

List of pages in this Trip Kit

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Terminal Charts For UCFM

Revision Letter For Cycle 23-2013

Change Notices

Notebook

General Information

Location: Bishkek Kgz
IATA Code: FRU
Lat/Long: N43° 03.7' E074° 28.7'
Elevation: 2090 ft

Airport Use: Public
Magnetic Variation: 5.2°E

Fuel Types: Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 0151 Z
Sunset: 1141 Z,

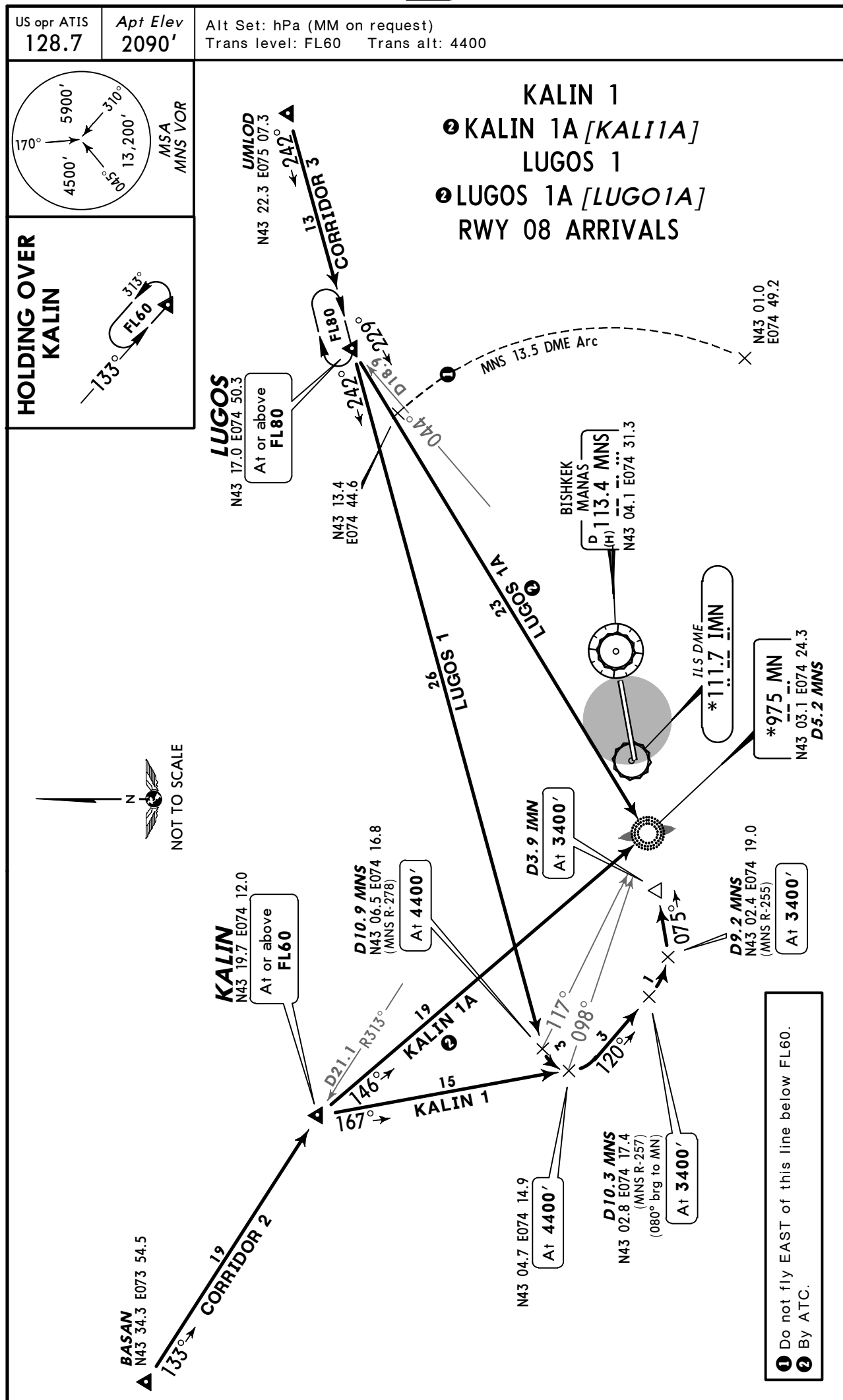
Runway Information

Runway: 08
Length x Width: 13465 ft x 180 ft
Surface Type: concrete
TDZ-Elev: 2090 ft
Lighting: Edge, ALS, Centerline, TDZ

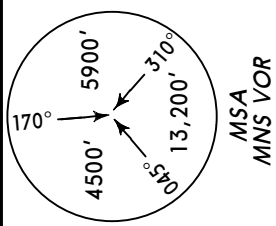
Runway: 26
Length x Width: 13465 ft x 180 ft
Surface Type: concrete
TDZ-Elev: 2055 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

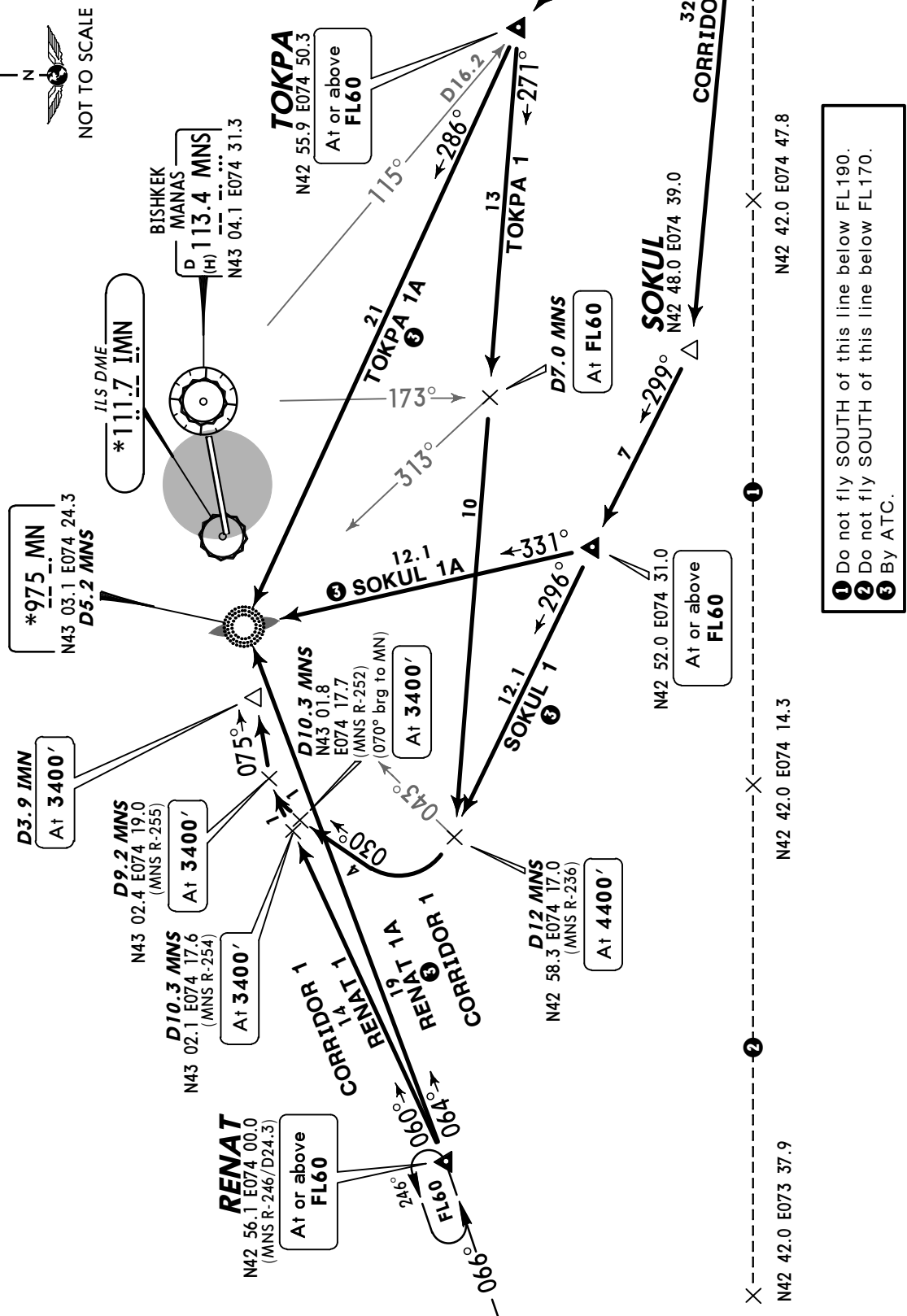
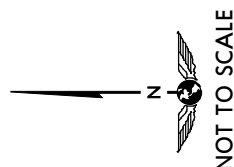
Bishkek Tower 124.0 Secondary
Bishkek Tower 118.1
Bishkek Taxiing Ground Control 124.0 Secondary
Bishkek Taxiing Ground Control 121.7
Bishkek Approach Control 124.6
Bishkek Approach Control 124.0 Secondary
Bishkek Krug Radar 124.0 Secondary
Bishkek Krug Radar 120.3

