

Tower ATC Handbook

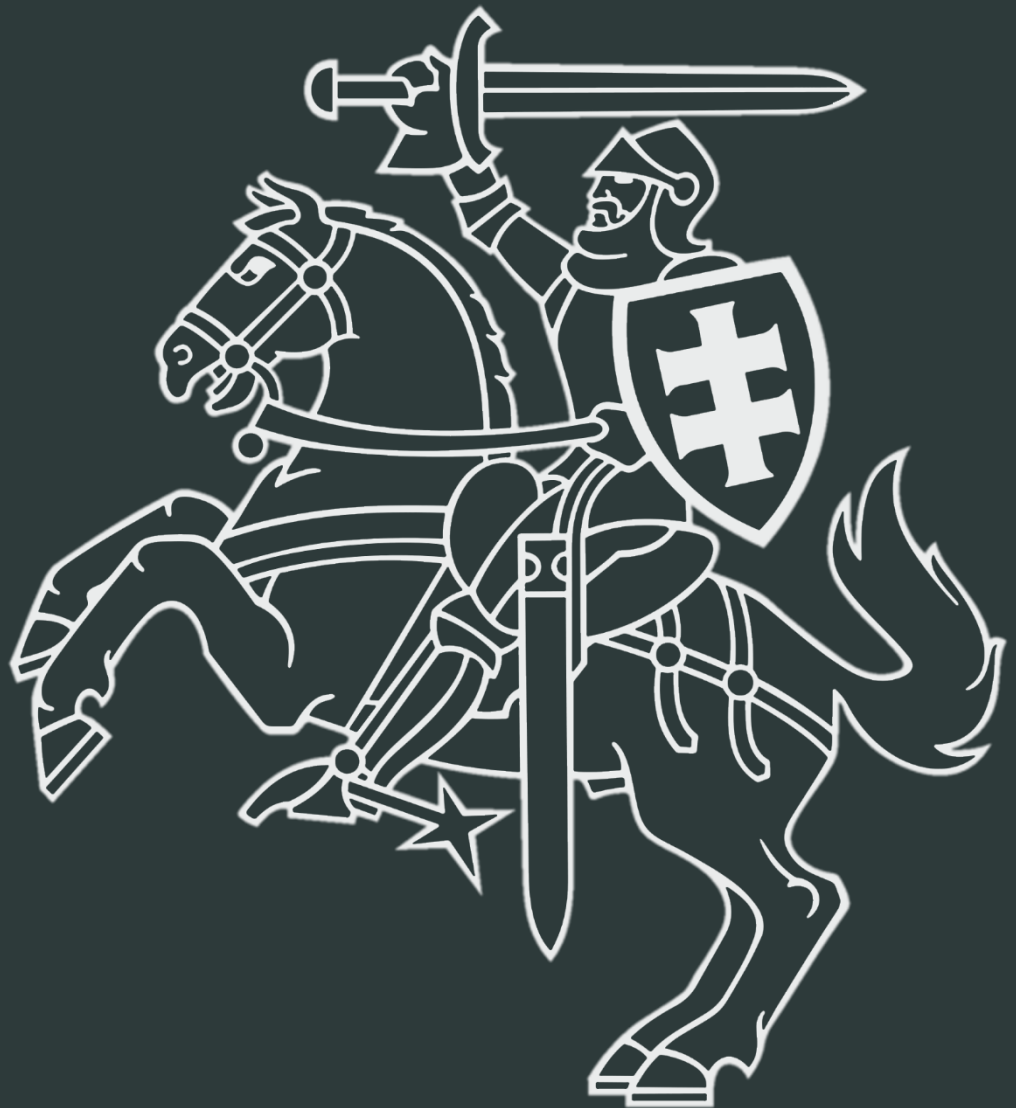


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Section A – General

This vACC Lithuania Tower Air Traffic Controller Handbook (hereafter - Handbook) is created to be used in VATSIM Lithuania airspace for non-radar Tower (TWR) Air Traffic Controllers (ATC) in Vilnius airport. This Handbook is a general document that shall be used for providing air traffic control. Any additional required laws, rules and document's parts will be placed in text where it is applicable, and needed references will be added where it is not applicable.

This Handbook uses some notation rules that are described below.

Within the Handbook the following verbs are used and shall be clarified:

- Shall – determines the mandatory item, action, or statement.
- Shall not – determines a prohibition.
- Should – determines the item, action or statement that are considered to be a good practice.
- May – determines the item, action or statement that are recommended or optional.

