Page 1
Changed chart(s) since Disc 26-2010
ADD = Added chart, REV = Revised chart, DEL = Deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
Moscow, (Vnukovo - UUWW)				
REV	BD & LEDOR 1W, 2W & 3W, MF ...	10-2	31 äåê 2010	13 ÿíâ 2011
REV	FE 1W & 2W, FK 1W, 2W, 3W, 4...	10-2A	31 äåê 2010	13 ÿíâ 2011
REV	DEDUM, IVANOVSKOYE & UMB...	10-2B	31 äåê 2010	13 ÿíâ 2011
REV	DEDUM, IVANOVSKOYE & UMB...	10-2C	31 äåê 2010	13 ÿíâ 2011
REV	DEDUM, IVANOVSKOYE & UMB...	10-2D	31 äåê 2010	13 ÿíâ 2011
REV	DEDUM, IVANOVSKOYE & UMB...	10-2E	31 äåê 2010	13 ÿíâ 2011
REV	IVANOVSKOYE & OKLIT 19A & ...	10-2F	31 äåê 2010	13 ÿíâ 2011
REV	DEDUM, IVANOVSKOYE & UMB...	10-2G	31 äåê 2010	13 ÿíâ 2011
REV	DEDUM, IVANOVSKOYE & UMB...	10-2H	31 äåê 2010	13 ÿíâ 2011
REV	BITSA, KLIMOVSK & SKURYGIN...	10-2J	31 äåê 2010	13 ÿíâ 2011
REV	BITSA, KLIMOVSK & SKURYGIN...	10-2K	31 äåê 2010	13 ÿíâ 2011
REV	BITSA, KLIMOVSK & SKURYGIN...	10-2L	31 äåê 2010	13 ÿíâ 2011
REV	BITSA 06K, KLIMOVSK & SKUR...	10-2M	31 äåê 2010	13 ÿíâ 2011
REV	BITSA 19B, KLIMOVSK & SKUR...	10-2N	31 äåê 2010	13 ÿíâ 2011
REV	BITSA 19I, KLIMOVSK 19I & 19K...	10-2P	31 äåê 2010	13 ÿíâ 2011
REV	BITSA 24B, KLIMOVSK & SKUR...	10-2Q	31 äåê 2010	13 ÿíâ 2011

TERMINAL CHART NOTAMs

Chart NOTAMs for Airport UUWW

Type: Terminal
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

EFF 18 NOV 10 following MAX speeds shall apply: from commencing descent to FL246 280KT or 0.8M (whichever is less); 270KT from FL246m to FL98; 250KT from FL98 to TL; adhere to these speed restrictions until established on approach - if unable to comply report to ATC.

General Info

Moscow, RUS
N 55° 36.0' E 37° 16.4' Mag Var: 8.7°E
Elevation: 685'

Public, IFR, Control Tower, Customs
Fuel: Jet A-1
Repairs: Minor Airframe, Minor Engine

Time Zone Info: GMT+3:00 uses DST

Runway Info

Runway 01-19 10039' x 148' asphalt
Runway 06-24 9843' x 197' asphalt

Runway 01 (14.0°M) TDZE 633'
  Lights: Edge, ALS, Centerline
Runway 06 (58.0°M) TDZE 637'
  Lights: Edge, ALS, Centerline
Runway 19 (194.0°M) TDZE 634'
  Lights: Edge, ALS, Centerline, TDZ
Runway 24 (238.0°M) TDZE 679'
  Lights: Edge, ALS, Centerline, TDZ

Communications Info

ATIS **131.85**
ATIS **125.875** Non-English
Vnukovo Tower **129.0** Secondary
Vnukovo Tower **124.4** Secondary
Vnukovo Tower **119.45** Secondary
Vnukovo Tower **118.3**
Vnukovo Taxing 2 Ground Control **121.7**
Vnukovo Taxiing 1 Ground Control **129.0** Secondary
Vnukovo Taxiing 1 Ground Control **124.4** Secondary
Vnukovo Taxiing 1 Ground Control **120.45**
Vnukovo Taxiing 1 Ground Control **119.45** Secondary
Vnukovo Approach Control **129.0** Secondary
Vnukovo Approach Control **122.3**
Moscow Approach Two Approach Control **124.4**
Moscow Approach Two Approach Control **122.7**
Moscow Approach Three Approach Control **128.0**
Moscow Approach Six Approach Control **125.3**
Moscow Approach Seven Approach Control **131.2**
Moscow Approach One Approach Control **127.2**
Moscow Approach Nine Approach Control **135.9**
Moscow Approach Four Approach Control **123.4**
Moscow Approach Five Approach Control **134.0**
Moscow Approach Eight Approach Control **129.8**
Vnukovo Radar **129.0** Secondary
Vnukovo Radar **126.0**
Vnukovo Radar **124.4** Secondary
Vnukovo Radar **119.45**

Notebook Info

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1. GENERAL

1.1. ATIS

ATIS 131.85
125.87 (Russian)

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. GENERAL

Noise abatement procedures shall be executed by all ACFT.
'AIR GROUND' communication shall be reduced to a minimum during the approach phase, the initial take-off and the climbing phase.
The flight crews must maintain the assigned SID and STAR routes, and in case of deviation from them - immediately join the assigned flight track.

1.2.2. REVERSE THRUST

Reverse thrust power with the exception reverse idle thrust is used for safety reasons only.

1.3. TAXI PROCEDURES

Taxiing on TWYs 5, 14,15, B1, B8, M3 and M4 at reduced speed, strictly along taxi guide line.
Taxiing on TWY 14 between TWYs 13 and 15 and on TWYs B1, B8 and M4 between TWYs B1 and B2 at night or when VIS is less than 2000m, with Follow-me car only; for AN-124 available by towing only.
TWYs B3 and B6 on segments from holding positions to apron available by towing.

1.4. PARKING INFORMATION

Use of Vnukovo I stands 3 thru 5, 92 and 93 by towing.
When Vnukovo I stands 29A and 29B occupied, use of stands 30 and 31 by towing.

Leave Vnukovo I stands and start-up points under engines power of not more than 0.42 of the rating.
Leave Vnukovo I stands 21 thru 23, 24A, 25A and 26A by towing.
Leave Vnukovo I stand 28 under engines power, when stand 29 vacant.
Leave Vnukovo I stand 96 under engines power, when stand 74 vacant.

Vnukovo III stands 21 and 22 to be entered via vacant stands 23 thru 25 and vice versa.
Enter Vnukovo III stand 27 under engines power, when stand 18 vacant.
Enter Vnukovo III stands 1 thru 17, 28, 33, 34, 77 and 78 by towing.

Leave Vnukovo III stands under engines power as follows:
- Stand 6, when stand 31 vacant
- Stands 7 and 8, when stand 23 vacant
- Stands 9 and 10, when stand 22 vacant
- Stand 17, when stand 28 vacant
- Stands 18 and 28, when stand 27 vacant
- Stand 27, when stand 18 vacant

Leave Vnukovo III stands 29 thru 34, 51 thru 53 and 62 thru 78 by towing.
Leave Vnukovo III stands 21 thru 26 by towing, followed by taxiing with engines power 0.4 of the nominal.

Leave Vnukovo III stands by towing as follows:
- Stand 6, when stand 31 occupied
- Stands 7 and 8, when stand 23 occupied
- Stands 9 and 10, when stand 22 occupied
- Stand 17, when stand 28 occupied
- Stand 18, when stand 27 occupied
- Stand 27, when stand 18 occupied.

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1. GENERAL

1.5. OTHER INFORMATION

Birds in vicinity of APT.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. APPROACH PHASE

Restrictions

Noise abatement procedures shall not apply under the following conditions:
- if RWY is covered with snow, ice, slush, water, mud, rubber, oil or other substances and the friction coefficient at this is 0.4 or less;
- when ceiling is less than 150m or horizontal visibility is less than 1800m;
- when a tailwind component on RWY exceeds 2.5 m/sec;
- when wind shear is forecasted or reported or a thunderstorm situation is expected.

Great rates of descent, when leaving the holding patterns or the occupied altitude, should be avoided (if possible) directly before the final approach.
The change of flight configuration and speed of ACFT, connected with noise abatement procedures, shall be carried out according to the requirements of the Airplane Flight Manual.
During instrument as well as visual approach, it is prohibited to fly below the ILS GS angle.
No noise abatement procedures shall envisage the increasing of indicated air speed of descent.
A displacement of THR shall not be used as a noise abatement measure.
Landing of ACFT with tailwind component of up to 5 m/sec is allowed under the following conditions:
- RWY is dry or damp;
- friction coefficient is 0.5 or more;
- crosswind component is not more than 5 m/sec.

2.2. CAT II OPERATIONS

RWYs 19 and 24 approved for CAT II operations, special aircrew and ACFT certification required.

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3. DEPARTURE

3.1. START-UP & TAXI PROCEDURES

3.1.1. START-UP

A period of 10 min established additionally to departure time during reconstruction work for towing and engine start-up from Vnukovo I apron.

3.1.2. TAXIING

Up to 15 min are established for taxiing and provision of air traffic safety during departure.

3.2. NOISE ABATEMENT PROCEDURES

TAKE-OFF AND CLIMBING PHASE

Noise abatement procedures shall not be executed at the expense of reduction of flight safety, in case of engine failure during take-off and climbing phase.

Restrictions

Take-off with tailwind component up to 5 m/sec is allowed under the following conditions:
- RWY is dry or damp;
- friction coefficient is 0.5 or more;
- crosswind component is not more than 5 m/sec.

A displacement of THR shall not be used as a noise abatement measure.
A change of flight course direction after take-off is permitted only after reaching 1080'(395').
Turns initiated between 1080 '(395') and 1670'(985') shall be executed with a bank angle not exceeding 15°.
Turns initiated between 1670 '(985') and 3640'(2955') shall be executed with a bank angle not exceeding 20°.
Turns initiated at or above 3640 '(2955') shall be executed with 25° bank or with angular speed of turn of 3°/sec.
The minimum steady climb speed shall not be less than V_2 + 10 KT or less than prescribed in the Airplane Flight Manual if it has greater value.
Maintaining the minimum climb speed is not required if it brings to exceeding the minimum permissible angle of attack.
The reduction of engine power shall not be applied until:
- the ACFT reaches 1480 '(795');
- the established standard power mode enables with MTOW to maintain the established climb gradient of not less than 4% at the above specified speed;
- take-off flight path provides overflying of all obstacles located under the flight path with sufficient clearance both when all engines are operating normally and also taking into account possible engine failure and time period necessary for the rest engines to develop full power.

Noise abatement procedures, which envisage take-off with reduced engine power, shall not apply under the following conditions:
- if RWY is covered with snow, ice, slush, water, mud, rubber, oil or other substances and the friction coefficient at this is 0.4 or less;
- when horizontal visibility is less than 1800m;
- when a crosswind component on RWY (including gusts) exceeds 7 m/sec;
- when a tailwind component on RWY exceeds 2.5 m/sec;
- when wind shear is forecasted or reported or a thunderstorm situation is expected.

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3. DEPARTURE

Special take-off and climbing procedures

During take-off from RWY 01 on take-off heading and climbing to at or above 1080'(397') with a maximum possible climb gradient proceed to 1.1NM from RWY 19 extremity with further RIGHT/LEFT turn, maintaining speed and banking which provide a flight with radius 1.6NM. When proceeding to GOTMA and BITSA, pass NDB/MKR at or or above FL49.

During departure along SID OKLIT 01D proceed to TURUG with maximum possible climb gradient.

After take-off from RWY 06 on take-off heading and climbing to not below 1300'(663') with a maximum possible climb gradient proceed to 2.2NM from RWY 24 extremity with further RIGHT turn, maintaining speed and banking which provide a flight with radius 2.4NM.

During departure along SID OKLIT 06D turning onto 350° track shall be initiated after climbing with maximum climb gradient to 1300'(663') at 1.1 NM from RWY 24 extremity, maintaining speed and banking, ensuring the flight with radius 1.9 NM.

After take-off from RWYs 19 and 24 on take-off heading and climbing to 1300'(666')/ 1340'(661') with a maximum possible climb gradient proceed to 2.2NM from RWY 01 and RWY 06 extremity with further LEFT turn (RIGHT turn when proceeding to GOTMA), maintaining speed and banking which provide a flight with radius 2.4NM.

When proceeding to GOTMA and BITSA pass NDB/MKR at or above FL49. Passing ARSEP and BITSA shall be carried out at or above FL49.

Prompt take-off procedure is introducted at the aerodrome as in accordance with the ACFT Flight Manual of the appropriate ACFT type.

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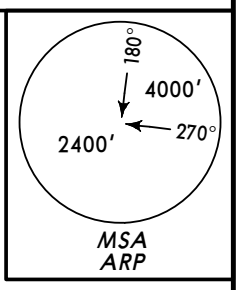
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2) Eff 13 Jan

MOSCOW, RUSSIA
TRANSITION

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3285′)*



BD 1W
LEDOR 1W
TO DEDUM

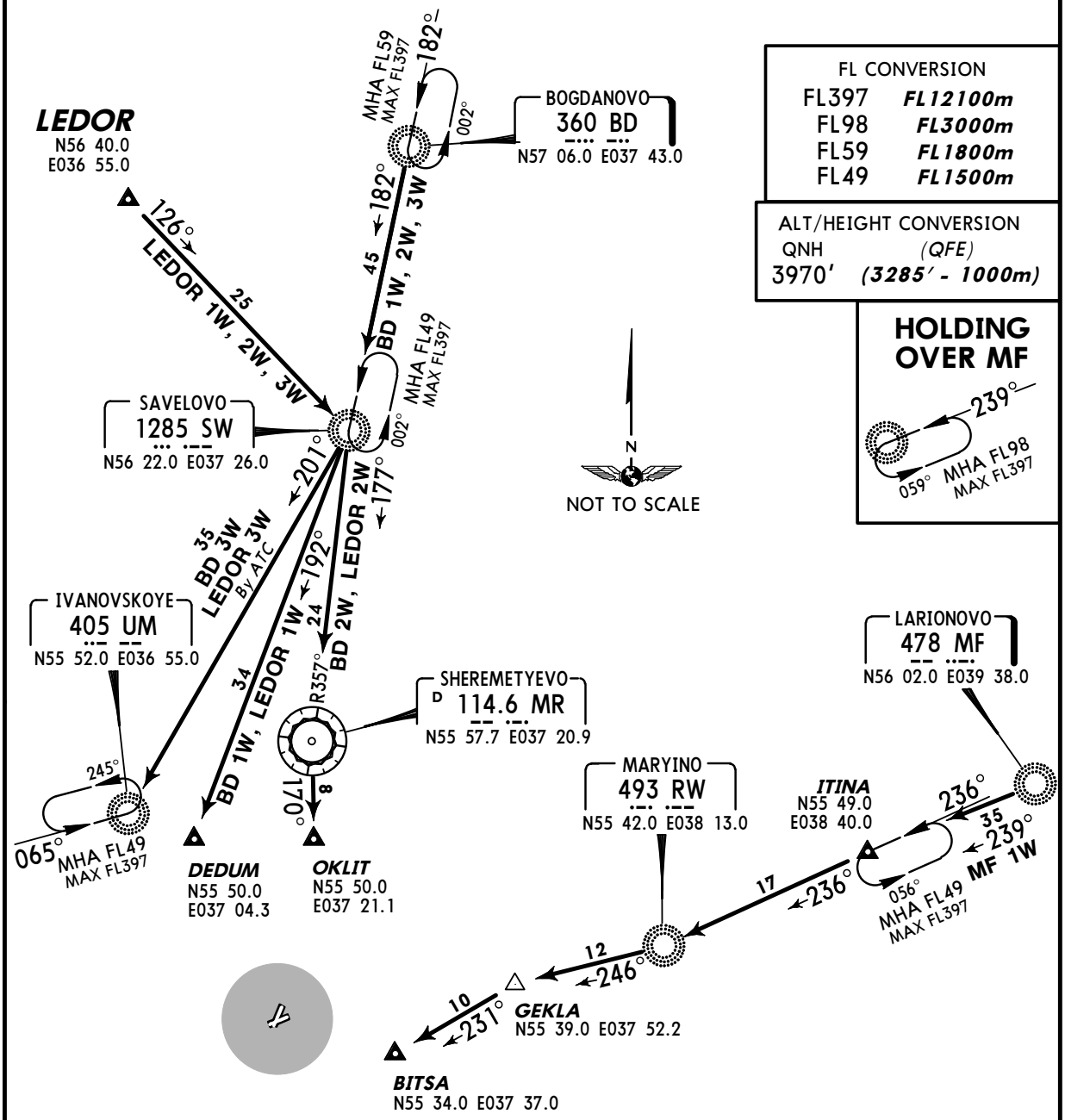
BD 2W
LEDOR 2W
TO OKLIT

BD 3W
LEDOR 3W
TO UM

MF 1W
TO BITSA

TRANSITIONS

FROM NORTH & EAST
FOR BITSA STARS REFER TO CHARTS 10-2J TO 10-2Q
FOR DEDUM STARS REFER TO CHARTS 10-2B TO 10-2E, 10-2G & 10-2H
FOR OKLIT STARS REFER TO CHART 10-2F
FOR UM STARS REFER TO CHARTS 10-2B TO 10-2H



FL CONVERSION	
FL397	*FL12100m*
FL98	*FL3000m*
FL59	*FL1800m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3285′ - 1000m)*

TRANSITION	ROUTING
BD 1W	To SW, then to DEDUM.
BD 2W	To SW, then to MR, then to OKLIT.
BD 3W	To SW, then to UM.
LEDOR 1W	To SW, then to DEDUM.
LEDOR 2W	To SW, then to MR, then to OKLIT.
LEDOR 3W	To SW, then to UM.
MF 1W	To ITINA, then to RW, then to GEKLA, then to BITSA.

CHANGES: Holdings over ITINA, SW & UM revised.

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UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2A) Eff 13 Jan

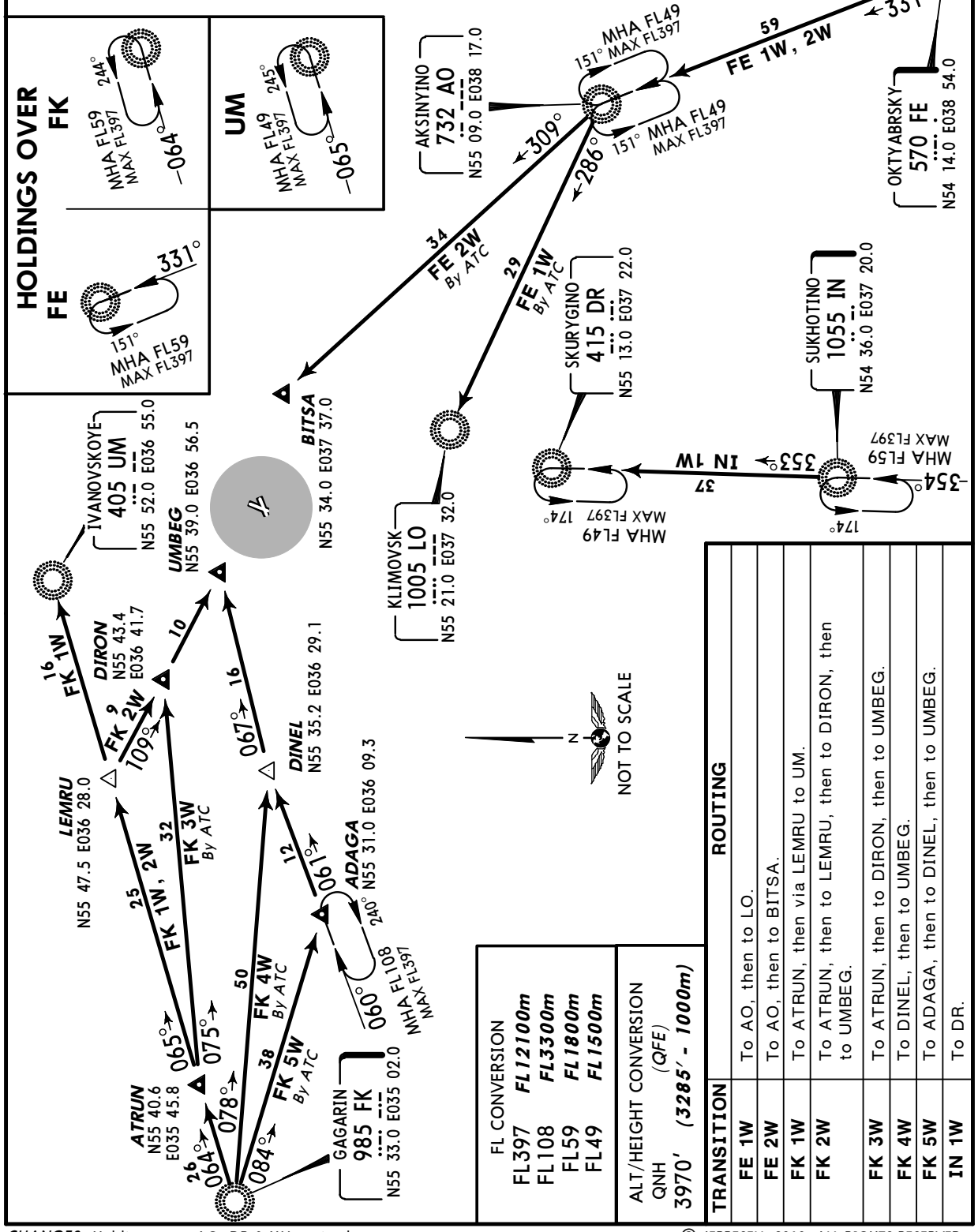
MOSCOW, RUSSIA
TRANSITION

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3285′)*

FE 1W TO LO | FE 2W TO BITSA | FK 1W TO UM | FK 2W, FK 3W FK 4W, FK 5W TO UMBEG | IN 1W TO DR

MSA ARP: 180° 4000′ 270° 2400′

TRANSITIONS
FROM SOUTH & WEST
FOR BITSA STARS REFER TO CHARTS 10-2J TO 10-2Q
FOR DR STARS REFER TO CHARTS 10-2J TO 10-2Q
FOR LO STARS REFER TO CHARTS 10-2J TO 10-2Q
FOR UM STARS REFER TO CHARTS 10-2B TO 10-2H
FOR UMBEG STARS REFER TO CHARTS 10-2B TO 10-2E, 10-2G & 10-2H



FL CONVERSION	
FL397	*FL12100m*
FL108	*FL3300m*
FL59	*FL1800m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION (QFE) QNH 3970′	*(3285′ - 1000m)*

TRANSITION	ROUTING
FE 1W	To AO, then to LO.
FE 2W	To AO, then to BITSA.
FK 1W	To ATRUN, then via LEMRU to UM.
FK 2W	To ATRUN, then to LEMRU, then to DIRON, then to UMBEG.
FK 3W	To ATRUN, then to DIRON, then to UMBEG.
FK 4W	To DINEL, then to UMBEG.
FK 5W	To ADAGA, then to DINEL, then to UMBEG.
IN 1W	To DR.

CHANGES: Holdings over AO, DR & UM revised.

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UUWW/VKO
VNUKOVO

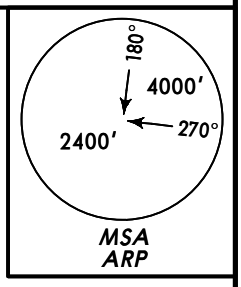
JEPPESEN
31 DEC 10 (10-2B) Eff 13 Jan

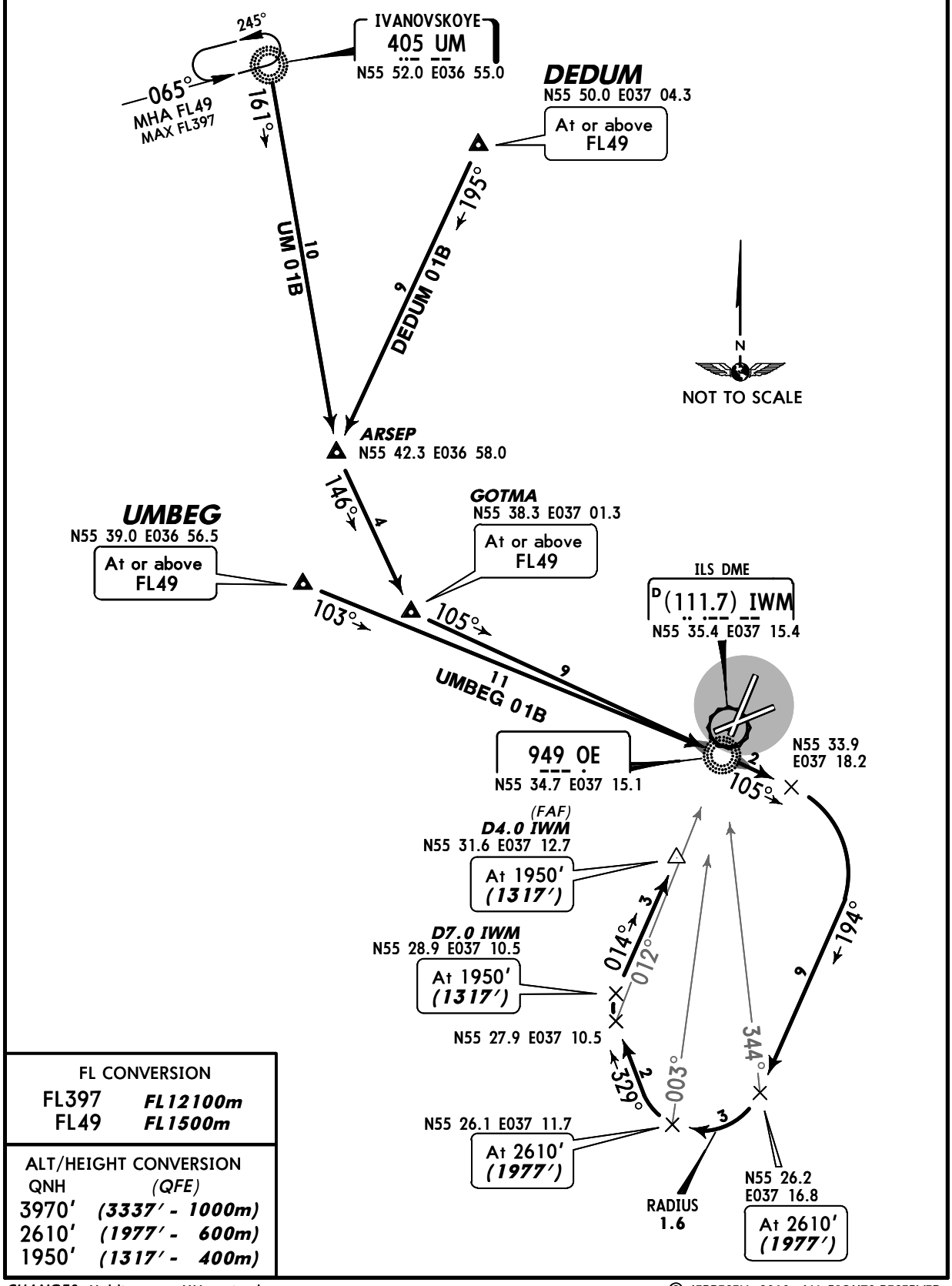
MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3337′)*

DEDUM 01B *[DEDØ1B]*
IVANOVSKOYE 01B (UM 01B)
UMBEG 01B *[UMBØ1B]*
RWY 01 ARRIVALS
FROM NORTH

FOR DEDUM 01K, UM 01K & UMBEG 01K REFER TO CHART 10-2C





FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3337′ - 1000m)*
2610′	*(1977′ - 600m)*
1950′	*(1317′ - 400m)*

CHANGES: Holding over UM revised.

