

Standard Operational Procedures

Aerodrome **Praha Ruzyně**

VERSION 4.0

CHANGES AND UPDATES

Effective	Version	Change
-	3.8	Intentionally left blank.
09 JUN 11	3.9	General text revision. New design issued.
15 MAY 12	4.0	Runway configuration update.

NOTES

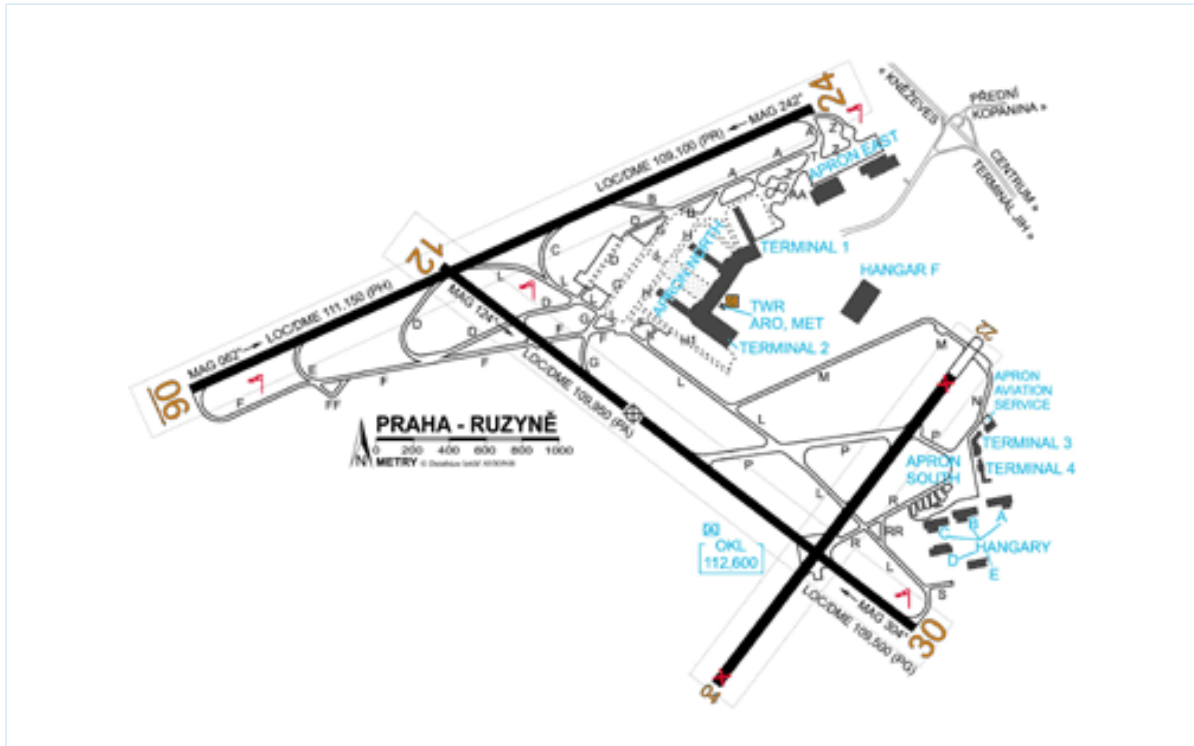
Official scenery and charts for use on VATSIM: <http://www.vacc-cz.org>

 **ALL data are only for SIMULATION purposes only. Do not use them in real aviation.**

The purpose of these Standard Operating Procedures (SOPs) is to outline the procedures to be used by pilots operating at LKPR - Airport Praha Ruzyně. Following these procedures will help to prevent confusion and to promote efficiency between controllers and pilots on VATSIM.

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1 Basic information

1.1 ICAO CODE, NAME, AERODROME COORDINATES AND ELEVATION

- ICAO Code: LKPR
- Name: Praha - Ruzyne
- ARP coordinates: 50 06 03 N 014 15 36 E
- Elevation: 1247 ft / 380 m

1.2 TRANSITION ALTITUDE

5000 ft AMSL

1.3 RUNWAY CONFIGURATION

Designations RWY	Magnetic BRG	Dimensions of RWY (m)	Surface and Strength of RWY	Remarks
06/24	062°/242°	3715 x 45	Antiskid 62/R/B/X/T	NIL
12/30	124°/304°	3250 x 45	Concrete 40/R/C/X/T	Crossing of RWY 12/30 must be approved by appropriate ATC unit in all cases.
04/22	034°/214°	2120 x 60	Asphaltic concrete 45/F/B/X/T	RWY 04/22 is permanently closed for take offs and landings. Taxiing, parking and handling of aircrafts are approved. Permission to cross RWY 04/22 is not required

