

**GENERAL****Operational Hours****ATS Hours / AD OPS Hours:** 0500-1800**AD ADMIN Hours:** MON-FRI 0500-1400. SAT, SUN and HOL CLSD**Airport Information****RFF:** CAT 6**Fuel:** TS-1**PCN:** RWY 13/31: 42/F/D/X/T**Customs:** O/R, 72HR PN in advance**Operation****Low Visibility Procedure**

LVP in force when RVR below 600m.

Report RWY vacation to TWR after RWY holding position line on TWY.

TKOF not from RWY extremity prohibited.

TKOF without stop at line-up position prohibited.

Taxi strictly along CL.

Follow-me AVBL O/R.

**RWY Restriction**

Report landing and vacation of RWY during taxiing to TWR.

TKOF shall be carried out from RWY extremity only.

**TWY Restriction**

TWY A width 17m / 56ft.

TWY B width 10.5m / 34ft.

**Taxi/Parking**

Taxiing during night and day time, if VIS is below 2km, shall be carried out with landing/taxi lights switched on.

ACFT entering RWY must stop at RWY holding position on TWY A.

Report to TWR when reaching RWY holding position.

Taxiing from APN A to APN B and vice versa by towing only.

**Warnings**

Birds in vicinity of AD.

**ARRIVAL****Communication****COM Failure:** See CRAR Russian Federation.

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

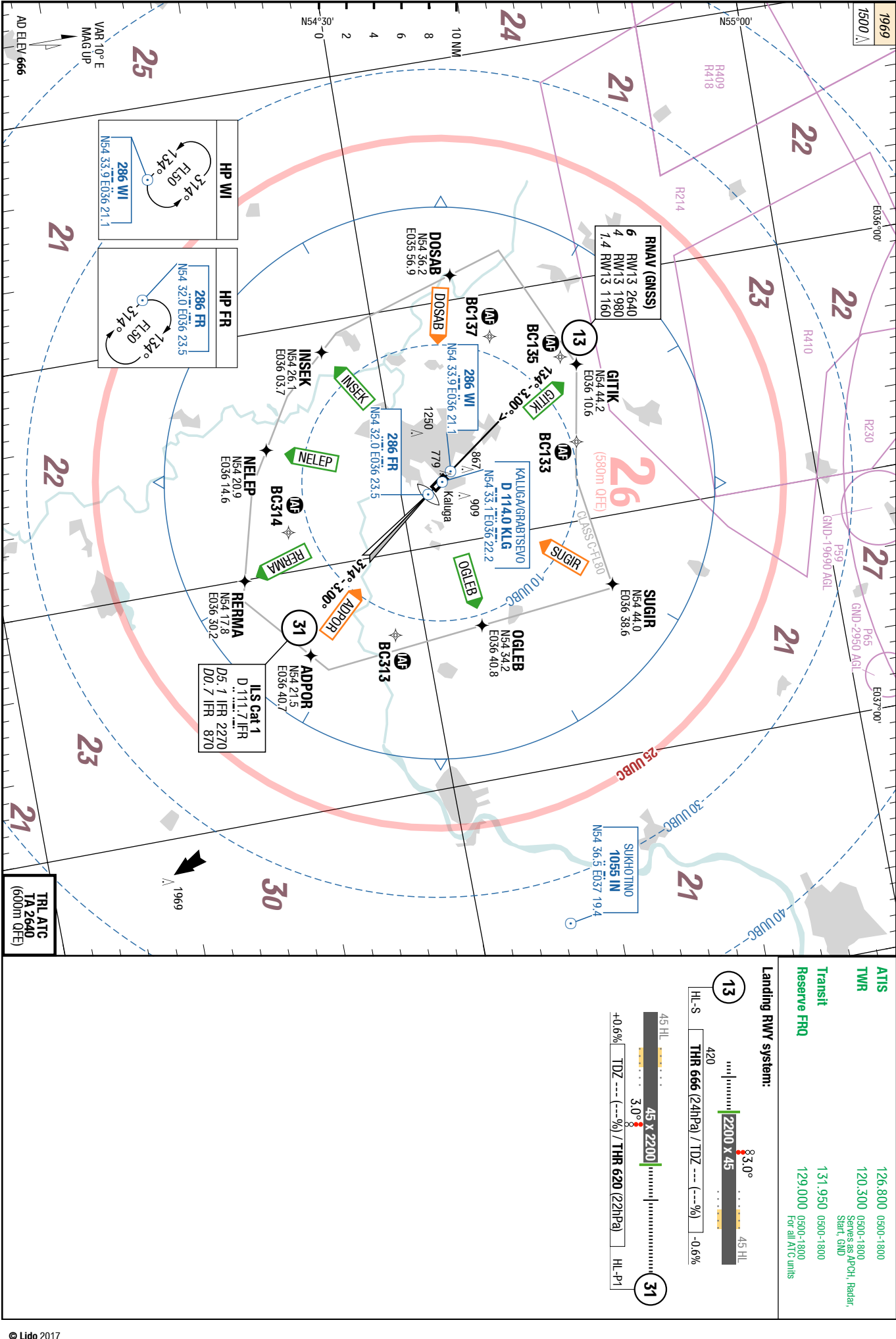
RWY		13/31	
All ACFT	ft - m/km	0 - 400V	HJ only
		0 - 800V	HN

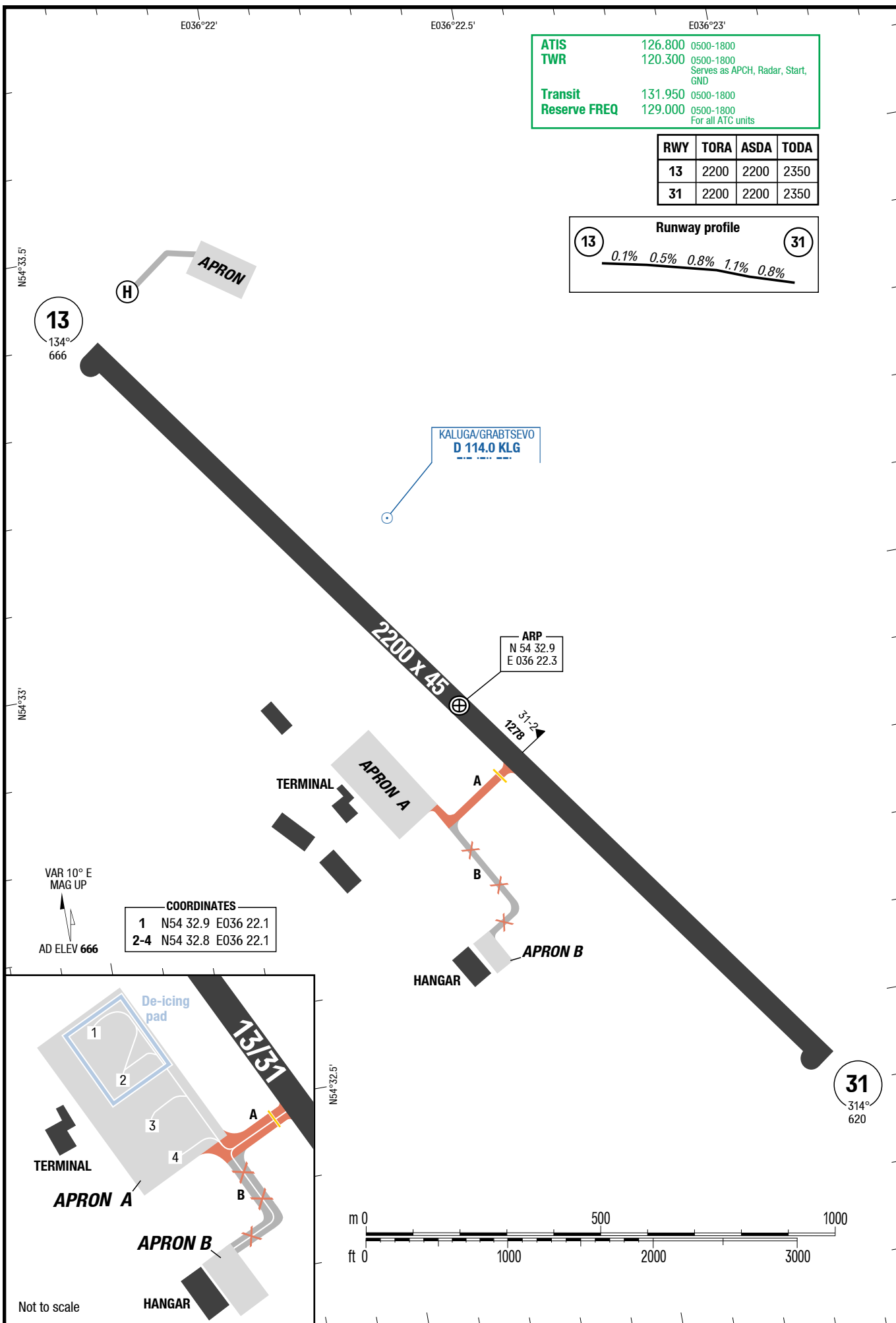
**Communication****COM Failure:** See CRAR Russian Federation.**Departure Procedure****Start-up/Push-back**

REQ ENG start-up from TWR.

**De-Icing**

AVBL 0400-1900.