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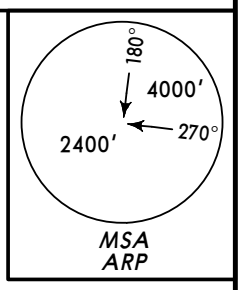
UUWW/VKO
VNUKOVO

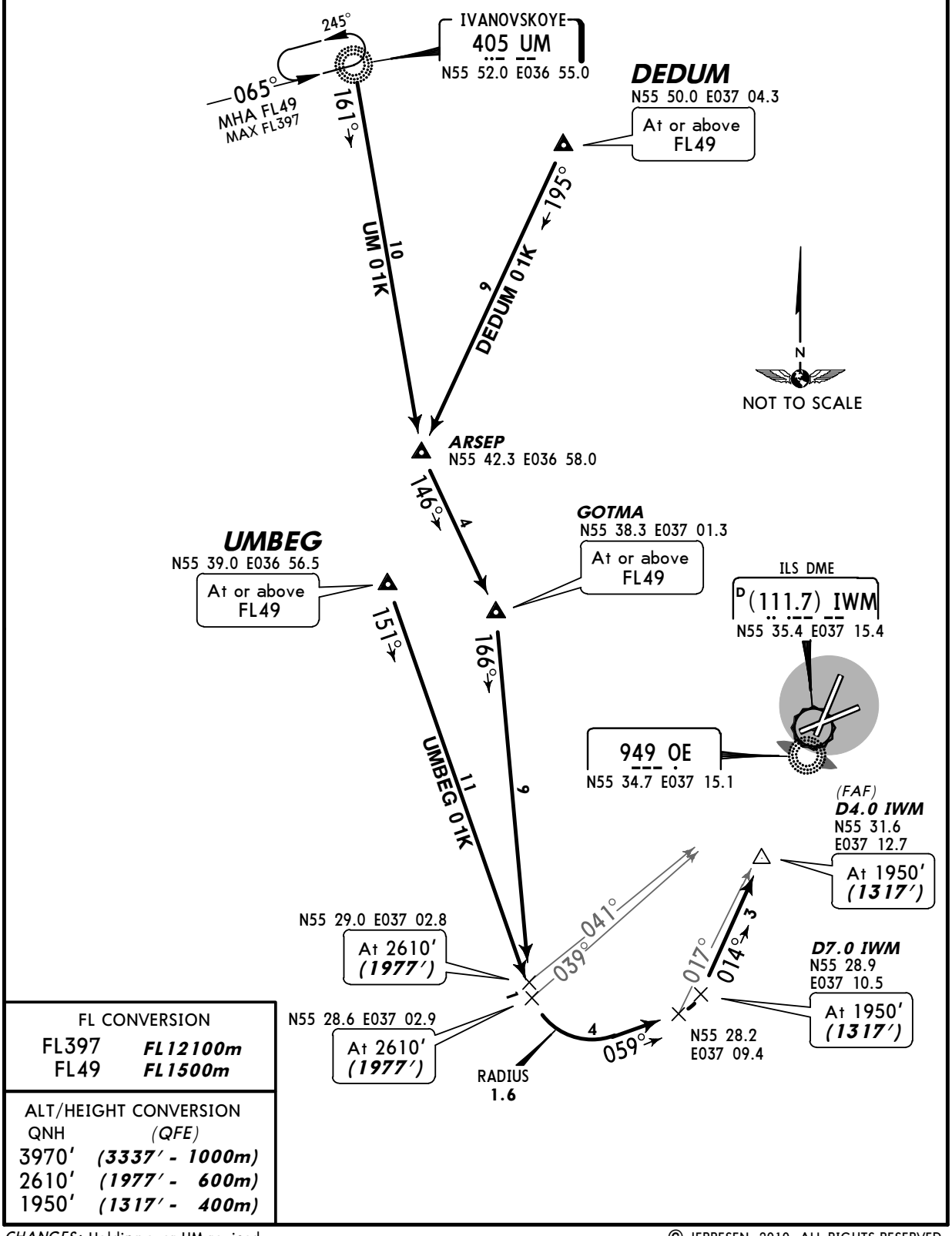
JEPPESEN
31 DEC 10 (10-2C) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3337′)*

DEDUM 01K *[DEDØ1K]*
IVANOVSKOYE 01K (UM 01K)
UMBEG 01K *[UMBØ1K]*
RWY 01 ARRIVALS
FROM NORTH





FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3337′ - 1000m)*
2610′	*(1977′ - 600m)*
1950′	*(1317′ - 400m)*

CHANGES: Holding over UM revised.

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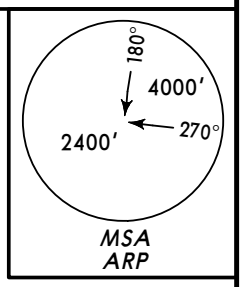
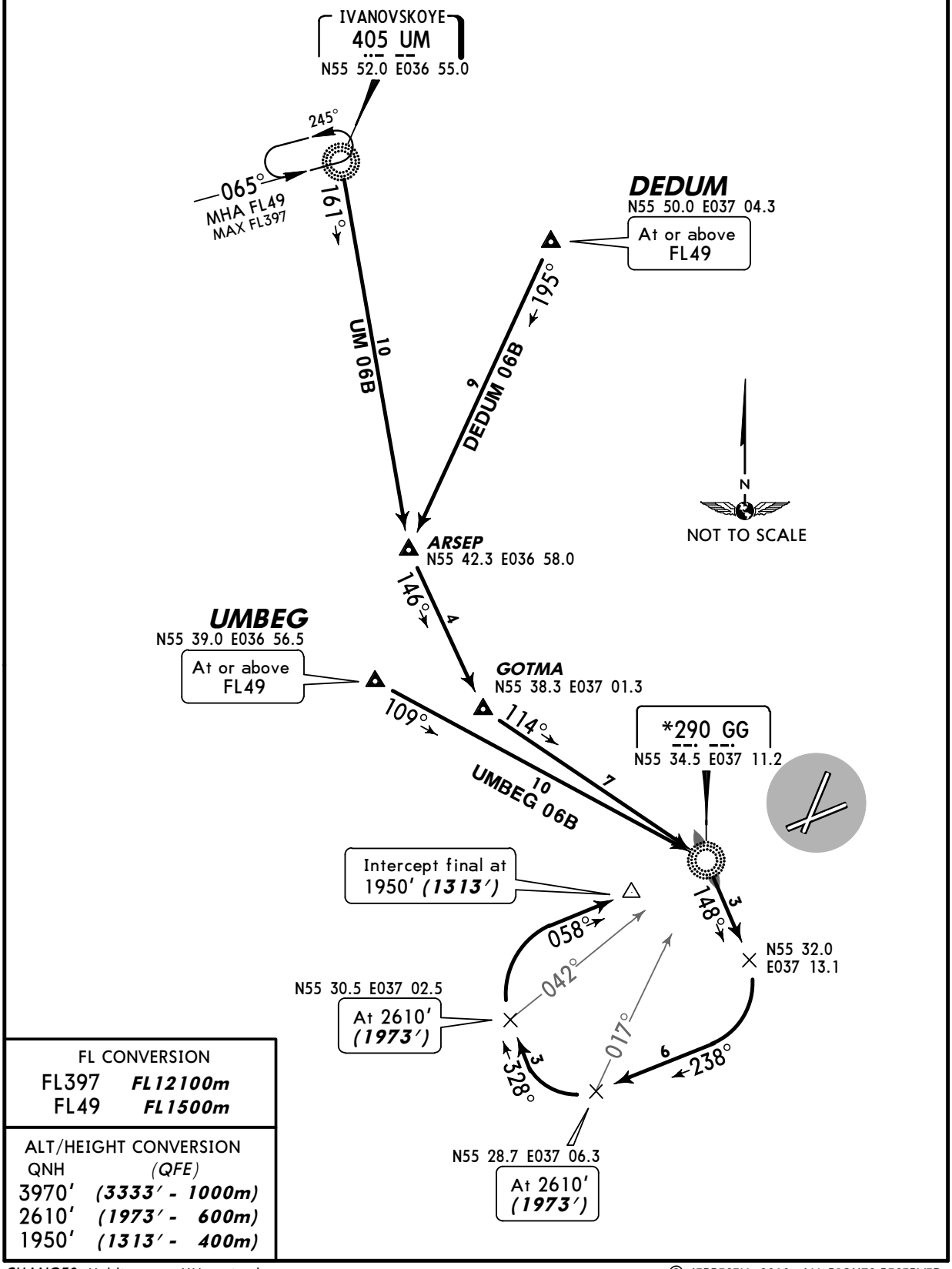
ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3333′)*

DEDUM 06B *[DEDØ6B]*
IVANOVSKOYE 06B (UM 06B)
UMBEG 06B *[UMBØ6B]*
RWY 06 ARRIVALS

FROM NORTH

FOR DEDUM 06K, UM 06K & UMBEG 06K REFER TO CHART 10-2E





FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3333′ - 1000m)*
2610′	*(1973′ - 600m)*
1950′	*(1313′ - 400m)*

CHANGES: Holding over UM revised.

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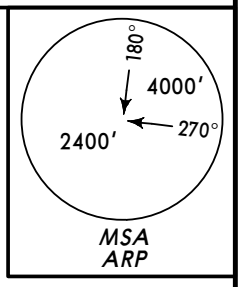
UUWW/VKO
VNUKOVO

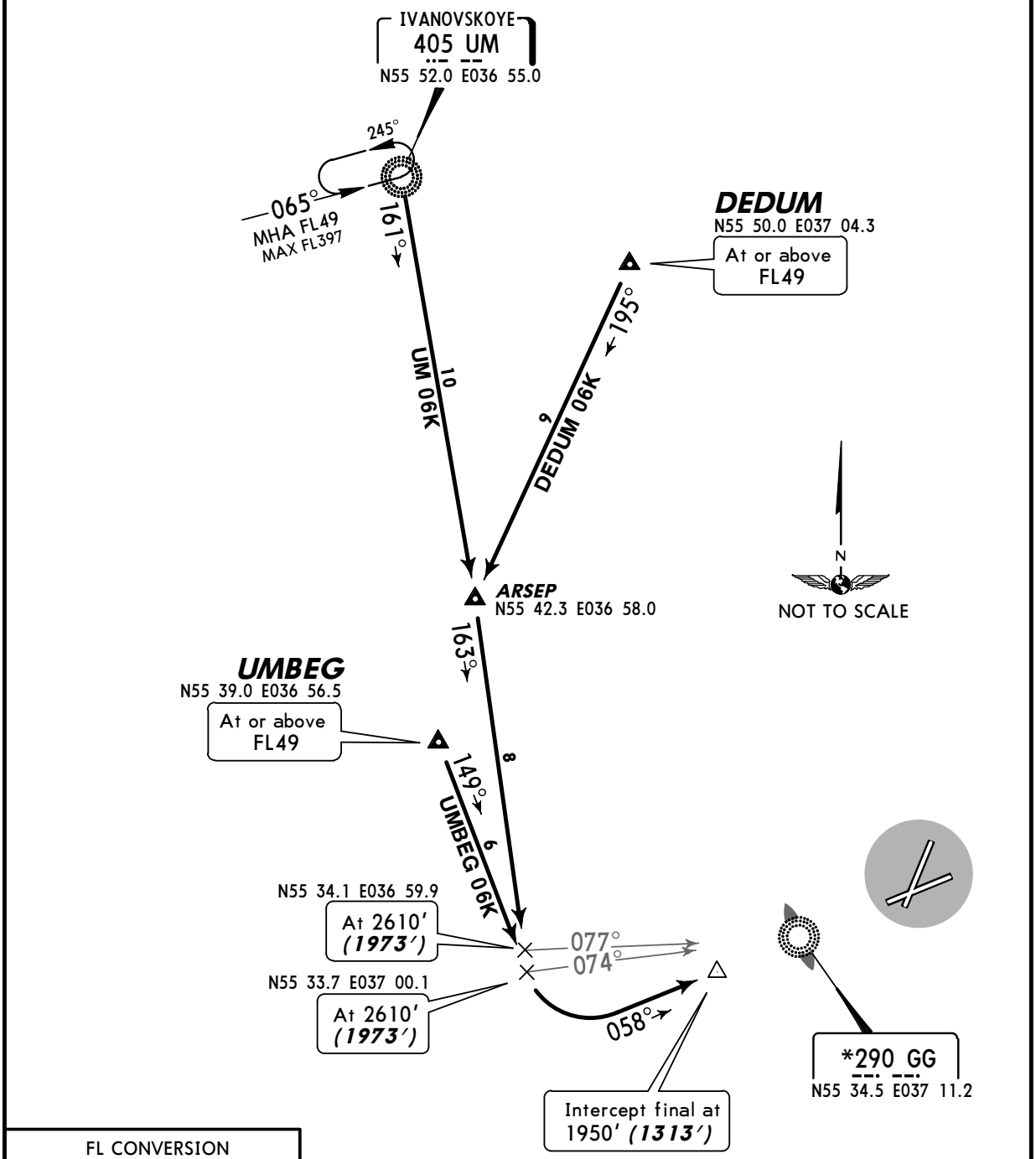
JEPPESEN
31 DEC 10 (10-2E) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3333′)*

DEDUM 06K *[DEDØ6K]*
IVANOVSKOYE 06K (UM 06K)
UMBEG 06K *[UMBØ6K]*
RWY 06 ARRIVALS
FROM NORTH





FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3333′ - 1000m)*
2610′	*(1973′ - 600m)*
1950′	*(1313′ - 400m)*

CHANGES: Holding over UM revised.

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UUWW/VKO
VNUKOVO

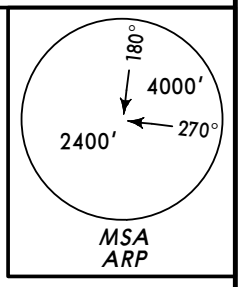
JEPPESEN
31 DEC 10 (10-2F) Eff 13 Jan

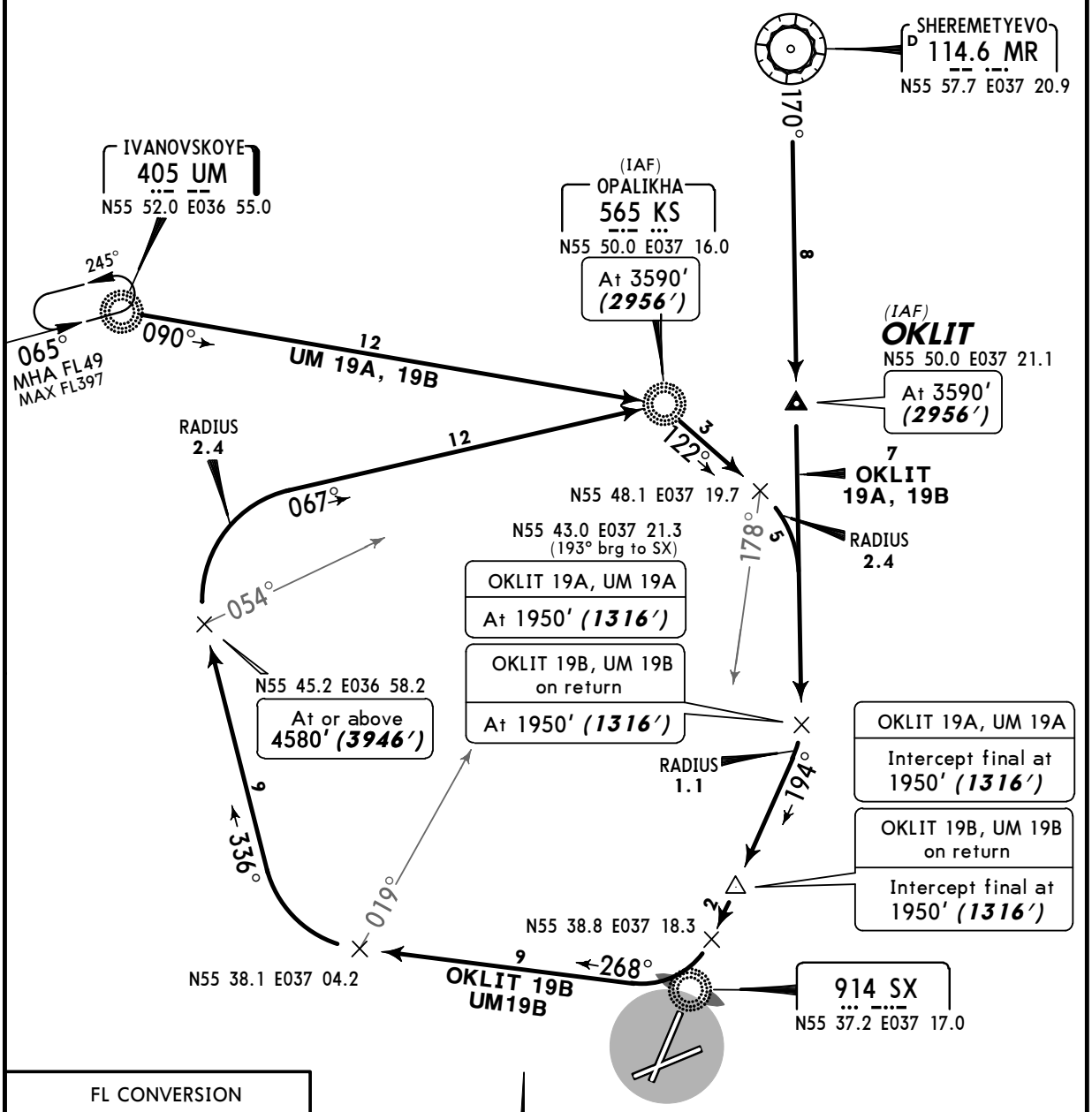
MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3336′)*

IVANOVSKOYE 19A (UM 19A)
IVANOVSKOYE 19B (UM 19B)
OKLIT 19A *[OKL19A]*
OKLIT 19B *[OKL19B]*
RWY 19 ARRIVALS
FROM NORTH

FOR DEDUM 19K, UM 19K & UMBEG 19K REFER TO CHART 10-2G





FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION		
QNH	*(QFE)*	
4580′	*(3946′*	*1200m)*
3970′	*(3336′*	*- 1000m)*
3590′	*(2956′*	*- 900m)*
1950′	*(1316′*	*- 400m)*

CHANGES: Holding over UM revised.

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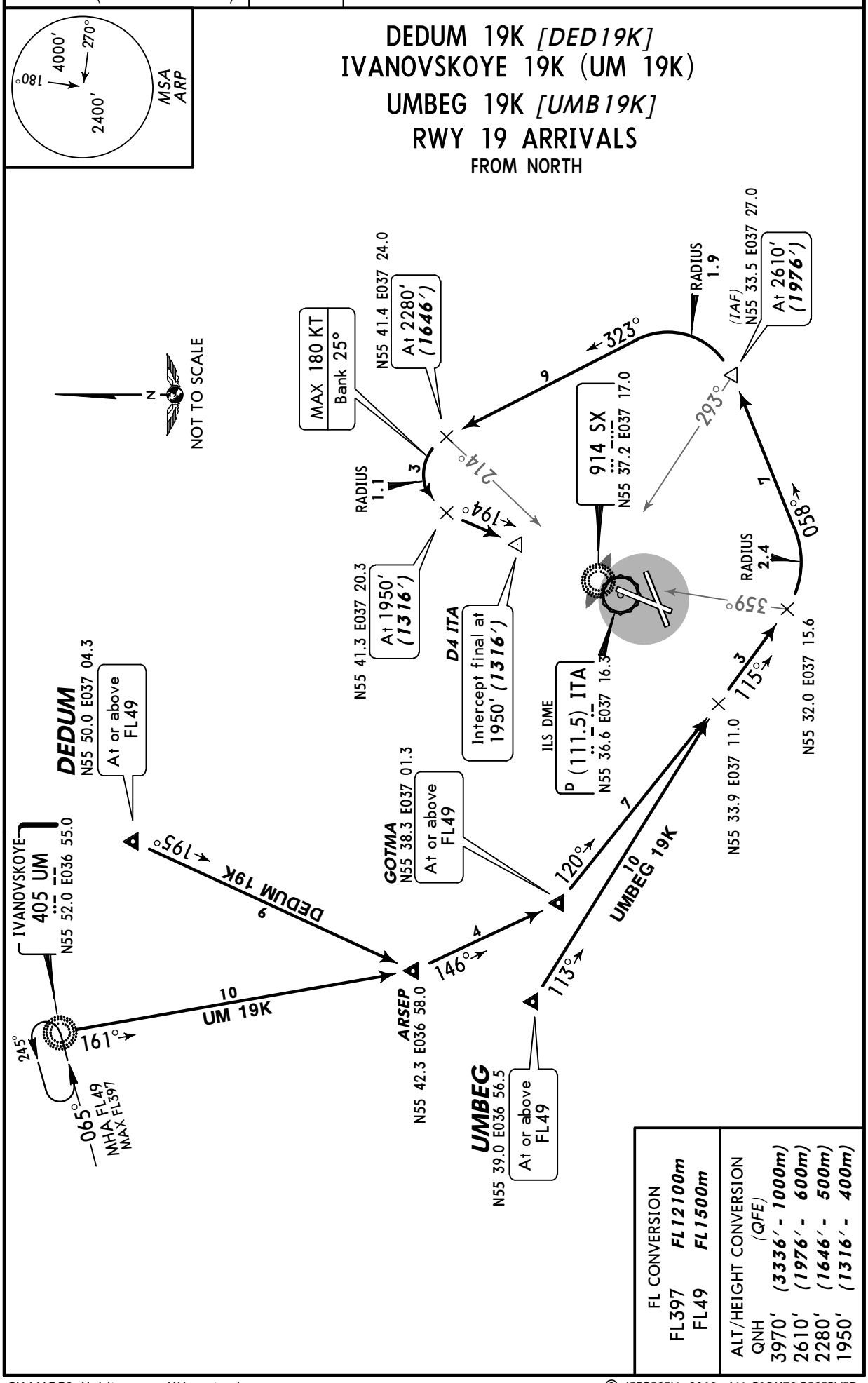
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2G) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3336′)*



CHANGES: Holding over UM revised.

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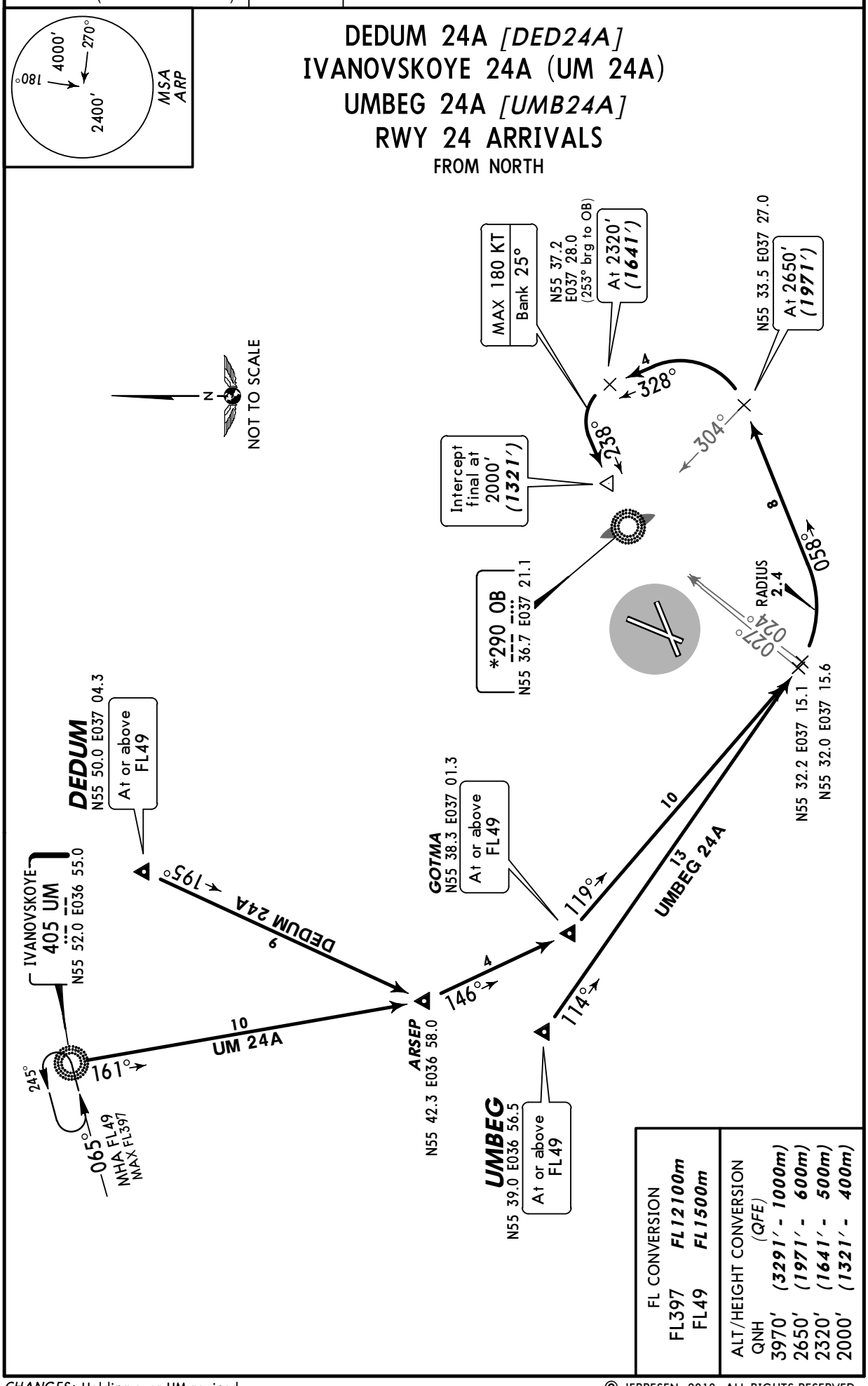
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2H) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3291′)*



CHANGES: Holding over UM revised.

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UUWW/VKO
VNUKOVO

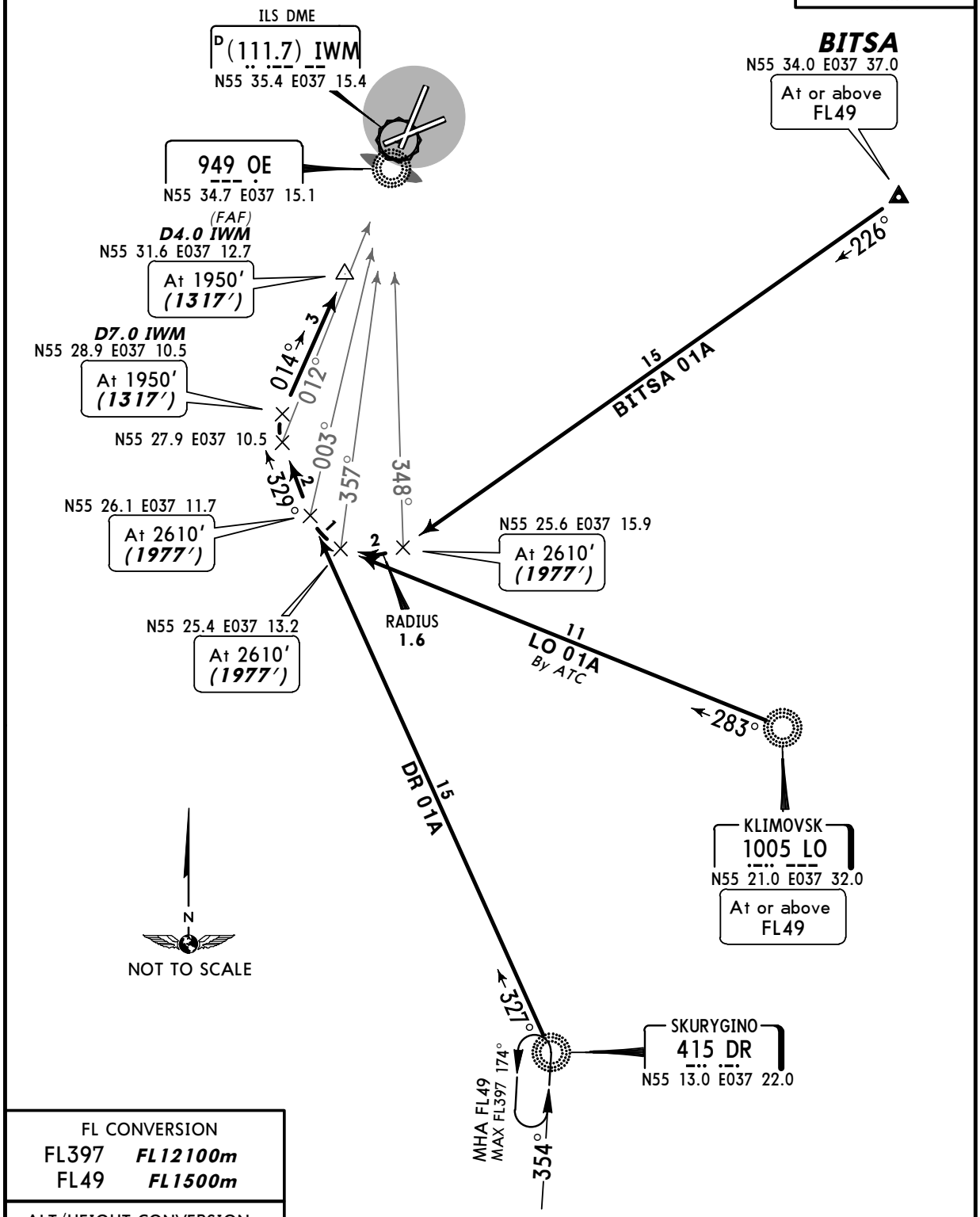
JEPPESEN
31 DEC 10 (10-2J) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3337′)*

BITSA 01A *[BITØ1A]*, KLIMOVSK 01A (LO 01A)
SKURYGINO 01A (DR 01A)
RWY 01 ARRIVALS
FROM EAST & SOUTHEAST

FOR BITSA 01I, LO 01I & DR 01I REFER TO CHART 10-2K



FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3337′ - 1000m)*
2610′	*(1977′ - 600m)*
1950′	*(1317′ - 400m)*

CHANGES: Holding over DR revised.