Within the Handbook the following nouns are used:

- Pilot – a member of VATSIM network who is performing function of flying the aircraft, this may include a pilot monitoring or any other crew member, in case of shared cockpit flight, who may perform any kind of duties related to aircraft operation.
- ATC – a member of VATSIM network with corresponding rating and approval, who provides air traffic control service at designated position and/or zone.
- Tower ATC – ATC occupying a non-radar Tower position.

For communication example:

- Pilot's call/request/report example: **VILNIUS TOWER, ON FINAL RUNWAY 19**
- ATC's instruction/information example: **LYABC, CLEARED TO LAND**
- Text enclosed in brackets is optional: CONTINUE [TAXIWAY] L – you can omit saying "TAXIWAY".
- Text enclosed in parentheses represents value to be used, e.g., if traffic is at three o'clock position: **LYBFT, TRAFFIC (NUMBER) O'CLOCK** – you should say: **LYBFT, TRAFFIC THREE O'CLOCK**

English language is the primary and only language to use on VATSIM, to provide ATC services, within Lithuania airspace.

Any other markups and text styles shall be used freely to point your attention for some situations or special cases.

In case you have any questions feel free to contact vACC Instructors in Discord.

Section B – Procedures

1. Preparing to service and general rules

In any case ATC shall make decisions according to common sense.

During preparing to provide a service as a Tower Controller ATC you shall be familiar with:

- a) Current weather situation on airfield, at least wind direction and speed, QNH pressure, temperature. Additional weather conditions shall be considered: horizontal visibility, visibility on runway, cloud layers heights.
- b) Runways in use.
- c) Departure procedures: SIDs or other instructions, initial climb level.
- d) Adjacent ATCs frequencies and their controlled areas boundaries.
- e) Current traffic situation in the air and on the ground.
- f) Controlled zone charts and limits.
- g) Established VFR procedures.
- h) Visual and circling approach procedures.
- i) Go Around procedures.
- j) Any special flights and situations.

If any adjacent ATC positions are on duty, you shall coordinate items listed above with these positions if it is applicable (for example, you shall coordinate initial climb used with Radar ATC). If needed these items shall be coordinated when you are on duty.

If there are no ATC positions capable of coordinating the listed items, you shall determine these rules by yourself using charts, standard local procedures, your opinion, and common sense.

ATC shall have the ability to communicate with any adjacent ATC using text or voice. Discord intercommunication as a means of ATC-to-ATC communication is preferred.

Tower ATC may use Mode-S Radar for monitoring ground traffic situations, for example as a means of sequencing departing and arriving traffic.

Tower ATC may use Mode-S radar to simplify aircraft handoffs and coordination between ATCs.

Tower ATC provides these air traffic services:

- Aerodrome control service.
- Flight information service.
- Emergency service.

As is stated in AIP Lithuania charts and documents, controlled zone of Tower ATC includes:

- Stands and taxiways.
- Runways.
- CTR zone.

2. Aerodrome Control Service – Departing Traffic

2.1. Departure Clearance

For departing aircraft, a standard ATC clearance shall be used. Standard clearance is a common clearance, parts of which are coordinated with adjacent ATCs.

Standard ATC clearance for IFR flight shall contain:

- Aircraft's Callsign.
- Clearance Limit (normally, destination airport).
- Assigned SID in non-coded format (e.g., for VNO coded is Victor November Oscar, non-coded is Vilnius) or departure instructions (e.g., fly straight, turn to heading).
- Initial climb altitude or flight level if it's non-specified in SID description.
- Squawk code.
- Any other important information needed (frequency when airborne, altitude constraints, weather information, QNH).

LYBFT, CLEARED TO TALINN VIA FLIGHT PLANNED ROUTE, UTENU ONE ALPHA DEPARTURE, CLIMB TO ALTITUDE 4000 FEET, AFTER DEPARTURE CONTACT VILNIUS APPROACH 120.70, SQUAWK 0241

Standard VFR Clearance for VFR flight shall contain the following items:

- Aircraft's Callsign.
- Destination Airport.
- Runway in use.
- Initial direction and climb altitude/flight level.
- Controlled zone leaving point/direction to expect if aircraft leaves the controlled zone.
- Squawk code.
- Any other important information needed (weather information, QNH).

