

Incident Summary #II-1314639-2022 (#25809) (FINAL)

SUPPORTING INFORMATION	Incident Date	January 13, 2022	
	Location	Interior	
	Regulated industry sector	Passenger ropeways - Above surface ropeway	
	Impact	Qty injuries	1
		Injury description	Knee injury
		Injury rating	Minor
	Damage	Damage description	N/A
		Damage rating	None
Incident rating	Minor		
Incident overview	Operating personnel were spacing carriers within load area, while continuing to load passengers. Passenger knocked over by chair and injuring their knee as they were advancing to the load line on the loading ramp.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>High speed chairlifts detach each carrier (chair) from the haul rope when they are at the load and unload stations. This allows for the carriers to reduce speed, creating easier and efficient loading and unloading of passengers. As the carrier is detached from the haul rope, carriers are advanced by a conveyance system within the station. A spacing monitoring system ensures proper carrier spacing within stations. To perform maintenance to carrier spacing when faulted by the safety system, personnel can stop, stow, and start carriers within the load station, as the chairlift continues operation. This maintenance carrier spacing occurs within the passenger load area.</p> <p>The awaiting passengers to load are organized with a load gate at the starting point of the load ramp. A load gate synchronized with the continuous advancing carriers, open and close to control passenger access onto the load ramp. Passengers ski/slide along the load ramp to the designated loading location, a load line. Passengers then seat themselves on the chair approaching from behind.</p>	
	Failure scenario(s)	Passenger hit by the chair they were attempting to load onto.	
	Facts and evidence	<p>Reported by ropeway attendants:</p> <ul style="list-style-type: none"> • Incident occurred at 11:40am • Load gates were manually open • Load station bottom spacing was on, chairs were stopping and starting • Passenger attempting to load on the outside seat of a quad chair • Chair knocked victim off balance and fell to the ground on load ramp • Passenger needed help up and complained of knee pain • Incident occurred between load gates and load line • One attendant positioned at the load line another after the load gates, where chair is redirected from downhill to uphill travel 	

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	<p>Daily Log</p> <ul style="list-style-type: none"> • All chairs inspected prior to opening • Line Check, includes chair spacing completed prior to opening • Load ramp inspected at 11:30am • Manual spacing required during the day to reposition chairs <p>Lift Operations policy/manual:</p> <ul style="list-style-type: none"> • Ropeway attendants trained to operate passenger ropeway • No written maintenance spacing procedure available for personnel when operating ropeway for public while manually spacing <p>Z98 Code requirements:</p> <ul style="list-style-type: none"> • Written maintenance safety procedure shall be in place at each ropeway when necessary for public safety <p>Safety Officer observations of Load Station Spacing:</p> <ul style="list-style-type: none"> • Requires the ropeway to be running • Interrupts the progression of chair movement by stopping, then starting the chair as soon as the required distance from the chair in front is achieved • Occurs in the passenger loading area • Can create undue chair swing • Chairs being interrupted (stalled) can cause load gate synchronization issues
<p>Causes and contributing factors</p>	<p>It is likely operating the ropeway while spacing, carrier progression with interruptions and load gates manually opens at the load station, caused a passenger distraction while attempting to load and being hit by a chair.</p> <p>No written spacing safety procedure available for operating personnel to confirm procedure may have led to passengers being distracted and confused while attempting to load.</p>