J2 GEOSPATIAL INTELLIGENCE SERVICES
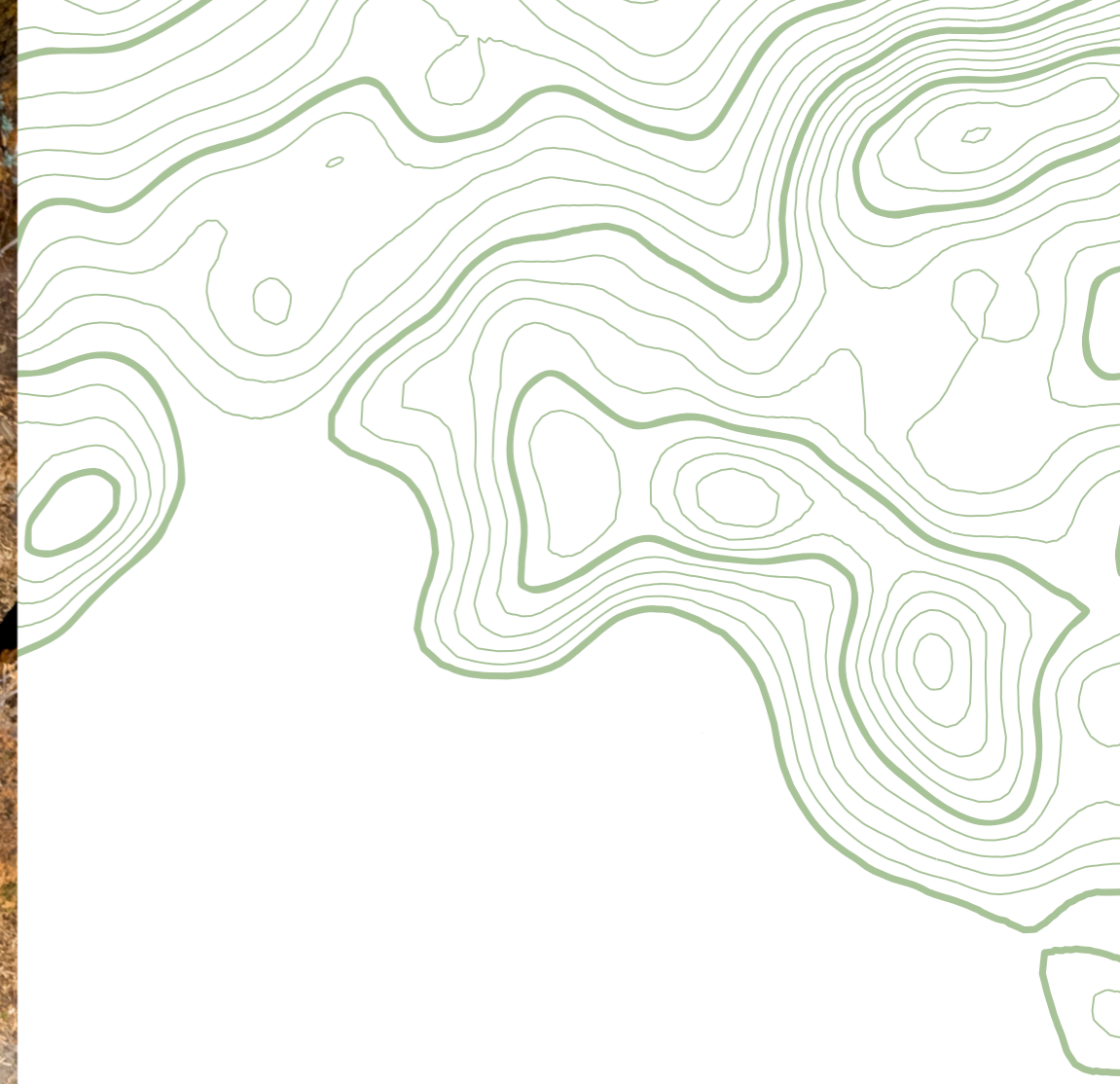

Strategic Geospatial Insights to Elevate Your Decision-Making Process

Disaster Relief Australia | J2 GEOSPATIAL INTELLIGENCE SERVICES

J2 IS A SOCIAL ENTERPRISE OF DRA

Impact through precision

What we do

J2 empowers decision-making by delivering socially responsible, world-class, commercial geospatial intelligence services across multiple sectors. Our integrated, layered data produces vivid and detailed portrayals of landscapes, communities and their interconnected relationships.

How we do it

We craft precise, high-impact geospatial solutions working in the air, on the ground and behind the scenes. Agile and tenacious in our approach, we deliver a vertically integrated set of services spanning data capture, processing and analysis. Utilising advanced technology, our intelligence roots and extensive experience, we bring unique perspectives evolved from military tradecraft and community-driven insights.

