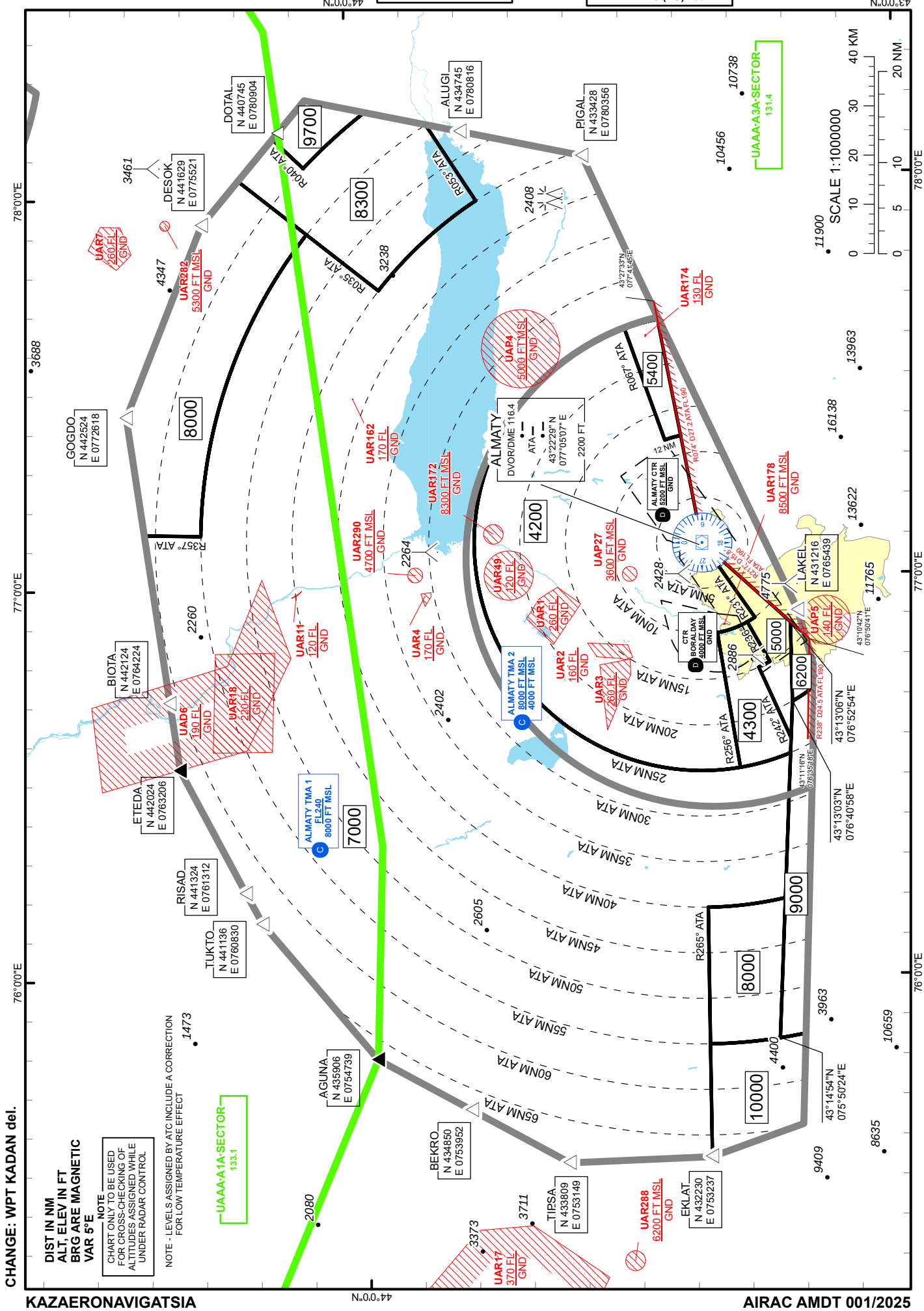
ATC Surveillance Minimum Altitude Chart ICAO

AERODROME ELEV *2238 FT*

TRANSITION ALTITUDE
10000 FT

ALMATY APPROACH 118.3
ALMATY RADAR 126.8
ALMATY TOWER 119.4
ALMATY ATIS (EN) 129.8
ALMATY ATIS (RU) 135.1

ALMATY



CHANGE: WPT KADAN del.

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC
VAR 5°E

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

NOTE - LEVELS ASSIGNED BY ATC INCLUDE A CORRECTION FOR LOW TEMPERATURE EFFECT

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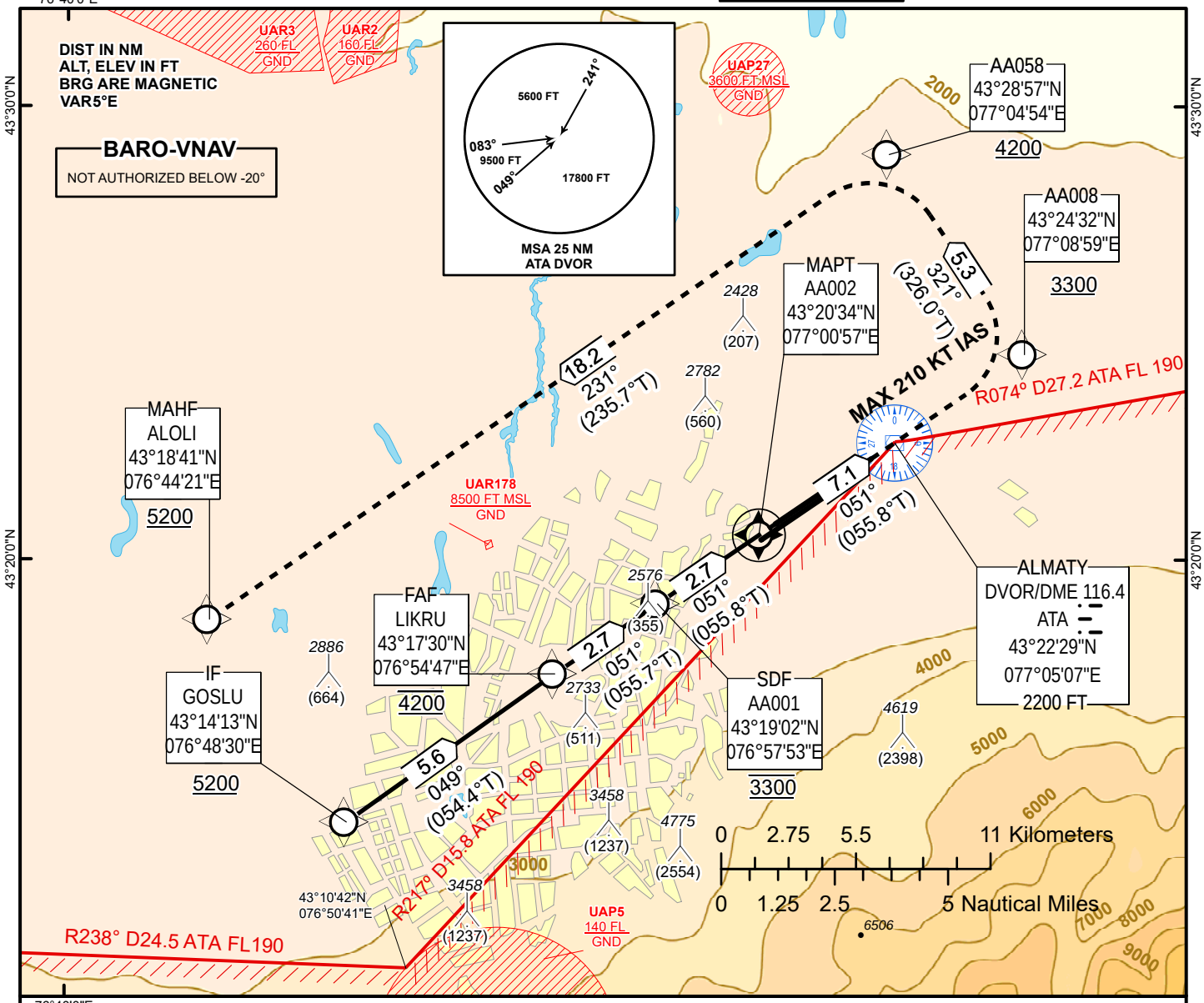
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *2238 FT*
HEIGHTS RELATED TO
THR 05L ELEV 2221 FT

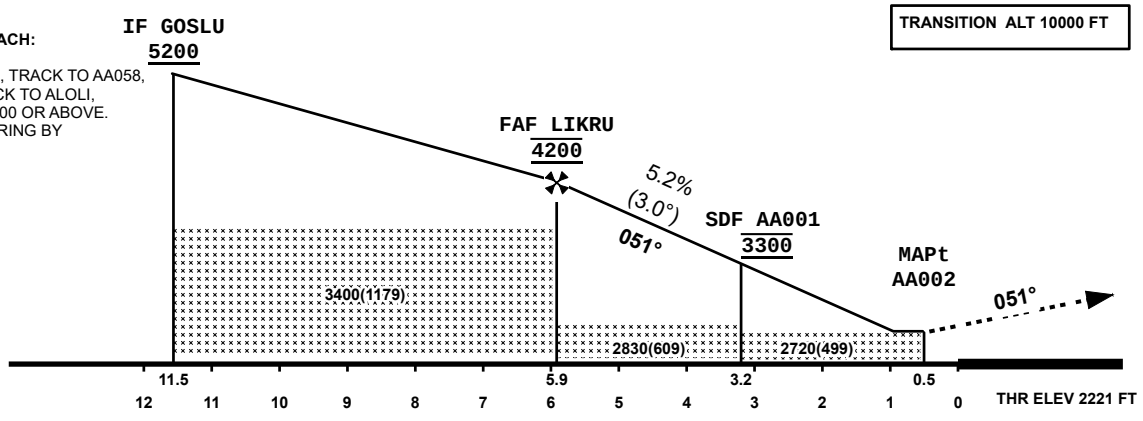
ALMATY APPROACH 118.3
ALMATY RADAR 126.8
ALMATY TOWER 119.4
ALMATY ATIS (EN) 129.8
ALMATY ATIS (RU) 135.1

ALMATY
RNP RWY 05L



MISSED APPROACH:

CLIMB TO AA008, TRACK TO AA058,
CONTINUE TRACK TO ALOLI,
CLIMBING TO 5200 OR ABOVE.
EXPECT VECTORING BY
ALMATY RADAR.
MAX 210 KT IAS



TRANSITION ALT 10000 FT

Aircraft Category	A	B	C	D
LNAV OCA (OCH)	2720 (499)			
LNAV/VNAV OCA (OCH)	2510 (289)	2520 (299)	2530 (309)	2560 (339)

GS	Kt	80	100	120	140	160	180
Rate of descent	ft/min	420	530	630	740	840	950

CHANGE: Editorial.

ALMATY

AERONAUTICAL DATA TABULATION

TABULAR DESCRIPTION

IAP RWY 05L

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation (°)	Distance NM	Turn Direc-tion	Altitude FT	Speed KT	VPA (°) FT	Navigation Specifica-tion
010	IF	GOSLU						+5200	-210		RNP APCH
020	TF	LIKRU	-	49(54.4)	5.12	5.6	-	@4200	-180	-	RNP APCH
030	TF	AA001	-	51(55.7)	5.12	2.7	-	@3300	-180	-3	RNP APCH
040	TF	AA002	+	51(55.8)	5.12	2.7	-	@2429	-180	-3	RNP APCH
050	TF	AA008	-	51(55.8)	5.12	7.1	-	+3300	-210	1.4	RNP APCH
060	TF	AA058	-	321(326)	5.12	5.3	L	+4200	-210	1.4	RNP APCH
070	TF	ALOLI	-	231(235.7)	5.12	18.2	L	+5200	-210	1.4	RNP APCH

WAYPOINT LIST

IAP RWY 05L

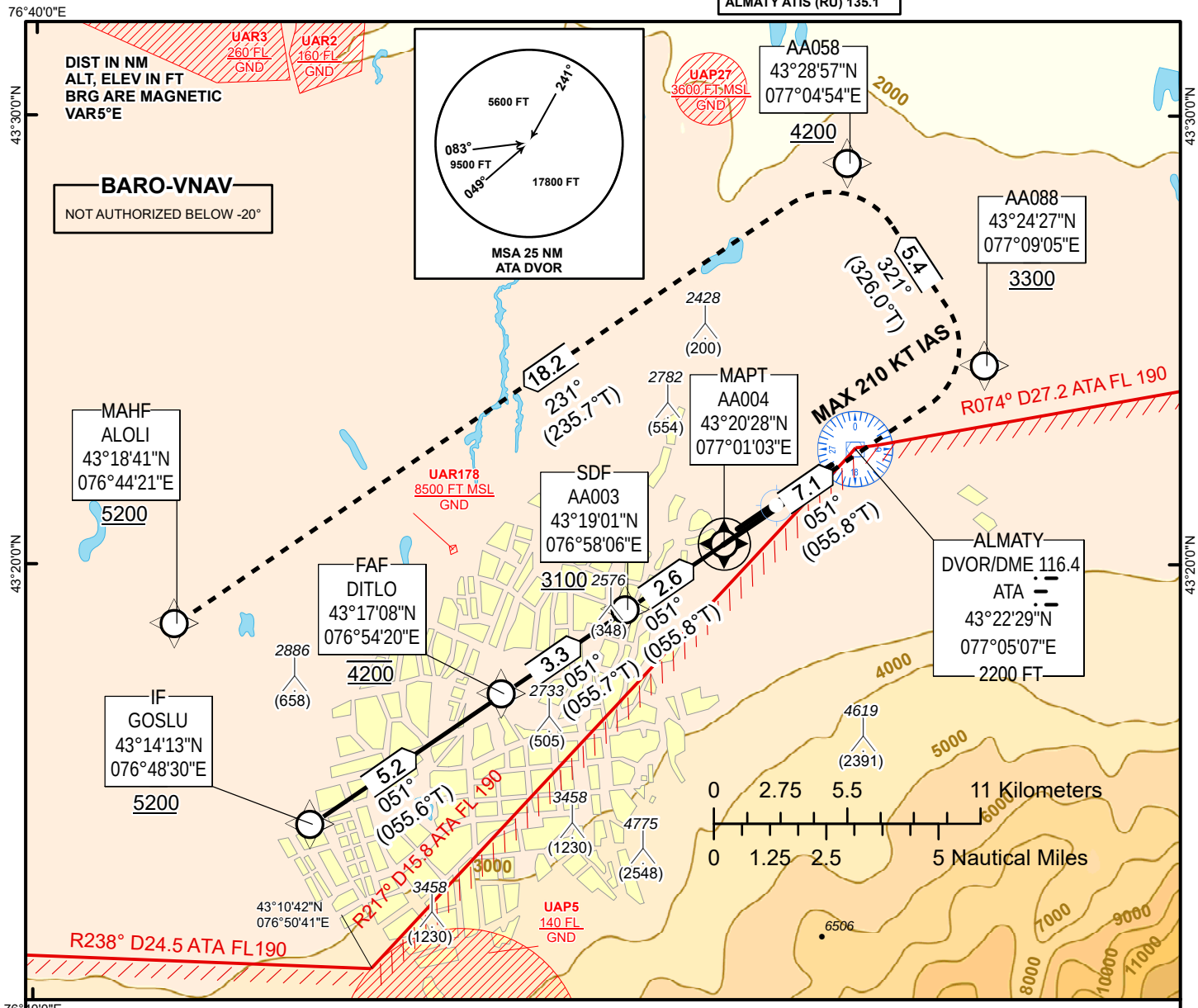
Waypoint Identifier	**Coordinates**	
GOSLU	431413.06N	0764829.77E
LIKRU	431729.77N	0765446.63E
AA001	431902.47N	0765753.04E
AA002	432033.58N	0770056.66E
AA008	432432.33N	0770858.98E
AA058	432857.49N	0770453.51E
ALOLI	431840.90N	0764420.60E

INSTRUMENT APPROACH CHART - ICAO

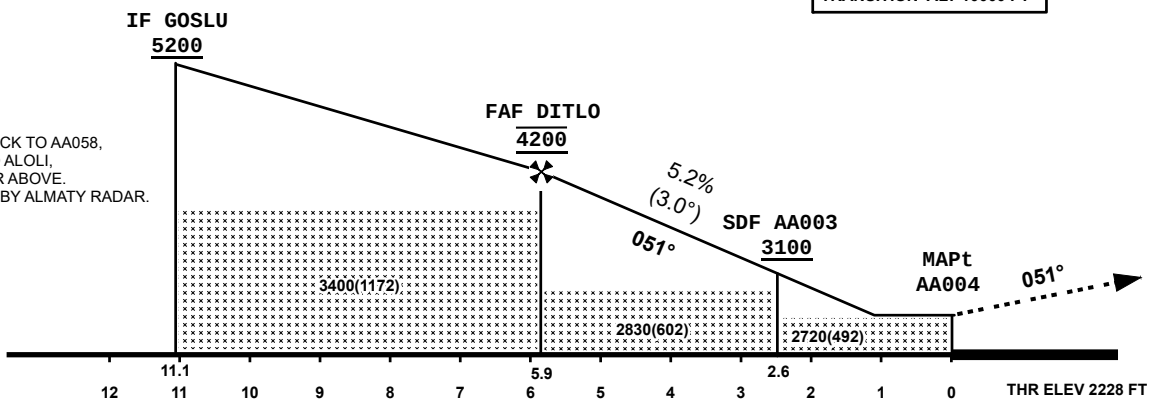
AERODROME ELEV *2238 FT*
HEIGHTS RELATED TO
THR 05R ELEV 2228 FT

ALMATY APPROACH 118.3
ALMATY RADAR 126.8
ALMATY TOWER 119.4
ALMATY ATIS (EN) 129.8
ALMATY ATIS (RU) 135.1

ALMATY
RNP RWY 05R



TRANSITION ALT 10000 FT



MISSED APPROACH

CLIMB TO AA088, TRACK TO AA058,
CONTINUE TRACK TO ALOLI,
CLIMBING TO 5200 OR ABOVE.
EXPECT VECTORING BY ALMATY RADAR.
MAX 210 KT IAS

Aircraft Category	A	B	C	D
LNAV OCA (OCH)	2720 (492)			
LNAV/VNAV OCA (OCH)	2530 (302)	2550 (322)	2550 (322)	2560 (332)

GS	Kt	80	100	120	140	160	180
Rate of descent	ft/min	420	530	630	740	840	950

CHANGE: Editorial.

ALMATY

AERONAUTICAL DATA TABULATION

TABULAR DESCRIPTION

IAP RWY 05R

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation (°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°) FT	Navigation Specifica-tion
010	IF	GOSLU						+5200	-210		RNP APCH
020	TF	DITLO	-	51(55.6)	5.12	5.2	-	@4200	-180		RNP APCH
030	TF	AA003	-	51(55.7)	5.12	3.3	-	+3100	-180	-3	RNP APCH
040	TF	AA004	+	51(55.8)	5.12	2.6	-	@2277	-180	-3	RNP APCH
050	TF	AA088	-	51(55.8)	5.12	7.1	-	+3300	-210	1.4	RNP APCH
060	TF	AA058	-	321(326.0)	5.12	5.4	L	+4200	-210	1.4	RNP APCH
070	TF	ALOLI	-	231(235.7)	5.12	18.2	L	+5200	-210	1.4	RNP APCH

WAYPOINT LIST

IAP RWY 05R

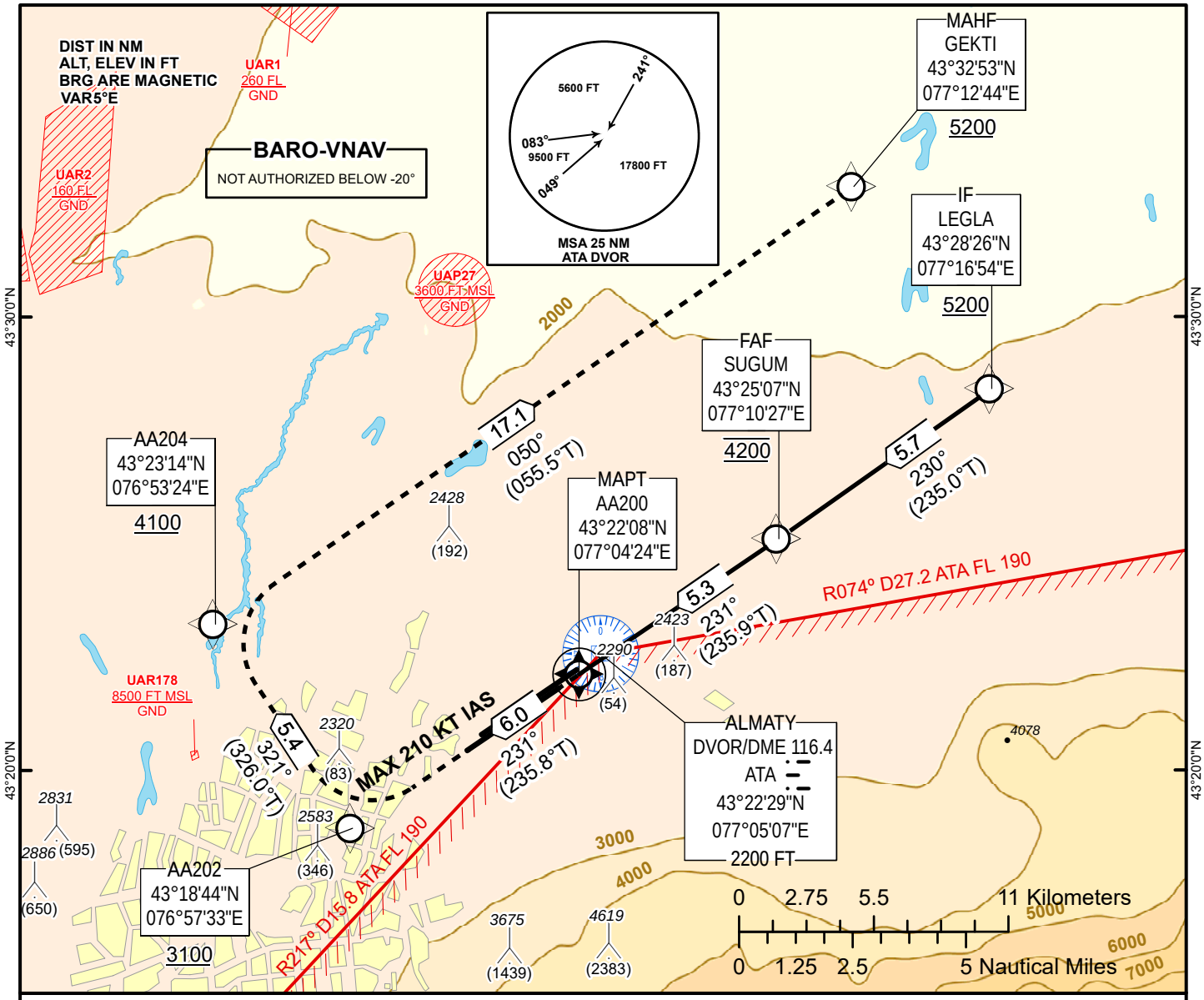
Waypoint Identifier	Coordinates	
GOSLU	431413.06N	0764829.77E
DITLO	431708.11N	0765419.55E
AA003	431900.75N	0765806.1E
AA004	432028.46N	0770102.85E
AA088	432426.77N	0770904.56E
AA058	432857.49N	0770453.51E
ALOLI	431840.90N	0764420.60E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *2238 FT*
HEIGHTS RELATED TO
THR 23L ELEV 2236 FT

ALMATY APPROACH 118.3
ALMATY RADAR 126.8
ALMATY TOWER 119.4
ALMATY ATIS (EN) 129.8
ALMATY ATIS (RU) 135.1

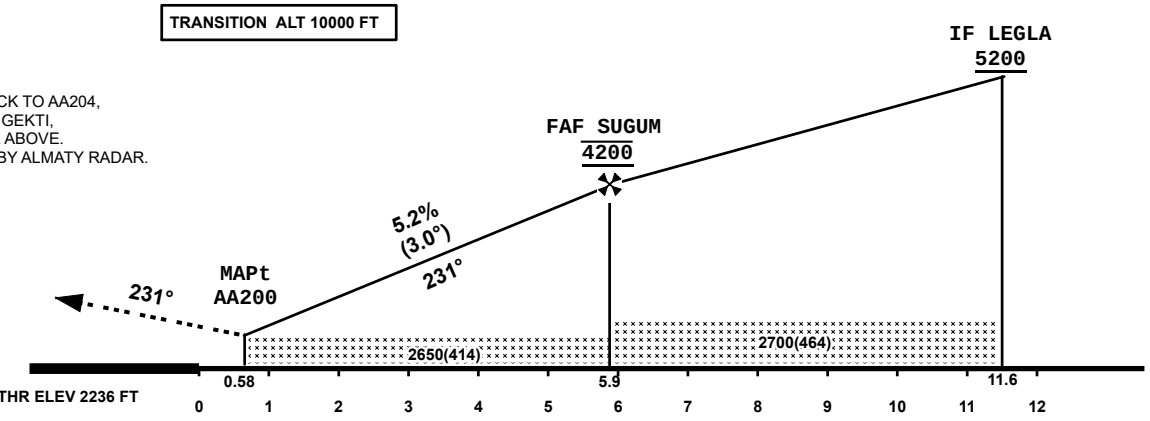
ALMATY
RNP RWY 23L



TRANSITION ALT 10000 FT

MISSED APPROACH:

CLIMB TO AA202, TRACK TO AA204,
CONTINUE TRACK TO GEKTI,
CLIMBING TO 5200 OR ABOVE.
EXPECT VECTORING BY ALMATY RADAR.
MAX 210 KT IAS.



Aircraft Category	A	B	C	D
LNAV OCA (OCH)	2650 (414)			
LNAV/VNAV OCA (OCH)	2540 (304)	2550 (314)	2570 (334)	2600 (364)

GS	Kt	80	100	120	140	160	180
Rate of descent	ft/min	420	530	630	740	840	950

CHANGE: Editorial.

ALMATY

AERONAUTICAL DATA TABULATION

TABULAR DESCRIPTION

IAP RWY 23L

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation (°)	Distance NM	Turn Direc- tion	Altitude FT	Speed KT	VPA (°) FT	Navigation Specifica- tion
010	IF	LEGLA						+5200	-230		RNP APCH
020	TF	SUGUM	-	230(235.0)	5.12	5.7	-	@4200	-180		RNP APCH
030	TF	AA200	+	231(235.9)	5.12	5.3	-	@2470	-180	-3	RNP APCH
040	TF	AA202	-	231(235.8)	5.12	6	-	+3100	-210	1.4	RNP APCH
050	TF	AA204	-	321(326)	5.12	5.4	R	+4100	-210	1.4	RNP APCH
060	TF	GEKTI	-	50(55.5)	5.12	17.1	R	+5200	-210	1.4	RNP APCH

WAYPOINT LIST

IAP RWY 23L

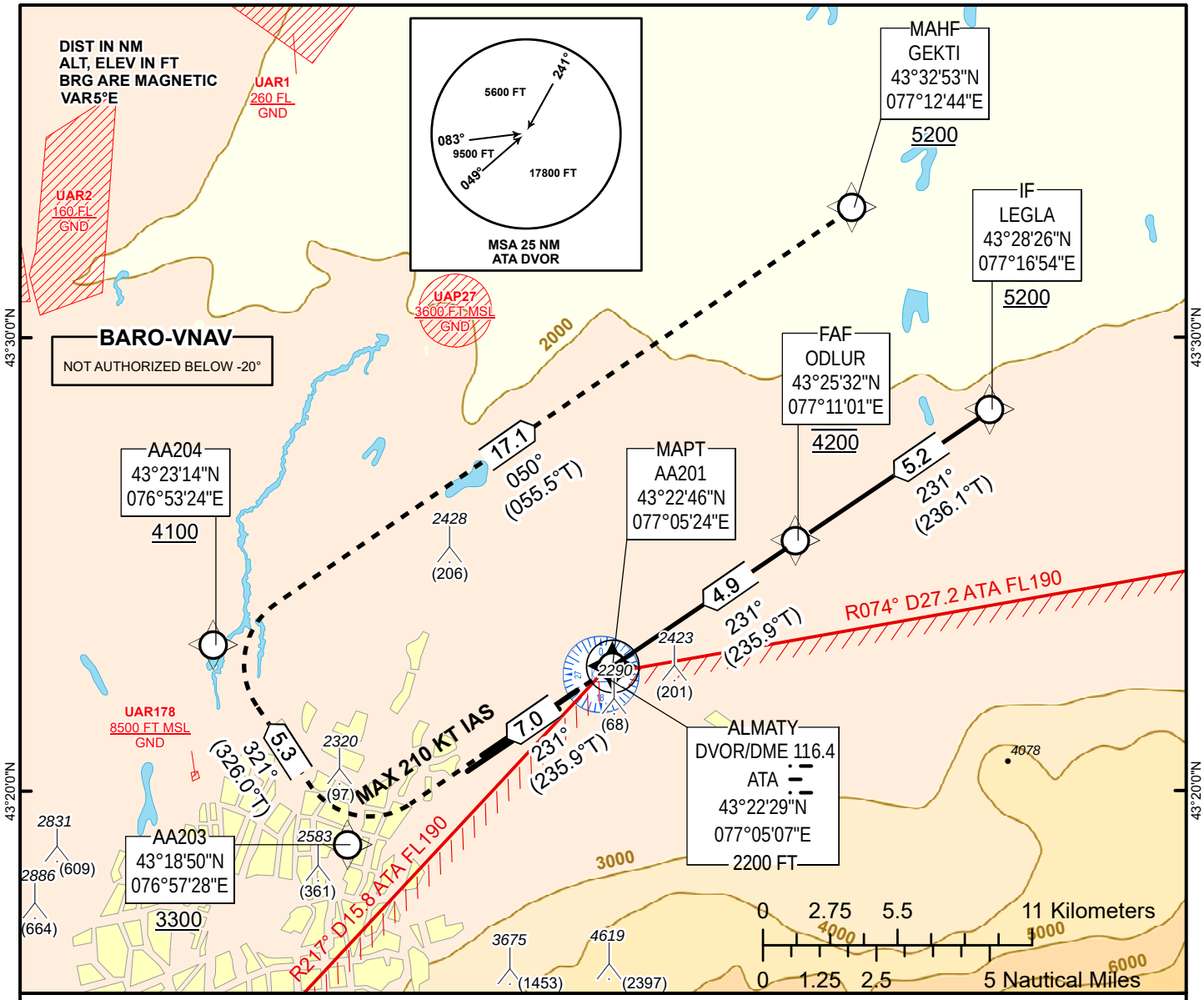
Waypoint Identifier	Coordinates	
LEGLA	432825.52N	0771654.27E
SUGUM	432507.31N	0771026.74E
AA200	432208.09N	0770423.97E
AA202	431844.32N	0765733.06E
AA204	432314.16N	0765323.71E
GEKTI	433253.40N	0771244.40E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *2238 FT*
HEIGHTS RELATED TO
THR 23R ELEV 2222 FT

ALMATY APPROACH 118.3
ALMATY RADAR 126.8
ALMATY TOWER 119.4
ALMATY ATIS (EN) 129.8
ALMATY ATIS (RU) 135.1

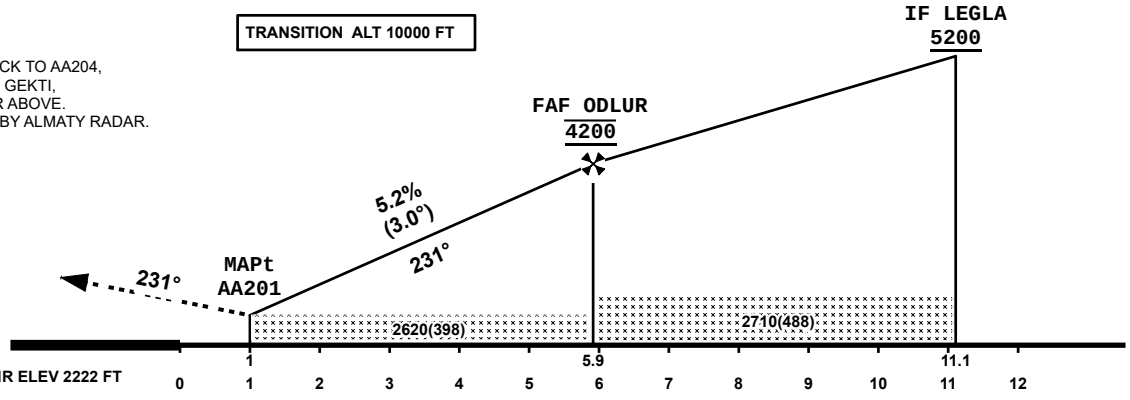
ALMATY
RNP RWY 23R



MISSED APPROACH:

CLIMB TO AA203, TRACK TO AA204,
CONTINUE TRACK TO GEKTI,
CLIMBING TO 5200 OR ABOVE.
EXPECT VECTORING BY ALMATY RADAR.
MAX 210 KT IAS.

TRANSITION ALT 10000 FT



Aircraft Category	A	B	C	D
LNAV OCA (OCH)	2620 (398)			
LNAV/VNAV OCA (OCH)	2480 (258)	2490 (268)	2510 (288)	2540 (318)

GS	Kt	80	100	120	140	160	180
Rate of descent	ft/min	420	530	630	740	840	950

CHANGE: Editorial.

ALMATY

AERONAUTICAL DATA TABULATION

TABULAR DESCRIPTION

IAP RWY 23R

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation (°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°) FT	Navigation Specification
010	IF	LEGLA						+5200	-230		RNP APCH
020	TF	ODLUR	-	231(236.1)	5.12	5.2	-	@4200	-180		RNP APCH
030	TF	AA201	+	231(235.9)	5.12	4.9	-	@2590	-180	-3	RNP APCH
040	TF	AA203	-	231(235.9)	5.12	7	-	+3300	-210	1.4	RNP APCH
050	TF	AA204	-	321(326.0)	5.12	5.3	R	+4100	-210	1.4	RNP APCH
060	TF	GEKTI	-	50(55.5)	5.12	17.1	R	+5200	-210	1.4	RNP APCH

WAYPOINT LIST

IAP RWY 23R

Waypoint Identifier	Coordinates	
LEGLA	432825.52N	0771654.27E
ODLUR	432532.37N	0771100.95E
AA201	432246.01N	0770524.09E
AA203	431849.98N	0765727.89E
AA204	432314.16N	0765323.71E
GEKTI	433253.40N	0771244.40E

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
TWR	ASTANA TOWER (EN) ASTANA VYSHKA (RU)	118.7 MHZ	Nil	Nil	H24	Nil
ATIS	ASTANA ATIS (EN) ASTANA ATIS (RU)	129.5 MHZ 128.3 MHZ	Nil	Nil	H24	EN RU

UACC AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DVOR/DME (10°E/2013)	AST	114.4 MHZ CH 91X	H24	510005.6N 0712600.4E	1200 FT	Nil	Nil
ILS LOC 04 III/E/4	IMO	109,5 MHZ	H24	510224.7N 0712937.4E		Nil	Nil
GP 04 III/T/4		332,6 MHZ		510045.5N 0712712.0E			
DME 04	IMO	CH 32X		510045.5N 0712712.0E	1200 FT		
ILS LOC 22 III/E/4	IAK	111,7 MHZ	H24	510018.8N 0712621.0E		Nil	Nil
GP 22 III/T/4		333,5 MHZ		510151.0N 0712854.3E			
DME 22	IAK	CH 54X		510151.0N 0712854.3E	1200 FT		
NDB	M	654 KHZ	H24	510013.2N 0712612.3E	Nil	Nil	Nil

UACC AD 2.20 Local Aerodrome Regulations

The Bozshakol flight area. The Bozshakol flight area is intended for exercising piloting techniques, flights at Low Altitudes/Heights and Extremely Low Altitudes/Heights, for landing on a platform (apron) with independent selection from the air, for performing search and rescue work over land in hovering mode day and night, flights with a undersling load day and night (with a helibucket), flights day and night in Simple Meteorological Conditions and Complex Meteorological Conditions, on operating ceiling, for simple and complex aerobatics, group flights, as well as helicopter's test flights. Its area is a circle of 5 km radius with a center on the Bozshakol settlement (505440N 0713843E). The nearest border of the area is 13.0 km, the furthest one is 23.0 km. Restrictive bearings from AST: Magnetic Radio Bearing = 280° - 309°. The altitude/height of flight aerobatic area is from actual height = 15 m to flight level = 6100 m (FL200), Minimum safety altitude = 900 m in QNH pressure.

The Borlykol flight area. The Borlykol flight area is intended for exercising piloting techniques, flights at Low Altitudes/Heights and Extremely Low Altitudes/Heights, landing on a platform (apron) with independent selection from the air, for performing search and rescue work over land in hovering mode day and night, flights with a undersling load day and night (with a helibucket), flights day and night in Simple Meteorological Conditions and Complex Meteorological Conditions, on operating ceiling, for simple and complex aerobatics, group flights, as well as helicopter's test flights. Its area is a circle of 5 km radius with a center on the Borlykol lake (505251N 0715305E). The nearest border of the area is 29.0 km, the furthest one is 39.0 km. Restrictive bearings from AST: Magnetic Radio Bearing = 274° - 290°. The altitude/height of flight aerobatic area is from actual height = 15 m to flight level = 6100 m (FL200), Minimum safety altitude = 900 m in QNH pressure.

The Saryadyr flight area. The Saryadyr flight area is intended for exercising piloting techniques, flights at Low Altitudes/Heights and Extremely Low Altitudes/Heights, landing on a platform (apron) with independent selection from the air, for performing search and rescue work over land in hovering mode day and night, flights with a undersling load day and night (with a helibucket), flights day and night in Simple Meteorological Conditions and Complex Meteorological Conditions, on operating ceiling, for simple and complex aerobatics, group flights, as well as helicopter's test flights. Its area is a circle of 5 km radius with a center on the Saryadyr settlement (505012N 0713354E). The nearest border of the area is 17.0 km, the furthest one is 26.5 km. Restrictive bearings from AST: Magnetic Radio Bearing = 311° - 337°. The altitude/height of flight aerobatic area is from actual height = 15 m to flight level = 6100 m (FL200), Minimum safety altitude = 900 m in QNH pressure.

The Maibalyk flight area. The Maibalyk flight area is intended for exercising piloting techniques, flights at Low Altitudes/Heights and Extremely Low Altitudes/Heights, landing on a platform (apron) with independent selection from the air, flights day and night in Simple Meteorological Conditions and Complex Meteorological Conditions, group flights, for performing search and air-sea rescue operations over water day and night, flights with a undersling load day and night (with a helibucket), helicopter's test flights, as well as for holding patterns. Its area is a circle of 3 km radius with a center on the Maibalyk lake (505805N 0713229E). The nearest border of the area is 5.3 km, the furthest one is 11.3 km. Restrictive bearings from AST: Magnetic Radio Bearing = 267° - 305°. The altitude/height of flight aerobatic area is from actual height = 15 m to actual height = 200 m, Minimum safety altitude = 900 m in QNH pressure.

Due to the absence of required AGL system and on TWY-G and presence of unacceptable slopes on its unpaved part, following limitations are in place:
Movements of aircrafts on TWY-G when visibility is lower than 800 meters is prohibited;
Movements of aircrafts on TWY-G only by towing when night time and visibility is less than 2000 meters.

The following widenings are designed to perform a 180-degree turn on the runway:

- TURN PAD 95M AVAILABLE AT THR RWY 04;
- TURN PAD 97M AVAILABLE AT THR RWY 22;
- TURN PAD 75M AVAILABLE 2500M FROM THR RWY 22;
- TURN PAD 75M AVAILABLE 1000M FROM THR RWY 04.

UACC AD 2.21 Noise Abatement Procedures

NIL

UACC AD 2.22 Flight Procedures

1. General

RWY 04/22 approved for CAT II and CAT IIIA operations.

2. Low Visibility Procedures during CAT II operations.

Low Visibility Procedures (LVP) are initiated at Astana aerodrome:

a. during CAT II and CAT IIIA approaches when RVR is less than 550 m;

b. during take-off, when RVR is less than 550 m. The status of LVP is reported through ATIS or the broadcast of RTF with the following phrase: "LOW VISIBILITY PROCEDURES IN OPERATION"

The controller shall verify that ILS sensitive area is clear of known traffic before Aircraft reaches 15 km distance from touchdown point.

During approach, the controller informs pilots of:

- unserviceability or downgrading of aids or facilities;
- change of surface wind;
- change of RVR;
- change of cloud base (vertical visibility).

A-SMGCS on SMR, SSR and ADS-B base supports ground movement operations based on established operational procedures.

3. Arriving Aircraft

The report on the vacation of the runway is made on the TWY only after the release of the ILS critical zones. Taxiing on the taxiways is carried out by the TWY centerline lights before coupling with the apron. Taxiing on the apron is allowed only behind the follow me car. Parking of the aircraft in the stands is carried out according to the signals of the ground personnel.

Taxing via TWY shall be carried out along TWY centerlines lights until junction with apron. It is permitted to taxi on the apron only under guidance of a “follow-me” car. Parking to the stands is assisted by a marshaller.

4. Departing Aircraft

Aircraft taxiing for take-off from the aircraft stands to the TWY are accompanied by the follow me car. Taxiing on the taxiway is carried out by the TWY centerline lights to the runway holding positions. At the runway holding positions, the aircraft must stop in front of an aerodrome sign of the critical zone (Runway designation of both extremities of the runway on a red background and the designation of the TWY on a black background).

5. VFR procedures within the aerodrome control zone (CTR)

Flights within the control zone are conducted at an absolute altitude of no less than 1700 feet, unless otherwise instructed by the controller of the "Radar" ATC unit. Absolute flight altitudes are assigned by the controller of the "Radar" ATC unit without considering obstacles. Crews of aircraft independently perform the avoidance of obstacles. Within the control zone, flights over populated, prohibited, restricted, and dangerous areas are tobe avoided. For VFR flights of aircraft with certificated take-off mass of up to 5700 kg and helicopters flying at speeds of no more than 140 knots, at Astana aerodrome the flight circuit is established for Runway 22 (left)and Runway 04 (right) at an altitude of 2000 feet. The width of the rectangular flight path is 3 nautical miles.The controller of the "Radar" ATC unit determines and communicates the utilized traffic circuit to the aircraft crew. Entering the traffic circuit, crossing the runway alignment is made only with the permission of the air traffic controller of the "Radar" ATC unit. Entry/Exit into the control zone is carried out through designated waypoints.
Note: In all cases, the controller of the "Radar" ATC unit assigns altitudes in accordance with the table of the "Minimum Safe True Flight Altitudes for ATS Routes and SID" published in Appendix 5 to the Rules for Aircraft Operations in Civil Aviation of the Republic of Kazakhstan.

