

**MRV-URMM**

**1-10**

**AOI**

**AOI**

**GENERAL**

**Operational Hours**

**ATS Hours / AD OPS Hours:** H24

**AD ADMIN Hours:** MON-FRI 0500-1400, SAT/SUN/HOL CLSD

**Airport Information**

**RFF:** CAT 8, CAT 9 AVBL O/R

**Fuel:** TS-1, RT

**PCN:** RWY 12/30: 54/R/A/W/T

**Operation**

**Low Visibility Procedure (LVP)**

LVP in progress when RVR less than 550m.

Report RWY vacated when clear of ILS critical area (120m / 394ft from RWY CL, along whole RWY).

ACFT shall vacate RWY 12 along TWY B or TWY A.

Follow-me AVBL O/R.

It is prohibited to cross the holding position line on TWYs A, B, C, D, Z designated by 6 lighting markers and the established day marking without TWR permission.

**TWY Restriction**

TWY Z width 18m / 59ft.

Taxiing along Route1 (APN) MAX wingspan 50.5m / 166ft.

Taxiing along Route2 MAX wingspan 29.2m / 96ft.

**Taxi/Parking**

Taxiing to stand 5 shall be carried out by towing.

Taxiing out of stands 1-4 and 6-25 shall be carried out by towing.

Marshaller mandatory.

Taxi guide lines may be invisible because of snow. Follow-me AVBL O/R via GND.

**Warnings**

Birds in vicinity of AD.

**ARRIVAL**

**Communication**

**COM Failure:** See CRAR and in addition;

Continue flight at the last FL. Assigned by ATS unit and acknowledged, or at FL indicated in FPL, towards VOR (NDB/MKR). After passing VOR (NDB/MKR) proceed to CRP TERLO. After passing CRP TERLO join HLDG area and continue to fly in HLDG area for the time necessary for descent to FL70. Fly along STAR TERLO 2V/2W for LDG on RWY 12, STAR TERLO 4V/4W for LDG on RWY 30 and land at AD.

**ARRIVAL****Arrival Procedure****Visual APCH**

Clearance for visual APCH will not be given if cloud ceiling at AD is below 550m / 1800ft.

**Reverse:** Use idle reverse only.

**Special RWY 30 APCH**

- When reaching a DIST of  $13 \pm 2$  NM from touchdown the crew shall carry out a flight at 4010ft maintaining 210KT IAS.
- From a DIST of 12NM from touchdown the crew shall reduce IAS from 210KT to  $184 \pm 11$  KT. At 11NM the ACFT shall lower the landing gear and wing devices into intermediate position at  $15\text{--}30^\circ$  angle (IAS and angles of wing devices are set depending on the ACFT types and mass).
- After GP interception and commencement of descent along GP the crew shall continue to reduce IAS to  $157\text{--}162 \pm 16$  KT by the moment of ACFT reaching 2540ft at a DIST of about 5.2NM from touchdown.
- At 2540ft or above the crew shall terminate to set the wing devices into landing position and before reaching 2204ft and a DIST of 4NM from touchdown complete the stabilization of ACFT in the landing configuration at the final APCH speed.
- At 2204ft or above and at a DIST of 4.1NM from touchdown the ACFT shall be completely stabilized and the crew till the moment of landing shall maintain IAS of final APCH taking into account the ACFT mass.

**DEPARTURE****Take-off Minima**

RWY		12/30	
All ACFT	ft - m/km	0 - 125R	-

**Communication**

**COM Failure:** See CRAR and in addition:

**After TKOF or MISAP:**

If communication with Krug RAD has not been established at 1700ft (200m QFE), climb to 3100ft (600m QFE), follow traffic pattern and land at AD.

If unable to land due to MET CONDS or other reasons, then after carrying out a traffic circuit and passing VOR (NDB/MKR) at 3100ft (600m QFE) proceed either:

- to DEST AD and climb to FL as stipulated in FPL and continue as filed, or
- continue to ALTN AD at MNM ENRT LVL or at FL FL140-FL150 or FL240-FL250, depending on flight direction.
- or follow SID TERLO 1V/1W or TERLO 3V/3W climbing FL70 to enter CRP TERLO HLDG for fuel dumping. Thereafter follow STAR route TERLO 2V/2W for LDG on RWY 12, STAR route TERLO 4V/4W for LDG on RWY 30.

**DEPARTURE**

**During climb to FL:**

Maintain last assigned and acknowledged FL until CRP of TMA. Thereafter proceed to DEST AD and climb to FL as stipulated in FPL and continue as filed.

To return DEP AD at the lower FL of the same direction nearest to the assigned one, the ALT of which shall not be below safe flight ALT, or at FL specially established for a flight without radio COM depending on flight direction FL140-FL150 or FL240-FL250.

After passing VOR (NDB/MKR) proceed to CRP TERLO. After passing CRP TERLO join HLDG area, descend to FL70 and continue to fly in HLDG area for the time necessary for fuel use (dumping). After fuel use (dumping) fly along STAR route TERLO 2V/2W for LDG on RWY 12, STAR route TERLO 4V/4W for LDG on RWY 30.

**Departure Procedure**

**Noise Abatement Procedure:** ICAO Standard: TKOF PROC NADP 1 or NADP 2.

**ATC Slot, Clearance**

**Start-up:** Start-up point specified by controller.

**De-Icing**

Stand 5 AVBL for de-icing.

09-AUG-2018

## Russian Federation Mineralnyye Vody

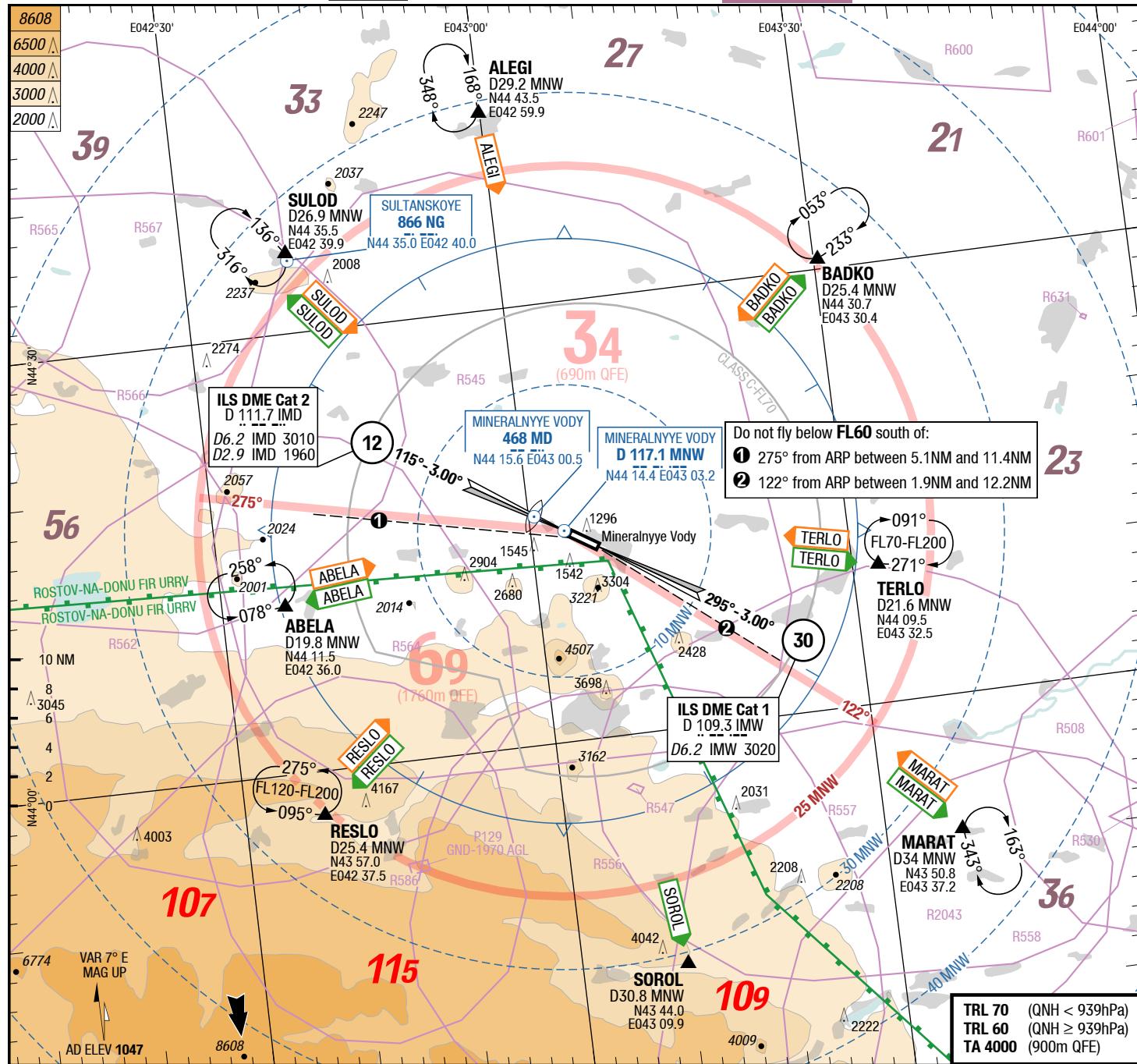
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MRV-URMM

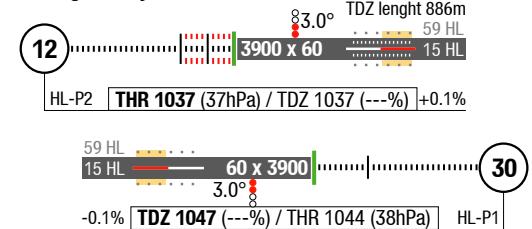
2-10



ATIS  
APP  
TWR  
Krug  
Start  
Taxiing  
Transit  
Zemlya  
Reserve FREQ

125.250  
119.300  
128.000  
120.700 TWR  
128.000 TWR  
121.900 GND  
118.000  
118.900 Towing, Start-up  
129.000 For all ATC units  
124.000 For all ATC units

Landing RWY system:



Changes: Nil

09-AUG-2018

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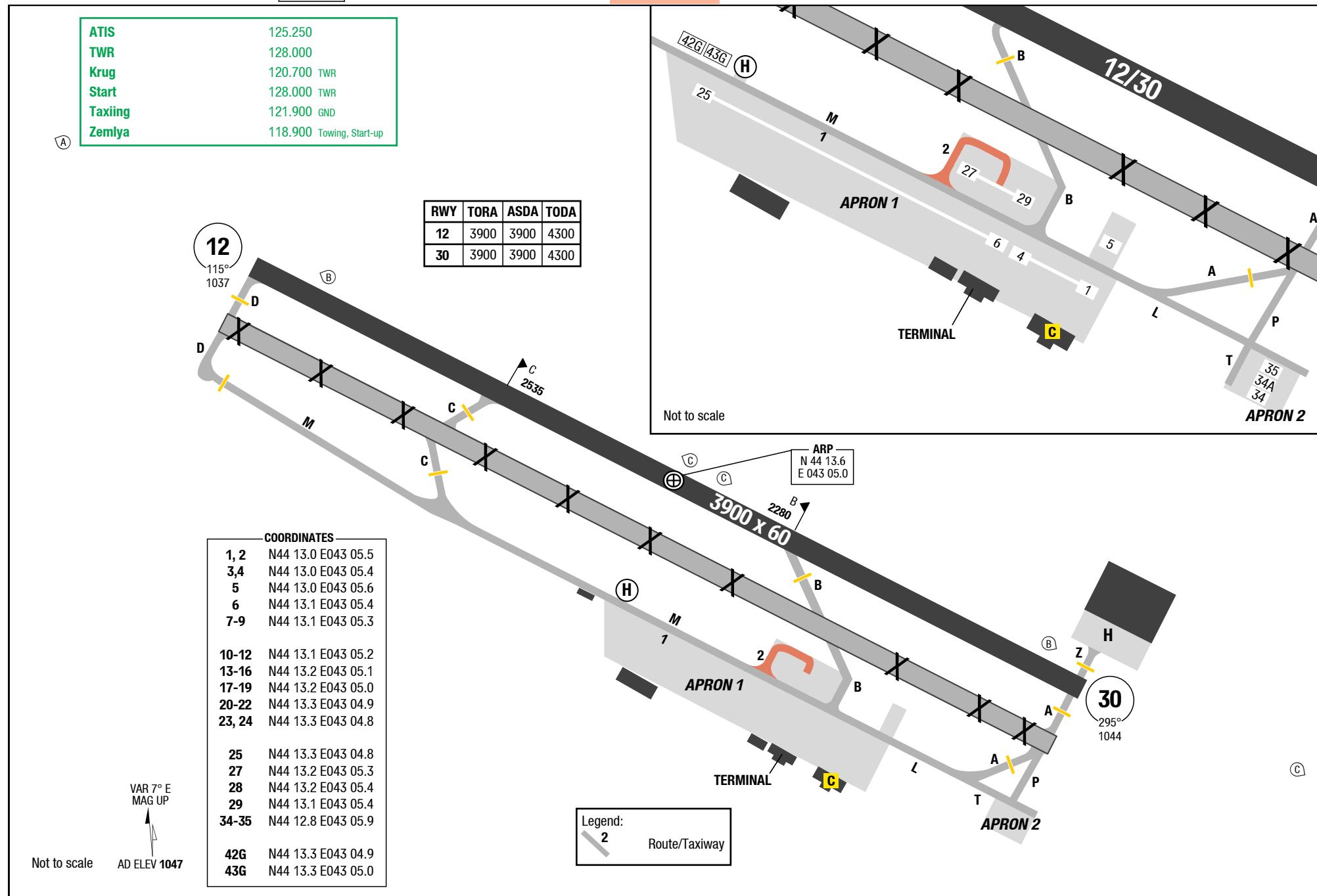
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3-20

