

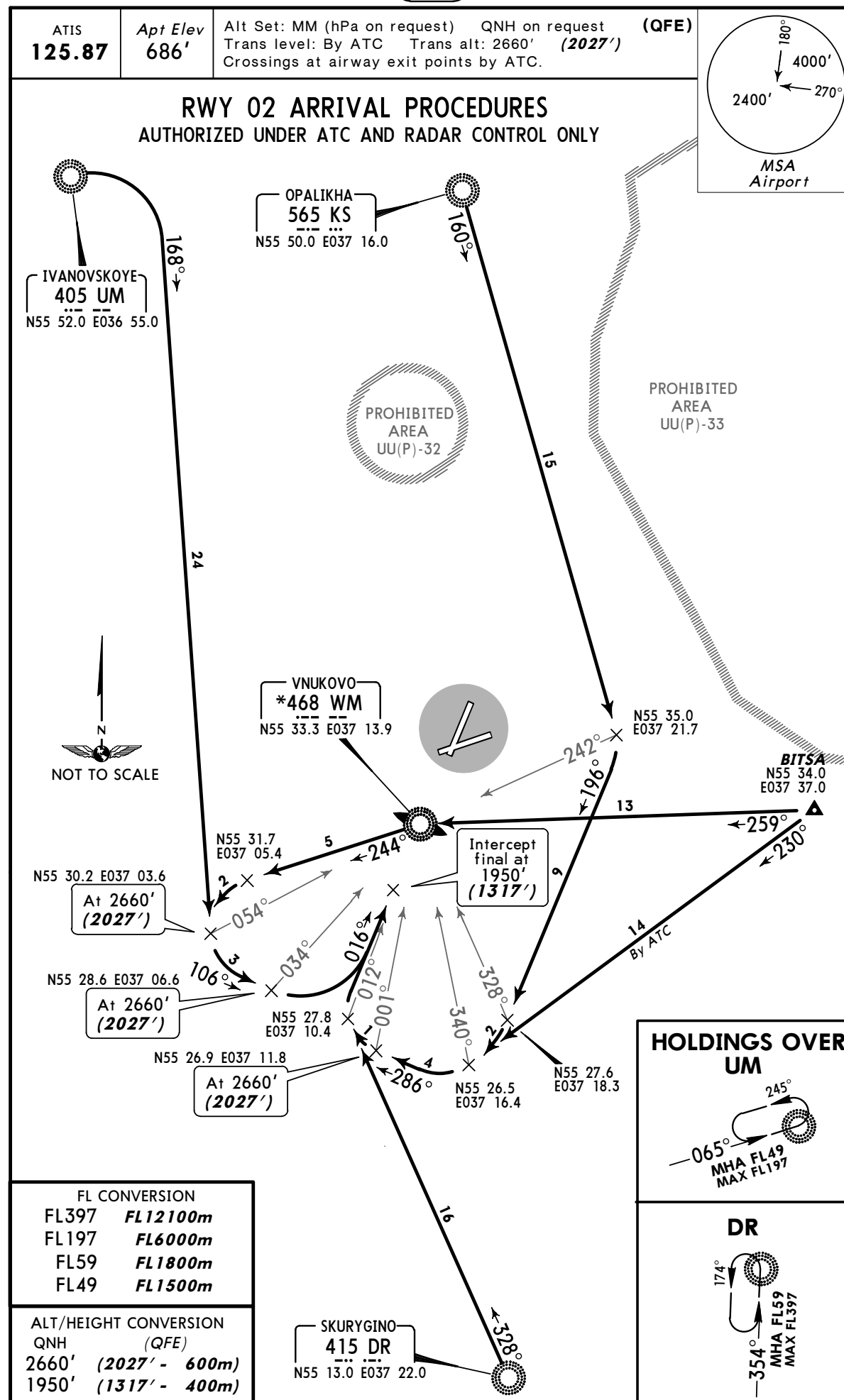
UUWW/VKO  
VNUKOVO

JEPPesen

4 OCT 02 10-2

MOSCOW, RUSSIA

STAR



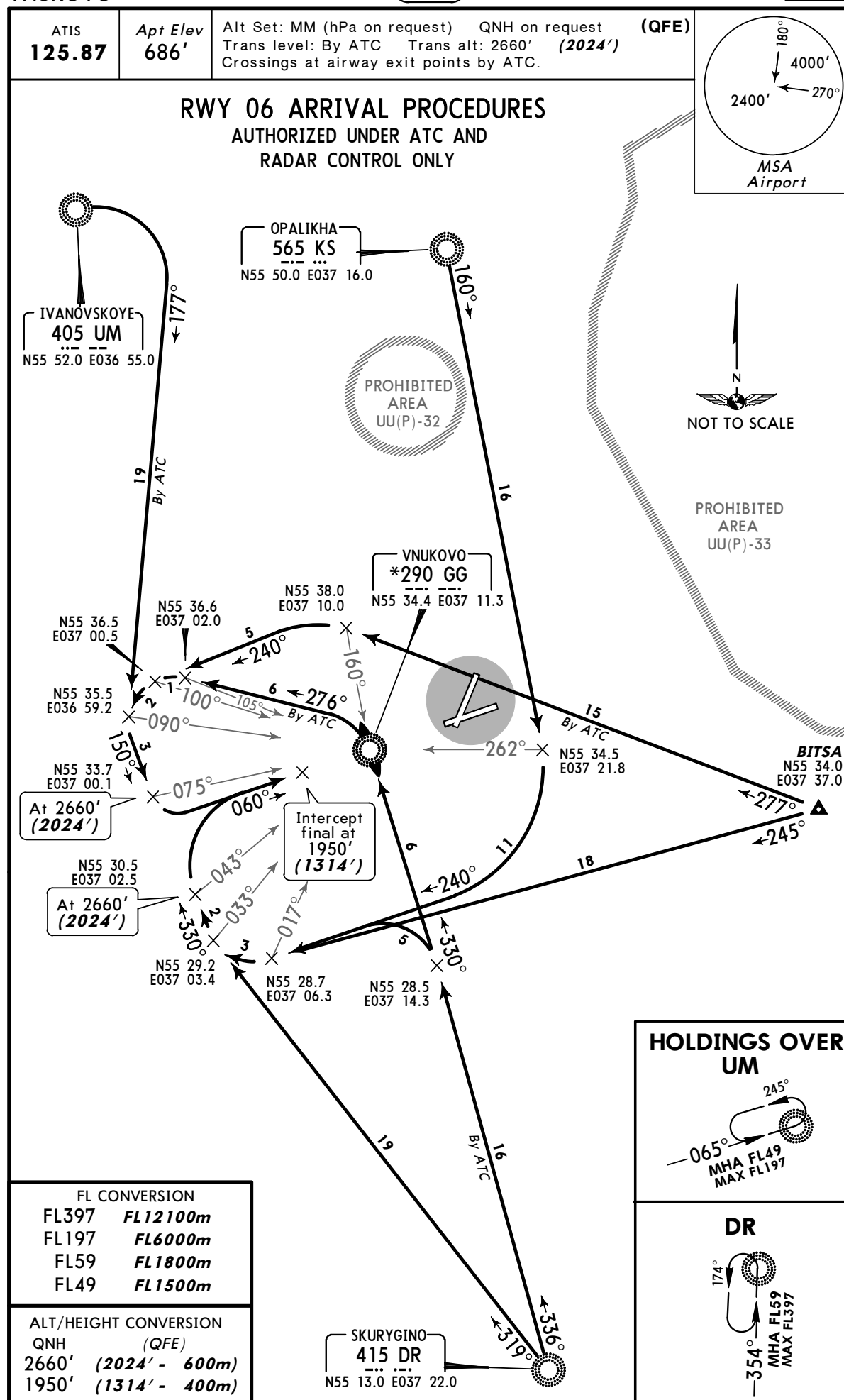
UUWW/VKO  
VNUKOVO

JEPPesen

MOSCOW, RUSSIA

4 OCT 02 (10-2A)

STAR



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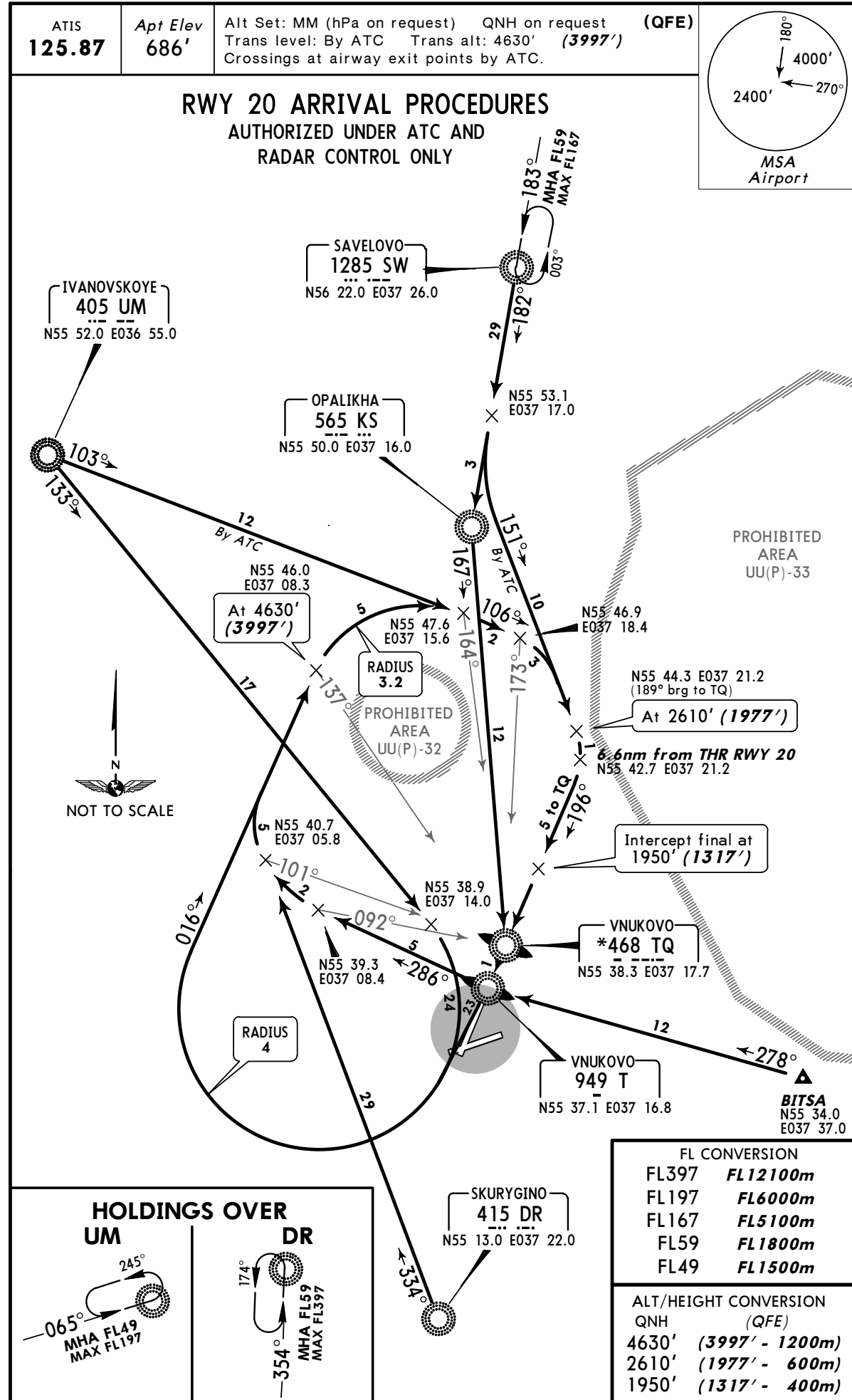
UUWW/VKO  
VNUKOVO

JEPPesen

4 OCT 02 (10-2B)

MOSCOW, RUSSIA

STAR



CHANGES: Prohibited areas; new format.

