

List of pages in this Trip Kit

Trip Kit Index

Airport Information For ULLI

Terminal Charts For ULLI

Revision Letter For Cycle 03-2020

Change Notices

Notebook

General Information

Location: ST PETERSBURG RUS
ICAO/IATA: ULLI / LED
Lat/Long: N59° 48.02', E030° 15.75'
Elevation: 79 ft

Airport Use: Public
Daylight Savings: Not Observed
UTC Conversion: -3:00 = UTC
Magnetic Variation: 11.0° E

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

Sunrise: 0559 Z
Sunset: 1428 Z

Runway Information

Runway: 10L
Length x Width: 11145 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 61 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 10R
Length x Width: 12402 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 67 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 28L
Length x Width: 12402 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 79 ft
Lighting: Edge, ALS, Centerline

Runway: 28R
Length x Width: 11145 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 66 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS: 127.300

ATIS: 127.400 Non-English

Pulkovo Tower: 133.500

Pulkovo Tower: 129.000 Secondary

Pulkovo Tower: 128.000 Secondary

Pulkovo Tower: 118.700

Pulkovo Tower: 118.100

Pulkovo Ground: 129.000 Secondary

Pulkovo Ground: 128.000 Secondary

Pulkovo Ground: 121.700

Pulkovo Apron Ramp/Taxi: 120.900

Pulkovo Ramp/Taxi: 119.000

Pulkovo Clearance Delivery: 129.000 Secondary

Pulkovo Clearance Delivery: 121.900

Pulkovo Clearance Delivery: 128.000 Secondary

Petersburg Approach: 119.300

Petersburg Approach: 125.200

Petersburg Approach: 128.000 Secondary

Petersburg Approach: 129.000 Secondary

Sankt-Petersburg Control Terminal Control Area: 132.000

Sankt-Petersburg Control Terminal Control Area: 126.000

Pulkovo Krug Radar: 129.000 Secondary

Pulkovo Krug Radar: 128.000 Secondary

Pulkovo Krug Radar: 120.300

Pulkovo Transit Operations: 131.800

Petersburg Emergency: 123.100

Petersburg Control: 124.000

ULLI/LED
PULKOVO

JEPPESEN

ST PETERSBURG, RUSSIA

2 AUG 19

10-1P

Eff 15 Aug

AIRPORT BRIEFING

1. GENERAL**1.1. ATIS**

ATIS 127.3
127.4 (Russian)

1.2. LOW VISIBILITY PROCEDURES (LVP)**1.2.1. GENERAL**

LVP shall be applied when RVR is less than 550m and/or ceiling is less than 197'/60m.

The procedures shall be announced as "Low Visibility Procedures in Progress" transmitted on ATIS or ATS unit frequencies.

The flight crew must report the execution of landing, the vacation of RWY including the vacation of RWY after crossing during taxiing. ACFT are not allowed to hold at a position closer to RWY than the limit of the RWY holding position, which is the limit of ILS critical area.

1.2.2. STANDARD TAXI ROUTES OF ACFT OPERATING CAT III FLIGHTS**1.2.2.1. LANDING**

The flight crew shall vacate RWY 10L:

- Along TWY B2 or along TWY B1 to apron 3;
- Along Main TWY B to apron 1.

ACFT shall be met by Follow-me car after passing the last yellow light of the alternate green and yellow TWY centerline lights.

The flight crew shall vacate RWY 28R:

- Along Main TWY B and taxi along TWY B5 to apron 1;
- Along Main TWY B and B1 to apron 3.

ACFT shall be met by Follow-me car on Main TWY B after passing the last yellow light of the alternate green and yellow TWY centerline lights.

ACFT taxiing to apron 3 must request a permission to cross RWY 10L/28R from TWR standing at the red stop bar at day marking of MAIN TWY B with "28R CAT III" sign. It is prohibited to cross the RWY during taxiing without TWR permission. RWY vacation shall be reported to TWR.

1.2.2.2. DEPARTURE

Taxiing on aprons 1 and 3 shall be carried out only after Follow-me car.

Taxiing of ACFT for take-off from RWY 10L:

- From apron 1 shall be carried out by GND controller's permission after Follow-me car to Main TWY B.

The flight crew shall changeover to TWR by GND controller's instruction and continue taxiing to red stop bar with "10L" sign.

- From apron 3 shall be carried out by GND controller's permission after Follow-me car onto TWY B1 to the red stop bar lights with "28R" sign.

The flight crew shall changeover to TWR by GND controller's instruction for crossing the RWY.

The flight crew shall report the vacation of RWY to TWR and, by instruction, changeover to GND to continue taxiing after Follow-me car along Main TWY B to TWY B5. By GND controller's instruction the flight crew shall changeover to TWR and continue taxiing to red stop bar with "10L" sign.

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2 AUG 19

10-1P1

Eff 15 Aug

AIRPORT BRIEFING

1. GENERAL

Taxiing of ACFT for take-off from RWY 28R:

- From apron 1 shall be carried out by GND controller's permission after Follow-me car to Main TWY B and then to the RIGHT along Main TWY B to red stop bar with "28R CAT III" sign.

The flight crew shall changeover to TWR by GND controller's instruction.

- From apron 3 shall be carried out by GND controller's permission after Follow-me car to TWY B1 to red stop bar with "28R" sign.

The flight crew shall changeover to TWR by GND controller's instruction.

If there is an ACFT on the final approach, the departing ACFT shall wait for the line-up clearance at red stop bar with "28R CAT III" sign. If there is no ACFT on the final approach, the departing ACFT shall wait for the line-up clearance at red stop bar with "28R" sign.

1.3. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.3.1. OPERATIONS OF MODE S TRANSPONDER WHEN ACFT IS ON GROUND

In order to improve ground movement control, the flight crew of ACFT equipped with the Mode S transponder must ensure that the Mode S transponder is able to operate during ACFT ground movement.

During departure - the flight crew shall:

- Select the assigned code (squawk) and activate the Mode S transponder from request for towing or taxiing whichever is earlier.

After landing - the flight crew shall:

- Keep the Mode S transponder activated until the ACFT is parked on stand;
- Set the Mode A code 2000 immediately after parking on the stand and before selecting OFF or STAND-BY.

Activation of the Mode S transponder means selecting AUTO mode, ON, XPNDR, or the equivalent according to specific installation. Selection of the STAND-BY mode will NOT activate the Mode S transponder.

The flight crew of ACFT equipped with Mode S having an ACFT identification feature must also set the ACFT identification specified in Item 7 of ICAO Flight Plan.

The ACFT identification must be entered before the request for towing or taxiing, whichever is earlier, through the FMS or the transponder control panel.

1.4. RWY PROCEDURES

1.4.1. SIMULTANEOUS USE OF PARALLEL RWYs

RWYs as a rule are used in the mode of segregated parallel operations (one RWY for take-off, the other RWY for landing) in the following combination:

- RWY 10L for take-off, RWY 10R for landing;
- RWY 28R for take-off, RWY 28L for landing.

In the periods of increased intensity of arriving ACFT air traffic the mode of simultaneous dependent parallel approaches can be used.

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ST PETERSBURG, RUSSIA

20 DEC 19

10-1P2

Eff 2 Jan

AIRPORT BRIEFING

1. GENERAL**1.5. TAXI PROCEDURES**

It is prohibited to cross stop bars and occupy RWY holding position when stop bars are illuminated, even if clearance from TWR controller has been obtained.

Simultaneous taxiing via routes C, D and routes D, E on apron 1 is prohibited.

Through taxiing with MAX wingspan 118'/36m allowed on apron 1 taxi route C and E (simultaneous taxiing) and on apron 6.

Through taxiing with MAX wingspan 213'/65m allowed on apron 1 taxi route F.

Through taxiing with MAX wingspan 262'/80m allowed on apron 1 taxi route D.

TWYs B8 and B9 MAX wingspan 138'/42m.

Taxiing of ACFT with MAX wingspan 118'/36m into stands 138, 141, 143 and 145 (facing Southeast) permitted after Follow-me car.

Taxiing of ACFT with MAX wingspan 118'/36m out of stands 138, 141, 143 and 145 after Follow-me car:

- From stands 138, 141, 143 and 145 to route E towards MAIN TWY A only when stands 137, 140, 142, 144 are vacant respectively;
- From stands 138, 145 to route E towards MAIN TWY B;
- From stands 141, 143 to route E towards MAIN TWY B only when stands 142, 144 are vacant respectively;
- From stand 141 to route C;
- From stand 143 when stands 142, 144 are occupied simultaneously only by towing.

Through taxiing with MAX wingspan 118'/36m after Follow-me car allowed:

- Through stands 130 and 146 from taxi route F to D and C;
- Through stands 137 and 141 from taxi route F to E, D and C;
- From taxi routes C or E to D;

and backwards.

Taxiing of ACFT with wingspan between 138'/42m and 174'/53m via taxi route from abeam stand 307 to abeam stand 313 by towing.

After vacating RWY 28L via TWY A4, ACFT must proceed without stopping via MAIN TWY A to TWY A2. Further taxiing via MAIN TWY A and apron to the assigned stand shall be executed strictly by the instruction of GND controller.

1.6. PARKING INFORMATION

Stands 102, 102B, 103, 103B, 104, 104B, 105, 105B, 106, 106B, 107, 107B, 108, 108B, 109 and 109B are equipped with docking guidance system SAFEDOCK.

Enter stands 150, 152 thru 152B, 153A, 153B, 154A thru 155B and 156 thru 156B (facing Southeast) by towing.

Exit stands 101 thru 109B, 150 thru 152B, 153A, 153B, 154A thru 156B (facing Northwest), 301 thru 301B, 308 thru 319, 605A, 605C and 605D by towing.

Use of stands 252 thru 260, 379, 390, 391, 393 thru 395 and 500 thru 509 by towing.

Stands 257 thru 260 available for helicopters.

Use of stands 390 thru 395 via TWY B10 for ACFT with MAX length 123'/37.6m and MAX wingspan 112'/34.1m by towing only.

Towing to/from the hangar via stand 383 is permitted:

- For ACFT with MAX length 100'/30.5m and MAX wingspan 100'/30.5m when stands 383 and 384 are vacant;
- For ACFT with MAX length 89'/27m and MAX wingspan 72'/22m when stand 838 is vacant.

Towing to/from the hangar from stand 313 is permitted via vacant stands 380 thru 385 for ACFT with MAX length 152'/46.2m and MAX wingspan 138'/42m.

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20 DEC 19

10-1P3

Eff 2 Jan

AIRPORT BRIEFING

1. GENERAL

Enter stands 600 thru 604E (facing South) by towing. Exit stands 600 thru 604E (facing North) by towing.

Enter stands 606C, 607C, 608C, 609C, 610C, 611C and 612C (all facing North) by push-back.

Enter stands 700 thru 704A after Follow-me car, exit by towing.

Exit stands 606A, 607A, 608A, 609A, 610A, 611A and 612A (all facing South) by push-back.

Exit stands 606D, 607D, 608D, 609D, 610D, 611D and 612D (all facing South); use of stands 606D, 609D, 610D, 611D and 612D (all facing North) by push-back.

Taxiing on apron 3 only after Follow-me car.

1.7. COMMUNICATION FAILURE PROCEDURE

In case of radio communication failure:

- Take measures to re-establish the lost radio communication using VH frequency 4672 kHz, emergency frequency 121.500 MHz, communication with other ACFT and ATS units;
- Carry out approach in accordance with the procedures established for radio communication failure;
- Monitor LOM and DVOR frequencies for ATS unit instructions and information;
- Proceed to alternate aerodrome in case of unsuitable meteorological conditions at Sankt-Peterburg/Pulkovo aerodrome.

The flight crew can use the following phone numbers at all times:

- Flight Control Officer of Sankt-Peterburg Area Control Center:
+7 (812) 305-17-84, +7 (812) 704-35-31;
- Flight Control Officer of Sankt-Peterburg TMA Control Center:
+7 (812) 305-17-20, +7 (812) 704-37-42;
- Flight Control Officer of Sankt-Peterburg TWR:
+7 (812) 305-17-74, +7 (812) 704-36-57.

1.8. OTHER

Birds in vicinity of APT.

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2 AUG 19

10-1P4

Eff 15 Aug

AIRPORT BRIEFING

2. ARRIVAL

2.1. SPEED RESTRICTIONS

When flying below FL 100 the indicated airspeed shall not be more than 270 KT. On final stage of approach maintain 160 KT minimum up to 4.3 NM from THR.

2.2. NOISE ABATEMENT PROCEDURES

2.2.1. GENERAL

Noise abatement procedures shall be executed by all ACFT, deviations are permitted only for safety reasons.

2.2.2. APPROACH PHASE

Restrictions

Between 2300-0700LT RWYs 10R/28L are preferential for landing, depending on meteorological, operational and air traffic conditions.

2.2.3. REVERSE THRUST

Reverse thrust (except idle thrust) is allowed only for ensuring flight safety.

2.3. COMMUNICATION FAILURE PROCEDURE

2.3.1. ARRIVAL PROCEDURE

If the ATS unit has assigned STAR, proceed along the assigned STAR route at last flight level assigned by the controller and acknowledged by the flight crew; descent shall be carried out after passing LOM of the chosen RWY.

If STAR route has not been assigned and radio communication failure has occurred under radar vectoring, the ACFT shall proceed to LOM of the RWY-in-use via the shortest distance at last flight level assigned by the controller and acknowledged by the flight crew. Descent shall be carried out after passing LOM.

Note 1: By monitoring the localizer the pilot must make sure that the chosen RWY is the RWY-in-use. Localizers of other RWYs must be switched off for the time of approach of the ACFT with radio communication failure.

Note 2: If necessary, the flight crew is recommended to carry out a low pass over the RWY and then carry out repeated approach and land. Visual signals shall be shown by ground services provided that landing on the given RWY is impossible.

The following holding areas have been established for descent and approach in case of radio communication failure:

- For RWY 10L - standard racetrack holding pattern over LOM PU, inbound leg 095° track, Right turns, minimum ALT 3500';
- For RWY 28R - standard racetrack holding pattern over LOM PL, inbound leg 275° track, Left turns, minimum ALT 3500';
- For RWY 10R - standard racetrack holding pattern over LOM PK, inbound leg 095° track, Right turns, minimum ALT 3500';
- For RWY 28L - standard racetrack holding pattern over LOM PO, inbound leg 275° track, Left turns, minimum ALT 3500'.

2.3.2. MISSED APPROACH PROCEDURE

If the pilot-in-command decides to land after a missed approach, he shall carry out the appropriate procedure within 3 minutes. Then he shall start climbing to 3500' and proceed via the shortest distance to the LOM of the RWY-in-use, and then, after crossing LOM, descend by racetrack pattern and carry out approach.

If the pilot-in-command decides to proceed to an alternate aerodrome after a missed approach, he shall carry out the appropriate procedure within 3 minutes. Then he shall climb to the required flight level in accordance with the flight procedures in case of radio communication failure.

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ST PETERSBURG, RUSSIA

2 AUG 19

10-1P5

Eff 15 Aug

AIRPORT BRIEFING

2. ARRIVAL

2.4. CAT II/III OPERATIONS

RWY 10R approved for CAT II operations, RWY 10L/28R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.5. TAXI PROCEDURE

2.5.1. STANDARD TAXI ROUTES

Standard taxi routes are not available under low visibility conditions and in the presence of limitations on taxi routes.

If flight crew is not able to maintain assigned taxi route, the flight crew must report to ATC at first contact and get detailed taxi instruction.

Standard taxi routes after landing RWY 10R/28L:

NO.	ROUTE IDENT	TAXI INSTRUCTION	END POINT
1	T1	F-B-B8	Stands 252-263
2	T2	E-B-B8	Stands 252-263
3	T3	F-B-B9	Stands 252-263
4	T4	E-B-B9	Stands 252-263
5	T5	F-B-B11	Stands 600-612D
6	T6	E-B-B11	Stands 600-612D

3. DEPARTURE

3.1. DE-ICING

De-icing treatment of ACFT is permitted with started-up engines.

If during waiting for take-off sequence, time of validity of de-icing treatment expires, flight crew inform ATS 8-10 minutes before expiry using phrase:

"Holdover time will run out in 10 minutes".

3.2. START-UP PROCEDURE

Before starting flight, the flight crew shall obtain ATC clearance for flight operation, departure instructions, transponder code from DELIVERY.

On first contact with GND, the flight crew must report the ATIS information code letter and stand number.

Outside of operation hours of DELIVERY, obtain ATC clearance from GND controller; request vectoring if unable RNAV.

It is permitted to carry out engine start-up in the process of towing in case of absence of snow and ice on the apron.

Engine start-up for ACFT with actual take-off mass more than 150t is permitted after push-back completion only.

In case ACFT taxi for departure via MAIN TWY B, take-off from RWY 28R starting from TWY B3 preferential.

Engine start-up positions:

On all taxi routes on apron and on stands:

Apron 1: On stands 130 thru 146B, 150, 152, 152A, 152B, 153 thru 156.

Apron 2: On stands 261 thru 263.

Apron 3: On stands 302 thru 307, 380 thru 388A, 389 and 389A.

Apron 4: On stands 400 thru 411A and 412 thru 424.

Apron 5: On stands 500 thru 509.

Apron 6: On stands 600 thru 604E, 605B, 606A thru 606C, 607A thru 607D, 608A thru 610C, 611A thru 611C, 612A and 612C.

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ST PETERSBURG, RUSSIA

2 AUG 19

10-1P6

Eff 15 Aug

AIRPORT BRIEFING

3. DEPARTURE

3.3. NOISE ABATEMENT PROCEDURES

3.3.1. GENERAL

Noise abatement procedures shall be executed by all ACFT, deviations are permitted only for safety reasons.

3.3.2. TAKE-OFF AND CLIMBING PHASE

Noise abatement procedures shall not be executed in following cases:

- Wind shear;
- Moderate turbulence;
- Icing.

Take-off shall be carried out in accordance with the noise abatement procedure of the Flight Manual. After take-off, the ACFT shall proceed according to SID, unless otherwise instructed by ATC.

Close to the Aerodrome

Pilots shall apply NADP1.

Restrictions

Between 2300-0700LT RWYs 10R/28L are preferential for take-off, depending on meteorological and air traffic conditions.

3.4. COMMUNICATION FAILURE PROCEDURE

In case of two-way radio communication failure after take-off, the ACFT shall climb according to ATC departure clearance. If initial climb clearance has been below TL, the ACFT shall climb to TL.

In case of pilot-in-command's decision to proceed to the destination aerodrome, the ACFT shall maintain for 5 minutes the flight level assigned in departure clearance or the last flight level assigned by the controller and acknowledged by the flight crew (whichever is higher), then climb to the cruising level in accordance with the flight plan.

In case of pilot-in-command's decision to land at Sankt-Peterburg/Pulkovo aerodrome, the ACFT shall proceed directly to LOM of the RWY-in-use at the flight level assigned in departure clearance or at last flight level assigned by the controller and acknowledged by the flight crew. After passing LOM descend to ALT 3500ft in accordance with racetrack pattern and carry out approach.

- for RWY 10R - standard racetrack holding pattern over LOM PK, inbound leg 095° track, Right turns, minimum ALT 3500';
- for RWY 28L - standard racetrack holding pattern over LOM PO, inbound leg 275° track, Left turns, minimum ALT 3500'.

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ST PETERSBURG, RUSSIA

2 AUG 19

10-1P7

Eff 15 Aug

AIRPORT BRIEFING

3. DEPARTURE**3.5. TAXI PROCEDURE**

If the flight crew does not have data on RNAV (GNSS) SIDs, report to DELIVERY and request vectoring.

3.5.1. STANDARD TAXI ROUTES

Standard taxi routes are not available under low visibility conditions and in the presence of limitations on taxi routes.

If flight crew is not able to maintain assigned taxi route, the flight crew must report to ATC at first contact and get detailed taxi instruction.

Standard taxi routes for take-off RWY 10R/28L:

NO.	ROUTE IDENT	START POINT	TAXI INSTRUCTION	HOLDING POINT
1	DR1	Stands 252-263	B8-B-F-A-RWY 10R	A
2	DR2	Stands 252-263	B9-B-F-A-RWY 10R	A
3	DR3	Stands 600-612D	B11-B-F-A-RWY 10R	A
4	DL1	Stands 252-263	B8-B-E-A-RWY 28L	A
5	DL2	Stands 252-263	B9-B-E-A-RWY 28L	A
6	DL3	Stands 600-612D	B11-B-E-A-RWY 28L	A

3.6. PROCEDURE FOR SIMULTANEOUS LINE-UP OF MORE THAN ONE ACFT ON THE RWY

Simultaneous line-up on one RWY for successive take-off is allowed if the following conditions are observed:

- RVR at the beginning of RWY is not less than 3000m;
- LVP are not in force;
- TWR controller maintains steady visual contact with all ACFT positioned on the RWY.

Taxiing out to line-up position shall not be executed simultaneously from MAIN TWY B and TWY B1, from TWY B1 and TWY B2, from MAIN TWY B and TWY B2, from TWY B3 and TWY B10.

When issuing clearance for line-up, TWR controller informs flight crew of the ACFT take-off sequence number and type of preceding ACFT. Flight crews shall confirm receiving above-stated information.

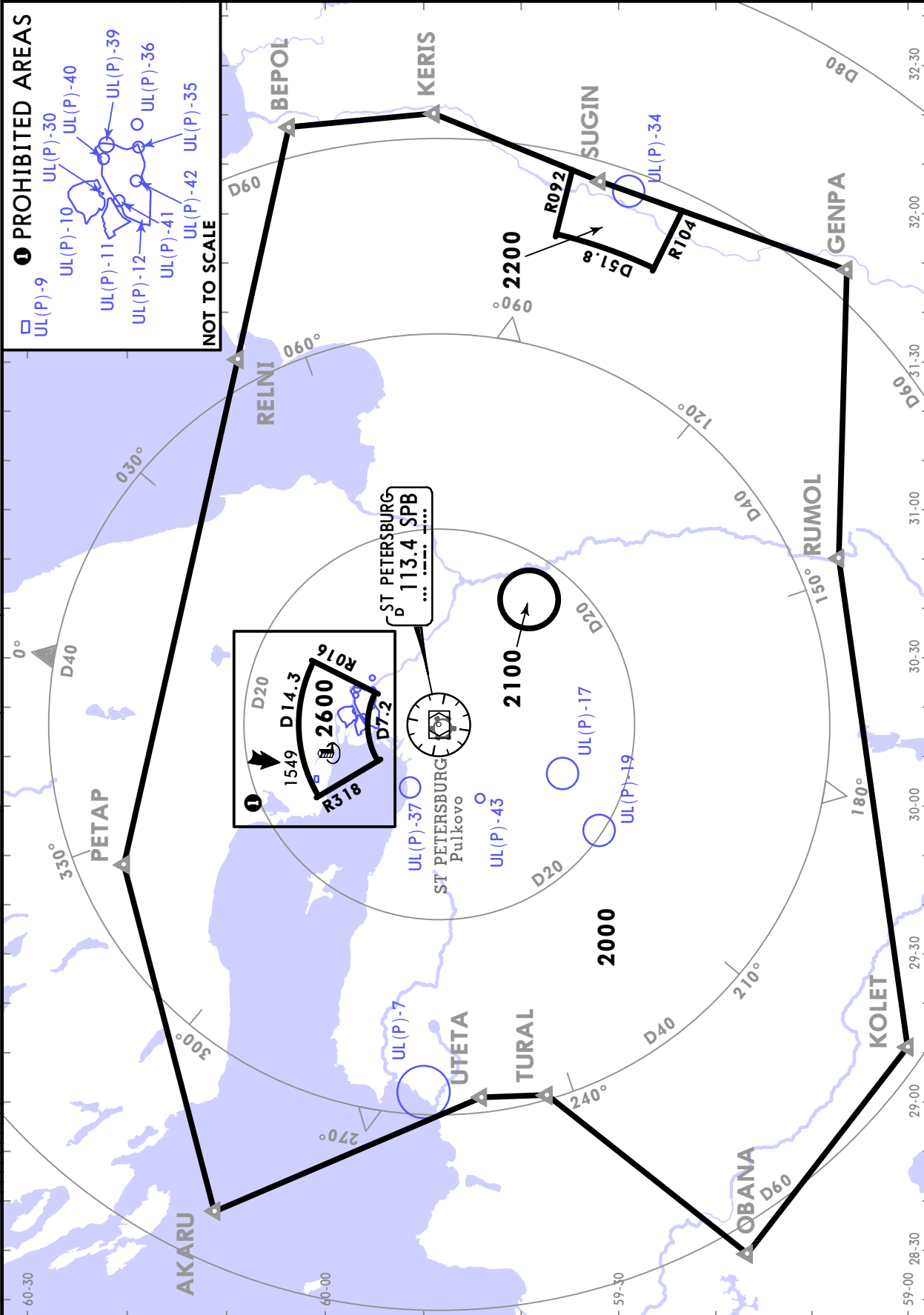
ULLI/LED PULKOVO

JEPPESSEN ST PETERSBURG, RUSSIA
 9 AUG 19 **10-1R** Eff 15 Aug **RADAR MINIMUM ALTITUDES**

Apt Elev
79

Alt Set: hPa
 Trans level: FL50
 FL60 if pressure is less than 995.9 hPa (747 MM)
 FL70 if pressure is less than 959.9 hPa (720 MM)

Trans alt: 3500
 1. Chart only to be used for cross-checking of assigned altitudes while under vectoring control.
 2. Altitudes are calculated for International standard atmosphere conditions. During vectoring at temperature of 0° C or below, minimum altitudes must be corrected by altimeter temperature correction.



CHANGES: Prohibited areas.

ST PETERSBURG, RUSSIA
RNAV STAR

ULLI/LED PULKOVO
 20 DEC 19 (10-2B) Eff 2 Jan

ATIS
127.3
 (Russian 127.4)

Apt Elev
79

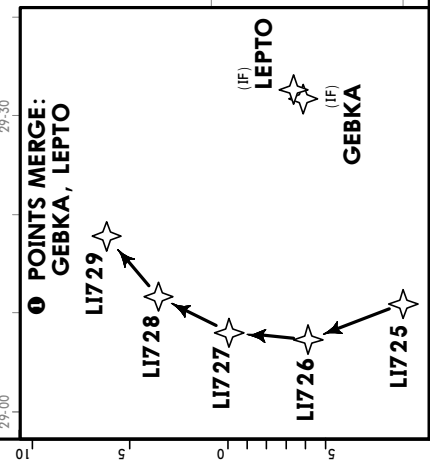
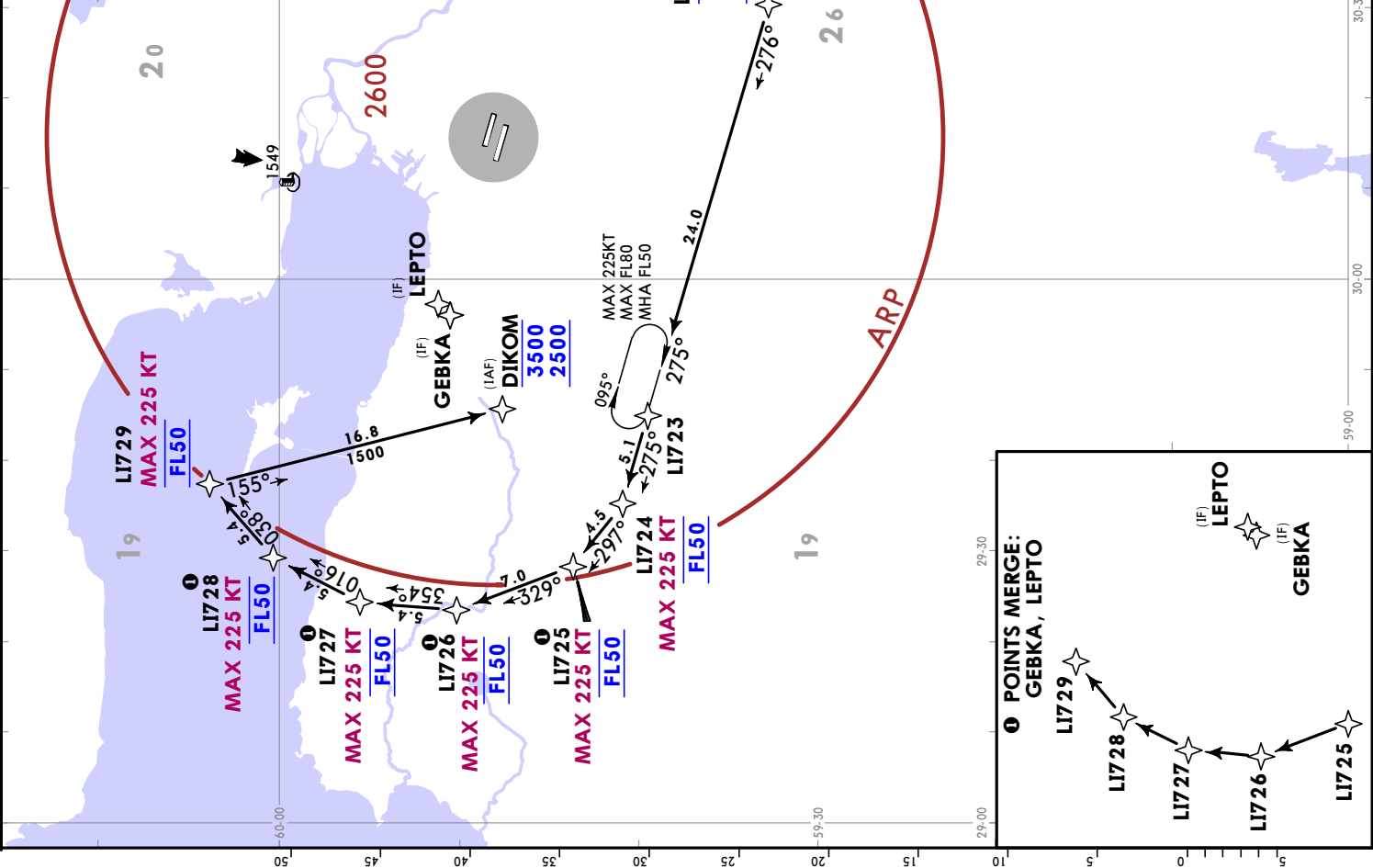
Alt Set: hPa
 Trans level: FL50
 FL60 if pressure is less than 995.9 hPa (747 mm)
 FL70 if pressure is less than 959.9 hPa (720 mm)

1. RNAV 1
2. GNSS required
3. Descent shall be carried out by ATC and only to the cleared level (altitude).
4. If unable to adhere to altitude or speed restrictions, advise ATC.
5. If maintaining RNAV STAR is not possible, request vectoring.
6. In case of high traffic intensity, ACFT not having onboard equipment set or crews not approved for RNAV (GNSS) can be prohibited from entering CTA or instruction for 360° turn is issued.
7. "Direct to" procedure is used, flight crew must be ready at any moment to proceed directly to assigned waypoint.

GENPA 1A [GENP1A]
GENPA 1W [GENP1W]
RNAV (GNSS) ARRIVALS
(RWYS 10L/R)
SPEED: MAX 270 KT BELOW FL100

STAR is assigned for crew to calculate commencing descent and includes holdings to regulate intervals. The fuel required for following the point merge track should be included in the holding fuel.

① For trip fuel calculation use STAR GENPA 1W:
 GENPA [FL260-J]-LI721 [FL260-; FL130+] -
 LI722 [FL150-; FL110+] - DIKOM [K225; 3500-; 2500+].



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JEPPESEN ST PETERSBURG, RUSSIA
20 DEC 19 **(10-2C)** Eff 2 Jan

RNAV STAR

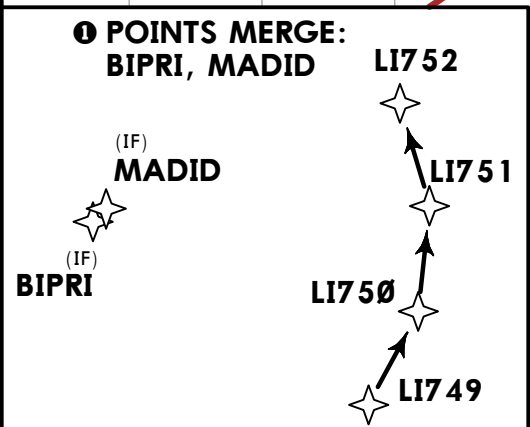
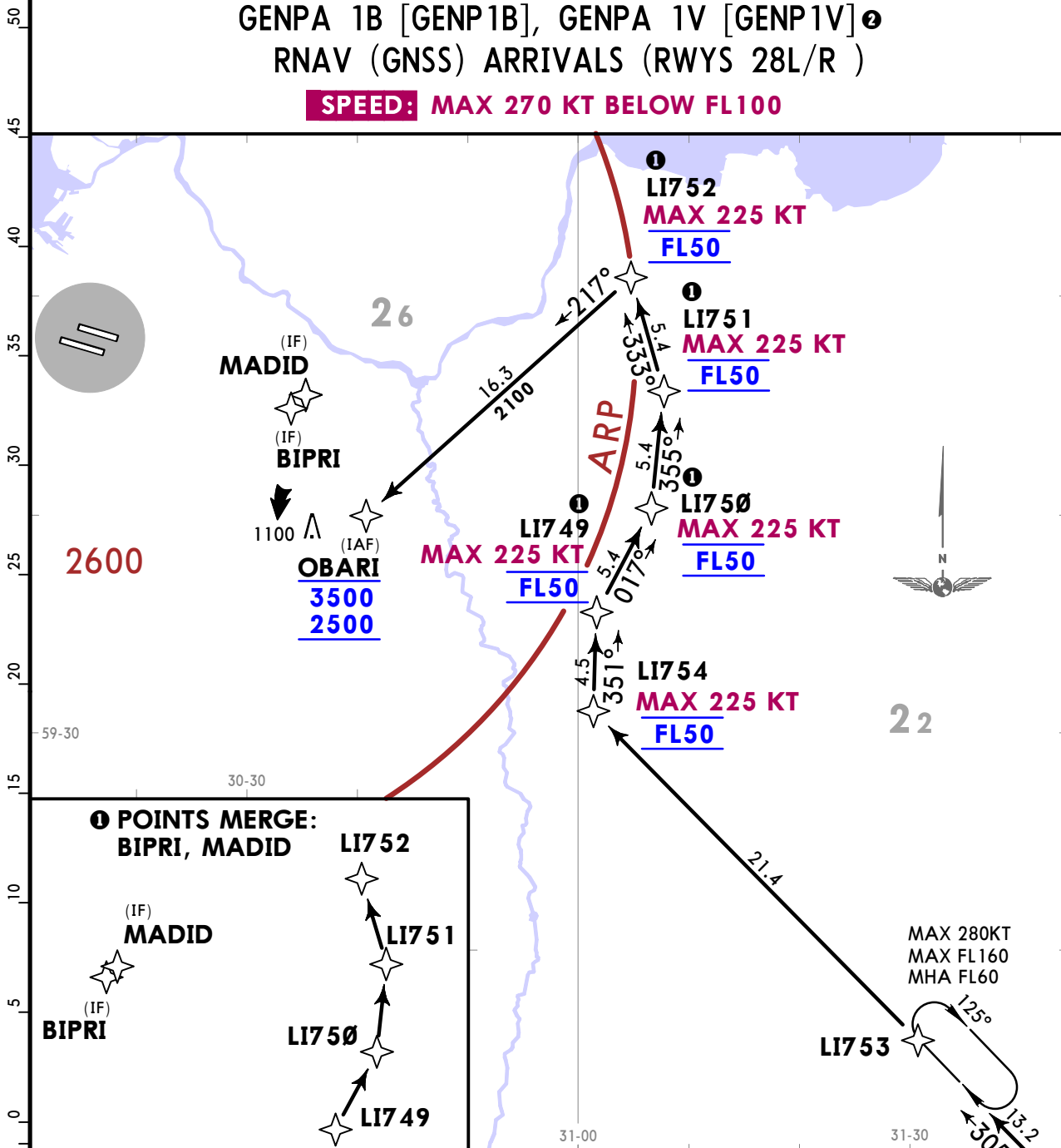
ATIS
127.3
(Russian
127.4)

Apt
Elev
79

- Alt Set: hPa
Trans level: FL50
FL60 if pressure is less than 995.9 hPa (747 mm)
FL70 if pressure is less than 959.9 hPa (720 mm)
1. RNAV 1
 2. GNSS required
 3. Descent shall be carried out by ATC and only to the cleared level (altitude).
 4. If unable to adhere to altitude or speed restrictions, advise ATC.
 5. If maintaining RNAV STAR is not possible, request vectoring.
 6. In case of high traffic intensity, ACFT not having onboard equipment set or crews not approved for RNAV (GNSS) can be prohibited from entering CTA or instruction for 360° turn is issued.
 7. "Direct to" procedure is used, flight crew must be ready at any moment to proceed directly to assigned waypoint.

