



PROCEDURES OVERVIEW

**Luxembourg Tower
ELLX_TWR**

**NOT FOR REAL
AVIATION**

In Luxembourg (ELLX) IFR clearances, ground instructions and tower services are issued by Luxembourg Tower. However if ELLX_TWR is not online the next higher position (Approach control, or Brussels Control) will take over these duties.

ELLX_TWR: 118.100

ATIS

As soon as you are online, check if there are any higher positions online. If so they will most likely already have decided on the runways in use. Note: In the end it's the tower controller his decision!!

IFR CLEARANCE

CLEARANCE LIMIT

This always is the destination airport (e.g. Brussels).

DEPARTURE INSTRUCTIONS

The Standard Instrument Departure Route (SID).

A SID is usually a routing to avoid populated areas, and it is named according to the fix the routing leads to.

If the pilot doesn't have the SID's, you can give him departure instructions containing a heading and altitude.

ALTITUDE

The initial flight level for ELLX: 4000 feet

As it's included in the SID, it is normally not required, but not all the pilots on VATSIM know where to find the information so it's good to include it in your clearance.

TRANSPONDER CODES

In Luxembourg, there are different series of transponder codes according destination. On VATSIM this is not practicable and thus not done. VATEUD has assigned all vACC's with a transponder code range which we can use in order to avoid interference with other vACC's. The available transponder code allocation for ELLX: 7171 - 7177 (7101-7177 in total for Brussels FIR)

Normally EuroScope will have set a proposal squawk, nevertheless you should always check if it's correct. This should be the first thing you do when you see a callsign appearing on your radar.

RUNWAY

Since the pilot can find the departure runway in the voice ATIS, there is no need to include the runway in IFR clearances.

PHRASEOLOGY

Scenario 1: Pilot has the charts for the current SID:

Luxembourg Tower, Beeline 27A with information Alpha, stand A10, requesting clearance to Amsterdam.

Beeline 27A, cleared to Amsterdam via DIK2X departure. Climb initially to 4000 feet. Squawk 7171.

Cleared Amsterdam via DIK2X, initial climb 4000 feet, squawk 7171, Beeline 27A
Beeline 27A, Readback correct. Startup approved. Report ready for pushback.

As you noticed the pilot has to readback the clearance. The controller checks the readback for errors, and if the readback is correct, gives the startup clearance (start of engines approved). If it contains errors, the controller will give the full clearance again until the pilot gets it right.

Scenario 2: Pilot doesn't have the charts for the current SID:

Luxembourg Tower, Beeline 27A with information Alpha, requesting clearance to Amsterdam.

Beeline 27A, cleared to Amsterdam. After departure fly the R-238 LUX to 8 DME LUX, then right turn to intercept R-201 DIK to DIK. Climb initially to 4000 feet. Squawk 7171.

Cleared Amsterdam. After departure fly the R-238 LUX to 8 DME LUX, then right turn to intercept R-201 DIK to DIK. Climb initially to 4000 feet. Squawk 7171, Beeline 27A
Beeline 27A, Readback correct. Startup approved. Report ready for pushback.

If the flight plan filed by the pilot is wrong you should also give him an amended (and correct) route. See the letters of agreement with neighboring vACC's for specific routings to follow. Standard routes can be found in the Pilot Section -> Routes

GROUND SERVICES

Since Luxembourg doesn't have a ground controller tower will also have to cover those duties.

Normally the duty of the ground controller is to guide aircraft between the stands and the runway in a safe way, by keeping them separated.

DEPARTING TRAFFIC

The first thing you will have to do when an aircraft is parked nose-in on a stand is to give pushback clearance. Mention in your clearance in what direction the nose has to be turned or facing at the end of the pushback.

Luxembourg Tower, Lufthansa 589, stand A10 requesting pushback.

Lufthansa 589, pushback approved facing south, call ready for taxi.

In the taxi clearance you need to indicate the departing runway, the path to follow to reach the holding point, the holding point, and the QNH.

Luxembourg Tower, Lufthansa 589 request taxi

Lufthansa 589, taxi to runway 24 via the A, hold short runway 24, QNH 1013

ARRIVING TRAFFIC

Luxembourg Tower, Thomas Cook 9583 requesting taxi to the gates.

Thomas Cook 9583 welcome in Luxembourg, taxi to stand A10 via A.

TOWER SERVICES

SITUATION

As Local Control or Tower Controller at ELLX, you are in charge of the active runway and the control zone, Luxembourg CTR, in a radius of +/- 5 to 10 nm around the airport from ground up to 2500 feet. The airspace Luxembourg CTR is class D.

