



RECORD OF PHONE CONVERSATION

Eric M. Gutierrez
Air Safety Investigator
Western Pacific Region

Date: April 1, 2021
Person Contacted: Jason G. Paquin (Flight Instructor)
NTSB Accident Number: WPR21LA123

Narrative:

The following is a synopsis of the information provided by Jason G. Paquin in a telephone conversation.

On March 5, 2021, he and Tanguy Five, a Belgian Air Force test pilot student, departed from the Mojave Air and Space Port (KMHV) Mojave, CA, in N155TP, an Aermacchi, Impala, MB-326M. The intent for the flight was a student led, spin data-gathering sortie.

Several maneuvers were conducted to ensure the normal operation of the airplane, Prior to the accident inverted spin maneuver. Upon entry into the inverted spin, the airplane behaved normally throughout the incipient stage, the first revolution and the subsequent second revolutions in the spin. He noticed that the spin attitude began to steepen and increase in rate and directed the Mr. Five to recover from the spin, by stating, “recover, recover”. Mr. Five replied, “I’m trying”. He looked down at the flight controls, and it appeared that the flight control was in the aft position, and the right rudder pedal was depressed. The spin rate started to incapacitate him and estimates he was at 50 percent of useful consciousness.

It became clear that the student could not recover. He assumed control of the airplane and attempted a recovery input. However, the spin rate was increasing with a subsequent increase in negative G forces resulted in being pushed out of his seat. He was able to touch the right rudder with his toes but was not able to apply sufficient right rudder control input to recover from the spin. At this point in the maneuver, he estimates about 25 percent of useful consciousness. Unable to recover and reaching the ejection decision altitude, he directed ejection (“Eject, eject, eject”). Mr. Five departed the airplane after the second ‘eject’ call. The spin rate appeared to increase

along with the negative G forces; he estimates about 5 percent of useful consciousness. Verifying that Mr. Five was clear of the airplane, he pulled his ejection handle. As he was being partially thrown out of the seat due to the spin, when the rocket catapult fired, the seat impacted into his buttocks, resulting in a significant spinal fracture. The subsequent descent and landing under the parachute occurred normally.



RECORD OF PHONE CONVERSATION

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Air Safety Investigator
Western Pacific Region

Date: April 1, 2021
Person Contacted: Tanguy Five (Pilot-Rated Student)
NTSB Accident Number: WPR21LA123

Narrative:

The following is a synopsis of the information provided by Mr. Five in a telephone conversation.

On March 5, 2021, at about 0730 local, he conducted a thorough briefing of the flight with the NTPS telemetry staff and test pilot instructor (Jason G. Paquin). The intent of the flight was to evaluate the departure susceptibility, spin characteristics, and spin recovery procedures of the MB326 Aermacchi Impala, N155TP.

He and Mr. Paquin departed from Mojave Air and Space Port (KMHV) Mojave, CA, in N155TP. Prior to the accident inverted spin, the first 12 events of the briefed flight were performed and were uneventful. During the 13th maneuver, the inverted spin to the left, they climbed to an altitude of at 22,000 ft MSL, the power was set to IDLE and a pitch up motion was initiated. As the airplane entered the stall, he applied full left rudder, the flight control stick was full forward and to the right. The airplane then entered a left inverted spin. While looking forward at the horizon, the flight controls were maintained in that position during 3 left inverted spin revolutions. After 3 spin turns, he applied right rudder to recover, but did not recall if any pressure or resistance was felt from the rudder pedal. He recalled that the flight control stick was full aft and centered (as intended to test a different recovery procedure than the Aircraft Flight Manual recommended procedure). The airplane was not showing any sign of recovery and he repositioned the stick to the neutral position (which was the Aircraft Flight Manual recommended stick position). After two turns, Mr. Paquin directed him to recover from the spin. He relayed, "I'm trying". Mr. Paquin then took control of the airplane and attempted a recovery. A call from the telemetry room of "15,000 ft" was heard. He then looked at the altimeter and called out "13,000 ft" and "12,000 ft". Mr. Paquin then ordered "EJECT, EJECT, EJECT" just after the "12,000

ft” call. At the second EJECT word, he pulled the lower ejection handle.

While descending, he observed Mr. Paquin under his parachute but not moving. He landed without incident, and once Mr. Paquin was on the ground, he checked on his condition and notified NTPS of the accident.

He had previously conducted upright spins in various aircraft, but this was the second time conducting inverted spins.

On the day of the accident flight, he wore his issued flight suit and aviation boots.

On the April 2, 2021, while seated in the same type of airplane in the NTPS hangar, he realized that the clearance between his shins and the instrument panel was rather small. While seated normally, he was able to move the rudder pedals to the full left and right deflection. However, when he placed a cushion between himself and the seat (which simulated a negative G scenario), the distance between his shins and the instrument panel was reduced. Contact between his feet and rudder pedals was accomplished by use of the toes of his feet. Motion of rudder was tested in that configuration and the rudder moved only a few centimeters. The reduction of space allowed his shins to contact the instrument panel, which restricted the movement of the rudder pedals. When the rudder was depressed to the left, he was unable to move it more than the neutral position. This test was performed with the same type of equipment as the accident flight, but without G-Suit and ejection seat leg restraining straps.

Additionally, while seated in the airplane, he remembered having difficulties applying full rudder deflection during the recovery of both inverted spins on the day of the accident. Due to his shins contacting the instrument panel, he was only able to utilize his toes to move the rudder pedals while recovering the airplane.