GENPA 1B [GENP1B], GENPA 1V [GENP1V] ②
RNAV (GNSS) ARRIVALS (RWYS 28L/R)

SPEED: MAX 270 KT BELOW FL100



STAR is assigned for crew to calculate commencing descent and includes holdings to regulate intervals. The fuel required for following the point merge track should be included in the holding fuel.

② For trip fuel calculation use STAR GENPA 1V:
GENPA [FL160-] - LI753 [FL160-; FL60+] - LI754 [FL50]-
OBARI [3500-; 2500+].

NOT TO SCALE

GENPA
FL160

CHANGES: 1Z STARs for fuel calculation redesignated 1W.

ULLI/LED
PULKOVO
20 DEC 19 10-2D
JEPPESSEN
EFF 2 Jan

ATIS
127.3
(Russian)
127.4

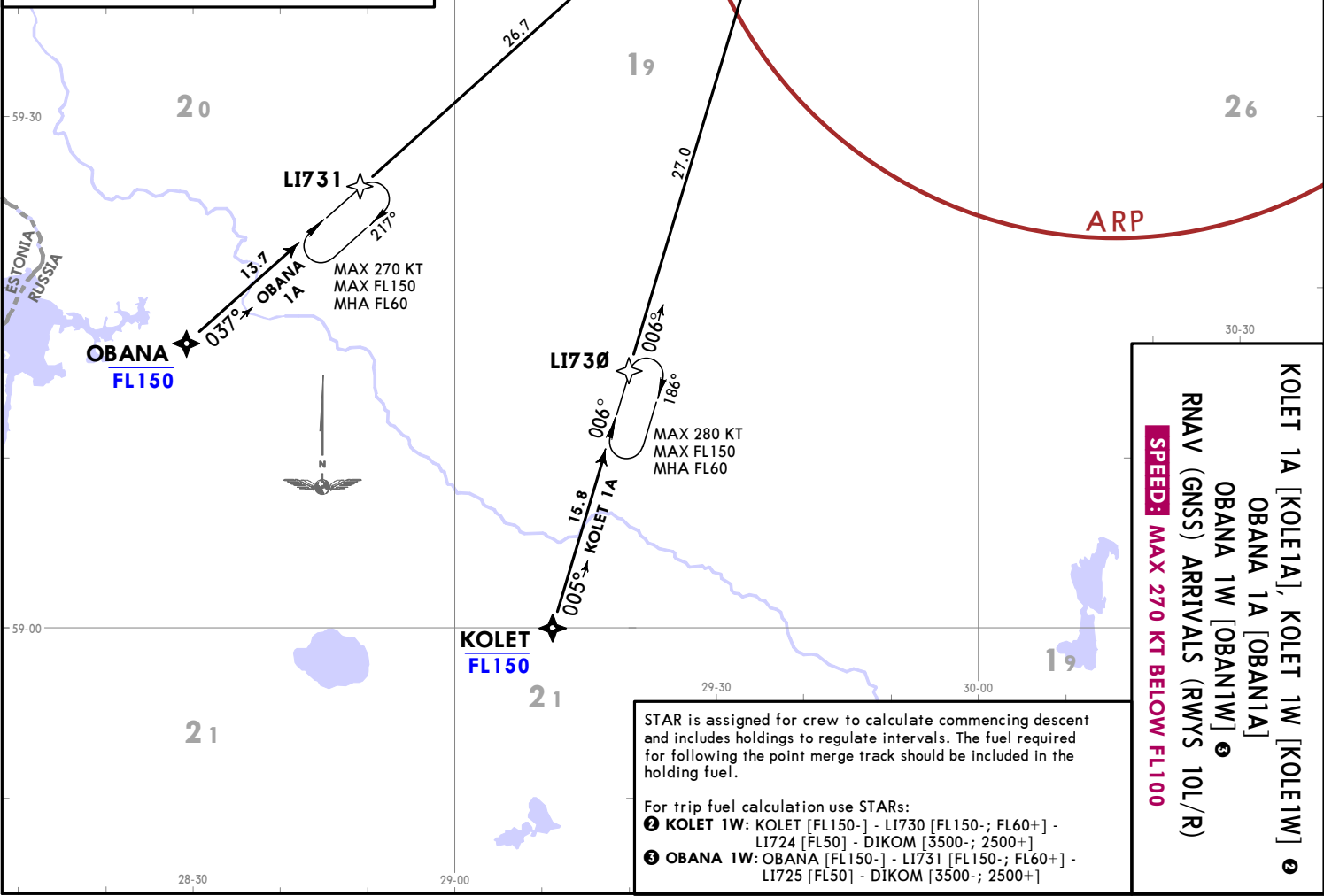
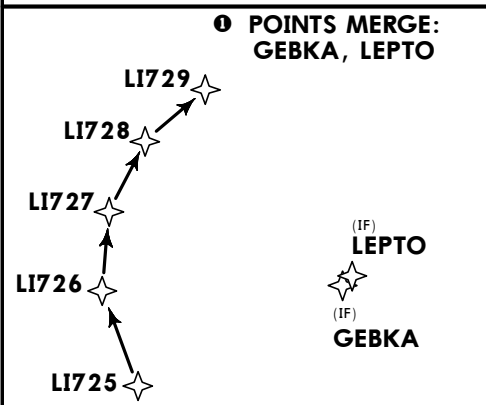
Apt Elev
79

Alt Set: hPa
Trans level:
FL50
FL60 if pressure is less than 995.9 hPa (747 mm)
FL70 if pressure is less than 959.9 hPa (720 mm)

1. RNAV 1
2. GNSS required
3. Descent shall be carried out by ATC and only to the cleared level (altitude).
4. If unable to adhere to altitude or speed restrictions, advise ATC.
5. If maintaining RNAV STAR is not possible, request vectoring.
6. In case of high traffic intensity, ACFT not having onboard equipment set or crews not approved for RNAV (GNSS) can be prohibited from entering CTA or instruction for 360° turn is issued.
7. "Direct to" procedure is used, flight crew must be ready at any moment to proceed directly to assigned waypoint.

KOLET 1A [KOLE1A]
KOLET 1W [KOLE1W] ⓐ
OBANA 1A [OBAN1A]
OBANA 1W [OBAN1W] ⓐ
RNAV (GNSS) ARRIVALS
(RWYS 10L/R)

SPEED: MAX 270 KT BELOW FL100



STAR is assigned for crew to calculate commencing descent and includes holdings to regulate intervals. The fuel required for following the point merge track should be included in the holding fuel.

For trip fuel calculation use STARs:
 ⓐ KOLET 1W: KOLET [FL150-] - LI730 [FL150-; FL60+] - LI724 [FL50] - DIKOM [3500-; 2500+]
 ⓐ OBANA 1W: OBANA [FL150-] - LI731 [FL150-; FL60+] - LI725 [FL50] - DIKOM [3500-; 2500+]

KOLET 1A [KOLE1A], KOLET 1W [KOLE1W] ⓐ
OBANA 1A [OBAN1A]
OBANA 1W [OBAN1W] ⓐ
RNAV (GNSS) ARRIVALS (RWYS 10L/R)

SPEED: MAX 270 KT BELOW FL100

ST PETERSBURG, RUSSIA
RNAV STAR

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ATIS
127.3
(Russian)
127.4

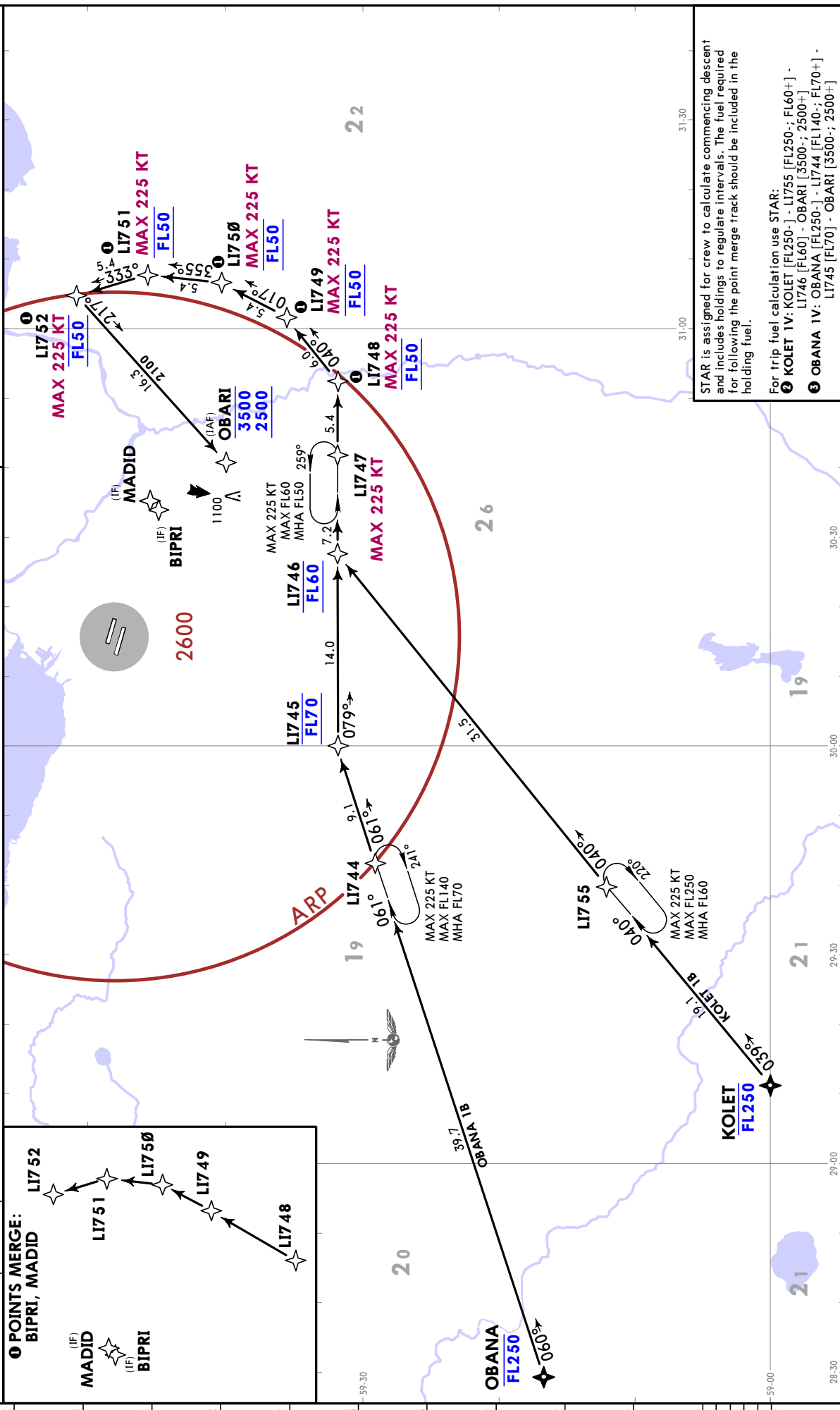
Apt Elev
79

Allt Set: hPa
Trans level:
FL50
FL60 if pressure is less than 995.9 hPa (747 mm)
FL70 if pressure is less than 959.9 hPa (720 mm)

1. RNAV 1
2. GNSS required
3. Descent shall be carried out by ATC and only to the cleared level (altitude).
4. If unable to adhere to altitude or speed restrictions, advise ATC.
5. If maintaining RNAV STAR is not possible, request vectoring.
6. In case of high traffic intensity, ACFT not having onboard equipment set or crews not approved for RNAV (GNSS) can be prohibited from entering CTA or instruction for 360° turn is issued.
7. "Direct to" procedure is used, flight crew must be ready at any moment to proceed directly to assigned waypoint.

KOLET 1B [KOLE1B]
KOLET 1V [KOLE1V] ②
OBANA 1B [OBAN1B]
OBANA 1V [OBAN1V] ③
RNAV (GNSS) ARRIVALS
(RWYS 28L/R)

SPEED: MAX 270 KT BELOW FL100



STAR is assigned for crew to calculate commencing descent and includes holdings to regulate intervals. The fuel required for following the point merge track should be included in the holding fuel.

For trip fuel calculation use STAR:
 ② KOLET 1V: KOLET [FL250+] - LI755 [FL250+; FL60+] - LI746 [FL60] - OBARI [3500+; 2500+]
 ③ OBANA 1V: OBANA [FL250+] - LI744 [FL140+; FL70+] - LI745 [FL70] - OBARI [3500+; 2500+]

ST PETERSBURG, RUSSIA
RNAV STAR

ATIS
127.3
 (Russian 127.4)

Apt Elev
79

Alt Set: hPa
 Trans level: FL50
 FL60 if pressure is less than 995.9 hPa (747 mm)
 FL70 if pressure is less than 959.9 hPa (720 mm)

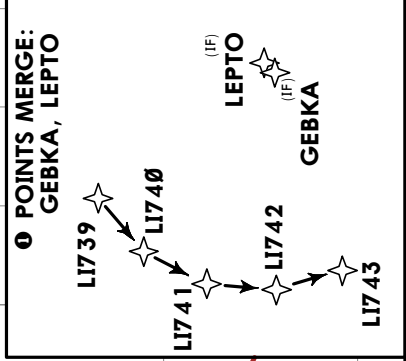
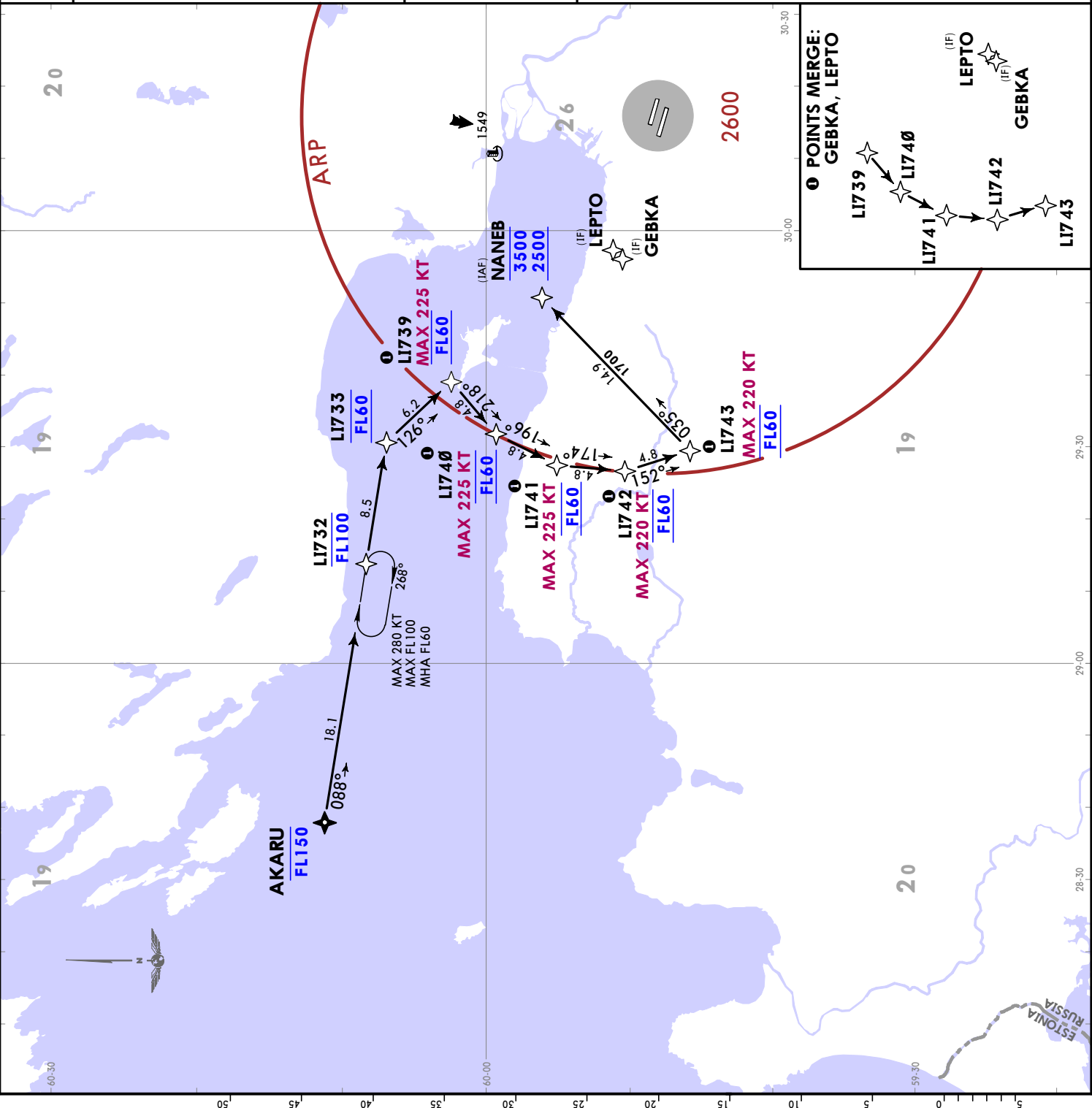
1. RNAV 1
2. GNSS required
3. Descent shall be carried out by ATC and only to the cleared level (altitude).
4. If unable to adhere to altitude or speed restrictions, advise ATC.
5. If maintaining RNAV STAR is not possible, request vectoring.
6. In case of high traffic intensity, ACFT not having onboard equipment set or crews not approved for RNAV (GNSS) can be prohibited from entering CTA or instruction for 360° turn is issued.
7. "Direct to" procedure is used, flight crew must be ready at any moment to proceed directly to assigned waypoint.

AKARU 1A [AKAR1A]
AKARU 1W [AKAR1W]
RNAV (GNSS) ARRIVALS
(RWYS 10L/R)

SPEED: MAX 270 KT BELOW FL100

STAR is assigned for crew to calculate commencing descent and includes holdings to regulate intervals. The fuel required for following the point merge track should be included in the holding fuel.

For trip fuel calculation use STAR AKARU 1W: AKARU [FL150-] - LI732 [FL100-] - LI733 [FL60] - NANEB [3500+; 2500+].



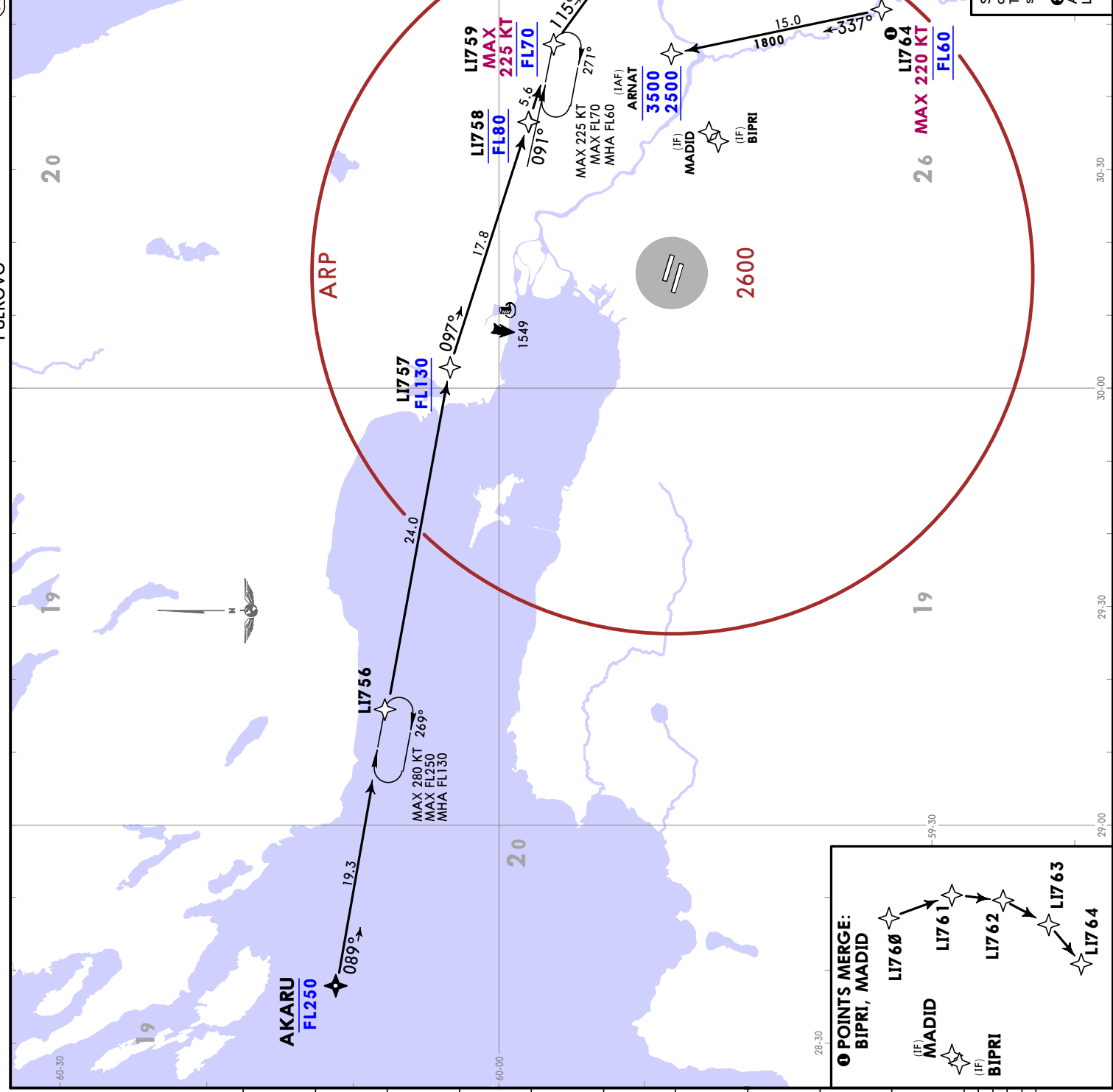
JEPPesen **ST PETERSBURG, RUSSIA**
ULLI/LED PULKOVO
 20 DEC 19 (10-2C) Eff 2 Jan

ATIS
127.3
 (Russian 127.4)
 Apt Elev
79
RNAV STAR

Alt Set: hPa
 Trans level: FL50
 FL60 if pressure is less than 995.9 hPa (747 mm)
 FL70 if pressure is less than 959.9 hPa (720 mm)

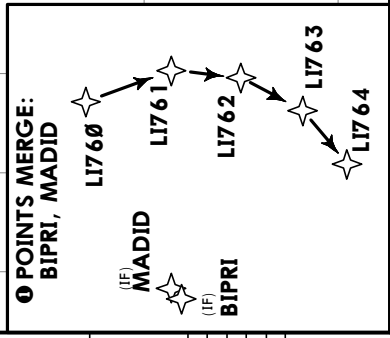
1. RNAV 1
2. GNSS required
3. Descent shall be carried out by ATC and only to the cleared level (altitude).
4. If unable to adhere to altitude or speed restrictions, advise ATC.
5. If maintaining RNAV STAR is not possible, request vectoring.
6. In case of high traffic intensity, ACFT not having onboard equipment set or crews not approved for RNAV (GNSS) can be prohibited from entering CIA or instruction for 360° turn is issued.
7. "Direct to" procedure is used, flight crew must be ready at any moment to proceed directly to assigned waypoint.

AKARU 1B [AKAR1B]
AKARU 1V [AKAR1V]
RNAV (GNSS) ARRIVALS
(RWYS 28L/R)
SPEED: MAX 270 KT BELOW FL100



STAR is assigned for crew to calculate commencing descent and includes holdings to regulate intervals. The fuel required for following the point merge track should be included in the holding fuel.

For trip fuel calculation use STAR AKARU 1V:
 AKARU [FL250+] - LI756 [FL250+; FL130+] - LI757 [FL130+] - ARNAT [3500+; 2500+].

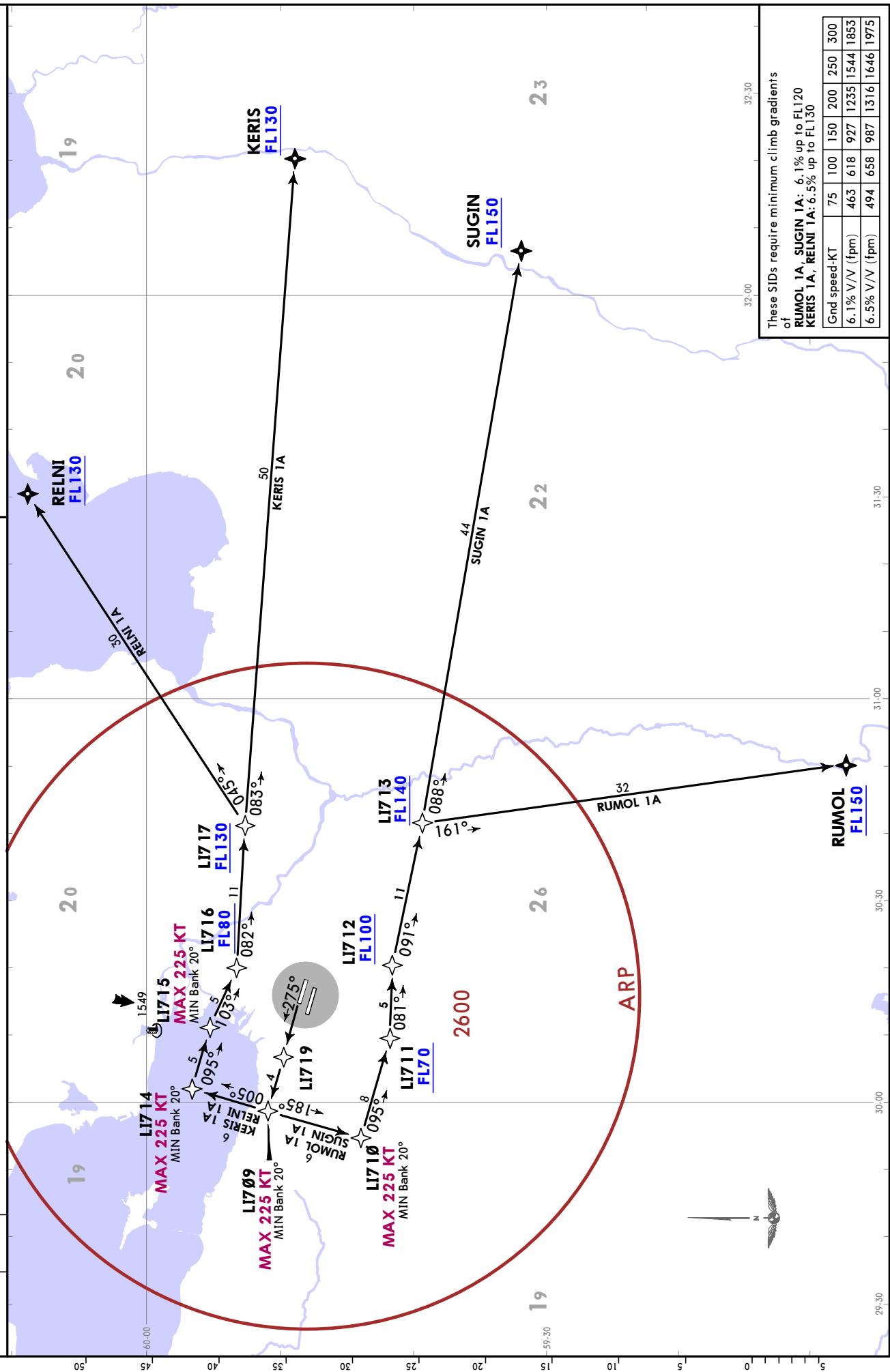


ULLI/LED
PULKOVO
 19 APR 19 **10-3** **Eff 25 Apr**
JEPPESSEN
ST PETERSBURG, RUSSIA
RNAV SID

PULKOVO Krug
 (TWR)
120.3
 Apt Elev
79

- Trans alt: 3500
1. RNAV 1
 2. GNSS required
 3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR).
 4. If maintaining RNAV SID is not possible, request RADAR vectoring.
 5. The application of RADAR vectoring and/or "direct to" procedure is possible.

**KERIS 1A [KERI1A], RELNI 1A [RELN1A]
 RUMOL 1A [RUMO1A], SUGIN 1A [SUGI1A]
 RWY 28R RNAV DEPARTURES**
SPEED: MAX 270 KT BELOW FL100



These SIDs require minimum climb gradients of

	75	100	150	200	250	300
RUMOL 1A, SUGIN 1A: 6.1% up to FL120	463	618	927	1235	1544	1853
KERIS 1A, RELNI 1A: 6.5% up to FL130	494	658	987	1316	1646	1975

End speed-KT

ST PETERSBURG, RUSSIA
RNAV SID

JEPPESEN
 19 APR 19 (10-3A) Eff 25 Apr

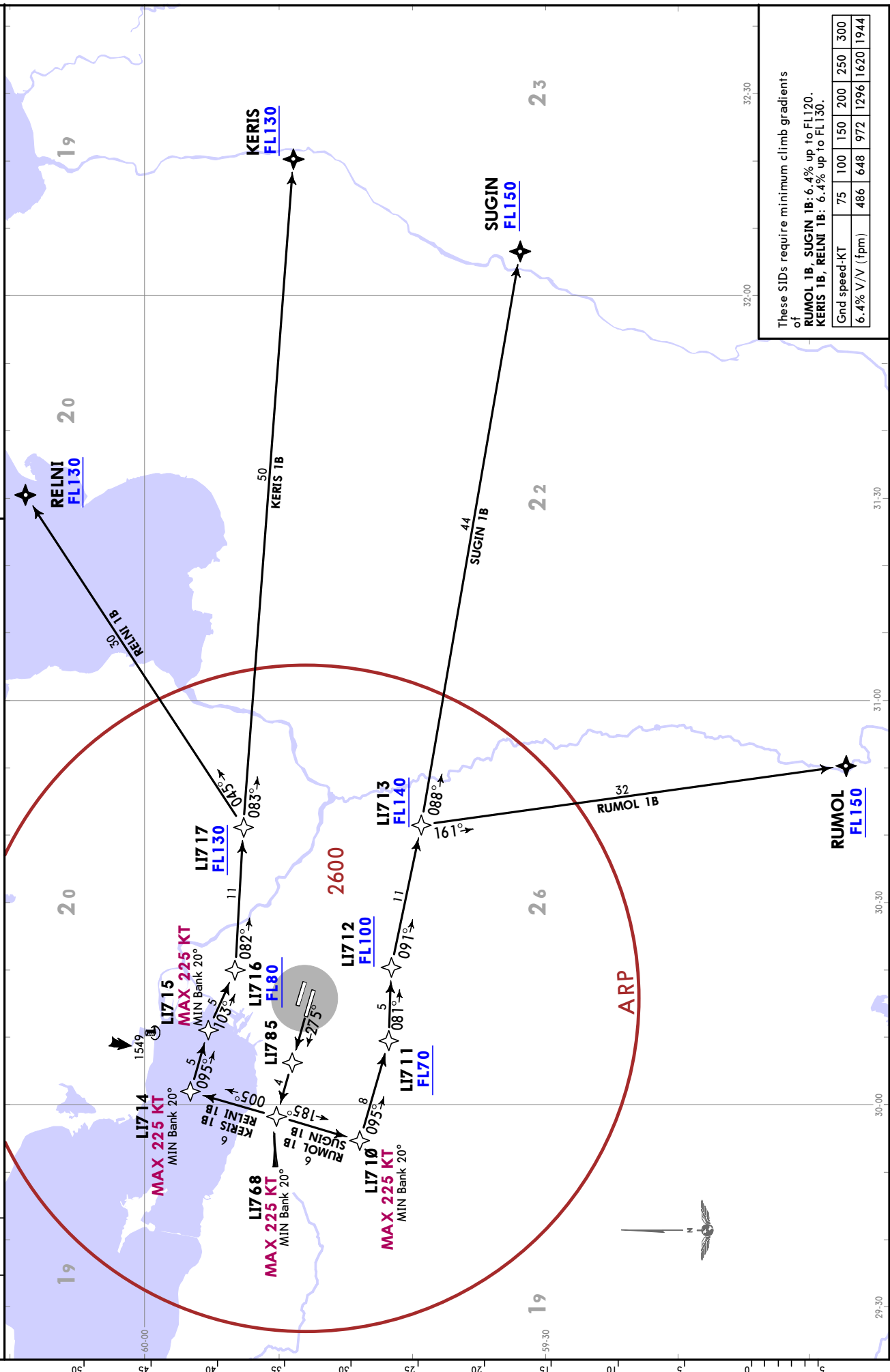
ULLI/LED
 PULKOVO

PULKOVO Krug (TWR)
 120.3

Apt Elev
 79

- Trans alt: 3500
1. RNAV 1
 2. GNSS required
 3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR).
 4. If maintaining RNAV SID is not possible, request RADAR vectoring.
 5. The application of RADAR vectoring and/or "direct to" procedure is possible.

KERIS 1B [KERI1B], RELNI 1B [RELN1B]
 RUMOL 1B [RUMO1B], SUGIN 1B [SUGI1B]
 RWY 28L RNAV DEPARTURES
SPEED: MAX 270 KT BELOW FL100



ULLI/LED
PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA
19 APR 19 **10-3B** Eff 25 Apr **RNAV SID**

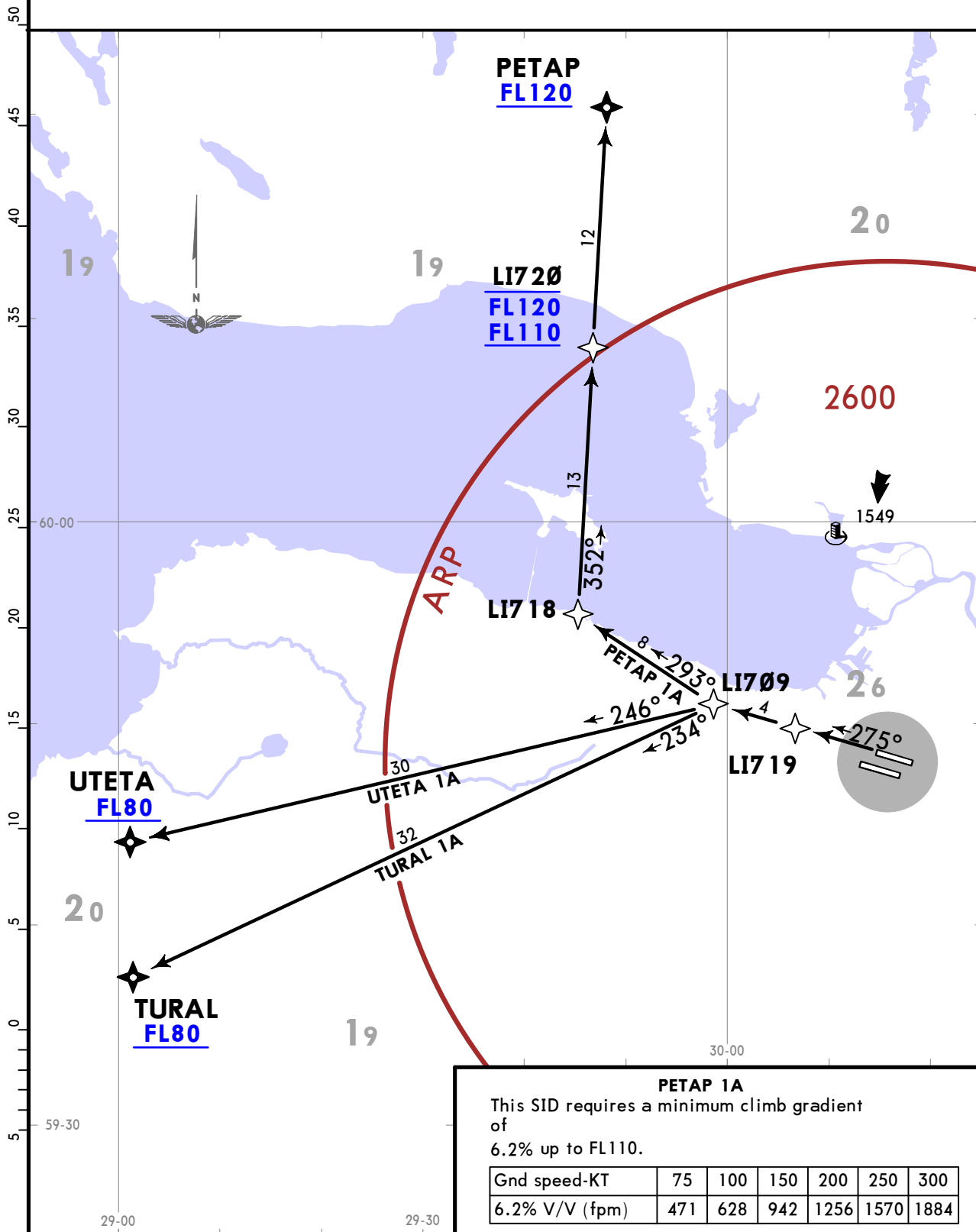
PULKOVO Krug
(TWR)
120.3

Apt Elev
79

- Trans alt: 3500
1. RNAV 1
 2. GNSS required
 3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR).
 4. If maintaining RNAV SID is not possible, request RADAR vectoring.
 5. The application of RADAR vectoring and/or "direct to" procedure is possible.