RESPONSIBILITIES

Your job is to determine the runway in use, by taking the winds into account, organize and expedite the flow of air traffic and respect the separation standards.

Arrivals receive priority over departures.

WEATHER CONDITIONS

One of the first things you do when coming online as Luxembourg Tower is determine whether VFR flights are possible regarding the weather: visibility is not less than 5 km and BCN or OVC clouds not lower than 1000 feet.

DEPARTING TRAFFIC

In general you first give a line-up clearance :

Estail 413, line-up and wait runway 24.

Lining up and wait RWY 24 Estail 413.

You can also give a condition :

Estail 413, after the landing Boeing 747 has passed, line-up and wait runway 24,after.

Lining up and wait runway 24 behind landing Boeing 747, Estail 413.

or

Beauty 123, behind departing Avroliner, line-up and wait runway 24, behind.
Lining up and wait runway 24 behind departing Avroliner, Beauty 123.

The pilot has to readback all the clearances related to the active runway. That is very important! Most of the accidents happen on or in the vicinity of the aerodromes. When you line-up an aircraft on the runway behind a departing one repeat "behind" at the end of the phrase.

When you give take-off clearance, include the wind and remind the frequency to contact after take-off:

Cleared for take-off runway 24, wind 260 degrees 5 knots. When airborne contact Approach, frequency 118.90.

Cleared for take-off runway 24, Approach 118.90.

When a RVR (runway visual range) is current on the aerodrome (when the general visibility is below 1500m, you will normally have a RVR value in the METAR), you should give this value to all departing traffic.

Cleared for take-off runway 24, wind 260 degrees 5 knots, RVR 300 meters. When airborne contact Approach 118.90.

Minimum separation between departing aircraft

The general rule: You may not give take-off clearance until

1. The preceding departing aircraft has crossed the end of the runway-in-use or has started a turn; or until all preceding landing aircraft are clear of the runway-in-use. You may however give this take-off clearance if you have a reasonable assurance that this separation will exist between departing aircraft.
2. As tower controller you have also to comply with the following time separations when giving take-off clearances to successive departures. Those separations are very important! Departure and center controllers will thank you if they don't have a fast aircraft causing a conflict with previous departures.

Time	Condition
1 minute	When aircraft are to fly on tracks diverging by at least 45° immediately after take-off so that lateral separation is provided.
2 minutes	When the preceding aircraft is 40 knots or more faster than the following aircraft and both aircraft will follow the same track.
5 minutes	When a departing aircraft will be flown through the level of a preceding departing aircraft and both aircraft will follow the same track (in this case the separation applies at the time cruising levels are crossed).

Those rules are complementary to the standard IFR separations.

ARRIVING TRAFFIC

The tower controller owns the active runway. Normally the traffic is already established on the ILS, VOR radial, etc. by the approach controller. You just have to give the landing clearance. Always include the surface wind and runway visual range (if any) in your clearance:

Estail 413, cleared to land runway 24, wind 270 degrees 8 knots, RVR 350 meters.
Cleared to land runway 24, Estail 413.

When the aircraft has landed:

Estail 413, vacate to the right. Report ready for taxi to the gates
To the right, Estail 413.

Minimum separation between arriving aircraft

The general rule: You may not give landing clearance until

1. The preceding departing aircraft has crossed the end of the runway-in-use or has started a turn; or until all preceding landing aircraft are clear of the runway-in-use. You may however give this landing clearance if you have a reasonable assurance that this separation will exist.

Wake vortex separation

In addition, you have to apply the following separation depending on the wake turbulence category of the aircraft.

Timed approaches

The following minima shall be applied to aircraft landing behind a heavy or medium aircraft:

TIME	CONDITION
2 min.	When a medium aircraft follows a heavy aircraft.
3 min.	When a light aircraft follows a medium or heavy aircraft.

Runway visual range

When the visibility on the aerodrome is less than 1200 meters you have to give the runway visual range (RVR) to the aircraft. This RVR is the visibility measured along the runway itself and is given in the METAR.

Contrary to departing traffic, you may not refuse a landing clearance for reason that the weather conditions are below published aerodrome minima. Use the following phraseology:

Rubens 415, reported RVR (or visibility, as appropriate) is 300 meters. This is below the published minimum. Advise your intentions.

But the pilot has his own rules to follow: he may not descend below his decision height corresponding to the instrument approach he follows if he has not established the required visual reference to the runway or approach lighting. The clearance you give does not relieve the pilot of his responsibilities.