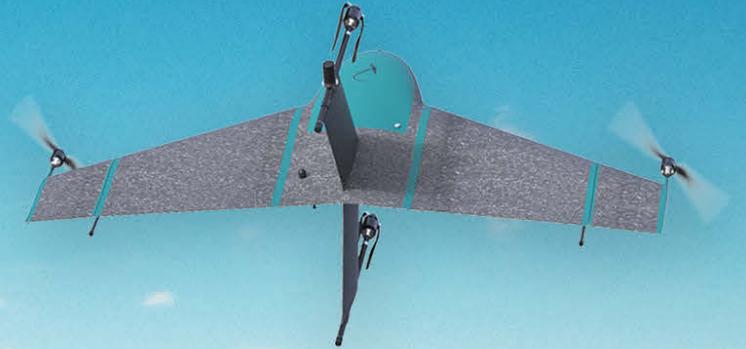


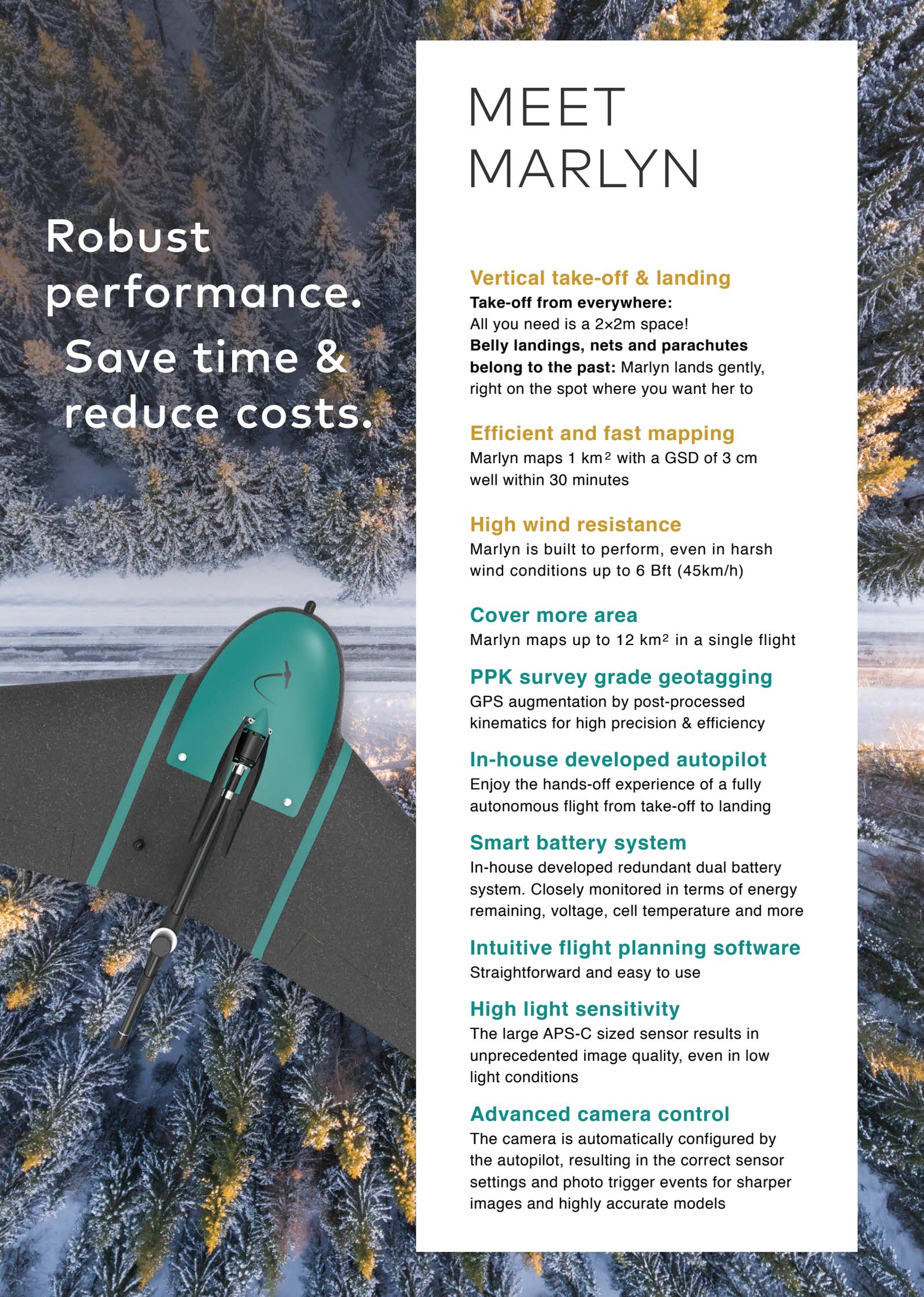
ATMOS UAV

Meet Marlyn,
the go-anywhere
mapping and land
surveying solution
made by surveyors
for surveyors.

www.atmosuav.com



ATMOS UAV

An aerial photograph of a dense forest with some trees showing autumn colors. A drone is flying over the forest, positioned in the lower-left quadrant of the frame. The drone is black with a teal-colored top section and a camera mounted underneath. The background is a soft-focus view of the forest canopy.

**Robust
performance.
Save time &
reduce costs.**

MEET MARLYN

Vertical take-off & landing

Take-off from everywhere:

All you need is a 2x2m space!