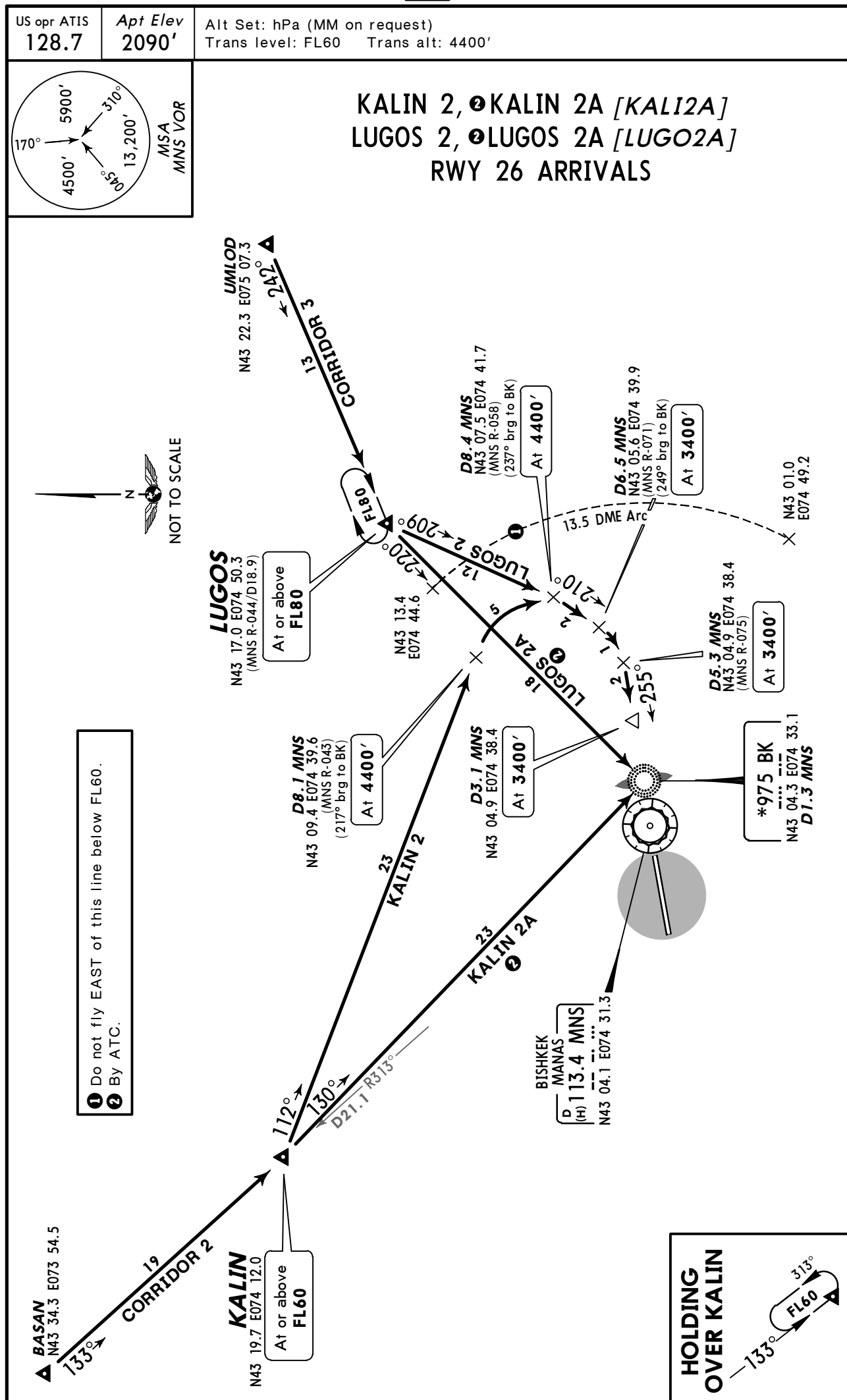


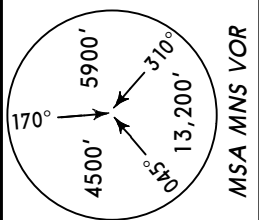
US opr ATIS 128.7 Apt Elev 2090' Alt Set: hPa (MM on request)
Trans level: FL60 Trans alt: 4400'



RENAT 1
③ RENAT 1A [RENA1A]
③ SOKUL 1
③ SOKUL 1A [SOKU1A]
TOKPA 1
③ TOKPA 1A [TOKP1A]
RWY 08 ARRIVALS

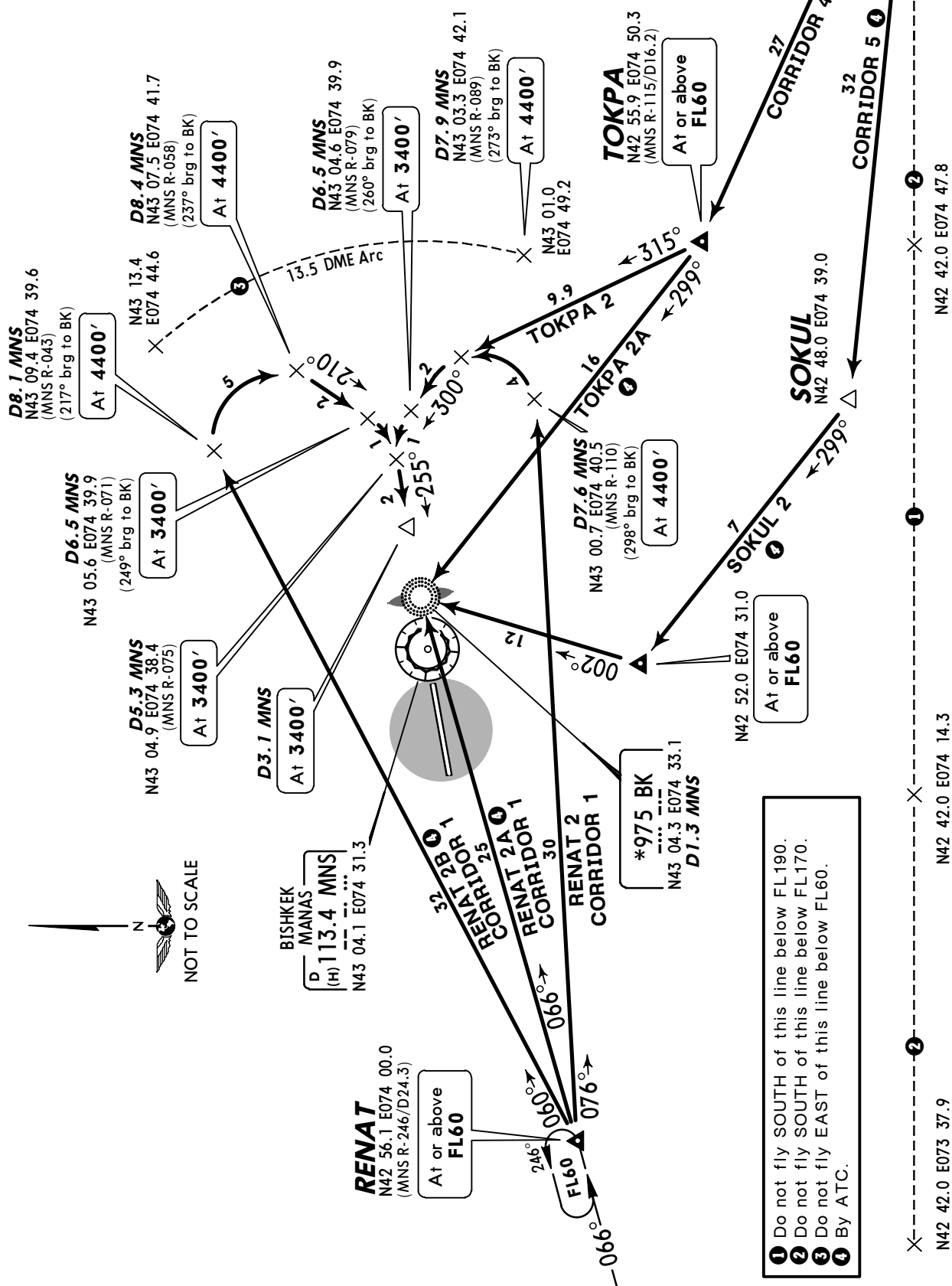




US opr ATIS
128.7Apt Elev
2090'Alt Set: hPa (MM on request)
Trans level: FL60 Trans alt: 4400'

RENAT 2, ● RENAT 2A [RENA2A]
● RENAT 2B [RENA2B], ● SOKUL 2
TOKPA 2, ● TOKPA 2A [TOKP2A]
RWY 26 ARRIVALS

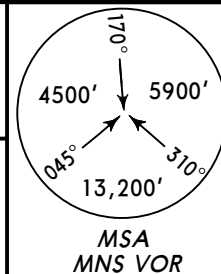
KALINOVKA
*430 KL
N42 42.0 E075 22.0



Apt Elev
2090'

Trans level: FL60 Trans alt: 4400'

Flights within holding areas shall be carried out in the opposite direction of SID routes for the purpose of identification of aircraft, which are in the holding area and on the airways, by ATC.



