Uncontained engine failure, Douglas DC-8-55, January 15, 1993

Micro-summary: This Douglas DC-8-55 experienced an uncontained engine failure of its #4 engine after takeoff.

Event Date: 1993-01-15 at 0015 CST

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

Investigative Body's Web Site: http://www.ntsb.gov/

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National Transportation Safety Board NTSB ID: FTW93IA067 Aircraft Registration Number: N8041U FACTUAL REPORT Occurrence Date: 01/15/1993 Most Critical Injury: None Occurrence Type: Incident Investigated By: NTSB ETYBO Location/Time Nearest City/Place State Zip Code Local Time Time Zone **DFW AIRPORT** TX 75261 0015 CST Distance From Landing Facility: 0 Direction From Airport: 0 Airport Proximity: Off Airport/Airstrip Aircraft Information Summary Aircraft Manufacturer Model/Series Type of Aircraft MCDONNELL DOUGLAS DC8-55 Airplane Sightseeing Flight: No Air Medical Transport Flight: No

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On January 15, 1993, at 0015 central standard time, a McDonnell Douglas DC8-55, N8041U, sustained a catastrophic engine failure to the number four engine while climbing following takeoff from Dallas Ft Worth (DFW) International Airport, Texas. None of the three man crew sustained injuries, however, the airplane did sustain minor damage. Weather was visual meteorological conditions. The airplane was owned and operated by Zantop International, Ypsilanti, Michigan.

Following the loss of power to the number four engine the airplane returned to DFW, where an inspection was performed. The inspection was observed by a Federal Aviation Administration inspector. The inspection revealed that when the engine failed it propelled pieces aft, resulting in the control surfaces sustaining damage. Following the removal of the engine and subsequent teardown it was determined that a turbine wheel had failed.

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: FTW93IA067

Occurrence Date: 01/15/1993

AVIATION		Occurrence Type: Incident											
Landing Facility/Approach Information													
Airport Name			Airport	t ID:	Airport Eleva	tion	Run	way Used	Runway Length		h	Runwa	y Width
					Ft.	MSL	. 0						
Runway Surface Type:									'		I_		
Runway Surface Condition:													
Type Instrument Approach: NONE													
VFR Approach/Landing: None													
Aircraft Information													
Aircraft Manufacturer				Model/S							Number		
MCDONNELL DOUGLAS				DC8-5	5					4567	5		
Airworthiness Certificate(s): Trans	port												
Landing Gear Type: Retractable	- Tricycle												
Homebuilt Aircraft? No	Number of Seats: 7	nber of Seats: 7 Certified Max Gross Wt. 309800 LBS Nur						Numbe	umber of Engines		ļ.		
				Engine Manufacturer: Model/Series: JT3D-3B							Rated 18000		
- Aircraft Inspection Information													
Type of Last Inspection			Date	Date of Last Inspection Time Sir			ince Last Inspection			Airfram	ne Total	Time	
Continuous Airworthiness			11/1	11/1992			116 Hours				52455 Hours		
- Emergency Locator Transmitter (ELT) Information									-			
ELT Installed? No	ELT Operate	ed? No)			ELT	Aided i	n Locating Ac	cident S	ite? No	1		
Owner/Operator Information													
Registered Aircraft Owner			St	treet A	ddress 840 WILI	ΟW	RUN						
ZANTOP INTERNATIONAL			Ci	City							State	e Z	ip Code
			+	YPSILANTI Street Address							МІ	48	8198
Operator of Aircraft			St	reet Ac		Rea	'd Aircra	aft Owner					
Same as Reg'd Aircraft Owner				City						State	e Z	ip Code	
				YPSILANTI						MI	48	3198	
Operator Does Business As: Operator Designator Code: ZIAA - Type of U.S. Certificate(s) Held:													
Air Carrier Operating Certificate(s):	Cargo												
7.11 Carrier Operating Continuate(s).													
Operating Certificate: Operator Certificate:													
Regulation Flight Conducted Under: Part 121: Air Carrier													
Type of Flight Operation Conducted: Non-scheduled; Domestic; Cargo													
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FACTUAL REPORT
AVIATION

