

Abstract

Theme: Analysis of the paragliding rescue parachute opening

Aims: To contribute safety in paragliding community by comparing rescue parachute speed openings. We will test different types and brands and focus mainly on speed of openings from the time of deployment to fully inflated rescue parachute. We will try to simulate it as close to the real situations as possible.

Methodology: For our test we used a swing bridge where we attached a rope. Pilot would always swing on the rope and deploy the rescue parachute. Each test was recorded on the camera so we could evaluate the speed of openings and stability. Each test was split into 5 parts - drop in (rebound), swing, dead point (stall point), deployment, opening. Another method was experimental personality characteristics of the person conducting the investigation.

Results: Results : After full analysis of the survey we found that a main factor of the reserve opening is the pilot as the direction and the strength of the throw are the key factors for the reserve to open. Fastest open parachute in our test was Cirrus Delta it opened in 3.17 seconds from the start of throw to open.

Key words: paragliding, speed, rescue parachute, process of opening