

**FILE NO. 3-0288**

# **AIRCRAFT ACCIDENT REPORT**

**FEDERAL AVIATION ADMINISTRATION**

**DOUGLAS DC-3C, N6**

**DuBOIS, PENNSYLVANIA**

**MARCH 27, 1975**

**ADOPTED: JUNE 25, 1975**

**NATIONAL TRANSPORTATION SAFETY BOARD**

**Washington, D. C. 20594**

**REPORT NUMBER: HTSB-AAR-75-11**

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. NTSB-AAR-75-11		2. Government Accession No. <b>PB 244 224</b>	
4. Title and Subtitle Aircraft Accident Report - Federal Aviation Administration, Douglas DC-3C, N6, DuBois, Pennsylvania, March 27, 1975		5. Report Date June 25, 1975	
7. Author(s)		6. Performing Organization Code	
9. Performing Organization Name and Address National Transportation Safety Board Bureau of Aviation Safety Washington, D. C. 20594		8. Performing Organization Report No.	
12. Sponsoring Agency Name and Address  NATIONAL TRANSPORTATION SAFETY BOARD Washington, D. C. 20594		10. Work Unit No. 1563-A	
		11. Contract or Grant No.	
		13. Type of Report and Period Covered Aircraft Accident Report March 27, 1975	
		14. Sponsoring Agency Code	
15. Supplementary Notes			
16. Abstract  About 1435 e.d.t., March 27, 1975, a Federal Aviation Administration Douglas DC-3 crashed during takeoff on the DuBois-Jefferson County Airport, DuBois, Pennsylvania. The three cockpit occupants and one passenger were seriously injured. The other seven cabin occupants sustained minor injuries. The aircraft was destroyed.  The pilot, inexperienced and unqualified in the DC-3, was making the takeoff with a 7-knot crosswind and with an unlocked tailwheel.  The National Transportation Safety Board determines that the probable cause of the accident was loss of control at takeoff because of the inexperience of the unqualified pilot making the takeoff and because of the failure of the experienced pilot in the right seat to assume timely control. The accident sequence was initiated by the poor judgment of the pilot-in-command in allowing an unqualified pilot to make the takeoff and by the Regional Director's assuming the left seat which was contrary to his own operating rules to assure that this aircraft was operated by qualified pilots at their respective duty stations.			
17. Key Words  Aircraft accident; public aircraft; takeoff accident; loss of directional control; unqualified pilot		18. Distribution Statement This report is available to the public through the National Technical Informa- tion Service, Springfield, Virginia 22151	
19. Security Classification (of this report) UNCLASSIFIED	20. Security Classification (of this page) UNCLASSIFIED	21. No. of Pages 24	22. Price \$3.25

## TABLE OF CONTENTS

	<u>Page</u>
Synopsis . . . . .	1
1. Investigation . . . . .	1
1.1 History of the Flight . . . . .	1
1.2 Injuries to Persons . . . . .	3
1.3 Damage to Aircraft . . . . .	3
1.4 Other Damage . . . . .	3
1.5 Crew Information . . . . .	4
1.6 Aircraft Information . . . . .	4
1.7 Meteorological Information . . . . .	4
1.8 Aids to Navigation . . . . .	4
1.9 Communications . . . . .	4
1.10 Aerodrome and Ground Facilities . . . . .	4
1.11 Flight Recorders . . . . .	4
1.12 Wreckage . . . . .	4
1.12.1 Runway Examination . . . . .	4
1.12.2 Wreckage Examination . . . . .	5
1.13 Medical and Pathological Information . . . . .	6
1.14 Fire . . . . .	6
1.15 Survival Aspects . . . . .	6
1.16 Tests and Research . . . . .	7
1.17 Other Information . . . . .	7
2. Analysis and Conclusions . . . . .	9
2.1 Analysis . . . . .	9
2.2 Conclusions . . . . .	10
(a) Findings . . . . .	10
(b) Probable Cause . . . . .	11
3. Recommendations . . . . .	11
 Appendixes:	
Appendix A - Investigation . . . . .	13
Appendix B - Crew Information . . . . .	14
Appendix C - Aircraft Information . . . . .	15
Appendix D - Recommendation . . . . .	16
Appendix E - Wreckage Distribution Chart . . . . .	19

NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D. C. 20594

AIRCRAFT ACCIDENT REPORT

Adopted: June 25, 1975

FEDERAL AVIATION ADMINISTRATION  
DOUGLAS DC-3C, N6  
DuBois, PENNSYLVANIA  
MARCH 27, 1975

SYNOPSIS

About 1435 a.d.t., March 27, 1975, a Federal Aviation Administration Douglas DC-3 crashed during takeoff on the DuBois-Jefferson County Airport, DuBois, Pennsylvania. The three cockpit occupants and one passenger were injured seriously. The other seven cabin occupants sustained minor injuries. The aircraft was destroyed.