**PETAP 1A [PETA1A], TURAL 1A [TURA1A]
UTETA 1A [UTET1A]
RWY 28R RNAV DEPARTURES**

SPEED: MAX 270 KT BELOW FL100



ULLI/LED
PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA
19 APR 19 **10-3C** Eff 25 Apr **RNAV SID**

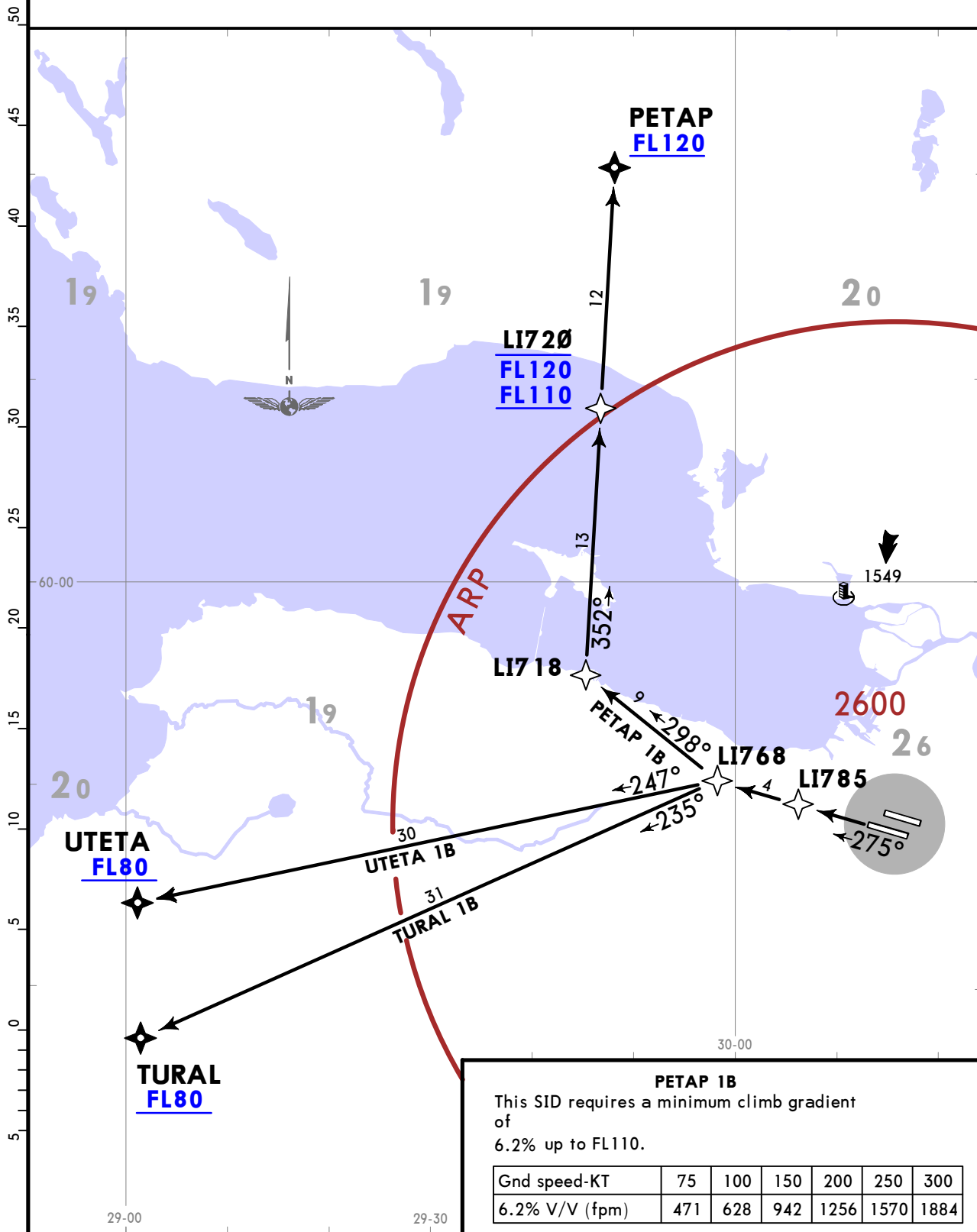
PULKOVO Krug
(TWR)
120.3

Apt Elev
79

- Trans alt: 3500
1. RNAV 1
 2. GNSS required
 3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR).
 4. If maintaining RNAV SID is not possible, request RADAR vectoring.
 5. The application of RADAR vectoring and/or "direct to" procedure is possible.

**PETAP 1B [PETA1B], TURAL 1B [TURA1B]
UTETA 1B [UTET1B]
RWY 28L RNAV DEPARTURES**

SPEED: MAX 270 KT BELOW FL100



ST PETERSBURG, RUSSIA
RNAV SID

PULKOVO Krug
(TWR)
120.3

Apt Elev
79

Trans alt: 3500

1. RNAV 1
2. GNSS required
3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR).
4. If maintaining RNAV SID is not possible, request RADAR vectoring.
5. The application of RADAR vectoring and/or "direct to" procedure is possible.
6. EXPECT close-in obstacles.

KERIS 1C [KER1C]
RELNI 1C [RELN1C]
RUMOL 1C [RUMO1C]
SUGIN 1C [SUG1C]

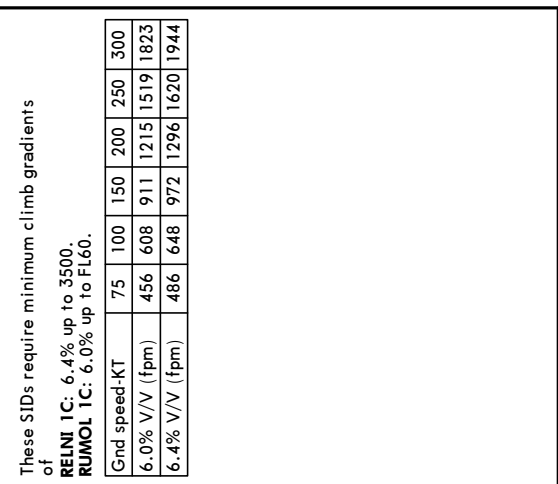
RWY 10R RNAV DEPARTURES

SPEED: MAX 270 KT BELOW FL100

These SIDs require minimum climb gradients of

RELNI 1C: 6.4% up to 3500.
RUMOL 1C: 6.0% up to FL60.

Grnd speed-KT	75	100	150	200	250	300
6.0% V/V (fpm)	456	608	911	1215	1519	1823
6.4% V/V (fpm)	486	648	972	1296	1620	1944

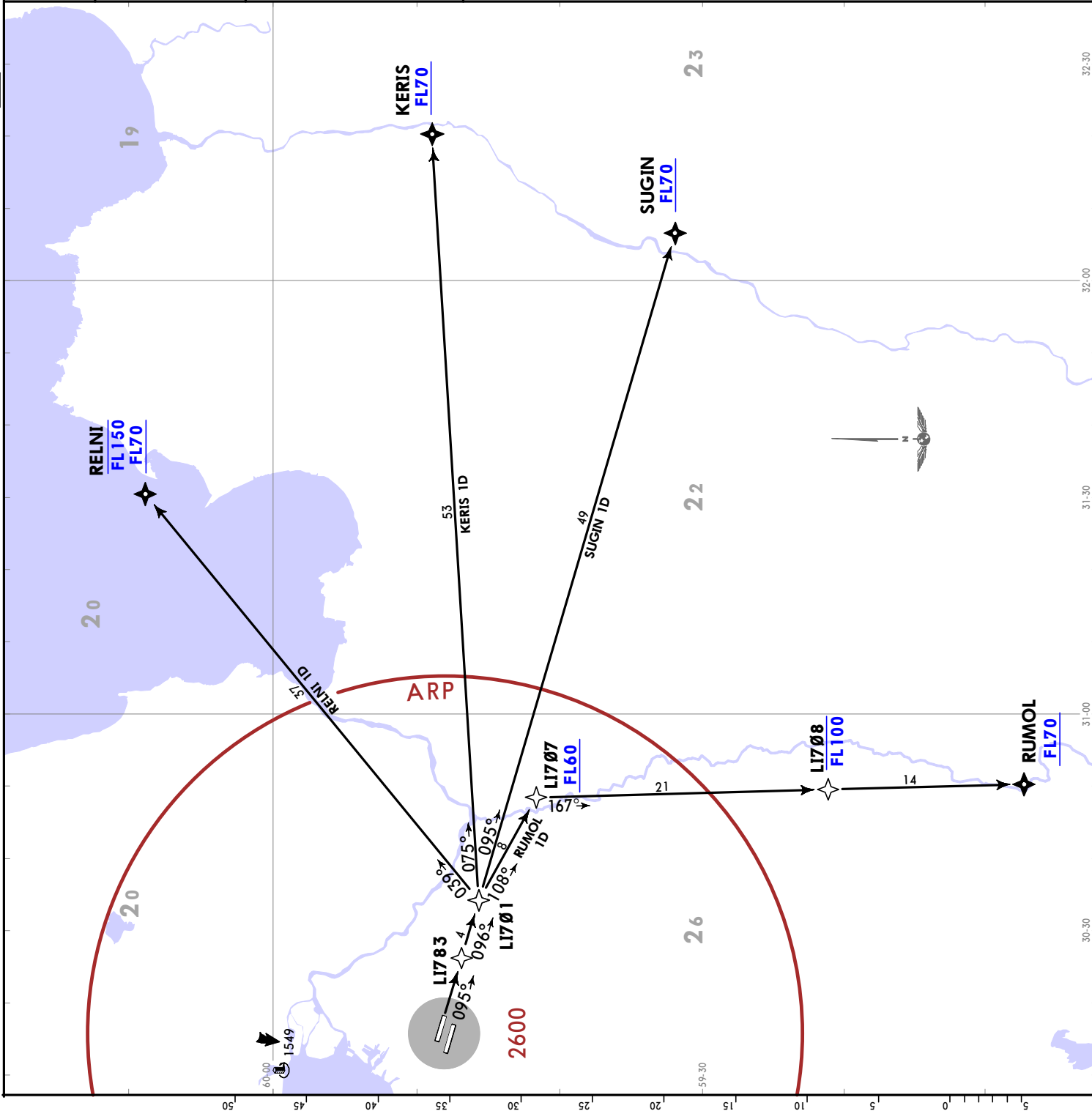


ST PETERSBURG, RUSSIA
RNAV SID

JEPPESSEN
 19 APR 19 (10-3E) Eff 25 Apr

ULLI/LED
PULKOVO

PULKOVO Krug (TWR) 120.3	Apt Elev 79
Trans alt: 3500 1. RNAV 1 2. GNSS required 3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR). 4. If maintaining RNAV SID is not possible, request RADAR vectoring. 5. The application of RADAR vectoring and/or "direct to" procedure is possible. 6. EXPECT close-in obstacles.	
KERIS 1D [KERI1D] RELNI 1D [RELN1D] RUMOL 1D [RUMO1D] SUGIN 1D [SUGI1D] RWY 10L RNAV DEPARTURES SPEED: MAX 270 KT BELOW FL100	
RUMOL 1D This SID requires a minimum climb gradient of 6.0% up to FL60.	



ST PETERSBURG, RUSSIA

RNAV SID

PULKOVO Krug
(TWR)
120.3

Apt Elev
79

Trans alt: 3500

1. **RNAV 1**
2. **GNSS required**
3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR).
4. If maintaining RNAV SID is not possible, request RADAR vectoring.
5. The application of RADAR vectoring and/or "direct to" procedure is possible.
6. EXPECT close-in obstacles.

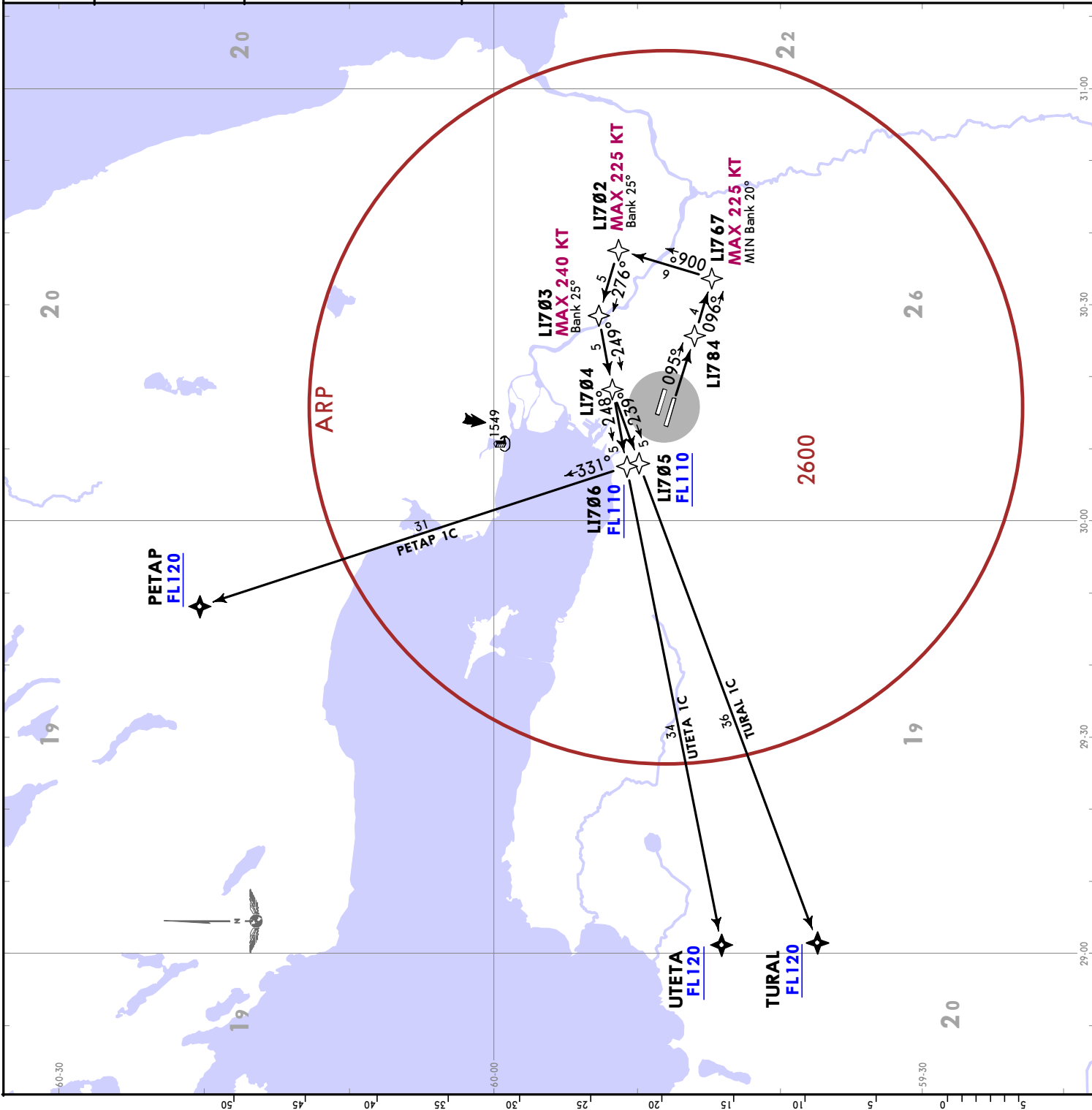
**PETAP 1C [PETA1C]
TURAL 1C [TURA1C]
UTETA 1C [UTET1C]**

RWY 10R RNAV DEPARTURES

SPEED: MAX 270 KT BELOW FL100

These SIDs require a minimum climb gradient of 6.4% up to FL110.

End speed-KT	75	100	150	200	250	300
6.4% V/V (fpm)	486	648	972	1296	1620	1944

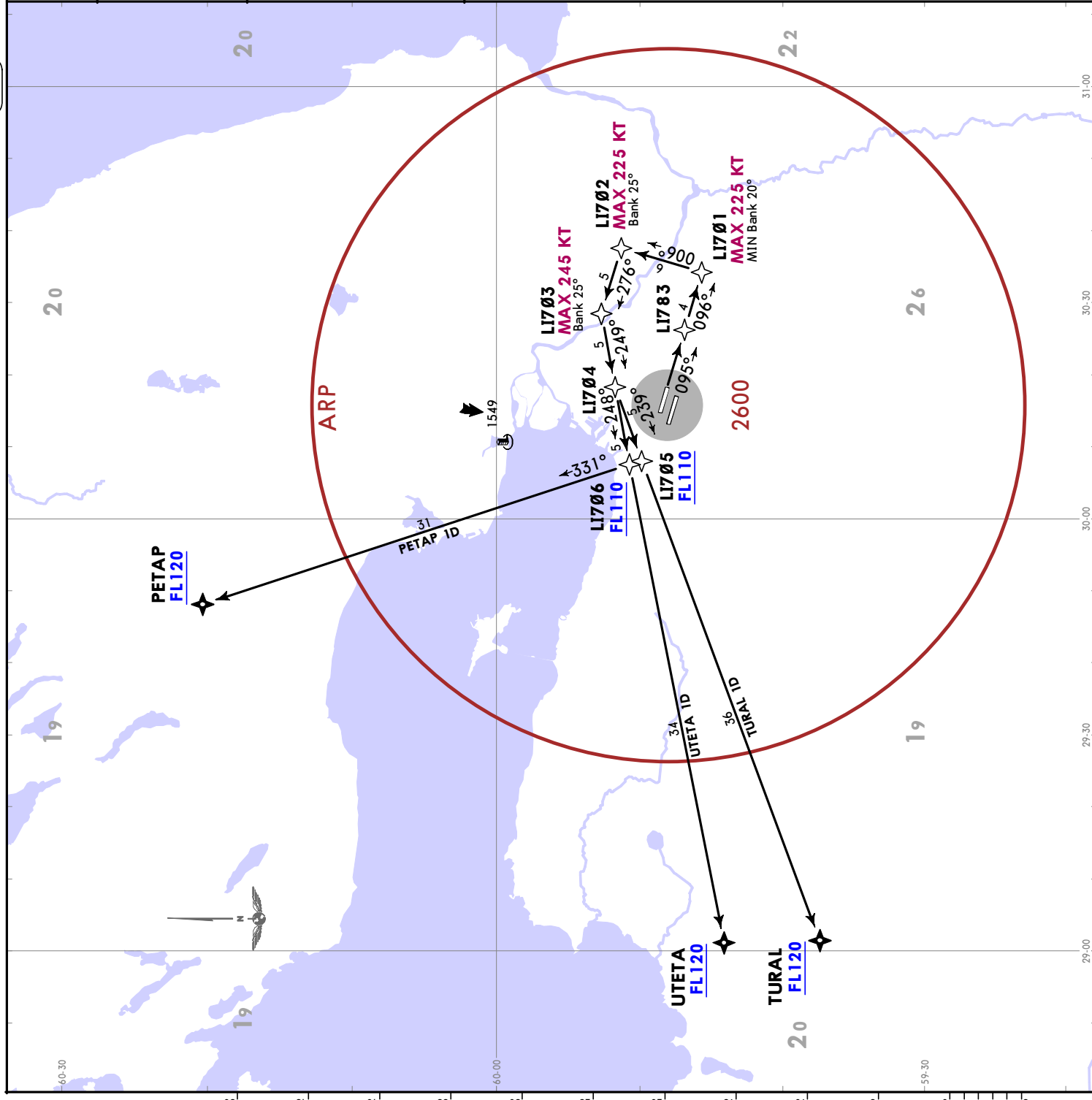


ST PETERSBURG, RUSSIA
RNAV SID

JEPPESEN
19 APR 19 10-3G Eff 25 Apr

ULLI/LED
PULKOVO

PULKOVO Krug (TWR) 120.3	Apt Elev 79	Trans alt: 3500 1. RNAV 1 2. GNSS required 3. Unless otherwise instructed, climb to 3500, at 700 contact PULKOVO Krug (TWR). 4. If maintaining RNAV SID is not possible, request RADAR vectoring. 5. The application of RADAR vectoring and/or "direct to" procedure is possible. 6. EXPECT close-in obstacles.														
PETAP 1D [PETA1D] TURAL 1D [TURA1D] UTETA 1D [UTET1D] RWY 10L RNAV DEPARTURES SPEED: MAX 270 KT BELOW FL100																
These SIDs require a minimum climb gradient of 6.5% up to FL110.																
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>Grnd speed-KT</td> <td>75</td> <td>100</td> <td>150</td> <td>200</td> <td>250</td> <td>300</td> </tr> <tr> <td>6.5% V/V (fpm)</td> <td>494</td> <td>658</td> <td>987</td> <td>1316</td> <td>1646</td> <td>1975</td> </tr> </table>			Grnd speed-KT	75	100	150	200	250	300	6.5% V/V (fpm)	494	658	987	1316	1646	1975
Grnd speed-KT	75	100	150	200	250	300										
6.5% V/V (fpm)	494	658	987	1316	1646	1975										



CHANGES: Bearings.

ULLI/LED

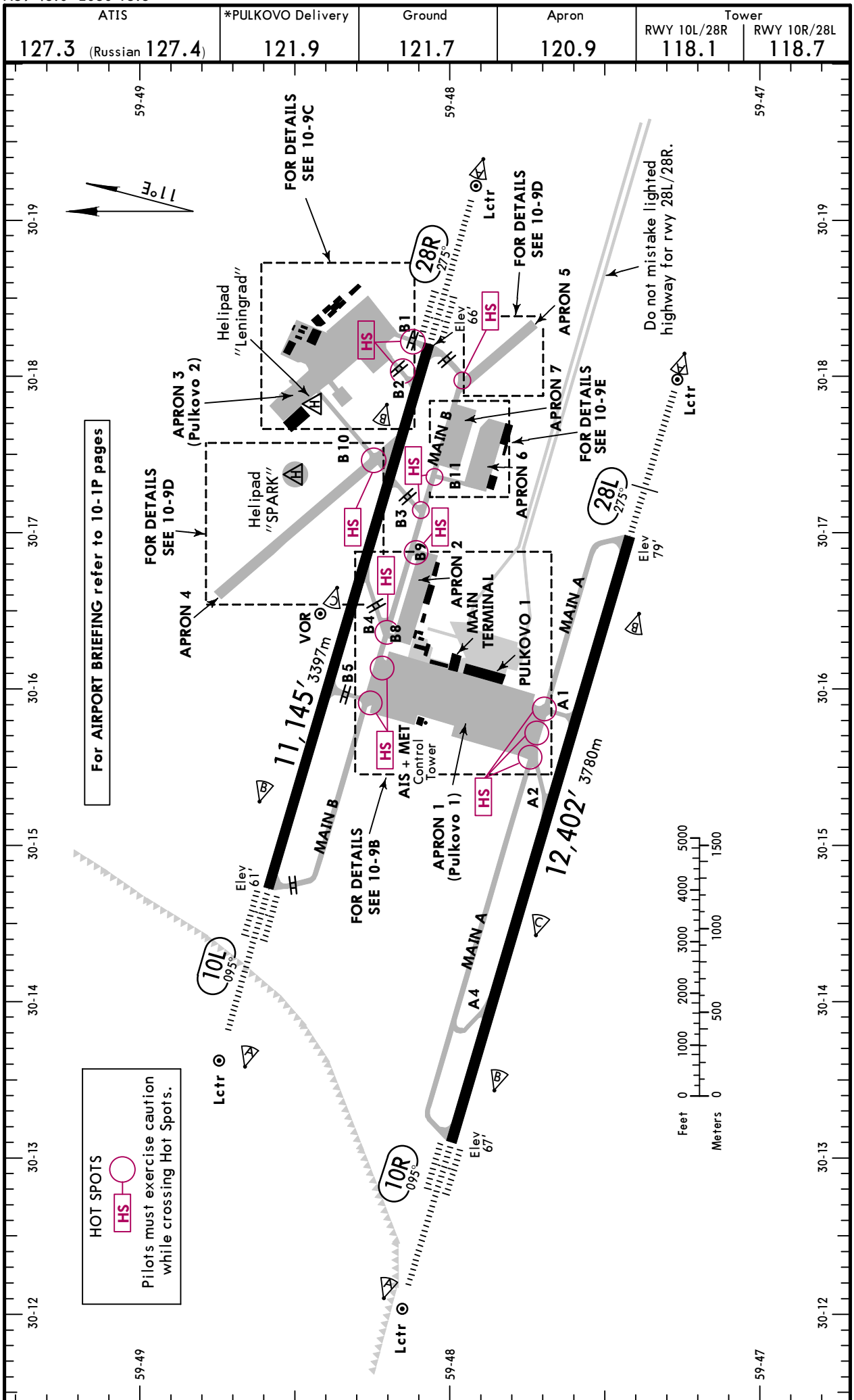
Apt Elev **79'**
N59 48.0 E030 15.8



ST PETERSBURG, RUSSIA

12 APR 19 **10-9** Eff 25 Apr

PULKOVO



ULLI/LED



JEPPESEN ST PETERSBURG, RUSSIA

12 APR 19 (10-9A) Eff 25 Apr

PULKOVO

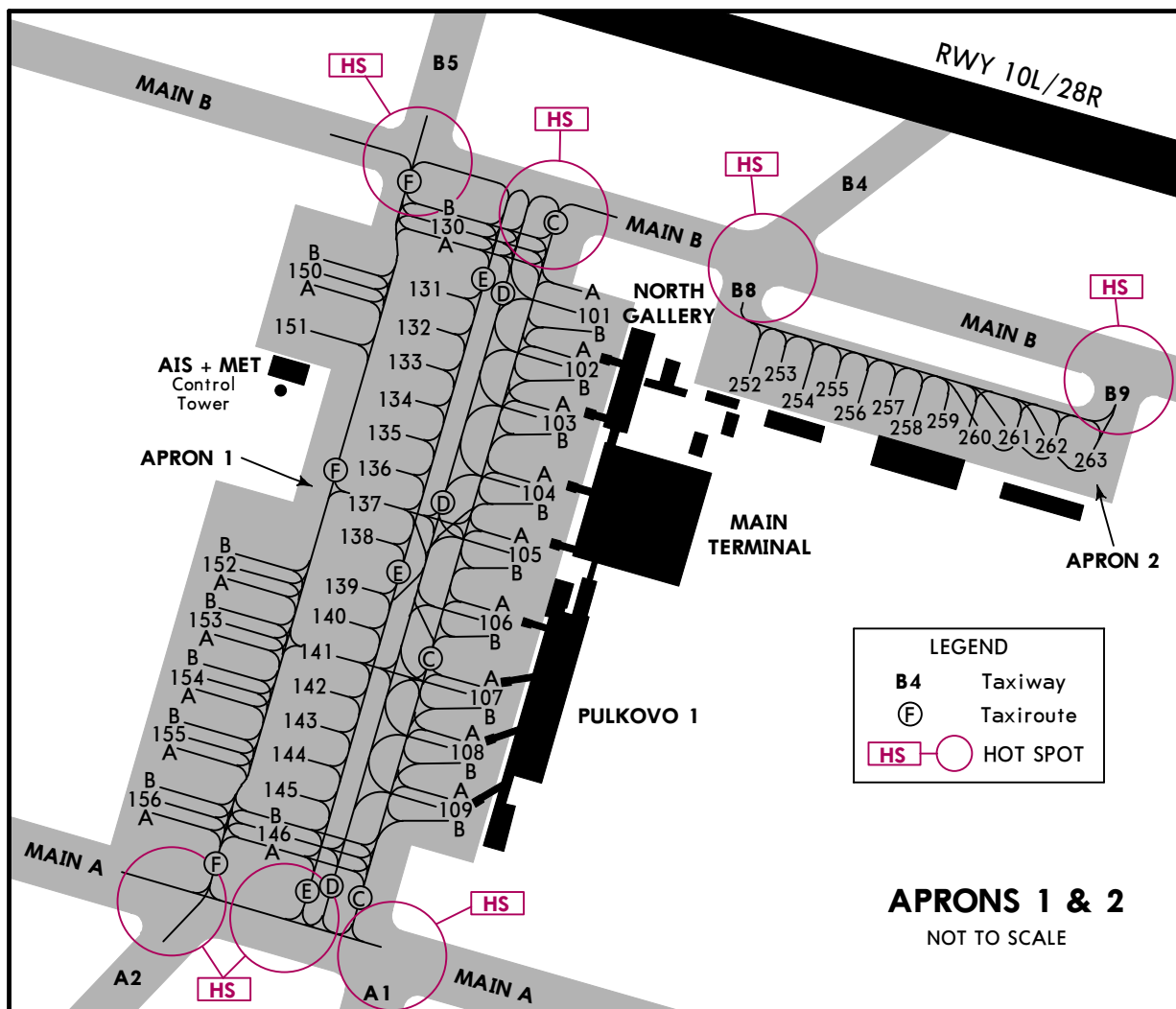
ADDITIONAL RUNWAY INFORMATION								
RWY					USABLE LENGTHS		TAKE-OFF	WIDTH
					LANDING BEYOND			
		Threshold	Glide Slope					
10L	HIRL(60m) CL(15m) HIALS-II TDZ PAPI-L(3.0°) RVR		10,112' 3082m		②		197' 60m	
28R	HIRL(60m) CL(15m) HIALS-II TDZ PAPI-L(3.0°) ① RVR							
<p>① HST-B4</p> <p>② TAKE-OFF RUN AVAILABLE</p> <p><u>RWY 10L:</u> From rwy head 11,145'(3397m) twy B5 int 7113'(2168m) twy B4 int 4843'(1476m)</p> <p><u>RWY 28R:</u> From rwy head 11,145'(3397m) twy B2 int 10,413'(3174m) twy B3 int 8379'(2554m) twy B4 int 6476'(1974m) twy B5 int 4134'(1260m)</p>								
10R	HIRL (60m) CL (15m) HIALS-II TDZ ③ ④ RVR		11,430' 3484m		⑥		197' 60m	
28L	HIRL (60m) CL (15m) HIALS PAPI-L (3.0°) ⑤ RVR		11,248' 3428m					
<p>③ PAPI-L (3.0°)</p> <p>④ HST-A2 (with HSTIL)</p> <p>⑤ HST-A4 (with HSTIL)</p> <p>⑥ TAKE-OFF RUN AVAILABLE</p> <p><u>RWY 10R:</u> From rwy head 12,402'(3780m) twy A4 int 9892'(3015m) twy A1 int 3773'(1150m)</p> <p><u>RWY 28L:</u> From rwy head 12,402'(3780m) twy A1 int 8701'(2652m) twy A2 int 7093'(2162m)</p>								

TAKE-OFF					
	AIR CARRIER All Rwys			AIR CARRIER (FAR 121) All Rwys	
	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	CL & RCLM any RVR out, other two req.	Adequate Vis Ref
A				2 Eng	
B	200m (150m)	250m	400m	3 & 4 Eng	TDZ RVR 175m Mid RVR 175m Roll out RVR 175m
C					RVR 500m VIS 400m
D	250m (200m)	300m			

RVR in parentheses if TDZ RVR is supplemented by Mid and/or Rollout RVR.

ULLI/LED

JEPPESSEN ST PETERSBURG, RUSSIA
 12 APR 19 **10-9B** Eff 25 Apr
PULKOVO



APRONS 1 & 2
 NOT TO SCALE

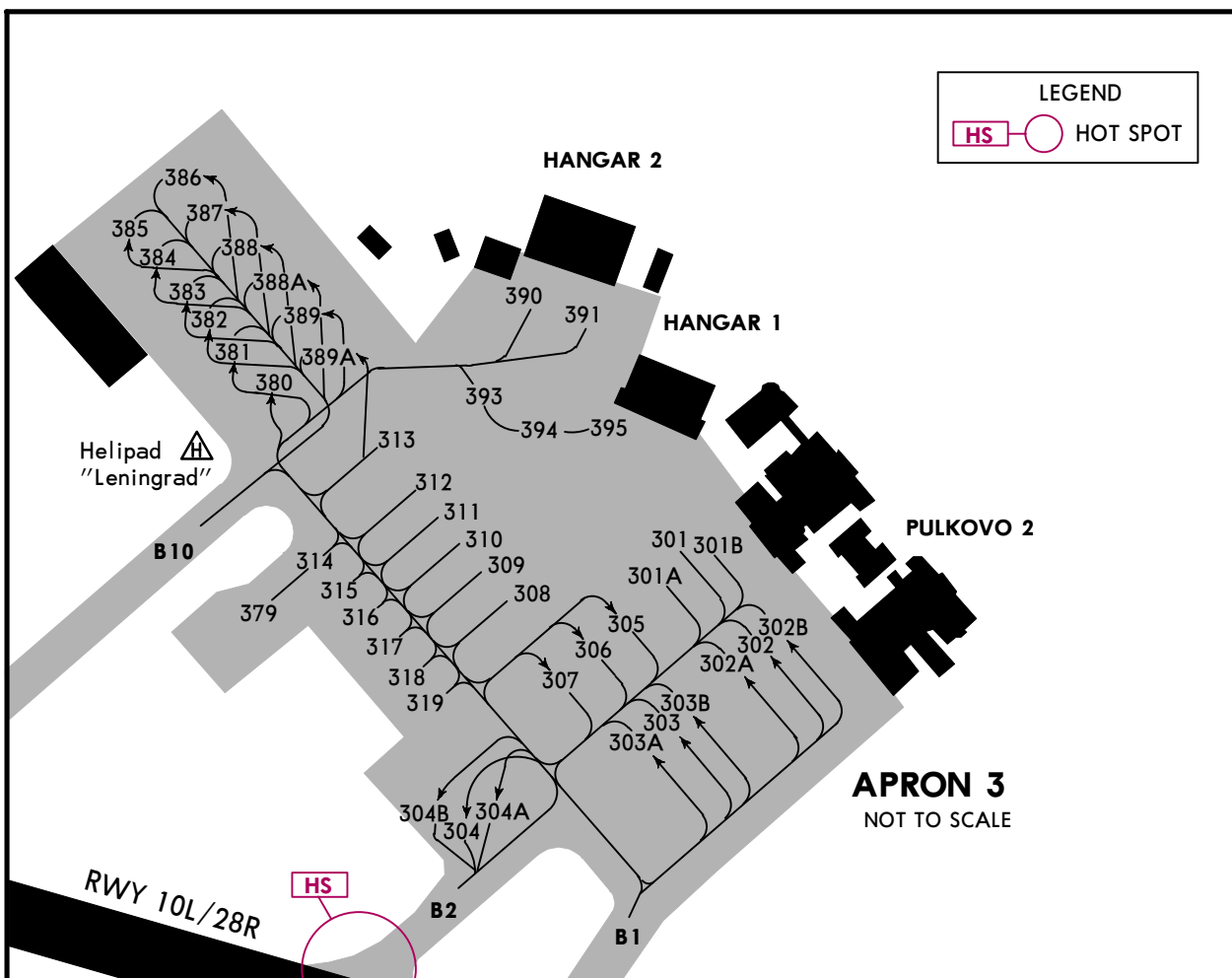
INS COORDINATES		INS COORDINATES	
STAND No.	COORDINATES	STAND No.	COORDINATES
101 thru 101B	N59 48.2 E030 16.2	155B	N59 47.9 E030 15.6
102	N59 48.1 E030 16.2	156	N59 47.8 E030 15.6
102A	N59 48.1 E030 16.1	156A, 156B	N59 47.8 E030 15.5
102B	N59 48.1 E030 16.2		
103 thru 103B	N59 48.1 E030 16.1	252 thru 254	N59 48.1 E030 16.4
		255, 256	N59 48.1 E030 16.5
104 thru 105B	N59 48.0 E030 16.1	257, 258	N59 48.1 E030 16.6
106	N59 47.9 E030 16.1	259 thru 261	N59 48.1 E030 16.7
106A	N59 47.9 E030 16.0	262, 263	N59 48.1 E030 16.8
106B	N59 47.9 E030 16.1		
107 thru 107B	N59 47.9 E030 16.0		
108 thru 109B	N59 47.8 E030 16.0		
130 thru 130B	N59 48.2 E030 16.0		
131	N59 48.2 E030 15.9		
132 thru 136	N59 48.1 E030 15.9		
137 thru 139	N59 48.0 E030 15.8		
140 thru 142	N59 47.9 E030 15.8		
143	N59 47.9 E030 15.7		
144 thru 146B	N59 47.8 E030 15.7		
150	N59 48.2 E030 15.8		
150A, 150B	N59 48.2 E030 15.7		
151	N59 48.1 E030 15.7		
152, 152A	N59 48.0 E030 15.7		
152B	N59 48.0 E030 15.6		
153 thru 154B	N59 47.9 E030 15.6		
155, 155A	N59 47.8 E030 15.6		

CHANGES: Coordinates of stand 152B.