Why we do it

Service with purpose; at J2 we are driven by delivering professional, industry leading services while supporting Disaster Relief Australia (DRA) and its volunteers. J2's profits are contributed back to DRA. We also offer professional development and employment opportunities to DRA volunteers looking to further their career in the Geospatial Intelligence field.
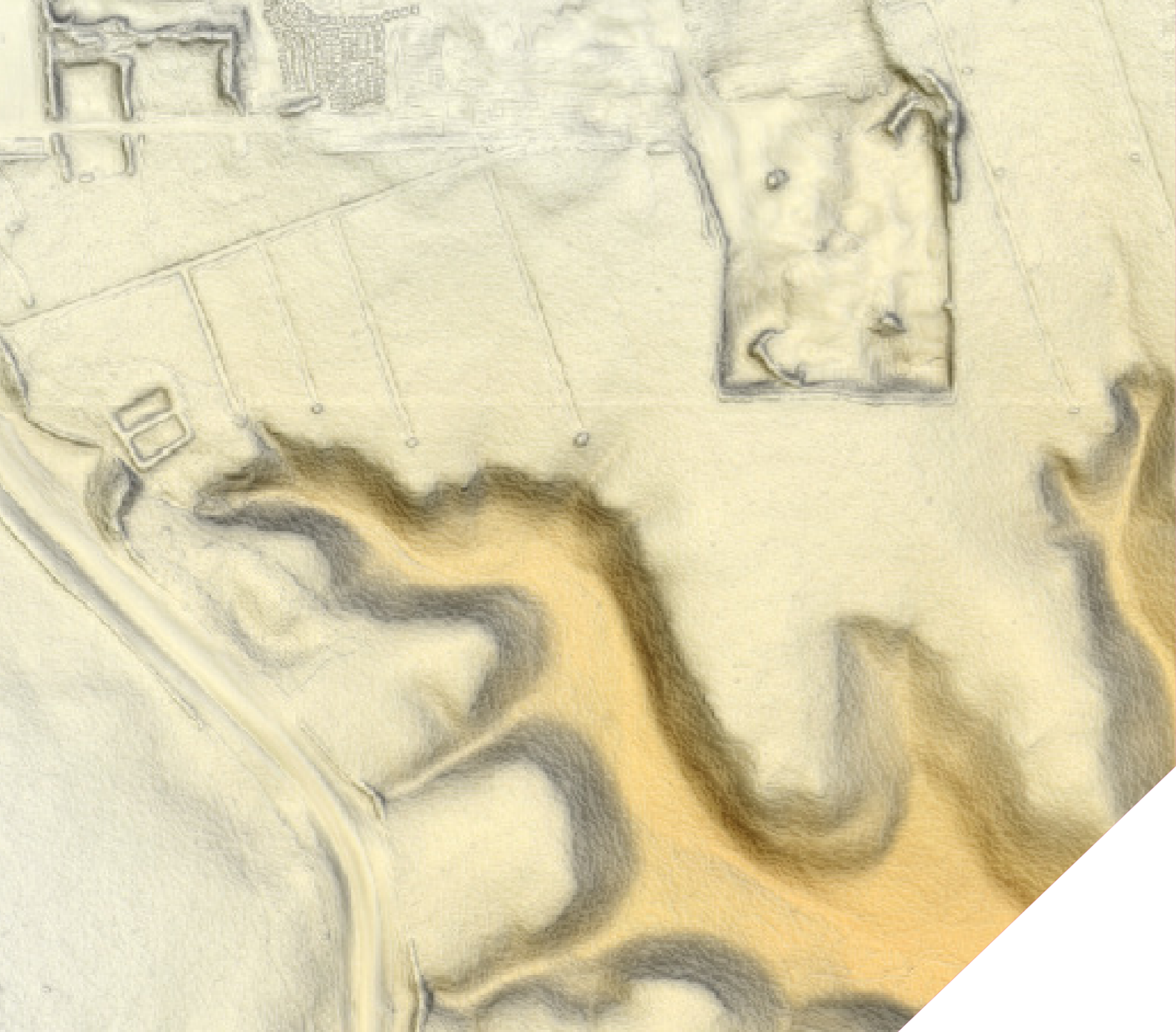
Who can benefit?

- **Agriculture:**
  Facilitate precision farming with crop monitoring and soil analysis, leading to increased yields and sustainable land use.

- **Asset and facilities managers:**
  Spatial understanding of infrastructure, optimising asset tracking and maintenance planning to reduce downtime and improve resource allocation.

- **Building disaster resilience:**
  Utilising geospatial intelligence to assess risks, monitor vulnerabilities and support proactive planning and mitigation strategies.

- **Critical infrastructure management:**
  Detailed inspections hazard assessments, real-time monitoring and proactive maintenance for vital assets.

- **Emergency management:**
  Real-time situational awareness for rapid decision-making and resource deployment during crises.

- **Conservation:**
  High-resolution aerial imagery and multispectral sensing for monitoring ecosystems, flora, fauna and assessing environmental changes.

- **International capacity building:**
  Develop capability and capacity to provide geospatial intelligence services pre and post disaster amongst local governments, agencies and NGOs in the Pacific region.

- **Insurance industry:**
  Improve risk assessment, damage evaluation, claims management and loss adjustment with accurate geospatial data.

- **Parks, coast and wildlife services:**
  Support ecosystem monitoring, species tracking and habitat management to conserve natural resources.

- **Pastoralists:**
  High-resolution imagery and geospatial insights to monitor pasture health, manage livestock movements and optimise land use.

- **Renewable energy sector:**
  Enhance site selection, resource assessment and infrastructure monitoring for more efficient and sustainable renewable energy projects.

- **Universities and researchers:**
  Access advanced tools for spatial analysis and data visualisation, supporting academic research studies and developing innovative solutions.

Geospatial Intelligence: What is it and where is it useful?

Geospatial Intelligence (GEOINT) involves analysing and visualising geographic data using satellite imagery, aerial sensors and other datasets incorporated through a Geographic Information System (GIS). It provides critical insights into physical environments, aiding decision-making in sectors like disaster management, environmental conservation, infrastructure development, research and national security. GEOINT is essential for precise mapping, asset management and impact assessments in large or inaccessible areas. It integrates seamlessly with platforms such as Building Information Systems (BIMs).
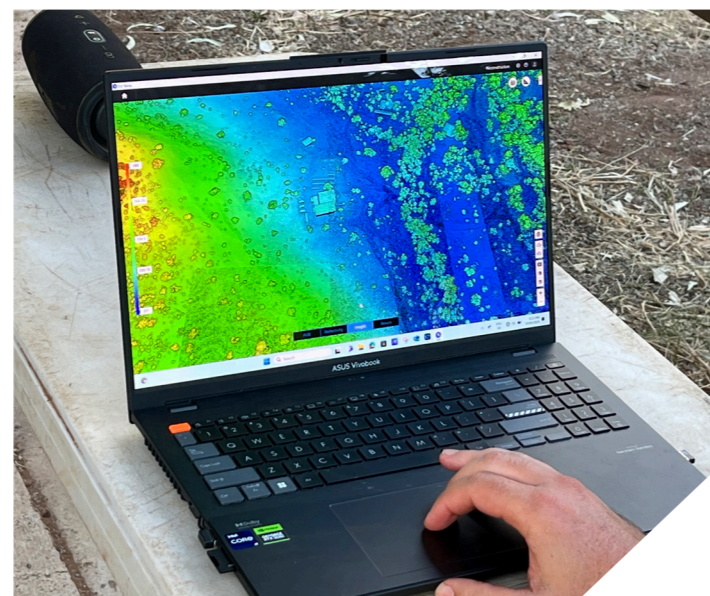
BORN FROM DISASTER

The J2 and DRA relationship

J2 Geospatial Intelligence Services evolved from Disaster Relief Australia's (DRA) disaster intelligence services. Initially, DRA harnessed the expertise of veterans to support communities post-disaster, where their intelligence capabilities proved invaluable in rapidly assessing impacts and supporting response and planning strategies.

