

19th SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Small Earth Observation Missions (4)

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PROBA V : A MULTI-SPECTRAL EARTH OBSERVATION MISSION BASED ON A PROBA
PLATFORM**Abstract**

PROBA-V is a small ESA Earth observation mission, based on a PROBA satellite platform. The mission is developed by QinetiQ space as a prime contractor for ESA. It is the 3rd PROBA platform based mission (after PROBA 1 launched in 2001 and PROBA 2 launched in 2009).

The PROBA V mission has been introduced to guarantee the continuity of Vegetation data after decommissioning of SPOT-5. Also improved products will be offered. The PROBA-V satellite bus is based on PROBA-2 and has been expanded with an X-band transmitter and a flash-based mass memory. The 160 kg satellite is equipped with a state-of-the-art 4-band multi-spectral imager. With a swath width of 2250 km, the satellite is able to image the whole Earth in 2 days with a resolution ranging from 100 m in nadir to 300 m at the edge of the swath. The high level of autonomy, embedded in the on-board software and the ground segment, allows for a user-friendly and low cost operation of the mission.

The mission provides at the same time a flight opportunity for new technologies for space weather, automated identification and new communication technology. The mission is designed for an operational life of 5 years. The satellite is envisaged to be launched on the first VERTA flight of VEGA in early 2013.

This manuscript will explain the development status and the predicted performance of the mission.