Surveying UAS for Use with RTK Base Stations

Topcon Positioning Group and MAVinci have announced that the latest version of the Sirius Pro surveying unmanned aerial system (UAS) is designed to be compatible with existing real time kinematic (RTK) base stations or network transport of RTCM data over IP (NTRIP). The system will be available at the Intergeo trade show for geodesy in October and thereafter.

The Topcon and MAVinci UAS was first introduced at Intergeo 2013 for the European market and was recently made available in the North American market.

By connecting an external base station, Sirius Pro will receive the RTCM correction signals and deliver 2-5 centimetre accuracy without using ground control points. When mobile internet is avaiable on site, it is possible to achieve the same accuracy even without a local base station using NTRIP, said Eduardo Falcon, executive vice president and general manager for the Topcon GeoPositioning Solutions Group.

Sirius Pro is designed to deliver orthophotos and three-dimensional elevation models with a high absolute accuracy of 2-5 centimetres without using ground control points. Combining MAVinci‘s precision timing technology with Topcon sub-centimetre grade L1/L2 GPS/GLONASS RTK receivers, the robust system stands up with a clever solution that helps in the realising of projects in a better and faster way, said Johanna Claussen, CEO at MAVinci.

For users who do not have an RTK base station, an internal base station add-on for the Sirius Pro is available. Claussen said it upgrades the Sirius Pro to its full functionality: use of an internal or external base station depending on the needs. This add-on is available anytime via internet without changing the hardware.

Sirius Basic is an entry-level solution for UAS surveying, and delivers orthophotos and 3D elevation models. The system is designed to offer high accuracy when using ground control points. Sirius Basic offers full flexibility, said Falcon. It can be upgraded to Sirius Pro via an internet update later on – no hardware change is necessary.

Find more information visit topconpositioning.com and mavinci.de. See also Geo-matching for product information on the Sirius UAS.