



PROCEDURES OVERVIEW

Brussels Approach EBBR_APP

NOT FOR REAL
AVIATION

In Brussels (EBBR), departures/approach clearances are issued by the approach controller. However if EBBR_APP or EBBR_DEP is not online approach clearances can be issued by the next higher position, being EBBU_CTR.

EBBR_APP: 118.250 - EBBR_DEP: 126.620

ARRIVALS

AIRSPACE

- Airspace class: C
- Upper limit: FL 70
- Lateral limit*: 30 nm
(the lateral limit is in fact more complicated, but close to 30 nm)
- Lower limit: see chart AD2 EBBR ATCSMAC.01 (lowest radar vectoring altitudes/levels)

TASK

Your task as arrival controller is to guide the arriving aircraft, within your airspace, on final approach course of the active landing runway in EBBR. Mostly to intercept the ILS. You also have to take care of low flying aircraft crossing your airspace. The active landing runway(s) will be indicated by EBBR_TWR.

If no EBBR_DEP online you will also have to take care of departing aircraft. Also, if no EBBR_DEP online, and if traffic permit, you can either vector EBAW arrivals on final approach course, or hand off the traffic to EBAW_TWR, if online, who will let the pilot execute a procedural approach (= the approach as indicated on the charts).

GENERAL

EBBU_CTR will hand you off aircraft at or descending to FL 80, except for aircraft coming from the east via FLO, where EBBU_CTR can clear the aircraft to FL 60. You can follow the charts or issue vectors to guide the aircraft to the final approach course. Do not forget that aircraft are in EBBU_CTR airspace as long they are above FL 70, even if you have them on your frequency before.

The first thing you do when you have the pilot of an arriving aircraft on your frequency, is inform him of what he can expect: ILS approach, Visual, procedural (for EBAW), ...

[Good evening Brussels, Beeline 52 Quebec at FL 80 inbound Bruno VOR.](#)
[Beeline 52 Quebec, identified, expect vectors for ILS runway 25L.](#)

The next step is to descend the aircraft

[Beeline 52 Quebec, descend altitude 3000 feet, QNH 1021](#)
[Descending altitude 3000 feet, QNH 1021, Beeline 52 Quebec](#)

Here the aircraft will descend below the transition level (you can calculate the Transition

Level (TL) with a utility that can be downloaded on the Controller section/Controller files page). The first time you give an altitude you have to indicate the QNH at EBBR (Remember: Flightlevels or FL above the TL, Altitudes below the TL).

Beeline 52 Quebec, turn right heading 160, descend altitude 2000 feet, speed 220 knots.
Turning right heading 160, descending altitude 2000 feet, speed 220 knots, Beeline 52 Quebec.

When vectoring, take the wind into account. If you do not indicate a speed, how faster the aircraft, the wider the turn will be.

Beeline 52 Quebec, turn right heading 220, cleared ILS approach 25L, report established on the localizer.
Turning right heading 220, cleared ILS approach 25L, will report established on the localizer, Beeline 52 Quebec.

The ideal is to make the aircraft intercept the localizer with a heading of 30 degrees, and intercept the glideslope from below. The aircraft should be vectored in this way, that it still can fly level for a short time before descending with the glide.

The distance from threshold an aircraft has to be established on the ILS will depend on the altitude at which you make them intercept. In the ASRC EBBR_APP sector file, when you turn on all the waypoints, you will see some interesting waypoints on the final course of the runways: 1500, 2000, 3000, 4000. Those are the points where the aircraft will start to descend with the glideslope at the indicated altitude. So you need to make the aircraft intercept the localizer at the given altitude before reaching this altitude waypoint.

Once the aircraft is established on the localizer and correctly separated from other traffic on final, you handoff the traffic to EBBR_TWR

Beeline 52 Quebec is establishes on the localizer runway 25L
Beeline 52 Quebec, proceed on the ILS 25L and contact Tower 118.60, goodnight.
Proceed and contacting Tower on 118.60, thank you and goodnight.

Before you tell a pilot to contact the Tower you have to assure the separation of other traffic on final approach course. You can do that with speed restriction:

Beeline 52 Quebec, maintain 180 knots until the outer marker

Beeline 52 Quebec, reduce to minimum approach speed.

DEPENDANT APPROACHES

Runway 25L and 25R are almost parallel but can not be used as independent runways for arrival as they are only separated by 1900m. This means that both runways can be used when there is a lot of traffic but you have to maintain separation of 2 nm between aircraft

on the adjacent ILS. A vertical separation of 1000 feet is needed. Therefore you can make the traffic on 25R intercept at 2000 feet and the traffic on 25L at 3000 feet. Do not forget to ask the Tower Controller when you want to use 2 runways for arrivals.

