

COMPANY PROFILE '23



HESABU VISION

FLY & ANALYSE !

WWW.HESABUVISION.COM



TAKE
ALTITUDE
YOU WILL SEE
SOME DETAILS

» AERIAL SURVEY
» DATA ACQUISITION
» ARIEL PHOTO & VIDEOGRAPHY

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»WHO ARE WE

Hesbu Vision is a company specialized in Drone Imagery.

Established in 2021 in Kolwezi, Hesabu Vision has worked on all the big projects in the area of Kolwezi.

Hesabu Vision is composed of professional pilots trained in Europe and with professional licenses, so we are able to deal with all situations

»WHAT WE DO

As far as aerial imagery is concerned, we offer several possibilities.

We carry out drone topographic monitoring in order to obtain point clouds which will be uses to monitor the site and calculate areas, volumes, slopes profile, and inspect the sites in search of possible problems.

We also offer an inspection service, which allows companies to check the condition of installations they suspect may be damaged.

We offer a video / photography service in order to provide companies with high quality aerial images for internal purposes or in order to create a video in the image of their companies to reach more customers.

»EQUIPMENT

Equipment is the focal point of this discipline. We can have all the knowledge we need, but if we don't have the right material for the mission, it will be very difficult to accomplish it.

This is why we chose versatile, powerful and reliable drones, so that each situation can be resolved without problems.

We own one of the best drone in photogrammetric world. The Delair UX-11 fixed-wing drone, it can reach 400Ha in one flight, has full-frame 22 MP camera, so it is the perfect UAV for huge and difficult access area.

For smaller project and 3D mapping building sites the Dji Mavic 2 pro is perfect.

Regarding the processing of data, these being very heavy, a powerful computer with the latest components on the market helps us to process them in a few hours.

»WHY US

We offer tailor-made services to best meet your expectations in terms of objectives and financial.

We deliver the data in an extremely short time so that you can have an efficient return on your projects.

We will devote the most care and the maximum of my capacities to make this collaboration fruitful and successfull.

If you have any questions, a problem, an idea not developed in the past between us, you can always count on us at any time of the day to listen to you and find a solution together.



OUR SERVICES

» SURVEY

- » Our Drone Mapping Systems are autonomous
- » Fly preprogrammed routes via autopilot & telemetry
- » Autopilot firmware coded for photogrammetric precision mapping
- » True accurate mapping systems (photogrammetric)
- » Rapid data acquisition and delivery
- » Safe & reliable
- » Can fly under clouds and in strong winds

» INSPECTIONS

- » Inspections and mapping services for factory roofs, cell towers, cooling towers, oil and gas infrastructures, wind farms, power lines,...
- » Confined Space Tank Inspections
- » Drones can inspect hazardous places and systems reducing the time needed and production. It's easier to operate and need less requirements to work in unsafe heights or confined spaces.
- » In few minutes, a large quantity of images is produced and collected, which gives us the opportunity to inspect clearly in high resolution what we are looking for.
- » You'll obtain photography / 2D videos and 3D videos

» VIDEOGRAPHY

- » You would like to show to your customers the different activities carried out on your sites.
- » Have a visual report, fast and efficient with dynamics annotations
- » You would like to have a 4K video representative of your activities to promote your business in order to reach other customers
- » A high resolution video in 4K will be produced with or without music.

» PHOTOGRAPHY

- » You need high resolution images of your finished or ongoing projects
- » You desire some advantageous pictures of your sites.
- » You wish to obtain a regular follow-up of your sites seen from above.
- » The images obtained with a drone are in Full HD thanks to its high resolution sensor of 20 million pixels



YOU HAVE AN IDEA ? WE CAN DISCUSS ABOUT IT !

All projects can be defined according to your desires and requirements. We can easily tailor our drones to the mission to get exactly what you want.

Everything is possible.

HOW WE WORK



01 BRIEFING & PERMISSION

Each project will be discussed between your team and us. We develop a plan according to your objectives, time and technical possibilities.

02 ARRIVAL & SET UP

The day of operations, each flight is planned in advance to minimize working time and allow optimization of operations. A safety zone is also installed to reduce the risks linked to activities

03 FLY & DATA RECORDING

Each flight makes it possible to capture as precisely as possible the information necessary for the development of 3D maps,... The high-tech technology of drones allows to follow perfectly and stably flight plans developed by our team and thus ensure the success of the mission.

04 DATA PROCESSING & TRANSFER

All data is processed in a photogrammetric program dedicated to 3D imaging. The processing of these datas provides a variety of GIS and CAD compatible files as well as 3D maps, orthophotoplans, point clouds, digital surface models (DSM) and digital terrain model (DTM).