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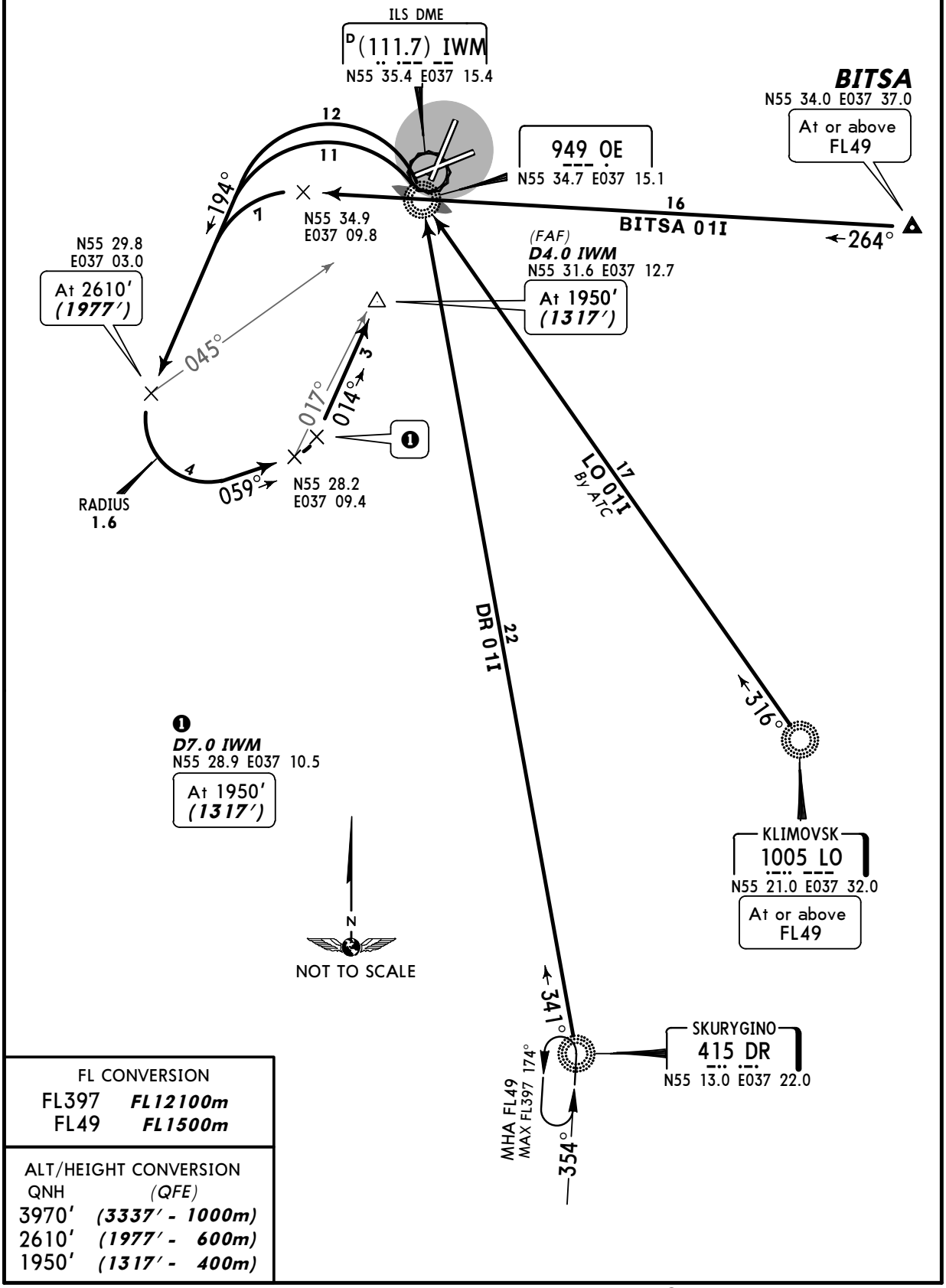
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2K) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3337′)*

BITSA 01I *[BITØ1I]* , KLIMOVSK 01I (LO 01I)
SKURYGINO 01I (DR 01I)
RWY 01 ARRIVALS
FROM EAST & SOUTHEAST



FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3337′ - 1000m)*
2610′	*(1977′ - 600m)*
1950′	*(1317′ - 400m)*

CHANGES: Holding over DR revised.

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UUWW/VKO
VNUKOVO

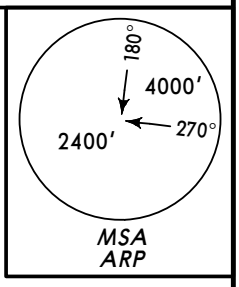
JEPPESEN
31 DEC 10 (10-2L) Eff 13 Jan

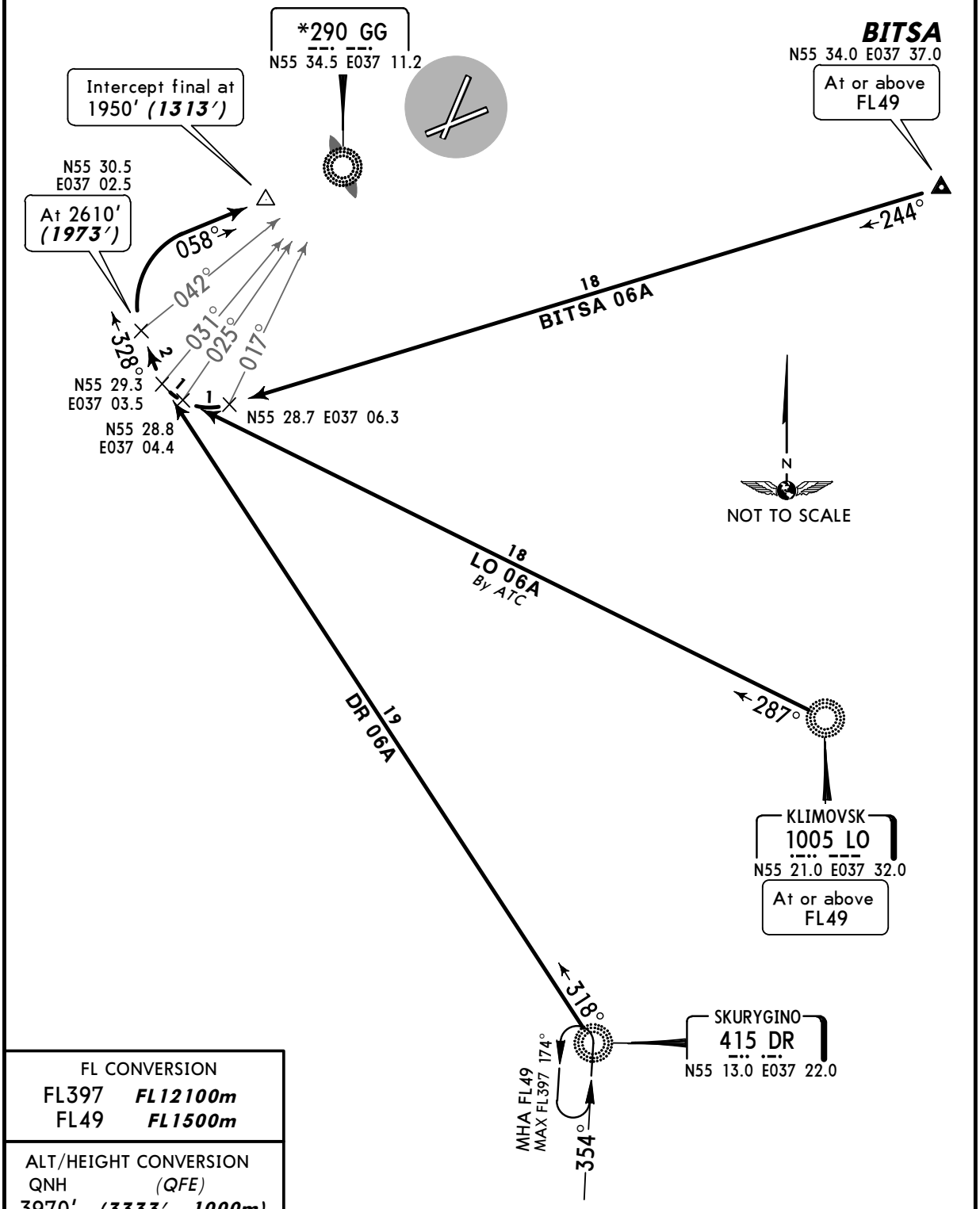
MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3333′)*

BITSA 06A *[BITØ6A]*, KLIMOVSK 06A (LO 06A)
SKURYGINO 06A (DR 06A)
RWY 06 ARRIVALS
FROM EAST & SOUTHEAST

FOR BITSA 06K, LO 06I & DR 06I REFER TO CHART 10-2M





FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3333′ - 1000m)*
2610′	*(1973′ - 600m)*
1950′	*(1313′ - 400m)*

CHANGES: Holding over DR revised.

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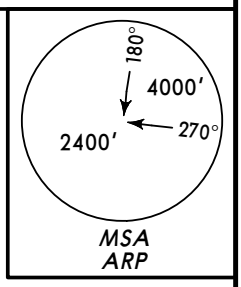
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2M) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3333′)*

BITSA 06K *[BITØ6K]* , KLIMOVSK 06I (LO 06I)
SKURYGINO 06I (DR 06I)
RWY 06 ARRIVALS
FROM EAST & SOUTHEAST



N55 36.6
E037 02.0
(102° brg to GG)

N55 38.2 E037 09.9

N55 36.5
E037 00.5

5
238°
1
6
274°
159°
098°
148°
3
074°
058°

16
BITSA 06K

BITSA
N55 34.0 E037 37.0
At or above
FL49

276°

*290 GG
N55 34.5 E037 11.2

Intercept final at
1950′ *(1313′)*

N55 33.7 E037 00.1
At 2610′
(1973′)

18
LO 06I
By ATC

N
NOT TO SCALE

22
DR 06I

310°

KLIMOVSK
1005 LO
N55 21.0 E037 32.0
At or above
FL49

334°

SKURYGINO
415 DR
N55 13.0 E037 22.0

MHA FL49
MAX FL397 174°

354°

FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3333′ - 1000m)*
2610′	*(1973′ - 600m)*
1950′	*(1313′ - 400m)*

CHANGES: Holding over DR revised.

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UUWW/VKO
VNUKOVO

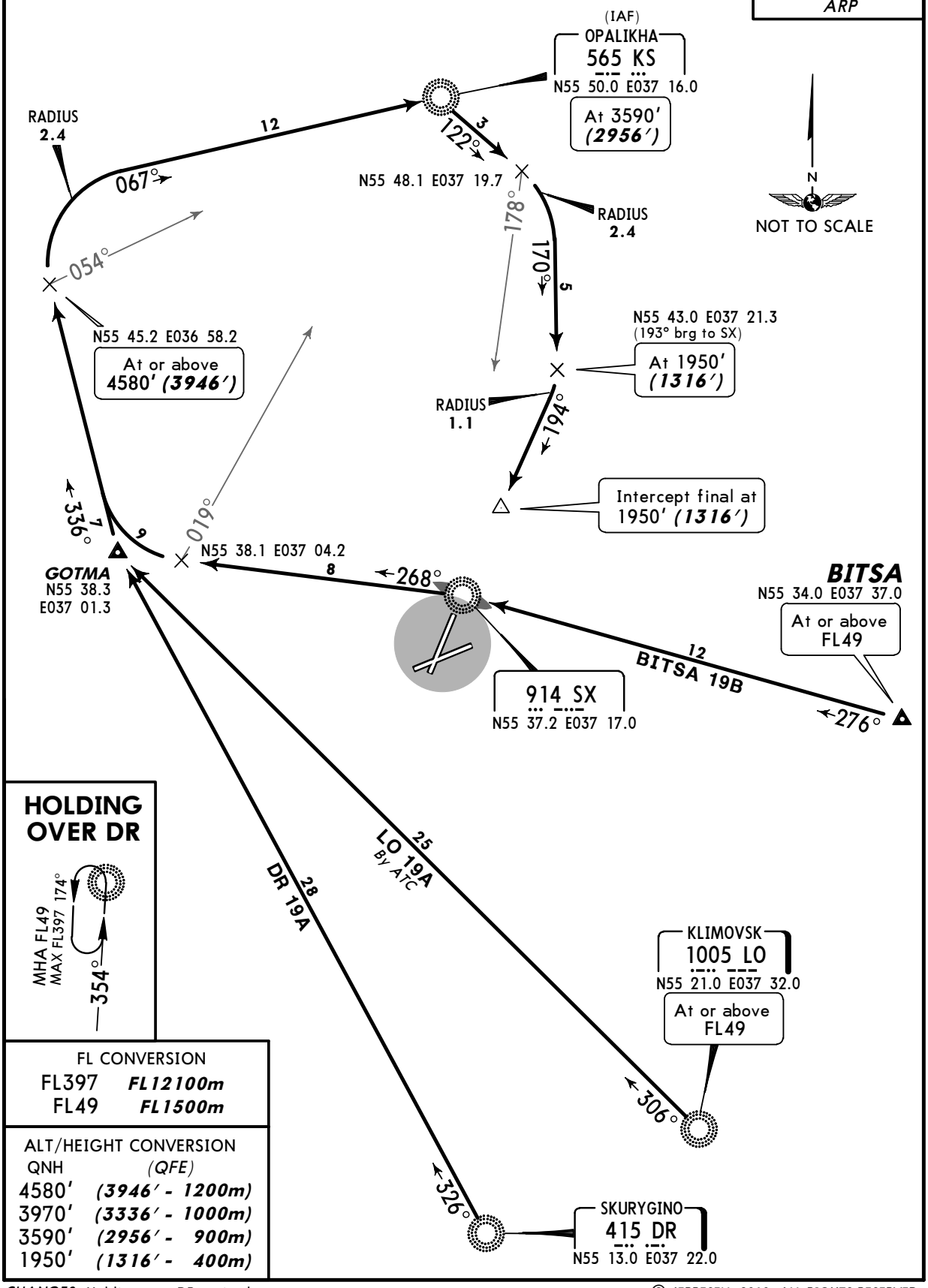
JEPPESEN
31 DEC 10 (10-2N) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3336′)*

BITSA 19B *[BIT19B]* , KLIMOVSK 19A (LO 19A)
SKURYGINO 19A (DR 19A)
RWY 19 ARRIVALS
FROM EAST & SOUTHEAST

FOR BITSA 19I, LO 19I, LO 19K & DR 19K REFER TO CHART 10-2P



FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
4580′	*(3946′ - 1200m)*
3970′	*(3336′ - 1000m)*
3590′	*(2956′ - 900m)*
1950′	*(1316′ - 400m)*

CHANGES: Holding over DR revised.

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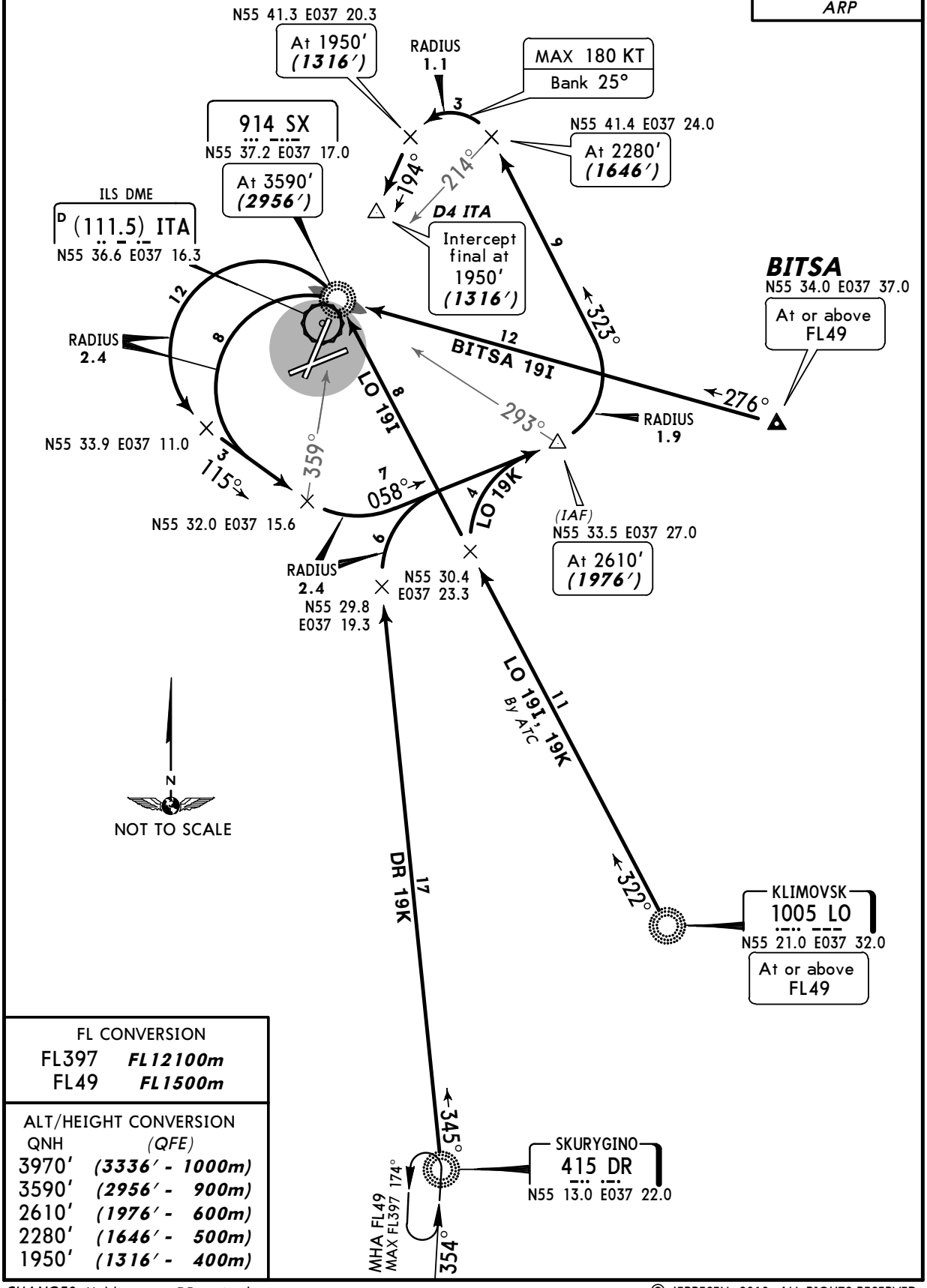
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2P) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3336′)*

BITSA 19I *[BIT19I]* , KLIMOVSK 19I (LO 19I)
KLIMOVSK 19K (LO 19K), SKURYGINO 19K (DR 19K)
RWY 19 ARRIVALS
FROM EAST & SOUTHEAST



FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3336′ - 1000m)*
3590′	*(2956′ - 900m)*
2610′	*(1976′ - 600m)*
2280′	*(1646′ - 500m)*
1950′	*(1316′ - 400m)*

CHANGES: Holding over DR revised.

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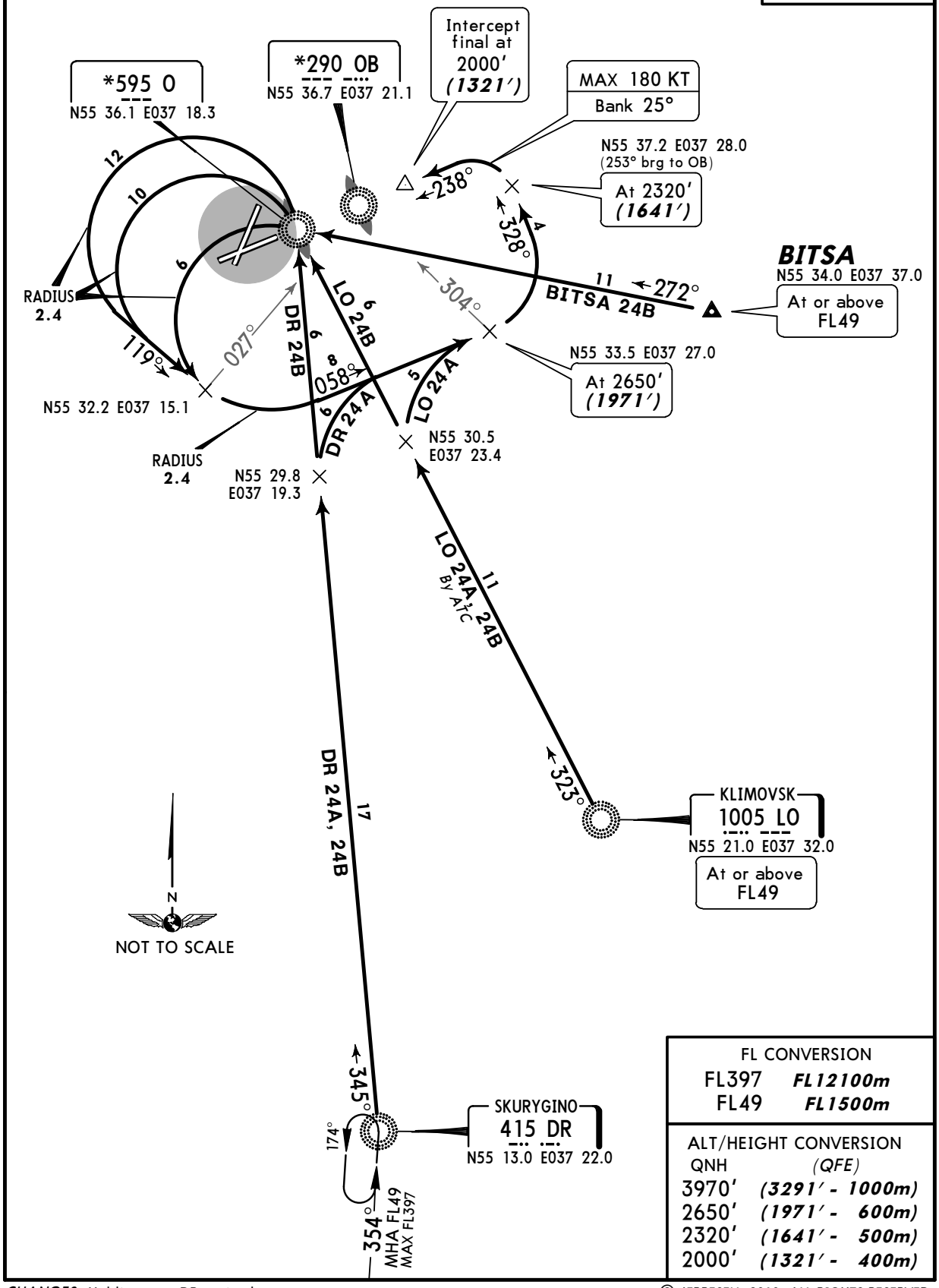
UUWW/VKO
VNUKOVO

JEPPESEN
31 DEC 10 (10-2Q) Eff 13 Jan

MOSCOW, RUSSIA
STAR

ATIS	Apt Elev	
131.85 (Russian 125.87)	685′	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970′ *(3291′)*

BITSA 24B *[BIT24B]*
KLIMOVSK 24A (LO 24A), KLIMOVSK 24B (LO 24B)
SKURYGINO 24A (DR 24A), SKURYGINO 24B (DR 24B)
RWY 24 ARRIVALS
FROM EAST & SOUTHEAST



FL CONVERSION	
FL397	*FL12100m*
FL49	*FL1500m*

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	*(3291′ - 1000m)*
2650′	*(1971′ - 600m)*
2320′	*(1641′ - 500m)*
2000′	*(1321′ - 400m)*

CHANGES: Holding over DR revised.

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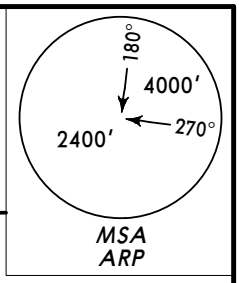
VNUKOVO Radar	Apt Elev	
126.0	685'	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3337′)*** 1. Contact VNUKOVO Radar immediately after crossing 1290′ ***(657′)***. 2. Initial climb clearance 2610′ ***(1977′)***. 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.



