

## List of pages in this Trip Kit

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Terminal Charts For UCFM

Revision Letter For Cycle 01-2014

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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: 0234 Z  
Sunset: 1142 Z,

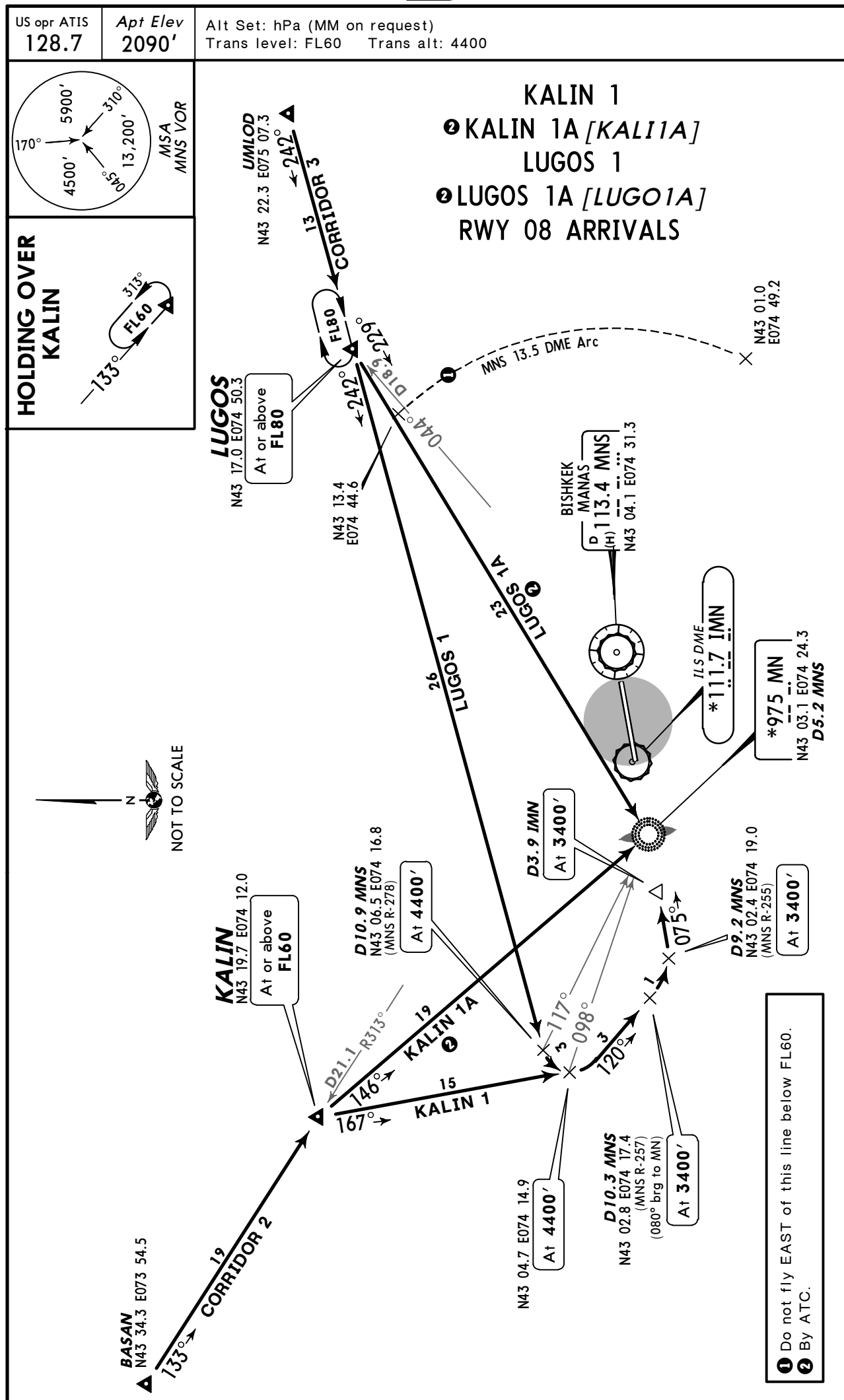
## Runway Information

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

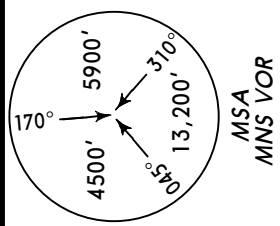
Runway: 26  
Length x Width: 13465 ft x 180 ft  
Surface Type: concrete  
TDZ-Elev: 2055 ft  
Lighting: Edge, ALS, Centerline, TDZ

