



GarudaUAV

A **TRENTA** COMPANY

STATE-OF-THE-ART AERIAL SERVICES



ABOUT US

Partnering visionary enterprises from data acquisition to data-driven action.

GarudaUAV a Trentar group company, part of the Dorf ketal family was established in 2017. Today it has expanded its footprint in pan-industrial verticals in a very short span of time. GarudaUAV is a leading software-driven aerial services provider. We offer a unified platform "BlueHawk" for managing projects from inception to completion. Our digital evidence reinforces progress reports, providing vital support for investigations. Our services encompass workforce and resource management, real-time field updates, meticulous data handling, in-depth survey and mapping analysis, safety measures, and a vigilant surveillance dashboard for constant monitoring, resulting in comprehensive Project Progress Monitoring & Time Schedule Analysis leading up to project delivery.

Trentar is a full-stack UAV solutions company with two wings: GarudaUAV as a software-based Aerial service provider and Rfly Innovations as an unmanned aerial vehicle and spare part manufacturer.

Dorf Ketal founded in 1992, a 3 decade old Indian MNC with a global turnover in excess of USD 700 Million. Dorf Ketal is an industry leader with a strong presence around the globe in the development, commercialization, marketing, and application of specialty-engineered chemistries for oil and gas industries. Trentar creating a strong presence of Dorf Ketal in the new realm of possibilities in aerial (manned and unmanned) technology, geospatial technology, advanced visual data analytics, AI/ML (Artificial Intelligence/ machine learning), Robotics, and project consultancy.

OUR JOURNEY

Sure, definite steps towards success

2017

Year we were founded

400+

Projects delivered

18

Verticals we serve

100+

Satisfied Customers

SECTORS AND SERVICES:

MINING:

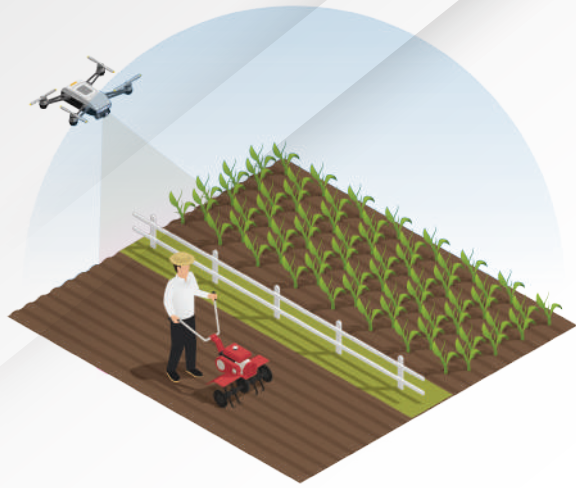
- Topographical Survey and Mapping
- Volumetric Estimation and Physical Verification
- Dump & Pit Slope Analysis
- Environmental Monitoring
- Haul Road Analysis
- Blasting Zone Monitoring
- Inspection of Infrastructural Assets
- Health and Safety Monitoring
- Security Surveillance
- Canopy Height Monitoring
- Payload Monitoring
- Dust Suppression
- Mine Analytics Integrated Dashboard
- Thermal Inspection
- Magnetic & Radiometric survey
- BlueHawk Mining Cloud Platform



FORESTRY:

- Digitalization of Forest Boundaries.
- Measuring Tree volume & Tree Segmentation.
- Canopy Height Information.
- Identification of encroachment on Forest Land.
- Forest Inventory & Measurements.
- Forest Health/ Quality of Forest/ Health Prediction.
- Forest Fire: Prone Area Identification, Modelling and Management.
- Forest density mapping.
- Identifying and mapping open areas in forest.
- Carbon stock estimation.
- Soil erosion modelling.
- Watershed analysis.
- Wild life habitation analysis.
- Impact of government interventions. Incident Reporting
- Forest Patrolling
- Forest Right Act
- Animal Death & Injury
- Mining & Quarry
- Automated Forest Fire Response System
- Capacity building and Handheld in use





AGRICULTURE:

- Crop health risk assessment and monitoring
- Soil analysis and management
- Site suitability analysis for sapling
- Hyper spectral based crop species mapping
- Metrological forecast.
- Agriculture web portal and mobile application for crop monitoring and management
- AI/ML based Crop Yield estimation
- Crop Biomass estimation
- BlueHawk agriculture cloud platform

