

## List of pages in this Trip Kit

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Revision Letter For Cycle 25-2012

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## General Information

Location: Rostov-NA-Donu Rus  
IATA Code: ROV  
Lat/Long: N47° 15.5' E039° 49.1'  
Elevation: 280 ft

Airport Use: Public  
Magnetic Variation: 7.6°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: 0508 Z  
Sunset: 1339 Z,

## Runway Information

Runway: 04  
Length x Width: 8205 ft x 148 ft  
Surface Type: concrete  
TDZ-Elev: 249 ft  
Lighting: Edge, ALS, Centerline, TDZ

Runway: 22  
Length x Width: 8205 ft x 148 ft  
Surface Type: concrete  
TDZ-Elev: 280 ft  
Lighting: Edge, ALS, Centerline

## Communication Information

ATIS 121.7  
Rostov Start Tower 124.0 Secondary  
Rostov Start Tower 119.7  
Rostov Taxiing Ground Control 124.0 Secondary  
Rostov Taxiing Ground Control 119.0  
Rostov Approach Control 128.2  
Rostov Approach Control 127.1 Secondary  
Rostov Approach Control 124.0 Secondary  
Rostov Radar 124.0 Secondary  
Rostov Radar 121.2

Rostov Transit 2 Operations 131.875 Non-English  
Rostov Transit Operations 118.0 Non-English

Alt Set: MM (hPa on request) QNH on request (**QFE**)  
Trans level: FL50 Trans alt: 3240' (**3003'**)

MSA  
ARP



NOT TO SCALE

At or above  
**FL190**

**ZATON**  
N47 22.4 E039 14.8

18

N47 13.5 E039 46.1

At 2210' (1973')

$\times \xrightarrow[084^\circ]{3} \times$

56° 043° 039° No  
MHA FL50  
MAX FL180  
1½

At 2210' (1973')

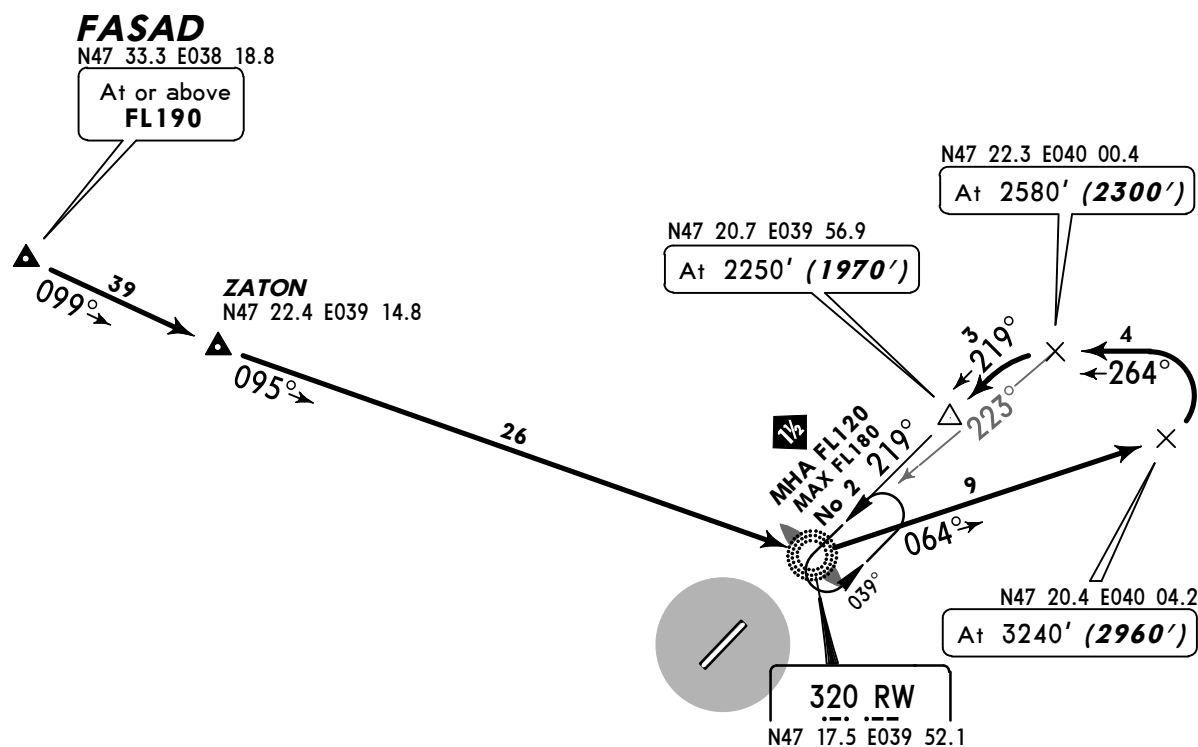
At 2210' (**1973'**)

ALT/HEIGHT CONVERSION  
QNH (QFE)

|       |                |
|-------|----------------|
| 3240' | (3003' - 900m) |
| 2210' | (1973' - 600m) |

099° track to ZATON, turn RIGHT, 130° track to N47 09.0 E039 33.5, turn LEFT, 084° track to N47 08.7 E039 37.8, turn LEFT, 039° track, intercept final.

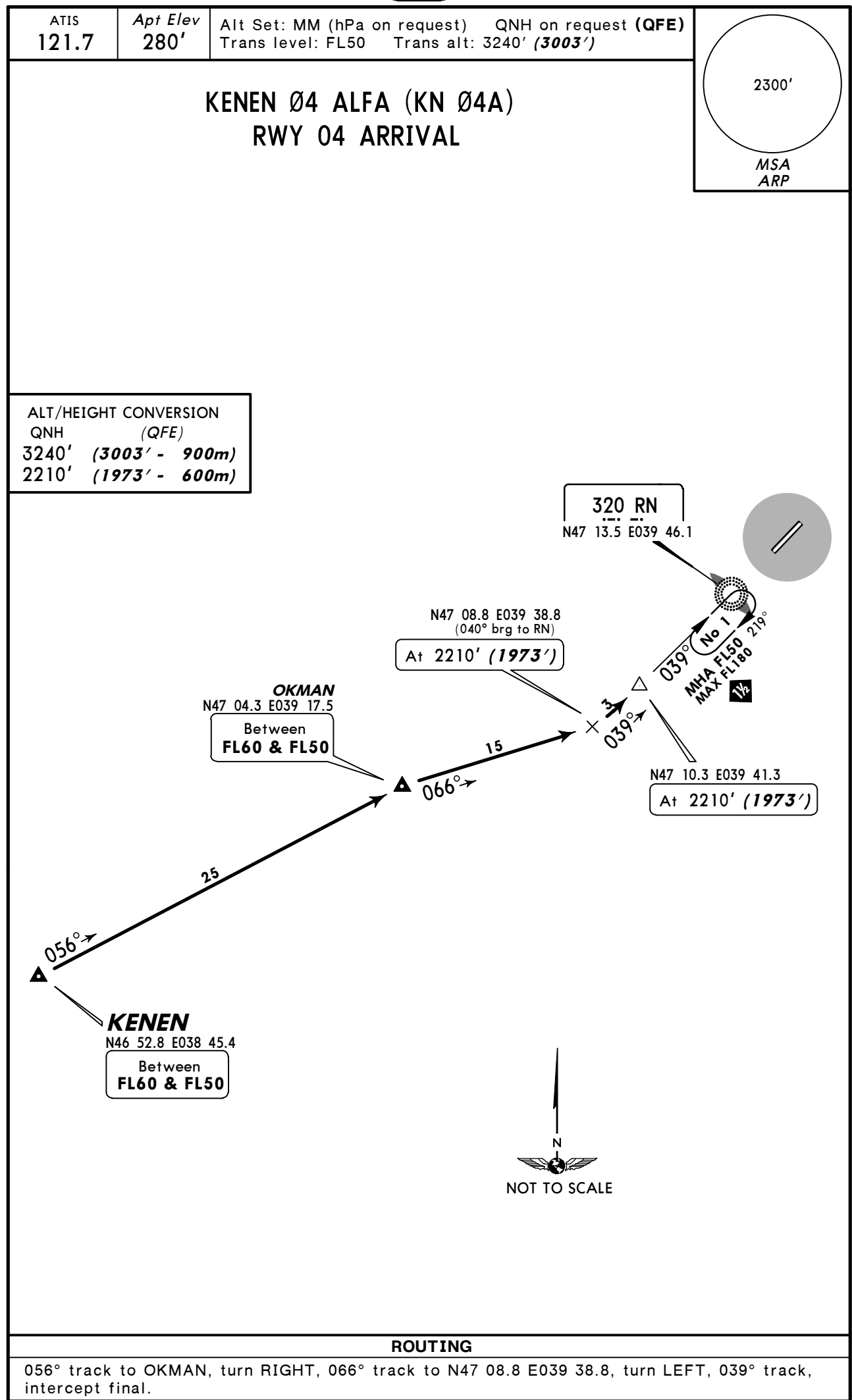
Alt Set: MM (hPa on request) QNH on request **(QFE)**  
Trans level: FL50 Trans alt: 3240' **(2960')**

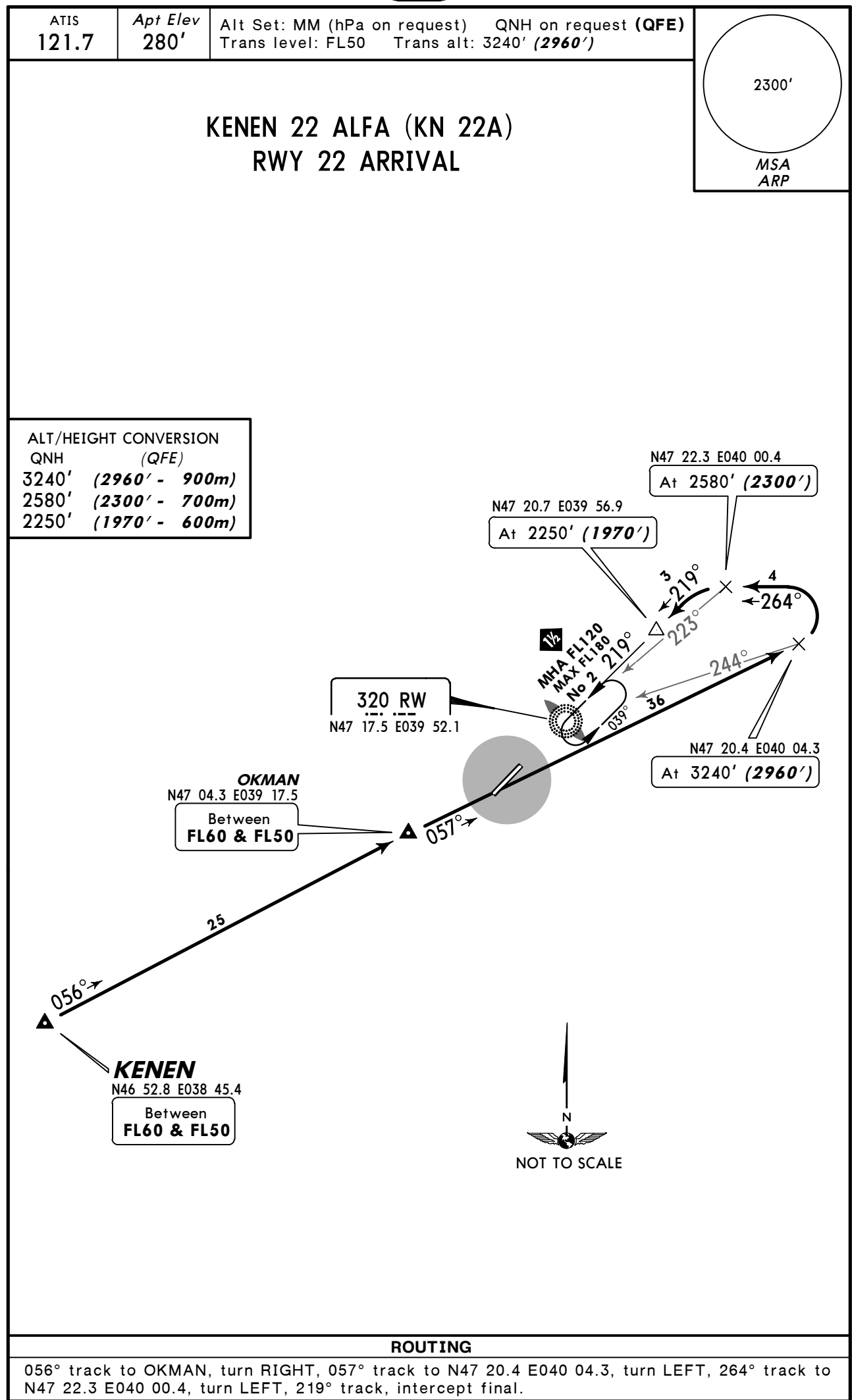
MSA  
ARP

ALT/HEIGHT CONVERSION  
QNH (QFE)

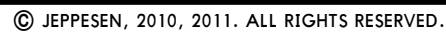
|       |                |
|-------|----------------|
| 3240' | (2960' - 900m) |
| 2580' | (2300' - 700m) |
| 2250' | (1970' - 600m) |

099° track to ZATON, turn LEFT, intercept 095° bearing to RW, turn LEFT, 064° bearing to N47 20.4 E040 04.2, turn LEFT, 264° track to N47 22.3 E040 00.4, turn LEFT, 219° track, intercept final.