## Communication Information

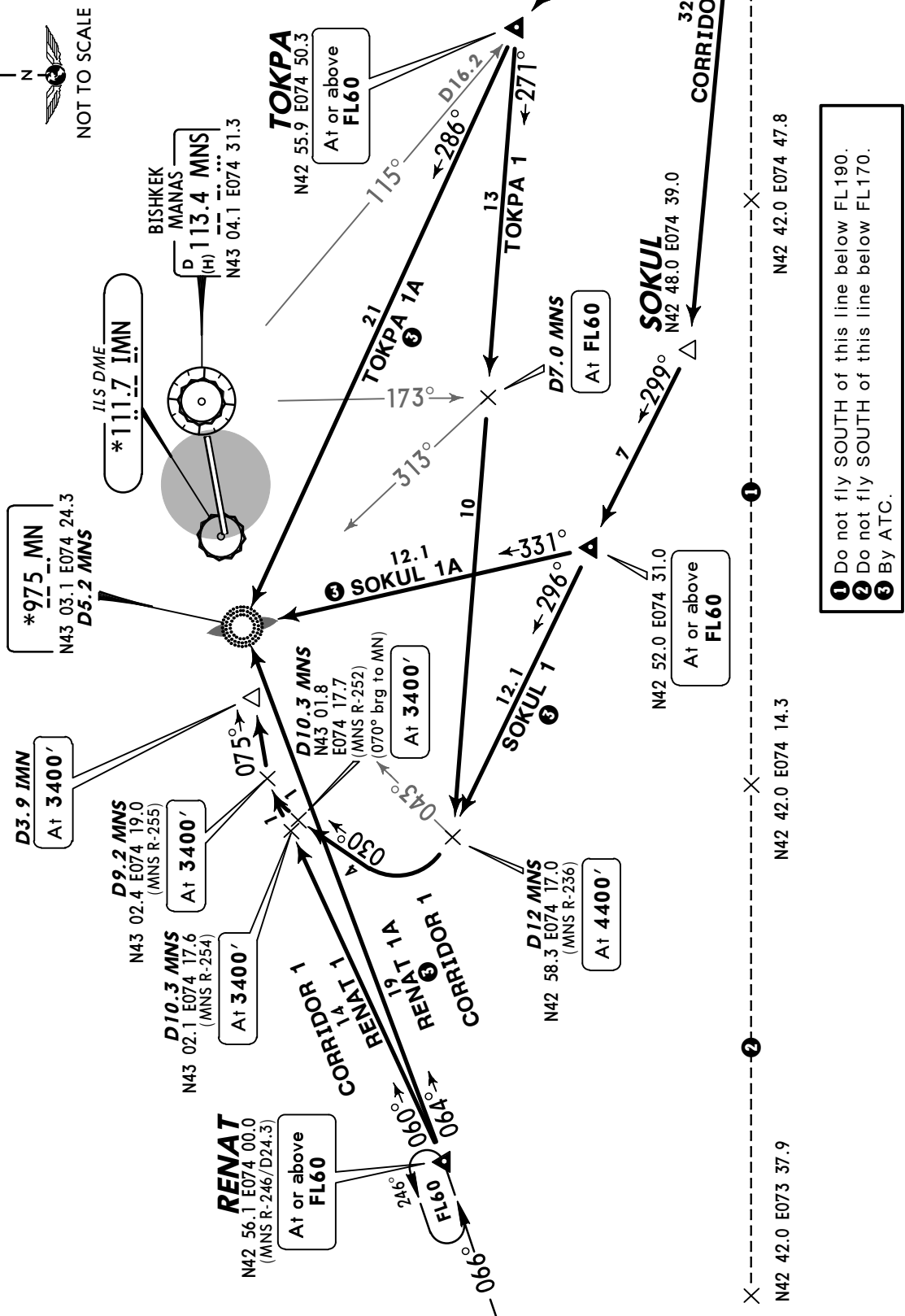
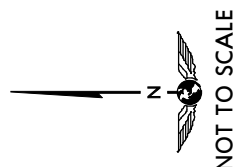
Bishkek Tower 124.0 Secondary  
Bishkek Tower 118.1  
Bishkek Taxiing Ground Control 124.0 Secondary  
Bishkek Taxiing Ground Control 121.7  
Bishkek Approach Control 124.6  
Bishkek Approach Control 124.0 Secondary  
Bishkek Krug Radar 124.0 Secondary  
Bishkek Krug Radar 120.3

