

CUSTOMER DroneWorks PROJECT Establishing GCPs for a drone survey SOLUTION Trimble Catalyst with DA2 Receiver

# CASE STUDY

Trimble Catalyst's DA2 receiver: "Less than a minute to get less than 1cm – every time!"



Jason Hinsley of DroneWorks explains why his new Trimble Catalyst DA2 Receiver knocks the DA1 into a hat and why it's the most cost-effective route to cm positions for businesses like his own.

For Jason Hinsley, PfCO Drone Operator and Founder of North West based DroneWorks, the provision of high quality, accurate site data are the principles on which he runs his aerial mapping business. The company, which operates nationally, services a range of construction, inspection and property clients providing "not just pretty pictures" but highly accurate surveys, for better communication on project progress, document assets and site safety.

Accuracy is key to the success of DroneWorks' projects and for most of the jobs that Jason undertakes he needs to establish a number of ground control points (GCPs) across the site in order to validate his data. He therefore has a regular, but minimal, requirement for a GNSS that can deliver the cm accuracy he needs to establish these points.

## **Choosing Trimble Catalyst**

Aware that a fully functional survey grade GNSS would deliver the accuracy he required but be prohibitively expensive for the use he would get out it, Jason investigated alternatives and 2 years ago purchased a Trimble Catalyst solution with a DA1 receiver. Trimble Catalyst is a new GNSS concept delivering positioning-as-a-service to Android and iOS devices. With the addition of the simple, lightweight Trimble GNSS receiver and an on-demand accuracy-based subscription, users such as Jason can turn a smartphone or tablet into a precision mapping, navigation, and measurement tool.

In Jason's case he purchased a number of hours on the 1cm subscription plan and combined Catalyst with his smartphone running Trimble's UAV Ground Control App. With its low capital outlay and ease of use, (around £300 for the DA1 receiver as opposed

#### Catalyst DA2 Benefits

• Consistent, fast 1cm positions in the x,y,z axis.

- Faster fixes enabling savings on the Catalyst subscription by not running into additional hours
- Easy to set up and use
- Low cost of the DA2 Receiver makes it affordable to scale up as DroneWorks expands
- Peace of mind that a high-quality job will be completed on time, every time, for the client



Trimble Catalyst with the new handle



to around  $\pounds 8,000+$  for a survey grade GNSS system), Jason found it a useful way of acquiring the cm accuracies he required for his GCPs. However, he was also aware of its limitations such as not always achieving a timely fix or the consistent cm positions needed.

### Why the DA1 can't touch the new DA2!

As soon as the new DA2 Catalyst receiver became available, Jason purchased one, set it to work immediately and has been delighted with the results. "Simply, I'm amazed at the improvement in the DA2 over the DA1. I'm achieving a fast 1cm fix in x,y AND z axis and that's been consistent across the twelve jobs I've used it on. Not only am I achieving the accuracy I require, every time, but it also means that I'm spending far less time establishing my GCPs which ensures that I'm putting my Catalyst subscription to the best possible use. I tend to purchase 10 or 100 hours at a time which is the perfect compromise between cash flow and usage."

Whilst the DA1 on an initial set up would take 2 minutes for a fix on the first point then 1 minute to record each further point, with the DA2 Jason is getting the initial fix in less than a minute and the points after that far faster. "Previously, with the DA1, due to a bit of troubleshooting here and there, I'd be spending around 2.5 hours establishing the GCP's and then 2 hours on the flight. With the DA2, it's now less than an hour for the

GCP's. Most importantly, it's entirely predictable in its performance. My jobs aren't at risk due to running out of day light and I have complete peace of mind that I will be delivering an accurate, high-quality aerial survey to my client on time, every time."



Simply, I'm amazed. The DA2 is a massive improvement over the DA1 providing regular, fast 1cm fixes!

> Jason Hinsley Founder, DroneWorks

#### CONTACT US

Please do get in touch for further information on any of the products or services mentioned in this case study, a demonstration, support or just a chat about your requirements.

(UK) 0345 603 1214 (IRE) 01 456 4702

info@korecgroup.com www.korecgroup.com

**KOREC Measured** Solutions Construction I Surveying I Mapping