1.4 HELICOPTER LANDING AREAS

TLOF Dimensions	TLOF Surface, Strength and Marking	Remarks
TLOF H1	On TWY N, asphalt; PCN 60/F/B/X/T, white circle of radius 12,5 m, marked by white letter H.	For helicopters with rotor up to 15 m only.
TLOF H2	On TWY P, asphalt; PCN 40/F/B/X/T, white circle of radius 11,25 m, marked by white letter H.	NIL
TLOF H3	On TWY S, asphalt; PCN 60/F/B/X/T, white circle of radius 11,25 m, marked by white letter H.	For helicopters of Police of the C.R. only.
TLOF H4	On TWY RR, asphalt; PCN 40/F/B/X/T, white circle of radius 10 m, marked by white letter H.	NIL

1.5 LINKS

Name	URL
VACC Czech Republic	http://www.vacc-cz.org
Charts	http://www.vacc-cz.org/lkpr
Scenery	http://www.vacc-cz.org/lkpr
Other info	http://www.vacc-cz.org/wiki
Real LKPR	http://www.prg.aero

2 Departures

2.1 PARKING POSITIONS

2.1.1 Apron East

Parking stands and taxiing instructions are shown on Parking Chart; included in All Charts for LKPR (<http://www.vacc-cz.org/lkpr>). The apron is used for cargo traffic.

2.1.2 Apron North

Parking stands and taxiing instructions are shown on Parking Chart; included in All Charts for LKPR (<http://www.vacc-cz.org/lkpr>). The apron is usually used by passenger traffic.

Pier A and B are usually used for non-schengen traffic. Pier C is usually used for schengen traffic.

Stand	Dimension
1-3 / 14-16 / 22-24	Heavy jets
4-13 / 17-21 / 25-31	Medium jets
50-58	Jets and turboprops
60-76	Turboprops

2.1.3 Apron South

Parking stands and taxiing instructions are shown on Parking Chart; included in All Charts for LKPR (<http://www.vacc-cz.org/lkpr>). The apron is usually used by general aviation and for special flights (e.g. government).

2.2 FIRST CONTACT AND INITIAL CLEARANCE

Check the ATIS first. If ATIS is online (FREQ 122,15 MHz), voice and/or text ATIS is available.

Pilots contact Ruzyně Delivery/Ground/Tower (or Praha Radar) and:

- advise parking position;
- confirm ATIS information;
- confirm the given QNH;
- inform about inability to fly P-RNAV SID (request radar departure);

- inform about the intention to use a different RWY than the RWY in use;
- advise the intention to carry out a de-icing of the aircraft before departure.

At the frequency of Ruzyně Delivery, pilots:

- obtain ATC clearance;
- obtain engine start up approval.

The push back approval and taxi clearance is given by Ruzyně Ground.

2.2.1 Relevant Frequencies

Service design.	Short form	Call Sign	FREQ	Remarks
TWR	LKPR_TWR	Ruzyně Tower/Věž	118,10 MHz	Ruzyně TWR provides ATS also in CTR Vodochody, CTR Kbely and on manoeuvring areas of these airports.
	LKPR_DEL	Ruzyně Delivery	120,05 MHz	High density ATC unit.
	LKPR_GND	Ruzyně Ground	121,90 MHz	High density ATC unit.
APP	LKPR_APP	Praha Radar	127,57 MHz	Main approach position.
	LKPR_DEP	Praha Radar	120,52 MHz	High density ATC unit (departure radar).
	LKPR_D_APP	Ruzyně Radar	119,00 MHz	High density ATC unit (approach director). During initial contact report call sign only in order to avoid frequency congestion.
ATIS	LKPR_ATIS	Ruzyně ATIS	122,15 MHz	Voice and/or text ATIS is available. Broadcast in English language only.

2.3 DEPARTURES

SID Departures are used at Airport Praha Ruzyně; radar departure is provided only in reasonable cases and on request.