The pilot, inexperienced and unqualified in the DC-3, was making the takeoff with a 7-knot crosswind and with an unlocked tailwheel.

The National Transportation Safety Board determines that the probable cause of the accident was loss of control at takeoff because of the inexperience of the unqualified pilot making the takeoff and because of the failure of the experienced pilot in the right seat to assume timely control. The accident sequence was initiated by the poor judgment of the pilot-in-command in allowing an unqualified pilot to make the takeoff and by the Regional Director's assuming the left seat which was contrary to his own operating rules to assure that this aircraft was operated by qualified pilots at their respective duty stations.

This accident was investigated by the National Transportation Safety Board in accordance with an agreement with the Federal Aviation Administration.

1. INVESTIGATION

1.1 History of the Flight

Federal Aviation Administration (FAA) Douglas DC-3C, N6, a public aircraft, was on an itinerary which began March 25, 1975, at the J. F. Kennedy International Airport, Jamaica, New York, and was to end at the same place on March 27, 1975. The aircraft was engaged in the transportation of the new FAA Eastern Region Director and a small group of his staff. The purposes of the flight were to make an inspection tour of certain Eastern Region facilities and to present safety awards to personnel of various flight service stations (FSS).

N6 departed from the Allegheny County Airport, Pittsburgh, Pennsylvania, about 0915 <sup>1/</sup>, March 27, 1975, and arrived at the DuBois-Jefferson County Airport, Pennsylvania, about 1000.

The crew of two and the nine passengers drove to DuBois where the Director presented an FAA safety award to an FSS employee during a luncheon. The group returned to the DuBois Airport at about 1400 and began preparations for a flight to Harrisburg, Pennsylvania.

The second-in-command (SIC) received a weather briefing from the DuBois FSS and filed an instrument flight rules (IFR) flight plan to Harrisburg. The IFR clearance was delivered to N6 at 1426.

Earlier during the itinerary, the Director, who had no previous DC-3 experience, had told the pilot-in-command (PIC) that he would like to get some flight time, provided the weather was good. Before taxiing out to runway 25 at DuBois, the PIC invited the Director to the cockpit to fly the aircraft. The Director then took the left seat and the SIC the right seat. The PIC stood in the aisle to the rear of the two pilot seats, and maintained this position during the subsequent takeoff.

According to the crew, the engines were started without difficulty. However, a witness in a nearby hangar, hearing what seemed to him to be problems in starting the left engine, went to the doorway to see what was happening. As he watched the aircraft taxiing, it appeared to him that the pilot was overcontrolling with the brakes. At one point he saw the tailwheel lift off the ground. One of the passengers of N6 also stated that the brakes were applied frequently during taxiing.

The crew noted no discrepancies when the engines were run up near the takeoff end of runway 25. The various pretakeoff checks were made by referring to a scroll-type checklist on the glare shield. The SIC briefed the Director on DC-3 procedures prior to taxiing to the takeoff position on the runway. The briefing included crosswind techniques because the wind was from 350° at 7 knots.

At 1434, the DuBois FSS cleared N6 for takeoff. The aircraft was taxied into position by the Director, who also made the takeoff.

The Director and the SIC had no distinct recollection of the sequence of events during the takeoff roll. The PIC was looking at the aircraft logbook as the takeoff started and looked up when he felt the aircraft swerve to the left, followed by a swerve to the right. He heard the SIC say, "I've got it," or words to that effect, and believes that the aircraft became airborne at about the same time. He stated that the aircraft made a slow, left turn about 30-40 ft. off the ground, and he thought they were flying down the runway. At no time was he aware of

1/ All times herein are eastern daylight, based on the 24-hour clock.

indications that the aircraft was stalling, of unusual engine sounds, or of attempts to discontinue the takeoff. When he realized that an accident was imminent, he braced himself against a radio rack.

Some of the passengers stated that the aircraft was pulled sharply off the ground as it swerved to the right and reached the edge of the runway. Immediately thereafter, the left wing dipped and the aircraft started turning to the left. During the turn, the left wing contacted the runway, followed by several severe impacts before the aircraft came to a stop in a ravine off the left side of the runway.

The captain of a Crown Airways aircraft who was waiting to take off behind N3 observed the takeoff. He had the impression that either power or brake applications were used to maintain runway heading. He said that the airplane first yawed to the left, then to the right, and that it became airborne in a tail-low attitude, followed by a climbing yaw to the right. The captain thought that the aircraft became airborne prematurely. He observed the aircraft roll into a left bank in excess of 45°. He saw the left wing, the left engine, and the nose strike the ground before the aircraft skidded over an embankment and out of his sight. He noticed a flash of fire and black smoke in the vicinity of the left engine before the aircraft went over the embankment. The observations of the Crown Airways copilot were similar to those of the captain.