ULLI/LED

JEPPesen ST PETERSBURG, RUSSIA
12 APR 19 (10-9C) Eff 25 Apr

PULKOVO



LEGEND
HS HOT SPOT

INS COORDINATES	
STAND No.	COORDINATES
301 thru 301B	N59 48.4 E030 18.3
302 thru 302B	N59 48.3 E030 18.4
303 thru 303B	N59 48.3 E030 18.3
304 thru 304B	N59 48.2 E030 18.1
305	N59 48.3 E030 18.3
306, 307	N59 48.3 E030 18.2
308 thru 311	N59 48.4 E030 18.1
312, 313	N59 48.4 E030 18.0
314, 315	N59 48.4 E030 17.9
316 thru 319	N59 48.3 E030 18.0
379	N59 48.4 E030 17.9
380, 381	N59 48.5 E030 17.9
382 thru 387	N59 48.5 E030 17.8
388 thru 389A	N59 48.5 E030 17.9
390	N59 48.5 E030 18.1
391	N59 48.5 E030 18.2
393	N59 48.4 E030 18.1
394, 395	N59 48.4 E030 18.2

CHANGES: Construction area withdrawn. Stands & Coordinates.

ULLI/LED



JEPPESEN

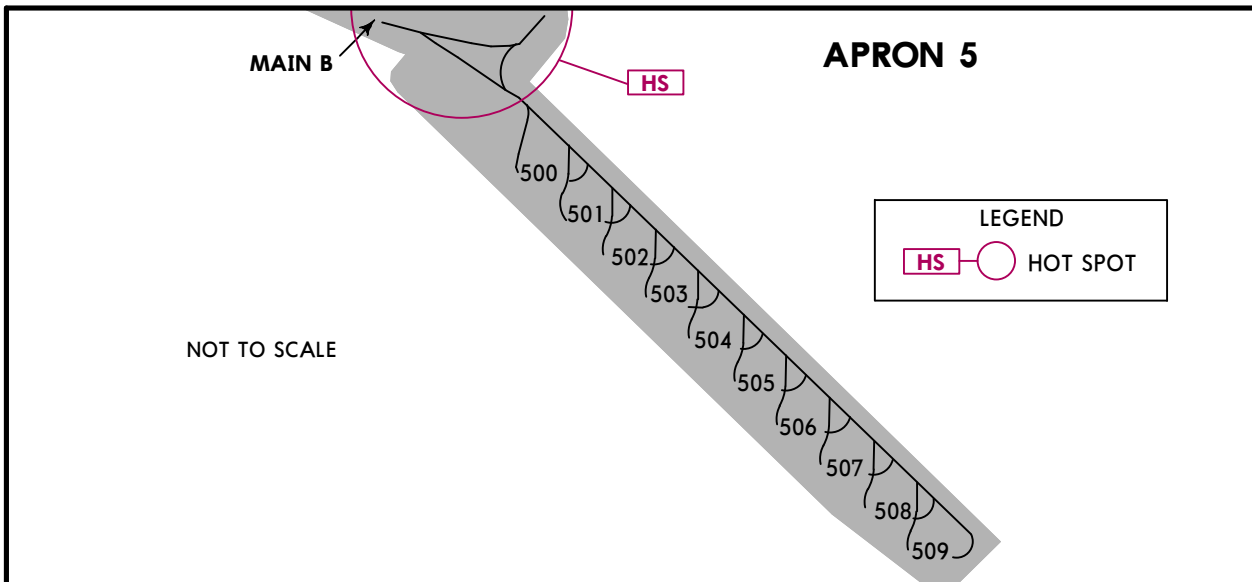
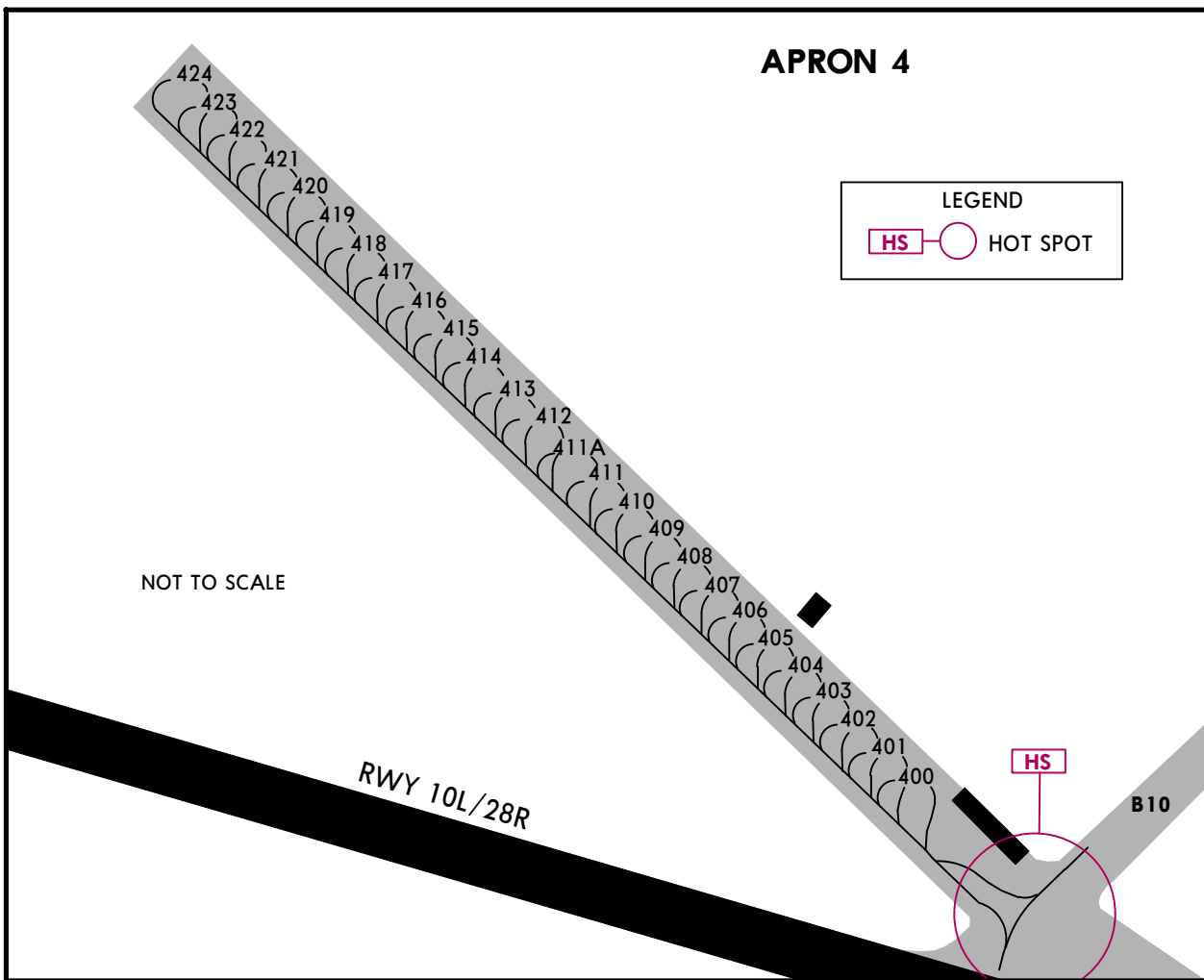
ST PETERSBURG, RUSSIA

6 JUL 18

10-9D

Eff 19 Jul

PULKOVO



INS COORDINATES

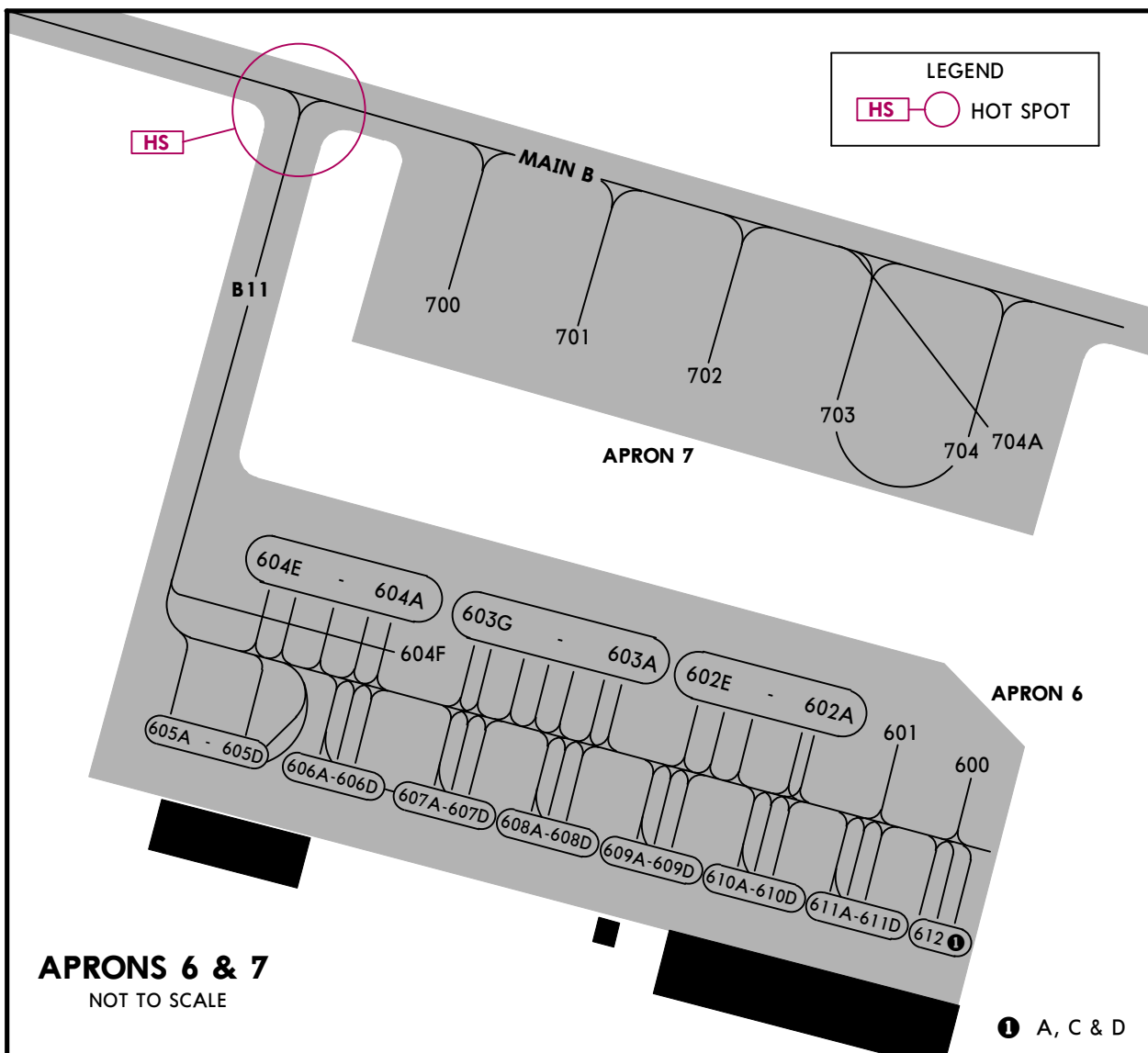
STAND No.	COORDINATES	STAND No.	COORDINATES
400 thru 403	N59 48.4 E030 17.2	501, 502	N59 47.9 E030 18.1
404	N59 48.4 E030 17.1	503	N59 47.8 E030 18.1
405 thru 407	N59 48.5 E030 17.1	504 thru 507	N59 47.8 E030 18.2
408 thru 411	N59 48.5 E030 17.0	508	N59 47.8 E030 18.3
411A thru 414	N59 48.6 E030 16.9	509	N59 47.7 E030 18.3
415 thru 417	N59 48.6 E030 16.8		
418	N59 48.7 E030 16.8		
419 thru 422	N59 48.7 E030 16.7		
423, 424	N59 48.7 E030 16.6		
500	N59 47.9 E030 18.0		

ULLI/LED

JEPPESEN ST PETERSBURG, RUSSIA

6 JUL 18 (10-9E) Eff 19 Jul

PULKOVO



INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
600	N59 47.9 E030 17.7	701	N59 48.0 E030 17.5
601 thru 602D	N59 47.9 E030 17.6	702	N59 47.9 E030 17.6
602E thru 603E	N59 47.9 E030 17.5	703, 704	N59 47.9 E030 17.7
603F thru 604F	N59 47.9 E030 17.4	704A	N59 47.9 E030 17.8
604E, 605A thru 605D	N59 47.9 E030 17.3		
606A thru 607D	N59 47.9 E030 17.4		
608A thru 609D	N59 47.9 E030 17.5		
610A thru 611D	N59 47.9 E030 17.6		
612A, 612C thru 612D	N59 47.8 E030 17.7		
700	N59 48.0 E030 17.4		

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Standard

1 NOV 19

(10-9S)

ST PETERSBURG, RUSSIA
PULKOVO

Eff 7 Nov

STRAIGHT-IN RWY	A	B	C	D
10L				
① CAT 3A ILS	RA50' R200m	RA50' R200m	RA50' R200m	RA50' R200m
② CAT 3A ILS	RA149'R200m	RA166'R200m	RA178'R200m	RA193'R200m
③ CAT 2 ILS	167'(106')	184'(123')	196'(135')	210'(149')
	RA111'R300m	RA130'R400m	RA143'R400m	RA157'R450m
② CAT 2 ILS	202'(141')	219'(158')	231'(170')	245'(184')
	RA149'R450m	RA166'R450m	RA178'R450m	RA193'R450m
④ ILS	261'(200')	261'(200')	263'(202')	274'(213')
FULL	R550m	R550m	R550m	R550m
TDZ or CL out	⑤ R550m	⑤ R550m	⑤ R550m	⑤ R550m
ALS out	R1200m	R1200m	R1200m	R1200m
② ILS	350'(289')	362'(301')	370'(309')	381'(320')
FULL	R650m	R700m	R700m	R700m
TDZ or CL out	⑤ R650m	⑤ R700m	⑤ R700m	⑤ R700m
ALS out	R1400m	R1400m	R1400m	R1400m
④ GLS	261'(200')	261'(200')	263'(202')	274'(213')
FULL	R550m	R550m	R550m	R550m
TDZ or CL out	⑤ R550m	⑤ R550m	⑤ R550m	⑤ R550m
ALS out	R1200m	R1200m	R1200m	R1200m
② GLS	350'(289')	362'(301')	370'(309')	381'(320')
FULL	R650m	R700m	R700m	R700m
TDZ or CL out	⑤ R650m	⑤ R700m	⑤ R700m	⑤ R700m
ALS out	R1400m	R1400m	R1400m	R1400m
LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
RNP Z	352'(291')	362'(301')	383'(322')	410'(349')
LNAV/VNAV	⑥ R750m	⑦ R750m	R800m	R900m
ALS out	R1400m	R1400m	R1500m	R1600m
③ RNP Z	460'(399')	460'(399')	460'(399')	460'(399')
LNAV	R1100m	R1100m	R1100m	R1100m
ALS out	R1500m	R1500m	R1800m	R1800m
RNP Y (AR)	318'(257')	391'(330')	399'(338')	410'(349')
RNP 0.10	⑧ R750m	R800m	R800m	R900m
ALS out	R1300m	R1500m	R1500m	R1600m
RNP Y (AR)	379'(318')	391'(330')	399'(338')	410'(349')
RNP 0.30	⑦ R750m	R800m	R800m	R900m
ALS out	R1400m	R1500m	R1500m	R1600m
⑧ VOR	520'(459')	520'(459')	520'(459')	520'(459')
with D3.3	R1400m	R1400m	R1400m	R1400m
ALS out	R1500m	R1500m	R2100m	R2100m
⑧ VOR	590'(529')	590'(529')	590'(529')	590'(529')
w/o D3.3	R1500m	R1500m	R1700m	R1700m
ALS out	R1500m	R1500m	R2400m	R2400m

- ① Missed apch climb gradient MIM 5.0%.
- ② Missed apch climb gradient MIM 2.5%.
- ③ Missed apch climb gradient MIM 3.0%.
- ④ Missed apch climb gradient MIM 4.0%.
- ⑤ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.
- ⑥ With TDZ & CL & HUD: RVR 650m.
- ⑦ With TDZ & CL & HUD: RVR 700m.
- ⑧ Continuous Descent Final Approach.
- ⑨ With TDZ & CL & HUD: RVR 600m.

ULLI/LED



1 NOV 19
Eff 7 Nov (10-9S1)

Standard
ST PETERSBURG, RUSSIA
PULKOVO

STRAIGHT-IN RWY		A	B	C	D
10L (contd)	① NDB	490' (429')	490' (429')	490' (429')	490' (429')
	with PU NDB	R1300m	R1300m	R1300m	R1300m
	ALS out	R1500m	R1500m	R2000m	R2000m
	① NDB	590' (529')	590' (529')	590' (529')	590' (529')
	w/o PU NDB	R1500m	R1500m	R1700m	R1700m
	ALS out	R1500m	R1500m	R2400m	R2400m
10R	CAT 2 ILS Z or Y	167' (100')	167' (100')	167' (100')	167' (100')
		RA 104'R300m	RA 104'R300m	RA 104'R300m	RA 104'R300m
	ILS Z or Y	267' (200')	267' (200')	267' (200')	267' (200')
	FULL	R550m	R550m	R550m	R550m
	TDZ or CL out	② R550m	② R550m	② R550m	② R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	GLS	267' (200')	267' (200')	267' (200')	267' (200')
	FULL	R550m	R550m	R550m	R550m
	TDZ or CL out	② R550m	② R550m	② R550m	② R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH
	RNP Z	317' (250')	322' (255')	332' (265')	342' (275')
	LNAV/VNAV	③ R750m	④ R750m	④ R750m	④ R750m
	ALS out	R1300m	R1300m	R1300m	R1300m
	① RNP Z	460' (393')	460' (393')	460' (393')	460' (393')
	LNAV	R1100m	R1100m	R1100m	R1100m
	ALS out	R1500m	R1500m	R1800m	R1800m
	RNP Y (AR)	321' (254')	343' (276')	361' (294')	379' (312')
	RNP 0.10	④ R750m	④ R750m	⑤ R750m	⑥ R750m
	ALS out	R1300m	R1300m	R1400m	R1400m
	RNP Y (AR)	369' (302')	388' (321')	394' (327')	407' (340')
	RNP 0.30	⑥ R750m	R800m	R800m	R800m
	ALS out	R1400m	R1500m	R1500m	R1500m
	① NDB	520' (453')	520' (453')	520' (453')	520' (453')
	with PK NDB	R1400m	R1400m	R1400m	R1400m
	ALS out	R1500m	R1500m	R2100m	R2100m
	① NDB	610' (543')	610' (543')	610' (543')	610' (543')
	w/o PK NDB	R1500m	R1500m	R1800m	R1800m
	ALS out	R1500m	R1500m	R2400m	R2400m
28L	ILS Z or Y	279' (200')	279' (200')	279' (200')	279' (200')
		R550m	R550m	R550m	R550m
	TDZ or CL out	② R550m	② R550m	② R550m	② R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	GLS	279' (200')	279' (200')	279' (200')	279' (200')
	FULL	R550m	R550m	R550m	R550m
	TDZ or CL out	② R550m	② R550m	② R550m	② R550m
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH

- ① Continuous Descent Final Approach.
- ② RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.
- ③ With TDZ & CL & HUD: RVR 550m.
- ④ With TDZ & CL & HUD: RVR 600m.
- ⑤ With TDZ & CL & HUD: RVR 650m.
- ⑥ With TDZ & CL & HUD: RVR 700m.

ULLI/LED



Standard
ST PETERSBURG, RUSSIA
PULKOVO

STRAIGHT-IN RWY		A	B	C	D	
28L (contd)	RNP Z	470' (391')	480' (401')	490' (411')	499' (420')	
	LNAV/VNAV	R1100m	R1200m	R1200m	R1200m	
	ALS out	R1500m	R1500m	R1900m	R1900m	
	① RNP Z	560' (481')	560' (481')	560' (481')	560' (481')	
	LNAV	R1500m	R1500m	R1500m	R1500m	
	ALS out	R1500m	R1500m	R2300m	R2300m	
RNP Y (AR)		374' (295')	385' (306')	393' (314')	410' (331')	
	RNP 0.10	② R750m	③ R750m	③ R750m	R800m	
	ALS out	R1400m	R1400m	R1400m	R1500m	
RNP Y (AR)		469' (390')	481' (402')	489' (410')	500' (421)	
	RNP 0.30	R1100m	R1200m	R1200m	R1300m	
	ALS out	R1500m	R1500m	R1900m	R2000m	
① NDB		570' (491')	570' (491')	570' (491')	570' (491')	
		R1500m	R1500m	R1500m	R1500m	
	ALS out	R1500m	R1500m	R2300m	R2300m	
28R	④ CAT 3A ILS	RA50' R200m	RA50' R200m	RA50' R200m	RA50' R200m	
	⑤ CAT 3A ILS	RA109' R200m	RA127' R200m	RA138' R200m	RA152' R200m	
	CAT 2 ILS	169' (103')	186' (120')	198' (132')	212' (146')	
		RA109' R300m	RA127' R300m	RA138' R400m	RA152' R450m	
	⑥ ILS	266' (200')	267' (201')	275' (209')	286' (220')	
		FULL	R550m	R550m	R550m	R550m
		TDZ or CL out	⑦ R550m	⑦ R550m	⑦ R550m	⑦ R550m
	ALS out	R1200m	R1200m	R1200m	R1200m	
	⑥ ILS	288' (222')	300' (234')	308' (242')	319' (253')	
		FULL	R550m	R550m	R550m	R550m
		TDZ or CL out	⑦ R550m	⑦ R550m	⑦ R550m	⑦ R550m
	ALS out	R1200m	R1200m	R1300m	R1300m	
	⑧ GLS	266' (200')	271' (205')	279' (213')	290' (224')	
		FULL	R550m	R550m	R550m	R550m
		TDZ or CL out	⑦ R550m	⑦ R550m	⑦ R550m	⑦ R550m
	ALS out	R1200m	R1200m	R1200m	R1200m	
⑧ GLS	355' (289')	367' (301')	375' (309')	386' (320')		
	FULL	R650m	R700m	R700m	R700m	
	TDZ or CL out	⑦ R650m	⑦ R700m	⑦ R700m	⑦ R700m	
ALS out	R1400m	R1400m	R1400m	R1400m		
LOC	NOT AUTH	NOT AUTH	NOT AUTH	NOT AUTH		
RNP Z		359' (293')	369' (303')	389' (323')	415' (349')	
	LNAV/VNAV	② R750m	③ R750m	R800m	R900m	
	ALS out	R1400m	R1400m	R1500m	R1600m	
① RNP Z		450' (384')	450' (384')	450' (384')	450' (384')	
	LNAV	R1100m	R1100m	R1100m	R1100m	
	ALS out	R1500m	R1500m	R1800m	R1800m	

- ① Continuous Descent Final Approach.
- ② With TDZ & CL & HUD: RVR 650m.
- ③ With TDZ & CL & HUD: RVR 700m.
- ④ Missed apch climb gradient MIM 4.0%.
- ⑤ Missed apch climb gradient MIM 2.5%.
- ⑥ Missed apch climb gradient MIM 3.0%.
- ⑦ RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.
- ⑧ Missed apch climb gradient MIM 5.0%.

ULLI/LED



Standard
ST PETERSBURG, RUSSIA
PULKOVO

STRAIGHT-IN RWY	A	B	C	D
28R (cont'd) RNP Y (AR)	370' (304')	391' (325')	409' (343')	423' (357')
RNP 0.10	① R750m	R800m	R900m	R900m
ALS out	R1400m	R1500m	R1600m	R1600m
RNP Y (AR)	388' (322')	410' (344')	428' (362')	447' (381')
RNP 0.30	R800m	R900m	R1000m	R1100m
ALS out	R1500m	R1500m	R1700m	R1800m
② VOR	500' (434')	500' (434')	500' (434')	500' (434')
with D2.5	R1300m	R1300m	R1300m	R1300m
ALS out	R1500m	R1500m	R2000m	R2000m
② VOR	610' (544')	610' (544')	610' (544')	610' (544')
w/o D2.5	R1500m	R1500m	R1800m	R1800m
ALS out	R1500m	R1500m	R2400m	R2400m
② NDB	590' (524')	590' (524')	590' (524')	590' (524')
	R1500m	R1500m	R1700m	R1700m
ALS out	R1500m	R1500m	R2400m	R2400m

- ① With TDZ & CL & HUD: RVR 700m.
- ② Continuous Descent Final Approach.

CIRCLE-TO-LAND	100 KT	135 KT	180 KT	205 KT
	690' (611')	1060' (981')	1160' (1081')	1160' (1081')
After RNP Z & RNP Y (AR)	690' (611')	790' (711')	900' (821')	1040' (961')
	V1500m	V1600m	V2400m	V3600m

TAKE-OFF

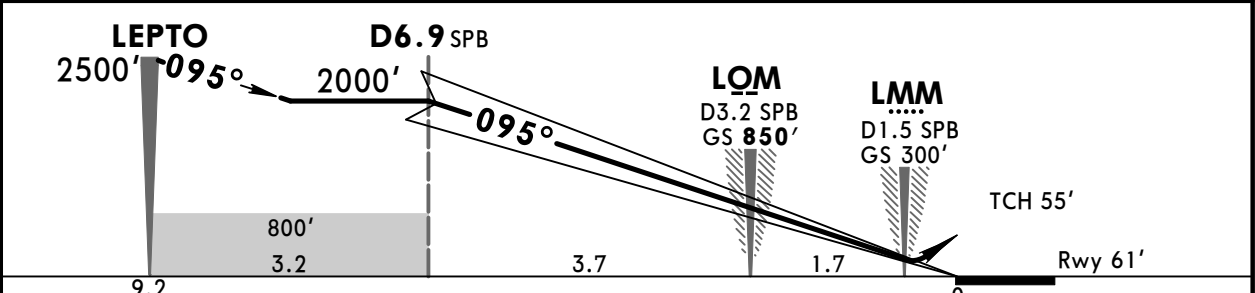
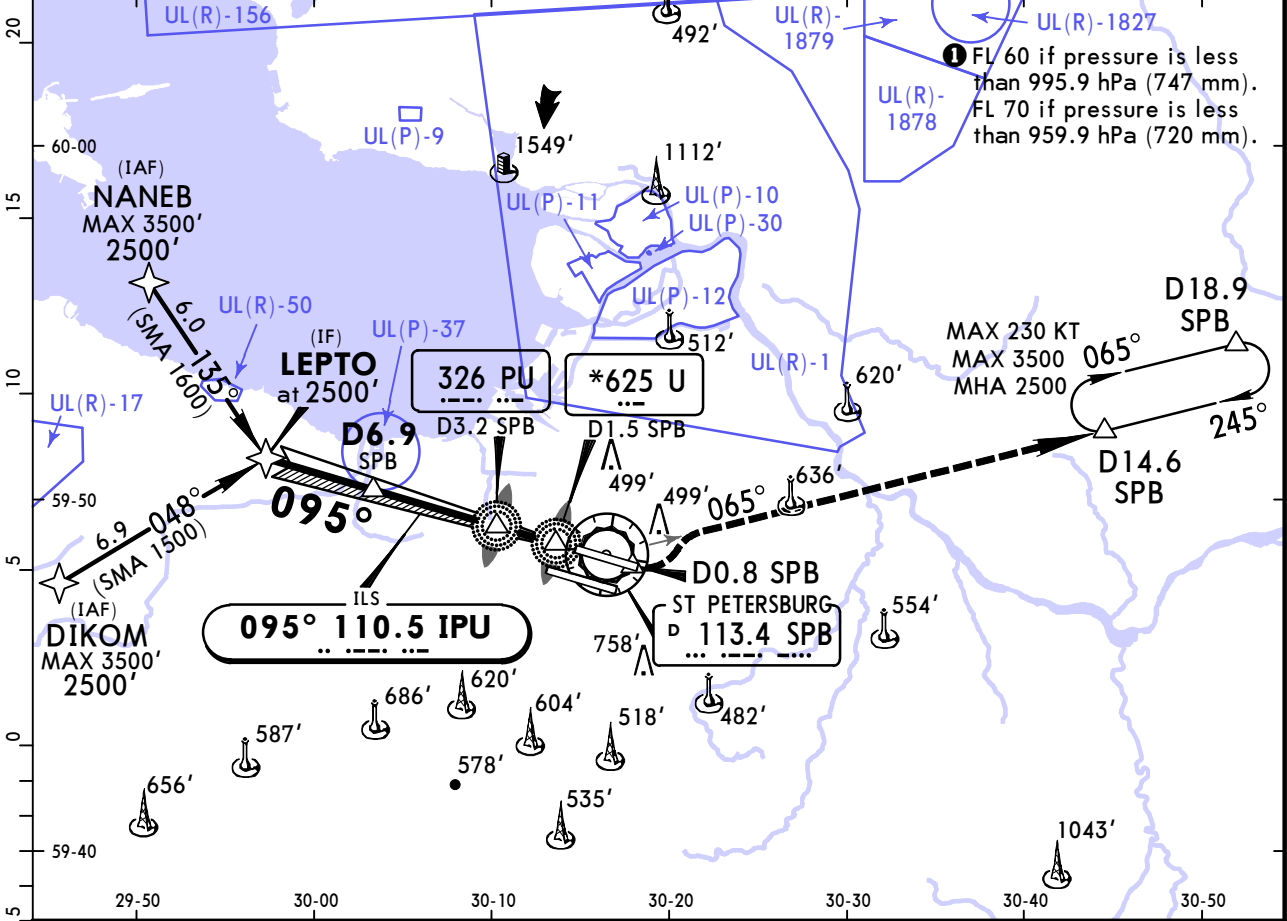
	Low Visibility Take-off				Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)
	HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL & RCLM Night: RL or CL		
A						
B	TDZ, MID, RO	TDZ, MID, RO				
C	R125m	R150m	R200m	R300m	400m	500m
D						

ULLI/LED PULKOVO

JEPPESSEN 12 APR 19 **(11-1)** Eff 25 Apr

ST PETERSBURG, RUSSIA ILS Rwy 10L

BRIEFING STRIP™	ATIS (Russian)	PETERSBURG Control	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR)	PULKOVO Tower	Ground
	127.3 127.4	124.0	119.3	125.2	119.3	120.3	118.1	121.7
LOC IPU	Final Apch Crs	GS LOM	ILS DA(H) Refer to Minimums	Apt Elev 79' Rwy 61'				
110.5	095°	850' (789')						
MISSED APCH: Climb STRAIGHT AHEAD on 095°, at D0.8 after SPB turn LEFT onto R-065 SPB, proceed to D14.6 SPB climbing to 2500', then join holding.								
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 ①		Trans alt: 3500'			MSA SPB VOR
RNAV 1 required for initial approach.			GNSS required.					



Gnd speed-Kts	70	90	100	120	140	160			SPB 113.4 R-065
ILS GS	3.00°	372	478	531	637	849			

STRAIGHT-IN LANDING RWY 10L						LOC (GS out)	CIRCLE-TO-LAND		
Missed apch climb gradient mim 4.0%			Missed apch climb gradient mim 2.5%				NOT AUTHORIZED	Max Kts	MDA(H)
DA(H) C: 263' (202')			DA(H) A: 350' (289') C: 370' (309')					100	690' (611')
AB: 261' (200') D: 274' (213')			B: 362' (301') D: 381' (320')				135	1060' (981')	2400m
FULL			FULL			180	1160' (1081')	4800m	
TDZ or CL out			TDZ or CL out			205			
ALS out			ALS out						

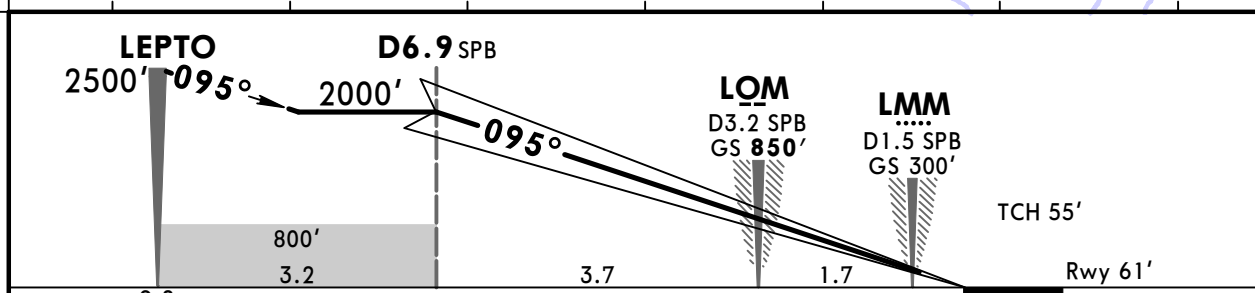
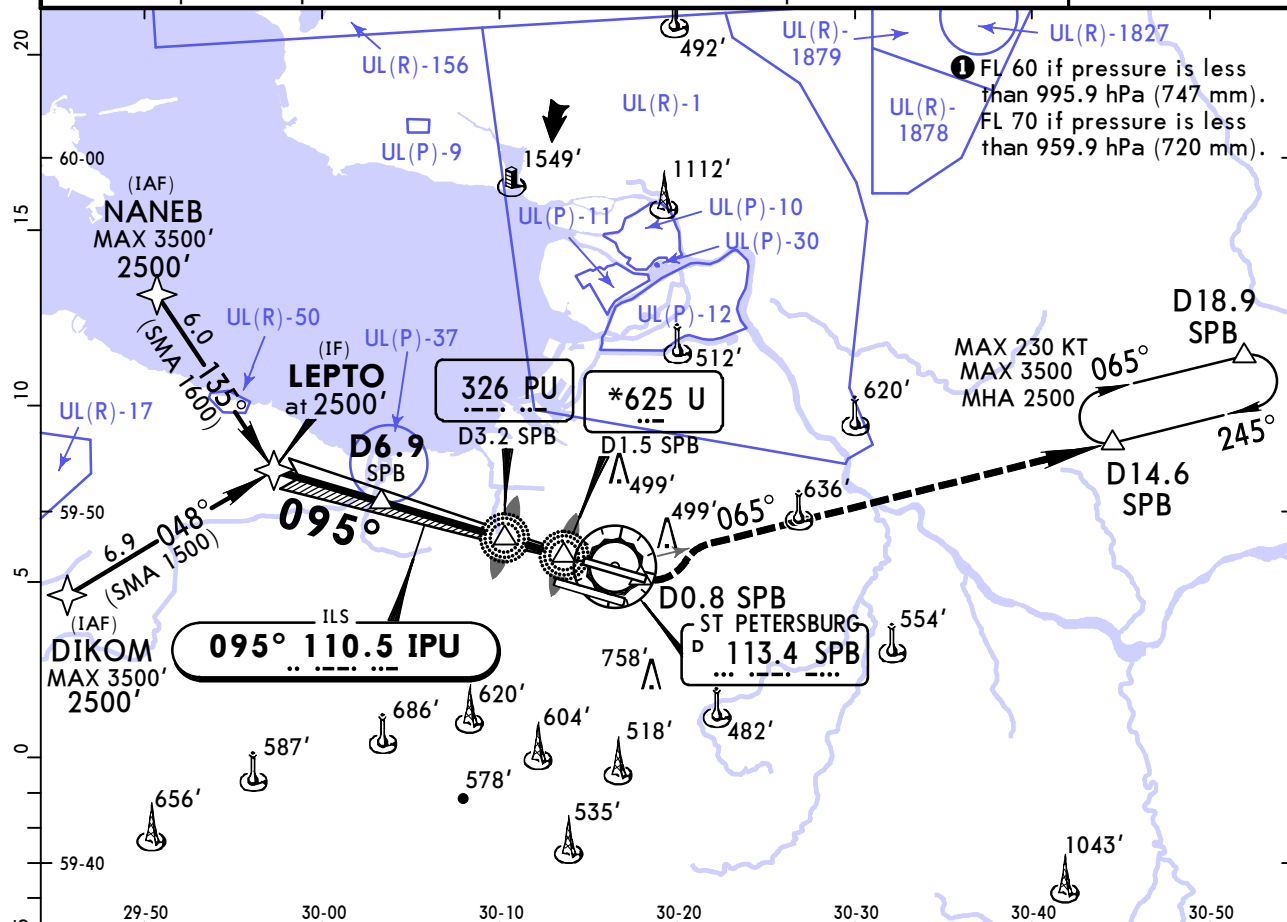
PANS OPS

ULLI/LED PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA

12 APR 19 **(11-1A)** Eff 25 Apr **CAT II ILS Rwy 10L**

BRIEFING STRIP™	ATIS (Russian)	PETERSBURG Control	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR)	PULKOVO Tower	Ground
	127.3 127.4	124.0	119.3	125.2	119.3	120.3	118.1	121.7
LOC IPU	Final Apch Crs	GS LOM	CAT II ILS Refer to Minimums		Apt Elev 79' Rwy 61'			
110.5	095°	850' (789')						
MISSED APCH: Climb STRAIGHT AHEAD on 095°, at D0.8 after SPB turn LEFT onto R-065 SPB, proceed to D14.6 SPB climbing to 2500', then join holding.								
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 ①		Trans alt: 3500'			MSA SPB VOR
RNAV 1 required for initial approach.								
1. GNSS required. 2. Special Aircrew & Aircraft Certification required.								