J2 was established to deliver an evolved platform of geospatial services to industry and government. J2 now delivers cutting-edge intelligence solutions across various industries, while profits are reinvested into DRA to fund its ongoing disaster relief operations. This unique model not only ensures top-tier service for J2's clients but also reinforces a commitment to social responsibility and community resilience.

J2 IS A SOCIAL ENTERPRISE OF DRA

End-to-end geospatial intelligence products

J2 offers comprehensive geospatial intelligence services, from data acquisition to detailed analysis and reporting, ensuring accurate and timely geospatial data for every client's unique needs.

Social enterprise impact

Each time J2 delivers industry-leading geospatial intelligence, it also furthers the charitable mission of DRA, ensuring that your choice has a lasting, positive impact. J2 also provides career development opportunities for DRA volunteers looking to progress in the Geospatial Intelligence Industry by offering paid employment opportunities.

Supporting your ESG goals with purpose-driven intelligence

Engaging J2 Geospatial Intelligence Services not only provides precise, efficient geospatial intelligence to meet your operational needs but also supports your Environmental, Social and Governance (ESG) and Corporate Social Responsibility (CSR) objectives. As a social enterprise, J2 reinvests profits back into Disaster Relief Australia's disaster preparedness and response programs; aligning commercial services with meaningful social impact. By partnering with J2, your company will contribute to community resilience, veteran wellbeing and a more sustainable future whilst meeting essential business goals.

Experience rooted in defence tradecraft

J2's experience can be traced back to military origins. Adapting the knowledge and tradecraft first to disaster relief and now to commercial applications, J2 not only has a deep appreciation for accuracy and precision in acquiring, analysing and reporting actionable intelligence, but also for the importance of timeliness.

Markus Bucy

Executive General Manager

Markus Bucy is the co-founder of Disaster Relief Australia and a special operations US Military Veteran. Markus led the development and management of field operations, Disaster Relief Teams and organisational support functions. Growing from concept to a nation-wide charity with thousands of volunteers delivering the execution of numerous relief operations. Now, Markus is focused on establishing and growing J2 Geospatial Intelligence Services, DRA's first social enterprise.

Brent Hoade MG

Head of Operations

Brent Hoade, a special operations Australian Military Veteran, has worked in the RPAS field for over a decade. He has served as the NSW Department of Primary Industries Chief Remote Pilot and as Disaster Relief Australia's (DRA) General Manager of Disaster Intelligence Services and Chief Remote Pilot. Brent has been involved in RPAS activities involving shark research and the location and tracking of endangered species. On behalf of DRA, Brent managed teams of remote pilots and geospatial analysts in support of disaster response and recovery operations in multiple locations across Australia. Brent is responsible for overseeing J2's operations and serves as Chief Remote Pilot.

Liam Rabone

Head of Business Development

Liam Rabone is the Head of Business Development at J2 Geospatial Intelligence Services, bringing over two decades of experience in business leadership, strategy and development. He previously served as CEO of a retail group in SA and later as Chief Development Officer at Disaster Relief Australia (DRA). Liam's expertise spans the for-profit and non-profit sectors, with a focus on business transformation, strategic partnerships and sustainable growth. He holds a Bachelor of Commerce and an MBA from the University of Adelaide and has a passion for using technology to drive innovation and efficiency.

Ben Wolinski

Lead Geospatial Intelligence Analyst

Ben is an accomplished geospatial expert with 25 years of experience in Government and Defence. Ben served 18 years in the Australian Army as a Geospatial-Intelligence Analyst, leading high-performing geospatial teams in complex, dynamic and demanding environments. Ben has a Bachelor of Science in Geographic Information Science and Cartography from Curtin University and has in-field experience operating remotely piloted aircraft, supporting his in-depth experience processing LiDAR.

THE J2 TEAM

CAPABILITY PARTNERS

At J2 Geospatial Intelligence Services, one of our core strengths lies in our strategic partnerships and our ability to tap into a diverse network of experts across multiple sectors of the geospatial intelligence industry. These collaborations empower us to deliver cutting-edge solutions and drive innovation in geospatial technology, ensuring our clients receive the most advanced and reliable data insights.

Strategic industry partnerships

Our partnership with various industry specialists such as SYPAQ, Corporate Protection Australia (CPA), RESOL, SOAR and others, allows us to integrate state-of-the-art technology into our operations, leveraging their expertise in defence, aerospace and autonomous systems. This collaboration enhances our capability to provide precise and timely geospatial intelligence, crucial for both commercial and humanitarian applications.

Academic collaborations and innovation

We are proud to partner with the University of New England (UNE), particularly through their Data Transformation Hub and the Centre for Agribusiness and Sustainable Innovation (CASI). This partnership enables us to engage in pioneering research and tool development, particularly in sectors eligible for government grant funding. Through UNE, we have access to cutting-edge academic research and the ability to co-develop innovative solutions tailored to specific industry needs.

AI and machine learning expertise

J2, together with DRA have extensive experience working with academic partners to develop a sovereign AI & machine learning capability. Developing and deploying sophisticated AI-driven models that enhance our data processing capabilities will provide our clients with faster and more accurate insights and analysis.

Are you interested in partnering with J2?

Partnering with J2 opens doors to meaningful collaboration across industry, research and community sectors. Together, we can drive innovation in geospatial intelligence whilst supporting initiatives that strengthen resilience and empower communities. Let's explore how we can achieve more together.

Visit j2aus.org for more information

OUR TECHNOLOGY, SOFTWARE AND CAPABILITIES

At J2 Geospatial Intelligence Services, we leverage advanced technology to deliver precise geospatial insights, empowering clients across various sectors to make confident decisions.