**KLF-UUBC**

## RNAV SIDs RWY 31

**4-10**

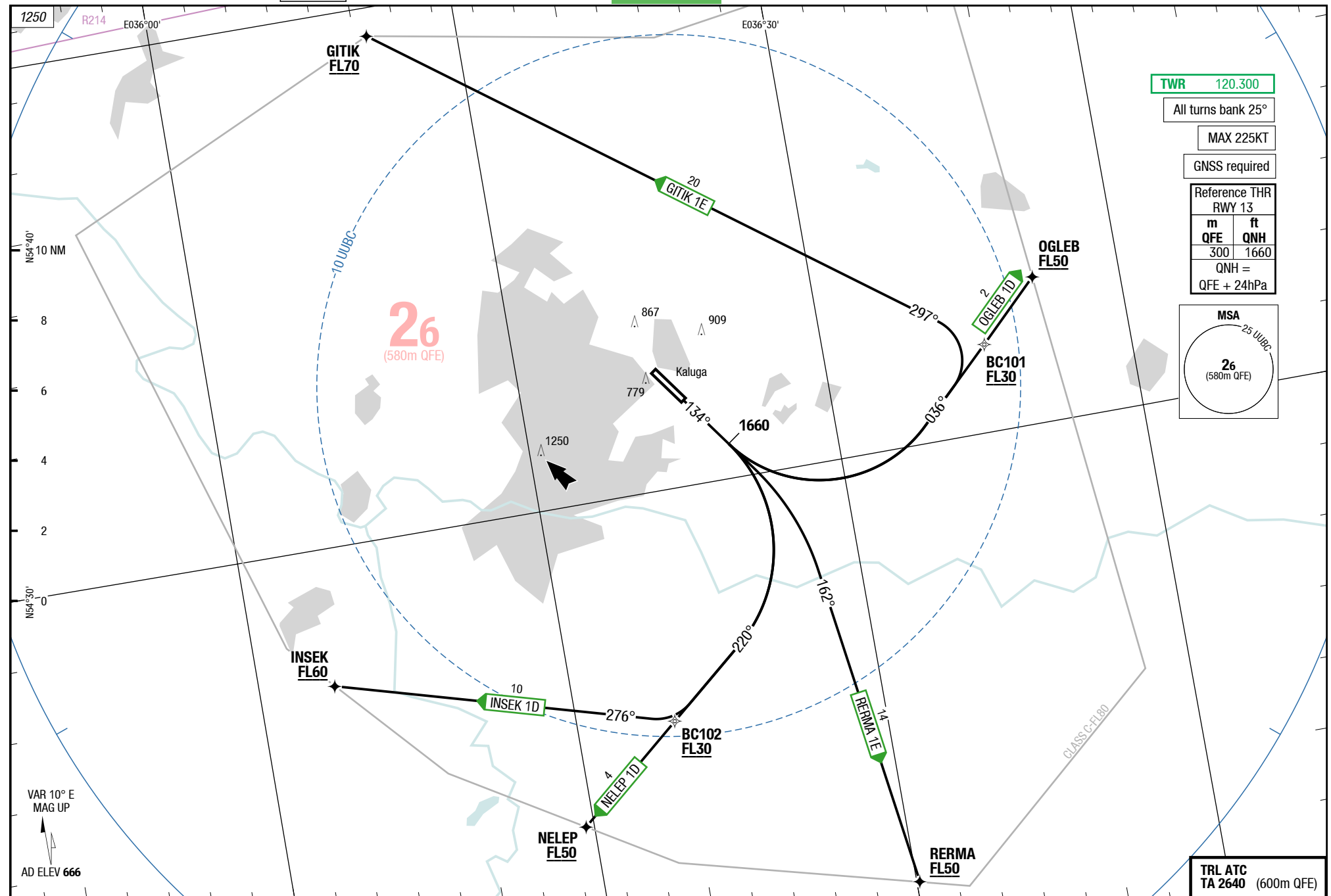
## RNAV SIDs RWY 13

SID

SID

## RNAV SIDs RWY 31

## RNAV SIDs RWY 13



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25-FEB-2016  
KLF-UUBC

Russian Federation **Kaluga** Grabtsevo

Grabtsevo **Kaluga** Russian Federation

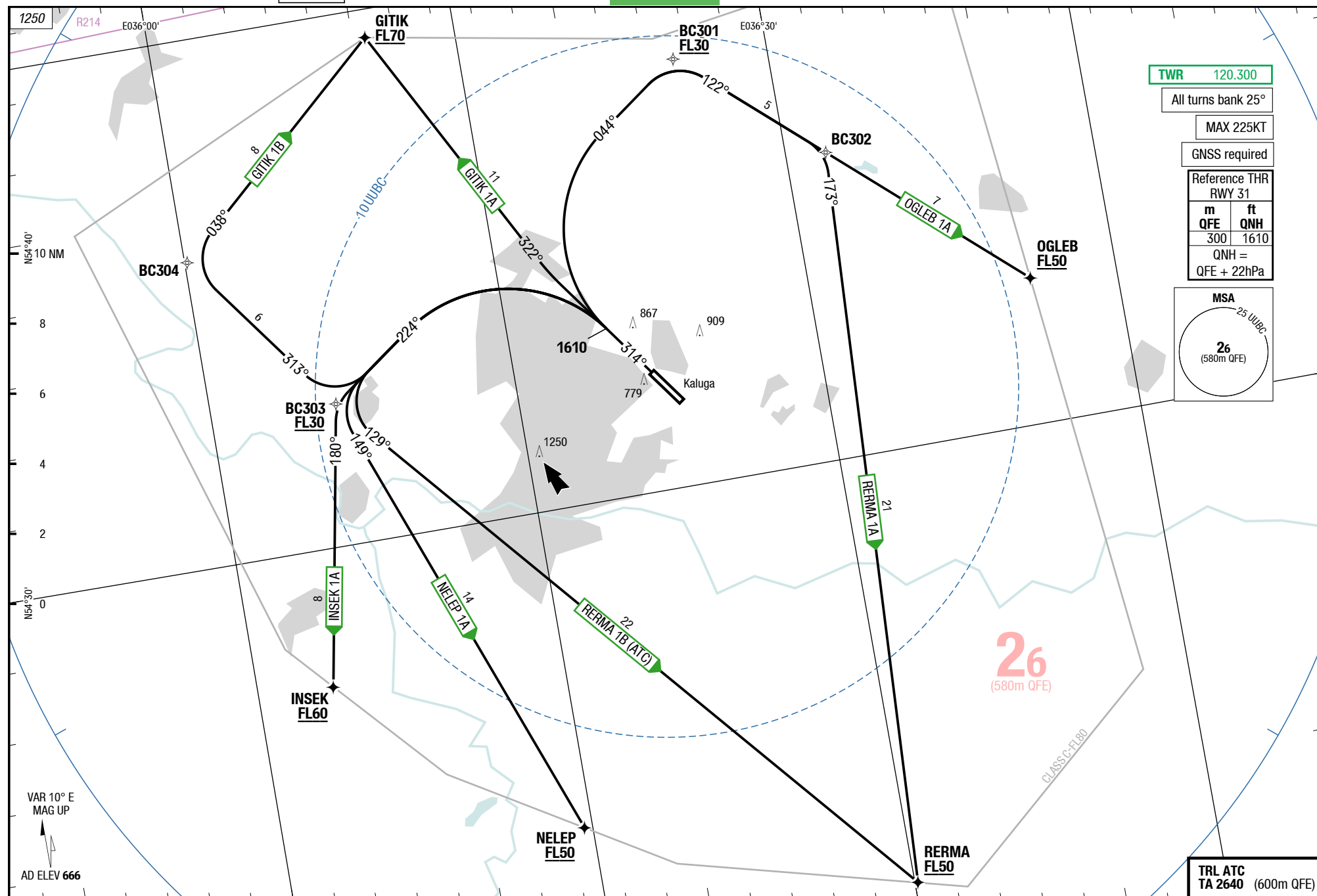
4-20

RNAV SIDs RWY 31

SID

SID

RNAV SIDs RWY 31



Effective 17-AUG-2017

10-AUG-2017

KLF-UUBC

Russian Federation Kaluga Grabtsevo

SIDs RWY 13 (via WI)

4-30

SIDs RWY 13 (via KLG)

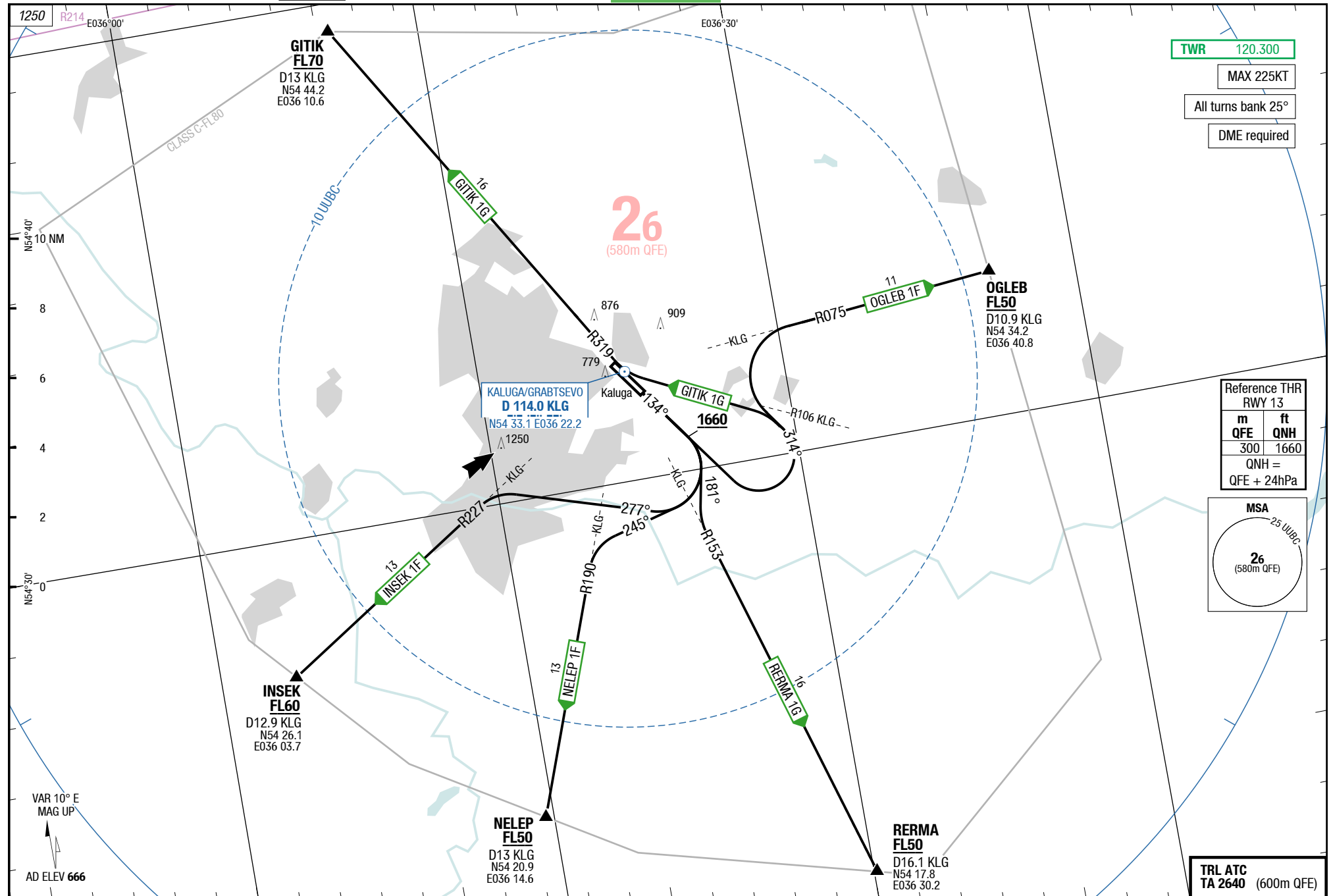
SID

SID

Grabtsevo Kaluga Russian Federation

SIDs RWY 13 (via WI)

SIDs RWY 13 (via KLG)



Changes: ALT, Note, OBST, DIST

**KLF-UUBC**

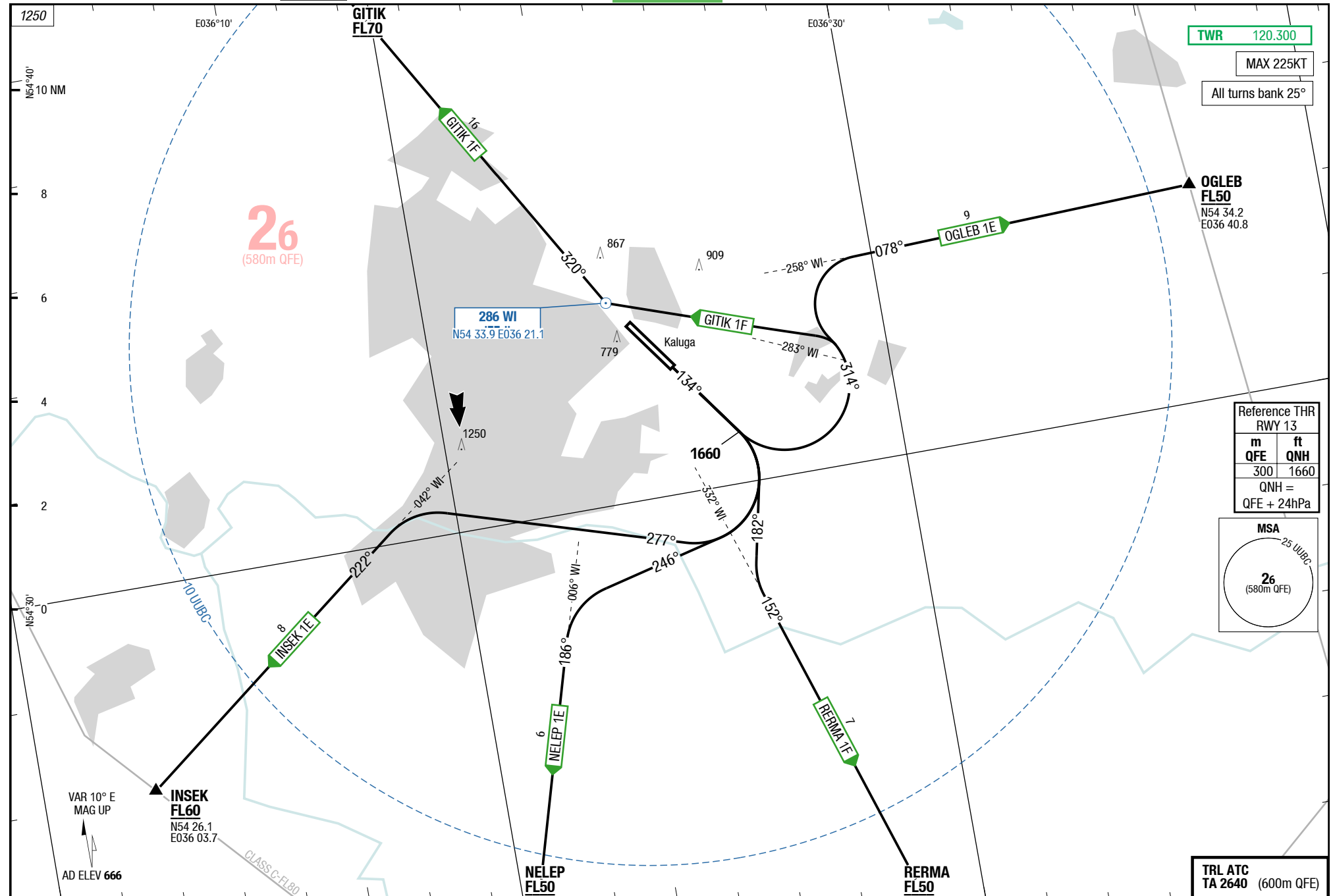
SID

SID

## SIDs RWY 13 (via WI)

4-40

## SIDs RWY 13 (via WI)



Changes: Nil

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Effective 17-AUG-2017

10-AUG-2017

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SIDs RWY 31 (via FR)

