
Over-rotation on landing, Airbus A300-600, December 15, 1997

Micro-summary: This A300-600 over-rotated during landing following a bounce, and leading to a tailscrape.


Event Date: 1997-12-15 at 1526 EST


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


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

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		NTSB ID: ATL98IA024		Aircraft Registration Number: N90070		
		Occurrence Date: 12/15/1997		Most Critical Injury: None		
		Occurrence Type: Incident		Investigated By: NTSB		
Location/Time						
Nearest City/Place MONTEGO BAY		State	Zip Code 00000	Local Time 1526	Time Zone EST	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:		
Aircraft Information Summary						
Aircraft Manufacturer Airbus Industrie		Model/Series A-300-600		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 December 15, 1997, about 1526 eastern standard time, an Airbus A300-600, N90070, experienced an over-rotation during landing at the Sangster International Airport, in Montego Bay, Jamaica. The airplane was operated by American Airlines as Flight 645, under the provisions of Title 14 CFR Part 121, and instrument flight rules. Instrument meteorological conditions prevailed and an IFR flight plan was filed. The Airline Transport Pilot, Co-pilot, 9 flight attendants and 235 passengers were not injured, and the airplane sustained minor damage. The flight originated at the John F Kennedy airport, New York, New York at 1041.</p> <p>In accordance with the International Standards and Recommended Practices of ICAO Annex 13, paragraph 5.1, the state of occurrence, Montego Bay, Jamaica, in a letter dated December 18, 1997, delegated the accident investigation to the state of registry/operator, the United States of America, and the NTSB is responsible for the investigation and report.</p> <p>According to the flying pilot, the existing wind information was different from the planned wind information, resulting in a "circle to land" approach on runway 25. The downwind leg and turn to final were normal with the airplane in the proper configuration, on speed, and "in the slot". As per the final approach checklist the pilot armed the spoilers for deployment on main wheel touchdown. Upon touchdown the airplane bounced and the pilot said he increased the pitch attitude of the airplane to soften the second touchdown. On the second touchdown, a flight attendant heard a loud bang in the aft section of the airplane. Post flight inspection revealed damage to the tail skid area on the underside of the airplane.</p> <p>According to the flight manual, the deployment of the ground spoilers induces a 2 degree pitch up and increases the sink rate of the aircraft, therefore contributing to the higher pitch angle that can result in tail strikes. In the American Airlines A300 operating manual under touchdown, it states that "no attempt should be made to hold the airplane off by further increase in attitude." According to the flight data recorder the pitch attitude reached a maximum of 11.78 degrees which occurred when the airplane touched down for the second time. The tail strike pitch attitude for the A300-600 is 11.4 degrees.</p>						
FACTUAL REPORT - AVIATION						
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: ATL981A024				
		Occurrence Date: 12/15/1997				
		Occurrence Type: Incident				
Landing Facility/Approach Information						
Airport Name SANGSTER INTERNATIONAL		Airport ID: MBJ	Airport Elevation 4 Ft. MSL	Runway Used 25	Runway Length 8400	Runway Width 150
Runway Surface Type: Asphalt						
Runway Surface Condition: Wet						
Type Instrument Approach: Circling; VOR/DME						
VFR Approach/Landing:						
Aircraft Information						
Aircraft Manufacturer Airbus Industrie		Model/Series A-300-600		Serial Number 513		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 267	Certified Max Gross Wt. 375888 LBS		Number of Engines: 2	
Engine Type: Turbo Fan		Engine Manufacturer: GE		Model/Series: CF6-80C2A5	Rated Power: 57000 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 11/1997	Time Since Last Inspection 1779 Hours		Airframe Total Time 24372 Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? Yes		ELT Operated? No		ELT Aided in Locating Accident Site?		
Owner/Operator Information						
Registered Aircraft Owner ORIX AIRCRAFT CORP.		Street Address				
		City		State	Zip Code	
Operator of Aircraft AMERICAN AIRLINES		Street Address 4333 AMON CARTER BLVD				
		City DFW AIRPORT		State TX	Zip Code 76155	
Operator Does Business As:				Operator Designator Code: AALA		
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Flag Carrier/Domestic						
Operating Certificate: Large Aircraft Operator			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Scheduled; International; Passenger/Cargo						

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: ATL98IA024
	Occurrence Date: 12/15/1997
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth	Age 42
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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:

Instrument Rating(s): Airplane

Instructor Rating(s):

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 12/1997
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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	14380	3378								
Pilot In Command(PIC)										
Instructor										
Last 90 Days		141								
Last 30 Days		62								
Last 24 Hours		4								

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 JFK	State NY	Airport Identifier JFK	Departure Time 1041	Time Zone EST
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Destination Same as Accident/Incident Location	State	Airport Identifier MBJ	
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Type of Clearance: IFR

Type of Airspace: Class C

Weather Information

Source of Briefing:
Company

Method of Briefing:

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
MBJ	0000		0 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			1800 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		3200 Ft. AGL		Visibility: 5 SM	Altimeter: 29.00 "Hg
Temperature: 25 °C	Dew Point: °C	Wind Direction: 300		Density Altitude: 1911 Ft.	
Wind Speed: 12	Gusts:	Weather Conditions at Accident Site: Instrument Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Light			
Restrictions to Visibility:					
Type of Precipitation: Rain Showers					

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

Classification: U.S. Registered/Foreign 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				8	8
Other Crew				1	1
Passengers				235	235
- TOTAL ABOARD -				246	246
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	246	246

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: ATL98IA024

Occurrence Date: 12/15/1997

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

BUTCH WILSON

Additional Persons Participating in This Accident/Incident Investigation:

AL MORRIS
FT WORTH CMO

JEFF A KLINE
NTSB ATLANTA