
Uncontained engine failure, Boeing 707-341, N107BV, August 2, 1993

Micro-summary: This Boeing 707-321 experienced an uncontained engine failure on takeoff.

Event Date: 1993-08-02 at 1841 EDT


Investigative Body: National Transportation Safety Board (NTSB), USA


Investigative Body's Web Site: <http://www.nts.gov/>


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		NTSB ID: MIA93IA168		Aircraft Registration Number: N107BV	
		Occurrence Date: 08/02/1993		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place MIAMI		State FL	Zip Code 33152	Local Time 1841	Time Zone EDT
Airport Proximity: On Airport		Distance From Landing Facility: 1		Direction From Airport: 120	
Aircraft Information Summary					
Aircraft Manufacturer BOEING		Model/Series 707-341		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On August 2, 1993, at 1841 eastern daylight time, a Boeing 707-341, N107BV, operated by Fast Air Carrier, Ltd., as Aero Peru flight 014, 14 CFR Part 129, non-scheduled international cargo service from Miami, Florida, to Lima, Peru, suffered loss of the no.1 engine core cowling during takeoff from Miami International Airport. Visual meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed. The aircraft received minor damage and the three flight crewmembers were not injured. The flight was originating at the time of the incident.</p> <p>The captain wrote in an irregularity report to the company that the no. 1 engine cowling separated on takeoff. They dumped 67,500 pounds of fuel and returned to Miami International Airport for landing.</p> <p>Post incident examination of the aircraft by the NTSB indicated the no. 1 engine core cowling had separated and was found on the runway. The inboard and outboard portions of the cowling were held together by the latching system. All latches were closed. The inboard forward core cowling hinge had separated from the cowling and was still mounted on the aircraft.</p> <p>Metallurgical examination of the separated core cowling components was performed by Frank P. Zakar, Materials Engineering, NTSB, Washington, D.C. The support structure for the inboard forward cowling hinge had separated due to fatigue cracking. (See attached Metallurgist's Factual Report.)</p> <p>The cowling was installed on the aircraft during installation of an engine hush kit. The manufacturer of the cowling system requires that the cowling hinge support structure be inspected for cracks each 300 flight hours. (See attached maintenance manual pages.)</p> <p>At the time of the incident the aircraft was being operated by Fast Air Carrier, Ltd. as a nonscheduled international cargo flight for Aero Peru. The flight was using an Aero Peru flight number. According to Mr. George L. Wellington, Chief, Foreign Air Carrier Licensing Division, U.S. Department of Transportation, Fast Air Carrier, Ltd. did not hold appropriate DOT authority to operate the flight on behalf of Aero Peru.</p> <p>The captain held a U.S. airline transport pilot certificate, issued on the basis of a foreign pilot certificate, valid for U.S. registered civil aircraft B-707 leased to MAS Air Cargo. The captain did not have a valid certificate to operate B-707 aircraft for Fast Air Cargo, Ltd. The captain was not listed on U.S. FAA records as an employee pilot for Fast Air Cargo Ltd. The first officer held a U.S. FAA certificate valid for Fast Air Cargo, Ltd. B-707 operations. The flight engineer did not hold a U.S. FAA certificate valid for Fast Air Cargo Ltd. B-707 operations.</p> <p>The aircraft operator did not file an NTSB incident report as requested by the NTSB and as required by NTSB regulation.</p>					
FACTUAL REPORT - AVIATION					
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: MIA93IA168			
		Occurrence Date: 08/02/1993			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
MIAMI INTERNATIONAL	MIA	11 Ft. MSL	9R	13000	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach: NONE					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
BOEING		707-341		19321	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 7	Certified Max Gross Wt.	328000 LBS	Number of Engines: 4	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	P&W	JT3D-7	19000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	08/1993	0 Hours	9784 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
ALG, INC.		301 EAST 51ST STREET			
		City	State	Zip Code	
		KANSAS CITY	MO	64112	
Operator of Aircraft		Street Address			
FAST AIR CARRIER LTD		P.O. BOX 520846			
		City	State	Zip Code	
		MIAMI	FL	33152	
Operator Does Business As:			Operator Designator Code: FCLF		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 129: Foreign					
Type of Flight Operation Conducted: Non-scheduled; International; Cargo					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA93IA168
	Occurrence Date: 08/02/1993
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 50
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: None	Medical Cert. Status: Unknown	Date of Last Medical Exam:
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time										
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier MIA	Departure Time 1841	Time Zone EDT
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Destination LIMA	State OF	Airport Identifier SPIM	
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Type of Clearance: IFR

Type of Airspace: Class D

Weather Information

Source of Briefing: Commercial Weather Service

Method of Briefing:

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA93IA168
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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
MIA	1850	EDT	11 Ft. MSL	1 NM	300 Deg. Mag.
Sky/Lowest Cloud Condition: Thin Broken			25000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL	Visibility: 7 SM	Altimeter: 30.00	"Hg
Temperature: 31 °C	Dew Point: 23 °C	Wind Direction: 300		Density Altitude: 1800	Ft.
Wind Speed: 13	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: Minor	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/Foreign Oper.					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer				1	1
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				3	3
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	3	3

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: MIA93IA168

Occurrence Date: 08/02/1993

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

JEFFREY L. KENNEDY

Additional Persons Participating in This Accident/Incident Investigation:

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