



Recent updates on the Swarm Level 1B products

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Swarm is the first European Space Agency (ESA) constellation mission for Earth observation, consisting of three identical satellites launched on November 2013 in near polar, circular orbits. One of the spacecraft (Swarm Bravo) has higher orbit, at an altitude of 510 km, while the lower pair (Swarm Alpha and Charlie) are flying side by side, with 1.4 separation in longitude, at 460 km altitude. Each Swarm satellite is equipped with high-precision magnetometers (ASM and VFM), Electric Field Instrument (EFI), Star Tracker (STR), GPS Receiver (GPSR), Laser Retro-Reflector (LRR) and Accelerometer (ACC), and they are providing measurements of the Earth's magnetic field and plasma environment in the Ionosphere with unprecedented accuracy.

This paper will present an overview of the Swarm Instrument status after five years of operations, focusing on the most significant payload investigations to improve science quality, data validation activities and results along with future validation/calibration plans.