Other witnesses stated that the tail seemed low during the takeoff acceleration, that the aircraft seemed to make a stalling turn to the left, and that the left wing dragged on the ground or runway. Several witnesses reported fire in the left engine after it struck the ground.

The accident occurred in daylight. The aircraft came to rest at an elevation of 1,782 ft. The coordinates of the accident site were latitude 41° 10' 41" north, longitude 78° 53' 45" west.

#### 1.2 Injuries to Persons

<u>Injuries</u>	<u>Crew</u>	<u>Passengers</u>	<u>Other</u>
Fatal	0	0	0
Nonfatal	2	9	0
None	0	0	

#### 1.3 Damage to Aircraft

The aircraft was destroyed.

#### 1.4 Other Damage

None

### 1.5 Crew Information

The PIC and SIC were qualified and certificated in accordance with the Federal Aviation Regulations (FAR's).

The Director held a commercial pilot certificate with an airplane multiengine land rating, but he had no previous experience in a Douglas DC-3. (See Appendix B.)

### 1.6 Aircraft Information

The aircraft was certificated and maintained in accordance with FAR's and internal FAA regulations, and was in compliance with all applicable airworthiness directives. (See Appendix C.)

When N6 began its takeoff at DuBois, its gross weight was 26,443 lbs., which included 3,600 lbs. of fuel. Its maximum allowable takeoff weight was 26,900 lbs. The center of gravity was within allowable limits.

### 1.7 Meteorological Information

The DuBois-Jefferson County Airport observation at 1435 was: 25,000 feet broken clouds, visibility 15+ miles, temperature 35°F., dewpoint 10°F., and wind from 350° at 7 knots.

### 1.8 Aids to Navigation

Not applicable.

### 1.9 Communications

No reported difficulties.

### 1.10 Aerodrome and Ground Facilities

Runway 25 at the DuBois-Jefferson County Airport is bituminous; it is 5,500 ft. long and 100 ft. wide. Its elevation is 1,817 ft.

### 1.11 Flight Recorders

None installed or required.

### 1.12 Wreckage

#### 1.12.1 Runway Examination

Three rubber scuff marks and a continuous scrape mark were found on runway 25. (See Appendix D.) The first rubber scuff mark, which began 12 ft. left of centerline and 1,010 ft. from the threshold, continued for 275



ft. The second rubber scuff mark, which began 6 ft. right of centerline and 1,025 ft. from the threshold, continued for 174 ft. (The spread of the main landing gear of a DC-3 is 18.5 ft.) A third rubber scuff mark, which began 10 ft. right of centerline and 1,225 ft. from the threshold, was visible for 42 ft., and after a gap of approximately 70 ft., reappeared for another 40 ft. All three scuff marks curved toward the right side of the runway.

The scrape mark, which began 23 ft. right of centerline and 1,690 ft. from the threshold, was continuous in a curve to a point on the left edge of the runway, 1,995 ft. from the threshold. At the beginning of the scrape mark, orange colored paint similar to that on the aircraft's wingtips was found embedded in the runway surface. Farther along the scrape mark, metal particles were found on the runway surface.

#### 1.12.2 Wreckage Examination

The aircraft came to rest in a ravine, 35 ft. below the airport elevation, on a magnetic heading of 285°. (See Appendix E.) The wreckage was confined to an area measuring 345 ft. by 60 ft. The fuselage nose radome, the radar dish, the left crew door, the left engine, the left and right propellers, the right main landing gear, and the tailwheel separated from the aircraft and were located between the edge of the runway and the main wreckage.

The most extensive fuselage damage occurred at the nose section between fuselage stations 0 and 177. The nose section was torn, bent, and crushed on the left side. The fuselage was broken and buckled near the forward side of the main cabin door, which, although jammed, was forced open during rescue operations.

Both wings remained attached to the center section. The left wing was fractured at wing station 353, but remained attached to the inboard wing section by the top skin. The lower surface of the left wingtip showed numerous deep scratches and abrasions.

The fuel tank caps in both wings were in place and locked. All tanks were intact and there was no evidence of fuel spillage.

All control surfaces were accounted for, and the five control gust locks were found stored in the baggage compartment. The flaps were retracted. The elevator trim tab was faired with the horizontal stabilizer. The trim settings found in the cockpit were elevator 0°, rudder 1° nose right, and aileron 3° right wing up.

The tailwheel shear pin was intact, and the tailwheel lock was in the unlocked position. The tailwheel lock control handle in the cockpit was found in the unlocked position.



The left and right landing gears were fully extended. The tailwheel and main landing gear tires were inflated and in good condition.

The aircraft's systems, including the flight controls, did not show any evidence of preimpact failure or malfunction.

The left engine separated from its nacelle at the fire wall. The right engine separated at the fire wall, but remained attached to its nacelle by flexible hoses. No indications of preexisting distress or malfunction were found in the engines, except for about 25 intake valve head semicircular impression marks on the No. 8 piston head and one semicircular mark on the No. 8 exhaust valve of the left engine. (See Section 1.16, Tests and Research.)

