

SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)  
Commercial Space Flight Safety and Emerging Issues (1)

Author: Mr. Jean-Bruno MARCIACQ  
Swiss Space Systems (S3), Switzerland, jean-bruno.marciacq@s-3.ch

Mr. Thomas AVANZI  
Swiss Space Systems (S3), Switzerland, thomas.avanzi@s-3.ch

Mr. Davide APOSTOLO  
Swiss Space Systems (S3), Switzerland, davide.apostolo@s-3.ch

Mr. Jérémie DESPRAZ  
Swiss Space Systems (S3), Switzerland, jeremie.despraz@s-3.ch

Ms. Ntorina ANTONI  
Swiss Space Systems (S3), Switzerland, ntorina.antoni@s-3.ch

SAFETY AND CERTIFICATION OF SWISS SPACE SYSTEMS PROJECTS

**Abstract**

Swiss Space Systems Holding SA is a Swiss company founded in Payerne in 2012. From a dozen of employees in 2013, S3 now counts 75 employees at its headquarters in Switzerland and at its subsidiaries in Spain, Canada, the US and Croatia. The objective of the S3 Group is to develop and work on the certification of an efficient, flexible, safe and affordable Sub-Orbital Aircraft-Reusable (SOAR). In a first step, it will be used as an unmanned launching system for recurrent access to space. The first satellite launches are planned for 2018 and its global budget up to this first satellite launch is around 250 million Swiss Francs (CHF). This aggressive RD schedule is possible thanks to the utilisation of existing and certified technologies. Then, in a second step, S3 will develop over a decade horizon a new SOAR version based on the previous one dedicated to point-to-point high speed passengers transportation, thereby decisively contributing to the future of aviation.

The purpose of this paper is to discuss the safety and certification approaches used for S3 current and future commercial projects.