4-50

SIDs RWY 31 (via KLG)

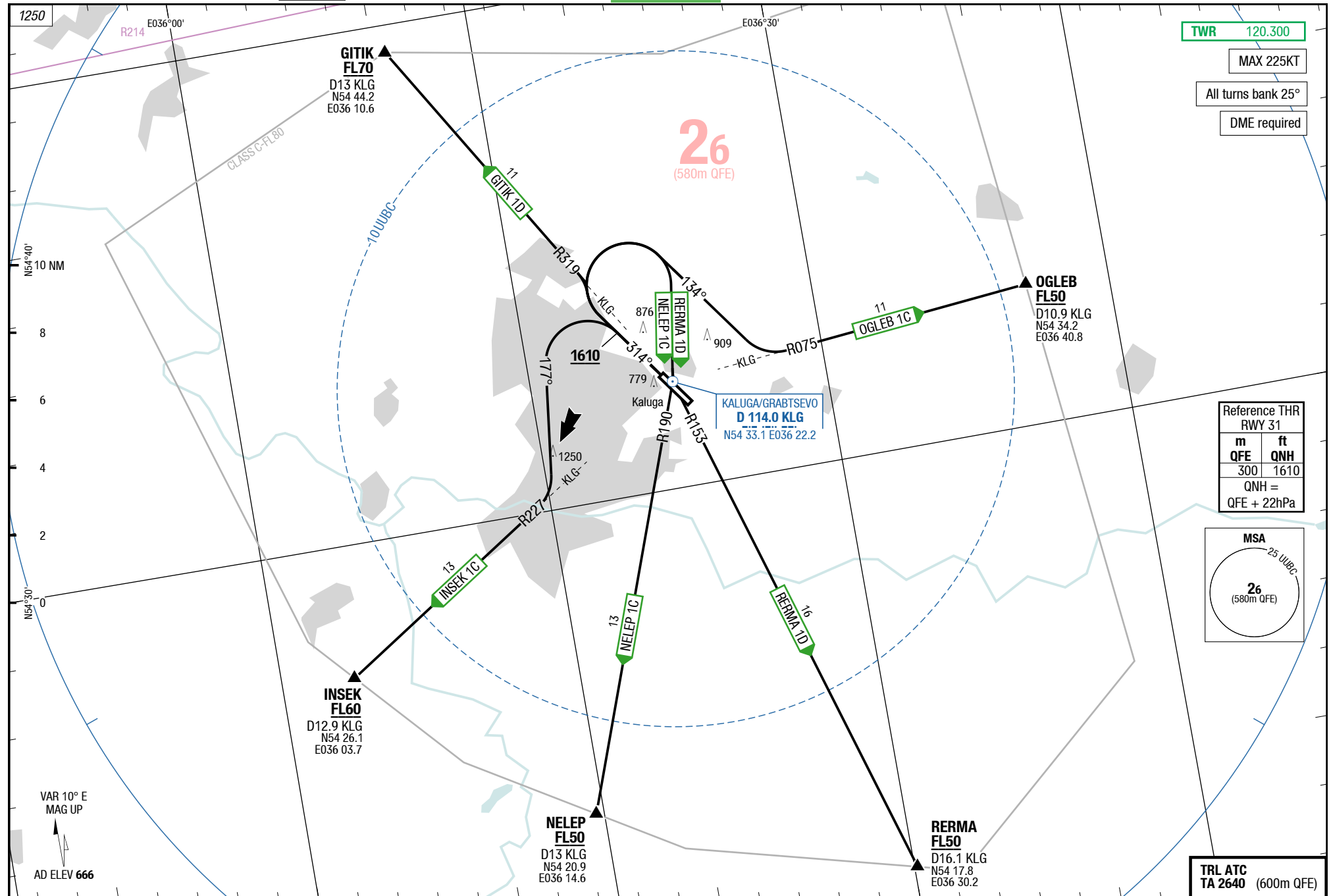
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SID

Grabtsevo Kaluga Russian Federation

SIDs RWY 31 (via FR)

SIDs RWY 31 (via KLG)



Changes: ALT, OBST, DIST, Note

Effective 17-AUG-2017

10-AUG-2017

KLF-UUBC

Russian Federation Kaluga Grabtsevo

SID

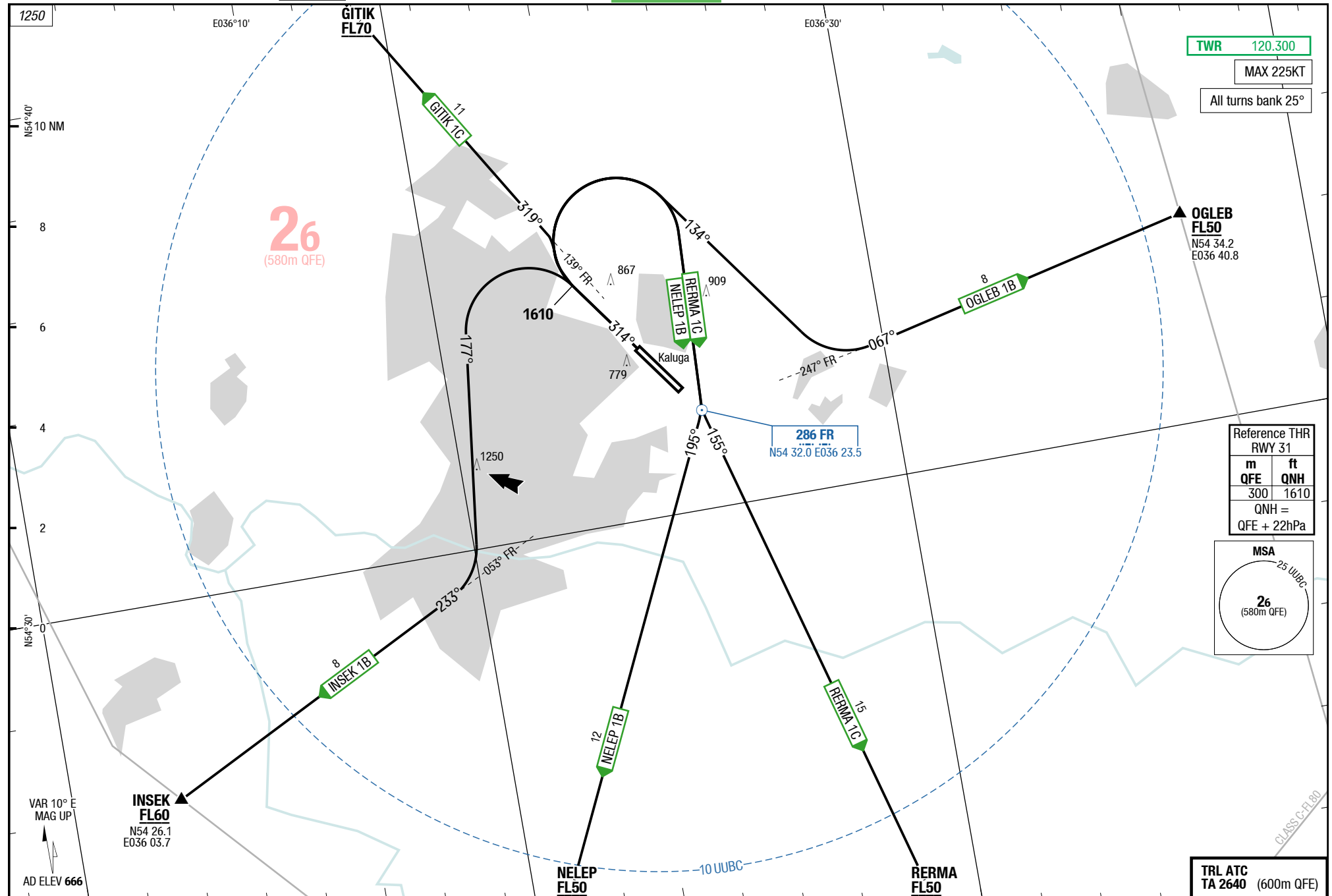
SID

Grabtsevo Kaluga Russian Federation

4-60

SIDs RWY 31 (via FR)

SIDs RWY 31 (via FR)



Changes: Nil

26-NOV-2015

Russian Federation **Kaluga** Grabtsevo**KLF-UUBC****5-10****RNAV SIDs RWY 13****SIDPT****GITIK 1E / INSEK 1D / NELEP 1D / OGLEB 1D / RERMA 1E****RWY 13 (134°)**

	GS	120	150	180	210	240	270
4.3%	ft/MIN	600	700	800	1000	1100	1200
4.5%	ft/MIN	600	700	900	1000	1100	1300
4.8%	ft/MIN	600	800	900	1100	1200	1400
5.2%	ft/MIN	700	800	1000	1200	1300	1500

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 13</b>	
<b>GITIK 1E</b> <b>120.300</b> ①②	No procedure text published	BC101 MNM <b>FL30</b> GITIK MNM <b>FL70</b>
<b>INSEK 1D</b> 4.3% <b>120.300</b> ①②	No procedure text published	BC102 MNM <b>FL30</b> INSEK MNM <b>FL60</b>
<b>NELEP 1D</b> 4.8% <b>120.300</b> ①②	No procedure text published	BC102 MNM <b>FL30</b> NELEP MNM <b>FL50</b>
<b>OGLEB 1D</b> 5.2% <b>120.300</b> ①②	No procedure text published	BC101 MNM <b>FL30</b> OGLEB MNM <b>FL50</b>
<b>RERMA 1E</b> 4.5% <b>120.300</b> ①②	No procedure text published	RERMA MNM <b>FL50</b>

① MAX 225KT

② All turns shall be carried out with bank of 25°.

Changes: New

26-NOV-2015

**KLF-UUBC****5-20****RNAV SIDs RWY 31**
**GITIK 1A / GITIK 1B / INSEK 1A / NELEP 1A / OGLEB 1A / RERMA 1A / RERMA 1B**  
**RWY 31 (314°)**

	GS	120	150	180	210	240	270
5.1%	ft/MIN	700	800	1000	1100	1300	1400
5.3%	ft/MIN	700	900	1000	1200	1300	1500
8.2%	ft/MIN	1000	1300	1500	1800	2000	2300

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 31</b>	
<b>GITIK 1A</b> 8.2% <b>120.300</b> ①②	No procedure text published	GITIK MNM <b>FL70</b>
<b>GITIK 1B</b> 5.1% <b>120.300</b> ①②	No procedure text published	BC303 MNM <b>FL30</b> GITIK MNM <b>FL70</b>
<b>INSEK 1A</b> 5.3% <b>120.300</b> ①②	No procedure text published	BC303 MNM <b>FL30</b> INSEK MNM <b>FL60</b>
<b>NELEP 1A</b> <b>120.300</b> ①②	No procedure text published	BC303 MNM <b>FL30</b> NELEP MNM <b>FL50</b>
<b>OGLEB 1A</b> <b>120.300</b> ①②	No procedure text published	BC301 MNM <b>FL30</b> OGLEB MNM <b>FL50</b>
<b>RERMA 1A</b> <b>120.300</b> ①②	No procedure text published	BC301 MNM <b>FL30</b> RERMA MNM <b>FL50</b>
<b>RERMA 1B</b> (ATC) <b>120.300</b> ①②	No procedure text published	BC303 MNM <b>FL30</b> RERMA MNM <b>FL50</b>

① MAX 225KT.

② All turns shall be carried out with bank of 25°.