OUR EQUIPMENT



EQUIPMENT IS THE SKELETON OF BUSINESS

Here are some of the most important tools we use for Drone Survey; Drone mapping or photo/videography.

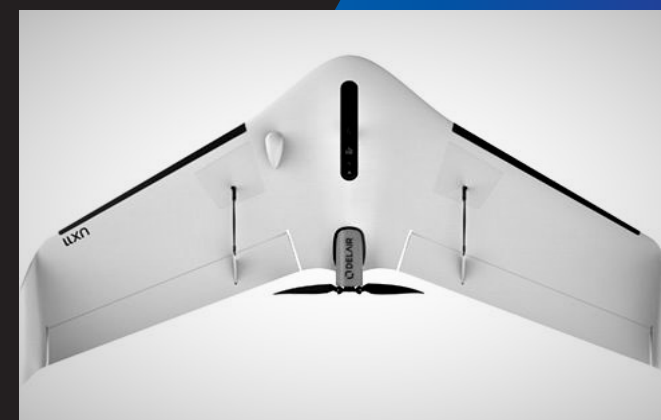


» DJI MAVIC 2 PRO

- ◆ One of the best drone for High Resolution photography with its 20 MegaPixels
- ◆ The brand new 1-inch CMOS sensor created by Hasselblad© has an active sensing area four times more effective than the original Mavic Pro.
- ◆ It has omnidirectional obstacle detection giving it a considerable advantage for inspections
- ◆ Perfect for small 3D mapping ; Aerial Inspection ; Aerial Photo and Videography

» DELAIR UX-11

- ◆ This is one of the best UAV on the market for photogrammetry.
- ◆ This UAV is specially made for survey.
- ◆ Up to 80% faster surveying operations
- ◆ Delair UX-11 CAN MAP UP TO 400 HA (1,000 AC) IN ONE FLIGHT, which is 2x times more than other fixed-wing drones and 14x times more than multicopters.
- ◆ Take off and landing horizontally (BTOL)
- ◆ One of the best camera equipment available in the drone industry. The UX-11 offers a full-frame 22 MP payload, which guarantees better map reconstruction.
- ◆ 1.7 cm absolute accuracy ! The UX-11 PPK use option to reach down to 1.7 cm accuracy, previously only possible with ground-based survey equipment



» PIX4D - PIX4D CLOUD

- ◆ We are using several software to process all the data captured by drone, Pix4d i. is one of them.
- ◆ The data processing software is as important as the drone used.
- ◆ Pix4d is specially designed for mining and aggregates.
- ◆ It allows us to calculate volumes, surfaces, slope profiles, ...
- ◆ View inventory and export reports.
- ◆ Measure the consumption of reserves and mining progress.
- ◆ Analyze the conditions of transport routes to optimize fuel consumption and fleet traffic flow.
- ◆ Plan blasting and track changes over time.
- ◆ Cloud-based application allows universal access by anyone, any-time, anywhere.
- ◆ Annotate, comment and share with all the collaborators.





Drone Survey DEVELOPPEMENT

✓ Provide accurate and exhaustive data.

Total stations only measure individual points. One drone flight produces thousands of measurements, which can be represented in different formats (orthomosaic, point cloud, DTM, DSM, contour lines, etc). Each pixel of the produced map or point of the 3D model contains 3D geo-data.

✓ Map inaccessible areas

An aerial mapping drone can take off and fly almost anywhere. You are no longer limited by unreachable areas, unsafe steep slopes or harsh terrain unsuitable for traditional measuring tools. In fact, you are no longer limited by anything...



DRONE SURVEY - A TOOL AT THE SERVICE OF MINES & QUARRIES

Thanks to advanced measurement and calculation tools (distances, surfaces, volumes, slopes, etc.) you will be able to follow the evolution of the production and better manage its operations such as:

- ✓ Planning of extraction and extension projects,
- ✓ Inventory monitoring,
- ✓ Analysis of tracks to optimize machine traffic,

Melvin Pirard
General Manager
Professionnal Drone Pilot



Drone photogrammetry is a technique that consists of performing measurements in a scene, using parallax obtained between images acquired from different points of view.





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High-precision 3D topographic surveys, quantification of materials to optimize production monitoring. Improved operations and reduced operational costs.



3D MODELISATION

- ✓ The virtual tour on the platform reduces the risk of accidents by limiting the presence of surveyors and sub-contractors on the ground walking through the mine, in the middle of mobile machinery, or on stocks of materials.
- ✓ Sharing a 3D model for a better understanding and accessible to all via a web page or CAD file.
- ✓ Obtain cubing calculations taking into account the least unevenness of the terrain unlike traditional topographic methods

AVAILABLE ON THE CLOUD

- ✓ Get access through any computer with an internet connection.
- ✓ Share information live with other users who have access to the platform. Everyone in the company can have access to it and depending on the status of use, intervene in different ways on the platform.
- ✓ Easy to learn and very easy to use

EXECUTION SPEED

- Traditional topographic surveys are a slow and labor-intensive process requiring the collection of GPS points. Depending on the area, several hundred points must be collected manually, which may take several days or more.
- ✓ A flight time of 1 to 2 hours is sufficient to obtain an accurate topographic survey of the entire mine or road.
- ✓ Fast encoding of the data, they may already be available a few hours later.



