
Runway overrun, McDonnell Douglas MD-83, 9Y-THQ, Miami, January 1, 2002

Micro-summary: This MD-83 overran the runway while landing.

Event Date: 2002-01-01 at 1057 EST


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

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

Cautions:

1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).
 2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. ***Your company's flight operations manual is the final authority as to the safe operation of your aircraft!***
 3. Reports may or may not represent reality. Many many non-scientific factors go into an investigation, including the magnitude of the event, the experience of the investigator, the political climate, relationship with the regulatory authority, technological and recovery capabilities, etc. It is recommended that the reader review all reports analytically. Even a "bad" report can be a very useful launching point for learning.
 4. Contact us before reproducing or redistributing a report from this anthology. Individual countries have very differing views on copyright! We can advise you on the steps to follow.
-

Aircraft Accident Reports on DVD, Copyright © 2006 by Flight Simulation Systems, LLC
All rights reserved.
www.fss.aero

		NTSB ID: MIA02IA047		Aircraft Registration Number: 9Y-THQ	
		Occurrence Date: 01/01/2002		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Miami	State FL	Zip Code 33159	Local Time 1057	Time Zone EST	
Airport Proximity: On Airport		Distance From Landing Facility: 1		Direction From Airport: 270	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series MD-83		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>HISTORY OF THE FLIGHT</p> <p>On January 1, 2002, about 1057 eastern standard time, a McDonnell-Douglas MD-83, Trinidad registration 9Y-THQ, operated by BWIA West Indies Airways, as flight 432, scheduled passenger service from Bridgetown, Barbados, to Miami, Florida, overran the runway while landing at Miami International Airport. Visual meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed. The airplane received minor damage and the airline transport-rated captain, first officer, 4 flight attendants, and 119 passengers were not injured. The flight originated from Barbados, at 0730.</p> <p>The captain stated the first officer was flying the airplane for the approach and landing. He and the first officer performed a briefing for the localizer 30 approach to Miami International Airport, prior to beginning descent. During landing on runway 30, the airplane floated for a while before touchdown, after the first officer flared for landing. After a few seconds, he, the captain, took control of the airplane during the landing roll. It appeared the airplane would over run the runway and collide with an approach light structure. The captain steered the airplane to the left side of the runway and brought it to a complete stop with the nose wheel in a sandy area. He shut down the engines and deplaned the passengers. The airplane was then towed to the gate. (See captain statement).</p> <p>The first officer stated that before beginning descent from 31,000 feet, that he and the captain briefed for the localizer 30 approach to Miami International Airport. They crossed the JUNUR intersection at 10,000 feet and 250 knots airspeed. They were given a heading to fly by the air traffic controller to intercept the localizer for runway 30 and then cleared for the approach. As they rounded out into the landing flare, there was no contact with the runway. He applied control column pressure and contacted the runway. He applied engine reverse and firm brakes. The airplane did not decelerate as it should. He applied more reverse and firm brakes and veered the airplane slightly left of center as the approach lights at the end of the runway came into view. The captain continued steering the airplane 90 degrees to the left and stopped with the nose wheel in sand. (See first officer statement).</p> <p>A pilot-rated passenger stated the airplane was flying extremely fast and at a much higher than normal airspeed during the approach to land. They floated over the runway and finally touched down hard on all three landing gear. The wheel brakes were applied almost immediately and the tires were squealing. The smell of burning rubber entered the cabin. About 2/3 of the way down the runway, the flight attendant told them to brace for impact. As they approached the end of the runway, the pilot hit the left brake hard and the airplane turned to the left and skidded right side first. He saw the approach lights approaching the right side of the airplane. The right wing tip cleared the approach lights and the airplane came to a stop with the nose wheel in sand. They exited the airplane via the aft air stair and were taken to the terminal by bus. (See passenger statement).</p>					
FACTUAL REPORT - AVIATION					
Page 1					

National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: MIA02IA047

Occurrence Date: 01/01/2002

Occurrence Type: Incident

Narrative (Continued)

Air traffic controllers stated the flight crossed the runway 30 threshold at a high rate of speed and touched down at the intersection of the runway and taxiway Z. The airplane then rolled to the end of the runway and turned to the left, coming to rest with the nose wheel off the runway surface. (See air traffic controller statements).

