

List of pages in this Trip Kit

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Airport Information For URMM

Terminal Charts For URMM

Revision Letter For Cycle 13-2016

Change Notices

Notebook

General Information

Location: MINERALNYYE VODY RUS
ICAO/IATA: UMMM / MRV
Lat/Long: N44° 13.61', E043° 04.98'
Elevation: 1047 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: -3:00 = UTC
Magnetic Variation: 7.0° E

Fuel Types: Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 0123 Z
Sunset: 1654 Z

Runway Information

Runway: 12
Length x Width: 12795 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1037 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 30
Length x Width: 12795 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1044 ft
Lighting: Edge, ALS, Centerline

Communication Information

ATIS: 127.400 Non-English
ATIS: 125.250
Mineralnyye Vody Krug Tower: 120.700
Mineralnyye Vody Start Tower: 128.000
Mineralnyye Vody Taxiing Ground: 121.900
Mineralnyye Vody Zemlya Ramp/Taxi: 118.900
Mineralnyye Vody Approach: 119.300
Mineralnyye Vody Transit Operations: 118.000

URMM/MRV
MINERALNYYE VODY

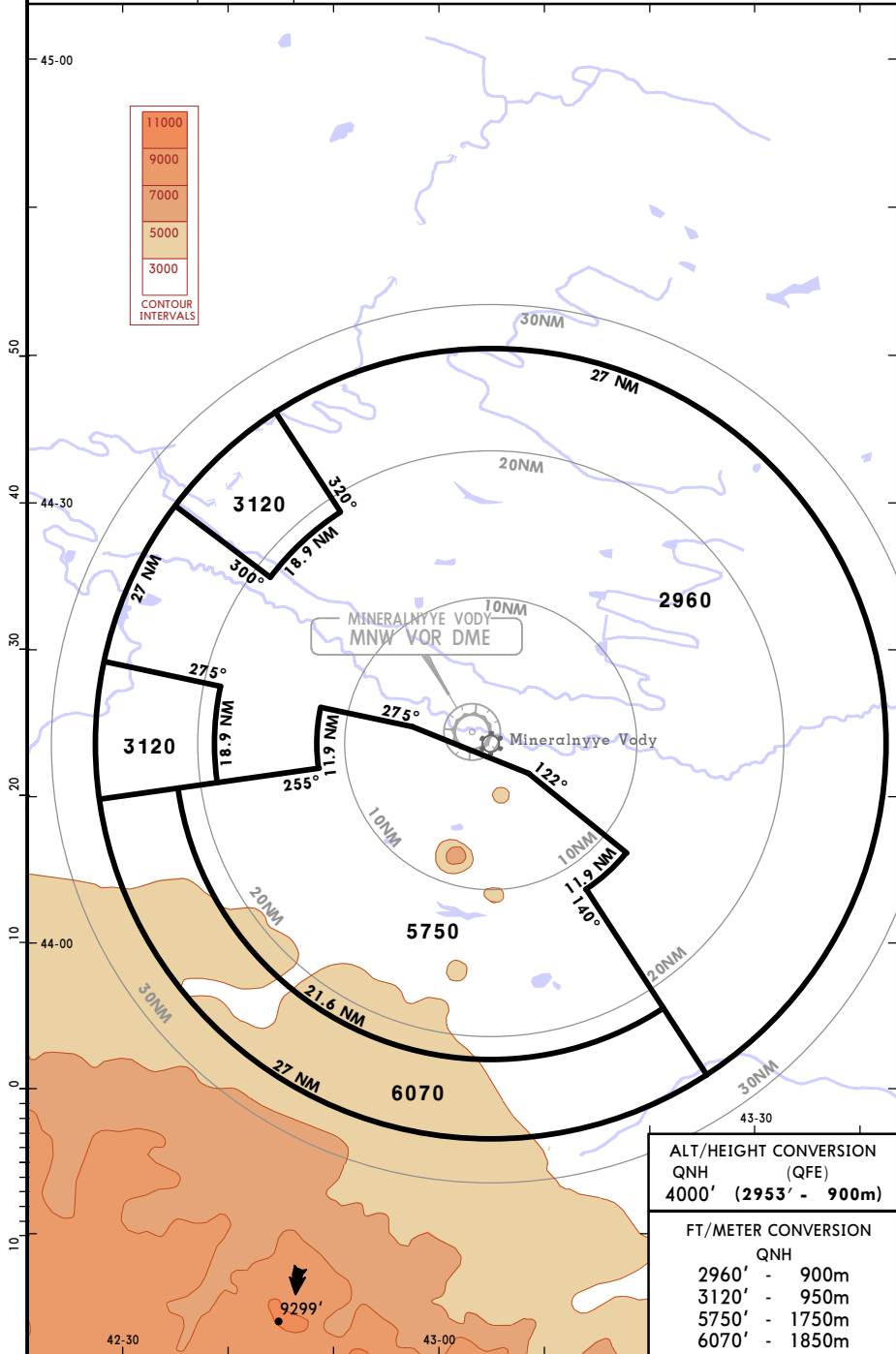
JEPPesen
31 JUL 15 (10-1R)

MINERALNYYE VODY, RUSSIA
RADAR MINIMUM ALTITUDES

MINERALNYYE VODY
Radar
120.7

Apt Elev
1047'

Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704mm (938.6 hPa)
Trans alt: 4000' (2953')



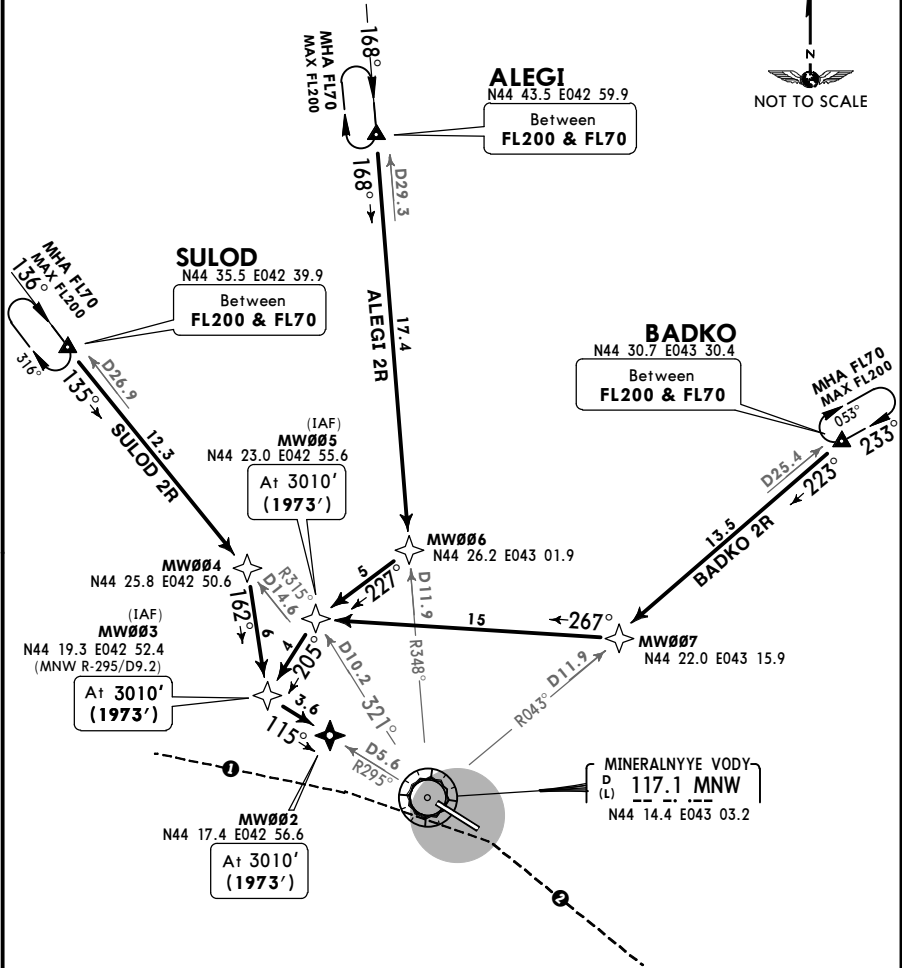
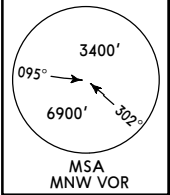
URMM/MRV
MINERALNYYE VODY

JEPPESSEN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2 Eff 23 Jul RNAV STAR

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2963')
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ALEGI 2R [ALEG2R]
BADKO 2R [BADK2R]
SULOD 2R [SULO2R]
RWY 12 RNAV ARRIVALS
RNAV (GNSS)

SPEED: MAX 250 KT BELOW FL100



- 095° to ARP between 11.3 NM and 5.1 NM do not fly SOUTH below FL60.
- 302° to ARP between 12.1 NM and 1.9 NM do not fly SOUTH below FL60.

ALT/HEIGHT CONVERSION	
QNH	(QFE)
4000'	(2963' - 900m)
3010'	(1973' - 600m)

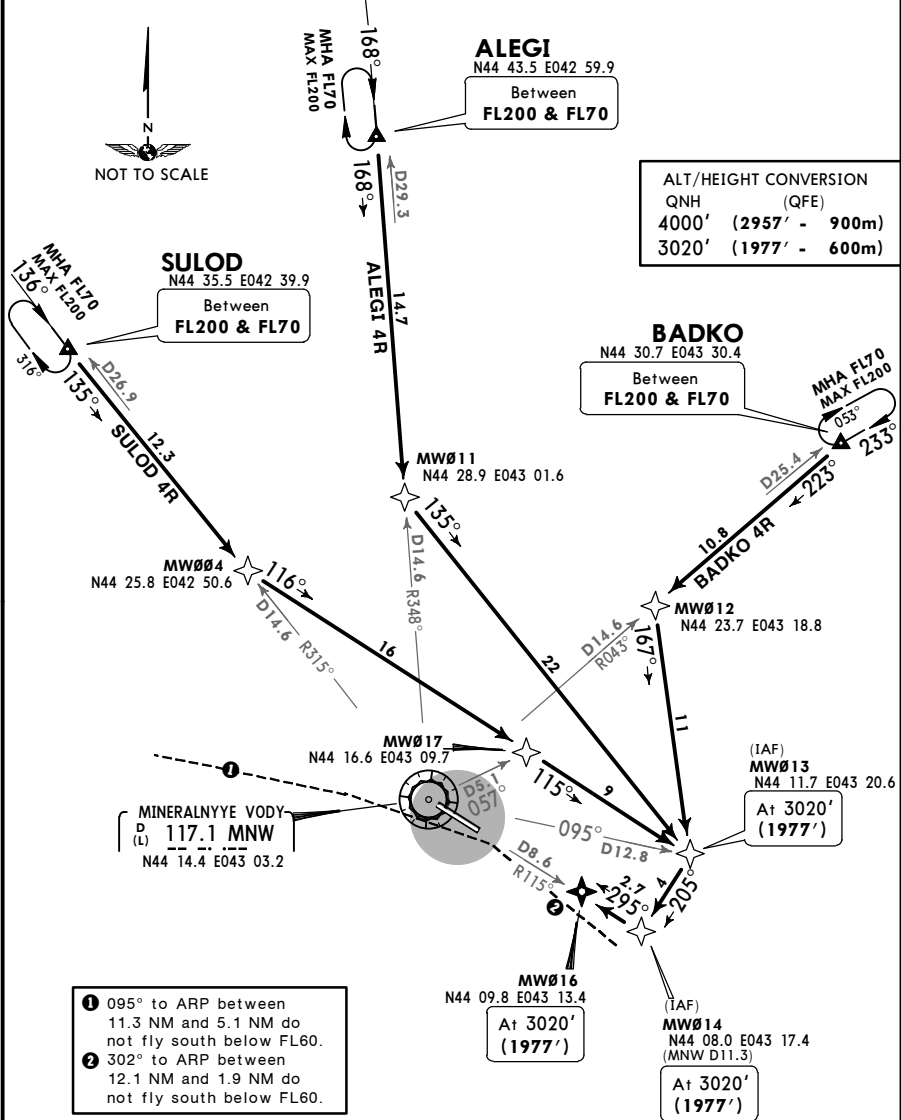
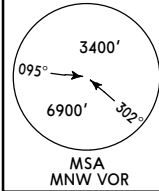
URMM/MRV
MINERALNYYE VODY

JEPPESSEN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2A Eff 23 Jul RNAV STAR

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2957')
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ALEGI 4R [ALEG4R]
BADKO 4R [BADK4R]
SULOD 4R [SULO4R]
RWY 30 RNAV ARRIVALS
RNAV (GNSS)

SPEED: MAX 250 KT BELOW FL100



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URMM/MRV
MINERALNYYE VODY

JEPPESSEN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2E Eff 23 Jul STAR

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2957')
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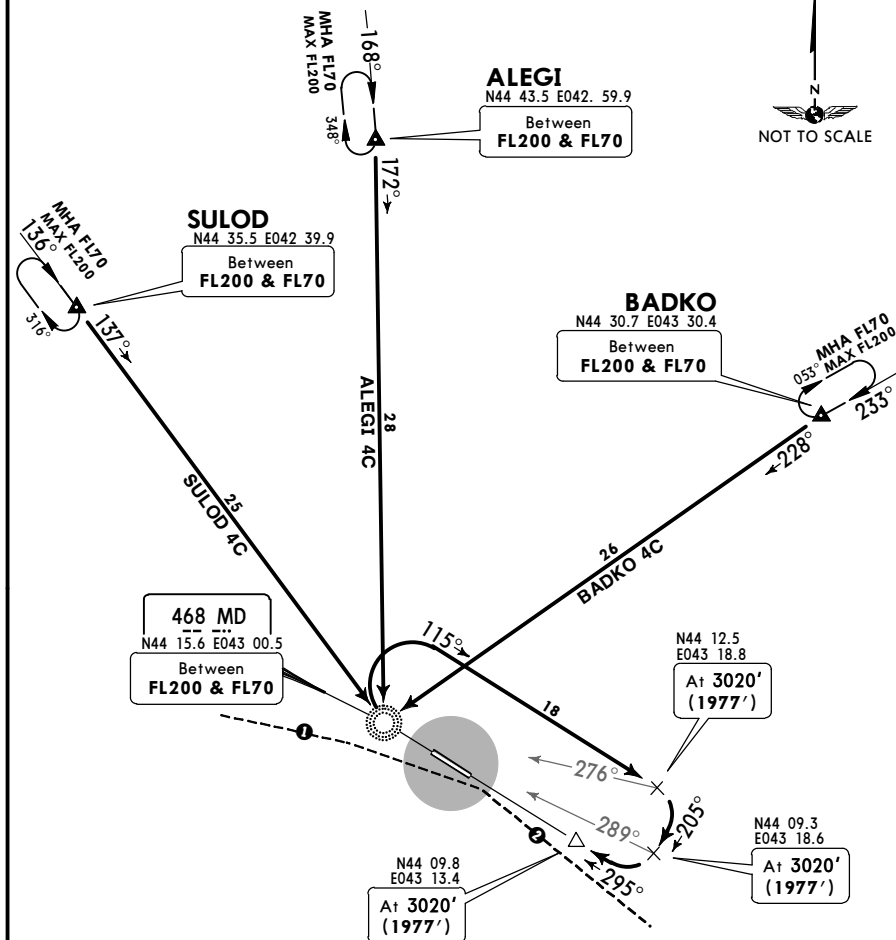
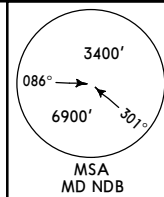
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BADKO 4C [BADK4C]