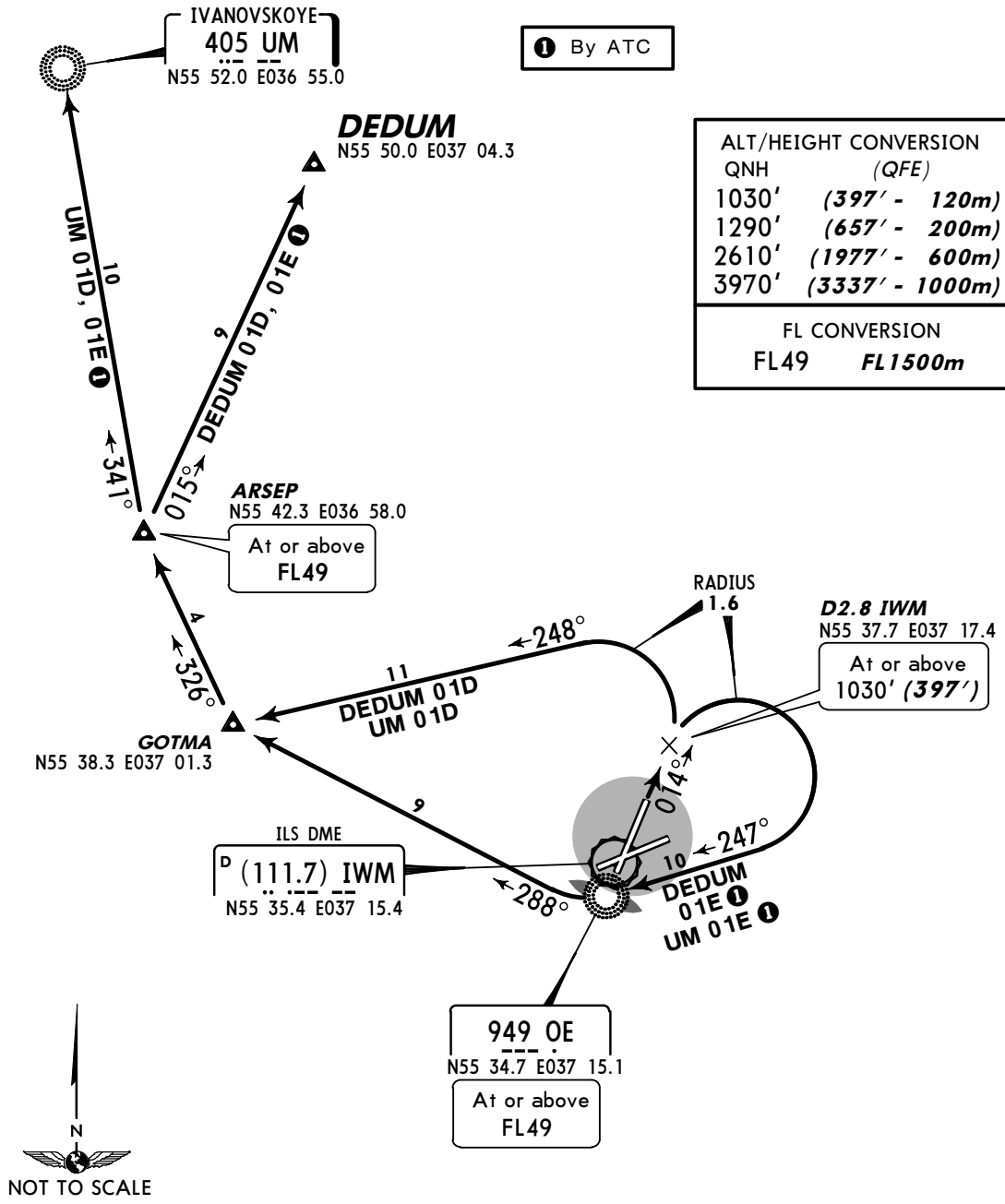
DEDUM 01D *[DEDØ1D]* , DEDUM 01E *[DEDØ1E]* ❶
IVANOVSKOYE 01D (UM 01D), IVANOVSKOYE 01E (UM 01E) ❶
RWY 01 DEPARTURES

FOR TRANISITIONS FROM DEDUM REFER TO CHART 10-3M
FOR TRANISITIONS FROM UM REFER TO CHART 10-3Q
TO NORTHWEST

❶ By ATC

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1030′	***(397′ - 120m)***
1290′	***(657′ - 200m)***
2610′	***(1977′ - 600m)***
3970′	***(3337′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***



CHANGES: Initial climb revised; reference note revised.

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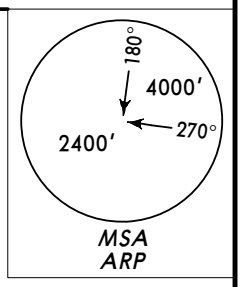
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3333′)*** 1. Contact VNUKOVO Radar immediately after crossing 1300′ ***(663′).*** 2. Initial climb clearance 2610′ ***(1973′).*** 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

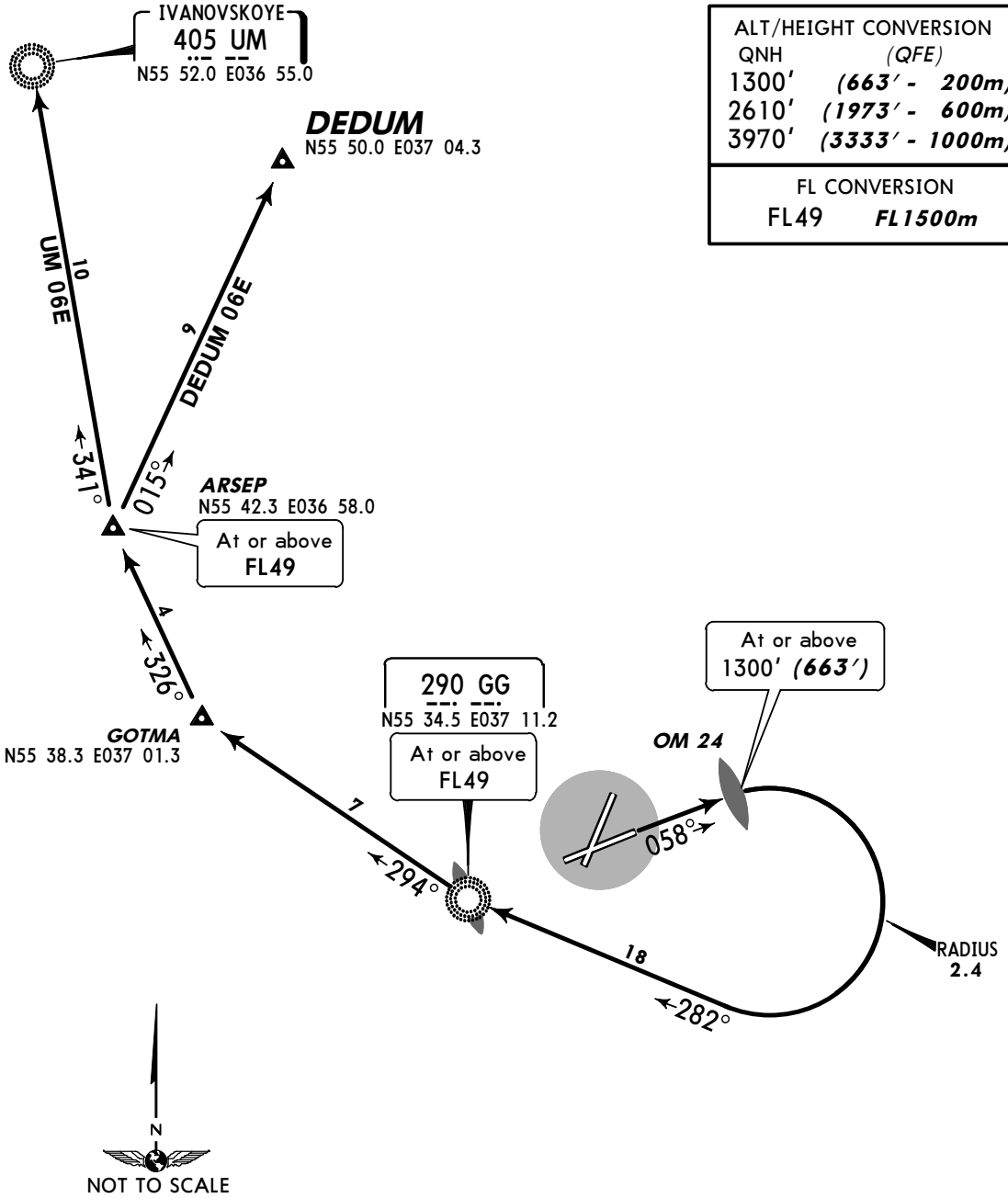
DEDUM 06E *[DEDØ6E]*
IVANOVSKOYE 06E (UM 06E)
RWY 06 DEPARTURES

FOR TRANISITIONS FROM DEDUM REFER TO CHART 10-3M
FOR TRANISITIONS FROM UM REFER TO CHART 10-3Q
TO NORTHWEST



ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1300′	***(663′ - 200m)***
2610′	***(1973′ - 600m)***
3970′	***(3333′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***



CHANGES: Reference note established.

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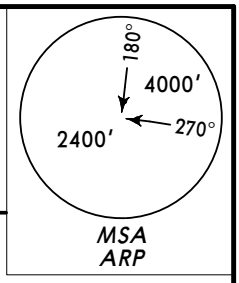
JEPPESEN
JeppView 3.7.3.0

VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3336′)*** 1. Contact VNUKOVO Radar immediately after crossing 1300′ ***(666′)***. 2. Initial climb clearance 2610′ ***(1976′)***. 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

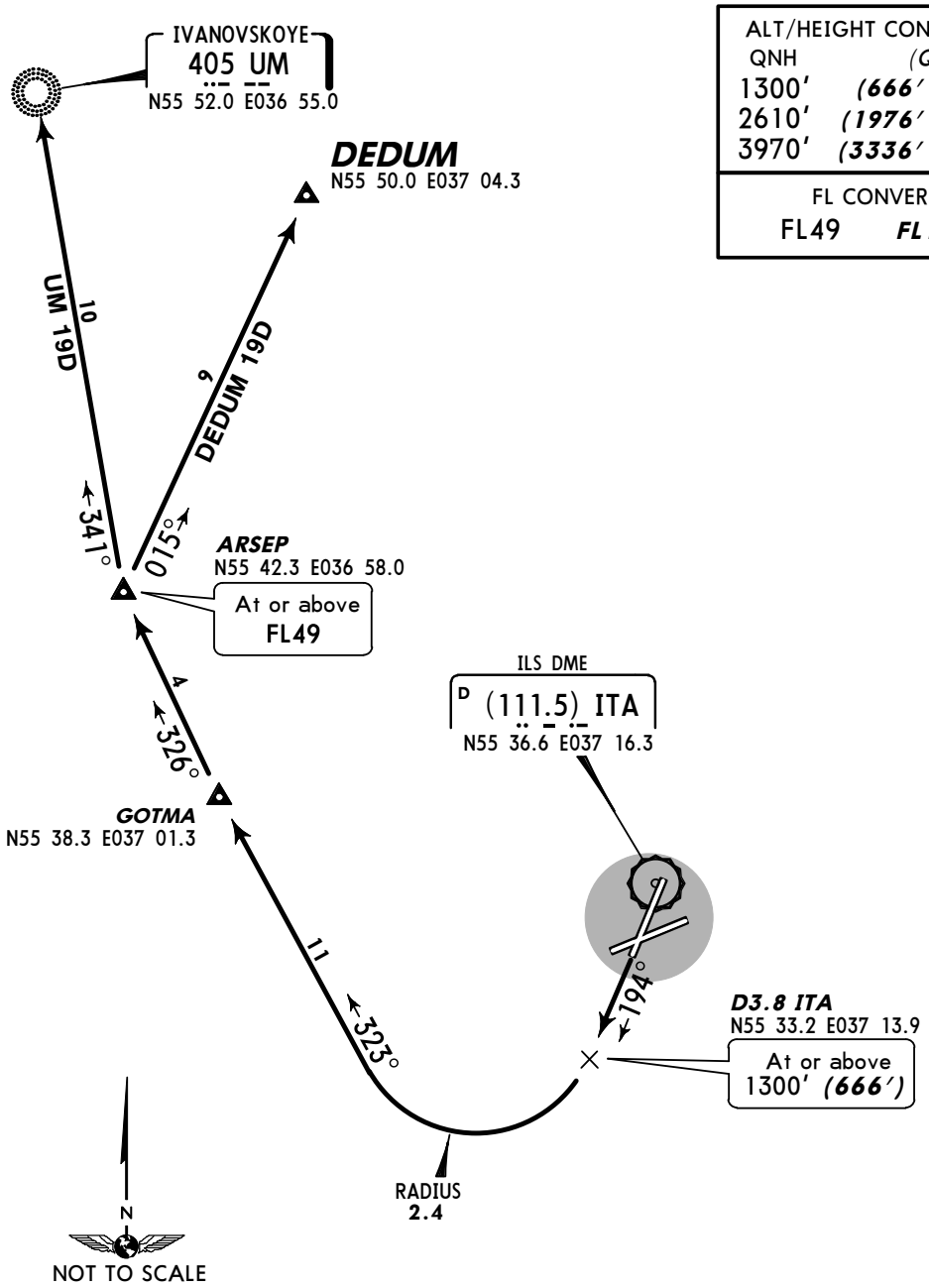


DEDUM 19D *[DED19D]*
IVANOVSKOYE 19D (UM 19D)
RWY 19 DEPARTURES

FOR TRANISITIONS FROM DEDUM REFER TO CHART 10-3M
FOR TRANISITIONS FROM UM REFER TO CHART 10-3Q
TO NORTHWEST

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1300′	***(666′ - 200m)***
2610′	***(1976′ - 600m)***
3970′	***(3336′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***



CHANGES: None.

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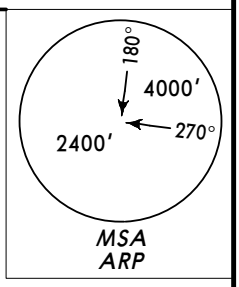
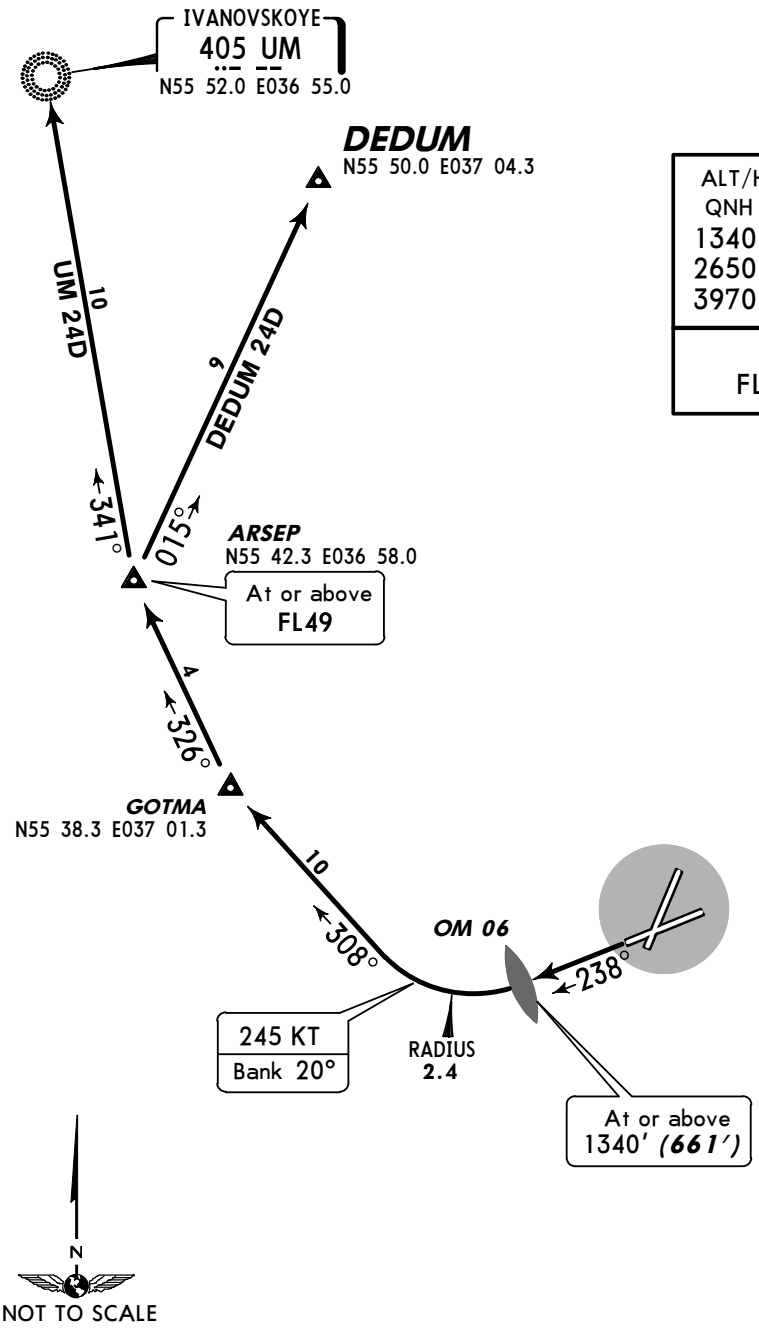
JEPPESEN
JeppView 3.7.3.0

VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3291′)*** 1. Contact VNUKOVO Radar immediately after crossing 1340′ ***(661′).*** 2. Initial climb clearance 2650′ ***(1971′).*** 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

DEDUM 24D *[DED24D]*
IVANOVSKOYE 24D (UM 24D)
RWY 24 DEPARTURES

FOR TRANISITIONS FROM DEDUM REFER TO CHART 10-3M
FOR TRANISITIONS FROM UM REFER TO CHART 10-3Q
TO NORTHWEST





ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1340′	***(661′ - 200m)***
2650′	***(1971′ - 600m)***
3970′	***(3291′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: Crossing at OM.

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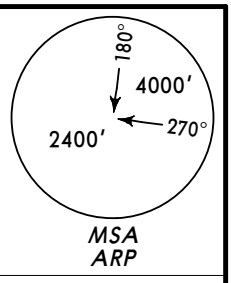
UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (10-3D) Eff 1 Nov

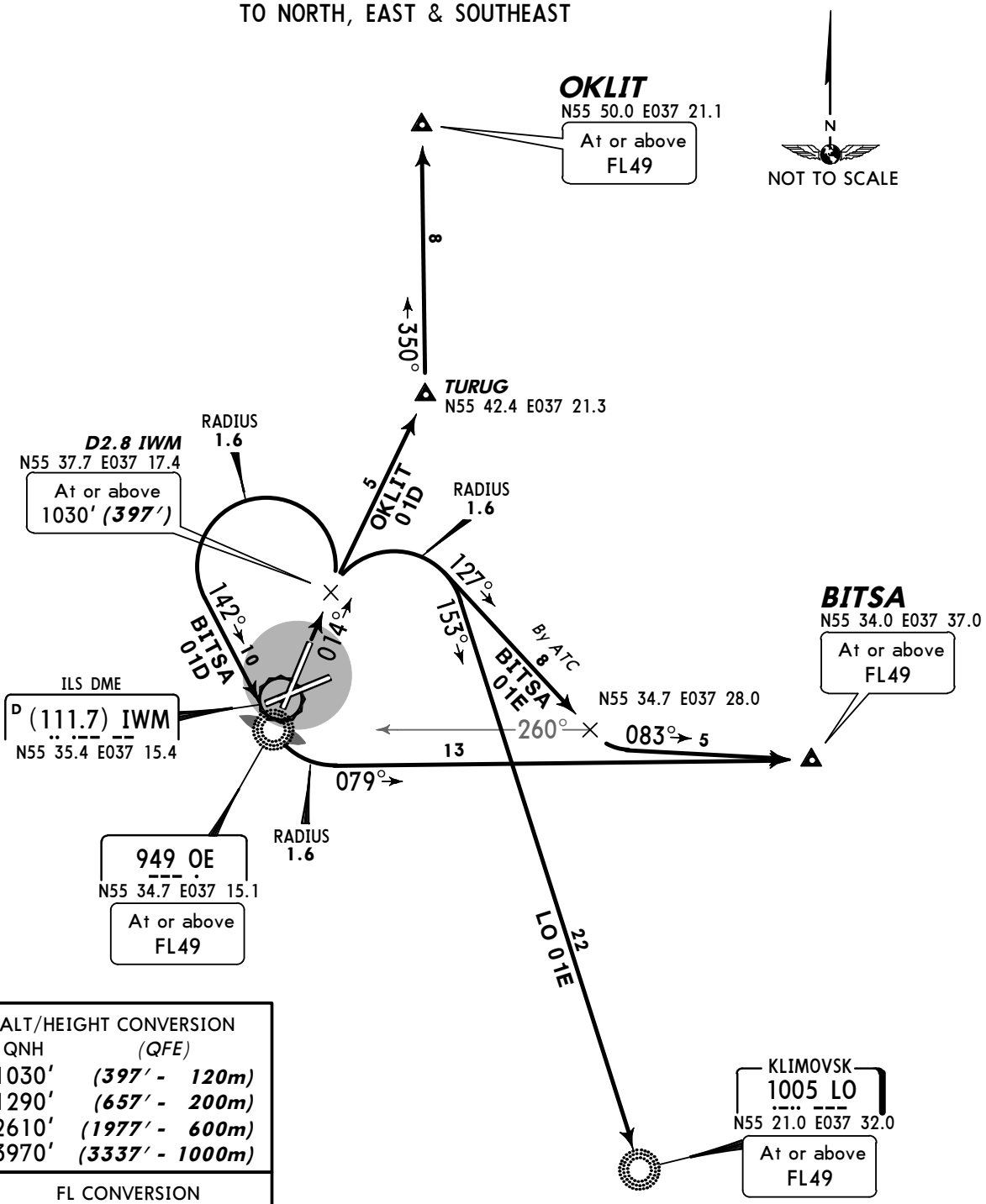
MOSCOW, RUSSIA
SID

VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3337′)*** 1. Contact VNUKOVO Radar immediately after crossing 1290′ ***(657′)***. 2. Initial climb clearance 2610′ ***(1977′)***. 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.



BITSA 01D *[BITØ1D]* , KLIMOVSK 01E (LO 01E)
OKLIT 01D *[OKLØ1D]*
BITSA 01E *[BITØ1E]*
BY ATC

RWY 01 DEPARTURES
FOR TRANISITIONS FROM BITSA & LO REFER TO CHART 10-3N
FOR TRANISITIONS FROM OKLIT REFER TO CHART 10-3M
TO NORTH, EAST & SOUTHEAST



ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1030′	***(397′ - 120m)***
1290′	***(657′ - 200m)***
2610′	***(1977′ - 600m)***
3970′	***(3337′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: Initial climb revised; reference note; crossing at OKLIT.

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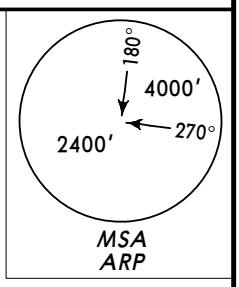
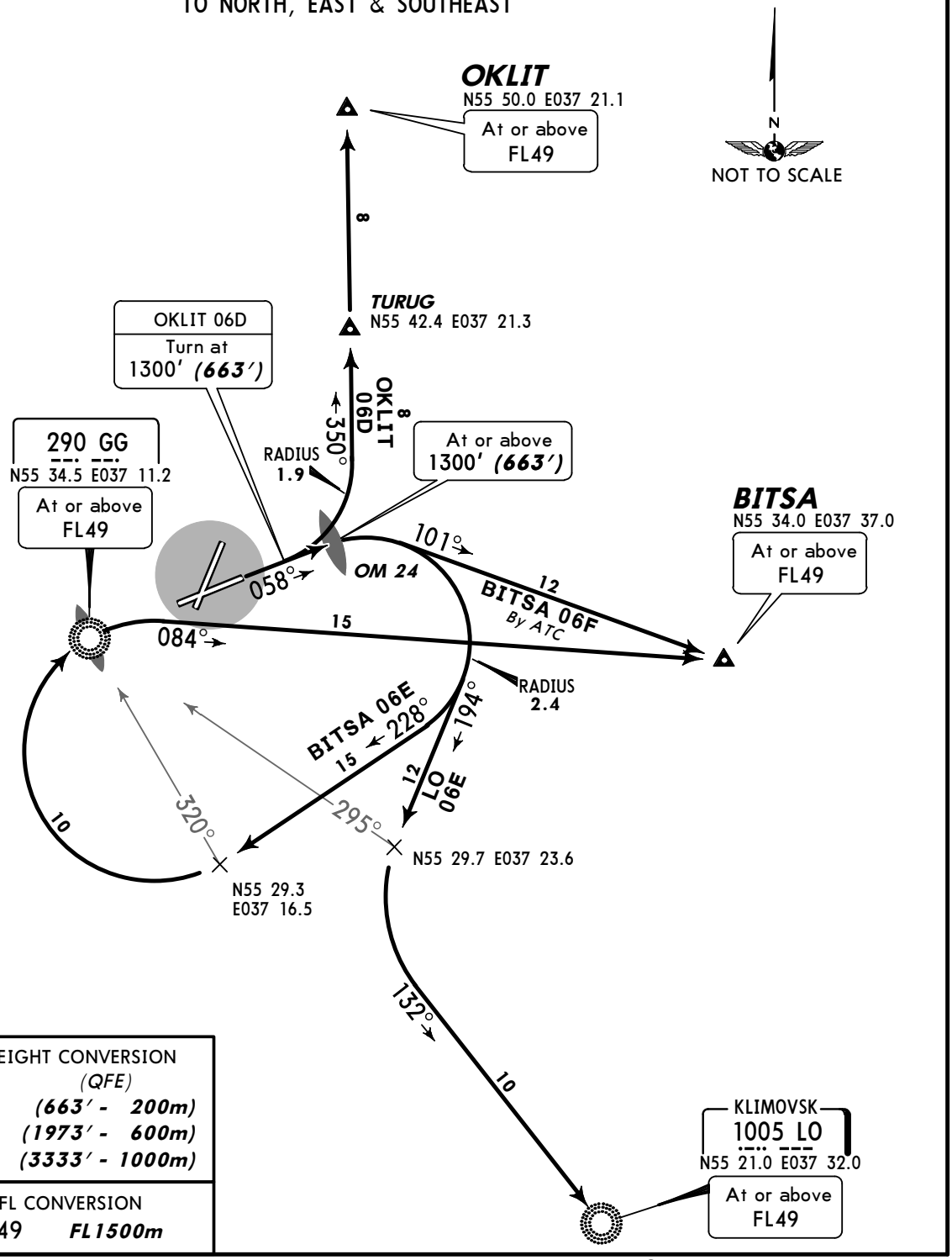
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3333′)*** 1. Contact VNUKOVO Radar immediately after crossing 1300′ ***(663′).*** 2. Initial climb clearance 2610′ ***(1973′).*** 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

BITSA 06E *[BITØ6E]* , KLIMOVSK 06E (LO 06E)
OKLIT 06D *[OKLØ6D]*

BITSA 06F *[BITØ6F]*
BY ATC

RWY 06 DEPARTURES
FOR TRANISITIONS FROM BITSA & LO REFER TO CHART 10-3N
FOR TRANISITIONS FROM OKLIT REFER TO CHART 10-3M
TO NORTH, EAST & SOUTHEAST





ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1300′	***(663′ - 200m)***
2610′	***(1973′ - 600m)***
3970′	***(3333′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: Crossing at OKLIT; reference note.

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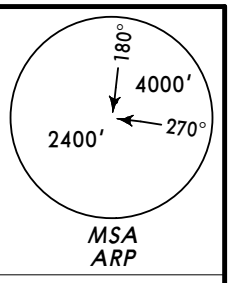
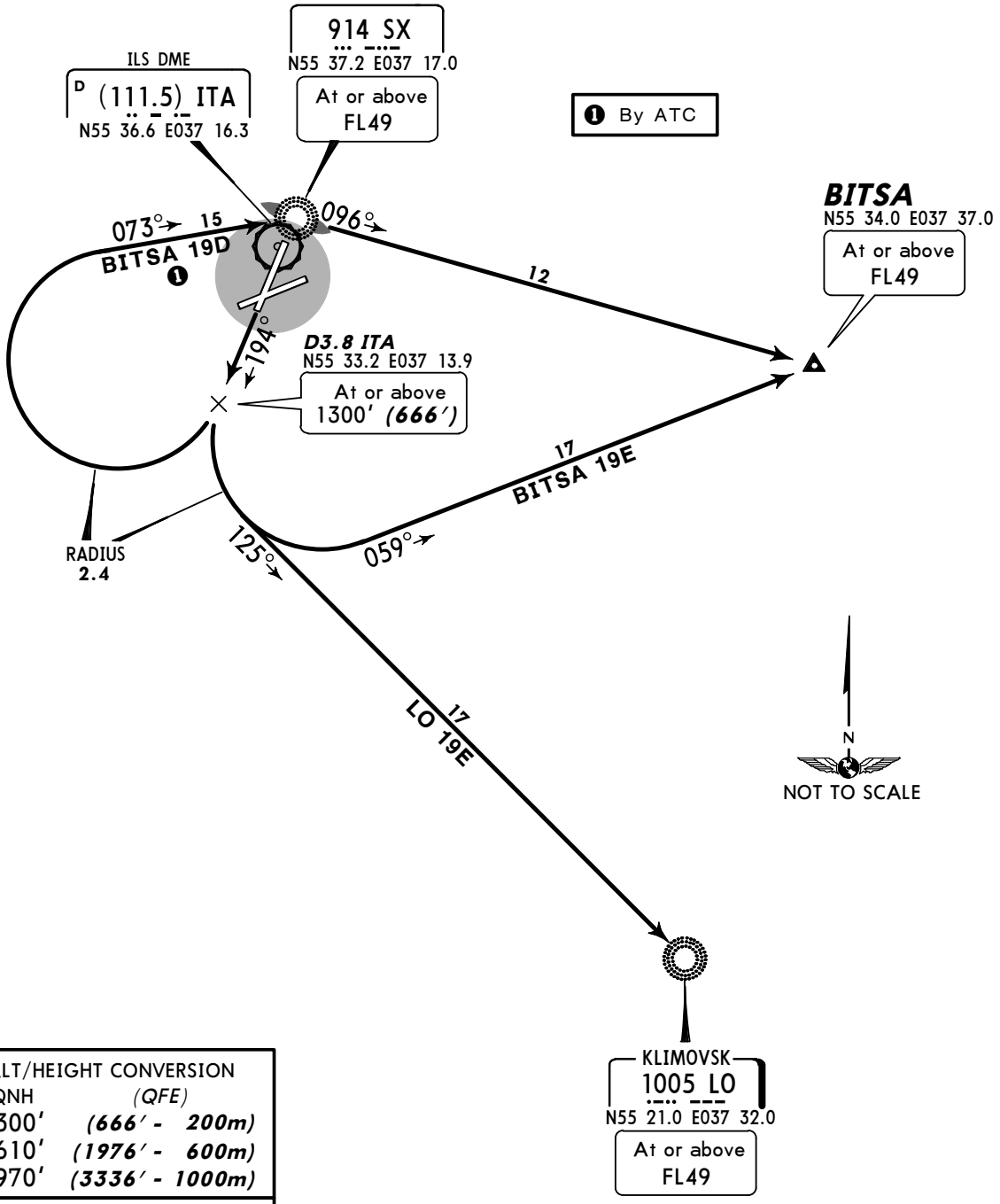
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3336′)*** 1. Contact VNUKOVO Radar immediately after crossing 1300′ ***(666′)***. 2. Initial climb clearance 2610′ ***(1976′)***. 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.