№	Waypoint name	Type	Visual reference	Geographical coordinates	Radial (mag.) from DVOR/ DME AST	Distance from DVOR/DME AST
1	KOIANDY	Exit	Northeastern outskirts of the settlement Koyandy	511821N 0714116E	018°	20.6 NM
2	KOSTOMAR	Entry	Eastern outskirts of the locality Kostomar	511319N 0714922E	038°	19.8 NM
3	TANAKOL	Exit	To the north-east of Lake Tanakol	510912N 0715557E	054°	21.0 NM
4	ZHALTYRKOL	Entry	Western outskirts of the locality Zhaltyrkol	505951N 0714824E	081°	14.2 NM
5	KARIER	Exit	South of the sand quarry	505626N 0714517E	097°	12.7 NM
6	NURA	Entry	Northern outskirts of the locality Nura	504723N 0712505E	173°	12.7 NM
7	KARATOMAR	Exit	Southeastern outskirts of the locality Karatomar	505127N 0710534E	226°	15.6 NM
8	ZHANAYDAR	Entry	-	510334N 0710850E	278°	11.4 NM

№	Waypoint name	Type	Visual reference	Geographical coordinates	Radial (mag.) from DVOR/ DME AST	Distance from DVOR/DME AST
9	URKER	Exit	Northwest outskirts of the residential area Urker	510853N 0711310E	308°	12.0 NM
10	INTER	Intermediate	Northern outskirts of the microdistrict International, intersection with the Astana-Karaganda highway	510750N 0713550E	029°	9.9 NM
11	IPPODROM	Holding	West of the horse racecourse	510435N 0712226E	324°	5.0 NM
12	MAIBALYK	Holding	Southern shore of Lake Maybalyk	505659N 0713015E	129°	4.1 NM

6. Continuous Descent Operation

1. CDOs are performed during periods of low traffic density at ATC discretion.

2. CDOs are executed only by ACFT that use standard arrival procedures RNAV1 based on GNSS.

3. Although these procedures are designed as a closed path, they permit distance planning for CDO, allowing the ACFT Flight Management System/Computer (FMS/FMC) to accurately execute automated optimized descents when:

   - ACFT is cleared to proceed to a waypoint or via a combination of waypoints in order to provide an optimum lateral flight path up to and including the FAP and thus the exact distance to the RWY is known prior to start of the continuous descent operation; or
   - the pilots of the ACFT that to be vectored to final are provided with distance-to-go information.

4. CDOs are authorized only when following conditions are respected:

   - ILS of RWY intended for landing is in operation;
   - no adverse weather conditions that may affect CDO;
   - no system degradations that may affect GNSS or ILS operation.

5. After receiving “WHEN READY DESCEND TO (LEVEL)” or “DESCEND TO (LEVEL) AT PILOTS DISCRETION” clearance the pilot is allowed to plan/optimize vertical profile in order to apply CDO to FAP.

6. Depending on traffic, CDO may start from TOD or lower levels.

7. In accordance with appropriate ATC clearances, CDO can start from the TOD when ACFT is cleared to a waypoint or via a combination of waypoints for direct routing/shortcut and the horizontal trajectory is defined up to and including the FAP. Thus, the exact distance to RWY is known and the descent profile can be readily calculated by the appropriate on board system (FMS) prior to start of the CDO.

8. After clearance “WHEN READY DESCEND TO (LEVEL)“ or “DESCEND TO (LEVEL) AT PILOTS DISCRETION” pilot should maintain the cruising/last assigned level until the optimal descent point/TOD that is determined by pilot or FMS, then start descent with no extra requests unless other ATC instructions are issued.

9. If necessary ATC may issue additional instructions: “WHEN READY DESCEND TO (LEVEL), REPORT LEAVING (or REPORT TOP-OF-DESCENT)”

10. Considering airspace structure, ATC issues an instruction to descend to level(s) above level of FAP. Wherein ATC issues further descent instruction prior to CDO flight reaching 3000 feet (900 m) above last assigned level.

11. After contact with appropriate CTR established, ATC issues approach clearance: “CLEARED ILS APPROACH RUNWAY (NUMBER)”. With this clearance pilot should proceed via cleared waypoint(s) to intercept ILS.

12. It is preferable if CDO is commenced from top of descent. If it is not feasible due to traffic, CDO may be initiated from any lower level.

13. As a portion of the procedure consists of vectoring, the specific distance to RWY threshold is not known to a pilot prior to start of the CDO. In such cases, ATC will provide the pilot with an estimate of the flight track-miles to the RWY threshold as distance-to-go information. The pilot will use this information to determine the optimum descent rate to achieve a CDO.

14. ACFT not exceed IAS 220 knots closer 15 n.m. to RW threshold.

UACC AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Point 440. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan	Power supply of electric power receivers of special group of the first category (OK) for RWY equipped according to III category is carried out to one of the following options: 1) from two external independent sources (via two cable lines through two transformers) and a diesel-electric unit, while consumers are connected via battery uninterruptible power supplies; 2) from two external independent sources (via two cable lines through two transformers) and a diesel generator uninterruptible power supply, that is force started when category III weather conditions occur.	Nil	ELoS has been approved from 22.04.2022 till 22.04.2024

2. Bird concentration near airport.

The intensive flights of flocks of ducks, geese, cormorants, silver and lake gulls, blue pigeon, black and gray crows take place daily during 1-2 hours before and after sunset, when birds fly from the lake (1000 km south-east of the RWY) across the RWY and approach area of RWY 22 and RWY 04 to feeding zones near rivers north and north-west of the airport.

The highest intensity of spring and autumn bird flights are observed in predawn hours. Within 3-4 hours and after sunrise. In the evening, 2-3 hours before sunset, the intensity of the flight increases sharply again and remains high for several hours after dark. In some places, especially in coastal areas, intensive bird flight is observed throughout the night.

Regular bird flights from Lake Maybalyk through the airfield are observed from April till October, around the 215 approach course of RWY22.

An hour or two hours before sunset, birds make a return flight to their resting place. In spring, the majority of birds fly at an altitude of up to 500 m. At the same time, about 20% of birds move at altitudes up to 10 m, from 10 to 50 m – 50%, from 50 to 100 m – 20%, the remaining 10% fly above 100 m.

The main directions of migration in spring are from southwest to northeast; in autumn in the opposite direction. In autumn, a large number of rooks, crows, silver and lake gulls accumulate in the area of the airfield and at the airfield, which pose a great danger to flights from sunrise to sunset.

In case of necessity, the aerodrome control point informs pilots about bird flights and approximate heights above ground level.

At the mentioned above time intervals, if design characteristics of airborne equipment allow, pilots are recommended to switch on landing lights during the flights in aerodrome area, during take-off, approach, as well as climbing and descent.

Bird concentration scattering measures include:
periodical deterrence of birds, effective measures regarding to scavering, removal of green plantations and ground covering, termination of agricultural activity within the airport area.

UACC AD 2.24 Charts Related To An Aerodrome

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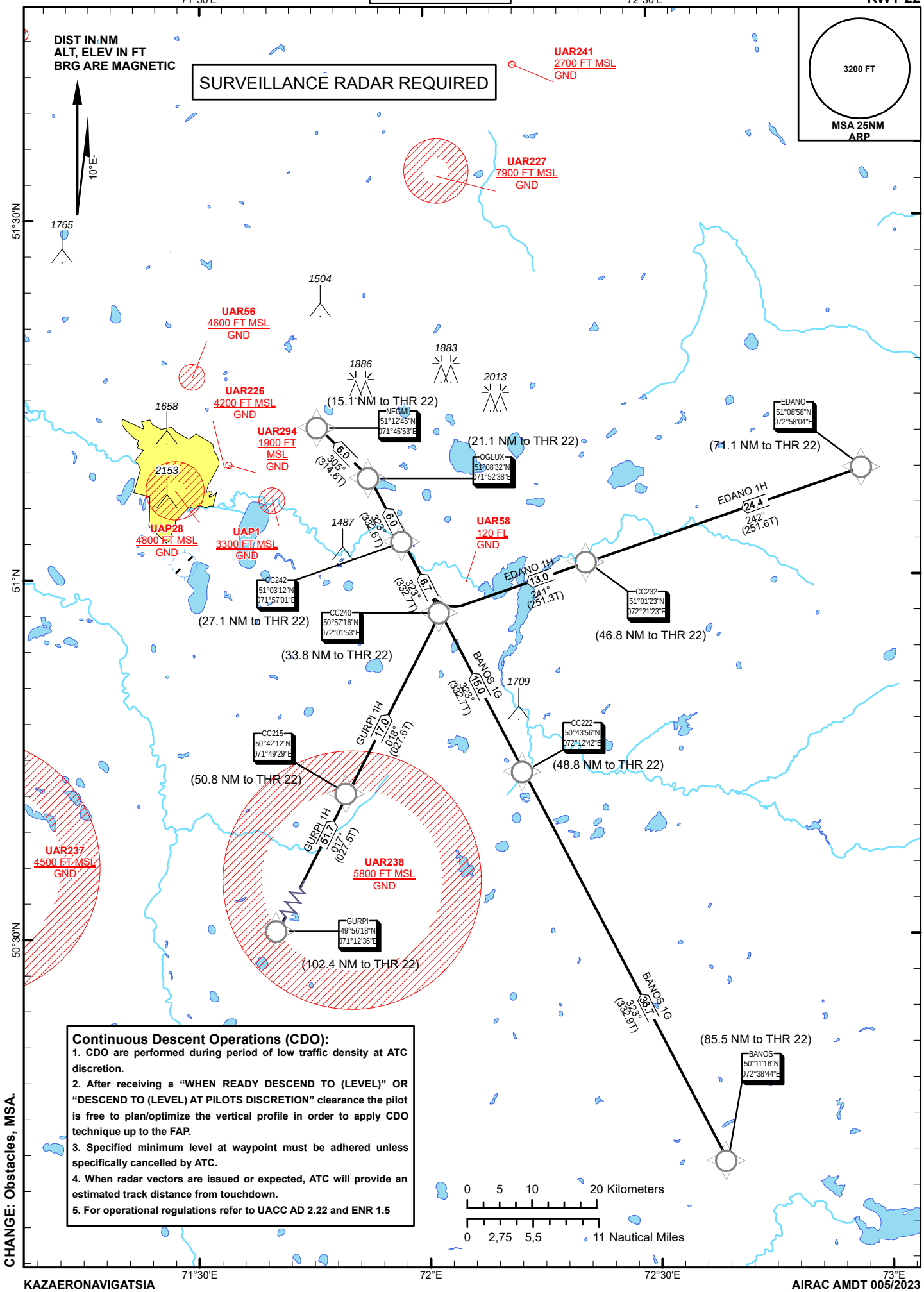
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALT
10000 FT

ASTANA TOWER 118.7
ASTANA APPROACH 124.6
ASTANA RADAR 120.7
ASTANA ATIS(EN) 129.5
ASTANA ATIS(RU) 128.3

(RNAV 1 STAR BASED ON GNSS)
BANOS 1G, EDANO 1H, GURPI 1H

ASTANA
NURSULTAN NAZARBAYEV INTERNATIONAL AIRPORT
RWY 22



Continuous Descent Operations (CDO):

1. CDO are performed during period of low traffic density at ATC discretion.
2. After receiving a "WHEN READY DESCEND TO (LEVEL)" OR "DESCEND TO (LEVEL) AT PILOTS DISCRETION" clearance the pilot is free to plan/optimize the vertical profile in order to apply CDO technique up to the FAP.
3. Specified minimum level at waypoint must be adhered unless specifically cancelled by ATC.
4. When radar vectors are issued or expected, ATC will provide an estimated track distance from touchdown.
5. For operational regulations refer to UACC AD 2.22 and ENR 1.5

CHANGE: Obstacles, MSA.

TABULAR DESCRIPTION

BANOS 1G

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	BANOS	-		10	0	-	+FL190/-FL310	-315	-	RNAV1
20	TF	CC222	-	323(332.9)	10	36.7	-	+FL110/-FL180	-280	-2	RNAV1
30	TF	CC240	-	323(332.7)	10	15	-	+8900/-FL130	-250	-2.1	RNAV1
40	TF	CC242	-	323(332.7)	10	6.7	-	+7400/-FL110	-250	-1.8	RNAV1
50	TF	OGLUX	-	323(332.6)	10	6	-	+6100/-8300	-250	-2.1	RNAV1
60	TF	NEGMI	-	305(314.8)	10	6	L	+5200	-230	-2.1	RNAV1

WAYPOINT LIST

BANOS 1G

Waypoint Identifier	Coordinates	
BANOS	501116.00N	0723844.00E
CC222	504356.03N	0721241.80E
CC240	505715.58N	0720152.69E
CC242	510312.43N	0715700.84E
OGLUX	510831.82N	0715238.33E
NEGMI	511245.30N	0714552.60E

WAYPOINT LIST

EDANO 1H

Waypoint Identifier	Coordinates	
EDANO	510858.00N	0725804.00E
CC232	510123.17N	0722123.11E
CC240	505715.58N	0720152.69E
CC242	510312.43N	0715700.84E
OGLUX	510831.82N	0715238.33E
NEGMI	511245.30N	0714552.60E

TABULAR DESCRIPTION

EDANO 1H

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	EDANO	-		10	0	-	+FL160/-_FL260	-315	-	RNAV1
20	TF	CC232	-	242(251.6)	10	24.4	-	+FL110/-FL170	-280	-2	RNAV1
30	TF	CC240	-	241(251.3)	10	13	-	+8900/-FL130	-250	-2	RNAV1
40	TF	CC242	-	323(332.7)	10	6.7	R	+7400/-FL110	-250	-1.8	RNAV1
50	TF	OGLUX	-	323(332.6)	10	6	-	+6100/-8300	-250	-2.1	RNAV1
60	TF	NEGMI	-	305(314.8)	10	6	L	+5200	-230	-2.1	RNAV1

TABULAR DESCRIPTION

GURPI 1H

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	GURPI	-		10	0	-	+FL230/-FL370	-315	-	RNAV1
20	TF	CC215	-	17(27.5)	10	51.7	-	+FL110/-FL190	-280	-2	RNAV1
30	TF	CC240	-	18(27.6)	10	17	-	+8900/-FL130	-250	-2	RNAV1
40	TF	CC242	-	323(332.7)	10	6.7	L	+7400/-FL110	-250	-1.8	RNAV1
50	TF	OGLUX	-	323(332.6)	10	6	-	+6100/-8300	-250	-2.1	RNAV1
60	TF	NEGMI	-	305(314.8)	10	6	L	+5200	-230	-2.1	RNAV1

WAYPOINT LIST

GURPI 1H

Waypoint Identifier	Coordinates	
GURPI	495618.00N	0711236.00E
CC215	504212.17N	0714928.90E
CC240	505715.58N	0720152.69E
CC242	510312.43N	0715700.84E
OGLUX	510831.82N	0715238.33E
NEGMI	511245.30N	0714552.60E

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALT
10000 FT

ASTANA TOWER 118.7
ASTANA APPROACH 124.6
ASTANA RADAR 120.7
ASTANA ATIS(EN) 129.5
ASTANA ATIS(RU) 128.3

(RNAV 1 STAR BASED ON GNSS)
DIDAL 1G, VAGEM 1H,
VETUB 2H

ASTANA
NURSULTAN NAZARBAYEV
INTERNATIONAL AIRPORT
RWY 22

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC

SURVEILLANCE RADAR REQUIRED

3200 FT
MSA 25NM
ARP

71°E
71°30'E
51°30'N
51°N

UAR245
4700 FT MSL
GND

(72.2 NM to THR 22)
VAGEM
52°01'59"N
071°01'14"E

VAGEM 1H
27.9
145°
(154.7T)

CC252
51°36'48"N
071°20'34"E

(44.3 NM to THR 22)

UAR227
7900 FT
MSL
GND

(42.3 NM to THR 22)
CC251
51°23'27"N
071°08'27"E

1765

VAGEM 1H
17.0
145°
(154.8T)

(88.7 NM to THR 22)
DIDAL
51°29'08"N
069°54'53"E

(27.3 NM to THR 22)
CC270
51°21'26"N
071°32'10"E

1504

DIDAL 1G
46.4
088°
(097.5T)

DIDAL 1G
15.0
088°
(097.8T)

6.2
126°
(135.9T)

UAR56
4600 FT MSL
GND

(21.1 NM to THR 22)
ASDEX
51°16'58"N
071°39'06"E

1886

(40.3 NM to THR 22)
CC262
51°13'22"N
071°15'57"E

VETUB 2H
13.0
041°
(051.7T)

6.0
125°
(134.8T)

1658

UAR226
4200 FT MSL
GND

UAR294
1900 FT MSL
GND

NEGMI
51°12'45"N
071°45'53"E

(15.1 NM to THR 22)

2153

UAP1
3300 FT MSL
GND

UAP28
4800 FT MSL
GND

1487

VETUB 2H
20.1
009°
(018.4T)

ODATU
50°54'27"N
071°05'18"E

(96.2 NM to THR 22)
VETUB
50°41'07"N
070°12'50"E

(59.4 NM to THR 22)

VETUB 2H
35.9
058°
(067.8T)

Continuous Descent Operations (CDO):

1. CDO are performed during period of low traffic density at ATC discretion.
2. After receiving a "WHEN READY DESCEND TO (LEVEL)" OR "DESCEND TO (LEVEL) AT PILOTS DISCRETION" clearance the pilot is free to plan/optimize the vertical profile in order to apply CDO technique up to the FAP.
3. Specified minimum level at waypoint must be adhered unless specifically cancelled by ATC.
4. When radar vectors are issued or expected, ATC will provide an estimated track distance from touchdown.
5. For operational regulations refer to UACC AD 2.22 and ENR 1.5

0 4,25 8,5 17 Kilometers
0 2 4 8 Nautical Miles

UAR237
4500 FT MSL
GND

UAR238
5800 FT MSL
GND

CHANGE: Obstacles, MSA.

TABULAR DESCRIPTION

DIDAL 1G

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	DIDAL	-		10	0	-	+FL200/-FL320	-315	-	RNAV1
20	TF	CC251	-	88(97.5)	10	46.4	-	+FL110/-FL160	-280	-2	RNAV1
30	TF	CC270	-	88(97.8)	10	15	-	+7500/-FL110	-250	-2	RNAV1
40	TF	ASDEX	-	126(135.9)	10	6.2	R	+6100/-8300	-250	-2	RNAV1
50	TF	NEGMI	-	125(134.8)	10	6	L	+5200	-230	-2.1	RNAV1

WAYPOINT LIST

DIDAL 1G

Waypoint Identifier	Coordinates	
DIDAL	512908.00N	0695453.00E
CC251	512326.63N	0710827.01E
CC270	512126.38N	0713210.34E
ASDEX	511658.39N	0713905.63E
NEGMI	511245.30N	0714552.60E

WAYPOINT LIST

VAGEM 1H

Waypoint Identifier	Coordinates	
VAGEM	520159.00N	0710114.00E
CC252	513647.82N	0712034.43E
CC270	512126.38N	0713210.34E
ASDEX	511658.39N	0713905.63E
NEGMI	511245.30N	0714552.60E

TABULAR DESCRIPTION

VAGEM 1H

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	VAGEM	-		10	0	-	+FL160/-FL260	-315	-	RNAV1
20	TF	CC252	-	145(154.7)	10	27.9	-	+10000/+FL160	-280	-2	RNAV1
30	TF	CC270	-	145(154.8)	10	17	-	+7500/-FL110	-250	-2	RNAV1
40	TF	ASDEX	-	126(135.9)	10	6.2	L	+6100/-8300	-250	-2	RNAV1
50	TF	NEGMI	-	125(134.8)	10	6	L	+5200	-230	-2.1	RNAV1

TABULAR DESCRIPTION

VETUB 2H

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	VETUB	-		10	0	-	+FL210/-FL350	-320	-	RNAV1
20	TF	ODATU	-	58(67.8)	10	35.9	-	+FL130/-FL220	-280	-2	RNAV1
30	TF	CC262	-	09(19.46)	10	20.1	L	+9300/-FL150	-280	-1.9	RNAV1
40	TF	CC270	-	41(51.4)	10	13	R	+7500/-FL110	-250	-2	RNAV1
50	TF	ASDEX	-	126(135.8)	10	6.2	R	+6100/-8300	-250	-2	RNAV1
60	TF	NEGMI	-	125(134.7)	10	6	L	+5200	-230	-2.1	RNAV1

WAYPOINT LIST

VETUB 2H

Waypoint Identifier	Coordinates	
VETUB	504107.00N	0701250.00E
ODATU	505426.70N	0710518.10E
CC262	511321.91N	0711557.33E
CC270	512126.38N	0713210.34E
ASDEX	511658.39N	0713905.63E
NEGMI	511245.30N	0714552.60E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *1166 FT*
HEIGHTS RELATED TO
THR 04 ELEV 1165 FT

ASTANA TOWER 118.7
ASTANA APPROACH 124.6
ASTANA RADAR 120.7
ASTANA GROUND 119.6
ASTANA ATIS(EN) 129.5
ASTANA ATIS(RU) 128.3

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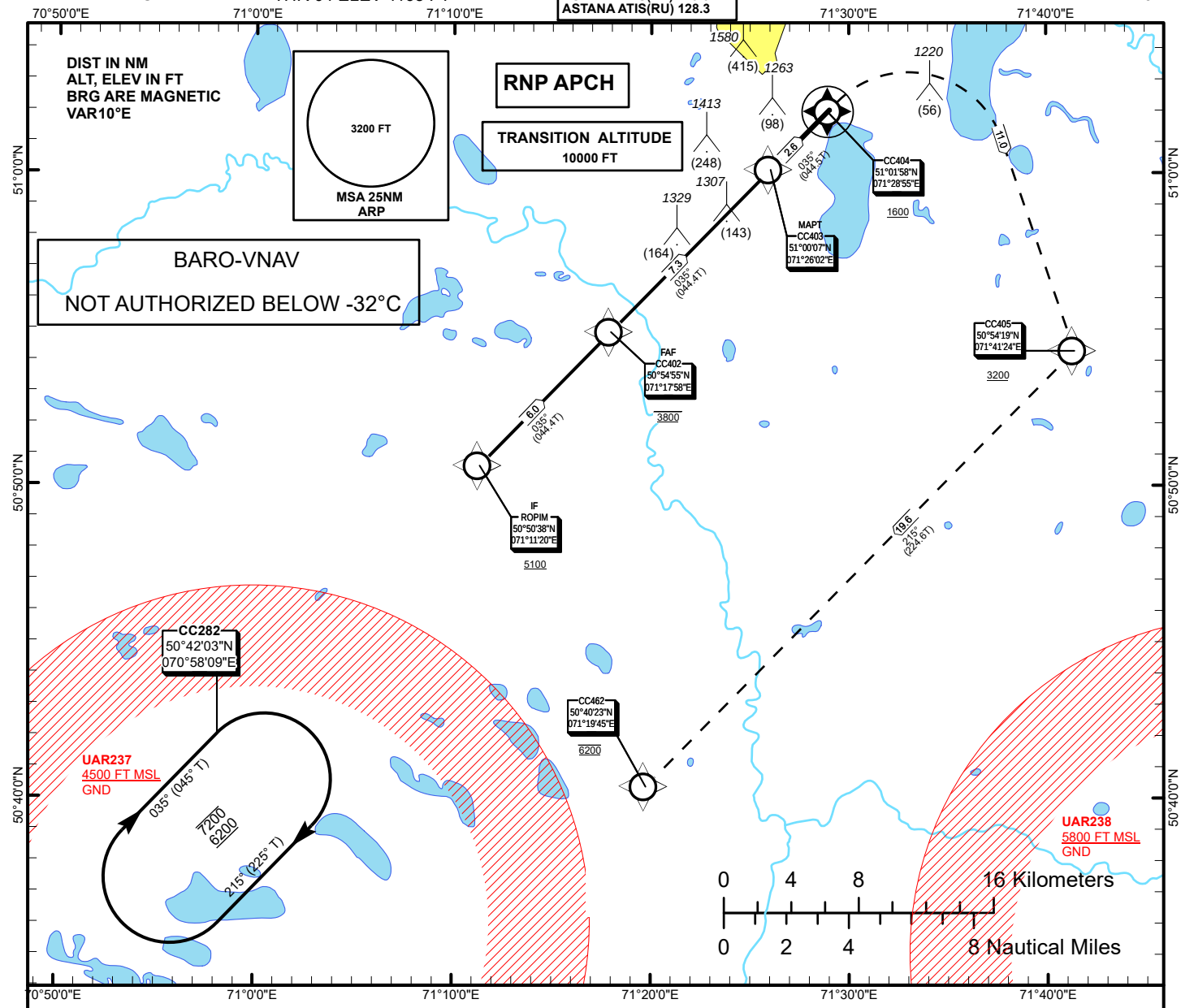
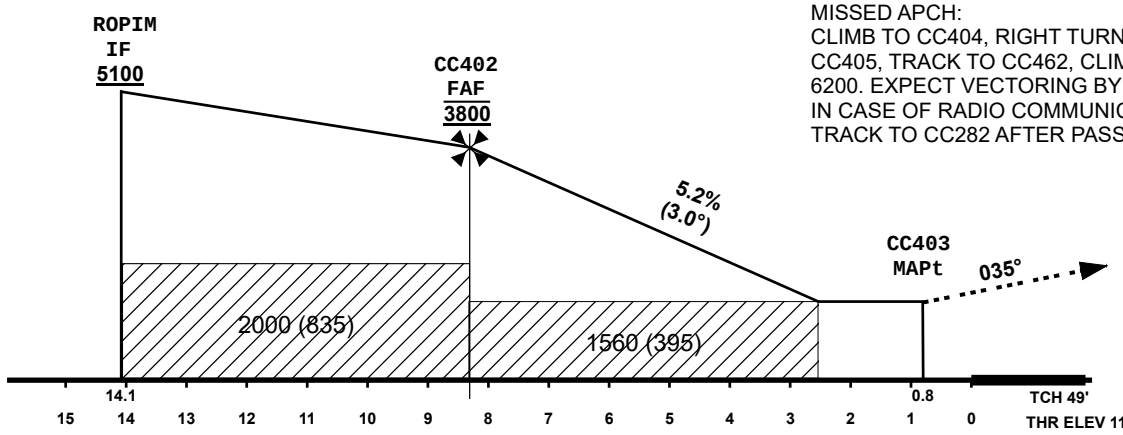
RNP RWY 04





MISSED APCH:
CLIMB TO CC404, RIGHT TURN DIRECT TO CC405, TRACK TO CC462, CLIMBING TO 6200. EXPECT VECTORING BY ASTANA APP.
IN CASE OF RADIO COMMUNICATION FAILURE TRACK TO CC282 AFTER PASSING CC462 AND HOLD

OCA (OCH)		A	B	C	D
Straight	LNAV	1560 (395)			
	LNAV/VNAV	1380 (215)	1390 (225)	1410 (245)	1480 (315)

For data tabulation see verso

GS	Kt	80	100	120	140	160	180
Rate of descent	ft/min	420	530	640	740	850	950
PFAF-MAPT 7.3 NM	min:sec	05:27	04:21	03:38	03:07	02:43	02:25

CHANGE: Editorial.

TABULAR DESCRIPTION
RNP APCH IAP
RWY04

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
010	IF	ROPIM	-	-	10	-	-	+5100	-230		RNP APCH
020	TF	CC402	-	35(44.4)	10	6	-	@3800	-185		RNP APCH
030	TF	CC403	-	35(44.4)	10	7.3	-	@1420	-185	-3.0	RNP APCH
040	CF	CC404	Y	35(44.5)	10	2.6	-	+1600	-210	+1.4	RNP APCH
050	DF	CC405	-	-	10	11	R	+3200		+1.4	RNP APCH
060	TF	CC462	-	215(224.6)	10	19.6	R	@6200		+1.4	RNP APCH

WAYPOINT LIST

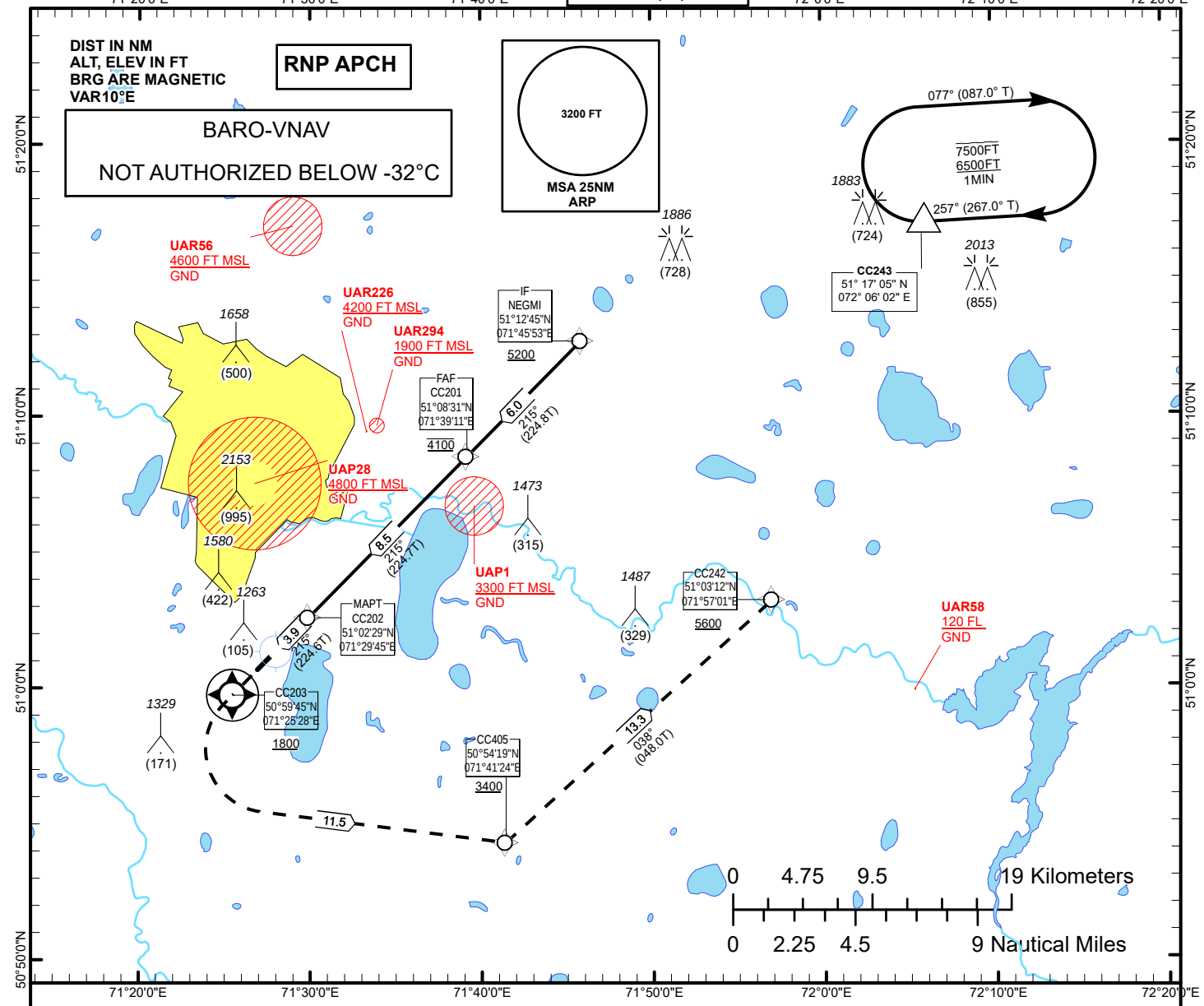
RNP APCH IAP RWY04		
Waypoint Identifier	**Coordinates**	
ROPIM	505037.85N	0711120.41E
CC402	505454.87N	0711757.73E
CC403	510006.69N	0712602.14E
CC404	510157.78N	0712855.38E
CC405	505418.51N	0714124.46E
CC462	504022.77N	0711945.13E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *1166 FT*
HEIGHTS RELATED TO
THR 22 ELEV 1158 FT

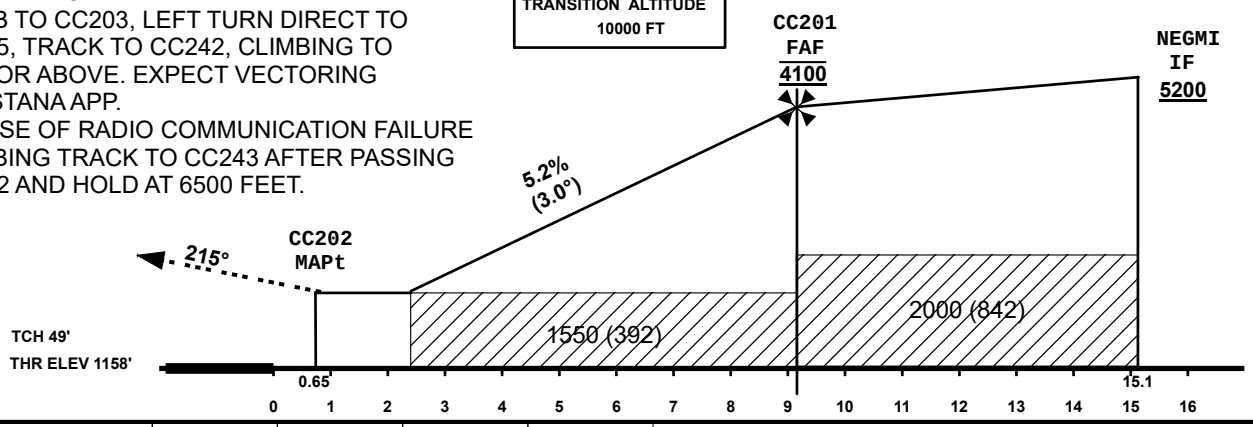
ASTANA TOWER 118.7
ASTANA APPROACH 124.6
ASTANA RADAR 120.7
ASTANA GROUND 119.6
ASTANA ATIS(EN) 129.5
ASTANA ATIS(RU) 128.3

ASTANA/NURSULTAN NAZARBAYEV INTERNATIONAL AIRPORT
RNP RWY 22



MISSED APCH:
CLIMB TO CC203, LEFT TURN DIRECT TO CC405, TRACK TO CC242, CLIMBING TO 5600 OR ABOVE. EXPECT VECTORING BY ASTANA APP.
IN CASE OF RADIO COMMUNICATION FAILURE CLIMBING TRACK TO CC243 AFTER PASSING CC242 AND HOLD AT 6500 FEET.

TRANSITION ALTITUDE
10000 FT



OCA (OCH)		A	B	C	D
Straight	LNAV	1550 (392)			
	LNAV/VNAV	1430 (272)	1450 (292)	1450 (292)	1460 (302)

For data tabulation see verso

GS	Kt	80	100	120	140	160	180
Rate of descent	ft/min	420	530	640	740	850	950
PFAF-MAPT 8.3 NM	min:sec	05:27	04:21	03:38	03:07	02:43	02:25

CHANGE: Revised.

TABULAR DESCRIPTION
RNP APCH IAP
RWY22

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
010	IF	NEGMI	-	-	10			+5200	-230		RNP APCH
020	TF	CC201	-	215(224.8)	10	6	-	@4100	-180		RNP APCH
030	TF	CC202	-	215(224.7)	10	8.5	-	@1414		-3.0	RNP APCH
040	CF	CC203	Y	215(224.6)	10	3.9	-	+1800	-210	+1.4	RNP APCH
050	DF	CC405	-		10	11.5	L	+3400		+1.4	RNP APCH
060	TF	CC242	-	38(48.01)	10	13.3	L	+5600	-230	+1.4	RNP APCH

WAYPOINT LIST

RNP APCH IAP RWY22		
Waypoint Identifier	**Coordinates**	
NEGMI	511245.30N	0714553.00E
CC201	510830.68N	0713910.95E
CC202	510229.41N	0712944.80E
CC203	505944.92N	0712528.24E
CC405	505418.51N	0714124.46E
CC242	510312.43N	0715700.84E

UATG AD 2.7 Seasonal Availability - Clearing

1	**Types of clearing equipment**	Rotor snow-plough based on Ural 4320 - 1 unit, airfield snowplow Amkador-9463 based on MAZ 543403 - 1 unit, airfield snow-plough EuroMash ACC4000 based on Maz 543403 - 1 unit, wind machine based on Kraz-2556 -1 unit, thermal machine based on Ural-375-1 unit, thermal machine TM-59-MG on chassis of the tractor T-150-1 unit, compact sweeper-blowing machine SCHMIDT CJS -914 on chassis MAN - 1 unit, snow-plough based on KAMAZ-53229- 2 units, snow plough based on KAMAZ-65115-1 unit, tractor MTZ-82 truck-2 units, JCB mini loader Skid Steer Loader 155- 1 unit, telescopic loader JCB-540- 140-1 unit, sprayer "Mekosan 3000-18" for applying liquid chemicals-2 units, AIST-7M trailer- 1 unit.
2	**Clearance priorities**	1. RWY 2. TWY 3. Stands
3	**Remarks**	Equipment and special vehicles are used in case fall out precipitation.

UATG AD 2.8 Aprons, Taxiways And Check Locations/Positions Data

1	**Apron surface and strength**	**STANDS**		**SURFACE**	**STRENGTH**
		1-6		CONC	PCN 60/R/B/W/T
		7-9		CONC+ASPH	PCN 20/R/B/X/T
		10-17a		CONC+ASPH	PCN 12/F/C/Z/T
		22-24		CONC+ASPH	PCN 15/F/C/Z/T
2	**Taxiway width, surface and strength**	**TWY**	**WIDTH (M)**	**SURFACE**	**STRENGTH**
		MAIN TWY D	44	CONC+ASPH	PCN 20/R/A/X/T
		A	23	CONC+ASPH	PCN 84/F/C/X/T
		B	23	CONC+ASPH	PCN 84/F/C/X/T
		C	15	ASPH	PCN 12/F/C/Z/T
		E	23	CONC+ASPH	PCN 84/F/C/X/T
		F	27	ASPH	PCN 12/F/C/Z/T
		G	42	CONC+ASPH	PCN 84/F/C/X/T
3	**Altimeter checkpoint location and elevation**	Nil			
4	**VOR checkpoints**	Nil			
5	**INS checkpoints**	Nil			
6	**Remarks**	Taxiway D is closed for aircraft takeoff and landing. Part of the MAIN TWY D (from the intersection with TWY A to end of the MAIN TWY D towards the RWY 14), TWY A and B,can be used for helicopter take-off/landing in the daytime			

UATG 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**	Guidance sign board at entrance of RWYs, guidance sign designating taxiways

2	**RWY and TWY markings and LGT**	Markings of thresholds, touchdown zones, centre line, fixed distance markers, RWY edges, RWY designations, taxi holding positions, taxiway centre lines
3	**Stop bars**	AVBL / RED
4	**Other runway protection measures**	Yellow
5	**Remarks**	Nil

UATG AD 2.10 Aerodrome Obstacles

NIL

UATG AD 2.11 Meteorological Information Provided

1	**Associated MET Office**	AMS Atyrau Phone: +7 (7122) 983178
2	**Hours of service MET Office outside hour**	H24
3	**Office responsible for TAF preparation: Periods of validity**	AMSC Atyrau, 24HR (0024, 0606, 1212, 1818)
4	**Trend forecast Interval of issuance**	TREND 30 min
5	**Briefing/consultation provided**	Personal consultation (Russian)
6	**Flight documentation/languages used**	TAF, METAR, SPECI, SIGMET, GAMET, AIRMET English
7	**Charts and other information AVBL for briefing or consultation**	S, U85, U70, U50, U40, U30, U25, U20, prognostic charts of wind and temperature at flight levels (FL), max wind, T, prognostic charts P85, P70, P50, P40, P30, P25, P20, SWH, SWM of WAFC, SWM+SWH, SWL of Kazakhstan;
8	**Supplementary equipment AVBL for providing information**	Doppler weather radar (WRM-200)
9	**ATS units provided with information**	Briefing, TWR
10	**Additional information**	Nil

UATG AD 2.12 Runway Physical Characteristics

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates 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	149,89°	2999 X 45	84/F/C/X/T CONC+ASPH	470801.45N 0514836.66E - -50.2 FT	THR -74.5 FT	0.03%
32	329.90°	2999 X 45	84/F/C/X/T CONC+ASPH	470637.41N 0514948.05E - -50.2 FT	THR -71.9 FT	0.03%

UATG AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency , Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS LOC 14 II/D/4	ITY	109,9 MHZ	H24	470619.6N 0515003.2E		Nil	Nil
GP 14 II/T/4		333,8 MHZ		470750.7N 0514839.2E			
DME 14	ITY	CH 36X		470750.7N 0514839.2E	-100 FT		
ILS LOC 32 I/D/2	IAY	108.3 MHZ	H24	470820.0N 0514820.9E		Nil	Nil
GP 32 I/C/2		334.1 MHZ		470645.8N 0514934.2E			
DME 32	IAY	CH 20X		470645.8N 0514934.2E	-100 FT		
DVOR/DME (9°E/2013)	ATR	112,3 MHZ CH 70X	H24	470838.2N 0514805.4E	0 FT	Nil	Nil

UATG AD 2.20 Local Aerodrome Regulations

1. Taxiing

ACFT movement at the aerodrome is conducted by towing and ACFT's thrust. Taxiing and towing are carried out by established marking.

Starting of engine, towing and taxiing are conducted by ATC controller clearance of "Atyrau-Tower".

ACFT stand number and docking procedure are established by shift foreman of CCR (central control room) "Atyrau" based on actual situation: availability of restriction, parking prohibitions and aerodrome part consisting of manoeuvring area and ramp.
Nose-in part of MAIN TWY D (from TWY A to end of main TWY D, east of RWY 32 THR) is used only for ACFT stand in absence of ACFT stand on apron (mass arrivals, apron repairs, etc.). ACFT park at a distance that ensures the safe usage of TWY A for taxiing, take-off and landing.
In exceptional cases, by the decision of shift foreman of CCR with mandatory report to "Atyrau" ATC flight supervisor, it is allowed to use part of MAIN TWY D (BTN TWY A and TWY B at a distance providing safe usage TWY A, B for taxiing, take-off and landing) for parking if there is no possibility ACFT towing, for the purpose of self-taxiing in/out and long-term parking. In these cases, issued NOTAM and helicopter CREW make final decision to take flight operations from (to) MAIN TWY D.

ACFT tracking (leading) is conducted regardless of the time of day:

- during commissioning of low visibility conditions procedures;
- during unability of marking;
- during complicated procedures of movement on the maneuvering area;
- during taxiing IN/OUT to MAIN TWY D in case of using as ACFT STAND;
- on request of ACFT crew.

U-turns on RWY are cleared if ACFT index allowed, CREW responsible for safety. When restrictions are imposed by AD service, U-turns are available only at RWY wedding by clearance of “Atyrau-TWR” ATC controller.

“Atyrau TWR” ATC controller may expedite taxiing to line up and RWY vacating after landing (except LVP procedures duration) to reduce RWY occupancy time. CREW immediately informs ATC controller if it is not possible to complete required instructions.

U-turns for aircraft type AN-12, A320, A321, all modifications of B-737, B-757, B-767, IL-76 and aircraft with heavier takeoff mass are prohibited. U-turns are allowed only on turning bays of RWY 14/32.

2. Takeoff and landing

Before starting the flight the CREW must listen ATIS information, before starting (towing) establish a connection with “Atyrau-Tower” ATC controller at a frequency of 118.1 MHz, inform ATIS current information index, number of ACFT stand and get ATC clearance for take-off.

Depending on the air or ground situation it is allowed to take-off not from the runway THR or from TWY A, B by agreement between “Atyrau Tower” ATC controller and the crew. ACFT take-off starts from RWY point where rolling take-off coincide required actual TKOFF mass of ACFT and TKOFF conditions. Final decision to take-off is made by ACFT CREW.

ACFT TKOFF and landing with tailwind component are permitted for accelerating AFCT flow movement by CREW or ATS unit’s request. CREW is responsible for TKOFF and landing decision.