SULOD 4C [SULO4C]

RWY 30 ARRIVALS

SPEED: MAX 250 KT BELOW FL100

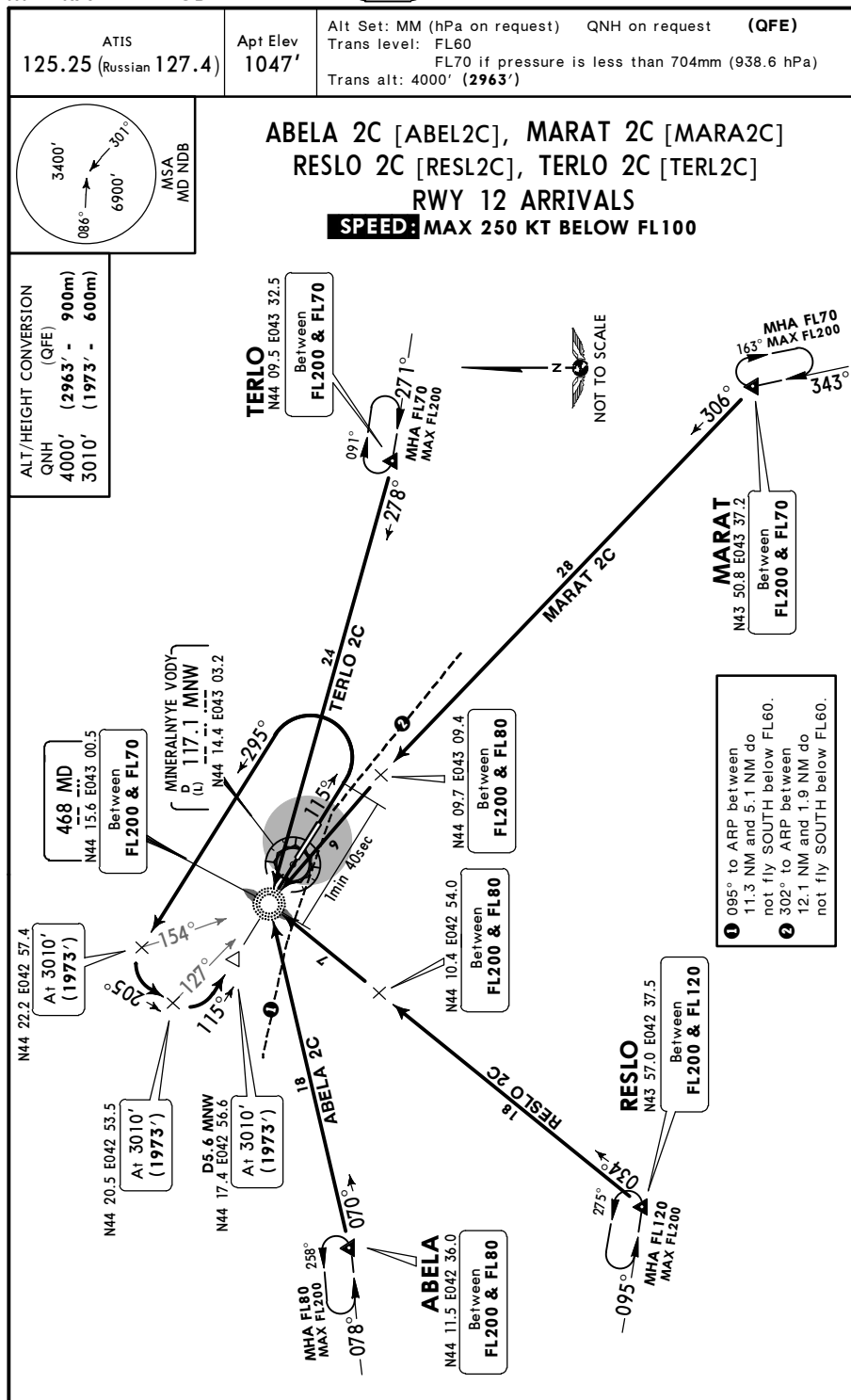


- 095° to ARP between 11.3 NM and 5.1 NM do not fly south below FL60.
- 302° to ARP between 12.1 NM and 1.9 NM do not fly south below FL60.

ALT/HEIGHT CONVERSION
QNH (QFE)
4000' (2957' - 900m)
3020' (1977' - 600m)

URMM/MRV
MINERALNYYE VODY

JEPPESSEN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2F Eff 23 Jul STAR



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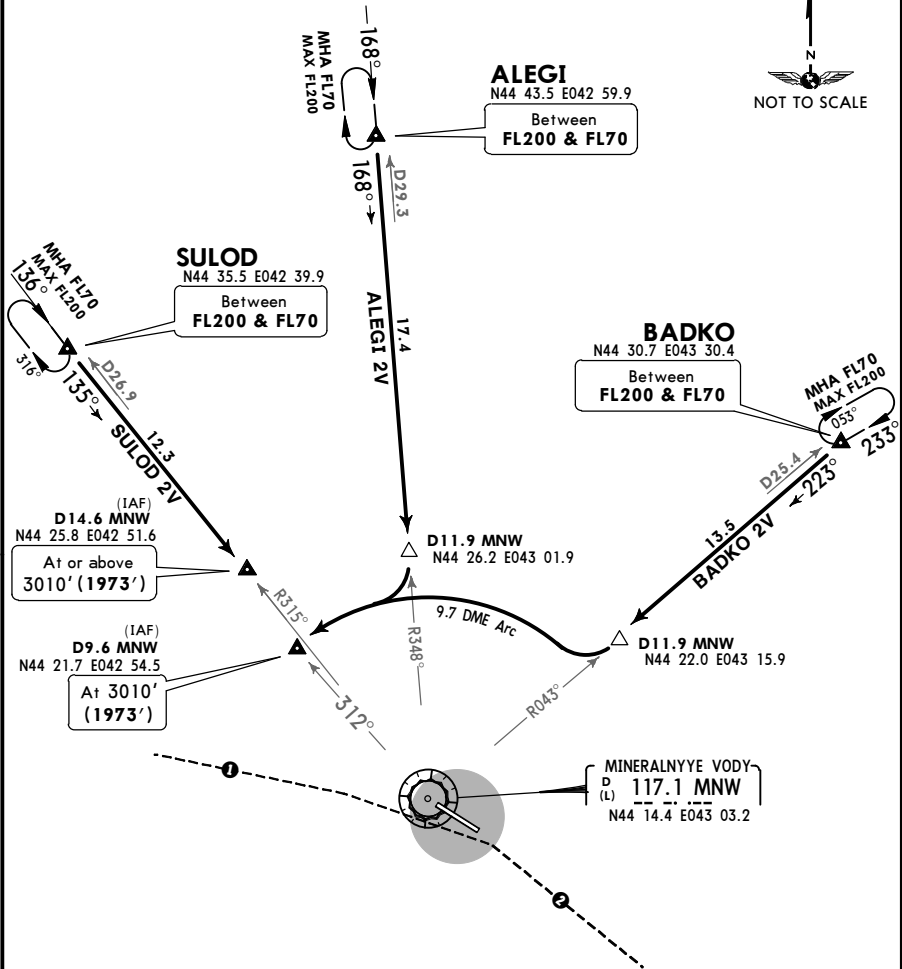
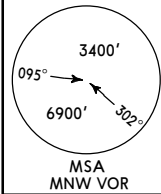
URMM/MRV
MINERALNYYE VODY

JEPPESN MINERALNYYE VODY, RUSSIA
17 JUL 15 (10-2H) Eff 23 Jul **STAR**

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2963')
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ALEGI 2V [ALEG2V]
BADKO 2V [BADK2V]
SULOD 2V [SULO2V]
RWY 12 ARRIVALS

SPEED: MAX 250 KT BELOW FL100



- 095° to ARP between 11.3 NM and 5.1 NM do not fly south below FL60.
- 302° to ARP between 12.1 NM and 1.9 NM do not fly south below FL60.

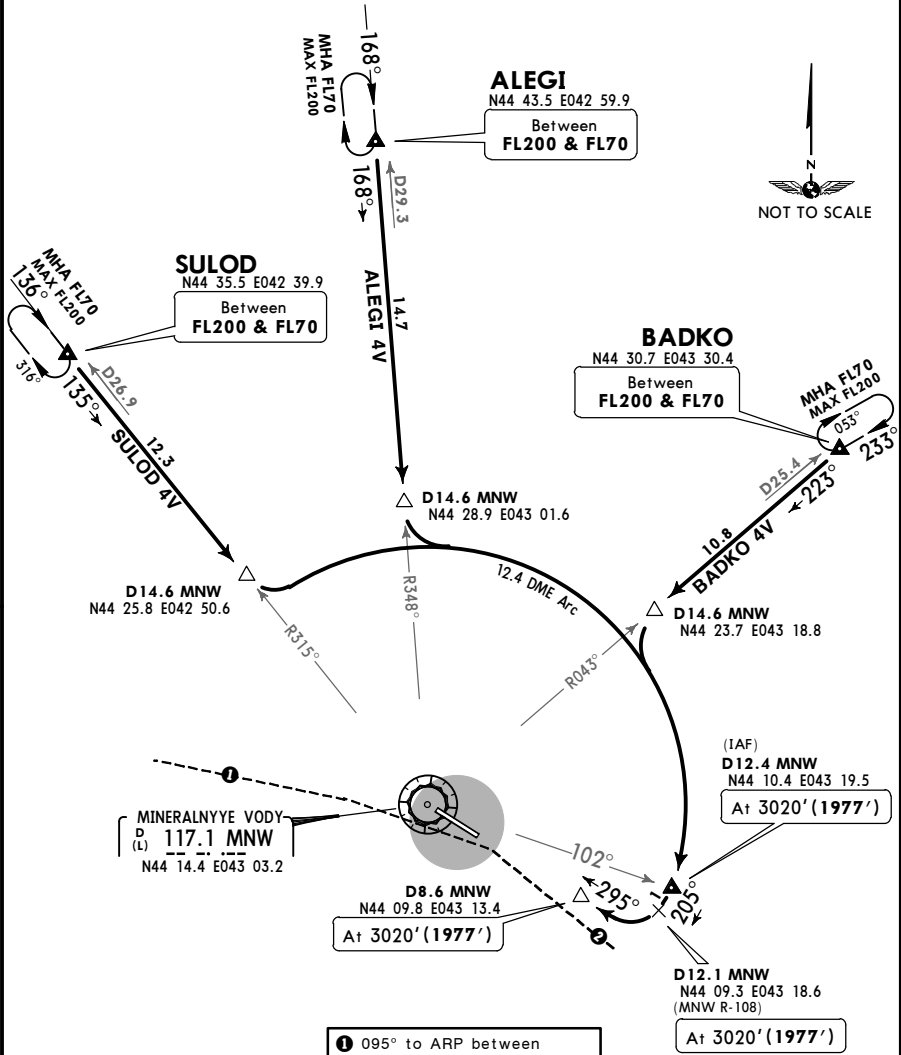
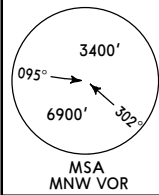
ALT/HEIGHT CONVERSION	
QNH	(QFE)
4000' (2963' - 900m)	
3010' (1973' - 600m)	

URMM/MRV
MINERALNYYE VODY

JEPPESSEN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2J Eff 23 Jul STAR

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2957')
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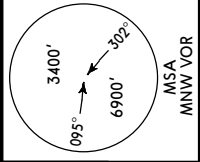
ALEGI 4V [ALEG4V]
BADKO 4V [BADK4V]
SULOD 4V [SULO4V]
RWY 30 ARRIVALS
SPEED: MAX 250 KT BELOW FL100



ALT/HEIGHT CONVERSION
QNH (QFE)
4000' (2957' - 900m)
3020' (1977' - 600m)

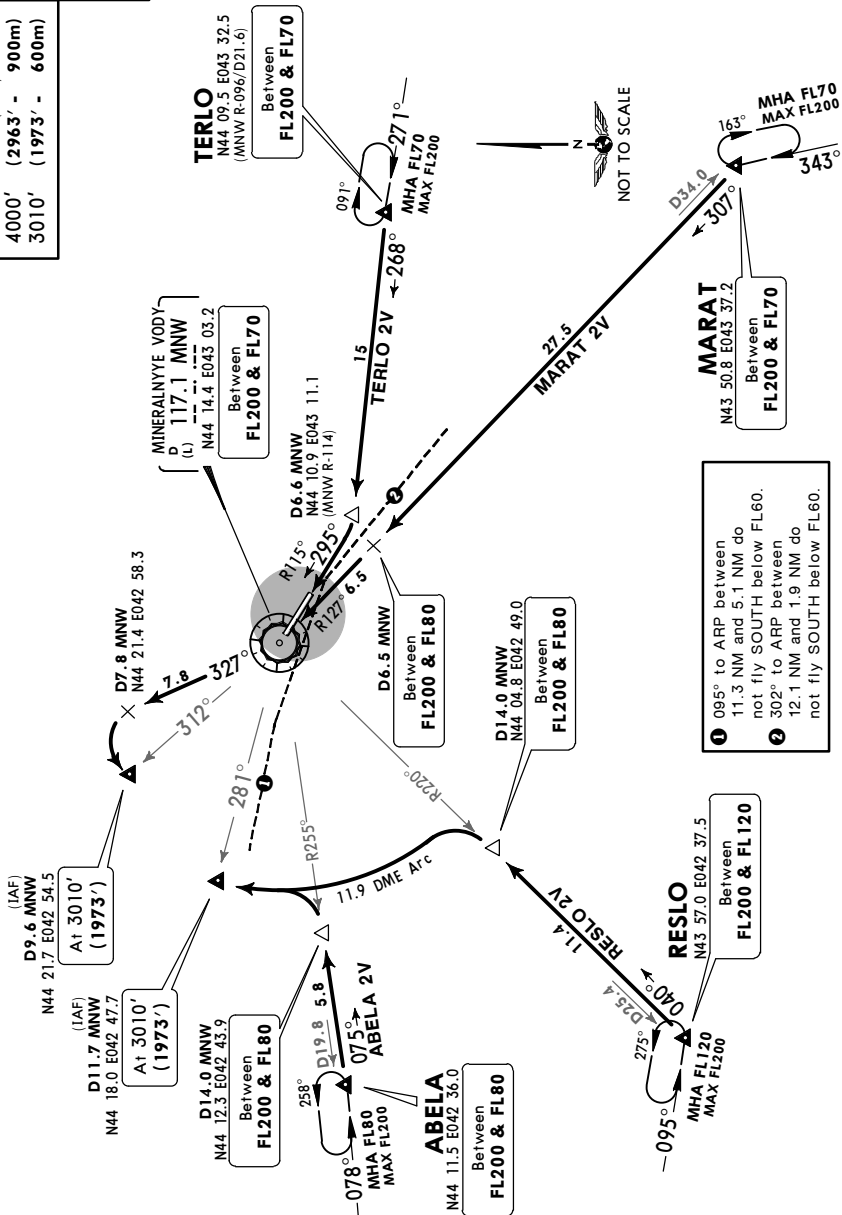
- ① 095° to ARP between 11.3 NM and 5.1 NM do not fly south below FL60.
- ② 302° to ARP between 12.1 NM and 1.9 NM do not fly south below FL60.