BITSA 19D *[BIT19D]* ❶ , BITSA 19E *[BIT19E]*
KLIMOVSK 19E (LO 19E)
RWY 19 DEPARTURES

FOR TRANISITIONS FROM BITSA & LO REFER TO CHART 10-3N TO EAST & SOUTHEAST



ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1300′	***(666′ - 200m)***
2610′	***(1976′ - 600m)***
3970′	***(3336′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: None.

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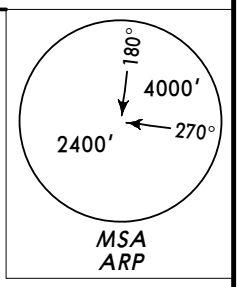
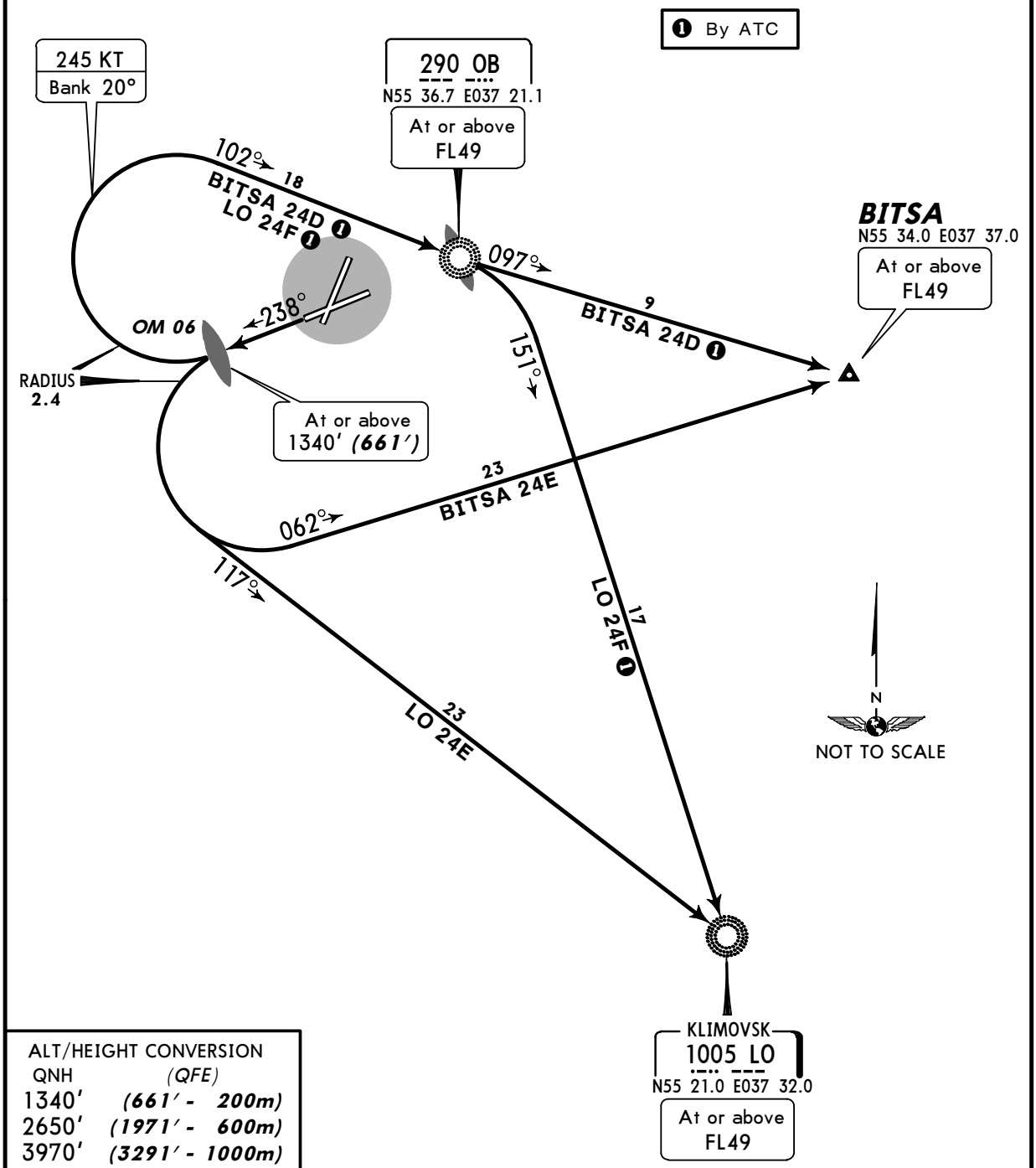
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3291′)*** 1. Contact VNUKOVO Radar immediately after crossing 1340′ ***(661′).*** 2. Initial climb clearance 2650′ ***(1971′).*** 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

BITSA 24D *[BIT24D]* ❶ , BITSA 24E *[BIT24E]*
KLIMOVSK 24E (LO 24E) , KLIMOVSK 24F (LO 24F)❶
RWY 24 DEPARTURES

FOR TRANISITIONS FROM BITSA & LO REFER TO CHART 10-3N TO EAST & SOUTHEAST





ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1340′	***(661′ - 200m)***
2650′	***(1971′ - 600m)***
3970′	***(3291′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: Crossing at OM.

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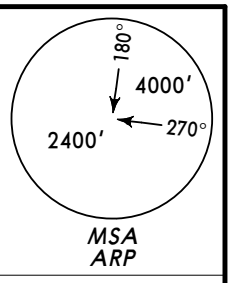
UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (10-3H) Eff 1 Nov

MOSCOW, RUSSIA
SID

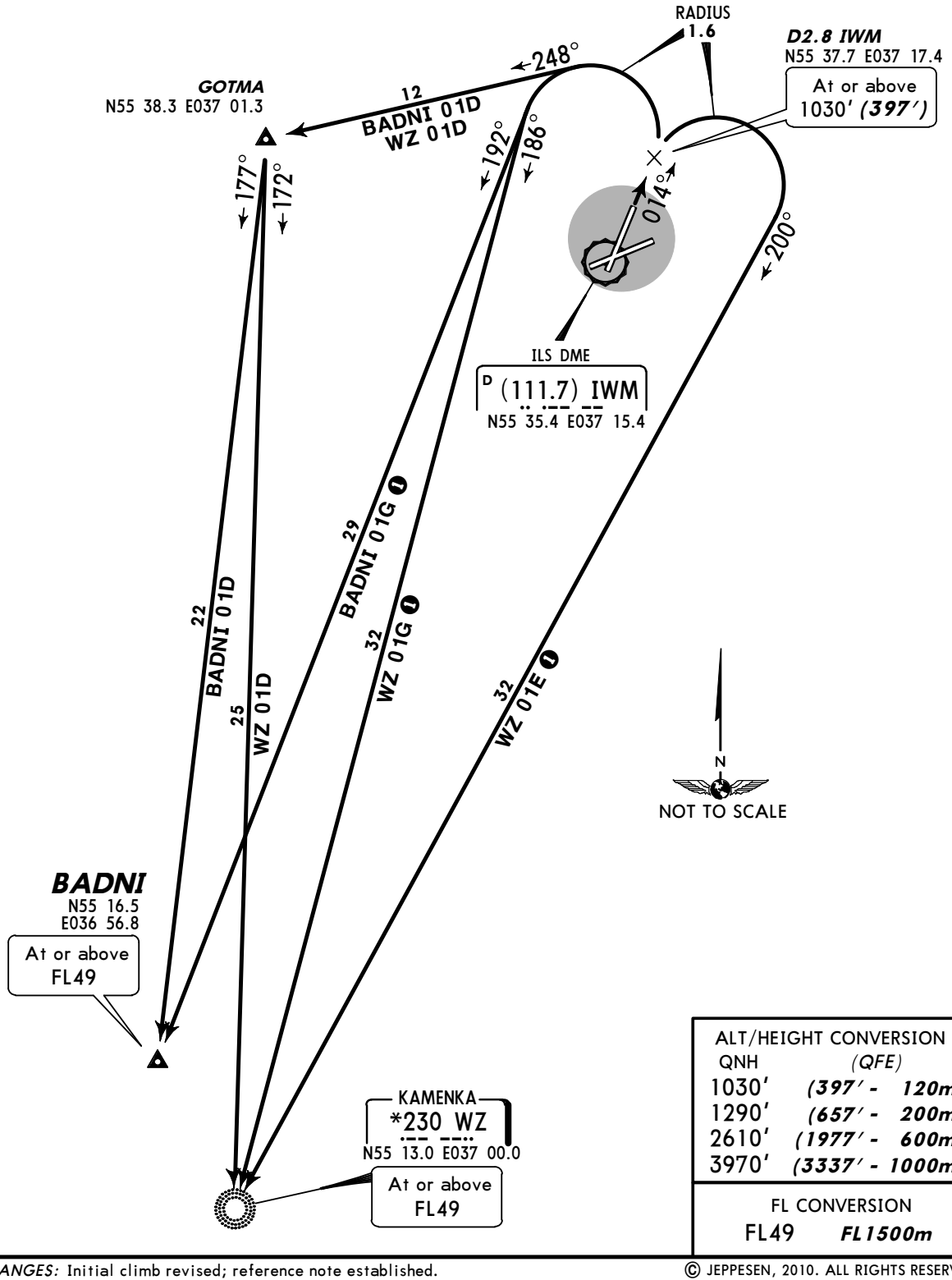
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3337′)*** 1. Contact VNUKOVO Radar immediately after crossing 1290′ ***(657′)***. 2. Initial climb clearance 2610′ ***(1977′)***. 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.



BADNI 01D *[BADØ1D]*, BADNI 01G *[BADØ1G]* ❶
KAMENKA 01D (WZ 01D), KAMENKA 01E (WZ 01E)❶
KAMENKA 01G (WZ 01G)❶
RWY 01 DEPARTURES

FOR TRANISITIONS FROM BADNI & WZ REFER TO CHART 10-3P TO SOUTHWEST

❶ By ATC



ALT/HEIGHT CONVERSION

QNH	(QFE)
1030′	***(397′ - 120m)***
1290′	***(657′ - 200m)***
2610′	***(1977′ - 600m)***
3970′	***(3337′ - 1000m)***

FL CONVERSION

FL49 ***FL1500m***

CHANGES: Initial climb revised; reference note established.

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UUWW/VKO
VNUKOVO

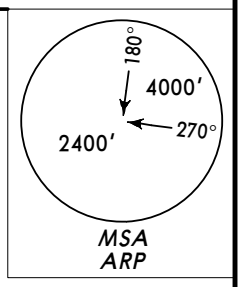
JEPPESEN
22 OCT 10 (10-3J) Eff 1 Nov

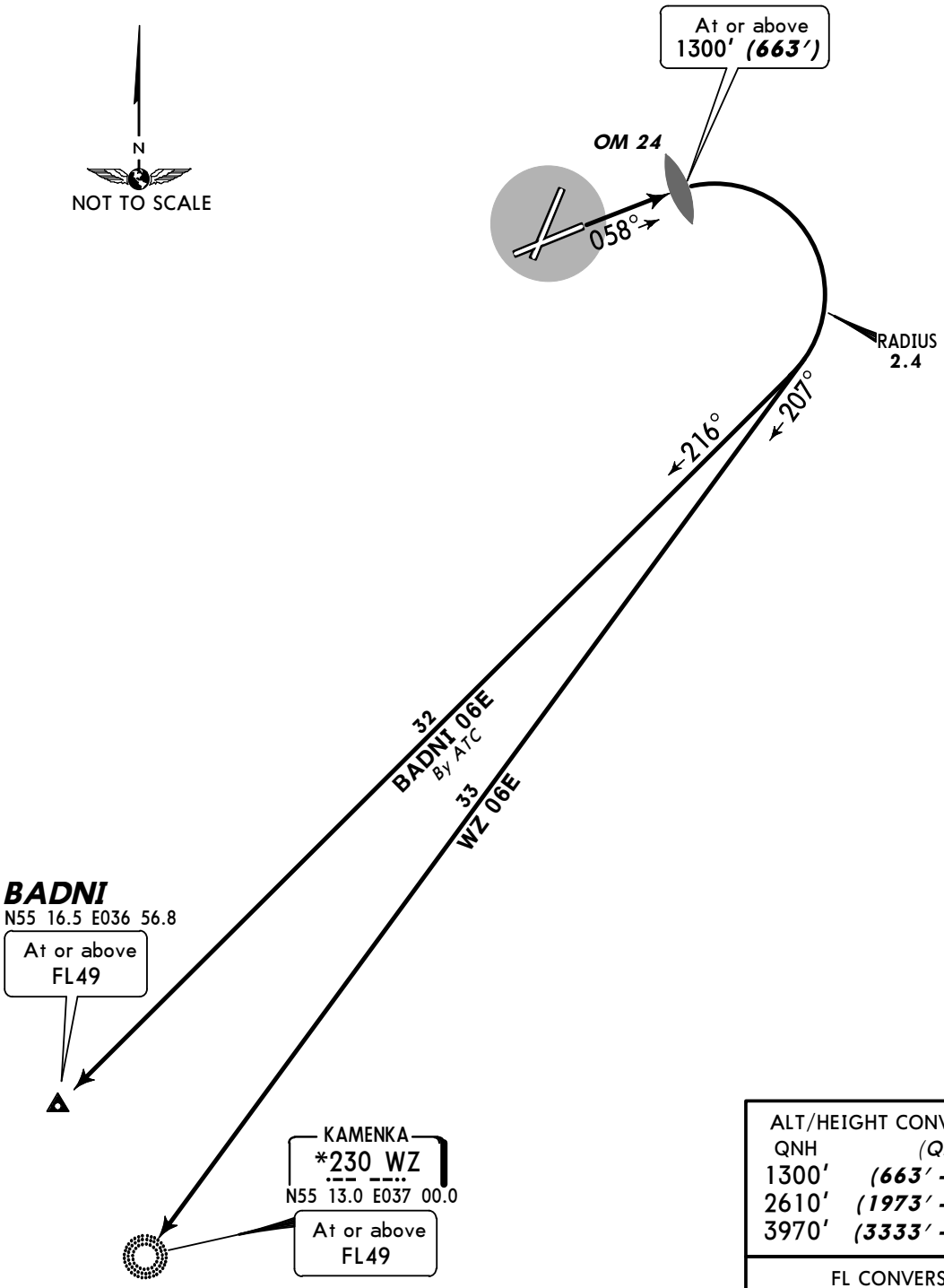
MOSCOW, RUSSIA
SID

VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3333′)*** 1. Contact VNUKOVO Radar immediately after crossing 1300′ ***(663′).*** 2. Initial climb clearance 2610′ ***(1973′).*** 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

BADNI 06E *[BADØ6E]*
BY ATC

KAMENKA 06E (WZ 06E)
RWY 06 DEPARTURES
FOR TRANISITIONS FROM BADNI & WZ REFER TO CHART 10-3P TO SOUTHWEST





ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1300′	***(663′ - 200m)***
2610′	***(1973′ - 600m)***
3970′	***(3333′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: Reference note established.

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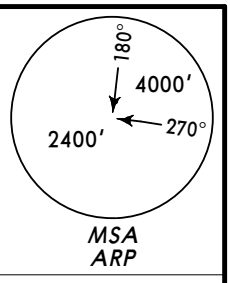
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3336′)*** 1. Contact VNUKOVO Radar immediately after crossing 1300′ ***(666′)***. 2. Initial climb clearance 2610′ ***(1976′)***. 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

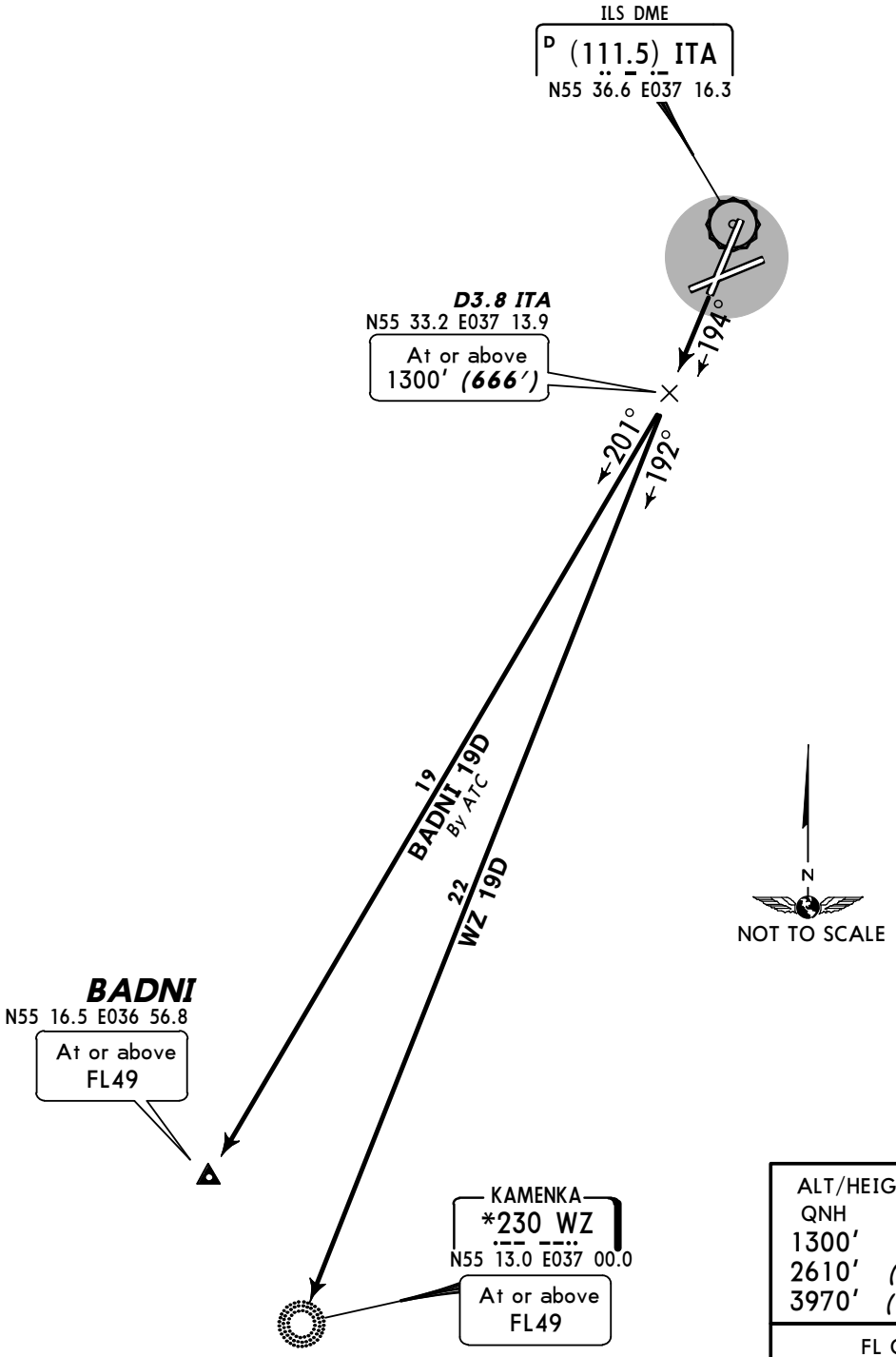


BADNI 19D *[BAD19D]*

BY ATC

KAMENKA 19D (WZ 19D)
RWY 19 DEPARTURES

FOR TRANISITIONS FROM BADNI & WZ REFER TO CHART 10-3P TO SOUTHWEST



ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1300′	***(666′ - 200m)***
2610′	***(1976′ - 600m)***
3970′	***(3336′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: None.

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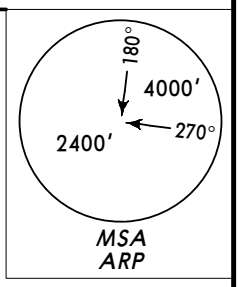
VNUKOVO Radar 126.0	Apt Elev 685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3291′)*** 1. Contact VNUKOVO Radar immediately after crossing 1340′ ***(661′).*** 2. Initial climb clearance 2650′ ***(1971′).*** 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.

BADNI 24E *[BAD24E]* ❶ , KAMENKA 24E (WZ 24E)
KAMENKA 24F (WZ 24F)❶
RWY 24 DEPARTURES

FOR TRANISITIONS FROM BADNI & WZ REFER TO CHART 10-3P TO SOUTHWEST



❶ By ATC

290 OB
N55 36.7 E037 21.1
At or above FL49

102°
18
WZ 24F ❶
238°
245 KT
Bank 20°
OM 06
RADIUS 2.4
193°
184°
At or above 1340′ ***(661′)***
203°
22
BADNI 24E ❶
25
WZ 24E
29

N
NOT TO SCALE

BADNI
N55 16.5 E036 56.8
At or above FL49

KAMENKA
*230 WZ
N55 13.0 E037 00.0
At or above FL49

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
1340′	***(661′ - 200m)***
2650′	***(1971′ - 600m)***
3970′	***(3291′ - 1000m)***

FL CONVERSION	
FL49	***FL1500m***

CHANGES: Crossing at OM.

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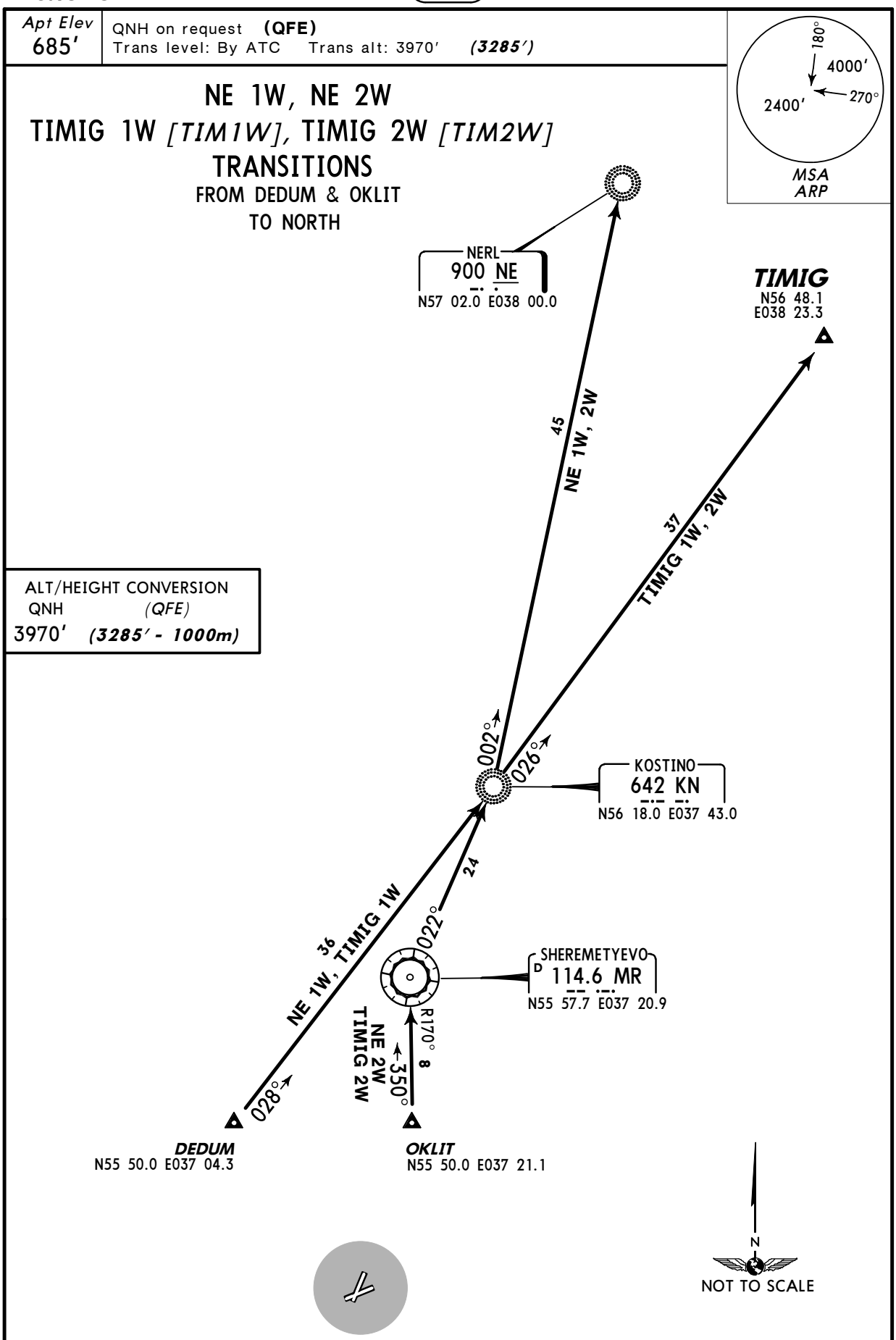
UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (10-3M) Eff 1 Nov

MOSCOW, RUSSIA
TRANSITION

Apt Elev	
685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3285′)***



TRANSITION	ROUTING
NE 1W	From DEDUM to KN, then to NE.
NE 2W	From OKLIT to MR, then via KN to NE.
TIMIG 1W	From DEDUM to KN, then to TIMIG.
TIMIG 2W	From OKLIT to MR, then via KN to TIMIG.

CHANGES: New chart.