If flight safety, runway configuration, meteorological conditions and existing approach procedures or air traffic conditions do not prefer another direction, ATS unit shall designate RWY taking into account the performance of the ACFT landing or take-off against the wind. The departure of the aircraft with a heading opposite to the operational runway direction is PROHIBITED.

ACFT CREW TKOFF immediately after TKOFF clearance. If the ACFT crew is not ready to execute immediate TKOFF, it is necessary to inform “Atyrau-TWR” controller before taxiing to line up and about an expected delay time.

Pilot in-command shall make the final decision on the performance for take-off or landing in weather conditions that do not correspond to the minima set by the airlines for take-off and landing. In this case, ATC clearance for take-off or landing shall not be considered as compelling action and ACFT CREW is responsible for taken decision and for result of landing or take-off.

3. The flights of helicopters

For engine start-up, take-off and landing of helicopters, on1y the RW and part of the main taxiway D are used from the intersection with TW A to the end of MTWY D towards RWY 14, day time, in compliance with the established intervals between aircraft taking off and landing and distances to obstacles.

It is allowed, in agreement with the Atyrau-Tower controller, to start helicopter engines at stands 1-3.

Air taxiing of helicopters with a skid landing gear from the parking area to the take-off location and back is carried out according to markings along the route assigned by the Atyrau-Tower controller, observing the established distances to obstacles under the responsibility of the helicopter commander.

Helicopters, in agreement with the Atyrau-Tower controller, are allowed to move by air during the day while maintaining the established distances to obstacles from stand 15-17A to take-off point from MTWY-D and back.

Running takeoff of helicopters and rolling landing, takeoff and landing of helicopters in accordance with IFR (Special VFR during nighttime and twilight) are carried out only from / on the RWY.

In the presence of meteorological phenomena or industrial smoke on a part of the runway, impairing visibility to values below the minimum, the helicopter PIC is allowed to take off and land, in agreement with the air traffic controller, in that part of the runway where the meteorological conditions correspond to its minimum (start / middle / end).

4. The procedures in low visibility conditions

The procedures in low visibility conditions are entered at RVR less than 550 m., when not all maneuvering area or part of it is visually controlled from the control center “Atyrau- Tower”.”

RWY 14 is used for ICAO CAT 2 landing.

ATC controller with following phrase “Low visibility procedures in progress” reports the beginning of LVP procedures.

During ICAO CAT 2 precision approach pilot is guaranteed that the signals of localizer and glide slope beacons are protected from interference on final landing approach.

The movement of vehicles on the apron and the maneuvering area is restricted.

Obstacles on the RWY and zones of radio beacon landing system are monitored by ATC controller based on the CREW’s or aerodrome service specialist’s reports.

ATC immediately informs CREW about changing the operational status of radio and lighting equipment.

Pilot (crew) is given minimum of two values of visibility on the runway, measured in touchdown zone and in the middle of the runway during landing approach in ICAO Category 2.

If there are consecutive departures and there is no possibility for holding position to different taxiways, aircraft are waiting in line for holding position at ACFT stand.

Only one ACFT can be on the runway.

The clearance for landing is issued in advance before approaching ACFT reaches a distance of 2.2 NM.

When pointing for landing approach by radar vectoring the ACFT is moved to final approach leg no closer than 13.5 NM from the runway threshold.

Minimum interval between consecutive departing ACFT in law visibility conditions:

- departing ACFT should fly over the LOC antenna before the next departing ACFT start of take-off, but no less of intervals established according to wake turbulence.

The minimum intervals between arriving and departing ACFT:

- departing ACFT should take off before approaching to land ACFT reaches a distance of 6.5 NM on final approach leg. (in condition of ICAO category 2)

Minimum interval on final approach between arriving ACFT (in the conditions ICAO Category 2):

- no less 13.5 NM

The crew does not report about the vacating runway as long as the ACFT precede further the marked holding point (STOP line lights).

Taxiing to the apron after vacating of the runway is allowed only by the follow-me-car. The parking of the ACFT on the stand is carried out by the instruction of a person who responsible for meeting the ACFT.

The ACFT taxiing for takeoff from ACFT stand to holding position is accompanied by follow-me-car. At holding position the ACFT does not taxi further marked holding point (STOP line lights) until the clearance of ATS air traffic controller will be received and STOP line lights will be turned off.

When working centerline lights of taxiway B, E it is allowed to taxi via centerline lights without follow-me-car.

ACFT taxiing is carried out on the minimum engine thrust.

During period of LVP operation it is prohibited the takeoff not from runway THR, from taxiway A, B, turns on the runway, ACFT TKOFF with back course of the runway working direction.

5. Training and practice flights, check-test and check flights (flyover)

IFR training and check flights are performed according to established procedures for instrumental takeoff and landing approach. After takeoff, crew maintains received entering approach procedure instructions from air

traffic controller.

For training flights, control flights (flying around) of aircraft according to the VFR, an aerodrome flight circle has been established: RWY 32 - left circle, RWY 14 - right circle, circle flight altitude is assigned by the air traffic controller "Atyrau Tower".

Depending on intensity of flights and restrictions imposed, Air traffic manager have the right to restrict the number of training ACFT, to suspend or prohibit the training flights.

Flight inspections of Radio Engineering Flight Ensuring facilities and communications are carried out in accordance with the requirements of the Rules for radio engineering flight ensuring and aviation radio communication of civil aviation.

Training flights in uncontrolled airspace within the horizontal limits of the Atyrau TMA are permitted up to 2,000 feet. If necessary, flights at an altitude of over 2000 FT, shall be performed in coordination with the "Atyrau-Tower" air traffic controller only. Training flights in the horizontal limits of the TMA up to an altitude of 2000 FT are performed according to the QNH of the area, and for flights at an altitude of 2000 FT and higher on the QNH of the aerodrome.

For training (overflight) by helicopters on hovering, as agreed with the flight supervisor, in the absence taking off and approaching ACFT on the runway, it can be used the site located north-east of the aerodrome check point at the place of widening rapid exit taxiway-D, in the daytime, under minimum meteorological conditions for VFR (SVFR) flights. With observance of established intervals and distances to obstacles. Take-off (landing) from (to) pad in sector azimuth 350°-150° (150°-350°) is prohibited. Movement (hover taxiing) to (from) the pad, hovering training (height) and take-off and landing from (to) the pad shall be performed with clearance of “Atyrau-Tower” controller. Helicopter pilot responsible for safety during movement (taxiing) to (from) the pad, hovering training (hovering), takeoff and landing from (to) the pad.

6. Helicopter pad

7. Emergency landing procedure

In case of on-board emergency during takeoff, pilot-in-command determines the necessary maneuver for purpose of safety.

8. Fuel draining

Fuel dumping is conducted only in emergencies that prevent a decrease of landing mass of ACFT by running out of fuel.

If the CREW needs a radio-silent during the fuel dumping, the duration is agreed between the crew and ATC controller

Fuel dumping is conducted by the designated route of ATS unit depending on air situation on height agreed with CREW in area bounded by waypoints UDEBA-OLAPU-BASPU-UDEBA (not lower 9000 FT).

In an emergency, the crew shall have the right to fuel dumping out of the designated route.

ACFT separation when fuel dumping is carried out in accordance with the Procedures for Air Navigation Services "Air Traffic Management" (PANS-ATM) doc 4444 ATM/501.

UATG AD 2.21 Noise Abatement Procedures

NIL

UATG AD 2.22 Flight Procedures

GENERAL PROVISIONS

In the area of the Atyrau Aerodrome, flights are under the IFR and VFR.

When flying on IFR and VFR in the control area of the Atyrau aerodrome, it is necessary to:

- have permission from the ATS unit received prior to entering the area of responsibility;
- at the request of the ATS unit to report the location;
- follow the instructions of the ATS unit;
- have and continuously maintain two-way radio communication in the VHF band.

IFR and VFR flights are carried out at specified flight levels (heights) in accordance with the rules of vertical,

longitudinal and lateral separation with keeping set intervals.

IFR flights have an advantage over VFR flights.

When applicable, arriving aircrafts are sent to the holding area. To regulate the longitudinal intervals between the aircrafts, the crew may be given a command to perform an orbit flight (360 ° turn) with indicating the place and side of the turn.

In case of a flight safety hazard, a change in the predetermined altitude (flight level) of the flight and deviation from the line of the given route is allowed. When a given flight Line or flight altitude deviates from the established line, the Aircraft commander immediately informs the ATS unit under its control, of which the aircraft is exist.

Information on the activities of restricted flight areas, prohibited areas and hazardous areas, within the area of the aerodrome in real time, the overflying permit or the bypass route is assigned to the «Atyrau Tower».

PROCEDURES OF FLIGHTS ON IFR WITHIN THE AERODROME CONTROL ZONE

Takeoff and initial climb are carried out using standard routes indicated on the Standard Departure Chart on Instrument (SID) Runway 14 (Runway 32) or along the paths assigned by the ATS unit.

Aircraft crews are obliged to withstand the prescribed standard departure (SID) and arrival (STAR) routes, and in case of deviation, enter to a given route line immediately.

The aircraft crew must withstand the established speed limit, unless otherwise indicated by the ATS unit. To regulate the flow of traffic, the translational instrumental velocities of the aircraft are applied in order to ensure the intervals required for landing, taking into account the characteristics of the aircraft.

PROCEDURES OF FLIGHTS ON VFR WITHIN THE AERODROME CONTROL ZONE

The permission entry into the aerodrome control zone, the route and altitude of the departing and arriving aircraft, holding area until the aircraft receives permission entry into the range of flights is assigned by the Atyrau Tower.

For flights on VFR, an aerodrome traffic circuit is installed: Runway 32 - left circle Runway 14 - right circle orbit altitude is appointed by the air traffic controller of “Atyrau Tower”.

Minimum meteorological conditions in the control area (takeoff and landing of RWY 14/32, Stands 1-3, taxiways A, B, MTW D, helipad) by VFR during the day:

- cloud base height - 500 FT (indicated speed of 140 Kt and less), 1000 FT (indicated speed of 141-250 Kt);
- meteorological visibility range of 2000 meters (indicated speed of 140 Kt or less), 5000 meters (indicated speed of 141-250 Kt)

Minimum meteorological conditions in the control area (takeoff and landing of RWY 14/32, Stands 1-3, TWY A, B, MTW D, helipad) in VFR (SVFR) during the day when flying in order to provide emergency medical and (or) humanitarian helping the population in case of natural disasters, performing search and rescue, emergency rescue operations, especially important flights and training flights:

- Helicopter:
  - cloud base height - 500 FT;
  - meteorological visibility range of 1000 meters
- Aircraft:
  - cloud base height - 500 FT;
  - meteorological visibility range of 1500 meters

Minimum meteorological conditions for flight in the control area (takeoff and landing of RWY 14/32) according to VFR (SVFR) at night when flying in order to provide emergency medical and (or) humanitarian assistance to the population in case of natural disasters, perform search and rescue, rescue operations, especially important flights and training flights:

- Helicopter:
  - cloud base height of the clouds - 1000 FT;
  - meteorological visibility ranges of 4000 meters
- Aircraft:
  - cloud base height of the clouds - 1500 FT;
  - meteorological visibility ranges of 4000 meters

Helicopter flights with cargo on an external sling in the control area are performed according to VFR, bypassing settlements.

RADAR PROCEDURES IN THE AERODROME CONTROL ZONE

To regulate the sequence of landing approach and to maintain safe intervals from any point of the scheme, it is possible to control the aircraft movement in height and direction by the ATS controller using the radar vectoring method. Instructions on the occupation of certain levels (heights) is carried out in accordance with the Location Map of minimum altitude of ATC - ICAO.

In the absence of radar control, but steady operation of the onboard flight-navigation equipment, the crew of the aircraft are allowed to perform landing approach in accordance with the published approach plans on the IFR without a radar or make an abbreviated visual approach.

EMERGENCY LANDING PROCEDURE

In case of an emergency on the aircraft at the take-off stage, the necessary maneuver in order to ensure safety is determined by the aircraft commander.

RULES OF GROUND MOVEMENT

The order of movement of aircraft on the aerodrome

Taxiing out and taxiing the aircraft from (to) the parking lot is carried out according to the signals of the responsible person of the engineering and aviation service of the airport operator, which ensures the reception and release of the aircraft.

The taxiing speed is chosen by the aircraft commander depending on the state of the aerodrome surface, the presence of obstacles, the weight of the aircraft, wind conditions and visibility conditions.

Towing an aircraft with visibility less than 2 km is performed at a under speed with the marker lights on the aircraft, aeronautical lights and the observance of increased safety precautions.

Removal of aircraft from the working area of the aerodrome that have lost the ability to move.

Removal of aircraft that have lost the ability to move is carried out by the engineering and aviation service, the aerodrome service, the special transport service of the aerodrome operator and the aircraft operator.

Information about the technical means and equipment used in rescue and fire fighting.

On fire and rescue crews have a fire equipment provided in the table 1.

Table 1:Available fire-fighting equipment at Atyrau airport

Name, type of fire truck	Number	Main place of basing	Remark
KamAZ AA-40 (43195)	1	In boxing emergency-rescue service	Used for duty at the fire station
MAN AA-40 (26320)	1	In boxing emergency-rescue service	- II - II - II - II -
MAN AA-70 (32321)	1	In boxing emergency-rescue service	- II - II - II - II -
KamAZ AA-8 / 60-50 / 3 (43118), equipped with a device to cover the runway with foam	1	In boxing emergency-rescue service	- II - II - II - II -

The complete set of fire trucks corresponds to the complete set list. Each fire truck is equipped:

- fire-fighting equipment (fire hoses, hand-held fire barrels, foam generators);
- means for evacuating people from an emergency aircraft (ladder, saw, knives for cutting safety belts, a device for cutting the fuselage skin);
- personal protective equipment for fire-rescue crews (breathing apparatus, helmets, thermal suits);
- supporting (bar, fire axes, hammer, shovel, etc.)

- with a trench tool (crowbar, fire axes, sledgehammer, shovel, etc.).

For emergency-rescue operations at the aerodrome, there are:

- trailer van equipped with stretchers (80 pieces) and emergency medical stowages with a dressing material (for 80 people);
- GAZ-66 car equipped with a VHF channel and an emergency radio station TESLA;
- car UAZ-3153RO1, equipped with communication facilities and loud-speaking installation

VFR procedures within the aerodrome control zone (CTR)

Air traffic service in the control zone of the aerodrome is carried out by the controller of the “Tower” ATC unit. Flight altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan. The functions of Air traffic service does not include ground collision avoidance. The aircraft crew shall ensure that the clearance issued by the ATS unit in this regard is safe. VFR flights are performed at the altitudes indicated in the flight plan or requested by the aircraft crew.

Flights must not be performed over populated areas within the control zone.

For VFR flights, the aerodrome has a flight circle (left / right). The air traffic controller of the “Tower” ATC unit is determine and report which flight circle is in use.

Entering the flight circle, crossing the runway alignment is made only with the permission of the air traffic controller of the “Tower” ATC unit.

The aircraft crew preliminarily agrees with the ATS unit the flight area and altitude range during aerial work in the control zone at absolute altitudes.

When entering the control zone (CTR) from uncontrolled airspace, the aircraft crew must obtain an air traffic control clearance 5 minutes before the estimated time of entering the controlled airspace.

Entry / exit of aircraft of category A and helicopters flying in VFR to / from the control zone (CTR) at absolute altitude below 3000 feet is carried out at the shortest distance through the corresponding point.

If the air situation requires the holding procedure, the air traffic controller of the “Tower” ATC unit gives the instructions to the aircraft crew to follow to one of the holding points.

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
1	MIKE	N473036 E0514611	348˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
2	KILO	N472621 E0520715	028˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
3	SIERRA	N471708 E0521751	058˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
4	PAPA	N470324 E0521922	095˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
5	TANGO	N464848 E0520158	146˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
6	DELTA	N464941 E0513142	203˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
7	GOLF	N470231 E0511709	245˚22.0 nm ATR DVOR/DME	Entry/exit/ holding
8	BRAVO	N471414 E0511653	276˚22.0 nm ATR DVOR/DME	Entry/exit/ holding

CONTINUOUS DESCENT OPERATION

CDOs are performed during periods of low traffic density at ATC discretion.

CDOs are executed only by ACFT that use standard arrival procedures RNAV1 based on GNSS.

Although these procedures are designed as a closed path, they permit distance planning for CDO, allowing the ACFT Flight Management System/Computer (FMS/FMC) to accurately execute automated optimized descents when:

- ACFT is cleared to proceed to a waypoint or via a combination of waypoints in order to provide an optimum lateral flight path up to and including the FAP and thus the exact distance to the RWY is known prior to start of the continuous descent operation; or
- the pilots of the ACFT that to be vectored to final are provided with distance-to-go information.

CDOs are authorized only when following conditions are respected:

- ILS of RWY intended for landing is in operation;
- no adverse weather conditions that may affect CDO;
- no system degradations that may affect GNSS or ILS operation.

After receiving “WHEN READY DESCEND TO (LEVEL)” or “DESCEND TO (LEVEL) AT PILOTS DISCRETION” clearance the pilot is allowed to plan/optimize vertical profile in order to apply CDO to FAP.

Depending on traffic, CDO may start from TOD or lower levels.

In accordance with appropriate ATC clearances, CDO can start from the TOD when ACFT is cleared to a waypoint or via a combination of waypoints for direct routing/shortcut and the horizontal trajectory is defined up to and including the FAP. Thus, the exact distance to RWY is known and the descent profile can be readily calculated by the appropriate on board system (FMS) prior to start of the CDO.

After clearance “WHEN READY DESCEND TO (LEVEL) " or “DESCEND TO (LEVEL) AT PILOTS DISCRETION” pilot should maintain the cruising/last assigned level until the optimal descent point/TOD that is determined by pilot or FMS, then start descent with no extra requests unless other ATC instructions are issued.

If necessary ATC may issue additional instructions: “WHEN READY DESCEND TO (LEVEL), REPORT LEAVING (or REPORT TOP-OF-DESCENT)”

Considering airspace structure, ATC issues an instruction to descend to level(s) above level of FAP. Wherein ATC issues further descent instruction prior to CDO flight reaching 3000 feet (900 m) above last assigned level.

It is preferable if CDO is commenced from top of descent. If it is not feasible due to traffic, CDO may be initiated from any lower level.

As a portion of the procedure consists of vectoring, the specific distance to RWY threshold is not known to a pilot prior to start of the CDO. In such cases, ATC will provide the pilot with an estimate of the flight track-miles to the RWY threshold as distance-to-go information. The pilot will use this information to determine the optimum descent rate to achieve a CDO.

UATG AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Nil	Nil	Nil	Nil

2. Ornithological situation

The winter period is characterized by the poverty of the species composition and the low number of birds. The spring and autumn periods are characterized mainly by movements of various species of migratory birds and the beginning of nesting. In the Atyrau region, from 50 to 60 species of birds were recorded in the spring and autumn migration. The main directions of spring and autumn migrations are the north and north-east directions and back. The first species of birds, such as the black crow (Corvus coronel), appear by mid-March 15th. Visual observations show that migrations occur at altitudes up to 200 m and more. In the summer period, many sedentary and migratory birds nest. On the territory of Atyrau region, nesting of up to 100 species of birds has been recorded.

Data on the accumulation of birds and the direction of their flight.

In winter, the following are held in the airport area: blue-gray doves (Solumba livia Gin) up to 50 individuals, silver gull (Larus argentatus Pontop) up to 40 individuals. In December, the daily activity of birds is observed from 9 to 16 hours, in January from 8 to 17 hours. Flying small groups and single birds in search of food occur at altitudes up to 50 meters. Only blue-gray doves flying in flocks of 7-12 individuals in the direction from the

north-east to south-west at 10-12 o'clock in the afternoon and at 16-17 o'clock in the opposite direction have a characteristic flight orientation in the airport runway area.

On the spring span in the vicinity of the airport, there are separate aggregations of various corvidae birds of up to 5,000 individuals, whose daily activity is observed in the morning hours - from 6 to 10 hours, in the evening - from 16 to 19 hours.

The danger to the movement of aircraft in the summer period is represented by the silver gull, black crow and gray wild doves. They mainly nest in the Caspian Sea region, located south of the airport. The distance from aerodrome check point to the sea is about 30 km. The activity of birds is observed in the morning from 6 to 10, in the evening from 16 to 19 hours.

At the aerodrome and the adjacent territory, measures are being taken to eliminate conditions conducive to the accumulation of birds and the scaring of birds by using noise and light-signaling means.

Aircraft crews receive information about the ornithological situation before taking off and landing at ATIS. In the absence of ATIS the information is transmitted by the air traffic controller of the "Atyrau Tower". In the event of a sudden complication of the ornithological situation, the air traffic controller of the "Atyrau Tower" will immediately transmit information to the crew.

Measures to prevent the accumulation of birds in the aerodrome area include scaring away birds with the help of equipment: noise gun «Stalker M90b», bioacoustics installations «Bird Gard Super Pro AMP», movable bird repeller "Glittei", repeller "Mirror ball", dynamic bird repeller “Condor”, inflatable bird repeller "Guardian", propane bird repeller "DBS-E" plastic decoy spikes, metal decoy spices, hunting saucer trap for wild animals, stationary laser device for protection from birds/animals «Horizon- 1», trigger for threaded cartridges "Hunter's Signal", red laser bird repeller BDL-650.

UATG AD 2.24 Charts Related To An Aerodrome

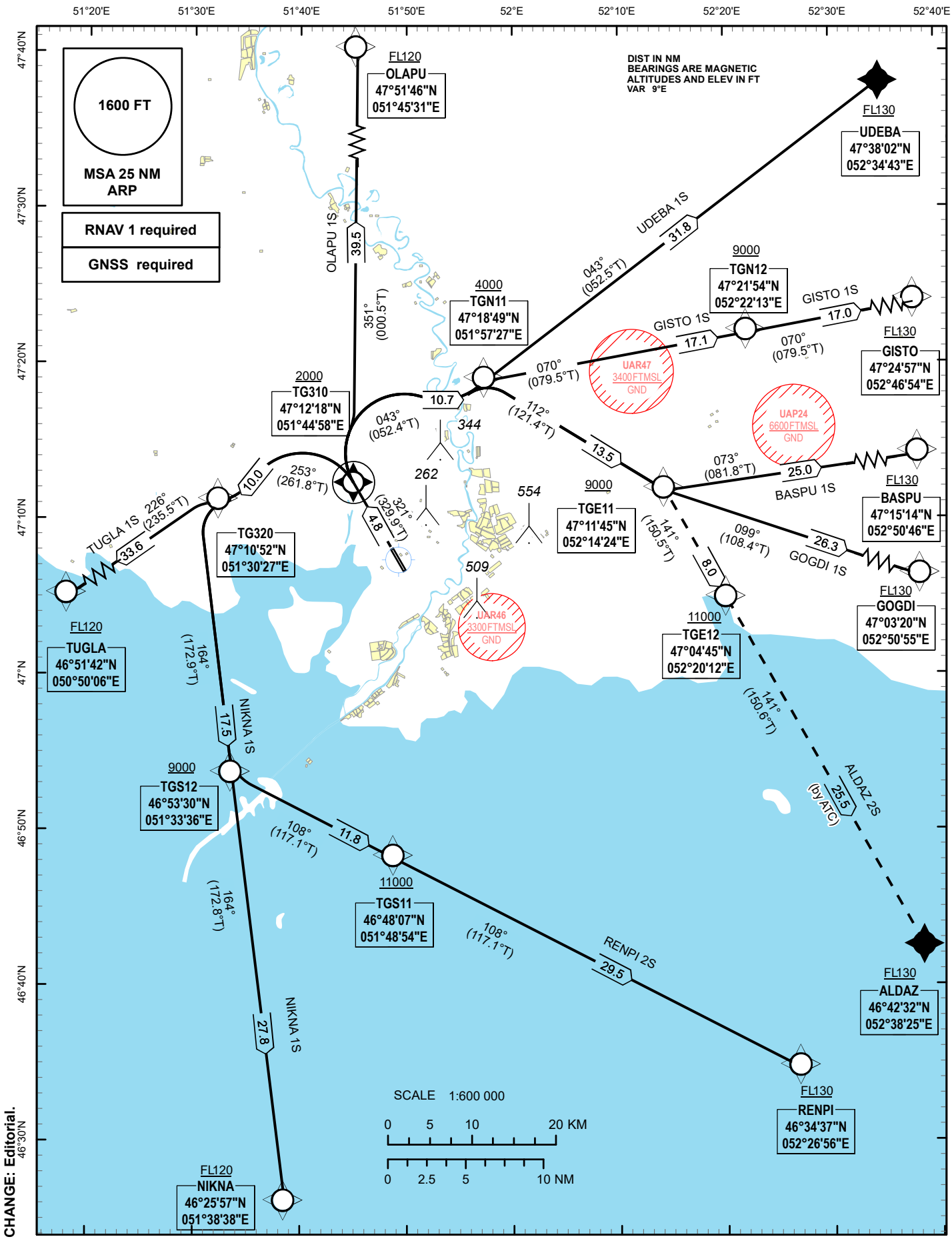
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
10000 FT

ATYRAU TOWER 118.1
ATYRAU ATIS (EN) 127.4
ATYRAU ATIS (RU) 126.6

ATYRAU
RWY 32

ALDAZ 2S, BASPU 1S, GISTO 1S, GOGDI 1S, NIKNA 1S, OLAPU 1S, RENPI 2S, TUGLA 1S, UDEBA 1S



CHANGE: Editorial.

TABULAR DESCRIPTION

ALDAZ 2S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TGN11	-	043(052.4)	+9.2	10.7	R	+4000	-	1.3	RNAV 1
30	TF	TGE11	-	112(121.4)	+9.2	13.5	R	+9000	-	3.5	RNAV 1
40	TF	TGE12	-	141(150.5)	+9.2	8.0	R	+11000	-	2.3	RNAV 1
50	TF	ALDAZ	-	141(150.6)	+9.2	25.5	-	+FL 130	-	0.7	RNAV 1

TABULAR DESCRIPTION

BASPU 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TGN11	-	043(052.4)	+9.2	10.7	R	+4000	-	1.3	RNAV 1
30	TF	TGE11	-	112(121.4)	+9.2	13.5	R	+9000	-	3.5	RNAV 1
40	TF	BASPU	-	073(081.8)	+9.2	25.0	L	+FL 130	-	1.5	RNAV 1

TABULAR DESCRIPTION

GISTO 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TGN11	-	043(052.4)	+9.2	10.7	R	+4000	-	1.4	RNAV 1
30	TF	TGN12	-	070(079.5)	+9.2	17.1	R	+9000	-	2.8	RNAV 1
40	TF	GISTO	-	070(079.5)	+9.2	17.0	-	+FL 130	-	2.2	RNAV 1

TABULAR DESCRIPTION

GOGDI 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TGN11	-	043(052.4)	+9.2	10.7	R	+4000	-	1.3	RNAV 1
30	TF	TGE11	-	112(121.4)	+9.2	13.5	R	+9000	-	3.5	RNAV 1
40	TF	GOGDI	-	099(108.4)	+9.2	26.3	L	+FL 130	-	1.4	RNAV 1

TABULAR DESCRIPTION

NIKNA 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TG320	-	253(261.8)	+9.2	10.0	L	-	-	-	RNAV 1
30	TF	TGS12	-	164(172.9)	+9.2	17.5	L	+9000	-	2.2	RNAV 1
40	TF	NIKNA	-	164(172.8)	+9.2	27.8	-	+FL 120	-	1	RNAV 1

TABULAR DESCRIPTION

OLAPU 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	OLAPU	-	351(000.5)	+9.2	39.5	R	+FL 120	-	2.4	RNAV 1

TABULAR DESCRIPTION

RENPI 2S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TG320	-	253(261.8)	+9.2	10.0	L	-	-	-	RNAV 1
30	TF	TGS12	-	164(172.9)	+9.2	17.5	L	+9000	-	2.2	RNAV 1
40	TF	TGS11	-	108(117.1)	+9.2	11.8	L	+11000	-	1.6	RNAV 1
50	TF	RENPI	-	108(117.1)	+9.2	29.5	-	+FL 130	-	0.6	RNAV 1

TABULAR DESCRIPTION

TUGLA 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TG320	-	253(261.8)	+9.2	10.0	L	-	-	-	RNAV 1
30	TF	TUGLA	-	226(235.5)	+9.2	33.6	L	+FL 120	-	2.1	RNAV 1

TABULAR DESCRIPTION

UDEBA 1S											
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
10	CF	TG310	Y	321(329.9)	+9.2	4.8	-	+2000	-	4	RNAV 1
20	TF	TGN11	-	043(052.4)	+9.2	10.7	R	+4000	-	1.4	RNAV 1
30	TF	UDEBA	-	043(052.5)	+9.2	31.8	-	+FL 130	-	2.7	RNAV 1

WAYPOINT LIST

Waypoint Identifier	Coordinates	
ALDAZ	464232.00N	0523825.00E
BASPU	471514.00N	0525046.00E
DEP	470809.85N	0514829.51E
GISTO	472457.00N	0524654.00E
GOGDI	470320.00N	0525055.00E
NIKNA	462557.00N	0513838.00E
OLAPU	475146.00N	0514531.00E
RENPI	463437.00N	0522656.00E
TG310	471218.00N	0514458.00E
TG320	471052.00N	0513027.00E
TGE11	471145.00N	0521424.00E
TGE12	470445.00N	0522012.00E
TGN11	471849.00N	0515727.00E
TGN12	472154.00N	0522213.00E
TGS11	464807.00N	0514854.00E
TGS12	465330.00N	0513336.00E
TUGLA	465142.00N	0505006.00E
UDEBA	473802.00N	0523443.00E

UAAH AD 2.14 Approach And Runway 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, colour	Remarks
1	2	3	4	5	6	7	8	9	10
04	CAT I (PALS) 900 M LIH	GRN Nil	PAPI LEFT/3°	Nil	Nil	2503m, spacing 60m, 0-1903m white, last 600m yellow	RED Nil	Nil	Control of light-signal equipment of the magnetic course 45/ 225 from the control panel of the control tower of the state aviation on the command of the Civil aviation controller (radio and telephone communications)
22	CAT I (PALS) 900 M LIH	GRN Nil	PAPI LEFT/3°	Nil	Nil	2503m, spacing 60m, 0-1903m white, last 600m yellow	RED Nil	Nil	

UAAH AD 2.15 Other Lighting, Secondary Power Supply

1	ABN/IBN location, characteristics and hours of operation	ABN: Nil IBN: Nil
2	LDI location and LGT Anemometer location and LGT	LDI: Nil
3	TWY edge and centre line lighting	TWY 1 EDGE: BLU TWY 3 EDGE: BLU TWY 4 EDGE: BLU TWY MAIN EDGE: BLU
4	Secondary power supply/switch-over time	AVBL, 15 sec
5	Remarks	Secondary power supply to the state aviation control tower.

UAAH AD 2.16 Helicopter Landing Area

NIL

UAAH AD 2.17 ATS Airspace

1	**Designation and lateral limits**	BALKHASH CTR A circle radius 20 NM centered on 465259N 0745902E
2	**Vertical limits**	4000 FT ALT / GND

3	**Airspace classification**	C
4	**ATS unit call sign** **Language(s)**	BALKHASH TOWER EN BALKHASH VYSHKA RU
5	**Transition altitude**	10000 FT
6	**Hours of applicability**	ANY 04:00 - 13:00 UTC
7	**Remarks**	Nil

UAAH AD 2.18 ATS Communication Facilities

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
TWR	BALKHASH TOWER (EN) BALKHASH VYSHKA (RU)	128 MHZ	Nil	Nil	ANY 04:00 - 13:00 UTC	Nil
ATIS	BALKHASH ATIS (EN) BALKHASH ATIS (RU)	126,6 MHZ 126,2 MHZ	Nil	Nil	As AD	ATIS information is being updated during AD working hours. Outside AD working hours ATIS information is not updated.

UAAH AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DVOR/DME (7°E/2020)	BLH	113.7 MHZ CH 84X	H24	465259.1N 0745901.7E	1400 FT	Nil	Nil

UAAH AD 2.20 Local Aerodrome Regulations

NIL

UAAH AD 2.21 Noise Abatement Procedures

NIL

UAAH AD 2.24 Charts Related To An Aerodromem

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AERODROME CHART - ICAO

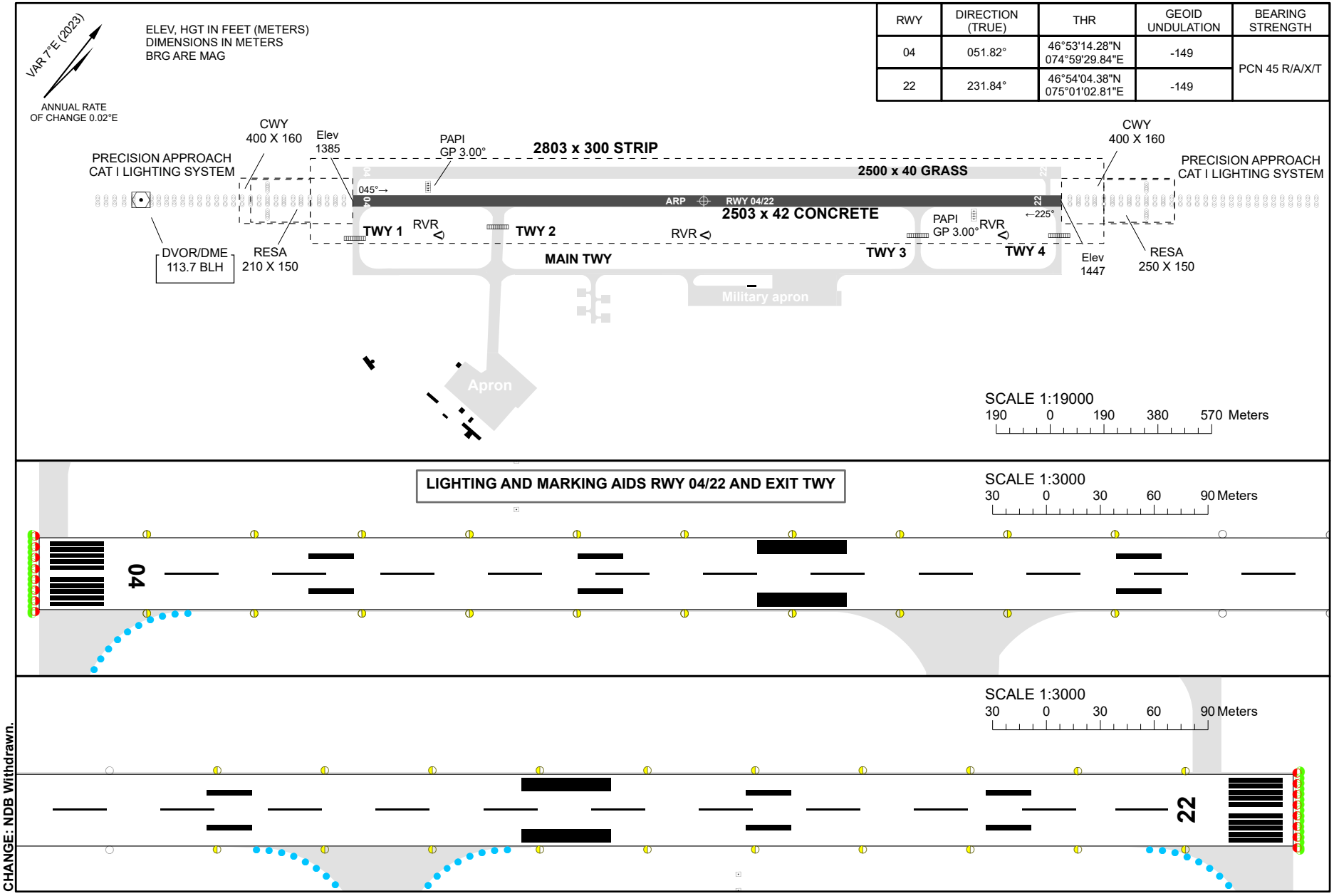
AD ELEV 1447FT *(441m)*

ARP 465339N 0750016E

TWR 128.0

BALKHASH

RWY	DIRECTION (TRUE)	THR	GEOID UNDULATION	BEARING STRENGTH
04	051.82°	46°53'14.28"N 074°59'29.84"E	-149	PCN 45 R/A/X/T
22	231.84°	46°54'04.38"N 075°01'02.81"E	-149	



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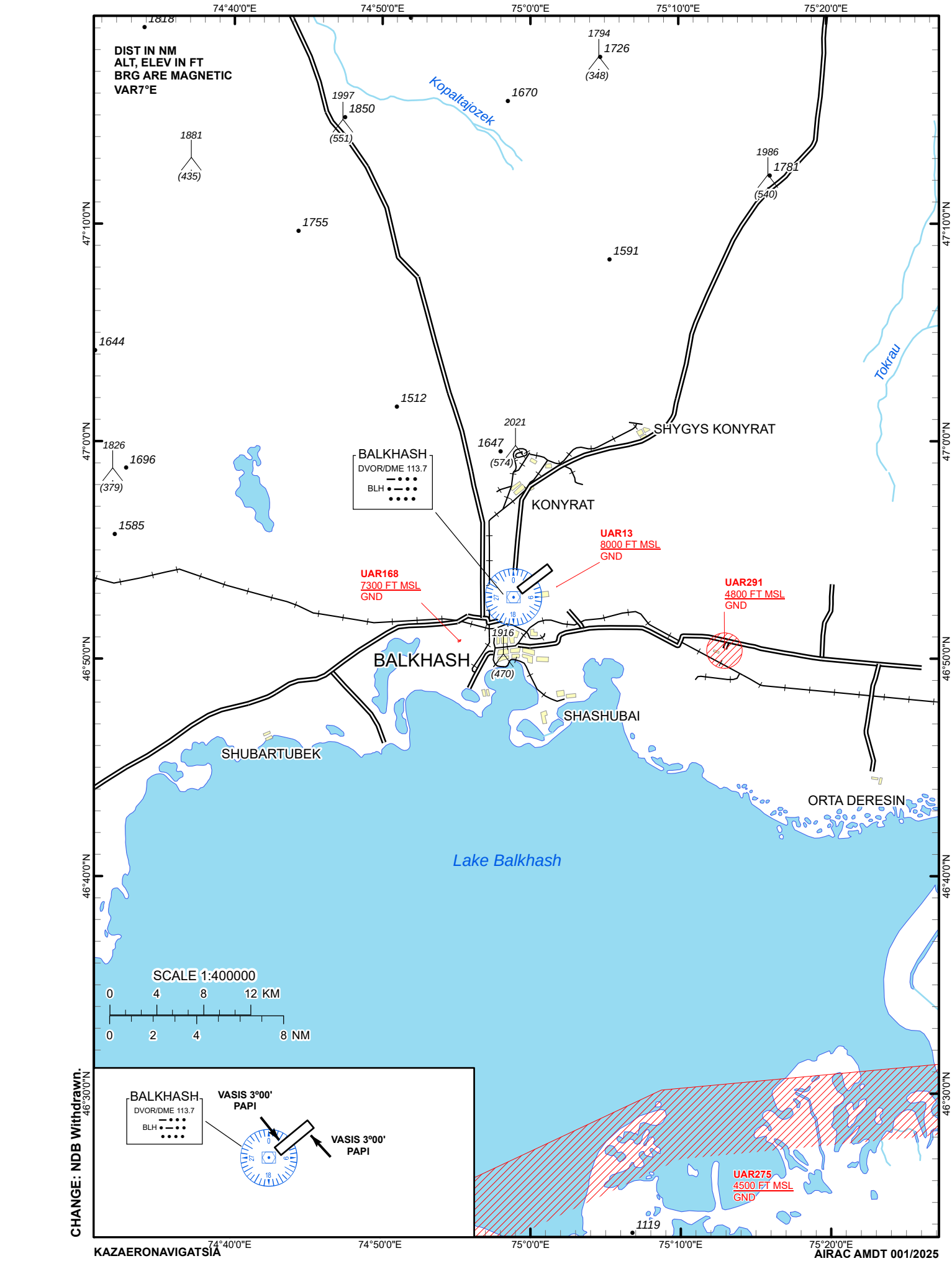
VISUAL APPROACH CHART - ICAO

AERODROME ELEV *1447 FT*
HEIGHTS RELATED TO AD ELEV

BALKHASH TOWER 128.0
BALKHASH ATIS (EN) 126.6
BALKHASH ATIS (RU) 126.2

BALKHASH



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UAKK AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS LOC 05 I/D/2	IRG	109,9 MHZ	H24	494103.4N 0732159.5E		Nil	Nil
GP 05 I/C/2		333,8 MHZ		493949.3N 0731908.7E			
DME05	IRG	CH 36X		493949.4N 0731908.7E	1800 FT		
ILS LOC 23 I/D/2	IKA	111,7 MHZ	H24	493937.0N 0731823.0E		Nil	Nil
GP 23 I/C/2		333,5 MHZ		494039.8N 0732115.0E			
DME23	IKA	CH 54X		494039.8N 0732115.0E	1800 FT		
DVOR/DME (8°E/2013)	KRG	113.4 MHZ CH 81X	H24	494113.9N 0732225.7E	1800 FT	Nil	Nil

UAKK AD 2.20 Local Aerodrome Regulations

1. Movement procedure (towing, taxiing) of aircraft on the airfield.

Aircraft movement on the aerodrome shall be carried out by taxiing or towing by special vehicles. Taxiing and towing shall be carried out only along the center lines of taxiways.

2. Precautions during taxiing, towing, taking into account the visibility conditions and the covering state of the apron, parking places, taxiways.

Aircraft shall be carried out after the “Follow-me” car when RVR less than 550 m. “Tower” air traffic controller managing aircraft traffic in aerodrome, informs the crews about the relative positions of aircraft, including following the same route in low visibility conditions.

The towing supervisor (the person of Aviation Engineering service, who has entitlement for these kinds of work) is responsible for towing and directs the actions of personnel involved in the towing and responsible for its safety.

3. Taxiing into stands under its own engines power and by towing.

For protection of jet blast effect:

- Taxiing into stands shall be carried out under own engines power. Aircraft shall be parked with heading to the terminal (stands 1-9), with heading to the hangar and engineering buildings (stands № 19-21). Aircraft type A320 and smaller can be parked parallel to the terminal on the aircraft stands 4, 7, 9.;
- Jet blast effect during taxiing into/out of stands № 10-18 is non-hazardous. Taxiing into/out of stands under own engines power is allowed for the ACFT with ACN equal to or less than 19 and ACFT with overall dimensions equal or less Tu-134 (ACFT length 37 m., wingspan 29.01m.);
- Aircraft type B747 taxiing into/out of the aircraft stand 14A is carried out by towing.
- Taxiing to the aircraft stands 19-21 for aircraft B747, AN-124 is allowed via taxiing route (taxiing route

along the apron) under its own engines power, from taxiway-A when aircraft stands 5, 6, 7,10-18 are vacant, from taxiway-B when aircraft stands 13-18 are vacant

•In all other cases, the movement of the aircraft B747 via taxiing route on the apron should be carried out by towing only.

- Towing of the aircraft from TWY A via TR (Taxiing route along the apron) to stands 19-21 and from TWY B to stands 1,2,3,3A,4, when B747 or similar parked on stands 6, 6A, is prohibited.
- In this case, taxiing of B747 into the stand 3A from TWY A and to the stands 19-21 from TWY B is allowed under own engines power.
- Taxiing into stands 2A, 3A, 6A, 13A, 20A shall be carried out after the «Follow me» car. Start up shall be carried out on stands 2A, 3A, 6A, 13A, 20A and taxiing out by own engines power.