BASAN 1, DW 1

DW 1A
BY ATC

RWY 08 DEPARTURES

BASAN ▲
N43 34.3 E073 54.5CORRIDOR 2
19

FL60

KALIN
N43 19.7 E074 12.0At or above
FL60

NOT TO SCALE

D21.1 313°

BASAN 1
26

CAT A

At 2400'

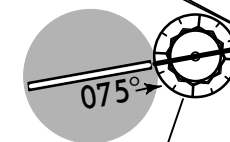
CAT B, C & D

At 2800'

RENATN42 56.1 E074 00.0
(MNS R-246/D24.3)At or above
FL60**CHALDOVAR**
*768 DW
N42 49.0 E073 33.0At or above
FL140CORRIDOR 1
21

FL60

246°

36
DW 132
DW 1A
By ATC**BISHKEK
MANAS**
D
(H) 113.4 MNS
N43 04.1 E074 31.3

237°

302°

255°

- 1 Do not fly SOUTH of this line below FL190.
- 2 Do not fly SOUTH of this line below FL170.

N42 42.0 E074 14.3

N42 42.0 E074 47.8

X-----X
N42 42.0 E073 55.0

DW 1, 1A

When climb gradients are less than those indicated in the table, turn RIGHT after take-off, to join the assigned corridor.

Gnd speed-KT	75	100	150	200	250	300
6.2% V/V(fpm)	471	628	942	1256	1570	1884
5.6% V/V(fpm)	425	567	851	1134	1418	1701

SID

ROUTING

BASAN 1	Climb straight ahead to 2400' (CAT A) or 2800' (CAT B, C & D), turn LEFT, 302° track to KALIN, further climb as directed by ATC.
DW 1	Climb straight ahead to 2400' (CAT A) or 2800' (CAT B, C & D), turn LEFT, 237° track to RENAT, further climb as directed by ATC.
DW 1A By ATC	Climb straight ahead to 2400' (CAT A) or 2800' (CAT B, C & D), turn RIGHT, 255° track to RENAT, further climb as directed by ATC.

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Apt Elev
2090'

Trans level: FL60 Trans alt: 4400'

Flights within holding areas shall be carried out in the opposite direction of SID routes for the purpose of identification of aircraft, which are in the holding area and on the airways, by ATC.

ROUTING

SID

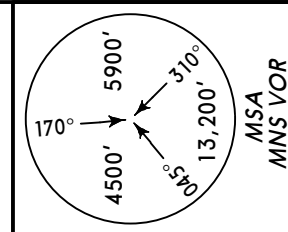
SID	ROUTING
BASAN 2	Climb straight ahead to 2400' (CAT A) or to 2700' (CAT B, C & D), turn RIGHT, 332° track to KALIN, further climb as directed by ATC.
DW 2	Climb straight ahead to 2400' (CAT A) or to 2700' (CAT B, C & D), turn LEFT, 243° track to RENAT, further climb as directed by ATC.

DW 2

This SID requires a minimum climb gradient of 6.2%.

Gnd speed-KT	75	100	150	200	250	300
6.2% V/V (fpm)	471	628	942	1256	1570	1884

If unable to comply, turn RIGHT to join the assigned corridor.

BASAN 2, DW 2
RWY 26 DEPARTURES

BASAN ▲
N43 34.3 E073 54.5

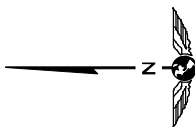
KALIN
N43 19.7 E074 12.0

At or above
FL60

FL60

19

CORRIDOR 2



NOT TO SCALE

CAT A
At 2400'

CAT B, C & D
At 2700'

BISHKEK
MANAS
D 113.4 MNS
(H)
N43 04.1 E074 31.3

RENAT
N42 56.1 E074 00.0
(MNS R-246/D24.3)

At or above
FL60

FL60

CHALDOVAR
*768 DW
N42 49.0 E073 33.0

At or above
FL140

21

CORRIDOR 1

FL60

246°

22

DW 2

243°

332°

255°

243°

243°

243°

243°

- 1 Do not overfly this line below FL190.
- 2 Do not overfly this line below FL170.

N42 42.0 E074 47.8

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

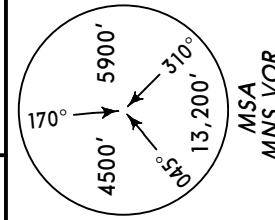
24

N42 42.0 E074 14.3

N42 42.0 E073 55.0

Apt Elev
2090'

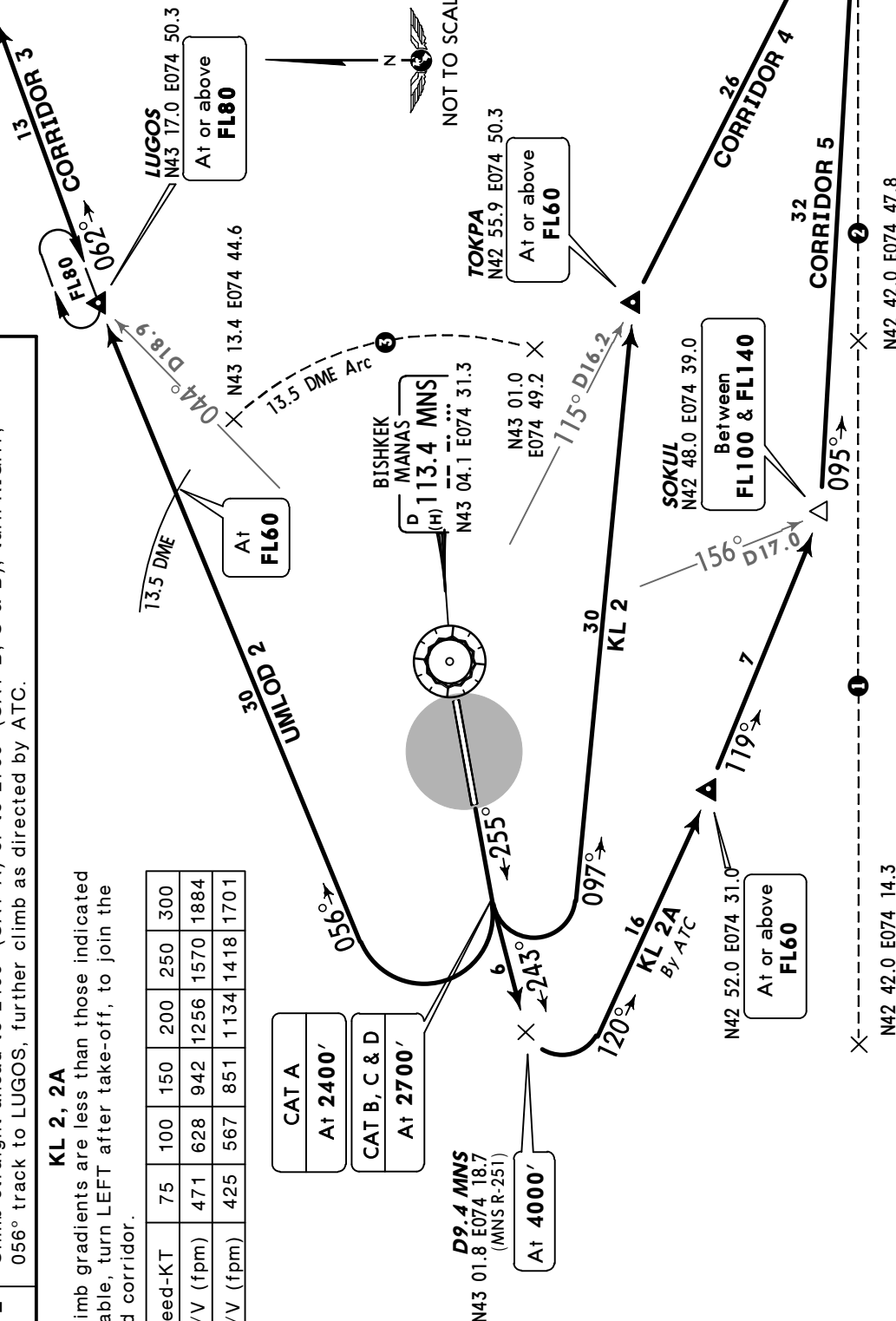
Trans level: FL60 Trans alt: 4400'
Flights within holding areas shall be carried out in the opposite direction of SID routes for the purpose of identification of aircraft, which are in the holding area and on the airways, by ATC.



