

Replacement of Instrument Landing System (ILS) Runway 09L – March 2017

We are replacing Heathrow's landing systems – known as the Instrument Landing Systems (ILS). The ILS is used by aircraft landing at Heathrow. There are four systems at Heathrow – one at either end of each runway.

Although we're planning to minimise the impact on our operations and local communities as much as possible, there may be periods when aircraft land out of the usual alternation pattern depending on the wind conditions.

What is an ILS?

Aircraft follow a radio beam known as the Instrument Landing System (ILS) when landing at Heathrow. There is one beam aligned with the centreline of the runway at each end to ensure that aircraft approach in a straight line. It is a safety-critical system that ensures the safe and efficient arrival of landing aircraft.

Why is it being replaced?

The existing systems are approaching their end of life – they were last replaced approximately 15 years ago.

What does the work involve?

To minimise the time where there is no ILS in operation for a particular runway end, the new ILS has already been built behind the existing ILS. We will turn off the old ILS and then turn on and 'commission' the new one so that it is safe to use.

How many systems are being replaced?

In total four systems are being replaced – one for each runway end. Three have already been completed so we are doing the final one.

- Westerly operations – northern runway (27R) **[COMPLETED - August 2015]**
- Westerly operations – southern runway (27L) **[COMPLETED - September 2015]**
- Easterly operations – southern runway (09R) **[COMPLETED - April 2016]**
- Easterly operations – northern runway (09L) **[EXPECTED COMPLETION - March 2017]**

Wind direction

The direction planes fly at Heathrow depends on the direction of the wind. They must take off and land into the wind for safety reasons.

'Westerly operations' – this is when aircraft arrive from the east (over London) and take off towards the west (over Berkshire/Surrey). Westerly operations occur around 70% of the year.

'Easterly operations' – this is when aircraft arrive from the west (over Berkshire) and depart towards London. Easterly operations occur around 30% of the year.

Which system is being replaced and when?

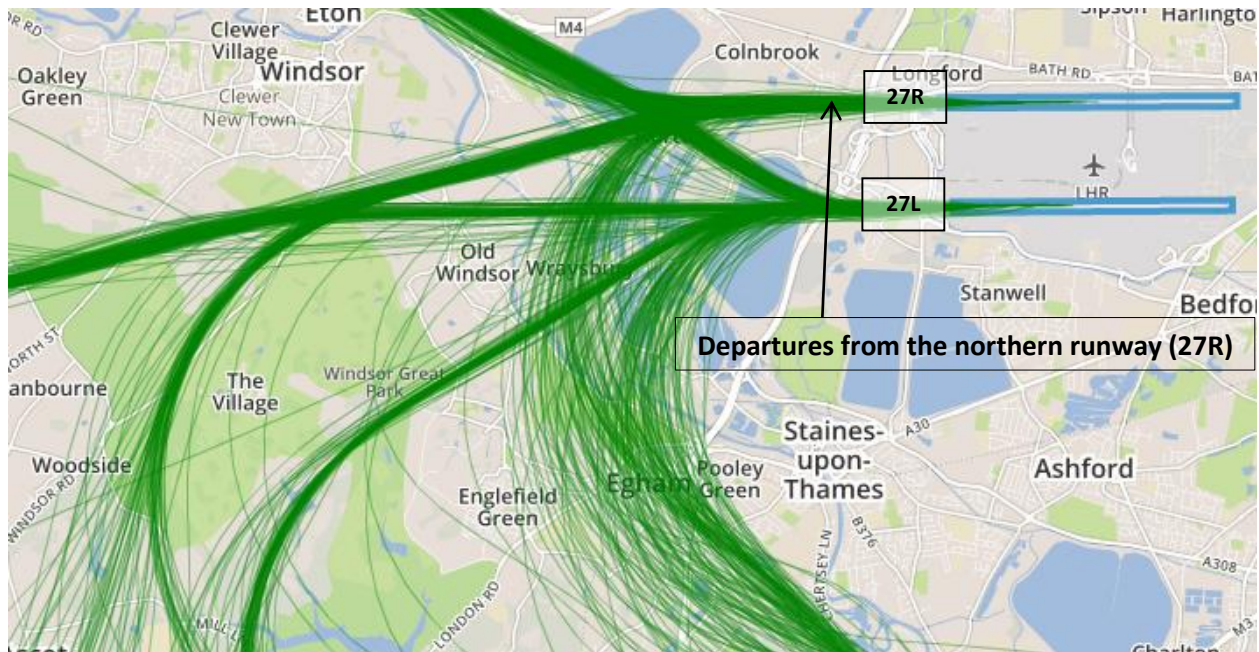
The work to replace the final ILS for the northern runway (09L) for easterly operations is expected to begin on Saturday 4th March depending on forecasted weather.

How long will the replacement take?

If all goes to plan, the work should take 5-6 days to complete.

What areas will be affected by departures?

Communities located closest to the end of the northern runway (27R) as illustrated below.



What happens if the wind changes to easterlies during the works?

There is no runway alternation during the day on easterly operations due to the historic Cranford Agreement. So when operating on easterlies we use the southern runway (09R) for departures and the northern runway (09L) for arrivals. However, during the ILS works we would have to use the southern runway (09R) for arrivals and the northern runway (09L) for departures. Because changes to our taxiway infrastructure are necessary before the northern runway can be fully used for departures on easterly operations, we would prefer to carry out the works during a period of westerly operations. For more information about the Cranford Agreement click [here](#).