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2963')
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ALT/HEIGHT CONVERSION
QNH (QFE)
4000' - 900m
3010' - 600m

ABELA 2V [ABEL2V], MARAT 2V [MARA2V]
RESLO 2V [RESL2V], TERLO 2V [TERL2V]
RWY 12 ARRIVALS
SPEED: MAX 250 KT BELOW FL100



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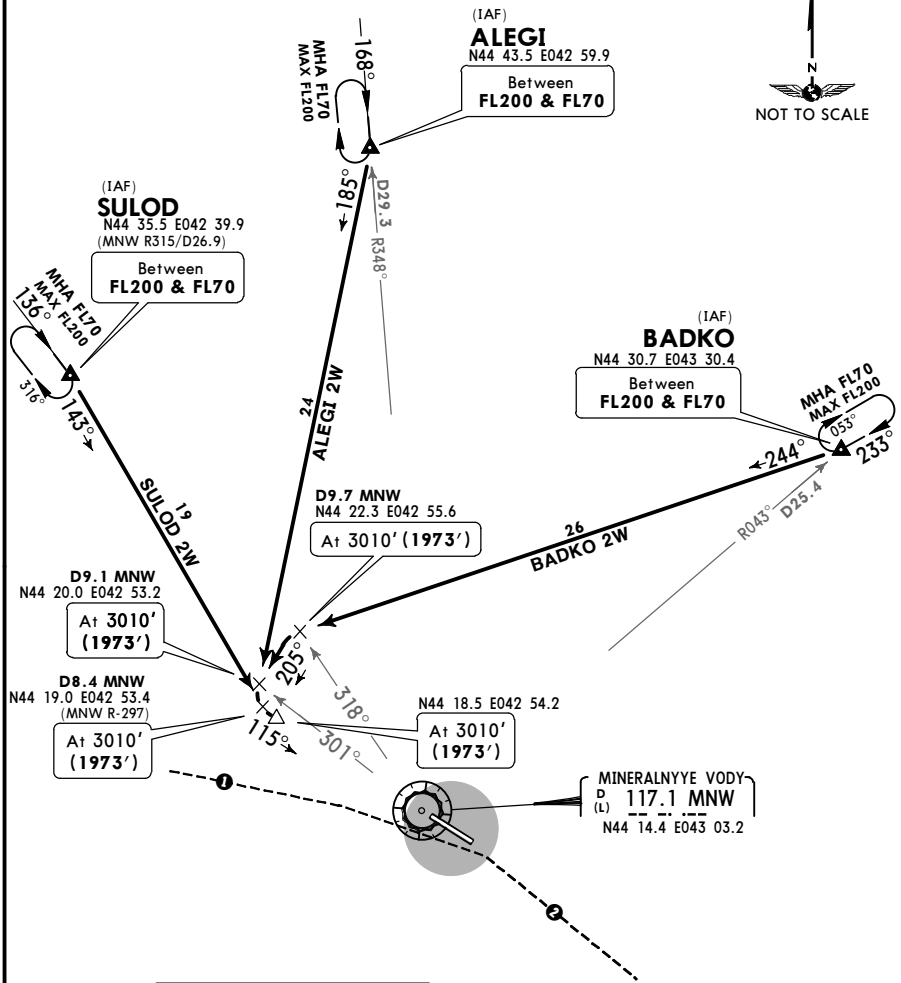
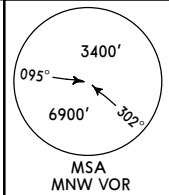
URMM/MRV
MINERALNYYE VODY

JEPPESN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2M Eff 23 Jul STAR

ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2963')
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ALEGI 2W [ALEG2W]
BADKO 2W [BADK2W]
SULOD 2W [SULO2W]
RWY 12 ARRIVALS
UNDER RADAR CONTROL

SPEED: MAX 250 KT BELOW FL100



- ① 095° to ARP between 11.3 NM and 5.1 NM do not fly south below FL60.
- ② 302° to ARP between 12.1 NM and 1.9 NM do not fly south below FL60.

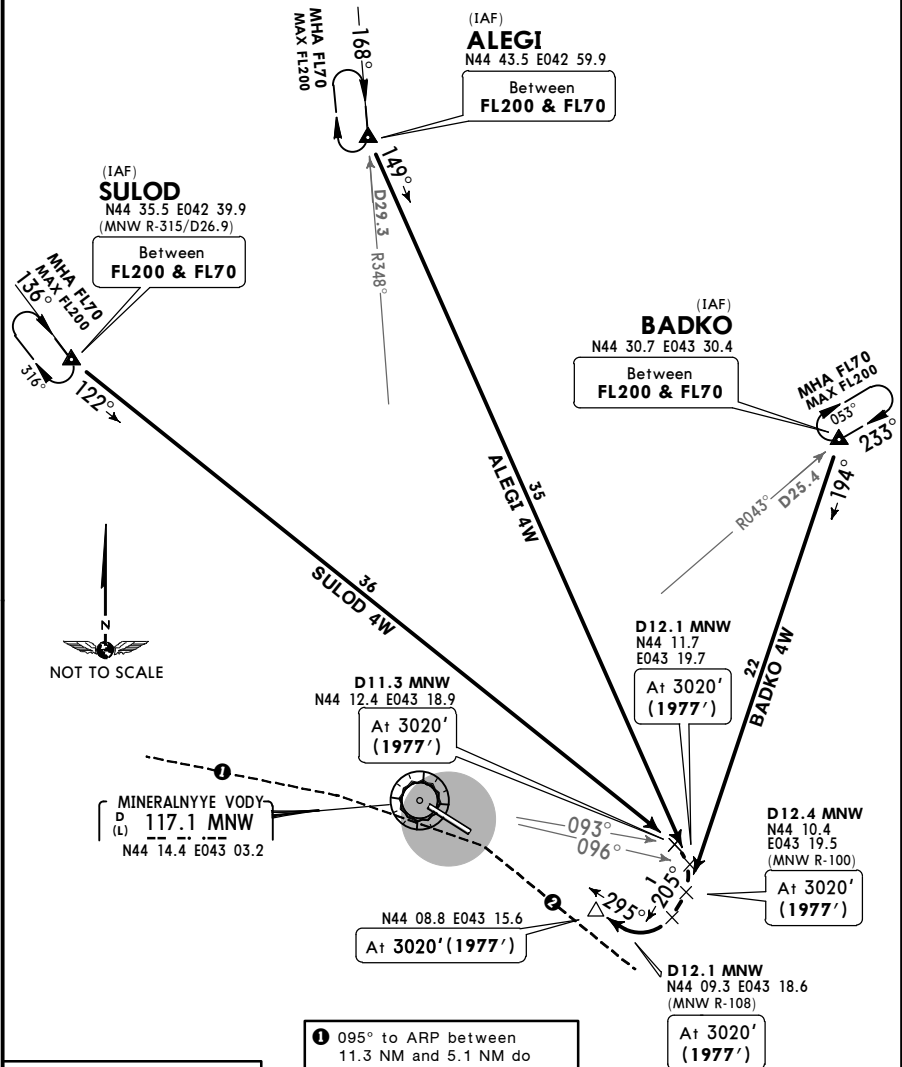
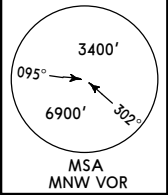
ALT/HEIGHT CONVERSION	
QNH	(QFE)
4000'	(2963' - 900m)
3010'	(1973' - 600m)

URMM/MRV
MINERALNYYE VODY

JEPPESEN MINERALNYYE VODY, RUSSIA
17 JUL 15 10-2N Eff 23 Jul STAR

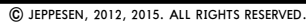
ATIS 125.25 (Russian 127.4)	Apt Elev 1047'	Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704mm (938.6 hPa) Trans alt: 4000' (2957')
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ALEGI 4W [ALEG4W]
BADKO 4W [BADK4W]
SULOD 4W [SULO4W]
RWY 30 ARRIVALS
UNDER RADAR CONTROL
SPEED: MAX 250 KT BELOW FL100



ALT/HEIGHT CONVERSION
QNH (QFE)
4000' (2957' - 900m)
3020' (1977' - 600m)

- ① 095° to ARP between 11.3 NM and 5.1 NM do not fly south below FL60.
- ② 302° to ARP between 12.1 NM and 1.9 NM do not fly south below FL60.



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URMM/MRV
MINERALNYE VODY

4 JAN 13

10-3

Eff 10 Jan

JEPPesen MINERALNYE VODY, RUSSIA
RNAV SID

MINERALNYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)

Trans level: FL60

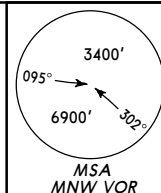
FL70 if pressure is less than 704 mm (938.6 hPa)

Trans alt: 4000' (2963')

1. Contact MINERALNYE VODY Krug immediately after crossing
1440' (403').

2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

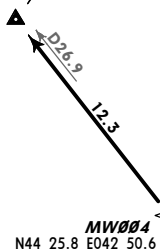
BADKO 1R [BADK1R]
SULOD 1R [SULO1R]
RWY 12 RNAV DEPARTURES
RNAV (GNSS)



SULOD

N44 35.5 E042 39.9

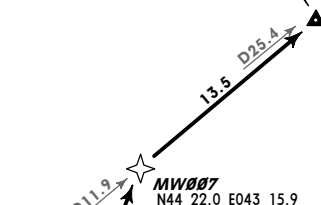
Between
FL70 & FL200



BADKO

N44 30.7 E043 30.4

Between
FL70 & FL200



MINERALNYE VODY
D 117.1 MNW
(L) N44 14.4 E043 03.2

MW022
N44 11.8 E043 09.0
(MNW R-115/D4.9)



1 122° from ARP between
1.9 NM and 12.1 NM do
not fly south below FL60.

This SID requires a minimum climb gradient
of

BADKO 1R: 5.5%.

If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
5.5% (V/V fpm)	418	557	835	1114	1392	1671

ALT/HEIGHT CONVERSION

QNH (QFE)

1440' (403' - 120m)

4000' (2963' - 900m)

URMM/MRV
MINERALNYE VODY

4 JAN 13 (10-3A) Eff 10 Jan

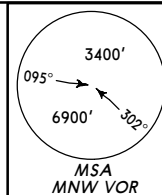
JEPPESEN MINERALNYE VODY, RUSSIA
RNAV SID

MINERALNYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2956')
1. Contact MINERALNYE VODY Krug immediately after crossing
1440' (396').
2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

BADKO 3R [BADK3R]
SULOD 3R [SULO3R]
RWY 30 RNAV DEPARTURES
RNAV (GNSS)



SULOD

N44 35.5 E042 39.9

Between
FL70 & FL200

D26.9 12.3
MW004
N44 25.8 E042 50.6

BADKO

N44 30.7 E043 30.4

Between
FL70 & FL200

D25.4 10.8
MW12
N44 23.7 E043 18.8



468 MD
N44 15.6 E043 00.5
MW023
N44 15.6 E043 00.5
(MNW R-295/D2.3)

MINERALNYE VODY
P (L) 117.1 MNW
N44 14.4 E043 03.2
MW001
N44 14.4 E043 03.2

1 275° from ARP between
5.1 NM and 11.3 NM do
not fly south below FL60.

This SID requires a minimum climb gradient
of

BADKO 3R: 5.2%.

If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
5.2% (V/V fpm)	395	527	790	1053	1317	1549

ALT/HEIGHT CONVERSION
QNH (QFE)
1440' (396' - 120m)
4000' (2956' - 900m)

URMM/MRV
MINERALNYYE VODY

27 JUN 14 (10-3B)

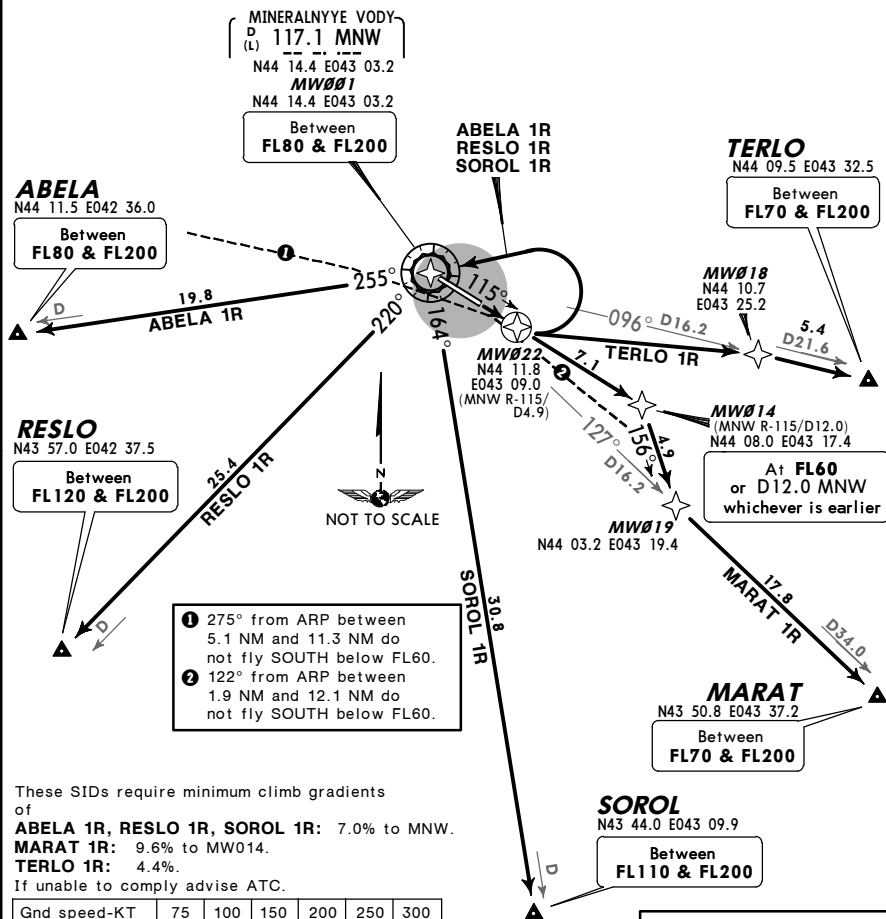
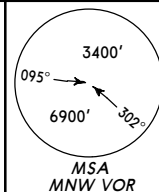
JEPPESN MINERALNYYE VODY, RUSSIA
RNAV SID

MINERALNYYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2963')
1. Contact MINERALNYYE VODY Krug immediately after crossing
1440' (403').
2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

ABELA 1R [ABEL1R], MARAT 1R [MARA1R],
RESLO 1R [RESL1R], SOROL 1R [SORO1R],
TERLO 1R [TERL1R]
RWY 12 RNAV DEPARTURES
RNAV (GNSS)



Gnd speed-KT	75	100	150	200	250	300
9.6% (V/V fpm)	729	972	1458	1944	2430	2917
7.0% (V/V fpm)	532	709	1063	1418	1772	2127
4.4% (V/V fpm)	334	446	668	891	1114	1337