LYBFT, CLEARED TO KAUNAS VIA FLIGHT PLANNED ROUTE, RUNWAY 01 IN USE, CLIMB STRAIGHT TO ALTITUDE 1500 FEET, EXPECT LEAVE CTR OVER LEDVI, SQUAWK 4103

In case when pilot requests ATC Clearance for training pattern, ATC Clearance shall contain the following parts:

- Aircraft's Callsign.
- Pattern or training flight clearance.
- Pattern direction (for VFR only) or initial direction.
- Runway in use.
- Climb altitude/flight level.
- Squawk code.
- Frequency when airborne if it's different from the next controller's one.
- Any other important information needed (weather information, QNH).

LYBFT, CLEARED TO TRAINING PATTERN, RUNWAY 01, RIGHT HAND PATTERN, CLIMB TO ALTITUDE 3000 FEET, SQUAWK 0714

VFR ATC Clearance is required when traffic is departing from controlled airspace. If the flight in any stage will overfly in controlled airspace, ATC clearance shall be issued 5 minutes prior to entering the controlled airspace.

In case of deviation from standard clearance (pilot's request, changes in air or weather situation, changes in runways in use) such clearances shall be coordinated with adjacent ATCs.

ATC shall give clearance on pilot's request.

When any changes to ATC Clearance are raised, a "Cleared via flight planned route" phrase shall not be used for granting a re-clearance. Instead of this ATC shall use term "Recleared" to whole clearance or part of it:

LYBFT, RECLEARED CLIMB TO FLIGHT LEVEL 130, SQUAWK 0277, REST OF CLEARANCE UNCHANGED

ATC shall listen to pilot's ATC clearance readback.

If any part of clearance is incorrect ATC shall repeat such parts.

LYBFT, NEGATIVE, SQUAWK 0241

If clearance readback is correct, ATC shall confirm this:

LYBFT, READBACK CORRECT

ATC Clearance shall be issued when:

- ATC can clearly see the flight plan for requested flight in Euroscope.
- Aircraft's flight plan is correct.
- There are no prohibitions to give ATC Clearance (for example, runway is closed due to emergency, and it's requested to stop giving ATC Clearances for 10 minutes).

Flight plan shall be considered as correct, if all the stated below items are filled and assessed:

- Departure Airport (shall match airport under control, where aircraft is located)
- Destination Airport (shall be distinguishable, ZZZZ may be used in case pilot will land in class G airspace)
- Cruise Level (shall comply with Rules of Air Handbook)

These items may be checked by ATC and corrected if they are wrong. Mistakes in those items shall not prevent pilot to get ATC Clearance:

- Route (shall comply with actual AIRAC data, shall be understandable from the ATC perspective, answering question "how and where the aircraft will go").
- Aircraft Type (shall comply with ICAO DOC 8643, if type was removed, like CONC for Concorde, it's considered as correct).

Other parts may also be filled, but are not mandatory (such as remarks, or estimated time departure).

If at least one requirement among the items listed above is not met, ATC shall not issue an ATC Clearance. ATC shall inform the pilot of the reason for such a prohibition.

A pilot shall obtain ATC Clearance before lining up the runway, though it is highly recommended for a pilot to obtain ATC Clearance even before starting up the engines.

In any other cases (for example, pilot requests to startup engines due to battery discharging) ATC shall assist the crew as requested and give instruction to report when ready to copy ATC Clearance:

LYBFT, START-UP APPROVED, ADVISE WHEN READY TO COPY ATC CLEARANCE

2.2. Pushback and startup

Pilot shall be cleared to start up the engines on pilot's request if there are no obvious reasons to prohibit that:

LYBFT, REQUEST START-UP

LYBFT, START-UP APPROVED

ATC should give expected time of startup if startup cannot be cleared right away:

LYBFT, EXPECT START UP AT 20

LYBFT, EXPECT 20 MINUTES DELAY DUE (REASON)

Before starting taxi, the pilot shall have the following information on board:

- Runway in use.
- Wind speed and direction.
- QNH.
- Air temperature for gas-turbine aircraft.
- Ground visibility or RVR (if applicable).
- Time (only by pilot request).

LYBFT, RUNWAY 01, WIND 120 DEGREES 5 GUSTS 11 KNOTS, QNH 1002, TEMPERATURE PLUS 10, RVR
RUNWAY 01 1200, 1200, 1000, TIME 0706Z

Pilot should obtain this information from ATIS, if ATIS exists in the airport, otherwise, this information shall be provided by ATC.

