



Aviation Investigation Final Report

Location:	SANTA ANA, California	Incident Number:	LAX84IA461
Date & Time:	September 27, 1983, 12:55 Local	Registration:	N302RC
Aircraft:	McDonnell Douglas DC-9-82	Aircraft Damage:	None
Defining Event:		Injuries:	79 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

JUST AFTER TAKEOFF THE LEFT ENGINE FAILED DUE TO A FATIGUE FAILURE OF THE 7 TH STAGE REAR COMPRESSION STATOR ASSEMBLY SEVERAL HOMES UNDER THE FLIGH PATH SUSTAINED FIRE & DEBRIS DAMAGE WHEN ENGINE PARTS DEPARTED THE ACFT. THE ACFT RETURNED TO THE AIRPORT AND LANDED WITHOUT FURTHER INCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) COMPRESSOR ASSEMBLY, BLADE - SEPARATION
2. (C) COMPRESSOR ASSEMBLY, BLADE - FATIGUE

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial	Age:	49, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	July 15, 1983
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	27300 hours (Total, all aircraft), 7300 hours (Total, this make and model), 220 hours (Last 90 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	McDonnell Douglas	Registration:	N302RC
Model/Series:	DC-9-82 DC-9-82	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	48055
Landing Gear Type:	Retractable - Tricycle	Seats:	172
Date/Type of Last Inspection:	Continuous airworthiness	Certified Max Gross Wt.:	140000 lbs
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	1
Registered Owner:	REPUBLIC AIRLINES INC.	Rated Power:	20850 Lbs thrust
Operator:		Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SNA ,54 ft msl	Distance from Accident Site:	
Observation Time:	12:45 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered	Visibility	
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	23°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	MINNEAPOLIS , MN (MSP)	Type of Clearance:	IFR
Departure Time:	09:54 Local	Type of Airspace:	Class D

Airport Information

Airport:	JOHN WAYNE SNA	Runway Surface Type:	Asphalt
Airport Elevation:	54 ft msl	Runway Surface Condition:	Dry
Runway Used:	19	IFR Approach:	None
Runway Length/Width:	5700 ft / 150 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	5 None	Aircraft Damage:	None
Passenger Injuries:	74 None	Aircraft Fire:	In-flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	79 None	Latitude, Longitude:	33.710384,-117.869514(est)

Administrative Information

Investigator In Charge (IIC): Llorente, A.

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=24048>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).