- The SIDs may be used by P-RNAV equipped aircrafts only. If a pilot is unable to fly SID, he/she reports to appropriate ATC unit during the first contact.
- **Initial climb is always 5000 ft AMSL** on all SIDs. Ruzyně TWR will not individually give any instruction about initial climb. This information is not the part of the ATIS broadcast.
- Deviation from SIDs or from the RWY heading of RWY 06, RWY 24 and RWY 30 during a radar departure is not possible until passing altitude 3200 ft / 980 m AMSL. Deviation from SIDs or from the RWY heading of RWY 12 during a radar departure is not possible until passing distance of 10 NM DME OKL.

2.3.1 Departure Frequency

Immediately after departure, pilots of aircraft departing according to IFR shall establish radio contact with LKPR_DEP (call sign: Praha Radar; FREQ 120,52 MHz); or if LKPR_DEP is off-line, with LKPR_APP (call sign: Praha Radar; FREQ 127,57 MHz).

Ruzyně TWR will not individually give any instructions for change to relevant frequency!

Pilots of aircraft departing according to VFR shall remain on frequency of Ruzyně Tower (FREQ 118,10 MHz) until instructed for change to relevant frequency.

2.4 PUSH BACK AND POWER BACK PROCEDURES

Pushback is provided from stands 1-31 and E1-E6. At all other stands, the push back is not provided. At stands 70-76 power back (reverse thrust of engines) is usually requested.

The push back (power back) approval and taxi clearance is given by Ruzyně Ground.

Pilots are expected to push back (power back) immediately after the push back approval.

2.5 TAXI

Crossing of RWY 12/30 must be approved by appropriate ATC unit in all cases. Pilots are not allowed to cross RWY 12/30 without permission.

Permission to cross RWY 04/22 is not required.

2.6 TAKE OFF

2.6.1 High Intensity RWY Operations (HIRO)

Airport Praha Ruzyně is one of the busiest European single runway operating airports. In order to increase the RWY capacity the HIRO are applied.

Whenever RWY conditions permit, pilots should prepare and be ready to accept the following intersection take off runs:

Type Class	RWY 06	RWY 24	RWY 12	RWY 30
Medium Jet <i>TORA</i>	TWY E <i>3060 m</i>	THR <i>3715 m</i>	TWY D <i>2760 m</i>	THR <i>3250 m</i>
Medium Prop <i>TORA</i>	TWY D <i>2250 m</i>	TWY B <i>2545 m</i>	TWY G <i>2225 m</i>	TWY R <i>2575 m</i>

Cockpit checks should be completed prior to line-up and any checks requiring completion on the RWY should be kept to a minimum.

Pilots should ensure that they line up immediately after being cleared and to be ready to continue with a rolling take off if necessary.

Pilots are requested to set sqwk while lining up RWY in use for departure.

2.6.2 Intersection Take off Table

RWY Designator	From	TORA (m)	TODA (m)	ASDA (m)
06	TWY E	3060	3360	3060
06	TWY D	2250	2550	2250
24	TWY B	2545	2845	2545
24	TWY L	1735	2035	1735
12	TWY D	2760	2910	2760
12	TWY F	2525	2675	2525
12	TWY G	2225	2375	2225
30	TWY R	2575	2875	2575
30	TWY P	1770	2070	1770

2.7 NOISE ABATEMENT

2.7.1 Jet Aircraft Departure Procedure

Altitude	Procedure
from take off to 2700 ft / 820 m AMSL	Take off power, take off flaps, climb at $V_2 + 10$ kt (or as limited by body angle).
at 2700 ft / 820 m AMSL	Reduce engine thrust to, not less than climb power/thrust.
from 2700 ft / 820 m AMSL to 4200 ft / 1280 m AMSL	Climb at $V_2 + 10$ kt (or as limited by body angle)
above 4200 ft / 1280 m AMSL	Normal speed and en-route climb configuration.

3 Arrivals

3.1 CHARTS

Standard instrument arrival procedures to IAF are described on the following pages and shown on STAR Charts; included in All Charts for LKPR (<http://www.vacc-cz.org/lkpr>).

Initial, intermediate, final and missed approach procedures from IAF points are shown on Instrument Approach Charts (IAC); included in All Charts for LKPR (<http://www.vacc-cz.org/lkpr>).

3.2 FIRST CONTACT AND COMMUNICATION

Check the ATIS first. If ATIS is online (FREQ 122,15 MHz), voice and/or text ATIS is available.