Alt Set: MM (hPa on request) QNH on request **(QFE)**  
Trans level: FL50 Trans alt: 3240' **(3003')**



ATIS

121.7

Apt Elev

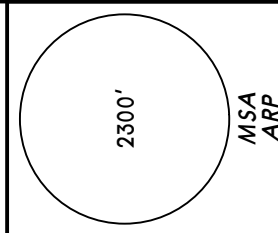
280'

Alt Set: MM (hPa on request) QNH on request (QFE)

Trans level: FL50 Trans alt: 3240' (2960')

KONSTANTINOVSK 22 ALFA (KA 22A)

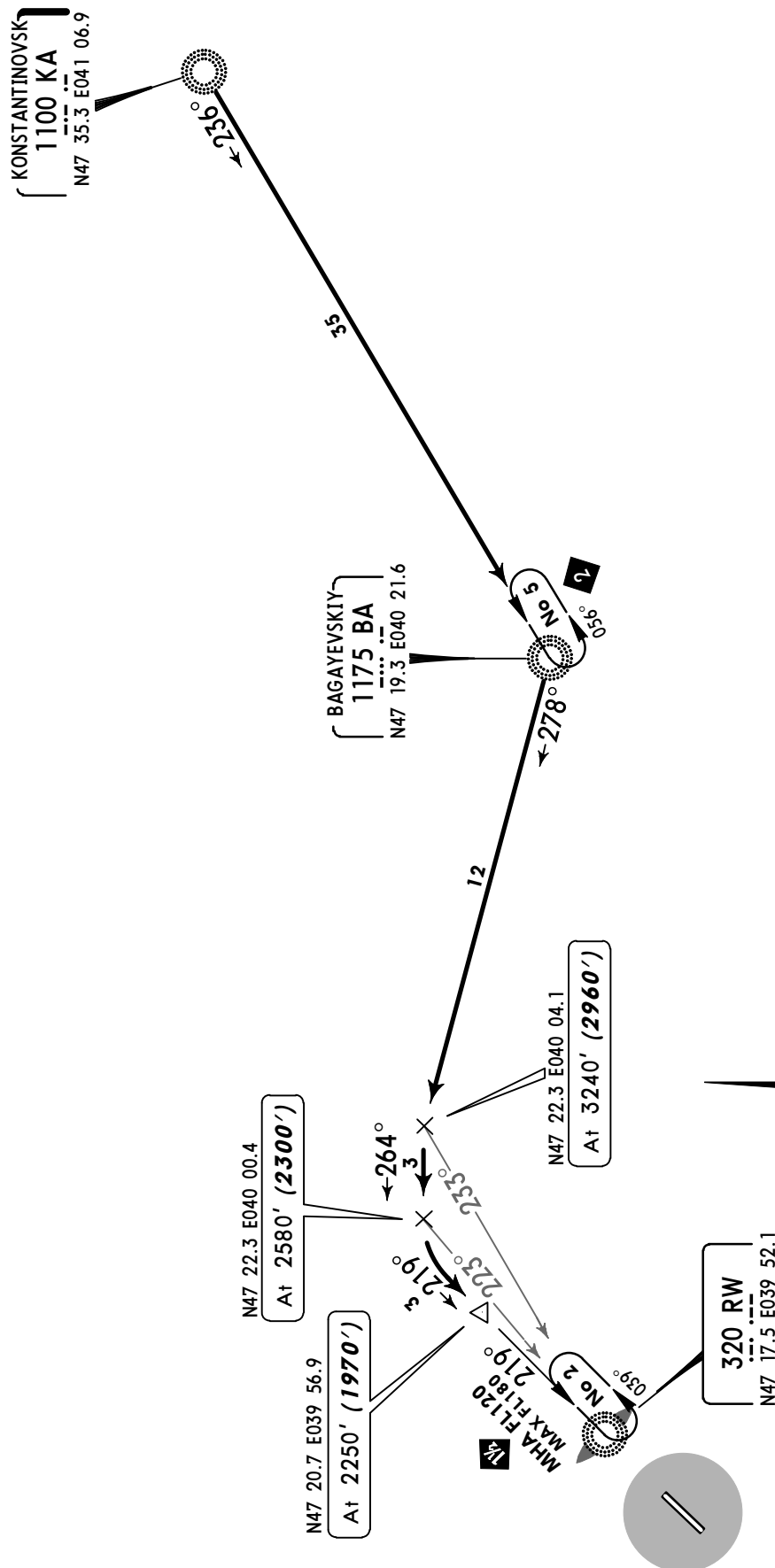
RWY 22 ARRIVAL

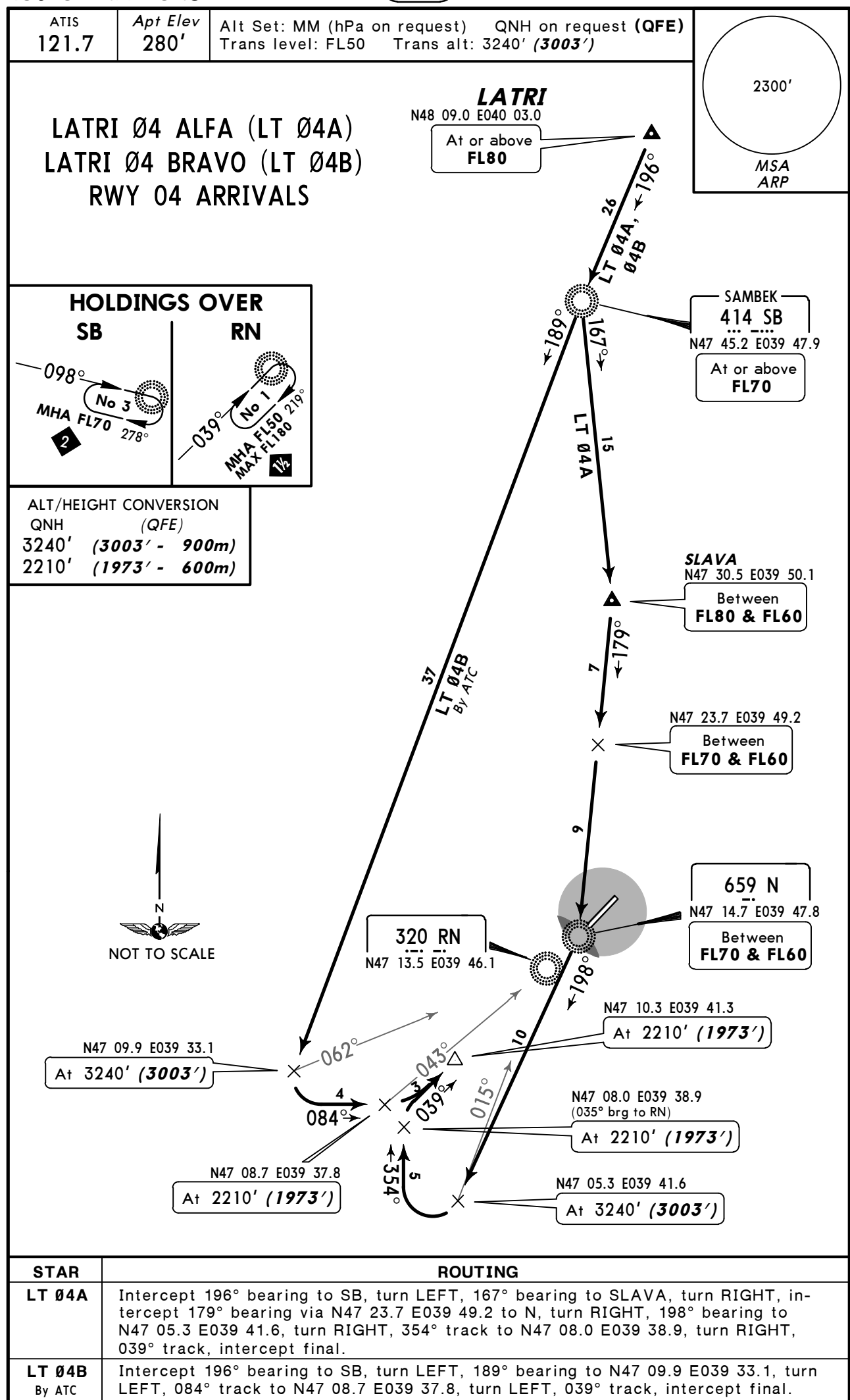


| ALT/HEIGHT CONVERSION |                |
|-----------------------|----------------|
| QNH                   | (QFE)          |
| 3240'                 | (2960' - 900m) |
| 2580'                 | (2300' - 700m) |
| 2250'                 | (1970' - 600m) |

ROUTING

236° bearing to BA, turn RIGHT, 278° bearing to N47 22.3 E040 04.1, turn LEFT, 264° track to N47 22.3 E040 00.4, turn LEFT, 219° track, intercept final.

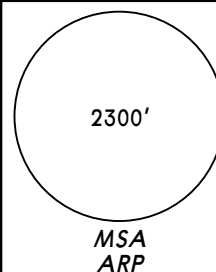




ATIS  
121.7

Apt Elev  
280'

Alt Set: MM (hPa on request) QNH on request (QFE)  
Trans level: FL50 Trans alt: 3240' (2960')



# LATRI 22 ALFA (LT 22A) RWY 22 ARRIVAL

**LATRI**  
N48 09.0 E040 03.0

At or above  
FL80

KRASNY SULIN  
486 KL  
N47 53.1 E040 06.0

At or above  
FL80

ALT/HEIGHT CONVERSION  
QNH (QFE)  
3240' (2960' - 900m)  
2250' (1970' - 600m)

**BEREG**  
N47 34.4 E040 02.0

At or above  
FL60

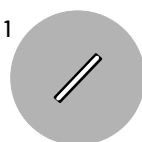
N47 20.7 E039 56.9

At 2250' (1970')

N47 22.8 E039 59.3

At 2250' (1970')

