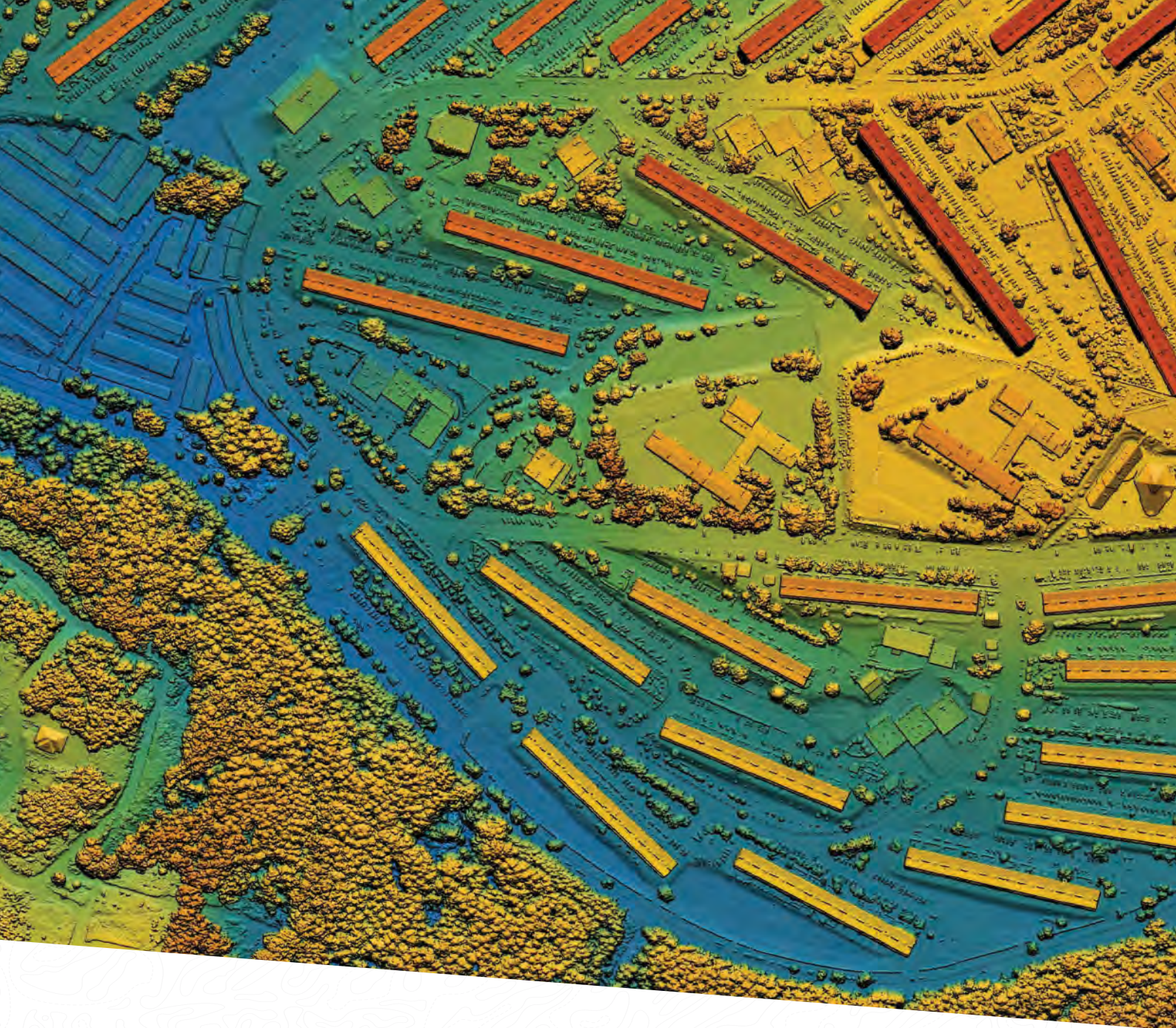




Woolpert

Aerial Mapping Capability Statement

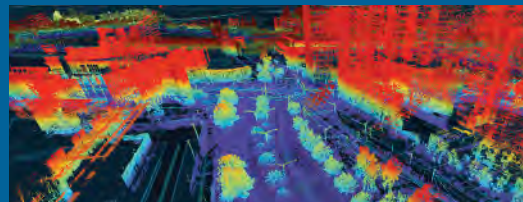
asiapacific@woolpert.com



Company Overview:

A long-standing industry leader in mapping and surveying, Woolpert (formerly AAM) has built a global network of geospatial services and specialists, partnering with companies like Google and Esri to provide vital, accurate, and cost-effective solutions.

