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## Foreign object damage to both engines, Boeing 737-200, March 20, 1996

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**Micro-summary:** Both engines of this Boeing 737-200 were damaged when the nose landing light separated and components were ingested.

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**Event Date:** 1996-03-20 at 1951 EST

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


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


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		NTSB ID: MIA96LA108		Aircraft Registration Number: EICLK	
		Occurrence Date: 03/20/1996		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place JACKSONVILLE		State FL	Zip Code 32218	Local Time 1951	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 737-200		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 March 20, 1996, about 1951 eastern standard time, a Boeing 737-200, Irish registration EI-CLK, operated by Air South Airlines, Inc., as flight 904, a 14 CFR Part 121 scheduled domestic passenger flight, from Miami, Florida, to Atlanta, Georgia, with a scheduled stop in Jacksonville, Florida, sustained separation of the nose gear taxi light and resultant foreign object damage to both engines during takeoff from Jacksonville. Visual meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed. The aircraft sustained substantial damage and the airline transport-rated pilot, first officer, 3 flight attendants, and 57 passengers were not injured. The flight was departing Jacksonville at the time of the accident.</p> <p>The captain stated that during rotation they observed sparks coming from the left side of the aircraft. All engine instruments showed normal readings. They returned to Jacksonville and landed without incident. Postaccident examination showed the nose gear taxi light support bracket had failed and the nose gear taxi light assembly had separated from the aircraft. A portion of the support bracket remained attached to the nose landing gear. The compressor sections of both engines had sustained foreign object damage.</p> <p>The nose gear taxi light assembly installed on all Boeing 737 series aircraft is made by Grimes Aerospace Company. On June 1, 1992, Grimes issued Service Bulletin 50-0199-33-0004, which describes a modification to replace the aluminum support bracket with a steel bracket on the nose gear taxi light assembly of newer Boeing 737 series aircraft. On November 30, 1993, Grimes issued Service Bulletin 50-0128-33-005, which requires installation of the steel bracket on the nose gear taxi light assembly of older Boeing 737 series aircraft. On December 19, 1994, Boeing Commercial Airplane Group issued Service Letter 737-SL-33-016-A, which recommended that all operators of Boeing 737 series aircraft comply with the above referenced Grimes Service Bulletins. See attached Grimes Service Bulletins and Boeing Service Letter.</p> <p>Service history showed the aluminum bracket was subject to damage from the nose gear tow bar during towing operations. The improved stainless steel bracket is resistant to damage from towing operations. Examination of the portion of the nose gear taxi light bracket which remained attached to the nose landing gear, showed it was made from aluminum.</p>					
FACTUAL REPORT - AVIATION					
					Page 1

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: MIA96LA108			
		Occurrence Date: 03/20/1996			
		Occurrence Type: Accident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
JACKSONVILLE INTL	JAX	30 Ft. MSL	25	8000	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach:					
VFR Approach/Landing: None					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		737-200		21733	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 128	Certified Max Gross Wt.	117500 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	P&W	JT8D-15	15500 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	03/1996	6 Hours	35690 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
		263 TRESSER BLVD.			
GECAS		City	State	Zip Code	
		STAMFORD	CT	06927	
Operator of Aircraft		Street Address			
		P.O. BOX 11129			
AIR SOUTH AIRLINES, INC.		City	State	Zip Code	
		COLUMBIA	SC	29211	
Operator Does Business As:			Operator Designator Code: A6XA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Flag Carrier/Domestic					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only					
FACTUAL REPORT - AVIATION					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: MIA96LA108
	Occurrence Date: 03/20/1996
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	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; 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?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 03/1996
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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	10000	1000	1482	7900		600				
Pilot In Command(PIC)	7500	900								
Instructor										
Last 90 Days	150									
Last 30 Days	63									
Last 24 Hours	5									

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 JAX	Departure Time 1951	Time Zone EST
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Destination ATLANTA	State GA	Airport Identifier ATL	
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Type of Clearance: IFR

Type of Airspace: Class D

**Weather Information**

Source of Briefing: Company

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: MIA96LA108
	Occurrence Date: 03/20/1996
	Occurrence Type: Accident

<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
JAX	1958	EST	30 Ft. MSL	1 NM	180 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			6500 Ft. AGL	Condition of Light: Night/Dark	
Lowest Ceiling: None		0 Ft. AGL	Visibility: 10	SM	Altimeter: 29.00 "Hg
Temperature: 8 °C	Dew Point: -4 °C	Wind Direction: 310		Density Altitude: 100 Ft.	
Wind Speed: 16	Gusts: 27	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					

<b>Accident Information</b>		
Aircraft Damage: Substantial	Aircraft Fire: None	Aircraft Explosion: None

Classification: Foreign Registered/U.S. Soil					
<b>- Injury Summary Matrix</b>	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants				3	3
Other Crew					
Passengers				57	57
- TOTAL ABOARD -				62	62
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	62	62

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: MIA96LA108

Occurrence Date: 03/20/1996

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

JEFFREY L. KENNEDY

Additional Persons Participating in This Accident/Incident Investigation:

TERRENCE CARRAWAY  
FAA FSDO  
JACKSONVILLE, FL 32225

LONDON C TOOTLE  
AIR SOUTH, INC.  
COLUMBIA, SC 29211