During the first contact with LKPR_APP pilots:

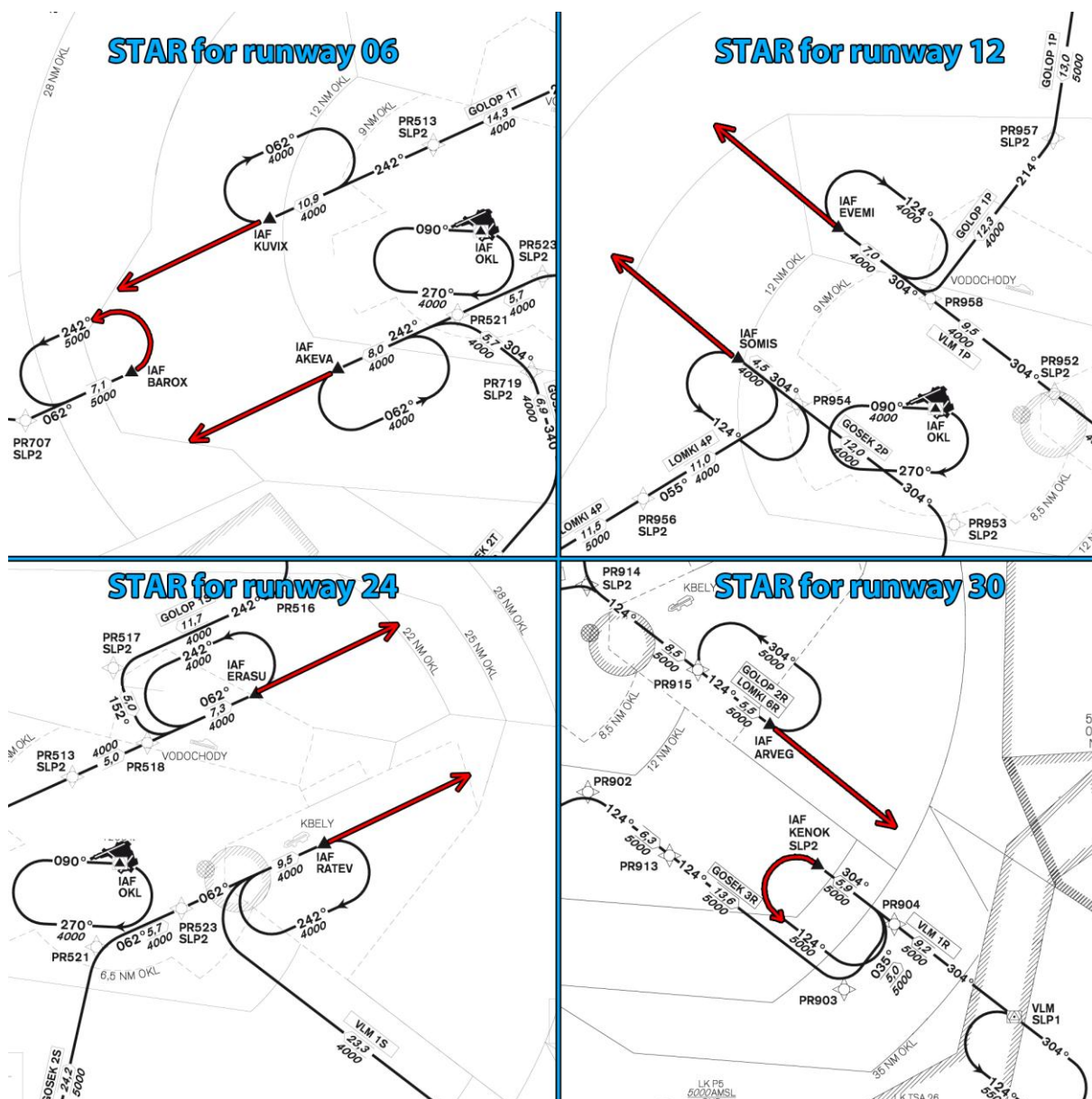
- report ATIS information, if any;
- report QNH;
- request radar vectoring if they are unable to follow STAR.

3.3 STANDARD TERMINAL ARRIVAL ROUTES (STAR)

Published STARs are authorized for P-RNAV equipped aircraft only. When unable to follow the STARs, pilots shall request radar vectoring during initial contact with Praha Radar (LKPR_APP); radar vectoring will be provided.

While flying STAR and reaching IAFs AKEVA, ARVEG, EVEMI, ERASU, KUVIX, RATEV or SOMIS do NOT start to turn base leg or establish any instrumental approach unless otherwise instructed; simply continue in the downwind heading.