DISASTER RISK MANAGEMENT:

- Risk, vulnerability and hazard assessment, and mitigation planning for natural disasters
- Slope stabilization studies
- Coastline topographic survey
- Bathymetry survey
- Forest fire detection
- Urban flood management
- Cryosphere management
- Glacier Lake Outburst Flood (GLOF) monitoring
- Post-disaster damage analysis
- BlueHawk Disaster cloud-based platform



RAILWAYS & METRO:

- Detailed project report
- FLS and engineering survey
- GIS asset tagging
- GAD preparation
- Soil investigation
- Land use and land planning
- Inspection of railway assets
- Bridge inspection
- Project progress monitoring
- Project management and consultancy
- Route alignment survey
- BlueHawk railway cloud platform

POWERLINES:



- DPR & PMC
- Route alignment survey
- Visual and Thermal inspection
- Encroachment Analysis
- Switch Yard Inspection
- Network Analysis
- Smart Metering
- Asset Digitization
- GIS tagging
- Transformer Monitoring
- Harmonic Analysis
- Tower Spotting

ROADS & HIGHWAYS:

- DPR & PMC
- FLS and engineering survey
- Topographical Survey
- RoW profiling
- Soil investigation
- Bridge inspection & monitoring
- Land use and land planning
- Greenfield & Brownfield survey
- Construction Progress Monitoring
- Aerial Inspection of Alignment
- Route Feasibility Survey
- Corridor encroachment analysis
- AI-based pot-hole detection
- Bluehawk Cloud Platform-Highways



URBAN PLANNING:



- DPR & Project Management Consultancy
- GIS based survey and mapping.
- 3-D city modeling
- Construction Progress Monitoring
- GIS based property tax software.
- Smart city-Intelligent transportation dashboard
- Smart waste management
- Utility network and planning
- Change Detection
- Drainage Planning and Mapping
- Encroachment Analysis and change detection
- BlueHawk Urban Planning Cloud Platform

OIL & GAS INDUSTRY:

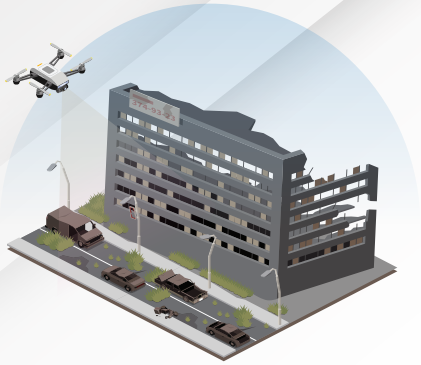
- Reconnaissance survey
- DPR preparation
- GIS mapping & Survey
- Digitization assets
- GIS tagging
- Soil investigation
- RoW Profiling
- Visual and thermal inspection of structural integrities
- Nondestructive UT inspection
- Pipeline thermal- visual inspection
- Security and surveillance
- Health and safety monitoring
- Incident management services
- Cloud based analytics.
- Bluehawk Oil & Gas Cloud Platform



ARCHAEOLOGY:

- Locating archaeological/heritage/ monument sites
- AI-based surveillance of the heritage site.
- Assessing damage to ancient sites
- Archaeological recording of excavated features
- Encroachment analysis
- Identification of illegal construction
- Progress Monitoring of Excavation site
- Internal and external LiDAR scanning of the historic sites
- Building Information Modelling (BIM)
- 3-D Modelling & Digital Twin
- Topographic Survey & Mapping
- Benchmarking using DGPS.
- High-resolution photos and 4K video
- Superimposition of Cadastral map
- DEM/DTM/DSM generation
- Zone creation and boundary demarcation: Protected, Prohibited, Regulated Zone
- GPR Survey
- BlueHawk agriculture cloud platform





GENERAL INSURANCE:

- Site assessments and inspections
- Artificial intelligence-based survey
- Visual loss assessment reporting
- Live streaming from catastrophe zone
- On-demand inspection of industrial assets
- Seasonal surveys

TELECOMMUNICATIONS:

- Detailed project report (DPR) preparation
- Topographical survey and mapping
- Thermos- visual inspection
- Feasibility survey
- Drive test mission planning



SOLAR POWER:

- DPR & PMC
- Topographical Survey
- Land Slope Profiling
- Solar Panel Thermography/ Inspection
- IV curve Testing
- Construction Progress Monitoring
- Bluehawk Cloud Platform- Solar Power