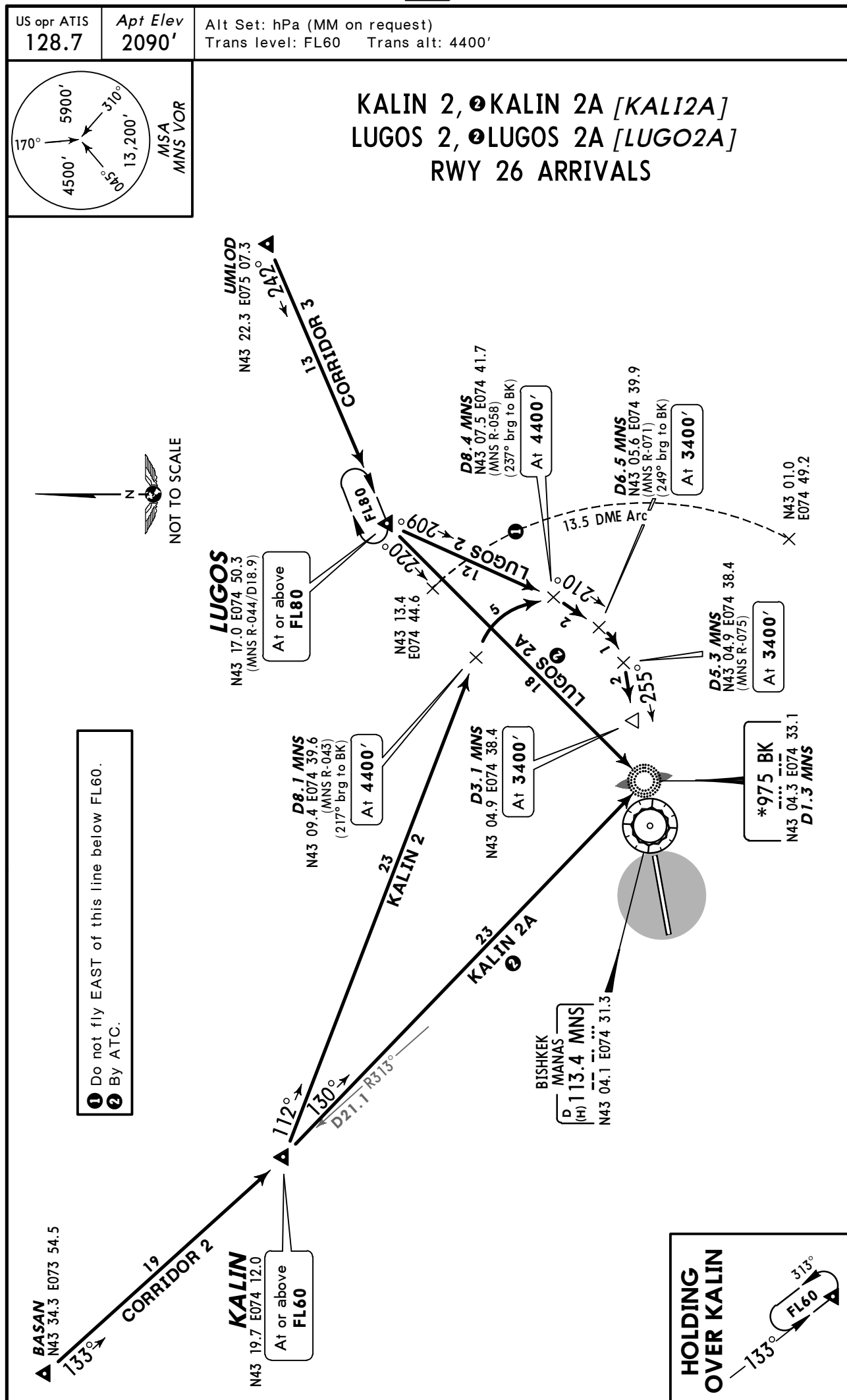


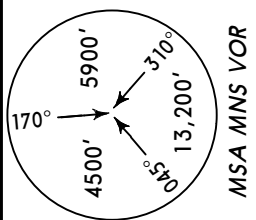
US opr ATIS 128.7 Apt Elev 2090' Alt Set: hPa (MM on request)  
Trans level: FL60 Trans alt: 4400'



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

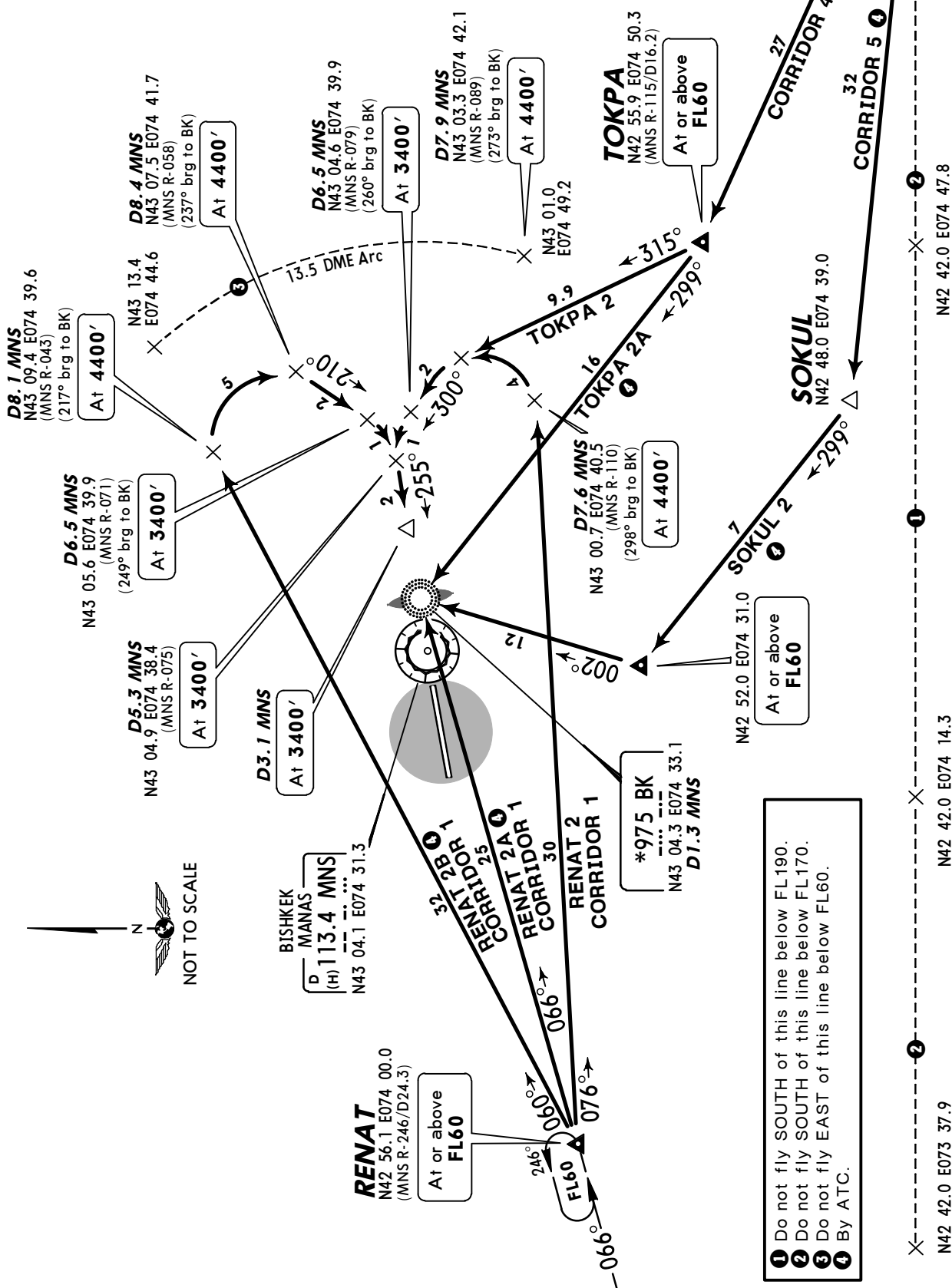




US opr ATIS  
128.7Apt Elev  
2090'Alt Set: hPa (MM on request)  
Trans level: FL60 Trans alt: 4400'