Traffic that will profit from landing on runway 25R is Cargo (they need to go to apron 9 situated at the end of runway 25R on the right), Military (the military apron is at the right of 25R) and General Aviation (in this way they do almost not interfere during taxi to their parking with commercial passenger aircraft). However, if the GA is VFR and below of 1500 ft they will be directly on EBBR_TWR frequency.

WEST & SOUTH ARRIVALS

Aircraft coming from the West via KOK, and the South via ARVOL or TULNI need instructions from EBBU_CTR before reaching KERKY, otherwise they will (should) enter the holding at KERKY.

25L/R

Coming from KERKY the pilots will have received instructions to proceed to BUN or received vectors. Aircraft on this track should not descend lower than FL 80 before crossing the R-360 of BUB. Otherwise they will interfere with departing aircraft. After that you can let the aircraft continue to BUN and make them turn to a heading 160 to 200 degrees and later to 220 degrees to intercept the localizer. Another possibility consists of make the aircraft turn before reaching BUN. You can do that in different ways: turn to heading 160, than 220 to intercept; turn to heading 100, than heading 160, than heading 220 to intercept; heading 100 and directly to heading 220 to intercept.

NORTH ARRIVALS

Aircraft coming from the North via WOODY or BEKEM need instructions from EBBU_CTR before reaching ANT, otherwise they will (should) enter the hold at ANT.

25L/R

Coming from, or on course to ANT, aircraft will be at or descending to FL 80. Once on your frequency and in your airspace, you can guide the aircraft on the same path as for the arrivals via KERKY. As EBBU_CTR has to hand you off the traffic separated, in accordance with the arrival controller, EBBU_CTR can send aircraft from BEKEM or WOODY direct to BUN, or make them leave WOODY or BEKEM on a heading of 180 degrees and than make aircraft follow the KERKY - BUN line, or something in between of this two possibilities.

EAST ARRIVALS

BATTY and LNO are the two only EBBR STAR's that end at the IAF (Initial arrival fix): The FLO (Flora) VOR

25L/R

Here, if there are no conflicts, traffic will be handed off to you by EBBU_CTR before FLO, descending to FL 60. The arrivals via FLO are a bit tricky, as you have to make them descend in steps (See the min. vectoring altitude chart). A standard way of doing, is

make aircraft depart FLO on a heading of 310 degrees and a first descend to 4000 feet. Just before reaching the border of the lower sector, make the aircraft turn left 280 degrees, and descend to 3000 feet. As soon the pilots read back, you clear him for the ILS approach 25L. From or before FLO you can also make the aircraft turn to e.g. heading 340 or something in between.

DEPARTURES

EBBR is the only airport in Brussels FIR with a specific departure frequency.

AIRSPACE

- Airspace class: C
- Upper limit: FL 70
- Lower limit: see chart AD2 EBBR ATCSMAC.01 (lowest radar vectoring altitudes/levels)

TASK

The task of the departure controller is to separate the departures from other traffic handled by the approach controller. If necessary you can do that by giving vectors and level them off to avoid other traffic, and send them back to their route as soon as they are clear off traffic.

The SID's

The initial climb for all the SID's at EBBR is FL 60. If no conflicting traffic, the departure controller has to monitor the departing aircraft to see if the Standard Instrument Departure (SID) is followed. The SID's have to be followed until FL 50.

The Climb

The ceiling of Brussels Departure is very low compared to other departures of main airports in neighboring countries. If most Departures have a ceiling around FL 100, for Brussels it is only FL 70. This means that departures will reach that flight level very quickly. To assure the departures of a continuous climb, initiate a hand off with EBBU_CTR almost as soon as you have the traffic on your frequency, if no conflicting traffic, and if the departures are following the SID. As soon as EBBU_CTR accepted the hand off, preferably not later than 3000 - 4000 feet, tell the pilot to contact EBBU_CTR. The pilots will appreciate very much if they do not have to level off when there is no conflicting traffic.

Never make departures climb higher than FL 70. EBBU_CTR will descend arrivals coming from the South, West and North to FL 80.

[Good evening Brussels, Beeline 41 Hotel passing 1200 feet.](#)

[Beeline 41 Hotel, identified, climb FL 70.](#)

When passing 3000 feet:

Beeline 41 Hotel, contact Brussels Control 131.10, enjoy your flight.
Brussels Control 131.10, Beeline 41 Hotel, goodnight.

Additional tasks

As departure controller at EBBR, you are also responsible for departures and arrivals of EBAW. The initial climb should be coordinated by the respective Tower with EBBR_DEP. Arrivals for this airport can either be vectored by EBBR_DEP or given the procedural approach (the approach depicted on the charts).