Advanced drone operations

Our fleet features DJI Matrice 350RTKs, the Mavic 3E suite and the European-made Quantum Systems Trinity Pro making it suitable for a wide array of jobs using RGB, Thermal, Multispectral and LiDAR sensors.

Technology-agnostic data

Our geospatial data can be shared across multiple platforms without limitations, ensuring seamless integration and flexibility. Data accessibility is flexible and contextual empowering you to use the information wherever and however you need.

Comprehensive software ecosystem

J2 employs a versatile suite of software tools, seamlessly integrating with industry-standard systems like BIM, EAM and CAFM. This software-agnostic approach ensures tailored intelligence, enhancing efficiency and reducing costs.

Integrated geospatial solutions

Our services integrate into existing systems, offering real-time imagery transfer, data interoperability and comprehensive reporting to deliver tailored intelligence products.

Precision mapping and analysis

With expertise in defence and disaster relief, we offer precise LiDAR mapping, digital elevation models and volumetric surveying. Our services include creating digital twins and 3D models with Ground Sampling Distances (GSD) as fine as 1cm.

Accreditations and compliance

J2 holds a CASA Remote Operator's Certificate (ReOC) and is accredited for both EVLOS and BVLOS operations. Safety is our first priority, and our commitment to safety goes beyond just regulatory compliance.

ORTHOMOSAIC, OBLIQUES AND 3D DIGITAL TWINS

*Oblique Imagery (2D)*

3D Digital Twins

Orthomosaic Imagery (2D)

Orthomosaic imagery is a detailed, accurate composite of the Earth's surface, created by stitching multiple aerial images together. Unlike traditional aerial photos, these images are corrected for distortions, ensuring scale accuracy for precise measurements.

Oblique Imagery (2D)

Oblique imagery consists of aerial photographs taken at an angle, typically between 30 to 45 degrees. This perspective offers a more natural and comprehensive view of terrain, structures and features, providing depth and detail that nadir imagery cannot achieve.
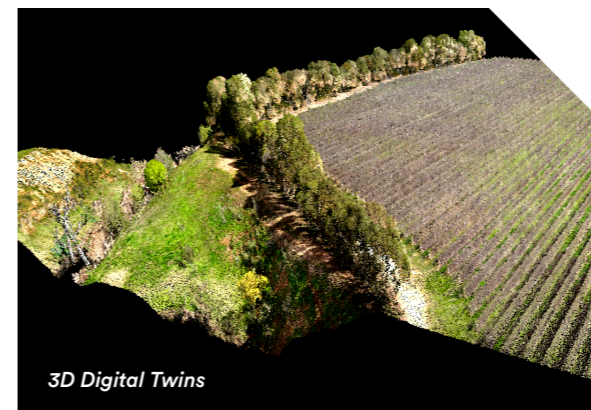
3D Digital Twins

A 3D digital twin is a virtual model that replicates the physical attributes and spatial characteristics of real-world objects or environments. Created using remotely sensed imagery, it offers an interactive 3D representation of reality. This technology allows for advanced visualisation, simulation and analysis.

J2 GEOSPATIAL INTELLIGENCE SERVICES

J2 GEOSPATIAL PRODUCTS

Incorporating the use of Geographic Information Systems allows stakeholders to analyse and assimilate data in multiple, practical manners. Incorporating structured layers of relevant data highlights contextualised relationships, trends and patterns in a tangible format to support impactful and simplified decision making around often complex and dynamic situations.
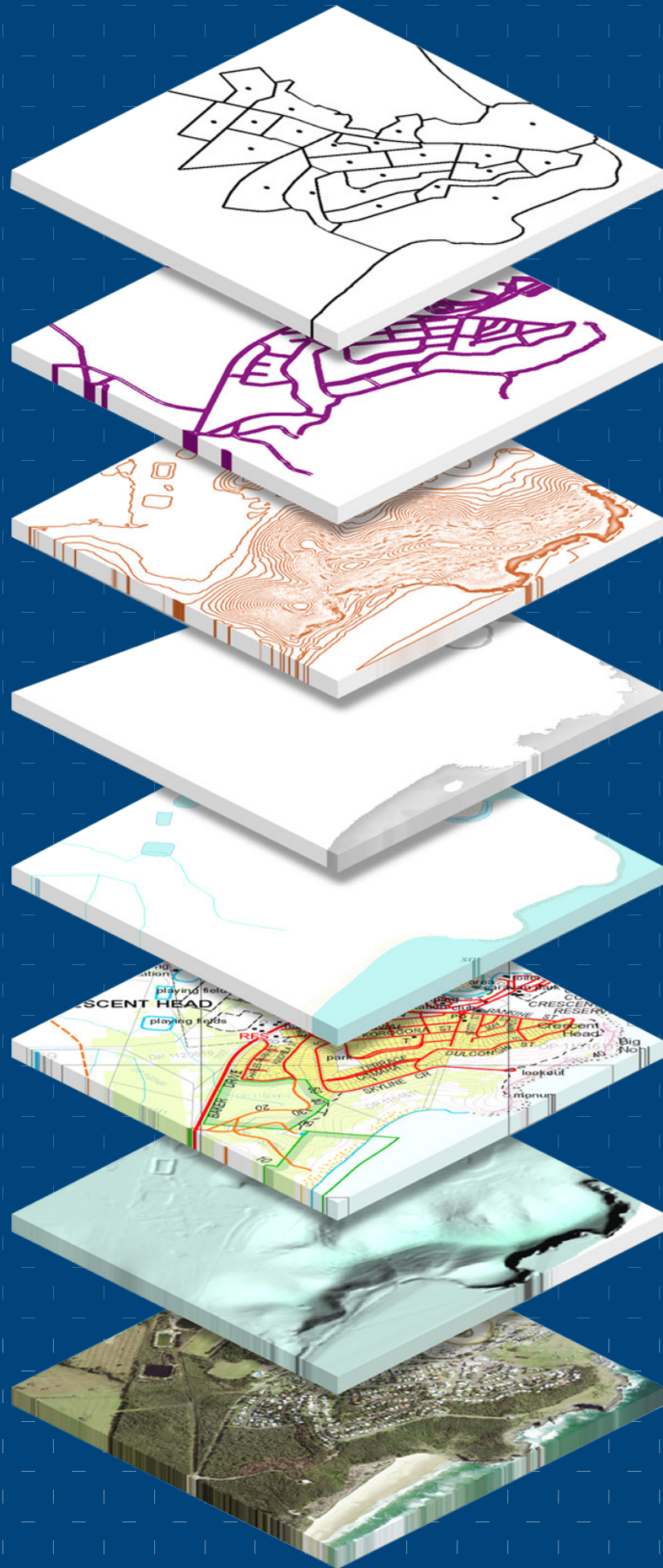
LiDAR