320 RW  
N47 17.5 E039 52.1

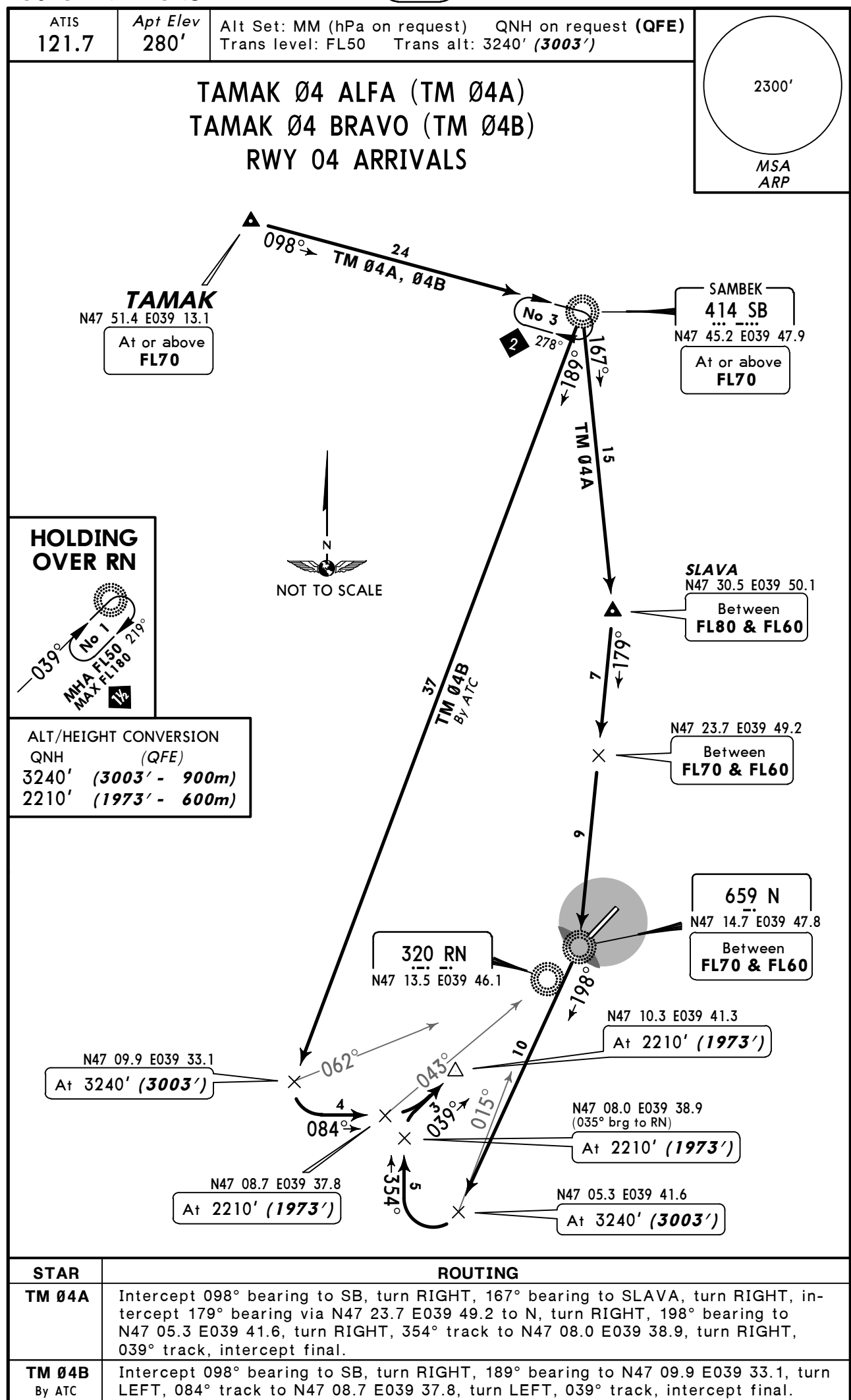


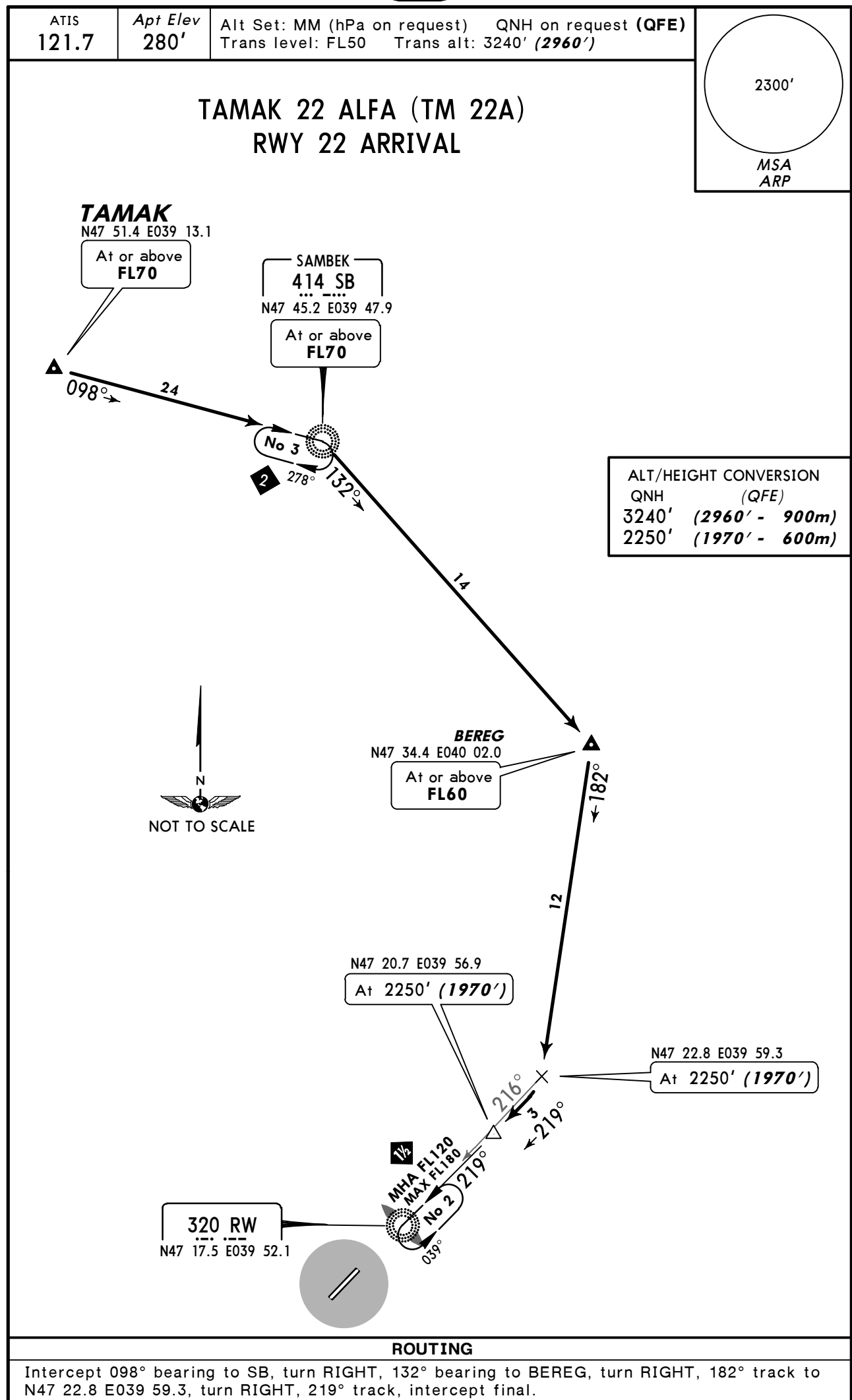
MHA FL120  
MAX FL180  
No 2  
039°

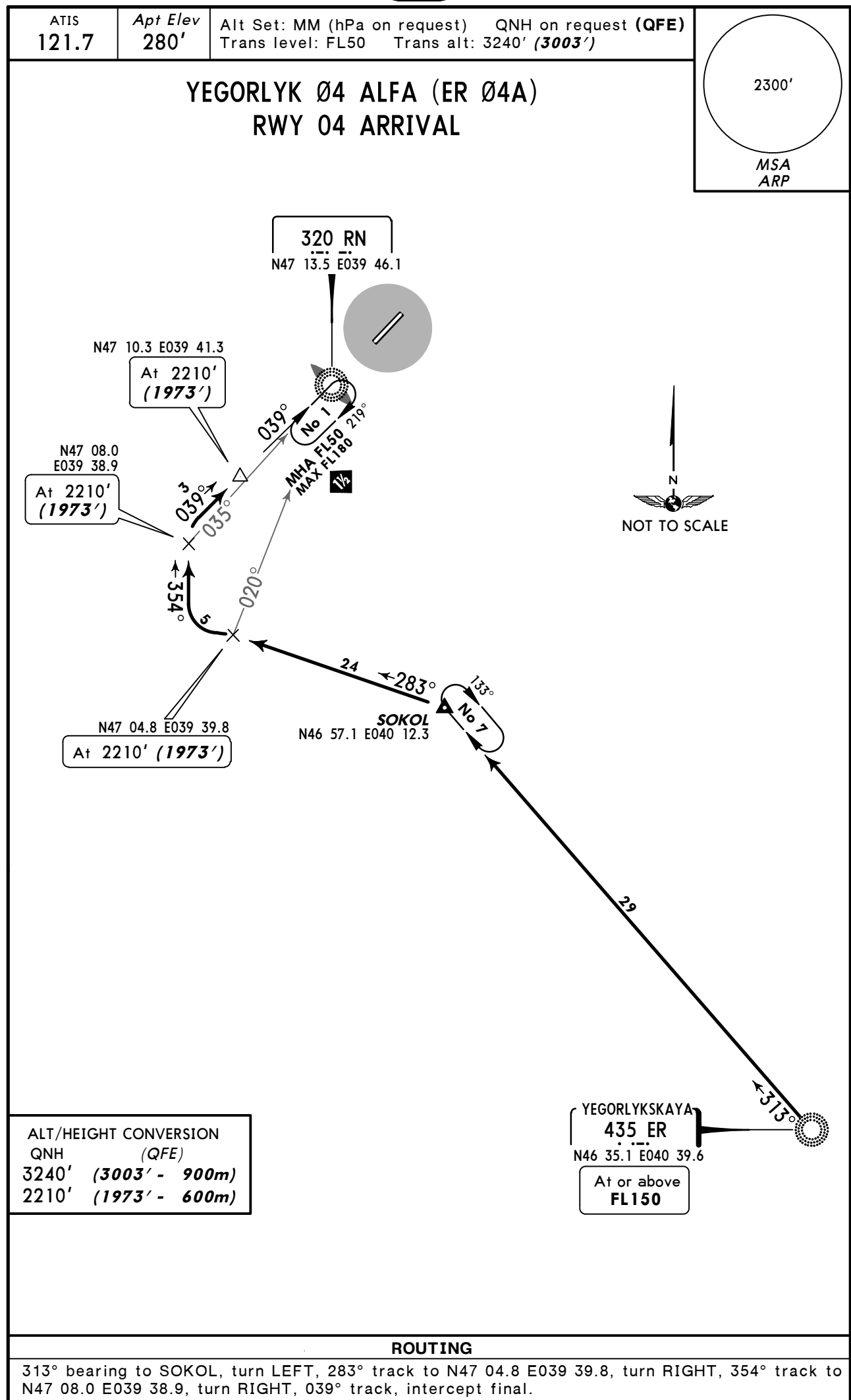


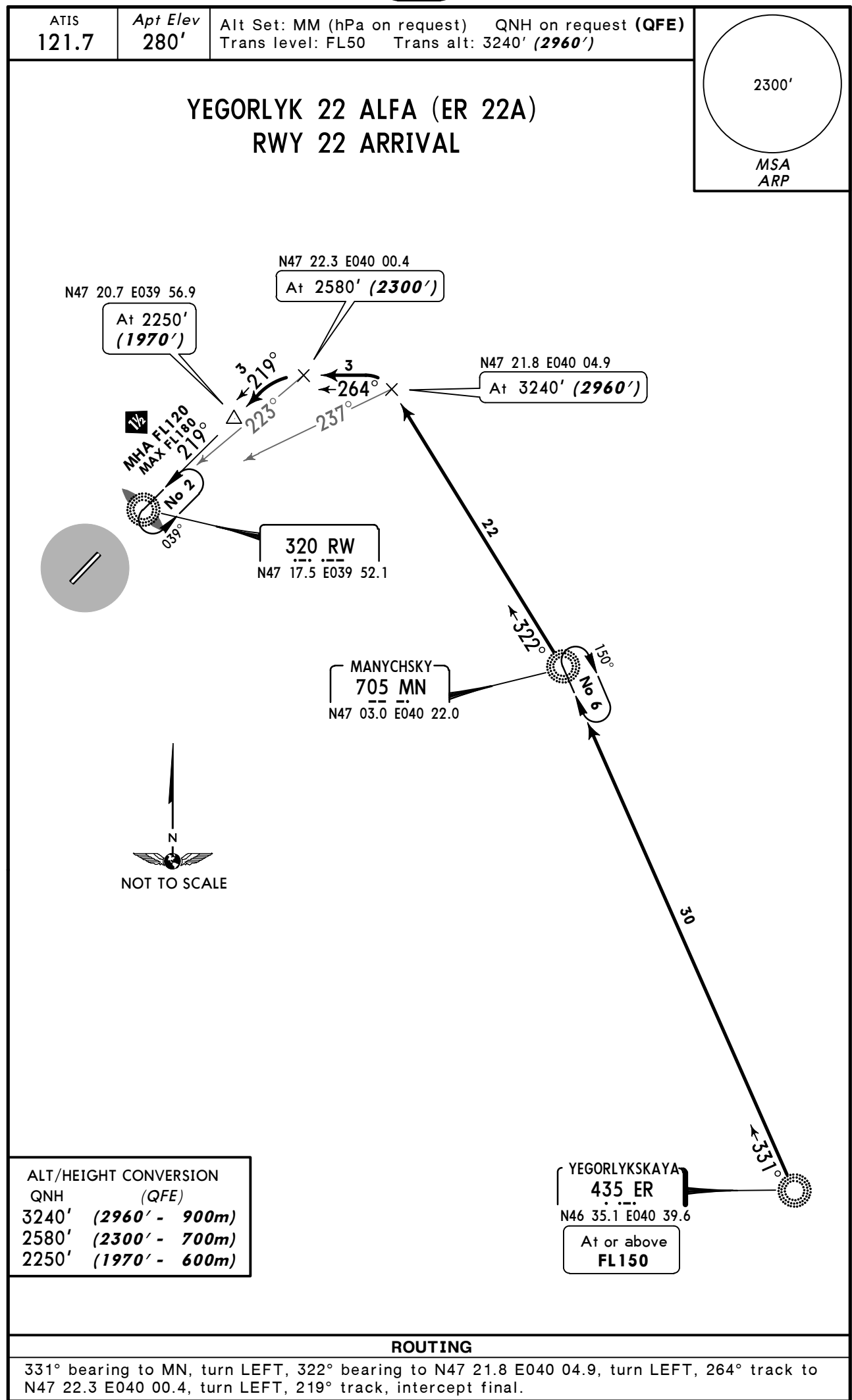
## ROUTING

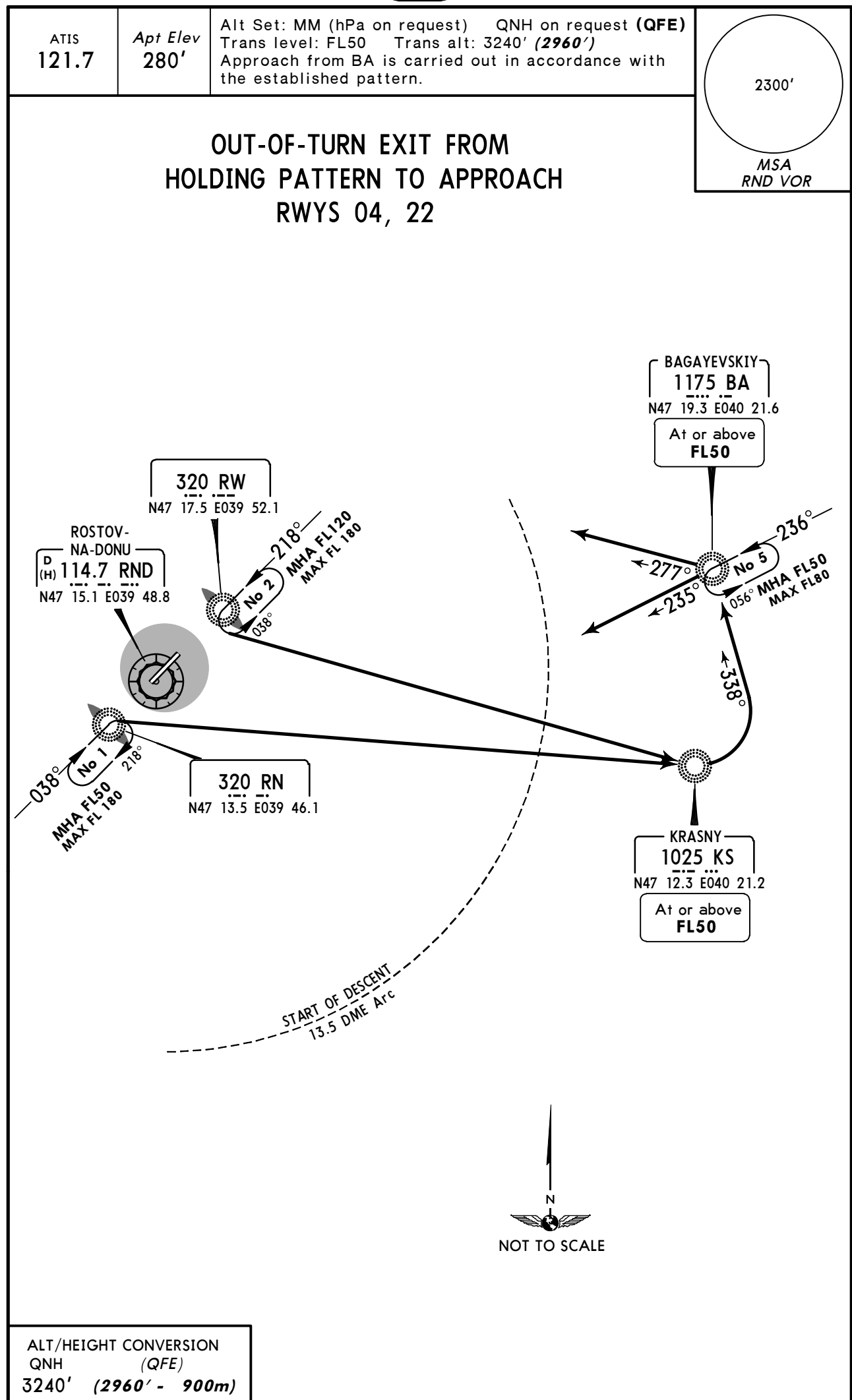
Intercept 166° bearing to KL, turn RIGHT, 182° bearing via BEREG to N47 22.8 E039 59.3, turn RIGHT, 219° track, intercept final.











QNH on request **(QFE)** Trans level: FL50 Trans alt: 3240' **(2960')**  
 1. Aircraft should take-off with noise abatement procedures according to Flight Manual. 2. Immediately after take-off contact ROSTOV Radar.  
 3. Crossings at AWY entry points by ATC.

|          |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|
| KT       | 108 | 135 | 162 | 189 | 216 |
| Bank-DEG | 07  | 11  | 15  | 20  | 25  |

| SID   | ROUTING                                                                                                                                                             |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DR 2A | Climb straight ahead, at or above 1110' (830') turn LEFT, intercept 006° bearing to RW, turn LEFT, 347° bearing via SLAVA to SB, turn RIGHT, 016° bearing to DERIB. |
| DR 2B | Climb straight ahead to 940' (660'), turn LEFT, intercept 001° bearing to RW, turn LEFT, 347° bearing via SLAVA to SB, turn RIGHT, 016° bearing to DERIB.           |

QNH on request **(QFE)** Trans level: FL50 Trans alt: 3240' **(2960')**  
 1. Aircraft should take-off with noise abatement procedures according to Flight Manual. 2. Immediately after take-off contact ROSTOV Radar.  
 3. Crossings at AWY entry points by ATC.



2300'

MSA  
RND VOR

SAMBEK  
414 SB  
... ...  
N47 45.2 E039 47.9  
At or above  
**FL70**

**SLAVA**  
N47 30.5 E039 50.1  
Between  
**FL60 & FL80**

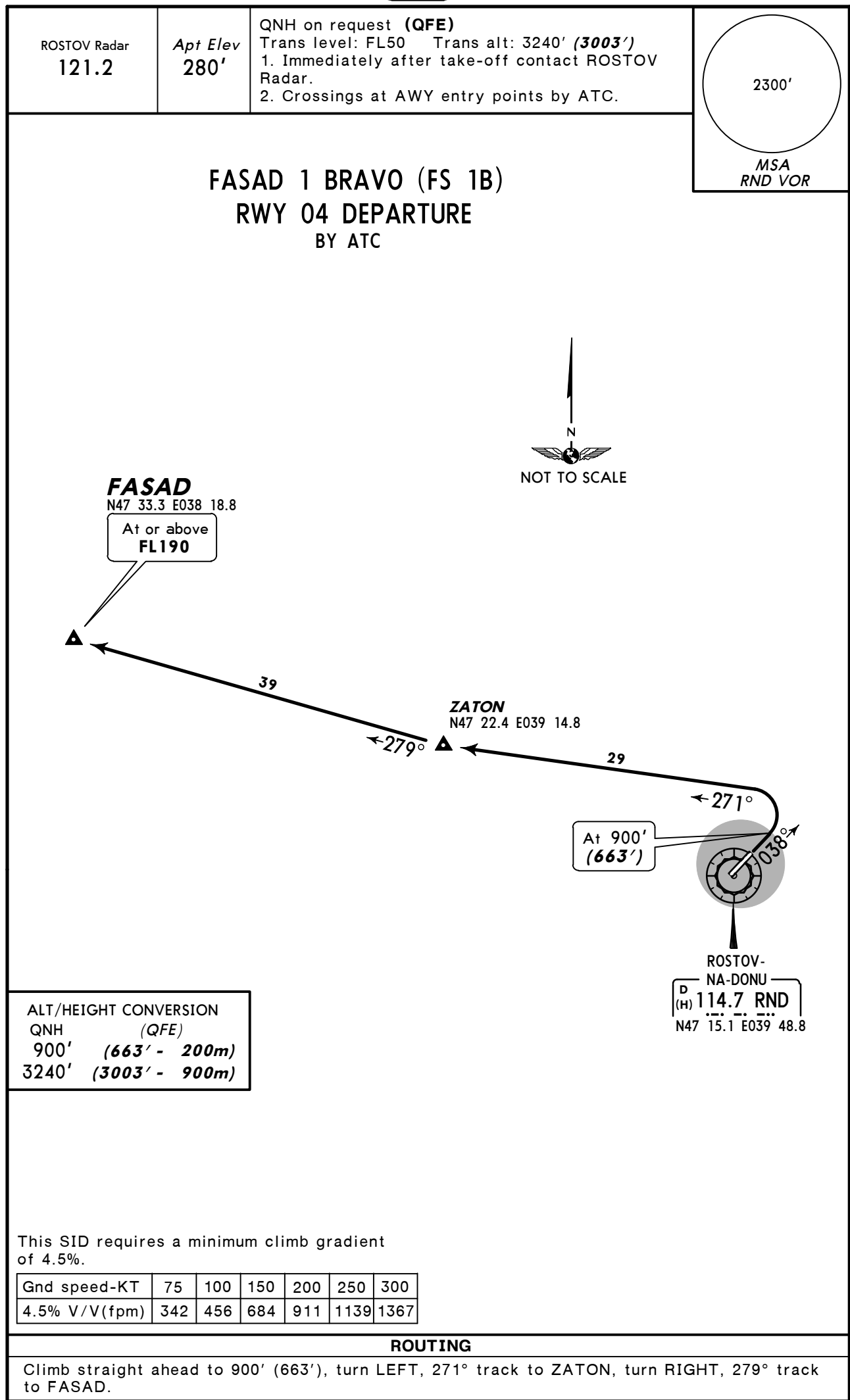
320 RW  
N47 17.5 E039 52.1  
Between  
FL60 & FL80

