

Loss of separation following go-around

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1. About this report

On Thursday 29 March 2018, at around 19.56 hours, an incident occurred in the airspace of Amsterdam Airport Schiphol. A Boeing 737-700, which was performing a go-around on runway 18C, came close to another aircraft. That aircraft, a Boeing 737-800, had just started its take-off from runway 24. Because the two runways converge, the aircraft were on intersecting courses. This occurrence took place because the procedures in the Operations Manual of Air Traffic Control the Netherlands (LVNL) allow the possibility of the simultaneous use of two converging runways for aircraft take-off and landing. A procedure is used which results in reduced separation in the event of use of dependent take-off and landing runways. Based on this approach, undesirable and potentially hazardous situations can occur.

2. General conclusion on follow-up to the recommendations

Follow-up to recommendations in the aviation sector is subject to Regulation (EU) 996/2010 on the investigation and prevention of incidents in civil aviation. The recommendations are assessed according to a European classification system and entered in the SRIS database (Safety Recommendations Information System). The Dutch Safety Board issued two recommendations in its report: one to Air Traffic Control the Netherlands (LVNL) and one to the Minister of Infrastructure and Water Management. LVNL issued a public reaction to the report on its website, on 24 September 2020. On 11 July 2022, LVNL sent a response to the Dutch Safety Board. The Minister responded to the report on 15 January 2021.

The follow-up to the recommendation to LVNL is classified as partially adequate and the follow-up to the recommendation to the Ministry of Infrastructure and Water Management as adequate. The purpose of the recommendations was to remove the risk caused by the procedure 'Reduced separation between take-off and landing traffic', by removing the procedure from the Operations Manual. LVNL announced its intention to take steps to ensure more time between take-off and landing traffic on converging runways but also announced that the procedure will not be removed from the Operations Manual, but instead will be amended. The report indicated that allowing reduced separation during the use of dependent runways used for take-off and landing is a procedure which can result in the occurrence of undesirable and potentially hazardous situations. Given the current LVNL approach, this risk continues to exist.

Air Traffic Control the Netherlands	Remove the procedure ' <i>Reduced separation between take-off and landing traffic</i> ' from the Operations Manual and adhere to the standard procedure for using dependent runways.	Partially adequate
Minister of Infrastructure and Water Management	Have Air Traffic Control the Netherlands procedures regarding the use of dependent runways assessed against current legislation and regulations.	Adequate

Follow-up per recommendation

Recommendation 1

To Air Traffic Control the Netherlands

Remove the procedure '*Reduced separation between take-off and landing traffic*' from the Operations Manual and adhere to the standard procedure for using dependent runways.

Response received from Air Traffic Control the Netherlands

LVNL indicated that the recommendation from the Dutch Safety Board ties in with the steps taken at Amsterdam Airport Schiphol following the incident in 2018. Together with its partners, LVNL has investigated how the safety of the procedure '*Reduced separation between take-off and landing traffic*' could be increased. One of the most important outcomes is timing; if there is sufficient time between a landing aircraft and an aircraft taking off from a converging runway, the risk of a conflict can be reduced. The decision was taken to introduce timing for all converging runway combinations through specific training that focuses on both the prevention and solution of possible conflicts.

LVNL has adjusted the procedure and air traffic controllers are trained accordingly. The amended procedure cannot be used for one specific combination of converging take-off and landing runways. This combination is therefore no longer permitted. The Human Environment and Transport Inspectorate (ILT) has assessed and approved the amended procedure.

Assessment of the follow-up

In accordance with the European classification, the follow-up to the recommendation is classified as partially adequate.

Explanation of the assessment

In its recommendation, the Dutch Safety Board recommends removing the procedure from the Operations Manual, and adhering to the standard procedure. LVNL has

implemented changes that can reduce the risk of a similar incident, but has decided to continue using a shorter separation (time) during take-off and landing on converging runways. Although this reduces the risk, the risk still exists.

Recommendation 2

To the Minister of Infrastructure and Water Management

Have Air Traffic Control the Netherlands' procedures regarding the use of dependent runways assessed against current legislation and regulations.

Response from the Minister of Infrastructure and Water Management

In its response dated 15 January 2021, the Minister announced that the Human Environment and Transport Inspectorate (ILT) has been asked to follow up on the recommendation. The ILT conducted an investigation and reviewed all nine dependent runway combinations. The ILT concluded that the procedures for dependent runway use meet all safety requirements from ICAO regulations. These regulations contain no specific requirements for special runway combinations such as converging runway use. No further rules have been drawn up for this at national level either. The ILT tested its findings with two independent expert parties, and they both supported the conclusions of the ILT.

Assessment of the follow-up

In accordance with the European classification, the follow-up to the recommendation is classified as adequate.

Explanation of the assessment

The aim of the recommendation was to clarify whether procedures of Air Traffic Control the Netherlands regarding the use of dependent runways comply with the regulations. The ILT investigated and commissioned testing to clarify this. The recommendation has thereby been followed up on.

Assessment of the follow-up of recommendations

For the assessment of the responses to the recommendations for aviation, the Dutch Safety Board uses the guideline issued by ENCASIA (European Network of Civil Aviation Safety Investigation Authorities) concerning the EU regulation on investigation and prevention of accidents and incidents in civil aviation (Regulation EU) no. 996/2010. In that assessment, the following categories are used: Adequate / Partially adequate / Inadequate / Awaiting response / Outdated. The recommendations, accompanying reactions and classification are recorded in the

European SRIS database (Safety Recommendations Information System), publicly available via <https://sris.aviationreporting.eu/safety-recommendations>