While flying STAR and reaching IAFs BAROX or KENOK, start to hold over these FIXes as published; unless otherwise instructed.



3.4 SPEED AND DESCENT PLANNING

3.4.1 Descent

All descent clearances are given by ATC only. Pilots are not authorized to descend without clearance.

- STARs: pilots shall respect the MFA (Minimum Flight Altitudes) published in the appropriate STAR chart, even if ATC descent clearance is lower.
- Vectoring: descent instructions are given by ATC.

3.4.2 Speed Restriction

Unless otherwise stated by ATC, pilots-in-command performing approaches to the airports LKPR, LKVO and LKKB are obligated to comply with the following speed limits:

- max. 250 kt IAS at SLP1;
- max. 250 kt IAS at 28 DME OKL for aircrafts flying out of STAR (including radar vectoring);
- max. 250 kt IAS for aircrafts flying below FL 100;
- max. 220 kt IAS at SLP2;
- max. 220 kt IAS at Base Leg position in case of radar vectoring;
- max. 220 kt IAS at distance 15 NM from THR in case of straight-in approach.

The speed limits points (SLP) are shown in the arrival charts. **If unable to comply with the speed restrictions, advise ATC immediately!**

In addition to the above mentioned procedure, pilots-in-command performing approaches to the airport LKPR are also obligated to comply with the following speed limits, unless otherwise stated by ATC:

- Pilots-in-command are requested to maintain speed 220 kt IAS from SLP2 (in case of radar vectoring from Base Leg, or in case of straight-in approach from distance 15 NM from THR), unless a higher airspeed is required for performance reasons to allow aircraft flight in clean configuration. This speed should be maintained up to distance 12 NM from THR.
- Speed should be gradually reduced to 160 kt IAS with up to medium flaps setting and with the landing gear retracted in the subsequent portion of approach to the distance 4 NM from THR.

If unable to comply with the speed restrictions, advise ATC immediately!

3.5 VISUAL APPROACH

Visual approaches to RWY 24 from southern side of extended centre line of the RWY are prohibited.

Aircrafts performing visual approach to RWY 06, 12 and 24 shall not descend below 2500 ft / 762 m AMSL before establishing extended centre line of RWY.

Aircrafts performing visual approach to RWY 30 shall not descend below 3500 ft / 1067 m AMSL before establishing extended centre line of RWY.

The IFR flight conducting visual approach shall, in case of the missed approach, conduct missed approach procedure, which is published on instrument approach chart for the same runway unless otherwise instructed by the ATC.

3.6 MISSED APPROACH

In case of missed approach, climb on RWY heading to 4000 ft AMSL (as published also in IAC charts) unless otherwise instructed. ATC will inform you when and which appropriate frequency to contact. Consequently, expect radar vectoring.

3.7 VACATING RUNWAYS

3.7.1 Prohibited Vacating

After landing on RWY 06/24 taxiing aircrafts are prohibited to vacate via RWY 12, unless otherwise instructed.

3.7.2 High Intensity RWY Operations (HIRO)

Airport Praha Ruzyně is one of the busiest European single runway operating airports, in order to increase the RWY capacity the HIRO are applied.

Pilots are requested to vacate RWY after landing via following exit taxiways:

Type Class	RWY 06		RWY 24		RWY 12		RWY 30
Medium jet LDA	RET* L 1556 m	TWY B 2430 m	RET* D 2070 m	TWY P 1685 m	TWY R 2495 m	TWY G 2120 m	
Medium prop LDA	RET* L 1556 m	TWY C 1325 m	RET* D 2070 m	TWY P 1685 m	TWY G 2120 m		

* Rapid Exit Taxiway

To prevent delays of flights and to achieve the highest possible rate/hour for arrivals and departures. RWY occupancy times are to be reduced to minimum.

In order to ensure a minimum RWY occupancy time, it is recommended to nominate the expected exit taxiway during the approach briefing. Pilots are requested to aim for an exit, which can be made, rather than to aim for an earlier one, just to miss it and to roll slowly to the next one. Pilots are also requested not to stop vacating/taxiing until the whole profile of the aircraft crossed the holding point line.

Pilots are requested to set sqwk mode Stand by immediately after vacating RWY in use.

3.8 TAXI AND PARKING

For details about stands see chapter 2.1.

Crossing of RWY 12/30 must be approved by appropriate ATC unit in all cases. Pilots are not allowed to cross RWY 12/30 without permission.

Permission to cross RWY 04/22 is not required.

