

H.G. Heinrich Parachute Systems Short Course – 2023 Edition (FINAL)

Website: <https://www.nianet.org/short-courses/2023-parachute-systems-short-course/>

	Monday (5/6)	Tuesday (5/7)	Wednesday (5/8)	Thursday (5/9)	Friday (5/9)
8-9	Welcome; Para-literature; Definitions Potvin	Flight Mechanics Cruz/Potvin	Introduction to guided aerial delivery systems Yakimenko	Supersonic Parachutes Underwood	Post Test Parachute Inspection Petersen
9-10	Design Considerations Potvin	Aerodynamics I Underwood	Gliding parachute design Underwood	Materials testing and Video Extensometer for Continuous Elongation Measurements Petersen	Design problem wrap up & debrief Cruz
10-11	Break + Deployment Potvin	Break + Impact & Shock Attenuation Potvin	Break+ Gliding Chute Applications Underwood	Break+ Parachutes for space exploration Underwood	Break+ Introduction to FSI Underwood
11-12	Inflation I: Phenomenology & reefing Potvin	Aerodynamics II Underwood	Testing Measurements & Analysis 2 Watkins	Materials & Stress/load analysis Potvin	Course Evaluation, Intro to ADS TC & Farewell
12-13:30	lunch	lunch	lunch	lunch	lunch
13:30-14:30	Testing overview Potvin	Inflation II: Estimators; Scaling; Modeling Potvin	Nasa Orion Parachute testing at Naval Air Warfare Center HiVAS Petersen	Testing Measurements & Analysis 3 Watkins	
14:30-15:30	Break+ Presentation of design problem Cruz/Potvin How to approach design Cruz/Potvin	Break + Design Problem Lab (Q&A with Instructors; small group discussions)	Break + Design Problem Lab (Q&A with Instructors; small group discussions) All instructors	Break+ Inflatable Aerodynamic Decelerators Cruz/Potvin	
15:30-16:30	Deployment demo Watkins Potvin	Testing Measurements & Analysis 1 Watkins	Wind tunnel testing Cruz/Potvin	JPL SIAD & PDV Testing at the Supersonic Naval Ordnance Research Track (SNORT) Petersen	
	<i>Ice-breaker</i> reception @ place TBD 19:00			Design Problem due today, by 5pm	