Changes: New

26-NOV-2015

**KLF-UUBC****5-30****SIDs RWY 13 (via KLG)****GITIK 1G / INSEK 1F / NELEP 1F / OGLEB 1F / RERMA 1G**

RWY 13 (134°)

	GS	120	150	180	210	240	270
4.2%	ft/MIN	600	700	800	900	1100	1200
4.4%	ft/MIN	600	700	900	1000	1100	1300
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 13</b>	
<b>GITIK 1G</b> <b>120.300</b> ①②	No procedure text published	GITIK MNM <b>FL70</b>
<b>INSEK 1F</b> 4.2% <b>120.300</b> ①②	No procedure text published	INSEK MNM <b>FL60</b>
<b>NELEP 1F</b> 4.4% <b>120.300</b> ①②	No procedure text published	NELEP MNM <b>FL50</b>
<b>OGLEB 1F</b> 5.0% <b>120.300</b> ①②	No procedure text published	OGLEB MNM <b>FL50</b>
<b>RERMA 1G</b> 4.4% <b>120.300</b> ①②	No procedure text published	RERMA MNM <b>FL50</b>

① MAX 225KT.

② All turns shall be carried out with bank of 25°.

Changes: New

26-NOV-2015

**KLF-UUBC****5-40****SIDs RWY 13 (via WI)****GITIK 1F / INSEK 1E / NELEP 1E / OGLEB 1E / RERMA 1F**

RWY 13 (134°)

	GS	120	150	180	210	240	270
4.2%	ft/MIN	600	700	800	900	1100	1200
4.4%	ft/MIN	600	700	900	1000	1100	1300
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 13</b>	
<b>GITIK 1F</b> <b>120.300</b> ①②	No procedure text published	GITIK MNM <b>FL70</b>
<b>INSEK 1E</b> 4.2% <b>120.300</b> ①②	No procedure text published	INSEK MNM <b>FL60</b>
<b>NELEP 1E</b> 4.4% <b>120.300</b> ①②	No procedure text published	NELEP MNM <b>FL50</b>
<b>OGLEB 1E</b> 5.0% <b>120.300</b> ①②	No procedure text published	OGLEB MNM <b>FL50</b>
<b>RERMA 1F</b> 4.4% <b>120.300</b> ①②	No procedure text published	RERMA MNM <b>FL50</b>

① MAX 225KT.

② All turns shall be carried out with bank of 25°.

Changes: New

26-NOV-2015

**KLF-UUBC****5-50****SIDs RWY 31 (via KLG)****GITIK 1D / INSEK 1C / NELEP 1C / OGLEB 1C / RERMA 1D**

RWY 31 (314°)

	GS	120	150	180	210	240	270
4.5%	ft/MIN	600	700	900	1000	1100	1300
8.2%	ft/MIN	1000	1300	1500	1800	2000	2300

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 31</b>	
<b>GITIK 1D</b> 8.2% <b>120.300</b> ①②	No procedure text published	GITIK MNM <b>FL70</b>
<b>INSEK 1C</b> 4.5% <b>120.300</b> ①②	No procedure text published	INSEK MNM <b>FL60</b>
<b>NELEP 1C</b> <b>120.300</b> ①②	No procedure text published	NELEP MNM <b>FL50</b>
<b>OGLEB 1C</b> <b>120.300</b> ①②	No procedure text published	OGLEB MNM <b>FL50</b>
<b>RERMA 1D</b> <b>120.300</b> ①②	No procedure text published	RERMA MNM <b>FL50</b>

① MAX 225KT.

② All turns shall be carried out with bank of 25°.

Changes: New

26-NOV-2015

**KLF-UUBC****5-60****SIDs RWY 31 (via FR)****GITIK 1C / INSEK 1B / NELEP 1B / OGLEB 1B / RERMA 1C**

RWY 31 (314°)

	GS	120	150	180	210	240	270
4.5%	ft/MIN	600	700	900	1000	1100	1300
8.2%	ft/MIN	1000	1300	1500	1800	2000	2300

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 31</b>	
<b>GITIK 1C</b> 8.2% <b>120.300</b> ①②	No procedure text published	GITIK MNM <b>FL70</b>
<b>INSEK 1B</b> 4.5% <b>120.300</b> ①②	No procedure text published	INSEK MNM <b>FL60</b>
<b>NELEP 1B</b> <b>120.300</b> ①②	No procedure text published	NELEP MNM <b>FL50</b>
<b>OGLEB 1B</b> <b>120.300</b> ①②	No procedure text published	OGLEB MNM <b>FL50</b>
<b>RERMA 1C</b> <b>120.300</b> ①②	No procedure text published	RERMA MNM <b>FL50</b>

① MAX 225KT.

② All turns shall be carried out with bank of 25°.

Changes: New



Effective 15-SEP-2016

08-SEP-2016

KLF-UUBC

Russian Federation Kaluga Grabtsevo

RNAV STARs RWY 31

6-10

RNAV STARs RWY 13

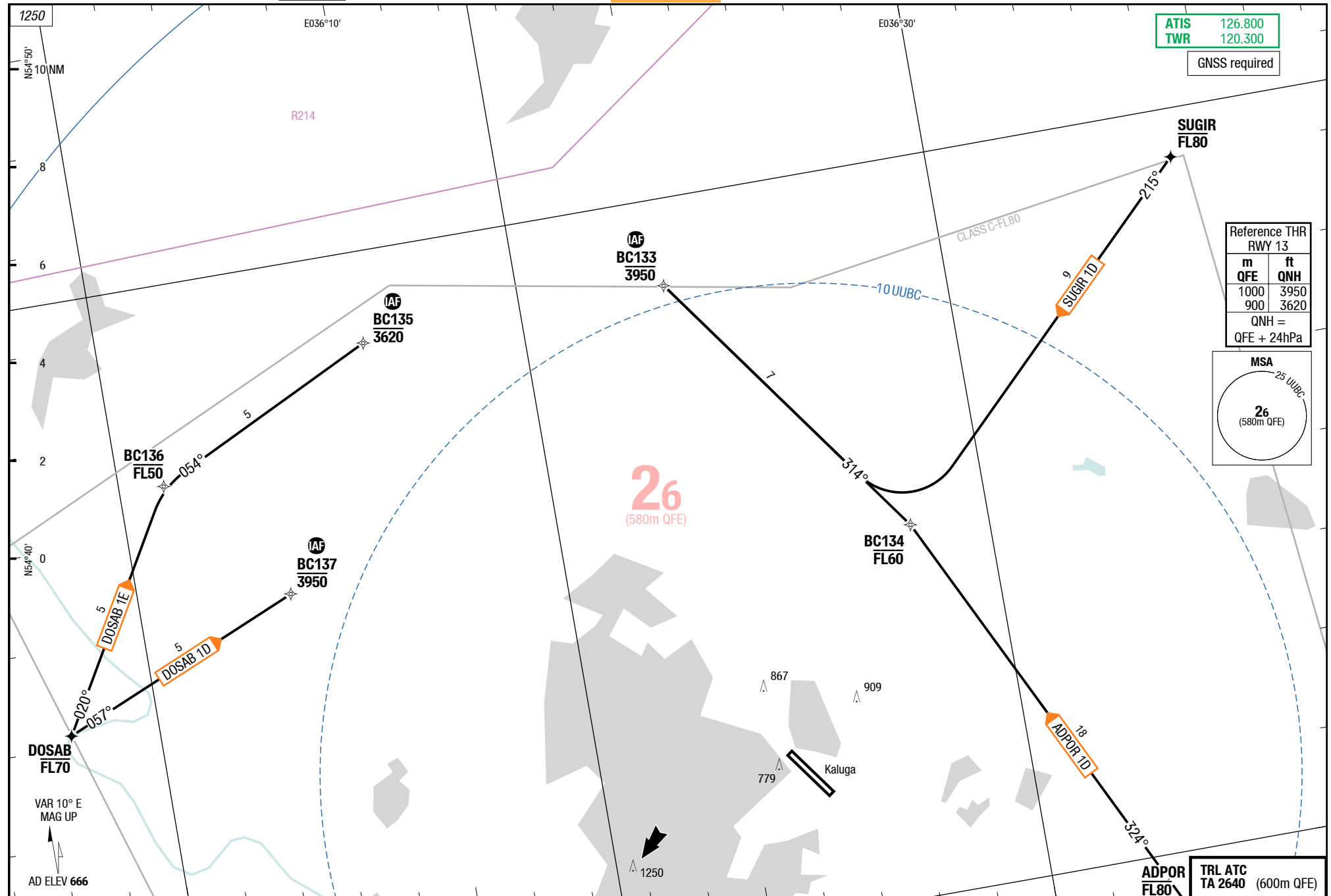
STAR

STAR

Grabtsevo Kaluga Russian Federation

RNAV STARs RWY 31

RNAV STARs RWY 13



Effective 15-SEP-2016

08-SEP-2016

KLF-UUBC

Russian Federation Kaluga Grabtsevo

6-20

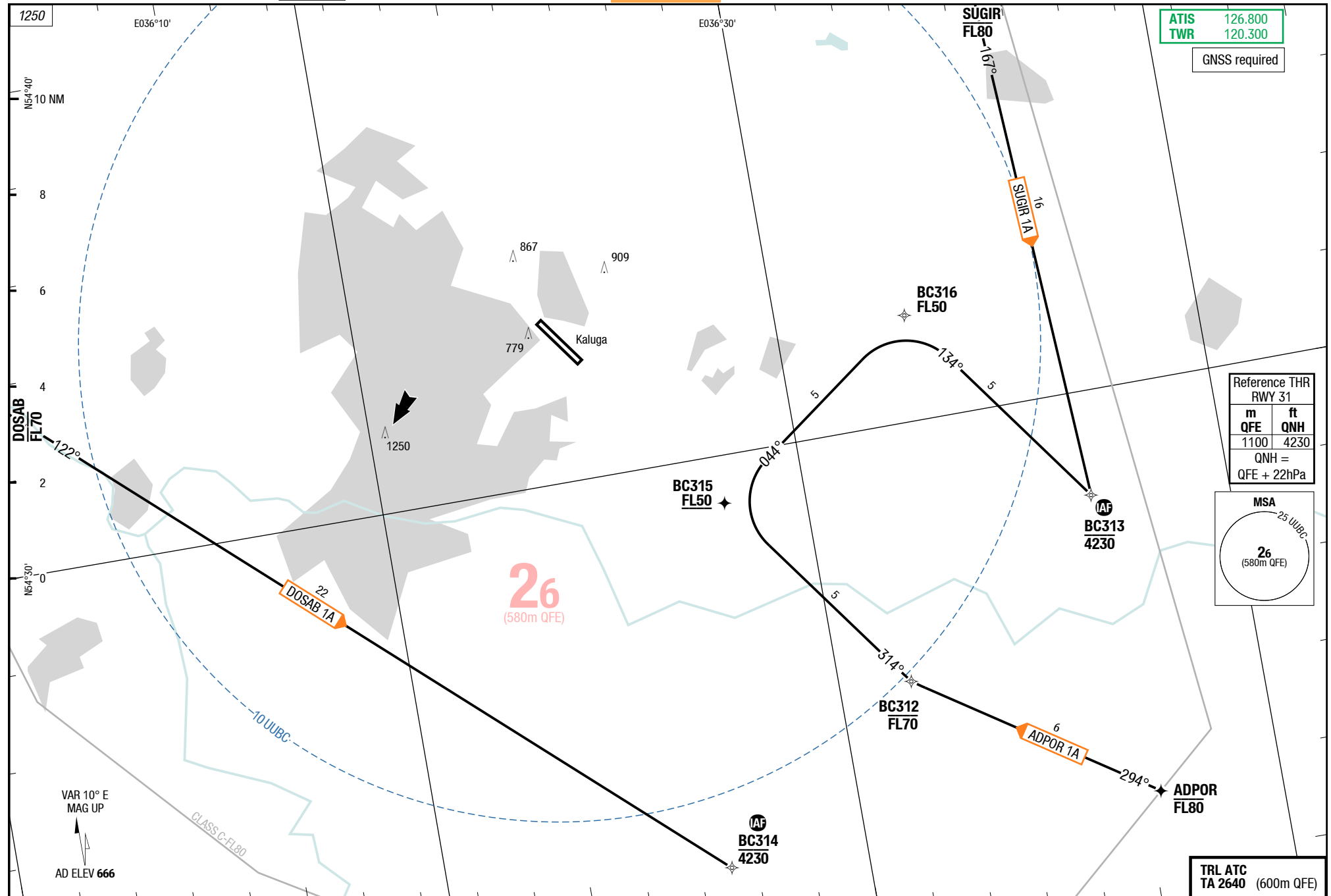
RNAV STARs RWY 31

STAR

STAR

Grabtsevo Kaluga Russian Federation

RNAV STARs RWY 31



Changes: FREQ

08-SEP-2016

**KLF-UUBC**Russian Federation **Kaluga** Grabtsevo

STARs RWY 31 (via FR)

