



Aviation Investigation Preliminary Report

Location:	Miami, FL	Incident Number:	DCA24LA079
Date & Time:	January 18, 2024, 22:34 Local	Registration:	N859GT
Aircraft:	Boeing 747-87UF	Injuries:	5 None
Flight Conducted Under:	Part 121: Air carrier - Non-scheduled		

Atlas Air flight 3885, a Boeing 747-87UF sustained an inflight engine fire following departure from Miami International Airport (MIA), Miami, Florida. The flight was a cargo flight conducted under Title 14 *Code of Federal Regulations* Part 121 destined for Luis Munoz Marin International Airport (SJU), San Juan, Puerto Rico.

The flight crew reported that, after departure and while passing through about 3,000 ft mean sea level (msl) they received an “OVHT ENG 2” followed by a “FIRE ENG 2” warning message on their engine indicating and crew alerting system (EICAS) display. Simultaneously, the fire warning light illuminated, and the fire bell sounded. The captain declared a mayday with air traffic control (ATC) and the flight was cleared back to MIA via radar vectors for a landing on runway 9. The electronic non-normal (NNC) checklist was completed, and the number 2 engine was shutdown by the flight crew. One fire bottle was discharged, and the fire warning light subsequently extinguished. Following an uneventful landing, the airplane was met by firefighting personnel and the airplane was cleared to taxi under its own power to parking.

A post-incident inspection of the General Electric (GE) GEnx-2B67 engine revealed burn through of the thrust reverser fan duct fixed inner wall (see figure 1). The engine cases were intact and there was no evidence of an uncontained engine failure. The combustor diffuser nozzle (CDN) case port M borescope plug was not secured in the case and was found loose in the engine cowling. The burn through observed on the thrust reverser wall was directly above the open CDN port M. The engine low pressure spool (N1) and high pressure spool (N2) manually rotated smoothly. A borescope inspection through CDN port M was performed and no combustor damage was visible. A preliminary review of quick access recorder (QAR), flight data recorder (FDR), and continuous engine operating data (CEOD) showed no evidence of engine failure or surge/stall.



Figure 1 - Burned area above borescope port M. (Source: Atlas Air.)

A review of the aircraft's maintenance records revealed that on January 14, 2024, the aircraft underwent an "ENG 2 COMBUSTION SECTION- BORESCOPE NOZZLE- INSPECT" performed by a third-party vendor that required the removal of the port M borescope plug (see figure 2 for location of port M). The maintenance work card provided instructions on how to properly reinstall the borescope plugs to ensure the locking feature was properly engaged. The work card was initialed by the technician performing the work and an inspector, indicating this task had been completed in accordance with the maintenance manual procedure.

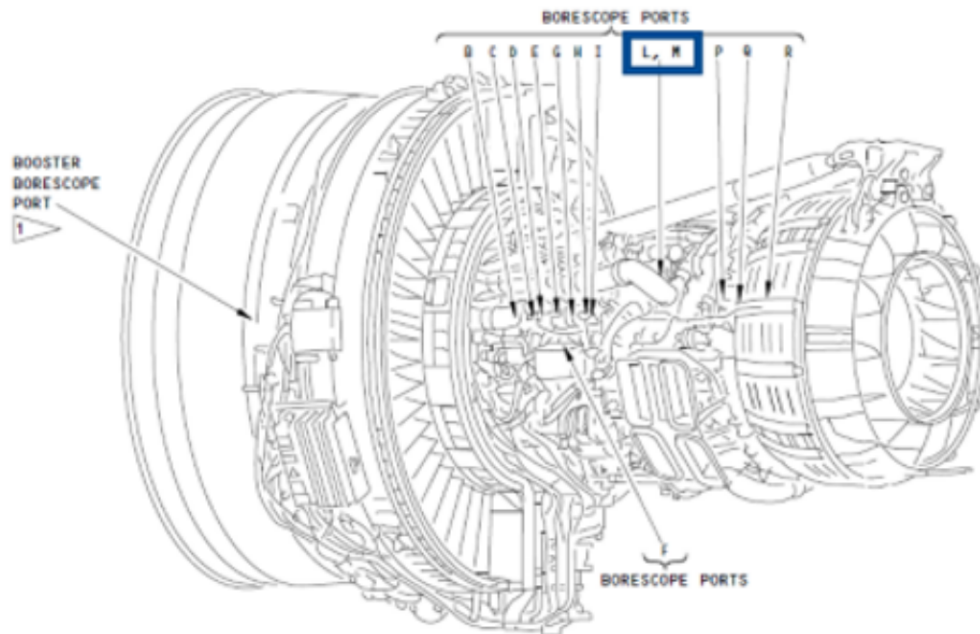


Figure 2 - Engine diagram with Port M depicted in the combustor diffuser nozzle. (Source: General Electric.)

The NTSB's investigation is ongoing.

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N859GT
Model/Series:	747-87UF	Aircraft Category:	Airplane
Amateur Built:			
Operator:	ATLAS AIR INC	Operating Certificate(s) Held:	Flag carrier (121), Supplemental
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	Condition of Light:	Night
Observation Facility, Elevation:	KMIA,5 ft msl	Observation Time:	10:53 Local
Distance from Accident Site:	1 Nautical Miles	Temperature/Dew Point:	26°C /21°C
Lowest Cloud Condition:	Scattered / 1800 ft AGL	Wind Speed/Gusts, Direction:	13 knots / , 100°
Lowest Ceiling:	Broken / 10000 ft AGL	Visibility:	10 miles
Altimeter Setting:	30.15 inches Hg	Type of Flight Plan Filed:	IFR
Departure Point:	Miami, FL	Destination:	Carolina, PR

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Minor
Passenger Injuries:	2 None	Aircraft Fire:	In-flight
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	5 None	Latitude, Longitude:	25.786095,-80.314838

Administrative Information

Investigator In Charge (IIC):	Banning, David
Additional Participating Persons:	Todd Gentry ; FAA; DC Bryan Brown ; Atlas Air; KY Eric East; Boeing Dave Budd; GE Aerospace
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this incident.