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RNAV SIDs RWY 30

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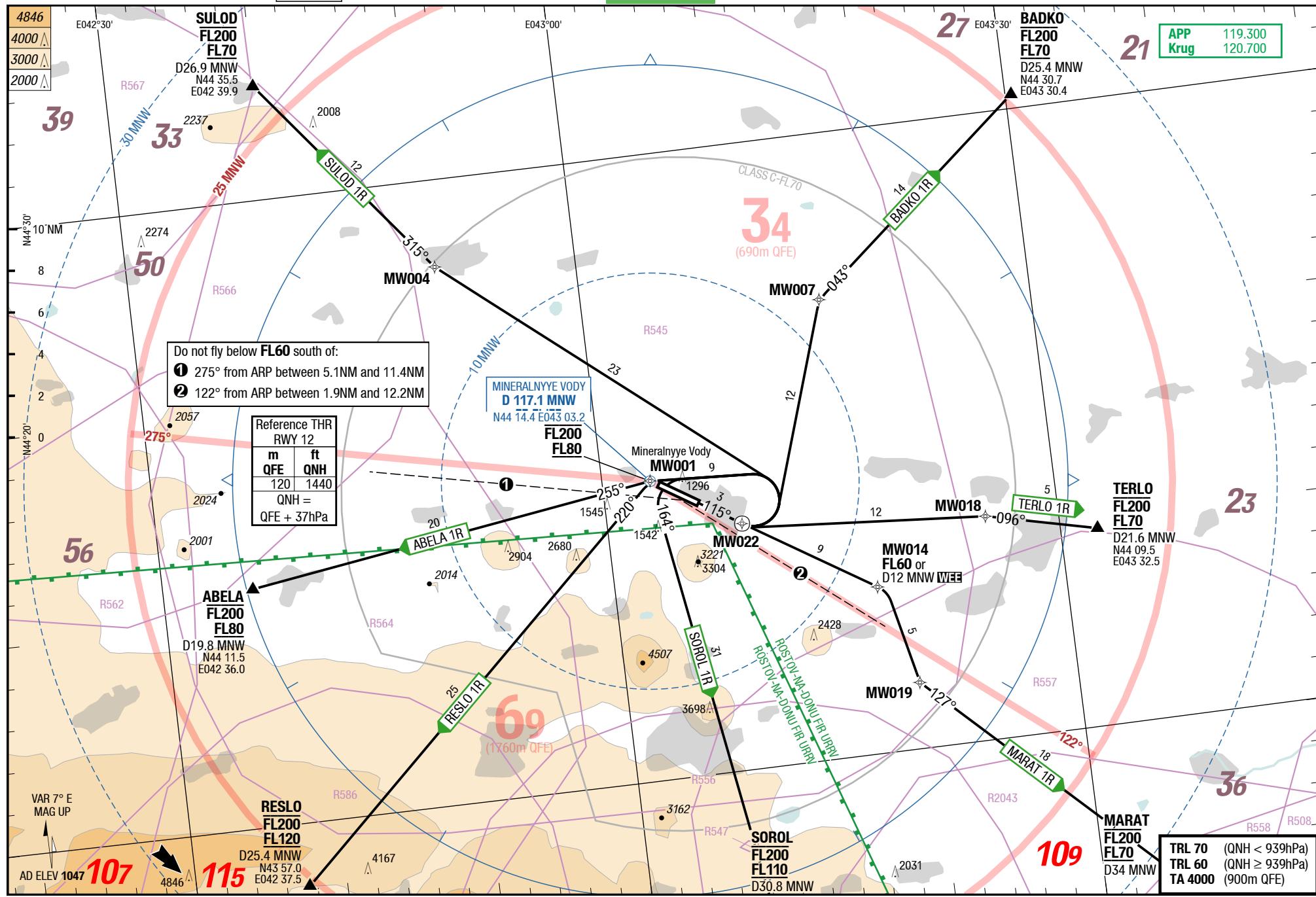
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RNAV SIDs RWY 12

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**RNAV SIDs RWY 30**

## **RNAV SIDs RWY 12**



## Changes: MGA, SUAs, OBST

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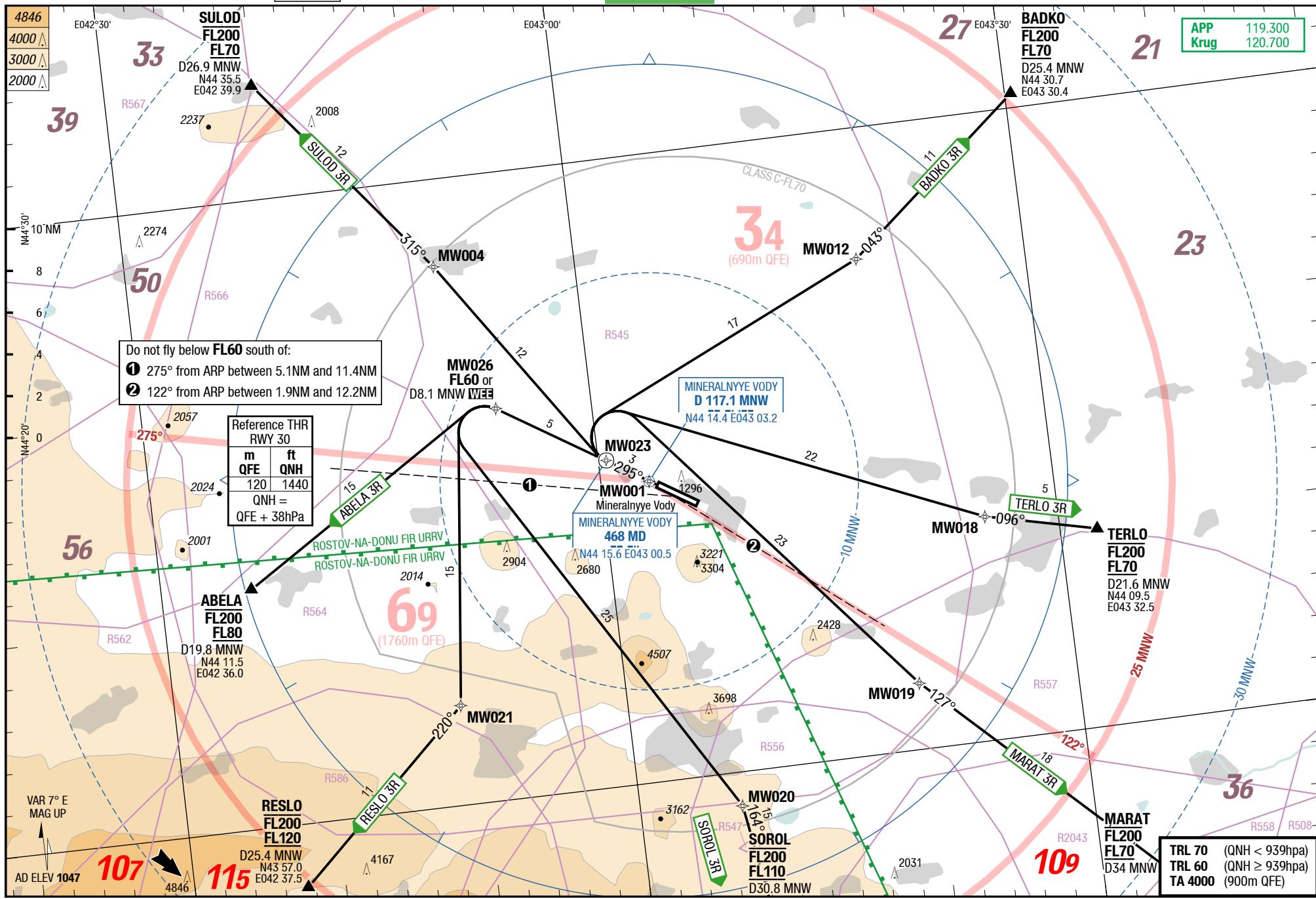
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RNAV SIDs RWY 30

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RNAV SIDs RWY 30



Changes: MGA, SUAs, OBST

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# Russian Federation Mineralnyye Vody

SIDs RWY 12

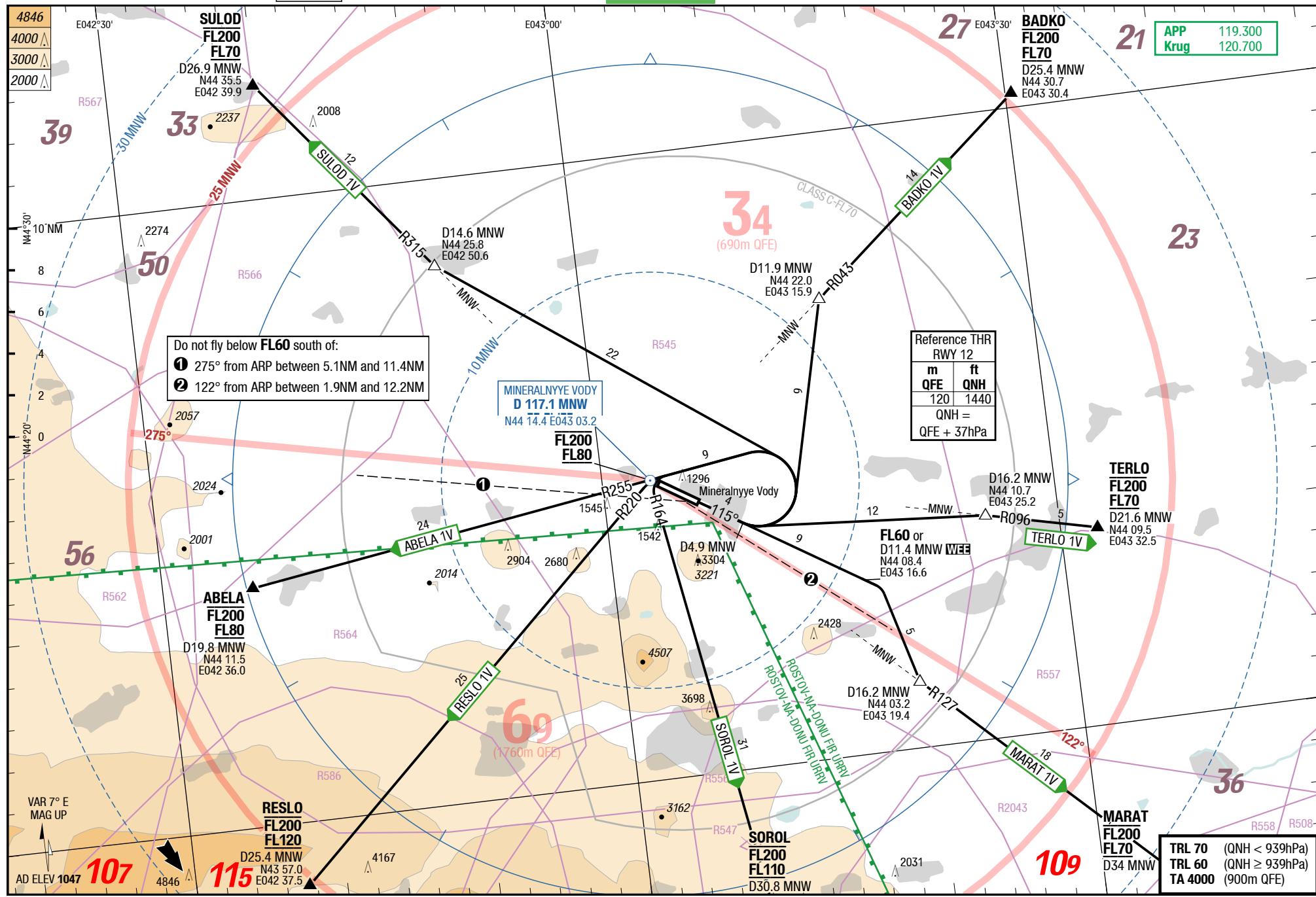
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SIDs VOR DME RWY 12

# Mineralnyye Vody Russian Federation

SIDs RWY 12

SIDs VOR DME RWY 12



Changes: MGA, SUAs, OBST

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# Russian Federation Mineralnye Vody

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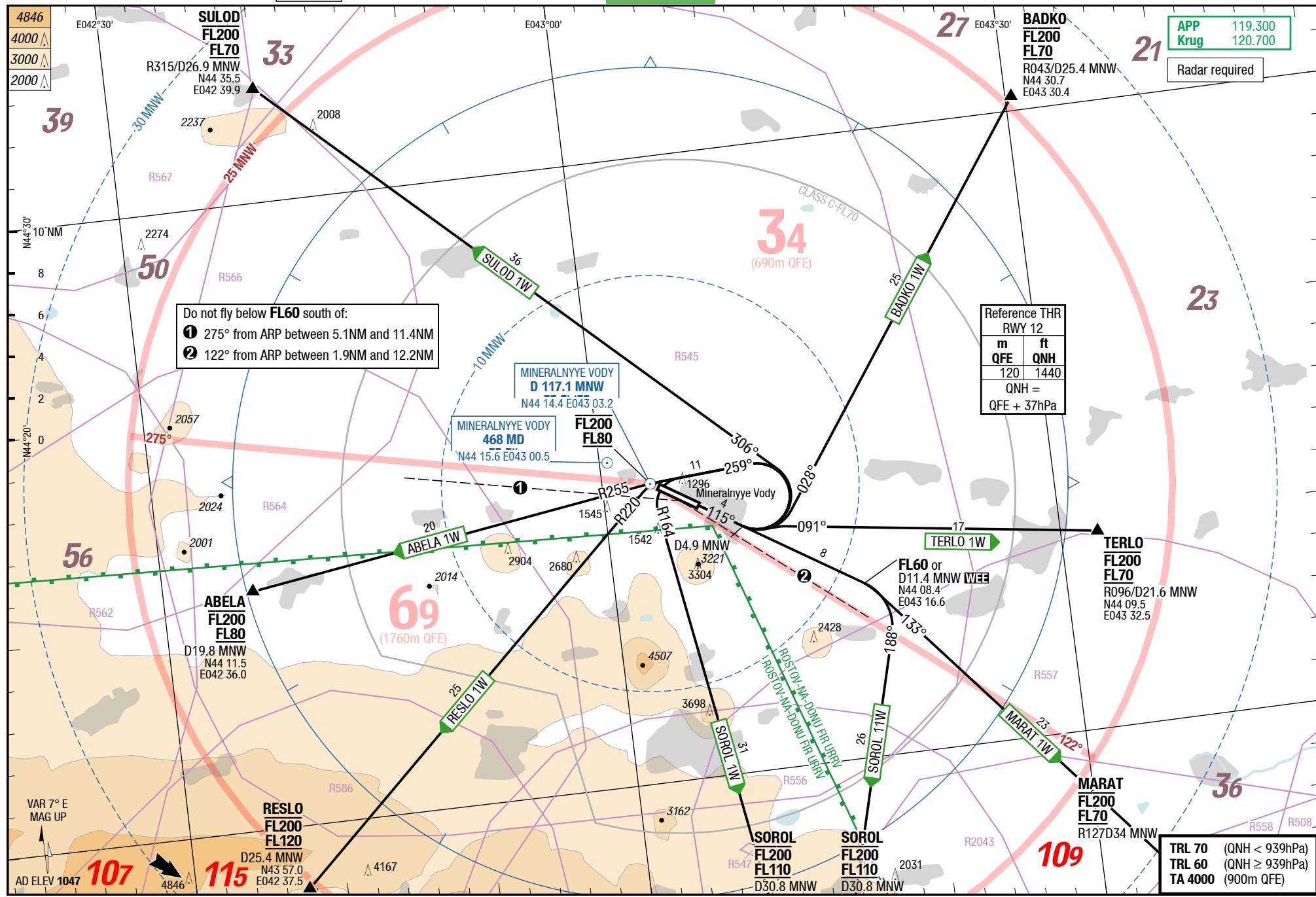
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SIDs RWY 12