**6-30**

## STARs RWY 13 (via WI)

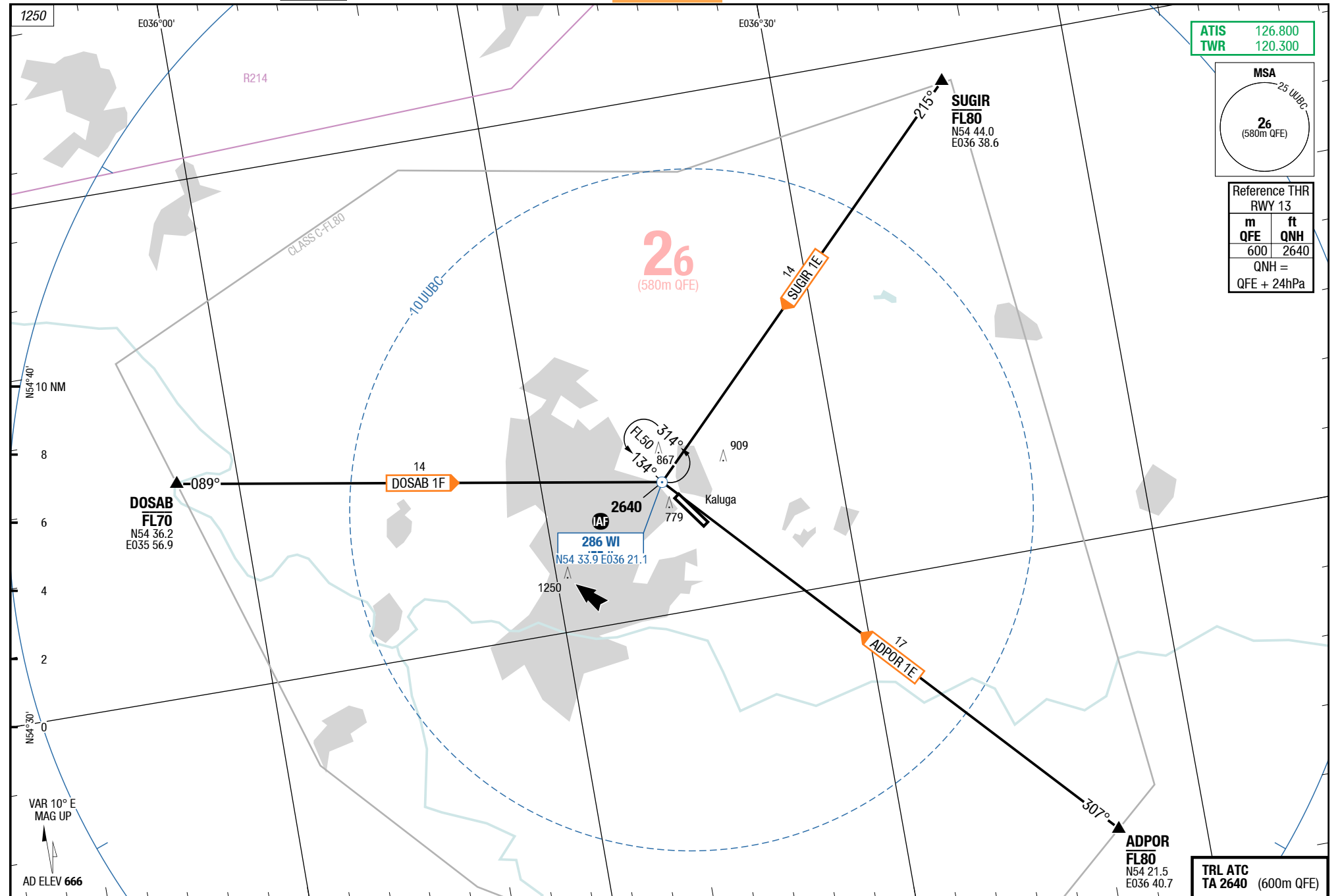
# STAR

# STAR

Grabtsevo **Kaluga** Russian Federation

STARs RWY 31 (via FR)

## STARs RWY 13 (via WI)



Changes: FREQ

Effective 15-SEP-2016

08-SEP-2016

KLF-UUBC

Russian Federation Kaluga Grabtsevo

6-40

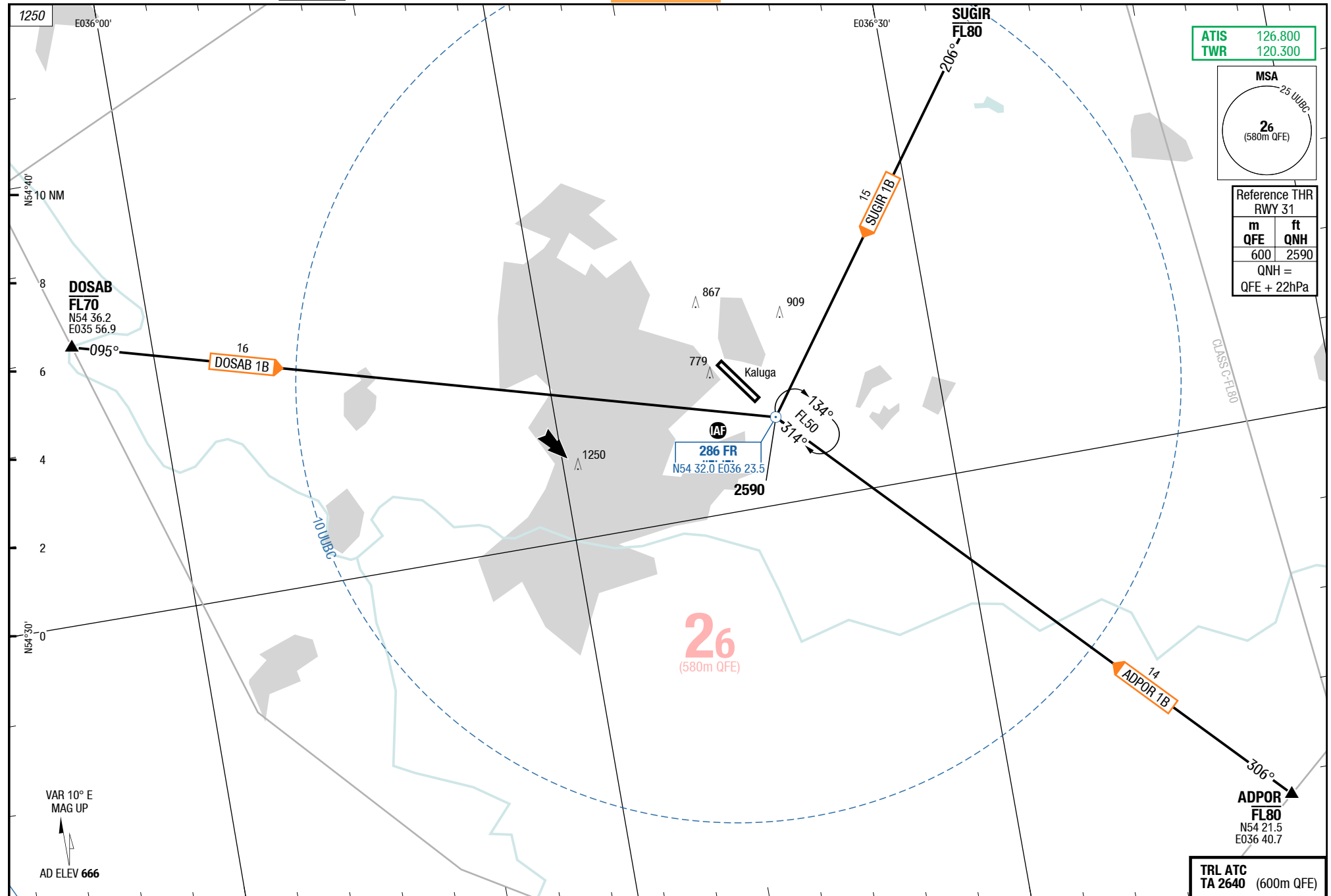
STARs RWY 31 (via FR)

STAR

STAR

Grabtsevo Kaluga Russian Federation

STARs RWY 31 (via FR)



**KLF-UUBC**

## STARs VOR KLG

# STAR

# STAR

NIL

## STARs VOR KLG

ATIS	126.800
TWR	120.300

### Warning

The minimum descent gradients for PROC:  
DOSAB 1G: 5.3% from DOSAB  
SUGIR 1F: 4.7% from SUGIR

PROCs F/G: RWY13  
PROCs C: RWY 31

DME required

26  
(580m QF)

MSA  
25 UUB  
**26**  
(580m OFF)

**TRL ATC  
TA 2640  
(600m QFE)**

Reference THR RWY 13	
<b>m</b> <b>QFE</b>	<b>ft</b> <b>QNH</b>
700	2970
QNH = QFE + 24hPa	

Reference THR RWY 31	
<b>m</b> <b>QFE</b>	<b>ft</b> <b>QNH</b>
600	2590
QNH = QFE + 22hPa	

VAR 10° E  
MAG UP  
AD ELEV 666

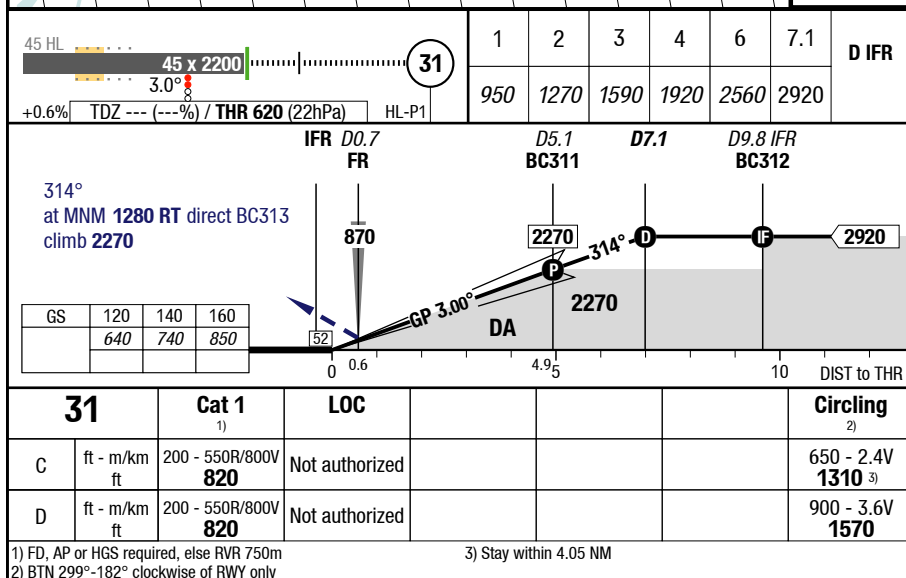
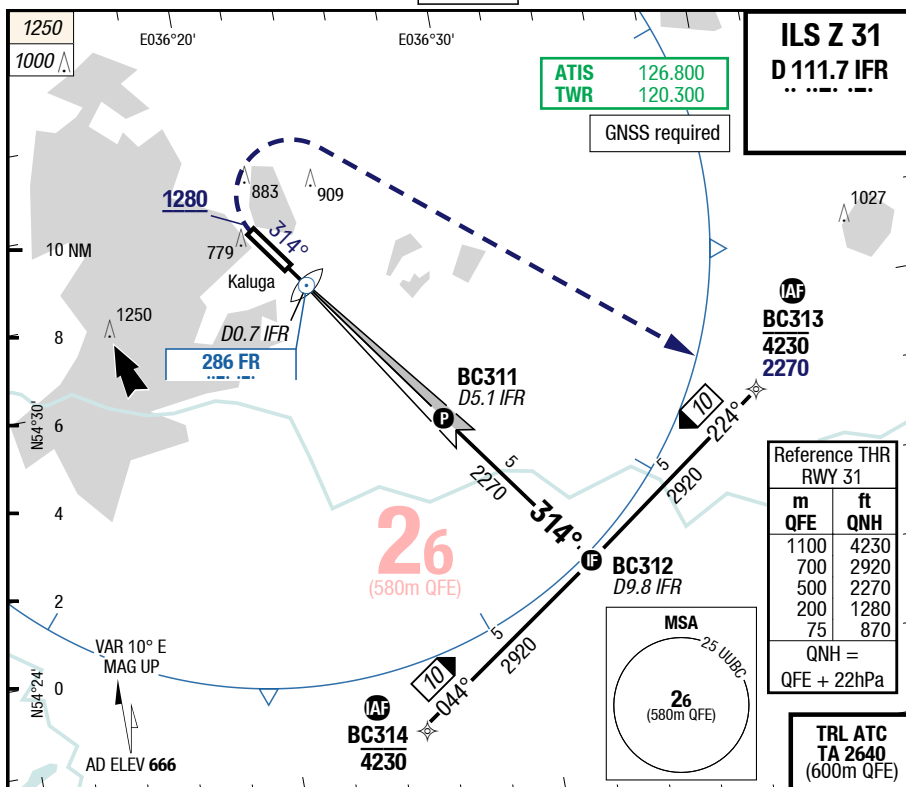
Changes: Note, OBST, Editorial