Both propellers separated from their reduction gear housings, and all blades showed extensive impact damage. Reindexing the blade gear segments showed that the damaged teeth were meshed with the dome rotating cam gear teeth between the 30- and 35-degree positions.

Approximately 85 percent of the shim plate area of the six propeller blade shim plates was available for examination. The random variations and distribution of the markings between 18° and 82° precluded a definite determination of the blade angles at impact by this method.

No operational discrepancies were noted during testing and disassembly of the propeller governors.

#### 1.13 Medical and Pathological Information

Four of the 11 persons on board received serious injuries. The remainder received minor injuries.

The three cockpit occupants were injured seriously. Their injuries included multiple lacerations and fractures, including a spinal fracture. One passenger's wounds were superficial, but he was admitted to the hospital for observation due to a complaint of a chest pain. Since he was hospitalized for more than 72 hours, he was listed as seriously injured.

#### 1.14 Fire

A small fire occurred in the accessory section of the separated left engine. The fire was extinguished quickly by use of a dry chemical extinguisher.

#### 1.15 Survival Aspects

The accident was classified as partially survivable. By definition, the cockpit area was non-survivable because its structural integrity was

destroyed. The survival of the cockpit occupants was governed by chance and by the absence of a postcrash fire.

The two seated pilots were not using their shoulder harnesses and the PIC was standing. The occupant of the left cockpit seat was trapped and had to be cut loose. The right seat occupant was thrown out of the left side of the cockpit when his seat failed. The PIC was trapped in the cockpit aisle by the radio rack. He was freed and removed from the aircraft by stretcher.

The passenger cabin area remained relatively intact and offered survivable conditions. Three of the eight passengers were not secured in their seats by seatbelts for takeoff. The eight passengers evacuated the cabin through the emergency window exit to the left of seat row 5.

The evacuation and rescue were accomplished in an orderly manner.

#### 1.16 Tests and Research

Tests were made to determine whether the markings on the No. 8 piston head and exhaust valve were associated with impact or with a cylinder malfunction.

The intake valve rocker box housing of the No. 8 cylinder of the left engine was broken off during impact. The intake valve retaining components and valve stem were in their installed positions. The intake stem was bent into an "S" shape and the valve head was broken off. The No. 8 cylinder occupies one of the lowest positions on the engine.

Experiments with an intact cylinder assembly showed that the piston head at top dead center would contact the intake valve if the valve were fully open. The marks made by the valve head on the piston head used in the experiment corresponded with the initial indentation found on the No. 8 piston head of the left engine.

The brake assemblies were examined and tested on a hydraulic test bench. The brakes locked and released when tested. The expander tubes did not leak. No abnormal wear was seen on the brake blocks or drums. The wheel bearings rotated freely. The power brake control valve functioned.

#### 1.17 Other Information

It is FAA policy that its aircraft be certificated, maintained, and operated in accordance with the FAR's, unless deviations from this policy are approved by the Director, Flight Standards Service. FAA Handbook 4040.9, "General Manual for Operation of FAA Aircraft," provides the policies and procedures for FAA flight operations. The crew qualification requirements appearing therein exceed those in the FAR's. The handbook does not make specific reference to the FAR's by title or section.

The PIC and SIC met the qualifications and currency requirements to conduct this flight. (See Appendix B.) The Eastern Region Director did not meet either the PIC or SIC qualifications or flight currency requirements to operate a large aircraft carrying passengers. He had not completed three takeoffs and landings as sole manipulator of the controls in the same category, class, and type aircraft in the preceding 90 days. All his multiengine pilot experience involved aircraft with tricycle landing gear. The PIC stated that he believed that the Director had had no previous DC-3 experience. The SIC said that he knew that the Director had a commercial pilot license, but he was not familiar with the Director's DC-3 experience.

Handbook 4040.9 states that the PIC determines who shall operate the controls during all phases of flight. Only persons properly designated are permitted to operate the primary flight controls under normal circumstances. The PIC should operate the primary flight controls whenever marginal flight conditions exist or potentially hazardous operations are undertaken. The PIC is responsible for insuring that other assigned crewmembers are qualified properly and capable of meeting mission requirements.

In accordance with Handbook 4040.9, a complete passenger briefing was accomplished prior to takeoff at the beginning of the 3-day itinerary. Thereafter, no passenger briefings were accomplished or required since the passenger roster remained the same during the itinerary. The seatbelt and no-smoking signs were used, as required, throughout the 3-day itinerary and were used during the departure from DuBois.

The Handbook also requires that when shoulder harnesses are provided, the pilots must use them during takeoffs and landings. The SIC and the Director did not comply with this requirement. It is the PIC's duty to insure that all flight crewmembers make proper use of their restraint systems.

