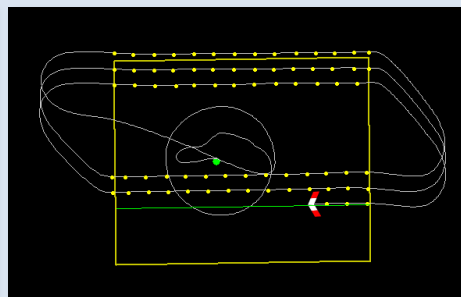
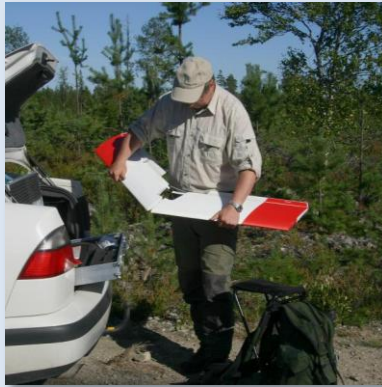




The Personal Aerial Mapping System (PAMS)

PAMS is a highly automated system for aerial survey and mapping based on the SmartOne Unmanned Aircraft with software for mission planning and data processing. PAMS makes it possible for non-specialists to collect aerial photographs over smaller areas on-demand and produce detailed orthophoto mosaics and digital surface models at a fraction of the cost of conventional methods. After hundreds of hours of flight service for applications in agriculture, forestry, excavation, construction, environmental mapping and more, PAMS is well proven and ready for use in the field. Please visit our website for more information and contact us for pricing and availability.

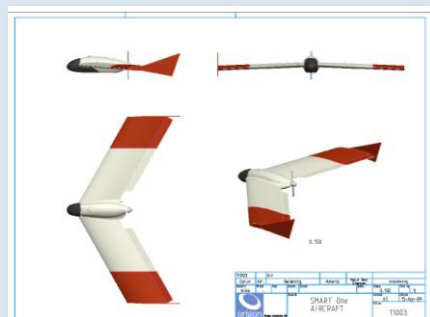
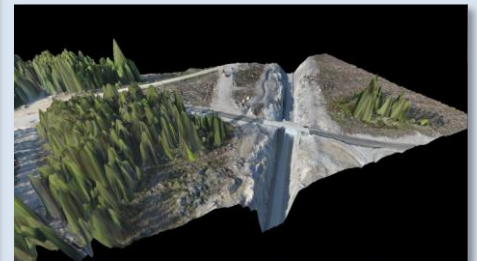


Setup and Operation

SmartOne is disassembled into three pieces for easy transport and setup in minutes by a single operator. Mission plans are specified by the dimensions of a rectangular block at a single waypoint plus the desired photo overlap and flying altitude. After hand-launch, the aircraft enters a holding pattern until the operator initiates the photo mission from the groundstation laptop computer. After completion, the aircraft returns to the holding pattern where the operator takes over for landing.

Image Data Processing

Highly automated aerial mapping software produces georeferenced photo mosaics on-site directly after the flight in less than 15 minutes. A data processing service (internet access) generates true orthophotos and digital surface models with exceptional accuracy, with or without external control points. A typical mission covers 25-50ha at 5cm resolution from 200m altitude and individual flights can be combined into larger blocks. Data products are georeferenced and uniform in scale so they are ready for use with your GIS software.



Specifications

Aircraft	1.2m span, covered EPP wing, molded polycarbonate fuselage
Mass	1.1 kg incl. battery and camera
Propulsion	200W electric motor, 11.1v LiPo
Telemetry	868MHz (Europe ISM) 28.8k
Performance	Cruise speed 14 m/s, Endurance 35min – 1.5hr
Autopilot	ARM-7, UBlox GPS, Thermopile sens.
Flight modes	Auto, Assisted, Manual
Camera	Calibrated 10Mpix compact camera