KL 2, UMLOD 2
KL 2A
BY ATC
RWY 26 DEPARTURES

- 1 Do not overfly this line below FL190.
- 2 Do not overfly this line below FL170.
- 3 Do not fly EAST of this line below FL60.

▲ UMLOD
N43 22.3
E075 07.3



KL 2, 2A

When climb gradients are less than those indicated in the table, turn LEFT after take-off, to join the assigned corridor.

Gnd speed-KT	75	100	150	200	250	300
6.2% V/V (fpm)	471	628	942	1256	1570	1884
5.6% V/V (fpm)	425	567	851	1134	1418	1701

CAT A	CAT B, C & D
A+ 2400'	A+ 2700'

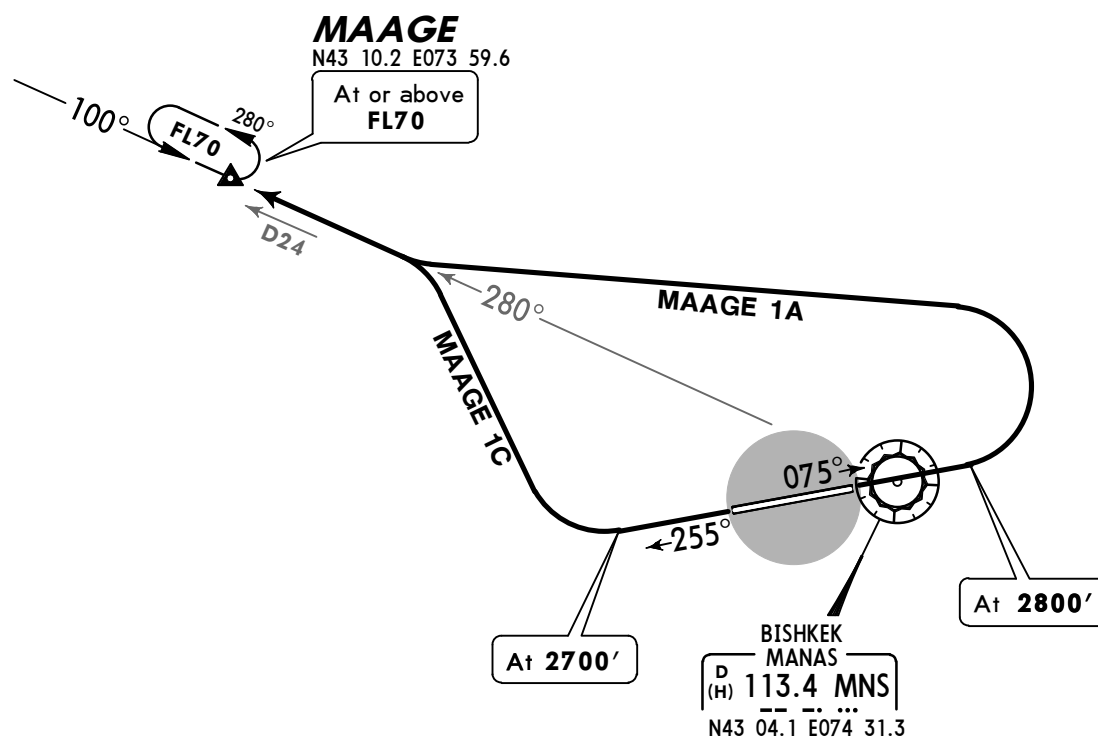
ROUTING

SID	ROUTING
KL 2	Climb straight ahead to 2400' (CAT A) or to 2700' (CAT B, C & D), turn LEFT, 097° track to TOKPA, further climb as directed by ATC.
KL 2A By ATC	Climb straight ahead to 2400' (CAT A) or to 2700' (CAT B, C & D), turn LEFT, 243° track to D9.4 MNS, turn LEFT, 120° track to N42 52.0 E074 31.0, further climb as directed by ATC.
UMLOD 2	Climb straight ahead to 2400' (CAT A) or to 2700' (CAT B, C & D), turn RIGHT, 056° track to LUGOS, further climb as directed by ATC.

Apt Elev
2090'

Trans level: FL60 Trans alt: 4400'

EXPECT Close-in obstacles:

RWY 08 - Radar antenna 1446' from DER, 5' RIGHT of centerline,
19' AGL/2067' MSL.RWY 26 - Radar antenna 1251' from DER, 15' RIGHT of centerline,
23' AGL/2111' MSL.**MAAGE 1A [MAGE1A]
MAAGE 1C [MAGE1C]
RWYS 08, 26 DEPARTURES**

MINIMUM CLIMB RATE

RWY	Gnd speed-KT	75	100	150	200	250	300
26	3.81% V/V (fpm)	289	386	579	772	965	1158



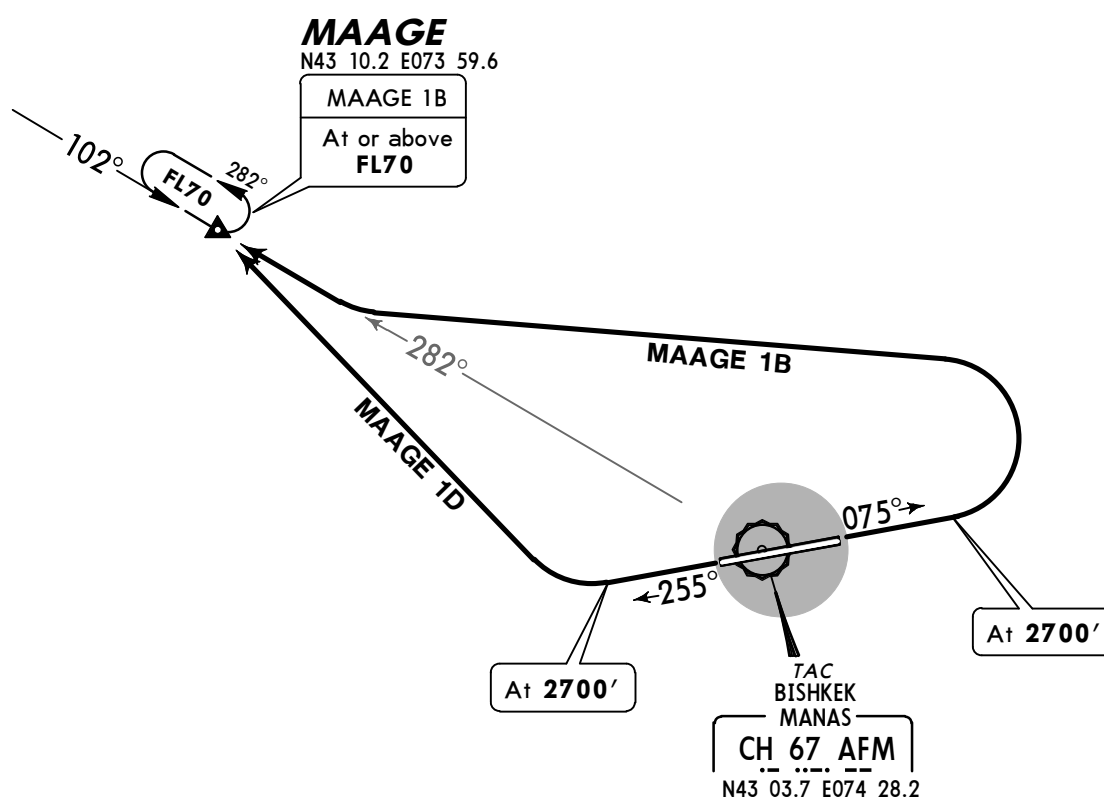
SID	RWY	ROUTING
MAAGE 1A RADAR REQUIRED	08	Climb on 075° track to 2800', turn LEFT, intercept MNS R-280 to MAAGE, further climb as directed by ATC.
MAAGE 1C	26	Climb on 225° track to 2700', turn RIGHT, intercept MNS R-280 to MAAGE, further climb as directed by ATC.