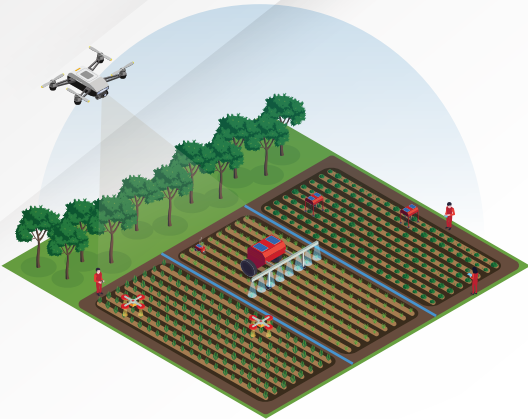


DAMS & HYDRO POWER:

- DPR & PMC
- Topographical Survey
- Dam Embankment Settlement Analysis
- Barrage/Dam health monitoring
- Siltation Analysis
- Bluehawk Cloud Platform- Hydro Power



WATER RESOURCE & IRRIGATION:



- DPR & PMC
- Topographical survey
- Catchment Area Mapping & Survey
- Water Capacity Analysis
- Productivity Estimation Model
- Canal Moisture Analysis
- Infrastructural Health Analysis
- Riverbank Erosion Analysis and Mapping
- Bathymetric Survey
- River Water Management
- Bluehawk Cloud Platform

CONSTRUCTION & INFRASTRUCTURE:

- DPR preparation
- Topographical survey
- Soil investigation
- Progress monitoring
- Project consultancy
- Encroachment analysis
- Smart city planning
- Traffic planning



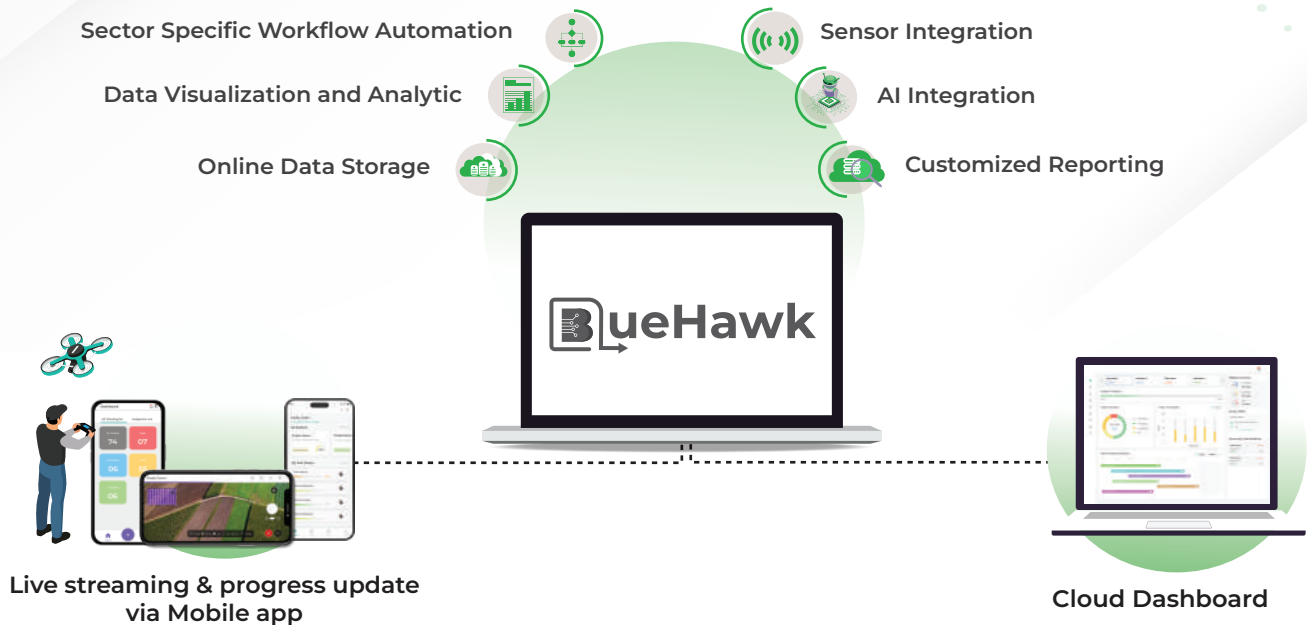
THERMAL POWER & MANUFACTURING PLANTS :



