

Survivor: The Ride



Measurements:

How many passengers at one time? _____

Time from one loading to the next? _____

How many passengers per hour? _____

Radius of the riders on their platform: _____

Period of the platform rotation: _____

Calculation:

Speed of a rider along the circular path around the platform: _____

Centripetal acceleration: _____

Speed of the platform through the bottom of the dip: _____ Discuss how you arrived at this figure.

Observations:

What motions does a rider experience on the ride? Does the rider experience these one at a time or as some sort of combination?

Is the rotational speed of the platform constant? At some times it appears to slow down then speed up. Is this an illusion or is it real?

Where along the ride would you expect to feel the largest forces? How many times would the force build up to a large force then drop down during a complete ride?

Is there a correlation between the movement of the platform along the track and the rotational motion of a rider? For example, is one rider always going backwards relative to the platform's motion?

This ride has a fairly unique seating arrangement. How does this contribute to the ride experience?

What other rides at Paramount's Great America share similar features to Survivor?
Choose two and compare and contrast the two rides.

Do it Yourself:

Observe the ride. Determine an important physical quantity that you could measure or make a good estimate. Write up a short procedure that you would carry out to do this. Then carry out your measurements and write up your work as completely as possible.