Gnd speed-Kts	70	90	100	120	140	160		D0.8 after SPB ↑		SPB 113.4 R-065
GS	3.00°	372	478	531	637	743				

STRAIGHT-IN LANDING RWY 10L							
CAT II ILS				Missed apch climb gradient mim 2.5%			
Missed apch climb gradient mim 3.0%							
A	B	C	D	A	B	C	D
RA 111'	RA 130'	RA 143'	RA 157'	RA 149'	RA 166'	RA 178'	RA 193'
DA(H)	DA(H)	DA(H)	DA(H)	DA(H)	DA(H)	DA(H)	DA(H)
167' (106')	184' (123')	196' (135')	210' (149')	202' (141')	219' (158')	231' (170')	245' (184')
RVR 300m	RVR 400m	RVR 450m	RVR 450m				

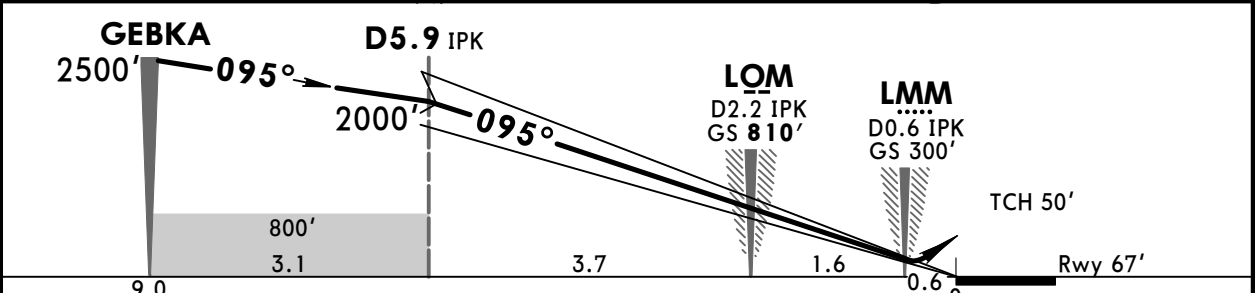
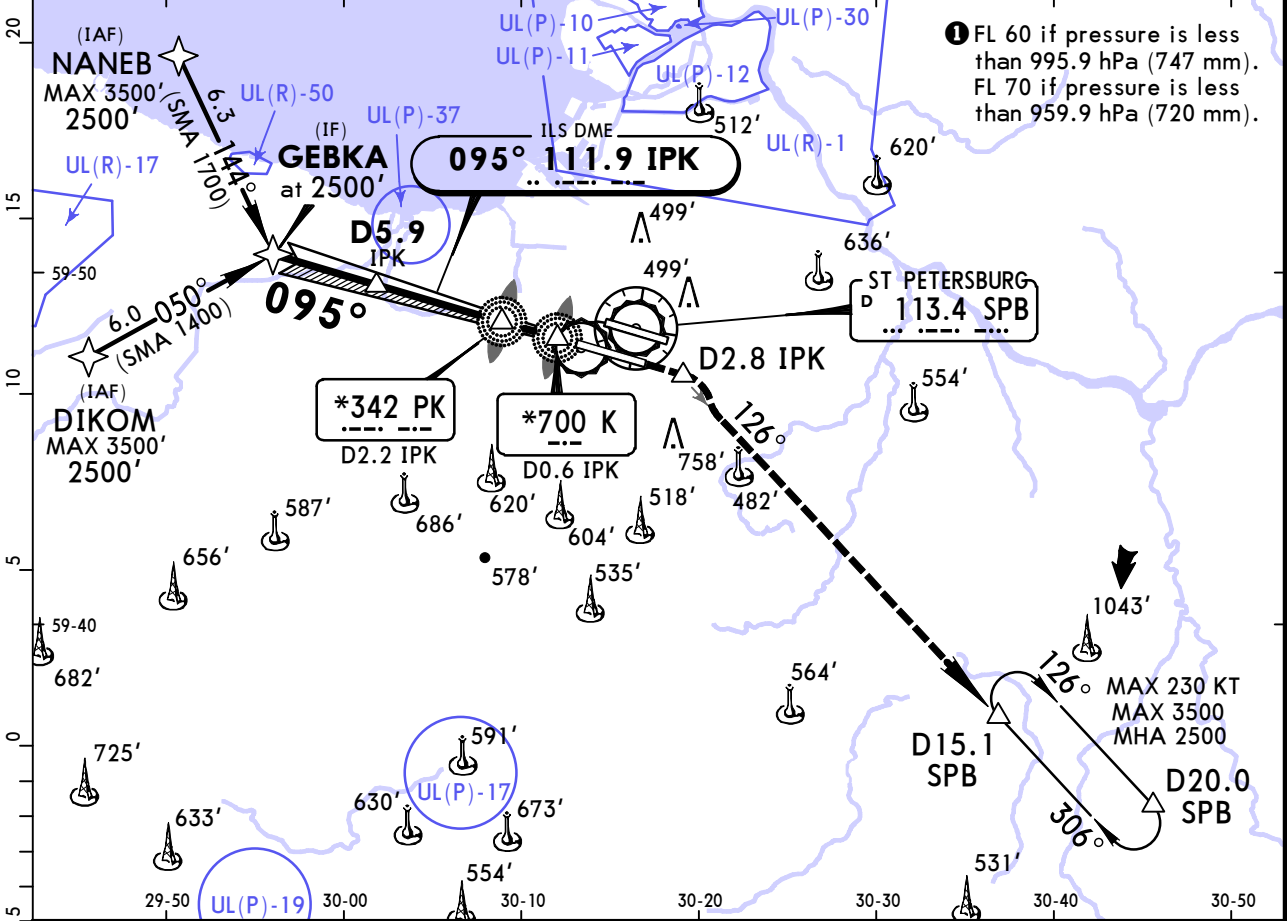
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JEPPESEN 12 APR 19 **(11-2)** Eff 25 Apr

ST PETERSBURG, RUSSIA ILS Z Rwy 10R

BRIEFING STRIP™	ATIS (Russian)	PETERSBURG Control	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR)	PULKOVO Tower	Ground
	127.3 127.4	124.0	119.3	125.2	119.3	120.3	118.7	121.7
	LOC IPK	Final Apch Crs	GS LOM	ILS DA(H)	Apt Elev 79' Rwy 67'			
	111.9	095°	810' (743')	267' (200')				
MISSED APCH: Climb STRAIGHT AHEAD on 095°, at D2.8 after IPK turn RIGHT onto R-126 SPB, proceed to D15.1 SPB climbing to 2500', then join holding.								<p>MSA SPB VOR</p>
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50		Trans alt: 3500'			
RNAV 1 required for initial approach.			1. GNSS required. 2. ILS DME reads zero at rwy 10R threshold. 3. Level flight segment is not available before FAP.					



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D2.8 after IPK	SPB 113.4 R-126
ILS GS	3.00°	372	478	531	637	743			

STRAIGHT-IN LANDING RWY 10R				CIRCLE-TO-LAND			
ILS DA(H) 267' (200')				LOC (GS out)			
FULL		TDZ or CL out		ALS out		Max Kts	
RVR 550m VIS 800m		RVR 720m VIS 800m		1200m		NOT AUTHORIZED	
A					100		690' (611') 1600m
B					135		1060' (981') 2400m
C					180		1160' (1081') 4800m
D					205		

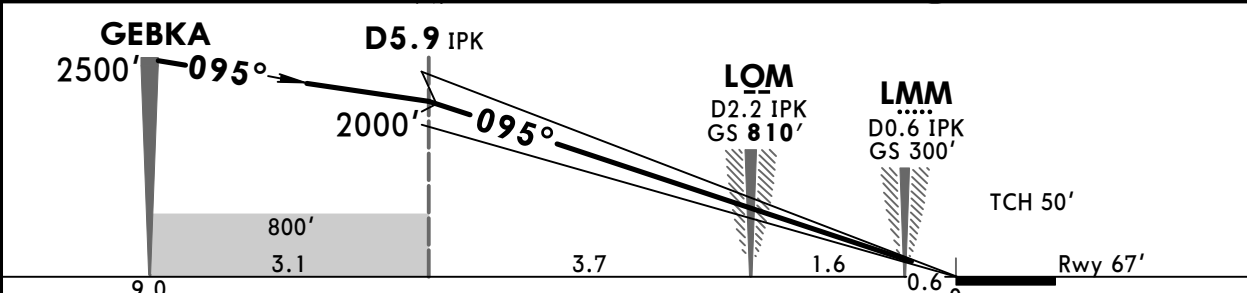
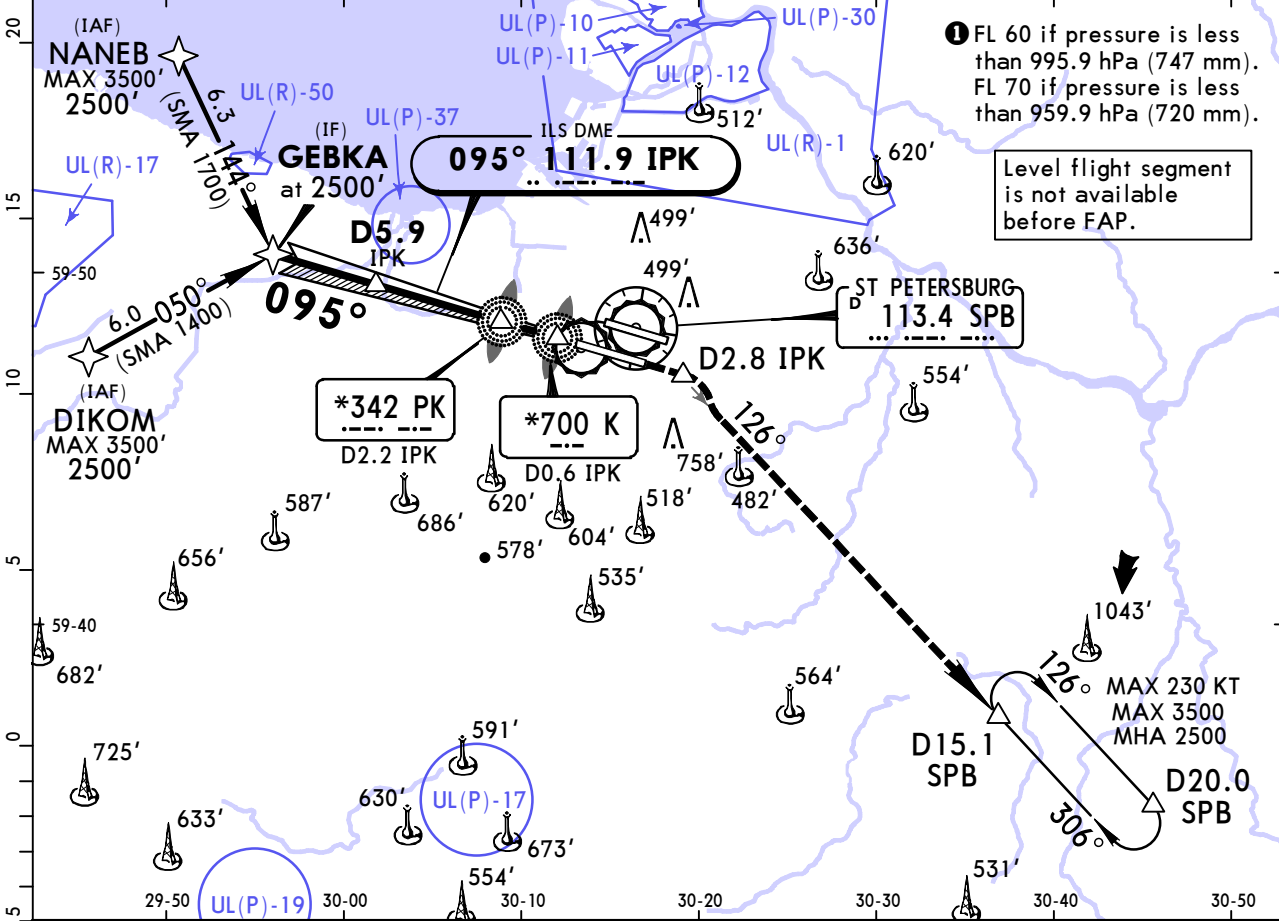
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JEPPESEN
12 APR 19
Eff 25 Apr **(11-2A)**

**ST PETERSBURG, RUSSIA
CAT II ILS Z Rwy 10R**

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
LOC IPK 111.9	Final Apch Crs 095°	GS LOM 810' (743')	CAT II ILS RA 104' DA(H) 167' (100')		Apt Elev 79' Rwy 67'		
MISSED APCH: Climb STRAIGHT AHEAD on 095°, at D2.8 after IPK turn RIGHT onto R-126 SPB, proceed to D15.1 SPB climbing to 2500', then join holding.							
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 50		Trans alt: 3500'	
RNAV 1 required for initial approach.			1. GNSS required. 2. Special Aircrew & Aircraft Certification required. 3. ILS DME reads zero at rwy 10R threshold.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D2.8 after IPK ↑	RT ↗	SPB 113.4 R-126
GS	3.00°	372	478	531	637	743				

STRAIGHT-IN LANDING RWY 10R
CAT II ILS
RA 104'
DA(H) **167' (100')**

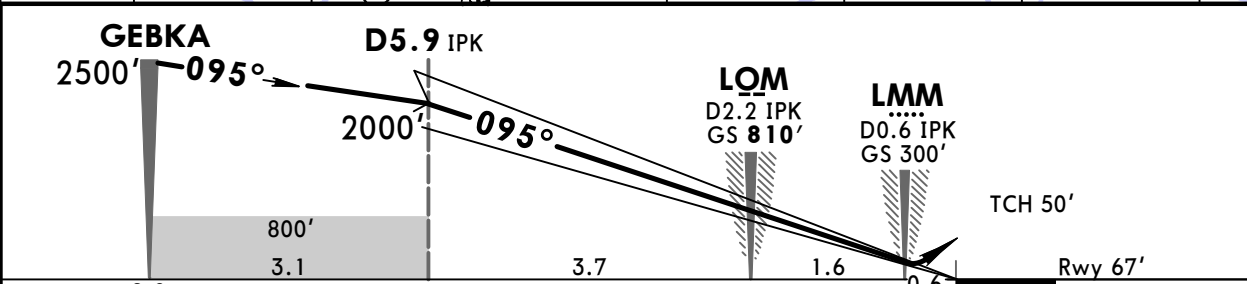
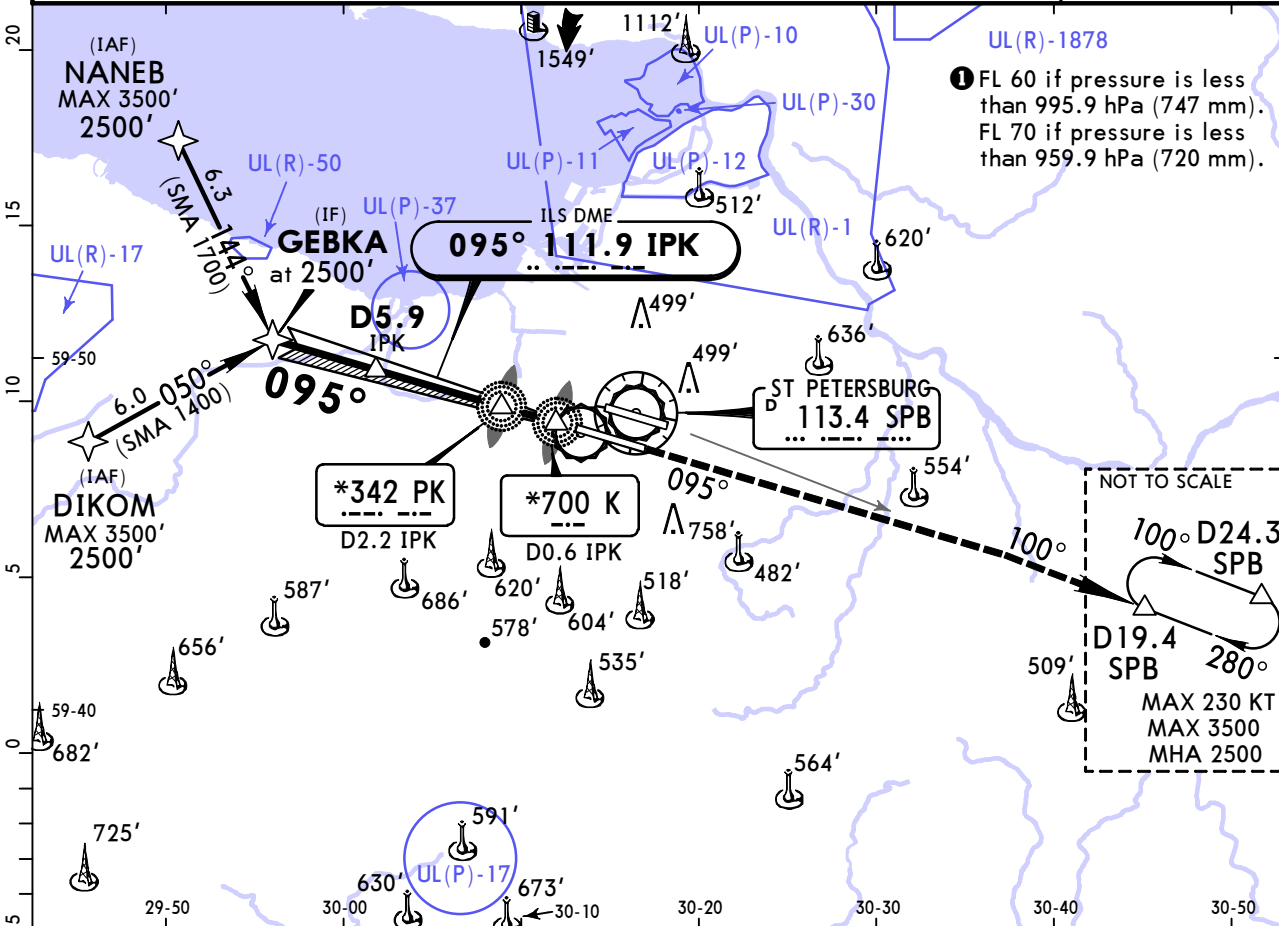
PANS OPS
RVR 300m

ULLI/LED PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA
12 APR 19 **11-3** Eff 25 Apr

ILS Y Rwy 10R

BRIEFING STRIP™	ATIS (Russian)	PETERSBURG Control	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR)	PULKOVO Tower	Ground
	127.3 127.4	124.0	119.3	125.2	119.3	120.3	118.7	121.7
LOC IPK	Final Apch Crs	GS LOM	ILS DA(H)		Apt Elev 79'			
111.9	095°	810' (743')	267' (200')		Rwy 67'			
MISSED APCH: Climb STRAIGHT AHEAD on 095°, intercept R-100 SPB, proceed to D19.4 SPB climbing to 2500', then join holding.								
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 ①		Trans alt: 3500'			MSA SPB VOR
RNAV 1 required for initial approach.		1. GNSS required. 2. ILS DME reads zero at rwy 10R threshold. 3. Level flight segment is not available before FAP.						



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	095° onto 113.4 R-100
ILS GS	3.00°	372	478	531	637	849		

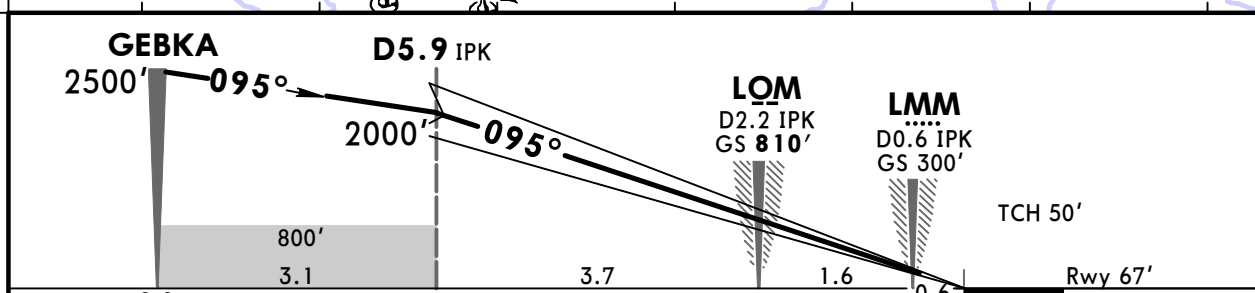
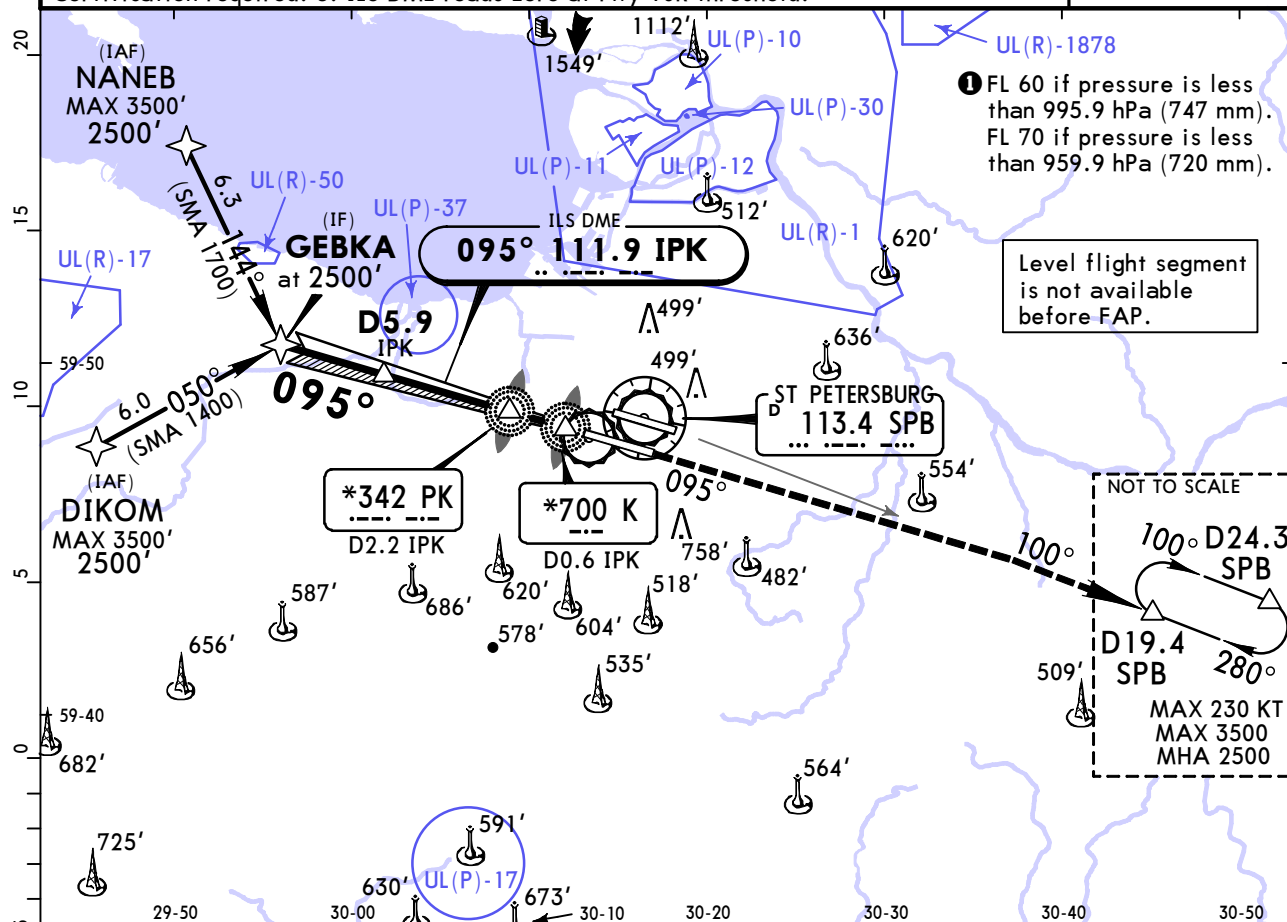
PANS OPS	STRAIGHT-IN LANDING RWY 10R			CIRCLE-TO-LAND	
	ILS			LOC (GS out)	
	DA(H) 267' (200')				
	FULL	TDZ or CL out	ALS out	Max Kts	MDA(H)
	A			100	690' (611') 1600m
B			135	1060' (981') 2400m	
C	RVR 550m VIS 800m	RVR 720m VIS 800m	1200m	180	1160' (1081') 4800m
D				205	

**ULLI/LED
PULKOVO**

JEPPESEN
12 APR 19
Eff 25 Apr **(11-3A)**

**ST PETERSBURG, RUSSIA
CAT II ILS Y Rwy 10R**

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
LOC IPK 111.9	Final Apch Crs 095°	GS LOM 810' (743')	CAT II ILS RA 104' DA(H) 167' (100')		Apt Elev 79' Rwy 67'		<p>MSA SPB VOR</p>
MISSED APCH: Climb STRAIGHT AHEAD on 095°, intercept R-100 SPB, proceed to D19.4 SPB climbing to 2500', then join holding.							
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 50 1		Trans alt: 3500'	
RNAV 1 required for initial approach.			1. GNSS required. 2. Special Aircrew & Aircraft Certification required. 3. ILS DME reads zero at rwy 10R threshold.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	095° ↑ onto 113.4 R-100
GS	3.00°	372	478	531	637	849		

**STRAIGHT-IN LANDING RWY 10R
CAT II ILS**

RA 104'
DA(H) **167' (100')**

PANS OPS

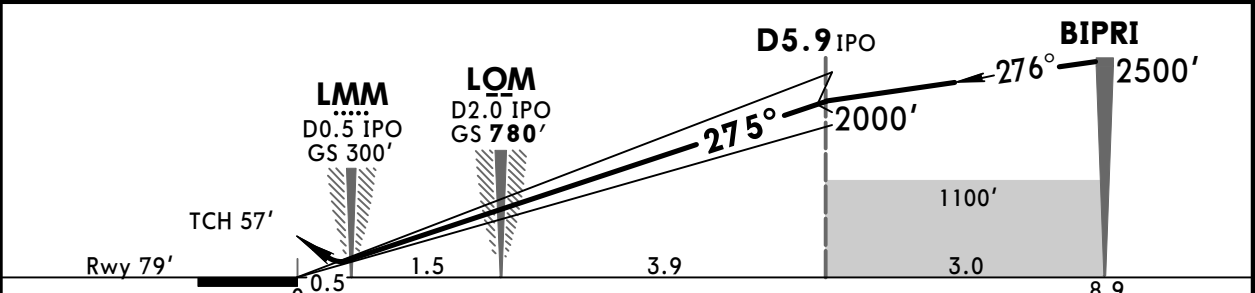
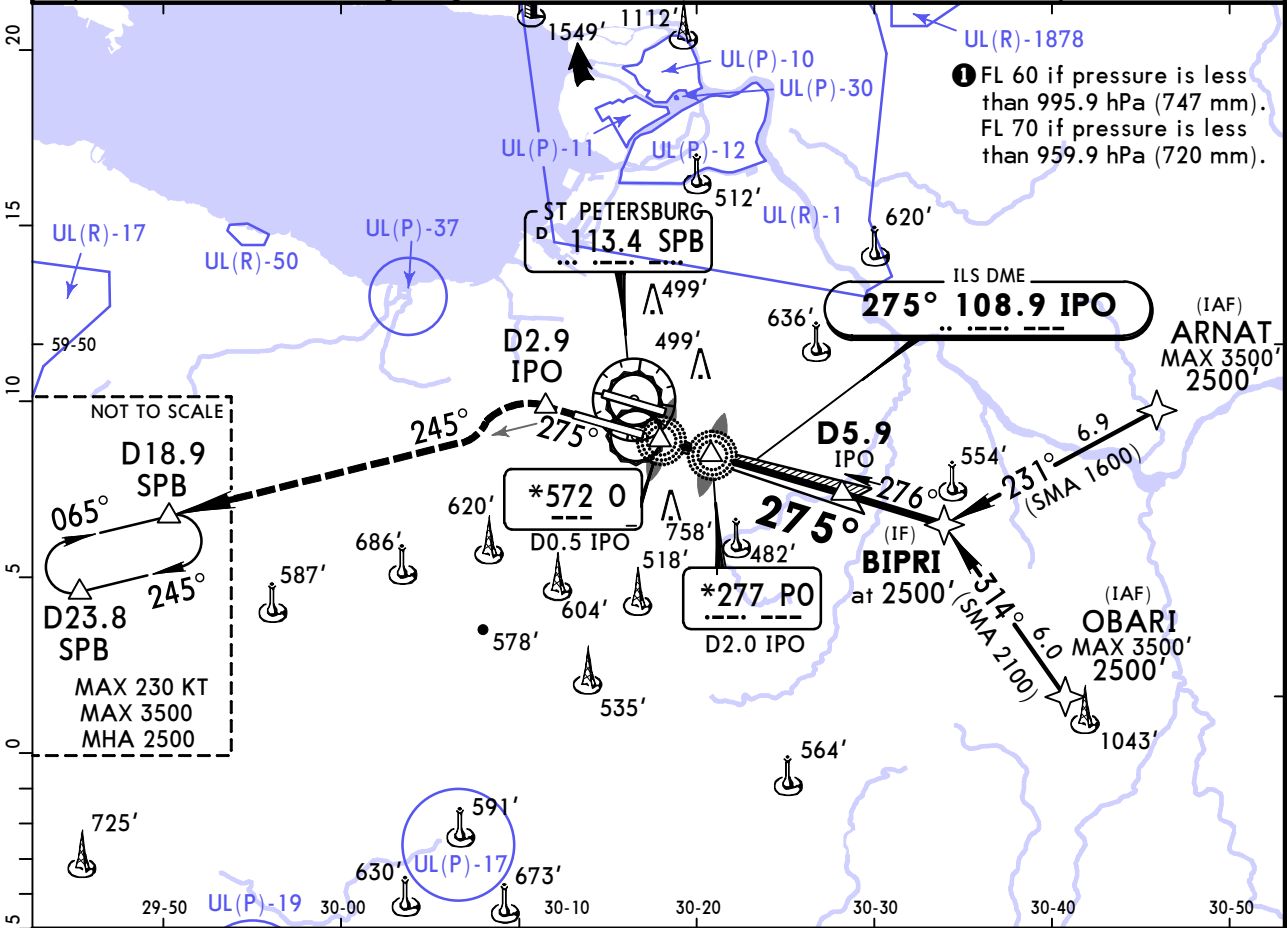
RVR 300m

ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **(11-4)** Eff 25 Apr

ST PETERSBURG, RUSSIA ILS Z Rwy 28L

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
LOC IPO 108.9	Final Apch Crs 275°	GS LOM 780' (701')	ILS DA(H) 279' (200')	Apt Elev 79' Rwy 79'			
MISSED APCH: Climb STRAIGHT AHEAD on 275°, at D2.9 after IPO turn LEFT to intercept R-245 SPB, proceed to D18.9 SPB climbing to 2500', then join holding.							MSA SPB VOR ① FL 60 if pressure is less than 995.9 hPa (747 mm). FL 70 if pressure is less than 959.9 hPa (720 mm).
Alt Set: hPa		Rwy Elev: 3 hPa	Trans level: FL 50 ①		Trans alt: 3500'		
RNAV 1 required for initial approach.			1. GNSS required. 2. ILS DME reads zero at rwy 28L threshold. 3. Level flight segment is not available before FAP.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI	D2.9 after IPO ↑	SPB 113.4 R-245 LT
ILS GS	3.00°	372	478	531	637	849			

STRAIGHT-IN LANDING RWY 28L		CIRCLE-TO-LAND	
ILS		LOC (GS out)	
DA(H) 279' (200')		Max Kts	
FULL	ALS out	MDA(H)	
A		100	690' (611') 1600m
B	RVR 720m VIS 800m	135	1060' (981') 2400m
C		180	1160' (1081') 4800m
D		205	
		NOT AUTHORIZED	

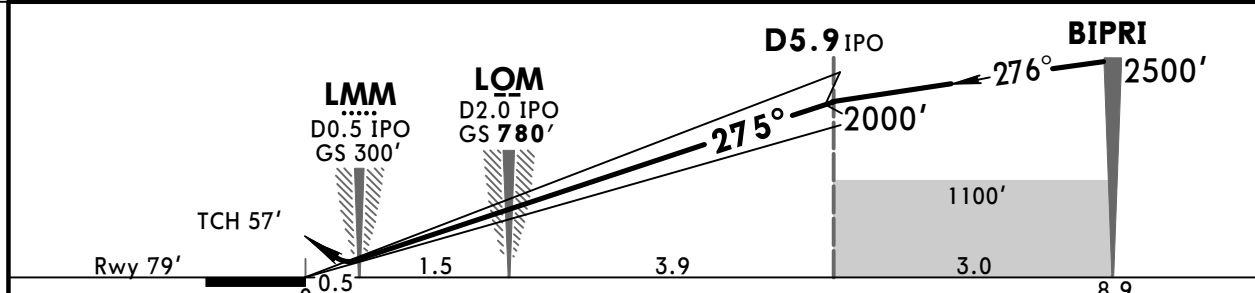
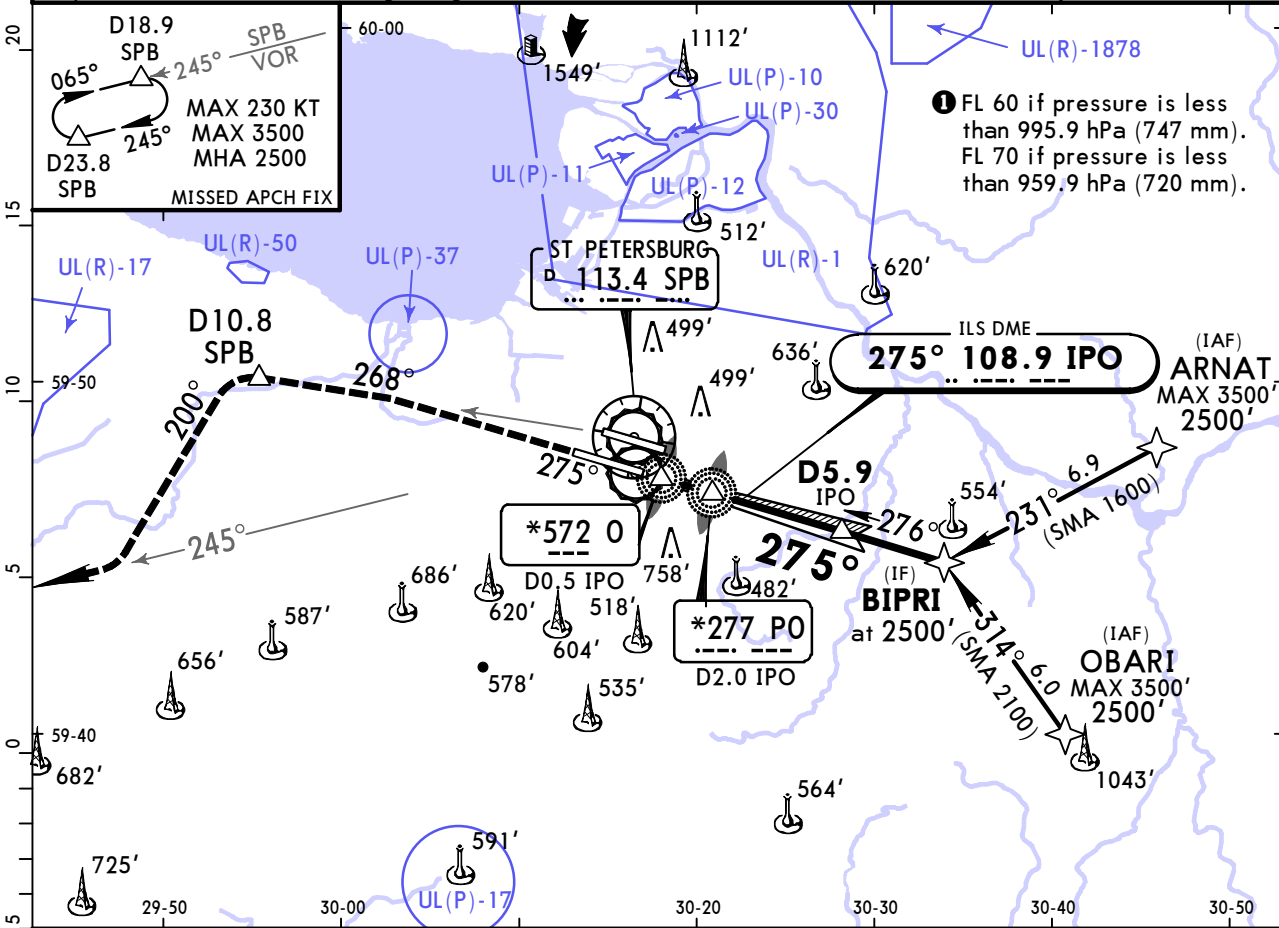
PANS OPS

ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **11-5** Eff 25 Apr

ST PETERSBURG, RUSSIA ILS Y Rwy 28L

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
LOC IPO 108.9	Final Apch Crs 275°	GS LOM 780' (701')	ILS DA(H) 279' (200')	Apt Elev 79' Rwy 79'			
MISSED APCH: Climb STRAIGHT AHEAD on 275°, intercept R-268 SPB to D10.8 SPB, turn LEFT onto 200°, intercept R-245 SPB, proceed to D18.9 SPB climbing to 2500', then join holding.							MSA SPB VOR
Alt Set: hPa Rwy Elev: 3 hPa Trans level: FL 50 1 Trans alt: 3500'							
RNAV 1 required for initial approach. 1. GNSS required. 2. ILS DME reads zero at rwy 28L threshold. 3. Level flight segment is not available before FAP.							