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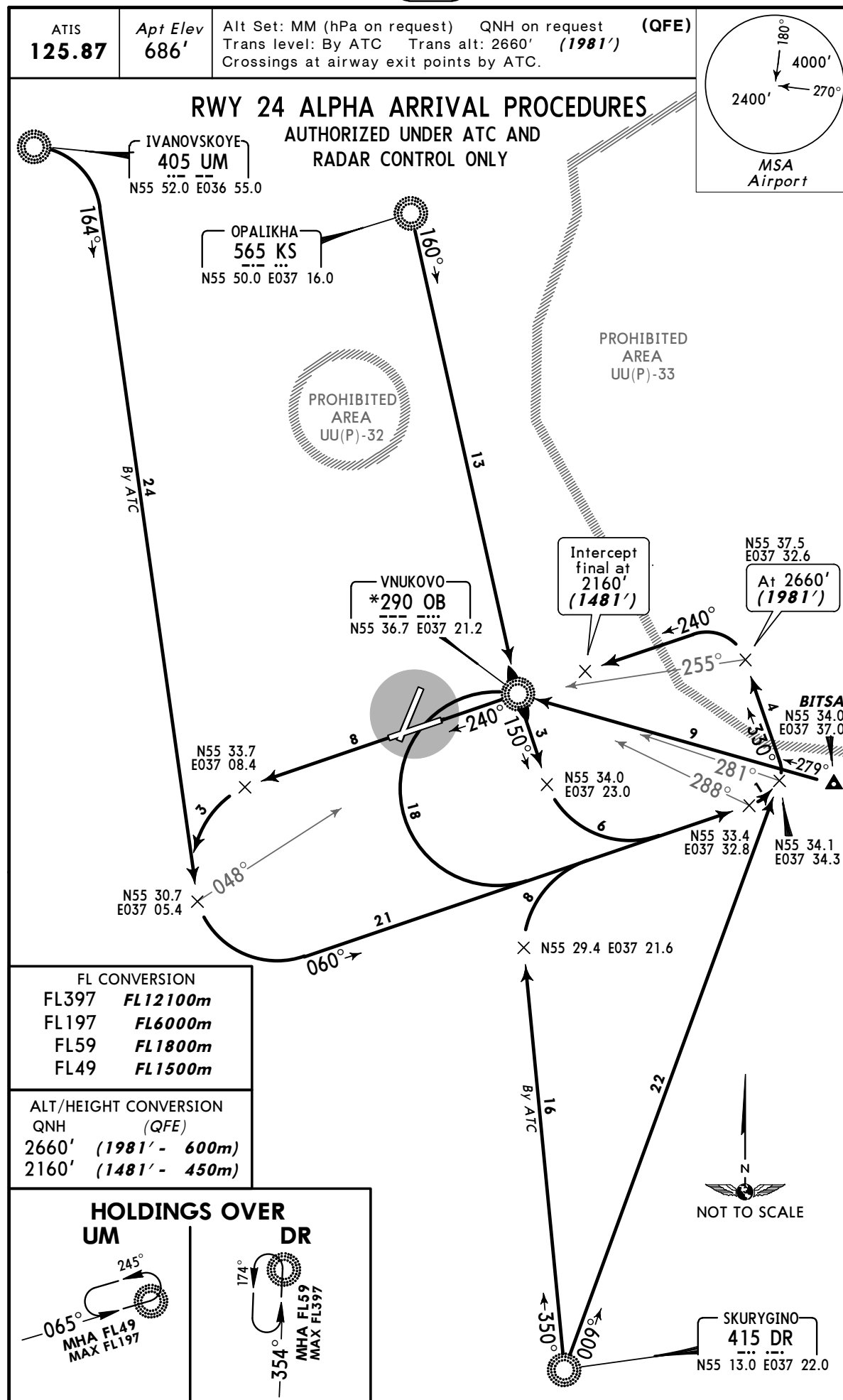
**UUWW/VKO**  
VNUKOVO

**JEPPesen**

4 OCT 02 **(10-2C)**

**MOSCOW, RUSSIA**

**STAR**



Notice: After 28.11.2002 0901Z this chart should not be used without first checking JeppView or NOTAMs.

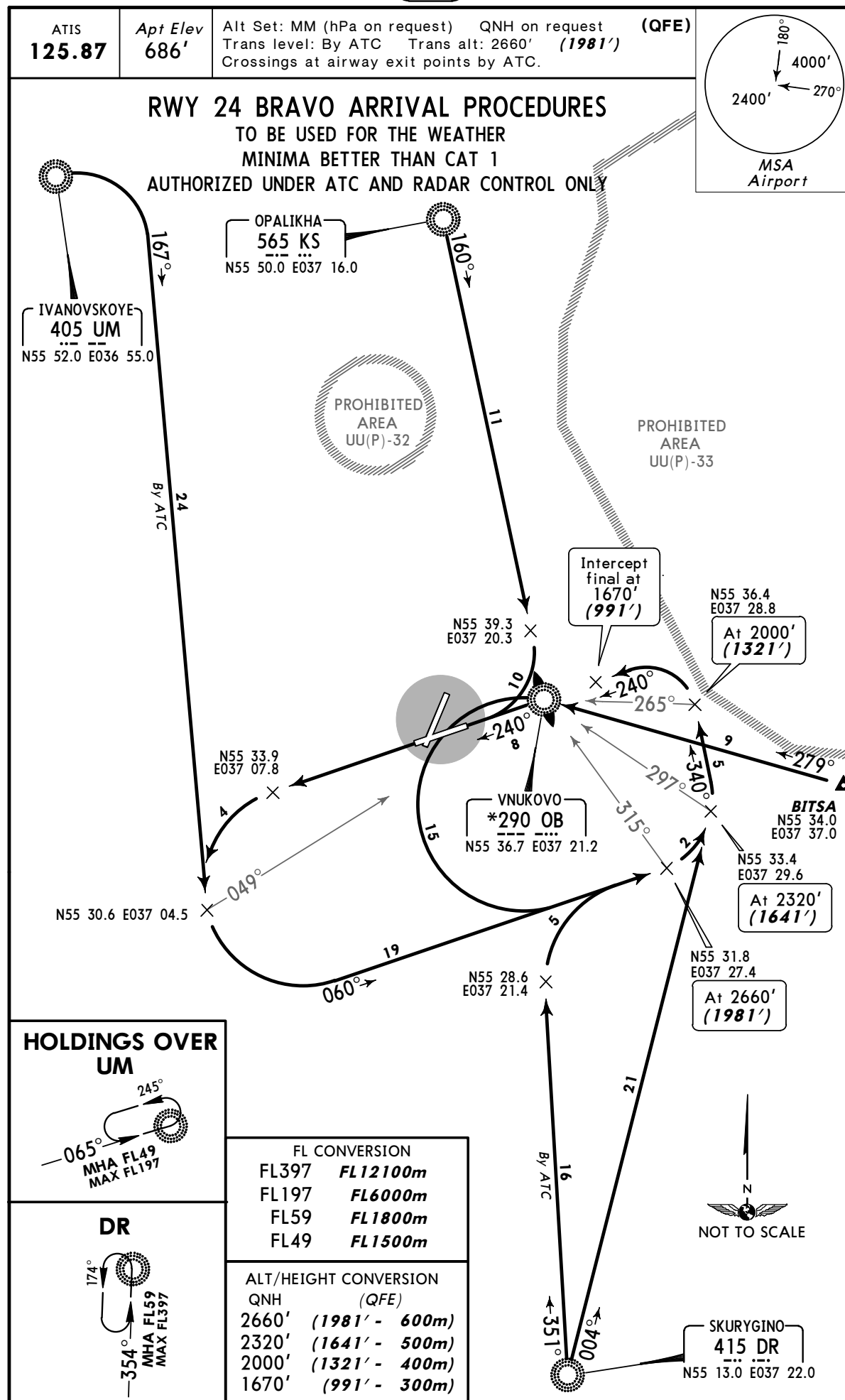
UUWW/VKO  
VNUKOVO

JEPPESEN

MOSCOW, RUSSIA

4 OCT 02 (10-2D)

STAR



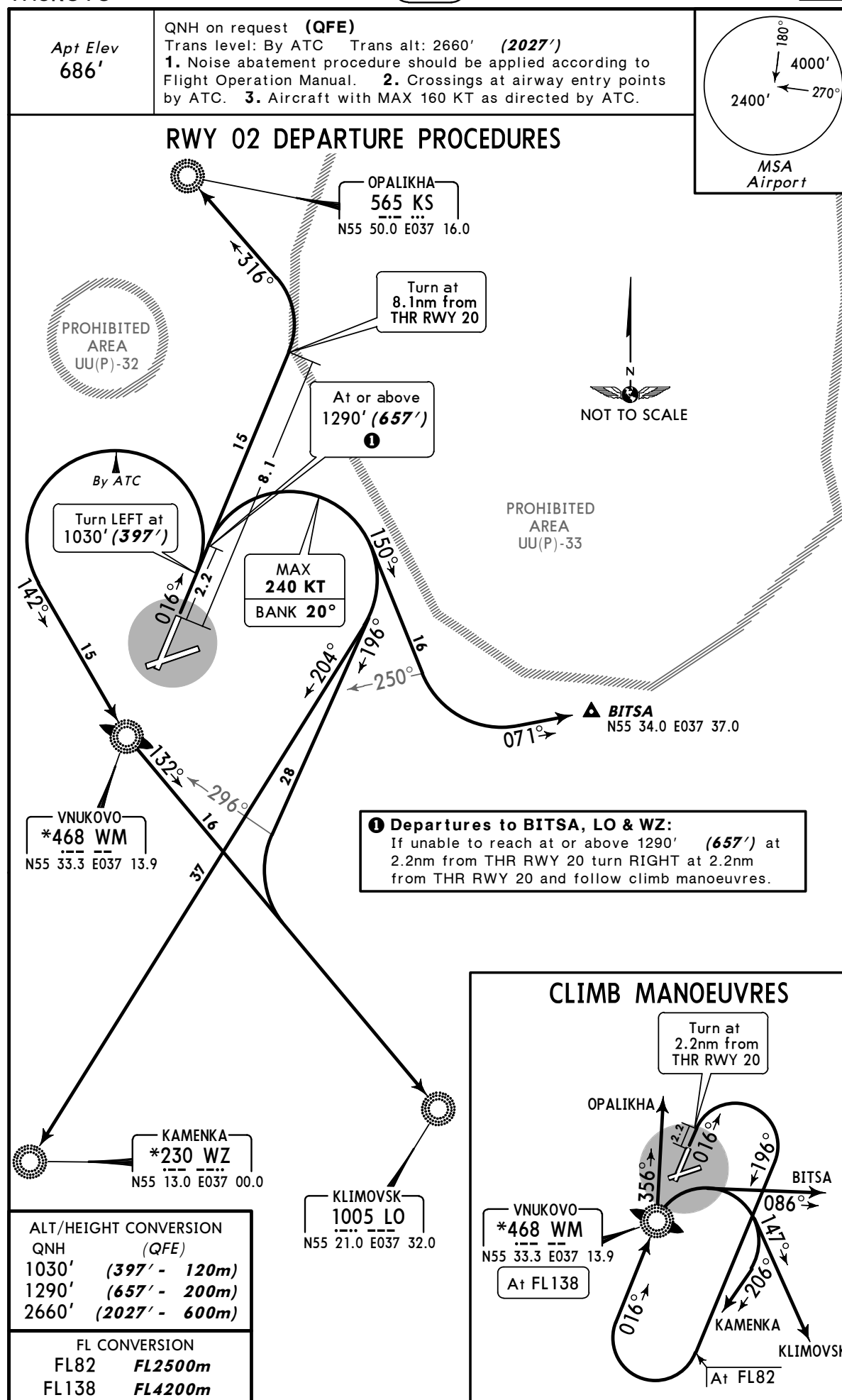
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VNUKOVO