Taxiing of aircraft with a wingspan of more than 51m onto the aircraft stands 1-5 and 2A, 3A via taxiway A is performed in the absence of aircraft on the aircraft stands 1-5, onto the aircraft stands 5-9 and 6A in the absence of aircraft on the aircraft stands 5-7.

The movement of special vehicles along the vehicles route behind stands 6-18 from the runway side is prohibited while aircraft towing or taxiing along the apron taxiing route to stands 6-21.

4. Taxiing out procedure from stands under own engines power and by towing.

- Movement of aircraft from stands № 1-9, 15-18, 19-21 to engine start-up area shall be carried out by towing.
- Taxiing out of stands 15-18 by own engines power is allowed for aircraft with ACN equal or less 19, with heading to the artificial runway and aircraft with overall dimensions equal or less Tu-134 (aircraft length 37m., wingspan 29.01 m).

Start up of engines shall be carried out in established points, placed on:

- point 1 - at the beginning of Taxiing route along the apron westward of stand 1;
- point 2 - on the Taxiing route along the apron between stands 4 and 5;
- point 3 - on the Taxiing route along the apron eastward of stand 7;
- point 4 - on the Taxiing route along the apron between stands 12 and 13;
- point 5 - on the Taxiing route along the apron between stands 15 and 16.

Engines start-up on the parking stands 4, 7, 9 is allowed, when the aircraft is parked parallel to the terminal.

5. Parking area for small aircraft (general aviation), in case such stands are available

There are 6 parking stands for An-2 aircraft.

6. De-icing areas of aircraft, engine star-up areas, deviation areas.

De-icing areas are combined with engine start-up points, placed on:

- point 1 - at the beginning of Taxiing route along the apron westward of stand 1;
- point 2 - on the Taxiing route along the apron between stands 4 and 5;
- point 3 - on the Taxiing route along the apron eastward of stand 7;
- point 4 - on the Taxiing route along the apron between stands 12 and 13;
- point 5 - on the Taxiing route along the apron between stands 15 and 16.

The deviation areas are absent.

7. The movement procedure of aircraft and vehicles in critical and sensitive zones of ILS during

aerodrome operation on the minima I, II and III ICAO category.

Intersection of critical zones of radio beacon landing system with aircraft, vehicles and other mobile facilities shall be carried out with the clearance of the "Tower" air traffic controller.

Intersection of these areas with mentioned facilities during autoland approach from final turn till landing is prohibited.

8. Restrictions in the operation of large aircraft including restrictions on the use of its own power for taxiing (in cases, if such restrictions are available).

There are weight and / or traffic restrictions for aircraft with ACN exceeding the numerical values of PCN.

Operating modes of aircraft with overloads are presented in the table

RECOMMENDED AIRCRAFT OPERATING MODES WITH RESTRICTIONS AND OVERLOADS ON RIGID SURFACES (R) at the Karaganda aerodrome

№	Aircraft type	Weight, kg		ACN for base category, code "A" is appropriate		PCN strength	Weight limitation, kg			
		Max. take-off weight	of an empty aircraft	Max. take-off weight	mass of an empty aircraft		without limited intensity	with limited intensity (average daily rate for the year)		
								1 Aircraft departure	2 Aircraft departures	10 Aircraft departures
1	2	3	4	5	6	7	8	9	10	11
RWY - PCN 48/R/A/W/T, TWY A - PCN 50/R/A/W/T										
1	B 747-400	395 986	176 901	53	19	48	376 655	*	*	*
2	B 747-8	443 613	191 053	64	22	48	359 426	*	434 593	412 485
3	B 787-8	228 384	136 078	61	32	48	193 371	*	*	221 456
4	MD-11	282 600	131 000	56	23	48	255 036	*	*	*
5	A 330-200	233 900	117 041	53	26	48	220 916	*	*	*
6	A 330-300	230 900	120 132	53	27	48	218 119	*	*	*
7	A 330-300	233 900	120 132	55	28	48	212 832	*	*	*
TWY B - PCN 35/R/A/X/T										
1	B 737-300	61 462	32 885	37	18	35	58 454	*	*	*
2	B 737-400	63 049	32 659	40	18	35	56 142	*	*	*
3	B 737-500	60 781	32 659	37	18	35	57 821	*	*	*
4	B 737-600	66 224	36 378	37	18	35	63 082	*	*	*
5	B 737-700	70 307	37 648	41	20	35	60 976	*	*	*

№	Aircraft type	Weight, kg		ACN for base category, code "A" is appropriate		PCN strength	Weight limitation, kg			
		Max. take-off weight	of an empty aircraft	Max. take-off weight	mass of an empty aircraft		without limited intensity	with limited intensity (average daily rate for the year)		
								1 Aircraft departure	2 Aircraft departures	10 Aircraft departures
1	2	3	4	5	6	7	8	9	10	11
6	B 737-800	79 243	41 413	49	23	35	58 873	75 848	71 604	67 860
7	B 747-200F	379 203	156 625	48	16	35	288 781	369 929	349 642	331 742
8	B 747-300	379 203	174 860	47	18	35	294 647	376 854	356 302	338 169
9	B 747-400	395 986	176 901	53	19	35	280 000	355 176	336 382	319 799
10	B 747-8	443 613	191 053	64	22	35	269 226	339 382	321 843	306 368
11	B 757-300	124 058	64 592	36	15	35	121 226	*	*	*
12	B 767-200ER	179 623	82 327	44	17	35	147 191	*	178 722	169 448
13	B 767-300	163 747	86 183	40	18	35	146 119	*	*	*
14	B 767-300ER	187 334	89 811	48	19	35	143 617	182 850	173 042	164 387
15	B 777-200	252 651	135 171	40	21	35	221 735	*	*	*
16	B 787-8	228 384	136 078	61	32	35	145 627	182 761	173 478	165 286
17	MD-11	282 600	131 000	56	23	35	186 127	239 723	226 324	214 502
18	A 300-B2	142 900	87 851	37	20	35	136 424	*	*	*
19	A 300-600 B4	165 900	91 759	46	20	35	134 533	*	159 484	152 145
20	A 310-300	157 900	83 000	45	20	35	127 940	*	154 155	146 445
21	A 320-100	68 400	41 244	39	22	35	62 010	*	*	*
22	A 320-200	73 900	41 345	44	22	35	60 582	*	73 530	69 722
23	A 330-200	210 900	117 041	47	26	35	157 266	209 410	196 374	184 872
24	A 330-200	233 900	117 041	53	26	35	155 994	206 489	193 865	182 726

№	Aircraft type	Weight, kg		ACN for base category, code "A" is appropriate		PCN strength	Weight limitation, kg			
		Max. take-off weight	of an empty aircraft	Max. take-off weight	mass of an empty aircraft		without limited intensity	with limited intensity (average daily rate for the year)		
								1 Aircraft departure	2 Aircraft departures	10 Aircraft departures
1	2	3	4	5	6	7	8	9	10	11
25	A 330-300	212 900	120 132	40	27	35	177 220	*	*	*
26	A 330-300	215 900	120 132	48	27	35	156 615	209 819	196 518	184 782
27	A 330-300	230 900	120 132	53	27	35	154 214	203 918	191 492	180 528
28	A 330-300	233 900	120 132	55	28	35	149 627	198 786	186 497	175 653
29	AN-124	398 000	180 000	36	16	35	387 100	*	*	*
30	AN-225	600 000	254 000	41	16	35	516 960	*	*	*
Stands 6-9,6A,13A - PCN 31/R/A/X/T										
1	B 737-200	58 332	29 121	34	14	31	55 411	*	*	*
2	B 737-300	61 462	32 885	37	18	31	53 942	*	*	*
3	B 737-400	63 049	32 659	40	18	31	51 998	*	*	59 799
4	B 737-500	60 781	32 659	37	18	31	53 380	*	*	*
5	B 737-600	66 224	36 378	37	18	31	58 370	*	*	*
6	B 737-700	70 307	37 648	41	20	31	56 310	*	68 752	65 093
7	B 737-800	79 243	41 413	49	23	31	54 508	70 028	66 148	62 724
8	B 747-200F	379 203	156 625	48	16	31	267 914	342 107	323 559	307 192
9	B 747-300	379 203	174 860	47	18	31	273 508	348 669	329 879	313 299
10	B 747-400	395 986	176 901	53	19	31	260 669	329 401	312 218	297 057
11	B 747-8	443 613	191 053	64	22	31	251 186	315 329	299 293	285 144
12	B 757-300	124 058	64 592	36	15	31	112 731	*	*	*
13	B 767-200ER	179 623	82 327	44	17	31	136 380	174 818	165 209	156 730

№	Aircraft type	Weight, kg		ACN for base category, code "A" is appropriate		PCN strength	Weight limitation, kg			
		Max. take-off weight	of an empty aircraft	Max. take-off weight	mass of an empty aircraft		without limited intensity	with limited intensity (average daily rate for the year)		
								1 Aircraft departure	2 Aircraft departures	10 Aircraft departures
1	2	3	4	5	6	7	8	9	10	11
14	B 767-300	163 747	86 183	40	18	31	135 542	*	*	155 451
15	B 767-300ER	187 334	89 811	48	19	31	133 528	169 399	160 431	152 518
16	B 777-200	252 651	135 171	40	21	31	203 186	*	*	238 102
17	B 787-8	228 384	136 078	61	32	31	136 078	170 030	161 542	154 052
18	MD-11	282 600	131 000	56	23	31	172 345	221 347	209 097	198 288
19	A 300-B2	142 900	87 851	37	20	31	126 709	*	*	*
20	A 300-600 B4	165 900	91 759	46	20	31	125 978	156 395	148 791	142 081
21	A 310-300	157 900	83 000	45	20	31	118 952	150 909	142 920	135 871
22	A 320-100	68 400	41 244	39	22	31	57 218	*	*	66 239
23	A 320-200	73 900	41 345	44	22	31	56 143	71 927	67 981	64 499
24	A 330-200	210 900	117 041	47	26	31	143 858	191 532	179 614	169 097
25	A 330-200	233 900	117 041	53	26	31	143 010	189 176	177 635	167 451
26	A 330-300	212 900	120 132	40	27	31	155 812	*	*	196 109
27	A 330-300	215 900	120 132	48	27	31	142 934	191 578	179 417	168 687
28	A 330-300	230 900	120 132	53	27	31	141 434	186 877	175 516	165 492
29	A 330-300	233 900	120 132	55	28	31	136 987	181 932	170 696	160 781
30	AN-124	398 000	180 000	36	16	31	354 400	*	*	*
31	AN-225	600 000	254 000	41	16	31	475 440	*	586 160	553 595
32	IL 76 TD	191 000	87 200	35	12	31	177 461	*	*	*
Stands 10-12 - PCN 20/R/A/X/T										

UAKK AD 2.24 Charts Related To An Aerodrome

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AERODROME CHART - ICAO | **AD ELEV 1766FT** | **ARP 494018N 0732007E** | **KARAGANDA**

TWR 122.0

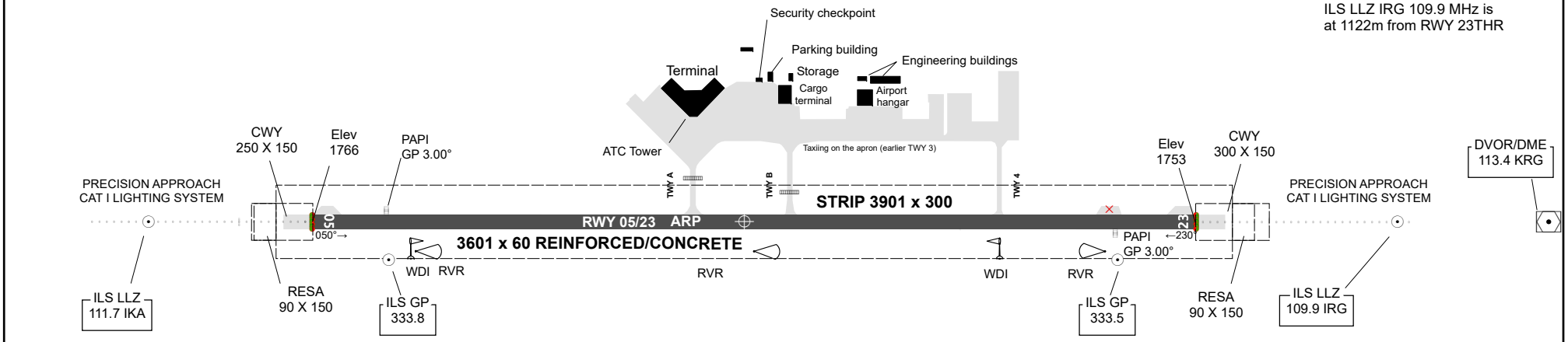
RWY	TRUE DIRECTION	THR	GEOID UNDULATION	BEARING STRENGTH
05	058.38°	49°39'48.35"N 073°18'51.49"E	- 119	PCN 48 R/A/W/T
23	238.42°	49°40'49.44"N 073°21'24.50"E	- 119	

VAR 8°E (2013)
ANNUAL RATE OF CHANGE 0.01°E

ELEV, HGT IN FEET (METERS)
DIMENSIONS IN METERS
BRG ARE MAG

SCALE 1:24000
240 0 240 480 720 Meters

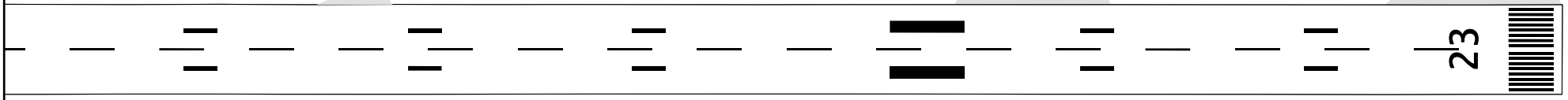
NOTE:
ILS LLZ IRG 109.9 MHz is at 1122m from RWY 23THR



SCALE 1:4000
40 0 40 80 120 Meters

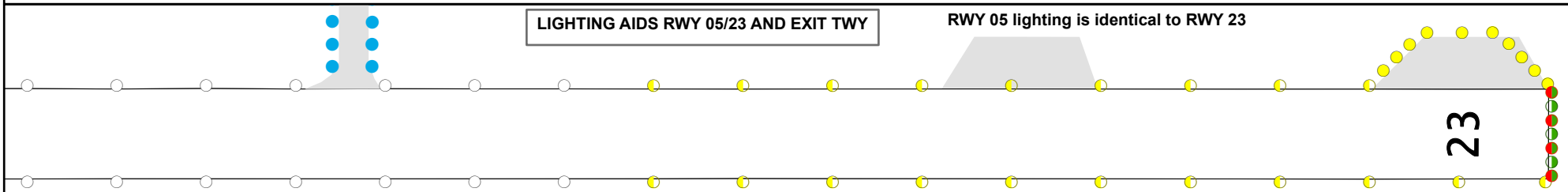
MARKING AIDS RWY 05/23 AND EXIT TWY

RWY 05 marking is identical to RWY 23



LIGHTING AIDS RWY 05/23 AND EXIT TWY

RWY 05 lighting is identical to RWY 23



SCALE 1:4000
40 0 40 80 120 Meters

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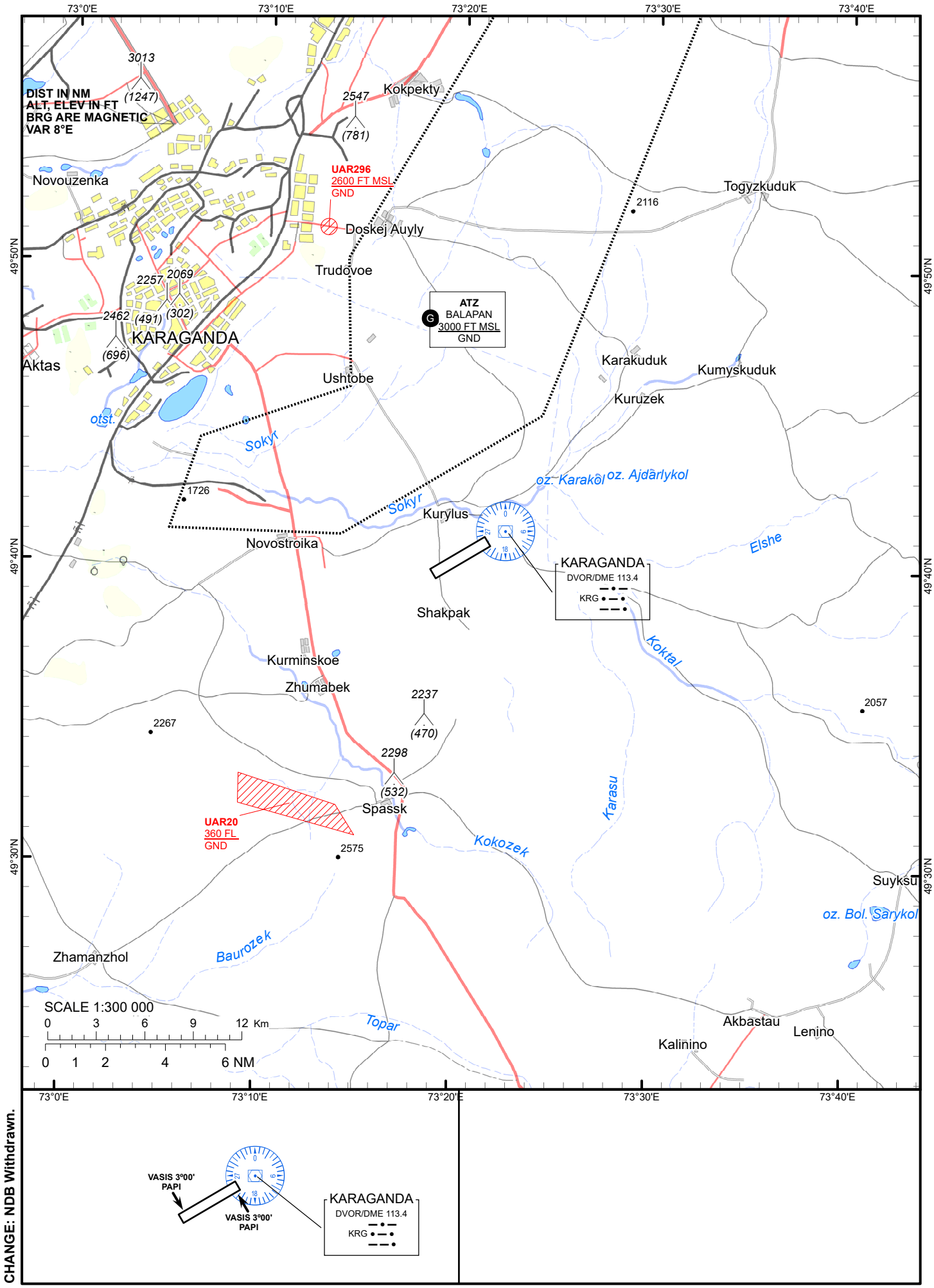
VISUAL APPROACH CHART ICAO

AERODROME ELEV *1766 FT*
HEIGHTS RELATED TO
AD ELEV

KARAGANDA TOWER 122.0
KARAGANDA ATIS (EN) 135.8
KARAGANDA ATIS (RU) 127.8

KARAGANDA



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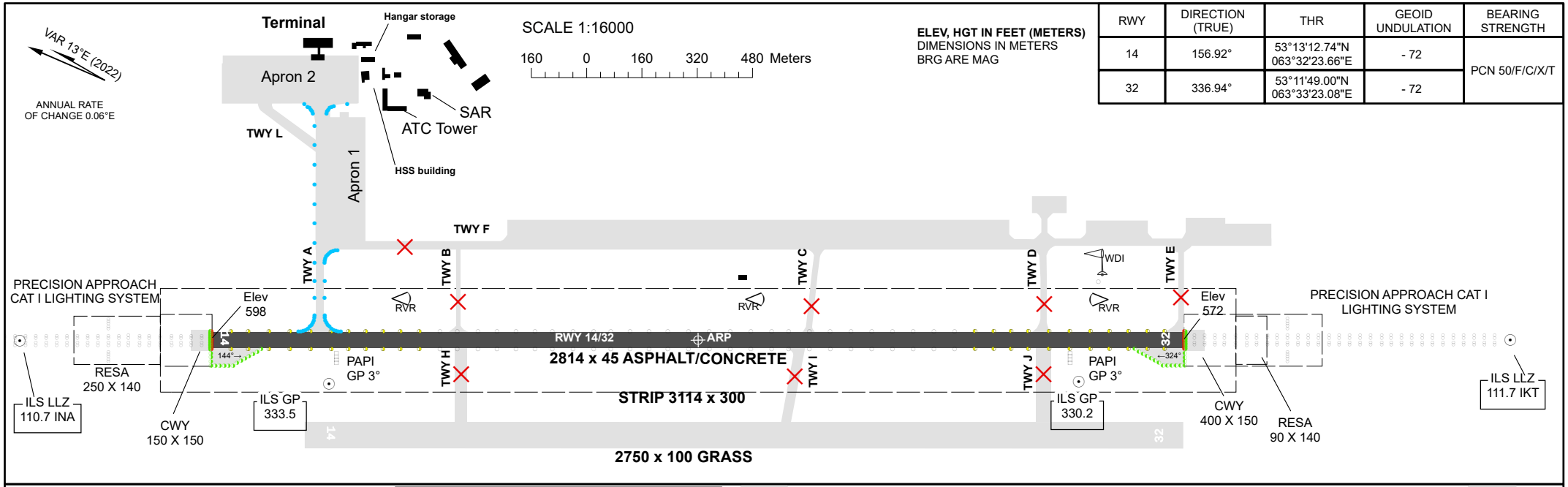
AERODROME CHART - ICAO

AD ELEV 601FT (*183m*)

ARP 531231N 0633253E

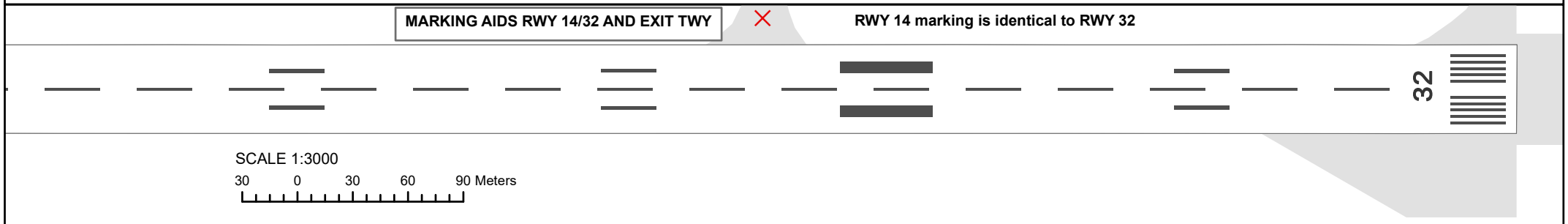
TWR 129.3

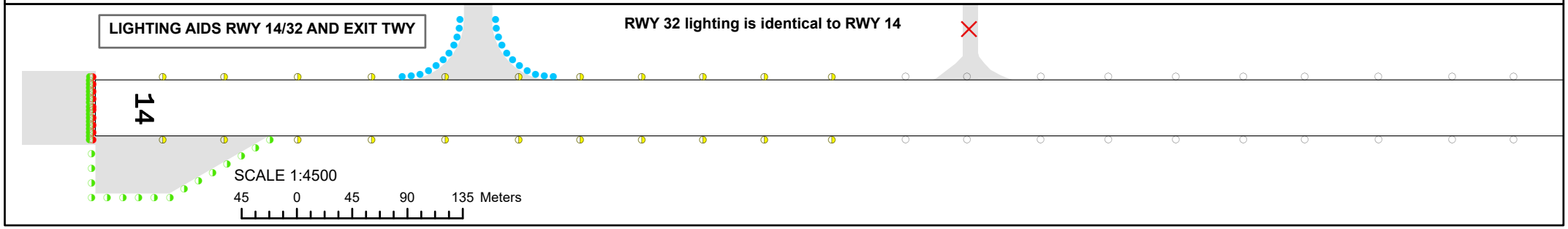
KOSTANAY



ELEV, HGT IN FEET (METERS)
DIMENSIONS IN METERS
BRG ARE MAG

RWY	DIRECTION (TRUE)	THR	GEOID UNDULATION	BEARING STRENGTH
14	156.92°	53°13'12.74"N 063°32'23.66"E	- 72	PCN 50/F/C/X/T
32	336.94°	53°11'49.00"N 063°33'23.08"E	- 72	





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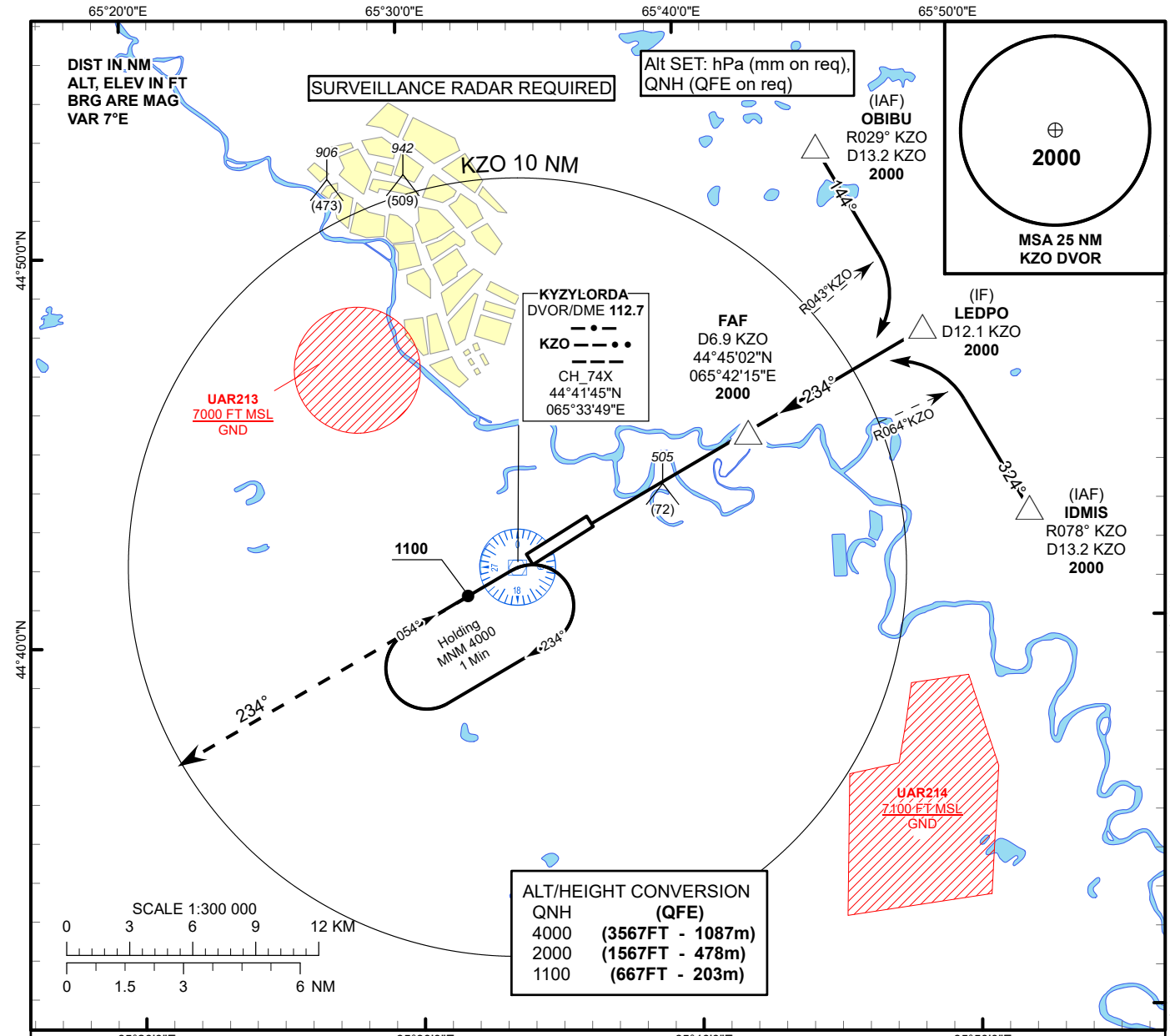
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV ***433 FT***
HEIGHTS RELATED TO AD ELEV

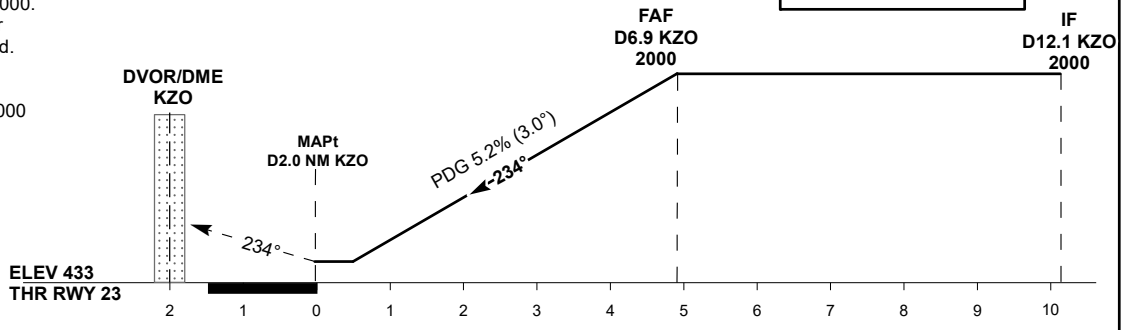
KYZYLORDA TOWER 120.9
KYZYLORDA ATIS (EN) 134.9
KYZYLORDA ATIS (RU) 122.9

KYZYLORDA VOR/DME Y RWY 23



MISSED APPROACH
Climb on track 234° to 2000.
After passing 1100 radar vectoring will be provided.
RADIO FAILURE:
In the case of RCF climb on track 234° to 2000 outbound to 5.0 KZO.
Turn left, climb to 4000 to KZO and join to holding pattern.

TRANSITION ALT
10000



Aircraft Category		A	B	C	D	DIST to THR	NM	1.0	2.0	3.0	4.0	4.8
Straight-in Approach OCA/H						DME KZO	NM	3.0	4.0	5.0	6.0	6.9
	VOR/DME	770(330)		770(330)		ALTITUDE	FT	800	1119	1437	1756	2000
						HEIGHT	FT	(367)	(686)	(1004)	(1323)	(1567)

Aerodrome Operating Minima MDH ft x RVR(CMV)	VOR/DME					GS	Kt	80	100	120	140	160	180
						FAF-MAPt (4.8)	min:sec	3:36	2:53	2:24	2:03	1:48	1:36
						Desc.Rate(5.2%)	ft/min	420	530	630	740	840	950

CHANGE: Editorial.

KYZYLORDA
VOR/DME Y **AERONAUTICAL DATA TABULATION**

VOR approach to RWY23 from OBIBU, LEDPO, IDMIS	
Fix/point	**Coordinates**
(FAF) D6.9 KZO	**44° 45’ 02.1”N 065° 42’ 15.4”E**
LEDPO (IF) D12.1 KZO	**44° 47’ 34,9”N 065° 48’ 40,0”E**
OBIBU (IAF) R029°KZO D13.2 KZO	**44° 52’ 19,1”N 065° 45’ 01,5”E**
IDMIS (IAF) R078°KZO D13.2KZO	**44° 42’ 50,7”N 065° 52’ 17,8”E**
THR RWY 23	**44° 42’ 43.85”N 065° 36’ 20.40”E**
KZO DVOR/DME	**44° 41’ 44.9”N 065° 33’ 49.3”E**
Final approach descent angle is 3°	

UASP AD 2.8 Aprons, Taxiways And Check Locations/Positions Data

1	**Apron surface and strength**	**STANDS**		**SURFACE**	**STRENGTH**
		1,4		CONC+ASPH	PCN 51/F/C/X/T
		2,3		CONC+ASPH	PCN 32/F/C/X/T
		5		CONC+ASPH	PCN 26/F/C/Y/T
		9		CONC+ASPH	PCN 28/F/C/Y/T
		6-8		CONC	PCN 14/R/B/X/T
		10-12		CONC+ASPH	PCN 14/R/B/X/T
2	**Taxiway width, surface and strength**	**TWY**	**WIDTH (M)**	**SURFACE**	**STRENGTH**
		A	23	CONC+ASPH	PCN 53/F/C/X/T
3	**Altimeter checkpoint location and elevation**	Nil			
4	**VOR checkpoints**	Nil			
5	**INS checkpoints**	Nil			
6	**Remarks**	Nil			

UASP 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	Guidance sign-boards at entrance of RWYs, guidance sign designating taxiways
2	RWY and TWY markings and LGT	Markings of thresholds, touchdown zones, centre line, fixed distance markers, RWY edges, RWY designations, taxi holding positions, taxiway centre lines
3	**Stop bars**	Nil
4	**Other runway protection measures**	Nil
5	Remarks	Nil

UASP AD 2.10 Aerodrome Obstacles

NIL

UASP AD 2.11 Meteorological Information Provided

1	**Associated MET Office**	Meteorological service Pavlodar Phone: +7 (7182) 491373
2	**Hours of service MET Office outside hour**	H24
3	**Office responsible for TAF preparation: Periods of validity**	Meteorological service Pavlodar, 9HR (0009, 0312, 0615, 0918, 1221, 1524, 1803, 2106)
4	**Trend forecast Interval of issuance**	TREND 30 min
5	**Briefing/consultation provided**	Personal consultation (Russian)
6	**Flight documentation/languages used**	TAF, METAR, SPECI, SIGMET, GAMET, AIRMET English

7	**Charts and other information AVBL for briefing or consultation**	S, U85, U70, U50, U40, U30, U25, U20, prognostic charts of wind and temperature at flight levels (FL), max wind, T, prognostic charts P85, P70, P50, P40, P30, P25, P20, SWH, SWM of WAFC, SWM+SWH, SWL of Kazakhstan;
8	**Supplementary equipment AVBL for providing information**	Doppler weather radar (WRM-200)
9	**ATS units provided with information**	Briefing, TWR
10	**Additional information**	Nil

UASP AD 2.12 Runway Physical Characteristics

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates 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**
03	42,66°	2500 X 45	66/F/C/X/T CONC+ASPH	521113.50N 0770339.41E - -125.7 FT	THR 382.9 FT	See AOC type A
21	222.68°	2500 X 45	66/F/C/X/T CONC+ASPH	521212.95N 0770508.58E - -125.7 FT	THR 410.4 FT	See AOC type A

SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of arresting system	OFZ	Remarks
8	**9**	**10**	**11**	**12**	**13**	**14**
Nil	150 X 160	2620 X 300	90 X 150	Nil	Nil	Nil
Nil	300 X 160	2620 X 300	90 X 150	Nil	Nil	Nil

AERODROME GROUND MOVEMENT AND PARKING CHART - ICAO

APRON ELEV 404FT (*123m*)

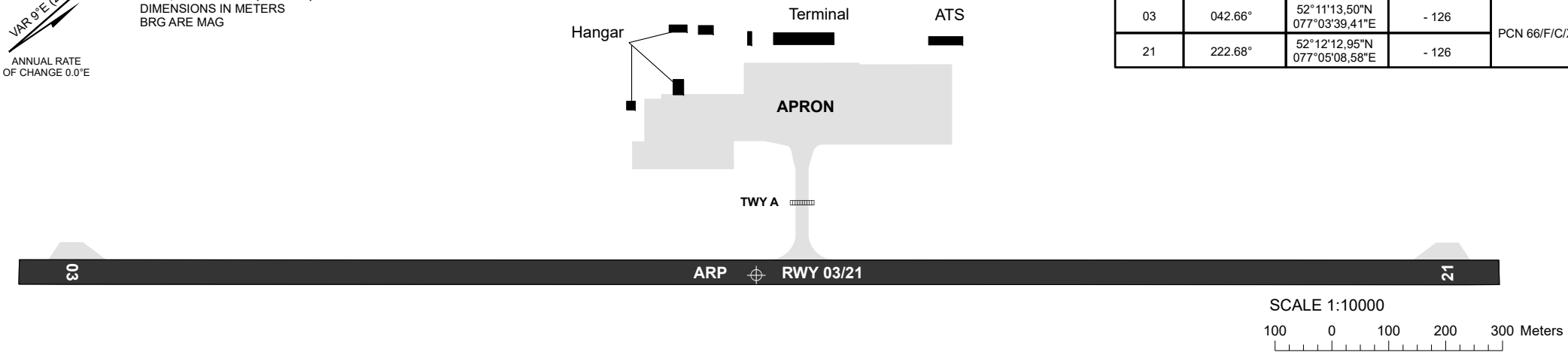
TWR 119.8

PAVLODAR

VAR 9°E (2013)
ANNUAL RATE OF CHANGE 0.0°E

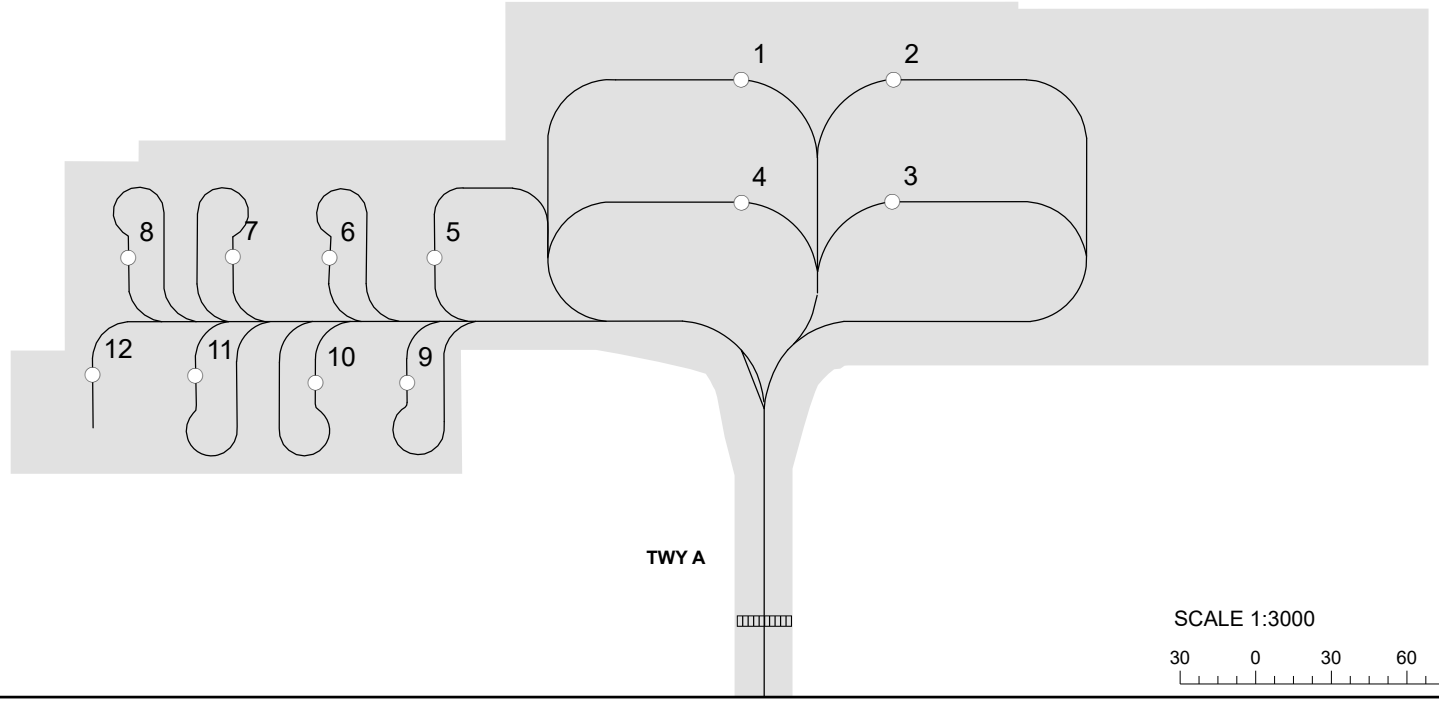
ELEV, HGT IN FEET (METERS)
DIMENSIONS IN METERS
BRG ARE MAG

RWY	DIRECTION (TRUE)	THR	GEOID UNDULATION	BEARING STRENGTH
03	042.66°	52°11'13,50"N 077°03'39,41"E	- 126	PCN 66/F/C/X/T
21	222.68°	52°12'12,95"N 077°05'08,58"E	- 126	



APRON	STAND	SURFACE	BEARING STRENGTH
	1, 4	CONC+ASPH	PCN 51/F/C/X/T
	2, 3	CONC+ASPH	PCN 32/F/C/X/T
	5	CONC+ASPH	PCN 26/F/C/Y/T
	9	CONC+ASPH	PCN 28/F/C/Y/T
	6-8	CONC	PCN 14/R/B/X/T
	10-12	CONC+ASPH	PCN 14/R/B/X/T

TWY	WIDTH	SURFACE	BEARING STRENGTH
A	23m	CONC+ASPH	PCN 53/F/C/X/T



CHANGE: Stands 13-19 Del.

PAVLODAR **STANDS CHARACTERISTICS**

Apron	Stand	Coordinates	
		Latitude	Longitude
	1	52 11 52.20 N	077 04 13.28 E
	2	52 11 53.64 N	077 04 15.43 E
	3	52 11 52.57 N	077 04 17.29 E
	4	52 11 51.14 N	077 04 15.16 E
	5	52 11 47.76 N	077 04 11.67 E
	6	52 11 46.77 N	077 04 10.18 E
	7	52 11 45.86 N	077 04 08.81 E
	8	52 11 44.87 N	077 04 07.33 E
	9	52 11 46.41 N	077 04 13.21 E
	10	52 11 45.55 N	077 04 11.90 E
	11	52 11 44.47 N	077 04 10.10 E
	12	52 11 43.51 N	077 04 08.63 E

→

UASS AD 2.8 Aprons, Taxiways And Check Locations/Positions Data

1	**Apron surface and strength**	**STANDS**		**SURFACE**	**STRENGTH**
		1 - 2 ACFT “C”		CONC+REINF	PCN 17/R/B/X/T
		3 - 4 ACFT “D”		CONC+ASPH	PCN 47/R/B/X/T
		5 - 7 ACFT “D”		CONC+ASPH	PCN 14/F/C/Y/T
2	**Taxiway width, surface and strength**	**TWY**	**WIDTH (M)**	**SURFACE**	**STRENGTH**
		2	22	CONC+ASPH	PCN 19/F/C/Y/T
		A	23	CONC+ASPH	PCN 47/R/B/X/T
		8	16	CONC+ASPH	PCN 19/F/C/Y/T
		9	18	CONC+ASPH	PCN 19/F/C/Y/T
3	**Altimeter checkpoint location and elevation**	Nil			
4	**VOR checkpoints**	Nil			
5	**INS checkpoints**	Nil			
6	**Remarks**	Stand 1-2 - for ACFT with wing span not more than 32m. Stands 3-4 - for ACFT with wing span not more than 52m. Stands 5-7 - for ACFT with wing span not more than 32m TWY 8, 9 - closed. RWY 02/20 - closed Helicopters are not allowed to take off/land from/to taxiway 7 and parking stands 1-7; take-off/landing are performed on the runway. Taxiing on TWY 7 is performed on both the ground and in the air, along the center line.			