LiDAR (Light Detection and Ranging) is a remote sensing technology that uses laser pulses to measure distances and create highly accurate 3D models of the Earth's surface. By capturing millions of data points, LiDAR generates detailed topographic maps, digital elevation models and 3D representations of landscapes and structures. This technology is crucial for applications such as terrain mapping, vegetation analysis, infrastructure assessment and environmental monitoring, providing precise and reliable data for informed decision-making across numerous industries.

Classified LiDAR

Using a combination of automatic and manual classification methods, features within the point cloud are classified into industry-standard ASPRS LAS 1.4 classes. This includes ground features (bare earth) and above-ground features such as vegetation, buildings and infrastructure.

Digital models

Beyond 3D models, J2 can deliver a range of digital models to support your understanding of landscapes and environments.

- **Digital Elevation Model (DEM)**

- **Digital Surface Model (DSM)**

- **Digital Terrain Model (DTM)**

- **Normalised Digital Surface Model (nDSM)**

- **Digital Terrain Slope (DTS)**

- **Digital Terrain Aspect**

- **Digital Terrain Slope/Aspect**

- **DEM Hillshade**

- **DSM Hillshade**

Individual Tree Segmentation

- Individual Tree Detection (ITD)

- Individual Tree Segmentation (ITS)

Canopy Height Model (CHM)

Foliage Cover Model (FCM)

Thermal image capture

Thermal image capture uses radiometric infrared sensors to detect heat emitted by objects and surfaces, creating images that reveal temperature variations. This technology is essential for identifying issues such as heat loss, equipment malfunctions and environmental changes. It is widely used across industries like infrastructure inspection, environmental monitoring, wildlife studies and emergency response; providing valuable insights that are not visible with traditional imaging methods.

Wildlife management

- **Habitat monitoring:** Detects heat signatures of animals, enabling precise tracking and population assessments, even in dense foliage or low-light conditions.

- **Health assessments:** Identifies signs of stress or illness in wildlife by detecting abnormal temperature variations in individual animals.

Asset inspections

- **Solar inspections:** Detects faults in solar panels by identifying areas of inconsistent heat, ensuring optimal performance and preventing energy losses.

- **Equipment monitoring:** Identifies overheating components or insulation failures in real-time, preventing potential equipment failures.

- **Structural integrity:** Detects heat loss or moisture accumulation within buildings and infrastructure, indicating potential structural issues.

- **Energy efficiency:** Assesses the thermal performance of assets, identifying areas where energy is being wasted due to poor insulation or leaks.

Search and rescue

- **Missing person location:** Quickly identifies heat signatures of missing persons in challenging environments such as forests, mountains, or disaster zones.

- **Night operations:** Enhances visibility in low-light or night-time conditions, aiding in the swift and accurate location of individuals.

- **Hazard detection:** Identifies hotspots or fire sources in rescue operations, ensuring the safety of both victims and rescue teams.

Urban planning

- **Green space management:** Evaluates the health and distribution of urban green spaces, informing maintenance and development efforts.

- **Infrastructure impact:** Assesses the environmental impact of urban infrastructure, guiding sustainable development.

- **Urban heat islands:** Identifies areas of higher temperature in cities, helping to develop strategies for mitigating urban heat island effects.

Multispectral

Multispectral sensing captures data across multiple wavelengths of light, beyond what is visible to the human eye. This technology provides detailed insights into the composition and health of surfaces and environments, enabling precise analysis in various fields. By analysing specific spectral bands, multispectral sensing can reveal critical information about vegetation, soil, water and other materials.

Agriculture

- **Crop health monitoring:** Detects stress, disease and nutrient deficiencies in crops by analysing specific spectral bands, enabling targeted interventions and optimised farming practices.

- **Soil composition analysis:** Identifies signs of stress or illness in wildlife by detecting abnormal temperature variations in individual animals.

- **Precision agriculture:** Helps in planning and managing crops with greater accuracy, improving yields and reducing resource use by mapping and analysing agricultural fields.

Forestry

- **Forest health monitoring:** Identifies disease, pest infestations and environmental stress in forests, enabling proactive management and conservation.

- **Bushfire risk assessment:** Detects forest fuel load that could contribute to bushfire risk, supporting preventative measures.

Environmental monitoring

- **Vegetation health:** Tracks changes in vegetation health, aiding in the detection of areas affected by drought, disease, or deforestation.

- **Water quality:** Monitors the health of aquatic ecosystems by detecting pollutants and other changes in water bodies.

- **Climate change impact:** Assesses the impact of climate change on various ecosystems by monitoring shifts in vegetation and soil conditions.