JEPPESEN

4 OCT 02 10-3

MOSCOW, RUSSIA

SID



**UUWW/VKO**  
VNUKOVO

**JEPPesen**

4 OCT 02 **(10-3A)**

**MOSCOW, RUSSIA**

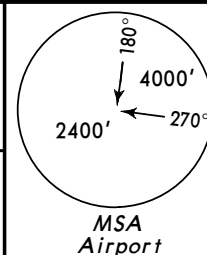
**SID**

Apt Elev  
**686'**

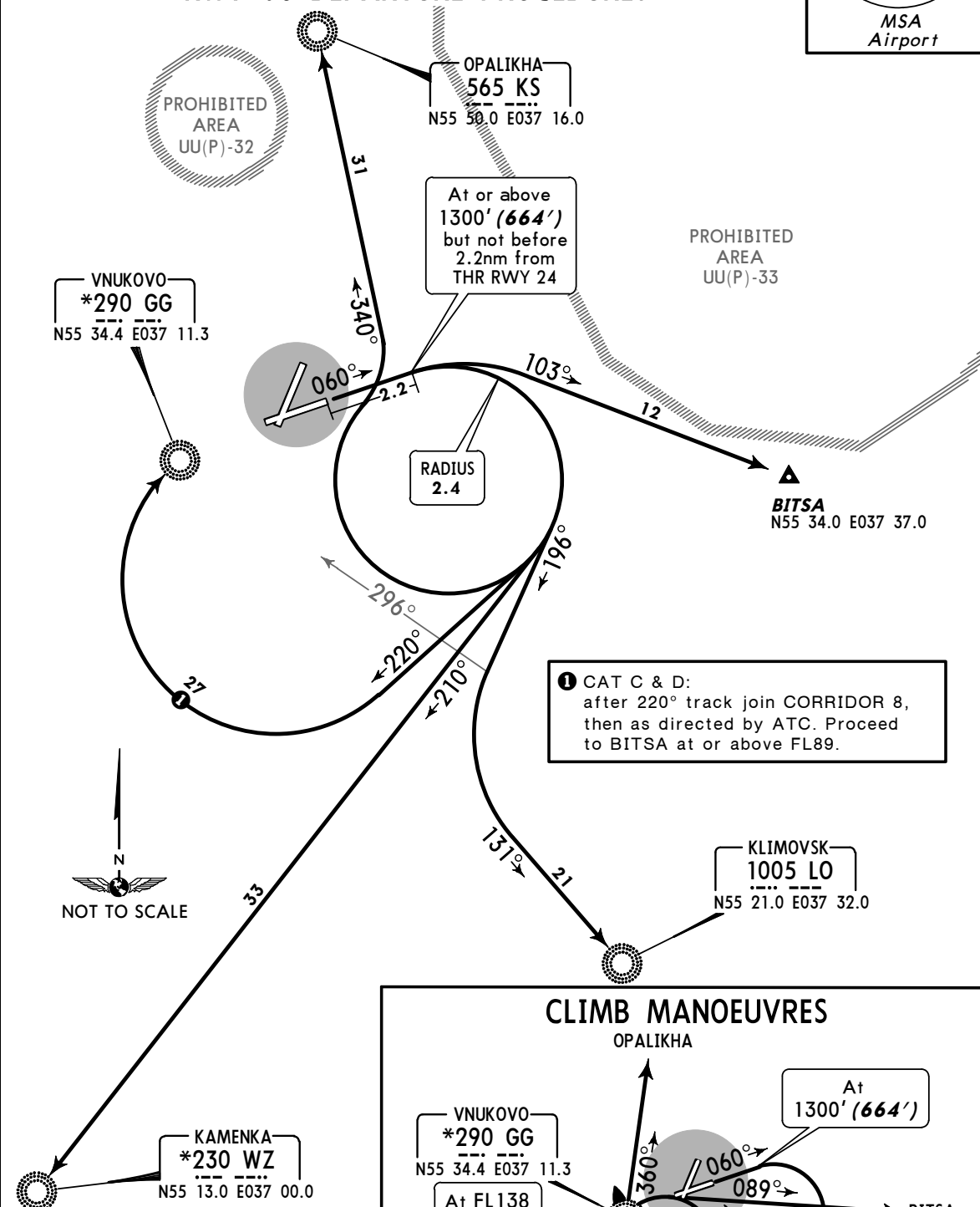
QNH on request **(QFE)**

Trans level: By ATC Trans alt: 2660' **(2024')**

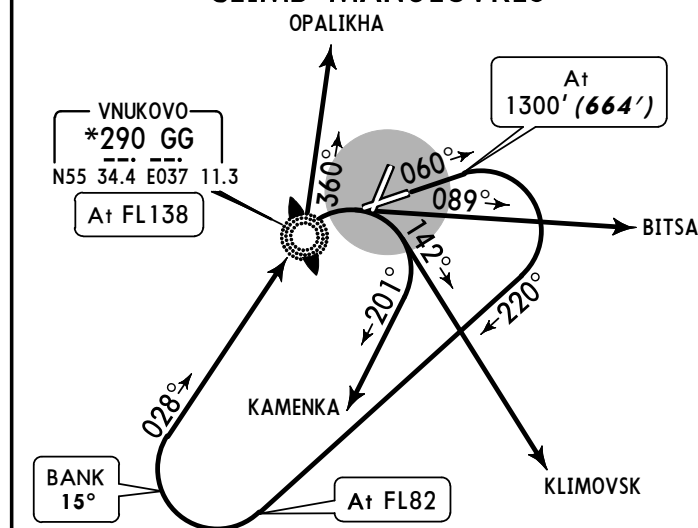
1. Noise abatement procedure should be applied according to Flight Operation Manual. 2. Crossings at airway entry points by ATC. 3. Aircraft with MAX 160 KT as directed by ATC.



## RWY 06 DEPARTURE PROCEDURES



## CLIMB MANOEUVRES



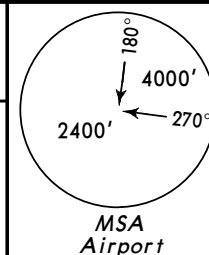
ALT/HEIGHT CONVERSION  
QNH **(QFE)**  
1300' **(664' - 200m)**  
2660' **(2024' - 600m)**

FL CONVERSION  
FL82 **FL2500m**  
FL89 **FL2700m**  
FL138 **FL4200m**

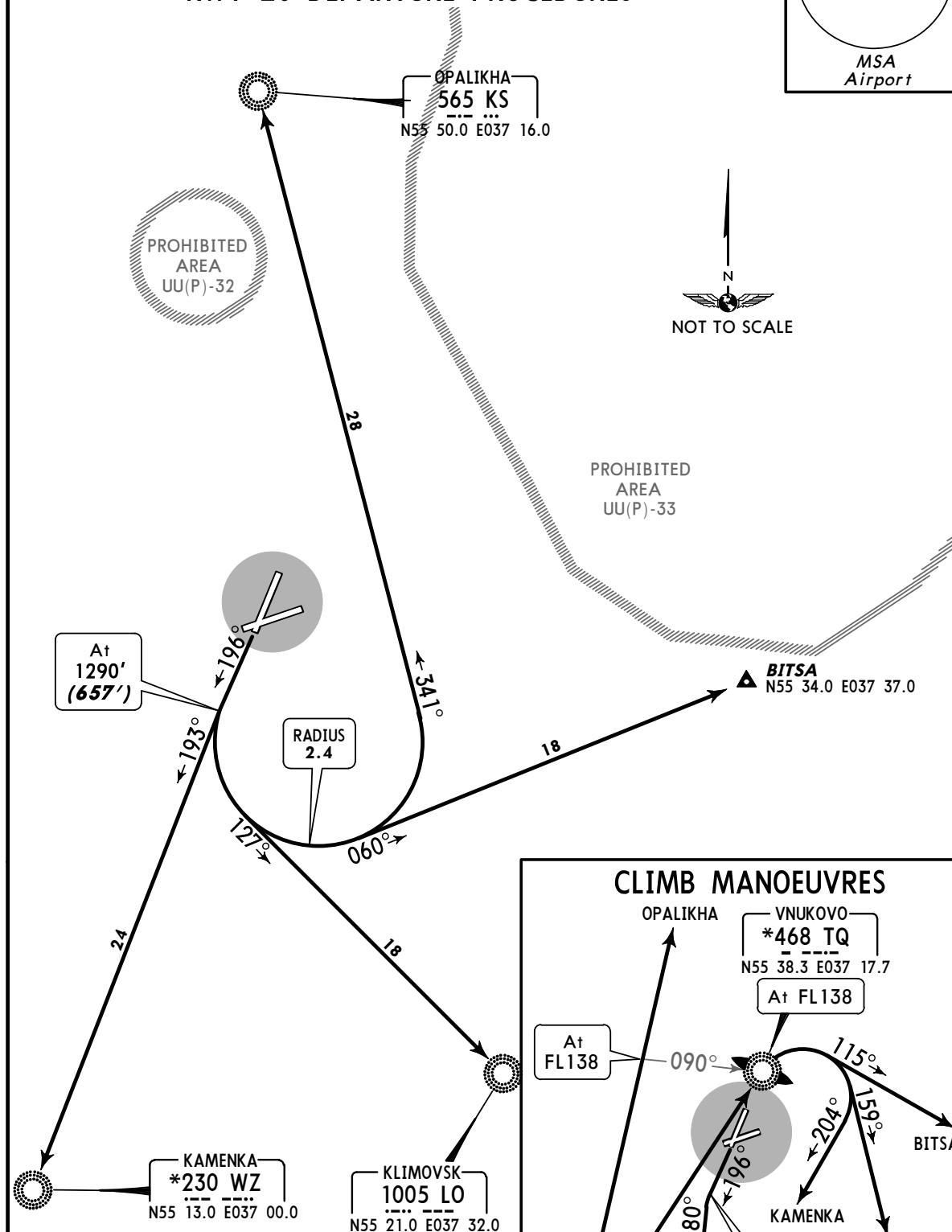
4 OCT 02 (10-3B)

**SID**

QNH on request **(QFE)**  
Trans level: By ATC Trans alt: 4630' **(3997')**  
Crossings at airway entry points by ATC.



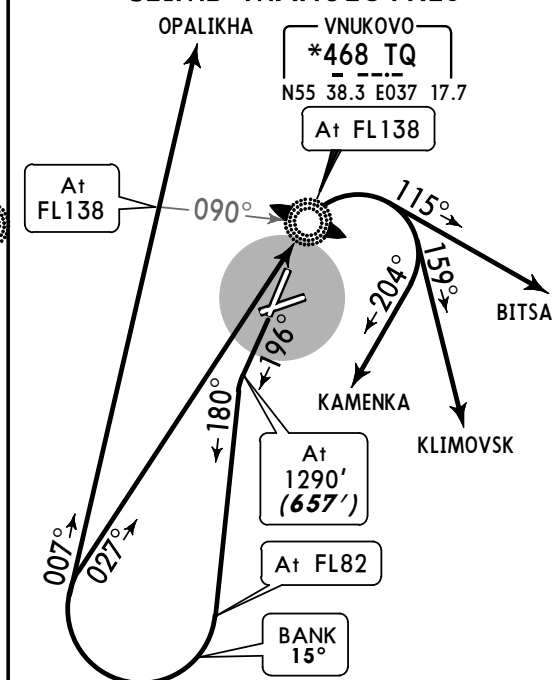
## RWY 20 DEPARTURE PROCEDURES



ALT/HEIGHT CONVERSION  
QNH (QFE)  
1290' (657' - 200m)  
4630' (3997' - 1200m)

FL CONVERSION  
FL82 **FL2500m**  
FL138 **FL4200m**

## CLIMB MANOEUVRES





UUWW/VKO  
VNUKOVO

JEPPESEN

MOSCOW, RUSSIA

4 OCT 02 (10-3C)

SID

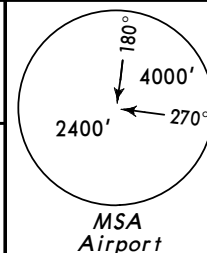
Apt Elev  
686'

QNH on request (QFE)

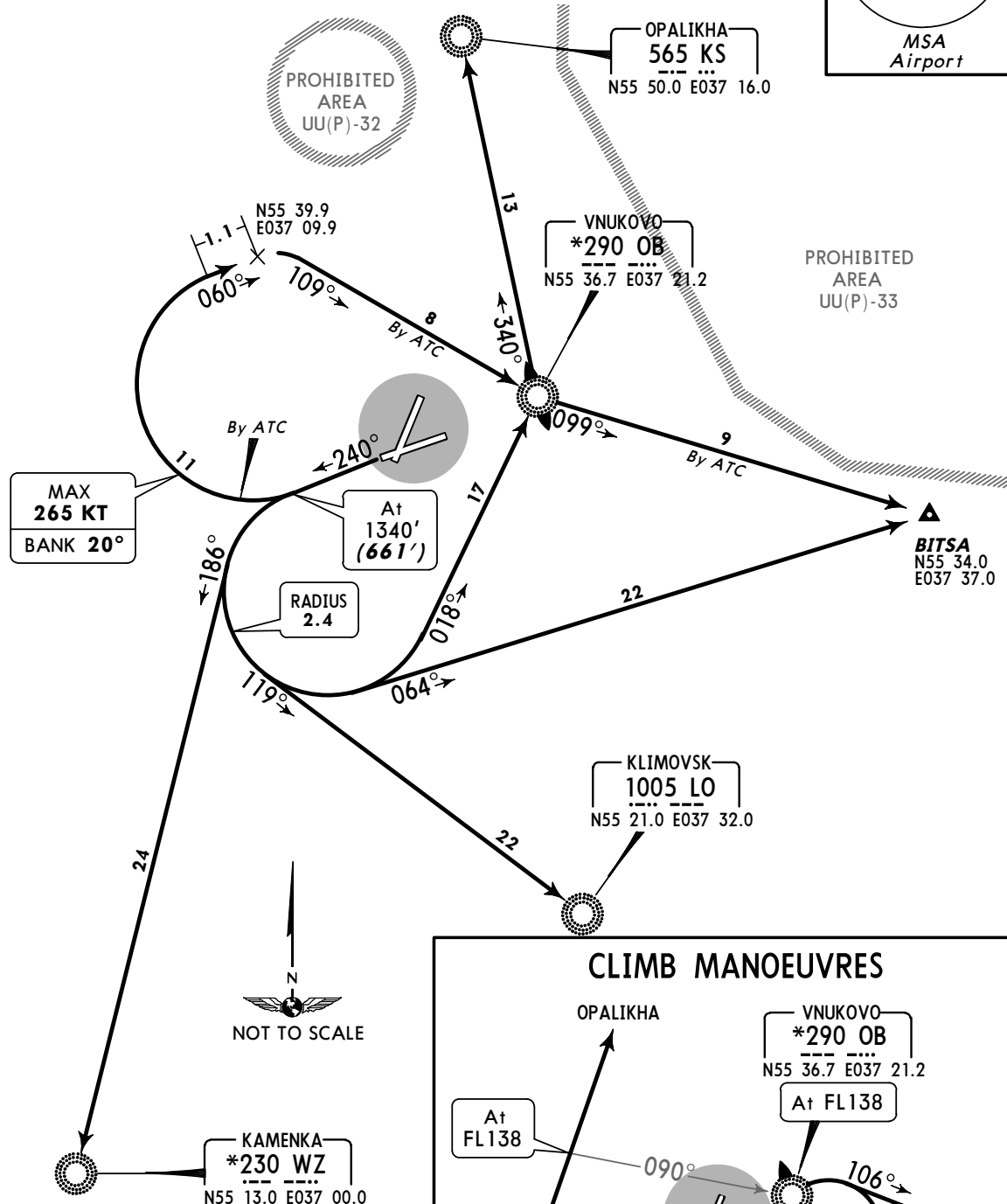
Trans level: By ATC Trans alt: 2660' (1981')

1. Crossings at airway entry points by ATC.

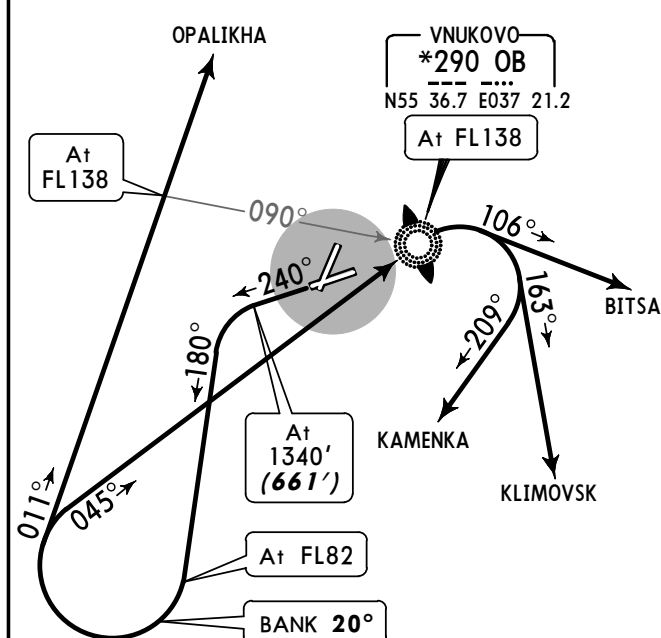
2. Aircraft with MAX 160 KT as directed by ATC.