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

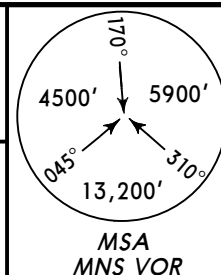
KALINOVKA  
\*430 KL  
N42 42.0 E075 22.0



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  
FL60BASAN 1  
26

CAT A

At 2400'

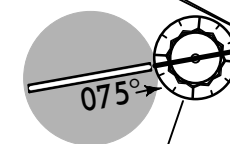
CAT B, C &amp; D

At 2800'

**RENAT**  
N42 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

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

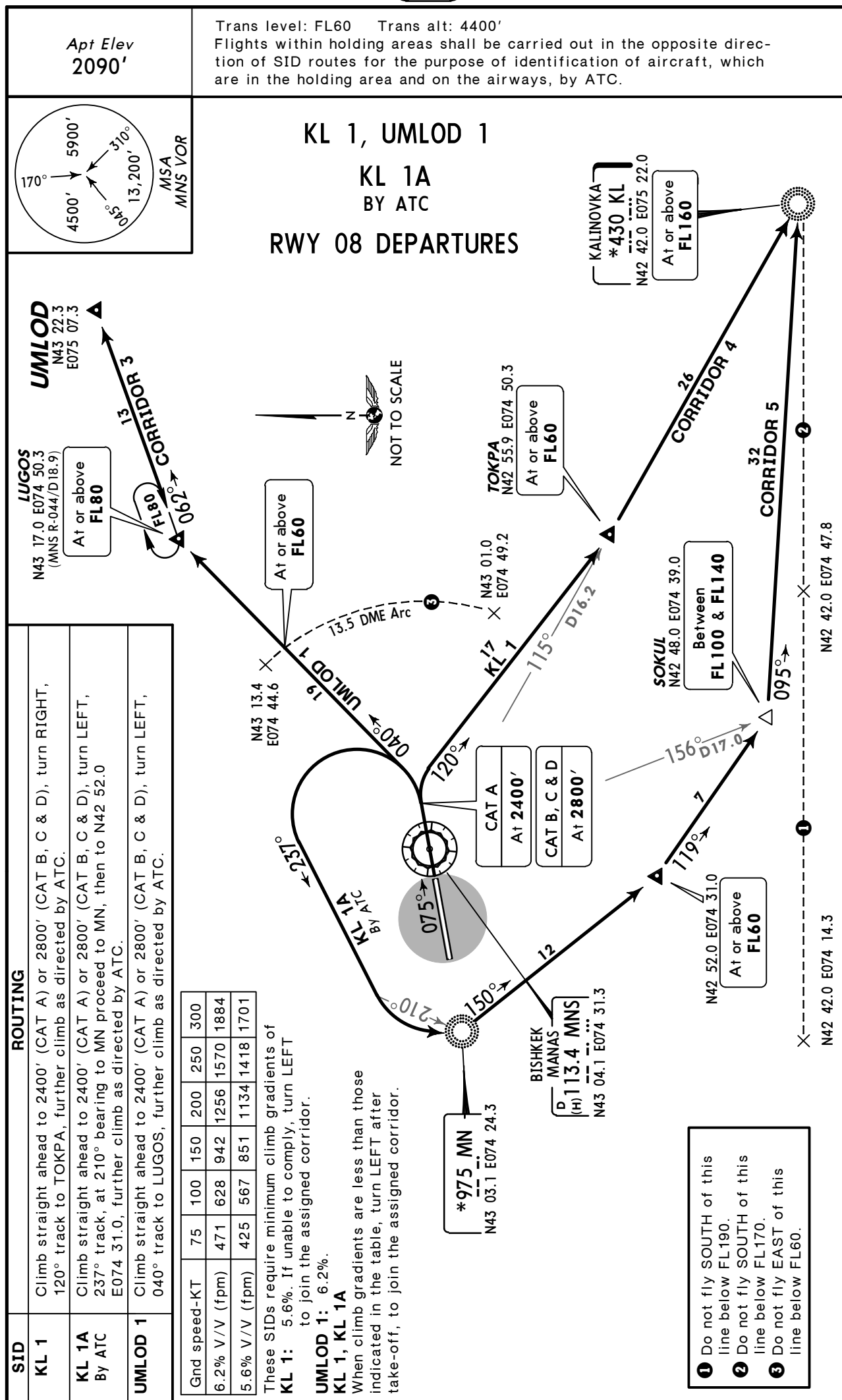
N42 42.0 E074 14.3 N42 42.0 E074 47.8  
X-----X  
N42 42.0 E073 55.0

## 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                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>BASAN 1</b>         | 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.  |
| <b>DW 1</b>            | 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.  |
| <b>DW 1A</b><br>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. |