J2 can offer a wide range of custom intelligence products - contact us to discuss your individual requirements.
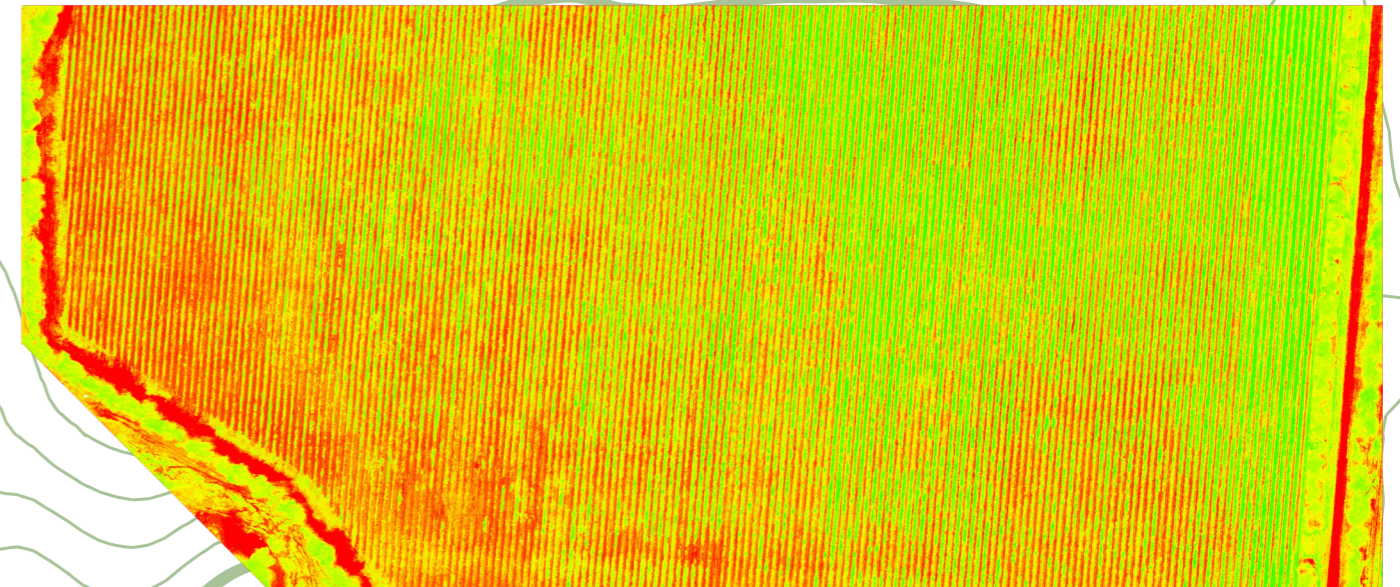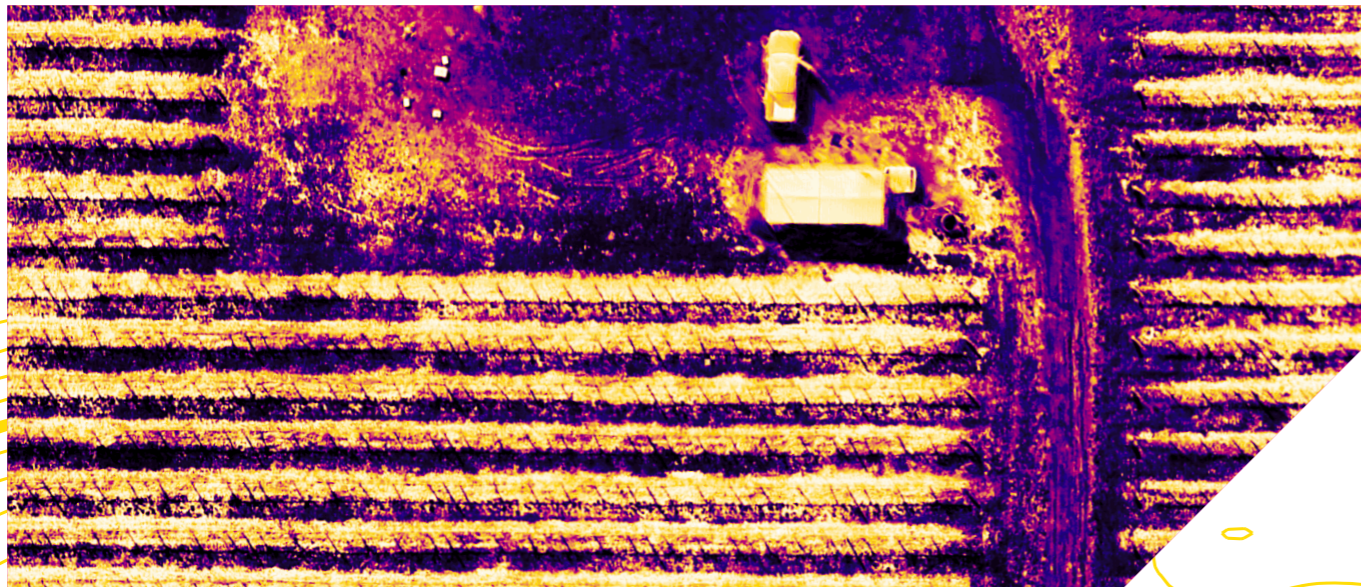
Ground image capture

Ground "Street View" Imaging captures detailed, ground-level images of environments, offering a comprehensive perspective that complements aerial and satellite imagery. This technology provides an immersive, 360-degree view of streetscapes, buildings (interior and exterior) and infrastructure, making it a valuable tool for various applications in urban planning, infrastructure management and environmental monitoring.

Post-disaster damage capture

- **Damage assessment:** Provides rapid, detailed visual documentation of damaged infrastructure, buildings and public spaces after a disaster, aiding in emergency response and recovery efforts.

- **Resource allocation:** Supports the efficient deployment of resources by identifying the most severely affected areas, ensuring timely assistance where it's needed most.

- **Insurance claims:** Facilitates the processing of insurance claims by providing clear, visual evidence of damage, expediting the assessment and recovery process.

Transportation and mobility

- **Road safety analysis:** Assesses road conditions, signage and traffic flow to identify potential hazards and improve transportation safety.

- **Pedestrian and accessibility studies:** Evaluates the walkability of urban areas and the accessibility of public spaces for people with disabilities.

Environmental monitoring

- **Pollution tracking:** Monitors and documents sources of pollution, such as litter or illegal dumping sites, aiding in environmental clean-up efforts.

- **Climate impact assessment:** Analyses changes in urban environments over time, contributing to studies on the impact of climate change on cities.

Urban planning

- **Environmental assessment:** Evaluates the condition of urban greenery, sidewalks and public spaces, contributing to the planning and enhancement of urban environments.

- **Infrastructure documentation:** Provides detailed visual records of streets, buildings and public utilities, aiding in infrastructure management and maintenance.

- **Other ground level intelligence:** Data captured at ground level both inside structures and in open environments. Supports Building Information Management (BIM) systems, identifies potential hazards and facilitates real-time reporting.

