

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
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ANDØYA SPACEPORT - EUROPE'S LAUNCH FACILITY FOR SMALL SATELLITES

**Abstract**

This paper presents an update on the current plans for the development of a commercially viable spaceport dedicated to launching small satellites at Andøya in Norway within the year of 2020. This February, the Andøya Space Center (ASC) filed an application to its owner, the Norwegian Ministry for Trade, Industry and Fisheries, for a capital increase to enable the establishment of Andøya Spaceport, the European launch facility dedicated to small satellites. The new development project will be led by Andøya Spaceport AS (ASP), a new subsidiary of Andøya Space Center, which will also be responsible for running the services connected to the orbital launch facility. ASP will provide access to polar and sun-synchronous LEO orbits from a favourable location in terms of no need for costly dogleg manoeuvres, low air/sea traffic, experienced personnel and agreeable meteorological conditions. The site is also logistically highly accessible with a military airport and two ISPS harbours. The new launch facilities will be located about 40 km southwest of the current launch site for suborbital rockets. To reach the goal of conducting the first orbital launch by the end of 2020, ASP is planning to install an interim launch pad, in the expectance of the two permanent launch pads that will be located about 1 km outside the existing shoreline, protected by a breakwater. The aim is to establish a safe and cost-effective launch site which will concentrate on a payload capacity of up to 1000 kg. The paper will give a description of the development plans for the next four years, until the new facility is fully operational in 2022. Spaceport architecture and the results of the environmental impact assessment will be presented, alongside the results of the analysis made on ground and flight safety. The Andøya Spaceport architecture is designed to be sufficiently flexible to service the launch requirements of different launch vehicle operators. It will enable several operators to conduct launch preparation activities in parallel, and to support a maximum launch frequency of 30 per year. The Norwegian Center for Space-related Education (NAROM) is a subsidiary company of ASC providing hands on space education activities and training from kindergarten and to Ph.D level. NAROM had a total of 10 834 participants in 2018 and the establishment of ASP will enable NAROM to provide new educational opportunities for students for even more hands-on training and workshops related to satellites and launch vehicles.