ALT/HEIGHT CONVERSION
QNH (QFE)
1440' (403' - 120m)
4000' (2963' - 900m)

URMM/MRV
MINERALNYYE VODY

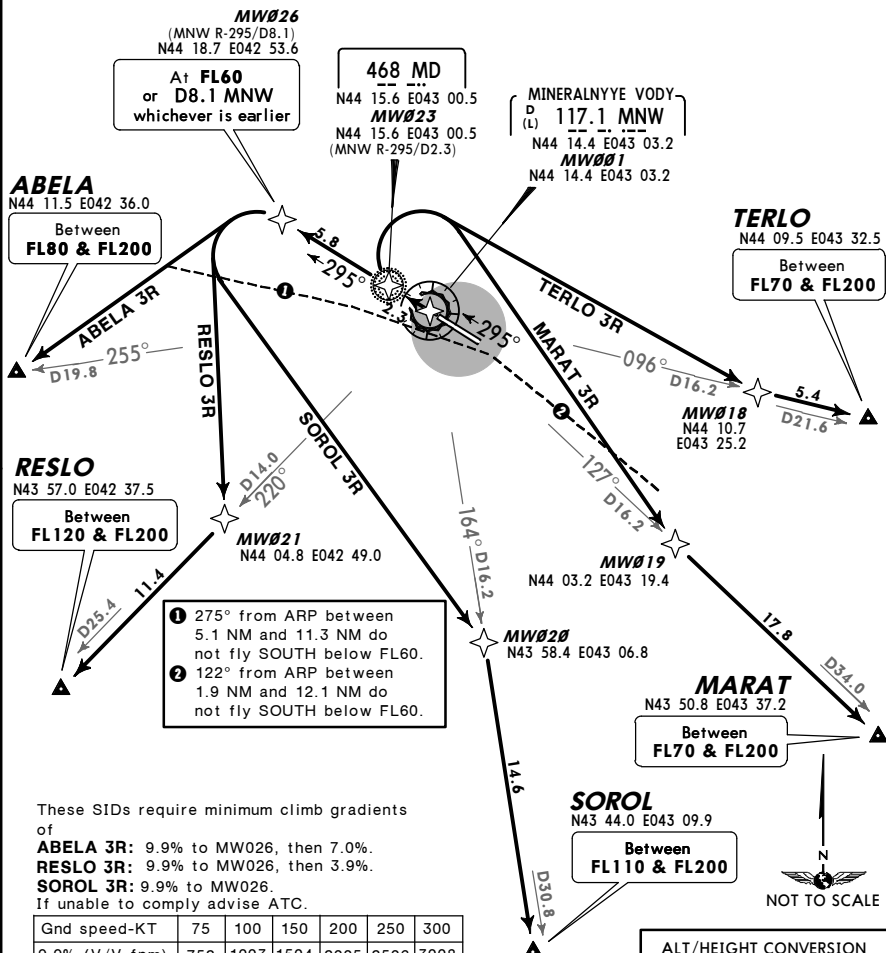
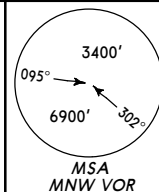
JEPPesen MINERALNYYE VODY, RUSSIA
27 JUN 14 (10-3C) RNAV SID

MINERALNYYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2956')
1. Contact MINERALNYYE VODY Krug immediately after crossing
1440' (396').
2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

ABELA 3R [ABEL3R], MARAT 3R [MARA3R],
SOROL 3R [SORO3R], RESLO 3R [RESL3R],
TERLO 3R [TERL3R],
RWY 30 RNAV DEPARTURES
RNAV (GNSS)



URMM/MRV
MINERALNYYE VODY

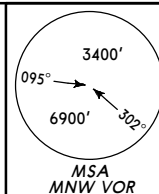
JEPPesen MINERALNYYE VODY, RUSSIA
4 JAN 13 (10-3D) Eff 10 Jan SID

MINERALNYYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2963')
1. Contact MINERALNYYE VODY Krug immediately after crossing
1440' (403').
2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

BADKO 1V [BADK1V]
SULOD 1V [SULO1V]
RWY 12 DEPARTURES



SULOD

N44 35.5 E042 39.9

Between

FL70 & FL200



D14.6 MNW
N44 25.8 E042 50.6

315°

SULOD 1V

BADKO

N44 30.7 E043 30.4

Between

FL70 & FL200



D11.9 MNW
N44 22.0 E043 15.9

043°

BADKO 1V

MINERALNYYE VODY
D
D (L)
117.1 MNW
N44 14.4 E043 03.2

4.9 DME

115°



1 122° from ARP between
1.9 NM and 12.1 NM do
not fly south below FL60.

This SID requires a minimum climb gradient
of
BADKO 1V: 5.5%.
If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
5.5% (V/V fpm)	418	557	835	1114	1392	1671

ALT/HEIGHT CONVERSION
QNH (QFE)
1440' (403' - 120m)
4000' (2963' - 900m)

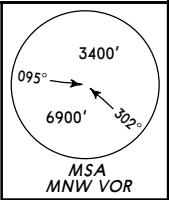
URMM/MRV
MINERALNYE VODY

JEPPesen MINERALNYE VODY, RUSSIA
4 JAN 13 (10-3E) Eff 10 Jan

SID

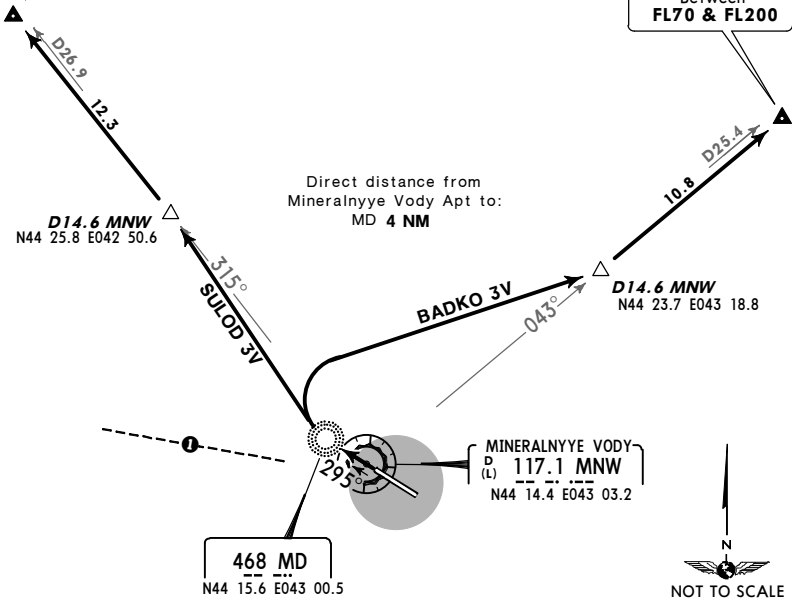
MINERALNYE VODY Krug 120.7	Apt Elev 1047'	QNH on request (QFE) Trans level: FL60 FL70 if pressure is less than 704 mm (938.6 hPa) Trans alt: 4000' (2956') 1. Contact MINERALNYE VODY Krug immediately after crossing 1440' (396'). 2. Take-off should be carried out with noise abatement procedures according to Flight Operation Manual.
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BADKO 3V [BADK3V]
SULOD 3V [SULO3V]
RWY 30 DEPARTURES



SULOD
N44 35.5 E042 39.9
Between
FL70 & FL200

BADKO
N44 30.7 E043 30.4
Between
FL70 & FL200



This SID requires a minimum climb gradient of
BADKO 3V: 5.2%.
If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
5.2% (V/V fpm)	395	527	790	1053	1317	1549

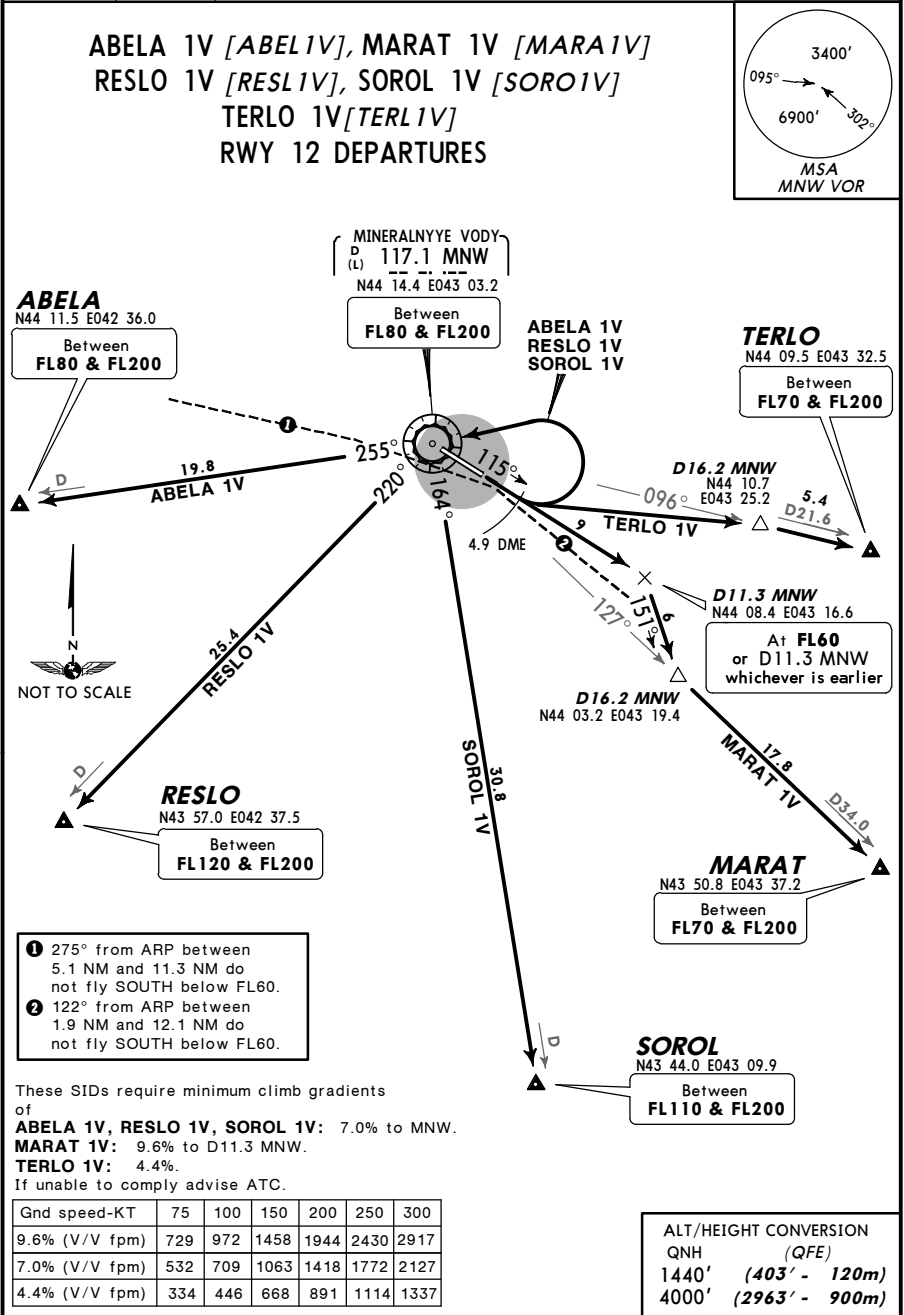
ALT/HEIGHT CONVERSION	
QNH (QFE)	
1440'	(396' - 120m)
4000'	(2956' - 900m)

MINERALNYYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2963')

1. Contact MINERALNYYE VODY Krug immediately after crossing 1440' (403').
2. Take-off should be carried out with noise abatement procedures according to Flight Operation Manual.



URMM/MRV
MINERALNYYE VODY

JEPPSEN MINERALNYYE VODY, RUSSIA
27 JUN 14 (10-3G) **SID**

MINERALNYYE VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2956')

1. Contact MINERALNYYE VODY Krug immediately after crossing 1440' (396').
2. Take-off should be carried out with noise abatement procedures according to Flight Operation Manual.

ABELA 3V [ABEL3V], MARAT 3V [MARA3V]
RESLO 3V [RESL3V], SOROL 3V [SORO3V]
TERLO 3V [TERL3V]
RWY 30 DEPARTURES

These SIDs require minimum climb gradients of

ABELA 3V: 9.9% to D8.1 MNW, then 7.0%.

RESLO 3V: 9.9% to D8.1 MNW, then 3.9%.

SOROL 3V: 9.9% to D8.1 MNW.

If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
9.9% (V/V fpm)	752	1003	1504	2005	2674	3209
7.0% (V/V fpm)	532	709	1063	1418	1772	2127
3.9% (V/V fpm)	296	395	592	790	987	1185

1

275° from ARP between 5.1 NM and 11.3 NM do not fly SOUTH below FL60.

2

122° from ARP between 1.9 NM and 12.1 NM do not fly SOUTH below FL60.

ALT/HEIGHT CONVERSION	
QNH (QFE)	
1440'	(396' - 120m)
4000'	(2956' - 900m)

CHANGES: SID 3V redesignated TERLO 3V & revised. © JEPPSEN, 2011, 2014. ALL RIGHTS RESERVED.

URMM/MRV
MINERALNYE VODY

4 JAN 13

(10-3H)

Eff 10 Jan

JEPPSEN MINERALNYE VODY, RUSSIA

SID

MINERALNYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)

Trans level: FL60

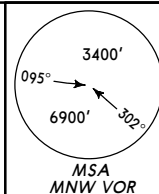
FL70 if pressure is less than 704 mm (938.6 hPa)

Trans alt: 4000' (2963')

1. Contact MINERALNYE VODY Krug immediately after crossing
1440' (403').

2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

BADKO 1W [BADK1W]
SULOD 1W [SULO1W]
RWY 12 DEPARTURES
UNDER RADAR CONTROL

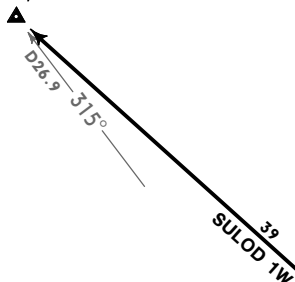


SULOD

N44 35.5 E042 39.9

Between

FL70 & FL200

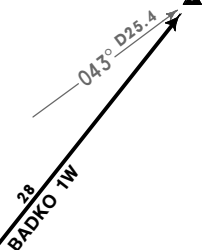


BADKO

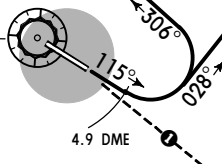
N44 30.7 E043 30.4

Between

FL70 & FL200



MINERALNYE VODY
D (L) 117.1 MNW
N44 14.4 E043 03.2



① 122° from ARP between
1.9 NM and 12.1 NM do
not fly south below FL60.

This SID requires a minimum climb gradient
of

BADKO 1W: 5.5%.