Apt Elev
2090'

Trans level: FL60 Trans alt: 4400'
EXPECT Close-in obstacles:
RWY 08 - Radar antenna 1446' from DER, 5' RIGHT of centerline,
19' AGL/2067' MSL.
RWY 26 - Radar antenna 1251' from DER, 15' RIGHT of centerline,
23' AGL/2111' MSL.

MAAGE 1B
MAAGE 1D [MAAGE1D]
RWYS 08, 26 DEPARTURES
RADAR REQUIRED
TACAN AZIMUTH REQUIRED

Direct distance from Manas airport
to MAAGE: 24 NM

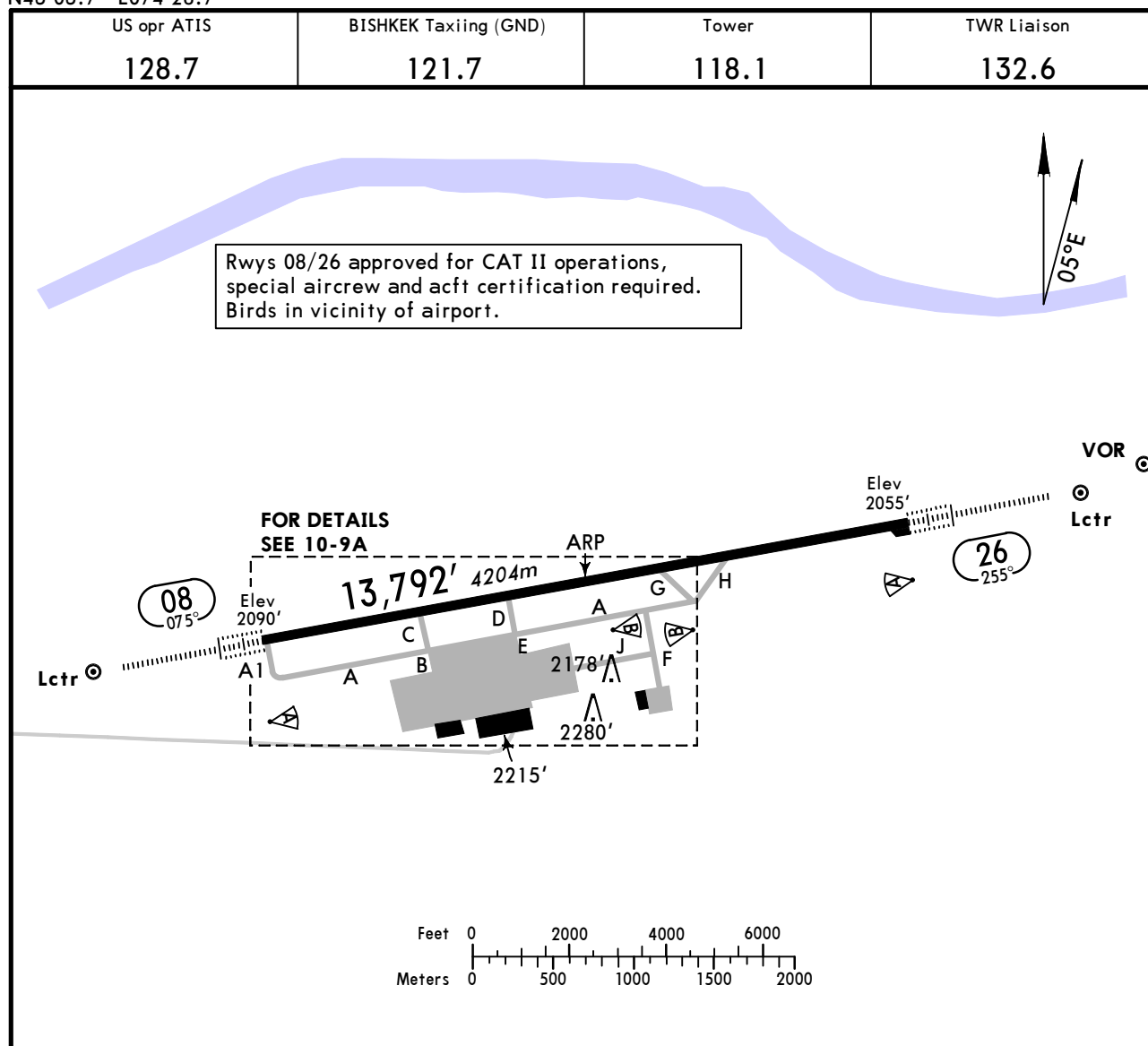


MINIMUM CLIMB RATE

RWY	Gnd speed-KT	75	100	150	200	250	300
26	3.81% V/V (fpm)	289	386	579	772	965	1158



SID	RWY	ROUTING
MAAGE 1B	08	Climb on 075° track to 2700', turn LEFT, intercept AFM R-282 to MAAGE, further climb as directed by ATC.
MAAGE 1D	26	Climb on 225° track to 2700', turn RIGHT, direct to MAAGE climbing to 7000', further climb as directed by ATC.



ADDITIONAL RUNWAY INFORMATION

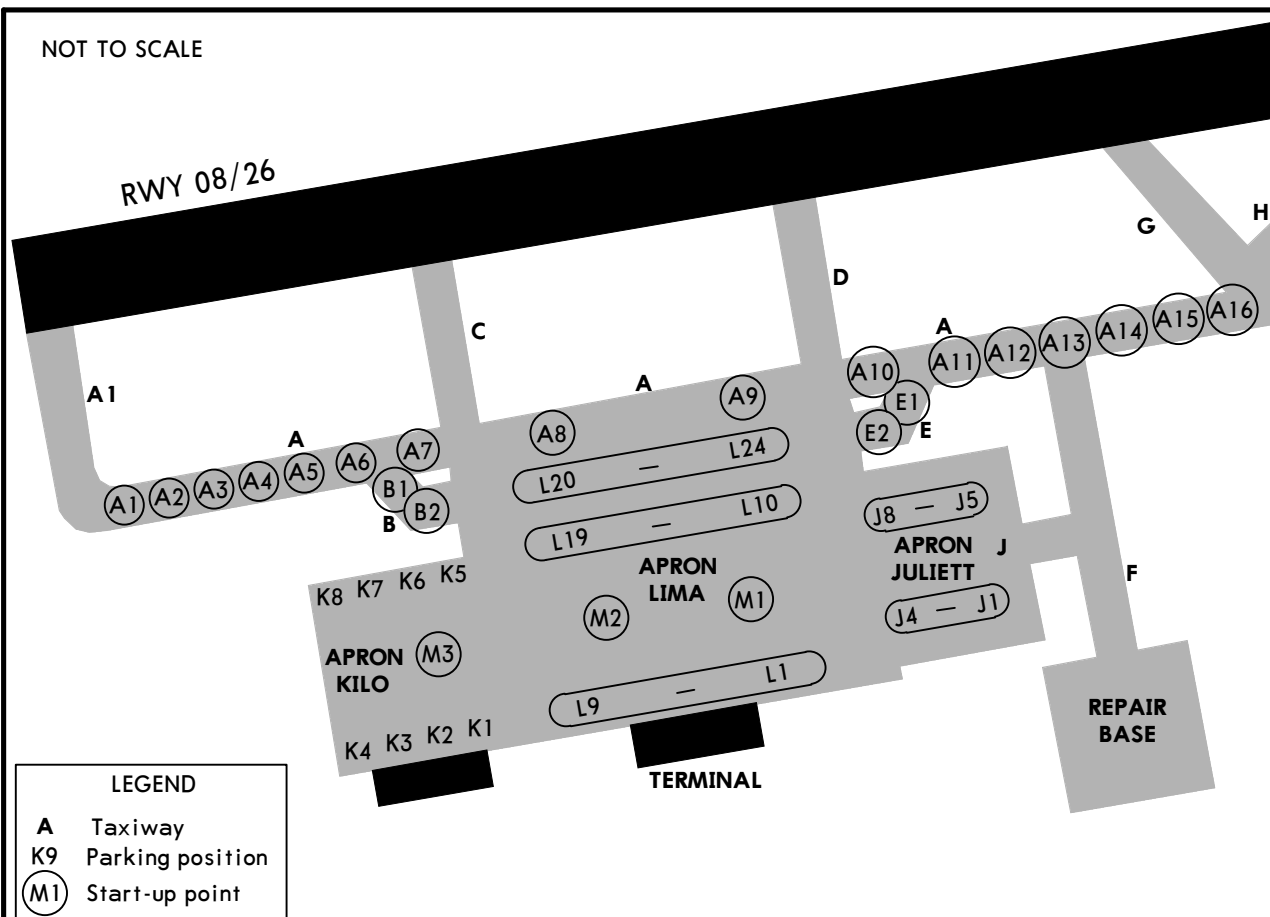
RWY		USABLE LENGTHS			WIDTH
		Threshold	Landing Beyond Glide Slope	Take-off	
08 26	HIRL (60m) CL (15m) HIALS-II TDZ PAPI-L (3.0°) RVR		12,698' 3870m 12,577' 3834m	13,464' 4104m ①	180' 55m

① First 328'/100m unusable for take-off.