Among the responsibilities of the PIC is his duty to make sure that the checklists are read and the items thereon complied with.

The crew and passengers attended the awards luncheon in DuBois. Alcoholic beverages were not served at the table, but some of the party consumed drinks in the lounge prior to lunch. The three pilots said that they did not consume any alcoholic beverages.

The tailwheel lock on a DC-3 locks the tailwheel in alignment with the aircraft's longitudinal axis. This feature provides more controllability during taxiing and during the initial portion of the takeoff roll because it makes it easier to keep the aircraft going in a straight line. When unlocked, the tailwheel swivels freely, with the result that directional control becomes more difficult, particularly in a crosswind.

## 2. ANALYSIS AND CONCLUSIONS

### 2.1 Analysis

There was no evidence of any failure or malfunction of aircraft structures, systems, and controls. The engines, propellers, and their components were capable of producing takeoff power. The damage to both propellers and their blade gear segments was apparently caused by repeated rotational contact with the ground. The intake valve damage observed in the No. 8 cylinder of the left engine was representative of damage that would have occurred when ground impact forced the valve into the cylinder to its most open position. Subsequent contact of the valve head with the piston separated the valve head from its stem and accounted for the numerous impressions on the piston head and exhaust valve.

The tailwheel was in the unlocked position during the takeoff as a result of the crew's apparent failure to insure proper completion of the takeoff checklist.

The PIC and SIC were certificated and qualified for this flight. The Regional Director was not qualified to act as pilot for this passenger-carrying operation. It was the PIC's responsibility to assure that a properly qualified pilot would operate the aircraft's controls during all phases of flight. The PIC, as well as the Regional Director, should have been familiar with this requirement. Furthermore, the Director should not have made a request that was contrary to his subordinate's responsibilities, nor should the PIC have acquiesced in this request. The latter's poor judgment was further illustrated by the fact that he did not use the available jumpseat in the cockpit and by his failure to monitor the takeoff.

The eyewitnesses' observations, the markings on the runway, and the limited recollections of the seriously injured cockpit occupants indicate that the Director had problems maintaining directional control. The crosswind and the unlocked tailwheel undoubtedly aggravated his overcontrol of the aircraft while he was trying to maintain runway heading. In aircraft with this type of landing gear, the center of gravity is located behind the main landing gear. Any turn or swerve on the ground tends to increase the rate of turn, thus inducing a ground loop.

Since the Director's multiengine experience was limited to aircraft with tricycle landing gear, which have inherent directional stability, it was unlikely that, given the existing conditions, he would have been able to make timely and correct control inputs to prevent loss of directional control. It would appear that the SIC should have taken firm control at the first indication of directional control problems which began with a swerve to the left. However, the fact that the takeoff was being made by his superior may have delayed his decision to assume control until it was too late.

It is not known at what point during the takeoff roll the SIC said, "I've got it," or whose control inputs caused the liftoff. Nevertheless, the evidence shows that the aircraft became airborne in a nose-high attitude as it was about to leave the runway pavement during the swerve to the right. It may have been a natural reaction for either or both front seat occupants to force the aircraft off the ground at that time. It could not be determined whether the subsequent dropping of the left wing was part of an attempt to align the airborne aircraft with the runway or if it was the result of the stalled condition. Despite the DC-3's fairly good low-speed characteristics, large or uncoordinated control inputs at marginal air-speed may result in a stalled condition.

The absence of a postcrash fire was a fortuitous occurrence that saved several lives. The failure of the three cockpit occupants and of some of the passengers to use available and prescribed protective restraint systems may have contributed to their injuries.

In summary, the nature of this accident and the surrounding circumstances reflect a disturbing lack of responsibility on the part of involved FAA personnel who, more than any other group, should be concerned with meeting the professional standards they set for others.

## 2.2 Conclusions

### (a) Findings

1. The aircraft was certificated and maintained in accordance with both the FAR's and with FAA internal regulations.
2. The aircraft, flight controls, powerplants, and systems did not malfunction.
3. The PIC and SIC were certificated and qualified for the operation.
4. The pilot who was making the takeoff was not qualified to operate the controls of a DC-3 while carrying passengers.
5. The PIC did not occupy a seat during takeoff.
6. Neither the PIC nor the SIC insured that the tailwheel was locked for takeoff.
7. The takeoff was made with a 7-knot crosswind from the right at an angle of approximately 100° to the takeoff direction.
8. The pilots in the left and right seats had their seatbelts, but not their shoulder harnesses, fastened for takeoff.

9. Three passengers had their seatbelts unfastened for takeoff.
10. The SIC delayed assuming control of the aircraft, and allowed it to become airborne in a nose-high attitude, followed by loss of control.