- PMC & DPR
- Topographical survey
- Ashpond & pipeline inspection
- LiDAR scanning
- Progress monitoring
- Soil investigation
- Aerial NDT-UT testing
- Thermal visual asset inspection
- Internal Asset Health inspection & Analysis
- Reservoir silt and slurry analysis
- Bluehawk Cloud Platform- Power Plant

BlueHawk Enterprise Business Suite

AI Powered Drone Platform to Ease Industrial Use Cases



Unlocking the Future: Introducing Bluehawk

Discover the Power of Seamless Integration

Are you ready to revolutionize your business operations and take a leap into the future? Look no further than Bluehawk, your ultimate solution for integrating various feature applications, services, and cutting-edge AI technology into a cohesive and seamless system.

What is Bluehawk?

Bluehawk is the integration of various feature applications, services, and AI technology into a cohesive system that works seamlessly together. It involves connecting various software components, including artificial intelligence algorithms, to create a fully functional application that meets specific business needs. This approach can provide numerous benefits, including AI-powered digitization, streamlined workflows, improved data accuracy through machine learning, and an enhanced user experience driven by AI capabilities.

OUR PRODUCTS

Our UAVs:

RFLY-MICRO: (MICRO DRONES)

Uniquely designed & developed for Aerial Mapping, Industrial Surveillance and Police Surveillance missions. The RFLY-MICRO establishes a new benchmark for micro UAV performance with 60 minutes endurance and reliability under 2kg class.

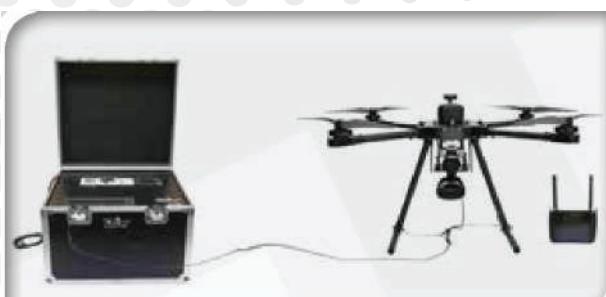


RFLY-PRO: (SMALL DRONES)

Developed for the most demanding UAV operators within the Defence, Security and public safety markets, the RFLY-PRO is a professional grade drone delivering a wide range of payload capabilities with the agility and single-man deployment.

RFLY- LAZER: (LiDAR DRONES)

RFLY design principles and immense experience in aerial applications made a way for an unique RFLY-LAZER RL-100M Airborne LiDAR Scanning System, tailor-made for Indian Mapping Market. RFLY-LAZER LiDAR features a Livox new generation laser scanner coupled with a best-in-class inertial measurement unit (IMU) and highly integrated with GNSS, Camera (optional) and storage control system, delivering unmatched point cloud accuracy and rich image information



RFLY-TETHER: (TETHER DRONES)

The RFLY-TETHER is developed and optimized for specialized missions demanding extended free-flight mission time with an endurance up to 12 hours.

AERIAL SERVICES



QUADCOPTER SERVICES:

Quadcopters are extensively used for infrastructure inspection and small area mapping using different payloads.

- Small Scale area survey & Mapping
- Urban 3D Mapping
- Progress Monitoring
- Aerial inspection of Infrastructure
- Aerial Surveillance

VTOL SERVICES- LiDAR & PHOTOGRAMMETRY:

VTOL drones have revolutionized the way we can map, can carry heavy payloads enabling more precise aerial maps and better 3D reconstruction. They are highly used in Powerline inspection as well as mapping and surveying work, environmental inspection & are suitable for difficult & rough terrain like Forest, Mines, Hills etc.

- Mid-scale area survey & Mapping.
- Mapping of Hilly terrain, Urban areas, and Forest.
- Mapping of Transmission & Distribution



MANNED AIRCRAFT SERVICES- LiDAR & PHOTOGRAMMETRY:

Airborne Lidar is a dynamic polar and active multi sensor It is extensively used for Powerline inspection for maintenance, Forestry, Highways, Railways etc.

- Large Scale Area Survey & Mapping
- Urban Planning survey
- Railways alignment survey
- Highway alignment survey



OUR CLIENTS



Let's connect

Get in touch with us to discuss a project, an innovative use case or quite simply, all things drones!

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