TAKE-OFF

AIR CARRIER (JAA) All Rwys		
LVP must be in force		
RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL
A		
B	200m (150m)	250m
C		400m
D	250m (200m)	300m

NOT TO SCALE



INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
	Apron Juliett		Apron Lima
J1 thru J4	N43 03.3 E074 28.4	L1 thru L3	N43 03.3 E074 28.3
J5, J6	N43 03.4 E074 28.5	L4, L5	N43 03.3 E074 28.2
J7, J8	N43 03.4 E074 28.4	L6 thru L8	N43 03.3 E074 28.0
		L9	N43 03.3 E074 27.1
		L10, L11	N43 03.4 E074 28.3
		L12, L13	N43 03.4 E074 28.2
		L14 thru L16	N43 03.4 E074 28.0
		L17 thru L19	N43 03.3 E074 28.0
		L20 thru L22	N43 03.4 E074 28.0
		L23, L24	N43 03.4 E074 28.2

Exit stands K1 thru K8 and L1 thru L9 and L20 by towing.

Marking of apron "Lima" is painted for taxiing of aircraft with a wingspan of 158'/48.1m or less.

STRAIGHT-IN RWY		A	B	C	D
08	CAT 2 ILS	2190' (100') RA98' R350m	2190' (100') RA98' R350m	2190' (100') RA98' R350m	2190' (100') RA98' R350m
	ILS	2290' (200') R550m	2290' (200') R550m	2290' (200') R550m	2290' (200') R550m
	<i>FULL</i>	R750m	R750m	R750m	R750m
	<i>Limited</i>	R1200m	R1200m	R1200m	R1200m
	<i>ALS out</i>				
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
26	CAT 2 ILS	2155' (100') RA98' R350m	2155' (100') RA98' R350m	2155' (100') RA98' R350m	2155' (100') RA98' R350m
	ILS	2255' (200') R550m	2255' (200') R550m	2255' (200') R550m	2255' (200') R550m
	<i>FULL</i>	R750m	R750m	R750m	R750m
	<i>Limited</i>	R1200m	R1200m	R1200m	R1200m
	<i>ALS out</i>				
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	VOR ❶	2420' (330') R800m	2420' (330') R800m	2420' (330') R800m	2420' (330') R800m
	<i>ALS out</i>	R1500m	R1500m	R1500m	R1500m
	NDB ❶	2420' (330') R800m	2420' (330') R800m	2420' (330') R800m	2420' (330') R800m
	<i>ALS out</i>	R1500m	R1500m	R1500m	R1500m
	CAT 2 ILS	2155' (100') RA98' R350m	2155' (100') RA98' R350m	2155' (100') RA98' R350m	2155' (100') RA98' R350m
	ILS	2255' (200') R550m	2255' (200') R550m	2255' (200') R550m	2255' (200') R550m
	<i>FULL</i>	R750m	R750m	R750m	R750m
	<i>Limited</i>	R1200m	R1200m	R1200m	R1200m
	<i>ALS out</i>				
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	VOR ❶	2420' (365') R1000m	2420' (365') R1000m	2420' (365') R1000m	2420' (365') R1000m
	<i>ALS out</i>	R1500m	R1500m	R1700m	R1700m
	NDB ❶	2400' (345') R900m	2400' (345') R900m	2400' (345') R900m	2400' (345') R900m
	<i>ALS out</i>	R1500m	R1500m	R1600m	R1600m

❶ Continuous Descent Final Approach

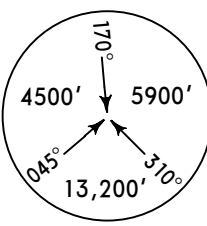
TAKE-OFF RWY 08, 26

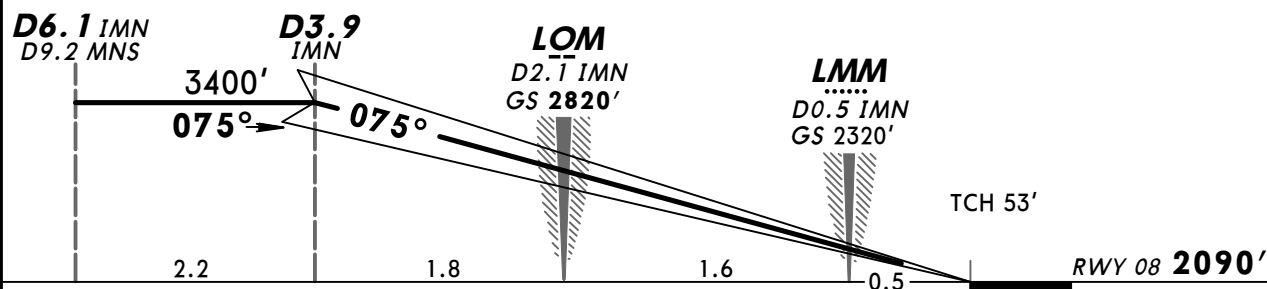
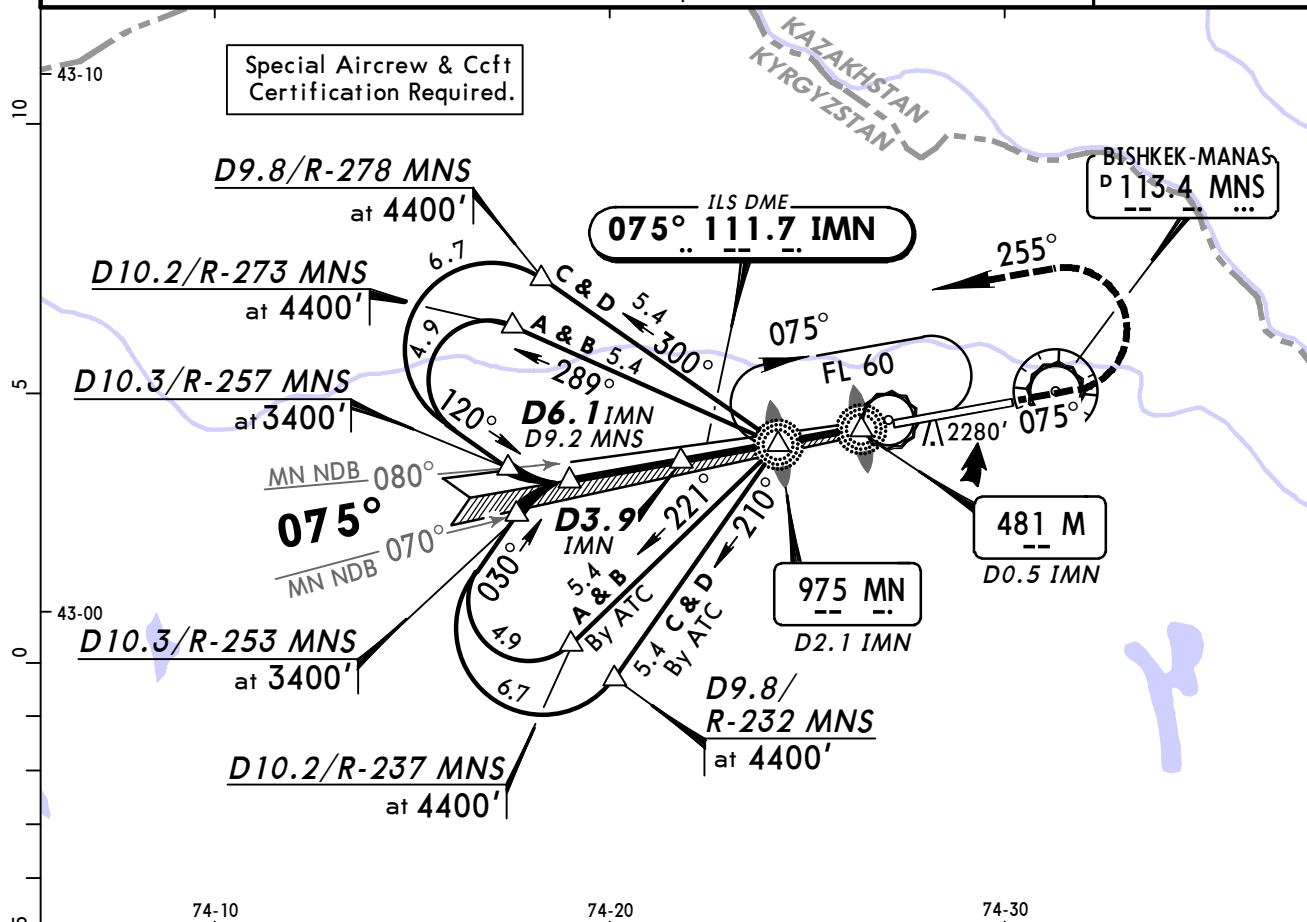
	Approved Operators HIRL, CL & mult. RVR req	LVP must be in Force			RCLM (DAY only) or RL	NIL (DAY only)
		RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL		
A						
B	125m	150m	200m	250m	400m	500m
C						
D	150m	200m	250m	300m		