SID

# Mineralnye Vody Russian Federation

SIDs RWY 12



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# Russian Federation Mineralnyye Vody

RWY 30

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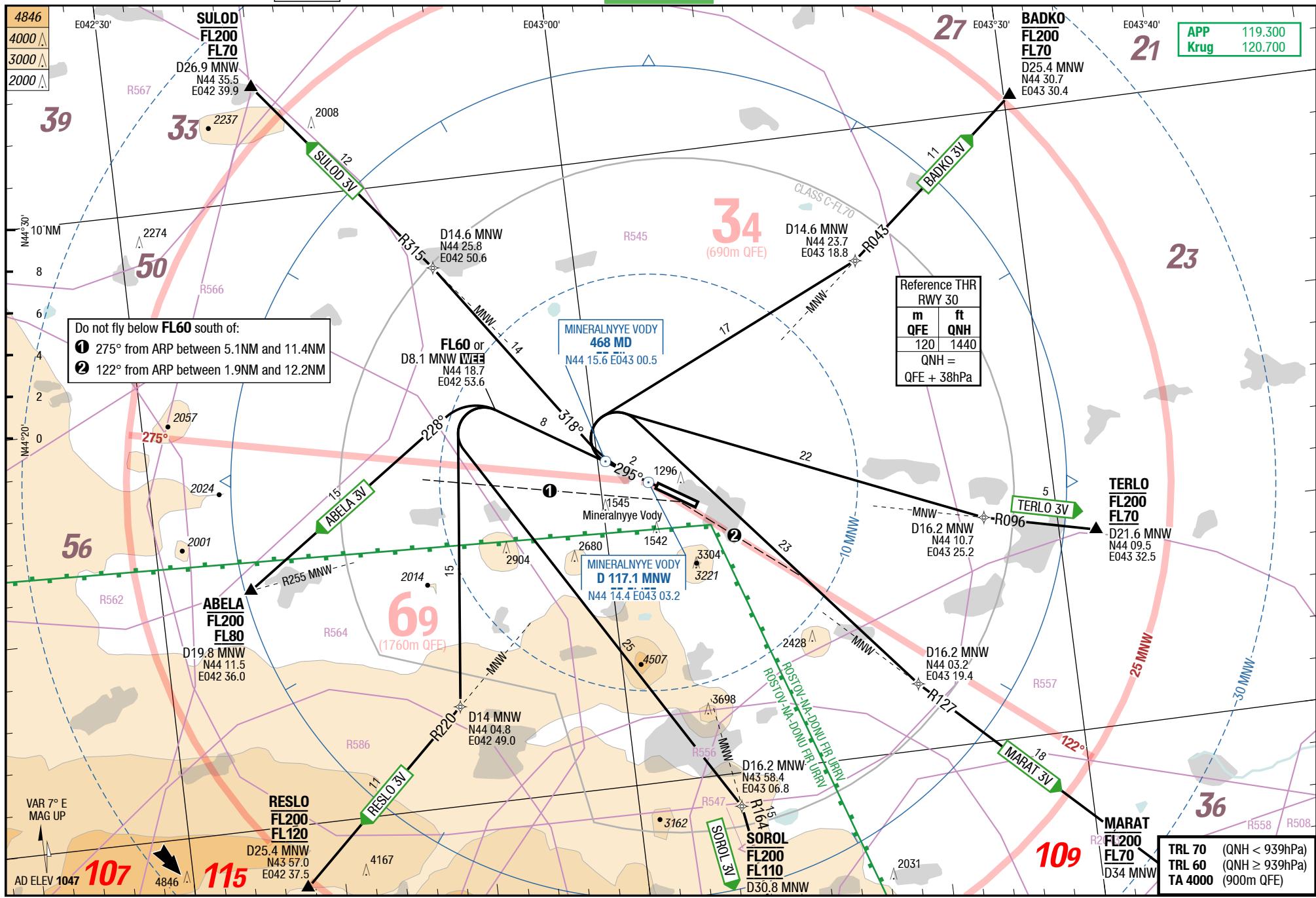
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## **SIDs VOR DME RWY 30**

## **Mineralnyye Vody Russian Federation**

SI

## SIDs VOR DME RWY 30



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# Russian Federation Mineralnye Vody

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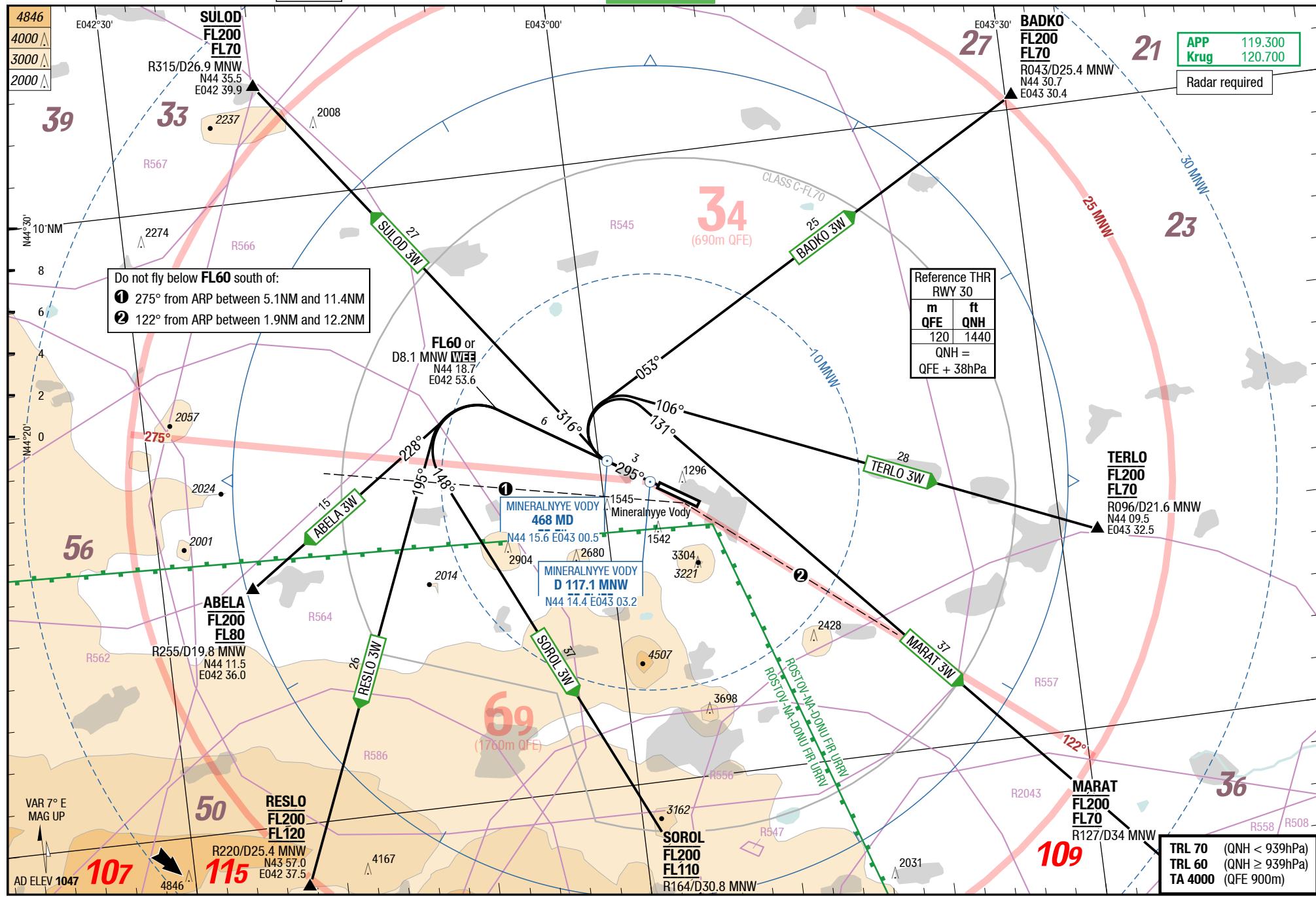
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SIDs RWY 30

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SIDs RWY 30



Changes: MGA, SUAs, OBST

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5-10

RNAV SIDs RWY 12

**ABELA 1R / BADKO 1R / MARAT 1R / RESLO 1R / SOROL 1R / SULOD 1R / TERLO 1R**  
**RWY 12 (115°)**

**Passing 1440 immediately contact Krug 120.700.**

	GS	120	150	180	210	240	270
4.4%	ft/MIN	600	700	900	1000	1100	1300
5.5%	ft/MIN	700	900	1100	1200	1400	1600
7.0%	ft/MIN	900	1100	1300	1500	1800	2000
9.6%	ft/MIN	1200	1500	1800	2100	2400	2700

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 12</b>	
<b>ABELA 1R</b> 7.0% to MNW/MW001 <b>119.300</b> ①	No procedure text published	MNW between <b>FL80</b> and <b>FL200</b> ABELA between <b>FL80</b> and <b>FL200</b>
<b>BADKO 1R</b> 5.5% <b>119.300</b> ①	No procedure text published	BADKO between <b>FL70</b> and <b>FL200</b>
<b>MARAT 1R</b> 9.6% to D12 <b>MNW/</b> MW014 <b>119.300</b> ①	No procedure text published	MARAT between <b>FL70</b> and <b>FL200</b>
<b>RESLO 1R</b> 7.0% to MNW/MW001 <b>119.300</b> ①	No procedure text published	MNW between <b>FL80</b> and <b>FL200</b> RESLO between <b>FL120</b> and <b>FL200</b>
<b>SOROL 1R</b> 7.0% to MNW/MW001 <b>119.300</b> ①	No procedure text published	MNW between <b>FL80</b> and <b>FL200</b> SOROL between <b>FL110</b> and <b>FL200</b>
<b>SULOD 1R</b> <b>119.300</b> ①	No procedure text published	SULOD between <b>FL70</b> and <b>FL200</b>
<b>TERLO 1R</b> 4.4% <b>119.300</b> ①	No procedure text published	TERLO between <b>FL70</b> and <b>FL200</b>

① If unable to comply with climb gradients, advise ATC upon start-up.

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RNAV SIDs RWY 30

SIDPT

**ABELA 3R / BADKO 3R / MARAT 3R / RESLO 3R / SOROL 3R / SULOD 3R / TERLO 3R**  
**RWY 30 (295°)**

**Passing 1440 immediately contact Krug 120.700.**

	GS	120	150	180	210	240	270
3.9%	ft/MIN	500	600	800	900	1000	1100
5.2%	ft/MIN	700	800	1000	1200	1300	1500
7.0%	ft/MIN	900	1100	1300	1500	1800	2000
9.9%	ft/MIN	1300	1600	1900	2200	2500	2800

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 30</b>	
<b>ABELA 3R</b> 9.9% to D8.1 <b>MNW/</b> MW026 7.0% <b>119.300</b> ①	No procedure text published	ABELA between <b>FL80</b> and <b>FL200</b>
<b>BADKO 3R</b> 5.2% <b>119.300</b> ①	No procedure text published	BADKO between <b>FL70</b> and <b>FL200</b>
<b>MARAT 3R</b> <b>119.300</b> ①	No procedure text published	MARAT between <b>FL70</b> and <b>FL200</b>
<b>RESLO 3R</b> 9.9% to D8.1 <b>MNW/</b> MW026 3.9% <b>119.300</b> ①	No procedure text published	RESLO between <b>FL120</b> and <b>FL200</b>
<b>SOROL 3R</b> 9.9% to D8.1 <b>MNW/</b> MW026 <b>119.300</b> ①	No procedure text published	SOROL between <b>FL110</b> and <b>FL200</b>
<b>SULOD 3R</b> <b>119.300</b> ①	No procedure text published	SULOD between <b>FL70</b> and <b>FL200</b>
<b>TERLO 3R</b> <b>119.300</b> ①	No procedure text published	TERLO between <b>FL70</b> and <b>FL200</b>

① If unable to comply with climb gradients, advise ATC upon start-up.

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5-30

SIDs VOR DME RWY 12

SIDPT

**ABELA 1V / BADKO 1V / MARAT 1V / RESLO 1V / SOROL 1V / SULOD 1V / TERLO 1V**  
**RWY 12 (115°)**

**Passing 1440 immediately contact Krug 120.700.**

	GS	120	150	180	210	240	270
4.4%	ft/MIN	600	700	900	1000	1100	1300
5.5%	ft/MIN	700	900	1100	1200	1400	1600
7.0%	ft/MIN	900	1100	1300	1500	1800	2000
9.6%	ft/MIN	1200	1500	1800	2100	2400	2700

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 12</b>	
<b>ABELA 1V</b> 7.0% to <b>MNW</b> <b>119.300</b> ①	No procedure text published	<b>MNW between FL80 and FL200</b> <b>ABELA between FL80 and FL200</b>
<b>BADKO 1V</b> 5.5% <b>119.300</b> ①	No procedure text published	<b>BADKO between FL70 and FL200</b>
<b>MARAT 1V</b> 9.6% to D11.4 <b>MNW</b> <b>119.300</b> ①	No procedure text published	<b>MARAT between FL70 and FL200</b>
<b>RESLO 1V</b> 7.0% to <b>MNW</b> <b>119.300</b> ①	No procedure text published	<b>MNW between FL80 and FL200</b> <b>RESLO between FL120 and FL200</b>
<b>SOROL 1V</b> 7.0% to <b>MNW</b> <b>119.300</b> ①	No procedure text published	<b>MNW between FL80 and FL200</b> <b>SOROL between FL110 and FL200</b>
<b>SULOD 1V</b> <b>119.300</b> ①	No procedure text published	<b>SULOD between FL70 and FL200</b>
<b>TERLO 1V</b> 4.4% <b>119.300</b> ①	No procedure text published	<b>TERLO between FL70 and FL200</b>

① If unable to comply with climb gradients, advise ATC upon start-up.

