The Changing Culture of Chairlift Passenger Safety

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Many skiers may remember their first ski lift ride as a frightening experience. Whether being overwhelmed by a fear of how the small steel chair was somehow attached to a cable or by the frustration of falling while getting on or off and realizing the lift was not stopping for them.

Ski lift ropeways have been used to transport billions of skiers in North America since 1936 while having one of the lowest rates of accidents and fatalities for any form of transportation. What makes this fact even more amazing is that the majority of lifts used for skiing and snowboarding load and unloaded the passengers with the ropeway in motion and it is done mostly on slippery snow surfaces. Loading passengers on-the-move is not exclusive to skiing however it is unique in that most other forms of transportation such as trains, planes, cars, buses, subways, amusement park rides, boats and elevators all stop or pause to load passengers.

In nearly 30 years of ski industry work I have witnessed, studied and analyzed usage, incidents and accidents in this unique industry that transports passengers in mountainous terrain, with extreme weather and snow conditions while being propelled by elevated cable. The technology has changed as have the expectations of today's skiing guest who are expecting more and less understanding of a poor lift experience. For the ski industry to continue its success it is becoming increasingly important to design, install, maintain and operate ski lifts at the highest standards with details and facilities that improve the user-machine interaction to be positive, safe, fun and reliable. Comfort bars (safety bars), kid stops, automatic bars, signage, user education, operator interaction, loading carpets, magnetic seat backs and other ideas are becoming the standard and potentially may be required in some states and should be explored in detail.

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Relocation of Track Cables in New York City

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The Roosevelt Island Tramway was built in 1976 and in November of 1981 the track rope were being relocated for the first time. Conventional block and tackle rigging was used in the Manhattan Station. There were several rigging incidents and the counterweight on Car-1 side had to be raised after the job because it was too low and would have bottomed out due to thermal expansion of the Track Cables in the summer heat.

For the next relocation in 1987, a new system of moving the Track Cables was proposed that would cause minimal interruption to the daily transport of passengers. The tram would be able to operate from 6:00 am until 8:00 pm during peak commute times eliminating the use of busses and maintaining revenues. The relocation work and normal morning inspections would be done during the 10 hour night shift.

The proposed system worked like a long bearing puller attached to the counterweight. The Track Cables would be jacked down to the counterweight bollards using hydraulics. Technicians would be working on platforms of scaffolding that was set on the counterweight around the Track Cables. This eliminated any rigging over Second Avenue and the fall potential of workers or equipment. During daytime operation, the scaffolding and equipment would just ride up and down on top of the counterweight. The system was capable of relocating a Track Cable 90 feet in one overnight shift.

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