If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
5.5% (V/V fpm)	418	557	835	1114	1392	1671

ALT/HEIGHT CONVERSION

QNH (QFE)

1440' (403' - 120m)

4000' (2963' - 900m)

URMM/MRV
MINERALNYYE VODY

JEPPesen MINERALNYYE VODY, RUSSIA
4 JAN 13 (10-3J) Eff 10 Jan

SID

MINERALNYYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)

Trans level: FL60

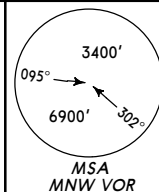
FL70 if pressure is less than 704 mm (938.6 hPa)

Trans alt: 4000' (2956')

1. Contact MINERALNYYE VODY Krug immediately after crossing 1440' (396').

2. Take-off should be carried out with noise abatement procedures according to Flight Operation Manual.

BADKO 3W [BADK3W]
SULOD 3W [SULO3W]
RWY 30 DEPARTURES
UNDER RADAR CONTROL



SULOD

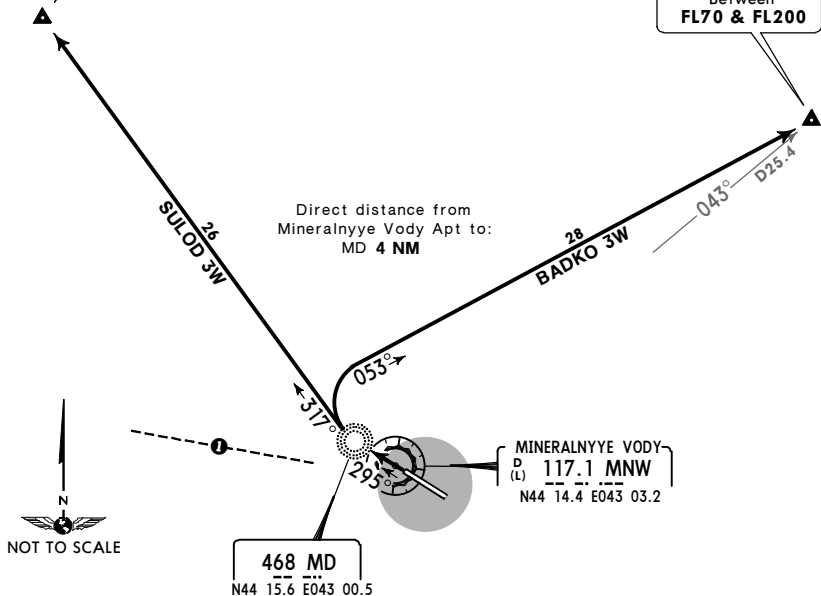
N44 35.5 E042 39.9
(MNW R-315/D26.9)

Between
FL70 & FL200

BADKO

N44 30.7 E043 30.4

Between
FL70 & FL200



This SID requires a minimum climb gradient of

BADKO 3W: 5.2%.

If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
5.2% (V/V fpm)	395	527	790	1053	1317	1549

① 275° from ARP between 5.1 NM and 11.3 NM do not fly south below FL60.

ALT/HEIGHT CONVERSION

QNH (QFE)

1440' (396' - 120m)

4000' (2956' - 900m)

URMM/MRV
MINERALNYE VODY

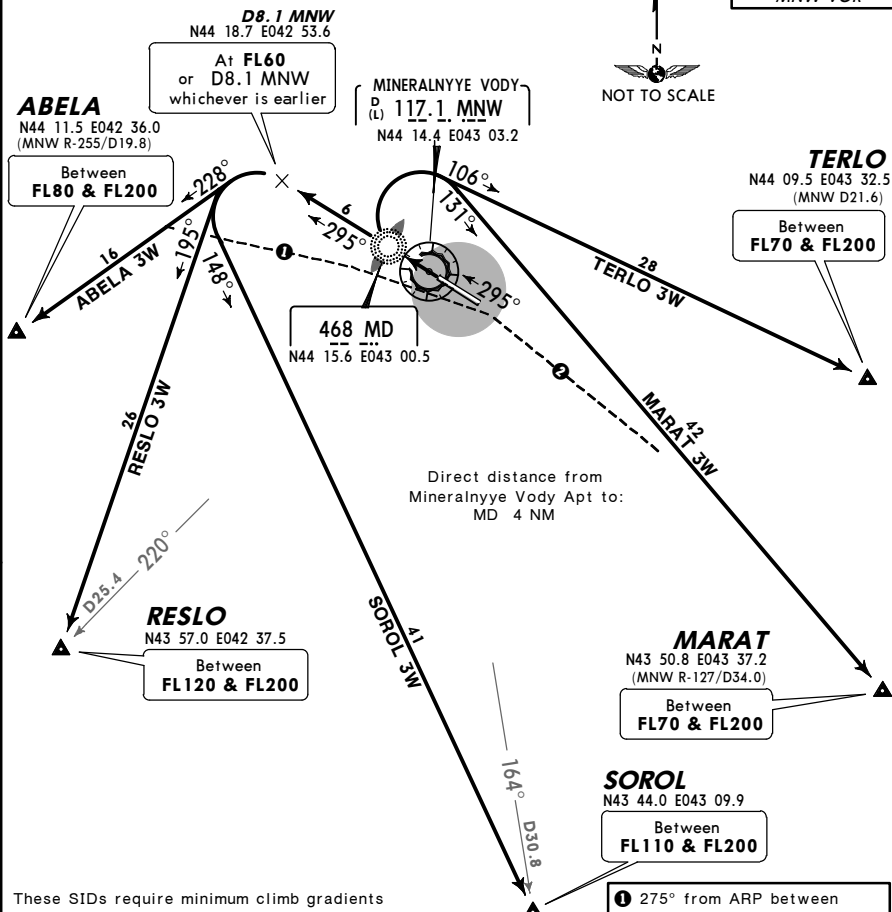
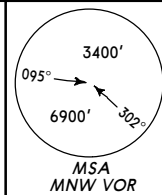
JEPPSEN MINERALNYE VODY, RUSSIA
27 JUN 14 (10-3L) **SID**

MINERALNYE
VODY
Krug
120.7

Apt Elev
1047'

QNH on request (QFE)
Trans level: FL60
FL70 if pressure is less than 704 mm (938.6 hPa)
Trans alt: 4000' (2956')
1. Contact MINERALNYE VODY Krug immediately after crossing
1440' (396').
2. Take-off should be carried out with noise abatement procedures
according to Flight Operation Manual.

ABELA 3W [ABEL3W], MARAT 3W [MARA3W]
RESLO 3W [RESL3W], SOROL 3W [SORO3W]
TERLO 3W [TERL3W]
RWY 30 DEPARTURES
UNDER RADAR CONTROL



These SIDs require minimum climb gradients of

ABELA 3W: 9.9% to D8.1 MNW, then 7.0%.
RESLO 3W: 9.9% to D8.1 MNW, then 3.9%.
SOROL 3W: 9.9% to D8.1 MNW.

If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
9.9% (V/V fpm)	752	1003	1504	2005	2674	3209
7.0% (V/V fpm)	532	709	1063	1418	1772	2127
3.9% (V/V fpm)	296	395	592	790	987	1185

- 275° from ARP between 5.1 NM and 11.3 NM do not fly SOUTH below FL60.
- 122° from ARP between 1.9 NM and 12.1 NM do not fly SOUTH below FL60.

ALT/HEIGHT CONVERSION
QNH (QFE)
1440' (396' - 120m)
4000' (2956' - 900m)

URMM/MRV



JEPPESSEN

MINERALNYE VODY, RUSSIA

MINERALNYE VODY

12 AUG 11

10-4

Eff 25 Aug

NOISE

NOISE ABATEMENT**ARRIVALS****Runway 30**

Noise abatement procedures shall be executed by all aircraft. If special meteorological conditions, such as considerable wind, cumulo-nimbus clouds etc are present in arrival and approach sectors, ATC unit may, if it is considered necessary for safety reasons, at its own discretion or by a pilot-in-command's request deviate from the provisions stated below.

Restrictions

The required noise abatement procedures shall not be observed over the overflown areas in the following cases:

- if there is ice, slush, water, mud, rubber, oil etc on runway and friction coefficient is 0.4 or less
- when ceiling is less than 150m or visibility is less than 1800m
- when crosswind component (including gusts) on runway exceeds 7m/sec
- when tailwind component on runway exceeds 2.5m/sec
- when wind shear is forecasted or reported, or when it is expected that unfavourable weather conditions may influence aircraft approach and landing.

During instrument as well as visual approach it is not allowed to fly below ILS glide path.

No noise abatement procedure shall envisage the increasing of indicated air speed during descent.

A displacement of THR shall not be used as a noise abatement measure.

AIR-GROUND communication shall be kept to a minimum.

Downwind landing of aircraft taking into account friction coefficient shall be allowed in cases when this direction is optimal for noise abatement over the city or in cases when upwind landing does not provide safety or is prohibited. A tailwind component shall correspond to the norms established in Airplane Flight Manual.

Runway 30 special approach procedure

When reaching a distance of 13.5 $\pm$ 1.6 NM from THR pilots shall conduct the flight at 4000' (2956' - 900m) maintaining MAX 210 KT. At a distance of 11.9 NM from THR speed shall be reduced to 185 KT $\pm$ 10 KT. At 10.8 NM from THR pilots shall lower the landing gear and wing devices into intermediate position at 15-30° angle (speed and angle of wing devices' settings depend on type and mass of aircraft).

After glide path interception and commencement of descent along glide path pilots shall continue to reduce speed to 155 - 160 KT $\pm$ 15 KT by the moment of reaching 2530' (1486' - 450m) at a distance of about 5.2 NM from THR.

At or above 2530' (1486' - 450m) pilots shall terminate to set wing devices into landing position and before reaching 2200' (1156' - 350m) and a distance of 3.8 NM from THR complete the stabilization of aircraft in the landing configuration at final approach speed.

At or above 2200' (1156' - 350m) and a distance of 4.1 NM the aircraft shall be completely stabilized and the pilot shall maintain final approach speed until landing taking into account the aircraft weight.

URMM/MRV

MINERALNYYE VODY

12 AUG 11

JEPPesen

10-4A

MINERALNYYE VODY, RUSSIA

Eff 25 Aug

NOISE

NOISE ABATEMENT

DEPARTURES

General

Noise abatement procedures during take-off and climbing phase shall be executed by all ACFT, except in case of reduction of flight safety and in case of engine failure.

Restrictions

Downwind take-off taking into account friction coefficient shall be allowed in cases when the direction is optimal for noise abatement over the city or in cases when upwind take-off does not provide safety or is prohibited. The tailwind component shall correspond to the norms established in the aircraft Flight Manual.

The minimum indicated air speed during climb shall not be less than $V_{2} + 10 \text{ KT}$ or less than that prescribed in the Aircraft Flight Manual if higher.

Maintaining the minimum indicated air speed of climb is not required if it leads to the exceeding of the minimum permissible angle of attack.

The reduction of power shall not be applied until:

- reaching 2040' (993' - 300m)
- the established standard power mode enables to maintain the established climb gradient of not less than 4% at the above specified speed and with maximum certified take-off mass
- take-off flight path provides overflying of all obstacles located under the flight path with sufficient clearance 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.

Special take-off procedure

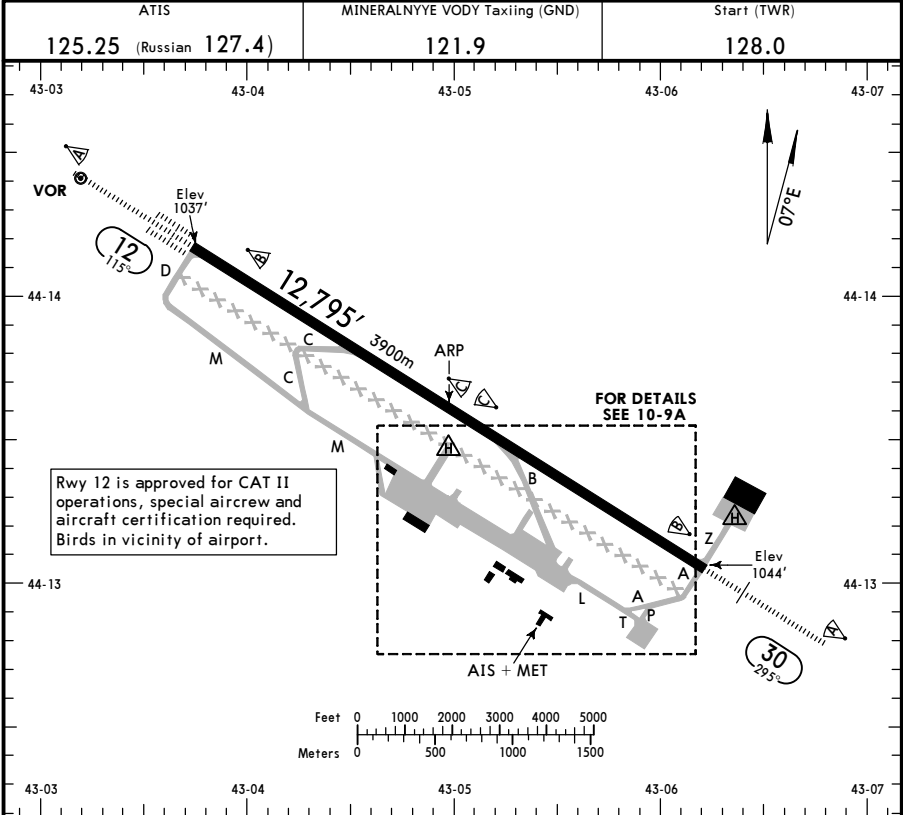
Pilots shall apply two special take-off procedures, NADP 1 and NADP 2. The pilot-in-command may use any of them for reaching necessary effect. (ICAO Doc 8168, Vol I, Part V, Chapter 3).