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**5-40**

**SIDs RWY 12**

**ABELA 1W / BADKO 1W / MARAT 1W / RESLO 1W / SOROL 11W / SOROL 1W / SULOD 1W / TERLO 1W**  
**RWY 12 (115°)**

**Passing 1440 immediately contact Krug 120.700.**

	GS	120	150	180	210	240	270
4.4%	ft/MIN	600	700	900	1000	1100	1300
5.5%	ft/MIN	700	900	1100	1200	1400	1600
7.0%	ft/MIN	900	1100	1300	1500	1800	2000

DESIGNATOR	ROUTING		ALTITUDES
	Runway 12		
<b>ABELA 1W</b> 7.0% to <b>MNW</b> <b>119.300</b> ①	No procedure text published		<b>MNW between FL80 and FL200</b> <b>ABELA between FL80 and FL200</b>
<b>BADKO 1W</b> 5.5% <b>119.300</b> ①	No procedure text published		<b>BADKO between FL70 and FL200</b>
<b>MARAT 1W</b> <b>119.300</b> ①	No procedure text published		<b>MARAT between FL70 and FL200</b>
<b>RESLO 1W</b> 7.0% to <b>MNW</b> <b>119.300</b> ①	No procedure text published		<b>MNW between FL80 and FL200</b> <b>RESLO between FL120 and FL200</b>
<b>SOROL 11W</b> <b>119.300</b> ①	No procedure text published		<b>SOROL between FL110 and FL200</b>
<b>SOROL 1W</b> 7.0% to <b>MNW</b> <b>119.300</b> ①	No procedure text published		<b>MNW between FL80 and FL200</b> <b>SOROL between FL110 and FL200</b>
<b>SULOD 1W</b> <b>119.300</b> ①	No procedure text published		<b>SULOD between FL70 and FL200</b>
<b>TERLO 1W</b> 4.4% <b>119.300</b> ①	No procedure text published		<b>TERLO between FL70 and FL200</b>

① If unable to comply with climb gradients, advise ATC upon start-up.

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5-50

SIDs VOR DME RWY 30

SIDPT

**ABELA 3V / BADKO 3V / MARAT 3V / RESLO 3V / SOROL 3V / SULOD 3V / TERLO 3V**  
**RWY 30 (295°)**

**Passing 1440 immediately contact Krug 120.700.**

	GS	120	150	180	210	240	270
3.9%	ft/MIN	500	600	800	900	1000	1100
5.2%	ft/MIN	700	800	1000	1200	1300	1500
7.0%	ft/MIN	900	1100	1300	1500	1800	2000
9.9%	ft/MIN	1300	1600	1900	2200	2500	2800

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 30</b>	
<b>ABELA 3V</b> 9.9% to D8.1 <b>MNW</b> 7.0% <b>119.300</b> ①	No procedure text published	ABELA between <b>FL80</b> and <b>FL200</b>
<b>BADKO 3V</b> 5.2% <b>119.300</b> ①	No procedure text published	BADKO between <b>FL70</b> and <b>FL200</b>
<b>MARAT 3V</b> <b>119.300</b> ①	No procedure text published	MARAT between <b>FL70</b> and <b>FL200</b>
<b>RESLO 3V</b> 9.9% to D8.1 <b>MNW</b> 3.9% <b>119.300</b> ①	No procedure text published	RESLO between <b>FL120</b> and <b>FL200</b>
<b>SOROL 3V</b> 9.9% to D8.1 <b>MNW</b> <b>119.300</b> ①	No procedure text published	SOROL between <b>FL110</b> and <b>FL200</b>
<b>SULOD 3V</b> <b>119.300</b> ①	No procedure text published	SULOD between <b>FL70</b> and <b>FL200</b>
<b>TERLO 3V</b> <b>119.300</b> ①	No procedure text published	TERLO between <b>FL70</b> and <b>FL200</b>

① If unable to comply with climb gradients, advise ATC upon start-up.

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5-60

SIDs RWY 30

SIDPT

**ABELA 3W / BADKO 3W / MARAT 3W / RESLO 3W / SOROL 3W / SULOD 3W / TERLO 3W**  
**RWY 30 (295°)**

**Passing 1440 immediately contact Krug 120.700**

	GS	120	150	180	210	240	270
3.9%	ft/MIN	500	600	800	900	1000	1100
5.2%	ft/MIN	700	800	1000	1200	1300	1500
7.0%	ft/MIN	900	1100	1300	1500	1800	2000
9.9%	ft/MIN	1300	1600	1900	2200	2500	2800

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 30</b>	
<b>ABELA 3W</b> 7.0% 9.9% to D8.1 <b>MNW</b> <b>119.300</b> ①	No procedure text published	ABELA between <b>FL80</b> and <b>FL200</b>
<b>BADKO 3W</b> 5.2% <b>119.300</b> ①	No procedure text published	BADKO between <b>FL70</b> and <b>FL200</b>
<b>MARAT 3W</b> <b>119.300</b> ①	No procedure text published	MARAT between <b>FL70</b> and <b>FL200</b>
<b>RESLO 3W</b> 3.9% 9.9% to D8.1 <b>MNW</b> <b>119.300</b> ①	No procedure text published	RESLO between <b>FL120</b> and <b>FL200</b>
<b>SOROL 3W</b> 9.9% to D8.1 <b>MNW</b> <b>119.300</b> ①	No procedure text published	SOROL between <b>FL110</b> and <b>FL200</b>
<b>SULOD 3W</b> <b>119.300</b> ①	No procedure text published	SULOD between <b>FL70</b> and <b>FL200</b>
<b>TERLO 3W</b> <b>119.300</b> ①	No procedure text published	TERLO between <b>FL70</b> and <b>FL200</b>

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30-NOV-2017

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## Russian Federation Mineralnye Vody

STAR

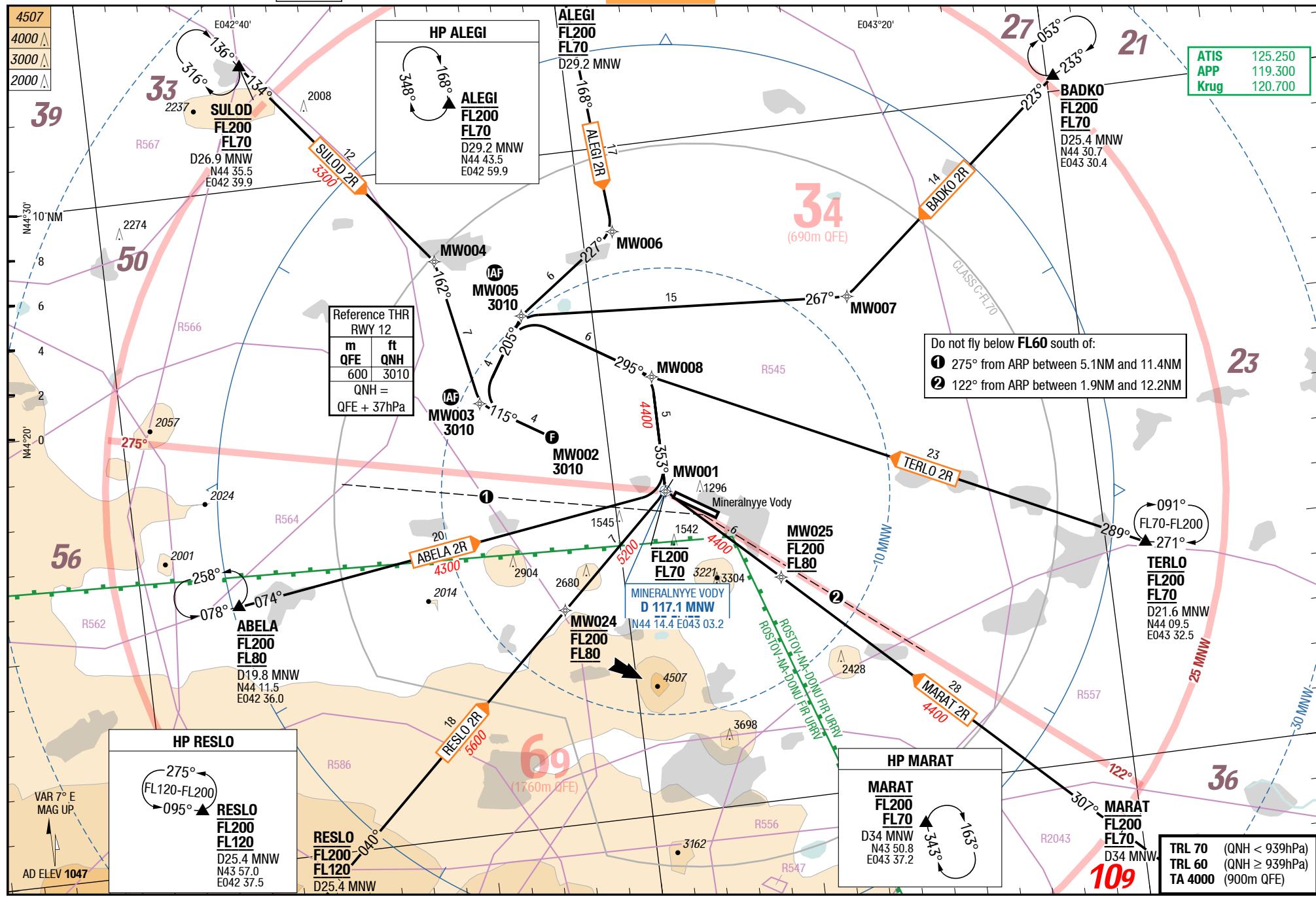
STAR

## Mineralnye Vody Russian Federation

6-10

RNAV STARs RWY 12

RNAV STARs RWY 12



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30-NOV-2017

# Russian Federation Mineralnye Vody

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6-20

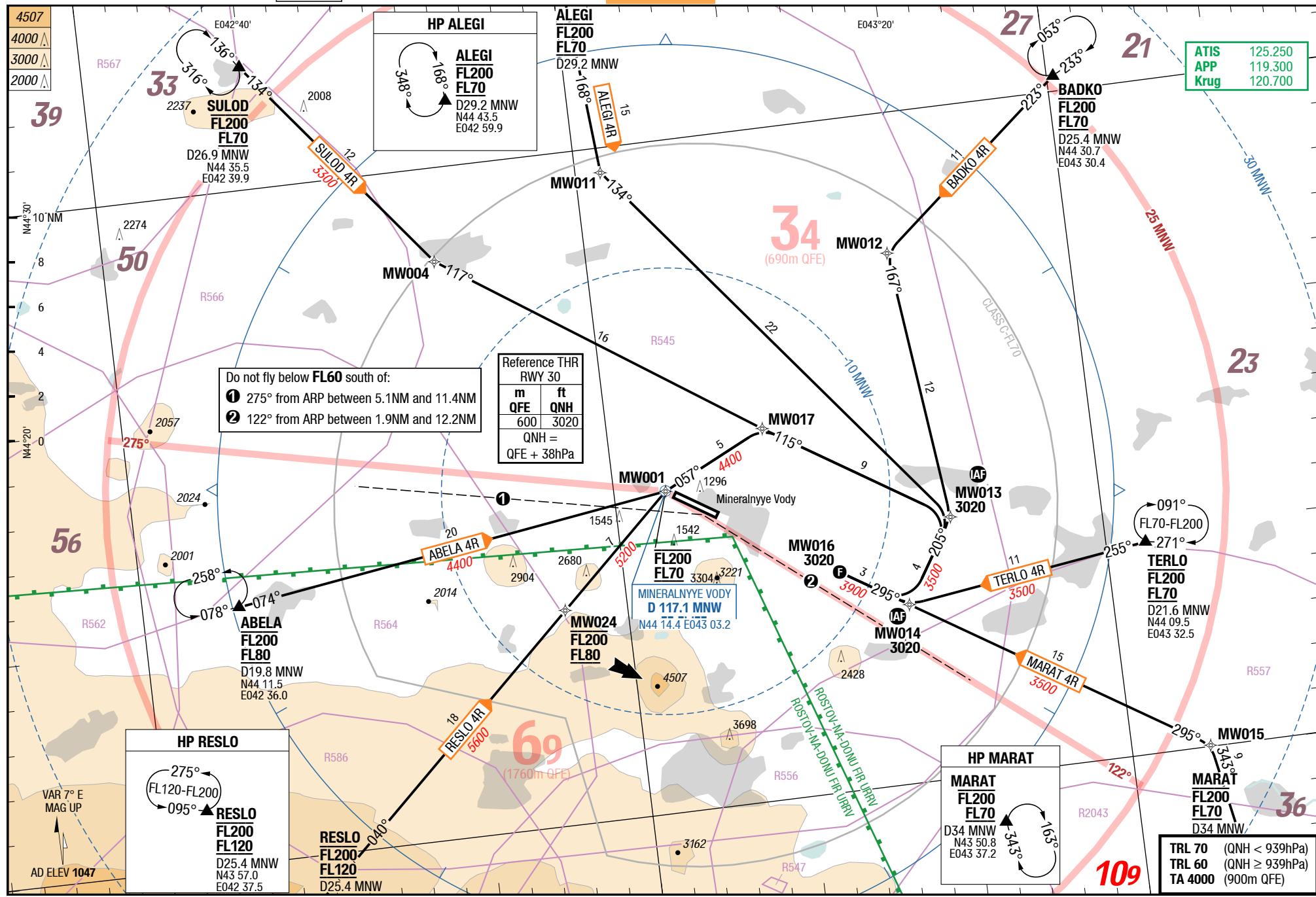
RNAV STARs RWY 30

STAR

STAR

# Mineralnye Vody Russian Federation

RNAV STARs RWY 30



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## Russian Federation Mineralnye Vody