(b) Probable Cause

The National Transportation Safety Board determines that the probable cause of the accident was loss of control at takeoff because of the inexperience of the unqualified pilot making the takeoff and because of the failure of the experienced pilot in the right seat to assume timely control. The accident sequence was initiated by the poor judgment of the pilot-in-command in allowing an unqualified pilot to make the takeoff and by the Regional Director's assuming the left seat which was contrary to his own operating rules to assure that this aircraft was operated by qualified pilots at their respective duty stations.

3. RECOMMENDATIONS

As the result of this accident, the Safety Board on July 20, 1975, submitted safety recommendation A-75-57 to the Administrator, Federal Aviation Administration. (See Appendix D.)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

/s/ JOHN H. REED  
Chairman

/s/ FRANCIS H. McADAMS  
Member

/s/ LOUIS M. THAYER  
Member

/s/ ISABEL A. BURGESS  
Member

/s/ WILLIAM R. HALEY  
Member

June 25, 1975

APPENDIX A

1. Investigation

The National Transportation Safety Board was notified of the accident at 1515 e.d.t., March 27, 1975, by the Federal Aviation Administration. The investigation team departed from Washington, D.C., the same day, and arrived at DuBois, Pennsylvania, at 1915 e.d.t. Working groups were established for operations and witnesses, structures, powerplants, systems, human factors, and maintenance records. Parties to the investigation included the Federal Aviation Administration, the Pennsylvania Department of Transportation, Pratt & Whitney Division of United Aircraft Corp., and Cooper Airmotive, Inc.

2. Hearing

A public hearing was not held.



APPENDIX B

CREW INFORMATION

Pilot-in-Command Harry Bernard

Mr. Bernard, 55, Chief, Flight Standards Division, Eastern Region, FAA, held Airline Transport Pilot Certificate No. 19484-40 with type ratings in the Douglas DC-6, DC-7, and DC-9, and an airplane multiengine land rating. He held commercial privileges for airplane single engine land, and rotorcraft-helicopter. His flight instructor rating had been reissued May 5, 1970. He had 17,177 flight-hours, of which 3,300 were in a Douglas DC-3. He had flown a DC-3 25 hours during the 90 days prior to the accident, and 30 hours in the previous 6 months. His total flight time for the previous 6 months was 72 hours. His pilot's certificate was reissued on 2/3/75 upon successful completion of Douglas DC-9 training. He possessed a current first class medical certificate issued November 6, 1974, with the limitation that he must wear corrective lenses for near and distant vision.

Second-in-Command Carl B. S. Pedersen

Mr. Pedersen, 54, FAA Supervisory Operations Inspector, held Airline Transport Pilot Certificate No. 444568 with type ratings in the Douglas DC-3, DC-4, Curtiss Wright C-46, and an airplane multiengine land rating. He held commercial privileges for airplane multiengine land and sea, and single engine land. He had 14,800 flight-hours, of which 1,000-plus were in a Douglas DC-3. He had flown a DC-3 28.6 hours during the 90 days prior to the accident and the same amount in the previous 6 months. His total flight time for the previous 6 months was 37.2 hours. He possessed a first class medical certificate dated 6/10/74, with the limitation that he must wear corrective lenses for near and distant vision.

Duane W. Freer, Director, FAA Eastern Region

Mr. Freer, 44, held a Commercial Pilot Certificate No. 1366402 with airplane single and multiengine land, and instrument ratings. He also held Control Tower Operator's Certificate No. 1402547 issued on February 12, 1961. He had 1,600 flight-hours with no hours in the Douglas DC-3. He had no PIC time in the previous 90 days, but he had 4.5 hours SIC time. His flight time of 22 hours during the previous 6 months was in a Beechcraft "Queenair," a tricycle landing gear, twin-engined aircraft weighing under 12,300 pounds. He possessed a current first class medical certificate dated February 25, 1975, with the limitation that he must possess correcting glasses for near vision.

APPENDIX C

AIRCRAFT INFORMATION

Make and Model	Douglas LC-3C
Registration	N6
Serial Number	4146
Date of Manufacture	June 27, 1941
Total Flight Hours	13,901.9 (Through the last recorded maintenance dated March 27, 1975, at Pittsburgh, Pennsylvania, Ref. Log Sheet 2786.)

The maintenance records group covered the records from January 1, 1975, through March 27, 1975, on the aircraft, engines, avionics, electrical, and other currently installed components. The Airworthiness Directive compliance records dating from February 24, 1946, were also examined.

Maintenance log sheets were satisfactory in their continuity.

Maintenance checks and inspections were shown to have been completed within their specified time limits. The records disclosed no discrepancies that could have contributed to any failure or malfunction of the aircraft, powerplants, or components.

The aircraft had not been involved in any previous accident.

All records examined were maintained in accordance with applicable procedures and directives.