UASS 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**	Nil
2	**RWY and TWY markings and LGT**	Markings of thresholds, touchdown zones, centre line, fixed distance markers, RWY edges, RWY designations, taxi holding positions, taxiway centre lines Approach lighting system, runway edge lights, runway turning lights, taxiway edge lights.
3	**Stop bars**	Nil
4	**Other runway protection measures**	Nil
5	**Remarks**	Recessed approach lights are available on the displaced THR.

UASS AD 2.10 Aerodrome Obstacles

NIL

UASS AD 2.11 Meteorological Information Provided

1	**Associated MET Office**	Meteorological service Semey Phone: +7 (7222) 565117 Fax: +7 (7222) 565117 AFS: UASSYMYX

2	**Hours of service MET Office outside hour**	HO
3	**Office responsible for TAF preparation: Periods of validity**	Meteorological service Semey, 9HR (0209, 0312, 0615, 0918, 1221)
4	**Trend forecast Interval of issuance**	TREND 30 min
5	**Briefing/consultation provided**	Personal consultation (Russian)
6	**Flight documentation/languages used**	TAF, METAR, SPECI, SIGMET, GAMET, AIRMET English
7	**Charts and other information AVBL for briefing or consultation**	S, U85, U70, U50, U40, U30, U25, U20, prognostic charts of wind and temperature at flight levels (FL), max wind, T, prognostic charts P85, P70, P50, P40, P30, P25, P20, SWH, SWM of WAFC, SWM+SWH, SWL of Kazakhstan;
8	**Supplementary equipment AVBL for providing information**	Nil
9	**ATS units provided with information**	Briefing, TWR
10	**Additional information**	Nil

UASS AD 2.12 Runway Physical Characteristics

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates 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**
08	83,68°	3099 X 45	47/R/B/X/T CEMENT/ CONC	502100.82N 0801243.63E - -145.3 FT	THR 759.2 FT	See AOC type A
26	263,71°	3099 X 45	47/R/B/X/T CEMENT/ CONC	502111.84N 0801519.49E - -145.3 FT	THR 674.9 FT	See AOC type A

SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of arresting system	OFZ	Remarks
8	**9**	**10**	**11**	**12**	**13**	**14**
Nil	150 X 150	3399 X 300	90 X 150	Nil	AVBL	Nil
Nil	150 X 150	3399 X 300	90 X 150	Nil	AVBL	Displaced THR 372 M (DTHR 502110.52N 0801500.79E) - elev. 675,2 FT

UASS AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency , Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS LOC 26 I/D/2	ISP	110,3 MHZ	H24	502058.8N 0801214.2E		Nil	Nil
GP 26 I/C/2		335 MHZ		502104.5N 0801445.3E			
DME 26	ISP	CH 40X		502104.5N 0801445.3E	700 FT		
DVOR/DME (7°E/2014)	SEM	115,3 MHZ CH 100X	H24	502058.7N 0801437.5E	700 FT	Nil	Nil

UASS AD 2.20 Local Aerodrome Regulations

When visibility 550 m or less TKOF should be carried out from RWY 26 DTHR.

Takeoff from RWY 26 THR available

UASS AD 2.21 Noise Abatement Procedures

NIL

UASS AD 2.22 Flight procedures

1. Flight and ground movement procedures.

Aircraft movement on the aerodrome is carried out by taxiing. Taxiing is carried out along centre lines of taxiway, apron and stands.

The aircraft is not towed on the aerodrome.

TWY 2 are designated for taxiing of State aviation aircraft into/out of stands.

TWY 7 is designated for taxiing of Civil aviation aircraft into/out of stands.

TWY 7 is designated for taxiing of ICAO 6 aircraft.

TWY 9 is suitable for aircraft taxiing with maximum weight less than 30 tons, in accordance with technical suitability, according to aircraft Flight Operational manual.

Aircraft following shall be carried out by specially intended for this purpose follow-me vehicle. Aircraft following shall be carried out in IMC when visibility is less than 400 m or in case if markings on maneuvering area are not visible (due to packed snow or in other cases), or by flight crew's request. In that case engineer of airfield service works as aircraft follower on duty.

Two-way radio communication shall be established on 166,350 MHz during aircraft following.

Taxiing out of stands shall be carried out by marshaller's signals, in case of his absence – by decision of pilot-in-command.

Aircraft following shall be carried out:

- by flight crew request;

- in IMC when visibility is less than 400 m.

Taxiing speed shall be chosen by pilot in-command of the aircraft depending on condition of taxing surface, the presence of obstacles and visibility.

Crossing the ILS critical areas by aircraft, ground vehicles and other vehicles shall be carried out by the clearance of ATC Tower. If an aircraft is entering the final approach track or it's finally approaching, crossing the ILS critical areas on the manoeuvring area is prohibited.

Taxiing into/out from aircraft stand №3 to aircraft stand №4 allowed via markings on apron

Taxiing into/out from aircraft stand №4 to aircraft stand №3 allowed via markings on apron

2. Low Visibility Procedures.

Low Visibility Procedures (LVP) are effected in IMC, during nighttime, which includes:

- engaging of aerodrome lighting facilities: during night flights – 15 minutes before sunset or estimated time of aircraft arrival, during aircraft departure after request for engine start-up.
- in daytime – when visibility less than 2000 m.
- in other cases – by flight crew request.
- During flights of general aviation RWY inspection shall be carried out by engineer of airfield service with further report about obstacle presence (absence) to controller of "Semey Tower" control centre.

When visibility 550 m or less TKOF should be carried out from RWY 26 DTHR

3. VFR procedures within the aerodrome control zone (CTR)

Air traffic service in the control zone of the aerodrome is carried out by the controller of the "Tower" ATC unit. Flight altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan. The functions of Air traffic service does not include ground collision avoidance. The aircraft crew shall ensure that the clearance issued by the ATS unit in this regard is safe. VFR flights at altitudes below 4000 feet in the control zone are performed at the altitudes indicated in the flight plan or requested by the aircraft crew.

Flights must not be performed over populated areas within the control zone.

For VFR flights, the aerodrome has a flight circle (left / right) at an altitude of 2000 feet. The air traffic controller of the "Tower" ATC unit is determine and report which flight circle is in use.

Entering the flight circle, crossing the runway alignment is made only with the permission of the air traffic controller of the "Tower" ATC unit.

The aircraft crew preliminarily agrees with the ATS unit the flight area and altitude range during aerial work in the control zone at absolute altitudes.

When entering the control zone (CTR) from uncontrolled airspace, the aircraft crew must obtain an air traffic control clearance 5 minutes before the estimated time of entering the controlled airspace.

Entry / exit of aircraft of category A and helicopters flying in VFR to / from the control zone (CTR) is carried out at the shortest distance through the corresponding point.

If the air situation requires the holding procedure, the air traffic controller of the "Tower" ATC unit gives the instructions to the aircraft crew to follow to one of the holding points.

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
1	ALPHA	N504042 E0801943	002° 20.0 nm SEM DVOR/DME	Exit

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
2	BRAVO	N503645 E0803352	031° 20.0 nm SEM DVOR/DME	Entrance
3	CHARLIE	N503046 E0804157	053° 20.0 nm SEM DVOR/DME	Exit
4	DELTA	N502627 E0804442	067° 20.0 nm SEM DVOR/DME	Entrance
5	ECHO (East side of Topkashi)	N502251 E0804545	077° 20.0 nm SEM DVOR/DME	Exit
6	FOXTROT (visual reference – P-24 highway)	N502010 E0804551	085° 20.0 nm SEM DVOR/DME	Entrance
7	GOLF (SW side of Kerevankol lake)	N500934 E0804015	117° 20.0 nm SEM DVOR/DME	Exit
8	HOTEL (visual reference – west of the railroad, M-38 highway)	N500637 E0803618	129° 20.0 nm SEM DVOR/DME	Entrance
9	INDIA (South side of Karakol)	N500250 E0800134	198° 20.0 nm SEM DVOR/DME	Exit
10	JULIET	N500740 E0795124	221° 20.0 nm SEM DVOR/DME	Entrance
11	KILO	N501711 E0794359	252° 20.0 nm SEM DVOR/DME	Exit
12	LIMA (visual reference - railway)	N502525 E0794410	276° 20.0 nm SEM DVOR/DME	Entrance
13	MIKE (east side of Bokenshi)	N502924 E0794616	288° 20.0 nm SEM DVOR/DME	Exit
14	TANGO (SE side of Zhylandy)	N503632 E0795457	314° 20.0 nm SEM DVOR/DME	Entrance
15	STARAIA KREPOST (Northern outskirts of Staraia Krepost)	N503013 E0800558	322° 10.8 nm SEM VOR/DME	Holding, circle and absolute altitudes by “Tower” ATC instructions
16	Ferma KERNEI	N501655 E0802746	109° 9.4 nm SEM DVOR/DME	Holding, circle and absolute altitudes by “Tower” ATC instructions
17	Zimovka STARIY KULTOBE	N501414 E0800601	212° 8.7 nm SEM DVOR/DME	Holding, circle and absolute altitudes by “Tower” ATC instructions

UASS AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Nil	Nil	Nil	Nil

2. Bird concentration near airport.

The main migration direction in spring: from south-east to north-west; in autumn: in the counterdirection.

Morning migration from 05.00 to 09.00, evening migration from 17.00 to 20.00. Bird species include crows, jackdaws, sparrows, pigeons, kites. The flight altitudes varies from 100 to 400 m above ground level.

In case of necessity, the aerodrome control point informs pilots about bird flights and approximate heights above ground level.

The mentioned above time intervals pilots are recommended, if design characteristics of airborne equipment allows, to switch on landing lights during the flights in aerodrome area, during takeoff, approach, climbing, descent.

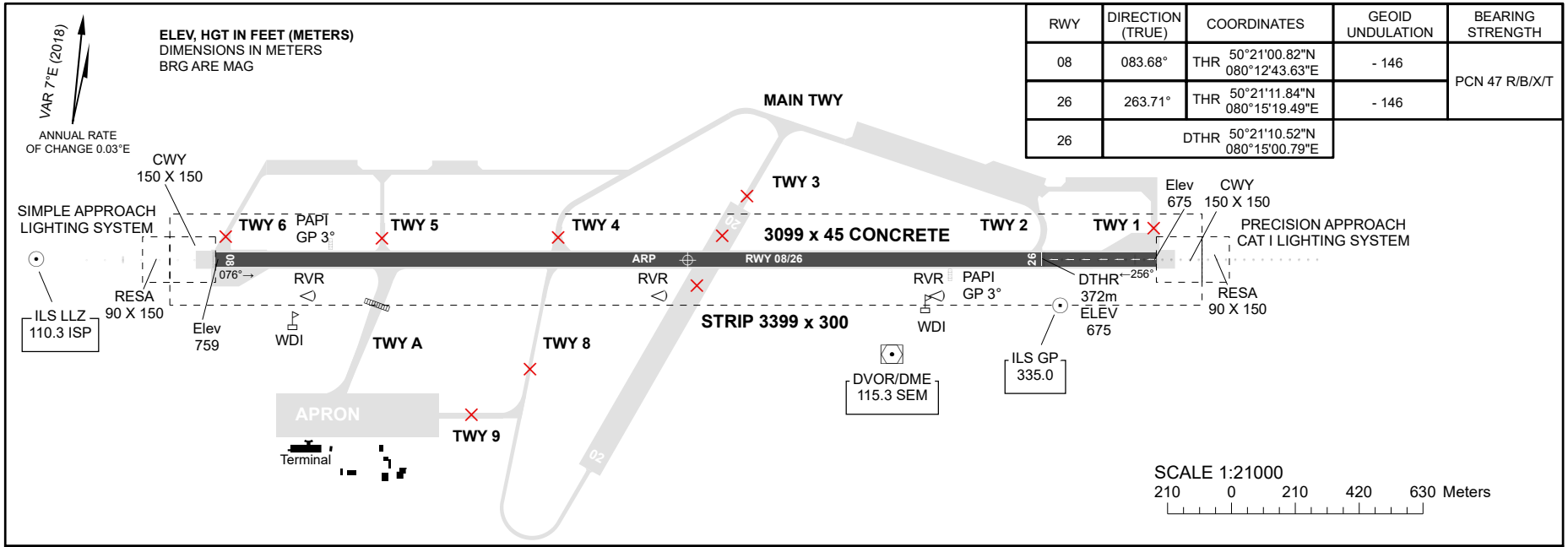
Bird concentration scattering measures include: periodical bird deterrence, effective measures regarding to scattering, removal of green plantations and ground covering, abandon of agricultural activity within the airport area.

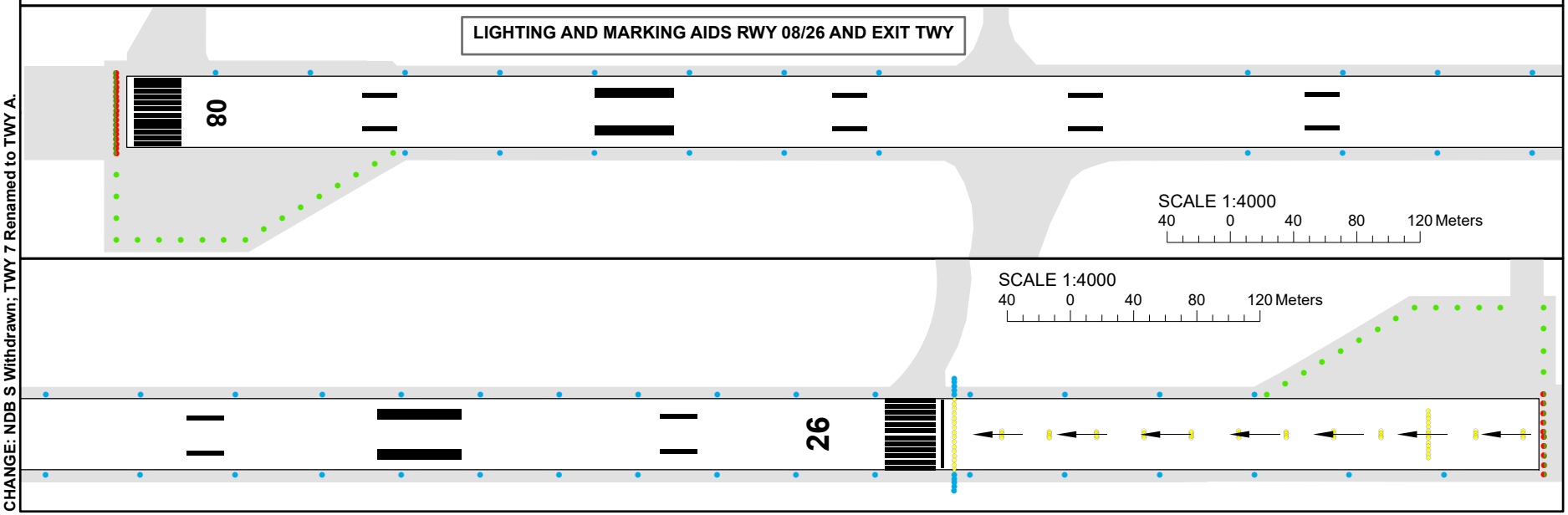
UASS AD 2.24 Charts Related To An Aerodrome

AERODROME CHART - ICAO | **AD ELEV 759FT (*231m*)** | **ARP 502106N 0801402E** | **SEMEY**

TWR 128.0

RWY	DIRECTION (TRUE)	COORDINATES	GEOID UNDULATION	BEARING STRENGTH
08	083.68°	THR 50°21'00.82"N 080°12'43.63"E	- 146	PCN 47 R/B/X/T
26	263.71°	THR 50°21'11.84"N 080°15'19.49"E	- 146	
26		DTHR 50°21'10.52"N 080°15'00.79"E		





CHANGE: NDB S Withdrawn; TWY 7 Renamed to TWY A.

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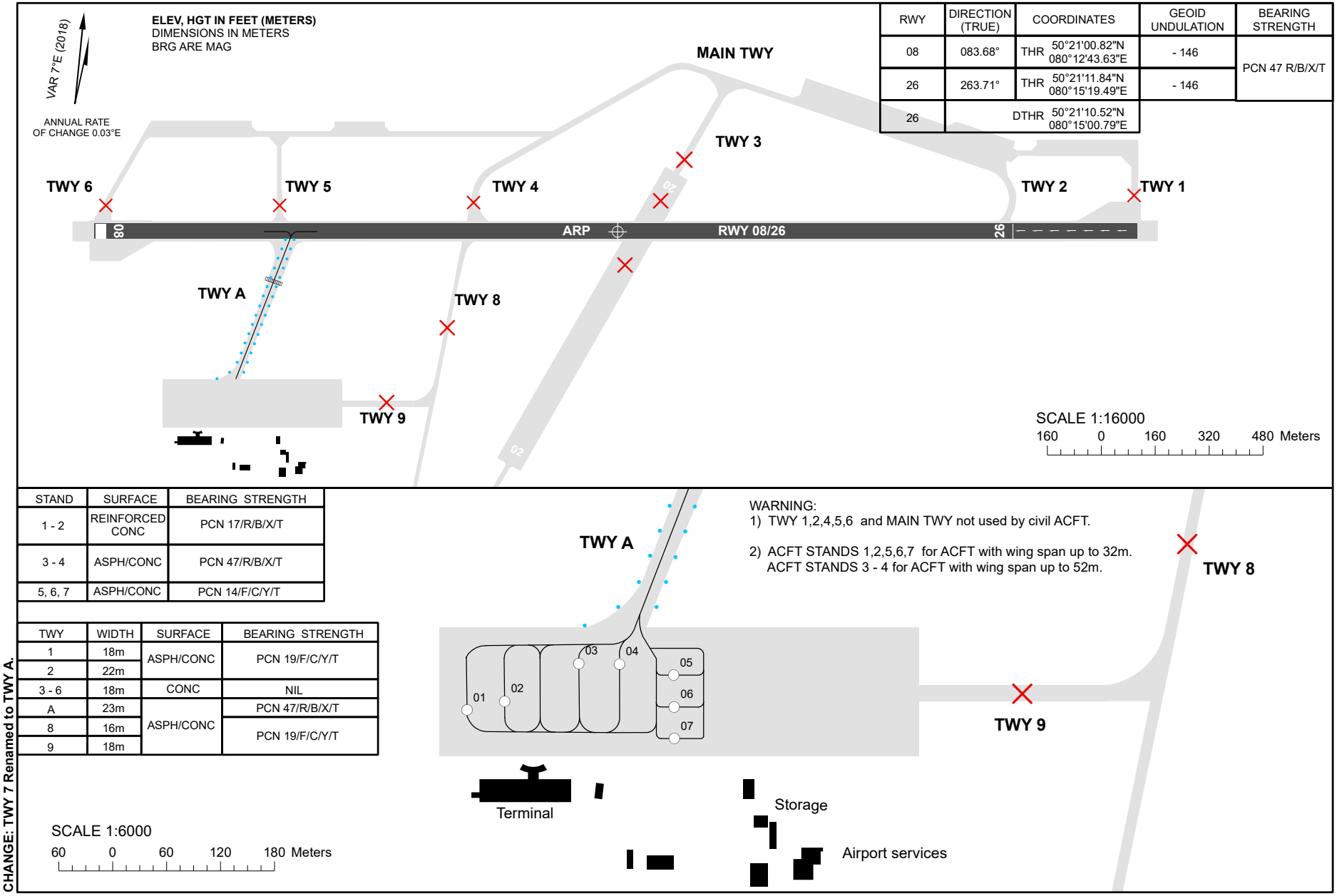
AERODROME GROUND MOVEMENT AND PARKING CHART - ICAO

APRON ELEV 728FT (*222m*)

TWR 128.0

SEMEY



RWY	DIRECTION (TRUE)	COORDINATES	GEOID UNDULATION	BEARING STRENGTH
08	083.68°	THR 50°21'00.82"N 080°12'43.63"E	- 146	PCN 47 R/B/X/T
26	263.71°	THR 50°21'11.84"N 080°15'19.49"E	- 146	
26		DTHR 50°21'10.52"N 080°15'00.79"E		

STAND	SURFACE	BEARING STRENGTH
1 - 2	REINFORCED CONC	PCN 17/R/B/X/T
3 - 4	ASPH/CONC	PCN 47/R/B/X/T
5, 6, 7	ASPH/CONC	PCN 14/F/C/Y/T

TWY	WIDTH	SURFACE	BEARING STRENGTH
1	18m	ASPH/CONC	PCN 19/F/C/Y/T
2	22m		
3 - 6	18m	CONC	NIL
A	23m	ASPH/CONC	PCN 47/R/B/X/T
8	16m		PCN 19/F/C/Y/T
9	18m		

WARNING:
1) TWY 1,2,4,5,6 and MAIN TWY not used by civil ACFT.

2) ACFT STANDS 1,2,5,6,7 for ACFT with wing span up to 32m.
ACFT STANDS 3 - 4 for ACFT with wing span up to 52m.

CHANGE: TWY 7 Renamed to TWY A.

SEMEY **STANDS CHARACTERISTICS**

Apron	Stand	Coordinates	
		Latitude	Longitude
	1	50 20 44.55 N	080 12 58.47 E
	2	50 20 45.02 N	080 13 00.52 E
	3	50 20 46.66 N	080 13 04.44 E
	4	50 20 46.81 N	080 13 06.72 E

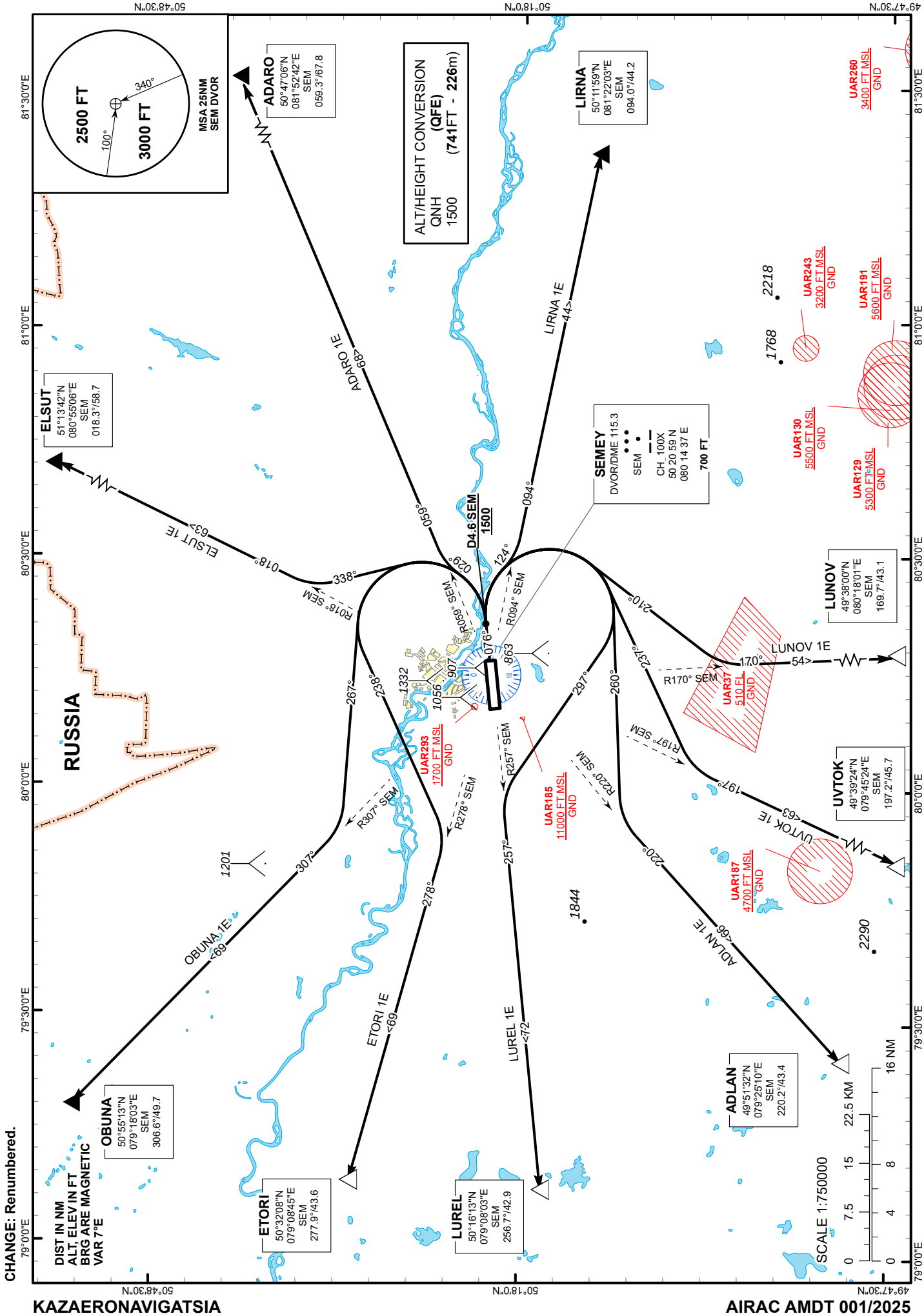
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
10000 FT

SEMEY TOWER 128.0
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

ADARO 1E, ADLAN 1E, ELSUT 1E, ETORI 1E, LIRNA 1E, LUNOV 1E, OBUNA 1E, LUREL 1E, UVTOK 1E

SEMEY RWY 08



CHANGE: Renumbered.

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC
VAR 7°E

STANDARD DEPARTURE ROUTES - INSTRUMENT (SID) SEMEY RWY 08
OBUNA 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn LEFT on track 267° until intercept R307° SEM, then proceed on track 307° to OBUNA (R306.6° D49.7NM SEM).
ELSUT 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn LEFT on track 338° until intercept R018° SEM, then proceed on track 018° to ELSUT (R018.3° D58.7NM SEM).
ADARO 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn LEFT on track 029° until intercept R059° SEM, then proceed on track 059° to ADARO (R059.3° D67.8NM SEM).
LIRNA 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn RIGHT on track 124° until intercept R094° SEM, then proceed on track 094° to LIRNA (R094.0° D44.2NM SEM).
LUNOV 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn RIGHT on track 210° until intercept R170° SEM, then proceed on track 170° to LUNOV (R169.7° D43.1NM SEM).
UVTOK 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn RIGHT on track 237° until intercept R197° SEM, then proceed on track 197° to UVTOK (R197.2° D45.7NM SEM).
ADLAN 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn RIGHT on track 260° until intercept R220° SEM, then proceed on track 220° to ADLAN (R220.2° D43.4NM SEM).
LUREL 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn RIGHT on track 297° until intercept R257° SEM, then proceed on track 257° to LUREL (R256.7° D42.9NM SEM).
ETORI 1E After take-off climb straight ahead to 1500 FT or above. At 4.6NM SEM turn LEFT on track 238° until intercept R278° SEM, then proceed on track 278° to ETORI (R277.9° D43.6NM SEM).

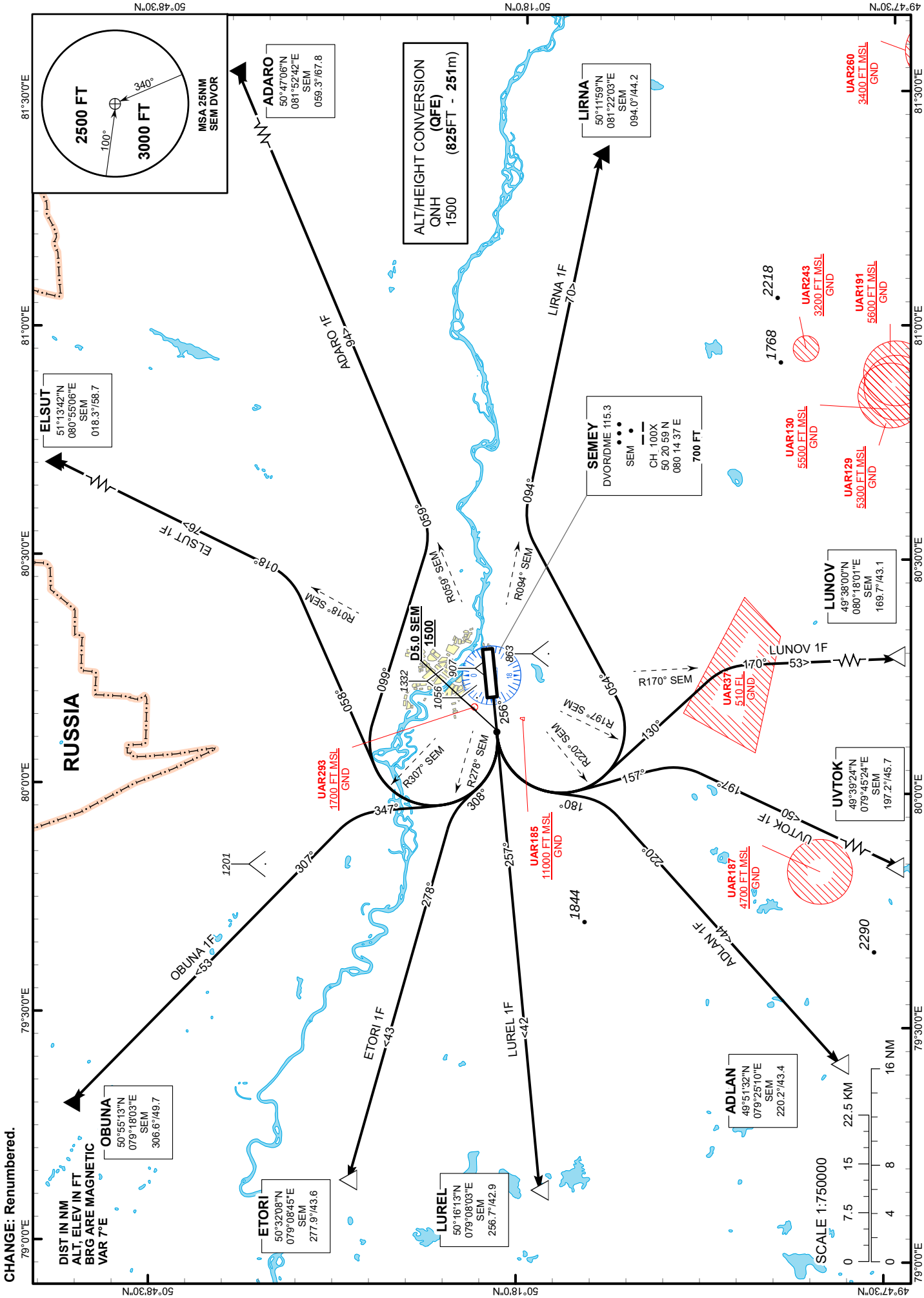
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
10000 FT

SEMEY TOWER 128.0
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

ADARO 1F, ADLAN 1F, ELSUT 1F, ETORI 1F, LIRNA 1F, LUNOV 1F, OBUNA 1F, LUREL 1F, UVTOK 1F

SEMEY RWY 26



CHANGE: Renumbered.

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC
VAR 7°E

STANDARD DEPARTURE ROUTES - INSTRUMENT (SID) SEMEY RWY 26
OBUNA 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn RIGHT on track 347° until intercept R307° SEM, then proceed on track 307° to OBUNA (R306.6° D49.7NM SEM).
ELSUT 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn RIGHT on track 058° until intercept R018° SEM, then proceed on track 018° to ELSUT (R018.3° D58.7NM SEM).
ADARO 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn RIGHT on track 099° until intercept R059° SEM, then proceed on track 059° to ADARO (R059.3° D67.8NM SEM).
LIRNA 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn LEFT on track 054° until intercept R094° SEM, then proceed on track 094° to LIRNA (R094.0° D44.2NM SEM).
LUNOV 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn LEFT on track 130° until intercept R170° SEM, then proceed on track 170° to LUNOV (R169.7° D43.1NM SEM).
UVTOK 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn LEFT on track 157° until intercept R197° SEM, then proceed on track 197° to UVTOK (R197.2° D45.7NM SEM).
ADLAN 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn LEFT on track 180° until intercept R220° SEM, then proceed on track 220° to ADLAN (R220.2° D43.4NM SEM).
LUREL 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM proceed on track 257° to LUREL (R256.7° D42.9NM SEM).
ETORI 1F After take-off climb straight ahead to 1500 FT or above. At 5.0NM SEM turn RIGHT on track 308° until intercept R278° SEM, then proceed on track 278° to ETORI (R277.9° D43.6NM SEM).

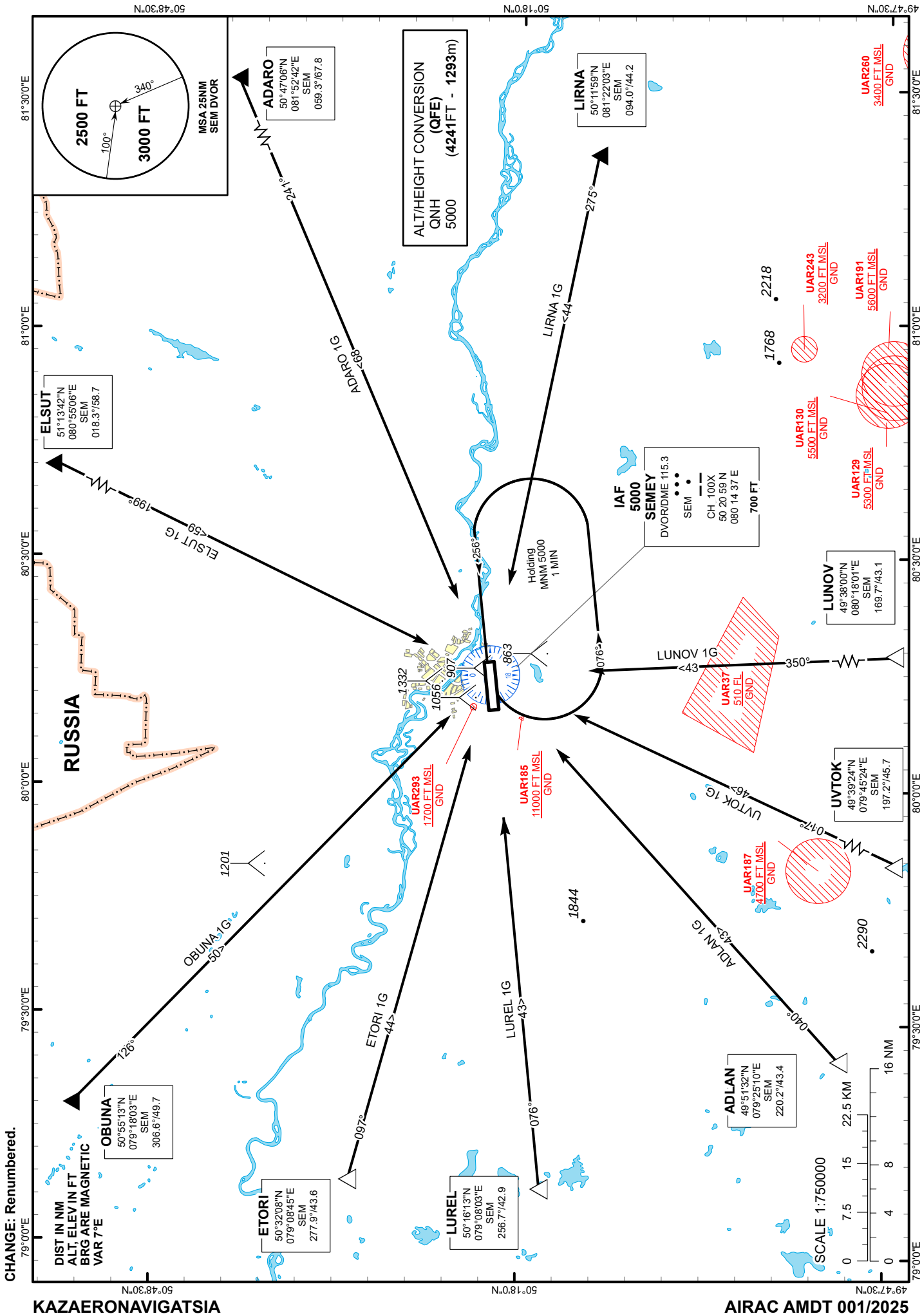
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
10000 FT

SEMEY TOWER 128.0
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

ADARO 1G, ADLAN 1G, ELSUT 1G, ETORI 1G, LIRNA 1G, LUNOV 1G, OBUNA 1G, LUREL 1G, UVTOK 1G

SEMEY RWY 08



CHANGE: Renumbered.

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC
VAR 7°E

STANDARD ARRIVAL ROUTES - INSTRUMENT (STAR) SEMEY RWY 08
ELSUT 1G After crossing ELSUT (R018.3° D58.7NM SEM), proceed on track 199° to SEM. Cross SEM at 5000 FT
ADARO 1G After crossing ADARO (R059.3° D67.8NM SEM), proceed on track 241° to SEM. Cross SEM at 5000 FT
LIRNA 1G After crossing LIRNA (R094.0° D44.2NM SEM), proceed on track 275° to SEM. Cross SEM at 5000 FT
LUNOV 1G After crossing LUNOV (R169.7° D43.1NM SEM), proceed on track 350° to SEM. Cross SEM at 5000 FT
UVTOK 1G After crossing UVTOK (R197.2° D45.7NM SEM), proceed on track 017° to SEM. Cross SEM at 5000 FT
ADLAN 1G After crossing ADLAN (R220.2° D43.4NM SEM), proceed on track 040° to SEM. Cross SEM at 5000 FT
LUREL 1G After crossing LUREL (R256.7° D42.9NM SEM), proceed on track 076° to SEM. Cross SEM at 5000 FT
ETORI 1G After crossing ETORI (R277.9° D43.6NM SEM), proceed on track 097° to SEM. Cross SEM at 5000 FT
OBUNA 1G After crossing OBUNA (R306.6° D49.7NM SEM), proceed on track 126° to SEM. Cross SEM at 5000 FT

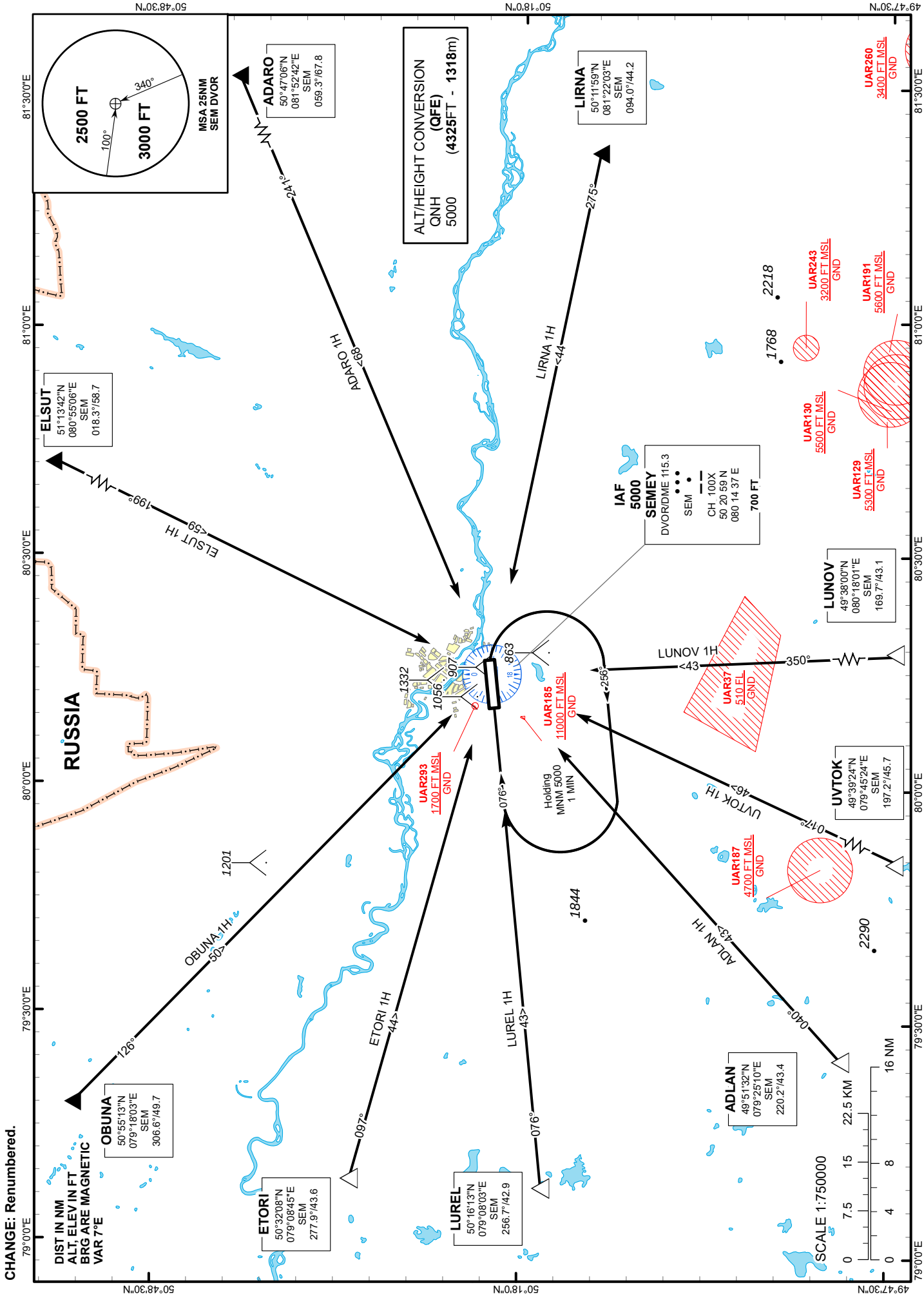
STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
10000 FT

SEMEY TOWER 128.0
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

ADARO 1H, ADLAN 1H, ELSUT 1H, ETORI 1H, LIRNA 1H, LUNOV 1H, OBUNA 1H, LUREL 1H, UVTOK 1H

SEMEY RWY 26



CHANGE: Renumbered.

