Training Opportunity for Swiss Trainees

Reference	Title	Duty Station
CH-2019-OPS-OPC	**Analysis of Operations Scenarios for Cluster extension 23-24 and testing of Juice Ground Segment**	**ESOC**

Overview of the unit's mission:

The Cluster Flight control team is in charge of the planning and execution of operations for the Cluster mission: a spacecraft quartet flying in formation to study the solar wind interaction with the Earth's Magnetosphere.

Overview of the field of activity proposed:

The trainee will be primarily responsible for developing analysis of the impact of orbital evolution to the operations concept of Cluster for the mission extension 2023-24. This will include power and thermal analysis, including performance and degradation of Solar Arrays, as well as communications link budget, visibilities and station utilization and data return impact. The goal is to develop a report to support the case for a further extension at the Mission Extension Operations Review in 2020.

Additionally the trainee will be assigned tasks in the ground segment testing and validation for the Juice Mission, in particular preparing and running test cases for the Mission Control System and the Simulator, and preparing the corresponding reports and raising any associated software change requests.

Additionally, should further Flight Operations support to the Mission to the Moon, by PTScientists materialise, the trainee will be assigned operations analysis tasks, such as power and communications budgets and attitude and other system constraints analysis.

Required education:

A Master in Engineering, with preference for aerospace or physics background. Ability to use programming languages to model and represent physical phenomena (e.g. Python)