Engines - Pratt & Whitney R1830-94

<u>Number</u>	<u>S/N</u>	<u>Total Time</u>	<u>Since Overhaul</u>
1	P144917	10,337.0	343.8
2	P145334	7,786.6	126.2

Propellers - Hamilton Standard 23E50-505

<u>Number</u>	<u>S/N</u>	<u>Time Since Overhaul</u>
1	130585	2,586.7
2	137985	2,315.7

**NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.**

**APPENDIX D**

**ISSUED: July 20, 1975**

-----  
**Forwarded to:**

Honorable James E. Dow  
Acting Administrator  
Federal Aviation Administration  
Washington, D. C.

**SAFETY RECOMMENDATION(S)**

A-75-57

-----

The National Transportation Safety Board investigated the accident involving Federal Aviation Administration Douglas DC-3, N-6, at DuBois, Pennsylvania, March 27, 1975. The investigation showed that the Regional Director and the pilot in command allowed the aircraft to be operated by a pilot (Regional Director) who did not meet the FAA requirements to operate a large aircraft carrying passengers. The pilot in command did not occupy a seat during the takeoff. The pilots who were in the pilots' seats did not use the installed shoulder harnesses and several passengers did not fasten their seatbelts. The details of these variances with FAA policies, rules, and requirements specified in FAA Handbook 4040.g, "General Manual for Operations of FAA Aircraft," were brought to the attention of FAA personnel who assisted the Safety Board in its investigation.

This accident illustrates to a high degree a lack of professional conduct on the part of an FAA senior official and the flightcrew in that there was a flagrant disregard for the prescribed procedures and safe operating practices. The Board has for some time been concerned with instances of nonprofessional conduct by air carrier crews. In fact, on October 8, 1974, the Board issued a recommendation (A-74-85 & 86) to the FAA with respect to this matter. It is, therefore, a matter of some note to the Board that an accident occurred involving personnel of the FAA which was caused by nonprofessional conduct. The FAA sets the standards for all airman and for this reason its personnel, above all, should follow meticulously the prescribed procedures and safe operating practices.

Honorable James E. Dow

- 2 -

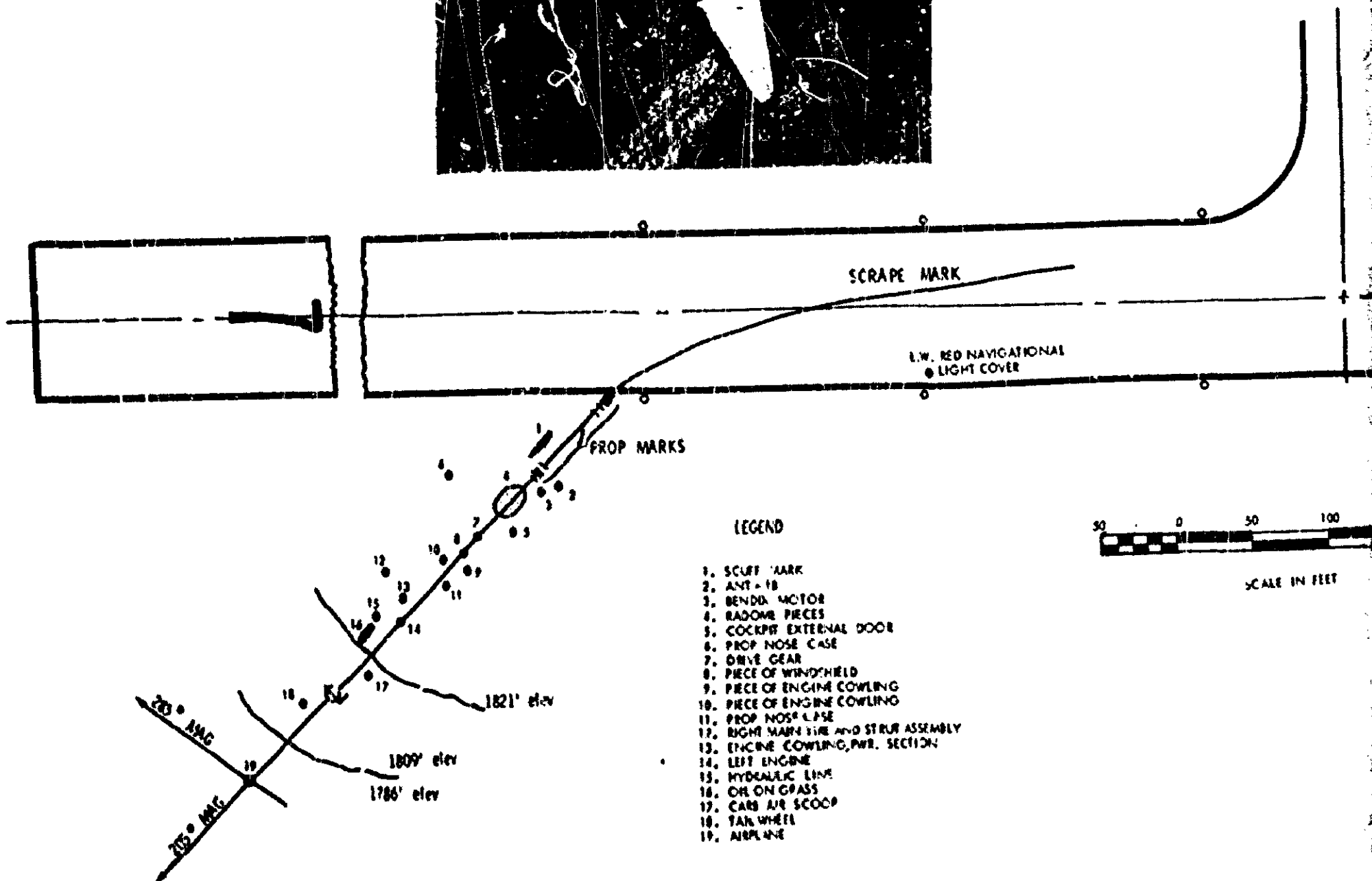
We are aware of the General Notice (GENOT) the FAA issued on May 4, 1975, stipulating the action to be taken by each Region/Center Director to assure that Agency aircraft are operated in accordance with the Handbook 4040.g and that crewmember qualification and requirements are met. However, we believe that the professional conduct of FAA pilots needs additional emphasis.