DIST IN NM
ALT, ELEV IN FT
BRG ARE MAGNETIC
VAR 7°E

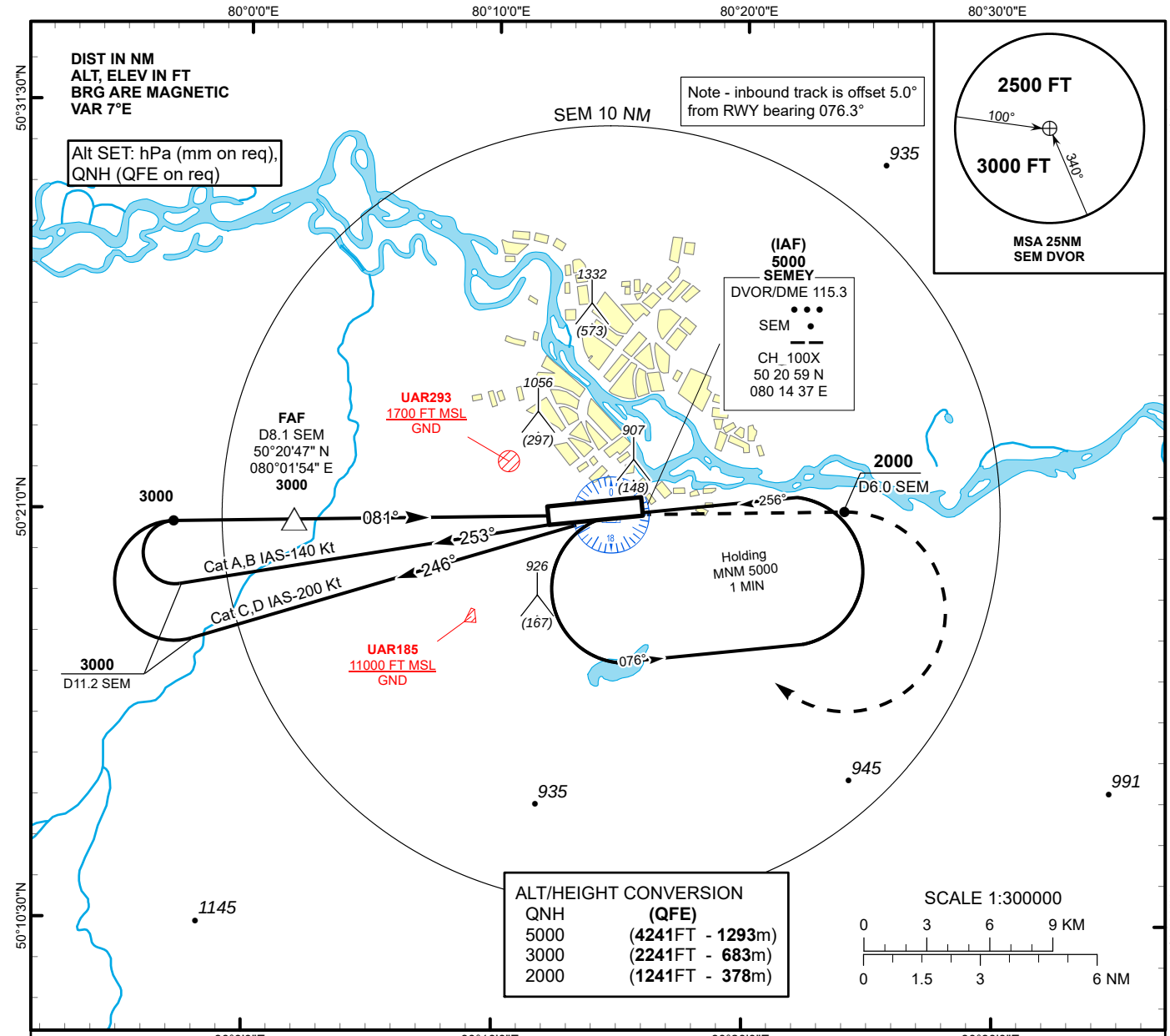
STANDARD ARRIVAL ROUTES - INSTRUMENT (STAR) SEMEY RWY 26
ELSUT 1H After crossing ELSUT (R018.3° D58.7NM SEM), proceed on track 199° to SEM. Cross SEM at 5000 FT
ADARO 1H After crossing ADARO (R059.3° D67.8NM SEM), proceed on track 241° to SEM. Cross SEM at 5000 FT
LIRNA 1H After crossing LIRNA (R094.0° D44.2NM SEM), proceed on track 275° to SEM. Cross SEM at 5000 FT.
LUNOV 1H After crossing LUNOV (R169.7° D43.1NM SEM), proceed on track 350° to SEM. Cross SEM at 5000 FT.
UVTOK 1H After crossing UVTOK (R197.2° D45.7NM SEM), proceed on track 017° to SEM. Cross SEM at 5000 FT.
ADLAN 1H After crossing ADLAN (R220.2° D43.4NM SEM), proceed on track 040° to SEM. Cross SEM at 5000 FT.
LUREL 1H After crossing LUREL (R256.7° D42.9NM SEM), proceed on track 076° to SEM. Cross SEM at 5000 FT.
ETORI 1H After crossing ETORI (R277.9° D43.6NM SEM), proceed on track 097° to SEM. Cross SEM at 5000 FT.
OBUNA 1H After crossing OBUNA (R306.6° D49.7NM SEM), proceed on track 126° to SEM. Cross SEM at 5000 FT.

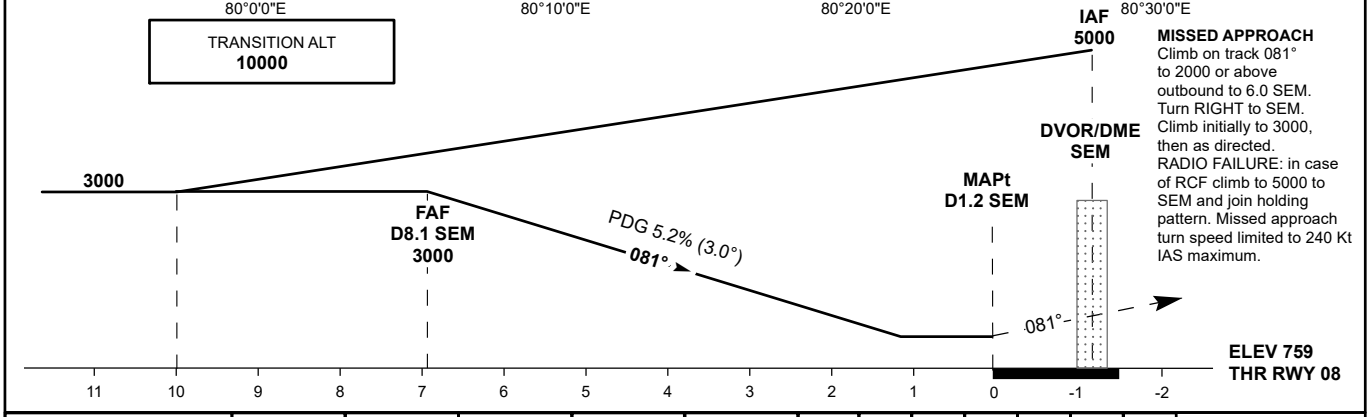
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *759 FT*
HEIGHTS RELATED TO
AD ELEV

SEMEY TOWER 128.0
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

SEMEY VOR/DME RWY 08





MISSED APPROACH
Climb on track 081° to 2000 or above outbound to 6.0 SEM. Turn RIGHT to SEM. Climb initially to 3000, then as directed.
RADIO FAILURE: in case of RCF climb to 5000 to SEM and join holding pattern. Missed approach turn speed limited to 240 Kt IAS maximum.

Aircraft Category		A	B	C	D	DIST to THR	NM	6.9	5.0	4.0	3.0	2.0	1.0
Straight-in Approach OCA/H						DME SEM	NM	8.1	6.2	5.2	4.2	3.2	2.2
	VOR/DME	1060(300)		1100(340)		ALTITUDE	FT	3000	2400	2081	1763	1445	1127
						HEIGHT	FT	(2241)	(1641)	(1322)	(1004)	(686)	(367)

Aerodrome Operating Minima MDH ft x RVR(CMV)	VOR/DME					GS	Kt	80	100	120	140	160	180
						FAF-MAPt (6.9)	min:sec	5:11	4:08	3:27	2:57	2:35	2:18
						Desc.Rate(5.2%)	ft/min	420	530	640	740	850	950

CHANGE: Renumbered.

SEMEY (UASS)
VOR/DME RWY08 AERONAUTICAL DATA TABULATION

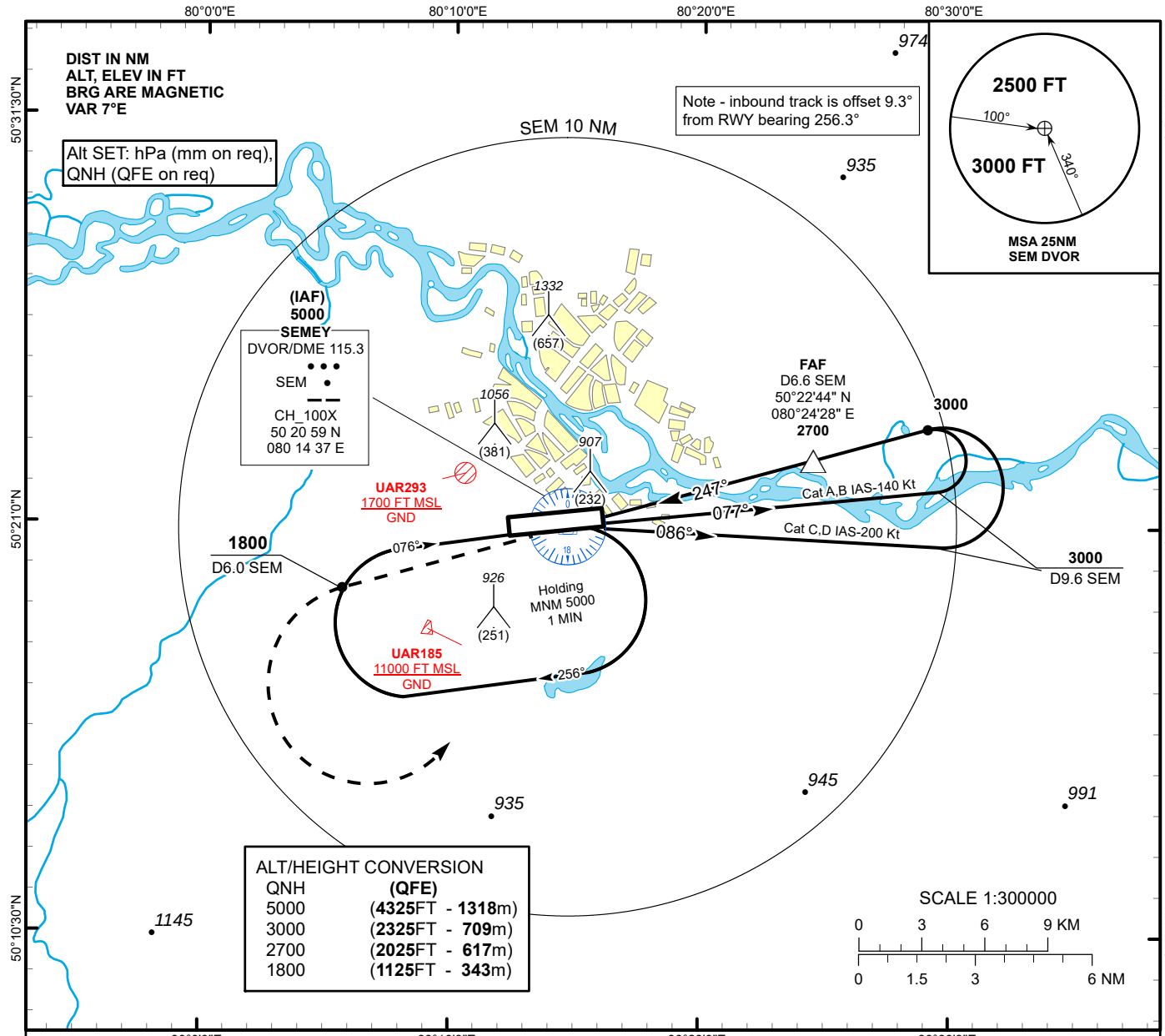
VOR/DME approach to RWY08 from SEM DVOR/DME	
Fix/point	**Coordinates**
SEM DVOR/DME (IAF)	50° 20’ 58.7”N 080° 14’ 37.5”E
(FAF) D8.1 SEM	50° 20’ 46.9”N 080° 01’ 54.2”E
THR RWY 08	50° 21’ 00.82”N 080° 12’ 43.63”E
Final approach descent angle is 3°	

INSTRUMENT APPROACH CHART - ICAO

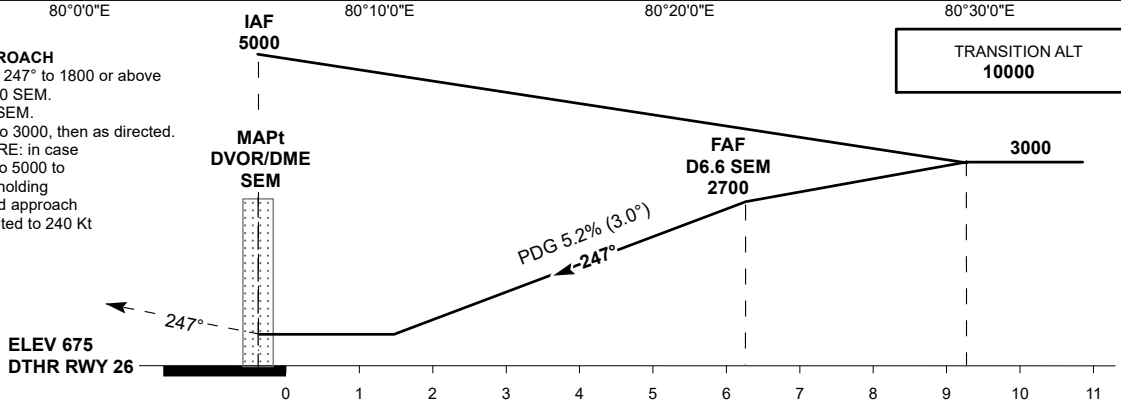
AERODROME ELEV *759 FT*
HEIGHTS RELATED TO
DTHR RWY 26 ELEV 675 FT

SEMEY TOWER 128.0
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

SEMEY VOR/DME RWY 26



MISSED APPROACH
Climb on track 247° to 1800 or above outbound to 6.0 SEM.
Turn LEFT to SEM.
Climb initially to 3000, then as directed.
RADIO FAILURE: in case of RCF climb to 5000 to SEM and join holding pattern. Missed approach turn speed limited to 240 Kt IAS maximum.



TRANSITION ALT
10000

Aircraft Category		A	B	C	D	DIST to DTHR	NM	1.0	2.0	3.0	4.0	5.0	6.3
Straight-in Approach OCA/H						DME SEM	NM	1.3	2.3	3.3	4.3	5.3	6.6
	VOR/DME	1090(420)		1130(450)		ALTITUDE	FT	1043	1361	1679	1998	2316	2700
						HEIGHT	FT	(368)	(686)	(1004)	(1323)	(1641)	(2025)

Aerodrome Operating Minima (MDH ft x RVR(CMV))	VOR/DME					GS	Kt	80	100	120	140	160	180
						FAF-MAPt (6.6)	min:sec	4:57	3:58	3:18	2:50	2:29	2:11
						Desc.Rate(5.2%)	ft/min	425	530	630	740	840	950

CHANGE: Renumbered.

SEMEY (UASS)
VOR/DME RWY26 AERONAUTICAL DATA TABULATION

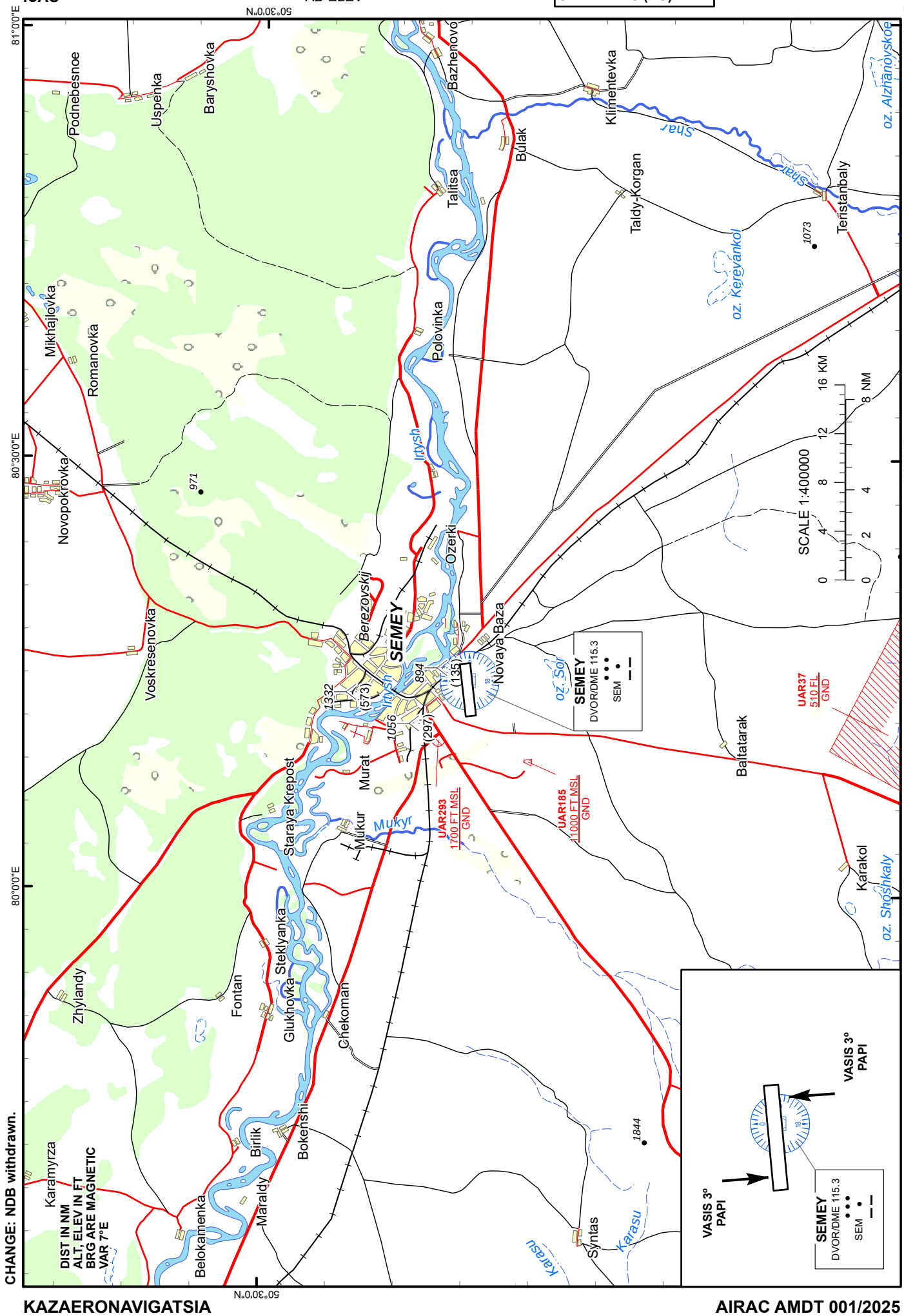
VOR/DME approach to RWY26 from SEM DVOR/DME	
Fix/point	**Coordinates**
SEM DVOR/DME (IAF)	**50° 20’ 58.7”N 080° 14’ 37.5”E**
(FAF) D6.6 SEM	**50° 22’ 43.7”N 080° 24’ 27.7”E**
DTHR RWY 26	**50° 21’ 10.52”N 080° 15’ 00.79”E**
Final approach descent angle is 3°	

VISUAL APPROACH CHART ICAO

AERODROME ELEV *759 FT*
HEIGHTS RELATED TO AD ELEV

SEMEY TOWER 128.00
SEMEY ATIS (EN) 118.5
SEMEY ATIS (RU) 122.4

SEMEY



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7	**Remarks**	Nil

UAII AD 2.18 ATS Communication Facilities

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
TWR	SHYMKENT TOWER (EN) SHYMKENT VYSHKA (RU)	125,9 MHZ	Nil	Nil	H24	Nil
Production and dispatcher service	SHYMKENT TRANZIT (EN) SHYMKENT TRANZIT (RU)	127.0 MHZ	Nil	Nil	As AD	Nil
ATIS	SHYMKENT ATIS (EN) SHYMKENT ATIS (RU)	119,2 MHZ 126,6 MHZ	Nil	Nil	H24	EN RU

UAII AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS LOC 10 I/D/2 GP 10 I/C/2 DME 10	IEN IEN	111,7 MHZ 333,5 MHZ CH 54X	H24	422134.2N 0693004.8E 422202.1N 0692731.3E 422202.1N 0692731.3E	 1300 FT	Nil	Nil
ILS LOC 28 I/D/2 GP 28 DME 28	IIM IIM	110.3 MHZ CH 40X	H24	422213.7N 0692701.5E 422137.0N 0692925.0E	 1400 FT	Nil	GP 28 is Inoperability
NDB	SKN	733 KHZ	H24	422130.3N 0693022.4E	Nil	Nil	Nil
DVOR/DME (6°E/2013)	SMK	113 MHZ CH 77X	H24	422220.4N 0692630.6E	1400 FT	Nil	Nil

UAII AD 2.20 Local Aerodrome Regulations

1. Procedures of movement (towing, taxiing) of aircraft on the airfield

Standard taxi routes shall be carried out along taxiway and apron center lines. Towing of the aircraft shall be carried out with the clearance of “Tower” air traffic controller.

Taxiing on TWY B and TWY E in night-time is forbidden due to absence of lighting system

Taxiing at daytime with RVR 550m and less available only after follow me car.

RWY 28 is available for landing of all aircraft type only in daytime and visibility more than 2000m.

A. Movement of the aircraft along maneuvering area (RWY, TWY).

TWY K and TWY L are not designated for Civil Aviation.

Backtrack on RWY for aircraft index 4 or higher is prohibited.

Simultaneous taxiing of aircraft along TWY B and TWY E (from RWY to MAIN TWY P) is prohibited.

Taxiing of aircraft with index 3 and lower from TWY C to RWY and from RWY to TWY C, shall be carried out at reduced speed with the increased attention of the crew and in compliance with the safety intervals between landing gear and edges.

During engine testing (run-up) on the stands 1,2,3 and taxiing of ACFT into stands 1,2,3 with the heading to the north, taxiing of other aircraft along TWY P, TWY B, TWY A is prohibited.

During taxiing out from aircraft stands 1, 2, 3 parked with the heading to the north, taxiing of other aircraft along TWY P, TWY B, TWY A is prohibited.

Taxiing of aircraft with index 4 and higher on TWY-B, TWY-C, TWY-E is prohibited.

B. Aircraft movement on the apron.

Movement of ACFT to the stands 54-62 of Aircraft maintenance facility of the “SCAT” Airline shall be carried out by towing out of stands 1-22.

When stand 19A is occupied:

•Aircraft movement along the north centerline between stands 19 and 1 is prohibited.

•Taxiing out from aircraft stand 1 parked with the heading to the north is prohibited; movement by towing is allowed.

•Taxiing into the aircraft stand 1 with the heading to the south is prohibited; movement by towing is allowed

2. Taxiing/towing precautions with taking onto account visibility conditions, surface condition of runway, apron, stands and taxiways.

Crossing of holding point line (critical ILS zone), indicated by “CAT” signs with day markings without ATC clearance is prohibited.

Crossing (occupy) the runway, taxiways during taxiing without the clearance of ATS dispatcher is prohibited.

Towing of aircraft shall be carried out with turned on aircraft lights. Flashing lights shall be switched on during the day and night from engine start-up till engine stoppage.

Taxiing shall be carried out after “Follow me” car when the centerline is invisible.

Taxiing along taxiways, apron, shall be carried out after “Follow me” car when RVR is less than 550m.

3. Taxiing into stands under aircraft own engines power and by towing.

Taxiing shall be carried out along centerlines, taxiing into stands shall be carried out by instructions of ground personnel of Aviation Engineering Service.

4. Taxiing out from stands under aircraft own engines power and by towing.

Taxiing out from stands 9-16 shall be carried out by towing to the apron centerline followed by engine start-up and further taxiing under the aircraft own engines power. Stands 1-8, 17-22 are designated as pass-through, taxiing out from these stands shall be carried out under the aircraft own engines power.

5. Aircraft de-icing areas, start-up engine areas and deviation areas.

De-icing procedure shall be carried out on the stands. Engine start-up on stands 1-8, 17-22 is allowed. Engine start-up on stands 9-16 shall be carried out after taxing out from the stands on the nearest apron centerline.

Engine testing (run-up) on the stands 8-16 for aircraft heading to the apron is prohibited. There is no deviation areas.

6. Large aircraft operation restrictions, including aircraft own engines power restrictions.

Take-off weight restriction – not more than 376 655kg, without traffic intensity restriction for B747-400

Traffic intensity restriction no more than 10 departures per day for B747-400

Taxiing out from stands 1,19A to the TWY A shall be carried out at minimum speed and minimum own engine power.

7. In case of invisibility of taxiway centerlines in winter conditions, taxiing shall be carried out after the Follow me car.

8. Disabled aircraft removal procedures.

In case of removal the disabled aircraft, the operator of the Shymkent airport - JSC "Shymkent Airport" and military unit No. 55652, together with the holders of the registration certificate of the aircraft, combine their efforts to evacuate the aircraft as soon as possible.

The holder of the registration number of the aircraft shall be notified via production and dispatcher service or via ATM of Shymkent branch of “Kazaeronavigatsia” RSE.

All removal works shall be carried out by aerodrome service with notification and coordination with ATM unit (“Tower”) of Shymkent branch of “Kazaeronavigatsia” RSE.

All necessary equipment and personnel shall be involved on first demand via production and dispatcher service or via other communication channels.

UAII AD 2.21 Noise Abatement Procedures

NIL

UAII AD 2.22 Flight Procedures

1. Low Visibility Procedures.

Low Visibility Procedures (LVP) are effected when RVR is less than 550 m.

The start of LVP procedures is reported via ATIS or by an ATS dispatcher by radio with the following phrase: “**Low visibility procedures in operation**”.

Information about any changes in radio- and lighting systems includes in ATIS with further flight crew informing

2. VFR procedures within the aerodrome control zone (CTR)

Air traffic service in the control zone of the aerodrome is carried out by the controller of the “Tower” ATC unit. Flight altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan. The functions of Air traffic service does not include ground collision avoidance. The aircraft crew shall ensure that the clearance issued by the ATS unit in this regard is safe. VFR flights at altitudes below 2000 feet in the control zone are performed at the altitudes indicated in the flight plan or requested by the aircraft crew.

Flights must not be performed over populated areas within the control zone.

For VFR flights, the aerodrome has a flight circle (left / right) at an altitude of 2000 feet. The air traffic controller of the “Tower” ATC unit is determine and report which flight circle is in use.

Entering the flight circle, crossing the runway alignment is made only with the permission of the air traffic controller of the “Tower” ATC unit.

The aircraft crew preliminarily agrees with the ATS unit the flight area and altitude range during aerial work in the control zone at absolute altitudes.

When entering the control zone (CTR) from uncontrolled airspace, the aircraft crew must obtain an air traffic

control clearance 5 minutes before the estimated time of entering the controlled airspace.

Entry / exit of aircraft of category A and helicopters flying in VFR to / from the control zone (CTR) is carried out at the shortest distance through the corresponding point.

If the air situation requires the holding procedure, the air traffic controller of the “Tower” ATC unit gives the instructions to the aircraft crew to follow to one of the holding points.

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
1	VICTOR (bridge over Arys riv., outskirt of Kutarys)	N423545 E0693620	023° 15.3 nm SMK DVOR/DME	Entry/exit
2	WHISKEY (SE outskirts of Sastobe, road junction)	N423152 E0700113	064° 27.4 nm SMK DVOR/DME	Entry/exit
3	ZULU (NE outskirts of Shanak)	N420712 E0691431	205° 17.6 nm SMK DVOR/DME	Entry/exit
4	OSCAR (bridge over Arys riv., SW outskirts of Saryaryk)	N422751 E0685704	279° 22.5 nm SMK DVOR/DME	Entry/exit
5	HOTEL (south bank of the Bugun water basin)	N424227 E0690334	314° 26.3 nm SMK DVOR/DME	Entry/exit
6	INDIA (Western outskirts of Saryaryk)	N423226 E0693100	013° 10.6 nm SMK DVOR/DME	Holding
7	GOLF (south traverse of RWY 28 THR)	N421922 E0692647	171° 3.0 nm SMK DVOR/DME	Holding

UAII AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Section 6. Point 437. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan	Maximum switch-over time for lighting aids	Maximum switch-over time for lighting aids for precision approach category I runway exceeds the required.	An equivalent level of safety has been approved 05.04.2021 to 31.12.2022

2. Ornithological situation

Seasonal mass migration of birds (crows) at an altitude of up to 400 m in winter from November to March in the morning from dawn to 11 o'clock in the direction from northeast to southwest and in the evening from 16 o'clock to sunset from southwest to northeast.

To scare away birds, an air rifle, stuffed birds of prey, bioacoustic installations, aeromanes, gas cannons, a laser pistol, smoothbore weapons, a noise pistol and a hunter's signal are used.

The crew of the aircraft receive information about the ornithological situation before takeoff and landing by ATIS or from the ATS dispatcher.

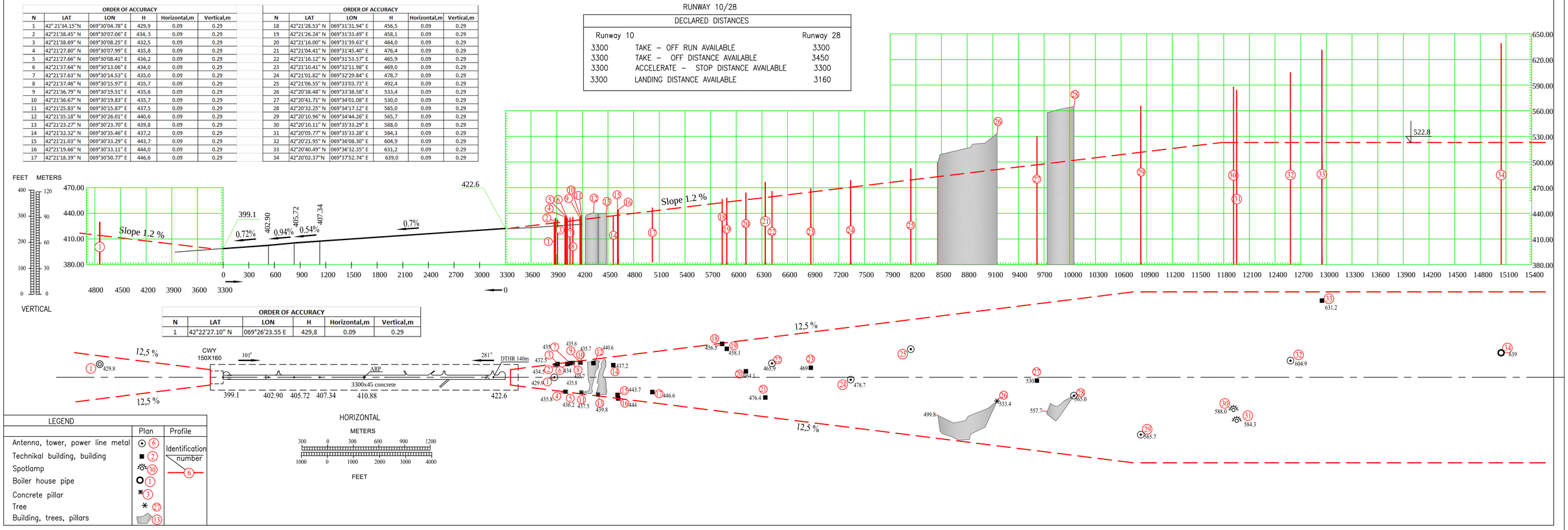
DIMENSIONS AND ELEVATIONS IN METERS MAG VAR 6°E (2013)

ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
1	42° 21'34.15" N	069°30'04.78" E	429,9	0.09	0.29
2	42°21'38.45" N	069°30'07.06" E	434, 5	0.09	0.29
3	42°21'38.69" N	069°30'08.25" E	432,5	0.09	0.29
4	42°21'27.80" N	069°30'07.99" E	435,8	0.09	0.29
5	42°21'27.66" N	069°30'08.41" E	436,2	0.09	0.29
6	42°21'37.64" N	069°30'13.06" E	434,0	0.09	0.29
7	42°21'37.63" N	069°30'14.53" E	435,0	0.09	0.29
8	42°21'37.46" N	069°30'15.97" E	435,7	0.09	0.29
9	42°21'36.79" N	069°30'19.51" E	435,6	0.09	0.29
10	42°21'36.67" N	069°30'19.83" E	435,7	0.09	0.29
11	42°21'25.83" N	069°30'15.87" E	437,5	0.09	0.29
12	42°21'35.18" N	069°30'26.01" E	440,6	0.09	0.29
13	42°21'23.27" N	069°30'23.70" E	439,8	0.09	0.29
14	42°21'32.32" N	069°30'35.46" E	437,2	0.09	0.29
15	42°21'21.03" N	069°30'33.29" E	443,7	0.09	0.29
16	42°21'19.66" N	069°30'33.11" E	444,0	0.09	0.29
17	42°21'18.39" N	069°30'50.77" E	446,6	0.09	0.29

ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
18	42°21'28.53" N	069°31'31.94" E	456,5	0.09	0.29
19	42°21'26.24" N	069°31'33.49" E	458,1	0.09	0.29
20	42°21'16.00" N	069°31'39.63" E	464,0	0.09	0.29
21	42°21'04.41" N	069°31'45.40" E	476,4	0.09	0.29
22	42°21'16.12" N	069°31'53.57" E	465,9	0.09	0.29
23	42°21'10.41" N	069°32'11.98" E	469,0	0.09	0.29
24	42°21'01.82" N	069°32'29.84" E	478,7	0.09	0.29
25	42°21'06.55" N	069°33'03.73" E	492,4	0.09	0.29
26	42°20'38.48" N	069°33'38.58" E	533,4	0.09	0.29
27	42°20'41.71" N	069°34'01.08" E	530,0	0.09	0.29
28	42°20'32.25" N	069°34'17.12" E	565,0	0.09	0.29
29	42°20'10.96" N	069°34'44.26" E	565,7	0.09	0.29
30	42°20'10.11" N	069°35'33.29" E	588,0	0.09	0.29
31	42°20'05.77" N	069°35'33.28" E	584,3	0.09	0.29
32	42°20'21.95" N	069°36'08.30" E	604,9	0.09	0.29
33	42°20'40.49" N	069°36'32.35" E	631,2	0.09	0.29
34	42°20'02.37"N	069°37'52.74" E	639,0	0.09	0.29

RUNWAY 10/28

DECLARED DISTANCES		
Runway 10		Runway 28
3300	TAKE – OFF RUN AVAILABLE	3300
3300	TAKE – OFF DISTANCE AVAILABLE	3450
3300	ACCELERATE – STOP DISTANCE AVAILABLE	3300
3300	LANDING DISTANCE AVAILABLE	3160



ORDER OF ACCURACY					
N	LAT	LON	H	Horizontal,m	Vertical,m
1	42°22'27.10" N	069°26'23.55 E	429,8	0.09	0.29

LEGEND	Plan	Profile
Antenna, tower, power line metal	6	Identification number 6
Technikal building, building	2	
Spotlamp	30	
Boiler house pipe	1	
Concrete pillar	3	
Tree	27	
Building, trees, pillars	13	

CHANGE: Edit

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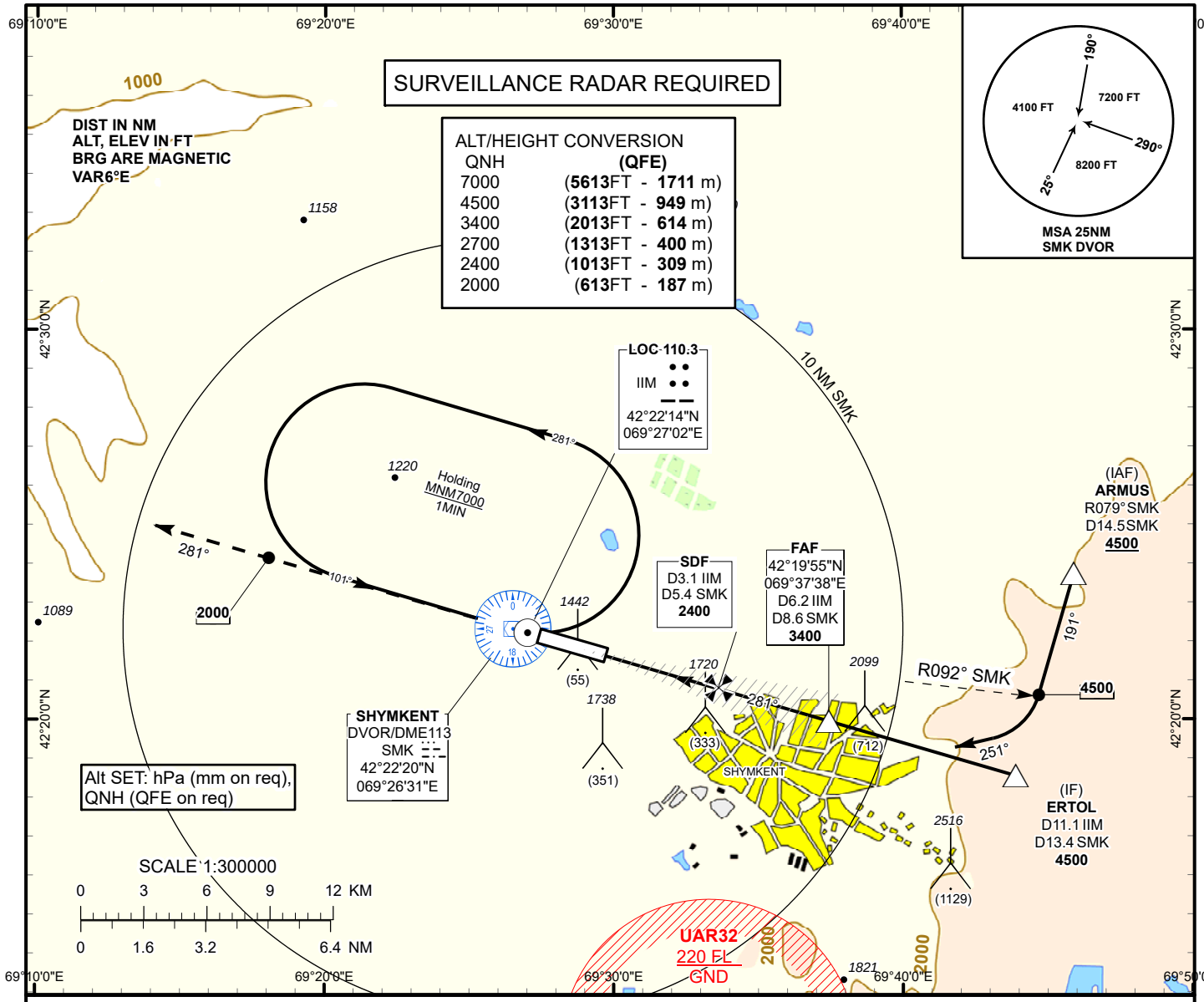
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *1387 FT*
HEIGHTS RELATED TO AD ELEV

SHYMKENT TOWER 125.9
SHYMKENT ATIS (EN) 119.2
SHYMKENT ATIS (RU) 126.6

SHYMKENT LOC/DME RWY 28



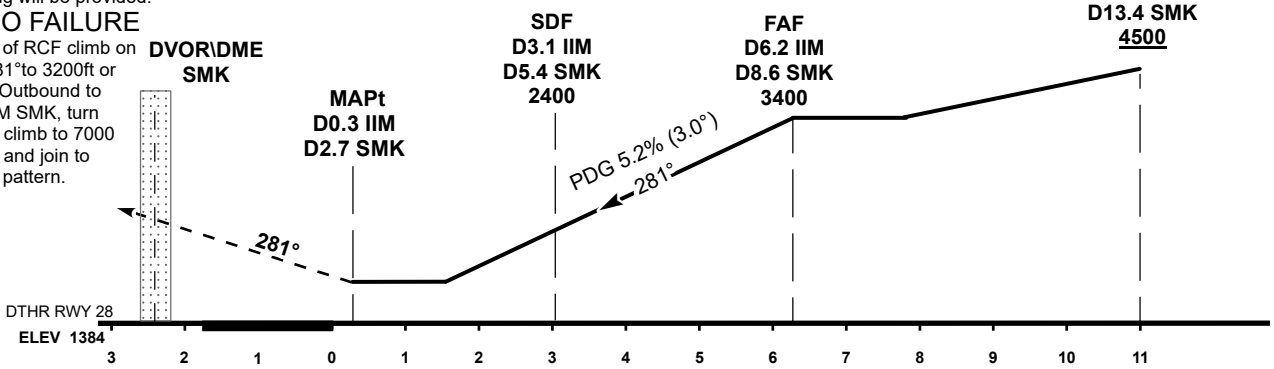
MISSED APPROACH

Climb on track 281° to 4500ft.
After passing 2000ft radar vectoring will be provided.

RADIO FAILURE

In case of RCF climb on track 281°to 3200ft or above. Outbound to D5.2 NM SMK, turn RIGHT, climb to 7000 to SMK and join to holding pattern.

TRANSITION ALT 10000 FT



Aircraft Category		A	B	C	D	DIST to DTHR DME IIM	NM	1.0	2.0	3.0	4.0	5.0	6.2
Straight-in Approach OCA/H						DME SMK	NM	3.4	4.4	5.4	6.4	7.4	8.6
	LLZ (GP INOP) SDF	1930(540)	1930(540)	1930(540)	1930(540)	ALTITUDE	FT	1754	2073	2391	2710	3028	3400
	LLZ (GP INOP) WO SDF	2340(960)	2340(960)	2340(960)	2340(960)	HEIGHT	FT	(367)	(686)	(1004)	(1323)	(1641)	(2013)

DME IIM ZERO RANGED TO THR RWY 28

Aerodrome Operating Minima MDH ft x RVR (CMV)													
	LLZ (GP INOP)												
						GS	Kt	80	100	120	140	160	180
						Desc.Rate(5.2%)	ft/min	420	530	630	740	840	950
						FAF-MAPt(5.9NM)	min:sec	4:30	3:36	3:00	2:34	2:15	2:00

CHANGE: INITIAL SEGMENT ALT.