STARs RWY 12

MRV-URMM

6-30

STARs VOR DME RWY 12

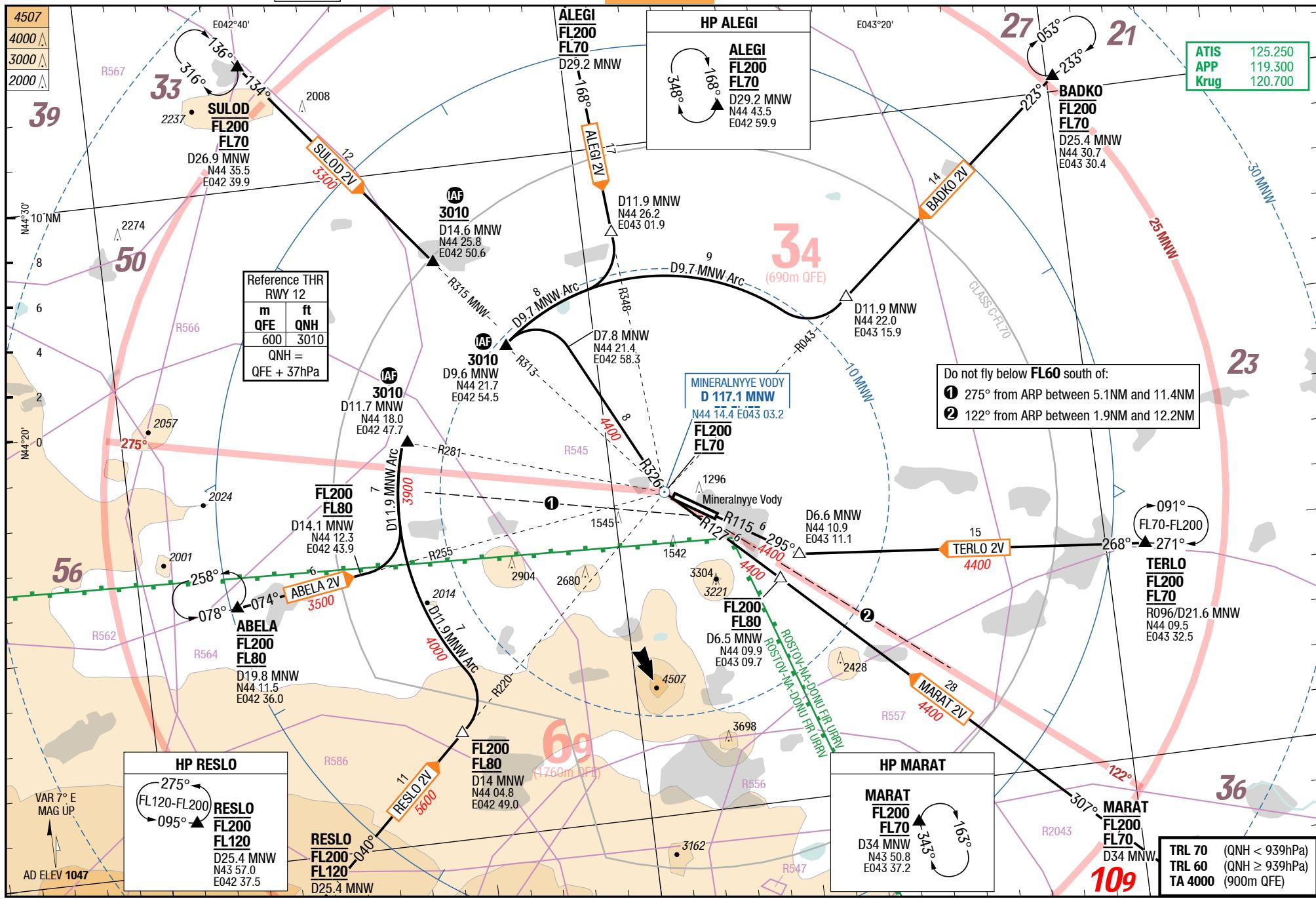
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STAR

## Mineralnye Vody Russian Federation

STARs RWY 12

STARs VOR DME RWY 12



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# Russian Federation Mineralnye Vody

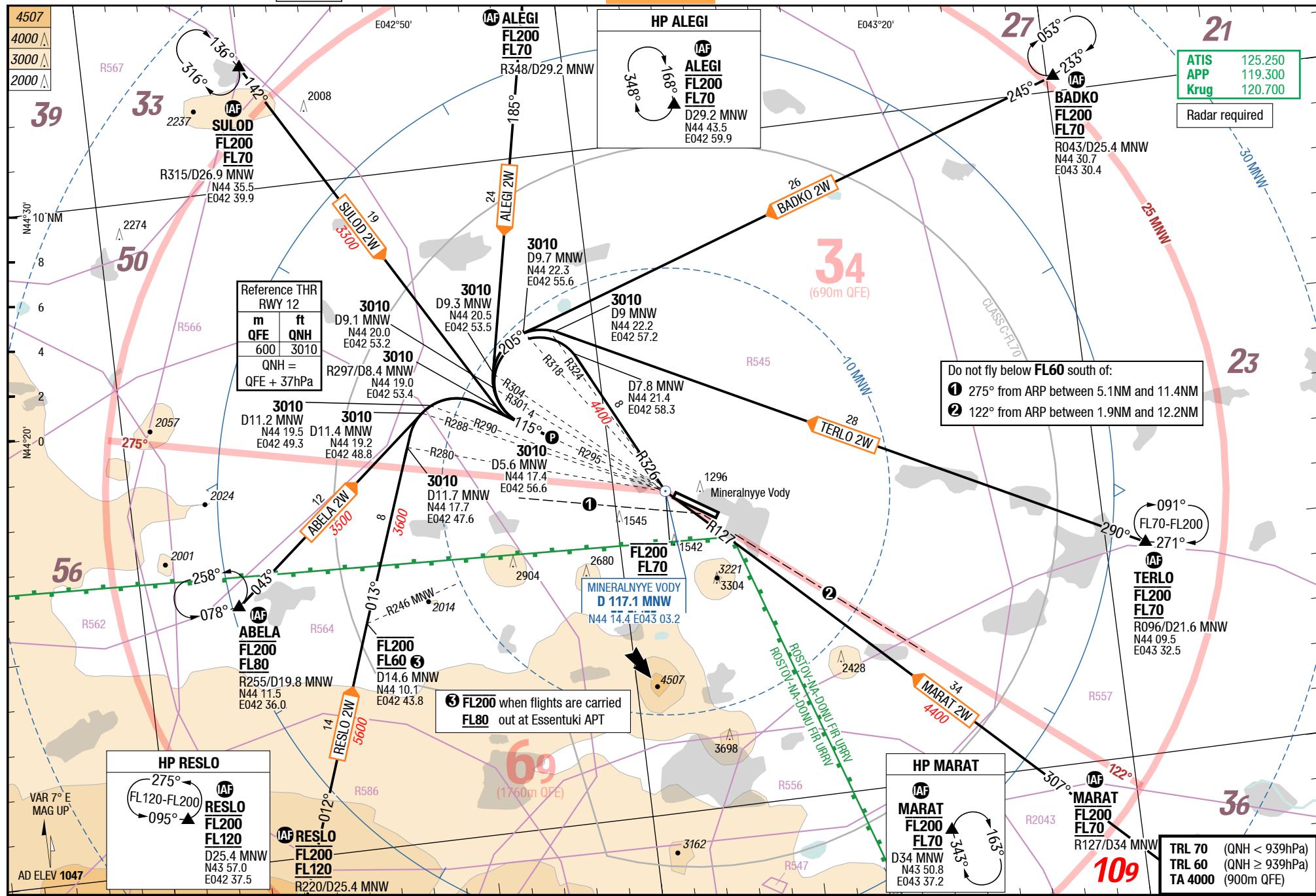
MRV-URMM

6-40

STARs RWY 12

STAR

# Mineralnye Vody Russian Federation



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**30-NOV-2017**

# Russian Federation Mineralnyye Vody

**STARs VOR DME RWY 30**

**MRV LIPM**

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6-50

# **STARs RWY 12 (via MD)**

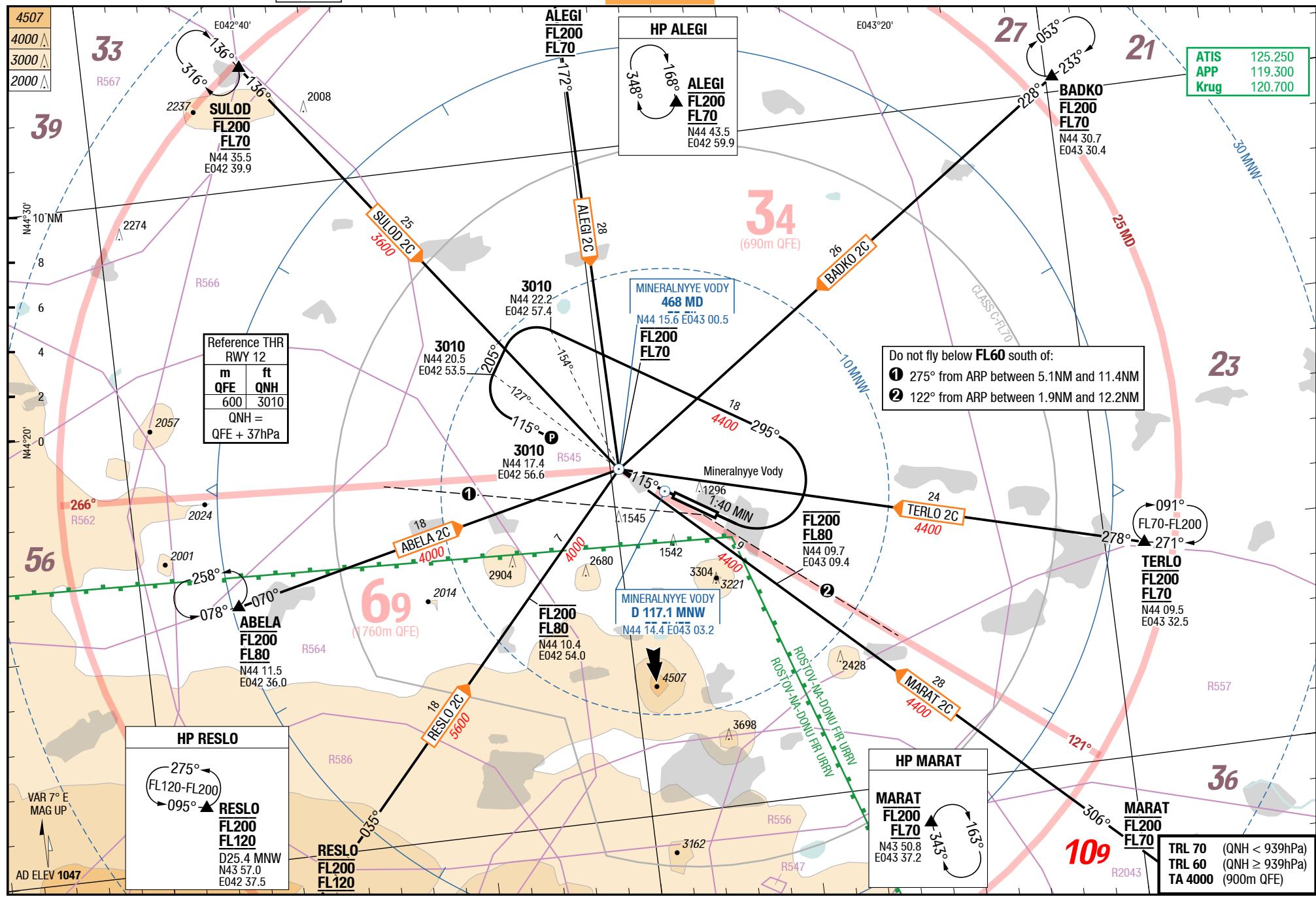
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STAR

## **Mineralnyye Vody Russian Federation**

**STARs VOR DME RWY 30**

**STARs RWY 12 (via MD)**







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# Russian Federation Mineralnye Vody

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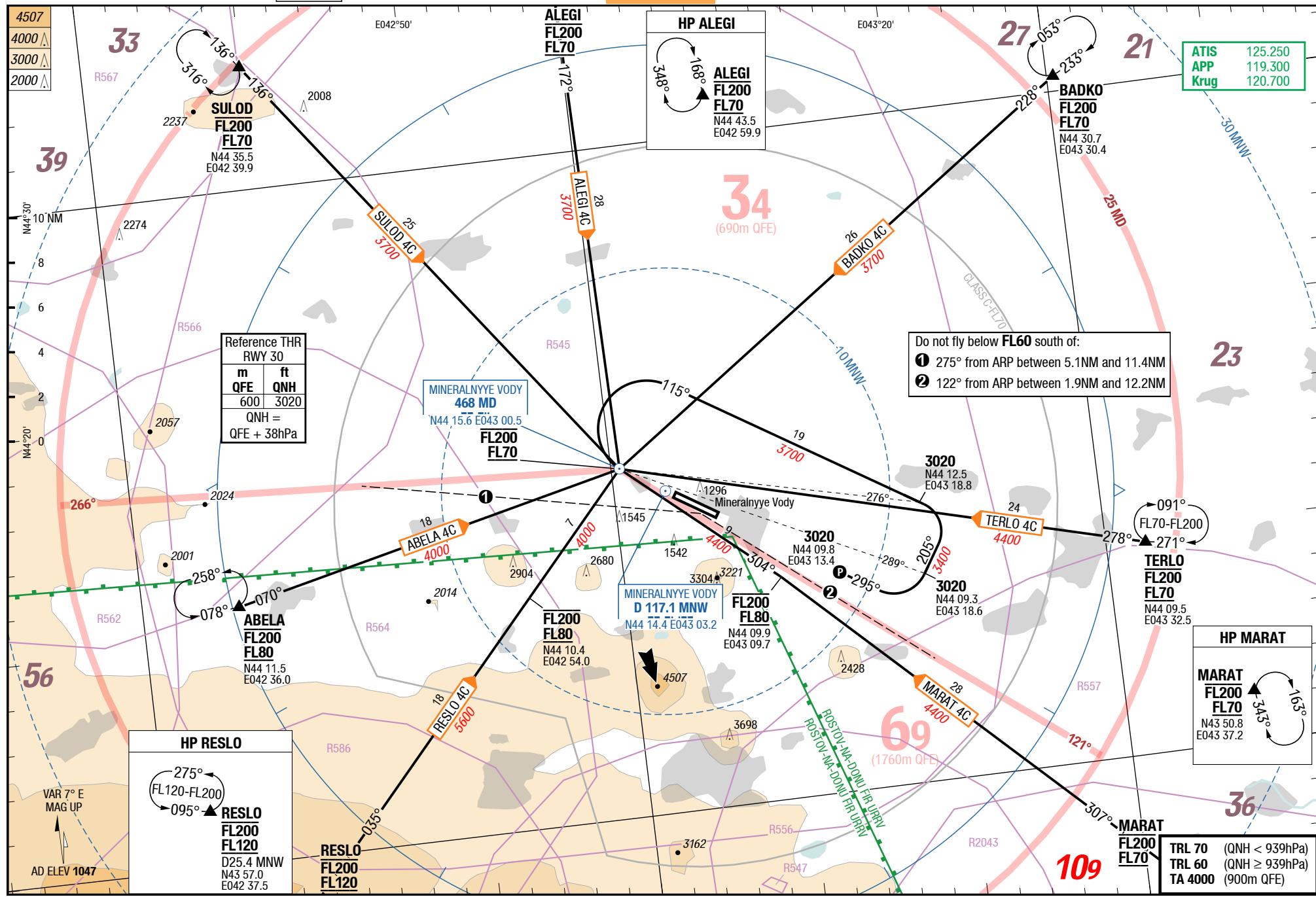
STARs RWY 30 (via MD)