4 Low Visibility Procedures

4.1 CRITERIA FOR THE INITIATION AND TERMINATION OF LOW VISIBILITY PROCEDURES (LVP)

Low Visibility Procedures will be initiated if the RVR is 600 m and/or CLD base is less than 200 ft.

Low Visibility Take Off phase will be initiated if the RVR decreases to 600 m or less.

4.2 DETAILS

Runway 24 is equipped with ILS and is approved for CAT II and IIIb operations and for Low Visibility Take Off (LVTO). Operation of LVP will be contained in ATIS broadcast.

Aircrafts landing on Runway 24 must only exit via the taxiways C, D, E or F.

Runway exits for RWY 24 are equipped with alternate green and yellow TWY centreline lights indicating the boundaries of the localizer sensitive area.

During LVP, pilots will be instructed to taxi to holding point category II/III by the ATC. Aircrafts departing from RWY 24 shall use the CAT II/III holding points on taxiway A, Z or B. Pilots are not approved to cross those CAT II/III holding points unless cleared for line up on RWY 24.

After landing, pilots are requested to continue taxi until crossing the CAT II/III holding point. Stopping before crossing CAT II/III holding point will cause next arriving aircraft to go around or the delay of a departing aircraft.

For detailed general information about Low Visibility Procedures see:

http://www.vacc-cz.org/wiki/index.php/LVP_%28postupy_pro_n%C3%ADzkou_viditelnost%29_-_CZ/EN (both English and Czech language).

5 Procedures for VFR Flights

5.1 TMA/CTR AIRSPACE CLASSIFICATION

TMA Praha is classified as airspace Class C:

- VFR from VFR separation is not provided, traffic information (and traffic avoidance advice on request) is provided;
- VFR from IFR separation is provided by air traffic control services.

CTR Ruzyně is classified as airspace Class D:

- VFR from VFR separation is not provided, traffic information (and traffic avoidance advice on request) is provided;
- VFR from IFR separation is not provided, traffic information (and traffic avoidance advice on request) is provided.

5.2 GENERAL

VFR flights entering CTR Ruzyně from Class G airspace shall establish radio contact with TWR at least 3 minutes before entering CTR and give following information:

- identification of ACFT
- call sign, type of ACFT;
- entry point into CTR;

- exit point from CTR (for aircrafts flying through CTR);
- estimated time of entry into CTR.

Pilots-in-command are requested to confirm ATIS information and read back its QNH when they establish radio contact. Pilots have to report leaving of CTR.

5.3 SHORT LANDING OF VFR FLIGHTS UP TO MTOW 7000 KG ON RWY 30

Execution of short landing of aircraft flying under VFR, regardless the other simultaneous traffic on RWY 24 or RWY 06, is possible on RWY 30 with determined LDA 1600 m.

In case of missed approach on RWY 30, pilots-in-command shall turn to the left not later than on abeam RWY 04/22 and proceed on waypoint TANGO, so as not to pass in any case abeam intersection RWY 30 and TWY P, to avoid any endangering of traffic on RWY 24 or RWY 06, and climb MAX 2500 ft.

5.4 VFR ENTRY/EXIT, HOLDING POINTS

Designation	Location	Coordinates	
Alfa	Středokluky (sewerage plant)	50 08 24 N 014 14 04 E	Holding
Bravo	Brandýs (railway bridge E of town)	50 11 16 N 014 11 09 E	Way
Charlie	Smečno (church)	50 11 18 N 014 02 28 E	Way
Echo	Radotín (railway station)	49 59 10 N 4 21 410 E	Entry
November	Velvary (silo)	50 16 06 N 014 14 21 E	Entry
Sierra	Beroun (motorway bridge)	49 57 42 N 14 04 58 E	Entry
Tango	Chrášťany (highway overbridge)	50 02 59 N 014 16 22 E	Holding
Whisky	Kačice (motorway flyover)	50 09 10 N 013 58 59 E	Entry

To see VFR entry/exit positions, download the VFR Arrival and Departures Chart; included in All Charts for LKPR (<http://www.vacc-cz.org/lkpr>).

5.5 VFR DEPARTURES/ARRIVALS WAYPOINTS SEQUENCE

Arrival Route	Waypoint Sequence
November 1	November - Bravo - Alfa
Echo 1	Echo - Tango
Sierra 1	Sierra - Tango
Whisky 1	Whisky - Charlie - Bravo - Alfa
November 1	November - Bravo - Alfa