In 2021, Woolpert acquired Asia-Pacific geospatial firm AAM to combine strengths and optimally support the region. Woolpert also offers architecture, engineering, and strategic consulting services, integrating geospatial capabilities for public, private, and government clients worldwide, fostering a culture of growth, inclusion, diversity, and respect with over 2,000 employees and more than 60 offices on five continents.



Why Woolpert Aerial Mapping

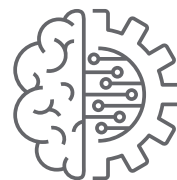
We began performing aerial surveys in the Asia-Pacific region over 60 years ago. Our aerial technologies include topographic LiDAR and digital cameras allowing us to deliver orthomosaics and terrain data sets of large areas quickly, with resolutions ranging from 5 to 30cm. This means your assets are captured in incredible detail, enabling you to make better-informed decisions:

60

60+ years of experience
& innovation in surveying
and mapping



Rigorous systems
to minimise errors



AI-powered processing
for fast turnaround on
data delivery

Our process



Capture



Process



Store



Share

Capture: Full range of geospatial data capture technologies and platforms including imagery and LiDAR from manned aircraft, UAV, vehicle-based and terrestrial methods.

Process: Automated cloud-based processing underpinning on time delivery and getting data into the hands of stakeholders early.

Store: Detailed spatial analysis and algorithms to go one step further and provide information and insights, not just data.

Share: Experience in hosted and managed GIS solutions both on premise and cloud based.

Aerial Imagery, Aerial LiDAR and our fleet

We are one of the Asia-Pacific region's most experienced and tech-capable aerial surveying companies.

Capturing and delivering aerial data is a complex undertaking that requires a high level of expertise from many professionals. When you work with Woolpert for your airborne survey needs, you're working with a team that combines decades of experience with an unmatched capability to carry out large, complex aerial mapping jobs precisely.

With a fleet of 10 aerial survey aircraft equipped with a range of digital aerial cameras and airborne LiDAR systems, our airborne operations team can tackle any aerial survey project at any location. We deliver fit-for-purpose solutions for your enterprise GIS or engineering requirements. We help our clients in the following areas:

Aerial imagery – high quality data delivered

Our aerial survey experts take a holistic approach to every project. Backed by over 60 years of surveying experience and an expert team that keeps up with aviation standards, your aerial imagery data will be captured and analysed with precision.

You can trust in our ability to deliver aerial mapping data insights to help you connect the dots between different data sets to find the best solutions and enable quick decision-making.

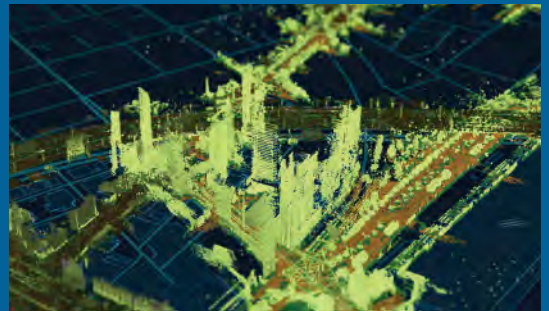
Digital mapping cameras, in medium and large formats, capture your geospatial data in high resolution, and accuracy is enhanced by our range of Nadir, Oblique and Multispectral sensors. Deploying these technologies across a variety of helicopters, fixed wing aircraft and drone platforms ensures we capture the right data in the most appropriate way. This bespoke approach delivers data you can rely on fit-for-purpose aerial imagery and detailed, actionable insights, customised to your specific needs.



Fit for purpose Aerial LiDAR data

Decisions are critical when managing your environment, planning, designing, constructing, and maintaining your major assets. Tasks are highly sequential and therefore, time sensitive. The absence or delay of the right data at the right time impacts the quality of your decision-making. Poor decisions can be costly to undo, or even irreversible. Woolpert's Aerial LiDAR surveying delivers data in a matter of days so you can avoid costly delays and act quickly when needed.