STAR

STAR

# Mineralnye Vody Russian Federation

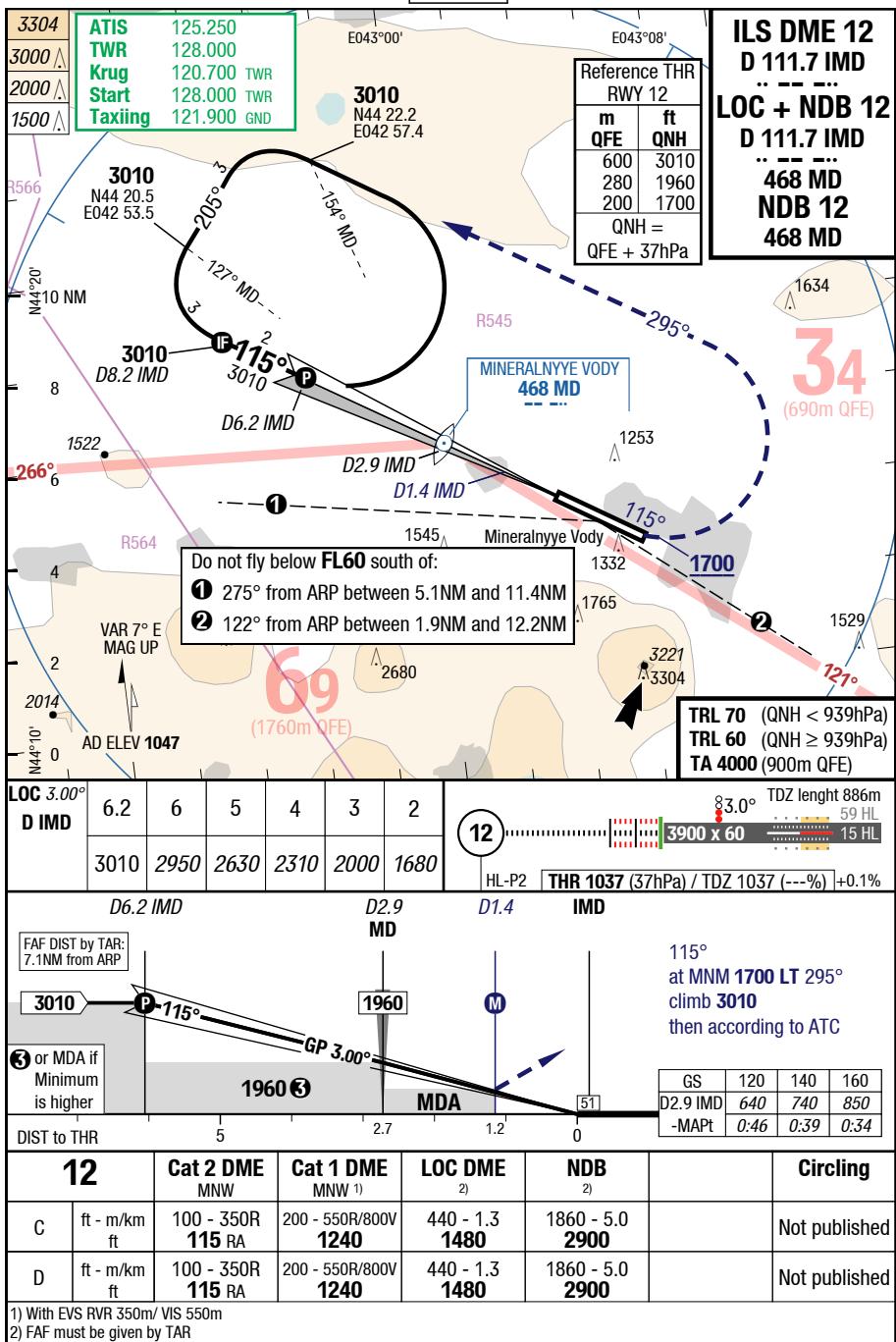
STARs RWY 30 (via MD)