NTSB ID: FTW93IA067

Occurrence Date: 01/15/1993

AVIATI	Occurrence										
First Pilot Information											
Name				City				Da	ate of Birth	Age	
On File	On File	ile On				n File	45				
Sex: M Seat Occupied	: Left	Pri	ncipal Profes	Pilot	Certificate Number: On File						
Certificate(s): Airline Transport; Commercial											
Airplane Rating(s): Multi-engine Land; Single-engine Land											
Rotorcraft/Glider/LTA: None											
Instrument Rating(s): Non	е										
Instructor Rating(s): None											
Type Rating/Endorsement for	or Accident/Ir	ncident Aircra	ft? Yes		С	urrent Bier	nial Flight I	Review?			
Medical Cert.: Class 1	Medica	al Cert. Statu	s: Valid Med	dicalw/ wai	ivers/lim.		Date of L	ast Medi	cal Exa	m: 11/1992	
- Flight Time Matrix	Matrix All A/C This Make Airplane Single Engine		Airplane Mult-Engine	Night	Ins Actual	rument Simulated	Roto	rcraft	Glider	Lighter Than Air	
Total Time	16750	190 2544 14206		7103	120) 2:	23				
Pilot In Command(PIC)	12010		2420	11125	543	120) 2:	23			
Instructor	2200		2200		100						
Last 90 Days	49	49		35							
Last 30 Days Last 24 Hours	35	35 3		3							
Seatbelt Used? Yes		ılder Harness	Used? Yes	<u> </u>	Toxico	logy Perfo	rmed? No		Seco	ond Pilot? Ye	s :s
	•				•				•		
Flight Plan/Itinerary											
Type of Flight Plan Filed: IF	R										
Departure Point					State	Airport Identifier		er D	r Departure Tir		Time Zone
Same as Accident/Incide	ent Location								015		CST
Destination	State	State Airport Ide									
YPSILANTI							YIP				
Type of Clearance: IFR											
Type of Airspace: Class B											
Weather Information											
Source of Briefing: National Weather Service											
Method of Briefing:											
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National Transportation Safety Board
FACTUAL REPORT
AVIATION

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AVIATION			Oc	Occurrence Type: Incident										
Weather Information														
WOF ID	Observation Time	Time Zone	WOF	Elevation	1	WOF Di	istance Fro	om Acci	dent Site		Direction From Accident Site			
	0000			0 Ft. M	SL				0 NM		0 Deg. Mag.			
Sky/Lowes	st Cloud Condition: Unkr	iown		0 Ft. AGL					Condition of Light: Night/Dark					
Lowest Ce	eiling: Overcast	50	000 Ft. AC	3L	Visibi	ility:	15	SM	Altii	meter:	30.00	"Hg		
Temperatu	ure: 8 °C		-1 °C Wind Direction: 120					Density Altitude: Ft.						
Wind Spee	ed: 4	Gusts:			Weath	ner Condt	ions at Acc	cident S	nt Site: Visual Conditions					
Visibility (R	RVR): 0 Ft.	Visibility	(RVV)	0	SM	Intensity	y of Precip	itation:	Unknown					
Restriction	Restrictions to Visibility: None													
Type of Pre	Type of Precipitation: None													
Accident	Information													
Aircraft Dar	mage: Minor		Airc	Aircraft Fire: None					Aircraft Exp	olosio	n None			
Classificati	ion: U.S. Registered/U	.S. Soil												
- Injury Su	mmary Matrix	Fatal	Serious	Minor		None	TOTAL	T						
First Pi	ilot				T	1		1						
Second	d Pilot					1		1						
Studen	nt Pilot				\top			7						
Flight I	Instructor		-		T			7						
Check	Pilot				\top			7						
Flight E	Engineer				\top			7						
Cabin A	Attendants				\top			7						
Other C	Crew		-		\top	1		1						
Passen	ngers				\top			7						
- TOTAL A	ABOARD -				T	3		3						
Other G	Ground	0	0	,	0			0						
- GRANE	O TOTAL -	0	0		0	3		3						

National Transportation Safety Board

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Occurrence Type: Incident

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Investigator-In-Charge (IIC)

MATTHEW ELLIS

Additional Persons Participating in This Accident/Incident Investigation:

TIMOTHY J RYAN FAA FSDO DFW INT AIRPORT, TX