ATC should instruct the pilot to receive the new ATIS information if there were any changes in ATIS information since it was last acknowledged by pilot:

LYBFT, CHECK INFORMATION TANGO, FREQUENCY 125.8

On pilot's request ATC shall provide a pushback approval or tow instruction. Pushback and tow instructions may contain direction or place:

LYBFT, PUSHBACK APPROVED, FACE TO NORTH

LYBFT, PUSHBACK TO STAND 23 APPROVED, FACE TO WEST

LYBFT, TOW APPROVED

Pushback and startup instructions shall be issued in one message:

LYBFT, PUSHBACK APPROVED, FACE TO NORTH, START-UP APPROVED

2.3. Ground movement

After starting up the pilot shall request a taxi to the holding point. Taxi clearance shall contain runway in use:

LYBFT, TAXI TO HOLDING POINT RUNWAY 01 VIA [TAXIWAYS] L, I, F

In case standard taxi routes are established in airport, ATC may not specify parts of the route that considered to be standard.

In case route to holding point contains runway crossing or using runway for taxiing, ATC shall give instruction to hold short of runway:

LYBFT, TAXI TO HOLDING POINT RUNWAY 01 VIA [TAXIWAY] L, I, F, B, HOLD SHORT OF RUNWAY 01

If pilot should give way to another aircraft continue with:

LYBFT, GIVE WAY TO AIRBUS 320 TAXIING VIA F FROM RIGHT TO LEFT

Also, the pilot may be instructed to follow other aircraft:

LYBFT, FOLLOW BOEING 737 RYANAIR

To immediately stop the aircraft, ATC shall use:

LYBFT, HOLD POSITION

To stop the aircraft in front of specific intersection, ATC shall use:

LYBFT, HOLD SHORT OF INTERSECTION [TAXIWAYS] B AND F

LYBFT, HOLD SHORT OF INTERSECTION F2

For helicopters on skids air taxi instruction shall be used. Air-taxiing helicopters shall be counted as usual (like fixed-wing) aircraft:

LYBFT, AIR TAXI TO HOLDING POINT RUNWAY 01 VIA [TAXIWAYS] I, L, F, B

2.4. Runway Operations

Departing traffic shall not be cleared for takeoff if:

- Previous departing aircraft have not crossed the end of the runway in use.
- Previous departing aircraft have not yet started the turn from the upwind leg.
- Not all landing aircraft have vacated the runway in use.

Departing traffic should be cleared for takeoff, if ATC has a reasonable assurance that at the time of takeoff, a minimum separation and conditions specified above will be observed.

If the pilot does not have ATC clearance, takeoff clearance shall not be issued. Takeoff clearance shall be issued only following by ATC issuing ATC clearance to departing traffic.

ATC should issue takeoff clearance if the pilot is ready for takeoff and is on the runway or approaching the runway and air situation permits so.

If the air situation allows issuance of takeoff clearance for pilot approaching the runway, ATC should not wait for pilot "ready for takeoff" report and should not demand such report. Instead of this, takeoff clearance should be issued on ATC's own initiative.

Takeoff clearance shall contain runway for takeoff, wind direction and speed:

LYBFT, WIND 190 DEGREES 5 KNOTS, RUNWAY 01, CLEARED FOR TAKE-OFF

For expediting air traffic flow ATC should give the pilot (which is not already on runway) an immediate takeoff clearance. ATC shall ask the pilot if the pilot is ready for immediate departure. After such clearance is issued, the pilot shall line up and start takeoff rollout without stopping.

LYBFT, ARE YOU READY FOR IMMEDIATE DEPARTURE?

READY, LYBFT

LYBFT, WIND 190 DEGREES 5 KNOTS, RUNWAY 01, CLEARED FOR TAKE-OFF

If the pilot is ready for departure but at this moment ATC is unable to issue a takeoff clearance, to expedite air traffic flow ATC may give instruction to line up and wait for takeoff clearance.

LYBFT, LINE UP RUNWAY 01 AND WAIT

If it is needed, ATC should issue an instruction to line up using backtrack.

LYBFT, LINE UP RUNWAY 19, BACKTRACK APPROVED

Wind, visibility, traffic information should be placed in the beginning of takeoff clearance. "CLEARED FOR TAKEOFF" should be placed at the end of takeoff clearance.