## MRV-URMM

7-10

ILS DME 12 / LOC + NDB 12 / NDB 12



Effective 26-APR-2018

19-APR-2018

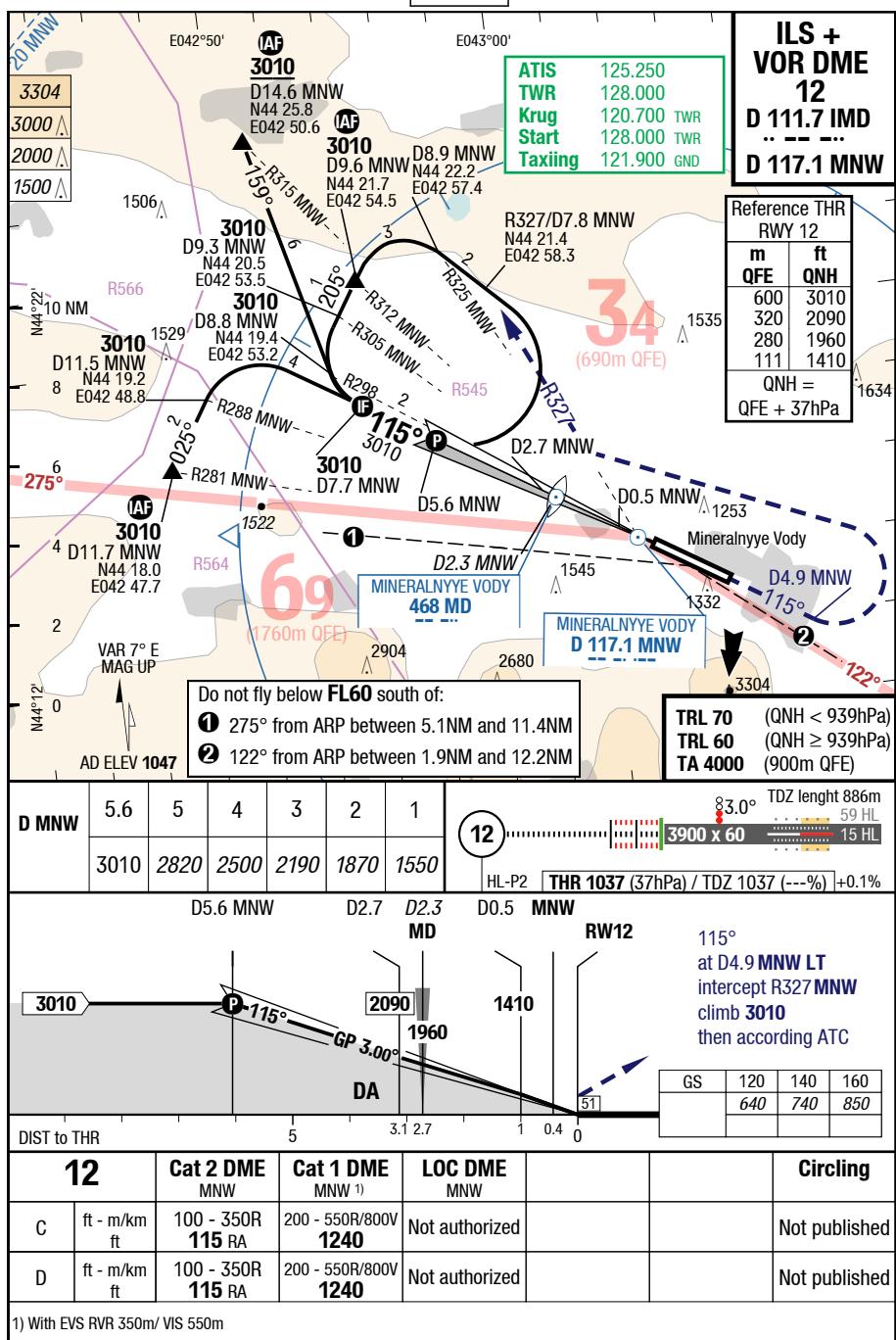
## Russian Federation Mineralnyye Vody

MRV-URMM

7-20

ILS + VOR DME 12

IAC

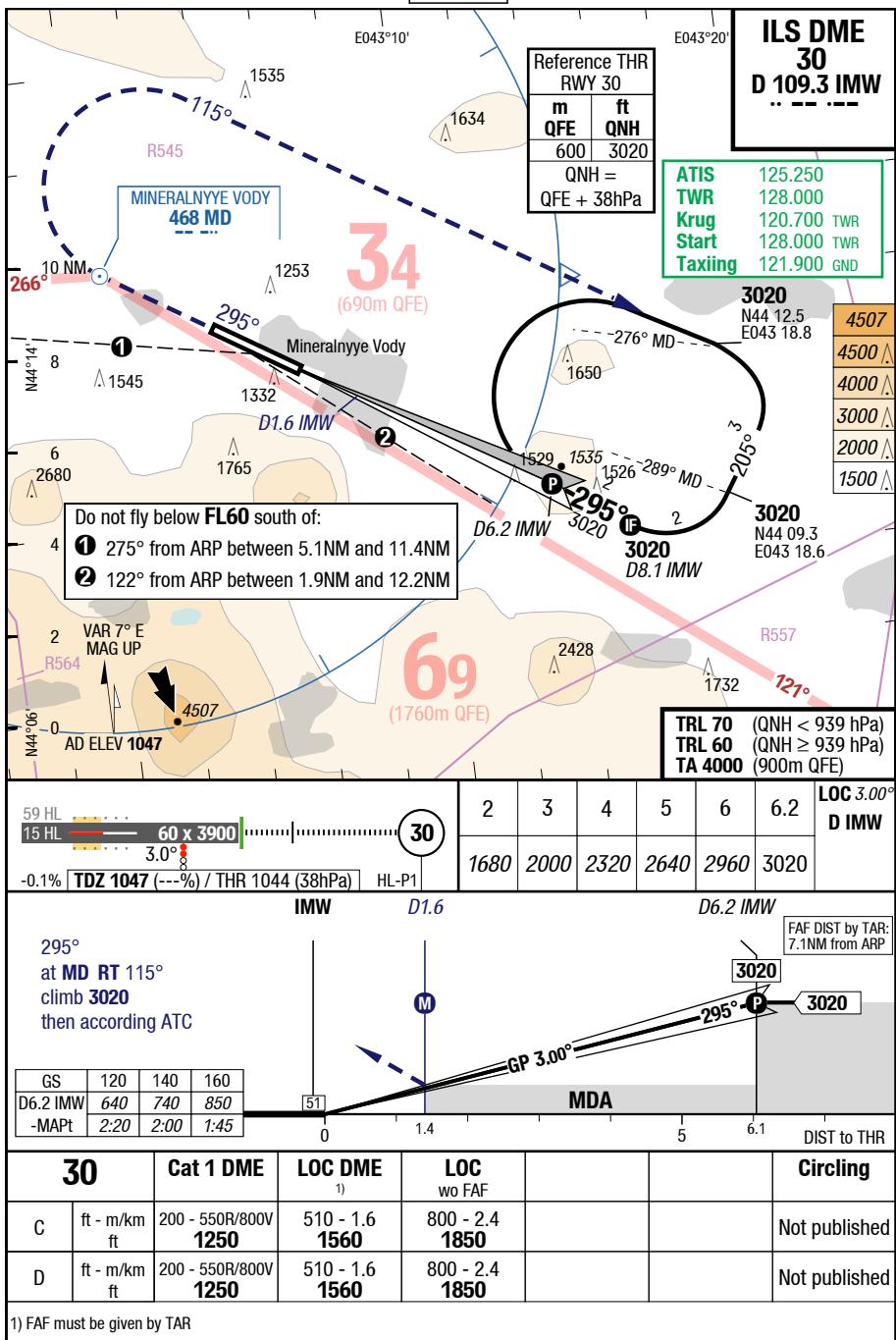


Changes: MIN

## MRV-URMM

7-30

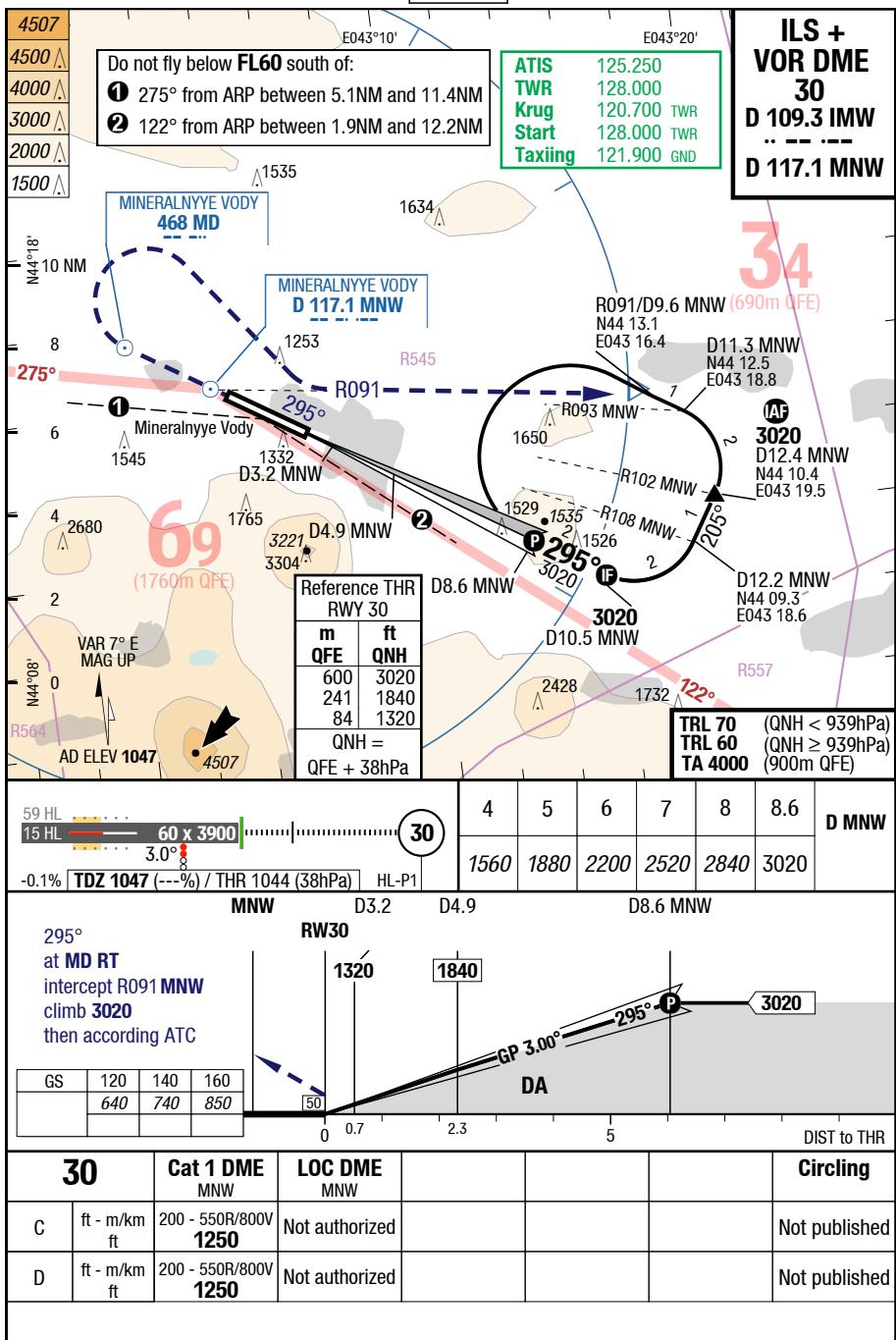
ILS DME 30



## MRV-URMM

7-40

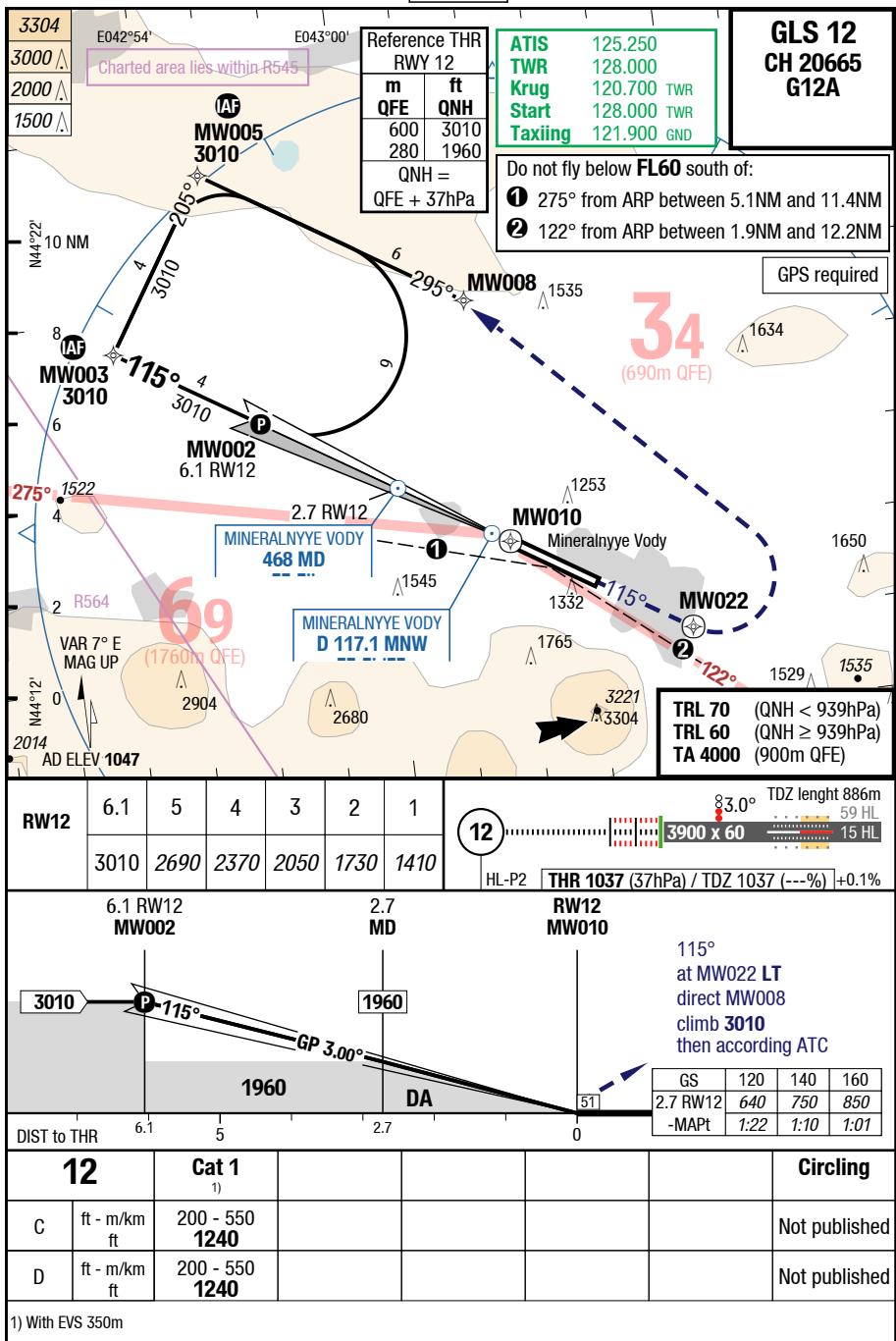
## ILS + VOR DME 30



## MRV-URMM

7-50

GLS 12

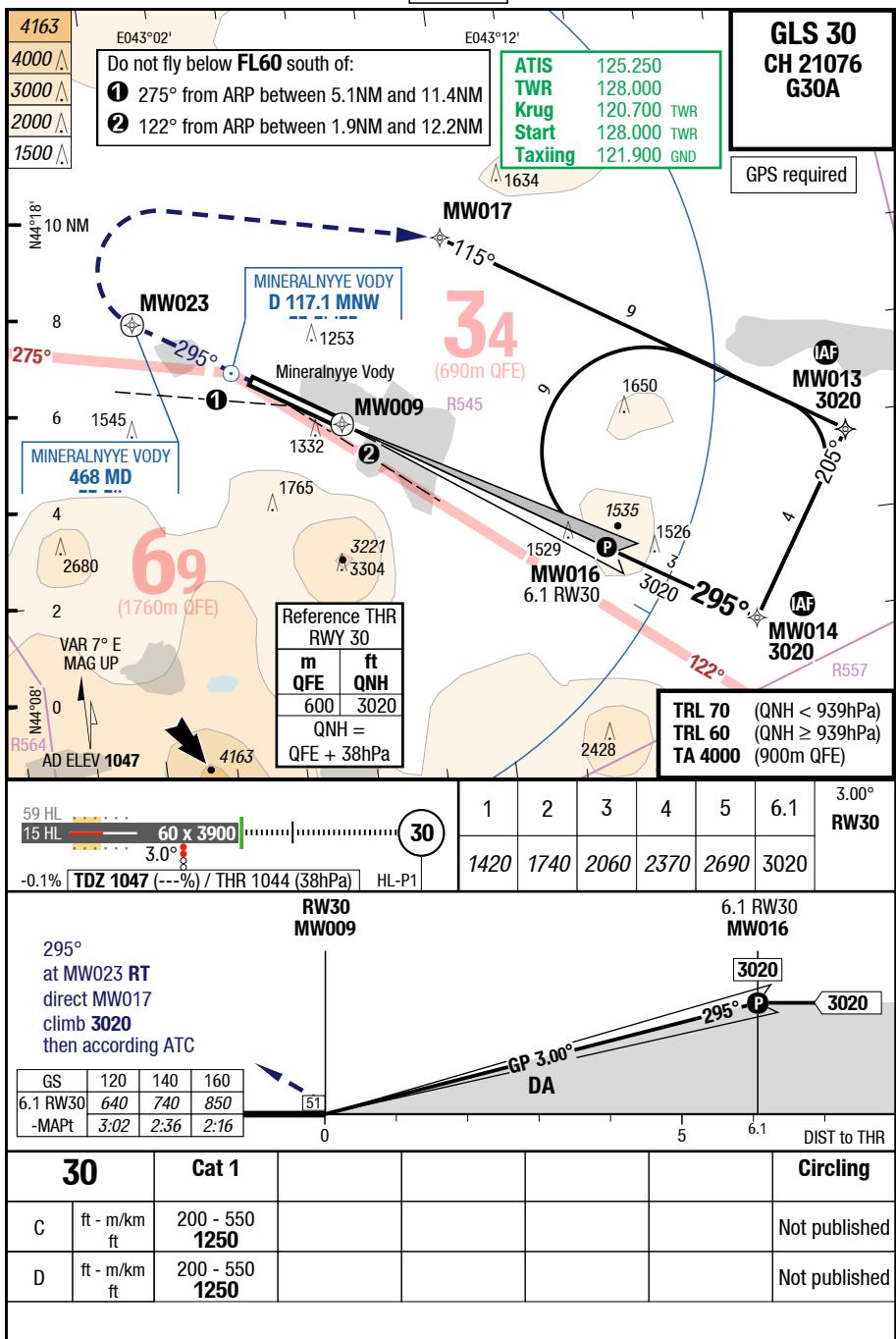


## MRV-URMM

7-60

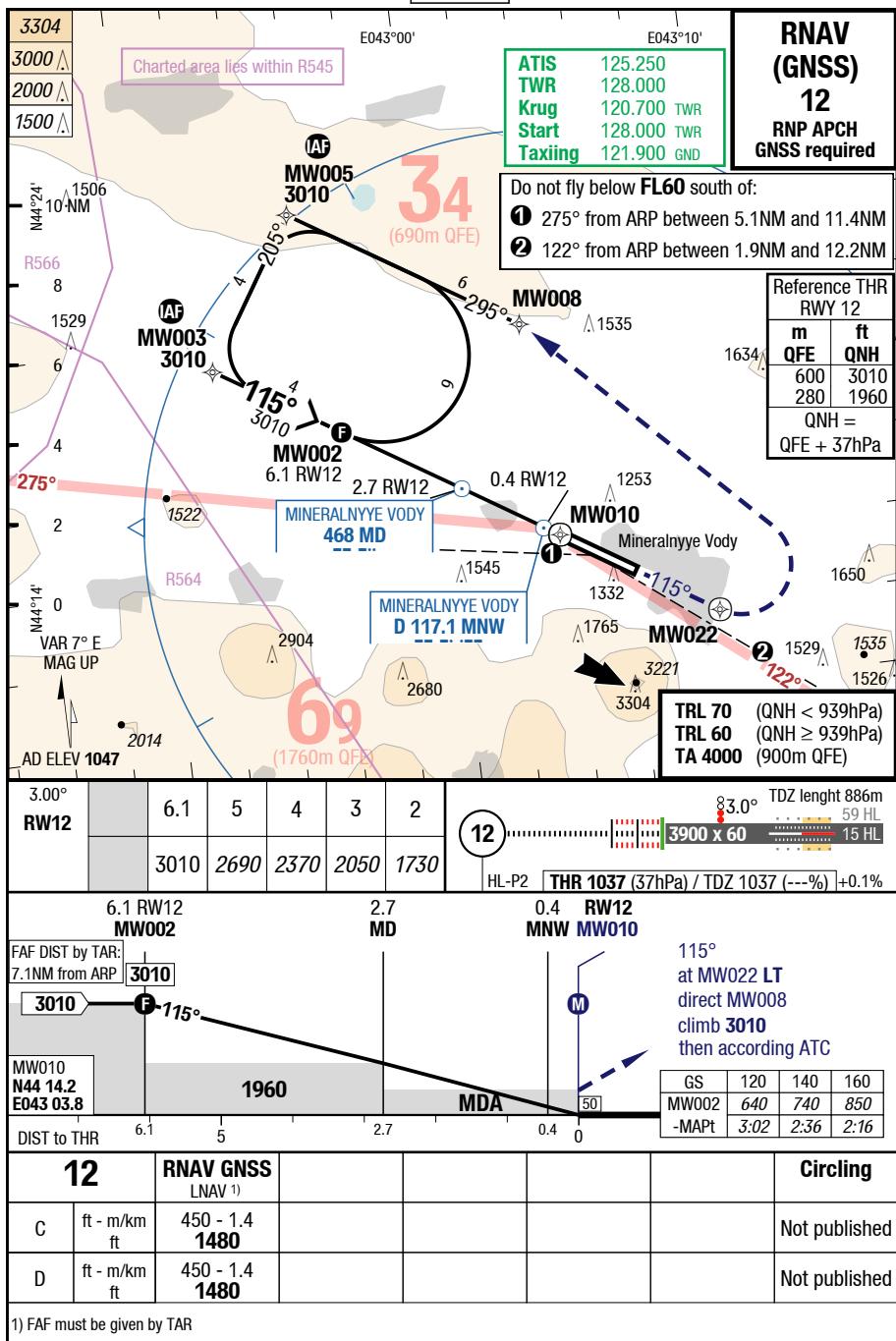
GLS 30

IAC



