



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	BARTLESVILLE, OK	<b>Accident Number:</b>	FTW88MA021
<b>Date &amp; Time:</b>	10/28/1987, 0734 CST	<b>Registration:</b>	N3411
<b>Aircraft:</b>	CONVAIR 640 (340D)	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor

**Flight Conducted Under:** Part 121: Air Carrier - Non-scheduled

---

## Analysis

THE CAPT WAS CROSS-FEEDING BOTH ENGINES FROM THE RIGHT TANK WHILE THE FIRST OFFICER (F/O) WAS FLYING, WITHOUT INFORMING THE F/O. THE CAPT THEN LEFT THE COCKPIT WHILE CROSS-FEEDING. BOTH TANK VALVES AND THE RIGHT BOOST PUMP WERE ON. THE RIGHT TANK RAN DRY, THE RIGHT ENGINE FAILED, AND THE PROP AUTOFEATHERED WHILE THE CAPT WAS ABSENT. THE CAPT RETURNED, TURNED ON THE LEFT BOOST PUMP, BUT LEFT THE RIGHT BOOST PUMP AND THE VALVES OPEN, AND ATTEMPTED TO RESTART THE RIGHT ENGINE. THE LEFT ENGINE THEN FAILED BUT THIS WAS NOT RECOGNIZED BY THE CREW. THE ELEC SYS FAILED DUE TO THE ATTEMPTED RESTARTS AND THE FACT THAT NON-ESSENTIAL EQUIPMENT WAS NOT TURNED OFF. THE CAPT DID NOT APPLY SUFFICIENT PULL TO THE EMERGENCY GEAR HANDLE TO LOWER THE GEAR MANUALLY. THE ACFT WAS LANDED ON A SHORT WET SOD RUNWAY, WITH THE GEAR AND FLAPS UP, AT A HIGH RATE OF SPEED. THE ACFT RAN OFF THE END OF THE RUNWAY, THROUGH A DITCH, ACROSS A ROAD, AND INTO TREES.

## Probable Cause and Findings

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

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: CRUISE - NORMAL

### Findings

1. (C) 1 ENGINE
2. FLUID,FUEL - STARVATION
3. (C) FUEL TANK SELECTOR POSITION - INATTENTIVE - PILOT IN COMMAND
4. (C) CREW/GROUP COORDINATION - IMPROPER - PILOT IN COMMAND
5. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: CRUISE - NORMAL

### Findings

6. (C) ALL ENGINES
7. (C) FLUID,FUEL - STARVATION
8. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
9. (F) CHECKLIST - INADEQUATE - COMPANY/OPERATOR MANAGEMENT

Occurrence #3: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

### Findings

10. AIRSPEED - EXCESSIVE - COPILOT/SECOND PILOT

Occurrence #4: GEAR NOT EXTENDED  
Phase of Operation: LANDING

### Findings

11. (C) GEAR EXTENSION - IMPROPER USE OF - PILOT IN COMMAND
12. (F) ELECTRICAL SYSTEM - DETERIORATED

Occurrence #5: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: LANDING

### Findings

13. (F) TERRAIN CONDITION - DITCH

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial	<b>Age:</b>	30, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last Medical Exam:</b>	10/14/1987
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5389 hours (Total, all aircraft), 2480 hours (Total, this make and model), 199 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	CONVAIR	<b>Registration:</b>	N3411
<b>Model/Series:</b>	640 (340D) 640 (340D)	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	31
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	04/13/1987, AAIP	<b>Certified Max Gross Wt.:</b>	54600 lbs
<b>Time Since Last Inspection:</b>	394 Hours	<b>Engines:</b>	2 Turbo Prop
<b>Airframe Total Time:</b>	44764 Hours	<b>Engine Manufacturer:</b>	Rolls-Royce
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	RDA10-542
<b>Registered Owner:</b>	SEDALIA MARSHALL BOONVILLE	<b>Rated Power:</b>	2305 hp
<b>Operator:</b>	SMB STAGE LINE, INC	<b>Air Carrier Operating Certificate:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	SMBA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Observation Time:	0000
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	
Lowest Ceiling:	None / 0 ft agl	Visibility	20 Miles
Wind Speed/Gusts, Direction:	5 knots, 310°	Visibility (RVR):	0 ft
Altimeter Setting:		Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	CHICAGO, IL (ORD)	Type of Flight Plan Filed:	IFR
Destination:	OKLAHOMA CITY, OK (OKC)	Type of Clearance:	None
Departure Time:	0507 CST	Type of Airspace:	Class E

## Airport Information

Airport:	FRANK PHILLIPS (BVO)	Runway Surface Type:	Grass/turf
Airport Elevation:	716 ft	Runway Surface Condition:	Wet
Runway Used:	7	IFR Approach:	None
Runway Length/Width:	2550 ft / 100 ft	VFR Approach/Landing:	Forced Landing

## Wreckage and Impact Information

Crew Injuries:	2 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	ARMOND V EDWARDS	Adopted Date:	07/03/1989
Additional Participating Persons:	R./D./M. BUFKIN/CHAPMAN/CLUNE; DALLAS, TX R C GROBER; DALLAS, TX ALLEN/FRANK; DALLAS, TX C D WESSON; DALLAS, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.