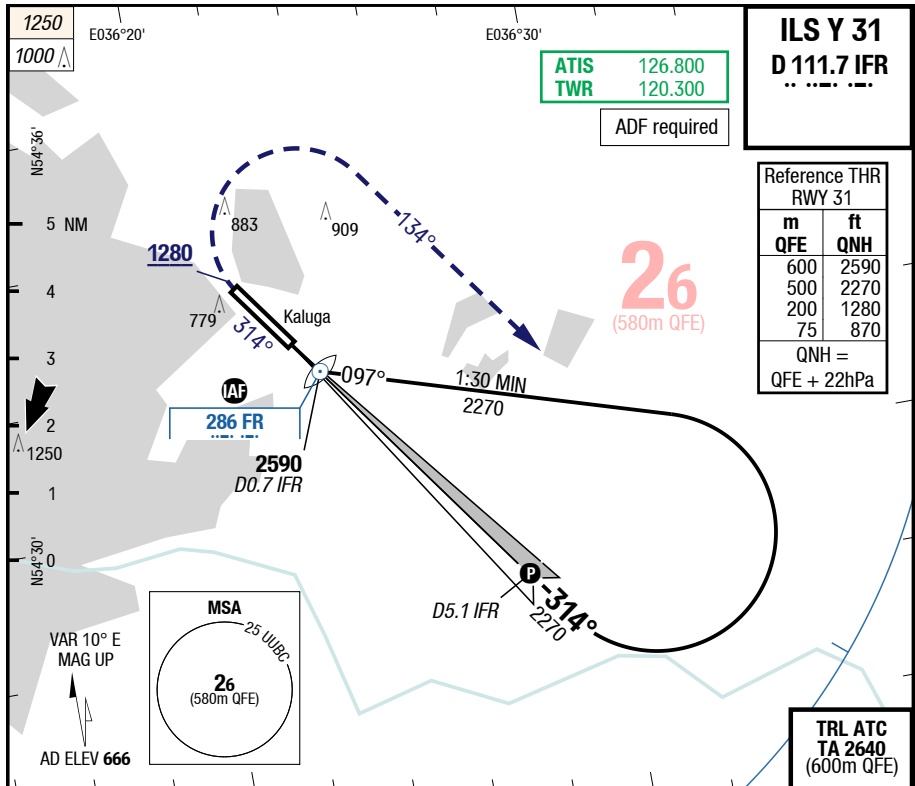
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## KLF-UUBC

7-10

**ILS Z 31**

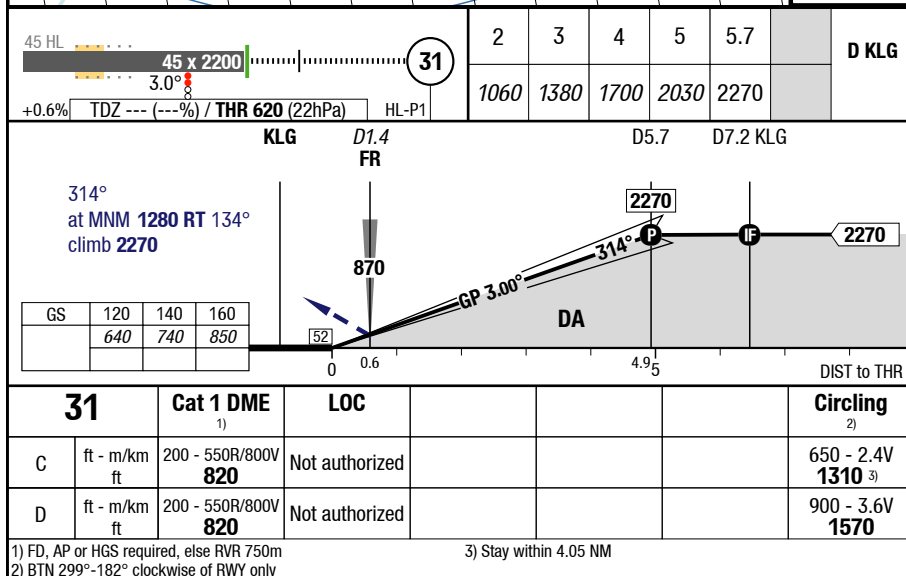
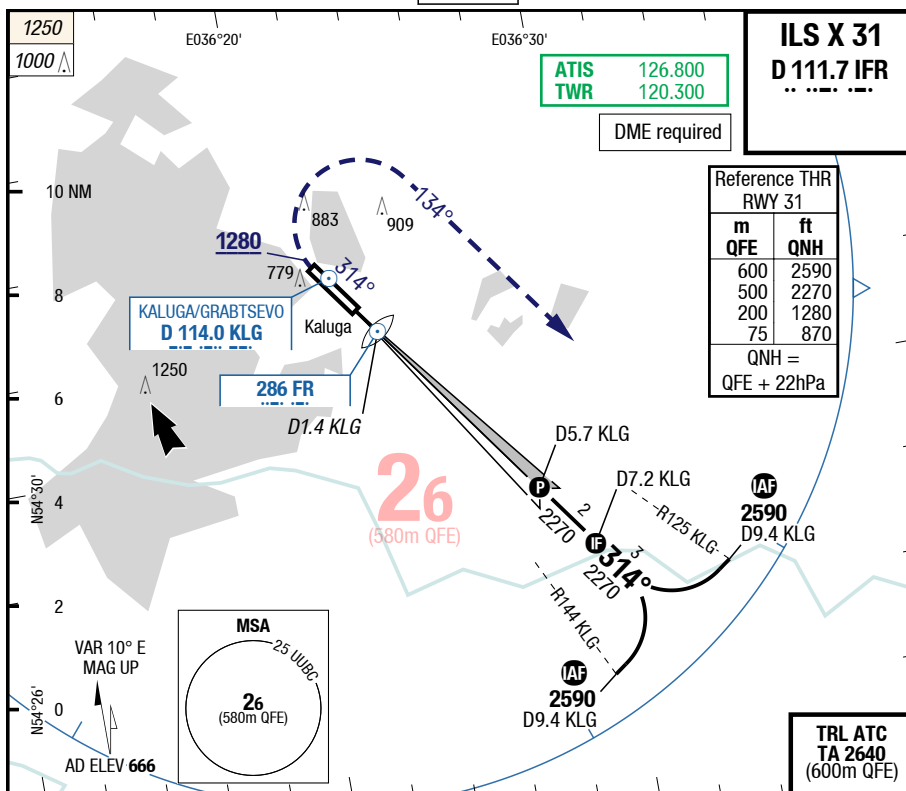




45 HL				45 x 2200		31		1	2	3	4	5	5.1	D IFR
+0.6%				TDZ --- (---%) / THR 620 (22hPa)		HL-P1		950	1270	1590	1920	2240	2270	
IFR				D0.7 FR		D5.1 IFR								
314° at MNN 1280 RT 134° climb 2270														
GS	120	140	160											
	640	740	850											
				0 0.6 4.95 DIST to THR										
31				Cat 1 <sup>1)</sup>		LOC		Circling <sup>2)</sup>						
C	ft - m/km ft	200 - 550R/800V 820		Not authorized		650 - 2.4V 1310 <sup>3)</sup>								
D	ft - m/km ft	200 - 550R/800V 820		Not authorized		900 - 3.6V 1570								
1) FD, AP or HGS required, else RVR 750m 2) BTN 299°-182° clockwise of RWY only 3) Stay within 4.05 NM														

7-30

**ILS X 31**

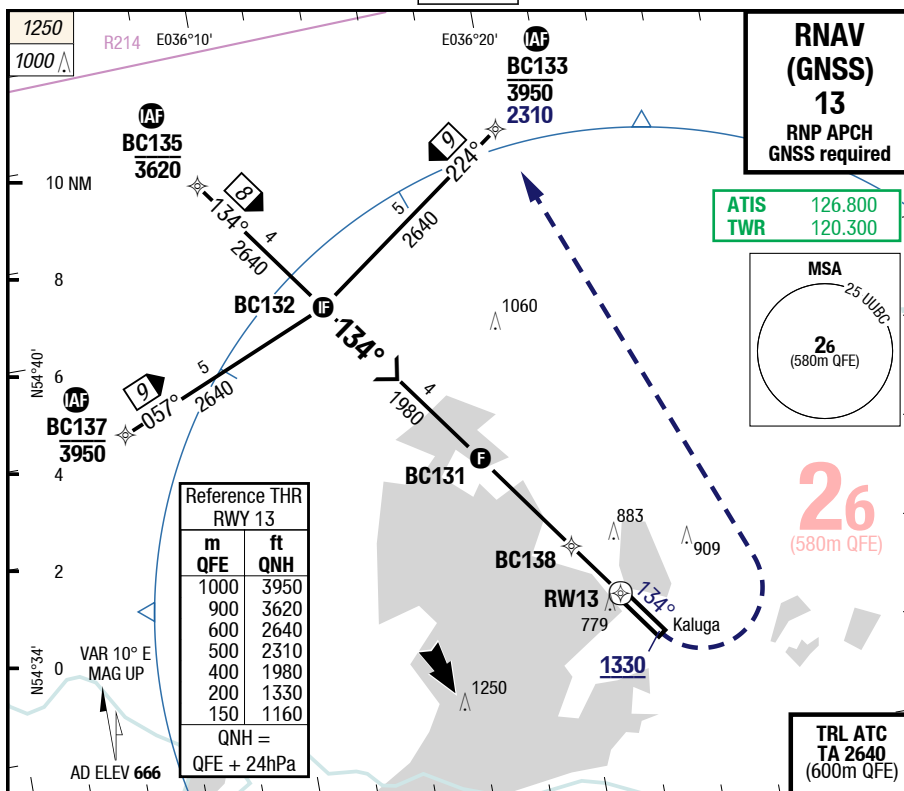




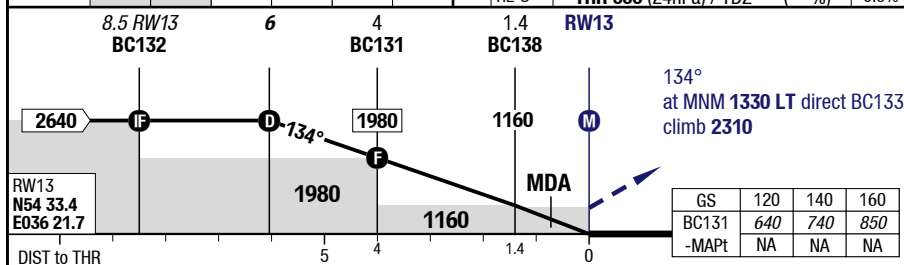
## KLF-UUBC

7-50

## RNAV (GNSS) 13



3.00° <b>RW13</b>		6	5	3	2	<div> <div>13</div> <div>HL-S</div> </div>	<div> <div>83.0°</div> <div>45 HL</div> </div>
		2640	2310	1680	1360		<div> <div>420</div> <div>THR 666 (24hPa) / TDZ --- (---%)</div> <div>-0.6%</div> </div>



<b>13</b>		<b>RNAV GNSS</b> LNAV				<b>Circling</b> 1)
C	ft - m/km ft	450 - 1.7 <b>1120</b>				690 - 2.4V <b>1360</b> 2)
D	ft - m/km ft	450 - 1.7 <b>1120</b>				950 - 3.6V <b>1610</b>