Before issuing takeoff clearance, if there are cumulonimbus clouds present in the departure area, ATC should recommend pilot to check weather situation using their weather radar, and, if it is needed, ATC should coordinate with Radar possible deviations from assigned SID.

Before takeoff, ATC should inform pilot about significant changes in weather conditions and special weather conditions (like a cumulonimbus clouds, thunderstorm, strong turbulence, wind shear, shower, icing, sand and dust storms, hurricanes, and other dangerous weather phenomena), excluding situations, when it is known, that pilot has already received this information.

2.5. Special cases

Intersection departure instruction may be issued if the following reduced distances for each intersection are stated in Airfield Flight Manual: takeoff run available (TORA), takeoff distance available (TODA) and accelerate-stop distance available (ASDA). If this information is not published in AIP Lithuania Charts, this information shall be provided by ATC.

LYBFT, REDUCED TAKE-OFF RUN AVAILABLE RUNWAY 19, FROM INTERSECTION BRAVO, ONE THOUSAND EIGHT HUNDRED METERS

Intersection departure clearance should be issued at the pilot's request.

LYBFT, REQUEST DEPARTURE FROM RUNWAY 19, INTERSECTION BRAVO

LYBFT, APPROVED, TAXI TO HOLDING POINT RUNWAY 19, INTERSECTION BRAVO

Intersection departure may be issued on ATC's own initiative, but first ATC shall obtain pilot confirmation of the possibility of such a departure.

LYBFT, ADVICE ABLE TO DEPART FROM RUNWAY 19, INTERSECTION BRAVO

ATC may issue conditional clearance to line up and wait, which provides the fulfillment of certain conditions specified by the ATC. Such clearance is allowed to be issued if ATC has visual contact with both aircraft and there is an assurance that departing aircraft can monitor landing aircraft. ATC shall pay attention to full and correct conditional clearance readback from aircraft. "BEHIND" shall be put in the beginning and in the end of the clearance.

LYBFT, BEHIND BOEING 737 ON SHORT FINAL LINE UP AND WAIT BEHIND

For helicopter flights, takeoff location may be specified if there are corresponding airfield rules exist.

HBSFT, CLEARED FOR TAKEOFF (FROM INTERSECTION TAXIWAY BRAVO AND TAXIWAY FOXTROT, FROM PRESENT POSITION, FROM TAXIWAY BRAVO, FROM HELIPAD, FROM STAND)

3. Aerodrome Control Service – Arriving Traffic

3.1. General rules

Arriving traffic shall not be cleared to land if:

- Previous departing aircraft did not cross the end of the runway in use.
- Previous departing aircraft did not start the turn from upwind leg.
- Not all aircraft that had landed vacated runway in use.

Arriving traffic shall be cleared to land only when ATC has a reasonable assurance that at the time of crossing runway threshold, a minimum separation, and conditions from stated above items will be observed.

Landing clearance shall not be issued until the previous arriving aircraft does not cross the runway threshold (no 2 simultaneous clearance to land shall be issued).

Landing clearance shall contain runway to land, wind direction and speed:

LYBFT, WIND 190 DEGREES 5 KNOTS, RUNWAY 01, CLEARED TO LAND

Wind check should be given with the first clearance instruction. If there is some sequence of instructions (e.g., pilot had cleared to land, then re-cleared low approach) wind check should be given only if wind direction or wind speed is changed.

Wind check may be requested by pilot:

LYBFT, WIND CHECK

LYBFT, WIND 190 DEGREES 5 KNOTS

COPIED THAT, LYBFT

The landing clearance is issued on ATC's own initiative. ATC should not demand pilot to report readiness to land or landing gear extension.

ATC shall give instruction to go around when the following situation occurs:

- Violation of separation minimums.
- An obstacle on the runway is discovered.

LYBFT, GO AROUND

If able, ATC should inform pilot about the reason for go around:

LYBFT, GO AROUND, TRAFFIC ON THE RUNWAY

Landing clearance or any alternative clearance shall be given before the aircraft reaches 2 nm (4 km) distance to touchdown. Instruction to continue approach (and wait for landing clearance), go around instruction should be used as alternative clearance.

LYBFT, EXPECT LATE LANDING CLEARANCE

LYBFT, CONTINUE APPROACH, NUMBER TWO

The following prioritization for landing sequence shall be used:

- Emergency aircraft.
- Medical service aircraft or aircraft with person who needs medical support is on board.
- Aircraft used in search and rescue operations.
- Other aircraft.