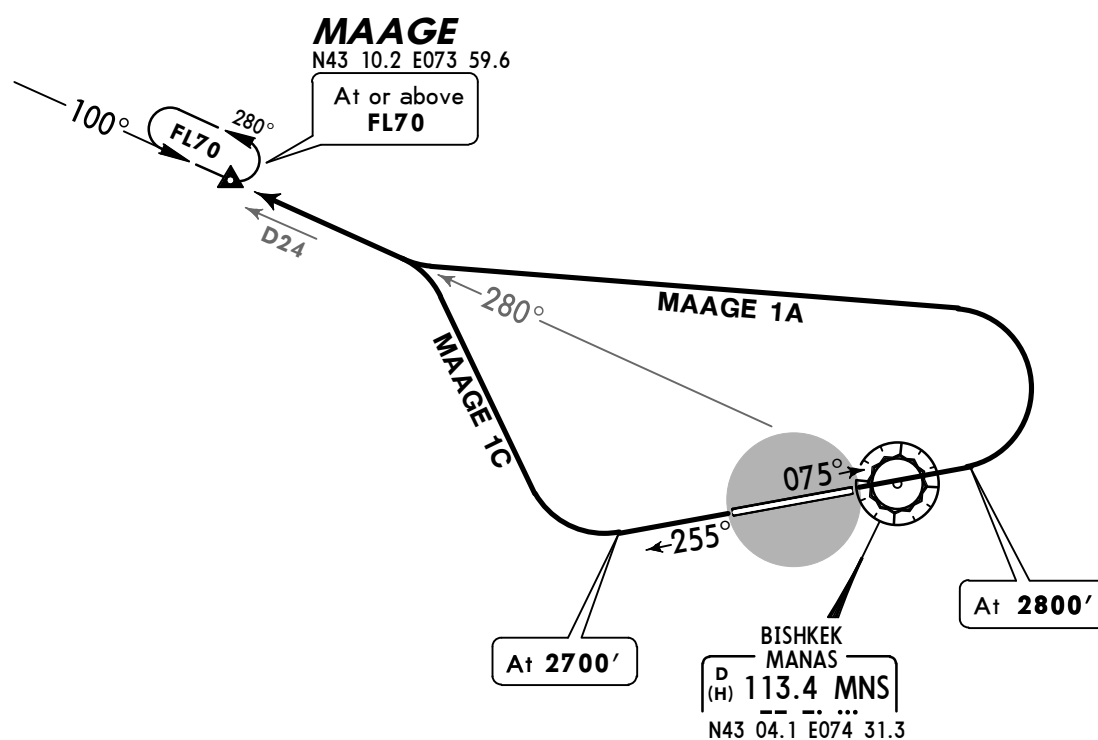


**CHANGES:** Crossing at 13.5 DME revised.

**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 |



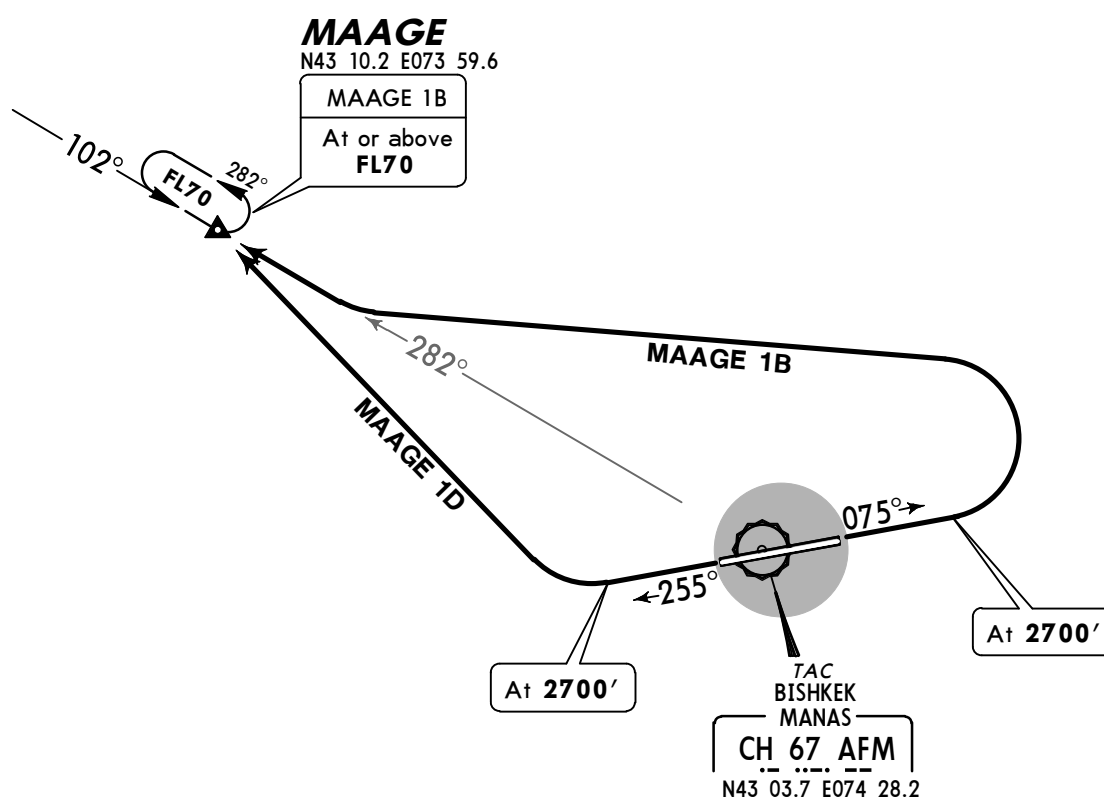
| SID                               | RWY       | ROUTING                                                                                                   |
|-----------------------------------|-----------|-----------------------------------------------------------------------------------------------------------|
| <b>MAAGE 1A</b><br>RADAR REQUIRED | <b>08</b> | Climb on 075° track to 2800', turn LEFT, intercept MNS R-280 to MAAGE, further climb as directed by ATC.  |
| <b>MAAGE 1C</b>                   | <b>26</b> | 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**

