

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Launch Services, Missions, Operations, and Facilities (2)

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ESRANGE SPACE CENTER - A NEW TESTING AND ORBITAL LAUNCH FACILITY IN EUROPE

**Abstract**

SSC (Swedish Space Corporation) have invested alongside funding decided by the Swedish Government, in new test orbital launch facilities at SSC's Esrange Space Center. Esrange is since a couple of years undergoing a major upgrade in order to meet the increasing demand of access to space and test facilities for motors and reusable stages. The test facilities currently enable validation of new liquid, hybrid and solid engines as well as of new sounding rockets and reusable first stages through tethered tests, jump tests and controlled landings. Esrange Space Center, owned and operated by SSC since 1972, has an ideal location in the very north of Sweden, above the Arctic Circle (68N, 21E) with access to a vast, unpopulated recovery area, 5200 km<sup>2</sup>. It has a well-equipped infrastructure and proven experience of operations, range and launch safety, handling of large rocket motors and launching of guided rockets. The facility is presently used by the international scientific community, space agencies and commercial companies for launching sounding rockets and testing bi-liquid rocket motors. This paper will highlight the new major achievements and new operations at the base.