Traffic on final should have priority over departing traffic on the same runway, or on the runway that crosses a runway used by traffic on final to land.

3.2. Ground movement

If it is needed or is desirable to expedite the traffic sequence, ATC shall issue the following instructions to pilot that is performing landing:

- Hold short of crossing runway intersection with runway to land.
- Runway vacating via the specified taxiway.
- Expedite runway vacating.

LYBFT, EXPEDITE VACATING, TRAFFIC IS ON 3 MILES FROM TOUCHDOWN

When issuing such an instruction stated above, ATC shall consider aircraft type, runway length, taxiways location, braking action on runway and weather conditions.

ATC shall consider that in some cases pilot can report that they are unable to comply with such instructions stated in the items above.

ATC should issue an instruction regarding runway vacating on ATC's own initiative. ATC shall not demand the pilot to report landing or wait for such report.

LYBFT, VACATE RUNWAY, TURN LEFT [TAXIWAY] Z

If there is no necessity to specify taxiway, the following instruction may be used:

LYBFT, VACATE RUNWAY, TURN FIRST LEFT

If needed (for example in low visibility weather conditions) ATC shall give instructions to confirm the runway vacated.

LYBFT, REPORT RUNWAY VACATED

For the pilot that performed a landing, taxi to stand instruction shall be used:

LYBFT, TAXI TO STAND 50 VIA [TAXIWAYS] Z, I, M
LYBFT, CONTINUE [TAXIWAYS] Z, I, M, STAND 50

3.3. Special cases

On pilot request ATC should issue touch and go clearance.

LYBFT, CLEARED TOUCH AND GO

On pilot's request ATC should issue low approach clearance with aircraft descending to ATC coordinated minimum altitude with further go around procedure. In case of such clearance, the runway shall be free of traffic if height (based on runway level) is less than 500 feet. If height for low approach is above 500 feet and any aircraft occupy runway, ATC shall inform aircraft on runway that low approach procedure is in action. ATC shall inform pilot performing low approach about traffic on runway.

LYBFT, CLEARED LOW APPROACH, ALTITUDE NOT BELOW 800 FEET

On pilot's request ATC should give low pass over Tower, runway, or other point of observation to perform visual inspection from the ground. As usual, a low pass can be useful to detect problems with aircraft's landing gears.

LYBFT, CLEARED LOW PASS

For helicopter flights, landing location may be specified if there are corresponding airfield rules exist.

If the pilot performs visual or circling approach, general rules described in Item 3 shall be used.

If the pilot performs a circling approach, landing clearance shall be issued only after the pilot completes the corresponding instrumental approach phase of procedure and reports runway in sight.

If air situation permits, pilot can be cleared to cross the runway:

LYBFT, CROSS RUNWAY 01

If Tower ATC receives the information (on own visual observation or from other sources of information) regarding presence of obstacles on the runway or runway will be unavoidable occupied by any obstacle, after takeoff clearance have been issued to the pilot, ATC shall:

- In case of departing traffic, that did not start the takeoff run – issue cancel takeoff clearance:

LYBFT, HOLD POSITION, CANCEL TAKEOFF, I SAY AGAIN, CANCEL TAKEOFF, TRAFFIC ON RUNWAY

- In case of departing traffic, that started takeoff run – issue cancel takeoff clearance:

LYBFT, STOP IMMEDIATELY, LYBFT, STOP IMMEDIATELY, TRAFFIC ON RUNWAY

- In case of arriving aircraft on final – issue go around instruction:

LYBFT, GO AROUND, RUNWAY IS BLOCKED

In case ATC should maintain needed separation between arriving and departing traffic or for arriving traffic sequence, ATC may slow down the arriving traffic using the following instruction:

LYBFT, REDUCE TO MINIMUM APPROACH SPEED

4. Air Traffic Service for VFR traffic

4.1. Entering and leaving controlled zone (CTR)

ATC should clear pilot, that performs VFR flight, to enter CTR if:

- Cloud base is 450 m (1500 ft) or higher.
- Visibility at ground level is 5 km or greater.

In case of worsening of weather conditions, when cloud base became less than 450 m (1500 ft) or visibility at ground level is less than 5000 m, ATC shall stop all VFR flights in CTR in one of the following ways:

- ATC clearances for VFR flights shall not be issued.
- ATC clearances to enter CTR zone shall not be issued.
- ATC shall inform all VFR traffic in CTR about worsening of weather conditions and can propose to change flight rules to IFR for such aircraft or proceed to land as soon as possible (if weather conditions permit visual approach).

