

11/13/2024

FOR YOUR INFORMATION

2024-206/3-23

2168489

To: Boeing Commercial Airplane Company

Info: FAA (AVP-1, AVP-200, AFS-200, AFS-900, AFS-260, AFS-100, AIR-720, AIR-780, AIR-360, SEA-AEG), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IBT, ICAO, ICASS, IFALPA, IPA, NTSB, PAMA, RAA, SWAPA, TWU

From: Becky L. Hooey, Director
NASA Aviation Safety Reporting System

Re: B777-300 Flap Track Fairing Fastener Anomalies

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN 2168489

DATE / TIME

Date of Occurrence 202409
Local Time Of Day No Local Time Of Day Stated

PLACE

Locale ZZZZ.Airport
State FO
Altitude - AGL 0

AIRCRAFT / EQUIPMENT X

Make Model Name B777-300
Operating Under FAR Part 121

COMPONENT 1

Aircraft Component Flap Fairing

PERSON 1

Function - Flight Crew First Officer
Function - Flight Crew Pilot Not Flying
ASRS Report Number 2168489

EVENTS

Anomaly Aircraft Equipment Problem - Less Severe
Detector - Person Flight Crew
Result - General Flight Cancelled / Delayed
Result - General Maintenance Action
Result - Aircraft Aircraft Damaged

NARRATIVE 1

During the walk-around at ZZZZ Airport, when examining the left wing inboard flap track fairing on the inboard side, approximately 10 fasteners in a row were found pulled through the fairing skin.

With the exception of one individual, the maintenance team was largely unaware of this problem with the inboard flap track fairing and hadn't inspected the aircraft for degraded fasteners. They also weren't aware of how to fix it. They estimated the delay to be at least 3 hours which would result in crew timeout and cancellation of the flight. This need-to-replace-fasteners and possible cancellation was announced to the passengers which caused both worried and upset passengers and questioning amongst the flight attendants about the integrity of the aircraft. After the maintenance team spent about 45 minutes of searching and phone calls, fortunately they found one person on their maintenance team that was on break, who had fixed this problem only a week ago and knew the quick fix.

Due to exceptionally fast work by the ZZZZ maintenance team and push crew, we were airborne only about 20 minutes late and arrived at the gate in ZZZ only about 5 minutes late.

I've only flown a handful of 777-300 flights in the past few months and all had a range of badly smoked fasteners to those just repaired to fasteners not holding. The inboard flap track fairing fastener problem persists.

The assumption is that vibration on the flap track fairing when the flaps are deployed is causing chaffing and aluminum wearing between the skin and the fastener resulting in the fastener no longer holding the skin of the fairing in place. The original small flush fasteners on the inboard flap track fairing seem to be insufficient in size to prevent a persistent 'smoking rivets' problem on almost all Company 777-300s.

These many fastener failures result in a significant number of 777-300s having multiple different types of fasteners on the inboard flap track fairings as Maintenance replaces them when they fail with whatever fastener types the local maintenance team has available to them.

This recurring inboard flap track fairing problem results in 30 minutes to 2-hour delays regardless of how many fasteners need to be replaced. It seems obvious that it would be more efficient for Company to replace all fasteners on a fairing at one time with sufficiently strong fasteners so they don't subsequently fail again.

When customers are informed that 'skin is loose and fasteners aren't holding,' this worries them and impacts the reputation of the Company. The time it takes to repair the fasteners can result in costly cancellations. The crew stress, pressure to rush, and extend duty days could compound into crew errors. Boeing has already informed Company that one flap track fairing on a 777-300 has come off in flight.

It's a persistent unsatisfactory condition that is costly, frustrating, embarrassing, and could lead to serious consequences. It needs to be permanently addressed for all our 777-300 aircraft.

Over the past few years, I've submitted multiple reports and reported multiple instances of these fastener pull-throughs that required last minute, at-the-gate repairs. This problem has not gone away. There's been very little to no education of maintenance personnel.

Company knowingly accepting that lines of fasteners are failing on a recurring basis on any component of an aircraft with 240-minute ETOPS is shocking. That these lines of fasteners are regularly failing on a critical drag reducing component such as the flap track fairing, that could damage the tail section or something on the ground should it come off in flight, and Boeing communicating to Company that one flap track fairing has departed an aircraft, is totally unacceptable. This problem needs to be permanently fixed.

SYNOPSIS

B777-300 First Officer reported noticing during the walk-around that the left wing inboard flap track fairing had multiple fasteners pulled through the fairing skin. The reporter stated there had been multiple instances of this problem occurring over the past few years.