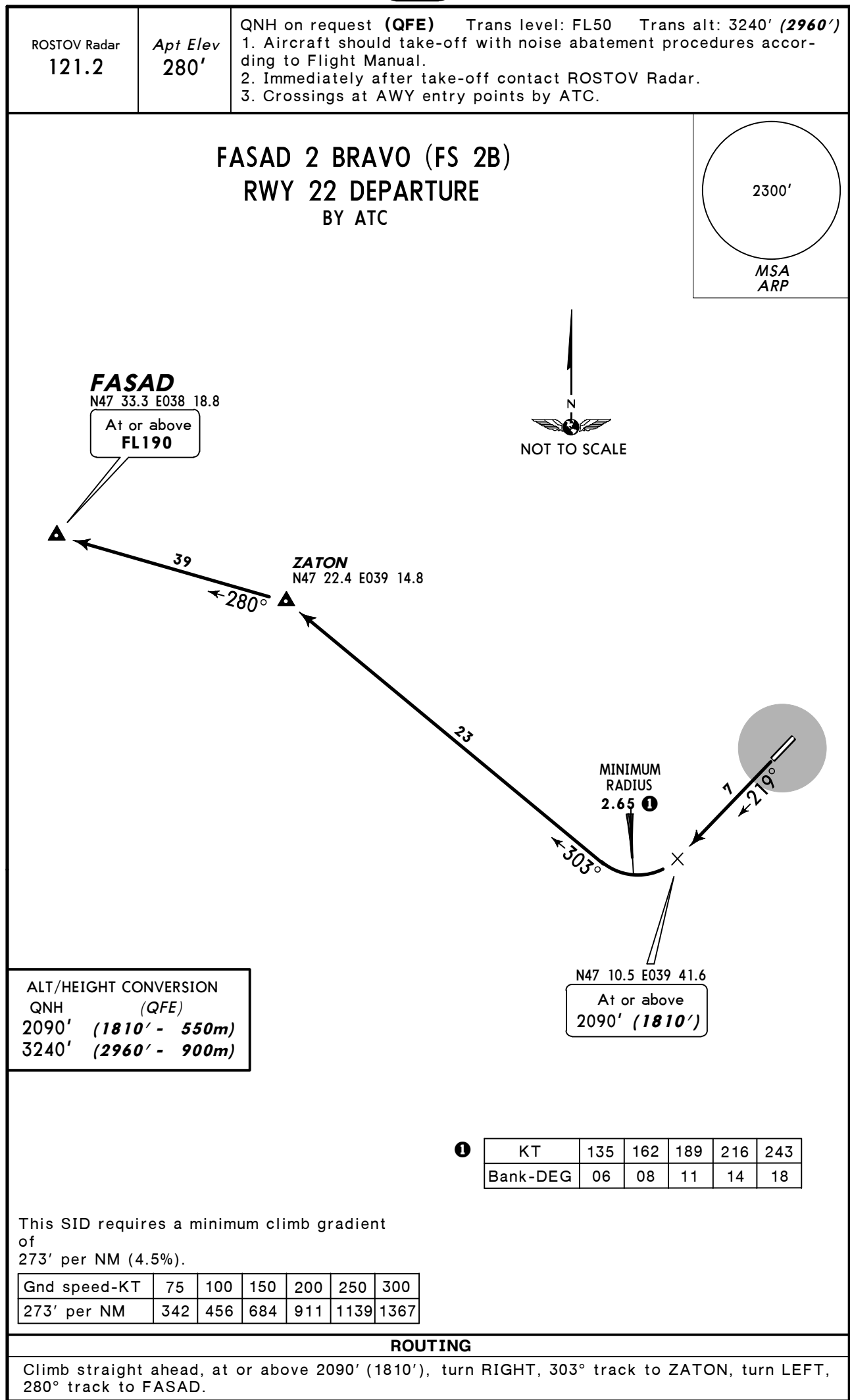
N47 08.2 E039 38.2  
At or above  
2750' (**2470'**)

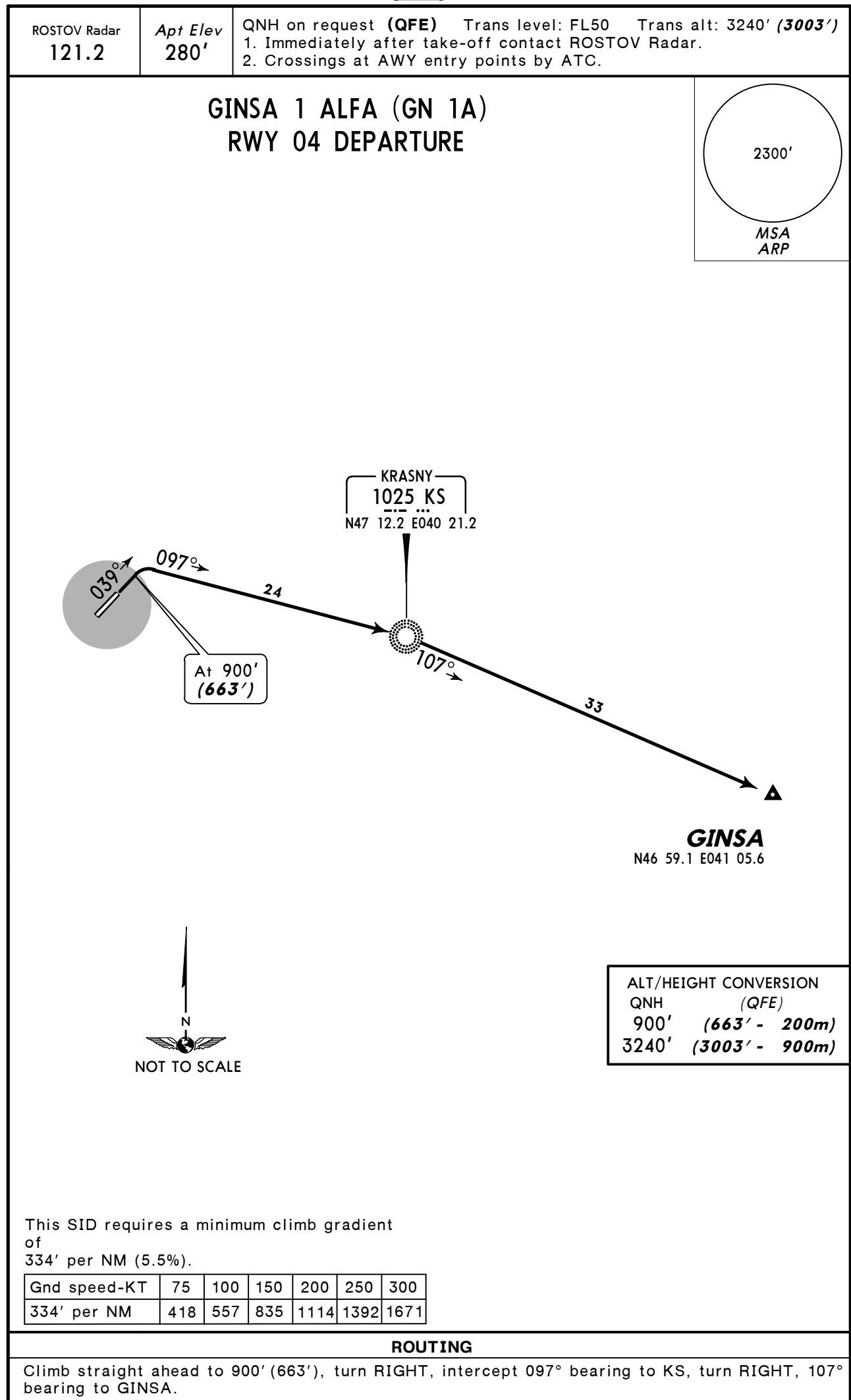
ROSTOV-  
NA-DONU  
D  
(H) 114.7 RND  
N47 15.1 E039 48.8

|          |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|
| KT       | 135 | 162 | 189 | 216 | 243 |
| Bank-DEG | 06  | 08  | 11  | 14  | 18  |

| SID                    | ROUTING                                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DR 2D</b>           | Climb straight ahead, at or above 2750' (2470') turn LEFT, intercept 026° bearing to RW, turn LEFT, 347° bearing via SLAVA to SB, turn RIGHT, 016° bearing to DERIB. |
| <b>DR 2G</b><br>By ATC | Climb straight ahead, at or above 2090' (1810') turn RIGHT, intercept 008° bearing to SB, turn RIGHT, 016° bearing to DERIB.                                         |



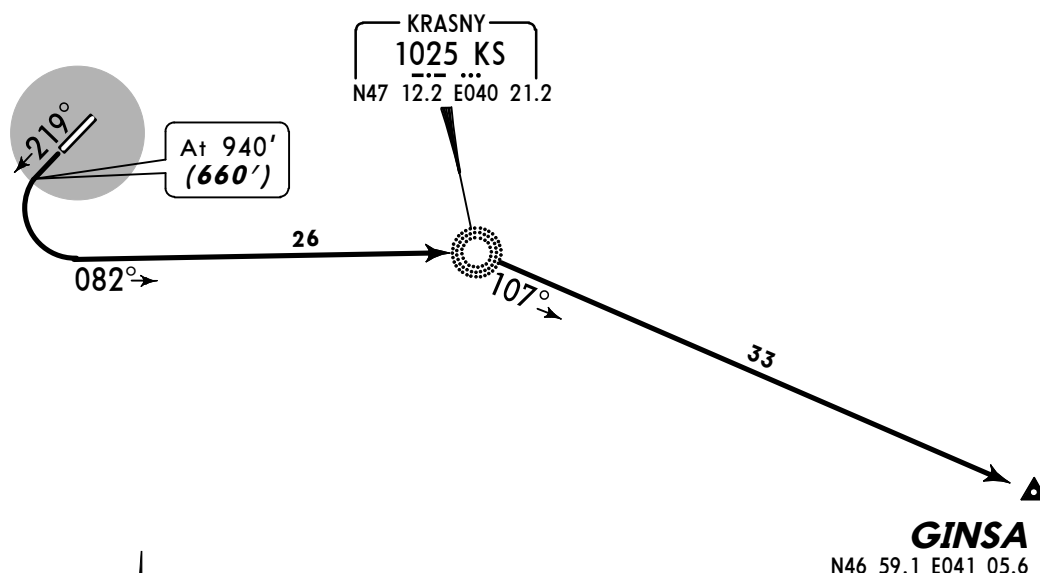
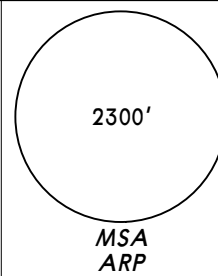




|                       |                  |                                                                                                                                                                                                                                                                                |
|-----------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ROSTOV Radar<br>121.2 | Apt Elev<br>280' | QNH on request <b>(QFE)</b> Trans level: FL50    Trans alt: 3240' <b>(2960')</b><br>1. Aircraft should take-off with noise abatement procedures according to Flight Manual.<br>2. Immediately after take-off contact ROSTOV Radar.<br>3. Crossings at AWY entry points by ATC. |
|-----------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

GINSA 2 ALFA (GN 2A)

RWY 22 DEPARTURE



| ALT/HEIGHT CONVERSION |          |       |
|-----------------------|----------|-------|
| QNH                   | (QFE)    |       |
| 940'                  | (660' -  | 200m) |
| 3240'                 | (2960' - | 900m) |

This SID requires a minimum climb gradient of 292' per NM (4.8%).

| Gnd speed-KT | 75  | 100 | 150 | 200 | 250  | 300  |
|--------------|-----|-----|-----|-----|------|------|
| 292' per NM  | 365 | 486 | 729 | 972 | 1215 | 1458 |

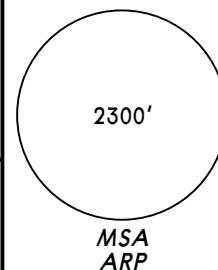
ROUTING

Climb straight ahead to 940' (660'), turn LEFT, intercept 082° bearing to KS, turn RIGHT, 107° bearing to GINSA.

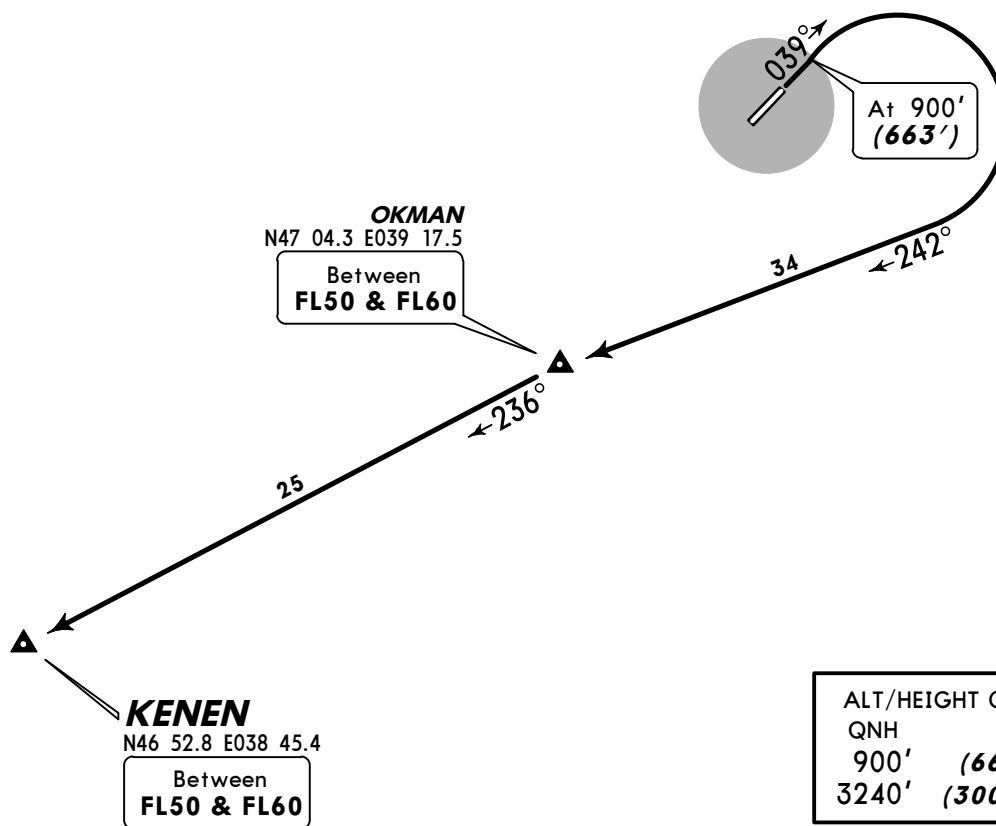
ROSTOV Radar  
 121.2

Apt Elev  
 280'

QNH on request (QFE)  
 Trans level: FL50 Trans alt: 3240' (3003')  
 1. Immediately after take-off contact ROSTOV  
 Radar.  
 2. Crossings at AWY entry points by ATC.