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI	275° SPB ↑ onto 113.4 R-268
ILS GS	3.00°	372	478	531	637	849		

STRAIGHT-IN LANDING RWY 28L		CIRCLE-TO-LAND	
ILS		LOC (GS out)	
DA(H) 279' (200')		Max Kts	
FULL	ALS out	100	690' (611') 1600m
A		135	1060' (981') 2400m
B	RVR 720m VIS 800m	180	1160' (1081') 4800m
C		205	
D			

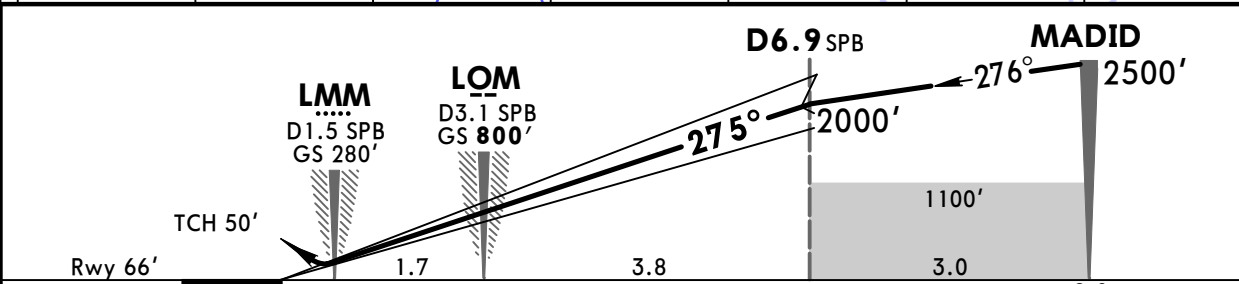
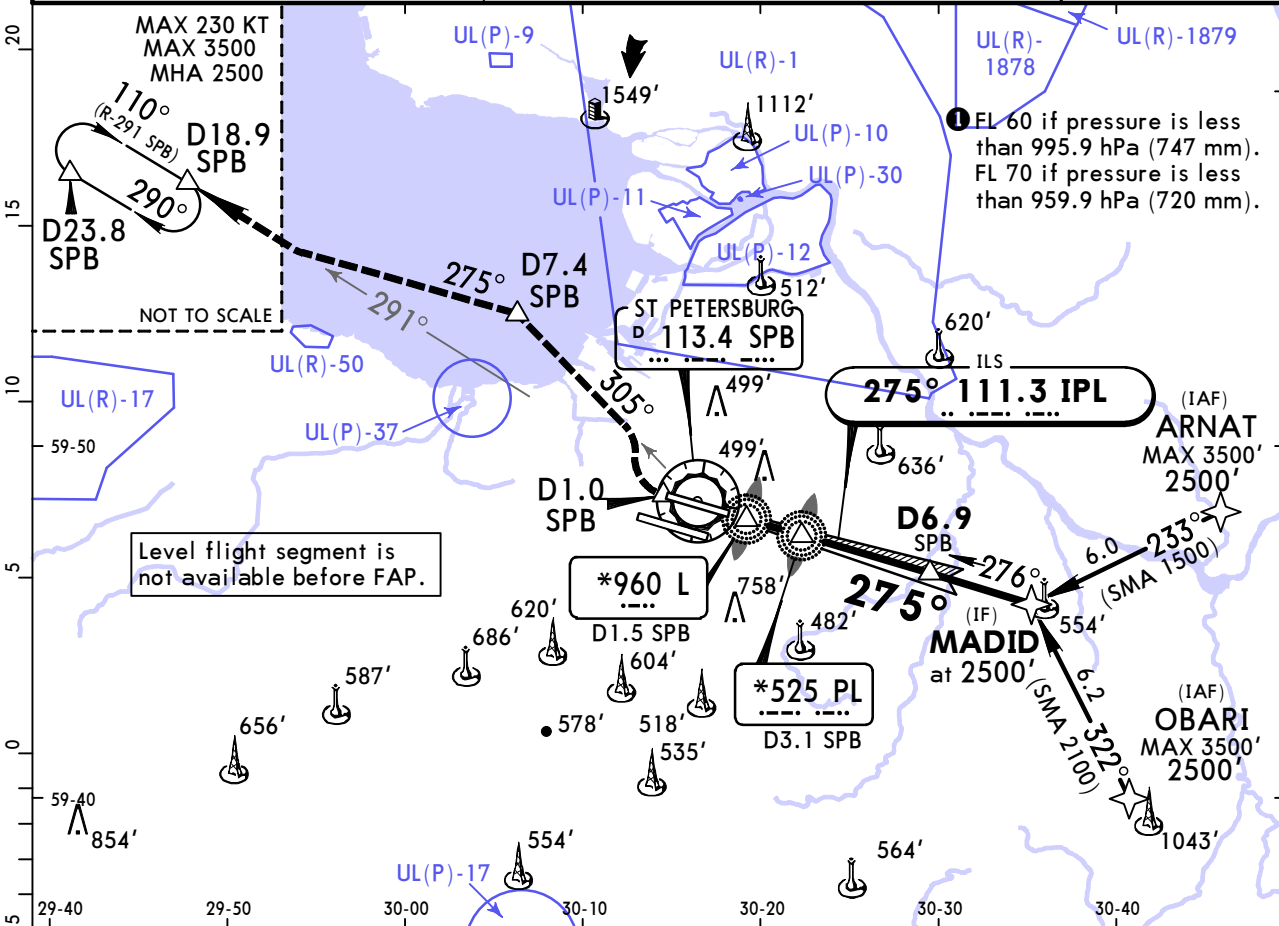
PANS OPS

ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **11-6** Eff 25 Apr

ST PETERSBURG, RUSSIA ILS Rwy 28R

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
LOC IPL 111.3	Final Apch Crs 275°	GS LOM 800' (734')	ILS DA(H) Refer to Minimums	Apt Elev 79' Rwy 66'			
MISSED APCH: Climb STRAIGHT AHEAD on 275°, at D1.0 after SPB turn RIGHT to intercept R-305 SPB and proceed to D7.4 SPB, then turn LEFT onto 275°, intercept R-291 SPB to D18.9 SPB climbing to 2500', then join holding.							MSA SPB VOR
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 50		Trans alt: 3500'	
RNAV 1 required for initial approach.				GNSS required.			



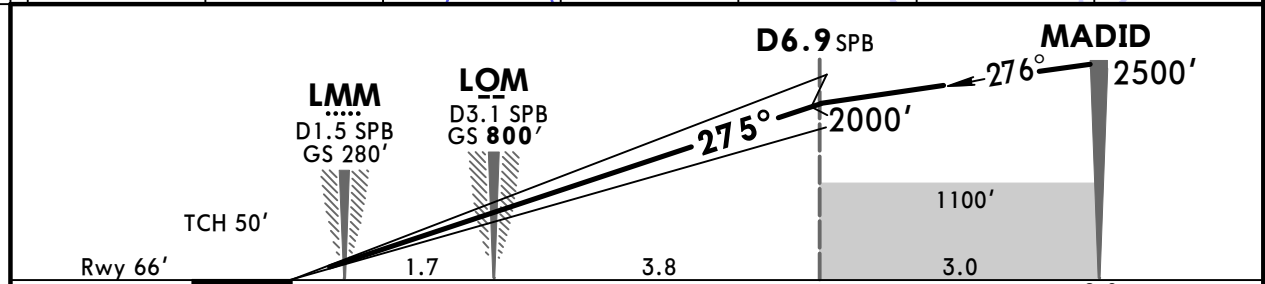
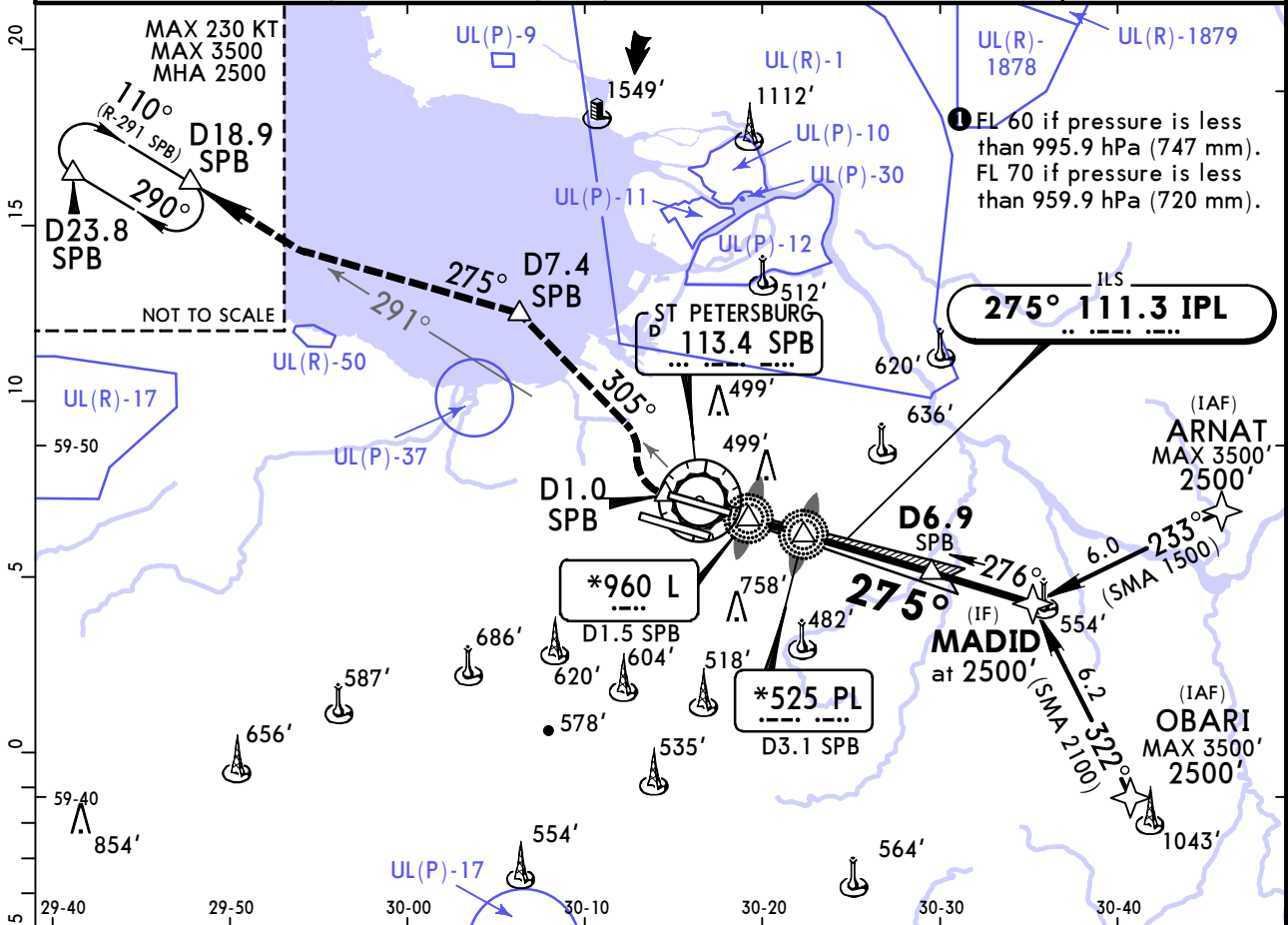
Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D1.0 after SPB	SPB 113.4 R-305
ILS GS	3.00°	372	478	531	637	743			

STRAIGHT-IN LANDING RWY 28R						CIRCLE-TO-LAND						
Missed apch climb gradient mim 3.0%			ILS			Missed apch climb gradient mim 2.5%			LOC (GS out)			
DA(H)		A: 266' (200')		C: 275' (209')		A: 288' (222')		C: 308' (242')		Max Kts		
B: 267' (201')		D: 286' (220')		B: 300' (234')		D: 319' (253')		NOT AUTHORIZED		MDA(H)		
FULL		TDZ or CL out		ALS out		FULL		TDZ or CL out		ALS out		
A										100	690' (611')	1600m
B	RVR 550m	RVR 720m	1200m	RVR 550m	RVR 720m	1200m				135	1060' (981')	2400m
C	VIS 800m	VIS 800m		RVR 720m	VIS 800m					180	1160' (1081')	4800m
D				RVR 720m	VIS 800m					205		

**ULLI/LED
PULKOVO**

JEPPESEN ST PETERSBURG, RUSSIA
12 APR 19 **(11-6A) Eff 25 Apr** **CAT II ILS Rwy 28R**

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
LOC IPL 111.3	Final Apch Crs 275°	GS LOM 800' (734')	CAT II ILS Refer to Minimums		Apt Elev 79' Rwy 66'		<p>MSA SPB VOR</p>
MISSED APCH: Climb STRAIGHT AHEAD on 275°, at D1.0 after SPB turn RIGHT to intercept R-305 SPB and proceed to D7.4 SPB, then turn LEFT onto 275°, then intercept R-291 SPB to D18.9 SPB to 2500', then join holding.							
Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 50 1 Trans alt: 3500' RNAV 1 required for initial approach. 1. GNSS required. 2. Special Aircrew & Aircraft Certification required. 3. Level flight segment is not available before FAP.							



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D1.0 after SPB ↑	RT ↻	SPB 113.4 R-305
GS	3.00°	372	478	531	637	743				

STRAIGHT-IN LANDING RWY 28R CAT II ILS			
A RA 109' DA(H) 169' (103')	B RA 127' DA(H) 186' (120')	C RA 138' DA(H) 198' (132')	D RA 152' DA(H) 212' (146')
RVR 300m	RVR 400m	RVR 450m	

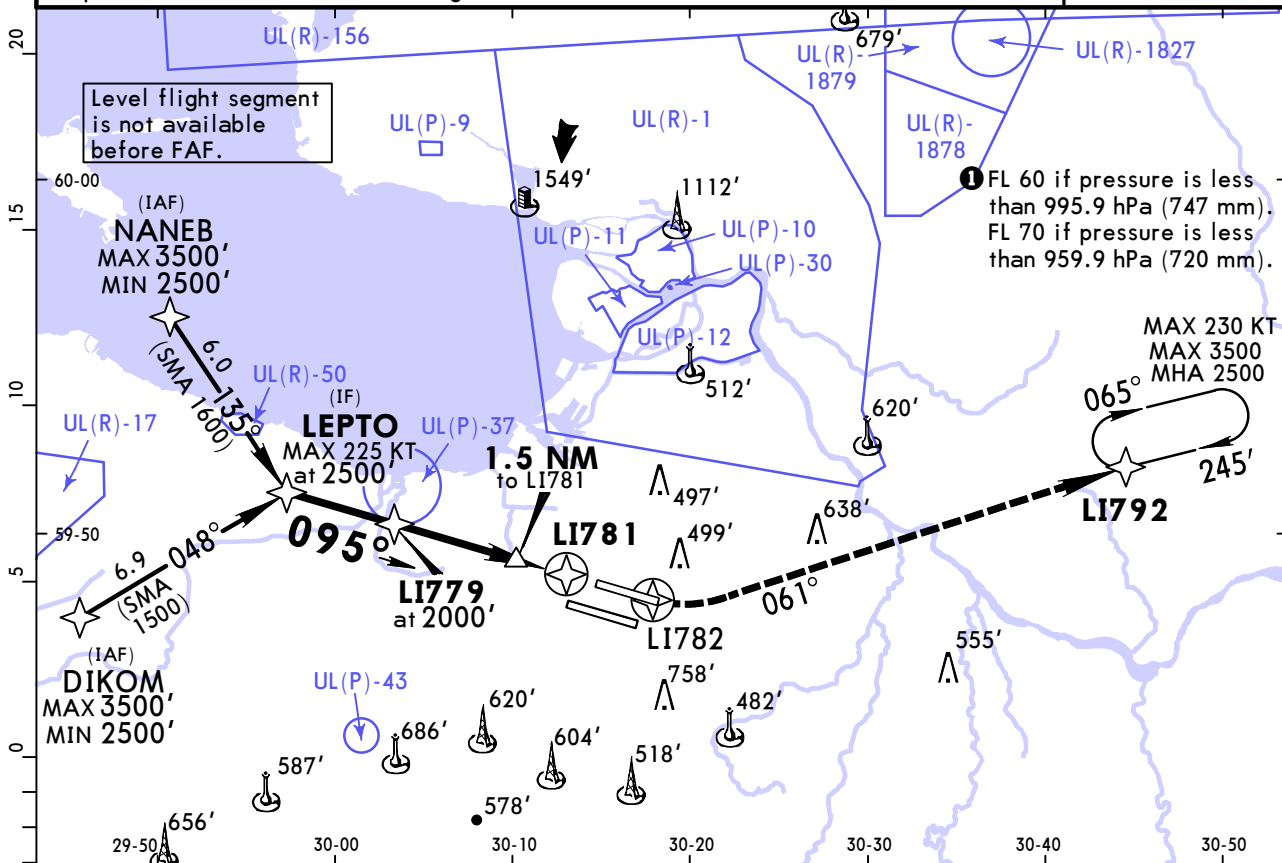
PANS OPS

ULLI/LED PULKOVO

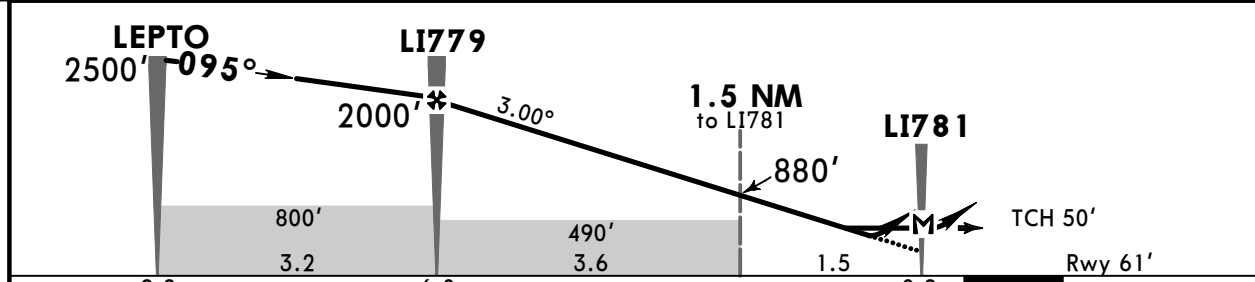
JEPPESEN
1 NOV 19
Eff 7 Nov (12-1)

ST PETERSBURG, RUSSIA RNP Z Rwy 10L

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
RNAV	Final Apch Crs 095°	Procedure Alt LI779 2000' (1939')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 79'	Rwy 61'		
MISSED APCH: Climb STRAIGHT AHEAD to LI782, turn LEFT onto 061° to LI792 climbing to 2500', then join holding.						2600 MSA ARP	
Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 50 ① Trans alt: 3500'							
RNP apch. 1. GNSS required. 2. Baro-VNAV not authorized below -30°C. For temperatures above 50°C descent angle exceeds 3.5°.							



DIST to LI781	4.3	3.2	2.2	1.1
ALTITUDE	1770'	1430'	1080'	740'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	LI782	LI792	on 061°
Descent Angle	3.00°	372	478	531	637	849				
LNAV/VNAV: MAP at DA										
LNAV: MAP at LI781										

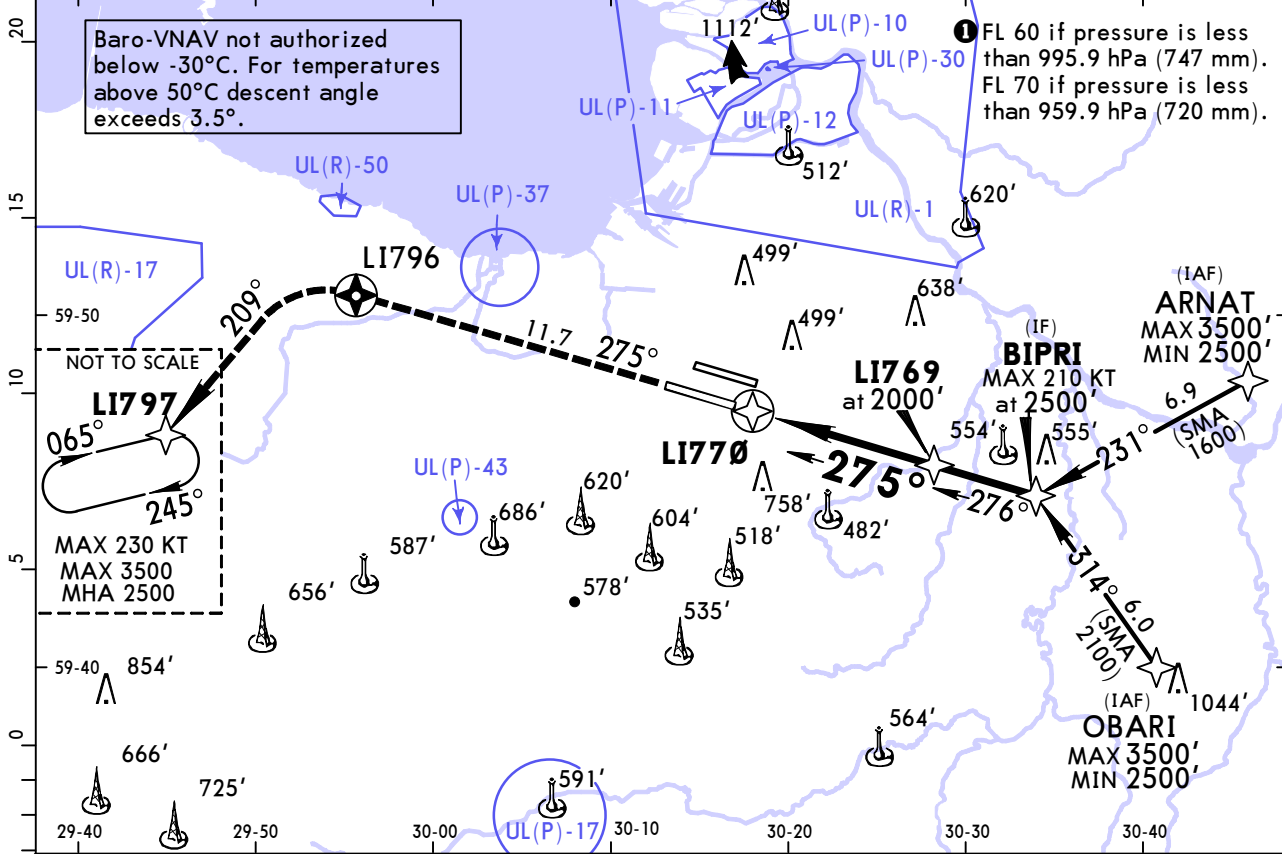
STRAIGHT-IN LANDING RWY 10L				CIRCLE-TO-LAND			
LNAV/VNAV		LNAV					
DA(H) A: 352' (291') C: 383' (322') B: 362' (301') D: 410' (349')		MDA(H) 460' (399')					
PANS OPS	A B C D	900m	ALS out	ALS out	Max Kts	MDA(H)	
			1400m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	690' (611') 1600m
			1500m	RVR 1500m VIS 1600m	RVR 1800m VIS 2000m	135	790' (711') 1600m
			1700m			180	900' (821') 4000m
			205	1040' (961') 4800m			

**ULLI/LED
PULKOVO**

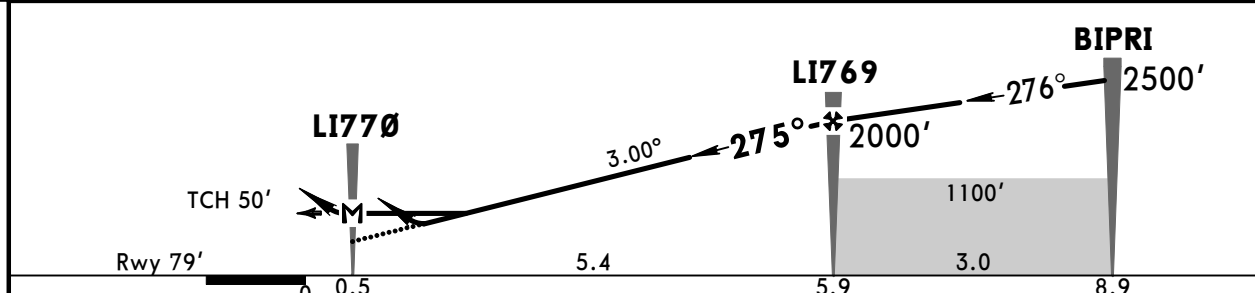
JEPPESEN
1 NOV 19
Eff 7 Nov **(12-3)**

**ST PETERSBURG, RUSSIA
RNP Z Rwy 28L**

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
RNAV	Final Apt Crs 275°	Procedure Alt LI769 2000' (1921')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 79'			
MISSED APCH: Climb STRAIGHT AHEAD to LI796, turn LEFT onto 209° to LI797 climbing to 2500', then join holding.							
Alt Set: hPa		Rwy Elev: 3 hPa	Trans level: FL 50	Trans alt: 3500'	MSA ARP		
RNP apch. 1. GNSS required. 2. Level flight segment is not available before FAF.							



DIST to LI770	1.1	2.2	3.2	4.3
ALTITUDE	650'	990'	1330'	1680'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Angle	3.00°	372	478	531	637	849	
LNAV/VNAV: MAP at DA							LI796 ↑
VNAV: MAP at LI770							

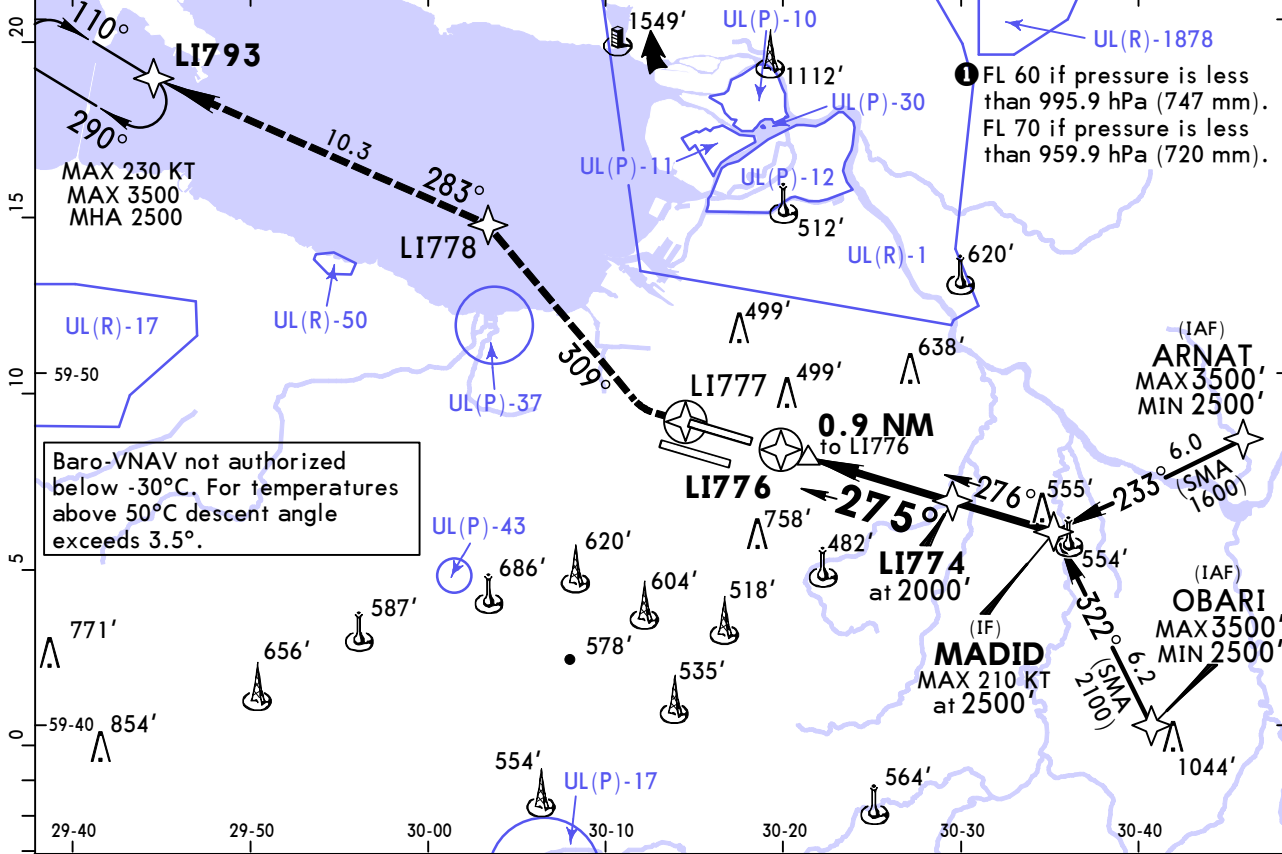
PANS OPS	STRAIGHT-IN LANDING RWY 28L				CIRCLE-TO-LAND	
	LNAV/VNAV		LNAV		Max Kts	MDA(H)
	DA(H)	ALS out	ALS out	ALS out		
A		RVR 1800m VIS 2000m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	690' (611') 1600m
B	1200m				135	790' (711') 1600m
C	1300m	2100m	1200m	RVR 1800m VIS 2000m	180	900' (821') 4000m
D	1400m	2200m	RVR 1500m VIS 1600m	2400m	205	1040' (961') 4800m

ULLI/LED PULKOVO

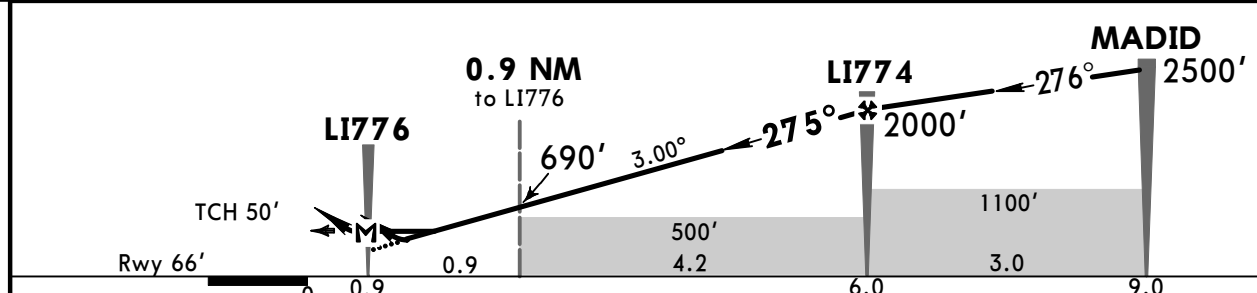
JEPPESEN
1 NOV 19
Eff 7 Nov **(12-4)**

ST PETERSBURG, RUSSIA RNP Z Rwy 28R

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7	
RNAV	Final Apt Crs 275°	Procedure Alt LI774 2000' (1934')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 79' Rwy 66'		 2600 MSA ARP		
MISSED APCH: Climb STRAIGHT AHEAD to LI777, turn RIGHT onto 309° to LI778 (MAX 220 KT), then proceed to LI793 (MAX 240 KT) climbing to 2500', then join holding.								
Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 50 1 Trans alt: 3500' RNP apch. 1. GNSS required. 2. Level flight segment is not available before FAF.								



DIST to LI776	1.1	2.2	3.2	4.3
ALTITUDE	750'	1090'	1430'	1780'



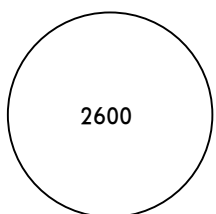
Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	LI777 ↑	LI778 ↑ RT	on 309°
Descent Angle	3.00°	372	478	531	637	849				
LNAV/VNAV: MAP at DA										
LNAV: MAP at LI776										

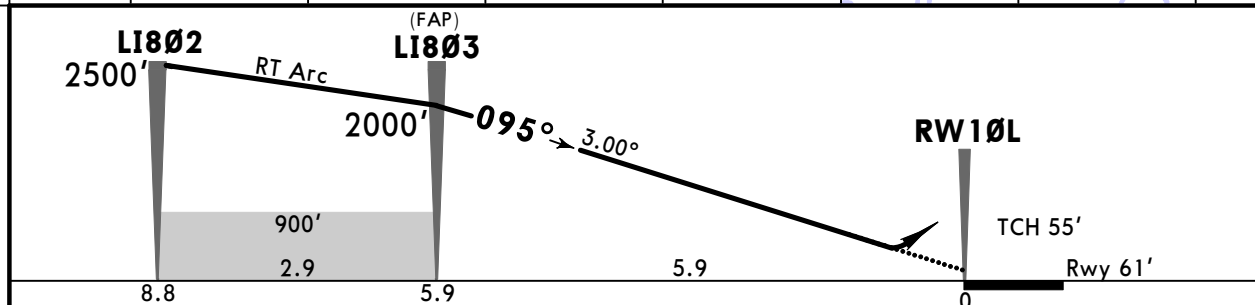
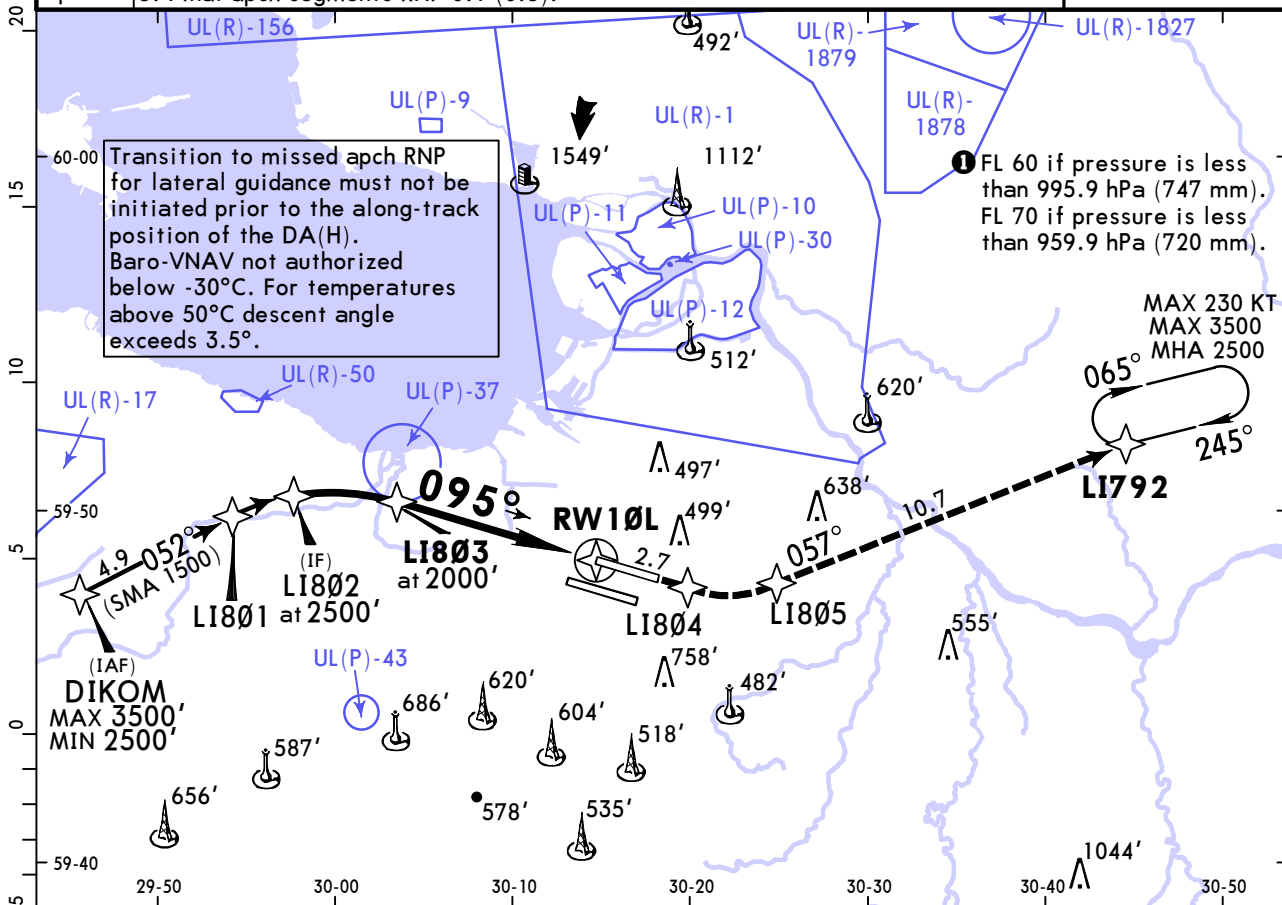
STRAIGHT-IN LANDING RWY 28R				CIRCLE-TO-LAND		
LNAV/VNAV		LNAV		Max Kts	MDA(H)	
DA(H)	ALS out	MDA(H)	ALS out			
A	1400m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	690' (611')	1600m
B	1500m			135	790' (711')	1600m
C	RVR 1500m VIS 1600m	RVR 1500m VIS 1600m	RVR 1800m VIS 2000m	180	900' (821')	4000m
D	1700m			205	1040' (961')	4800m

**ULLI/LED
PULKOVO**

JEPPESEN
1 NOV 19
Eff 7 Nov

**ST PETERSBURG, RUSSIA
RNP Y Rwy 10L (AR)**

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7	
RNAV	Final Apch Crs 095°	LI803 MANDATORY 2000' (1939')	RNP 0.10 DA(H) Refer to Minimums	Apt Elev 79' Rwy 61'				
MISSED APCH: Climb STRAIGHT AHEAD to LI804 (MAX 225 KT), turn LEFT to LI805 climbing to 2500', then join holding. RNP 0.30 to LI804 required.								
Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 50 1 Trans alt: 3500' RNP AR 1. AUTHORIZATION REQUIRED. 2. RF and GNSS required. apch. 3. Final apch segments RNP 0.1 (0.3).								