1) BTN 299°-182° clockwise of RWY only

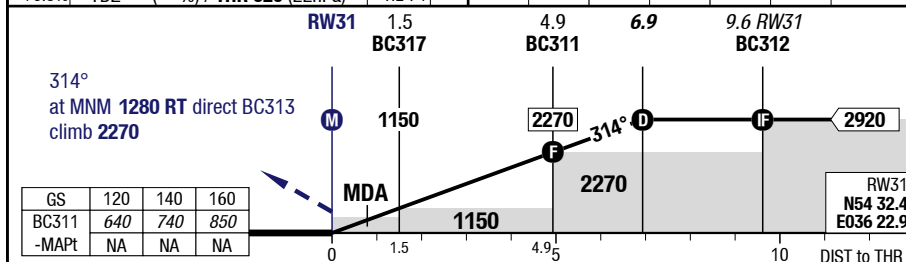
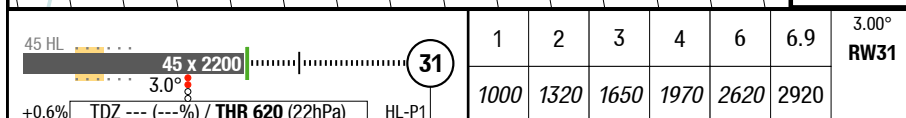
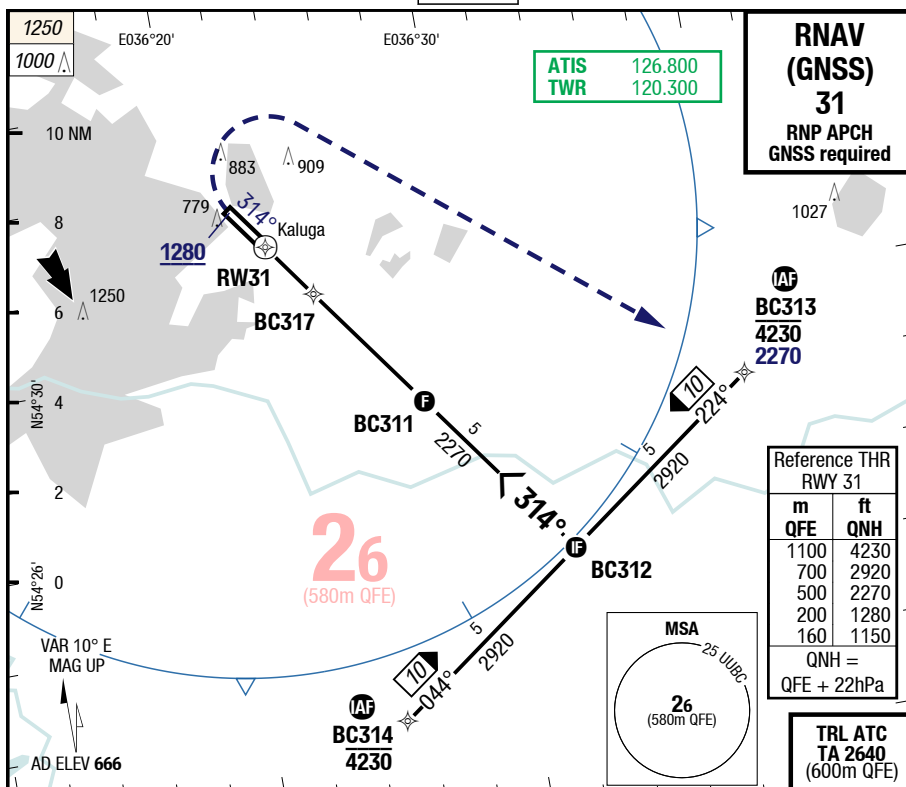
2) Stay within 4.05 NM

Changes: APL, ROD

## KLF-UUBC

**7-60**

## RNAV (GNSS) 31



<b>31</b>		<b>RNAV GNSS</b> LNAV				<b>Circling</b> 1)
C	ft - m/km ft	350 - 900 <b>970</b>				650 - 2.4V <b>1310</b> 2)
D	ft - m/km ft	350 - 900 <b>970</b>				900 - 3.6V <b>1570</b>

1) BTN 299°-182° clockwise of RWY only

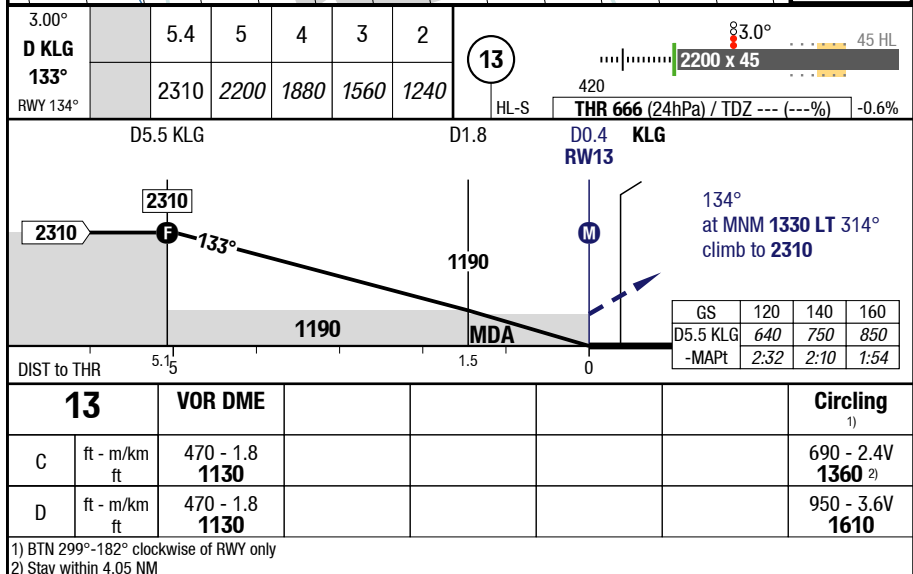
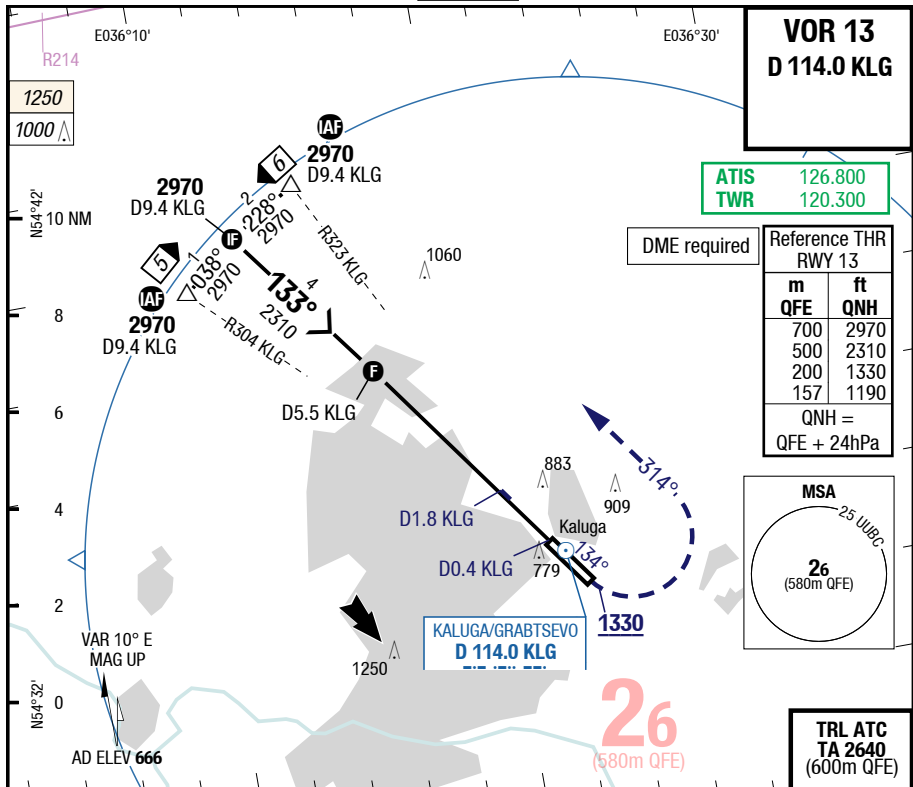
2) Stay within 4.05 NM

Changes: APL, ROD

KLF-UUBC

7-70

VOR 13



10-AUG-2017

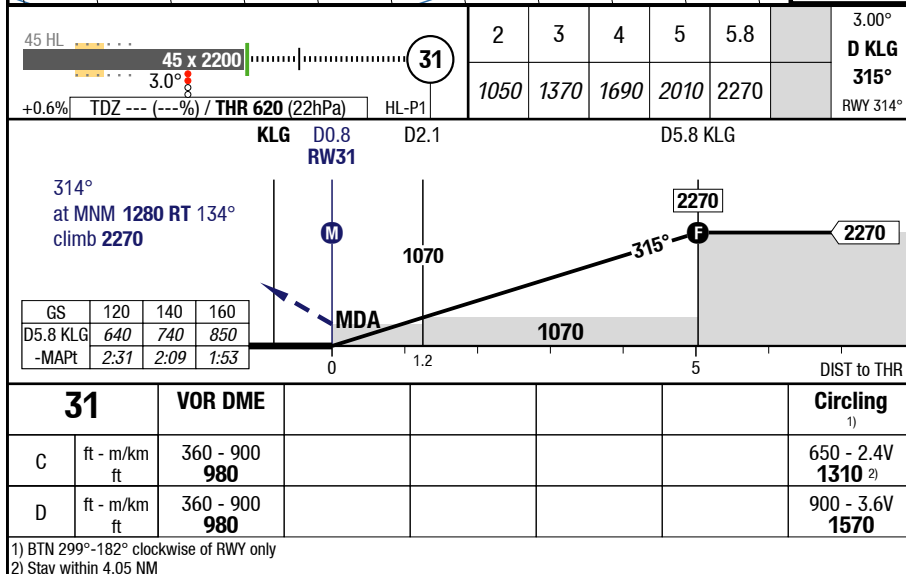
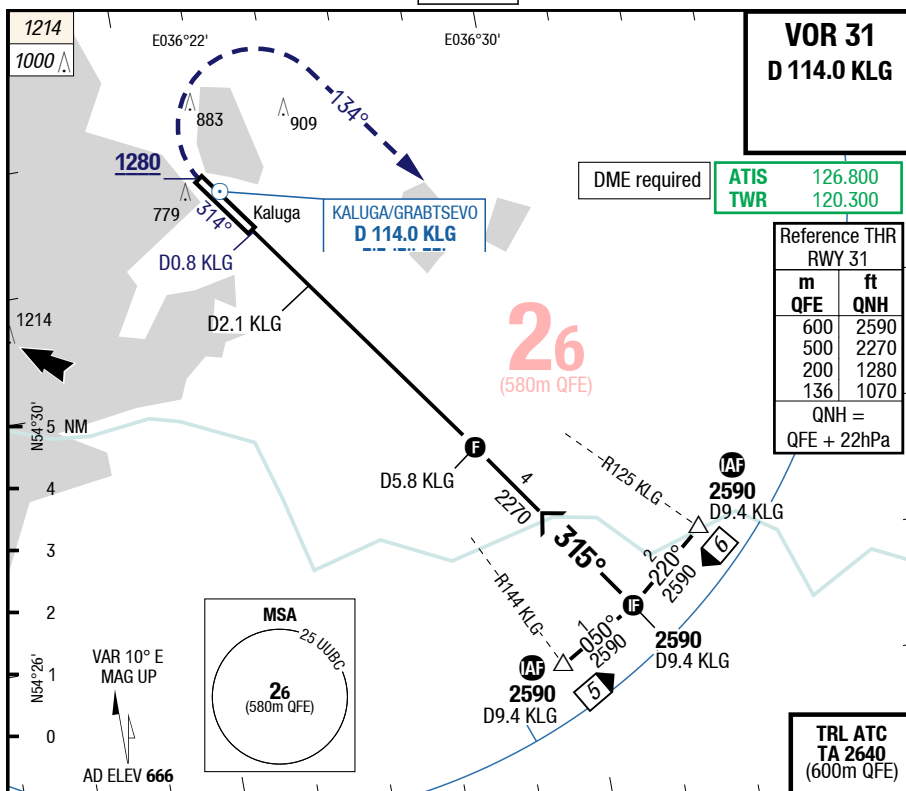
## Russian Federation **Kaluga** Grabtsevo