# KENEN 1 ALFA (KN 1A) RWY 04 DEPARTURE



| ALT/HEIGHT CONVERSION |                |
|-----------------------|----------------|
| QNH                   | (QFE)          |
| 900'                  | (663' - 200m)  |
| 3240'                 | (3003' - 900m) |

## ROUTING

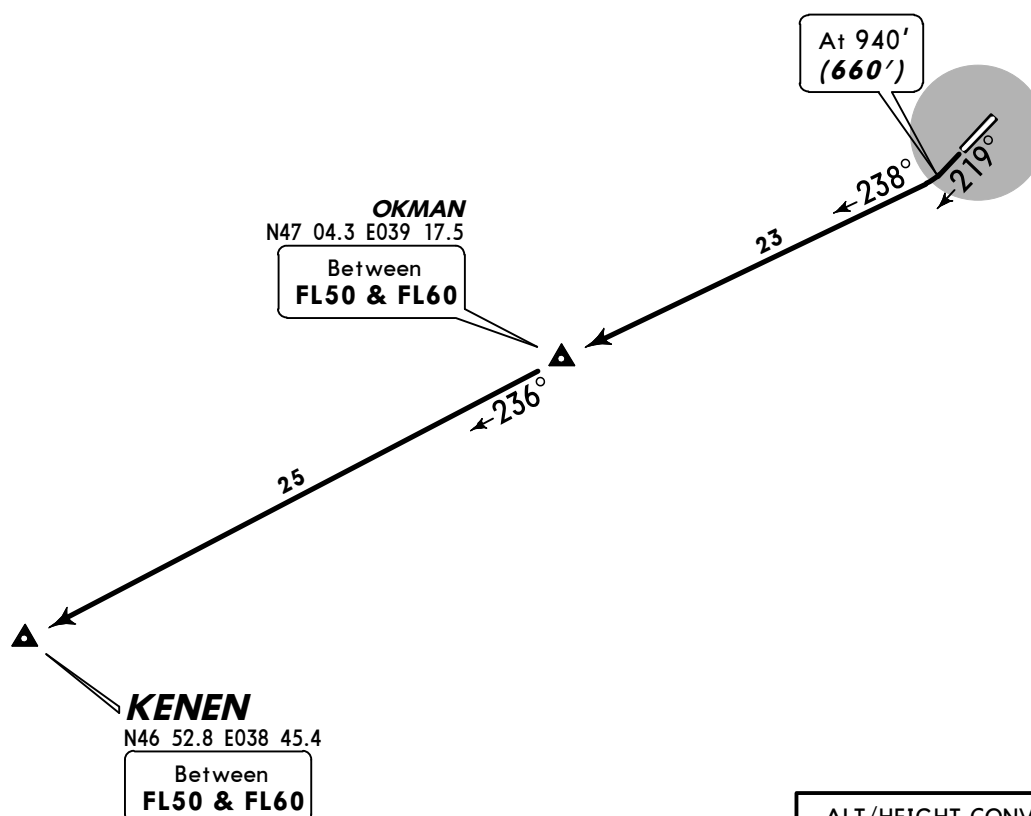
Climb straight ahead to 900' (663'), turn RIGHT, 242° track to OKMAN, turn LEFT, 236° track to KENEN.

QNH on request **(QFE)** Trans level: FL50 Trans alt: 3240' **(2960')**

1. Aircraft should take-off with noise abatement procedures according to Flight Manual.
2. Immediately after take-off contact ROSTOV Radar.
3. Crossings at AWY entry points by ATC.

2300'

MSA  
ARP



ALT/HEIGHT CONVERSION  
QNH (QFE)  
940' (660' - 200m)  
3240' (2960' - 900m)

Climb straight ahead to 940' (660'), turn RIGHT, 238° track to OKMAN, turn LEFT, 236° track to KENEN.

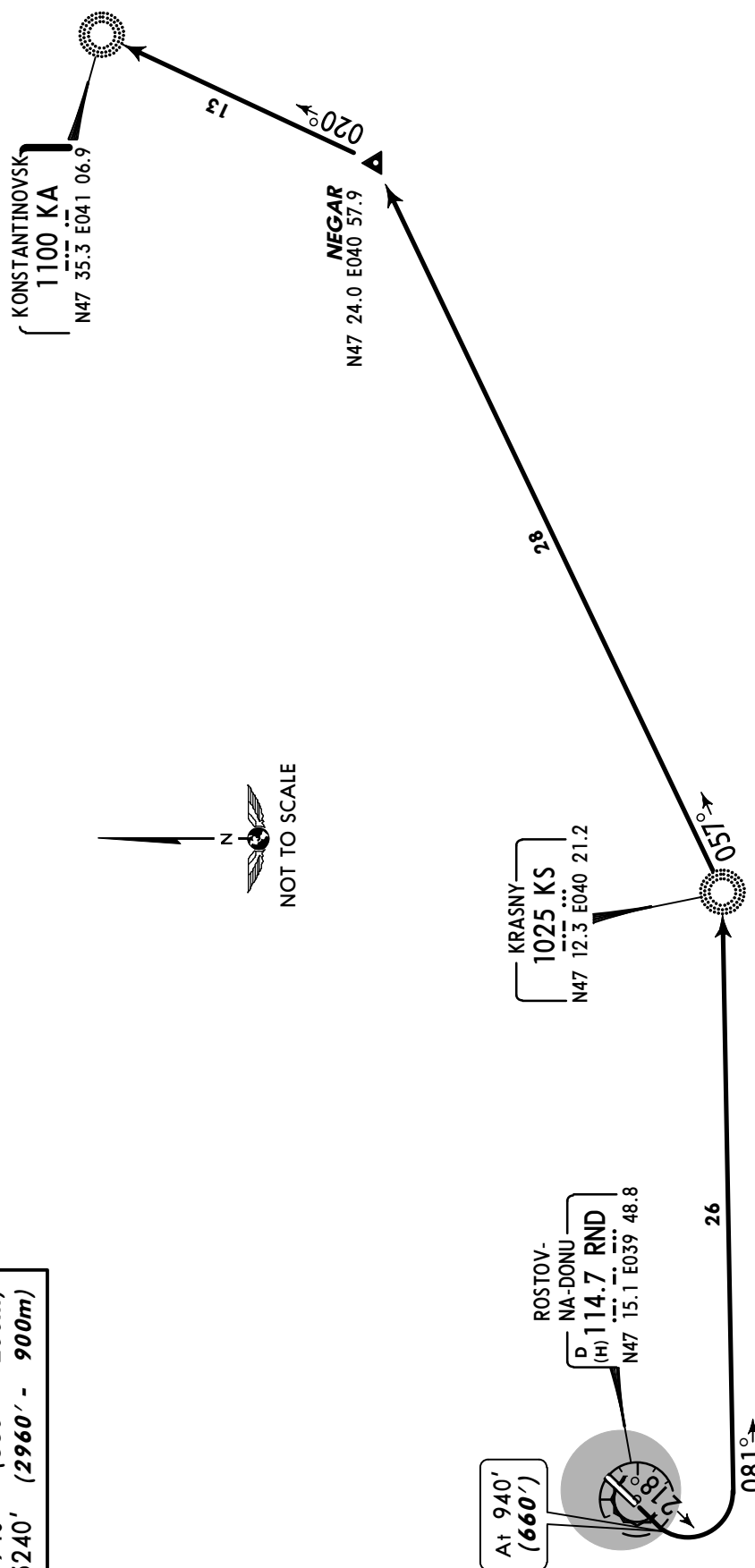
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QNH on request **(QFE)** Trans level: FL50 Trans alt: 3240' **(2960')**

1. Aircraft should take-off with noise abatement procedures according to Flight Manual.
2. Immediately after take-off contact ROSTOV Radar.
3. Crossings at AWY entry points by ATC.

2300'

MSA  
RND VOR



This SID requires a minimum climb gradient of 4.3%.

|               |     |     |     |     |      |      |
|---------------|-----|-----|-----|-----|------|------|
| Gnd speed-KT  | 75  | 100 | 150 | 200 | 250  | 300  |
| 4.3% V/V(fpm) | 327 | 435 | 653 | 871 | 1089 | 1306 |

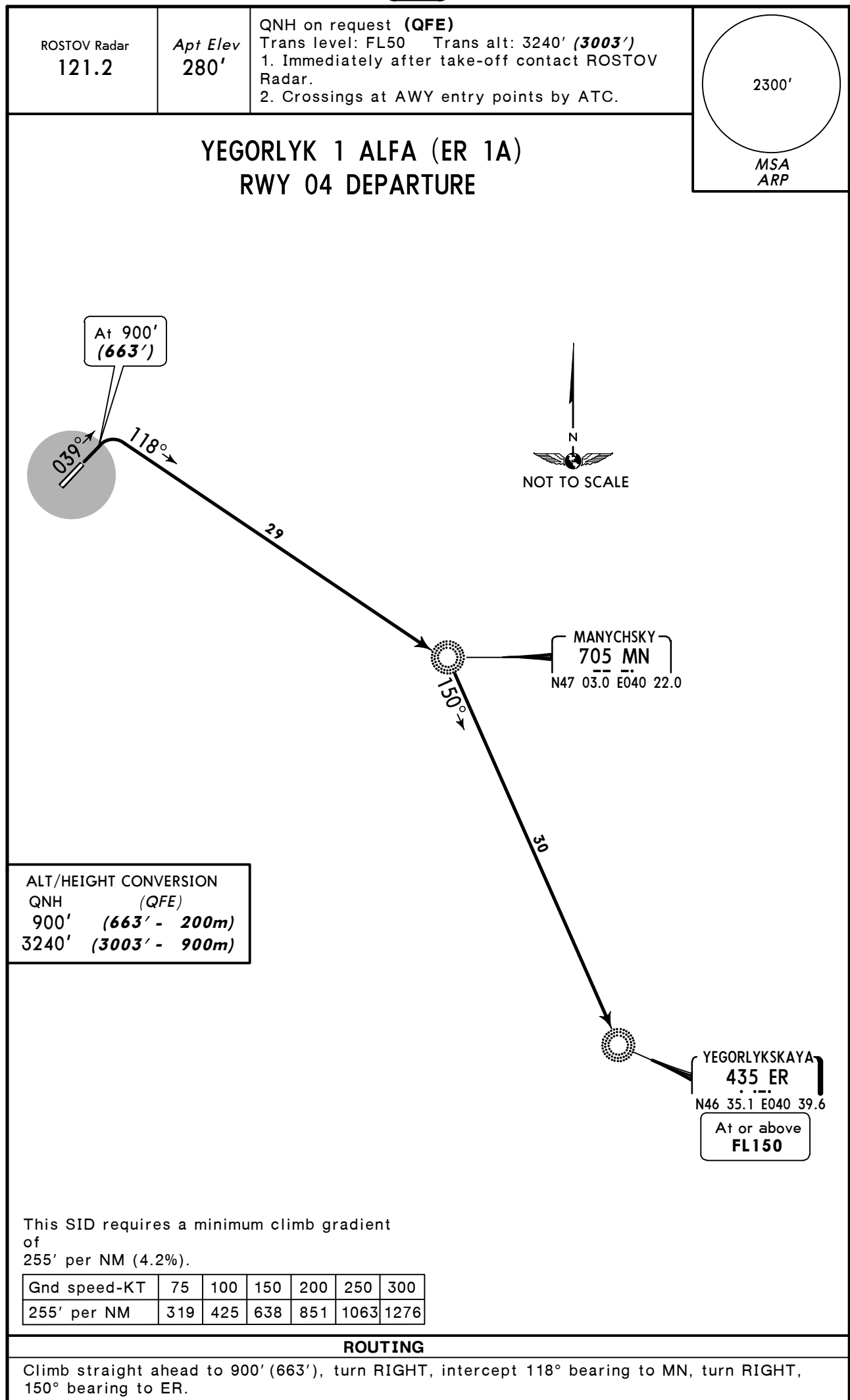
## ROUTING

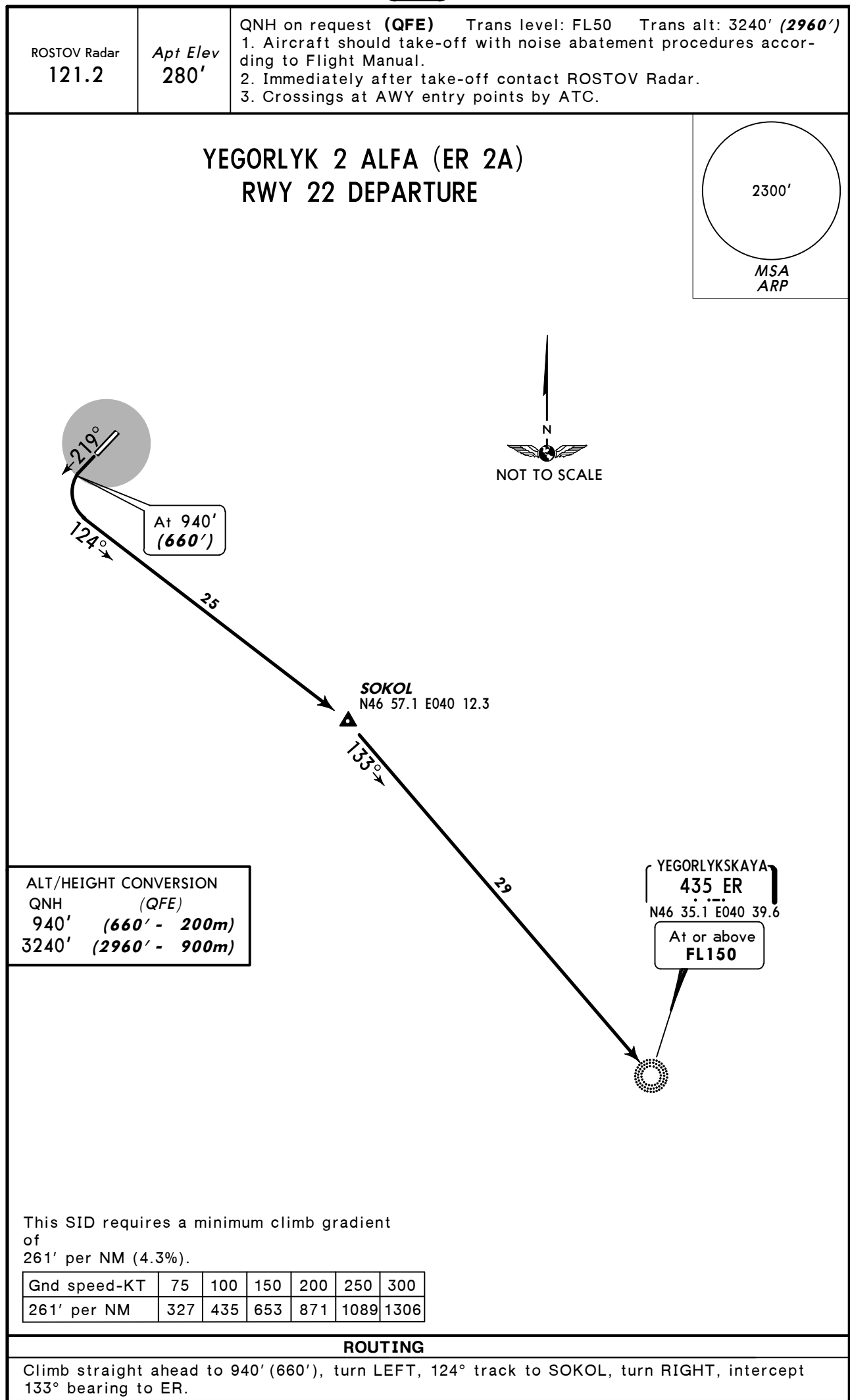
Climb straight ahead to 940' (660'), turn LEFT, intercept 081° bearing to KS, turn LEFT, 057° bearing to NEGAR, turn LEFT intercept 020° bearing to KA.