Recorded radar data from the FAA, Miami Approach Control, showed the flight was at 304 knots groundspeed when descending through 1,000 feet on the approach to land. At 300 feet on the approach, the flight was at 262 knots groundspeed. The last radar contact was at 1055:55 and showed zero feet altitude and 166 knots groundspeed. (See recorded radar data).

METEOROLOGICAL INFORMATION


Visual meteorological conditions prevailed at the time of the accident. The Miami International Airport, 1056 surface weather observation was wind from 360 degrees at 8 knots, visibility 10 statute miles, clouds 25,000 feet broken, temperature 21 degrees C, dew point temperature 15 degrees C, altimeter setting 30.10 in Hg.

FLIGHT RECORDERS

The cockpit voice recorder was still operating when the NTSB arrived at the airplane, which had already been towed to a gate, after the incident. The cockpit voice recorder was retained by NTSB and forwarded to the NTSB Vehicle Recorders Division, Washington, D.C., for readout. The recorder did not contain any human voices or air noise similar to an aircraft operation in flight or on the ground. The BWIA International Airways Limited, Flight Operations Manual, states on page 2:6:3, under "Procedures Following a Serious Incident", item 10.3.6, "If relevant, items such as the Cockpit Voice Recorder, Flight Data Recorder and ATC tapes should be preserved." (See Cockpit Voice Recorder Group Chairman Report and Operations Manual Pages).

The digital flight data recorder was retained by NTSB and forwarded to the NTSB Vehicle Recorders Division, Washington, D.C., for readout. The data indicated that as the airplane was descending to land, the airspeed began to increase. The spoilers were deployed for 16 seconds during the approach to land. As the airplane descended through 1,980 feet, the airspeed was 313 knots. The autopilot was switched off and the spoilers were again deployed for 28 seconds. The wing slats and flaps were extended followed by the landing gear. The airplane switched from air mode to ground mode while at an airspeed of 153 knots and on a magnetic heading of 305 degrees. The engine thrust reversers deployed and within 2 seconds, full brake pedal travel was reached. The wing spoilers did not extend during landing. The airplane came to a stop on magnetic heading 209 degrees. (See Specialist's Factual Report of Investigation, Digital Flight Data Recorder).

Analysis of the digital flight data recorder data was performed by The Boeing Company. The approach reference speed (V_{ref}) for the airplane at the incident landing weight was 128 knots with 40 degrees of wing flaps extended and 132 knots with 28 degrees of wing flaps extended. It would be expected that the final approach speed would be stabilized at $V_{ref} + 5$ knots. The decent from cruise flight to 10,000 feet appeared normal and at 10,000 feet the airplane maintained 250 knots airspeed. During descent from 10,000 feet the airspeed began to increase, reaching over 300 knots as the airplane descended through 5,000 feet. An airspeed of over 300 knots was maintained until within 4 miles of the runway and an altitude of 1,500 feet. The airplane crossed over the runway threshold at over 100 feet, as measured by the radio altimeter, and over 200 knots airspeed, at least $V_{ref} + 70$ knots. The touchdown speed was approximately 150 knots. Full wing spoilers or speed brakes were deployed from 4.5 to 2.5 miles remaining to the runway or between 1,700 and 800 feet. Wing slat extension began at an altitude of 1,200 feet and 290 knot airspeed. Wing flap extension began at 900 feet and 280 knot airspeed. The landing gear was extended at 1.5 miles from the runway at an altitude of 400 feet. The ground spoilers were not deployed after landing. The airplane appears to have touched down over 5,000 feet past the runway threshold. The airplane came to rest

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA02IA047	
	Occurrence Date: 01/01/2002	
	Occurrence Type: Incident	

Narrative (Continued)


about 90 degrees left of runway heading. (See The Boeing Company Report).


