

Interim Statement

Accident File No. 19-23

Ground Accident During Pushback

Date	July 17th, 2023
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Aircraft	B747-400F & B757-200
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Registration	OE-LRG & N918FD
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Location of event	Ben Gurion Int. Airport, N Apron
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For Safety Purposes Only

The law regarding the safety investigation and its results

(Aviation Law, 2011 and ICAO Annex 13)

Safety investigation - An investigation of a safety incident to this chapter is a procedure that includes gathering information and analyzing it, drawing conclusions, including determining the causes of the safety incident or the factors that contributed to its occurrence, and providing recommendations related to the matter for the purpose of improving aviation safety, as far as the Aircraft safety Investigation Authority Israel (AIAI) deems it necessary. (section 104 of the law).

Purpose of a safety investigation - The sole purpose of a safety investigation is the prevention of safety incidents, and its purpose is not to attribute civil, criminal or disciplinary liability to such incidents. (section 105 of the law).

Duties of the AIAI - The IIC will be in charge of conducting safety investigations according to the provisions of this chapter. In fulfilling his duties, the IIC will act in accordance with the provisions of ICAO Annex 13, insofar as they are applicable in Israel, with the exception of such provisions for which the CAAI informed ICAO, according to the provisions of Section 4(b) of the Civil Aviation Authority Law, that Israel operates in a different manner. (section 108 of the law).

Independence - in carrying out a safety investigation according to this chapter, there is no prejudice against the AIAI manager and his deputy, other than the justice; The provisions of this section shall also apply to an investigator authorized under section 115, subject to the provisions of subsection (c) of said section. (section 109 of the law).

Publication of the Final Report - The AIAI will publish the final report on its and will also make the report available for public inspection, free of charge, at the Ministry of Transportation and Road Safety, provided that it will not publish the report or part of it and will not make it available for public inspection as stated, if there is any contradiction with the country's security or its foreign relations. (section 119 of the law).

The recommendations of the AIAI - the CAAI and anyone for whom the AIAI included recommendations in the final report will examine the aforementioned recommendations concerning him, will decide as to their implementation and will notify the AIAI of his reasoned decision in writing; The CAAI will forward his reasoned decision to the minister as well. (section 122 of the law).

Inadmissibility of the final report - The final report will not be accepted as evidence in a trial, except in an appeal according to section 39, in an administrative petition or in an administrative appeal against decisions according to this law, according to the Law of Courts for Administrative Matters, 2000, and will not be used in a procedure taken by an employer against his employee, and regarding a procedure against a pilot employee according to section 38 - will not be used unless the circumstances stated in section 138(b) are met (section 124 of the law).

Confidentiality and inadmissibility of safety investigation material - Safety investigation material will not be given and will not be accepted as evidence in a trial and will not be used in a disciplinary procedure, in an administrative procedure or in a procedure taken by an employer against his employee. (section 123 of the law).

This document has been translated from Hebrew. Although efforts have been made to provide a translation as accurate as possible, discrepancies between the versions might occur. In such eventuality, the Hebrew version shall prevail.

General

On July 17, 2023, at 01: 15 a.m. local time, a ground accident during pushback and engine start occurred at Ben Gurion International Airport (LLBG), N (November) apron.

Accident summary

A Boeing 747-400 cargo aircraft operated by Challenge Airlines (BE), received a "pushback and engine start" clearance from Ben Gurion Airport control tower. During the pushback process from stand 21 to starting point 71 on N (November) apron, the engines of the aircraft were started.

The pushback was performed by an Israel Aerospace Industries (IAI) ground personnel using a conventional aircraft towbar tug.

During the pushback/tow, the wireless voice connection between the ground personnel and the pilots was lost, without the pilots' knowledge.

To correct the aircraft position, during the transition between aircraft push and aircraft tow, the tug driver moved from his open driving position to a closed cabin located on the opposite side of the tug and in which, he intended to continue to tow of the aircraft to its assigned starting position (starting point 71).

During the transition between the open driving position to the closed cabin of the tug, the driver noticed that the aircraft was pushing the tug. Attempts to stop the tug's motion by pressing the brakes in the closed cabin, were unsuccessful.

Due to the loss of voice communication with the flight crew, the head of the pushback team used a white light flashlight to signal the pilots to stop the aircraft. The pilots, who did not understand the meaning of the blinking light, that was flushed at them by the head of ground personnel, and which are not part of any known aviation hand signals standard, did not stop the aircraft in order to avoid hitting the tug that operated beneath the aircraft and which they had no eye contact with.

The tug was pushed by the aircraft in a rotary motion, the towbar shear pins broke, and the tug hit the aircraft undercarriage underneath the fuselage before it came to a complete stop.

During the circular movement of the aircraft, its left wing of the 747-400 hit the tail of a parked FedEx Boeing 757-200 cargo airplane.