2300'

MSA  
RND VOR





**NOISE ABATEMENT****ARRIVALS****APPROACH PHASE**

Noise abatement procedures shall be executed by all ACFT.

If special meteorological conditions are present in arrival and approach sectors, ATS unit may at its own discretion or by a pilot in command's request deviate from the provisions given below, if it is necessary for safety reasons.

**Restrictions**

During instrument as well as visual approach flying below the ILS glide path angle is not allowed.

Between 2300-0700LT when appropriate meteorological and air conditions are available, landing shall be carried out on RWY 22.

Landing with a tail wind component is allowed when tail wind component is according to norms established in Flight Manual for specified ACFT type.

**DEPARTURES****TAKE-OFF AND CLIMBING PHASE**

Noise abatement procedures shall be executed by all ACFT during take-off on 218° heading.

Noise abatement procedures shall not be executed at the expense of reduction of flight safety and in case of engine failure during take-off, wind shear, moderate turbulence or icing.

**Restrictions**

Take-off with a tail wind component is allowed when tail wind component is according to norms established in Flight Manual for specified ACFT type.

During take-off on 038° heading and exit from TMA via BEREG climb straight ahead to 2540' (2303'), turn LEFT to BEREG with a minimum climb gradient of 4.1% until crossing BEREG.

During take-off on 218° heading and exit from TMA via SLAVA climb straight ahead to 1110' (830'), turn LEFT to LOM with minimum radius of 1.5 NM and with a minimum climb gradient of 7.7% until crossing LOM.

During take-off on 218° heading and exit from TMA via RIGHT turn climb straight ahead to 2090' (1810'), RIGHT turn with minimum radius of 2.6 NM.

**Special procedures on take-off heading 218°**

Take-off and climbing to 1760' (1480')

Take-off power

Take-off flaps

V<sub>2</sub> + 11 to 22 KT

At 1760' (1480')

At or above 940' (660') turn with 25° bank

Reduce engine power to a minimum while maintaining positive rate of climb

Between 1760' (1480') - 3240' (2960')

V<sub>2</sub> + 11 to 22 KT

At 3240' (2960')

Accelerate to IAS of wing devices retraction

Retract wing devices

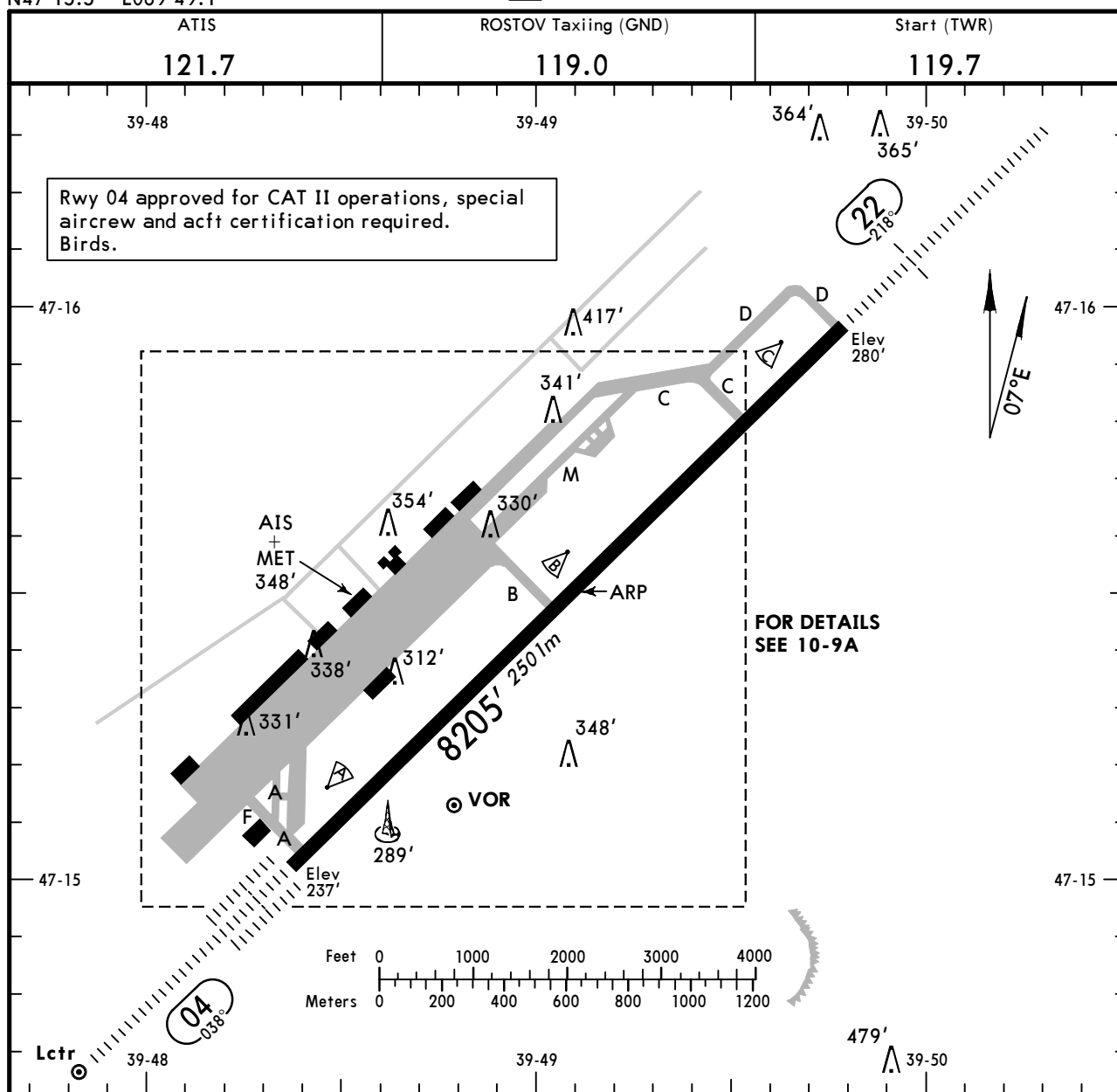
Further climb as per Flight Manual

Between 2300-0700LT when appropriate meteorological and air conditions are available, take-off shall be carried out on RWY 04 and landing on RWY 22.

URRR/ROV  
Apt Elev 280'  
N47 15.5 E039 49.1

JEPPSEN  
15 JUN 12 (10-9) Eff 28 Jun

ROSTOV-NA-DONU, RUSSIA  
ROSTOV-NA-DONU



ADDITIONAL RUNWAY INFORMATION

|     |            |          |          |       |     | USABLE LENGTHS |             |          | WIDTH    |
|-----|------------|----------|----------|-------|-----|----------------|-------------|----------|----------|
|     |            |          |          |       |     | LANDING BEYOND |             | TAKE-OFF |          |
| RWY |            |          |          |       |     | Threshold      | Glide Slope |          |          |
| 04  | HIRL (60m) | CL (15m) | HIALS-II | TDZ ❶ | RVR |                | 7169' 2185m |          | 148' 45m |
| 22  | HIRL (60m) | CL (15m) | HIALS ❶  |       | RVR |                | 7333' 2235m |          |          |
|     |            |          |          |       |     |                |             |          |          |

① PAPI-L (angle 2.67°)

Taxiing on apron and twys with FOLLOW-ME only, when visibility is less than 400m.

LOW VISIBILITY PROCEDURES

Procedures are applied when RVR is less than 550m.

After landing, pilots must report vacaton of the runway and ILS critical area.

FOLLOW-ME guides arriving acft after leaving ILS critical area to the stand, departing acft from the stand to rwy holding position line.

TAKE-OFF

AIR CARRIER (JAA)  
All Rwys

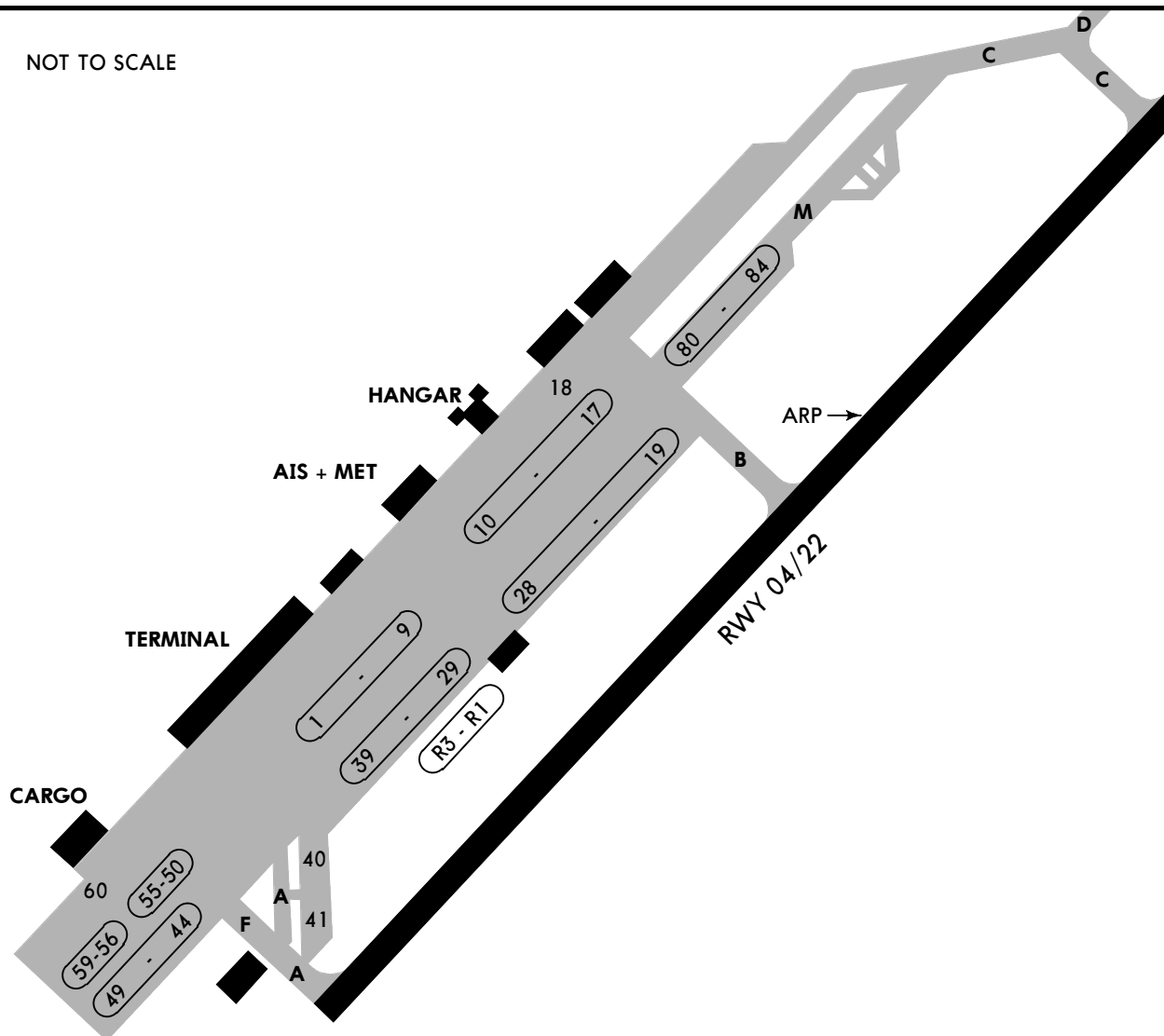
LVP must be in force

|   | 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                     |                          |

CHANGES: Variation. Runway bearing.

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NOT TO SCALE



When leaving stands 1, 2 and 44 thru 47 by towing start-up to be carried out on Twys A, F or on apron in front of stands 29 thru 39.

Stands 16 thru 28 are cul-de-sacs.

Stands 16 thru 18: Enter/exit by towing.

Stands 19 thru 28 and 80 thru 84: Enter by towing.

Stands 1 thru 41, 44 thru 47, 50 thru 59 and 80 thru 84 available for helicopters.

Taxiing via Twys B, C, M and along apron shall be carried out along twy centerline at minimum speed.

Taxiing along Twy B with inner engines only.

Taxiing of acft with a wingspan more than 126'/38.6m and diameter of the main rotor more than 85'/26m from stand 3 to Twy B, along Twy M, along Twy C from Twy M to Twy D, between stands 1 and 44 when either of them is occupied is prohibited.

Taxiing from stand 50 via stand 51 is allowed for acft with a wingspan more than 98'/30m or diameter of the main rotor than 72'/22m.

B737-300 acft: taxiing into stand 1 shall be carried out under own engines power. Taxiing out of stand 1 by towing.

| INS COORDINATES |                    |            |                    |
|-----------------|--------------------|------------|--------------------|
| STAND No.       | COORDINATES        | STAND No.  | COORDINATES        |
| 1               | N47 15.2 E039 48.2 | 38, 39     | N47 15.2 E039 48.3 |
| 2 ❶             | N47 15.3 E039 48.3 | 40, 41     | N47 15.1 E039 48.3 |
| 2 ❷             | N47 15.2 E039 48.3 | 44         | N47 15.2 E039 48.2 |
| 3 thru 5        | N47 15.3 E039 48.3 | 45 ❶       | N47 15.2 E039 48.2 |
| 6, 7            | N47 15.3 E039 48.4 | 45 ❷       | N47 15.1 E039 48.2 |
| 8               | N47 15.4 E039 48.4 | 46 ❶       | N47 15.1 E039 48.1 |
| 9 thru 11       | N47 15.4 E039 48.5 | 46 ❷       | N47 15.1 E039 48.2 |
| 12              | N47 15.4 E039 48.6 | 47         | N47 15.1 E039 48.1 |
| 13 thru 15      | N47 15.5 E039 48.6 | 48         | N47 15.1 E039 48.1 |
| 16 ❶            | N47 15.5 E039 48.6 | 49         | N47 15.1 E039 48.0 |
| 16 ❷            | N47 15.5 E039 48.7 | 49         | N47 15.1 E039 48.1 |
| 17              | N47 15.5 E039 48.7 | 50         | N47 15.2 E039 48.2 |
| 18              | N47 15.5 E039 48.6 | 51 ❶       | N47 15.2 E039 48.1 |
| 19 thru 21      | N47 15.5 E039 48.8 | 51 ❷       | N47 15.2 E039 48.2 |
| 22 thru 24      | N47 15.5 E039 48.7 | 52 thru 54 | N47 15.2 E039 48.1 |
| 25              | N47 15.4 E039 48.7 | 55 ❶       | N47 15.1 E039 48.1 |
| 26 thru 28      | N47 15.4 E039 48.6 | 55 ❷       | N47 15.2 E039 48.0 |
| 29 thru 31      | N47 15.3 E039 48.5 | 56 thru 59 | N47 15.1 E039 48.0 |
| 32 ❶            | N47 15.3 E039 48.4 | 80 thru 82 | N47 15.6 E039 48.9 |
| 32 ❷            | N47 15.3 E039 48.5 | 83, 84     | N47 15.6 E039 49.0 |
| 33 thru 35      | N47 15.3 E039 48.4 |            |                    |
| 36 ❶            | N47 15.3 E039 48.4 |            |                    |
| 36 ❷            | N47 15.2 E039 48.4 |            |                    |
| 37 ❶            | N47 15.2 E039 48.3 |            |                    |
| 37 ❷            | N47 15.2 E039 48.4 |            |                    |