BRIEFING STRIP TM



STRAIGHT-IN LANDING RWY 08								
ILS DA(H) 2290' (200')				LOC (GS out)	NDB MDA(H) 2420' (330')			
FULL		TDZ or CL out	ALS out			ALS out		
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m		
B								
C								
D					RVR 1500m VIS 1600m			

US opr ATIS 128.7	BISHKEK Approach (R) 124.6	RADAR Liaison 132.6	BISHKEK Tower 118.1	TWR Liaison 132.6	Ground 121.7
LOC IMN 111.7	Final Apch Crs 075°	GS LOM 2820' (730')	CAT II ILS RA 98' DA(H) 2190' (100')	Apt Elev 2090' RWY 2090'	 MSA MNS VOR
MISSED APCH: Climb on 075° to 2800', then turn LEFT onto 255° climbing to 4400', then as directed.					
Alt Set: hPa (MM on req) Rwy Elev: 74 hPa Trans level: FL 60 Trans alt: 4400' WARNING: An increased turbulence and windshear are expected on final.					



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II		2800'	on 075°	4400'	LT onto 255°
GS	3.00°	372	478	531	637	743	849	PAPI	↑			

STRAIGHT-IN LANDING RWY 08
CAT II ILS

RA 98'

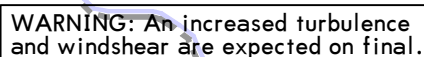
DA(H) 2190' (100')

RVR 350m

BISHKEK, KYRGYZSTAN
ILS or 2 NDB Rwy 26

MSA
MNS VOR

Trans alt: 4400'



NDB

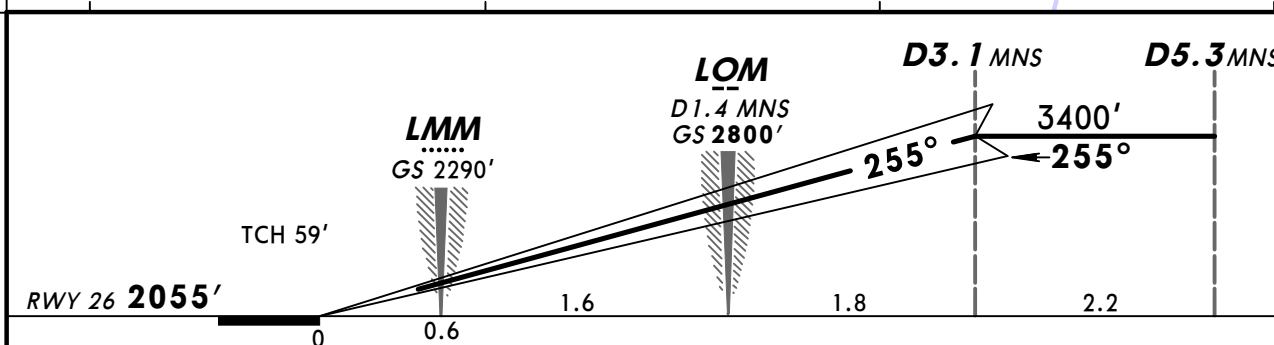
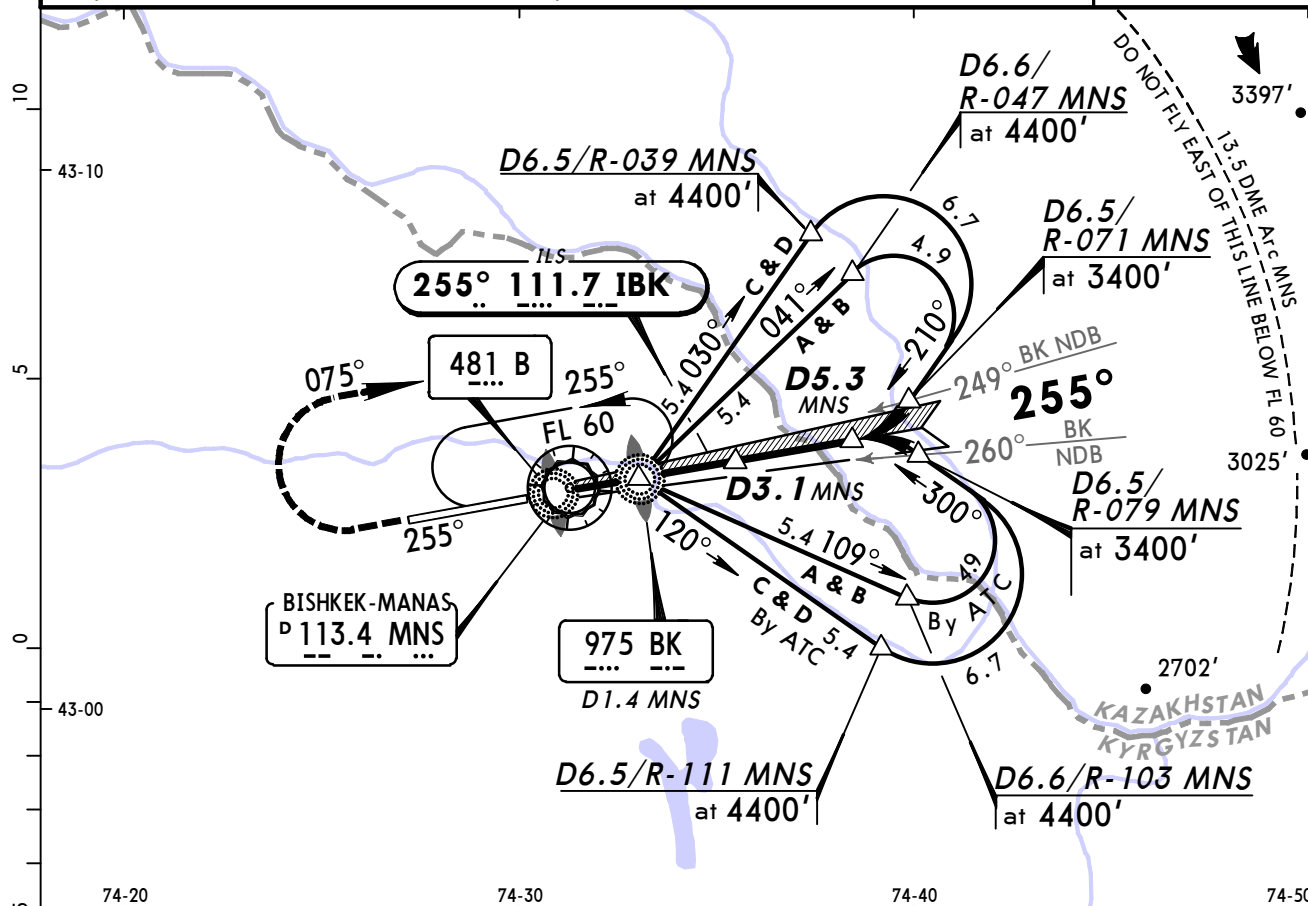
Figure 1: Profile view of runway 26. The diagram shows a runway starting at 0 feet and extending to 2055 feet. Key points include TCH 59' at 0.6 feet, LMM (GS 2290') at 0.6 feet, LOM (D1.4 MNS, GS 2800') at 1.6 feet, and NDB 2800' at 1.8 feet. The profile view shows a 255-degree angle between the runway and the LOM line, and a 255-degree angle between the LOM line and the NDB line. The distance from the LOM to the NDB is 1.8 feet, and from the NDB to the end of the runway is 2.2 feet. The total distance from the LOM to the end of the runway is 4.0 feet. The diagram also shows a 3400' distance from the LOM to the end of the runway.

