

Jetliner's final seconds outlined at crash probe

By William Braden

A United Airlines 737 that crashed here Dec. 8 apparently was well below its expected altitude when it broke out of low clouds during a descent for landing at Midway Airport.

A burst of engine power failed to prevent the accident, according to testimony Tuesday at a National Transportation Safety Board hearing in the Sheraton-O'Hare North.

The crash, which killed 45 persons, occurred about 12 seconds after a radio transmission from the co-pilot to the Midway control tower indicated all was normal aboard the jetliner.

Surviving passengers testified that the plane appeared to be making a normal descent until it emerged from clouds over a residential area. At that point, said one passenger, "we could see the shingles on the roofs — we were that close."

When the ground appeared, passengers testified, the aircraft's two Pratt & Whitney engines were throttled up to a power setting normally experienced on takeoff. At virtually the same time, they said, the plane's nose rose to an extremely high altitude and swerved momentarily to the left.

According to the testimony, the plane continued to descend in a nose-high attitude — seemingly with full engine power — until its rear section struck rooftops and the plane hit the ground.

An abnormally high nose position can cause an airplane to stall even with full power. A stall occurs when an aircraft's nose is lifted to a point at which the angle of attack of the wings causes them to lose their lifting power. The aircraft then drops rapidly.

The aircraft, UAL Flight 553 from Washington National Airport to Midway, went down in a residential area about 1½ miles southeast of Midway's Runway 31 Left, killing the 3 crewmen in the cockpit, 40 passengers and 2 persons on the ground. Three stewardesses and 14 passengers survived the crash.

The accident occurred as the aircraft was making a nonprecision instrument approach in bad weather. Testimony showed that there was a ragged ceiling, with a maximum of 500 feet and fog, and that visibility was one mile.

The crew was using a localizer beacon, which indicated whether the aircraft was to the left or right of the proper course for Runway 31 Left. The pilots were unable to use glidescope equipment aboard the 737, which could have told whether they were in the proper descent path, because Midway is not equipped for glidescopes.

Testimony on Tuesday outlined final 20 seconds in the flight of the doomed aircraft:

At 2:27:04 p.m. the local controller at the Midway tower observed that Flight 553 was not maintaining the proper three-mile separation behind a twin-engine Aero Commander corporate aircraft that was cleared to land ahead of it. He ordered Flight 553 to execute a "missed approach," turn left to a heading of 180 degrees (due south) and climb to 2,000 feet.

At 2:27:06 tapes from the cockpit voice recorder picked up the sound of a "stick shaker," a rattle that warns that the aircraft is close to a stall. The rattle continued until the end of the recording.

At 2:27:12 the co-pilot replied to the order to execute a "missed approach," telling the

tower, "OK, left turn to one eight zero—left turn. OK?"

At 2:27:15 the tower replied, "Yeah, make left turn to 180."

At 2:27:20 the tapes recorded the sound of the landing gear lever being moved to the up position, almost immediately followed by the landing gear warning horn, which indicated that the landing gear was raised. The warning horn continued until the end of the recording.

At 2:27:24 the tower tape recorded "sounds of impact and unintelligible voice."

During the crucial 12 seconds from the co-pilot's last radio transmission to the impact, one conversation was picked up by the cockpit recorder.

"Want more flaps?" asked the second officer. An unidentified voice replied, "Flaps 15." A moment later a voice said, "I'm sorry." Those were the last words recorded in the cockpit.

According to a Boeing 737 flight manual introduced into evidence Tuesday, the standard operating procedure for a "missed approach" calls for "takeoff thrust, flaps 15, gear up."

The crew executed all three of those maneuvers after being ordered by the tower to make a "missed approach," opening speculation at the hearings that the crew might

Turn to Page 40

Flight 553's final seconds told

Continued from Page 5

have been taking routine steps for a "missed approach" rather than desperate emergency measures after seeing the ground.

Marvin E. Anderson, assistant research director at the Illinois Institute of Technology Research Institute here, testified that he heard the pilot rev up the engines as soon as the aircraft broke through the clouds. He said that the power was "like on takeoff" and that as soon as it began the aircraft's nose pitched up at an angle "sufficiently great to be a stall angle."

Other testimony showed that the plane broke through the cloud deck at an extremely low

altitude.

Documents introduced at the beginning of the hearing show that the captain on Flight 553, Wendell L. Whitehouse, 44, flunked a flight test on a 737 on April 29, 1970, but passed a recheck test on May 13, 1970. He had logged 18,000 hours of flight time, including 2,435 hours in 737s, and had no other unsatisfactory remarks in his training folder.

The co-pilot, Walter O. Coble, 43, had an unsatisfactory proficiency check in a 737 on June 19, 1972, but passed a recheck on June 21.

Legal researcher Sherman Skolnick appeared outside the hearings, but was not scheduled to testify.

Being possible tie to crash: expert

Chicago Daily News

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BACK PAGE

By Long Hwa-Shu

A specialist in aeronautic icing conditions has testified that abnormal formations of ice may have caused the Dec. 31 crash of a United Air Lines 737 jet, which killed 45 persons near Midway Airport.

Vernon H. Gray, a National Aeronautics and Space Administration expert, told a National Transportation Safety Board hearing here Friday that several hundred pounds of ice may have formed on the tail section of the plane, causing the craft's nose to pitch upward and the plane to crash into homes near the airport.

Earlier testimony established that as the craft was making an approach to Midway, the control tower instructed the 737 pilot to abort his landing and make another approach because another aircraft was landing on the Midway runway that had been assigned to the Washington-to-Chicago jet.

GRAY'S testimony was challenged by J. Richard Street, attorney for United Air Lines, who protested that Gray was not a qualified meteorologist and could not give adequate testimony on possible icing.

William K. Howell, an aerodynamics engineer for the Boeing Co., makers of the

plane, said that the craft had been tested under simulated icing conditions and no "unusual characteristics" were noted.

The hearing, which began Tuesday, concluded Friday, but Isabel A. Burgess, chairman of the hearing committee, said the inquiry would remain officially open to receive any further pertinent evidence.

MEANWHILE, legal researcher Sherman A. Skolnick Friday filed a \$2 million suit in Circuit Court charging that the board had refused to allow him to testify.

He charged that he had notified the board that he had evidence the crash was the result of sabotage connected with the Watergate bugging incident but they turned him away.

Mrs. Burgess, who had been served with a copy of the suit by a sheriff's deputy during the hearing Friday, responded saying that Skolnick had presented "no hard evidence" to back up his charges.

In related action, Mrs. Ellen W. Baldwin of Kerney, Neb., filed a \$5 million damage suit in Circuit Court as executor for the estate of her husband, Theodore, who was killed in the crash.