❶ Stand direction NW

❷ Stand direction SE

| STRAIGHT-IN RWY |                 | A                    | B                    | C                    | D                    |
|-----------------|-----------------|----------------------|----------------------|----------------------|----------------------|
| 04              | CAT 2 ILS       | <b>337'</b> (100')   | <b>337'</b> (100')   | <b>337'</b> (100')   | <b>337'</b> (100')   |
|                 |                 | <b>RA110' R350m</b>  | <b>RA110' R350m</b>  | <b>RA110' R350m</b>  | <b>RA110' R350m</b>  |
|                 | ILS             | <b>437'</b> (200')   | <b>437'</b> (200')   | <b>437'</b> (200')   | <b>437'</b> (200')   |
|                 | <i>FULL</i>     | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         |
|                 | <i>Limited</i>  | R750m                | R750m                | R750m                | R750m                |
|                 | <i>ALS out</i>  | R1200m               | R1200m               | R1200m               | R1200m               |
|                 | LOC             | NOT AUTH             | NOT AUTH             | NOT AUTH             | NOT AUTH             |
|                 | 2 NDB ①         | <b>660'</b> (423')   | <b>660'</b> (423')   | <b>660'</b> (423')   | <b>660'</b> (423')   |
|                 | with D5.7/Radar | <b>R1300m</b>        | <b>R1300m</b>        | <b>R1300m</b>        | <b>R1300m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | 2 NDB ①         | <b>1000'</b> (763')  | <b>1000'</b> (763')  | <b>1000'</b> (763')  | <b>1000'</b> (763')  |
|                 | w/o D5.7/Radar  | <b>C2900m</b>        | <b>C2900m</b>        | <b>C2900m</b>        | <b>C2900m</b>        |
|                 | <i>ALS out</i>  | C3600m               | C3600m               | C3600m               | C3600m               |
|                 | RN NDB ①        | <b>730'</b> (493')   | <b>730'</b> (493')   | <b>730'</b> (493')   | <b>730'</b> (493')   |
|                 | with D5.7/Radar | <b>R1500m</b>        | <b>R1500m</b>        | <b>R1500m</b>        | <b>R1500m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | C2300m               | C2300m               |
|                 | RN NDB ①        | <b>1000'</b> (763')  | <b>1000'</b> (763')  | <b>1000'</b> (763')  | <b>1000'</b> (763')  |
|                 | w/o D5.7/Radar  | <b>C2900m</b>        | <b>C2900m</b>        | <b>C2900m</b>        | <b>C2900m</b>        |
|                 | <i>ALS out</i>  | C3600m               | C3600m               | C3600m               | C3600m               |
|                 | N Lctr ①        | <b>850'</b> (613')   | <b>850'</b> (613')   | <b>850'</b> (613')   | <b>850'</b> (613')   |
| 22              | with D5.7/Radar | <b>R1500m</b>        | <b>R1500m</b>        | <b>C2100m</b>        | <b>C2100m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | C2400m               | C2400m               |
|                 | N Lctr          | <b>1400'</b> (1163') | <b>1400'</b> (1163') | <b>1400'</b> (1163') | <b>1400'</b> (1163') |
|                 | w/o D5.7/Radar  | <b>C4800m</b>        | <b>C4800m</b>        | <b>C5000m</b>        | <b>C5000m</b>        |
|                 | <i>ALS out</i>  | C5000m               | C5000m               | C5000m               | C5000m               |
|                 | ILS             | <b>480'</b> (200')   | <b>480'</b> (200')   | <b>480'</b> (200')   | <b>480'</b> (200')   |
|                 | <i>FULL</i>     | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         |
|                 | <i>Limited</i>  | R750m                | R750m                | R750m                | R750m                |
|                 | <i>ALS out</i>  | R1200m               | R1200m               | R1200m               | R1200m               |
|                 | LOC             | NOT AUTH             | NOT AUTH             | NOT AUTH             | NOT AUTH             |
|                 | 2 NDB ①         | <b>740'</b> (460')   | <b>740'</b> (460')   | <b>740'</b> (460')   | <b>740'</b> (460')   |
|                 | <i>ALS out</i>  | R1400m               | R1400m               | R1400m               | R1400m               |
|                 |                 | R1500m               | R1500m               | C2100m               | C2100m               |
|                 | RW NDB ①        | <b>790'</b> (510')   | <b>790'</b> (510')   | <b>790'</b> (510')   | <b>790'</b> (510')   |
|                 |                 | <b>R1500m</b>        | <b>R1500m</b>        | <b>R1600m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | C2400m               | C2400m               |
|                 | W Lctr ①        | <b>790'</b> (510')   | <b>790'</b> (510')   | <b>790'</b> (510')   | <b>790'</b> (510')   |
|                 | with D6.5/Radar | <b>R1500m</b>        | <b>R1500m</b>        | <b>R1600m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | C2400m               | C2400m               |
|                 | W Lctr          | <b>1070'</b> (790')  | <b>1070'</b> (790')  | <b>1070'</b> (790')  | <b>1070'</b> (790')  |
|                 | w/o D6.5/Radar  | <b>C3100m</b>        | <b>C3100m</b>        | <b>C3300m</b>        | <b>C3300m</b>        |
|                 | <i>ALS out</i>  | C3800m               | C3800m               | C4000m               | C4000m               |

① Continuous Descent Final Approach

**TAKE-OFF RWY 04, 22**

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

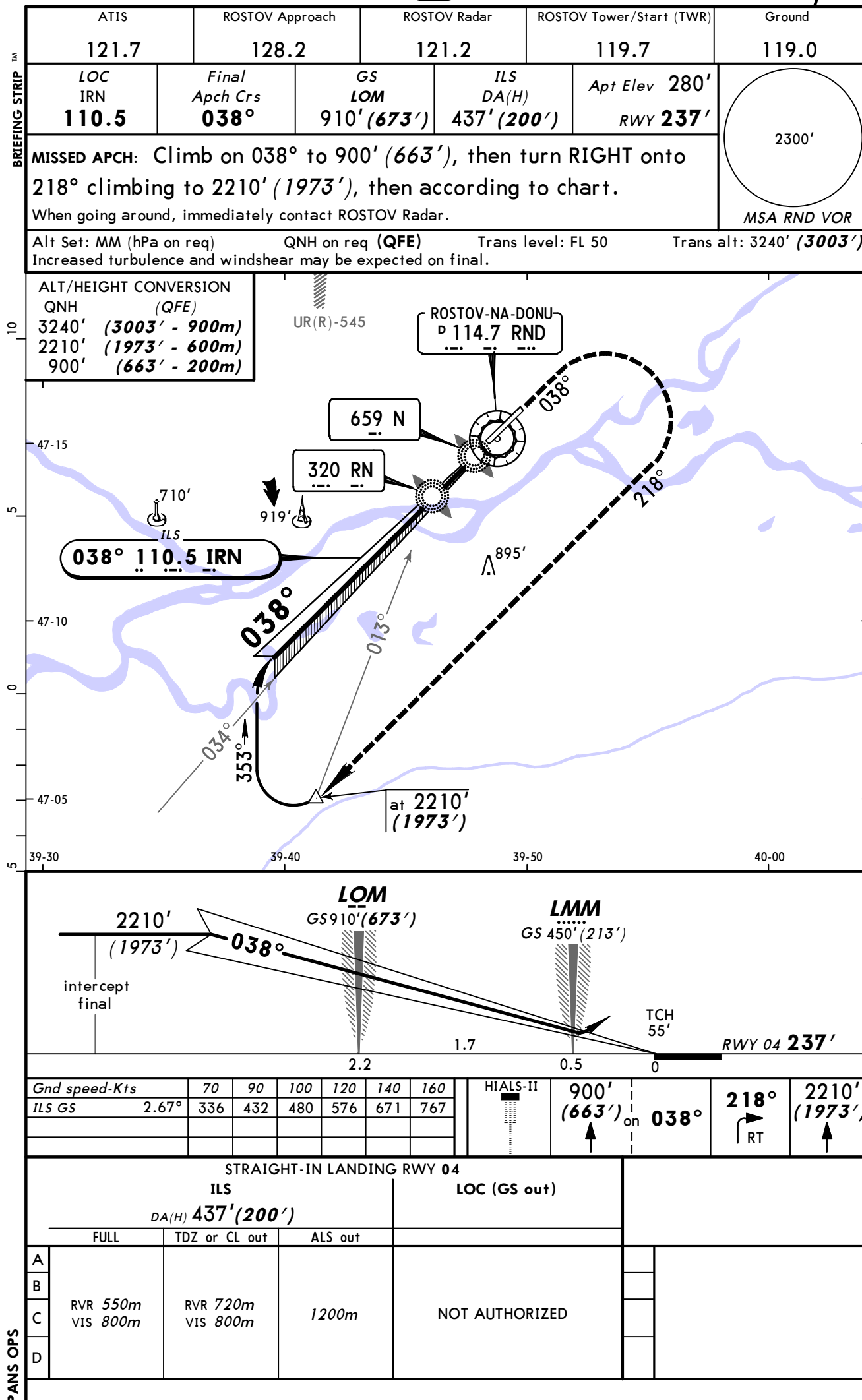
CHANGES: NDB minimums.

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| STRAIGHT-IN RWY |                 | A                    | B                    | C                    | D                    |
|-----------------|-----------------|----------------------|----------------------|----------------------|----------------------|
| 04              | CAT 2 ILS       | <b>337' (100')</b>   | <b>337' (100')</b>   | <b>337' (100')</b>   | <b>337' (100')</b>   |
|                 |                 | <b>RA110' R350m</b>  | <b>RA110' R350m</b>  | <b>RA110' R350m</b>  | <b>RA110' R350m</b>  |
|                 | ILS             | <b>437' (200')</b>   | <b>437' (200')</b>   | <b>437' (200')</b>   | <b>437' (200')</b>   |
|                 |                 | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         |
|                 | <i>ALS out</i>  | R1000m               | R1000m               | R1000m               | R1000m               |
|                 | LOC             | NOT<br>AUTHORIZED    |                      |                      |                      |
|                 | 2 NDB           | <b>660' (423')</b>   | <b>660' (423')</b>   | <b>660' (423')</b>   | <b>660' (423')</b>   |
|                 | with D5.7/Radar | <b>R900m</b>         | <b>R1000m</b>        | <b>R1000m</b>        | <b>R1400m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R1800m               | R2000m               |
|                 | 2 NDB           | <b>1000' (763')</b>  | <b>1000' (763')</b>  | <b>1000' (763')</b>  | <b>1000' (763')</b>  |
|                 | w/o D5.7/Radar  | <b>R1200m</b>        | <b>R1400m</b>        | <b>R1400m</b>        | <b>R1800m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | RN NDB          | <b>730' (493')</b>   | <b>730' (493')</b>   | <b>730' (493')</b>   | <b>730' (493')</b>   |
|                 | with D5.7/Radar | <b>R1000m</b>        | <b>R1200m</b>        | <b>R1200m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | RN NDB          | <b>1000' (763')</b>  | <b>1000' (763')</b>  | <b>1000' (763')</b>  | <b>1000' (763')</b>  |
|                 | w/o D5.7/Radar  | <b>R1200m</b>        | <b>R1400m</b>        | <b>R1400m</b>        | <b>R1800m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | N Lctr          | <b>850' (613')</b>   | <b>850' (613')</b>   | <b>850' (613')</b>   | <b>850' (613')</b>   |
|                 | with D5.7/Radar | <b>R1000m</b>        | <b>R1200m</b>        | <b>R1200m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | N Lctr          | <b>1400' (1163')</b> | <b>1400' (1163')</b> | <b>1400' (1163')</b> | <b>1400' (1163')</b> |
|                 | w/o D5.7/Radar  | <b>R1200m</b>        | <b>R1400m</b>        | <b>R1400m</b>        | <b>R1800m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
| 22              | ILS             | <b>480' (200')</b>   | <b>480' (200')</b>   | <b>480' (200')</b>   | <b>480' (200')</b>   |
|                 |                 | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         | <b>R550m</b>         |
|                 | <i>ALS out</i>  | R1000m               | R1000m               | R1000m               | R1000m               |
|                 | LOC             | NOT<br>AUTHORIZED    |                      |                      |                      |
|                 | 2 NDB           | <b>740' (460')</b>   | <b>740' (460')</b>   | <b>740' (460')</b>   | <b>740' (460')</b>   |
|                 |                 | <b>R1000m</b>        | <b>R1200m</b>        | <b>R1200m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | RW NDB          | <b>790' (510')</b>   | <b>790' (510')</b>   | <b>790' (510')</b>   | <b>790' (510')</b>   |
|                 |                 | <b>R1000m</b>        | <b>R1200m</b>        | <b>R1200m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | W Lctr          | <b>790' (510')</b>   | <b>790' (510')</b>   | <b>790' (510')</b>   | <b>790' (510')</b>   |
|                 | with D6.5/Radar | <b>R1000m</b>        | <b>R1200m</b>        | <b>R1200m</b>        | <b>R1600m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |
|                 | W Lctr          | <b>1070' (790')</b>  | <b>1070' (790')</b>  | <b>1070' (790')</b>  | <b>1070' (790')</b>  |
|                 | w/o D6.5/Radar  | <b>R1200m</b>        | <b>R1400m</b>        | <b>R1400m</b>        | <b>R1800m</b>        |
|                 | <i>ALS out</i>  | R1500m               | R1500m               | R2000m               | R2000m               |

**TAKE-OFF RWY 04, 22**

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

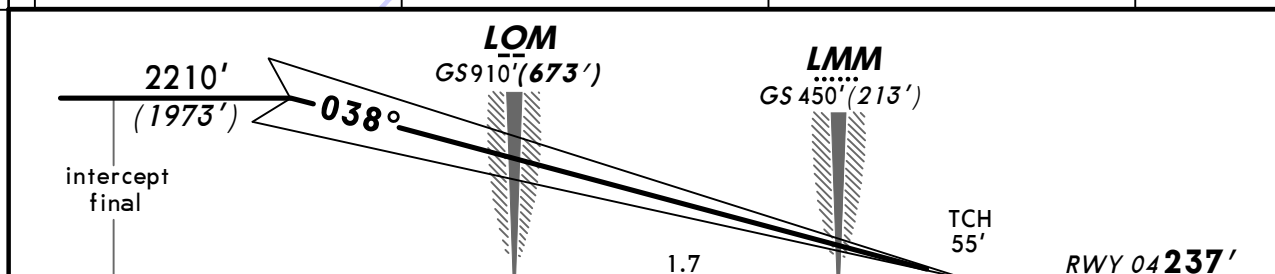
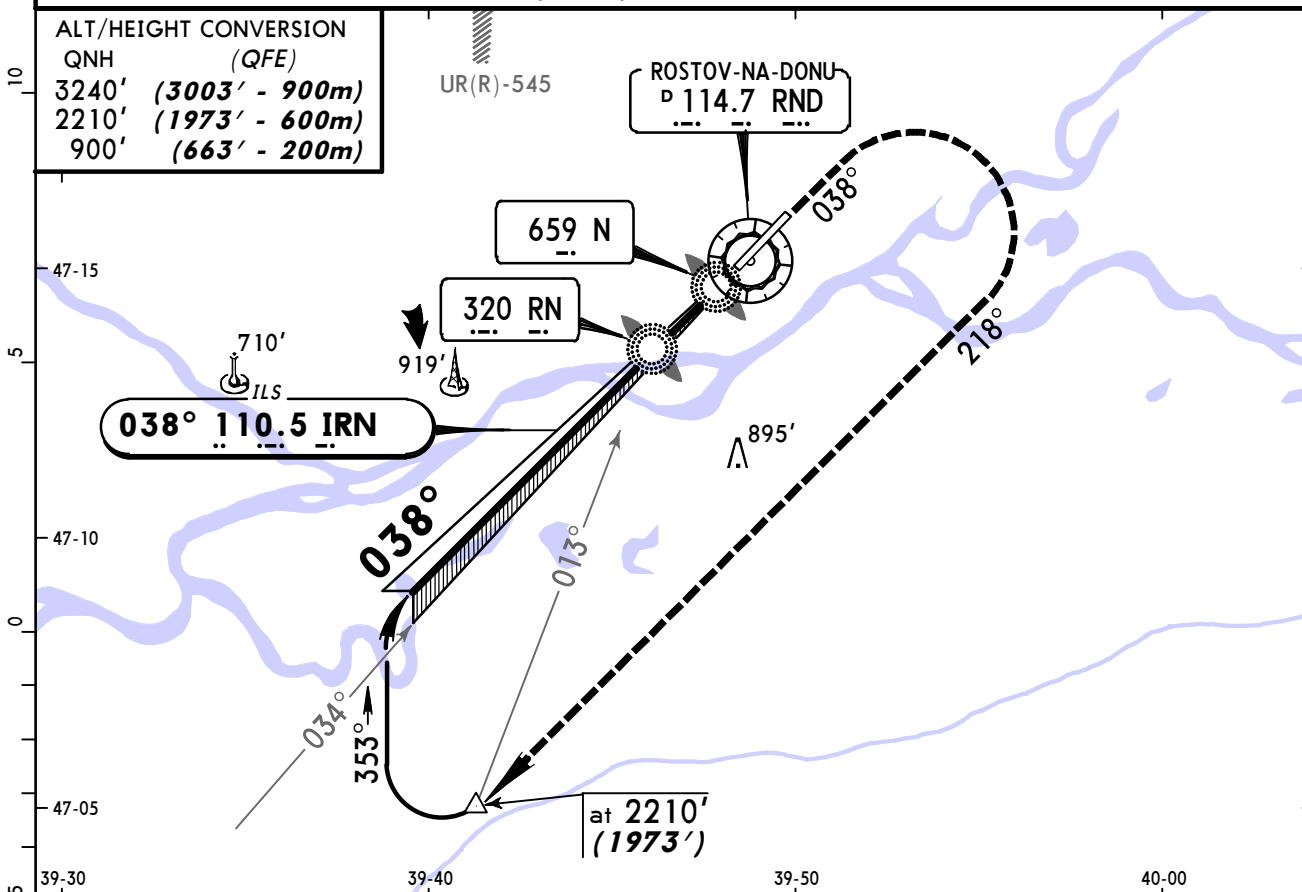


