U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

J.R.V.A Dijsselbloem
Chairman
Dutch Safety Board
PO Box 95404
2509 CK The Hague
The Netherlands

Dear Chairman Dijsselbloem:

This is our initial response to Federal Aviation Administration (FAA) Safety Recommendation 21.091 received on June 4, 2021. The Dutch Safety Board (DSB) issued this recommendation as a result of the incident that occurred on April 21, 2017, in which a Boeing 777 took off from Amsterdam Airport Schiphol (AMS) in the Netherlands. During the initial climb, the flight crew was informed by air traffic control that probably a tail strike had occurred. The crew decided to treat the event as an actual tail strike and returned to Schiphol. After landing, it appeared that a tail strike had occurred, but that the wear of the tail skid shoe was within limits and no immediate repair was necessary.

21.091. To take the initiative in the development of specifications and, subsequently, develop requirements for an independent onboard system that detects gross input errors in the process of takeoff performance calculations and/or alerts the flight crew during takeoff of abnormal low accelerations for the actual aeroplane configuration as well as insufficient runway length available in case of intersection takeoffs. Take this initiative in close consult with the aviation industry, including manufacturers of commercial jetliners amongst which in any case The Boeing Company.

FAA Comment. In addressing weight and balance related accidents and incidents in Title 14, *Code of Federal Regulations* (CFR) Part 121 operations, the FAA has, at times, observed shortcomings in training and the ability of the airline operational control and weight and balance control communicating correct information to the ground staff and flight crew. To address this issue, we updated Advisory Circular (AC) 120-27F, Aircraft Weight and Balance Control, on May 6, 2019, for operators to develop and receive approval for a weight and balance control program, for aircraft operated under Title 14, CFR Parts 91K, 121, 125, and 135.

The FAA is also developing a draft AC for flight path management that incorporates recommendation A-18-1 (attached) from the FAA chartered Air Carrier Training Aviation Rulemaking Committee. The draft AC recommends that operators provide flight crew procedures to verify/validate both the accuracy and applicability of information automation (IA) system inputs and outputs by conducting reasonableness checks (RCs). These RCs allow flight crews to detect and address potentially conflicting, ambiguous, inapplicable, or erroneous IA system inputs/outputs, and recommends incorporating these checks into existing procedures and training and provides examples.

While we do not see justification to mandate installation of such equipment, the FAA will explore whether incorporation of a takeoff performance monitoring system could be suitable for a voluntary safety enhancement activity.

We anticipate providing an updated response to this safety recommendation by October 31, 2022.

The FAA would like to thank the DSB for submitting FAA Safety Recommendation 21.091 and its continued interest in aviation safety.

Sincerely,

Warren Randolph
Aviation Safety
Acting Executive Director,
Office of Accident Investigation and Prevention

Attachment