REVERSE THRUST

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

URMM/MRV
Apt Elev **1047'**
N44 13.6 E043 05.0

JEPPSEN MINERALNYYE VODY, RUSSIA
7 AUG 15 **(10-9)** **Eff 20 Aug**
MINERALNYYE VODY



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Landing Beyond		
12	HIRL(60m) CL(15m) HIALS-II TDZ PAPI-L(3.0°) RVR		11,762' 3585m		197'
30	HIRL(60m) CL(15m) HIALS PAPI-L(3.0°) RVR		11,823' 3604m		60m

TAKE-OFF

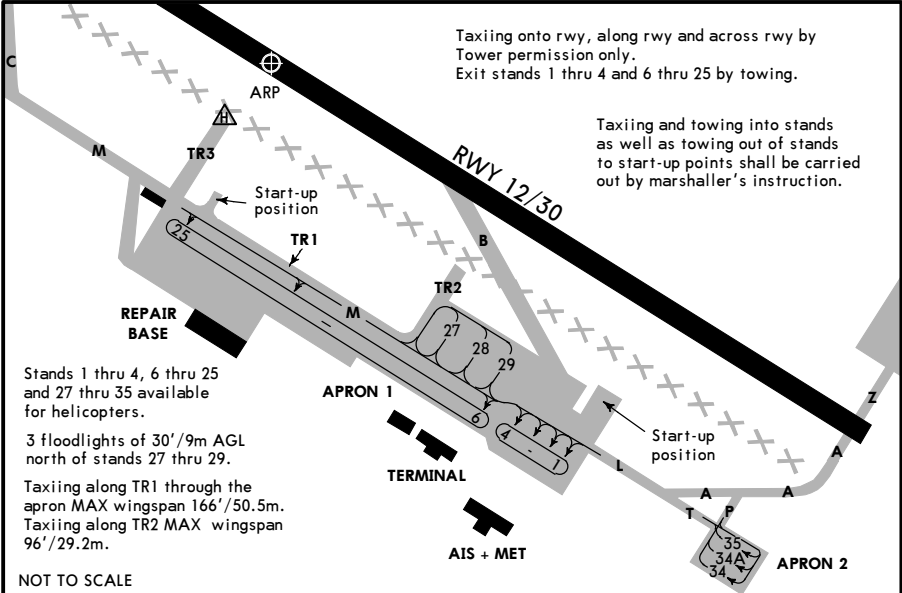
AIR CARRIER (JAA)
All Rwys

LVP must be in force

	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL
A			
B	200m (150m)	250m	400m
C			
D	250m (200m)	300m	

URMM/MRV

JEPPESSEN MINERALNYE VODY, RUSSIA
7 AUG 15 **(10-9A)** **Eff 20 Aug**
MINERALNYE VODY



INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
1, 2	N44 13.0 E043 05.8	23, 24	N44 13.3 E043 04.8
3	N44 13.0 E043 05.7	25	N44 13.4 E043 04.8
4	N44 13.1 E043 05.7	27	N44 13.2 E043 05.3
6	N44 13.1 E043 05.4	28, 29	N44 13.1 E043 05.4
7 thru 9	N44 13.1 E043 05.3	34	N44 12.8 E043 05.9
10, 11	N44 13.1 E043 05.2		
12	N44 13.2 E043 05.2		
13 thru 16	N44 13.2 E043 05.1		
17 thru 19	N44 13.2 E043 05.0		
20 thru 22	N44 13.3 E043 04.9		

LOW VISIBILITY PROCEDURES (LVP)

Low visibility procedures shall come into force when rwy visibility values are less than 550m. The commencement of LVP will be broadcasted by ATIS: "Low visibility procedures in progress". The term "Low visibility procedure" mean that an interval shall be maintained between arriving acft to provide ILS critical area clear of other acft, when acft is on final approach.

Arrival

Vacating of rwy 12 along Twy A or B.
When the flight crew has doubts in taxiing safety, the pilot shall stop the acft and request Follow-me car.
Acft arriving on rwy 12 shall be met after landing by the Follow-me car on Twy A or B on flight crews request. Further taxiing of acft after the Follow-me car shall be carried out under control of Taxiing.

Departure

Towing of acft shall be carried out with navigation and flashing lights switched on. It is prohibited to cross the rwy holding position line designated by 6 lighting markers and DAY marking on Twys A thru D and Z without Tower permission.

URMM/MRV


JEPPesen
 16 OCT 15 **(10-9S)**
Standard
MINERALNYE VODY, RUSSIA
MINERALNYE VODY

STRAIGHT-IN RWY		A	B	C	D
12	CAT 2 ILS	1137' (100')	1137' (100')	1137' (100')	1137' (100')
		RA115' R300m	RA115' R300m	RA115' R300m	RA115' R300m
	ILS	1237' (200')	1237' (200')	1237' (200')	1237' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	GLS	1237' (200')	1237' (200')	1237' (200')	1237' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC ①	1480' (443')	1480' (443')	1480' (443')	1480' (443')
		R1400m	R1400m	R1400m	R1400m
	ALS out	R1500m	R1500m	C2100m	C2100m
	RNAV ①	1480' (443')	1480' (443')	1480' (443')	1480' (443')
		R1400m	R1400m	R1400m	R1400m
	ALS out	R1500m	R1500m	C2100m	C2100m
30	VOR ①	1480' (443')	1480' (443')	1480' (443')	1480' (443')
		R1400m	R1400m	R1400m	R1400m
	ALS out	R1500m	R1500m	C2100m	C2100m
	NDB ①	2900' (1863')	2900' (1863')	2900' (1863')	2900' (1863')
		C5000m	C5000m	C5000m	C5000m
	ILS	1243' (200')	1243' (200')	1243' (200')	1243' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	GLS	1243' (200')	1243' (200')	1243' (200')	1243' (200')
	FULL	R550m	R550m	R550m	R550m
	Limited	R750m	R750m	R750m	R750m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC ①②	1560' (517')	1560' (517')	1560' (517')	1560' (517')
		R1500m	R1500m	R1600m	R1600m
	ALS out	R1500m	R1500m	C2400m	C2400m
	LOC ③	1850' (807')	1850' (807')	1850' (807')	1850' (807')
		C3300m	C3300m	C3500m	C3500m
	ALS out	C4000m	C4000m	C4200m	C4200m
	RNAV ①	1460' (417')	1460' (417')	1460' (417')	1460' (417')
		R1200m	R1200m	R1200m	R1200m
	ALS out	R1500m	R1500m	R1900m	R1900m
	VOR ①②	1560' (517')	1560' (517')	1560' (517')	1560' (517')
		R1500m	R1500m	R1600m	R1600m
	ALS out	R1500m	R1500m	C2400m	C2400m
	VOR ③	1850' (807')	1850' (807')	1850' (807')	1850' (807')
		C3300m	C3300m	C3500m	C3500m
	ALS out	C4000m	C4000m	C4200m	C4200m

① Continuous Descent Final Approach.

② with FAF.

③ w/o FAF.

URMM/MRV

 **JEPPesen**

16 OCT 15

10-951

Standard

MINERALNYYE VODY, RUSSIA

MINERALNYYE VODY

TAKE-OFF RWY 12, 30

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

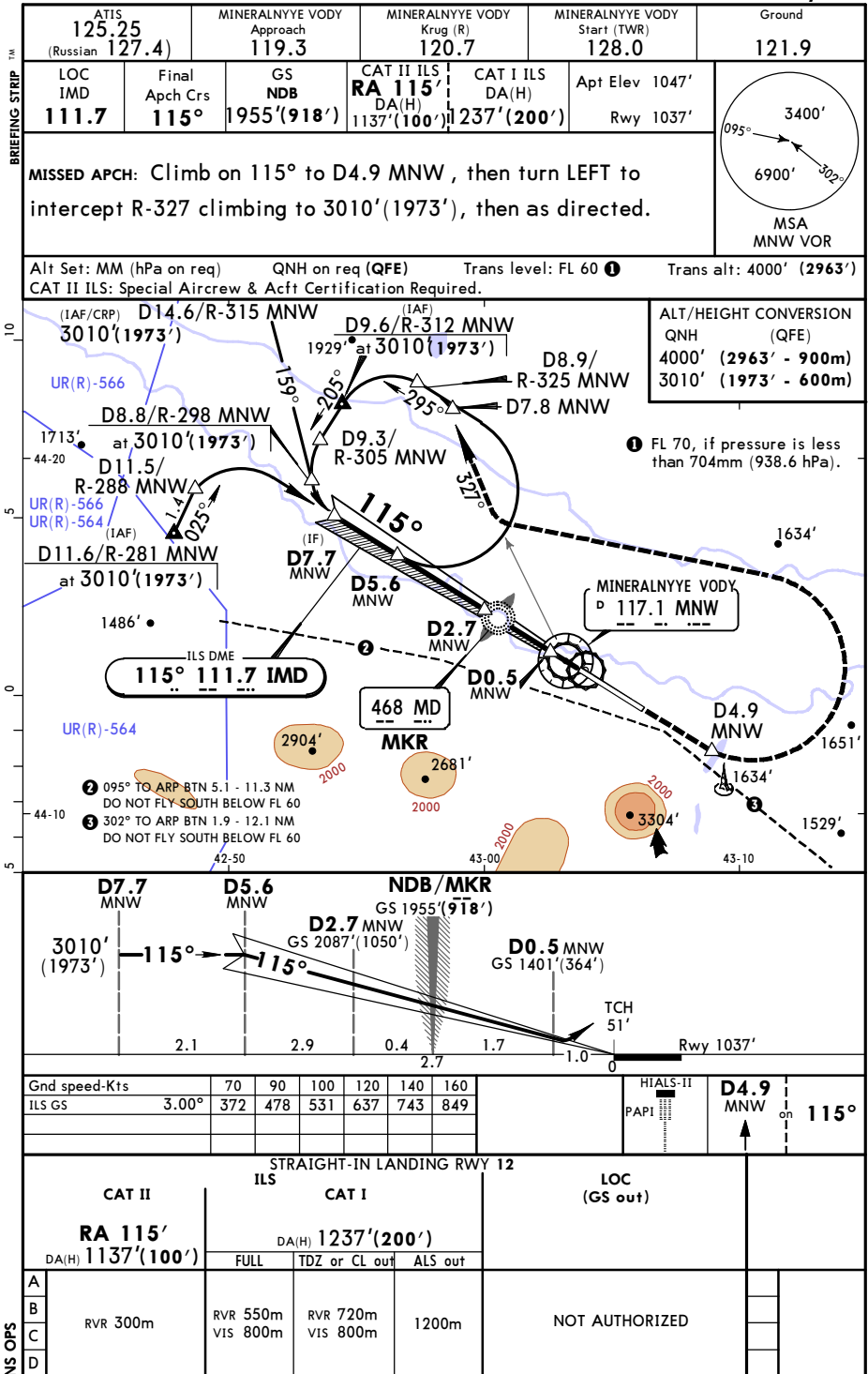
URMM/MRV
MINERALNYE VODY

16 OCT 15

11-2

CAT I/II VOR DME ILS Rwy 12

JEPPENSEN MINERALNYE VODY, RUSSIA



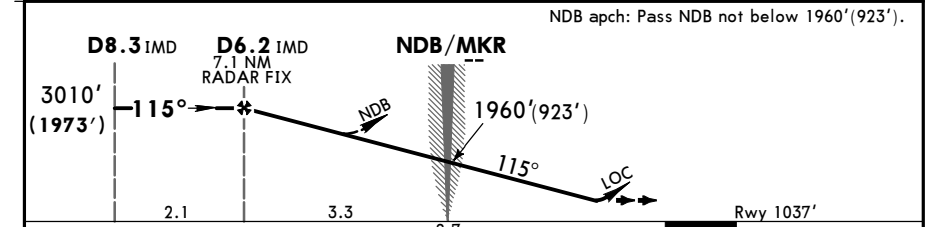
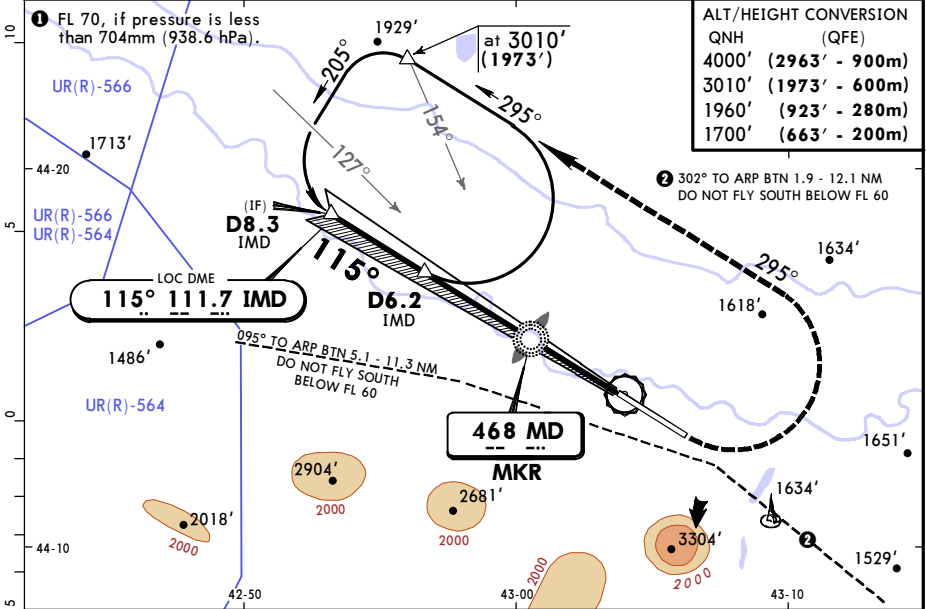
URMM/MRV
MINERALNYYE VODY

16 OCT 15

11-3

JEPPESEN MINERALNYYE VODY, RUSSIA
NDB LOC or NDB Rwy 12

BRIEFING STRIP™	ATIS 125.25 (Russian 127.4)	MINERALNYYE VODY Approach 119.3	MINERALNYYE VODY Krug (R) 120.7	MINERALNYYE VODY Start (TWR) 128.0	Ground 121.9
	LOC IMD 111.7	Final Apch Crs 115°	Minimum Alt D6.2 IMD 3010'(1973')	LOC MDA(H) 1480'(443')	Apt Elev 1047' Rwy 1037'
	NDB MD 468			NDB MDA(H) 2900'(1863')	
	MISSED APCH: Climb on 115° to 1700'(663') , then turn LEFT onto 295° climbing to 3010'(1973') , then as directed.				
	Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 60 ① Trans alt: 4000' (2963') LOC: NDB required.				 MSA MD NDB



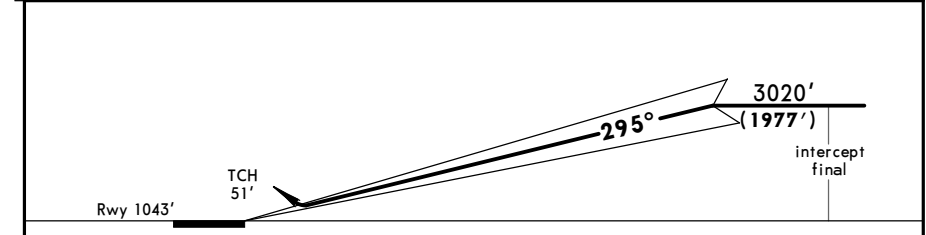
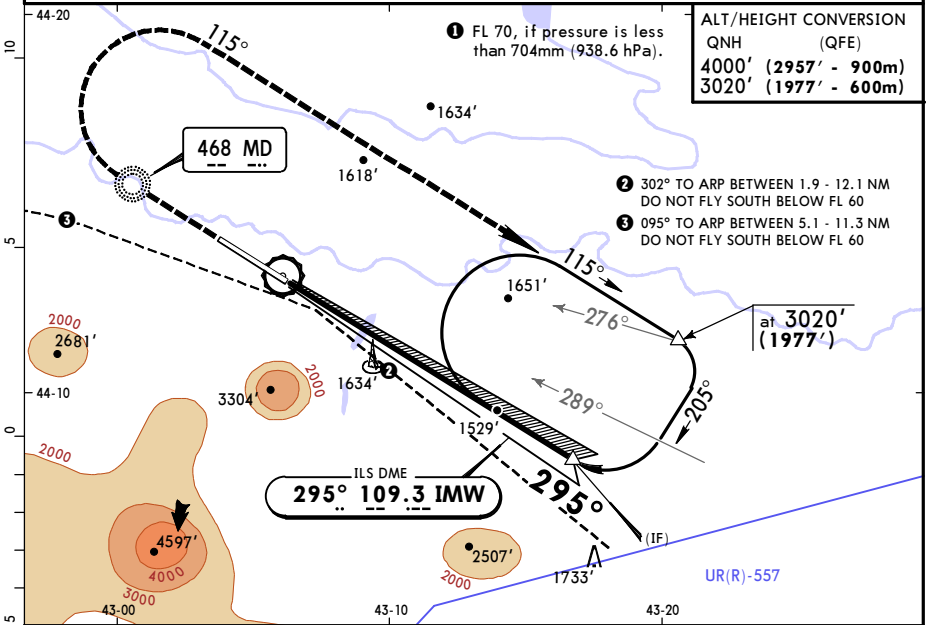
Gnd speed-Kts		70	90	100	120	140	160	HIALS-II PAPI	1700' (663') on 115°	
LOC or NDB Desc Angle 3.00°		372	478	531	637	743	849			
STRAIGHT-IN LANDING RWY 12										
LOC				NDB						
MDA(H) 1480'(443')				MDA(H) 2900'(1863')						
ALS out				ALS out						
A				3200m						
B	1500m			2300m						
C				4000m						
D	RVR 1500m VIS 1600m			2400m						
				4400m				4800m		