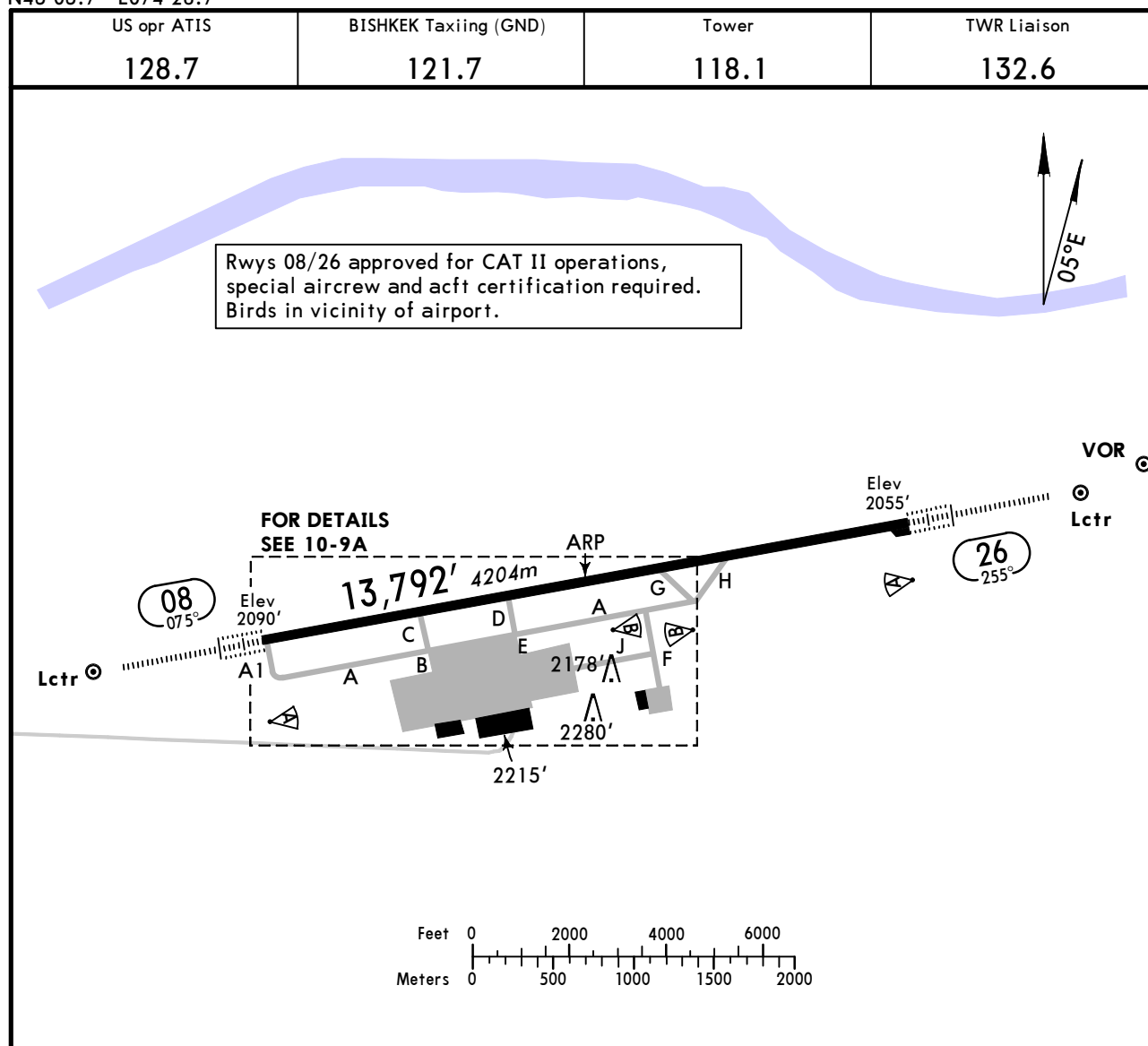
Direct distance from Manas airport  
to MAAGE: 24 NM

**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                                                                                                        |
|-----------------|-----------|----------------------------------------------------------------------------------------------------------------|
| <b>MAAGE 1B</b> | <b>08</b> | Climb on 075° track to 2700', turn LEFT, intercept AFM R-282 to MAAGE, further climb as directed by ATC.       |
| <b>MAAGE 1D</b> | <b>26</b> | Climb on 225° track to 2700', turn RIGHT, direct to MAAGE climbing to 7000', further climb as directed by ATC. |