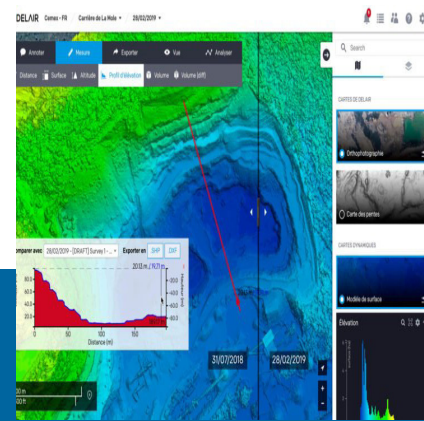
High Definition Ortophotoplans creation

High definition ortophotoplans are the basis for map creation. They allow users to navigate through the mine, observe and examine in detail in order to better plan activities.



Cubing of stocks and volumes

We provide several cubic calculation systems for each situation. So it is very easy to know the cubage and tonnage of each stock depending on the product chosen.



A platform where all users can share

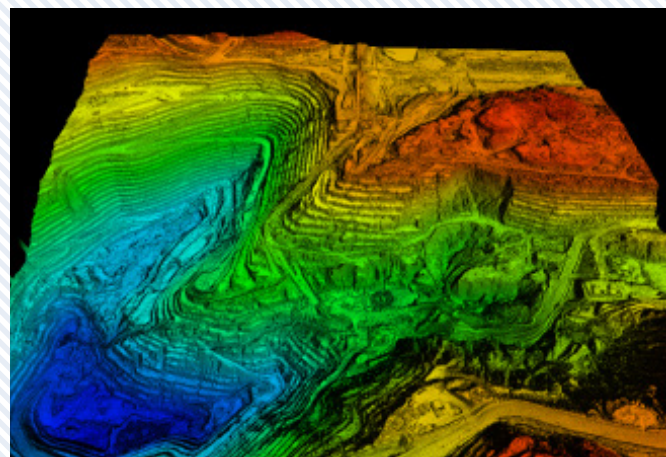
Operating on the principle of the cloud, anyone wishing to do so can have access to the program. Thus offering the possibility of consulting the latest data and work carried out on the mine.



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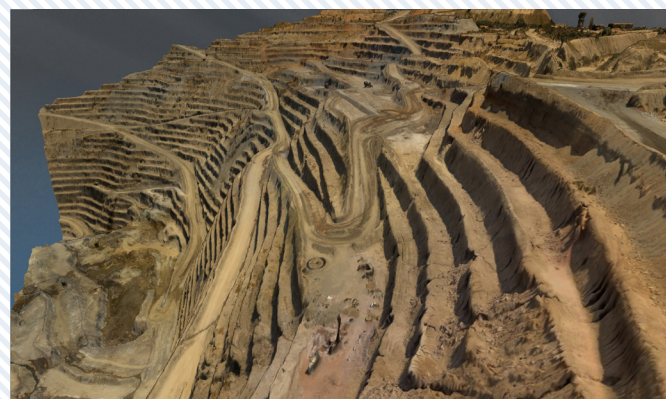
PORTFOLIO



01 DRONE SURVEY - OUTPUTS FILES

This is an exemple of DTM that we can produce.
Each flight produces DTM files (Digital Terrain Model), DSM files (Digital Surface Model), that can be use in differents softwares as GIS or CAD.

All these files contains many information that can help you to manage your site as Road, Open pit Mining,...



02 DRONE SURVEY - 3D MAPPING

3D mapping is the first step in data processing. A point cloud will be created with all the images and data to represent the subject we are studying.

This point cloud is useful to calculate surfaces and volumes and will be essential to create the 3D representation.

The 3D representation will be interesting for inspections without risk taking, to study the subject easily, and you will be able to present your subject with didactic support to your team or your customers.

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03 DRONE PHOTOGRAPHY

Have you just started or finished a job and want to present it through a weekly or monthly report ?

We offer you high quality photos to best represent your work.

04 DRONE VIDEOGRAPHY

It is easy to make a high quality video of the work done on site. Your customers will understand more easily and see how the job is done.

The video is made according to you to adapt perfectly to the spirit of your business.

We can also tag videos with dynamic and professional comments to enhance the presentation of your work to your team or client.



THEY TRUSTED US





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