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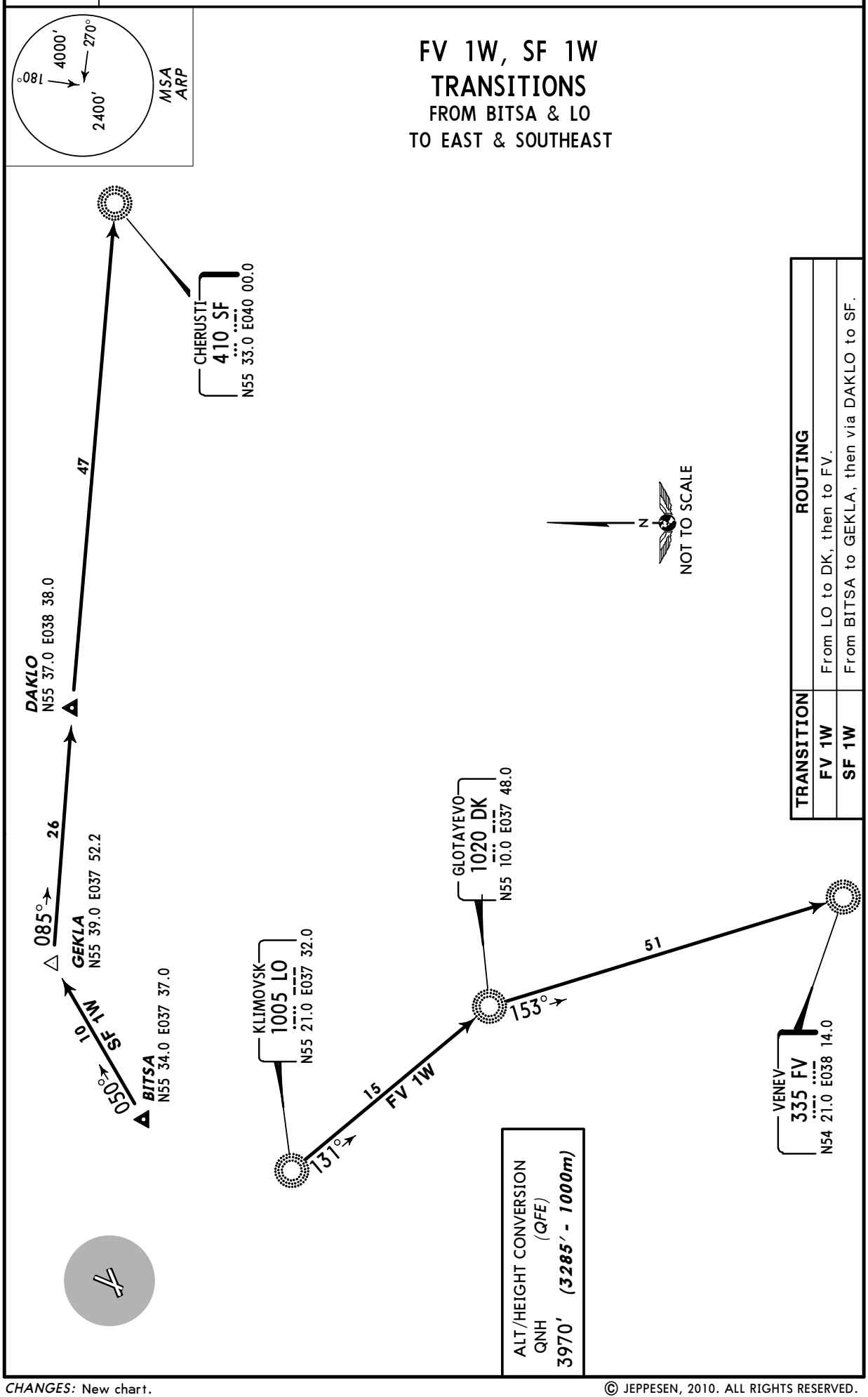
UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (10-3N) Eff 1 Nov

MOSCOW, RUSSIA
TRANSITION

Apt Elev	
685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3285′)***



TRANSITION	ROUTING
FV 1W	From LO to DK, then to FV.
SF 1W	From BITSA to GEKLA, then via DAKLO to SF.

CHANGES: New chart.

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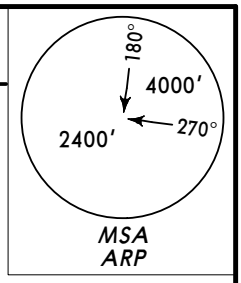
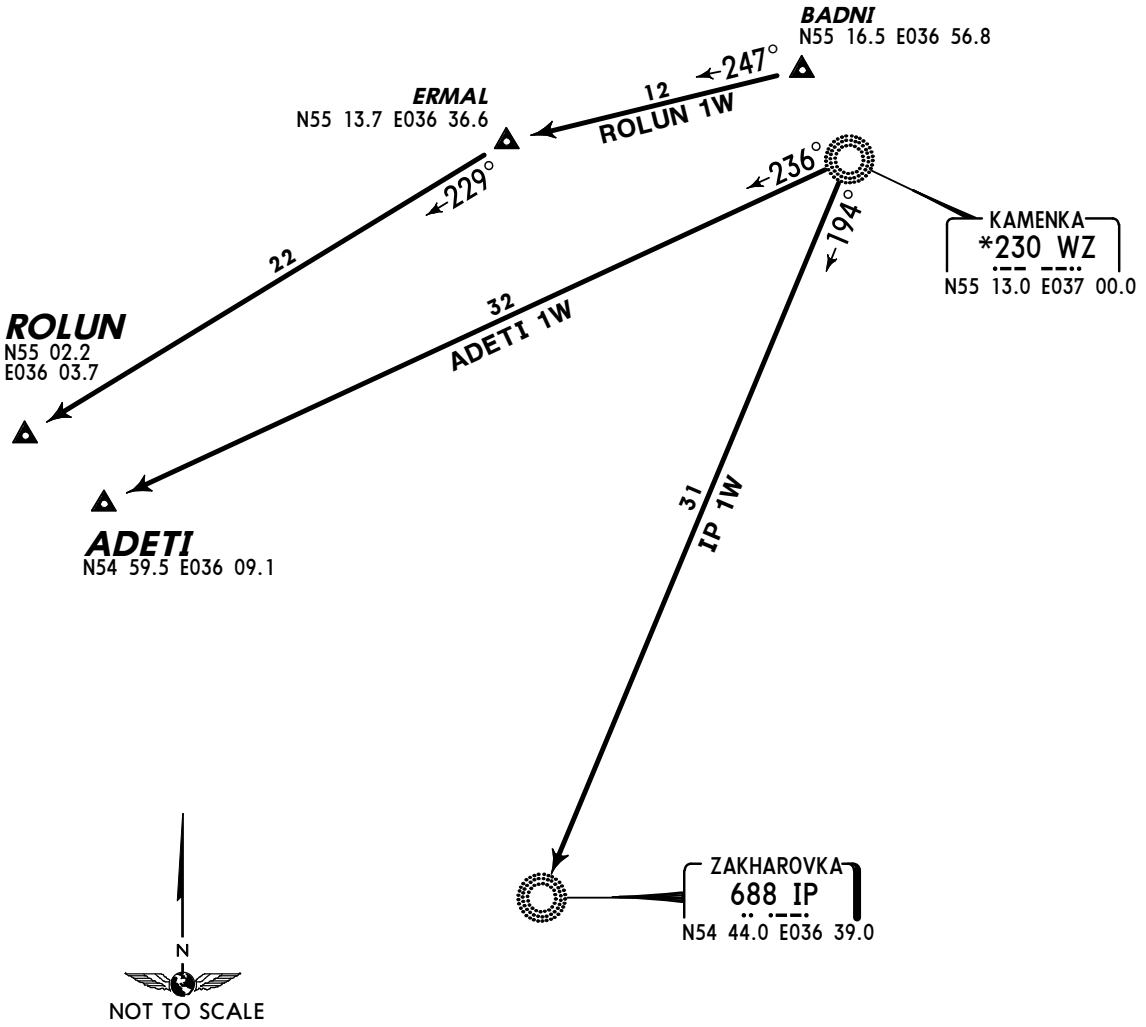
Apt Elev	
685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3285′)***



ADETI 1W *[ADE1W]*, IP 1W
ROLUN 1W *[ROL1W]*
TRANSITIONS
FROM BADNI & WZ
TO SOUTH & SOUTHWEST

ALT/HEIGHT CONVERSION	
QNH	*(QFE)*
3970′	***(3285′ - 1000m)***



TRANSITION	ROUTING
ADETI 1W	From WZ to ADETI.
IP 1W	From WZ to IP.
ROLUN 1W	From BADNI to ERMAL, then to ROLUN.

CHANGES: New chart.

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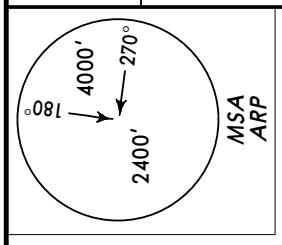
UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (10-3Q) Eff 1 Nov

MOSCOW, RUSSIA
TRANSITION

Apt Elev	
685′	QNH on request **(QFE)** Trans level: By ATC Trans alt: 3970′ ***(3285′)***



BELAG 1W *[BEL1W]*, BELAG 2W *[BEL2W]*
BG 1W, OBELU 1W *[OBE1W]*
TRANSITIONS
FROM UM
TO WEST

ALT/HEIGHT CONVERSION
QNH *(QFE)*
3970′ ***(3285′ - 1000m)***

BUZHAROVO
1080 AR
N55 59.0 E036 48.0

IVANOVSKOYE
405 UM
N55 52.0 E036 55.0

8 321°
289°
273°
254°
37 OBELU 1W
52 BELAG 1W
42 BELAG 2W, BG 1W
19 BELAG 2W 322°
253°
24 BG 1W

OBELU
N56 16.2 E035 48.8

MAKSI
N55 53.4 E035 33.4

BELAG
N56 09.7 E035 17.4

KARMANOVO
745 BG
N55 50.0 E034 52.0

N
NOT TO SCALE

TRANSITION	ROUTING
BELAG 1W	From UM to AR, then to BELAG.
BELAG 2W	From UM to AR, then to MAKSI, then to BELAG.
BG 1W	From UM to AR, then via MAKSI to BG.
OBELU 1W	From UM to AR, then OBELU.

CHANGES: New chart.

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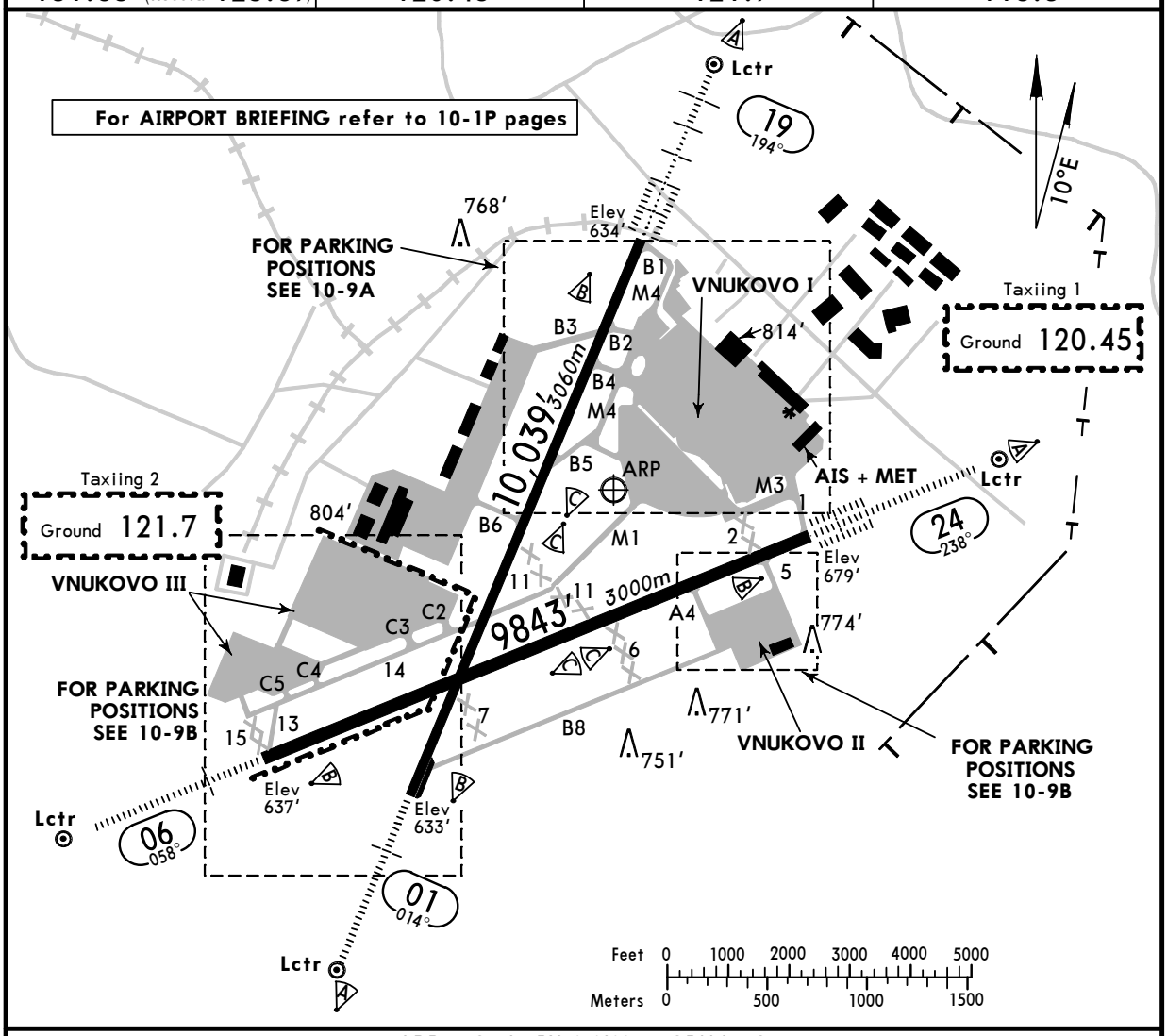
UUWW/VKO

Apt Elev **685′**
N55 36.0 E037 16.4

JEPPESEN
17 SEP 10 (10-9) **Eff 23 Sep**

MOSCOW, RUSSIA
VNUKOVO

ATIS	VNUKOVO Taxiing 1 (GND)	VNUKOVO Taxiing 2 (GND)	Start (TWR)
131.85 (Russian 125.87)	120.45	121.7	118.3



ADDITIONAL RUNWAY INFORMATION

RWY		Usable Lengths: Landing Beyond Threshold	Landing Beyond Glide Slope	TAKE-OFF	WIDTH
01	HIRL *(60m)* CL *(15m)* HIALS PAPI-L(3.00°) RVR		9067′ *2764m*	❶	148′ *45m*
19	HIRL *(60m)* CL *(15m)* HIALS-II TDZ PAPI-L(3.00°) RVR				
06	HIRL *(60m)* CL *(15m)* HIALS PAPI-L(2.73°) RVR		8567′ *2611m*	❷	197′ *60m*
24	HIRL *(60m)* CL *(15m)* HIALS-II TDZ PAPI-L(3.00°) RVR		8749′ *2667m*		

❶ TORA RWY 01: From rwy head 10,039′(3060m)
rwy 06/24 int 8045′(2452m)
twy 14/M1 int 6936′(2114m)

RWY 19: From rwy head 10,039′(3060m)
twy B2 int 8317′(2535m)
twy B4 int 7661′(2335m)

❷ TORA RWY 06: From rwy head 9843′(3000m)
rwy 01/19 int 6398′(1950m)

TAKE-OFF

	AIR CARRIER: Rwy 06/24 LVP must be in force RL & CL	AIR CARRIER: All Rwys LVP must be in force RCLM (DAY only) or RL	AIR CARRIER: All Rwys RCLM (DAY only) or RL	AIR CARRIER (FAR 121) Rwy 06/24: CL & RCLM any RVR out, other two req.	AIR CARRIER (FAR 121) Rwy 06/24: Adequate Vis Ref	AIR CARRIER (FAR 121) Rwy 01/19: Adequate Vis Ref
A	*200m (150m)*	*250m*	*400m*	2 Eng: TDZ RVR *200m*, Mid RVR *200m*, Roll out RVR *150m*	RVR *500m* VIS *400m*	RVR *500m* VIS *400m*
B						
C						
D	*250m (200m)*	*300m*		3 & 4 Eng		

CHANGES: Usable lengths.

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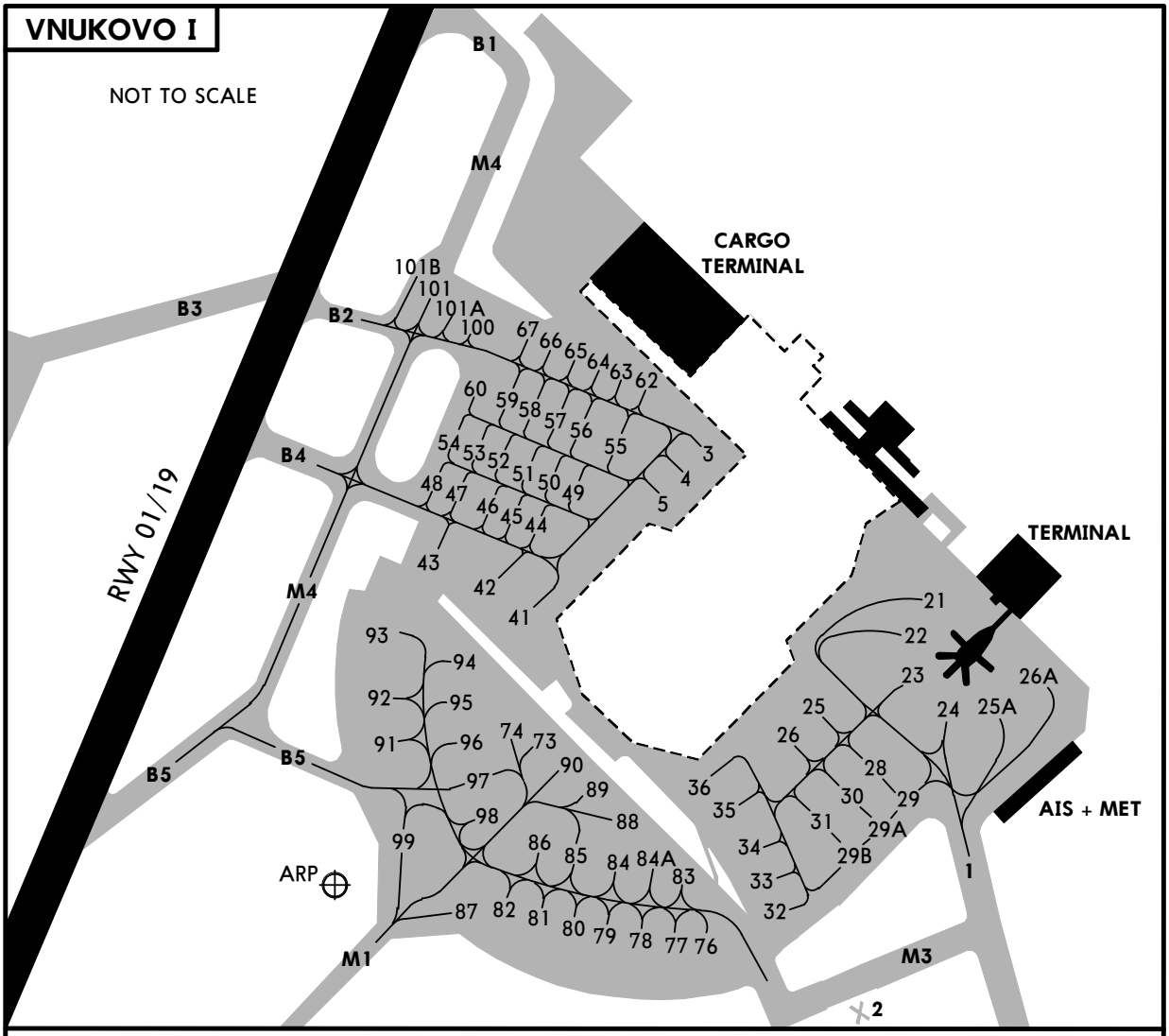

INS COORDINATES

STAND No.	COORDINATES		STAND No.	COORDINATES	
3	N55 36.3	E037 17.1	59, 60	N55 36.4	E037 16.7
4	N55 36.3	E037 17.0	62 thru 64	N55 36.4	E037 16.9
5	N55 36.3	E037 16.9	65 thru 67	N55 36.4	E037 16.8
21 thru 24A	N55 36.2	E037 17.3	73	N55 36.1	E037 16.8
25	N55 36.1	E037 17.2	74	N55 36.1	E037 16.7
25A	N55 36.2	E037 17.4	76	N55 36.0	E037 17.0
26	N55 36.1	E037 17.1	77, 78	N55 35.9	E037 16.9
26A	N55 36.2	E037 17.4	79	N55 35.9	E037 16.8
28	N55 36.1	E037 17.2	80, 81	N55 36.0	E037 16.8
29	N55 36.1	E037 17.3	82	N55 36.0	E037 16.7
29A, 29B	N55 36.0	E037 17.2	83 thru 84A	N55 36.0	E037 16.9
30	N55 36.1	E037 17.2	85, 86	N55 36.0	E037 16.8
31 thru 33	N55 36.0	E037 17.1	87	N55 36.0	E037 16.7
34	N55 36.0	E037 17.0	88	N55 36.1	E037 16.9
35, 36	N55 36.1	E037 17.0	89, 90	N55 36.1	E037 16.8
41	N55 36.2	E037 16.8	91	N55 36.1	E037 16.5
42	N55 36.2	E037 16.7	92, 93	N55 36.2	E037 16.5
43	N55 36.2	E037 16.6	94	N55 36.2	E037 16.7
44	N55 36.2	E037 16.8	95	N55 36.2	E037 16.6
45 thru 47	N55 36.3	E037 16.7	96 thru 98	N55 36.1	E037 16.7
48	N55 36.3	E037 16.6	99	N55 36.0	E037 16.6
49 thru 51	N55 36.3	E037 16.8	100	N55 36.4	E037 16.7
52 tru 54	N55 36.3	E037 16.7	101, 101A	N55 36.5	E037 16.7
55	N55 36.3	E037 16.9	101B	N55 36.5	E037 16.6
56 thru 58	N55 36.4	E037 16.8			

CHANGES: None.

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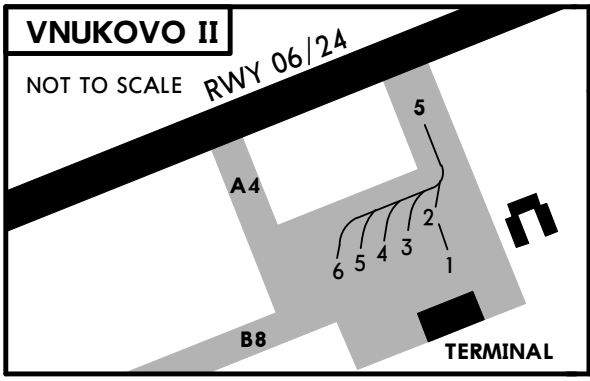
VNUKOVO II

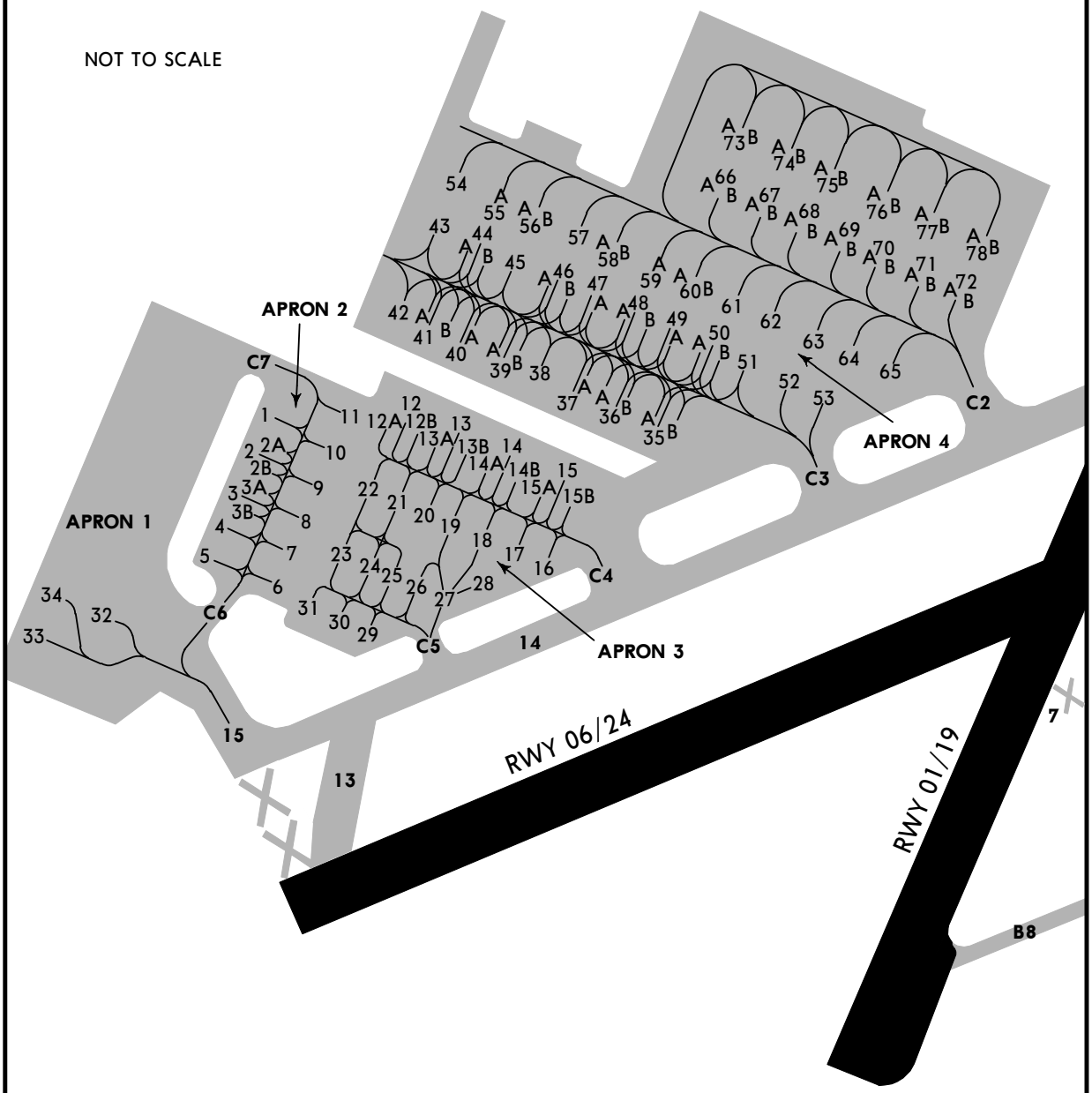
NOT TO SCALE



INS COORDINATES	
STAND No.	COORDINATES
1, 2	N55 35.6 E037 17.3

VNUKOVO III

NOT TO SCALE



INS COORDINATES	
STAND No.	COORDINATES
1 thru 9	N55 35.5 E037 14.7
10, 11	N55 35.6 E037 14.7
12	N55 35.6 E037 14.8
13 thru 15	N55 35.5 E037 14.9
16 thru 31	N55 35.5 E037 14.8

CHANGES: Apron. Stands.

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UUWW/VKO

JEPPESEN
16 JUL 10 (10-9S) Eff 29 Jul

Standard

MOSCOW, RUSSIA
VNUKOVO

STRAIGHT-IN RWY		A	B	C	D
01	ILS	**833**′(200′)	**833**′(200′)	**833**′(200′)	**833**′(200′)
	FULL	**R550m**	**R550m**	**R550m**	**R550m**
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB ❶	**1400**′(767′)	**1400**′(767′)	**1400**′(767′)	**1400**′(767′)
		R1500m	**R1500m**	**C2400m**	**C2400m**
	PAR	**856**′(223′)	**866**′(233′)	**876**′(243′)	**886**′(253′)
		R750m	**R750m**	**R750m**	**R750m**
	ALS out	R1200m	R1200m	R1300m	R1300m
06	ILS	**837**′(200′)	**837**′(200′)	**837**′(200′)	**837**′(200′)
	FULL	**R550m**	**R550m**	**R550m**	**R550m**
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB	**1390**′(753′)	**1390**′(753′)	**1390**′(753′)	**1390**′(753′)
		C2900m	**C2900m**	**C3100m**	**C3100m**
	ALS out	C3700m	C3700m	C3900m	C3900m
19	CAT 2 ILS	**734**′(100′)	**734**′(100′)	**734**′(100′)	**734**′(100′)
		RA105′ R350m	**RA105′ R350m**	**RA105′ R350m**	**RA105′ R350m**
	ILS	**834**′(200′)	**834**′(200′)	**834**′(200′)	**834**′(200′)
	FULL	**R550m**	**R550m**	**R550m**	**R550m**
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB ❶	**1410**′(776′)	**1410**′(776′)	**1410**′(776′)	**1410**′(776′)
		R1500m	**R1500m**	**C2400m**	**C2400m**
	PAR	**857**′(223′)	**867**′(233′)	**877**′(243′)	**887**′(253′)
		R750m	**R750m**	**R750m**	**R750m**
	ALS out	R1200m	R1200m	R1300m	R1300m
24	CAT 2 ILS	**779**′(100′)	**779**′(100′)	**779**′(100′)	**779**′(100′)
		RA111′ R350m	**RA111′ R350m**	**RA111′ R350m**	**RA111′ R350m**
	ILS	**879**′(200′)	**879**′(200′)	**879**′(200′)	**879**′(200′)
	FULL	**R550m**	**R550m**	**R550m**	**R550m**
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	NDB	**1590**′(911′)	**1590**′(911′)	**1590**′(911′)	**1590**′(911′)
		C3800m	**C3800m**	**C4000m**	**C4000m**
	ALS out	C4500m	C4500m	C4700m	C4700m

❶ Continuous Descent Final Approach

CHANGES: PAR added. NDB.

