

VOGEL FREEDOM DATASHEET



ACCURATE, SAFE, EFFICIENT

Plowman Craven's Vogel Freedom brings a host of game-changing benefits for rail infrastructure surveying, including significantly increased accuracy, efficiency, safety and sustainability.

It marks the first survey-grade solution that can survey tracks without physical access, accelerating the process of capturing data and implementing it into client deliverables such as topographical surveys and, with 100% removal of 'boots on ballast', offers superior flexibility for when surveying can be undertaken.

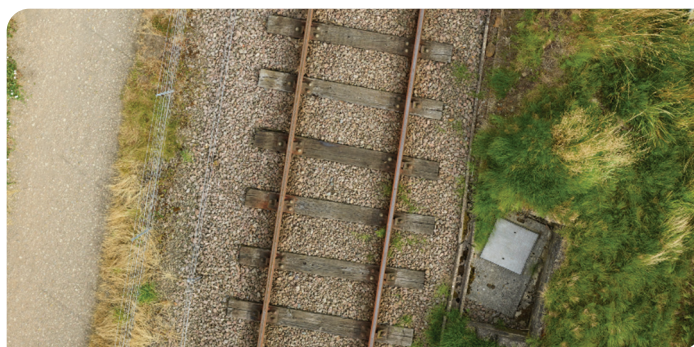
Our Vogel Freedom platform covers the busiest and most inaccessible areas. Completely eliminating the need for possessions or line blocks, it significantly **reduces worker exposure to risk** and results in **shortened programme times** and **significant cost savings**.

Vogel Freedom is the culmination of years of expertise in UAV, laser scanning and photogrammetry combined with robust survey principles. It features a state-of-the-art UAV platform and a 100-megapixel camera, which captures overlapping aerial images of an entire site alongside post-processed kinematic GNSS observations and precise inertial measurement unit data. This data is then transformed into 3D data using bespoke workflows and software algorithms. The accuracy of the results surpass any other method of data capture, including static laser scanning and train or trolley-based kinematic scanning systems.

In summary, Vogel Freedom is a "must-have" for any rail industry player looking to stay ahead of the game. Its ability to provide superior accuracy, save time and significantly reduce worker exposure to risk makes it a valuable asset in any project.

KEY BENEFITS OF VOGEL FREEDOM

- **Low Risk** - removes need to physically access tracks
- **Low Cost** - eliminates expensive possessions & line blocks
- **High Speed** - rapid mobilisation, no waiting for possessions
- **High Value** - enhanced deliverables to supplement surveys
- **High Accuracy** - proven to deliver sub-5mm accuracy



Full Footprint



Medium Zoom



High Zoom



Vogel Freedom Aerial Platform

VOGEL FREEDOM

- No track access
- Track alignments for P-way design
- Topographical surveys
- Coloured 3D point clouds
- Orthophotos
- Desktop site inspections
- Data online portal

PROVEN TRACK RECORD

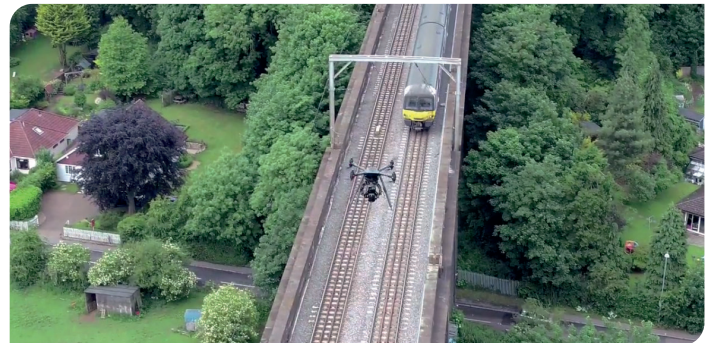
Plowman Craven has a proven track record in undertaking drone rail surveys over live networks. Having won a place on Network Rail's coveted UAV Framework we have continually invested in next generation drone capabilities, completing surveys on primary and secondary control networks consistent with Network Rail standards.

Vogel Freedom meets Network Rail's Band 1 accuracy requirements and is suitable for track alignment and topographical surveys at all GRIP stages, without the need for trackside survey control points.

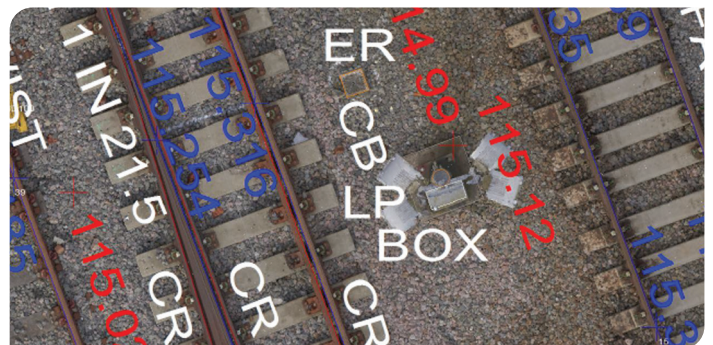
SAFETY, TRUST & EXPERIENCE

Plowman Craven is an industry-leader in the provision of Rail Survey data. With enhanced flying Authorisations from the Civil Aviation Authority (CAA), our five-star RISQS rating and approved accuracies, we are able to survey even the busiest and most inaccessible areas of the rail network.

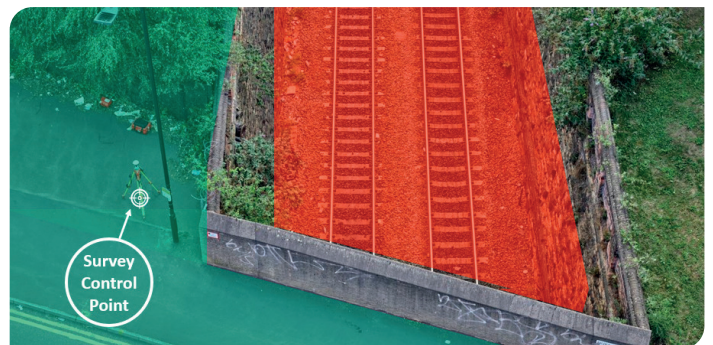
Contact us today to find out how we can help on your next project.



High-res imagery captured even during traffic hours



Topographical survey data overlaid on point cloud



Off-track control

About Plowman Craven

Plowman Craven provides integrated measurement and consultancy services to the property and infrastructure markets, pioneering the use of technical innovation to deliver proven expertise and trusted results throughout the project lifecycle.

Head Office

Plowman Craven House
2 Lea Business Park, Lower Luton Rd
Harpenden, Hertfordshire, AL5 5EQ
Tel: +44 (0)1582 765566
Email: post@plowmancraven.co.uk

London Office

115 Southwark Bridge Rd
London
SE1 0AX
Tel: +44 (0)20 7490 7700