High resolution capture for damage assessments

High-resolution aerial capture is essential in post-disaster scenarios, offering a rapid and comprehensive view of the affected areas. Where required, capture can be done with Real Time Kinematic (RTK) or Post Processing Kinematic (PPK) providing absolute accuracy. J2's capability can also deliver real-time imagery that can be integrated into emergency services systems and Common Operating Pictures (COP). This real-time data enables emergency responders to assess the situation quickly, coordinate resources effectively and ensure that recovery efforts are aligned with the most up-to-date information.

High resolution capture for asset inspection

High-resolution aerial capture is a powerful tool for asset inspection, providing detailed imagery that supports the maintenance and management of critical infrastructure. When absolute accuracy is required, RTK (Real-Time Kinematic) technology can be added to ensure centimetre-level precision. This option is particularly useful for situations where precise measurements are crucial, such as monitoring the alignment of power lines or detecting subtle shifts in bridge structures. The flexibility to incorporate RTK ensures that asset managers have the precise data needed to make informed decisions, reducing the need for physical inspections whilst maintaining high safety and reliability standards.

CASE STUDIES

At J2 Geospatial Intelligence Services, we specialise in turning raw data into actionable insights through advanced geospatial analysis. Our approach combines both primary data collection, such as aerial imagery and ground-based sensors, with secondary data sources, including satellite imagery and publicly available datasets. By integrating these diverse inputs, we provide comprehensive GIS products that deliver deeper insights and enable informed decision-making. Find out how our geospatial services have benefited organisations across sectors, from wildlife conservation to space industry development, through the following case studies.

For more information, visit j2aus.org or phone us on +61 8 8323 6790.

Koala Conservation Australia project:

In partnership with Koala Conservation Australia (KCA), J2 employed thermal aerial sensing to enhance koala surveys and health assessments.

Impact: The project provided KCA with detailed data on koala habitats and population health, supporting targeted conservation efforts.

Technology: J2 used advanced radiometric thermal sensors to capture high-resolution images, integrating this data with traditional surveys for comprehensive habitat analysis.

Results: The data significantly improved KCA's understanding of koala populations, guiding effective conservation strategies and habitat management.

Australian Wildlife Conservancy recovery and resilience project:

J2 Geospatial Intelligence Services partnered with Australian Wildlife Conservancy (AWC) to support the restoration of the remote Mornington Wildlife Sanctuary following the January 2023 floods.

Impact: J2's advanced aerial drones and ground-based sensors provided critical data, informing AWC's reconstruction efforts and future flood mitigation strategies.

Technology: Utilising photogrammetry and LiDAR surveys, J2 delivered precise geospatial information, showcasing our technical capabilities and the value of social enterprise.

Results: The collaboration aided in restoring essential services and infrastructure, ensuring long-term resilience at the sanctuary.
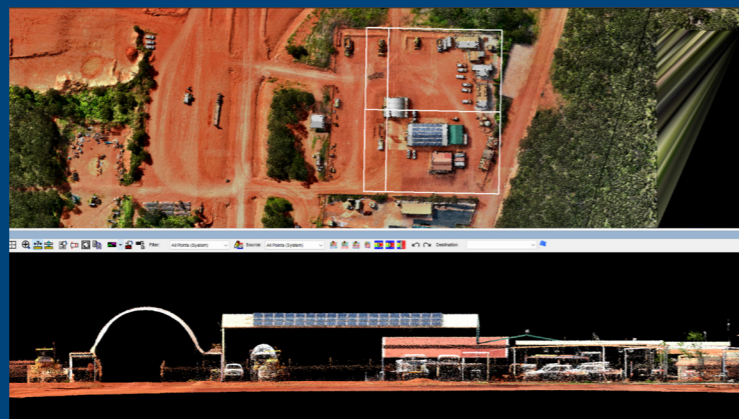
Equatorial Launch Australia project:

J2 provided high-accuracy aerial LiDAR mapping for Equatorial Launch Australia (ELA) at their Nhulunbuy launch site, supporting Australia's growing space industry.

Impact: The topographical data collected enabled ELA to make informed decisions on site layout, infrastructure development and environmental management.

Technology: J2 deployed state-of-the-art aerial LiDAR, delivering point-rich, accurate data essential for 3D models and elevation maps.

Results: The data exceeded ELA's expectations, facilitating improved site planning and risk assessment; underscoring J2's capability in delivering high-quality data swiftly.

Services Catalogue

Aerial Mapping:

- Resilience building – hazard exposure mapping
- Critical asset mapping
- Construction site mapping – progress reporting
- Absolute (survey grade) accuracy mapping
- Large scale Beyond Visual Line of Sight (BVLOS)

Aerial LiDAR:

- High density point cloud capture generating a range of models
- Asset inspections
- Environmental surveys
- Archaeological aerial surveys
- Disaster relief services

Analysis and Geographical Information Systems (GIS)

- Imagery analysis
- LiDAR analysis
- Geospatial analysis
- AI supported analysis

Drone Asset Inspections

- RGB (colour) photogrammetry: High-resolution aerial and ground-based 2D and 3D mapping of assets using colour photogrammetry.
- Thermal Asset Inspections: Radiometric infrared sensors detect thermal variations, identifies hotspots, thermal efficiency, thermal loss, etc.
- LiDAR Asset Inspection: Facilitates the processing of insurance claims by providing clear, visual evidence of damage, expediting the assessment and recovery process.

Ground based modelling and inspections:

- 360° camera human-mounted 360° street view vehicle-mounted optics
- 360° street view vehicle-mounted optics

Modelling:

- 3D modelling and digital twins
- Common Operating Picture (COP) development, input and maintenance
- LiDAR derived modelling including DEM, DTM, DSM (see page 8)

Damage Assessments:

- Damage assessments – post disaster
- Insurance damage assessments – pre and post disaster
- Ground-based 360° street view photogrammetry
- Rapid assessment and intelligence provision post disaster
- Field and remote reconnaissance - Military, small teams reconnaissance concepts applied for post disaster impact assessments, humanitarian aid pre-planning and other scenarios that require advanced, reconnaissance intelligence support

