

Runway Change Guide

Runway changes might be tricky, especially during phases with a lot of traffic. This guide should help you to manage this situation. Example of a runway change at Frankfurt/Main EDDF from 07 ops to 25 ops.

When is a runway change initiated?

For this, a look at the **METAR** and the **TAF** is useful. Basically, runway 25 is preferred in case of a definite 25-wind (between 160 and 340 degrees) or variable wind (according to the regulations, up to a tailwind component of 5 knots, although it does not depend on one knot). In many cases, 07 is still used with constant weak 07 wind, e.g. 030/5, although the tailwind component on 25 is therefore less than 5 knots. The reason for this are smaller gusts, which are briefly larger than 5 knots, but are not displayed in the METAR).

In case of doubt, a look at FR24 helps, which configuration is operated in real. However, in individual cases, there may be other reasons for a runway change in real (police helicopter mission, failure of navigation equipment, etc.).

Who decides, when a runway change is initiated?

The **tower supervisor/coordinator** decides to rotate, but Approach is involved in deciding exactly when to rotate (see below).

How does the Runway Change work once the decision has been made?

Tower calls Approach and informs about the upcoming runway change. In addition, the center controllers or, if available, a center supervisor should be informed so that other STARs can be cleared if necessary. Depending on the traffic situation, Approach then decides who will be the **last inbound for 07L and 07R** respectively.

Apart from inbound rushes, it is usually quite simple: those who are already more or less across the field still get 07 in any case, while those who have just flown into the TMA are cleared for 25. Approach can either assign vectors or change the STAR for the pilot, depending on personal preference.

In the inbound rush, however, Approach should try to find a suitable gap where there are not so many inbounds for a few minutes. If the wind is acceptable, the runway change can be postponed a bit if the inbound situation does not improve in the next few minutes. Nevertheless, after 20 minutes at the latest, a decision should be made as to who will be the last inbounds for 07L and

07R.

In the optimum case, these are two aircraft that land at approximately the same time. **The call signs of these two aircraft are then passed on to the tower as well as an approximate landing time.**

“DLH123 last for 07L, DLH456 last for 07R, both landing in about 15 minutes”.

If the tower knows this, it must then be considered **for all outbounds whether they must be cleared for 25, or whether they can still depart from 07**. This consideration is primarily the task of the tower supervisor/coordinator. What must be avoided is that another outbound takes off from 07 even though the first planes are already on the 10-mile final approach of 25. Of course, the pilots should also be given a reason for the reclearance.

“We are changing runway direction, therefore you will be recleared, are you ready to copy?...”.

If, as in the example above, the last aircraft lands on 07 in 15 minutes, the tower can still allow take-offs from 07 for another 10 minutes. Based on the taxiing time, it is, therefore, necessary to estimate who will still get the 07. If in doubt, calculate conservatively and reclear too early rather than too late.

Aircraft that are with apron control and are to be recleared must be sent back to Delivery since apron control is not allowed to issue route clearances. Delivery will contact Apron and ask them to send aircraft XY to Delivery for a reclearance. Outbounds, which are already at the tower frequency, may of course also be cleared by the tower.

As soon as the aircraft are recleared, taxi instructions to holding point runway 25 are issued. Ideally, the aircraft will reach the holding point 25 when the last inbound 07 has just landed. However, a few minutes delay at the holding point is not a problem in such a situation.

Exceptions: SULUS is cleared to 18 and KOMIB does not exist at 25, instead CINDY must be filed.

As soon as the last inbound for 07 is safely on the ground, the tower should inform Approach directly and, to be on the safe side, ask for a **release for the first 25 departure**.

Approach, conversely, must time the inbounds so that the first 25-inbound is approximately on the **10-mile final approach** when the last 07-inbound is just touching down. In case of a missed approach at the last second, this gives enough room to turn away.

If there is a lot of traffic, the downwind and final will automatically be very long. If necessary, aircraft will have to enter a holding for a short time, but this is usually not necessary, since the

runway change should be timed as described above so that there is not so much traffic. Within the TMA, Approach can also get creative, e.g. with three-sixties, so that the downwind does not become too long.

As with everything, it is important that the individual ATC stations **communicate and coordinate** so that everyone is fully aware of each other's traffic and plans.

Summary

- The decision is based on the METAR and TAF
- The decision is made by the tower supervisor/coordinator, but approach is also involved in the decision
- Approach decides the last arrivals for 07L and 07R
- Tower can issue the last takeoff clearances for 07 until approximately 5 minutes before the last inbounds
- The first inbound for 25 can be on a 10-mile final approach when the last 07-inbound is just touching down
- The first 25 departure should be released by Approach

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