## RWY 24 DEPARTURE PROCEDURES



## CLIMB MANOEUVRES



ALT/HEIGHT CONVERSION  
QNH (QFE)  
1340' (661' - 200m)  
2660' (1981' - 600m)

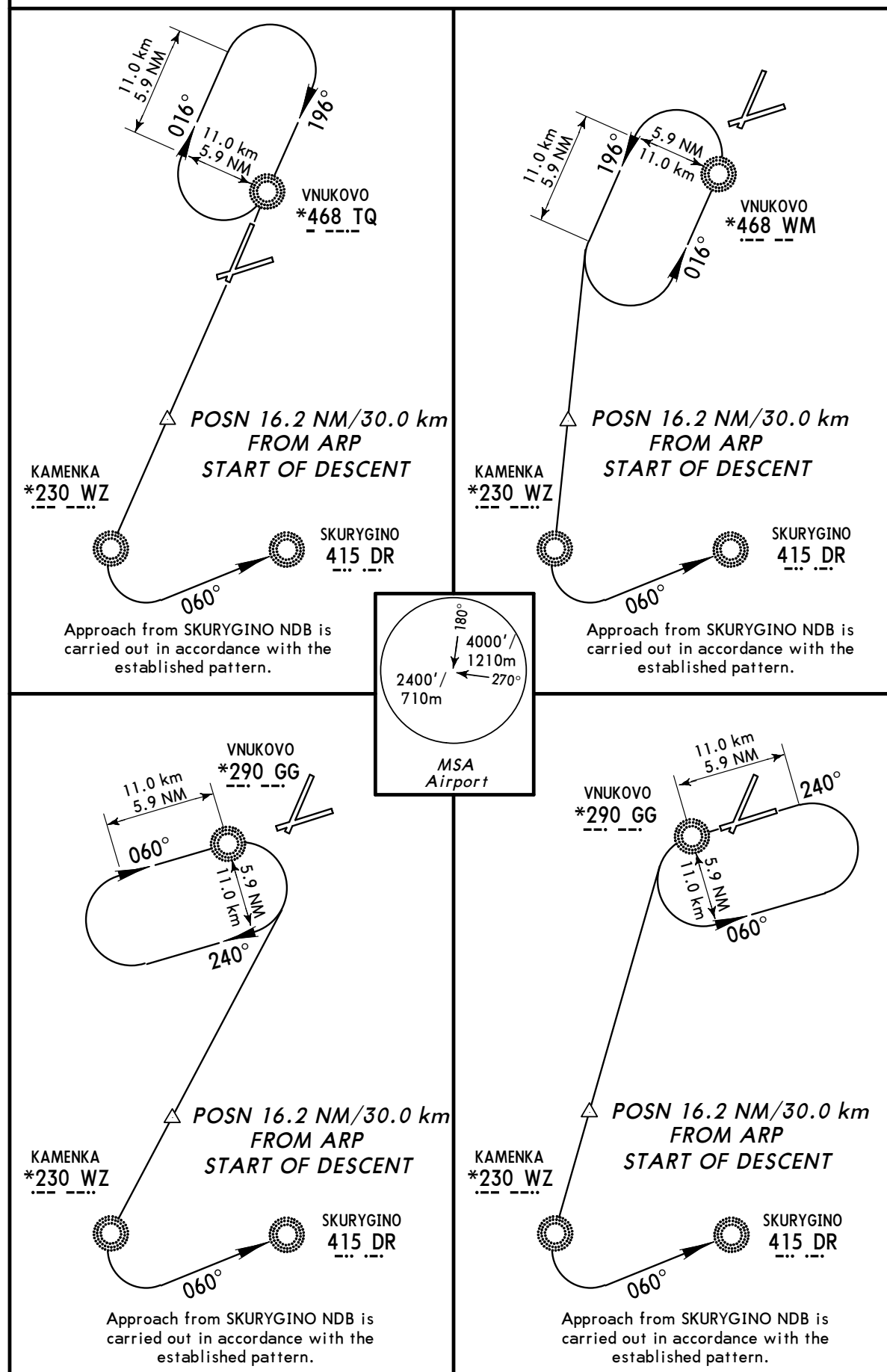
FL CONVERSION  
FL82 FL2500m  
FL138 FL4200m

UUWW

JEPPESEN  
17 MAR 00 (10-6)

MOSCOW, RUSSIA  
VNUKOVO

**PROCEDURES FOR OUT-OF-TURN EXIT FROM HOLDING PATTERN TO APPROACH**  
TL-FL 118/TL-FL 3600m  
ALL TURNS BANK ANGLE 20°, 250 KT/450 km/h IAS



Notice: After 28.11.2002 0901Z this chart should not be used without first checking JeppView or NOTAMs.

**UUWW**

Apt Elev **686'**

178.5°/22.0 from MR 114.6

**JEPPesen**

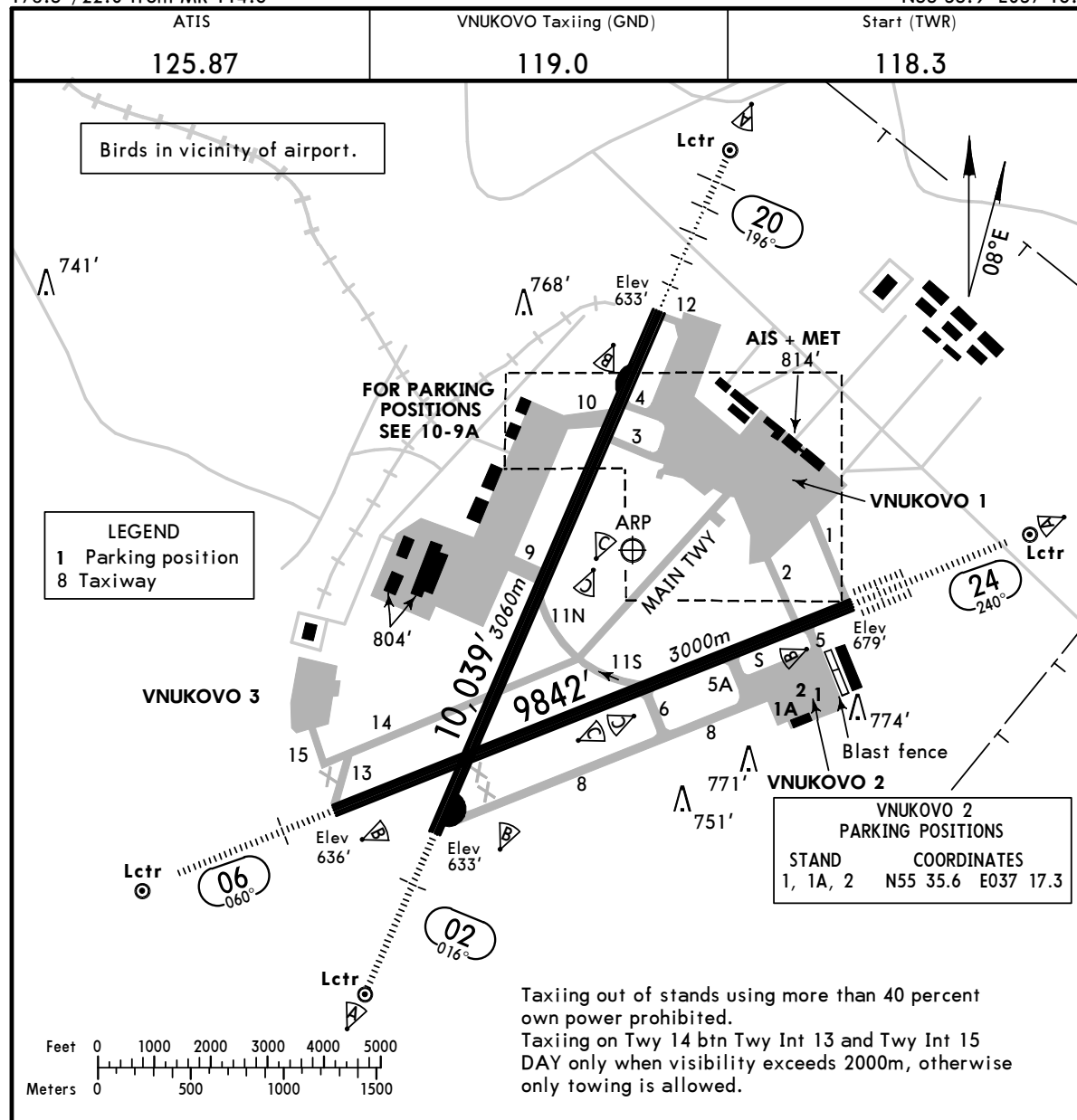
15 FEB 02

**(10-9)**

**MOSCOW, RUSSIA**

**VNUKOVO**

N55 35.9 E037 16.5



**ADDITIONAL RUNWAY INFORMATION**

RWY			USABLE LENGTHS		TAKE-OFF	WIDTH
			Threshold	Landing Beyond Glide Slope		
02 20	HIRL HIALS	RVR		9763' 2976m 9567' 2916m	9711' 2960m ①	197' 60m
06 24	HIRL (60m) CL (15m) HIALS PAPI-L	RVR		9186' 2800m	9514' 2900m ①	197' 60m
	HIRL (60m) CL (15m) HIALS TDZ PAPI-L	RVR				

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

**TAKE-OFF**

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

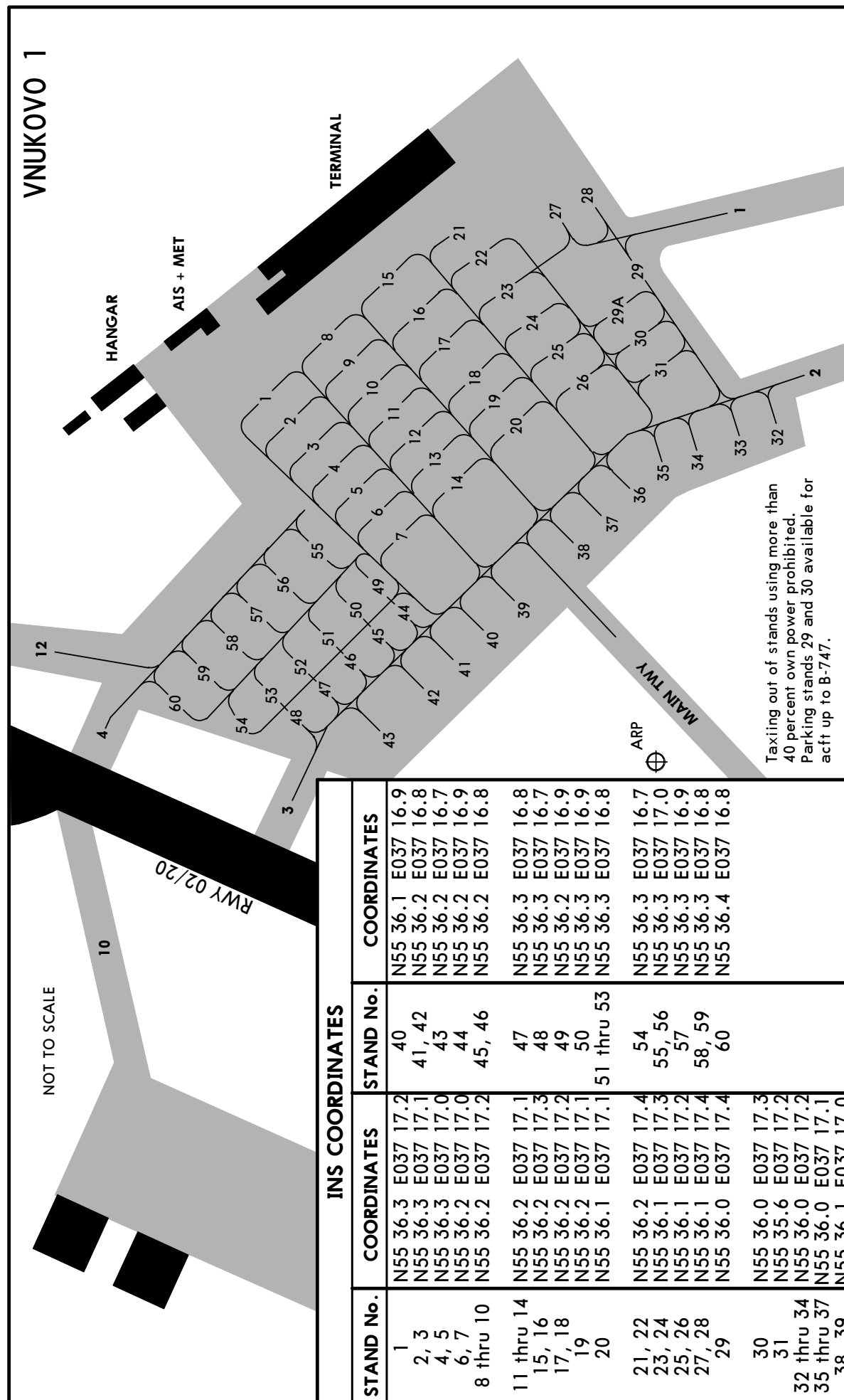
CHANGES: Lights.