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TAKE-OFF RWY 01, 06, 19, 24

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

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STRAIGHT-IN RWY		A	B	C	D
01	ILS	**833′**(200′)	**833′**(200′)	**833′**(200′)	**833′**(200′)
		R550m	**R550m**	**R550m**	**R550m**
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT AUTHORIZED			
	NDB	**1400′**(767′)	**1400′**(767′)	**1400′**(767′)	**1400′**(767′)
		R1200m	**R1400m**	**R1400m**	**R1800m**
	ALS out	R1500m	R1500m	R2000m	R2000m
	PAR	**856′**(223′)	**866′**(233′)	**876′**(243′)	**886′**(253′)
		R600m	**R600m**	**R600m**	**R650m**
	ALS out	R1000m	R1000m	R1000m	R1200m
06	ILS	**837′**(200′)	**837′**(200′)	**837′**(200′)	**837′**(200′)
		R550m	**R550m**	**R550m**	**R550m**
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT AUTHORIZED			
	NDB	**1390′**(753′)	**1390′**(753′)	**1390′**(753′)	**1390′**(753′)
		R1200m	**R1400m**	**R1400m**	**R1800m**
	ALS out	R1500m	R1500m	R2000m	R2000m
19	CAT 2 ILS	**734′**(100′)	**734′**(100′)	**734′**(100′)	**734′**(100′)
		RA105′ R350m	**RA105′ R350m**	**RA105′ R350m**	**RA105′ R350m**
	ILS	**834′**(200′)	**834′**(200′)	**834′**(200′)	**834′**(200′)
		R550m	**R550m**	**R550m**	**R550m**
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT AUTHORIZED			
	NDB	**1410′**(776′)	**1410′**(776′)	**1410′**(776′)	**1410′**(776′)
		R1200m	**R1400m**	**R1400m**	**R1800m**
	ALS out	R1500m	R1500m	R2000m	R2000m
	PAR	**857′**(223′)	**867′**(233′)	**877′**(243′)	**887′**(253′)
		R600m	**R600m**	**R600m**	**R650m**
	ALS out	R1000m	R1000m	R1000m	R1200m
24	CAT 2 ILS	**779′**(100′)	**779′**(100′)	**779′**(100′)	**779′**(100′)
		RA111′ R350m	**RA111′ R350m**	**RA111′ R350m**	**RA111′ R350m**
	ILS	**879′**(200′)	**879′**(200′)	**879′**(200′)	**879′**(200′)
		R550m	**R550m**	**R550m**	**R550m**
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT AUTHORIZED			
	NDB	**1590′**(911′)	**1590′**(911′)	**1590′**(911′)	**1590′**(911′)
		R1200m	**R1400m**	**R1400m**	**R1800m**
	ALS out	R1500m	R1500m	R2000m	R2000m

TAKE-OFF RWY 01, 06, 19, 24

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

CHANGES: PAR added. NDB.

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UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10
Eff 1 Nov

MOSCOW, RUSSIA
(11-1) ILS DME or NDB/MKR Rwy 01

BRIEFING STRIP ™

ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3

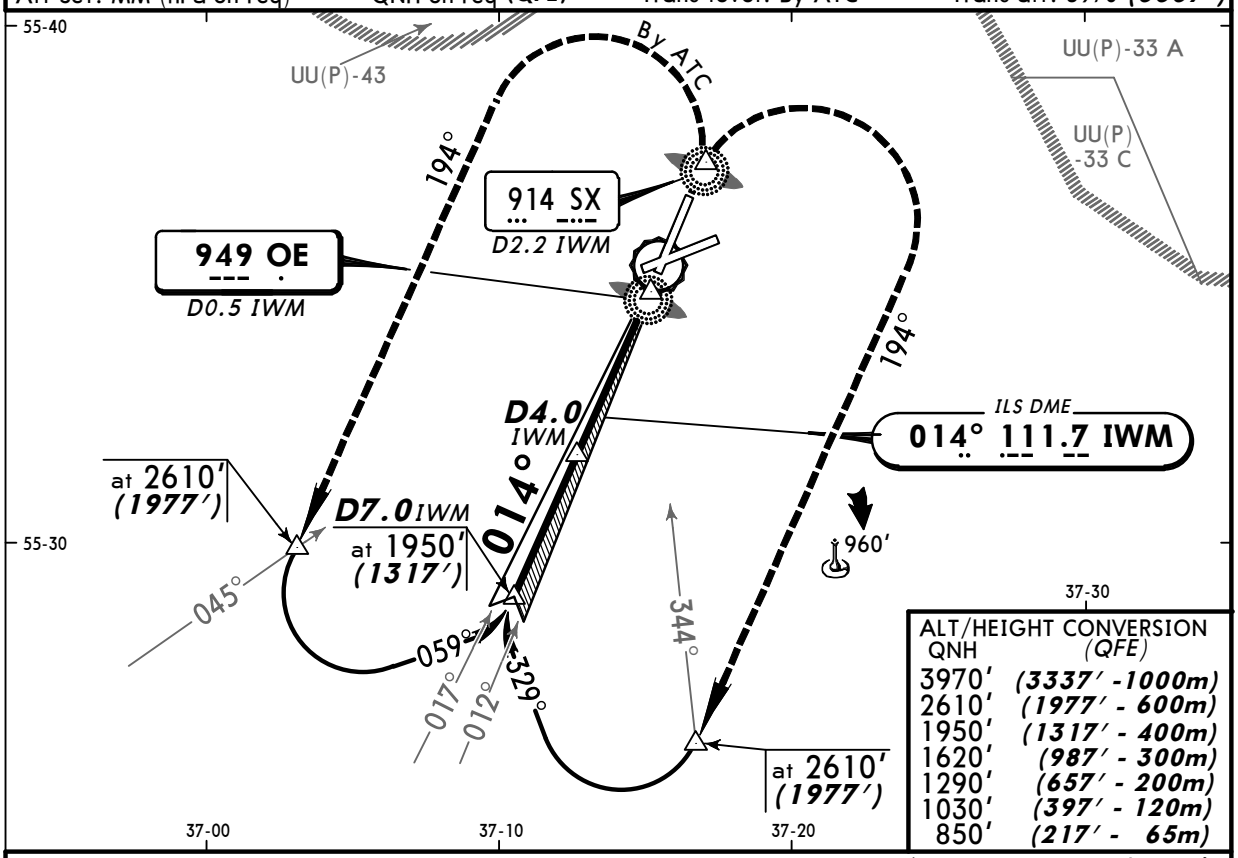
VNUKOVO Radar	VNUKOVO Tower (PAR)	VNUKOVO Start(TWR)	Ground
126.0	118.3	118.3	120.45 121.7

LOC IWM 111.7	Final Apch Crs 014°	GS D4.0 IWM 1945′(1312′)	ILS DA(H) 833′(200′)	Apt Elev 685′
NDB OE 949		Minimum Alt D4.0 IWM 1950′(1317′)	NDB MDA(H) 1400′(767′)	RWY 633′

MISSED APCH: ILS: Climb to 1030′ (397′) or above. After passing SX NDB/MKR turn RIGHT onto 194° climbing to 2610′ (1977′), then according to chart. At 1290′(657′) immediately contact Radar. NDB: Climb STRAIGHT AHEAD to 1620′ (987′). After passing SX NDB/MKR turn RIGHT onto 194° climbing to 2610′ (1977′), then according to chart. On Missed Approach immediately contact Radar.

180° 4000′ 270° 2400′
MSA
Airport

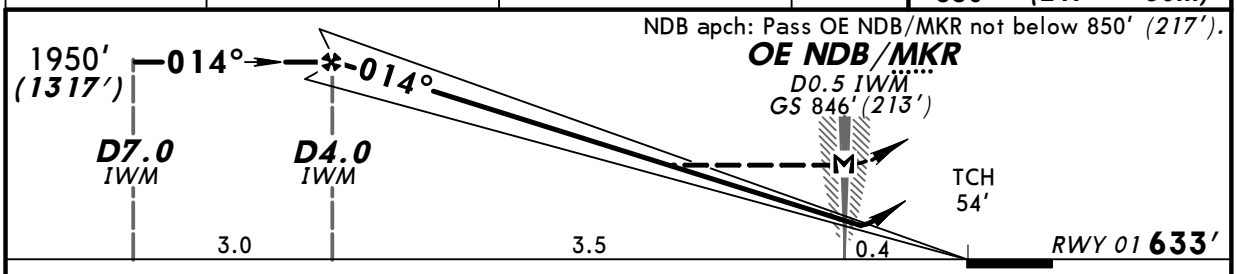
Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970′(3337′)



ALT/HEIGHT CONVERSION

QNH	(QFE)
3970′	(3337′ -1000m)
2610′	(1977′ - 600m)
1950′	(1317′ - 400m)
1620′	(987′ - 300m)
1290′	(657′ - 200m)
1030′	(397′ - 120m)
850′	(217′ - 65m)

NDB apch: Pass OE NDB/MKR not below 850′ (217′).



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or NDB Desc Angle 3.00°	377	484	538	646	753	861
MAP at OE NDB/MKR						

HIALS
PAPI

Refer to Missed Apch above

PANS OPS

STRAIGHT-IN LANDING RWY 01

	ILS DA(H) 833′(200′) FULL	ILS DA(H) 833′(200′) ALS out	LOC (GS out)	NDB MDA(H) 1400′(767′)	NDB MDA(H) 1400′(767′) ALS out
A	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m
B					
C				2800m	3600m
D				3600m	4000m

CHANGES: Procedure.

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UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10
Eff 1 Nov
(11-2)

MOSCOW, RUSSIA
ILS or 2 NDB Rwy 06

BRIEFING STRIP ™

ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3

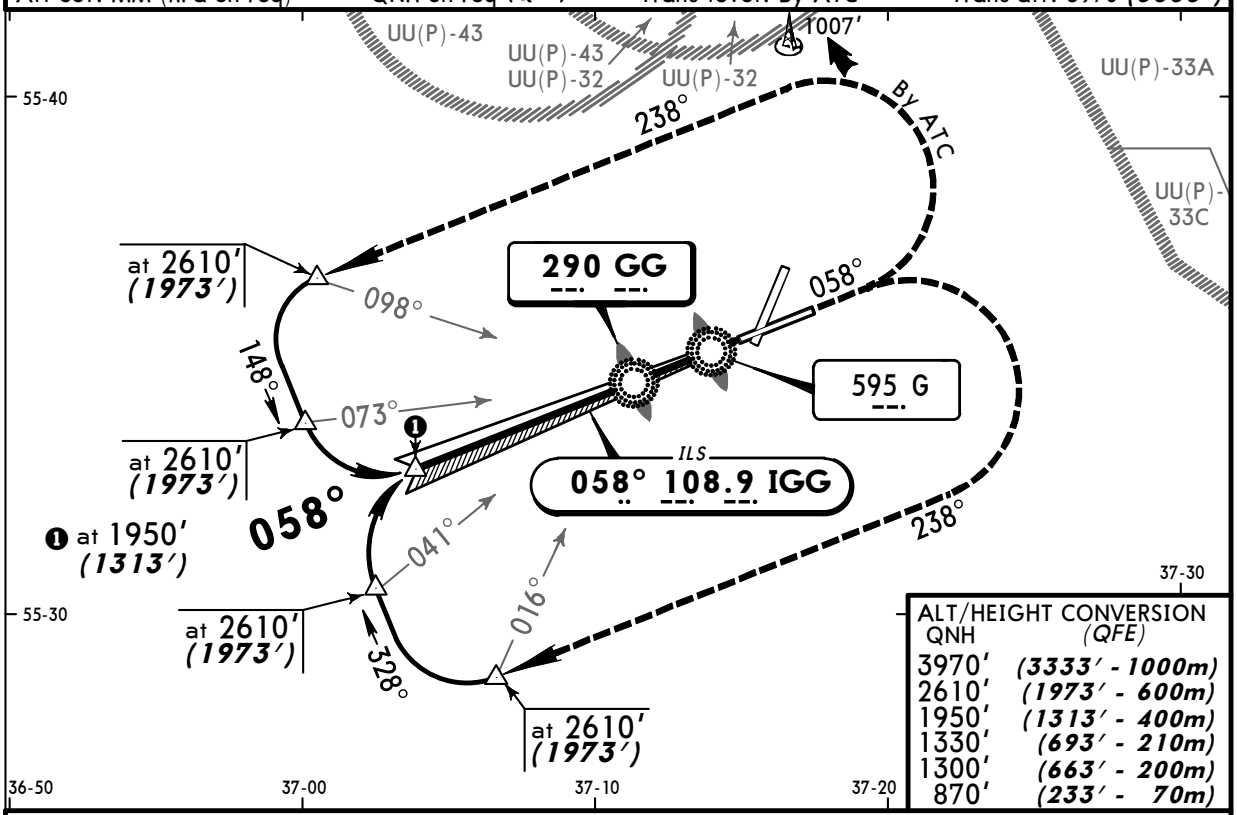
VNUKOVO Radar	VNUKOVO Tower (PAR)	VNUKOVO Start(TWR)	Ground
126.0	118.3	118.3	120.45 121.7

LOC IGG 108.9	Final Apch Crs 058°	GS LOM 1326′ (689′)	ILS DA(H) 837′ (200′)	Apt Elev 685′
NDB GG 290		Minimum Alt LOM 1330′ (693′)	NDB MDA(H) 1390′ (753′)	RWY 637′

MISSED APCH: Climb on 058° to 1300′ (663′), then turn RIGHT onto 238° climbing to 2610′ (1973′), then as directed.
At 1300′ (663′), immediately contact Radar.

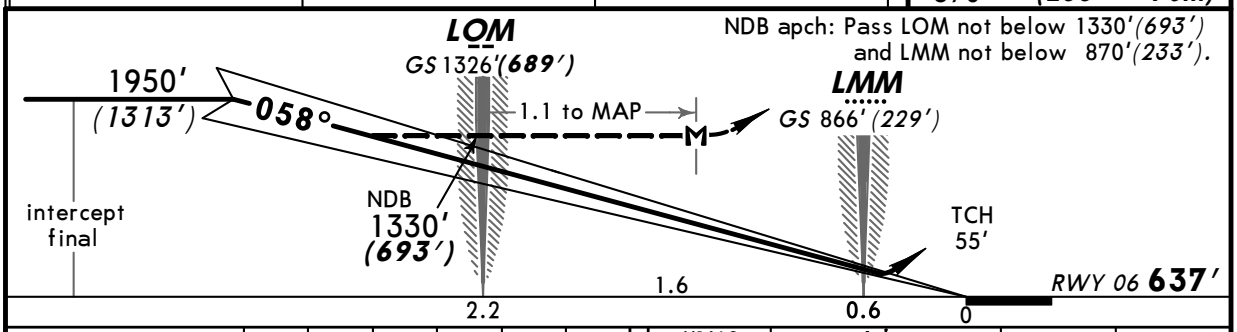
MSA Airport: 180° 4000′; 270° 2400′

Alt Set: MM (hPa on req) | QNH on req (QFE) | Trans level: By ATC | Trans alt: 3970′ (3333′)



ALT/HEIGHT CONVERSION

QNH	(QFE)
3970′	(3333′ - 1000m)
2610′	(1973′ - 600m)
1950′	(1313′ - 400m)
1330′	(693′ - 210m)
1300′	(663′ - 200m)
870′	(233′ - 70m)



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or NDB Desc Angle 2.73°	340	437	486	583	681	778
LOM to MAP 1.1	0:57	0:44	0:40	0:33	0:28	0:25

HIALS / PAPI

1300′ (663′) on 058° | 238° RT | 2610′ (1973′)

STRAIGHT-IN LANDING RWY 06

PANS OPS

	ILS DA(H) 837′ (200′) FULL	ILS DA(H) 837′ (200′) ALS out	LOC (GS out)	NDB MDA(H) 1390′ (753′)	NDB MDA(H) 1390′ (753′) ALS out
A	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1800m VIS 2000m
B					
C				2800m	3600m
D				3600m	4000m

CHANGES: Minimums.

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UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10
Eff 1 Nov

MOSCOW, RUSSIA
(11-3) ILS DME or NDB/MKR Rwy 19

BRIEFING STRIP ™

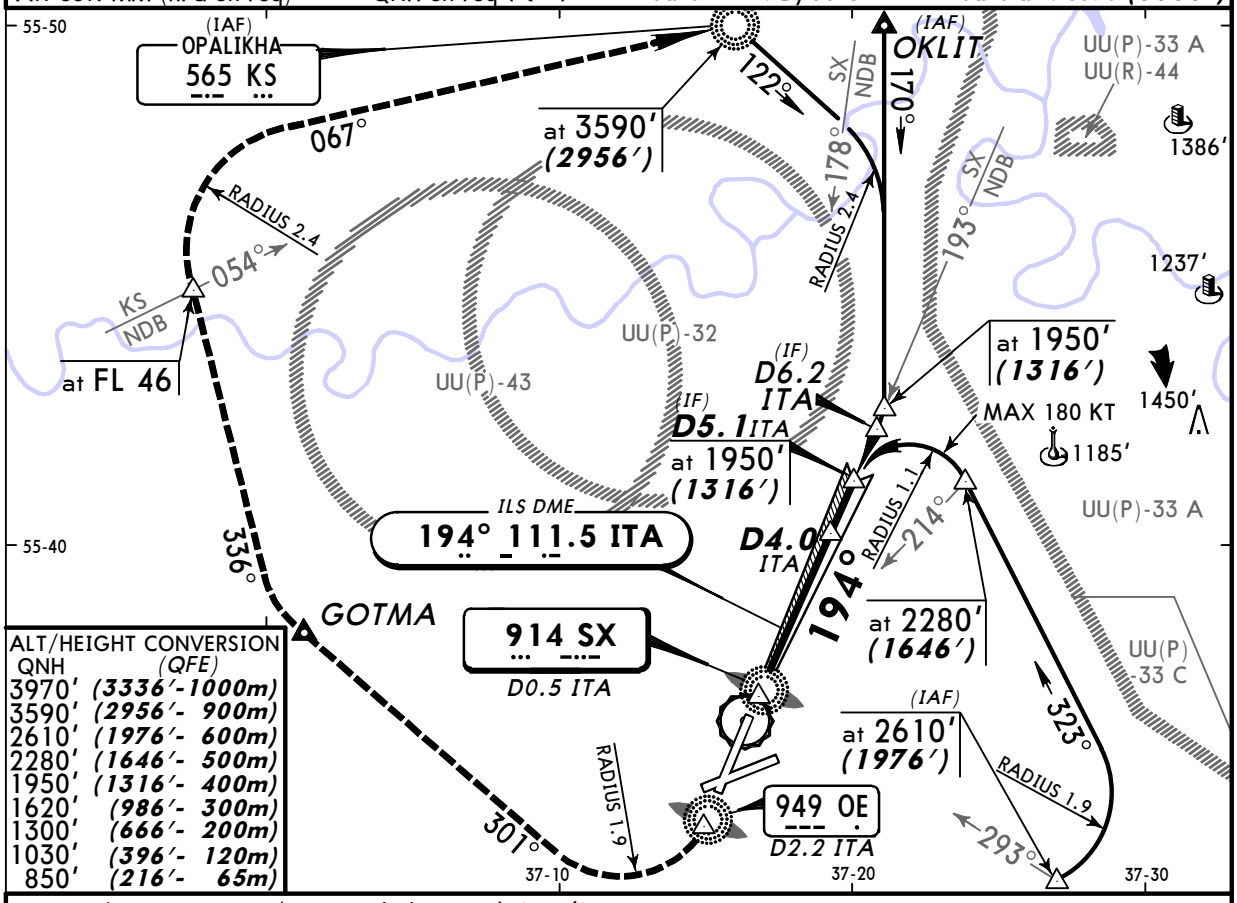
ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3
VNUKOVO Radar	**VNUKOVO Tower (PAR)**	**VNUKOVO Start(TWR)**	**Ground**
126.0	118.3	118.3	120.45 121.7

LOC ITA	Final Apch Crs	GS D4.0 ITA	ILS DA(H)	Apt Elev 685'
111.5	194°	1950'(1316')	834'(200')	
NDB SX		**Minimum Alt D4.0 ITA**	**NDB MDA(H)**	**RWY 634'**
914		1950'(1316')	1410'(776')	

180° 4000' 270° 2400'
MSA Airport

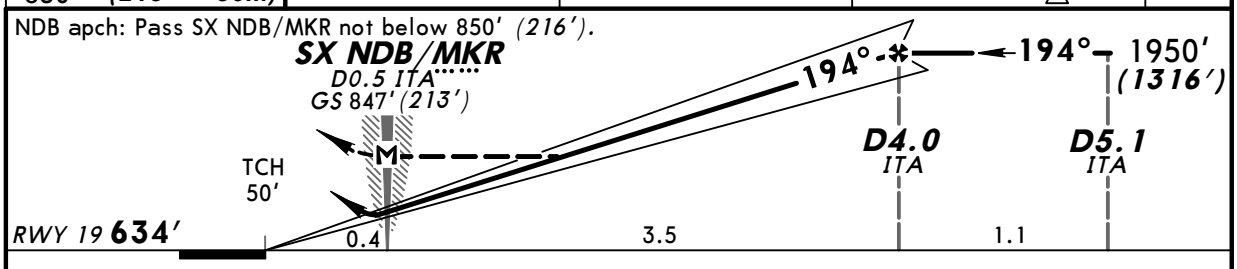
MISSED APCH: ILS: Climb STRAIGHT AHEAD to 1030'(396') or above. After passing OE MKR/NDB, turn RIGHT (MAX 185 KT) onto 301° climbing to 3590' (2956') to GOTMA, then according to chart. At 1300'(666') immediately contact Radar. NDB: Climb STRAIGHT AHEAD to 1620'(986') or above. After passing OE NDB/MKR turn RIGHT onto 301° climbing to 3590'(2956') to GOTMA, then according to chart. On Missed Approach immediately contact Radar.

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970'(3336')



ALT/HEIGHT CONVERSION	
QNH	(QFE)
3970'	(3336'-1000m)
3590'	(2956'- 900m)
2610'	(1976'- 600m)
2280'	(1646'- 500m)
1950'	(1316'- 400m)
1620'	(986'- 300m)
1300'	(666'- 200m)
1030'	(396'- 120m)
850'	(216'- 65m)

NDB apch: Pass SX NDB/MKR not below 850' (216').



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or NDB Desc Angle 3.00°	377	484	538	646	753	861
MAP at SX NDB/MKR						

HIALS-II
PAPI

Refer to Missed Apch above

STRAIGHT-IN LANDING RWY 19

PANS OPS	ILS DA(H) 834'(200') FULL	ILS TDZ or CL out	ILS ALS out	LOC (GS out)	NDB MDA(H) 1410'(776')	NDB ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m
B						2000m
C					2800m	3600m
D					3600m	4000m

CHANGES: Procedure.

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UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10
Eff 1 Nov
11-3A

MOSCOW, RUSSIA
CAT II ILS DME Rwy 19

BRIEFING STRIP ™

ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3

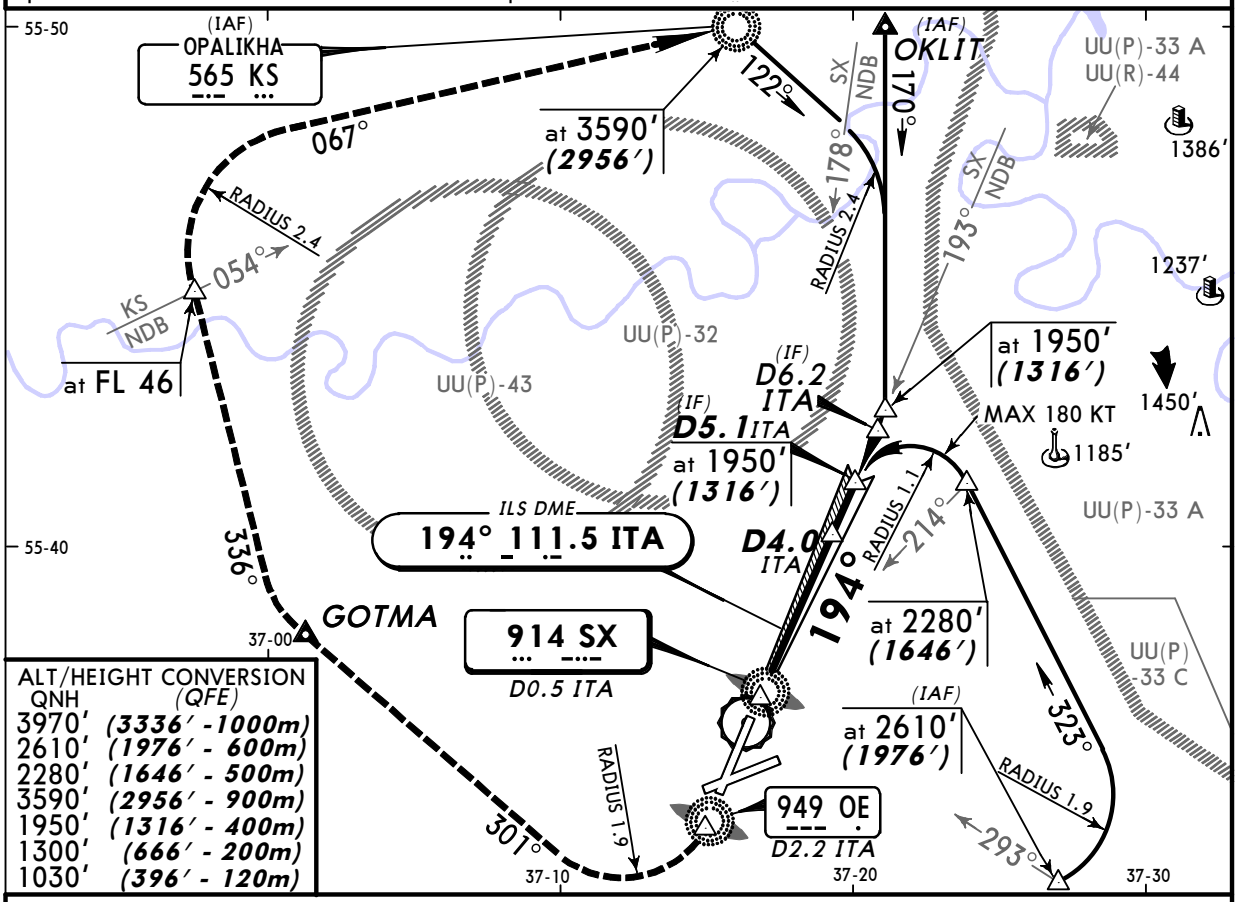
VNUKOVO Radar	VNUKOVO Tower (PAR)	VNUKOVO Start (TWR)	Ground
126.0	118.3	118.3	120.45 121.7

LOC ITA	Final Apch Crs	GS	CAT II ILS	Apt Elev 685′
111.5	194°	D4.0 ITA 1950′ (1316′)	RA 105′ DA(H) 734′ (100′)	RWY 634′

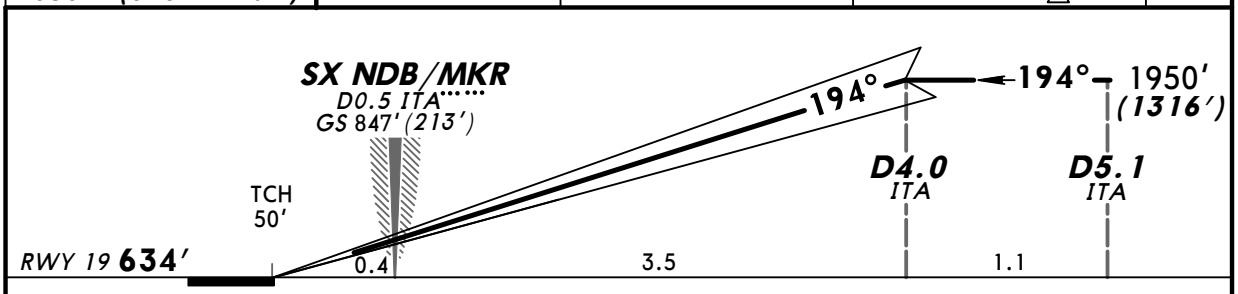
180° 4000′ 270° 2400′
MSA Airport

MISSED APCH: Climb STRAIGHT AHEAD to 1030′ (396′) or above. After passing OE MKR/NDB, turn RIGHT (MAX 185 KT) onto 301° climbing to 3590′ (2956′) to GOTMA, then according to chart. At 1300′(666′) immediately contact Radar.