CTR zone entering clearance shall contain:

- Point at CTR's bounds, that will be used to enter CTR, or entering direction (it may be a published VFR point or general geographical reference point/landmark).
- Runway in use for landing (if pilot will perform landing on airfield within CTR).
- QNH (and QFE if requested by pilot).

LYBFT, ENTER CONTROLLED AIRSPACE (or CONTROL ZONE) VIA LEDVI, RUNWAY 01, QNH 1012

CTR zone entering clearance may contain additional elements:

- Altitude.
- Wind direction and speed.
- Traffic information.
- Important information about airfield.
- Any other instructions applicable.

LYBFT, ENTER CONTROLLED AIRSPACE (or CONTROL ZONE) VIA LEDVI, ALTITUDE NOT ABOVE 1500 FEET, RUNWAY 01, QNH 1012

If default CTR entrance clearance cannot be issued (because of air situation or another reason) ATC may issue conditional clearance to enter CTR and provide further instructions over specified point or over the point in between two notable landmarks. If needed ATC should specify waiting time.

LYBFT, ENTER CONTROLLED AIRSPACE (or CONTROL ZONE) VIA ALISI, ALTITUDE NOT ABOVE 1000 FEET, RUNWAY 19, QNH 1019, HOLD VISUAL OVER PAGIRIAI, EXPECT FURTHER CLEARANCE IN 10 MINUTES

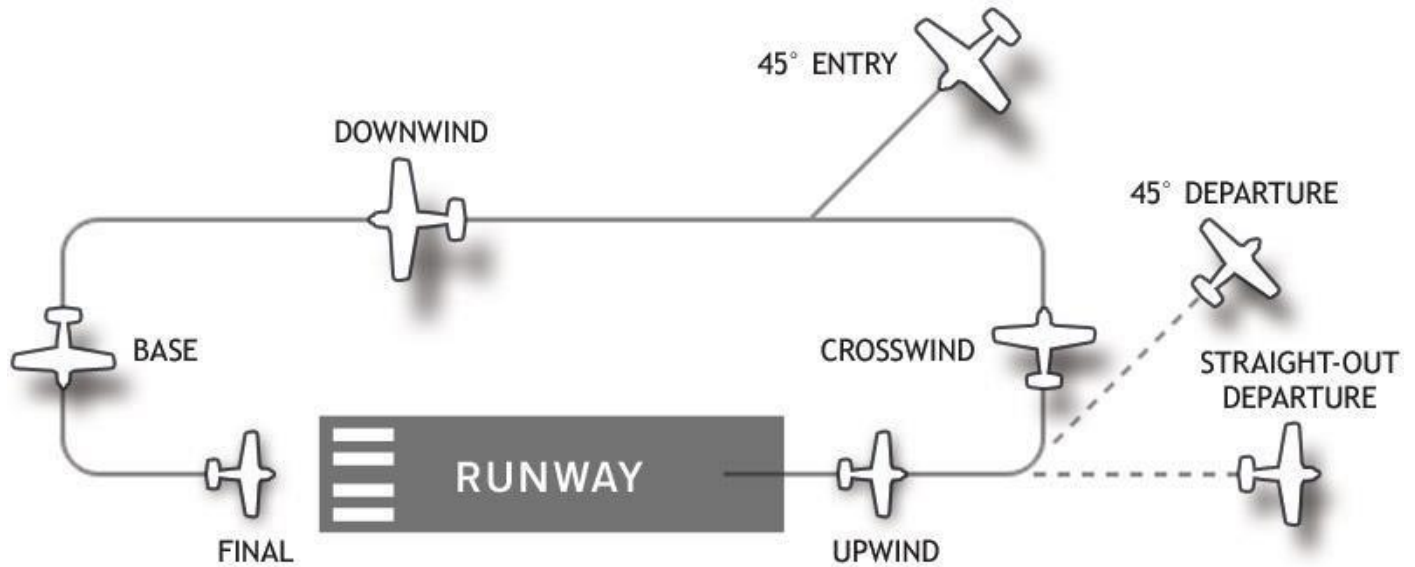
For overflying controlled airspace VFR traffic, if clearance to enter CTR zone cannot be issued, ATC shall inform the crew about prohibition to enter CTR zone. ATC shall clearly specify the reason and, if it is possible, give the aircraft an alternative route.