#### ADDITIONAL RUNWAY INFORMATION

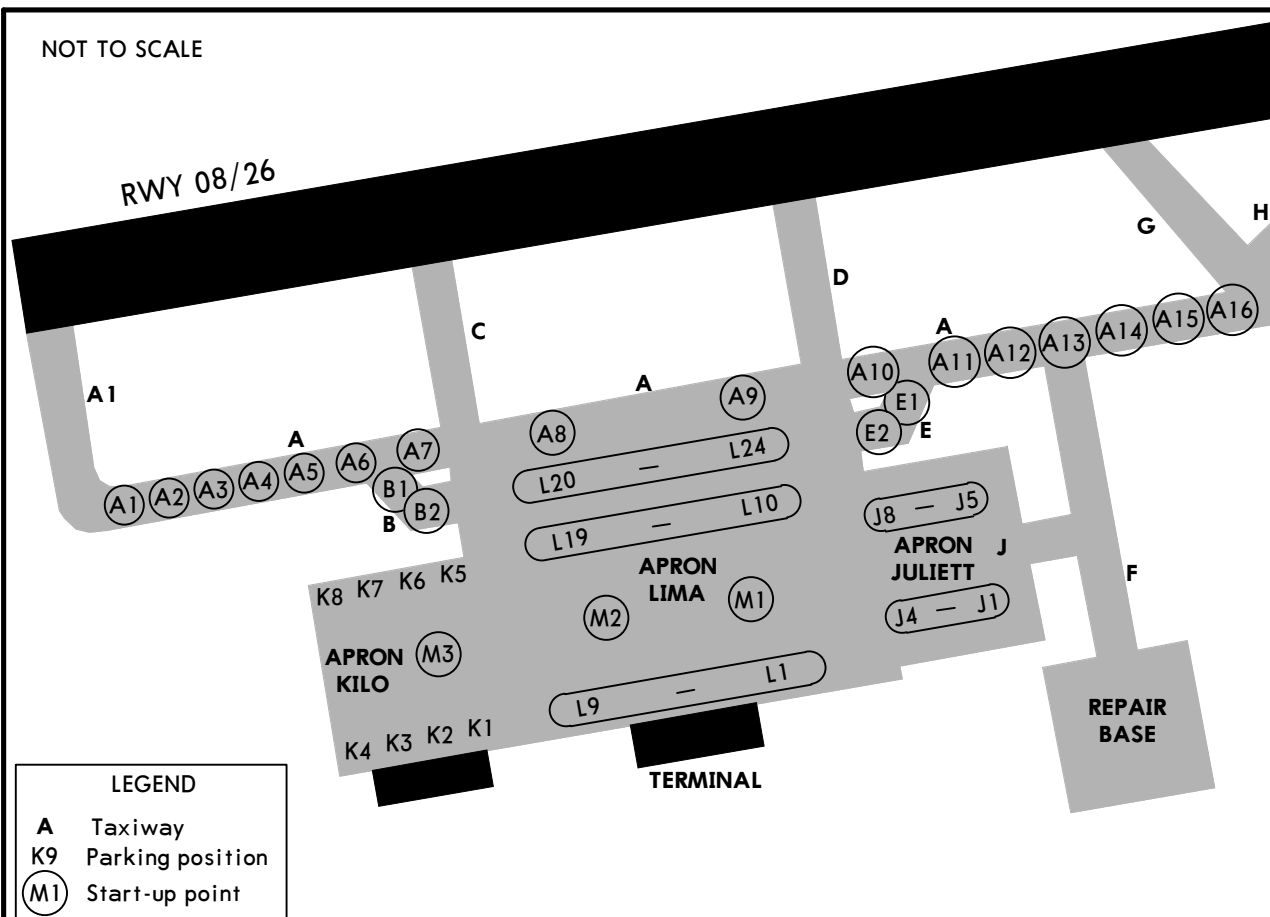
| RWY |                                                    | USABLE LENGTHS |                               |                 | WIDTH |
|-----|----------------------------------------------------|----------------|-------------------------------|-----------------|-------|
|     |                     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

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

#### TAKE-OFF

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

NOT TO SCALE

**INS COORDINATES**

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

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

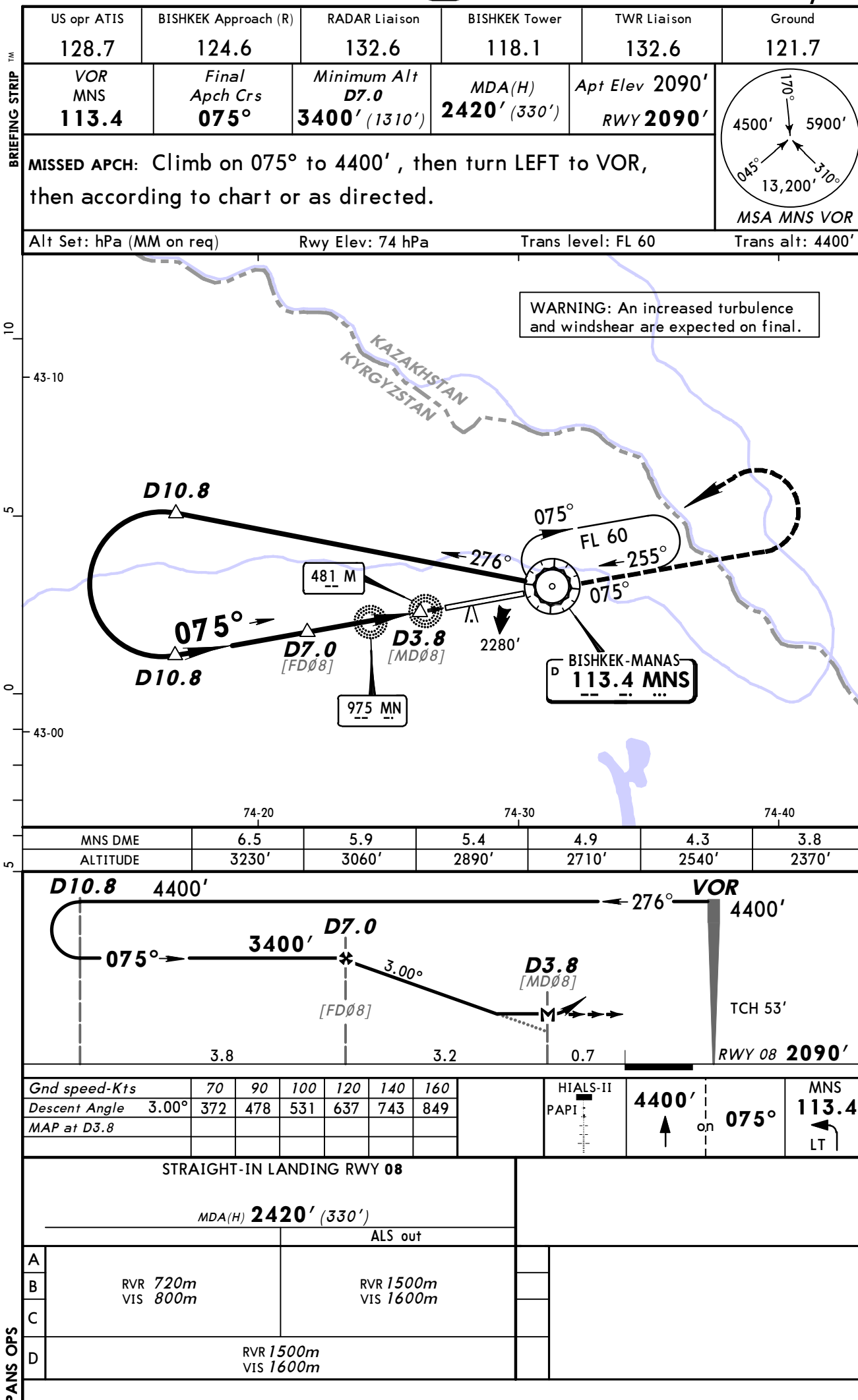
Marking of apron "Lima" is painted for taxiing of aircraft with a wingspan of 158'/48.1m or less.