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970′ (3336′)
Special Aircrew & Aircraft Certification Required.



ALT/HEIGHT CONVERSION	
QNH	(QFE)
3970′	(3336′ - 1000m)
2610′	(1976′ - 600m)
2280′	(1646′ - 500m)
3590′	(2956′ - 900m)
1950′	(1316′ - 400m)
1300′	(666′ - 200m)
1030′	(396′ - 120m)



Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	377	484	538	646	753	861

HIALS-II
PAPI

1030′ (396′) on 194°

301° RT

185 KT MAX

STRAIGHT-IN LANDING RWY 19
CAT II ILS
ABCD
RA 105′
DA(H) 734′ (100′)

PANS OPS

RVR 350m

CHANGES: Procedure.

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UUWW/VKO VNUKOVO

JEPPESEN 16 JUL 10 (11-4) Eff 29 Jul

MOSCOW, RUSSIA ILS or 2 NDB Rwy 24

BRIEFING STRIP ™

ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3

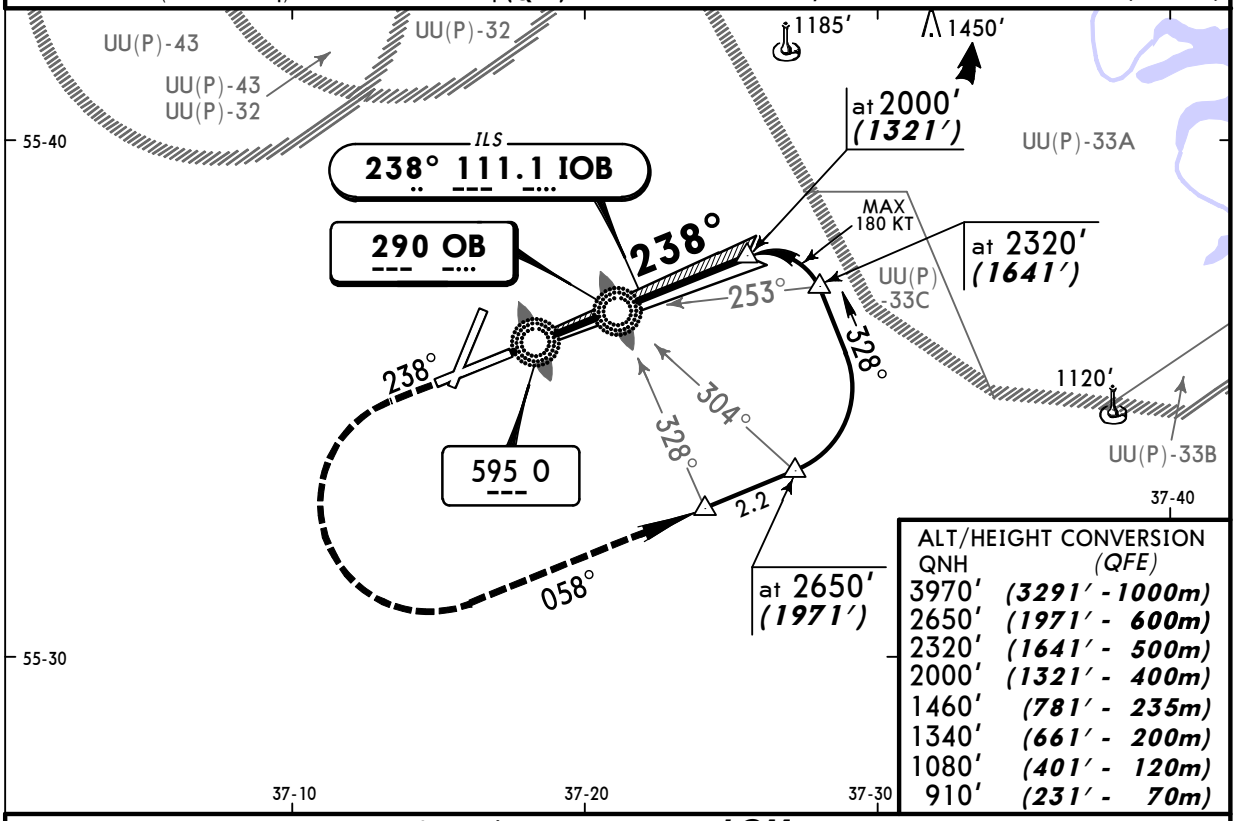
VNUKOVO Radar	VNUKOVO Tower (PAR)	VNUKOVO Start(TWR)	Ground
126.0	118.3	118.3	120.45 121.7

LOC IOB 111.1	Final Apch Crs 238°	GS LOM 1450′(771′)	ILS DA(H) 879′(200′)	Apt Elev 685′
NDB OB 290		Minimum Alt LOM 1460′(781′)	NDB MDA(H) 1590′(911′)	RWY 679′

MISSED APCH: Climb on 238° to 1080′ (401′), then turn LEFT onto 058° climbing to 2650′ (1971′), then according to chart.
At 1340′(661′), immediately contact Radar.

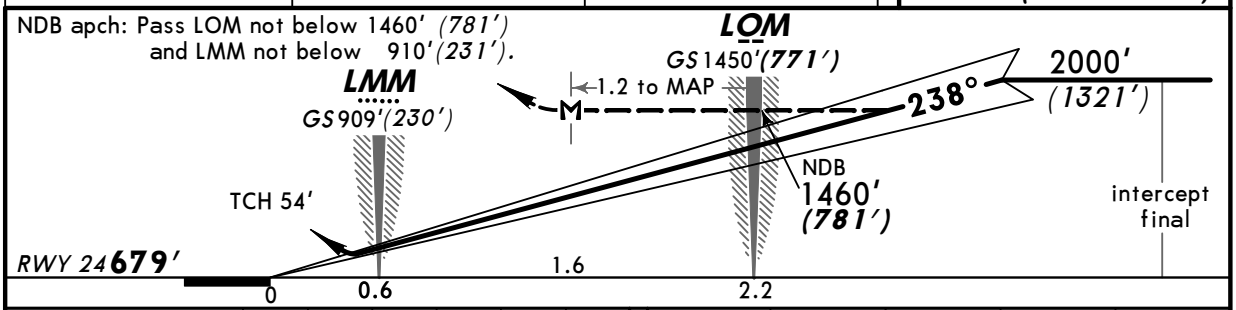
MSA Airport: 180° 4000′; 270° 2400′

Alt Set: MM (hPa on req) | QNH on req (QFE) | Trans level: By ATC | Trans alt: 3970′(3291′)



ALT/HEIGHT CONVERSION

QNH	(QFE)
3970′	(3291′ - 1000m)
2650′	(1971′ - 600m)
2320′	(1641′ - 500m)
2000′	(1321′ - 400m)
1460′	(781′ - 235m)
1340′	(661′ - 200m)
1080′	(401′ - 120m)
910′	(231′ - 70m)



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or NDB Desc Angle 3.00°	377	484	538	646	753	861
LOM to MAP 1.2	1:02	0:48	0:43	0:36	0:31	0:27

HIALS-II PAPI | 1080′ (401′) on 238° | 058° LT | 2650′ (1971′)

STRAIGHT-IN LANDING RWY 24

PANS OPS

	ILS DA(H) 879′(200′) FULL	ILS TDZ or CL out	ILS ALS out	LOC (GS out)	NDB MDA(H) 1590′(911′)	NDB ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	NOT AUTH	3200m	
B						
C					3600m	4400m
D					4400m	4800m

CHANGES: Procedure. Minimums.

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UUWW/VKO
VNUKOVO

JEPPESEN 16 JUL 10 (11-4A) Eff 29 Jul

MOSCOW, RUSSIA
CAT II ILS Rwy 24

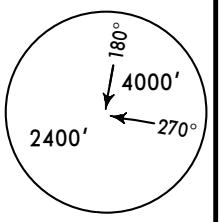
BRIEFING STRIP ™

ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3

VNUKOVO Radar	VNUKOVO Tower (PAR)	VNUKOVO Start (TWR)	Ground
126.0	118.3	118.3	120.45 121.7

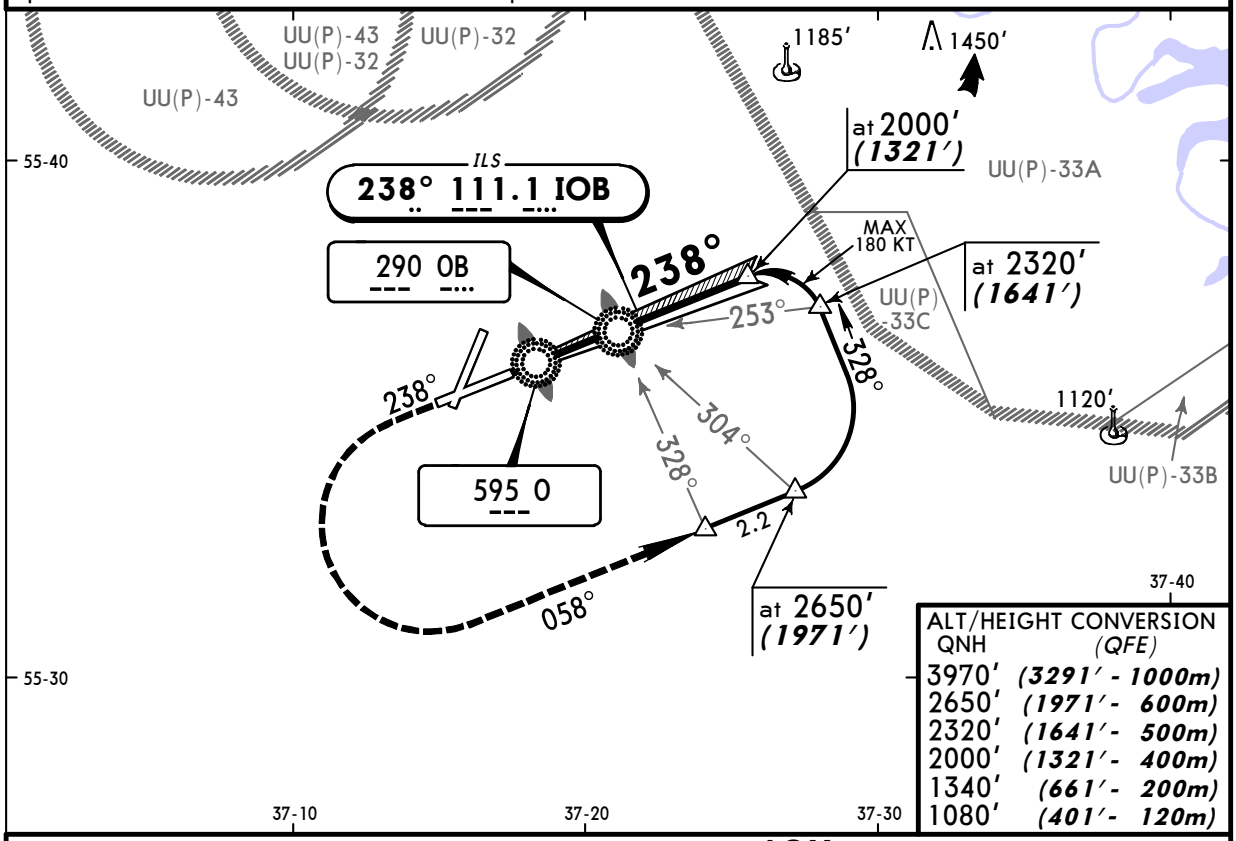
LOC IOB	Final Apch Crs	GS LOM	CAT II ILS RA 111′ DA(H) 779′(100′)	Apt Elev 685′ RWY 679′
111.1	238°	1450′(771′)		

MISSED APCH: Climb on 238° to 1080′(401′), then turn LEFT onto 058° climbing to 2650′(1971′), then according to chart.
At 1340′(661′), immediately contact Radar.

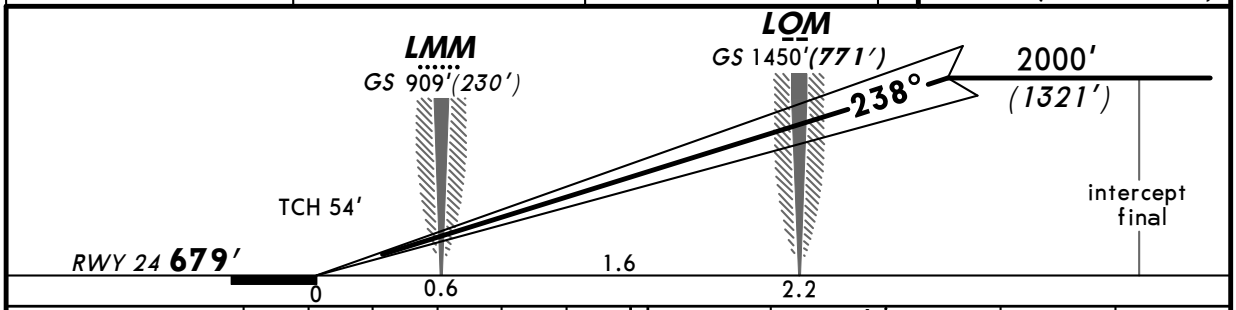


MSA Airport

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970′(3291′)
Special Aircrew & Aircraft Certification Required.



ALT/HEIGHT CONVERSION	
QNH	(QFE)
3970′	(3291′ - 1000m)
2650′	(1971′ - 600m)
2320′	(1641′ - 500m)
2000′	(1321′ - 400m)
1340′	(661′ - 200m)
1080′	(401′ - 120m)



Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	377	484	538	646	753	861

HIALS-II PAPI 1080′(401′) on 238° 058° LT 2650′(1971′)

STRAIGHT-IN LANDING RWY 24
CAT II ILS
ABCD
RA 111′
DA(H) 779′ (100′)

PANS OPS

RVR 350m

CHANGES: None.

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UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (18-1) Eff 1 Nov

MOSCOW, RUSSIA
PAR Rwy 01

BRIEFING STRIP ™

ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3

VNUKOVO Radar	VNUKOVO Tower (PAR)	VNUKOVO Start(TWR)	Ground
126.0	118.3	118.3	120.45 121.7

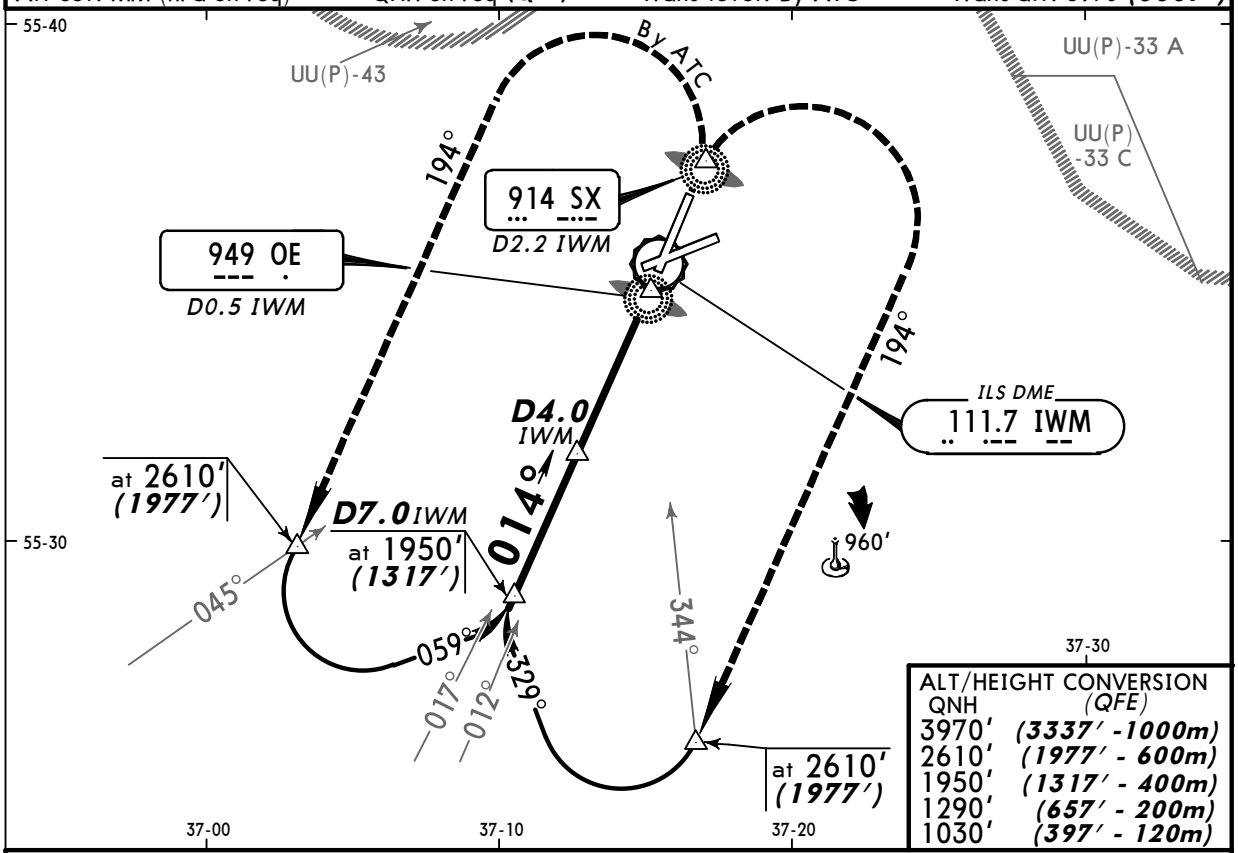
RADAR	Final Apch Crs	PAR GS	PAR DA(H)	Apt Elev 685′
	014°	D4.0 IWM 1950′(1317′)	Refer to Minimums	RWY 633′

MISSED APCH: Climb to 1030′(397′) or above. After passing SX NDB/MKR turn RIGHT onto 194° climbing to 2610′ (1977′), then according to chart.

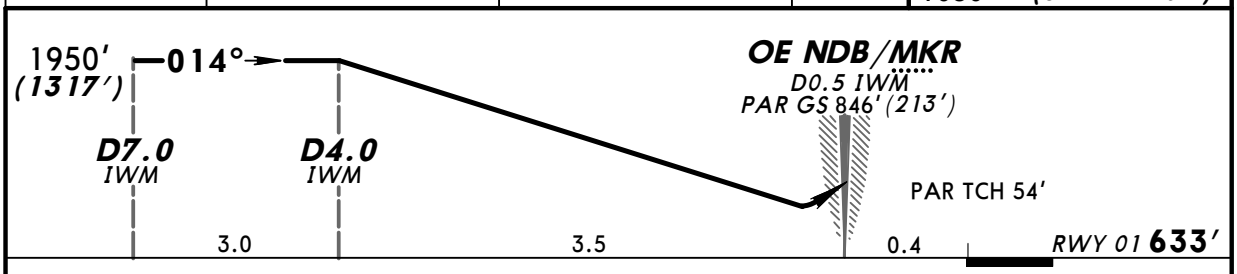
At 1290′(657′) immediately contact Radar.

MSA Airport: 180° 4000′; 270° 2400′

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970′(3337′)



ALT/HEIGHT CONVERSION	
QNH	(QFE)
3970′	(3337′ -1000m)
2610′	(1977′ - 600m)
1950′	(1317′ - 400m)
1290′	(657′ - 200m)
1030′	(397′ - 120m)



Gnd speed-Kts		70	90	100	120	140	160
PAR GS	3.00°	377	484	538	646	753	861

HIALS PAPI | 1030′ (397′) | SX 914 | 194° RT | 2610′ (1977′)

STRAIGHT-IN LANDING RWY 01

DA(H) A: 856′(223′) C: 876′(243′)
B: 866′(233′) D: 886′(253′)

PANS OPS

		ALS out
A	RVR 720m VIS 800m	1200m
B		
C		
D		

CHANGES: Procedure.

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UUWW/VKO
VNUKOVO

JEPPESEN
22 OCT 10 (18-2) Eff 1 Nov

MOSCOW, RUSSIA
PAR Rwy 19

BRIEFING STRIP ™

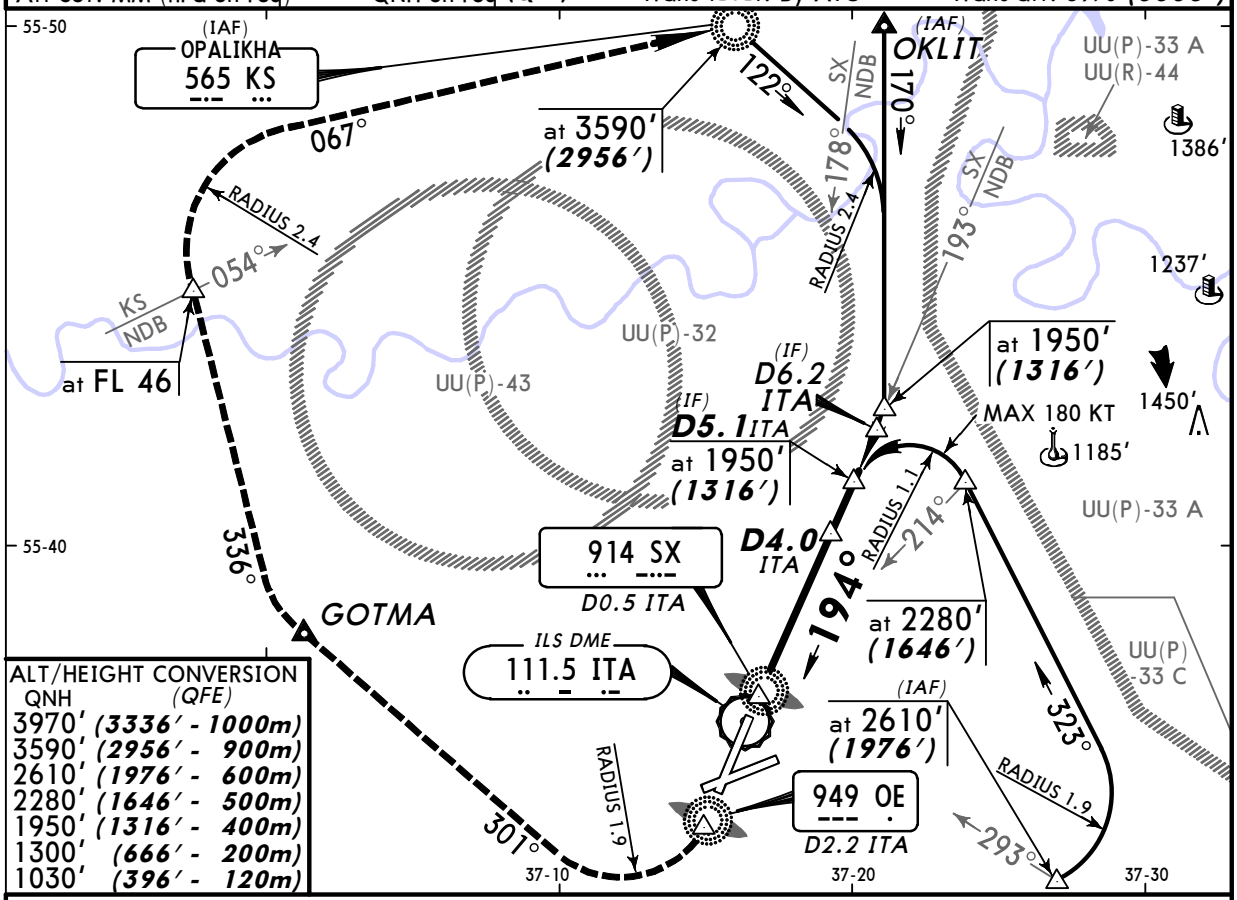
ATIS	MOSCOW Approach 3	MOSCOW Approach 4	VNUKOVO Approach
131.85 (Russian 125.87)	128.0	123.4	122.3
VNUKOVO Radar	**VNUKOVO Tower (PAR)**	**VNUKOVO Start(TWR)**	**Ground**
126.0	118.3	118.3	120.45 121.7

RADAR	Final Apch Crs	PAR GS	PAR DA(H)	Apt Elev 685'
	194°	D4.0 ITA 1950' (1316')	Refer to Minimums	RWY 634'

MISSED APCH: Climb STRAIGHT AHEAD to 1030' (396') or above. After passing OE MKR/NDB, turn RIGHT (MAX 185 KT) onto 301° climbing to 3590' (2956') to GOTMA, then according to chart.
At 1300' (666') immediately contact Radar.

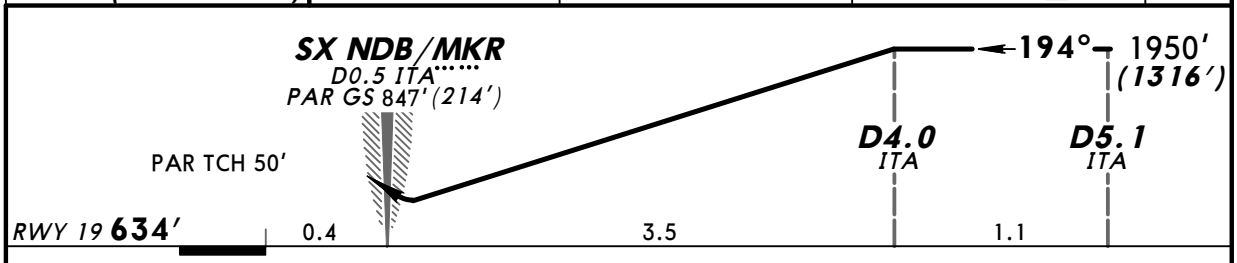
MSA Airport: 180° 4000', 270° 2400'

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970' (3336')



ALT/HEIGHT CONVERSION

QNH	(QFE)
3970'	(3336' - 1000m)
3590'	(2956' - 900m)
2610'	(1976' - 600m)
2280'	(1646' - 500m)
1950'	(1316' - 400m)
1300'	(666' - 200m)
1030'	(396' - 120m)



Gnd speed-Kts		70	90	100	120	140	160
PAR GS	3.00°	377	484	538	646	753	861

HIALS-II PAPI | 1030' (396') on 194° | 301° RT | 185 KT MAX

STRAIGHT-IN LANDING RWY 19

DA(H) A: 857' (223') C: 877' (243')
B: 867' (233') D: 887' (253')

PANS OPS

		TDZ or CL out	ALS out
A	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m
B			
C			
D	RVR 720m VIS 800m		

CHANGES: Procedure.

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