Other Services

- Search and Rescue (SAR) support
- Live drone and multi-platform video feeds to command centres
  - Provision of live video feeds from drone platforms via GSM and satellite links to provide real time information for decision making purposes.
- Common Operating Picture (COP) development, input and maintenance
  - A dynamic platform that fuses imagery and data from multiple sources to provide a single point of reference for appropriate command and control elements to perform decisions
- Scouting Surveys
  - J2 deploys small teams capable of operating in remote and austere environments. Utilising our advanced platforms and analysis processes we create intelligence packages to inform the planning and staging of larger teams intending to establish activities in a prospective area of operations
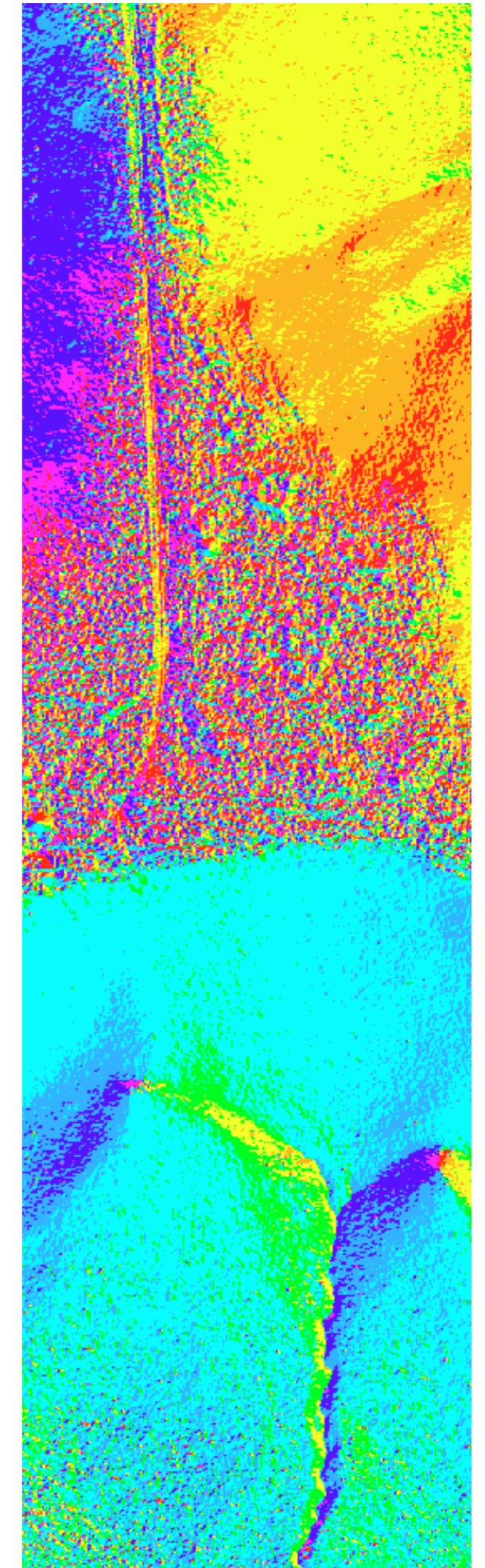
TECHNICAL SPECIFICATIONS

Types of Flight Operations	
Multirotor <25kg, Fixed Wing <7kg and Powered Lift <7kg	
VLOS, EVLOS Class 1 and 2, BVLOS	
Day and Night	
Operating Height – normally no higher than 120m AGL	

Cameras	
RGB Cameras	20MP (M3E), 45MP (P1 – M350), 48MP (M3T), 61MP (Sony ILX – Trinity Pro)
Thermal Camera	640×512 Thermal Radiometric 30Hz Temp Accuracy ±2° C or ±2% (using the larger value)
Multispectral	NIR, Red, Red Edge, Green all @ 5MP and RGB @ 20MP Can generate NDVI and other vegetation indices maps
LiDAR Colour sensor	20MP
Formats	JPEG, R-JPEG, RAW TIFF

Photogrammetry	
Resolution (highest)	1-2cm GSD for RGB 10cm GSD for Thermal 2cm GSD for Multispectral

360° Panoramas	
	Colour with 20MP image resolution

Video	
Resolution	4k @ 30fps
Format	MP4

LiDAR		
LiDAR Sensors	Points per m²	Up to 700
	Frequency	240khz or 240,000pts/s
	Returns	Up to 5
	Accuracy	2cm @ 150m
	System Accuracy	Horizontal 5cm @ 150m, Vertical 4cm @ 150m
	Laser Class	1

Accuracy of Mapping	
Using CORS	<50mm with GCPs
No CORS	<20cm

Software	
LiDAR processing software	2D RGB Ortho-Photography, Digital Elevation Model (DEM), Digital Surface Model (DSM), Digital Terrain Aspect Model, Digital Terrain Slope Model (DTS), Triangular Irregular Network (TIN), Contours, Hillshade, Point Cloud i.e. LAS, ASCII XYZ, Point Shapefile, DXF and DGN, Canopy Height Model (CHM). Foliage Cover Model (FCM), 3D Feature Capture, 2D Feature Capture, RGB Orthomosaic, Intensity Imagery, Ground Classification, First Return Classification, Last Return Classification
Photogrammetry software for professional drone mapping	3D models, automatic point cloud classification, flatten & smoothen digital surfaces, accurately measure distances, areas and volumes, control over the project accuracy, detailed quality report, multispectral indexes such as NDVI, SAVI etc, thermal analysis, nadir RGB orthomosaic, fly-through animation and flight paths
High-end industry standard GIS software	Integrated computer hardware and software that stores, manages, analyses, edits, outputs and visualises geographic data. Users can maintain spatial data effectively; generate 2D, 3D and 4D visualisations; and conduct advanced mapping analytics. GIS data can be shared within or beyond the ESRI ArcGIS system Quickly share projects and information online and through mobile apps. Exploration and visualisation Cartography and design Imagery and remote sensing Analytics and data science Data management
Online mapping	Create maps online or create and manage from within the desktop software to publish online Share interactive maps and other content with groups, both internal and external.
Open-source GIS software	It supports viewing, editing, printing and analysis of geospatial data in a range of data formats. Supports raster, vector, mesh and point cloud layers. Vector data is stored as either point, line, or polygon features. Multiple formats of raster images are supported
Point cloud display software	Individual Tree Segmentation, Canopy Height Model (CHM), Foliage Cover Model (FCM)

J2

GEOSPATIAL INTELLIGENCE SERVICES

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