



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	COATSVILLE, PA	<b>Accident Number:</b>	NYC86LA081
<b>Date &amp; Time:</b>	02/27/1986, 2230 EST	<b>Registration:</b>	N821LG
<b>Aircraft:</b>	DASSAULT DA-10	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	5 Minor, 1 None

**Flight Conducted Under:** Part 91: General Aviation - Executive/Corporate

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## Analysis

AS THE ACFT WAS CLIMBING THRU 19,000' AT NGT, THE #2 GENERATOR (GEN) LGT CAME ON. THE FLT CREW NOTED THERE WAS NO OUTPUTFM THE #2 GEN & IT WOULD NOT RESET. THEY THEN CHECKED THE #1 GEN VOLTAGE & NOTED IT WAS 14 TO 15 VOLTS. THE CREW REDUCEDTHE ELEC LOAD; HOWEVER, ABOUT 5 MIN LATER, THE BATTERIES BCM DISCHARGED & THERE WAS A TOTAL LOSS OF ELEC PWR. USING A FLASHLIGHT, THE CREW DIVERTED TO THE CHESTER COUNTY ARPT WHICH HAD A 4600' RWY. THE GEAR WAS EXTDD WITH THE EMERG SYS. THE ELEV TRIM WAS INOP, SO BOTH PLTS APPLIED BACK PRESSURE ON THE YOKE TO OVERCOME THE NOSE DWN TENDENCY. AFTER LNDG ABOUT 1/4 OF THE WAY DWN THE RWY, THE CREW TRIED TO USE THE THRUST REVERSERS, BUT THE REVERSERS WERE INOP. SUBSEQUENTLY,THE ACFT CONTD OFF THE SIDE & BEYOND THE END OF THE RWY, HIT A WOODEN BEAM & A SNOWBANK, THEN CAME TO REST IN A DITCH. AN INV REVEALED A SHAFT FAILURE OF THE #2 GEN (STARTER/GEN) & WORN BRUSHES IN THE #1 GEN. WITH TOTAL ELEC FAILURE, THE FLWG WERE ALSO INOP: WING FLAPS, ANTI-SKID, CAPT'S AIRSPEED IND & ALTIMETER, NOSEWHEEL STEERING, COCKPIT LIGHTING.

## Probable Cause and Findings

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

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: CRUISE

### Findings

1. (F) MAINTENANCE - INADEQUATE - OTHER MAINTENANCE PERSONNEL
  2. (C) ELECTRICAL SYSTEM, GENERATOR - WORN
  3. (C) ELECTRICAL SYSTEM, GENERATOR - FAILURE, TOTAL
  4. ELECTRICAL SYSTEM, BATTERY - EXHAUSTION
  5. ELECTRICAL SYSTEM - INOPERATIVE
  6. COMM/NAV EQUIPMENT - INOPERATIVE
  7. FLT CONTROL SYST, STABILATOR TRIM - INOPERATIVE
  8. FLIGHT CONTROL, FLAP - INOPERATIVE
  9. LANDING GEAR, STEERING SYSTEM - INOPERATIVE
  10. LANDING GEAR, ANTI-SKID BRAKE SYSTEM - INOPERATIVE
  11. THRUST REVERSER - INOPERATIVE
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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING - ROLL

### Findings

12. (F) LIGHT CONDITION - DARK NIGHT
  13. PERFORMED
  14. PRECAUTIONARY LANDING - PERFORMED
  15. (F) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
  16. GROUND LOOP/SWERVE - UNCONTROLLED
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Occurrence #3: OVERRUN  
Phase of Operation: LANDING - ROLL

### Findings

17. (F) POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
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Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: LANDING - ROLL

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Occurrence #5: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last Medical Exam:</b>	10/14/1985
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8260 hours (Total, all aircraft), 963 hours (Total, this make and model), 8021 hours (Pilot In Command, all aircraft), 89 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	DASSAULT	<b>Registration:</b>	N821LG
<b>Model/Series:</b>	DA-10 DA-10	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	170
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	01/10/1986, Continuous Airworthiness	<b>Certified Max Gross Wt.:</b>	18300 lbs
<b>Time Since Last Inspection:</b>	46 Hours	<b>Engines:</b>	2 Turbo Fan
<b>Airframe Total Time:</b>	1447 Hours	<b>Engine Manufacturer:</b>	AIRESEARCH
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	TFE-731-2-1C
<b>Registered Owner:</b>	SENECA LIVESTOCK CO.	<b>Rated Power:</b>	3230 lbs
<b>Operator:</b>	SENECA LIVESTOCK CO.	<b>Air Carrier Operating Certificate:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
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	0 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	0 ft
Altimeter Setting:		Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	NEW YORK, NY (JFK)	Type of Flight Plan Filed:	IFR
Destination:	LEXINGTON, KY (LEX)	Type of Clearance:	IFR
Departure Time:	2200 EST	Type of Airspace:	Class E

## Airport Information

Airport:	CHESTER COUNTY (40N)	Runway Surface Type:	Asphalt
Airport Elevation:	662 ft	Runway Surface Condition:	
Runway Used:	29	IFR Approach:	None
Runway Length/Width:	4600 ft / 100 ft	VFR Approach/Landing:	Precautionary Landing

## Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 Minor, 1 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	CHAUNCEY D TWINE	Adopted Date:	06/27/1989
Additional Participating Persons:			
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> .		

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