URMM/MRV
MINERALNYE VODY

16 OCT 15 11-4

JEPPesen MINERALNYE VODY, RUSSIA
ILS DME Rwy 30

ATIS 125.25 (Russian 127.4)	MINERALNYE VODY Approach 119.3	MINERALNYE VODY Krug (R) 120.7	MINERALNYE VODY Start (TWR) 128.0	Ground 121.9
LOC IMW 109.3	Final Apch Crs 295°	GS No Altitude published	ILS DA(H) 1243'(200')	Apt Elev 1047' Rwy 1043'
MISSED APCH: Climb on 295° to NDB, then turn RIGHT onto 115° climbing to 3020'(1977') , then as directed.				 MSA MD NDB
Alt Set: MM (hPa on req)		QNH on req (QFE)		Trans level: FL 60 1
				Trans alt: 4000' (2957')

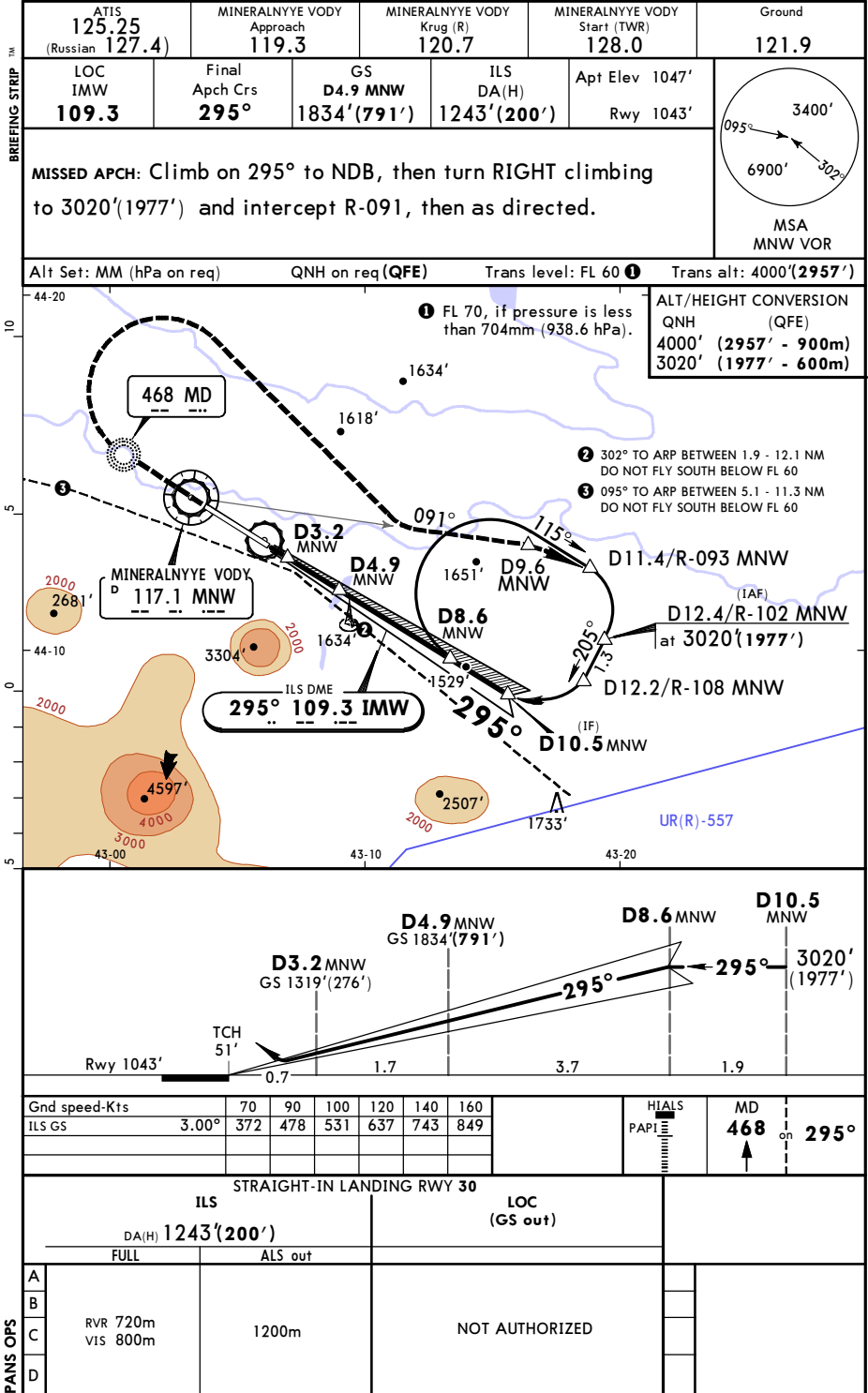


Gnd speed-Kts							70	90	100	120	140	160	HIALS		MD	295°	
ILS GS							3.00°	372	478	531	637	743	849	PAPI		468	on 1
															↑		
STRAIGHT-IN LANDING RWY 30																	
ILS												LOC (GS out)					
DA(H) 1243'(200')																	
FULL								ALS out									
PANS OPS	A																
	B																
	C							RVR 720m VIS 800m							1200m		
	D														NOT AUTHORIZED		

URMM/MRV
MINERALNYYE VODY

16 OCT 15 11-5

JEPPSEN MINERALNYYE VODY, RUSSIA
VOR DME ILS Rwy 30



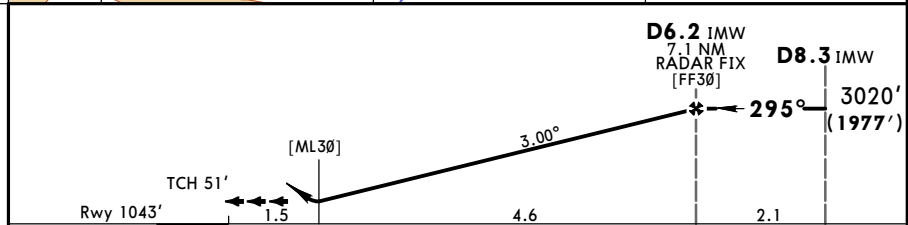
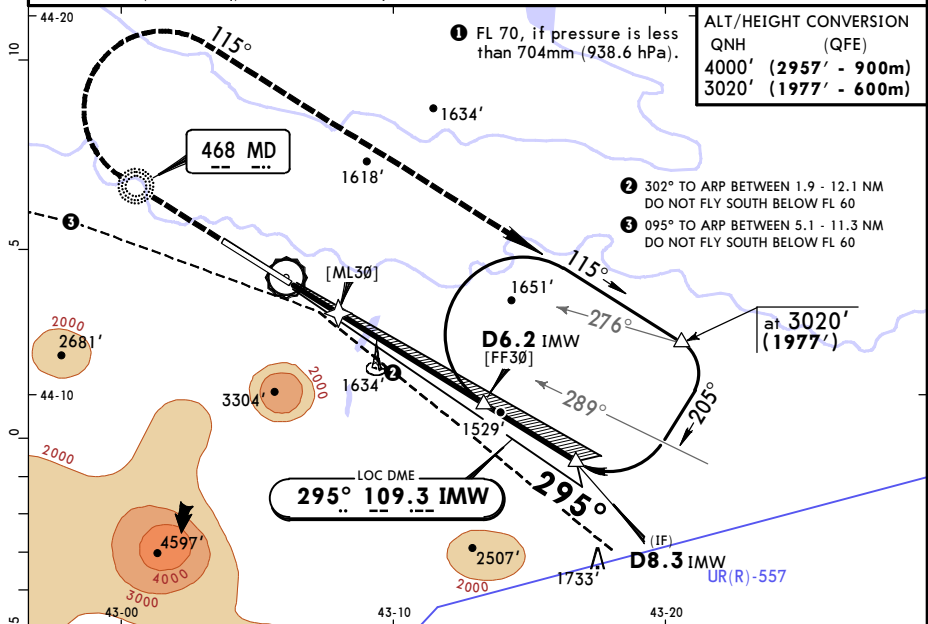
URMM/MRV
MINERALNYYE VODY

16 OCT 15 11-6

JEPPESSEN MINERALNYYE VODY, RUSSIA
LOC DME Rwy 30

ATIS 125.25 (Russian 127.4)	MINERALNYYE VODY Approach 119.3	MINERALNYYE VODY Krug (R) 120.7	MINERALNYYE VODY Start (TWR) 128.0	Ground 121.9
LOC IMW 109.3	Final Apch Crs 295°	Minimum Alt D6.2 IMW 3200' (1977')	MDA(H) (CONDITIONAL) 1560'(517')	Apt Elev 1047' Rwy 1043'
MISSED APCH: Climb on 295° to NDB, then turn RIGHT onto 115° climbing to 3020' (1977') , then as directed.				 MSA MD NDB

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 60 ① Trans alt: 4000' (2957')



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI		MD 468	on 295°
Descent Angle 3.00°	372	478	531	637	743	849				

STRAIGHT-IN LANDING RWY 30							
with FAF MDA(H) 1560'(517')			w/o FAF MDA(H) 1850'(807')				
ALS out			ALS out				
A					3200m		
B	1900m	2700m					
C					3200m	3600m	
D	RVR 1800m VIS 2000m	2800m				4000m	

URMM/MRV
MINERALNYE VODY

JEPPSEN MINERALNYE VODY, RUSSIA
16 OCT 15 **(12-1)**
RNAV (GNSS) Rwy 12

BRIEFING STRIP™

ATIS 125.25 (Russian 127.4)	MINERALNYE VODY Approach 119.3	MINERALNYE VODY Krug (R) 120.7	MINERALNYE VODY Start (TWR) 128.0	Ground 121.9
RNAV	Final Apch Crs 115°	Minimum Alt MW002 3010'(1973')	MDA(H) 1480'(443')	Apt Elev 1047' Rwy 1037'

MISSED APCH: Climb on 115° to MW022, then turn LEFT climbing to 3010'(1973') and proceed to MW008, then as directed.

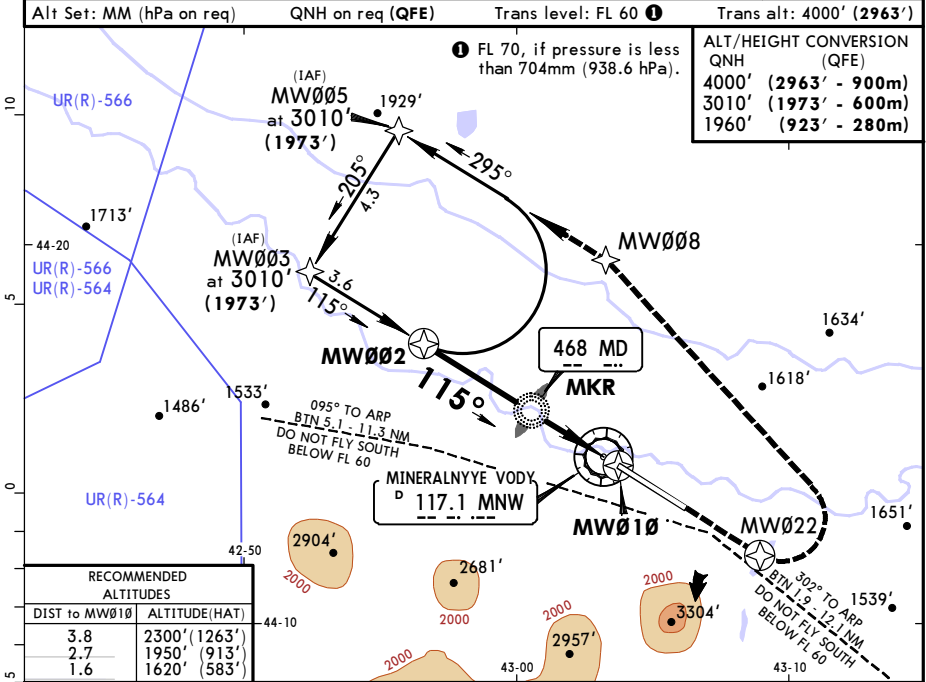
095°

3400'

6900'

302°

MSA MNW VOR



MW002
7.1 NM
RADAR FIX
3010' (1973')
115°
3.00°
1960' (923')
6.1
3.4
2.7
2.7
0

NDB/MKR

MW010
TCH 51'
Rwy 1037'

Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at MW010						

HIALS-II
PAPI

MW022 on 115°

STRAIGHT-IN LANDING RWY 12		
MDA(H) 1480'(443')		
		ALS out
A	RVR 720m VIS 800m	RVR 1500m VIS 1600m
B		
C	1200m	RVR 1800m VIS 2000m
D	RVR 1500m VIS 1600m	2400m

PANS OPS

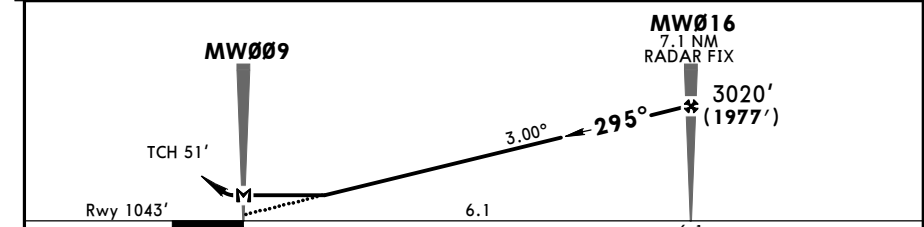
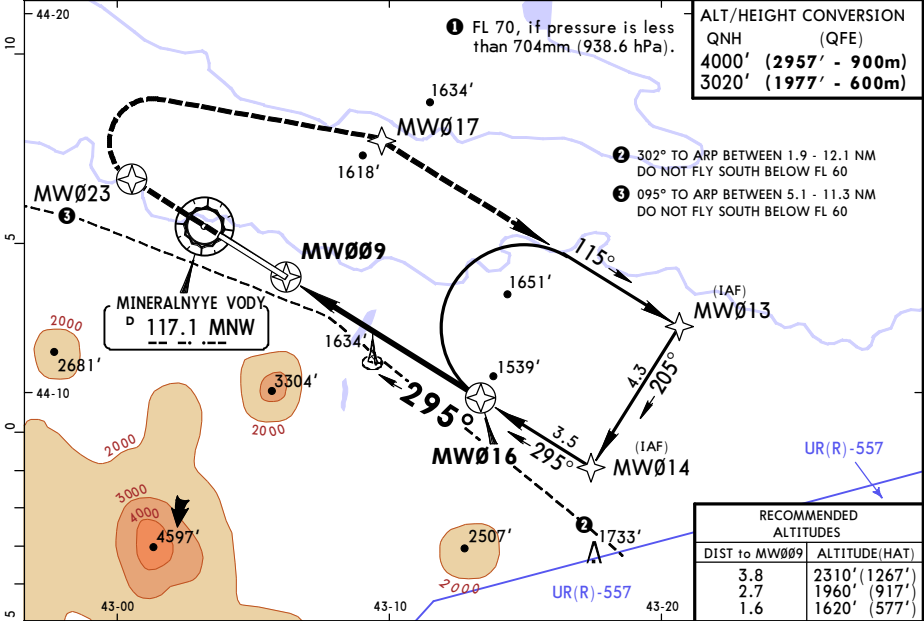
URMM/MRV
MINERALNYYE VODY