SHYMKENT
LOC/DME **AERONAUTICAL DATA TABULATION**

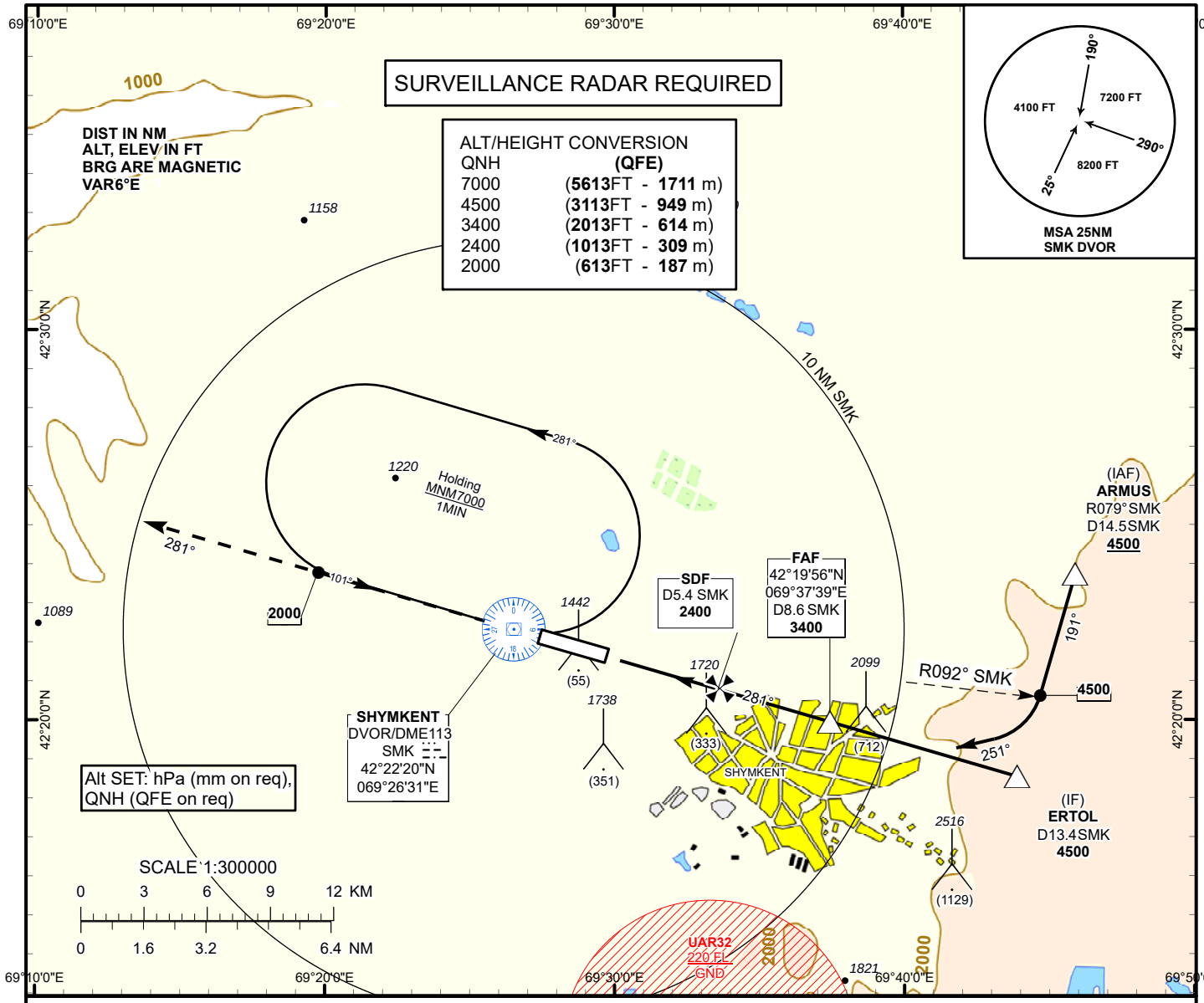
LOC/DME approach to RWY28 from ARMUS, ERTOL	
Fix/point	**Coordinates**
(SDF) D3.1 IIM, D5.4 SMK	42° 20' 49.0”N 069° 33' 32.6”E
(FAF) D6.2 IIM, D8.6 SMK	42° 19' 55.4”N 069° 37' 38.4”E
ERTOL (IF) D11.1 IIM, D13.4 SMK	42° 18’ 33.5”N 069° 43’ 53.6”E
ARMUS (IAF) R079°, D14.5 SMK	42° 23’ 44.6”N 069° 45’ 55.9”E
SMK DVOR/DME	42° 22' 20.4”N 069° 26' 30.6”E
IIM LOC	42° 22’ 13.7”N 069° 27’ 01.5”E
DTHR RWY 28	42° 21’ 40.62”N 069° 29’ 34.86”E
Final approach descent angle is 3°	

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV *1387 FT*
HEIGHTS RELATED TO AD ELEV

SHYMKENT TOWER 125.9
SHYMKENT ATIS (EN) 119.2
SHYMKENT ATIS (RU) 126.6

SHYMKENT VOR/DME Y RWY 28



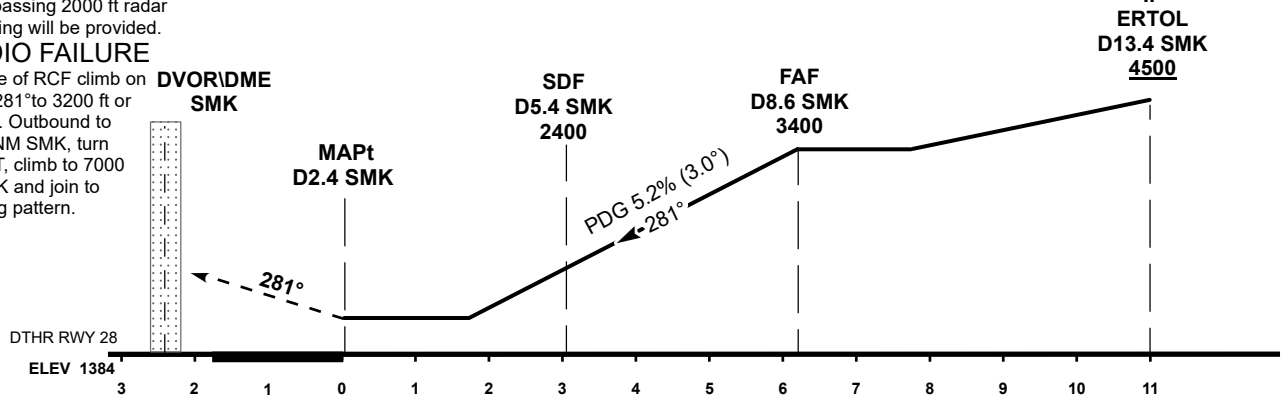
MISSED APPROACH

Climb on track 281° to 4500ft.
After passing 2000 ft radar vectoring will be provided.

RADIO FAILURE

In case of RCF climb on track 281°to 3200 ft or above. Outbound to D5.2 NM SMK, turn RIGHT, climb to 7000 to SMK and join to holding pattern.

TRANSITION ALT 10000 FT



Aircraft Category		A	B	C	D	DIST to DTHR	NM	1.0	2.0	3.0	4.0	5.0	6.2
Straight-in Approach OCA/H						DME SMK	NM	3.4	4.4	5.4	6.4	7.4	8.6
	VOR/DME SDF	1970(590)	1970(590)	1970(590)	1970(590)	ALTITUDE	FT	1754	2073	2391	2710	3028	3400
	VOR/DME WO SDF	2370(980)	2370(980)	2370(980)	2370(980)	HEIGHT	FT	(367)	(686)	(1004)	(1323)	(1641)	(2013)

Aerodrome Operating Minima MDH ft x RVR (CMV)													
	VOR/DME												
						GS	Kt	80	100	120	140	160	180
						Desc.Rate(5.2%)	ft/min	420	530	630	740	840	950
						FAF-MAPt(6.2NM)	min:sec	4:39	3:43	3:06	2:39	2:20	2:04

CHANGE: INITIAL SEGMENT ALT.

SHYMKENT
VOR/DME Y

AERONAUTICAL DATA TABULATION

VOR approach to RWY28 from ARMUS, ERTOL	
Fix/point	**Coordinates**
(SDF) D5.4 SMK	42° 20' 49.2"N 069° 33' 32.7"E
(FAF) D8.6 SMK	42° 19' 55.9"N 069° 37' 38.6"E
ERTOL (IF) D13.4 SMK	42° 18' 33.5"N 069° 43' 53.6"E
ARMUS (IAF) R079°, D14.5 SMK	42° 23' 44.6"N 069° 45' 55.9"E
SMK DVOR/DME	42° 22' 20.4"N 069° 26' 30.6"E
DTHR RWY 28	42° 21' 40.62"N 069° 29' 34.86"E
Final approach descent angle is 3°	

UATZ AD 2

Note: The following sections in this chapter are intentionally left blank: AD-2.10, AD-2.21

UATZ AD 2.1 Aerodrome Location Indicator And Name

UATZ - TENGIZ

UATZ AD 2.2 Aerodrome Geographical And Administrative Data

1	ARP coordinates and site at AD	461807N 0532539E At the centre of RWY
2	Direction and distance from (city)	212°, 86 km of Kulsary center
3	Elevation/Reference temperature	-78 FT/33° C
4	Geoid undulation at AD ELEV PSN	-53 FT
5	MAG VAR/Annual Change	9° E (2021) / 0.07°
6	AD Administration, address, telephone, telefax, telex, AFS	Post: Authority of Airport 060106 Atyrau region, Zhylyoi district, Karaton-1, TSO, Tengiz airport, JSC "PrimeAviation" Republic of Kazakhstan Phone: +7 (712302) 3370 Phone: +7 (777) 552 6195 AFS: UATZPKZX Email: opstng@tengizchevroil.com
7	Types of traffic permitted (IFR/VFR)	IFR-VFR
8	Remarks	Nil

UATZ AD 2.3 Operational Hours

1	AD Operator	MON-SAT - 01:30 - 13:00 UTC SUN - 01:30 - 13:00 UTC only by request Phone: +7 (712302) 3370
	Office of the aerodrome operator in the city Atyrau	ANY 04:00 - 13:00 UTC Phone: +7 (712302) 6065
2	Customs and immigration	Nil
3	Health and sanitation	H24 Tel: +7-701-0075555
4	AIS Briefing Office	Nil
5	ATS Reporting Office (ARO)	ANY 01:30 - 13:00 UTC Phone: +7(712302) 4828 Fax: +7(712302) 4828 AFS: UATZYKYZ Email: atc.tengiz@gmail.com
6	MET Briefing Office	ANY 01:30 - 13:00 UTC Phone: +7 (712302) 3864 Email: wxtng@tengizchevroil.com
7	ATS	MON-SAT - 01:30 - 13:00 UTC SUN - NOT AVBL
8	Fuelling	Nil
9	Handling	ANY 01:30 - 13:00 UTC

10	Security	ANY 01:30 - 13:00 UTC
11	De-icing	ANY 01:30 - 13:00 UTC
12	Remarks	Nil

UATZ AD 2.4 Handling Services And Facilities

1	Cargo-handling facilities	Nil
2	Fuel/oil types	Nil
3	Fuelling facilities/capacity	Nil
4	De-icing facilities	Special Vehicle MAZ 53402 KO-806-20 (1 unit) for treating runways, taxiways, and aprons with the formate-based granular de-icing agent “NORDWAY NF”. Special De/Anti-Icing Vehicle GS800 with a lifting platform with a maximum height of 9.8 meters (1 unit) for treating aircraft with de-icing fluids “KILFROST DF PLUS” Type I and “KILFROST ABC-S PLUS” Type IV. Parking apron No. 3, equipped with a drainage system, is used for aircraft de-icing.
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

UATZ AD 2.5 Passenger Facilities

1	Hotels	Nil
2	Restaurants	Nil
3	Transportation	There is a bus for transporting passengers, a car for transporting luggage
4	Medical facilities	There is a medical center in the TCO village
5	Bank and Post Office	In Atyrau, in Kulsary
6	Tourist Office	In Atyrau, in Kulsary
7	Remarks	Nil

UATZ AD 2.6 Rescue And Fire Fighting Services

1	AD category for fire fighting	CAT A5
2	Rescue equipment	Modern rescue and firefighting equipment. 3 fire trucks. Total volume of fire extinguishant is 17876,8 liters (water – 16261 liters, foaming agent – 1615,8 liters)
3	Capability for removal of disabled aircraft	It is possible to evacuate aircraft up to 20 tons (DASH -8 mod. 315). Special equipment (special vehicles, mule, semitrailers, tow trucks, tractors, excavators, cranes, lifts, loaders, etc.). Phone: +7 (712302) 3370 Phone: +7 777 552 6195 Email: opstng@tengizchevroil.com

4	Remarks	Total amount and means of delivery of the extinguishant complies with category 5 of LRFP. To provide standard time of deployment to 18 and 36 thresholds, firefighting crews of TCO emergency response teams arrive to fire post №1 on the closed taxiway 15 minutes prior to ETA of aircraft.

UATZ AD 2.7 Seasonal Availability - Clearing

1	Types of clearing equipment	To clean the artificial pavements of the airfield from precipitation, a WAUSAU SD3131 snowplow trucks (2 units) with a brush coverage of 6 m are used, a special vehicle MAZ 53402 KO-806-20 (1 unit) is used to apply the “NordWay NF” и “GreenWay SFU” anti-icing reagent. To measure the friction coefficient on the runway, an airfield brake cart ATT-2 (1 unit) is used, complete with a BRIZ-KS devices (2 units)
2	Clearance priorities	1. RWY, TWY 1, Stand 2 2. Stand 1, Stand 3, TWY 2
3	Remarks	Nil

UATZ AD 2.8 Aprons, Taxiways And Check Locations/Positions Data

1	**Apron surface and strength**	**STANDS**		**SURFACE**	**STRENGTH**
		1 - 3		CONC+ASPH	PCN 15/F/C/Y/T
2	**Taxiway width, surface and strength**	**TWY**	**WIDTH (M)**	**SURFACE**	**STRENGTH**
		1	15	CONC+ASPH	PCN 15/F/C/Y/T
		2	8	CONC+ASPH	PCN 15/F/C/Y/T
3	**Altimeter checkpoint location and elevation**	Nil			
4	**VOR checkpoints**	Nil			
5	**INS checkpoints**	Nil			
6	**Remarks**	TWY 2 is intended only for taxiing helicopters			

UATZ 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	Guidance sign board at entrance of RWYs, guidance sign designating taxiways
2	RWY and TWY markings and LGT	Designation of threshold, touchdown, centre line, fixed distance, edge, RWY designation, taxi holding position, taxiway centre line
3	**Stop bars**	Nil
4	**Other runway protection measures**	Nil
5	Remarks	Nil

UATZ AD 2.10 Aerodrome Obstacles

NIL

UATZ AD 2.11 Meteorological Information Provided

1	**Associated MET Office**	Meteorological service Tengiz Phone: +7 (712302) 3864
2	**Hours of service MET Office outside hour**	ANY 01:30 - 13:00 UTC
3	**Office responsible for TAF preparation: Periods of validity**	Meteorological service Atyrau, H24 (0024, 0606, 1212, 1818) Phone: +7 (7122) 209402, 983178
4	**Trend forecast Interval of issuance**	TREND 30 min, draws up by Meteorological service Atyrau,
5	**Briefing/consultation provided**	Personal consultation (Russian) Meteorological service Tengiz
6	**Flight documentation/languages used**	TAF, METAR, SPECI, SIGMET, GAMET, AIRMET English
7	**Charts and other information AVBL for briefing or consultation**	Nil
8	**Supplementary equipment AVBL for providing information**	Nil
9	**ATS units provided with information**	TWR
10	**Additional information**	Nil

UATZ AD 2.12 Runway Physical Characteristics

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates 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**
18	188.00°	1400 X 30	15/F/C/Y/T CONC+ASPH	461829.01N 0532543.11E - -53 FT	THR -76.8 FT	0.08%
36	008.00°	1400 X 30	15/F/C/Y/T CONC+ASPH	461744.11N 0532534.00E - -53 FT	THR -80.0 FT	

SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of arresting system	OFZ	Remarks
8	**9**	**10**	**11**	**12**	**13**	**14**
Nil	150 x 150	1700 X 150	90 X 80	Nil	NIL	Nil
Nil	150 x 150	1700 X 150	90 X 80	Nil	NIL	Nil

Fire and rescue crews have a fire equipment provided in table 1.

Table 1:Available fire-fighting equipment at Tengiz airport

Name, type of fire truck	Quantity	Main location of basing	Remark
“DARLEY CHALLENGER” fire truck	1	TCO fire and emergency service garage №3	Used for duty at collecting point №3 of TCO fire and emergency service
“E-ONE” RESCUE-3 fire truck	1	TCO fire and emergency service garage №3	Used for duty at collecting point №3 of TCO fire and emergency service
Iveco-Magirus (AVIA) Impact×6ARFF 12000	1	TCO fire and emergency service garage №3	Used for duty at the airport

UATZ AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Section 7. Point 467. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan.	Measures, providing equivalent level of flight safety	Absence of stationary observation post to overwatch A/C takeoff and landing on runway	Equivalent level of flight safety is developed by airport operator and agreed with AAK 29.06.2023

2. Ornithological situation

The ornithological situation in the Tengiz aerodrome area is significantly influenced by the proximity of the north-eastern coast of the Caspian Sea.

The spring and autumn seasons are characterized by migration of various species of migratory birds, as well as the beginning of nesting period. The main directions of spring and autumn migrations of birds are northern and north-eastern directions and back.

Bird migrations take place at altitudes of 200 meters or above. The greatest activity of birds is observed in the period from 06:00 to 10:00 in the morning, and in the afternoon from 16:00 to 19:00.

The winter period is characterized by a low presence and poor species variety of birds.

Information about bird flocks and their flight direction.

Bird migrations take place at altitudes of 200 meters or above. The greatest activity of birds is observed in the period from 06:00 to 10:00 in the morning, and in the afternoon from 16:00 to 19:00. Distinctive flight direction from northeast to southwest in the aerodrome area in the period from 10:00 to 12:00 and from 16:00 to 17:00 in back direction is shown by grey doves in flocks with from 7 to 12 birds, at height up to 50 meters.

Sometimes in winter period, flocks of grey doves with up to 50 birds are detected in aerodrome area, and flocks of herring gulls with up to 50 birds as well.

UATZ AD 2.24 Charts Related To An Aerodrome

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
DVOR/DME (6°E/2019)	TRK	114,6 MHZ CH 93X	H24	431932.3N 0683446.1E	1000 FT	Nil	Nil

UAIT AD 2.20 Local Traffic Regulations

1. Airport regulations

Movement of aircraft about the aerodrome shall be carried out under its power or by towing with special vehicles. Taxiing and towing shall be carried out strictly along taxi center lines. Distributing of stands shall be carried out by dispatcher service according to apron load and availability of vacant stands, involved in maintenance. The speed of taxiing shall be chosen by a pilot-in-command depending on the condition of taxiways and apron, presence of obstacles, aircraft weight, and horizontal visibility conditions. The speed of taxiing in all cases must not exceed the speed established by the Flight Crew Operational Manual. ATS air traffic controller is responsible for the taxiway route assignment, the pilot-in-command is responsible for the observance of taxiing rules and a person, guiding the taxiing on the segment assigned to him, is responsible for the safety of taxiing. Taxiing of ACFT with index 4 and 5 into RWY from TWY A and TWY B and out of RWY to TWY shall be carried out at reduced speed with the flight crew's increased caution and with the observance of safety interval between the landing gear and edges. For De-icing on stand 8, 8A for aircraft with code designations D and higher, strictly under the accompaniment of aircraft technicians, taxiing from the TWY A side.

2. Taxiing/towing precautions with taking onto account visibility conditions, surface condition of runway, apron, stands and taxiways.

Flight crew shall be notified about the surface condition of runway, apron, stands and taxiways by "Tower" air traffic controller according to work technique.
Taxiing onto the apron after runway vacation shall be carried out only after "Follow me" car.
Aircraft parking shall be carried out by the signals of marshaller.
Escorting by special vehicle from stands to holding position and from taxiways to stands shall be carried out when markings on the maneuvering area are invisible due to snow.

3. Taxiing into stands under own engines power and by towing.

Taxiing into stands 3-4 shall be carried out under own engines power.

Taxiing into stands 8, 8A shall be carried out by towing under the accompaniment of aircraft technicians with code designations D and higher

4. Taxiing out of stands under own engines power and by towing.

Taxiing out of stands 1, 2, 5, 6, 7, 3A, 4A, 8A shall be carried out by towing.

5. Parking area for small aircraft (General aviation)

Parking on stand 3-4 shall be carried out by the signals of marshaller

6. De-icing areas, sanitary area, engine start-up areas.

For De-icing on stand 8, 8A for aircraft with code designations D and higher, strictly under the accompaniment of aircraft technicians, taxiing from the TWY A side.

7. The movement procedure of aircraft and vehicles in critical and sensitive zones of ILS during aerodrome operation on the minima I ICAO category.

The boundary of the critical area of the radio beacon system has daytime and nighttime markings on the TWY A. "Stop" and "ILS critical area" signs are set on the intersection of the airport roads and the critical area of the radio beacon system.

The intersection of critical zones of radio beacon landing system with aircraft, vehicles and other mobile facilities shall be

carried out with the clearance of the "Tower" controller. The intersection of these areas with mentioned facilities during landing approach till landing is prohibited.

8. Restrictions in the operation of large aircraft including restrictions on the use of its own power for taxiing.

Aerodrome can be operated by aircraft with PCN/ACN ratio above or equal to 1. Weight and traffic intensity restriction of aircraft with non-equal PCN and ACN values are applied (Operation of aircraft of the MD-11 and B747-8F types with full weight with the intensity limitation to 20 (aircraft departures per day).

9. Taxiing of aircraft in the absence of visibility of marking lines on the maneuvering area.

Runway, apron, stands and taxiways are not equipped with centerline lights

In case of invisibility of taxiway due to packed snow aircraft escorting shall be carried out only after the "Follow-me" car equipped with a UHF communication with a two-way radio ”ground-to-air” and “ground-ground” communication, flashing lights and the “Follow-me” panel and can be requested by the flight crew or by the shift deputy head of production and dispatcher service.

10. Disabled aircraft removal procedures.

It is possible to evacuate aircraft with an empty weight of loaded aircraft up to 40 tons, types A320, B-737.

11. Low Visibility Procedures.

Low Visibility Procedures (LVP) are effected when RVR is less than 550 m when manoeuvring area or part thereof is not visually monitored from the “Tower” control centre.

Low Visibility Procedures are initiated by the Air traffic Manager of Control Centre. The status of LVP is passed to pilots by ATIS broadcast or by ATC.

Before the introduction of the procedures of limited visibility, the air traffic controller of “Tower” Control centre (Tower ATC) begins to keep a record of vehicles and persons who are currently on the manoeuvring area, and continues to this account during the period of these procedures to promote security activities in this area and restricts the movement of vehicles airport services on the apron and manoeuvring area, writes the data in the logbook.

Tower ATC, received information about the beginning of the (termination) procedures in low visibility conditions to inform adjacent control towers. The operation of LVP shall be reported by Tower ATC phrase: “LOW VISIBILITY PROCEDURES IN OPERATION”.

Tower ATC restricts the movement of vehicles airport services on the apron and manoeuvring area during LVP procedures, produces control over the presence of obstacles on the runway and in the ILS critical area, on the reports of aircraft crew or reports of aerodrome service specialist, informs the flight crew about changes in the operational status of radio and lighting equipment.

Taxiing of departing aircraft shall be carried out after a follow-me car from stands to holding position. Taxiing to stand (apron) after RWY vacation shall be carried out after a follow-me car.

Upon receiving information that an aircraft or vehicle is lost or uncertain of its position on the manoeuvring area, Tower ATC takes action to ensure safety and to assist the aircraft or vehicle to determine its position.

If the Tower ATC cannot visually determine the aircraft RWY vacation, it requires the crew to report the vacation of the RWY.

12. Measurement of the friction coefficient of the runway pavement surface

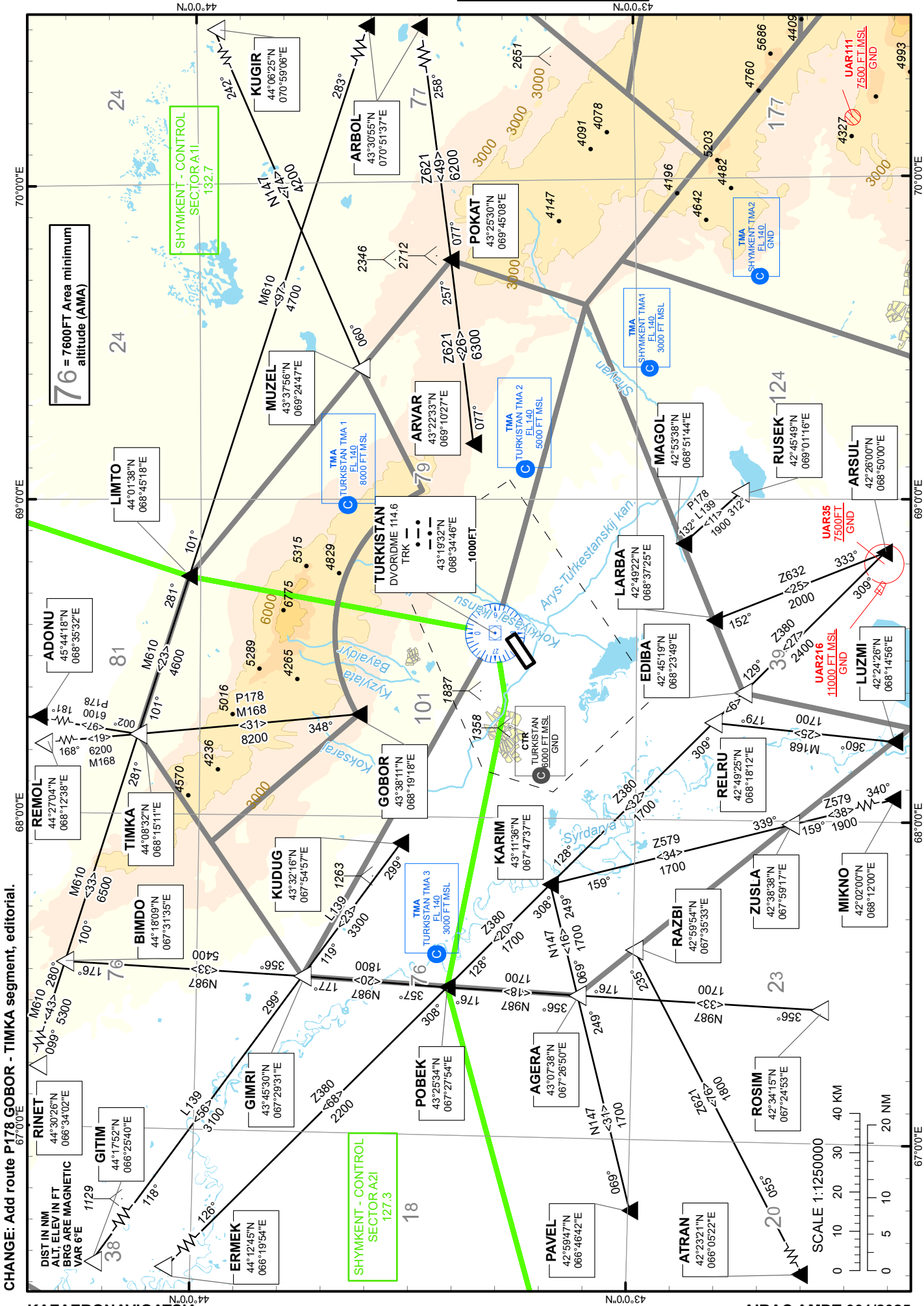
Carried out using continuous friction measuring equipment Skiddometer BV 11.

AREA CHART ICAO

TRANSITION ALTITUDE
10000 FT

TURKISTAN TOWER 131.3
TURKISTAN ATIS (EN) 124.4
TURKISTAN ATIS (RU) 118.3

TMA TURKISTAN



CHANGE: Add route P178 GOBOR - TIMKA segment, editorial.

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Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS LOC 30 I/D/2	ISI	109.7 MHZ	H24	500249.8N 0822828.4E		Nil	Nil
GP 30 I/C/2		333.2 MHZ		500150.4N 0823029.0E			
DME 30	ISI	CH 34X		500150.4N 0823029.0E	900 FT		
ILS LOC 12 I/D/2	IUS	111.7 MHZ	H24	500122.8N 0823105.8E		Nil	Nil
GP 12 I/C/2		333.5 MHZ		500235.1N 0822906.6E			
DME 12	IUS	CH 54X		500235.1N 0822906.6E	900 FT		

UASK AD 2.20 Local Aerodrome Regulations

RWY 12/30, TWY A, TWY B, ACFT Stands 1-4, 5-12, 15-22 are available for ACFT category D, types B767-300 and below.

UASK AD 2.21 Noise Abatement Procedures

NIL

UASK AD 2.22 Flight procedures.

1. Flight and ground movement procedures.

Takeoff shall be performed from the starting point of RWY where runway physical characteristics complies required actual aircraft takeoff weight and takeoff conditions. Aircraft takeoff with tailwind is permitted in case when tailwind speed corresponds to the value: for all aircraft types not greater than value set by Flight Operational manual of each aircraft type, but not greater than 5m/sec; for helicopters - not greater than value set by Flight Operational manual of each aircraft type.

Aircraft ground movement on manoeuvring area shall be carried out by taxiing or towing. Taxiing and towing shall be carried out strictly along TWY centreline and apron guideline.

Hover taxiing of helicopters with skids from stands to takeoff area and back shall be carried out along taxiway markings.

Taxiing shall be carried out after received clearance, taxiing route, stand number and other information for safe taxiing from “Tower” ATC. Taxiing speed shall be set by pilot-in-command according to the condition of TWY, presence of obstacles, aircraft weight, wind conditions and visibility.

In all cases taxiing speed should not exceed speed set by Flight Operational manual of this type of aircraft.

Aircraft shall be followed by follow-me car when RVR is less than 550 m.

Crossing the ILS critical areas by aircraft, ground vehicles and other vehicles shall be carried out by the clearance of Tower ATC.

Crossing the ILS critical areas during autoland approach is prohibited.

Taxiing out of stands shall be carried out by marshaller's signals, in case of his absence – by pilot-in-command.

Taxiing during nighttime as well as in a daytime, when visibility is less than 2000 m shall be carried out with enabled navigational and landing lights.

Taxiing into stands shall be carried out by marshaller's signals.

Helicopter taxiing shall be carried out with wind limitations, according to Flight Operational manual, at constant visibility of landmarks located in front.

Hover taxiing with General flight rules observance shall be carried out in case of ground taxiing unavailability (poor ground surface conditions or helicopter design doesn't allow to ground taxi).

Take-off/landing shall be carried out from/to RWY 12/30, abeam TWY-A, if TWY-A was used for taxiing into/ out of apron 1.

Take-off/landing shall be carried out from/to RWY 12/30, abeam TWY-B, if TWY-B was used for taxiing into/ out of apron 2.

Helicopter take-off shall be carried out after:

- helicopter lining-up on RWY, soft-surface runway or on landing pad (in exceptional circumstance on helicopter stands 40-49);
- helicopter test hovering request from flight crew and obtained clearance from Tower ATC;
- performed test hovering.
- flight crew report about (forward or no-run) takeoff readiness and after obtained clearance for takeoff from Tower ATC.

Landing of helicopter after test hovering is not necessary for no-run takeoff. The height of test hovering shall be chosen by pilot-in-command, but, hovering helicopter shall not block landing and takeoff of other aircraft.

After instrument approach to RWY 12/30 and establishing visual contact with runway lights or guidelines, approaching or moving to landing area (for RWY 12 – abeam TWY-B, or TWY-A, for RWY-30 – abeam TWY-B) shall be carried out by decision of pilot-in-command.

Helicopter take-off and landing from/to RWY 12/30 on VFR shall be carried out from any direction, except sector130°-304°, S=1.0 km, H= (120) m from apron and TWY-A intersection.Limit sector set in order to avoid the flight of helicopters over closely spaced aircraft parking and service buildings.

If there is a portion RWY12/ 30 meteorological phenomena or the production of smoke, which could affect the visibility to below the minimum take-off (the largest of the two: the minimum for takeoff the commander of the helicopter and the minimum take-off of this type of helicopter from the airport of Ust-Kamenogorsk, established by FOM of airline), the commander of the helicopter, in coordination with the Tower ATC is allowed to take off from the part of RWY12/ 30, where weather conditions match the specified minimum.

The movement of all types of special vehicles at the airport shall be carried out only at the set marked routes, according to the "Aircraft, special vehicles and mechanical equipment placement and movement chart".

Turning by 180 degree shall be carried out only at the threshold 12/30

2. Low Visibility Procedures.

Low Visibility Procedures (LVP) are effected when RVR is less than 550 m.

The operation of LVP shall be reported by Tower ATC phrase: "LOW VISIBILITY PROCEDURES IN OPERATION".

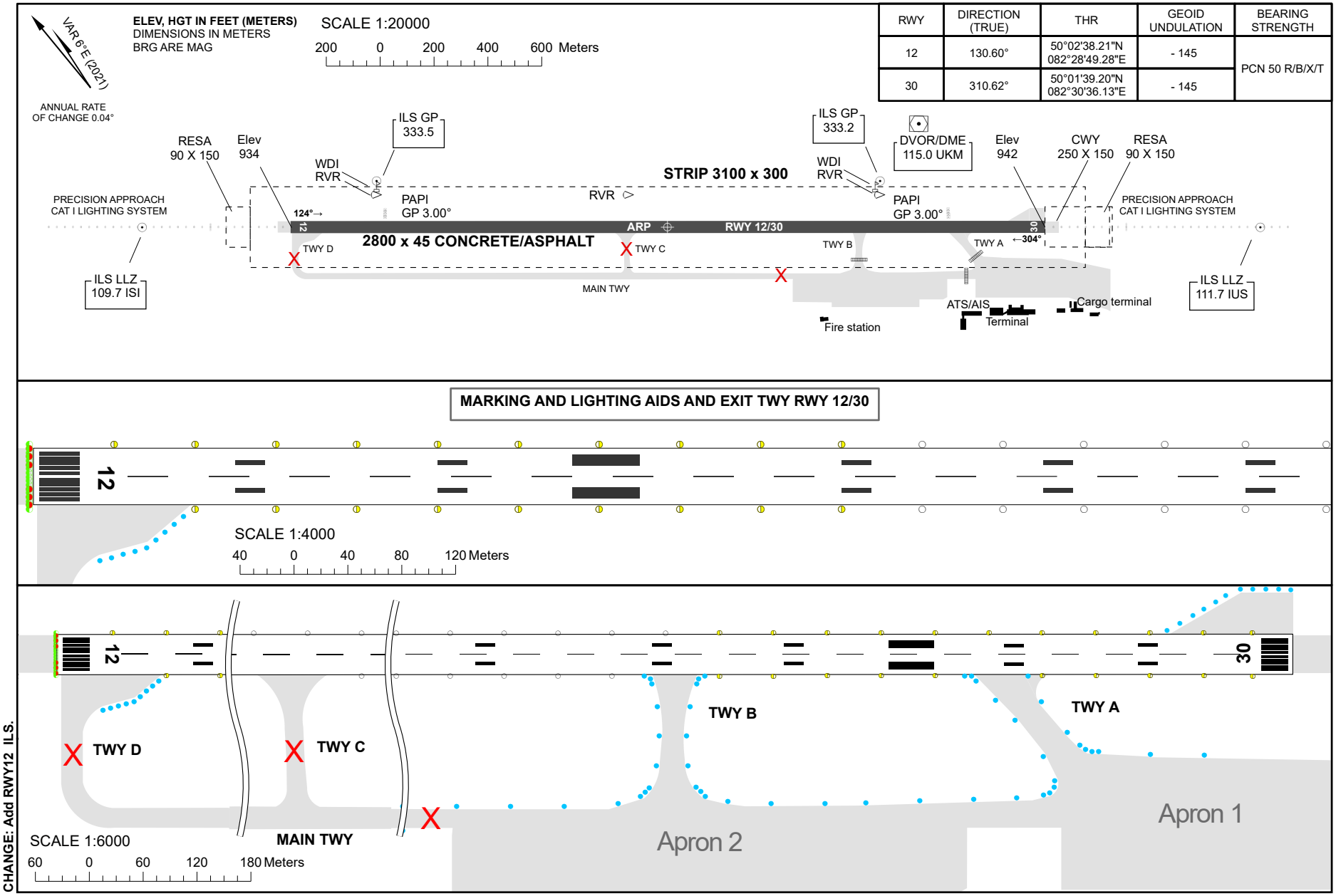
Taxiing of aircraft shall be carried out after "Follow-me" car.

The placement of aircraft on the stands shall be carried out by marshaller's signals.

Taxiing of departing aircraft from stands to holding position shall be carried out after follow-me car.

AERODROME CHART - ICAO | **AD ELEV 942FT (*287m*)** | **ARP 500209N 0822943E** | TWR 130.1 | **UST-KAMENOGORSK**

RWY	DIRECTION (TRUE)	THR	GEOID UNDULATION	BEARING STRENGTH
12	130.60°	50°02'38.21"N 082°28'49.28"E	- 145	PCN 50 R/B/X/T
30	310.62°	50°01'39.20"N 082°30'36.13"E	- 145	



CHANGE: Add RWY12 ILS.

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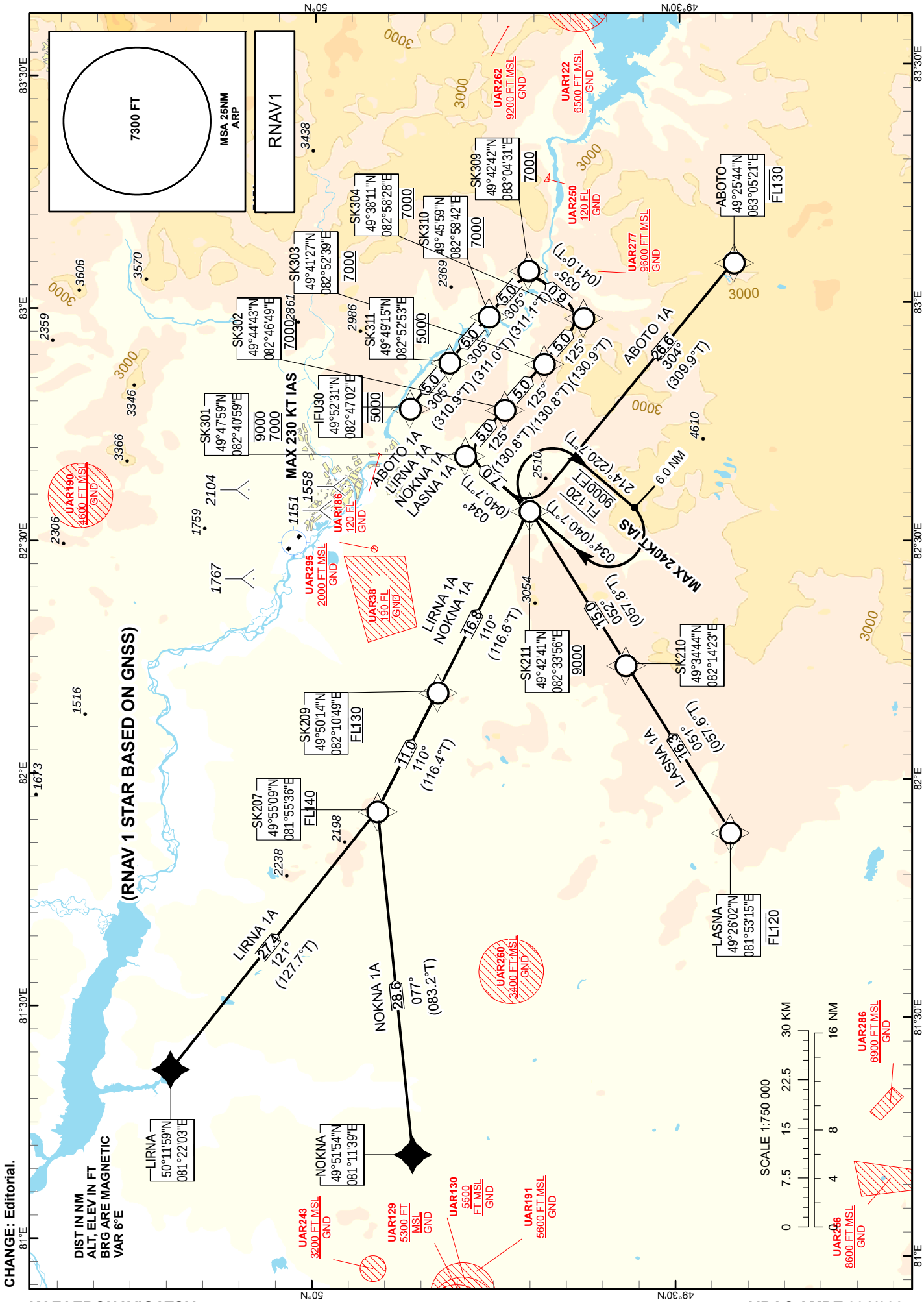
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
10000 FT

UST-KAMENOGORSK TOWER 130.1
UST-KAMENOGORSK ATIS (EN) 124.2
UST-KAMENOGORSK ATIS (RU) 127.7

ABOTO 1A, LASNA 1A, LIRNA 1A, NOKNA 1A

UST-KAMENOGORSK RWY 30



TABULAR DESCRIPTION

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
ABOTO 1A											
10	IF	ABOTO	-	-	+6.3	-	-	-FL130	-	-	RNAV 1
20	TF	SK211	-	304(309.9)	+6.3	26.6	R	+9000	-	-1.8	RNAV 1
30	TF	SK301	-	034(40.7)	+6.3	7.0	R	+7000/-9000	-230	-2.7	RNAV 1
40	TF	SK302	-	125(130.8)	+6.3	5.0	R	+7000	-	0	RNAV 1
50	TF	SK303	-	125(130.8)	+6.3	5.0	-	+7000	-	0	RNAV 1
60	TF	SK304	-	125(130.9)	+6.3	5.0	-	+7000	-	0	RNAV 1
70	TF	SK309	-	035(041)	+6.3	6.0	L	+7000	-	0	RNAV 1
80	TF	SK310	-	305(311.1)	+6.3	5.0	L	+7000	-	0	RNAV 1
90	TF	SK311	-	305(311)	+6.3	5.0	-	+5000	-	0	RNAV 1
100	TF	IFU30	-	305(310.9)	+6.3	5.0	-	@5000	-	-3.8	RNAV 1
LASNA 1A											
10	IF	LASNA	-	-	+6.3	-	-	-FL120	-	-	RNAV 1
20	TF	SK210	-	051(57.6)	+6.3	16.3	L	-	-	-1.2	RNAV 1
30	TF	SK211	-	052(57.8)	+6.3	15.0	-	+9000	-	-2.5	RNAV 1
40	TF	SK301	-	034(40.7)	+6.3	7.0	L	+7000/-9000	-230	-2.7	RNAV 1
50	TF	SK302	-	125(130.8)	+6.3	5.0	R	+7000	-	0	RNAV 1
60	TF	SK303	-	125(130.8)	+6.3	5.0	-	+7000	-	0	RNAV 1
70	TF	SK304	-	125(130.9)	+6.3	5.0	-	+7000	-	0	RNAV 1
80	TF	SK309	-	035(041)	+6.3	6.0	L	+7000	-	0	RNAV 1
90	TF	SK310	-	305(311.1)	+6.3	5.0	L	+7000	-	0	RNAV 1
100	TF	SK311	-	305(311)	+6.3	5.0	-	+5000	-	0	RNAV 1
110	TF	IFU30	-	305(310.9)	+6.3	5.0	-	@5000	-	-3.8	RNAV 1
LIRNA 1A											
10	IF	LIRNA	-	-	+6.3	-	-	-	-	-	RNAV 1
20	TF	SK207	-	121(127.7)	+6.3	27.4	L	+FL140	-	-2.4	RNAV 1
30	TF	SK209	-	110(116.4)	+6.3	11.0	L	+FL130	-	-2.6	RNAV 1
40	TF	SK211	-	110(116.6)	+6.3	16.8	-	+9000	-	-0.6	RNAV 1
50	TF	SK301	-	034(40.7)	+6.3	7.0	L	+7000/-9000	-230	-2.7	RNAV 1
60	TF	SK302	-	125(130.8)	+6.3	5.0	R	+7000	-	0	RNAV 1
70	TF	SK303	-	125(130.8)	+6.3	5.0	-	+7000	-	0	RNAV 1
80	TF	SK304	-	125(130.9)	+6.3	5.0	-	+7000	-	0	RNAV 1
90	TF	SK309	-	035(041)	+6.3	6.0	L	+7000	-	0	RNAV 1
100	TF	SK310	-	305(311.1)	+6.3	5.0	L	+7000	-	0	RNAV 1
110	TF	SK311	-	305(311)	+6.3	5.0	-	+5000	-	0	RNAV 1
120	TF	IFU30	-	305(310.9)	+6.3	5.0	-	@5000	-	-3.8	RNAV 1
NOKNA 1A											
10	IF	NOKNA	-	-	+6.3	-	-	-	-	-	RNAV 1
20	TF	SK207	-	077(83.2)	+6.3	28.6	L	+FL140	-	-2.3	RNAV 1
30	TF	SK209	-	110(116.4)	+6.3	11.0	R	+FL130	-	-2.6	RNAV 1
40	TF	SK211	-	110(116.6)	+6.3	16.8	-	+9000	-	-0.6	RNAV 1
50	TF	SK301	-	034(40.7)	+6.3	7.0	L	+7000/-9000	-230	-2.7	RNAV 1
60	TF	SK302	-	125(130.8)	+6.3	5.0	R	+7000	-	0	RNAV 1
70	TF	SK303	-	125(130.8)	+6.3	5.0	-	+7000	-	0	RNAV 1
80	TF	SK304	-	125(130.9)	+6.3	5.0	-	+7000	-	0	RNAV 1
90	TF	SK309	-	035(041)	+6.3	6.0	L	+7000	-	0	RNAV 1
100	TF	SK310	-	305(311.1)	+6.3	5.0	L	+7000	-	0	RNAV 1
110	TF	SK311	-	305(311)	+6.3	5.0	-	+5000	-	0	RNAV 1
120	TF	IFU30	-	305(310.9)	+6.3	5.0	-	@5000	-	-3.8	RNAV 1