7-70

RNAV (GNSS) 12

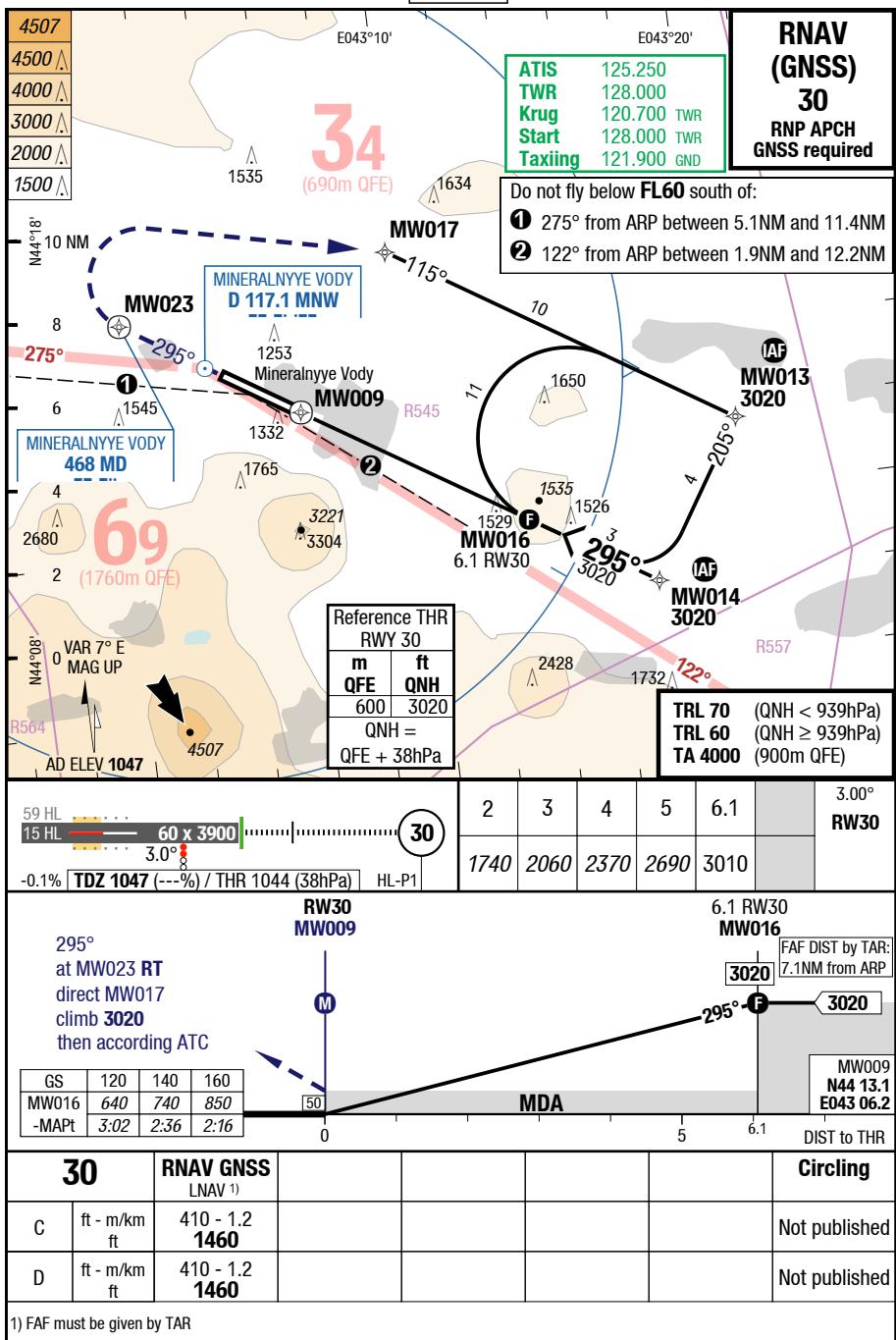


ANSWER

## MRV-URMM

7-80

## RNAV (GNSS) 30



Effective 07-DEC-2017

30-NOV-2017

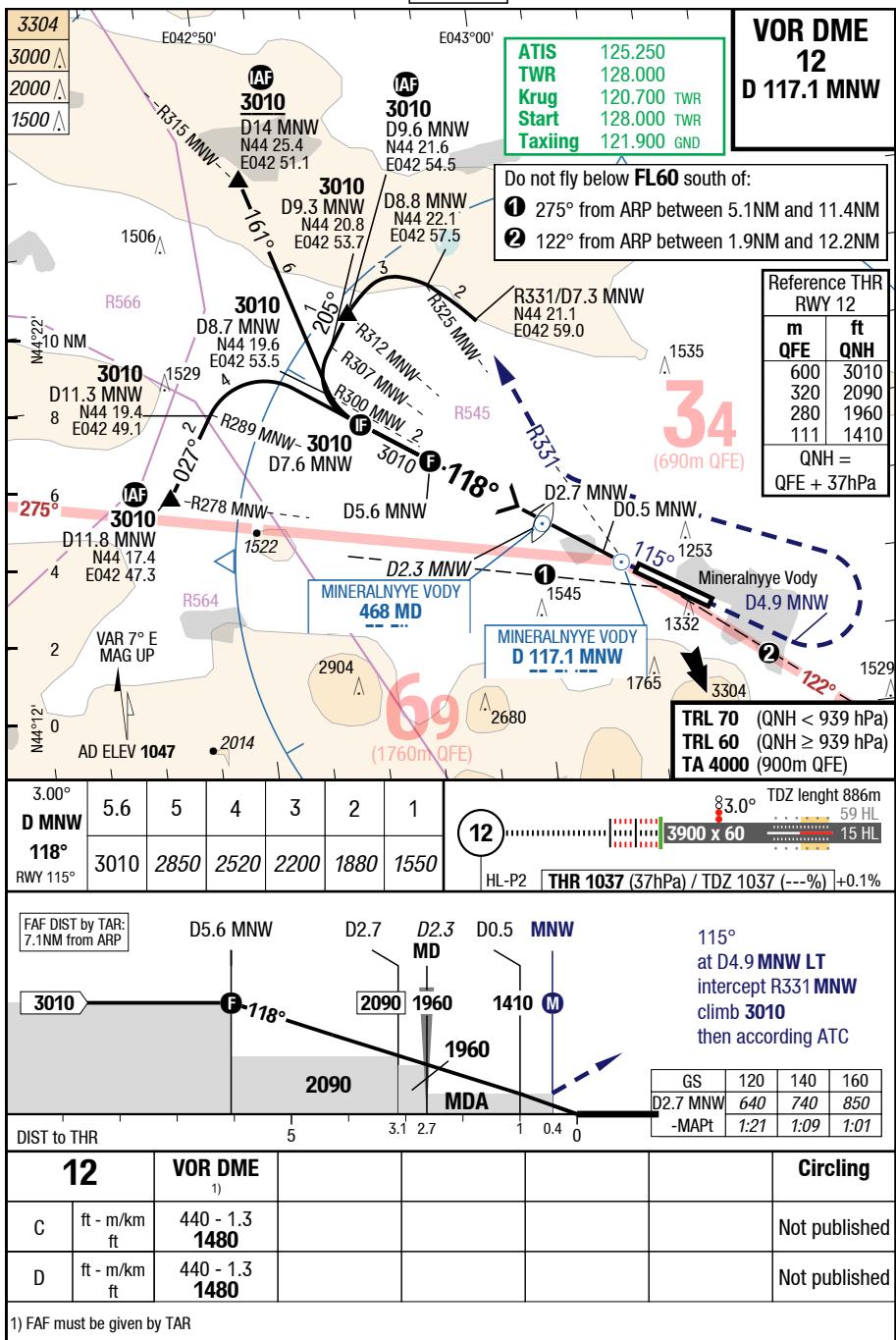
## Russian Federation Mineralnyye Vody

MRV-URMM

7-90

VOR DME 12

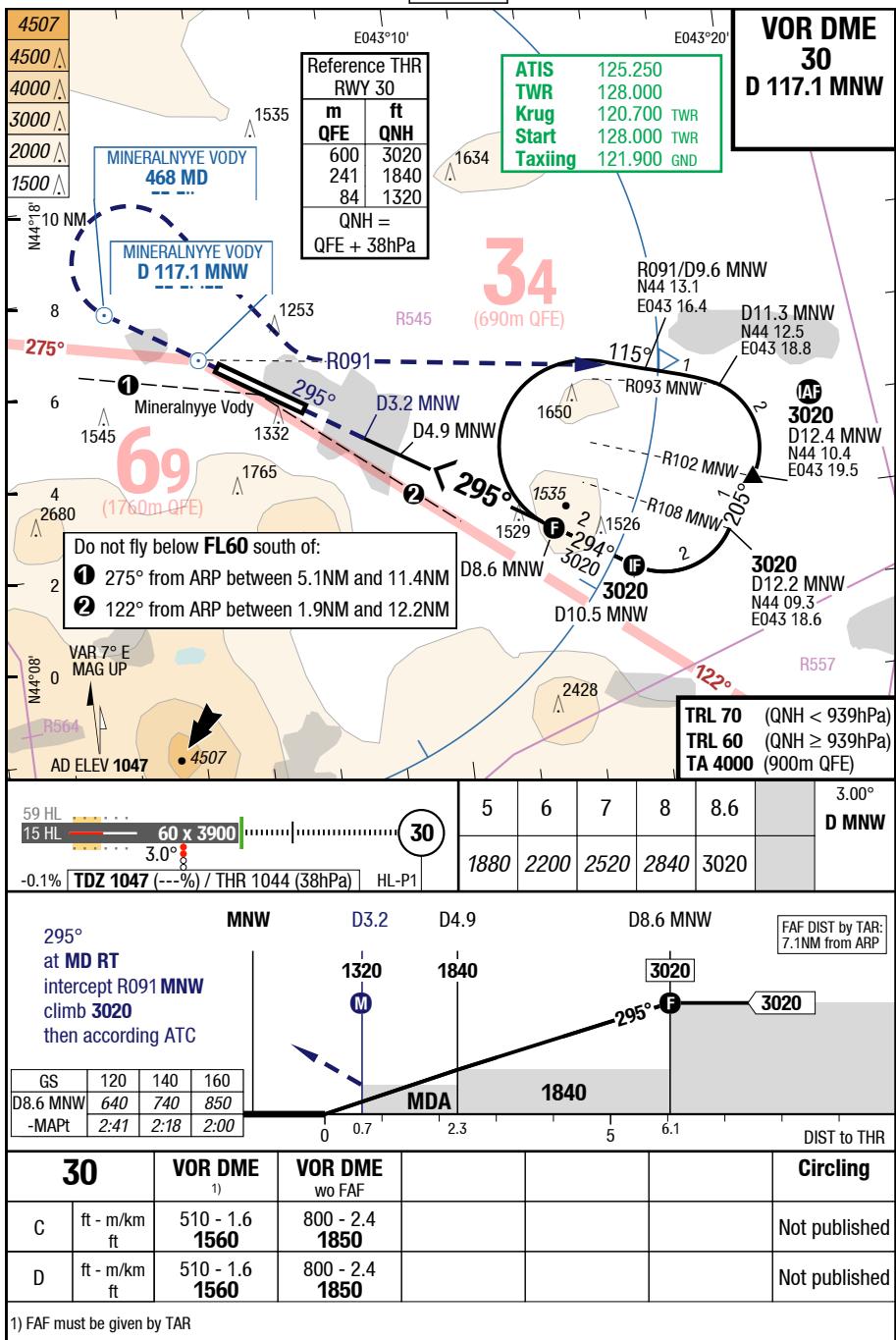
IAC



## MRV-URMM

7-100

VOR DME 30



**Effective 07-DEC-2017**

30-NOV-2017

# Russian Federation Mineralnyye Vody

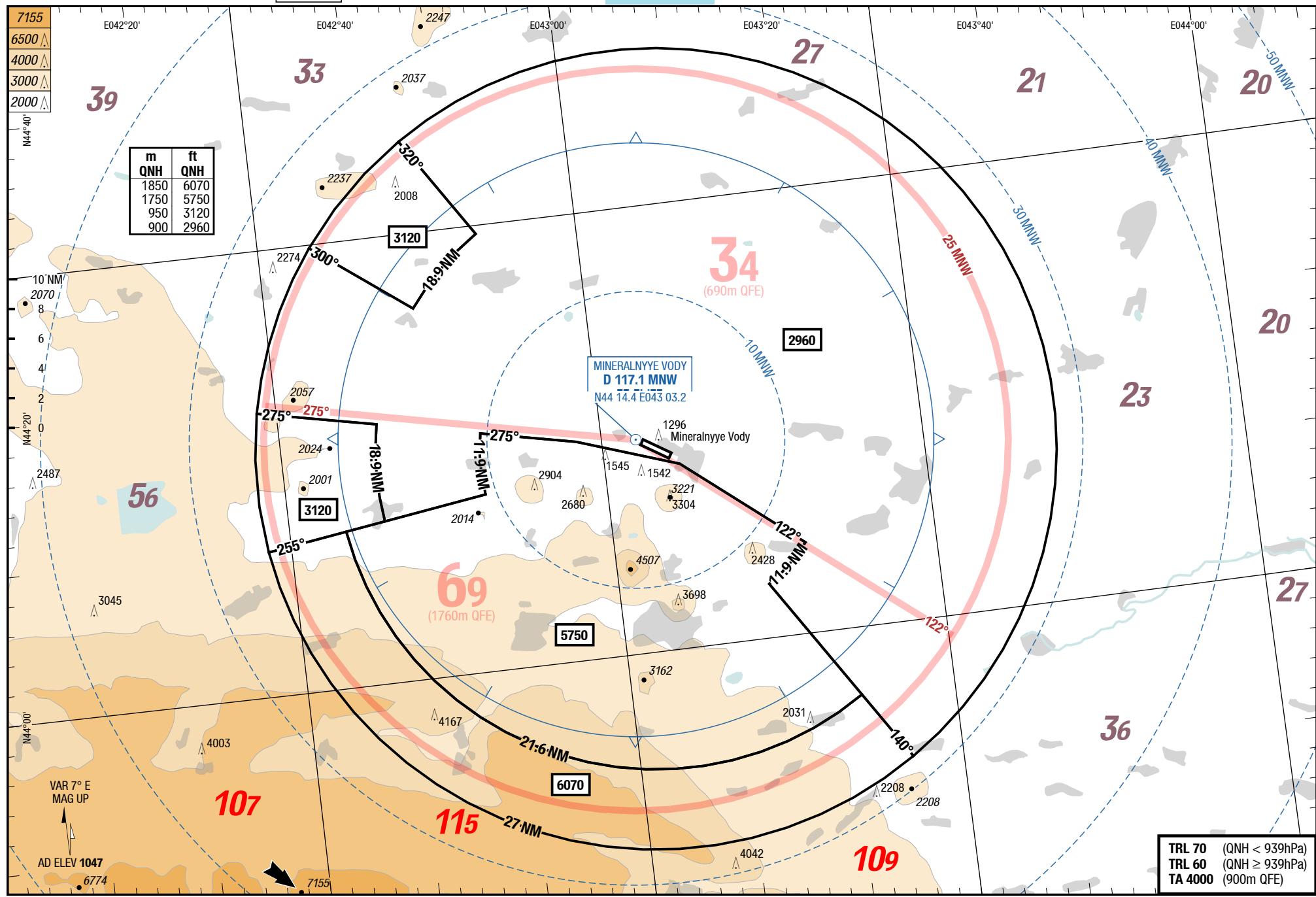
MRV-URMM

8-10

Very  
NIL  
**MRC**

MRC  
100

## **Mineralnyye Vody Russian Federation**



## Changes: MGA, OBST