MEDICAL AND PATHOLOGICAL INFORMATION

Post incident drug and alcohol testing on specimens obtained from the captain and first officer were negative.

ADDITIONAL INFORMATION

The airplane was released by NTSB on January 1, 2002, to Steve Boyce, BWIA International Airways, Station Manager, Miami, Florida. The retained cockpit voice recorder was released to Steve Boyce on January 11, 2002, and the retained digital flight data recorder was released to Steve Boyce on February 20, 2002.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: MIA02IA047			
		Occurrence Date: 01/01/2002			
		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	30	9355	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach: ILS-localizer Only					
VFR Approach/Landing:					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
McDonnell Douglas		MD-83		49488	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 138	Certified Max Gross Wt.	160000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	Pratt & Whitney	JT8D-219	21700 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	05/2001	232 Hours	37235 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated? No	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
Pegasus Aviation, Inc.		4 Embarcadero Center, Suite 3550			
		City	State	Zip Code	
		San Francisco	CA	94111	
Operator of Aircraft		Street Address			
BWIA West Indies Airways, LTD.		Golden Grove Road			
		City	State	Zip Code	
		Piarco			
Operator Does Business As:			Operator Designator Code: TTAF		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Foreign Operation					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 129: Foreign					
Type of Flight Operation Conducted: Scheduled; International; Passenger/Cargo					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA02IA047
	Occurrence Date: 01/01/2002
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State	Date of Birth On File	Age 47
-----------------	-----------------	-------	--------------------------	-----------

Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
--------	---------------------	--------------------------------------	-----------------------------

Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land; Single-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? 11/2001
---	---

Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 11/2001
------------------------	--	------------------------------------

- 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	12636	2022	401	12235	2731	8610	135			
Pilot In Command(PIC)	1514	1220	294	1220	354					
Instructor										
Last 90 Days		101								
Last 30 Days		8								
Last 24 Hours		6								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? Yes	Second Pilot? Yes
--------------------	----------------------------	---------------------------	-------------------

Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point Bridgetown	State	Airport Identifier TBPB	Departure Time 0730	Time Zone EST
-------------------------------	-------	----------------------------	------------------------	------------------

Destination Same as Accident/Incident Location	State	Airport Identifier KMIA	
---	-------	----------------------------	--


Type of Clearance: IFR

Type of Airspace: Class D

Weather Information

Source of Briefing: Company

Method of Briefing: In Person


 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA02IA047
	Occurrence Date: 01/01/2002
	Occurrence Type: Incident

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
KMIA	1056	EST	11 Ft. MSL	1 NM	300 Deg. Mag.
Sky/Lowest Cloud Condition:			Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		25000 Ft. AGL		Visibility: 10 SM	Altimeter: 30.10 "Hg
Temperature: 21 °C	Dew Point: 15 °C	Wind Direction: 360		Density Altitude: 400 Ft.	
Wind Speed: 8	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
Restrictions to Visibility: None					
Type of Precipitation: None					

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

Classification: Foreign Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants				4	4
Other Crew					
Passengers				119	119
- TOTAL ABOARD -				125	125
Other Ground					
- GRAND TOTAL -				125	125

--	--	--	--	--	--

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA02IA047	
	Occurrence Date: 01/01/2002	
	Occurrence Type: Incident	

Administrative Information

Investigator-In-Charge (IIC)

Jeffrey L. Kennedy

Additional Persons Participating in This Accident/Incident Investigation:

William C Steelhammer
Boeing Commercial Airplane Group
Long Beach, CA

Larry J Dunn
Aviation Safety Inspector
Federal Aviation Administration
8600 NW 36th Street, Room 201
Miami, FL 33166

George Camps-Roach
Flight Operations Inspector
Trinidad & Tobago Civil Aviation Authority
Flight Safety Centre, Golden Grove Road
Piarco, Trinidad,