

MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM (A2)
Facilities and Operations of Microgravity Experiments (5)

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DLR'S MOBILE ROCKET BASE – FLIGHT TICKETS FOR YOUR MICROGRAVITY
EXPERIMENTS**Abstract**

Mobile Rocket Base (MORABA), a section of DLR's Space Operations and Astronaut Training Department enables the national and international scientific community to prepare and implement rocket and balloon born experiments in the fields of aeronomy, astronomy, geophysics, hypersonic and especially hypersonic research worldwide. In addition satellite missions can be supported by mobile tracking radars for trajectory determination as well as with TTC ground stations. MORABA also supplies a number of mechanical and electrical systems for use on rockets, balloons and short term satellite missions. During the last three decades more than 200 campaigns have been performed in Antarctica, Australia, Brazil, France, Greenland, India, Italy, Japan, Norway, Spain, Sweden and U.S.A. Depending on the scientific aim, an appropriate launch range is selected and complemented or fully equipped with MORABA's mobile infrastructure, such as launcher, telemetry and tracking stations. Converted military or commercial launch vehicles, as well as all necessary mechanical and electrical subsystems are supplied by MORABA. For the launch of rockets, stability and performance calculations are carried out to ensure correct vehicle performance and meet range safety aspects. This paper will give an overview of the MORABA infrastructure for sounding rocket launching and it will focus on flight tickets for experiments that need microgravity conditions. It will give also a survey of projects with MORABA involvement of the last two years and the next two years.