WAYPOINT LIST

ABOTO 1A	
Waypoint Identifier	**Coordinates**
ABOTO	492544.00N 0830521.00E
SK211	494241.09N 0823356.37E
SK301	494759.16N 0824058.81E
SK302	494443.34N 0824649.17E
SK303	494127.23N 0825238.75E
SK304	493810.82N 0825827.54E
SK309	494242.20N 0830431.27E
SK310	494558.91N 0825842.34E
SK311	494915.32N 0825252.63E
IFU30	495231.44N 0824702.13E

LASNA 1A	
Waypoint Identifier	**Coordinates**
LASNA	492602.00N 0815315.00E
SK210	493443.97N 0821422.65E
SK211	494241.09N 0823356.37E
SK301	494759.16N 0824058.81E
SK302	494443.34N 0824649.17E
SK303	494127.23N 0825238.75E
SK304	493810.82N 0825827.54E
SK309	494242.20N 0830431.27E
SK310	494558.91N 0825842.34E
SK311	494915.32N 0825252.63E
IFU30	495231.44N 0824702.13E

LIRNA 1A	
Waypoint Identifier	**Coordinates**
LIRNA	501159.00N 0812203.00E
SK207	495508.92N 0815535.81E
SK209	495014.45N 0821048.75E
SK211	494241.09N 0823356.37E
SK301	494759.16N 0824058.81E
SK302	494443.34N 0824649.17E
SK303	494127.23N 0825238.75E
SK304	493810.82N 0825827.54E
SK309	494242.20N 0830431.27E
SK310	494558.91N 0825842.34E
SK311	494915.32N 0825252.63E
IFU30	495231.44N 0824702.13E

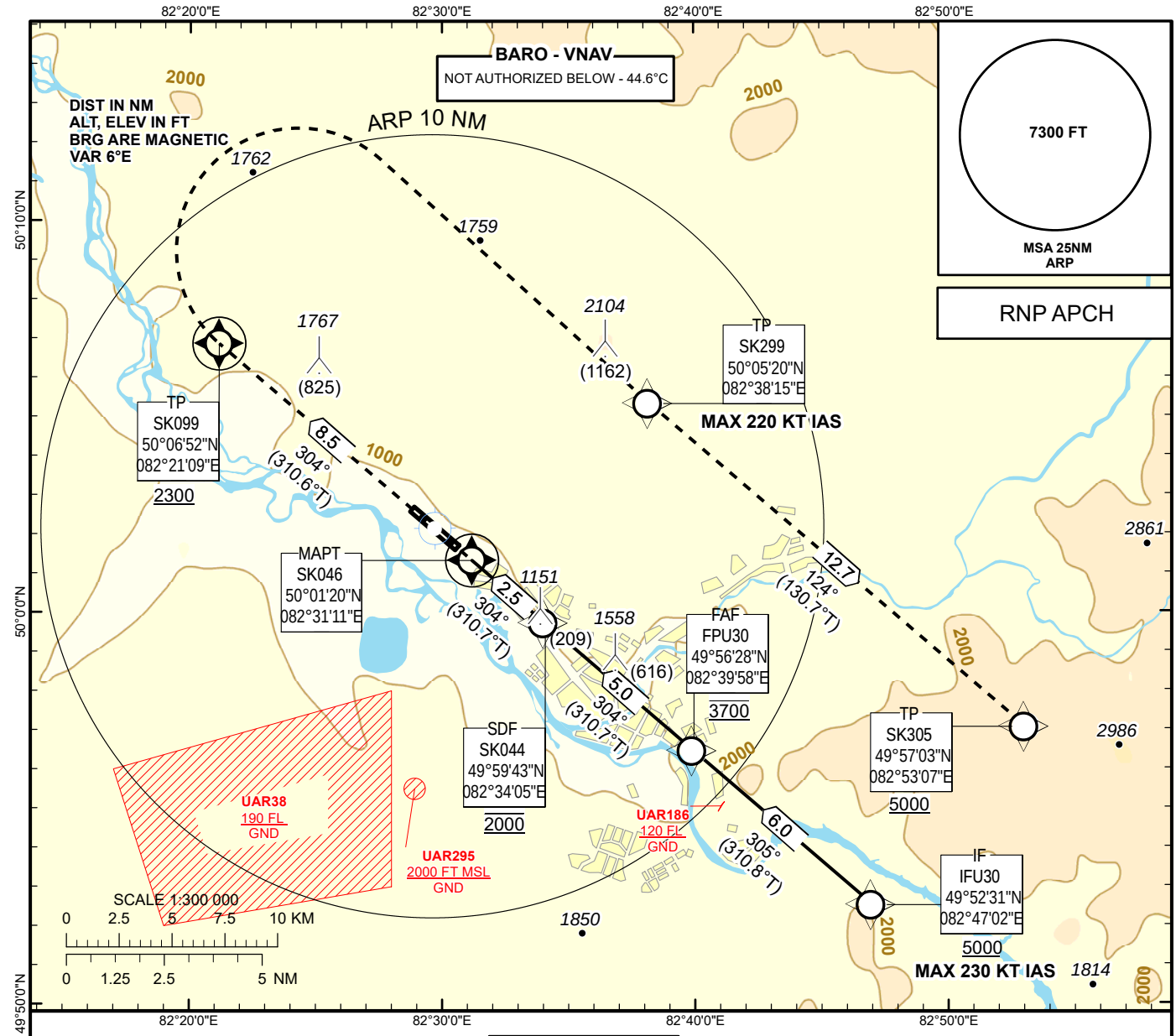
NOKNA 1A	
Waypoint Identifier	**Coordinates**
NOKNA	495154.00N 0811139.00E
SK207	495508.92N 0815535.81E
SK209	495014.45N 0821048.75E
SK211	494241.09N 0823356.37E
SK301	494759.16N 0824058.81E
SK302	494443.34N 0824649.17E
SK303	494127.23N 0825238.75E
SK304	493810.82N 0825827.54E
SK309	494242.20N 0830431.27E
SK310	494558.91N 0825842.34E
SK311	494915.32N 0825252.63E
IFU30	495231.44N 0824702.13E

INSTRUMENT APPROACH CHART
ICAO

AERODROME ELEV ***942FT***
HEIGHTS RELATED TO
AD ELEV

UST-KAMENOGORSK TOWER 130.1
UST-KAMENOGORSK ATIS (EN) 124.2
UST-KAMENOGORSK ATIS (RU) 127.7

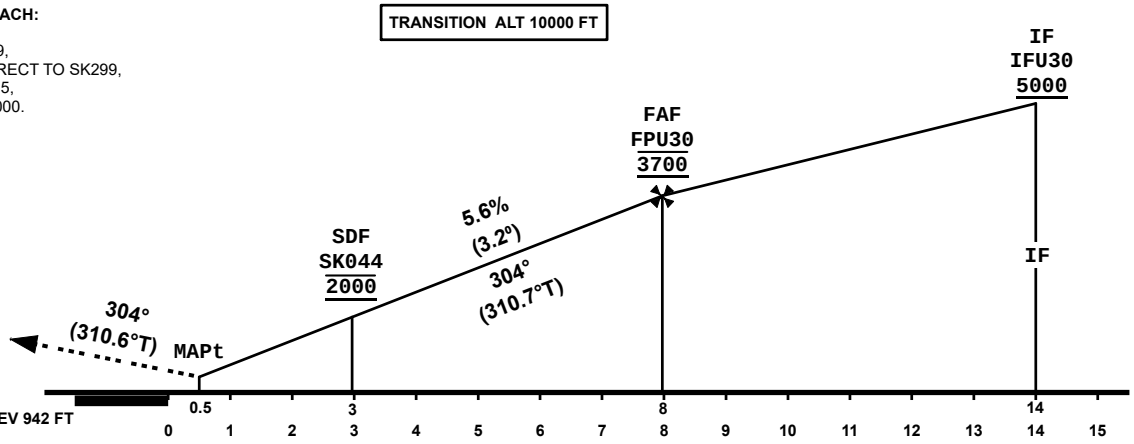
UST-KAMENOGORSK
RNP RWY 30



MISSED APPROACH:

CLIMB TO SK099,
RIGHT TURN DIRECT TO SK299,
TRACK TO SK305,
CLIMBING TO 5000.

TRANSITION ALT 10000 FT



OCA(OCH)		A	B	C	D
Straight	LNAV	1350(408)			
	LNAV/VNAV	1240(298)	1250(308)	1270(328)	1300(358)

GS	Kt	70	90	120	150	180
Rate of descent	ft/min	395	510	680	850	1020
FAF-MAPt 7.5 NM	min:sec	06:26	05:00	03:45	03:00	02:30

CHANGE: Editorial.

TABULAR DESCRIPTION

UASK RNP RWY30

Serial Number	Path Descriptor	Waypoint Identifier	Fly - over	Course °M(°T)	Magnetic Variation(°)	Distance NM	Turn Direction	Altitude FT	Speed KT	VPA (°)	Navigation Specification
10	IF	IFU30	-	-	+6.3	-	-	+5000	-230	-	RNP APCH
20	TF	FPU30	-	305(310.8)	+6.3	6.0	-	@3700	-	-	RNP APCH
30	TF	SK044	-	304(310.7)	+6.3	5.0	-	@2000	-	-3.2	RNP APCH
40	TF	SK046	Y	304(310.7)	+6.3	2.5	-	@1162	-	-3.2	RNP APCH
50	CF	SK099	Y	304(310.6)	+6.3	8.5	-	+2300	-	1.4	RNP APCH
60	DF	SK299	-	-	+6.3	19.2	R	-	-220	1.4	RNP APCH
70	TF	SK305	-	124(130.7)	+6.3	12.7	-	+5000	-	1.4	RNAV 1

WAYPOINT LIST

UASK RNP RWY30

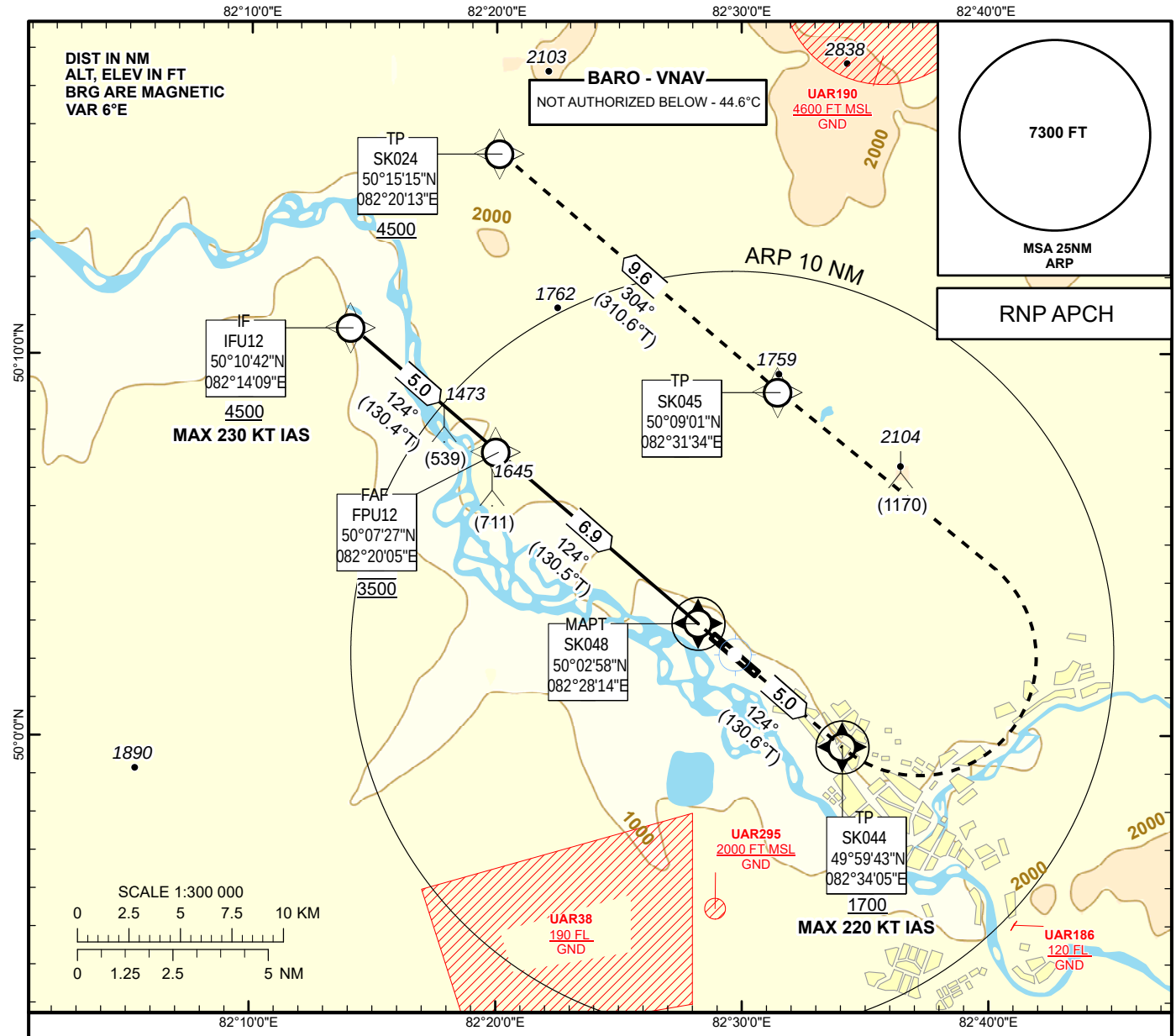
Waypoint Identifier	Coordinates	
IFU30	495231.44N	0824702.13E
FPU30	495627.72N	0823958.10E
SK044	495943.44N	0823405.38E
SK046	500119.69N	0823111.43E
SK099	500651.68N	0822109.32E
SK299	500519.69N	0823814.69E
SK305	495703.40N	0825306.58E

INSTRUMENT APPROACH CHART
ICAO

AERODROME ELEV ***942FT***
HEIGHTS RELATED TO
THR RWY 12 - ELEV ***934FT***

UST-KAMENOGORSK TOWER 130.1
UST-KAMENOGORSK ATIS (EN) 124.2
UST-KAMENOGORSK ATIS (RU) 127.7

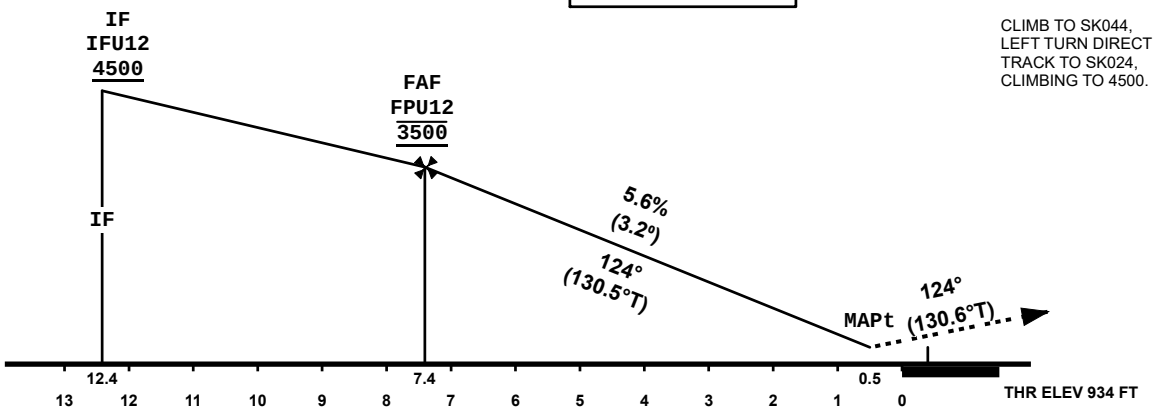
UST-KAMENOGORSK
RNP RWY 12



TRANSITION ALT 10000 FT

MISSED APPROACH:

CLIMB TO SK044,
LEFT TURN DIRECT TO SK045,
TRACK TO SK024,
CLIMBING TO 4500.



OCA (OCH)		A	B	C	D
Straight	LNAV	1330 (396)			
	LNAV/VNAV	1220 (286)	1230 (296)	1240 (306)	1260 (326)

GS	Kt	70	90	120	150	180
Rate of descent	ft/min	395	510	680	850	1020
FAF-MAPt 6.9 NM	min:sec	05:55	04:36	03:27	02:46	02:18

CHANGE: Editorial.

TABULAR DESCRIPTION

UASK RNP RWY12											
Serial Number	**Path Descriptor**	**Waypoint Identifier**	**Fly - over**	**Course °M(°T)**	**Magnetic Variation(°)**	**Distance NM**	**Turn Direction**	**Altitude FT**	**Speed KT**	**VPA (°)**	**Navigation Specification**
10	IF	IFU12	-	-	+6.3	-	-	+4500	-230	-	RNP APCH
20	TF	FPU12	-	124(130.4)	+6.3	5.0	-	@3500	-	-	RNP APCH
30	TF	SK048	Y	124(130.5)	+6.3	6.9	-	@1150	-	-3.2	RNP APCH
40	CF	SK044	Y	124(130.6)	+6.3	5.0	-	+1700	-220	1.4	RNP APCH
50	DF	SK045	-	-	+6.3	17.0	L	-	-	1.4	RNP APCH
60	TF	SK024	-	304(310.6)	+6.3	9.6	-	+4500	-	1.4	RNP APCH

WAYPOINT LIST

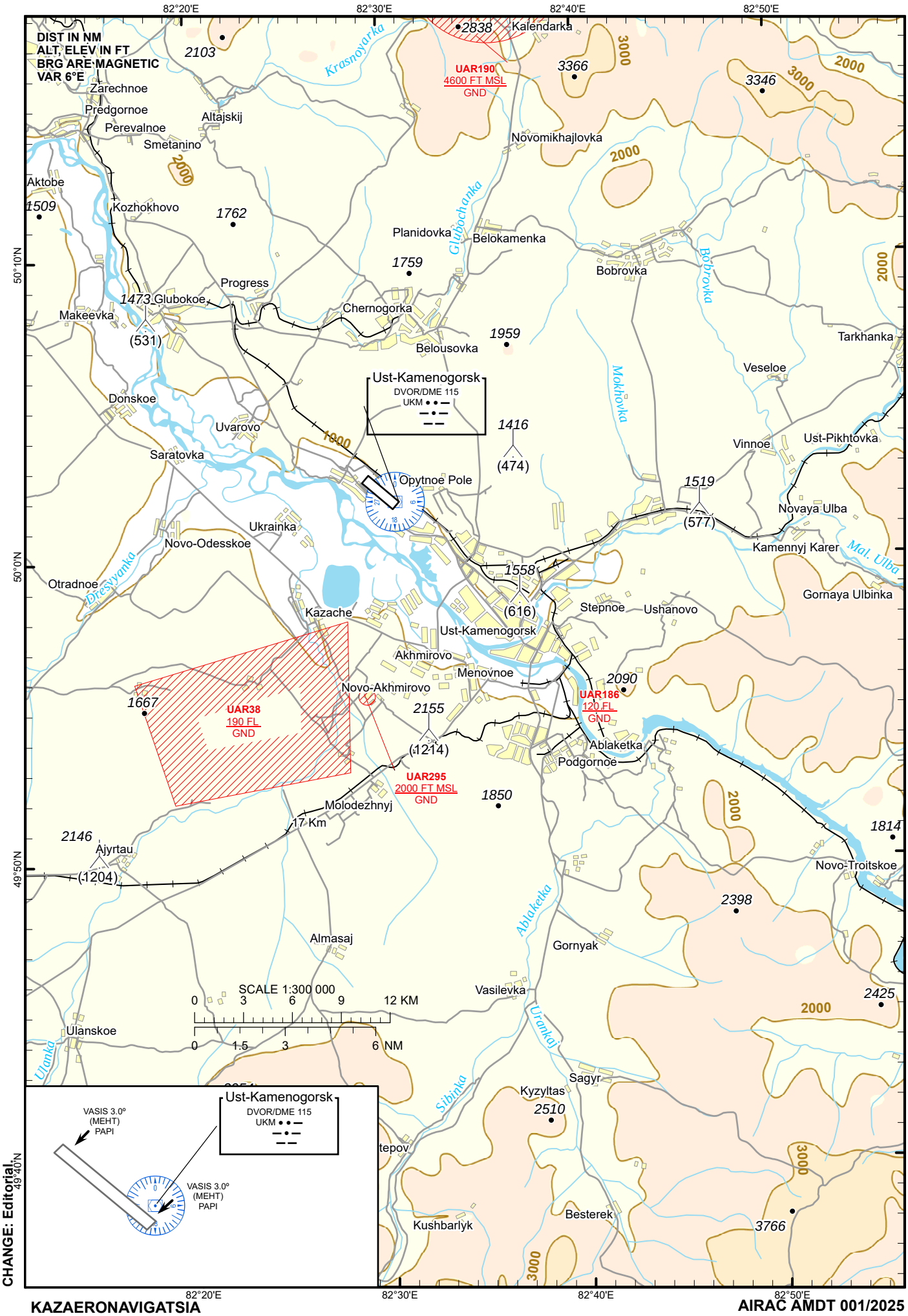
UASK RNP RWY12		
Waypoint Identifier	**Coordinates**	
IFU12	501041.78N	0821409.08E
FPU12	500726.79N	0822005.00E
SK048	500257.71N	0822813.95E
SK044	495943.44N	0823405.38E
SK045	500901.01N	0823134.21E
SK024	501515.44N	0822012.72E

VISUAL APPROACH CHART - ICAO

AERODROME ELEV ***942FT***
HEIGHTS RELATED TO
AD ELEV

UST-KAMENOGORSK TOWER 130.1
UST-KAMENOGORSK ATIS (EN) 124.2
UST-KAMENOGORSK ATIS (RU) 127.7

UST-KAMENOGORSK



CHANGE: Editorial

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UASZ AD 2.16 Helicopter Landing Area

NIL

UASZ AD 2.17 ATS Airspace

1	**Designation and lateral limits**	ZAISAN CTR 472206N 0843351E then a clockwise arc radius 15 NM centered on 472915N 0845316E - 472219N 0851250E - 472206N 0843351E
2	**Vertical limits**	7000 FT ALT / GND
3	**Airspace classification**	C
4	**ATS unit call sign Language(s)**	ZAISAN VYSHKA RU
5	**Transition altitude**	10000 FT
6	**Hours of applicability**	See NOTAM
7	**Remarks**	Radar in the aerodrome area is not provided. In the aerodrome area of takeoff and landing simultaneously must be no more than one aircraft. In the aerodrome area for IFR flights at the same level (height) must be no more than one aircraft

UASZ AD 2.18 ATS Communication Facilities

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	**2**	**3**	**4**	**5**	**6**	**7**
TWR	ZAISAN VYSHKA (RU)	118,7 MHZ	Nil	Nil	See NOTAM	Nil

UASZ AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
NDB	ZSN	552 KHZ	HO	472905.9N 0845308.2E	Nil	Nil	Nil

UASZ AD 2.20 Local Aerodrome Regulations

Aerodrome is available for category C aircraft types YAK-40, AN-24 and AN-26, except for AN-74.

Provision of safety level by mobile fire station, for monitoring the takeoff and landing of aircraft on all sections of the runway, is deployed at the holding point as per airport operation regulations, equipped with optical observation tools and lighting equipment. All airport teams involved in emergency rescue operations are equipped with communication devices through which they receive signals of «Readiness» or «Alert» if necessary.

UASZ AD 2.21 Noise Abatement Procedures

NIL

UASZ AD 2.22 Flight Procedures

1. Flight and ground movement procedures.

Takeoff shall be performed from the starting point of RWY where runway physical characteristics complies required actual aircraft takeoff weight and takeoff conditions.

Aircraft takeoff with tailwind is permitted in case when tailwind speed corresponds to the value: for all aircraft types not greater than value set by Flight Operational manual of each aircraft type, but not greater than 5m/ sec; for helicopters - not greater than value set by Flight Operational manual of each aircraft type.

Aircraft ground movement on manoeuvring area shall be carried out by taxiing or towing. Taxiing and towing shall be carried out strictly along TWY centreline and apron guideline.

Hover taxiing of helicopters with skids from stands to takeoff area and back shall be carried out along taxiway markings.

Taxiing shall be carried out after received clearance, taxiing route, stand number and other information for safe taxiing from “Zaisan Tower” ATC. Taxiing speed shall be set by pilot-in-command according to the condition of TWY, presence of obstacles, aircraft weight, wind conditions and visibility.

In all cases taxiing speed should not exceed speed set by Flight Operational manual of this type of aircraft.

“Zaisan” ATC is responsible for taxi route assignment; pilot-in-command is responsible for safety and taxiing rules compliance.

Taxiing out of stands shall be carried out by marshaller’s signals, in case of his absence – by pilot-in-command’s decision.

Helicopter taxiing shall be carried out with wind limitations, according to Flight Operational manual, at constant visibility of landmarks located in front.

The movement of all types of special vehicles at the airport shall be carried out only at the set marked routes, according to the “Aircraft, special vehicles and mechanical equipment placement and movement chart”.

Take-off from the point of crossing TWY1/RWY09 and TWY1/RWY27 is prohibited.

IIFR flights are not carried out beyond the limiting bearing determined by bearings 262° D14 ZSN to BRG 090° D14 ZSN from the NDB ZSN below an altitude of 5000 feet.

2. Low Visibility Procedures.

In low visibility conditions take-off and landing are not performed.

3. VFR procedures within the aerodrome control zone (CTR).

Air traffic service in the control zone (CTR) of the Zaisan aerodrome is carried out by the controller of the «Zaisan -Vyshka» ATC unit. VFR flights in the control zone (CTR) are carried out at absolute altitudes according to the QNH pressure of the aerodrome. Flights altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan. The functions of Air traffic service does not include ground collision avoidance. Aircraft crews are responsible for avoiding artificial obstacles. VFR flights at altitudes below 3000 feet in the control zone are performed at the altitudes indicated in the flight plan or requested by the aircraft crew.

At Zaisan aerodrome holding patterns are established at an absolute altitude to await the VFR approach order for the landing of category «A» aircraft and helicopters. The holding patterns (left/right turns) to be used are determined and reported to the aircraft crew by «Zaisan -Vyshka» ATC unit. Exit to the final leg, crossing the runway course shall be made only with the permission of the «Zaisan -Vyshka» ATC unit.

VFR transit flights through the control zone of Zaisan are carried out along the route via control points and at altitudes agreed with the «Zaisan -Vyshka» ATC unit.

Depending on the air or meteorological situation, the «Zaisan -Vyshka» ATC unit, uses other visual landmarks for arrival, departure, overflight and waiting for aircraft, if necessary.

UAKD AD 2.14 Approach And Runway 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, colour	Remarks
1	2	3	4	5	6	7	8	9	10
04	CAT I (PALS) 900 M LIH	GRN Nil	PAPI LEFT/3°	Nil	Nil	2600m, spacing 60m, 0-2000m white, last 600m yellow LIH	RED Nil	Nil	Turn pad: yellow
22	CAT I (PALS) 870 M LIH	GRN Nil	PAPI LEFT/3°	Nil	Nil	2600m, spacing 60m, 0-2000m white, last 600m yellow LIH	RED Nil	Nil	Turn pad: yellow

UAKD AD 2.15 Other Lighting, Secondary Power Supply

1	ABN/IBN location, characteristics and hours of operation	ABN: Nil IBN: Nil
2	LDI location and LGT Anemometer location and LGT	LDI: Nil
3	TWY edge and centre line lighting	TWY A EDGE: BLU
4	Secondary power supply/switch-over time	AVBL, 15 SEC
5	Remarks	Nil

UAKD AD 2.16 Helicopter Landing Area

NIL

UAKD AD 2.17 ATS Airspace

1	**Designation and lateral limits**	ZHEZKAZGAN CTR A circle radius 25 NM centered on 474317N 0674542E
2	**Vertical limits**	4000 FT ALT / GND
3	**Airspace classification**	C
4	**ATS unit call sign** **Language(s)**	ZHEZKAZGAN TOWER EN ZHEZKAZGAN VYSHKA RU
5	**Transition altitude**	10000 FT
6	**Hours of applicability**	See NOTAM
7	**Remarks**	Nil

UAKD AD 2.18 ATS Communication Facilities

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
APP	ZHEZKAZGAN TOWER (EN) ZHEZKAZGAN VYSHKA (RU)	127,1 MHZ	Nil	Nil	See NOTAM	Nil
SMC			Nil	Nil		
TWR			Nil	Nil		
Production and dispatcher service	ZHEZKAZGAN TRANZIT (EN) ZHEZKAZGAN TRANZIT (RU)	131.6 MHZ	Nil	Nil	As AD	Nil
ATIS	ZHEZKAZGAN ATIS (EN) ZHEZKAZGAN ATIS (RU)	131,4 MHZ 122,4 MHZ	Nil	Nil	As AD	ATIS information is being updated during AD working hours. Outside AD working hours ATIS information is not updated.

UAKD AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/ MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
NDB LMM 04	ZN	355 KHZ	H24	474148.7N 0674256.9E	Nil	Nil	Nil
NDB LOM 04	ZKN	435 KHZ	H24	474048.7N 0674104.5E	Nil	Nil	Nil
DVOR/DME (8°E/2013)	DZG	113,3 MHZ CH 80X	H24	474317.1N 0674541.7E	1300 FT	Nil	Nil
ILS LOC 22 I/D/2	IGN	110.7 MHZ	H24	474150.6N 0674259.2E		Nil	Nil
GP 22 I/C/2		330.2 MHZ		474248.6N 0674502.2E			
DME 22	IGN	CH 44X		474248.6N 0674502.2E	1200 FT		

UAKD AD 2.20 Local Aerodrome Regulations

1. Movement procedure

Movement of aircraft on the aerodrome is carried out under its own power and (or) towing with special vehicles via fixed marking of center lines.

Under any conditions at the aerodrome, according to the request of the crew, the aircraft leading is provided by follow-me vehicle:

- at departure of aircraft from the beginning of taxiing from the parking place to the line of holding take-off position on the taxiway – A;
- at landing of aircraft since the vacating of ILS critical area on the taxiway-A to parking place at the apron.

Taxiing and towing should be carried out after clearance of Tower and information about taxiing route on the aerodrome are obtained. Taxiing at night as well as during the day when visibility is less than 2000m is carried out with the switched on air navigation lights and headlights.

Operation of aircraft with under-wing installed engines prohibited.

2. Safety precautions

Essential information for safety of taxiing or towing the crew receives from the air traffic controller of the control point “Tower”.

Taxiing on the apron and taxiway is carried out behind follow-me vehicle in the cases:

- meteorological visibility (RVR visibility) of 400 m or less;
- difficulties of determining the center line of aircraft taxiing on the apron and taxiway due to the presence of precipitation as snow, slush, etc.;
- on the request of the crew.

The towing safety is provided by person managing the towing. Communication between towing managing person and the crew of the aircraft should be carried out using special signals. Towing is performed with air navigation lights and flash beacons turned on.

3. The procedure of taxiing-in to the parking places.

Taxiing-in to parking stands should be carried out via fixed marking of center lines under its own power by the signals of meeting person.

4. The procedure of taxiing out from the parking places.

Taxiing out from parking stands should be carried out via fixed markings of center lines under its own power by signals of person providing aircraft taxiing out, and in his absence - by decision of pilot-in-command (PIC)

5. The places of aircraft processing by de-icing fluid

De-icing procedure should be carried out at the parking stands

Crew should notify “Zhezkazgan-transit” on 131.6 MHz about necessity of deicing at least 30 minutes before departure.

6. The movement procedures of aircraft and vehicles in ILS critical areas.

In order to protect critical areas of ILS during flight operations on minimum height of clouds - 60m, meteorological visibility (RVR visibility) -800m and takeoffs in conditions of low visibility it is prohibited:

- Aircraft taxiing out from the parking places for take-off before landing of arriving aircraft.
- The entry of vehicles in the ILS critical area

7. Restrictions in the operation of large aircraft

The turn of CAT C and D aircraft on extensions №2 and №3 of artificial runways 04/22 is forbidden. Taxiing of aircraft on taxiway-A with four engines is carried out strictly by a fixed marking of center line at an increased attention of the crew under the internal power.

Four engines aircraft taxiing-in and taxiing out to (from) the parking stands 1-3 should be carried out under internal power

UAKD AD 2.21 Noise Abatement Procedures

NIL

UAKD AD 2.22 Flight procedures

1. Low Visibility Procedures on the Zhezkazgan aerodrome.

Low Visibility Procedures (LVP) are effected when RVR is less than 550 m. Low Visibility Procedures are cancelled when RVR is greater than 550 m.

Low Visibility Procedures are initiated by executive controller of “Zhezkazgan Tower” control centre; in case of his absence – by “Tower” controller. The status of LVP shall be reported by ATC phrase: “LOW VISIBILITY PROCEDURES IN OPERATION” to:

- meteorological specialist of primary observation station;
- shift personnel of Radiotechnical Department;
- lightning system maintenance engineer of aerodrome power, lighting, and technical service;
- controller of Production and dispatcher service;
- person responsible for the preparation of the airfield.

Tower ATC, received information about the beginning of the (termination) procedures in low visibility conditions inform adjacent control towers.

The status of LVP shall be reported to flight crew by ATC phrase: “LOW VISIBILITY PROCEDURES IN OPERATION”.

Tower ATC reports value of RVR on the runway and in the TDZ. Flight crew shall be informed by Tower ATC about all changes to the operational status of radio and lighting equipment.

Tower ATC restricts the movement of vehicles airport services on the apron and manoeuvring area during LVP procedures. Taxiing of departing aircraft shall be carried out after follow-me car from stands to holding position. Taxiing to stand (apron) after RWY vacation shall be carried out after follow-me car.

2. VFR procedures within the aerodrome control zone (CTR)

Air traffic service in the control zone of the aerodrome is carried out by the controller of the “Tower” ATC unit. Flight altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan. The functions of Air traffic service does not include ground collision avoidance. The aircraft crew shall ensure that the clearance issued by the ATS unit in this regard is safe. VFR flights at altitudes below 3000 feet in the control zone are performed at the altitudes indicated in the flight plan or requested by the aircraft crew.

Flights must not be performed over populated areas within the control zone.

For VFR flights, the aerodrome has a flight circle (left / right) at an altitude of 3000 feet. The air traffic controller of the “Tower” ATC unit is determine and report which flight circle is in use.

Entering the flight circle, crossing the runway alignment is made only with the permission of the air traffic controller of the “Tower” ATC unit.

The aircraft crew preliminarily agrees with the ATS unit the flight area and altitude range during aerial work in the control zone at absolute altitudes.

When entering the control zone (CTR) from uncontrolled airspace, the aircraft crew must obtain an air traffic control clearance 5 minutes before the estimated time of entering the controlled airspace.

Entry / exit of aircraft of category A and helicopters flying in VFR to / from the control zone (CTR) is carried out at the shortest distance through the corresponding point.

If the air situation requires the holding procedure, the air traffic controller of the “Tower” ATC unit gives the instructions to the aircraft crew to follow to one of the holding points.

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
1	ALPHA (Itauz minery)	N480738 E0673715	339° 25.0 nm DZG DVOR/DME	Entry/exit
2	BRAVO	N480739 E0675358	004° 25.0 nm DZG DVOR/DME	Entry/exit
3	DELTA (abeam lake Kopa)	N480019 E0681253	039° 25.0 nm DZG DVOR/DME	Entry/exit
4	HOTEL (abeam lake Kopa)	N475137 E0682039	062° 25.0 nm DZG DVOR/DME	Entry/exit
5	TANGO (abeam junction of Sary Su –Kengir rivers)	N473123 E0681812	110° 25.0 nm DZG DVOR/DME	Entry/exit
6	OSCAR	N471818 E0674500	173° 25.0 nm DZG DVOR/DME	Entry/exit
7	ROMEO	N472554 E0671910	218° 25.0 nm DZG DVOR/DME	Entry/exit
8	OZERO (Southern coast of Zhezdinskoe water basin)	N473622 E0673915	204° 8.2 nm DZG DVOR/DME (201° 7.1 nm ARP)	Holding
9	TALAP (NE outskirts of Talap)	N474025 E0675106	120° 4.6 nm DZG DVOR/DME (107° 5.1 nm ARP)	Holding

UAKD AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Section 2. Point 23. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan	Runway width	Runway width is less than the required for the aerodrome code designation	An equivalent level of safety has been approved 18.07.2016
Section 2. Point 40. Standards of Aerodromes (Heliports) Operation Civil Aviation Republic Kazakhstan	Width of the TWY and shoulders	The total width of the TWY and shoulders is less than the required The total width of the TWY and shoulders is less than required for the installed code letter of the aircraft	An equivalent level of safety has been approved 18.07.2016

2. Ornithological situation

The ornithological situation in the aerodrome area is due to the seasonal and daily migration of birds. The presence of reservoirs and closely spaced summer arrays contributes to the concentration in the aerodrome area of different kinds of birds (crows, rooks, gulls, starlings, pigeons, etc.)

During the whole spring-summer navigation, individual birds fly over the runway and approach area of runway 22 and runway 04 in the morning from 00.00 to 04.00 and evening hours from 11.00 to 14.00. The flight altitude of the birds is changing from 0 to 100 m above ground level.

The most dangerous are the spring-autumn migrations of birds from the north-west to the south-east of the airport, which pose a serious danger to the flights of aircraft during specified periods of time.

In order to prevent aircraft collisions with birds, measures to prevent of bird aggregations are being taken at the aerodrome, which include:

- elimination of conditions conducive to the bird aggregations, and carrying out measures for scaring them;
- conducting visual observations to ensure control over the ornithological situation;
- prohibition of the use of the aerodrome territory for crops;
- installation of bird scaring items on the airfield.

UAKD AD 2.24 Charts Related To An Aerodrome

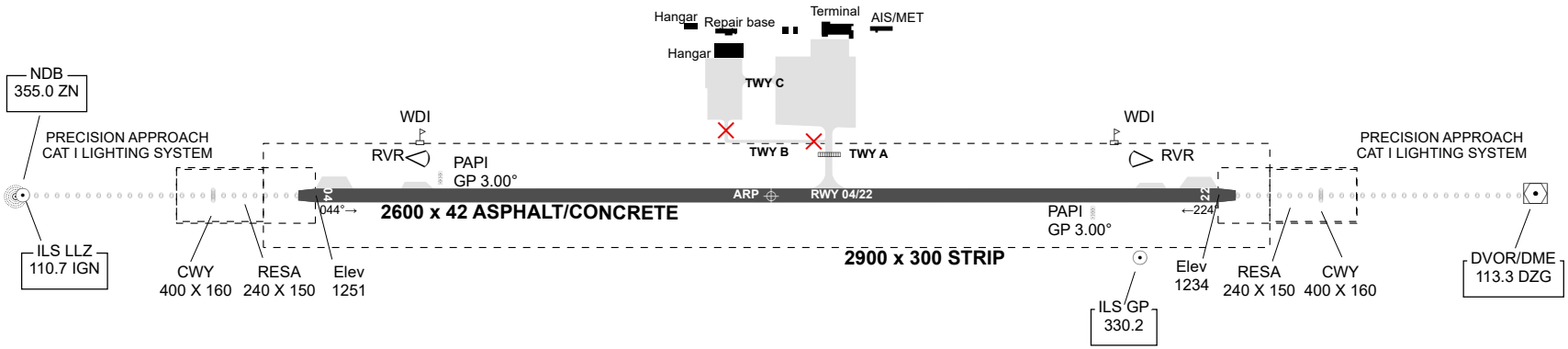
AERODROME CHART - ICAO | **AD ELEV 1251FT (*381m*)** | **ARP 474233N 0674418E** | TWR 127.1 | **ZHEZKAZGAN**

RWY	DIRECTION (TRUE)	THR	GEOID UNDULATION	BEARING STRENGTH
04	051.73°	47°42'06.51"N 067°43'29.14"E	- 115	PCN 35 R/B/X/T
22	231.75°	47°42'58.68"N 067°45'07.14"E	- 115	

VAR 8°E (2013)
ANNUAL RATE OF CHANGE 0.03°E

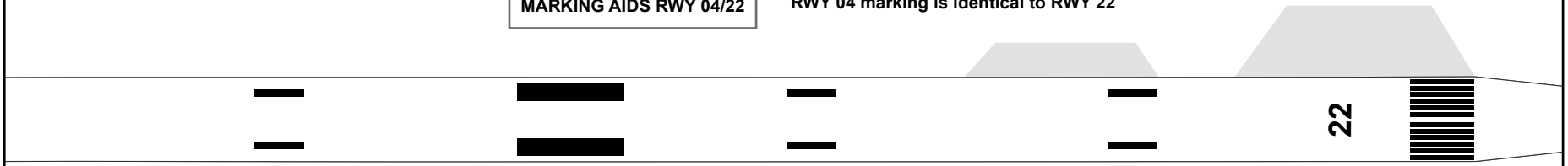
ELEV, HGT IN FEET (METERS)
DIMENSIONS IN METERS
BRG ARE MAG

SCALE 1:20000
200 0 200 400 600 Meters



MARKING AIDS RWY 04/22

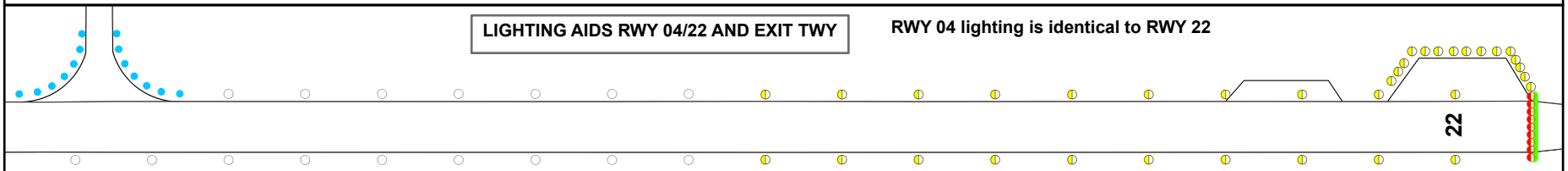
RWY 04 marking is identical to RWY 22



SCALE 1:3000
30 0 30 60 90 Meters

LIGHTING AIDS RWY 04/22 AND EXIT TWY

RWY 04 lighting is identical to RWY 22



SCALE 1:5000
50 0 50 100 150 Meters

CHANGE: Add ILS RWY22.

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