LYBFT, ENTRANCE TO CONTROLLED AIRSPACE PROHIBITED, CTR CLOSED DUE TO MILITARY TRAINING FLIGHTS. AVOID EAST VIA RUKAINIAI

For departing VFR traffic ATC shall issue directions or point to leave CTR zone with takeoff clearance.

LYBFT, LEAVE CONTROL ZONE VIA EPINI, ALTITUDE NOT ABOVE 1500 FEET, WIND 250 DEGREES 6 KNOTS, RUNWAY 19, CLEARED FOR TAKEOFF

4.2. Airfield traffic pattern



Airfield traffic pattern with legs. This pattern is left-handed.

If the air situation permits, ATC may clear pilot to enter traffic pattern.

Pattern enter clearance shall contain:

- Pattern direction (left- or righthand).
- Runway in use.
- QNH.

Pattern enter clearance may contain:

- Entering altitude.
- Wind direction and speed.
- Traffic information.
- Important information about airfield.
- Any other instructions applicable.

If able, ATC should provide instruction to join specific traffic pattern leg.

LYBFT, JOIN RIGHT HAND BASE RUNWAY 19, QNH 1009, WIND 030 DEGREES, 5 KNOTS

ATC should provide instruction to shorten or extend legs in pattern if needed. Usually, such instructions are issued for upwind and downwind legs.

LYBFT, EXTEND DOWNWIND

To maintain the proper separation between aircraft ATC may issue instructions to make one or more 360-turns. In this case ATC shall specify direction of turn.

LYBFT, ORBIT LEFT UNTIL ADVISED

LYBFT, MAKE A THREE SIXTY TURN RIGHT FOR SEPARATION

Tower ATC may issue an instruction to perform specific turn.

LYBFT, TURN BASE AND FINAL

4.3. Special cases

In case the weather conditions do not comply with requirements listed in Item 4.1. and there is no possible conflict with other traffic predicted, the pilot may be cleared to enter, leave, or cross controlled zone, as well as to depart regarding the weather minimums listed under Special VFR clearance (SVFR). The limitations for SVFR are the following:

- Daytime only.
- Visibility not less than 1500 m, for helicopters not less than 800 m.
- Speed is 140 Knots IAS or less.
- ATC shall not issue SVFR clearance for takeoff or land at an aerodrome within a control zone, or enter the aerodrome control zone, or enter aerodrome traffic circuit, if ceiling is less than 180 m (600 ft).

SVFR clearance shall be issued while considering air situation and Radar ATC approval.

SVFR clearance is usually issued when CTR is clear of another aircraft, or there are no aircraft in direction, that SVFR aircraft will be flying.

Tower in Vilnius (EYVI) is a controlled airspace of class C, separation according to Rules of Air Handbook is provided. Since Tower is a non-radar position, ATC unit cannot use Radar Service operations. Tower ATC still should:

- Separate traffic vertically by giving altitudes (maintain, not above, not below).
- Separate traffic horizontally by giving orbits or holding visually over/between visual reference points.
- Separate traffic by specifying several speeds like minimum speed, minimum clean speed, minimum approach speed. Precise speed controls are not to be issued.
- Vectoring is prohibited since it's an operation that uses radar equipment.

Within the class C airspace VFR traffic is informed about other VFR traffic. Information shall be provided to both aircraft. Other cases when information shall be provided are described in the Rules of Air Handbook.

LYBFT, TRAFFIC (NUMBER)O'CLOCK, (DISTANCE) MILES, (DIRECTION), [UNKNOWN, FAST MOVING, SLOW MOVING, CLOSING, OPPOSITE (or SAME) DIRECTION, VERTAKING, CROSSING LEFT TO RIGHT (RIGHT TO LEFT), (AIRCRAFT TYPE), (LEVEL), CLIMBING (DESCENDING)]

LYTVA, TRAFFIC NINER O'CLOCK, 3 MILES, SOUTHBOUND, CESSNA 172, DESCENDING

At first contact a pilot shall name ATC unit callsign.

At any stage of a flight, the pilot may request to check the radio transmission quality.

VILNIUS TOWER, LYBFT, HELLO, RADIO CHECK

LYBFT, VILNIUS TOWER, GOOD AFTERNOON, READ YOU 5 (or 4, 3, 2, 1) BY 5