BRIEFING STRIP

|                                                                                                                                                                                                               |                                  |                                 |                                                      |                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|------------------------------------------------------|-----------------------------------------|
| ATIS<br><b>121.7</b>                                                                                                                                                                                          | ROSTOV Approach<br><b>128.2</b>  | ROSTOV Radar<br><b>121.2</b>    | ROSTOV Tower/Start (TWR)<br><b>119.7</b>             | Ground<br><b>119.0</b>                  |
| LOC<br>IRN<br><b>110.5</b>                                                                                                                                                                                    | Final<br>Apch Crs<br><b>038°</b> | GS<br>LOM<br><b>910' (673')</b> | CAT II ILS<br><b>RA 110'</b><br>DA(H)<br>337' (100') | Apt Elev <b>280'</b><br>RWY <b>237'</b> |
| <b>MISSED APCH:</b> Climb on 038° to 900' (663'), then turn RIGHT onto 218° climbing to 2210' (1973'), then according to chart.<br>When going around, immediately contact ROSTOV Radar.                       |                                  |                                 |                                                      | 2300'<br><br>MSA RND VOR                |
| Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 50 Trans alt: 3240' (3003')<br>1. Special Aircrew & Acft Certification Required.<br>2. Increased turbulence and windshear may be expected on final. |                                  |                                 |                                                      |                                         |

ALT/HEIGHT CONVERSION

|                      |       |
|----------------------|-------|
| QNH                  | (QFE) |
| 3240' (3003' - 900m) |       |
| 2210' (1973' - 600m) |       |
| 900' (663' - 200m)   |       |



|               |       |     |     |     |     |     |     |          |             |         |         |               |
|---------------|-------|-----|-----|-----|-----|-----|-----|----------|-------------|---------|---------|---------------|
| Gnd speed-Kts | 70    | 90  | 100 | 120 | 140 | 160 |     | HIALS-II | 900' (663') | on 038° | 218° RT | 2210' (1973') |
| GS            | 2.67° | 336 | 432 | 480 | 576 | 671 | 767 |          |             |         |         |               |

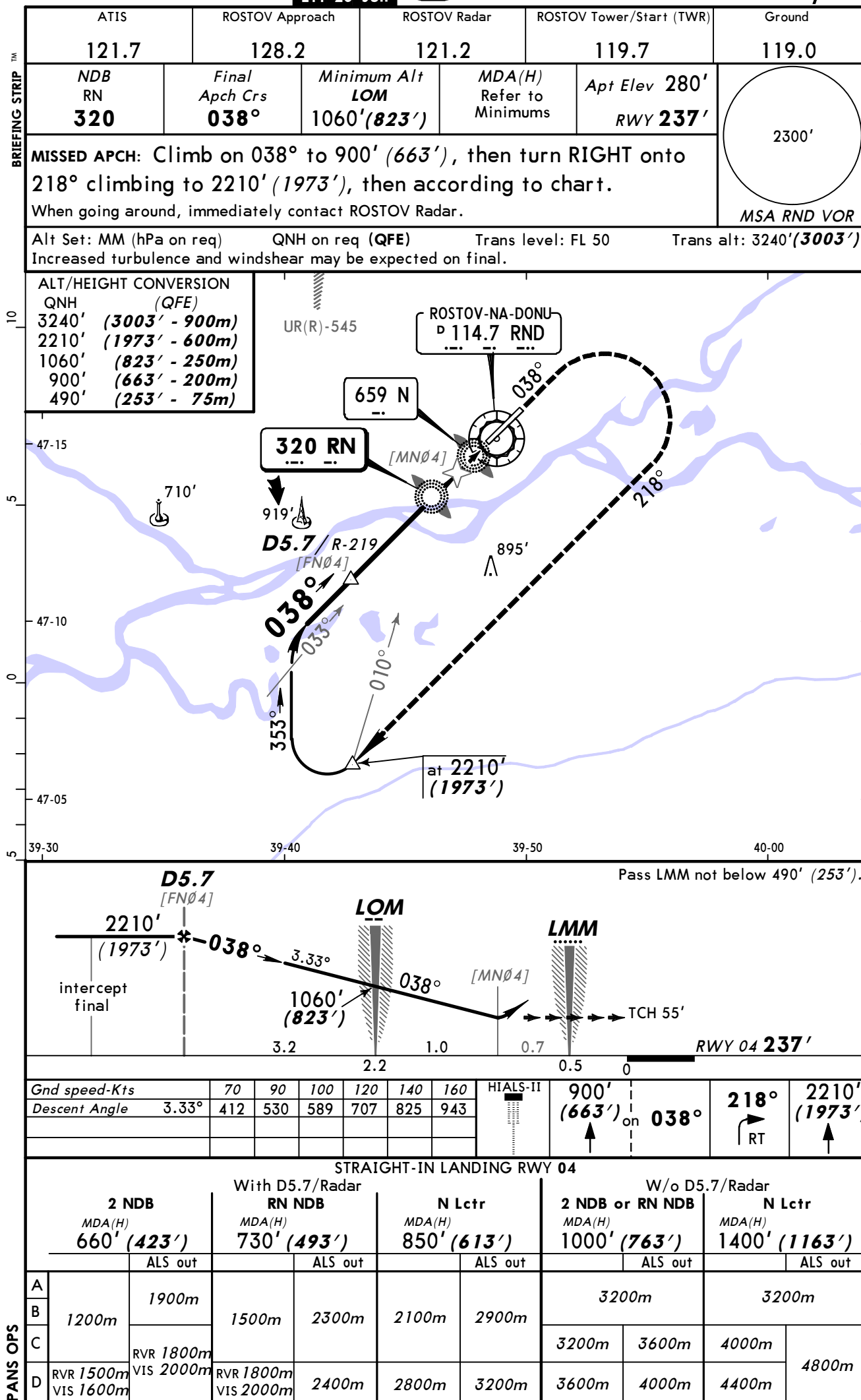
STRAIGHT-IN LANDING RWY 04  
CAT II ILS

ABCD  
**RA 110'**  
DA(H) 337' (100')

RVR 350m

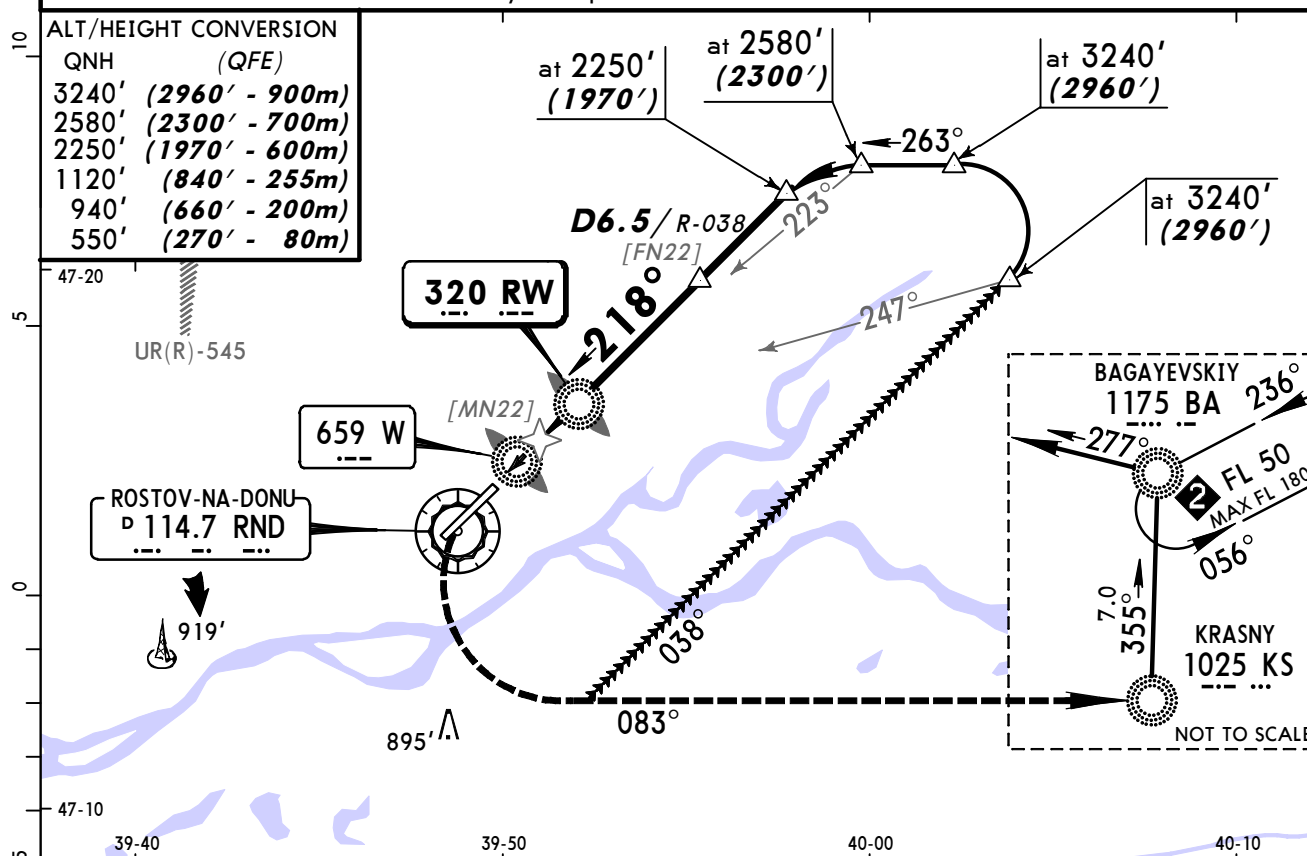
PANS OPS



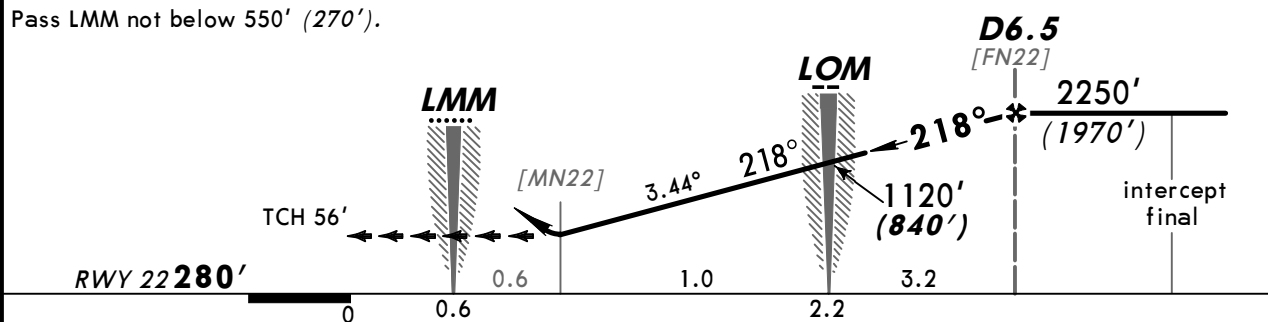


| ATIS                                                                                                                      | ROSTOV Approach                  | ROSTOV Radar                              | ROSTOV Tower/Start (TWR)                                           | Ground                   |
|---------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------------------------------------------------------|--------------------------|
| 121.7                                                                                                                     | 128.2                            | 121.2                                     | 119.7                                                              | 119.0                    |
| NDB<br>RW<br><b>320</b>                                                                                                   | Final<br>Apch Crs<br><b>218°</b> | Minimum Alt<br><b>LOM</b><br>1120' (840') | MDA(H)<br>Refer to<br>Minimums<br>Apt Elev 280'<br>RWY <b>280'</b> | 2300'<br><br>MSA RND VOR |
| <b>MISSED APCH:</b> Climb to 940' (660'), then turn LEFT onto 083° to KS NDB climbing to 2250' (1970'), then as directed. |                                  |                                           |                                                                    |                          |

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 50 Trans alt: 3240' (2960')  
 Increased turbulence and windshear may be expected on final.



Pass LMM not below 550' (270').



| Gnd speed-Kts | 70    | 90  | 100 | 120 | 140 | 160 | HIALS | 940' (660') | 083° | 2250' (1970') | KS 1025 |
|---------------|-------|-----|-----|-----|-----|-----|-------|-------------|------|---------------|---------|
| Descent Angle | 3.44° | 426 | 548 | 609 | 730 | 852 | 974   |             | LT   |               |         |

| STRAIGHT-IN LANDING RWY 22 |                        |                        |                        |                    |                        |                     |             |
|----------------------------|------------------------|------------------------|------------------------|--------------------|------------------------|---------------------|-------------|
| 2 NDB                      |                        | RW NDB                 |                        | With D6.5/Radar    |                        | W/o D6.5/Radar      |             |
| MDA(H) 740' (460')         |                        | MDA(H) 790' (510')     |                        | MDA(H) 790' (510') |                        | MDA(H) 1070' (790') |             |
| ALS out                    |                        | ALS out                |                        | ALS out            |                        | ALS out             |             |
| A                          |                        |                        |                        |                    |                        |                     |             |
| B                          | 1200m                  | RVR 1800m<br>VIS 2000m | 1500m                  | 2300m              | 1500m                  | 2300m               | 3200m       |
| C                          |                        |                        | RVR 1500m<br>VIS 1600m |                    | RVR 1500m<br>VIS 1600m |                     | 3200m 3800m |
| D                          | RVR 1800m<br>VIS 2000m | 2400m                  | RVR 1800m<br>VIS 2000m |                    | RVR 1800m<br>VIS 2000m |                     | 3600m 4000m |

**ROSTOV-NA-DONU, (ROSTOV-NA-DONU - URRR)**

## **TERMINAL CHART CHANGE NOTICES**

**No Chart Change Notices for Airport URRR**