16 OCT 15 12-2

JEPPESSEN MINERALNYYE VODY, RUSSIA
RNAV (GNSS) Rwy 30

ATIS 125.25 (Russian 127.4)	MINERALNYYE VODY Approach 119.3	MINERALNYYE VODY Krug (R) 120.7	MINERALNYYE VODY Start (TWR) 128.0	Ground 121.9
RNAV	Final Aptch Crs 295°	Minimum Alt MW016 3020'(1977')	MDA(H) 1460'(417')	Apt Elev 1047' Rwy 1043'
MISSED APCH: Climb on 295° to MW023, then turn RIGHT climbing to 3020'(1977') and proceed to MW017, then as directed.				 MSA MNW VOR

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 60 1 Trans alt: 4000' (2957')



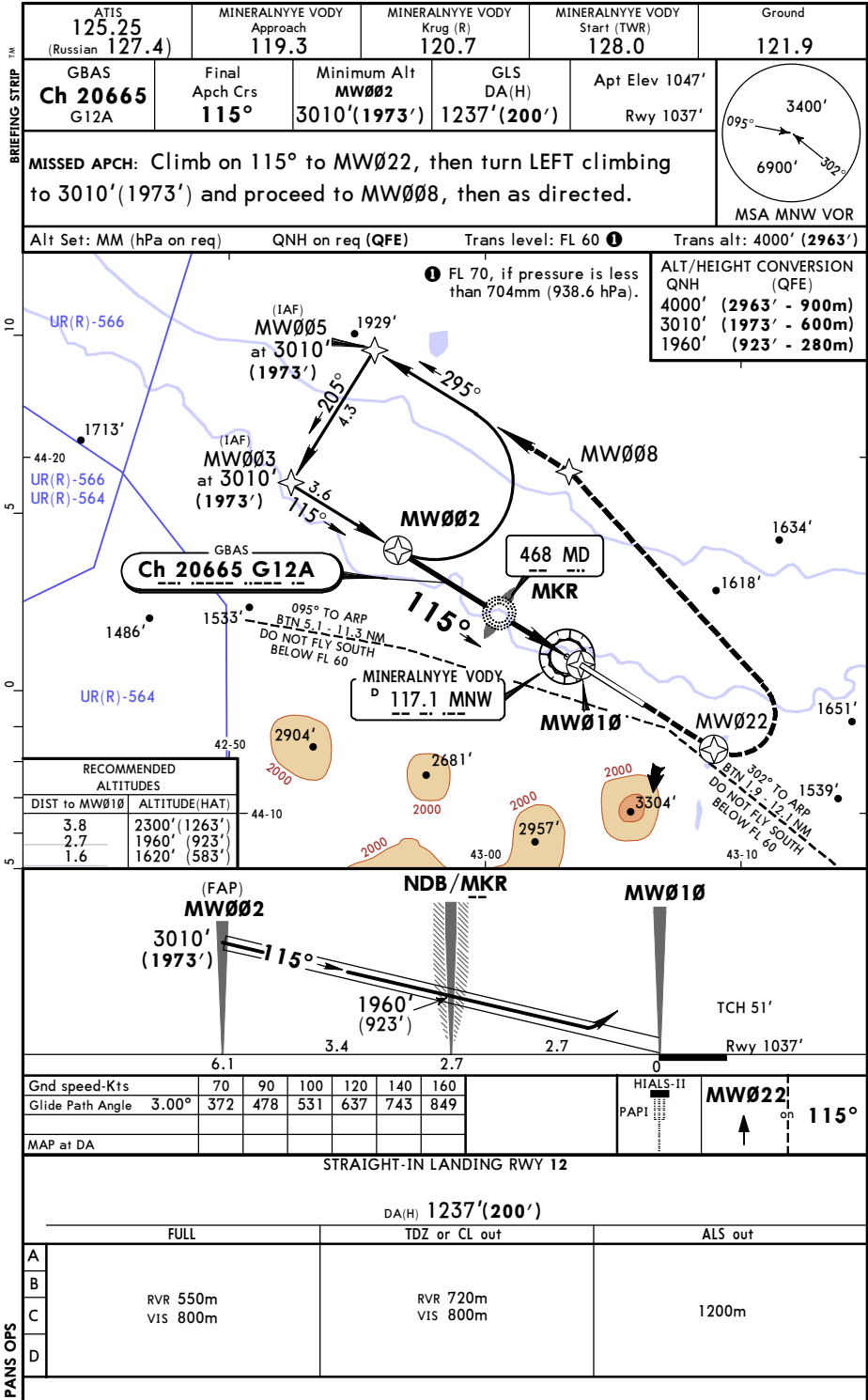
Gnd speed-Kts	70	90	100	120	140	160	 MW023 ↑ 295°
Descent Angle	3.00°	372	478	531	637	743	
MAP at MW009							

STRAIGHT-IN LANDING RWY 30						
MDA(H) 1460'(417')						
A	RVR 720m VIS 800m			ALS out RVR 1500m VIS 1600m		
B						
C	1200m					
D	RVR 1500m VIS 1600m			RVR 1800m VIS 2000m		

URMM/MRV
MINERALNYYE VODY

16 OCT 15 (12-40)

JEPPesen MINERALNYYE VODY, RUSSIA
GLS Rwy 12



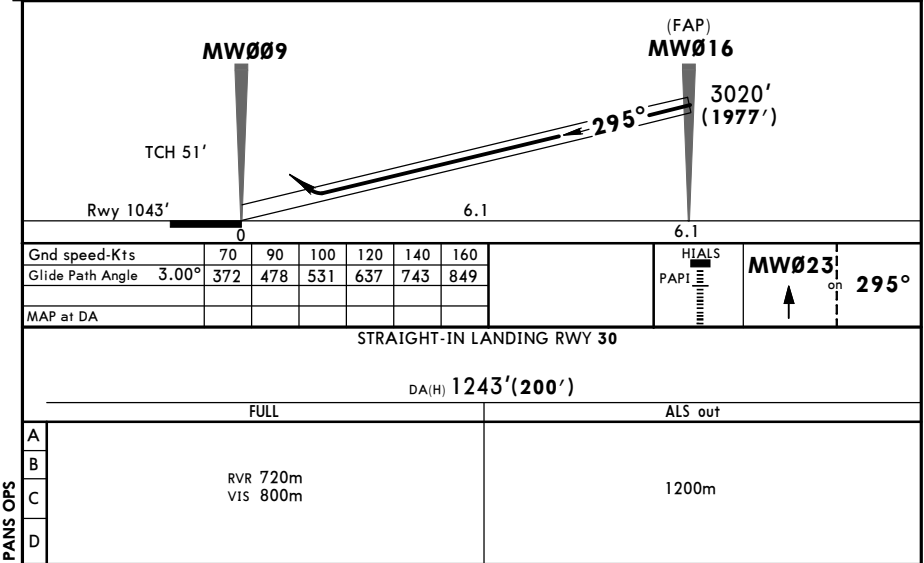
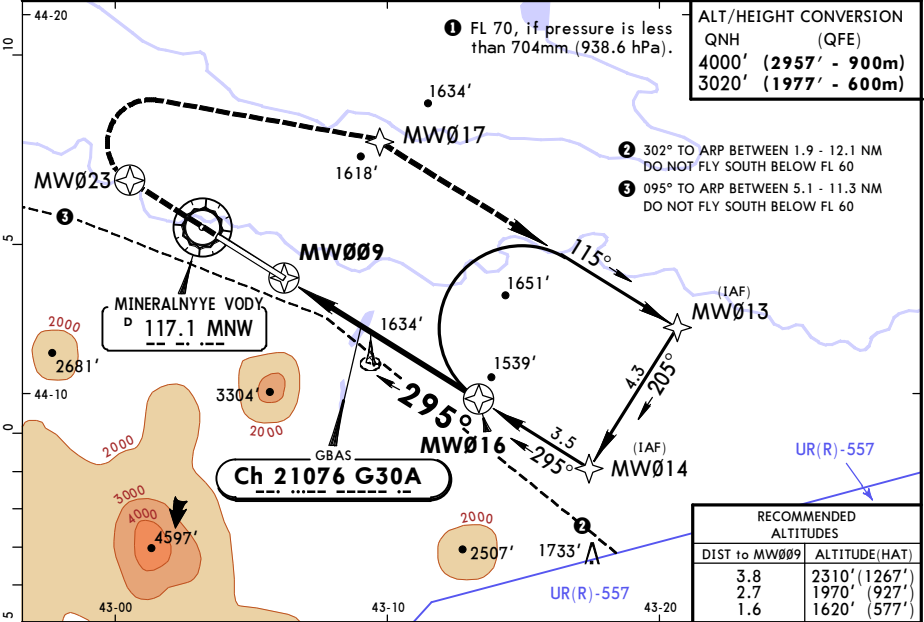
URMM/MRV
MINERALNYYE VODY



16 OCT 15 (12-41)
MINERALNYYE VODY, RUSSIA
GLS Rwy 30

BRIEFING STRIP™

ATIS 125.25 (Russian 127.4)	MINERALNYYE VODY Approach 119.3	MINERALNYYE VODY Krug (R) 120.7	MINERALNYYE VODY Start (TWR) 128.0	Ground 121.9
GBAS Ch 21076 G30A	Final Apch Crs 295°	Minimum Alt MW016 3020'(1977')	GLS DA(H) 1243'(200')	Apt Elev 1047' Rwy 1043'
MISSED APCH: Climb on 295° to MW023, then turn RIGHT climbing to 3020'(1977') and proceed to MW017, then as directed.				 MSA MNW VOR
Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: FL 60 ① Trans alt: 4000' (2957')				



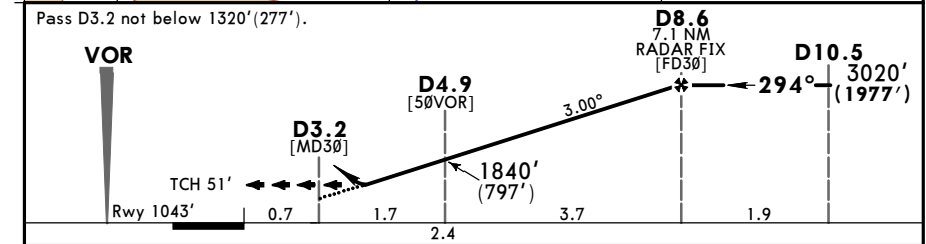
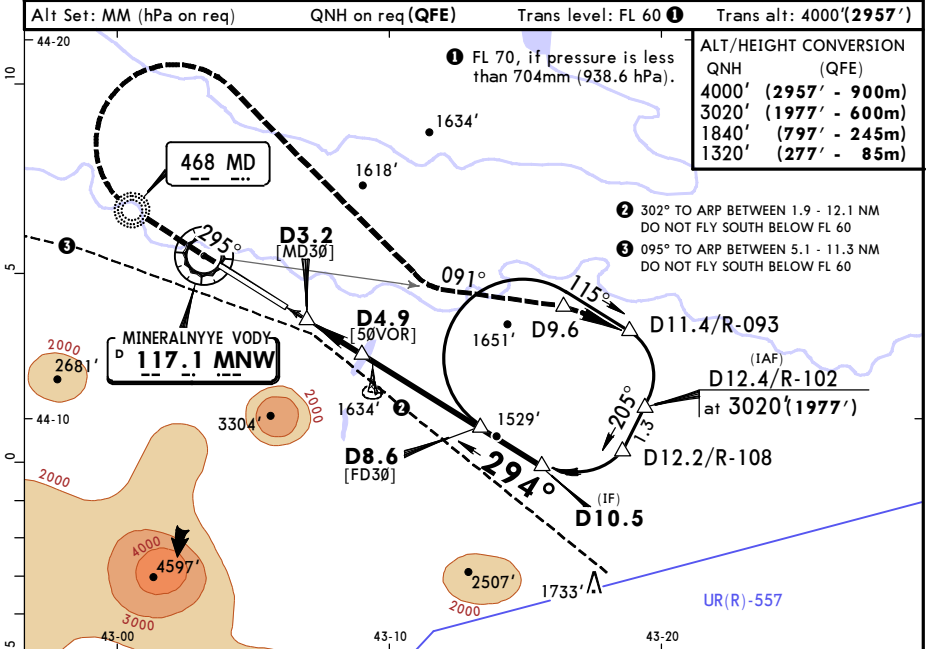
PANS OPS

URMM/MRV
MINERALNYYE VODY

16 OCT 15 13-2

JEPPESEN MINERALNYYE VODY, RUSSIA
VOR DME Rwy 30

ATIS 125.25 (Russian 127.4)	MINERALNYYE VODY Approach 119.3	MINERALNYYE VODY Krug (R) 120.7	MINERALNYYE VODY Start (TWR) 128.0	Ground 121.9
VOR MNW 117.1	Final Apch Crs 294°	Minimum Alt D8.6 3020'(1977')	MDA(H) (CONDITIONAL) 1560'(517')	Apt Elev 1047' Rwy 1043'
MISSED APCH: Climb on 295° to NDB, then turn RIGHT climbing to 3020'(1977') and intercept R-091, then as directed.				 MSA MNW VOR



Gnd speed-Kts	70	90	100	120	140	160	HIALS		MD
Descent Angle	3.00°	372	478	531	637	743	849	PAPI	468 on 295°
STRAIGHT-IN LANDING RWY 30									
with FAF				w/o FAF					
MDA(H) 1560'(517')				MDA(H) 1850'(807')					
ALS out				ALS out					
A					3200m				
B	1900m	2700m							
C					3200m	3600m			
D	RVR 1800m VIS 2000m	2800m			3200m	4000m			

Chart changes since cycle 12-2016

ADD = added chart, REV = revised chart, DEL = deleted chart.
ACT PROCEDURE IDENT INDEX REV DATE EFF DATE

MINERALNYYE VODY, (MINERALNYYE VODY - UMMM)

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport URMM

Type: Terminal

Effectivity: Temporary

Begin Date: 20160623

End Date: Until Further Notice

(10-9) Tower frequency 120.7 MHz, call sign Mineralnyye Vody Krug, H24, established. Intersection TORA established: Rwy 12 from TWY C 3817'(2535m), Rwy 30 from TWY B 7480'(2280m).