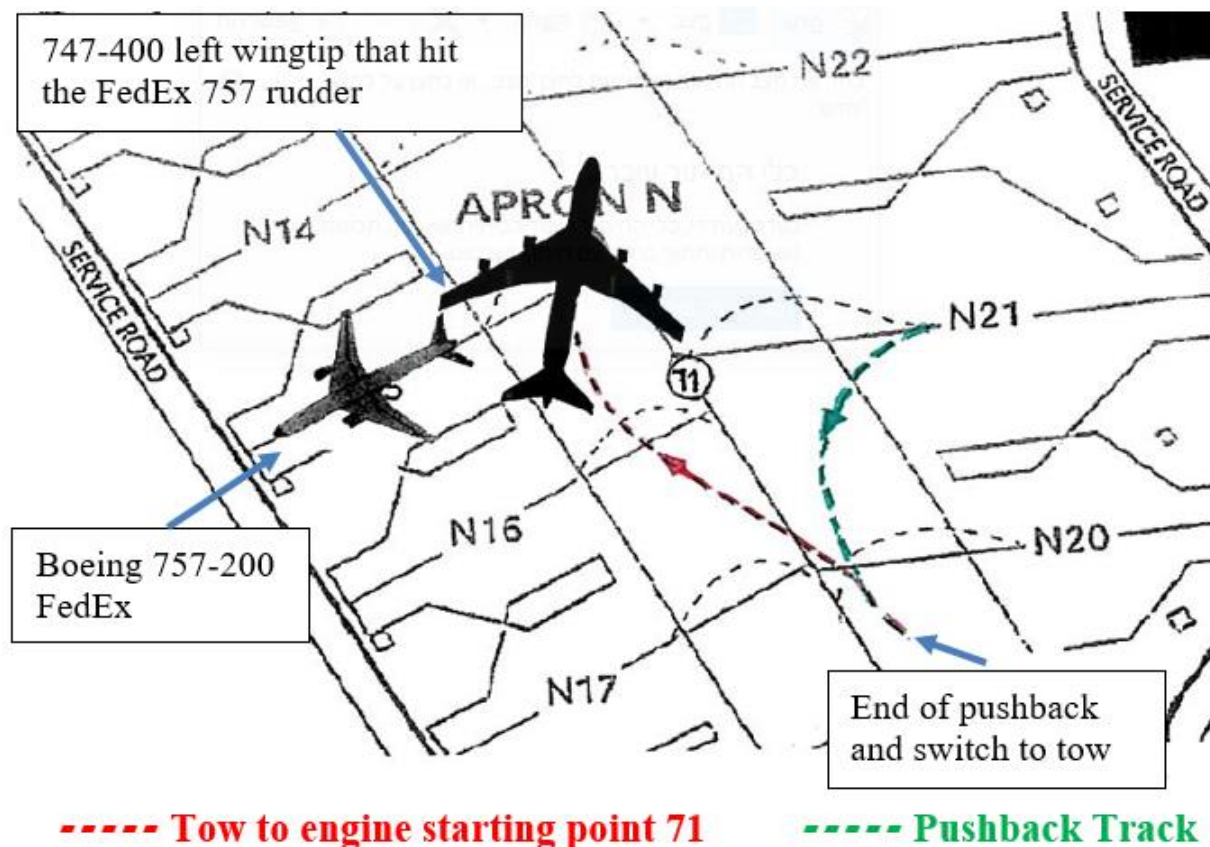
The Director of the Aircraft safety Investigation Authority (AIAI) of Israel decided to open an investigation in accordance with ICAO Annex 13.



Tug underneath the pushed-back aircraft



Rudder damage of the parked FedEx aircraft



Weather

CAVOK.

Injury to persons

No injuries to the persons involved.

Damage

The 747-400 aircraft sustained damage to its landing gear, landing gear doors, aircraft belly, tires and left wingtip. The parked FedEx cargo aircraft sustained damage to its rudder. The tug damage was beyond repair and was removed from service.

Investigation progress

Examination of operational and technical elements related to the accident have been completed.

The investigation is now focused on regulatory and procedural aspects related to engine starts during aircraft pushback/tow.

Investigation main stakeholder

Israel Aerospace Industries (IAI), Israel Airport Authority (IAA), Challenge Airlines (BE), Israel Civil Aviation Authority (CAA of Israel), Israel Ministry of Transportation.

Corrective actions taken by stakeholders

According to conversations and meetings held, the following measures and corrective actions that were taken by stakeholders involved in the accident:

- Issuance of Notice to Airman (NOTAM) that permanently prohibits engine start-ups of several types of cargo wide-body aircrafts when pushed back using towbar tug.
- IAI terminated all Ben Gurion International Airport non-maintenance related pushback/tow activities.
- Numerous operators have temporarily banned the use of wireless headsets systems during ground operations activities.

Sincerely,



Gad Regev

Director of Aircraft Safety Investigation Authority Israel

Date: 30.6.2024

Ref.: 4000-0098-2024-0000239

Returning objects seized during a safety investigation

In accordance with Section 114(b)(5) - (7) of the Aviation Law, 2011, the director of the Aviation Safety Investigation Authority will return seized objects, with the exception of aircraft debris, within 45 days from the date of publication of the final investigation report. The objects will be returned to the person from whom the objects were seized, or to their owners. Fragments of an aircraft will not be returned except at the request of the owner of the aircraft and at his expense. A request for their reinstatement must be submitted to the Aviation Safety Investigation Authority, no later than 45 days from the date of publication of the report. A person interested in having seized objects not returned to their owners may submit an appropriate request to the Magistrate's Court, in whose jurisdiction the object was seized.