# IAC

## KLF-UUBC

7-80

**VOR 31**

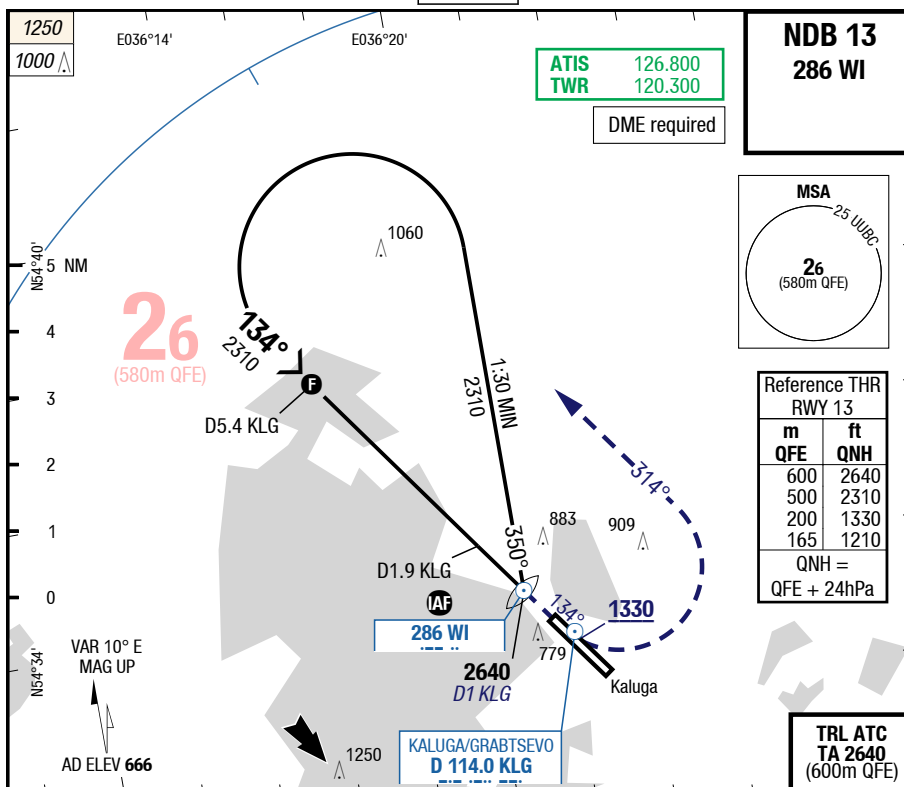


Changes: chart title, APL, Note

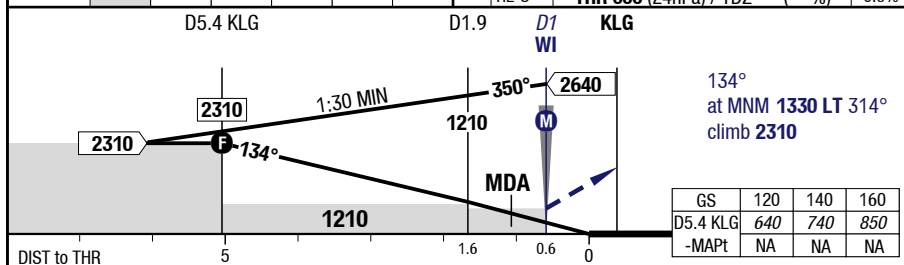
## KLF-UUBC

7-90

## NDB 13



3.00°		5.4	5	4	3	2	<div><div>13</div><div>HI - S</div></div>	<div><div><div>83.0°</div><div>45 HL</div></div><div><div>2200 x 45</div><div>420</div></div></div>
D KLG		2310	2190	1870	1550	1230		<div><div>THR 666 (24hPa) / TD7 --- (---%)</div><div>-0.6%</div></div>



13		NDB DME KLG 1)	NDB DME KLG wo FAF			Circling 2)
C	ft - m/km ft	460 - 1.7 <b>1130</b>	600 - 2.3 <b>1260</b>			690 - 2.4V <b>1360</b> 3)
D	ft - m/km ft	460 - 1.7 <b>1130</b>	600 - 2.3 <b>1260</b>			950 - 3.6V <b>1610</b>

1) FAF must be given by TAR

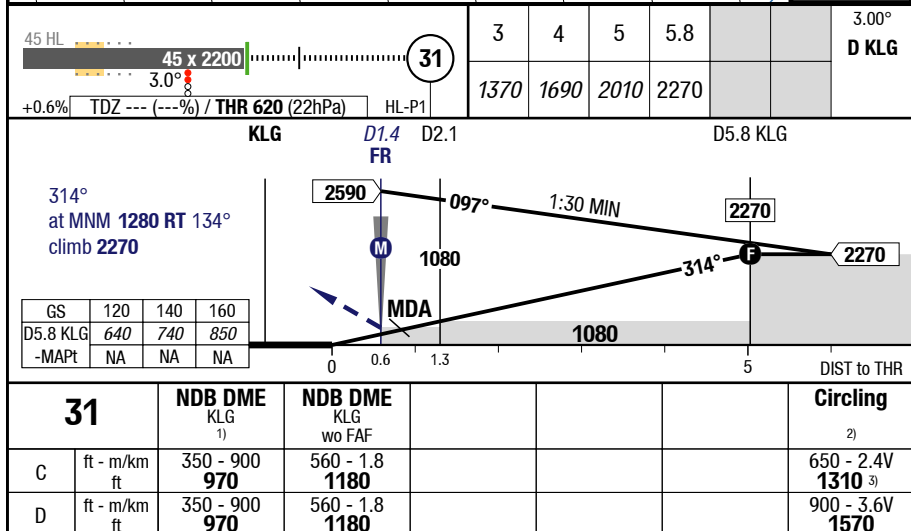
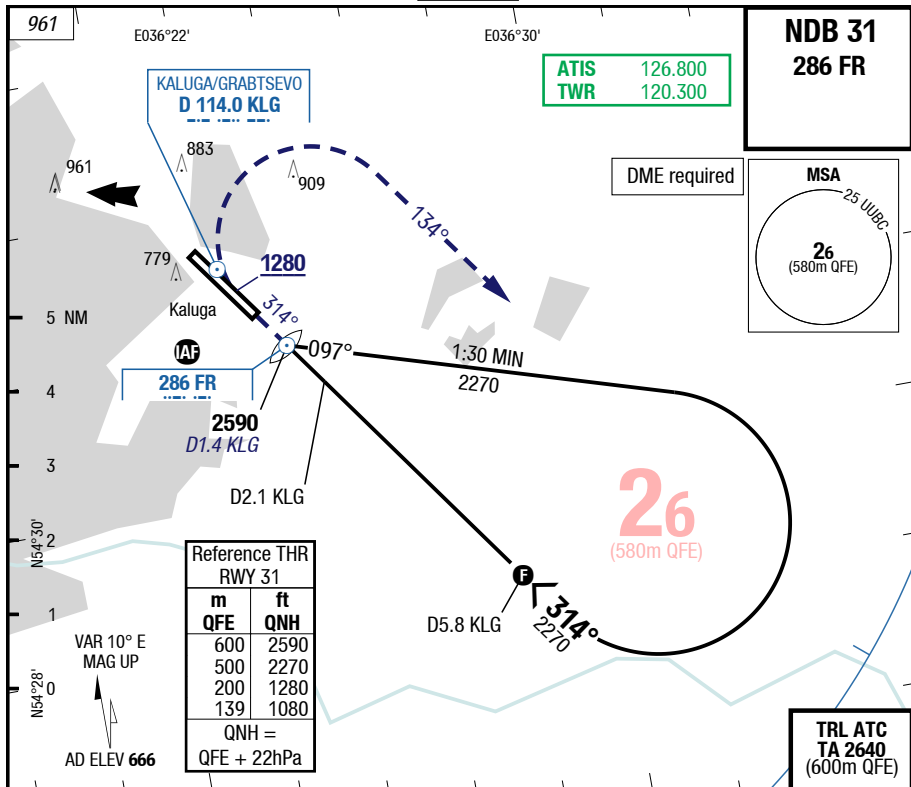
3) Stay within 4.05 NM

Changes: APL, ROD, Note

## KLF-UUBC

7-100

NDB 31



1) FAF must be given by TAR  
2) BTN 299°-182° clockwise of RWY only

3) Stay within 4.05 NM

**KLF-UUBC**

# Russian Federation **Kaluga** Grabtsevo

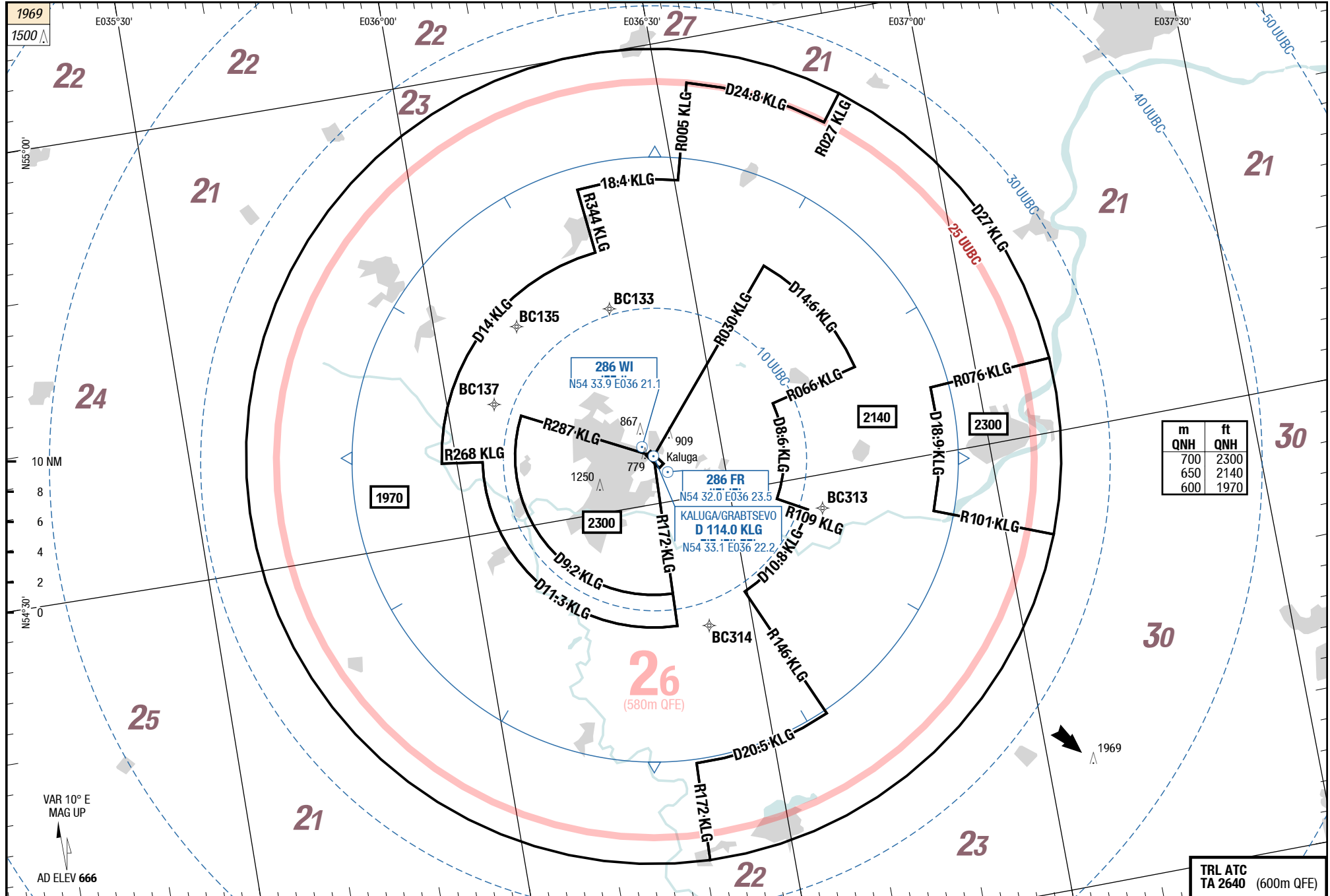
# MRC

**MRC**

**MRC**

Grabtsevo **Kaluga** Russian Federation

# MRC



Changes: OBST

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