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UUWW

JEPPesen  
15 FEB 02 10-9A

MOSCOW, RUSSIA  
VNUKOVO



CHANGES: See other side.

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UUWW

**JEPPesen**

15 FEB 02

10-9X1

**JAA MINIMUMS**

**MOSCOW, RUSSIA**  
VNUKOVO

Take-off **RWY 06, 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
B					
C					
D	150m	200m	250m	300m	

Take-off **RWY 02, 20**

LVP must be in Force		
	RCLM (Day only) or RL	RCLM (DAY only) or RL
A	250m	400m
B		
C		
D	300m	

UUWW

JEPPesen

JAA MINIMUMS

15 FEB 02

10-9X

MOSCOW, RUSSIA

VNUKOVO

STRAIGHT-IN RWY		A	B	C	D
02	ILS	833' (200')	833' (200')	833' (200')	833' (200')
		R550m	R550m	R550m	R550m
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT APPLICABLE			
	PAR	840' (207')	850' (217')	860' (227')	869' (236')
06		R600m	R600m	R600m	R600m
	ALS out	R1000m	R1000m	R1000m	R1000m
	NDB	1000' (367')	1000' (367')	1000' (367')	1000' (367')
		R900m	R1000m	R1000m	R1400m
	ALS out	R1500m	R1500m	R1800m	R2000m
20	ILS	836' (200')	836' (200')	836' (200')	836' (200')
		R550m	R550m	R550m	R550m
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT APPLICABLE			
	PAR	836' (200')	836' (200')	843' (207')	853' (217')
24		R550m	R550m	R600m	R600m
	ALS out	R1000m	R1000m	R1000m	R1000m
	NDB	940' (304')	940' (304')	940' (304')	940' (304')
		R900m	R1000m	R1000m	R1400m
	ALS out	R1500m	R1500m	R1800m	R2000m
20	ILS	833' (200')	833' (200')	833' (200')	833' (200')
		R550m	R550m	R550m	R550m
	ALS out	R1000m	R1000m	R1000m	R1000m
	LOC	NOT APPLICABLE			
	PAR	850' (217')	860' (227')	869' (236')	879' (246')
24		R600m	R600m	R600m	R600m
	ALS out	R1000m	R1000m	R1000m	R1000m
	NDB	1280' (647')	1280' (647')	1280' (647')	1280' (647')
		R1000m	R1200m	R1200m	R1600m
	ALS out	R1500m	R1500m	R2000m	R2000m
24	CAT 2 ILS	779' (100')	779' (100')	779' (100')	779' (100')
		RA1111' - R300m	RA1111' - R300m	RA1111' - R300m	RA1111' - R300m
	ILS	879' (200')	879' (200')	879' (200')	879' (200')
		R550m	R550m	R550m	R550m
	ALS out	R1000m	R1000m	R1000m	R1000m
24	LOC	NOT APPLICABLE			
	PAR	879' (200')	879' (200')	886' (207')	896' (217')
		R550m	R550m	R600m	R600m
	ALS out	R1000m	R1000m	R1000m	R1000m
	NDB	1040' (361')	1040' (361')	1040' (361')	1040' (361')
24		R900m	R1000m	R1000m	R1400m
	ALS out	R1500m	R1500m	R1800m	R2000m

MOSCOW, RUSSIA  
ILS or 2 NDB Rwy 02

**BRIEFING STRIP™**

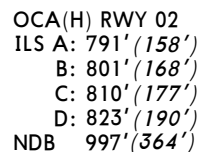
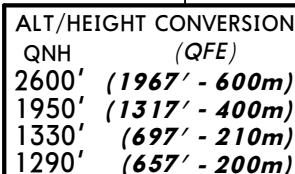
10.

5

0  
- 55-30

5

## PANS OPS



STRAIGHT-IN LANDING RWY 02									
ILS <i>DA(H)</i> 833'(200')			LOC (GS out)		NDB <i>MDA(H)</i> 1000'(367')				
FULL		ALS out				ALS out			
A	RVR 720m VIS 800m	1200m	NOT AUTH	1200m	RVR 1500m VIS 1600m				
B									
C									
D						RVR 1500m VIS 1600m	RVR 1800m VIS 2000m		

Notice: After 28.11.2002 0901Z this chart should not be used without first checking JeppView or NOTAMS.

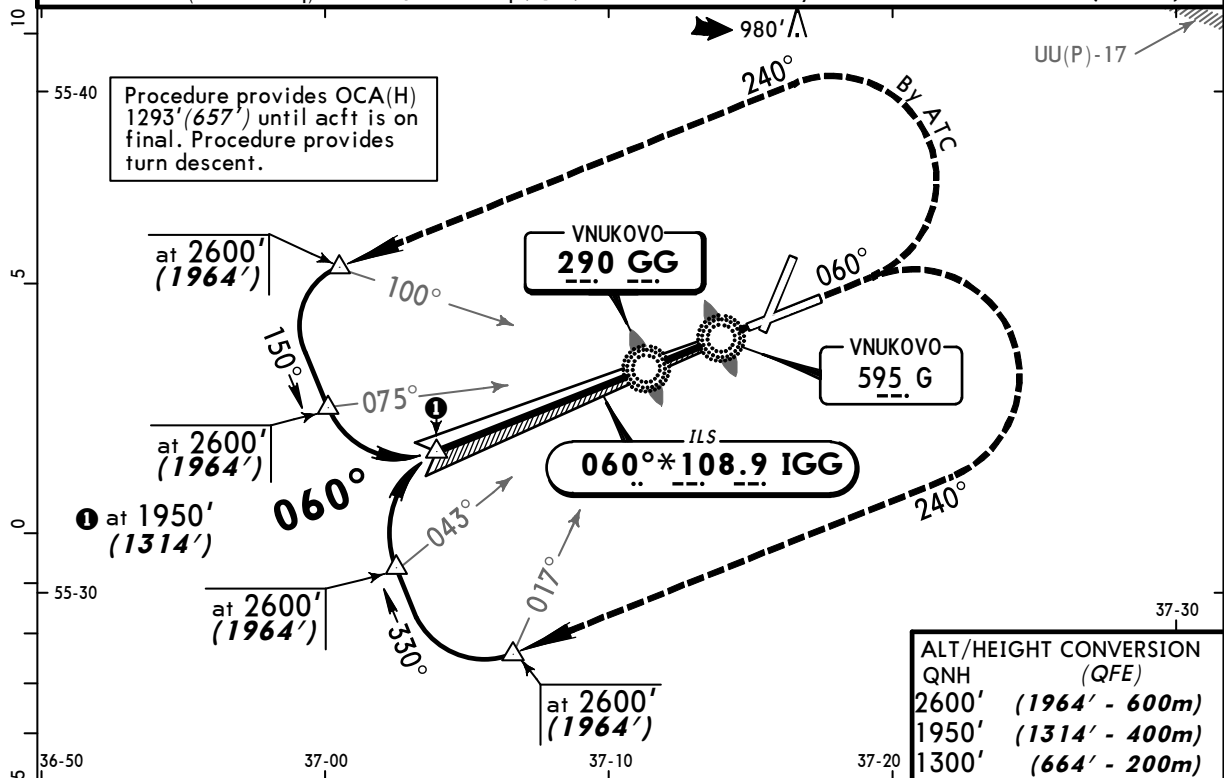
**UUWW**  
VNUKOVO

**JEPPESEN**  
15 FEB 02 (11-2)

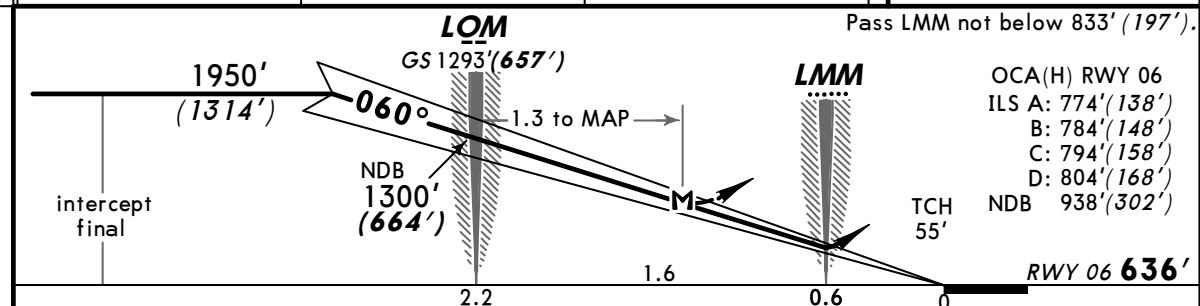
**MOSCOW, RUSSIA**  
ILS or 2 NDB Rwy 06

BRIEFING STRIP™

ATIS 125.87		MOSCOW Approach 3 128.0		MOSCOW Approach 4 123.4		VNUKOVO Approach 122.3	
VNUKOVO Krug (SRE) 126.0 124.4		VNUKOVO Tower (PAR) 118.3		VNUKOVO Start(TWR) 118.3		Ground 119.0	
LOC IGG *108.9	Final Apch Crs 060°	GS LOM 1293' (657')	ILS DA(H) 836' (200')	Apt Elev 686'			
NDB GG 290		Minimum Alt LOM 1300' (664')	NDB MDA(H) 940' (304')	RWY 636			
MISSED APCH: Climb on 060° to 1300' (664'), then turn RIGHT onto 240° climbing to 2600' (1964'), then according to chart.						MSA Airport	
Alt Set: MM (hPa on req)		QNH on req (QFE)		Trans level: By ATC		Trans alt: 2600' (1964')	



ALT/HEIGHT CONVERSION	
QNH	(QFE)
2600'	(1964' - 600m)
1950'	(1314' - 400m)
1300'	(664' - 200m)



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1300' (664')	240°	2600' (1964')
ILS GS 2.67° or	336	433	481	577	673	769	PAPI	↑	RT	↑
NDB Desc Grad 4.7%										
LOM to MAP 1.3	1:07	0:52	0:47	0:39	0:33	0:29				

STRAIGHT-IN LANDING RWY 06					
ILS		LOC		NDB	
DA(H) <b>836'(200')</b>		(GS out)		MDA(H) <b>940'(304')</b>	
FULL	ALS out				ALS out
A					
B				1200m	RVR 1500m VIS 1600m
C	RVR 720m VIS 800m	1200m	NOT AUTH		
D				RVR 1500m VIS 1600m	

CHANGES: OCA(H). Minimums.

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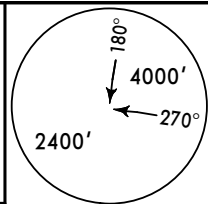
Notice: After 28.11.2002 0901Z this chart should not be used without first checking JeppView or NOTAMS.

