SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Upper Stages, Space Transfer, Entry and Landing Systems (3)

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SCHEME DESIGN OF A PARACHUTE RECOVERY SYSTEM FOR UAV

Abstract

UAV(Unmanned Aerial Vehicle) needs to be recycled if the vehicle failed to approach landing as programmed, so that the cost of tests is reduced and the post analysis of the malfunction can be conducted. A parachute recovery system is introduced in this paper. The parachute recovery system is composed by fuselage, door, hanger, segregator, shooting system, main parachute, drogue parachute, unlocking system of doors, binding system. The design of main parachute and drogue parachute is optimized by wind tunnel tests. The scheme of this system has been approved that UAV can be recycled in despite of the vehicle being in unfavoured states by Air-drop experiment.