

Runway Status Lights (RWSL) - Training Scenario 4

Aborted Departure Scenario (Under Nominal Conditions)



The **Scenario 4** show the behaviour of the **RWSL** system on the **RWY 27L** and its vicinity. This scenario demonstrates how the **THL** and the **REL** systems work under an aborted departure case.

The scenario has been planned with one take-off case when one airplane is crossing the runway forcing to abort the take-off procedure (demonstrating the **THL** system). Two airplanes are involved in the sequence of events (one airplane taking-off and another crossing the **RWY 27L**).

The illustrated cases are the following:

- **RWY 27L** crossing with aircraft beginning its take-off roll;
- Aborted Take-off Procedure

This scenario is here to demonstrate a potential runway incursion case. Here, **Airplane 1** fails to hold short of **RWY 27L** as it is supposed to, while **Airplane 2** has already started its take-off roll.

The **REL** were not **ON** at intersection **K2/D5** at the moment **Airplane 1** started crossing, because **Airplane 2** had just started rolling at this time. When **Airplane 1** crosses holding point, the **THL** is immediately turned **ON** requiring **Airplane 2** to stop (if possible).

In the scenario, while the **Airplane 1** is lining up on the **RWY 27L** for departure via the **Q4 TWY**, **Airplane 2** is landing on the **RWY 27R**.

Once **Airplane 2** has landed and it is taxiing to the **K2** holding point, **Airplane 1** is cleared for take-off and it begins its take-off roll. When **Airplane 1** starts the take-off roll, the **RELS** immediately in front of **Airplane 1** turn **ON**.

Airplane 2 crosses **K2** holding point, the **THL** in front of **Airplane 1** turns **ON** and **Airplane 1** aborts departure.

Once the **Airplane 2** has vacated the **RWY 27L**, the **THL** turns **OFF** and the rest of the **RELS** in front of **Airplane 1** are turned **OFF** when **Airplane 1** reaches the normal taxi velocity.



RELS that are **ON** (illuminated red) indicate that the runway ahead is not safe to enter or cross. **THLs** that are **ON** (illuminated red) indicate that the runway is not safe for takeoff. RED MEANS STOP! Pilots should remain clear of a runway when an **REL** along their taxi route is illuminated. Pilots should not takeoff when a **THL** on the runway ahead is illuminated.