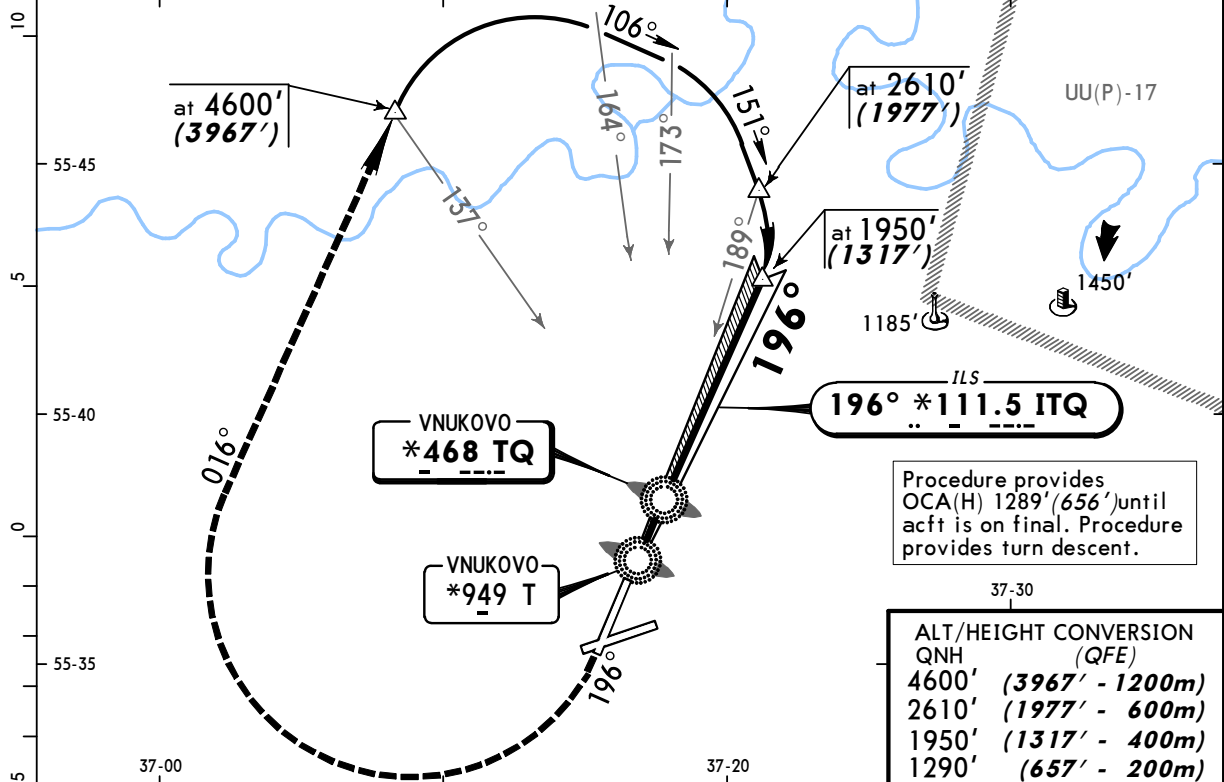
**UUWW**  
**VNUKOVO**

**JEPPesen**  
22 MAR 02 **(11-3)**

**MOSCOW, RUSSIA**  
**ILS or 2 NDB Rwy 20**

BRIEFING STRIP™

ATIS <b>125.87</b>		MOSCOW Approach 3 <b>128.0</b>		MOSCOW Approach 4 <b>123.4</b>		VNUKOVO Approach <b>122.3</b>	
VNUKOVO Krug (SRE) <b>126.0 124.4</b>		VNUKOVO Tower (PAR) <b>118.3</b>		VNUKOVO Start (TWR) <b>118.3</b>		Ground <b>119.0</b>	
LOC ITQ <b>*111.5</b>	<i>Final Apch Crs</i> <b>196°</b>	GS LOM <b>1224' (591')</b>	ILS DA(H) <b>833' (200')</b>	Apt Elev <b>686'</b>  RWY <b>633'</b>			
NDB TQ <b>*468</b>		<i>Minimum Alt No FAF</i>	NDB MDA(H) <b>1280' (647')</b>				
MISSED APCH: Climb on 196° to 1290' (657'), then turn RIGHT onto 016° climbing to 4600' (3967'), then according to chart.							MSA Airport
Alt Set: MM (hPa on req)		QNH on req (QFE)		Trans level: By ATC			
				Trans alt: 4600' (3967')			



Pass LOM not below 1224' (591'),  
LMM not below 830' (197').

OCA(H) RWY 20  
ILS A: 774' (141')  
B: 784' (151')  
C: 794' (161')  
D: 807' (174')  
NDB 1280' (647')

RWY 20 **633'**

TCH  
49'

**LMM**

**LOM**

GS 1224' (591')

1950'  
(1317')

intercept  
final

Gnd speed-Kts	70	90	100	120	140	160	HIALS	1290' (657') on 196°	016°	4600' (3967')
ILS GS 2.83°	356	458	509	611	712	814			RT	

**STRAIGHT-IN LANDING RWY 20**

	ILS		LOC	NDB	
	DA(H)	833' (200')	(GS out)	MDA(H)	1280' (647')
	FULL	ALS out			ALS out
A					
B					
C	RVR 720m VIS 800m	1200m	NOT AUTH		3200m
D					

CHANGES: Trans alt. Procedure.

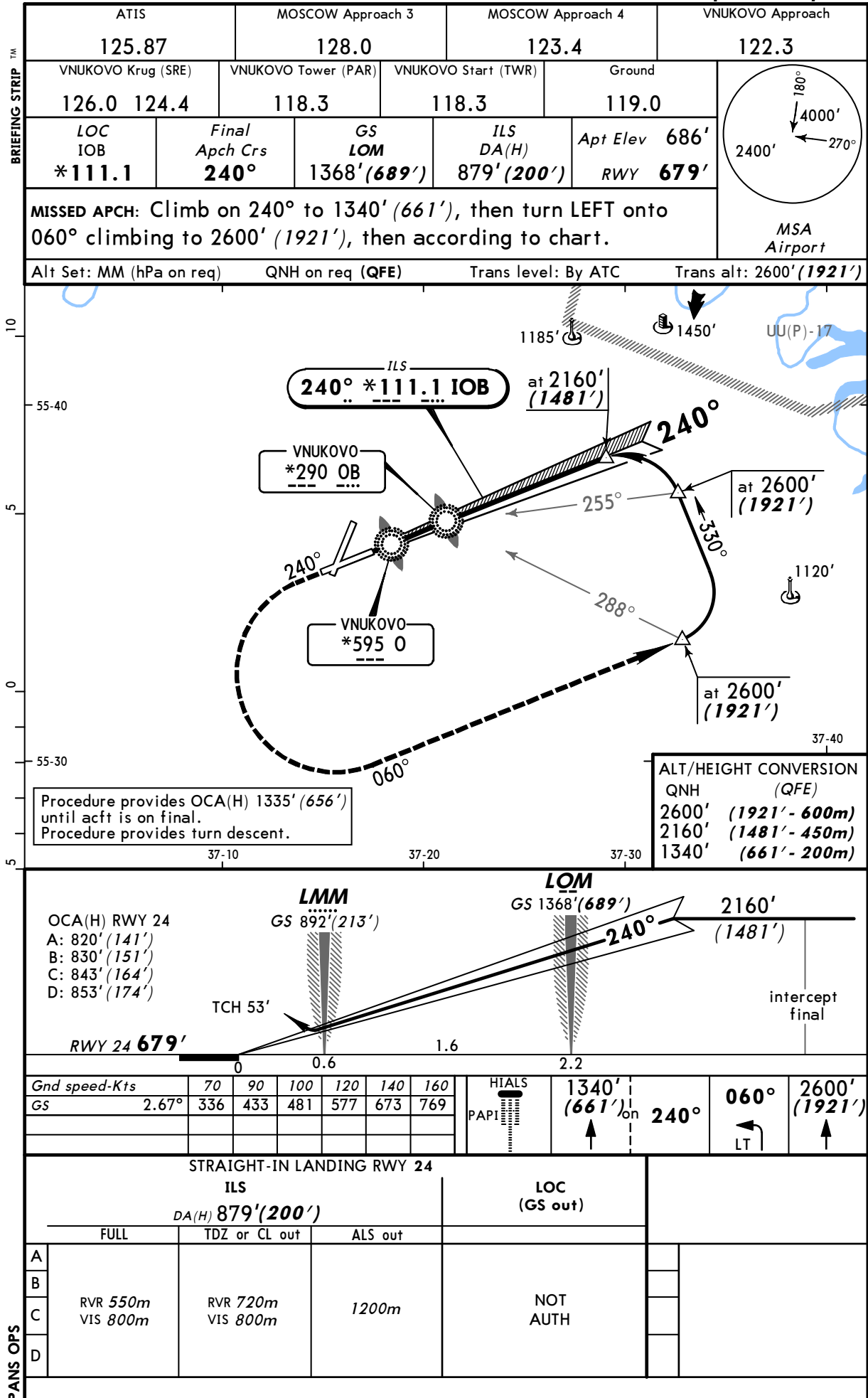
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**UUWW**  
**VNUKOVO**

**JEPPesen**  
15 FEB 02 **(11-4)**

**MOSCOW, RUSSIA**  
**ILS-Alpha Rwy 24**



CHANGES: OCA(H). Minimums.

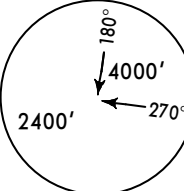
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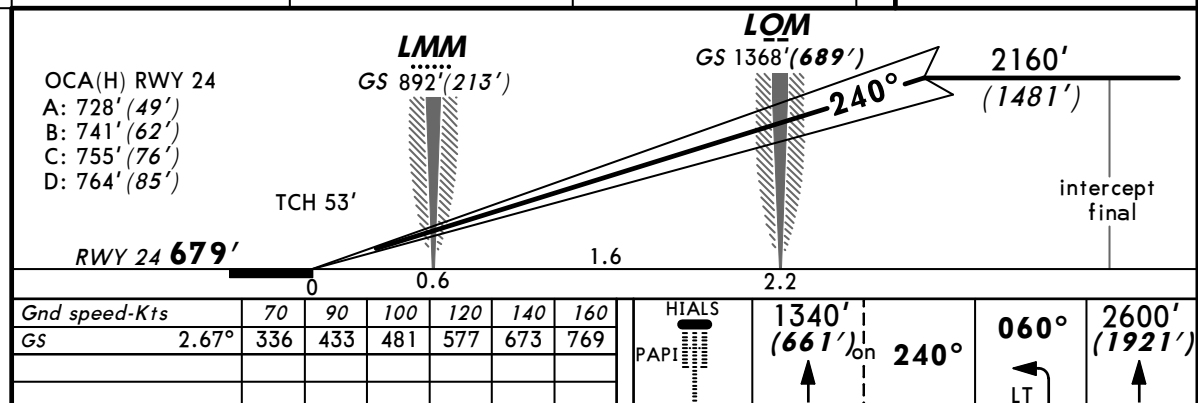
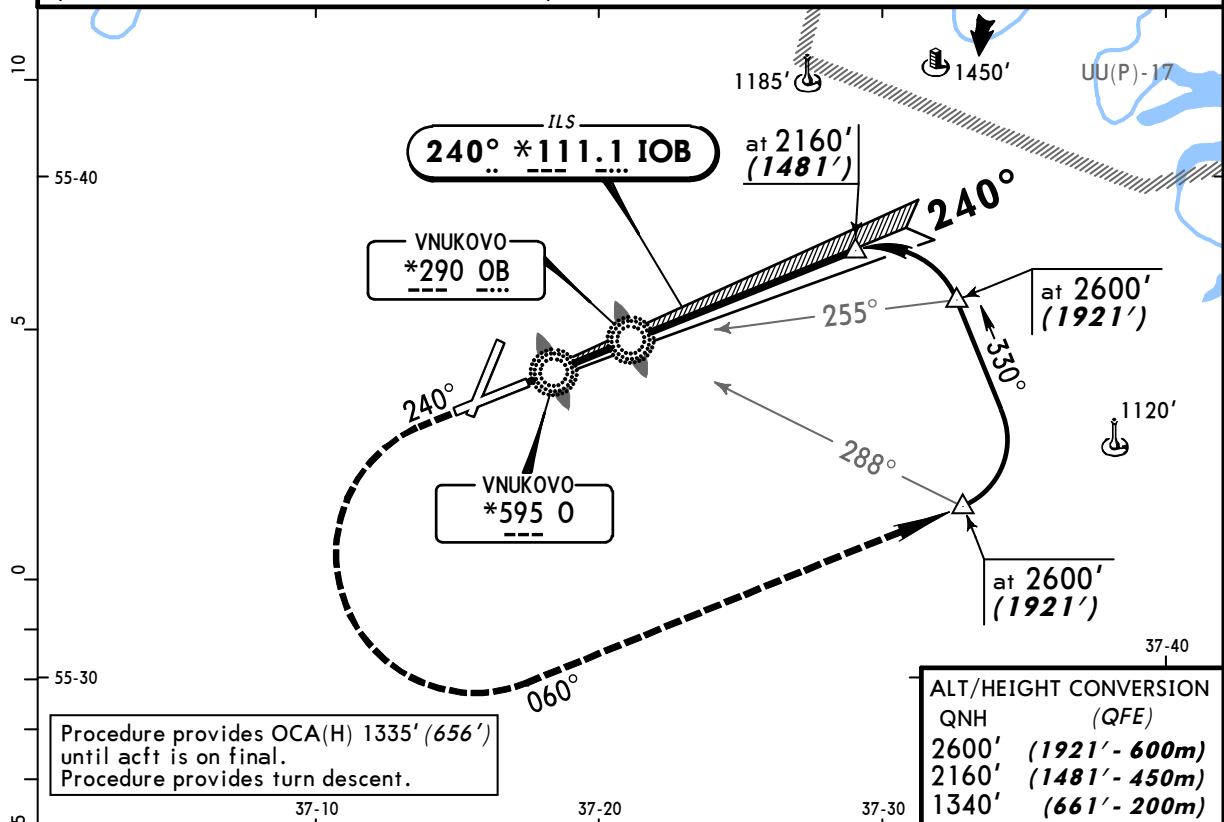
Notice: After 28.11.2002 0901Z this chart should not be used without first checking JeppView or NOTAMs.

**UUWW**  
VNUKOVO

**JEPPesen**  
15 FEB 02 **(11-4A)**

**MOSCOW, RUSSIA**  
**CAT II ILS-Alpha Rwy 24**

BRIEFING STRIP™	ATIS <b>125.87</b>		MOSCOW Approach 3 <b>128.0</b>		MOSCOW Approach 4 <b>123.4</b>		VNUKOVO Approach <b>122.3</b>	
	VNUKOVO Krug (SRE) <b>126.0 124.4</b>		VNUKOVO Tower (PAR) <b>118.3</b>		VNUKOVO Start (TWR) <b>118.3</b>		Ground <b>119.0</b>	
	LOC IOB <b>*111.1</b>	Final Apch Crs <b>240°</b>	GS LOM <b>1368' (689')</b>	CAT II ILS <b>RA 111'</b> DA(H) <b>779' (100')</b>		Apt Elev <b>686'</b>  RWY <b>679'</b>		
	MISSED APCH: Climb on 240° to 1340' (661'), then turn LEFT onto 060° climbing to 2600' (1921'), then according to chart.							 MSA Airport
	Alt Set: MM (hPa on req)		QNH on req (QFE)		Trans level: By ATC		Trans alt: 2600' (1921')	
	Special Aircrew and Aircraft Certification Required.							



