

National Transportation Safety Board
Washington, DC 20594

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Brief of Accident

Adopted 04/30/1992

DEN90FA104 File No. 1059	05/04/1990	ROSWELL ,NM	Aircraft Reg No. N233RK	Time (Local): 14:49 MDT		
Make/Model:	Canadair/CT-133			Fatal	Serious	Minor/None
Engine Make/Model:	Rolls-Royce / NENE-10		Crew	1	0	0
Aircraft Damage:	Destroyed		Pass	1	0	0
Number of Engines:	1					
Operating Certificate(s):	None					
Type of Flight Operation:						
Reg. Flight Conducted Under:	Part 91: General Aviation					
Last Depart. Point: ROSWELL, NM				Condition of Light: Day		
Destination: Local Flight				Weather Info Src: Weather Observation Facility		
Airport Proximity: Off Airport/Airstrip				Basic Weather: Visual Conditions		
				Lowest Ceiling: None		
				Visibility: 30.00 SM		
				Wind Dir/Speed: 090 / 008 kts		
				Temperature (°C): 21		
				Precip/Obscuration:		
Pilot-in-Command	Age: 52			Flight Time (Hours)		
Certificate(s)/Rating(s)				Total All Aircraft: 3000		
Commercial; Single-engine Land				Last 90 Days: 75		
				Total Make/Model: 200		
Instrument Ratings				Total Instrument Time: UnK/Nr		
Airplane						

*** Note: NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report. ***

ACFT WAS ON PROMOTIONAL FLIGHT FOR MEDIA PERSONNEL THE DAY BEFORE 'SPECTACULAR AIR SHOW' WAS SCHEDULED TO OPEN. PAX WAS LOCAL RADIO STATION MANAGER AND NEWLY RATED PRIVATE PLT, WHO TOLD GROUND CREW HE HOPED THE PILOT WOULD DEMONSTRATE AEROBATICS. WITNESSES SAW ACFT PERFORMING AEROBATICS 7 MINUTES AFTER TAKEOFF. ACFT IMPACTED DESERT TERRAIN AND EXPLODED. BOTH TIP TANKS, OUTBOARD WING PANELS, AND AILERONS WERE FOUND APPROXIMATELY 1-1/4 MILE FROM MAIN IMPACT AREA. METALLURGICAL EXAMINATION DISCLOSED CATASTROPHIC WING SPAR FAILURE DUE TO NEGATIVE BENDING OVERLOAD. THERE WAS EVIDENCE OF AT LEAST ONE OVER-TRAVEL UP AND ONE OVER-TRAVEL DOWN OF BOTH AILERONS. NO PRE-EXISTING OR FATIGUE CRACKS, OR EVIDENCE OF AILERON FLUTTER WAS FOUND.

Brief of Accident (Continued)

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ROSWELL ,NM

Aircraft Reg No. N233RK

Time (Local): 14:49 MDT

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: MANEUVERING

Findings

1. (F) AEROBATICS - PERFORMED - PILOT IN COMMAND
2. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
3. WING,SPAR - OVERLOAD
4. WING,SKIN - OVERLOAD
5. FLIGHT CONTROL,AILERON - OVERLOAD

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows:

THE PILOT-IN-COMMAND'S PERFORMANCE OF AEROBATIC MANEUVERS THAT EXCEEDED THE DESIGN STRESS LIMITS OF THE AIRCRAFT, RESULTING IN CATASTROPHIC FAILURE OF THE WING.