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	LI804 ↑ 225 KT MAX ↓ 2500' LT LI805
Glide Path Angle	3.00°	372	478	531	637	743		
MAP at DA								

STRAIGHT-IN LANDING RWY 10L				CIRCLE-TO-LAND						
RNP 0.10				RNP 0.30						
DA(H)		A: 318' (257') C: 399' (338')		DA(H)		A: 379' (318') C: 399' (338')				
		B: 391' (330') D: 410' (349')				B: 391' (330') D: 410' (349')				
PANS OPS	A	ALS out	1200m	ALS out	1500m	Max Kts	100	MDA(H)	690' (611')	1600m
	B	900m	RVR 1500m	900m	RVR 1500m	135	790' (711')	1600m		
	C		VIS 1600m		VIS 1600m	180	900' (821')	4000m		
	D	1700m	1700m	205	1040' (961')	4800m				

CHANGES: New procedure.

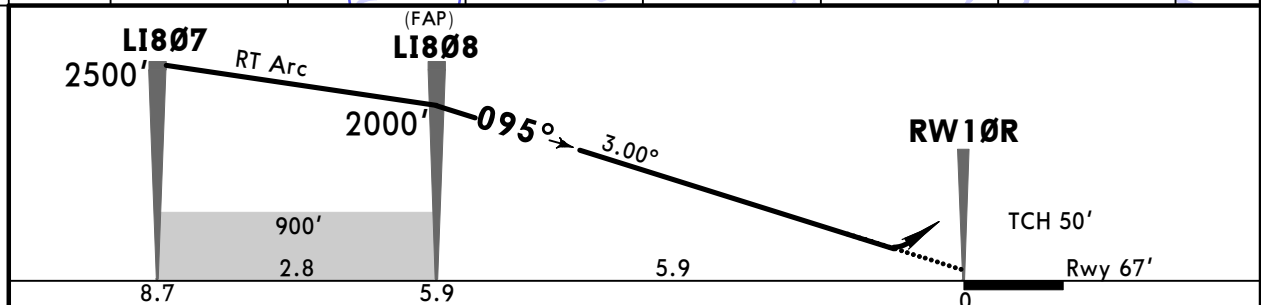
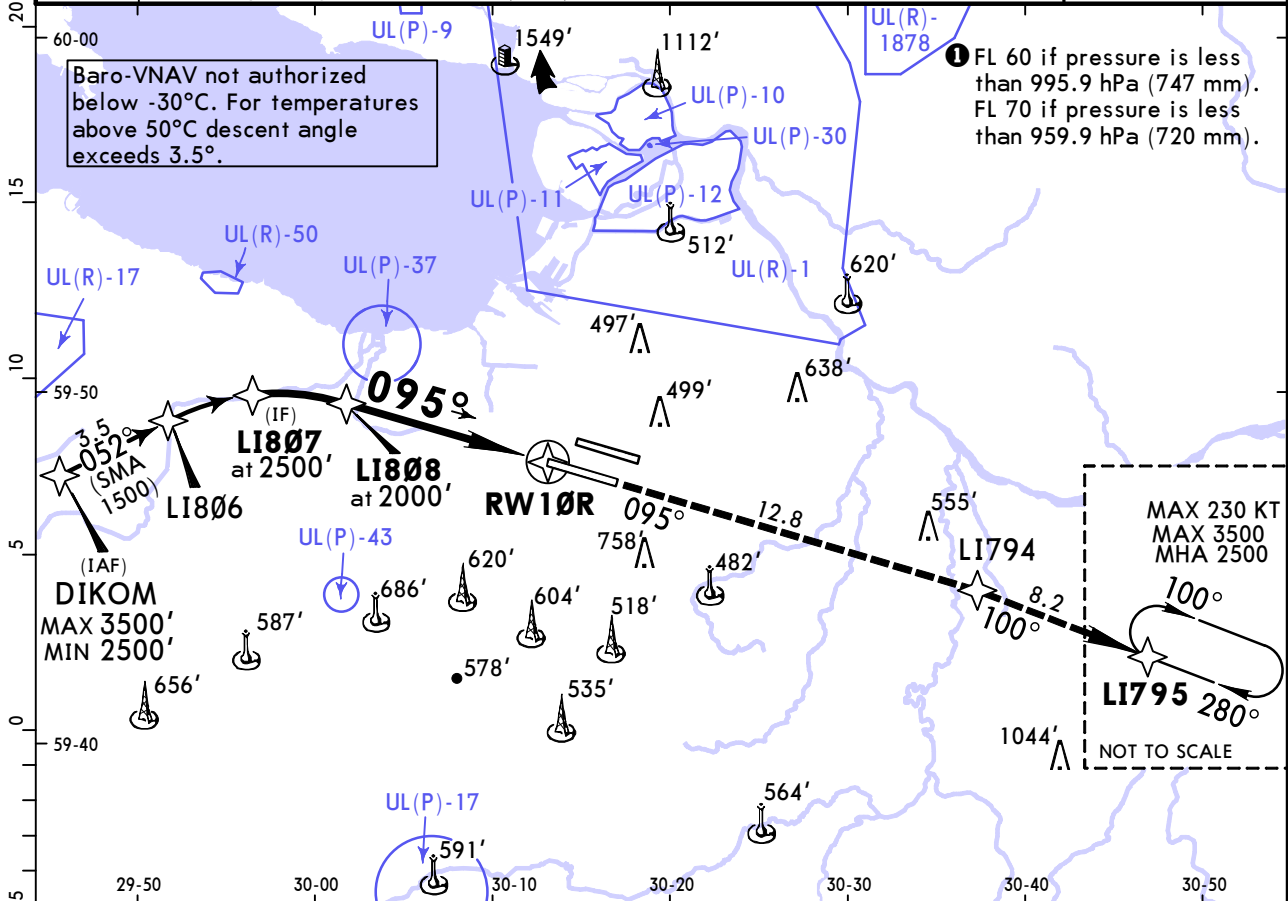
**ULLI/LED
PULKOVO**

JEPPESEN
1 NOV 19
Eff 7 Nov

**ST PETERSBURG, RUSSIA
RNP Y Rwy 10R (AR)**

12-21

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
RNAV	Final Apch Crs 095°	LI808 MANDATORY 2000' (1933')		RNP 0.10 DA(H) Refer to Minimums	Apt Elev 79' Rwy 67'		2600 MSA ARP
MISSED APCH: Climb STRAIGHT AHEAD to LI794, then proceed to LI795 climbing to 2500', then join holding.							
Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 50 ① Trans alt: 3500'							
RNP AR apch.	1. AUTHORIZATION REQUIRED. 2. RF and GNSS required. 3. Final apch segments RNP 0.10 (0.30).						



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	LI794 ↑
Glide Path Angle	3.00°	372	478	531	637	743		
MAP at DA								

STRAIGHT-IN LANDING RWY 10R				CIRCLE-TO-LAND			
RNP 0.10				RNP 0.30			
DA(H)		ALS out		DA(H)		ALS out	
A: 321' (254')		C: 361' (294')		A: 369' (302')		C: 394' (327')	
B: 343' (276')		D: 379' (312')		B: 388' (321')		D: 407' (340')	
PANS OPS	A	900m	1200m	900m	1500m	Max Kts	MDA(H)
	B		1300m		RVR 1500m VIS 1600m	100	690' (611')
	C		1400m			135	790' (711')
	D		1500m			180	900' (821')
						205	1040' (961')

CHANGES: New procedure.

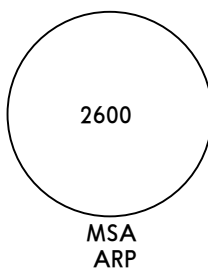
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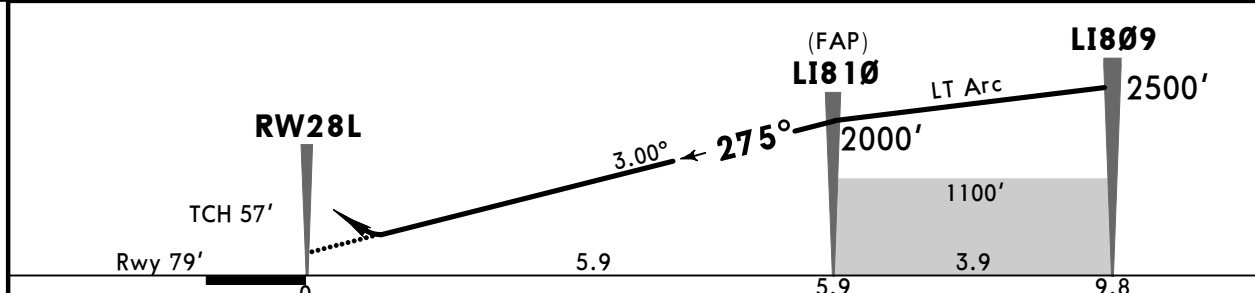
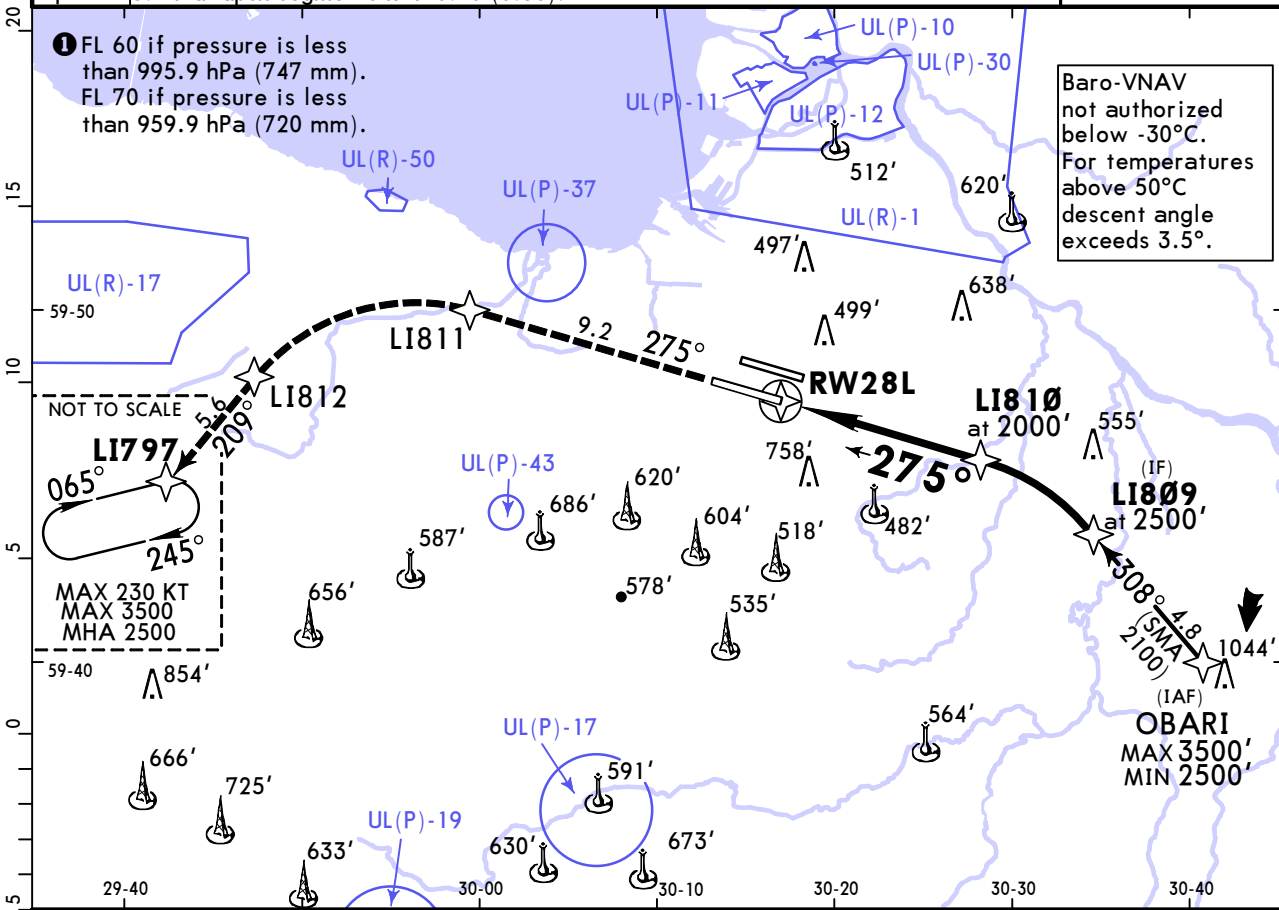
ULLI/LED PULKOVO


1 NOV 19
Eff 7 Nov

ST PETERSBURG, RUSSIA RNP Y Rwy 28L (AR)

12-22

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
RNAV	Final Apch Crs 275°	LI810 MANDATORY 2000' (1921')		RNP 0.10 DA(H) Refer to Minimums	Apt Elev 79' Rwy 79'		
MISSED APCH: Climb STRAIGHT AHEAD to LI811, turn LEFT to LI812, then proceed to LI797 climbing to 2500', then join holding.							
Alt Set: hPa Rwy Elev: 3 hPa Trans level: FL 50 1 Trans alt: 3500' RNP AR 1. AUTHORIZATION REQUIRED. 2. RF and GNSS required. apch. 3. Final apch segments RNP 0.10 (0.30).							



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI 	LI811 ↑
Glide Path Angle	3.00°	372	478	531	637	743		
MAP at DA								

PANS OPS	STRAIGHT-IN LANDING RWY 28L				CIRCLE-TO-LAND		
	RNP 0.10		RNP 0.30		Max Kts	MDA(H)	
	DA(H)	A: 374' (295') B: 385' (306')	DA(H)	A: 469' (390') B: 481' (402')			
A	900m	ALS out	1100m	1900m	100	690' (611')	1600m
B		1400m	1200m	RVR 1800m VIS 2000m	135	790' (711')	1600m
C		1500m	1300m	2100m	180	900' (821')	4000m
D		RVR 1500m VIS 1600m			205	1040' (961')	4800m

CHANGES: New procedure.

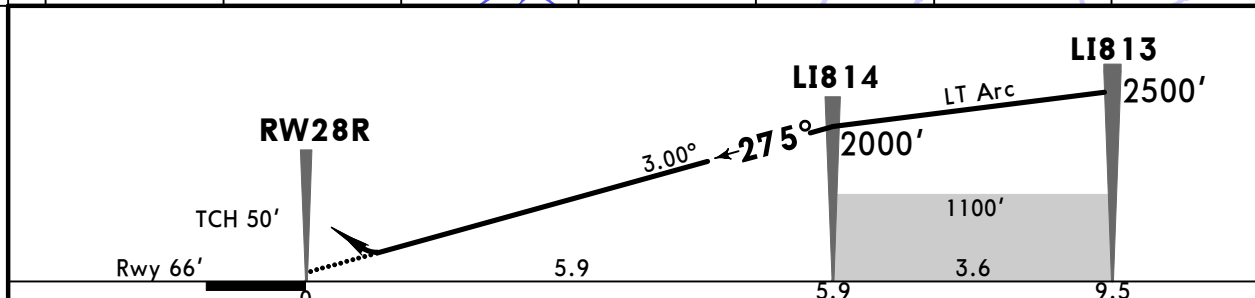
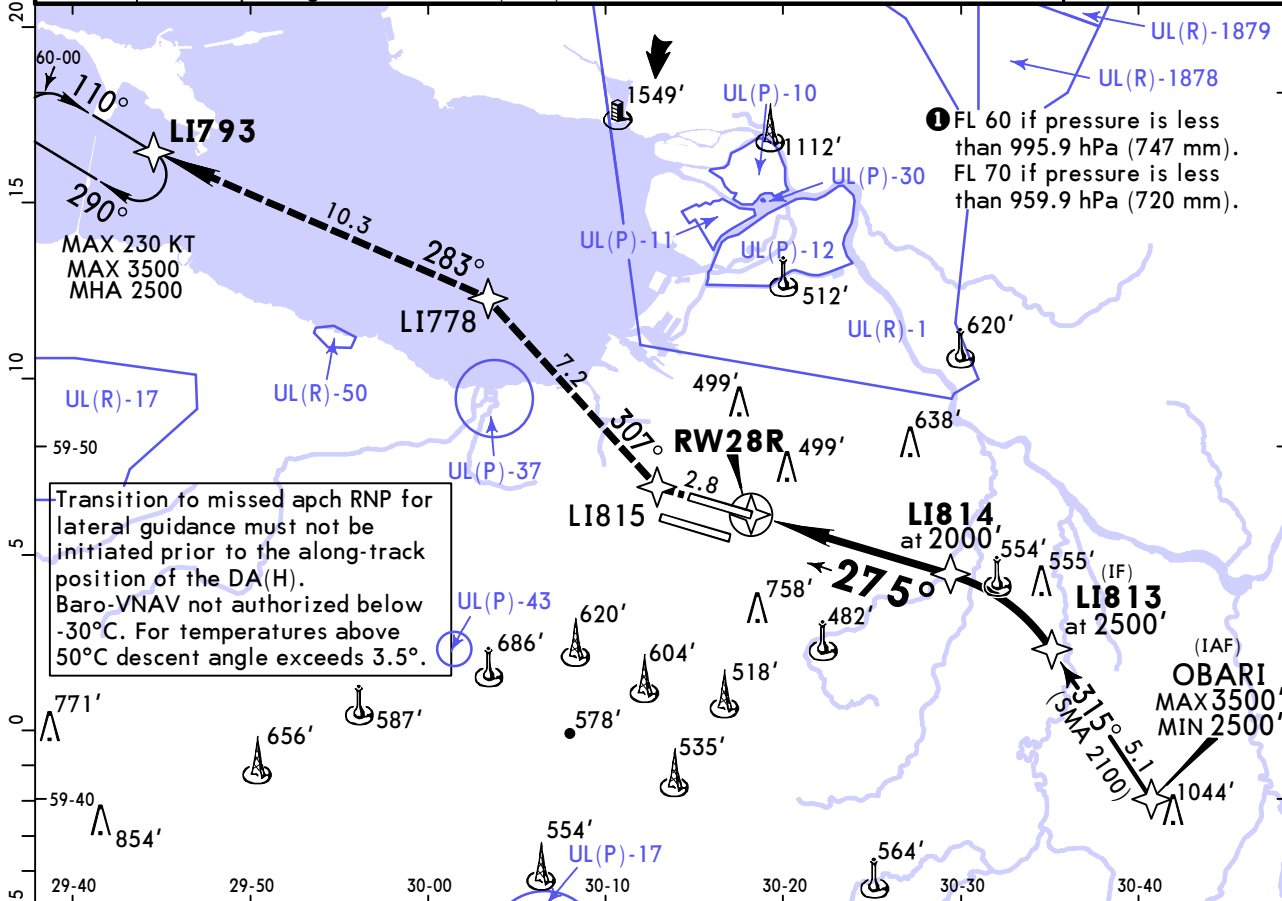
ULLI/LED PULKOVO

JEPPESEN
1 NOV 19
Eff 7 Nov

ST PETERSBURG, RUSSIA RNP Y Rwy 28R (AR)

12-23

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7	
RNAV	Final Apch Crs 275°	LI814 MANDATORY 2000' (1934')	RNP 0.10 DA(H) Refer to Minimums	Apt Elev 79' Rwy 66'				
MISSED APCH: Climb STRAIGHT AHEAD to LI815, turn RIGHT to LI778 (MAX 220 KT), then proceed to LI793 (MAX 240 KT) climbing to 2500', then join holding. RNP 0.30 to LI815 required.								
Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 50 1 Trans alt: 3500'								
RNP AR 1. AUTHORIZATION REQUIRED. 2. RF and GNSS required. apch. 3. Final apch segments RNP 0.10 (0.30).								



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	LI815 ↑	LI778 ↑ RT	220 KT MAX	
Glide Path Angle	3.00°	372	478	531	637	743					849
MAP at DA											

STRAIGHT-IN LANDING RWY 28R						CIRCLE-TO-LAND		
RNP 0.10			RNP 0.30			Max Kts	MDA(H)	
DA(H)	A	C	DA(H)	A	C			
	370' (304')	409' (343')		388' (322')	428' (362')	100	690' (611')	1600m
	391' (325')	423' (357')		410' (344')	447' (381')	135	790' (711')	1600m
PANS OPS	A	ALS out	1500m	900m	ALS out	100	690' (611')	1600m
	B	900m	RVR 1500m VIS 1600m		1700m	135	790' (711')	1600m
	C		1700m	1000m	1800m	180	900' (821')	4000m
	D		1000m	1800m	1100m	1900m	205	1040' (961')

CHANGES: New procedure.

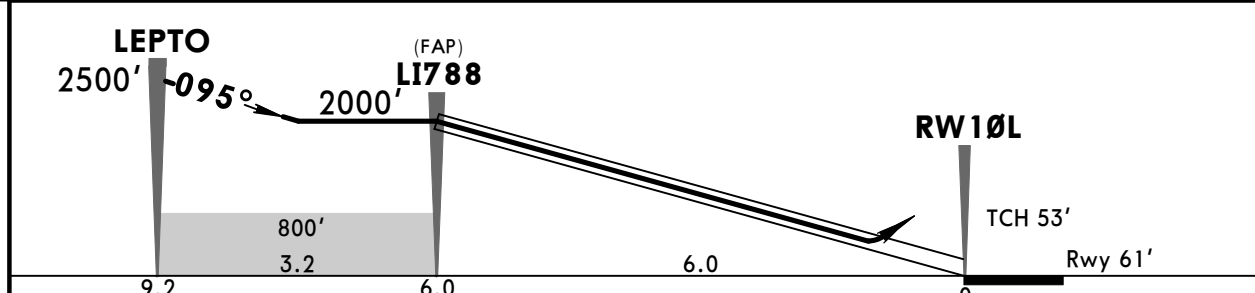
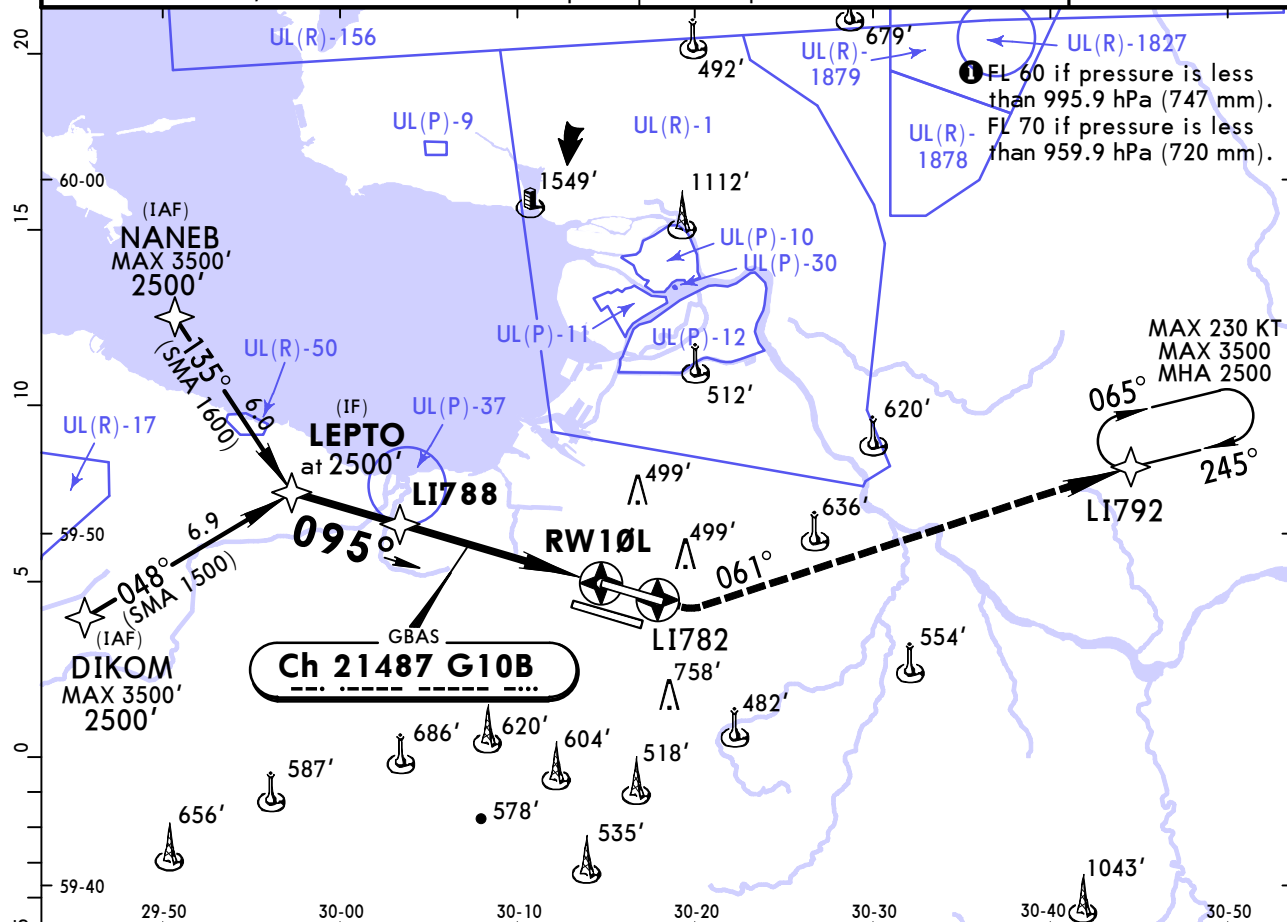
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ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **(12-40)** Eff 25 Apr

ST PETERSBURG, RUSSIA GLS Rwy 10L

BRIEFING STRIP™	ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
	GBAS Ch 21487 G10B	Final Apch Crs 095°	Procedure Alt LI788 2000' (1939')	GLS DA(H) Refer to Minimums	Apt Elev 79' Rwy 61'			
MISSED APCH: Climb STRAIGHT AHEAD to LI782, turn LEFT onto 061° to LI792 climbing to 2500', then join holding.								
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 ①	Trans alt: 3500'				
RNAV 1 for initial, intermediate and missed apch.				GNSS required.				



Gnd speed-Kts	70	90	100	120	140	160		LI782 ↑	LI792 ↙ on 061°
Glide Path Angle	3.00°	372	478	531	637	849			
MAP at DA									

PANS OPS	STRAIGHT-IN LANDING RWY 10L						CIRCLE-TO-LAND		
	Missed apch climb gradient mim 4.0%			Missed apch climb gradient mim 2.5%			Max Kts	MDA(H)	
	DA(H)	C: 263' (202')	AB: 261' (200')	DA(H)	A: 350' (289')	C: 370' (309')			
			D: 274' (213')		B: 362' (301')	D: 381' (320')			
	FULL	TDZ or CL out	ALS out	FULL	TDZ or CL out	ALS out			
A						1400m	100	690' (611')	1600m
B	RVR 550m	RVR 720m	1200m	900m			135	1060' (981')	2400m
C	VIS 800m	VIS 800m					180		
D						1500m	205	1160' (1081')	4800m

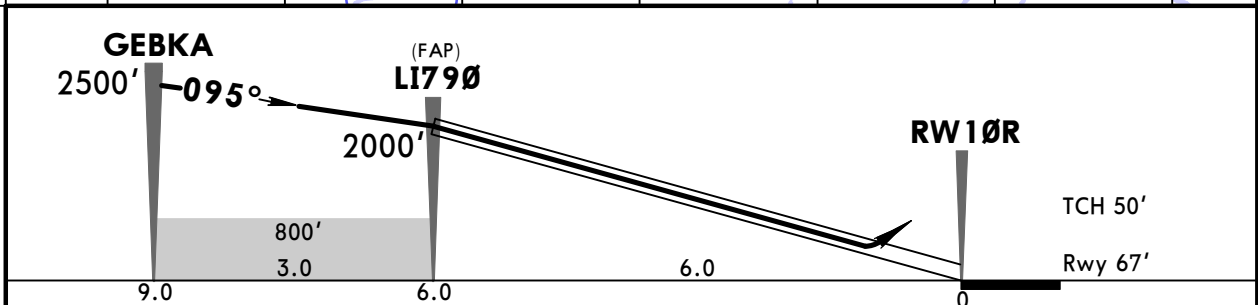
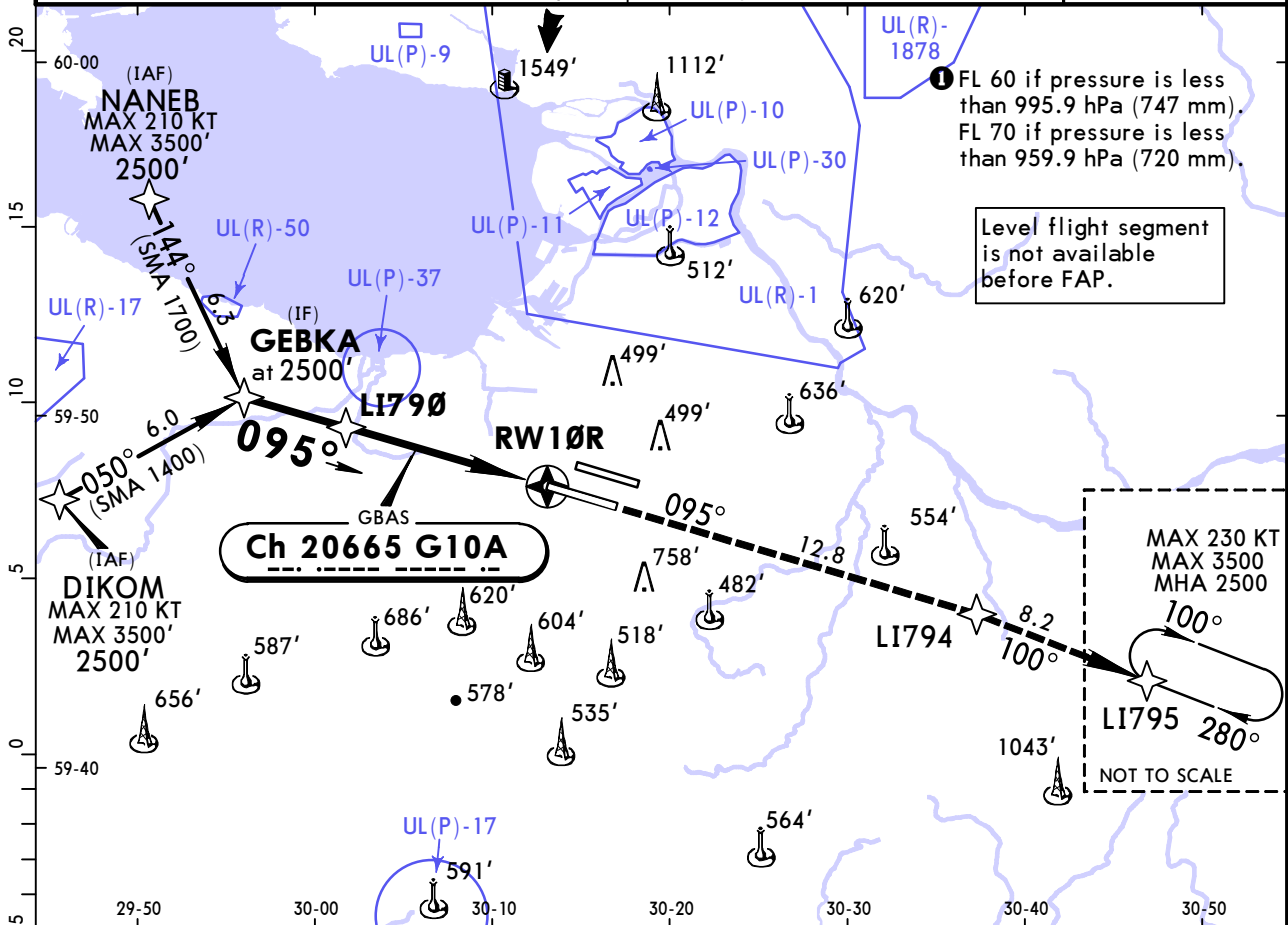
CHANGES: Bearings. Minimums.

ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **(12-41)** Eff 25 Apr

ST PETERSBURG, RUSSIA GLS Rwy 10R

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7	
GBAS Ch 20665 G10A	Final Apch Crs 095°	Procedure Alt LI790 2000' (1933')	GLS DA(H) 267' (200')	Apt Elev 79' Rwy 67'		<p>2600</p> <p>MSA ARP</p>		
<p>MISSED APCH: Climb STRAIGHT AHEAD to LI794, then proceed to LI795 climbing to 2500', then join holding.</p>								
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 50 1				Trans alt: 3500'
RNAV 1 for initial, intermediate and missed apch.				GNSS required.				