STRAIGHT-IN LANDING RWY 24	
ABCD <b>RA 111'</b> DA(H) <b>779' (100')</b>	ABCD <b>RA 180'</b> DA(H) <b>829' (150')</b>
RVR <b>350m</b>	RVR <b>500m</b>

CHANGES: New procedure.

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**UUWW**  
**VNUKOVO**

**JEPPesen**

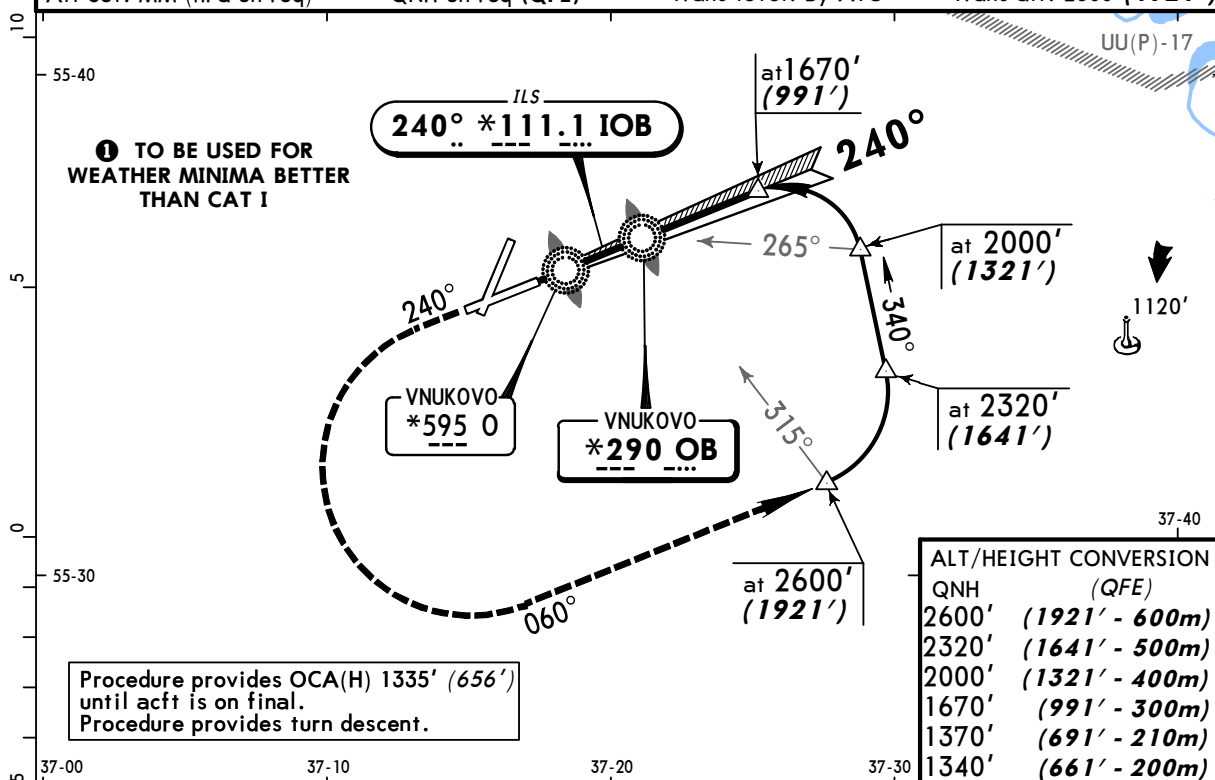
15 FEB 02 (11-5)

**MOSCOW, RUSSIA**  
**• ILS-Bravo or 2 NDB Rwy 24**

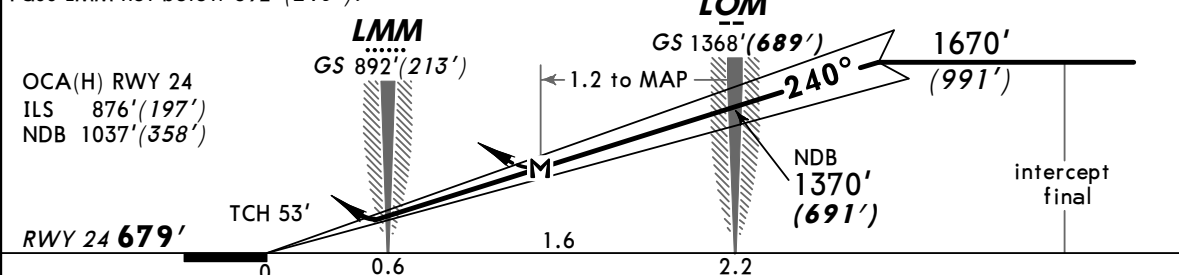
BRIEFING STRIP

ATIS <b>125.87</b>	MOSCOW Approach 3 <b>128.0</b>	MOSCOW Approach 4 <b>123.4</b>	VNUKOVO Approach <b>122.3</b>
VNUKOVO Krug (SRE) <b>126.0 124.4</b>	VNUKOVO Tower (PAR) <b>118.3</b>	VNUKOVO Start (TWR) <b>118.3</b>	Ground <b>119.0</b>
LOC IOB <b>*111.1</b>	GS LOM <b>1368' (689')</b>	ILS DA(H) <b>879' (200')</b>	Apt Elev <b>686'</b>
NDB OB <b>*290</b>	Minimum Alt LOM <b>1370' (691')</b>	NDB MDA(H) <b>1040' (361')</b>	RWY <b>679'</b>
Final Apch Crs <b>240°</b>			MSA Airport
MISSED APCH: Climb on 240° to 1340' (661'), then turn LEFT onto 060° climbing to 2600' (1921'), then according to chart.			

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 2600' (1921')



Pass LMM not below 892' (213').



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1340' (661') on 240°	060°	2600' (1921')
ILS GS 2.67° or	336	433	481	577	673	769	PAPI			
NDB Desc Grad 4.7%										
LOM to MAP 1.2	1:02	0:48	0:43	0:36	0:31	0:27				

STRAIGHT-IN LANDING RWY 24						
ILS			LOC		NDB	
DA(H) 879' (200')			(GS out)		MDA(H) 1040' (361')	
FULL	TDZ or CL out	ALS out			ALS out	
A						
B						
C	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m		NOT AUTH	
D						

**UUWW**  
**VNUKOVO**

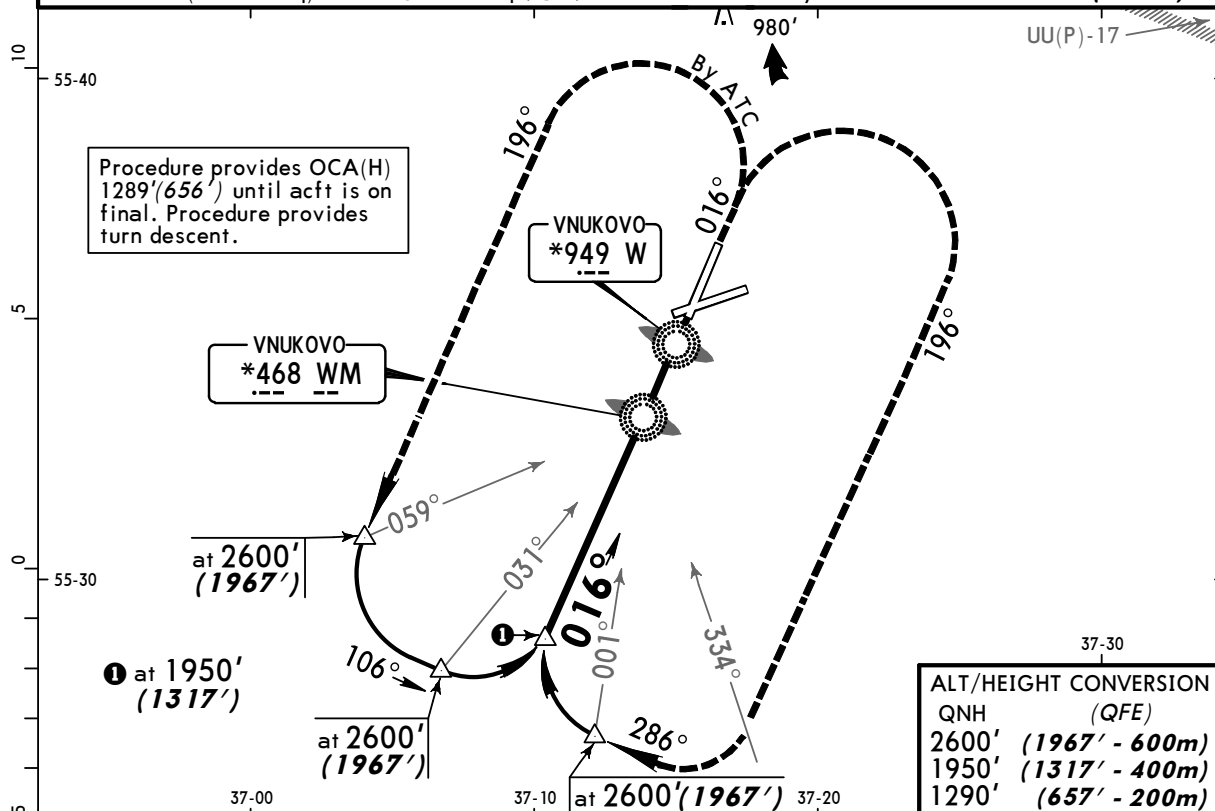
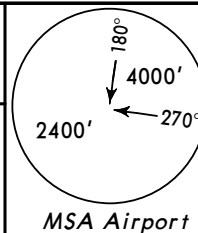
**JEPPesen**

15 FEB 02 (18-1)

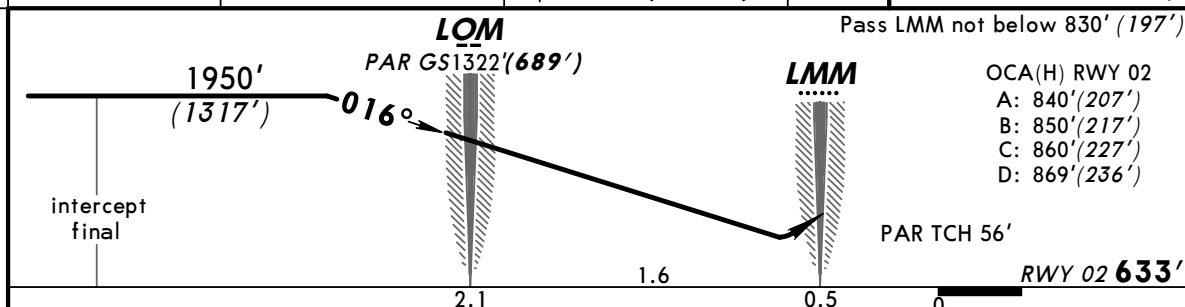
**MOSCOW, RUSSIA**  
**PAR Rwy 02**

BRIEFING STRIP

ATIS <b>125.87</b>	MOSCOW Approach 3 <b>128.0</b>	MOSCOW Approach 4 <b>123.4</b>	VNUKOVO Approach <b>122.3</b>
VNUKOVO Krug (SRE) <b>126.0 124.4</b>	VNUKOVO Tower (PAR) <b>118.3</b>	VNUKOVO Start(TWR) <b>118.3</b>	Ground <b>119.0</b>
RADAR	Final Apch Crs <b>016°</b>	PAR GS LOM <b>1322'(689')</b>	PAR DA(H) Refer to Minimums
		Apt Elev <b>686'</b>	RWY <b>633'</b>
<b>MISSED APCH:</b> Climb on 016° to 1290'(657'), then turn RIGHT onto 196° climbing to 2600'(1967'), then according to chart.			
Alt Set: MM (hPa on req)    QNH on req (QFE)    Trans level: By ATC    Trans alt: 2600'(1967')			



ALT/HEIGHT CONVERSION	QNH	(QFE)
2600'	(1967' - 600m)	
1950'	(1317' - 400m)	
1290'	(657' - 200m)	



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1290'	196°	2600'
PAR GS	2.83°	356	458	509	611	712	814	(657') on 016°	RT	(1967')

STRAIGHT-IN LANDING RWY 02			
A: 840'(207')		C: 860'(227')	
DA(H)	B: 850'(217')	D: 869'(236')	
		ALS out	
A	RVR 720m VIS 800m	1200m	
B			
C			
D			

CHANGES: OCA(H). Minimums.

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Notice: After 28.11.2002 0901Z this chart should not be used without first checking JeppView or NOTAMS.