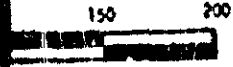
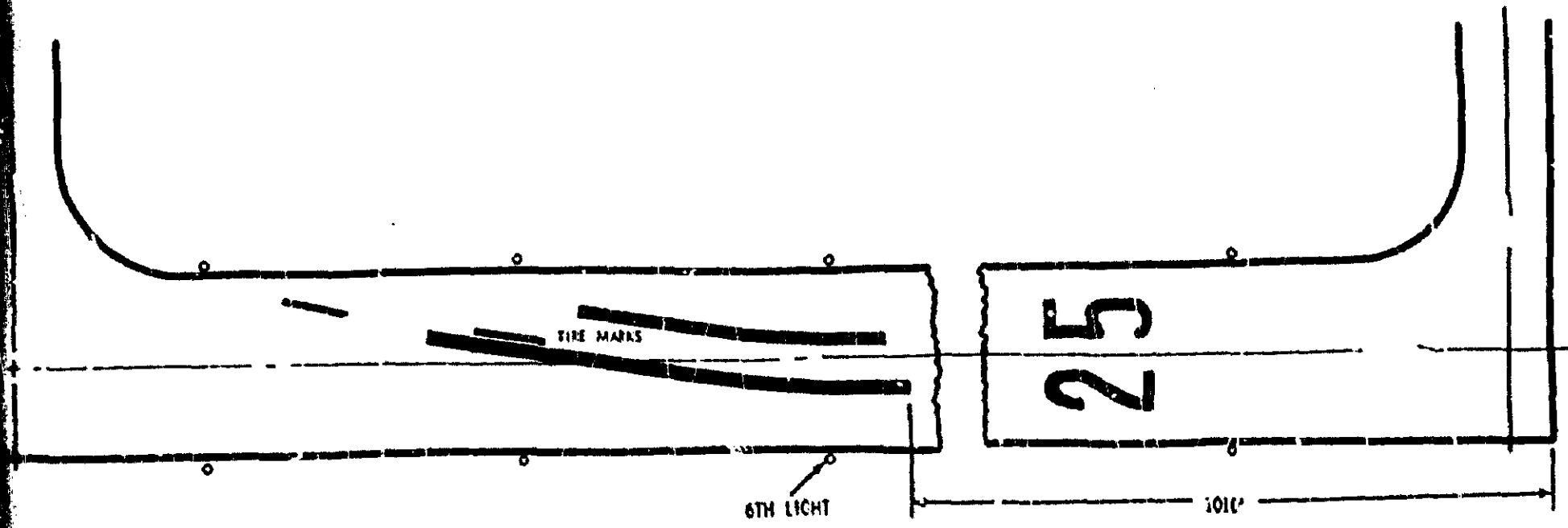
Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Bring to the attention of all FAA senior line officials and pilots the circumstances surrounding this accident in order to emphasize the fact that their official responsibilities in aviation demand the highest degree of professionalism and total compliance with applicable standards, procedures, and operating practices. (Class II)

REED, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendation.

  
By: John H. Reed  
Chairman





APPENDIX E

**NATIONAL TRANSPORTATION SAFETY BOARD**  
WASHINGTON D.C.

**WRECKAGE DISTRIBUTION CHART**

**FEDERAL AVIATION ADMINISTRATION , DOUGLAS DC3A, N6**  
**GOBOIS-JEFFERSON COUNTY AIRPORT, DOBOIS, PENNSYLVANIA**  
**MARCH 27, 1975**

--18--

b