Gnd speed-Kts

PANS OPS

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US opr ATIS 128.7	BISHKEK Approach (R) 124.6	RADAR Liaison 132.6	BISHKEK Tower 118.1	TWR Liaison 132.6	Ground 121.7
LOC IBK 111.7	Final Apch Crs 255°	GS LOM 2800' (745')	CAT II ILS RA 98' DA(H) 2155' (100')	Apt Elev 2090' RWY 2055'	MSA MNS VOR
MISSED APCH: Climb on 255° to 2800', then turn RIGHT onto 075° climbing to 4400', then as directed.					
Alt Set: hPa (MM on req) Rwy Elev: 73 hPa Trans level: FL 60 Trans alt: 4400' 1. WARNING: An increased turbulence and windshear are expected on final. 2. Special Aircrew & Acft Certification Required.					



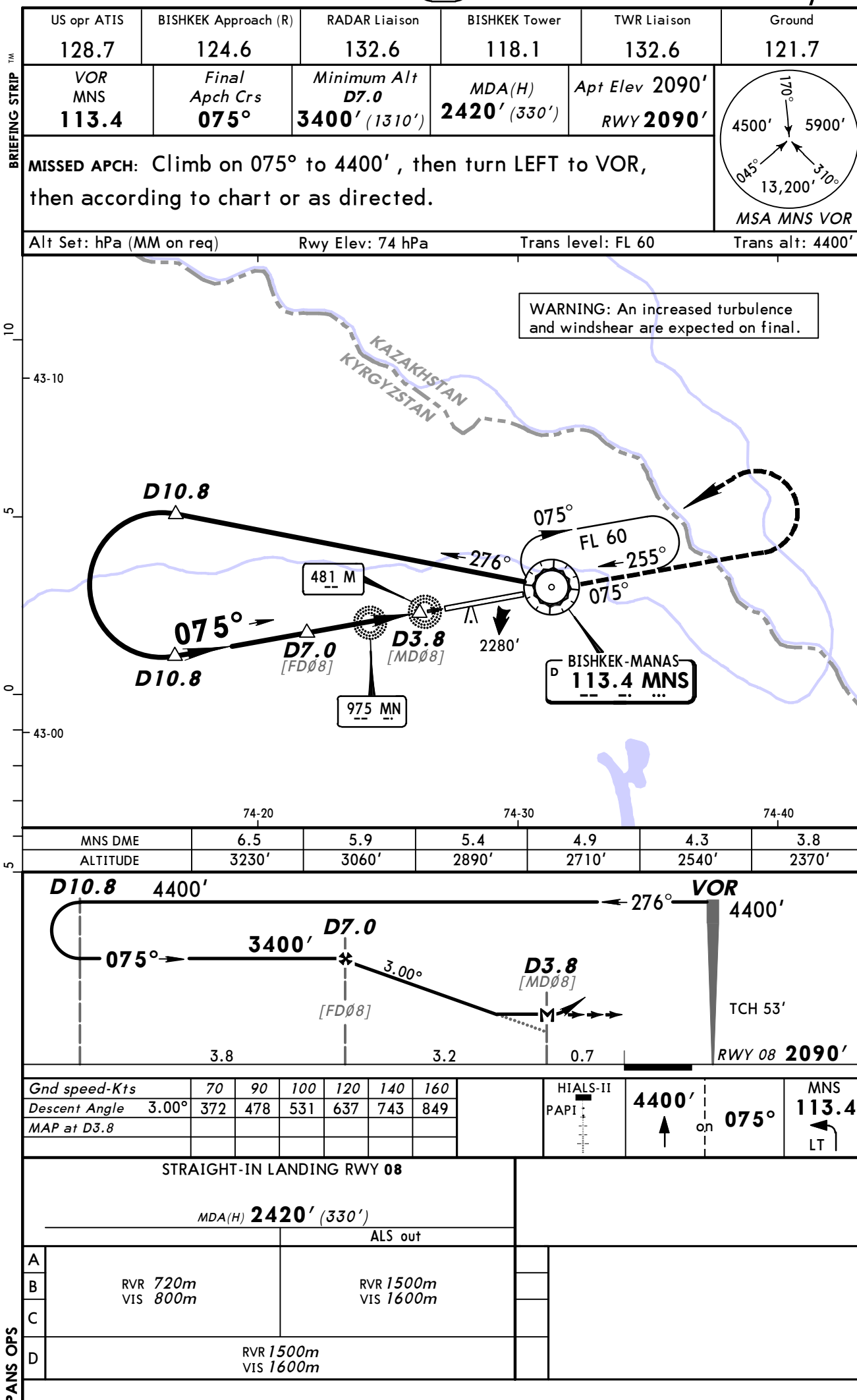
Gnd speed-Kts	70	90	100	120	140	160	HIALS-II		2800'	on 255°	4400'	onto 075°
GS	3.00°	372	478	531	637	743	849	PAPI	↑	RT		

STRAIGHT-IN LANDING RWY 26
CAT II ILS

RA 98'
DA(H) **2155'** (100')

RVR **350m**

PANS OPS



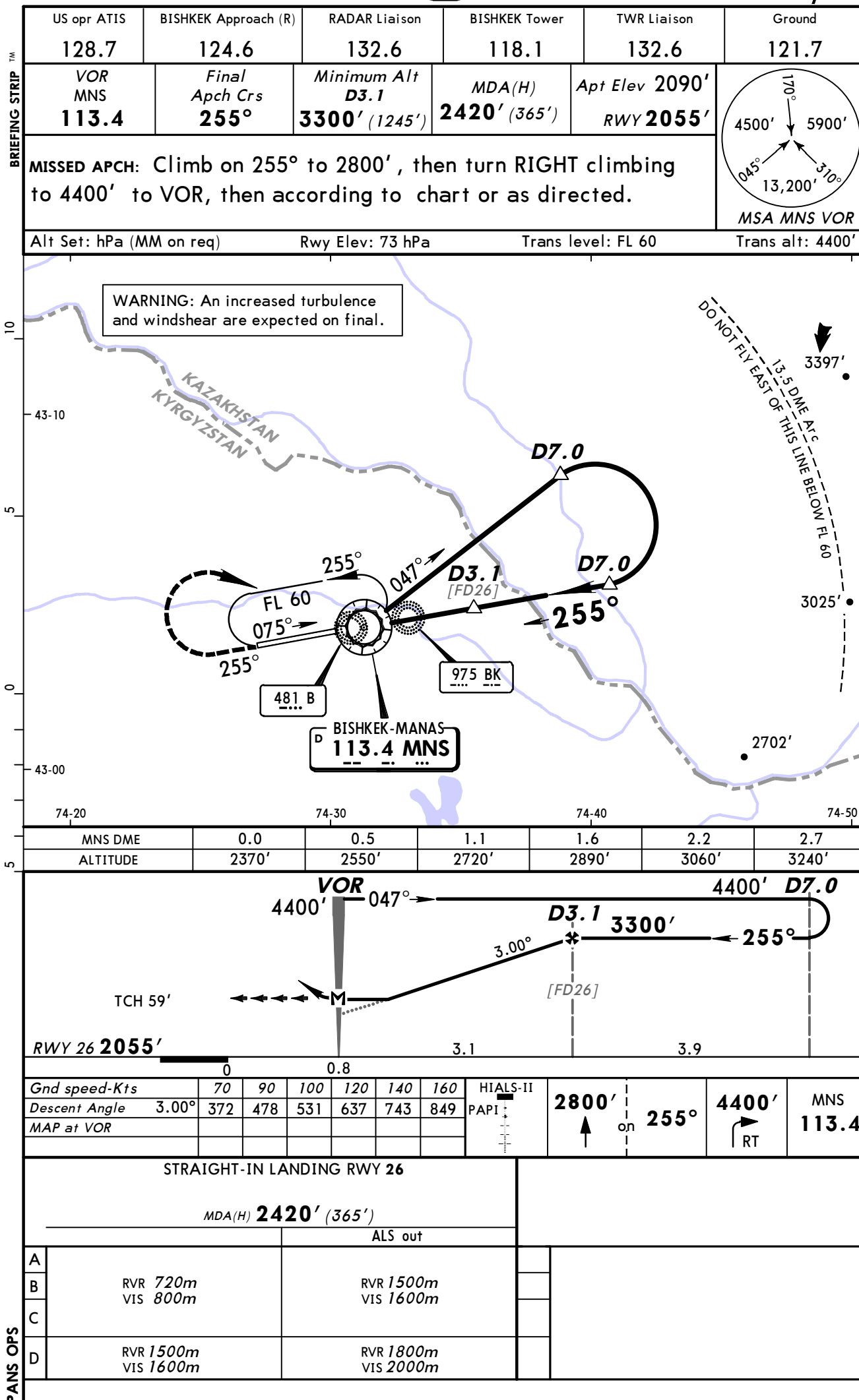


Chart changes since cycle 22-2013

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
BISHKEK, (MANAS - UCFM)				

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport UCFM