

MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM (A2)  
Microgravity Experiments from Sub-Orbital to Orbital Platforms (3)

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AN OPERATIONAL TEST BED FOR MICROGRAVITY SMALL SYSTEMS

**Abstract**

Microgravity is a very good step for space science development between undergraduate and high school students. The functional and operational conditions are similar and besides, the cost is impressively lower. It is the main reason why microgravity experiments are highly welcome by universities, school and research institutes based on its educational value. This paper is about a test bed designed and developed for test of the systems made ready to work in microgravity conditions. The test bed is based on balloon and the payload will be released from the desired altitude automatically or by a ground command. The paper briefly talks about the similar systems, and then provides the design of the test bed, and finally provides some side applications of it, like one, called Tele-Balloon, with rescue mission. Some other possible applications are also mention in conclusion.