

REPORT OF THE CIVIL AERONAUTICS BOARD
on the
Investigation of an Accident Involving Aircraft
During a Local Instruction Flight

An accident which occurred approximately 5 miles north of Smilin' Jack Airport, Douglassville, Pennsylvania, about 7:30 p.m. on August 21, 1943, resulted in fatal injuries to Student Joseph Oliver Swann and minor shock to Instructor James Downing Boss, Jr. Boss held a commercial pilot certificate with single-engine land, 0-80 h.p., and flight instructor ratings. He had flown approximately 263 solo hours, 170 of which were in the type airplane involved. Swann had received 6½ hours of dual flight instruction. The aircraft, a Piper J4A, NC 23411, owned by the pilot and Paul Behr, was demolished.

Instructor Boss and Student Swann took off from the Smilin' Jack Airport about 7:00 p.m. for the purpose of familiarizing the student with spins. (Both wore parachutes and, prior to the take-off, the student was instructed as to their use.) According to the instructor, the student took the controls after they left the field traffic pattern and climbed to 3000 feet. At this point proper spin entry and recovery methods were demonstrated by the instructor, with the student following through on the controls. The student then attempted a spin which resulted in a tight spiral. He also failed to close the throttle fully and dived too steeply on recovery. The instructor pointed out these faults and after climbing back to 3000 feet the student attempted another spin. The instructor stated that during the second turn, when the student had made no apparent effort to effect recovery, he (the instructor) told him to "get it out of the spin." The student shoved the stick all the way forward and applied power simultaneously, whereupon the plane nosed down beyond the vertical into an inverted dive. The instructor closed the throttle, grasped the stick and, after attempting to apply back pressure against the student's forward pressure, he told the student to "let go." The student then relaxed forward pressure and jerked back on the stick. The combined back pressure of the two caused the plane to pass abruptly from the inverted dive through the vertical point, at which time a grinding, crashing sound was heard. The left wing went down and the plane started an uncontrollable tight left turn, which gradually approached a level turning motion. The student released the controls and the instructor, unable to stop the circular motion and realizing the hopelessness of trying to land the plane, told the student to jump. When he made no effort to do so the instructor opened the student's door and attempted to release the latter's safety belt, again instructing him to leave the plane. The student then grabbed his belt and when the instructor saw that he was attempting to open it, he cut the switch, unfastened his own belt, and jumped at an altitude estimated by witnesses to have been approximately 500 feet above the ground. He landed safely about 300 feet from where the aircraft struck the ground. The plane crashed nose first and remained in an almost vertical position.

Examination of the wreckage revealed that the left wing panel had collapsed prior to impact due to the excessive loads imposed during the flight. The aircraft records indicated that this plane had been maintained in an air-worthy condition and the owner had complied with all service bulletins. Student Swann had not unbuckled his safety belt.

The probable cause of this accident was an abrupt pull-out at excessive speed which caused the left wing structure to collapse, rendering the aircraft uncontrollable.

BY THE BOARD

/s/ Fred A. Toombs
Secretary