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

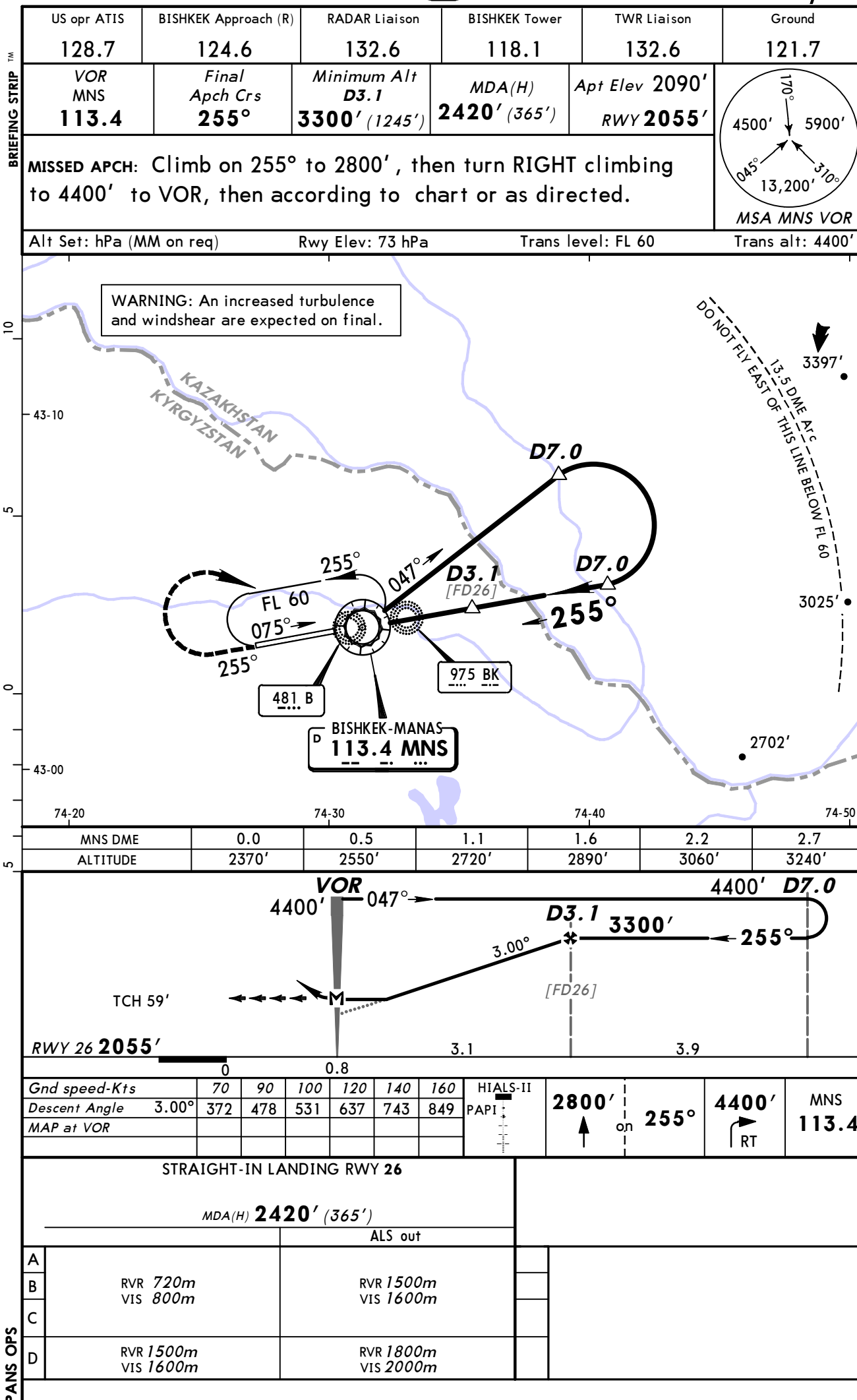
❶ Continuous Descent Final Approach

**TAKE-OFF RWY 08, 26**

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







**Chart changes since cycle 26-2013**

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

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

## TERMINAL CHART CHANGE NOTICES

### Chart Change Notices for Airport UCFM

**Type:** Terminal

**Effectivity:** Permanent

**Begin Date:** Immediately

**End Date:** No end date

(10-3A, 10-3C) Crossing altitude at 13.5 DME should read At or above FL60 instead of At FL60.