Gnd speed-Kts	70	90	100	120	140	160	<p>HIALS-II</p> <p>PAPI</p>	<p>LI794</p> <p>↑</p>
Glide Path Angle	3.00°	372	478	531	637	743		
MAP at DA								

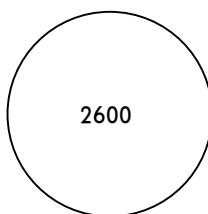
STRAIGHT-IN LANDING RWY 10R				CIRCLE-TO-LAND			
DA(H) 267' (200')				Max Kts			
FULL		TDZ or CL out		ALS out		MDA(H)	
A						100	690' (611') 1600m
B						135	1060' (981') 2400m
C	RVR 550m VIS 800m	RVR 720m VIS 800m		1200m		180	1160' (1081') 4800m
D						205	

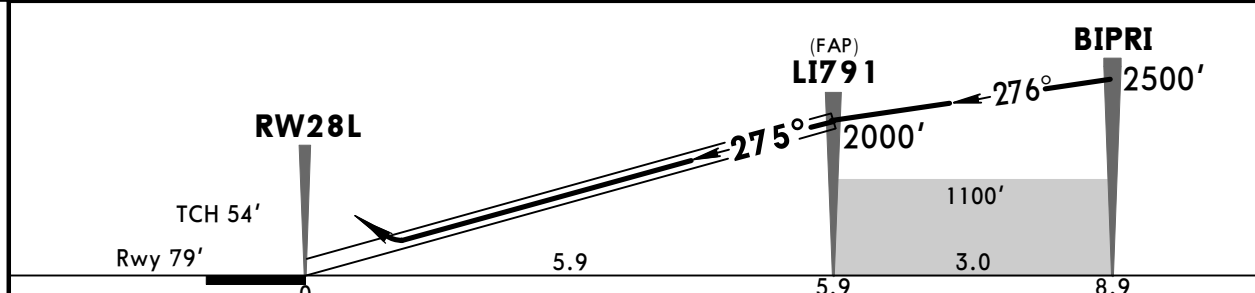
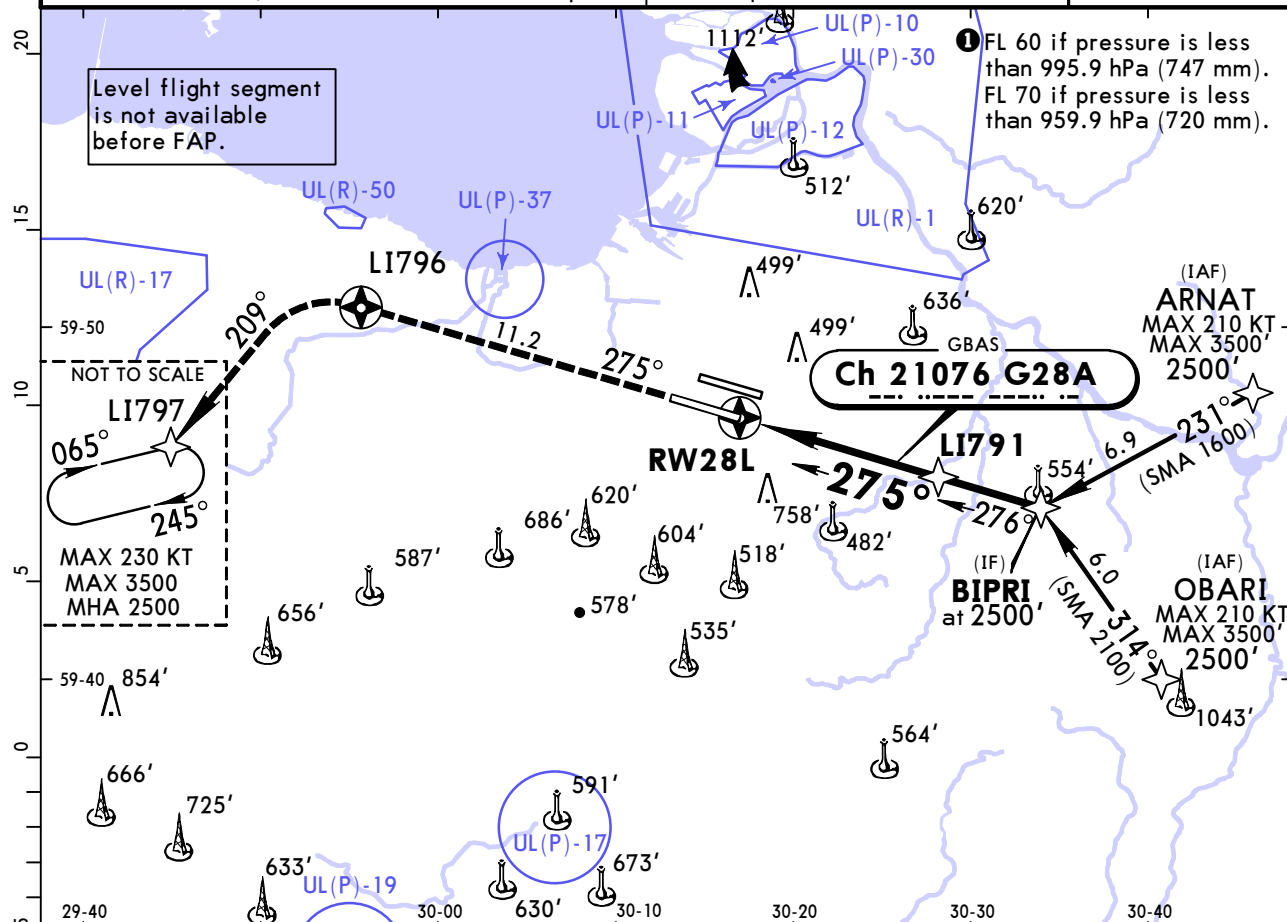
PANS OPS

ULLI/LED PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA GLS Rwy 28L

12 APR 19 **12-42** Eff 25 Apr

BRIEFING STRIP™	ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
	GBAS Ch 21076 G28A	Final Apch Crs 275°	Procedure Alt LI791 2000' (1921')	GLS DA(H) 279' (200')	Apt Elev 79' Rwy 79'		 2600 MSA ARP	
MISSED APCH: Climb STRAIGHT AHEAD to LI796, turn LEFT onto 209° to LI797 climbing to 2500', then join holding.								
Alt Set: hPa		Rwy Elev: 3 hPa		Trans level: FL 50 1		Trans alt: 3500'		
RNAV 1 for initial, intermediate and missed apch.				GNSS required.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS PAPI	LI796 ↑
Glide Path Angle	3.00°	372	478	531	637	743		
MAP at DA								

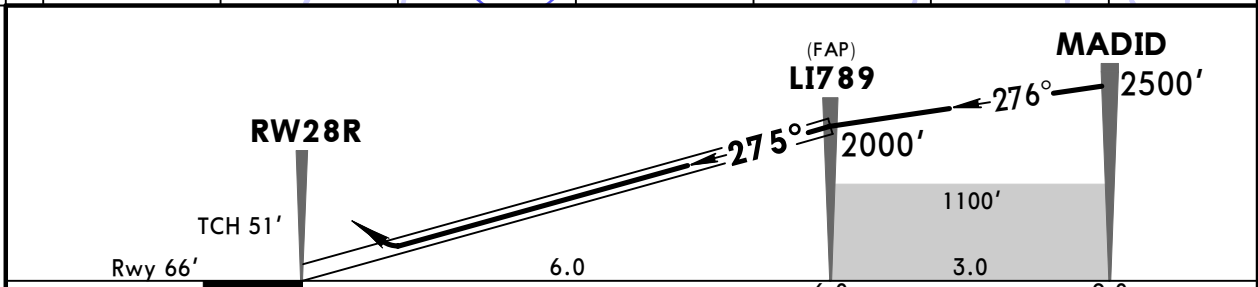
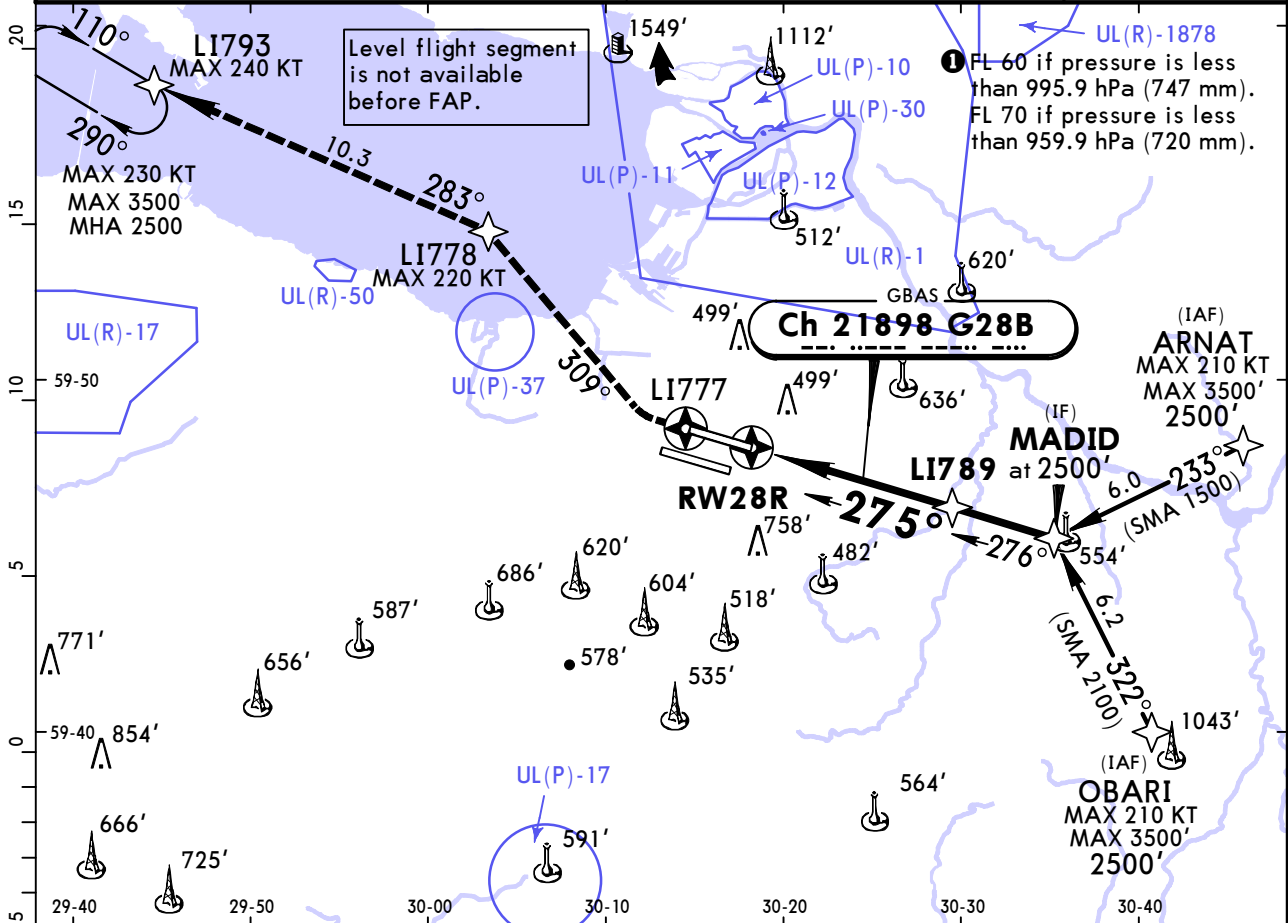
STRAIGHT-IN LANDING RWY 28L				CIRCLE-TO-LAND			
DA(H) 279' (200')							
FULL		ALS out		Max Kts	MDA(H)		
A					100	690' (611')	1600m
B					135	1060' (981')	2400m
C	RVR 720m VIS 800m	1200m		180	1160' (1081')		4800m
D			205				

PANS OPS

ULLI/LED PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA
12 APR 19 **(12-43)** Eff 25 Apr GLS Rwy 28R

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
GBAS Ch 21898 G28B	Final Aptch Crs 275°	Procedure Alt LI789 2000' (1934')	GLS DA(H) Refer to Minimums	Apt Elev 79' Rwy 66'	2600		
MISSED APCH: Climb STRAIGHT AHEAD to LI777, turn RIGHT onto 309° to LI778, then proceed to LI793 climbing to 2500', then join holding.							
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 1	Trans alt: 3500'	MSA ARP		
RNAV 1 for initial, intermediate and missed apch.			GNSS required.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	LI777	LI778	on 309° RT
Glide Path Angle	3.00°	372	478	531	637	743				
MAP at DA										

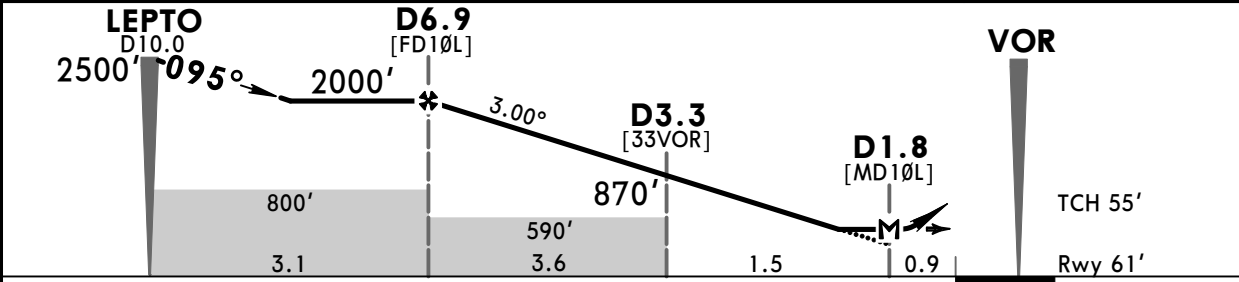
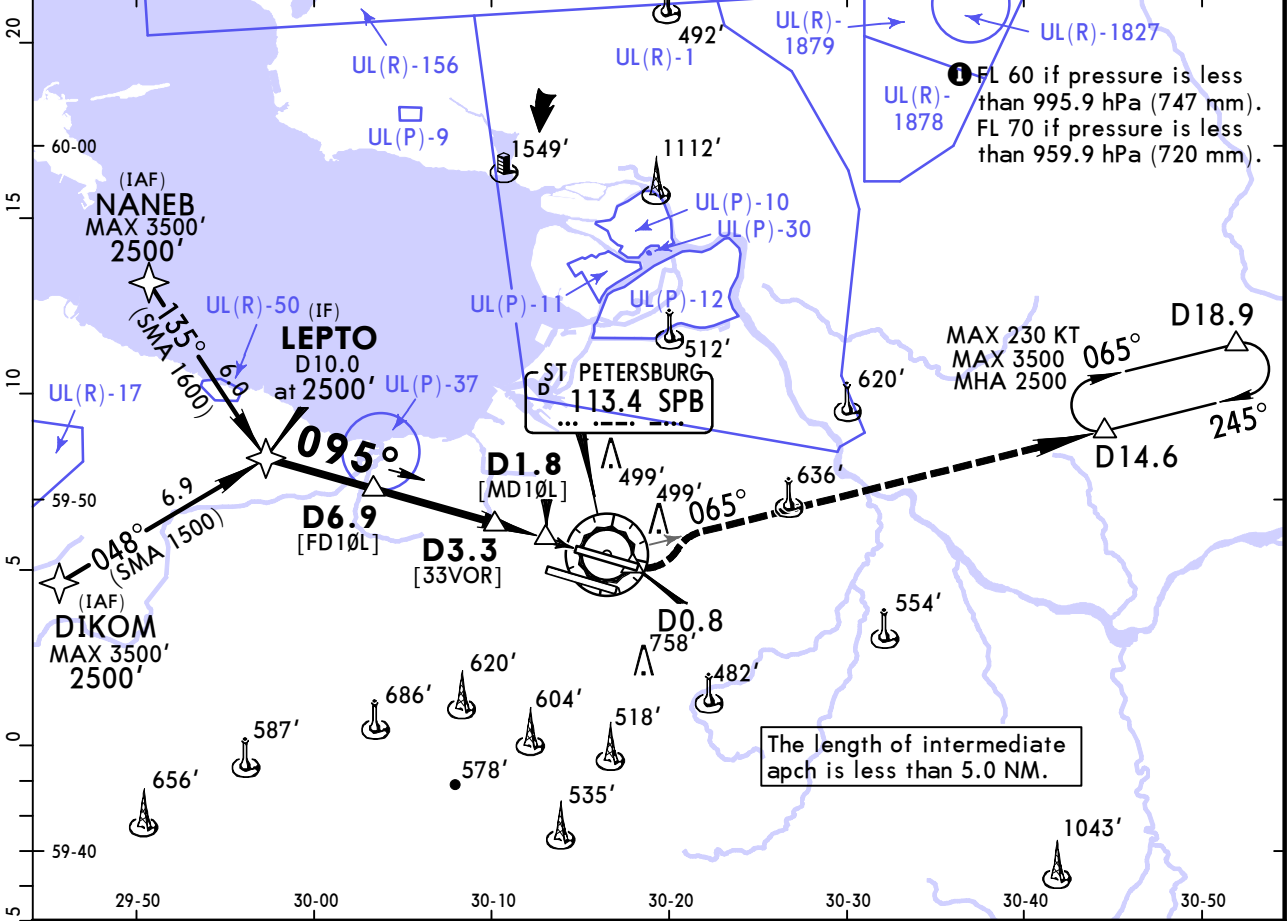
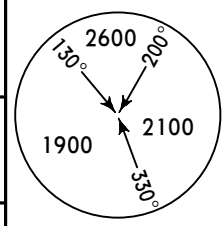
PANS OPS	STRAIGHT-IN, LANDING RWY 28R						CIRCLE-TO-LAND		
	Missed apch climb gradient mim 5.0%			Missed apch climb gradient mim 2.5%			Max Kts	MDA(H)	
	FULL	TDZ or CL out	ALS out	FULL	TDZ or CL out	ALS out			
A							100	690'	1600m
B	RVR 550m	RVR 720m					135	1060'	2400m
C	VIS 800m	VIS 800m	1200m		900m		180	1160'	4800m
D						RVR 1500m VIS 1600m	205		

ULLI/LED PULKOVO

JEPPESEN ST PETERSBURG, RUSSIA
12 APR 19 (13-1) Eff 25 Apr

VOR Rwy 10L

BRIEFING STRIP™	ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
	VOR SPB 113.4	Final Apch Crs 095°	Procedure Alt 2000' (1939')	MDA(H) (CONDITIONAL) 520' (459')		Apt Elev 79' Rwy 61'		
MISSED APCH: Climb STRAIGHT AHEAD, at D0.8 after SPB turn LEFT onto R-065, proceed to D14.6 climbing to 2500', then join holding.								
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 ①		Trans alt: 3500'			MSA SPB VOR
RNAV 1 required for initial approach.			1. GNSS required. 2. DME required.					



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D0.8 after SPB ↑	LT SPB 113.4 R-065
Descent Angle	3.00°	372	478	531	637	849			
MAP at D1.8									

	STRAIGHT-IN LANDING RWY 10L				Max Kts	CIRCLE-TO-LAND	
	with D3.3		w/o D3.3			MDA(H)	
	MDA(H) 520' (459')		MDA(H) 590' (529')				
	ALS out		ALS out				
A	RVR 720m VIS 800m	RVR 1500m VIS 1600m	RVR 720m VIS 800m	RVR 1500m VIS 1600m	100	690' (611')	1600m
B					135	1060' (981')	2400m
C	1200m	RVR 1800m VIS 2000m	RVR 1500m VIS 1600m	2400m	180	1160' (1081')	4800m
D	RVR 1500m VIS 1600m	2400m	RVR 1800m VIS 2000m	2800m	205		

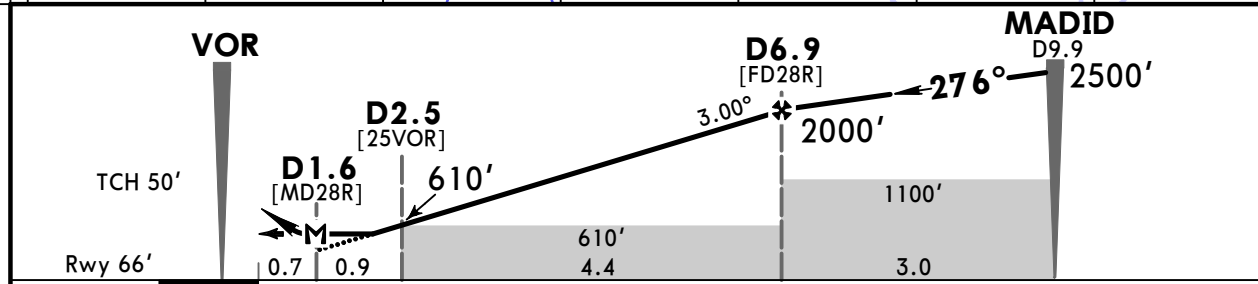
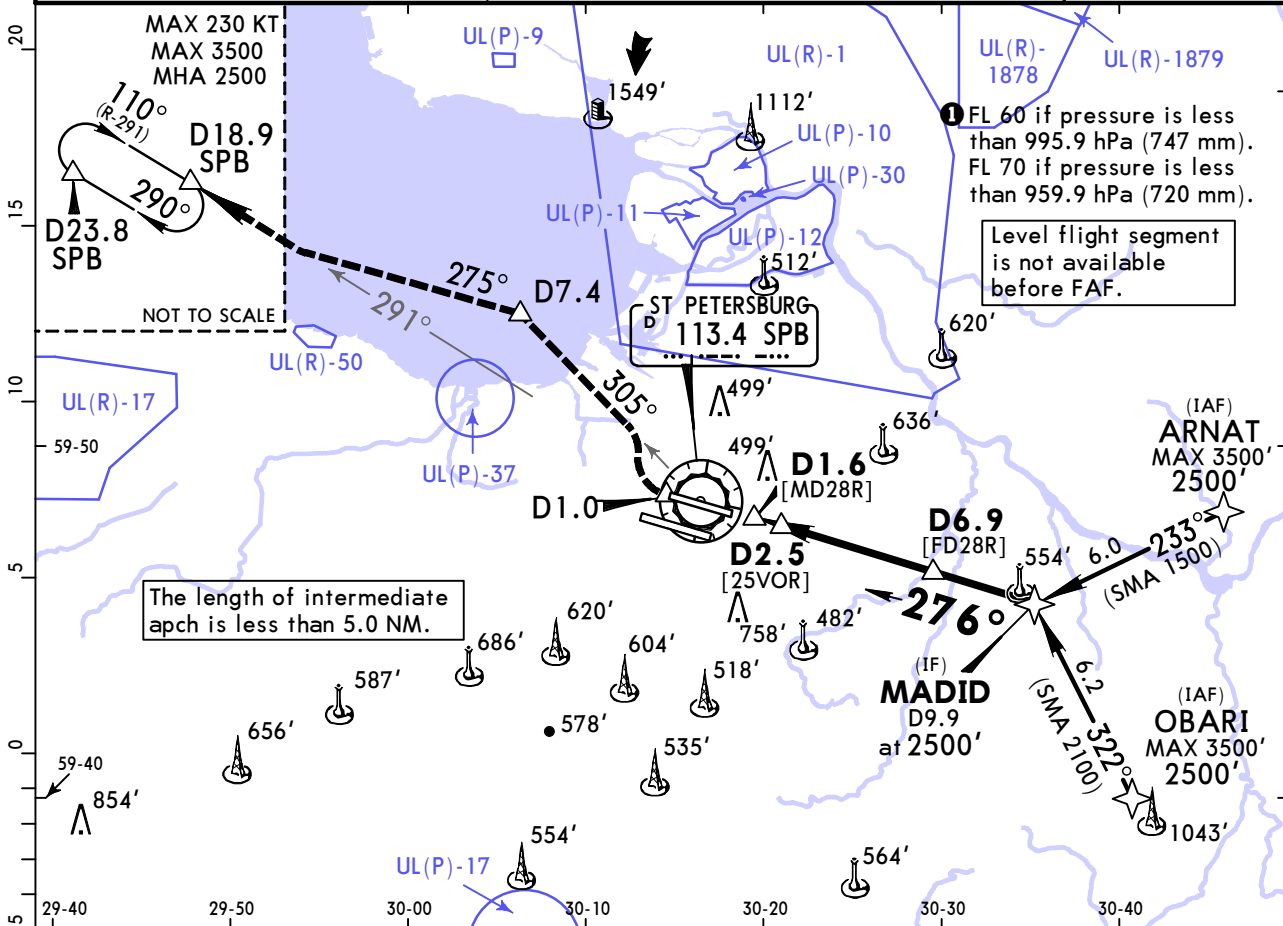
PANS OPS

**ULLI/LED
PULKOVO**

JEPPESEN 12 APR 19 **(13-2)** Eff 25 Apr

**ST PETERSBURG, RUSSIA
VOR Rwy 28R**

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
VOR SPB 113.4	Final Aptch Crs 276°	Procedure Alt D6.9 2000' (1934')	MDA(H) (CONDITIONAL) 500' (434')	Apt Elev 79' Rwy 66'			
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 after SPB, turn RIGHT to intercept R-305, proceed to D7.4, turn LEFT onto 275°, intercept R-291 to D18.9 climbing to 2500', then join holding.							MSA SPB VOR
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 50		Trans alt: 3500'	
RNAV 1 required for initial approach.			1. GNSS required. 2. DME required.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D1.0 after SPB ↑	RT ↻	SPB 113.4 R-305
Descent Angle	3.00°	372	478	531	637	849				
MAP at D1.6										

	STRAIGHT-IN LANDING RWY 28R				Max Kts	CIRCLE-TO-LAND	
	with D2.5		w/o D2.5			MDA(H)	
	MDA(H) 500' (434')		MDA(H) 610' (544')				
A	RVR 720m	RVR 1500m	RVR 720m	RVR 1500m	100	690' (611')	1600m
B	VIS 800m	VIS 1600m	VIS 800m	VIS 1600m	135	1060' (981')	2400m
C	1200m	RVR 1800m VIS 2000m	RVR 1500m VIS 1600m	2400m	180	1160' (1081')	4800m
D	RVR 1500m VIS 1600m	2400m	RVR 1800m VIS 2000m	2800m	205		

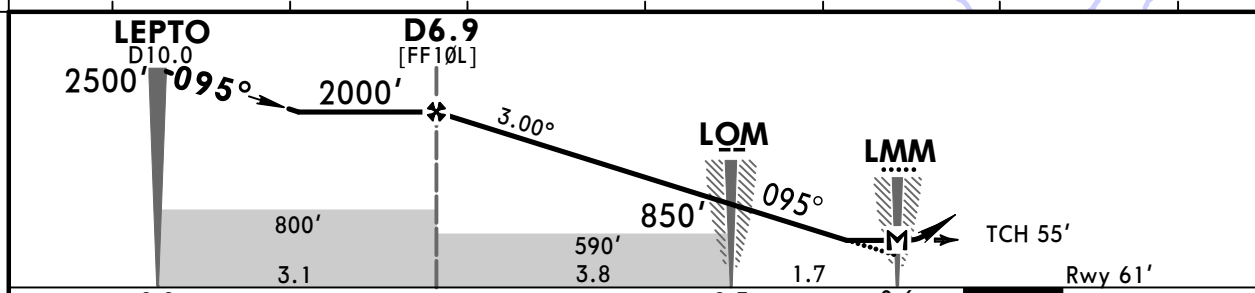
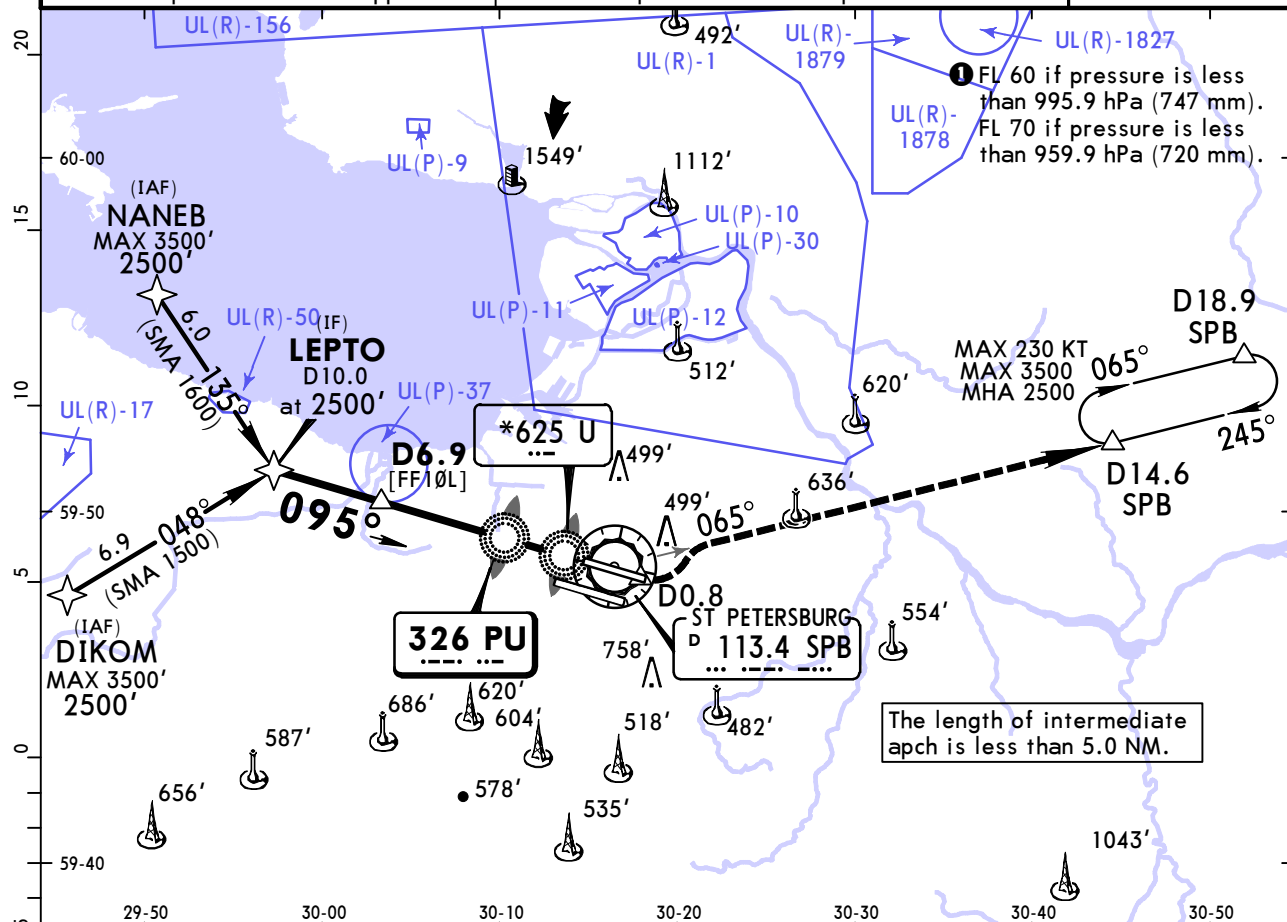
PANS OPS

ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **16-1** Eff 25 Apr

ST PETERSBURG, RUSSIA NDB Rwy 10L

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600 119.3 125.2 119.3			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.1	Ground 121.7
NDB PU 326	Final Apch Crs 095°	Procedure Alt D6.9 2000' (1939')	MDA(H) (CONDITIONAL) 490' (429')	Apt Elev 79' Rwy 61'			
MISSED APCH: Climb STRAIGHT AHEAD on 095° PU NDB, at D0.8 after SPB turn LEFT onto R-065, proceed to D14.6 climbing to 2500', then join holding.							
Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 50 ①		Trans alt: 3500'		
RNAV 1 required for initial approach.			1. GNSS required. 2. DME required.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI	D0.8 after SPB	LT	SPB 113.4 R-065
Descent Angle	3.00°	372	478	531	637	849				
MAP at LMM										

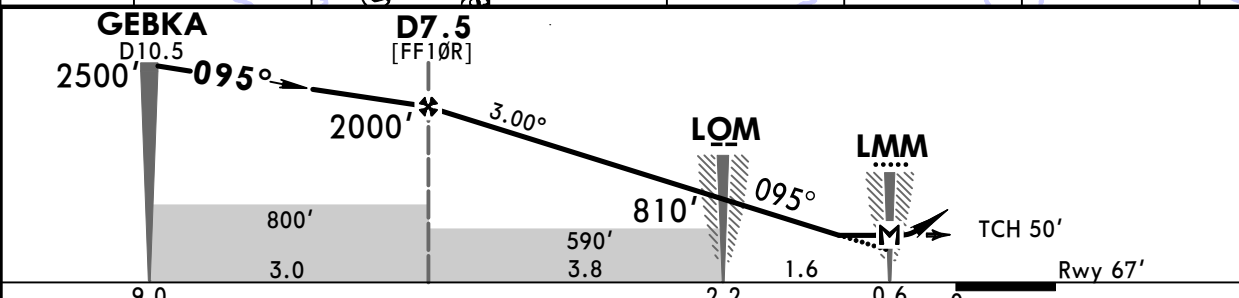
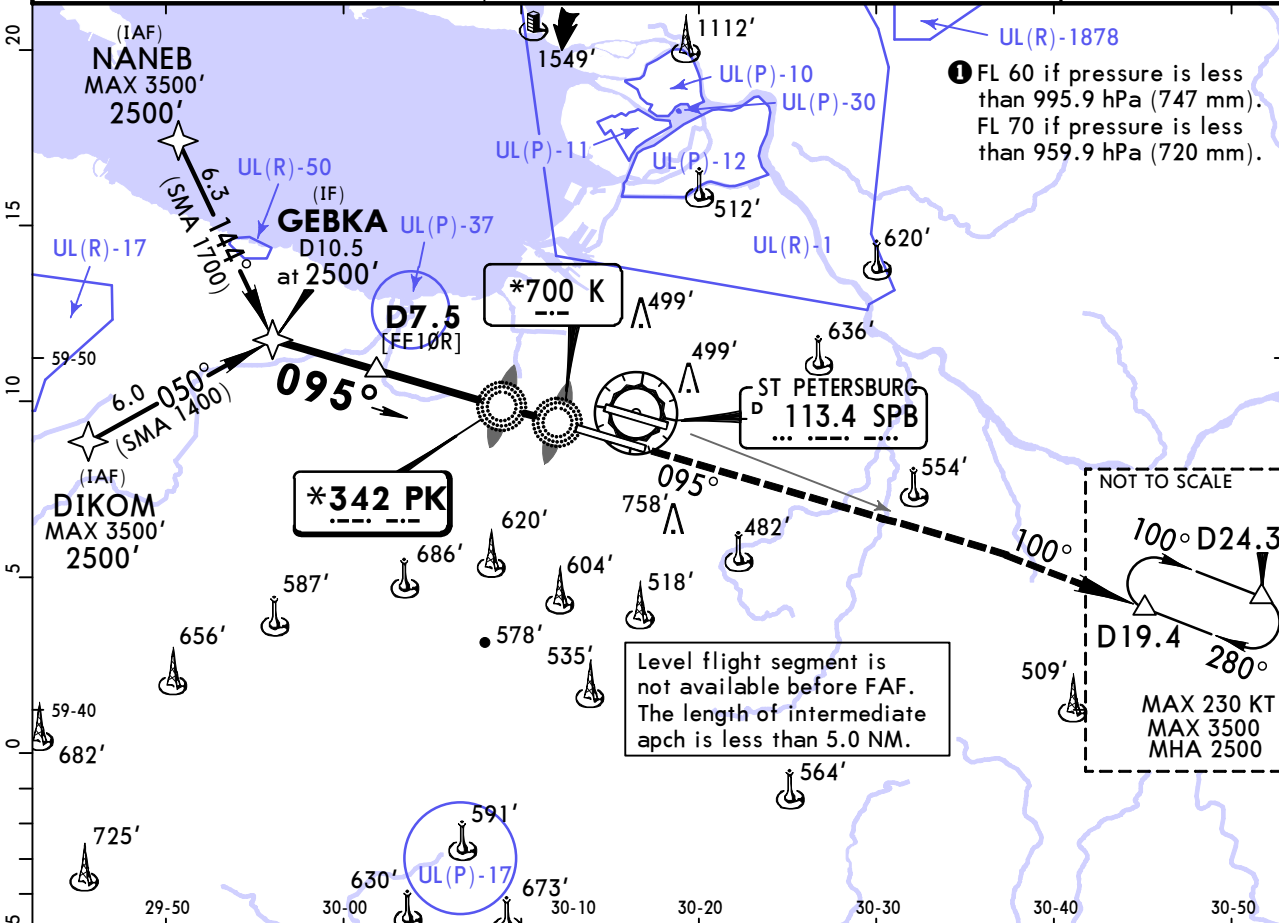
	STRAIGHT-IN LANDING RWY 10L				Max Kts	CIRCLE-TO-LAND	
	with PU NDB		w/o PU NDB			MDA(H)	
	MDA(H) 490' (429')		MDA(H) 590' (529')				
A	1200m	ALS out	1200m	ALS out	100	690' (611')	1600m
B		RVR 1500m VIS 1600m		RVR 1500m VIS 1600m	135	1060' (981')	2400m
C		RVR 1800m VIS 2000m	RVR 1500m VIS 1600m	2400m	180	1160' (1081')	4800m
D	RVR 1800m VIS 2000m	2400m	2400m	2800m	205		

ULLI/LED PULKOVO

JEPPESEN 12 APR 19 **16-2** Eff 25 Apr

ST PETERSBURG, RUSSIA NDB Rwy 10R

ATIS (Russian) 127.3 127.4	PETERSBURG Control 124.0	PETERSBURG Approach (360°T-180°T) 0600-1600 (180°T-360°T) 1600-0600			PULKOVO Krug (TWR) 120.3	PULKOVO Tower 118.7	Ground 121.7
NDB PK *342	Final Apch Crs 095°	Procedure Alt D7.5 2000' (1933')	MDA(H) (CONDITIONAL) 520' (453')	Apt Elev 79' Rwy 67'			
MISSED APCH: Climb STRAIGHT AHEAD on 095° PK NDB, intercept R-100, proceed to D19.4 climbing to 2500', then join holding.							
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 50 ①		Trans alt: 3500'	
RNAV 1 required for initial approach.			1. GNSS required. 2. DME required.				



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II PAPI 095° onto 113.4 R-100
Descent Angle	3.00°	372	478	531	637	849	
MAP at LMM							

	STRAIGHT-IN LANDING RWY 10R				Max Kts	CIRCLE-TO-LAND	
	with PK NDB		w/o PK NDB			MDA(H)	
	MDA(H) 520' (453')		MDA(H) 610' (543')				
A	1200m	RVR 1500m VIS 1600m	1200m	RVR 1500m VIS 1600m	100	690' (611')	1600m
B		RVR 1800m VIS 2000m		RVR 1500m VIS 1600m	135	1060' (981')	2400m
C		RVR 1800m VIS 2000m		2400m	180	1160' (1081')	4800m
D	RVR 1800m VIS 2000m	2400m	2400m	2800m	205		

PANS OPS

Chart changes since cycle 02-2020

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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ST PETERSBURG, (PULKOVO - ULLI)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport ULLI