Our expertise ensures your data is fit for purpose. Higher accuracy isn't always better - you need just enough of the right type of data to make informed decisions. Too little data and your knowledge is incomplete, too much data and you're overwhelmed.



LiDARnetics

LiDARnetics – Woolpert's automated LiDAR processing system – leverages cloud-based processing and machine-learning tools to process data faster and more intelligently with each new project. Our clients' data is expertly processed by industry-specific leads across a global team of specialists, data processors, and powerful servers to transform billions of LiDAR points into actionable intelligence.

Every month LiDARnetics processes up to 6,000 km² of LiDAR data using Artificial Intelligence for feature definition. On average, each project can be processed in under four hours, taking less than one hour for classification. With Woolpert's LiDAR services, you will get your data when needed to make those critical decisions on time.

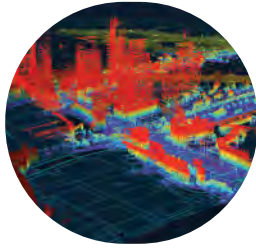


One-stop geospatial solutions provider

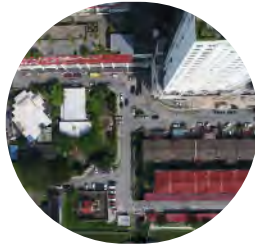
Our aerial surveys offer detailed, accurate data useful for varied applications like land development, urban planning, mining, etc. Trust Woolpert for dependable survey results aiding your decision-making. From one data capture, we provide:



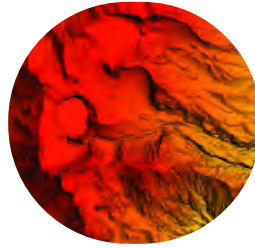
3D Models



Point Clouds



Imagery



Terrain Models

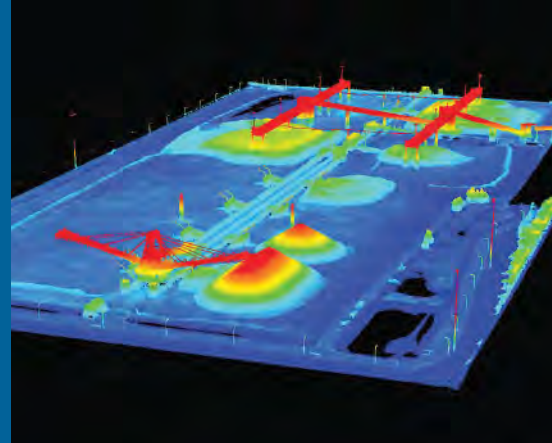


GIS and Mapping

How we make a difference: Cross Hybrid Survey Solution – Mining

Woolpert was commissioned to complete recurring survey work for a mining company in Southeast Queensland. The company requires spatial survey information of three sites on a bi-annual basis, which include a mine, a coal handling processing plant, and a marine port.

The LiDAR and imagery datasets captured are used for stockpile volume calculation and audit reporting. To meet the tight three day deadline and avoid operational downtime, Woolpert deployed their LiDARUSA Surveyor32 UAV system and Sony a6000 camera with the Innoflight Scanlift800 platform at the Port site. The client was pleased with the outcome and planned to continue using this quick, flexible, and accurate approach.



Aerial LiDAR imagery captured for Taranaki Regional Council in partnership with Toitū Te Whenua Land Information New Zealand (LINZ).

- Government.
- Mining and energy.
- Transport and logistics.
- Architecture, engineering, and construction.
- Natural resources and renewables.
- Utilities.

Testimonials

A very successful imagery capture - the limited shadow in particular was exactly what we are after (the parameters of which would be ideal for all future captures). The colour temperature and overall quality of the mosaic is also excellent.

Senior GIS Analyst, Spatial Services
Local government



Thank you for the extraordinary effort in bringing the rail project across the line on time. Your team and dedication to the project has been recognised across our organisation and we would like to keep strengthening our business relationship with Woolpert in future projects.

Civil Engineer
Civil engineering & construction company

