

Incident Summary #II-723507-2018 (#7991) (FINAL)

SUPPORTING INFORMATION	Incident Date	July 17, 2018	
	Location	Whistler	
	Regulated industry sector	Amusement Devices - Amusement ride	
	Impact	Qty injuries	1
		Injury description	Closed fracture of the lower radius at the wrist
		Injury rating	Moderate
	Damage	Damage description	No damage
		Damage rating	None
	Incident rating	Moderate	
Incident overview	During the ride cycle, two children (both on the same cart) fell out of the moving cart with one sustaining a fracture to the lower forearm.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>The ride is a bobsleigh type ride. Carts roll downhill (by gravity) over a smooth flume shaped stainless steel track with multiple corners. The cart accommodates one or two passengers (passengers can sit behind each other) and is controlled by a handbrake located between the rider's legs. Pulling the handbrake handle causes the cart to stop; pushing of the handle causes the brakes to release, allowing the cart to accelerate.</p> <p>The rider has significant control over his or her speed, however carts have a speed governing device (a centrifugal brake located inside the carts rear rollers) maintaining maximum speeds to 32 Km/h. Daily preoperational checks are conducted to verify cart speed governing devices maintain the maximum speed of 32 Km/h.</p>	
	Failure scenario(s)	The riders failed to remain in balance in the cart during the ride cycle.	
	Facts and evidence	<p>Statements provided by the operating contractor indicate 2 children were riding down the track when approximately 2/3 of the way down one of the children reports not being able to hold on very well when the other child started braking. The child, losing their balance, put their arm out to steady themselves resulting in both children falling from the cart and out of the track. A 9 year old sustained a fracture to their forearm and a second younger rider (age not known, reported as younger than injured rider) was uninjured.</p> <p>Signage at ride entrance indicates that children 8 years old and older are allowed to ride alone (i.e. without adult).</p> <p>It was observed that normally when passengers ride double on this ride it is an adult with a child. In this configuration the adult is seated behind child with the adult reaching around the child to control the handbrake (this configuration allows the child to be held in a secured position). No other handholds are provided on the cart other than the handbrake handle. (see photo)</p>	

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	<p>Daily preoperational checksheet of cart speeds indicate that that cart was running at a maximum speed of 28.4 km/h (maximum 32.0 Km/h) on the date of the incident.</p>
<p>Causes and contributing factors</p>	<p>The probable cause is the failure of a rider to remain in balance on the cart.</p> <p>A contributing factor may have been that the rear position rider (as per statement) was not grasping handbrake and therefore not provided with an adequate hand hold. This in turn contributing to them losing balance, putting their arm out and causing them the fall from the cart and track.</p>



Handbrake located between the rider's legs. Pulling handle stops cart; pushing handle allowing the cart to accelerate.

Flume shaped stainless steel track

Two passenger Cart
(usually 1 adult 1 child)