

# Forensic investigation into death of 14-year-old Tyre Sampson reveals manual adjustment was made prior to fatal amusement ride fall

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A forensic report released this week into the death of 14-year-old Tyre Sampson, the teen who died after falling more than 400 feet from ICON Park's Orlando FreeFall drop-tower ride in Orlando, Florida last month, revealed that the ride operator had manually manipulated Sampson's seat, causing a severe error in the seat's safety sensors.

The bombshell revelation is the latest piece of evidence showing that safety protocols were recklessly abandoned prior to the teen's tragic plunge from FreeFall.

The Accident Fields Investigation Report was released by the Fair Rides Division branch of the Florida Department of Agricultural and Consumer Services (FDACS) and was written up by Quest Engineering and Failure Analysis, the engineering firm enlisted by state officials in its investigation into the accident at ICON Park.

FDACS commissioner Nikki Fried announced the report's finding at a press conference Monday, saying it "confirmed our department's findings that an operator of the Orlando drop tower made manual adjustments to the ride, resulting in it being unsafe."

In the field observations mentioned in the forensic report, investigators noted that no evidence of physical or mechanical failures from the ride had been found. However, the inspection of the ride revealed that manual adjustments were made to the harness of Sampson's seat, referred to as "seat 1" in the report. The harness is a device that lowers over the rider's shoulders down onto their torso to complete the restraint system for the ride. The harness contains a slotted plate that allows operators to adjust the harness' positioning in order to facilitate the passenger's seating.

Each seat on the ride also had a proximity sensor used to activate the ride's "safety lights," which are used to indicate the rider is properly secured. Until the safety lights are illuminated, the ride will not function. The adjustment of the proximity sensor locations has a direct effect on the "restraint opening gap," or the location between the harness and the seat's horn, a raised section on the front edge of the

seat base that fits between the rider's legs and is part of the ride's restraint system. Attaching the harness to the horn completes the restraint system.

According to the assessment, the "inspection of the plates for Seats 1 and 2 revealed evidence that adjustments were made to their proximity sensor locations after the sensors were initially secured in place." On seats 1 and 2, manual adjustments were evidenced by "clear clamping marks from screw tightening" on the plate after the safety lights had been activated.

Geometric calculations revealed that the initial proximity sensor location for Seat 1 would have located the seat's harness to "near 3 inches, or a more closed location with a sensor and restraint opening similar to the unadjusted 27 seats."

Instead of the normal three inches found on the other unadjusted seats, Sampson's harness proximity sensor was "manually loosened, adjusted, and tightened to allow a restraint opening of near 7 inches." It notes further, "at the time of the accident, Seat 1s harness restraint opening was between 6 to 7 inches at the start of the ride." The timeline of the report asserts only that this adjustment occurred prior to the time of the accident, but after the initial setting.

The investigative report also analyzed video evidence at the time of the accident, which suggested the restraint opening initially was over six inches but, "with the aforementioned compliance, may have grown to as much as 10 inches."

The investigation used two individuals as samples who were positioned in a seat similar to that of FreeFall's with an opening ranging from six to 10 inches. Both individuals were able to slip through the restraint opening without any assistance. The individuals were 6'3" to 6'5" tall and weighed between 200 and 300 pounds. Sampson was reportedly 6'5" inches tall and weighed up to 360 pounds.

According to Fried, the adjustment by the individual operator, who was not identified in the report, enabled the

FreeFall's sensor lights to illuminate, therefore “improperly satisfying” the ride's electronic safety mechanisms and enabling the ride to operate “even though Mr. Sampson was not properly secured in his seat.”

The conclusions drawn from the investigation bluntly states that the cause of the accident and Sampson’s death was that he “was not properly secured in the seat primarily due to mis-adjustment of the harness proximity sensor.” The mis-adjustment of the sensor allowed both safety lights to illuminate, and this improperly satisfied “the ride’s electronic safety mechanisms” and allowed “the ride to commence even though the ride was unsafe.”

The investigation substantiates reports indicating that Sampson exceeded the maximum passenger weight for the FreeFall by about 70 pounds. According to an operations manual published by the ride’s manufacturer, the maximum passenger weight is just over 286 pounds.

Fried declared on Monday that the investigation remains ongoing and that determining if operator error was a factor is only the initial stage. Orlando Eagle Drop Slingshot LLC, which owns the FreeFall, has not responded to media inquiries or made any comments following the report’s release. ICON Park, the landlord of the operator, said in a statement Monday it is “deeply troubled” by the findings that the ride’s sensor “had been mis-adjusted after the sensor was originally secured in place.”

The engineering assessment massively discredits the claims of representatives of the operations company that conditions were safe for Sampson to enter the ride. John Stine, a marketing director at Slingshot Group of Companies, defended the ride last month by pointing to the “safety checks” put in place before the ride is launched.

“The ride will not operate if those checks are not greenlighted,” Stine asserted. “Again, everything was functioning properly when the ride started. What we don’t know is what happened after that.” The field investigation, however, irrefutably proved that the operator’s manipulation of the seat’s sensors falsely presented the system as secure for Sampson and that proper safety protocols had been irresponsibly sacrificed at the cost of his life.

An attorney for Sampson’s mother, Nekia Dodd, revealed she was profoundly disturbed after being alerted of the investigation’s findings. “She’s again in shock. She’s distraught,” Dodd’s attorney Michael Haggard said. Even before the investigation’s findings, Sampson’s family, along with many ride safety experts, had publicly condemned the ride’s operator for allowing the teen to ride on FreeFall despite the ride’s weight limitations.

Haggard called out the engineer for not using a basic scale to measure passengers’ weight. “They know that no one over 287 pounds can go on this ride, and they don’t have a

scale,” Haggard said. “This case stems from the design of this ride in Austria to this fateful night when it was operated with Tyre on it.” The attorney said the family plans on filing a lawsuit in coming weeks.

Speaking on behalf of Dodd, Haggard said: “The fact more safety measures weren’t implemented in the largest free-fall ride in the United States of America is incomprehensible. So, she wants answers to all those and she wants answers and legislation to make sure this can’t happen again.”

Democratic State Representative for Orlando’s district, Geraldine Thompson, criticized the ride’s owners and said that she and other officials would be pushing for more regulations for thrill attractions. Thompson said findings from the investigation could lead to a “Tyre Sampson Bill,” to address the unsafe conduct of the amusement industry, which is notoriously deregulated in Florida and throughout the US.

It should be noted that it was FDACS, under the command of commissioner and Democrat Nikki Fried, which had signed off and approved of the operation of FreeFall at an initial inspection of the ride last December before it was put into use. The FDACS December report found “no deficiencies” in the ride’s operation.

There is evidence, however, that even the initial inspection may have been done improperly and ignored critical safety issues. Ken Martin, a ride safety analyst and consultant, told WESH2 News that despite the inspection showing the ride had “passed,” there were no notes placed under the report’s “deficiencies” section, which raises questions as to whether the inspector had witnessed the ride in operation.

“I call that a drive-by inspection,” Martin said. “He didn't write, you know, that I operated it (the ride) and it did this and it did that, checked all that lap bars for proper configuration. This inspector didn’t write anything down!”



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