**UUWW**  
VNUKOVO

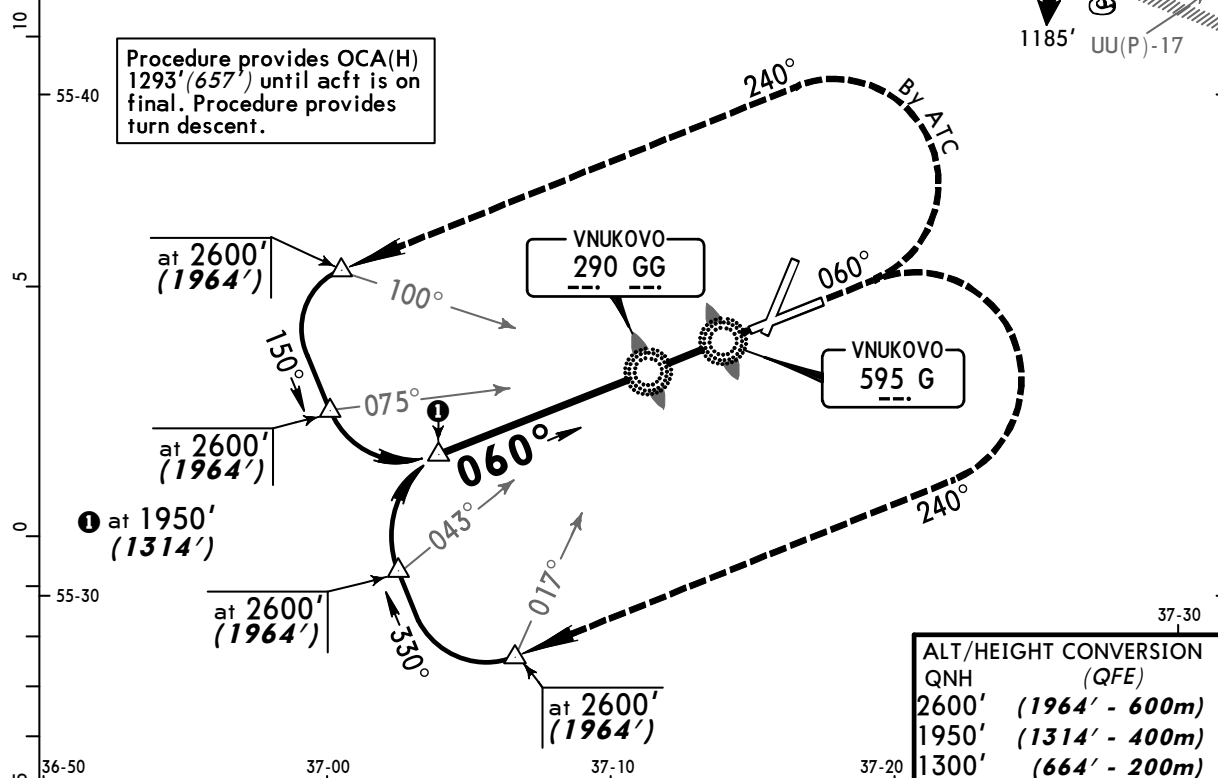
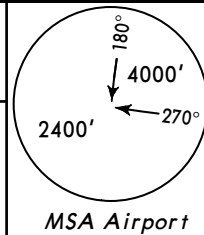
**JEPPesen**

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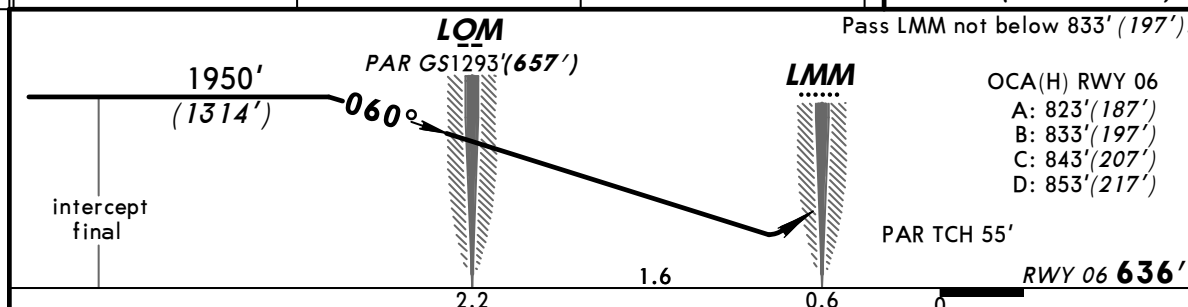
**MOSCOW, RUSSIA**  
**PAR Rwy 06**

BRIEFING STRIP

ATIS <b>125.87</b>	MOSCOW Approach 3 <b>128.0</b>	MOSCOW Approach 4 <b>123.4</b>	VNUKOVO Approach <b>122.3</b>
VNUKOVO Krug (SRE) <b>126.0 124.4</b>	VNUKOVO Tower (PAR) <b>118.3</b>	VNUKOVO Start (TWR) <b>118.3</b>	Ground <b>119.0</b>
RADAR	Final Apch Crs <b>060°</b>	PAR GS LOM <b>1293' (657')</b>	PAR DA(H) Refer to Minimums
		Apt Elev <b>686'</b> RWY <b>636'</b>	
<b>MISSED APCH:</b> Climb on 060° to 1300' (664'), then turn RIGHT onto 240° climbing to 2600' (1964'), then according to chart.			
Alt Set: MM (hPa on req)    QNH on req (QFE)    Trans level: By ATC    Trans alt: 2600' (1964')			



ALT/HEIGHT CONVERSION	
QNH	(QFE)
2600'	(1964' - 600m)
1950'	(1314' - 400m)
1300'	(664' - 200m)



Gnd speed-Kts	70	90	100	120	140	160	HIALS	1300' (664')	240°	2600' (1964')
PAR GS	2.67°	336	433	481	577	673	PAPI	060°	RT	

STRAIGHT-IN LANDING RWY 06						
DA(H) AB:836'(200') C: 843'(207')						
D: 853'(217')						
			ALS out			
A	RVR 720m VIS 800m		1200m			
B						
C						
D						

CHANGES: OCA(H). Minimums.

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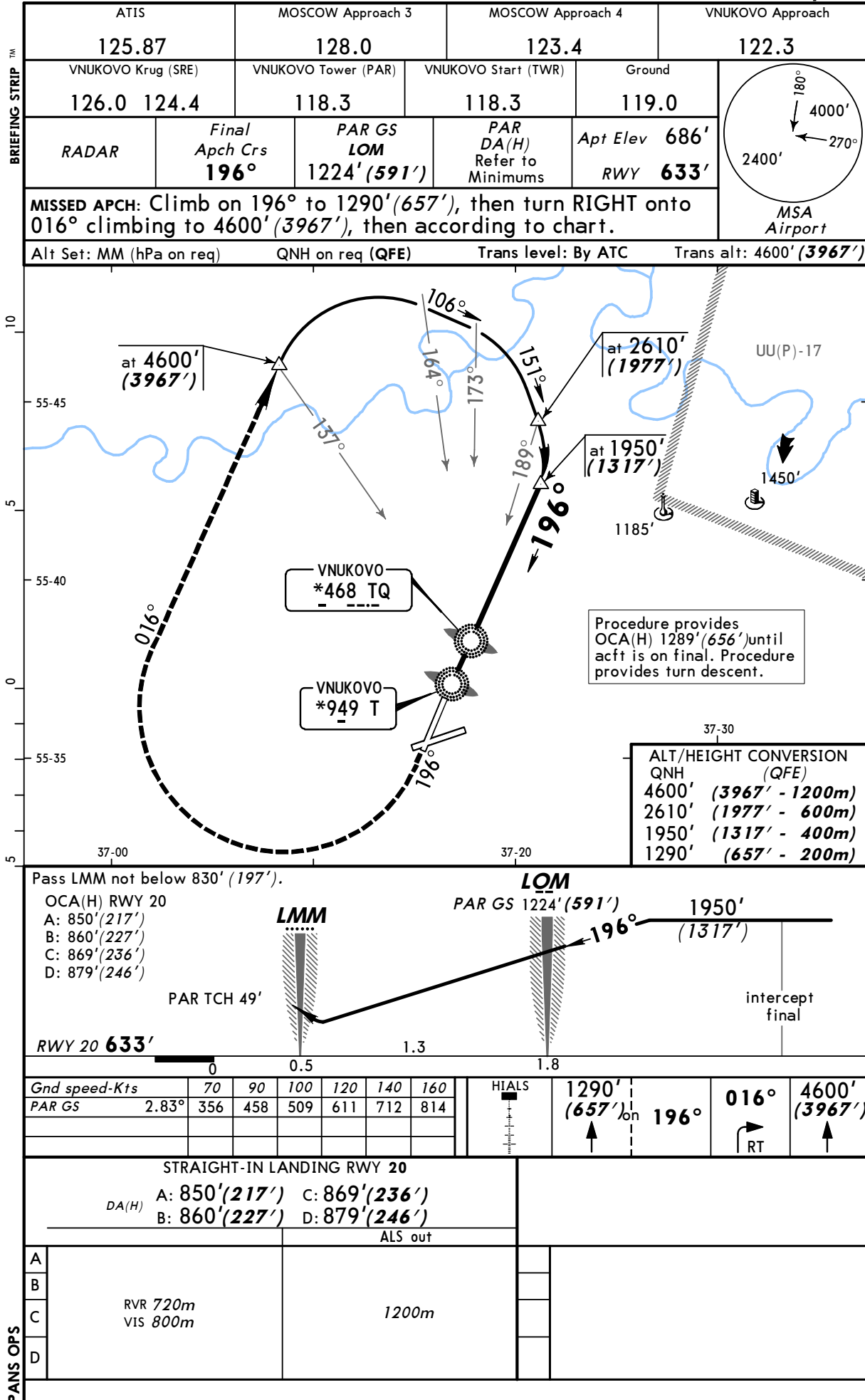
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**UUWW**  
**VNUKOVO**

**JEPPESEN**

22 MAR 02 **(18-3)**

**MOSCOW, RUSSIA**  
**PAR Rwy 20**



CHANGES: Trans alt. Procedure.

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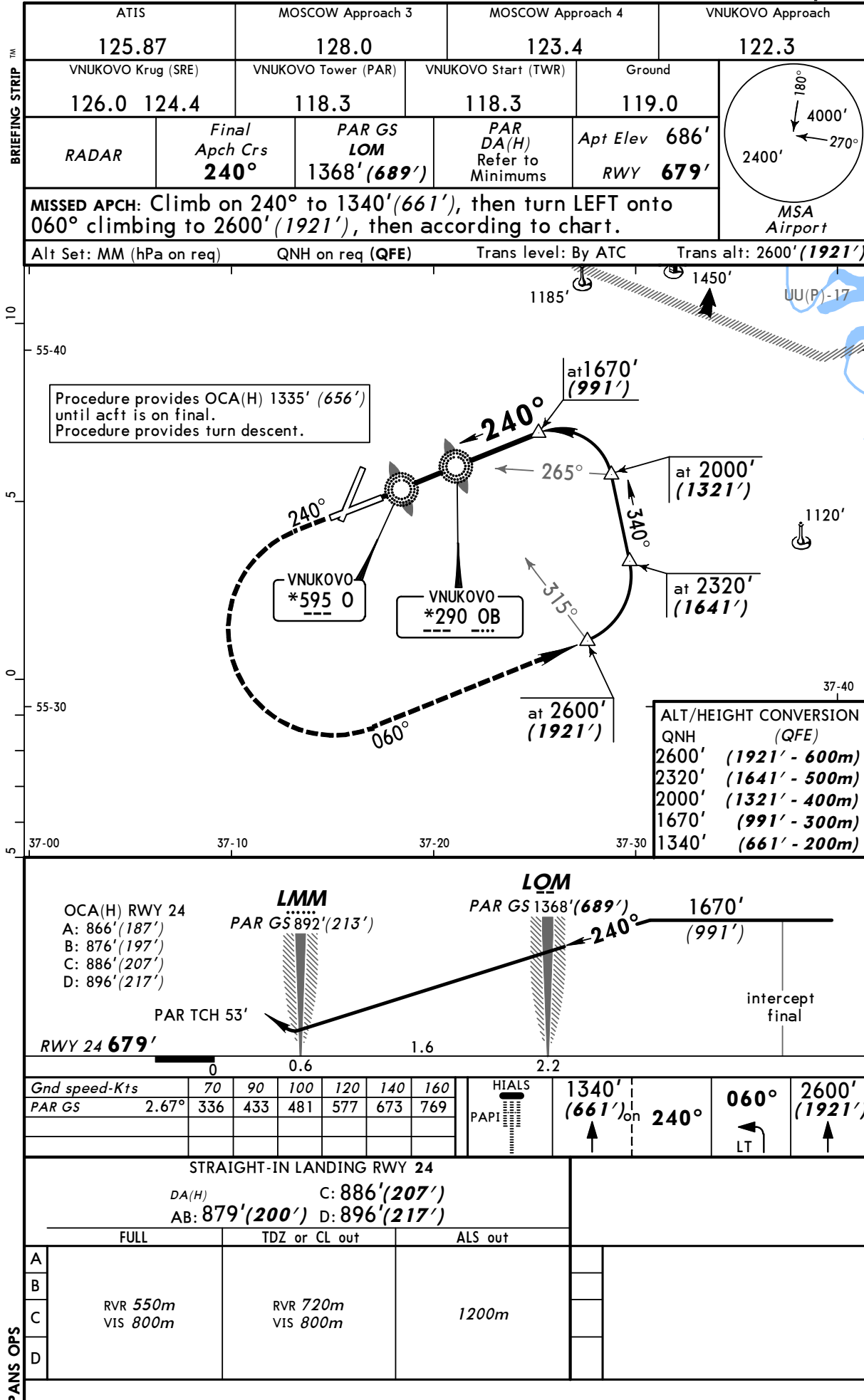


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**UUWW**  
**VNUKOVO**

**JEPPESEN**  
22 MAR 02 (18-4)

**MOSCOW, RUSSIA**  
**PAR Rwy 24**



CHANGES: See other side.

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