Belly landings, nets and parachutes belong to the past: Marlyn lands gently, right on the spot where you want her to

Efficient and fast mapping

Marlyn maps 1 km² with a GSD of 3 cm well within 30 minutes

High wind resistance

Marlyn is built to perform, even in harsh wind conditions up to 6 Bft (45km/h)

Cover more area

Marlyn maps up to 12 km² in a single flight

PPK survey grade geotagging

GPS augmentation by post-processed kinematics for high precision & efficiency

In-house developed autopilot

Enjoy the hands-off experience of a fully autonomous flight from take-off to landing

Smart battery system

In-house developed redundant dual battery system. Closely monitored in terms of energy remaining, voltage, cell temperature and more

Intuitive flight planning software

Straightforward and easy to use

High light sensitivity

The large APS-C sized sensor results in unprecedented image quality, even in low light conditions

Advanced camera control

The camera is automatically configured by the autopilot, resulting in the correct sensor settings and photo trigger events for sharper images and highly accurate models

HOW IT WORKS



1 | PLAN

Our inhouse developed planning and flight software **MarLynk** allows you to generate the most efficient flight plan for your project with ease



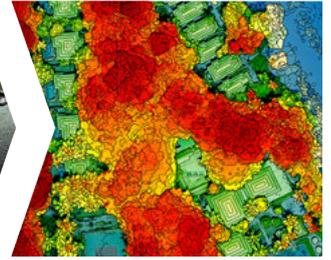
2 | CAPTURE

Take her out of her protective case, attach the wings, and with a quick checklist, take-off with a push of a button. After the mid-air transition to forward flight, **Marlyn** starts gathering all the desired images



3 | PROCESS

Use your preferred post processing image software and transform automatically organized geo-tagged images into point clouds, orthophoto, DEM and more



4 | ANALYZE

The generated (3D) models can now be used to provide actionable insights by measuring distances, performing volumetric analyses, taking cross-sections and more

BUNDLE COMPONENTS

Let's get in touch and choose together the best **Marlyn** configuration tailored to your needs and wants

- **Marlyn** main body, with electronics and autopilot
- Pair of detachable **Marlyn** Wings
- RGB Sony camera for high quality mapping, included lens, battery, SD card, USB cable and charger
- **MarLynk** planning & ground control software and **MarLynk** modem
- Protective transportation backpack or flight case
- Two sets of flight batteries and dual battery charger including balancer boards
- Remote control & accessories

UPGRADES:

- Full Post Processed Kinematics (PPK) module
- Micasense RedEdge-M multispectral camera
- Dedicated laptop/tablet
- and more

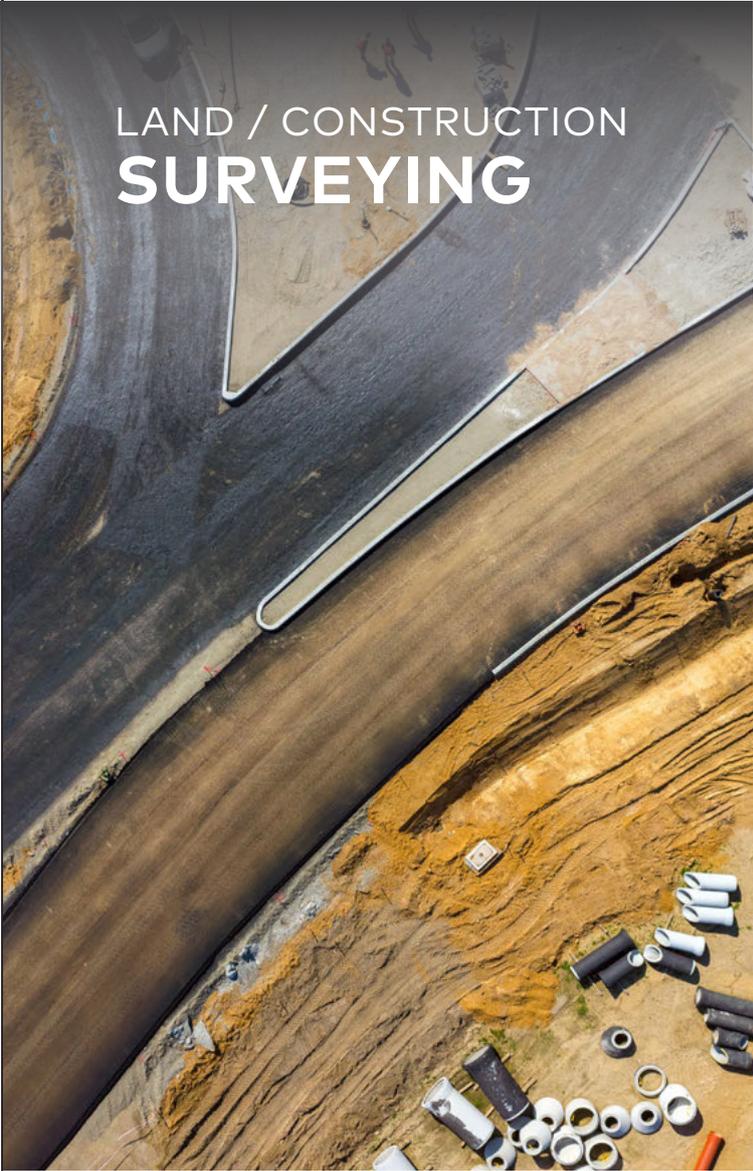


FIND OUT MORE ▼



APPLICATIONS

Advanced Surveying Features



LAND / CONSTRUCTION SURVEYING



OPEN PIT MINING

- Generate Orthmosaics & 3D Point Clouds
- Build Digital Elevation Models & Contour Maps
- Perform Boundary & Topographic Surveys
- Develop As-built Drawings
- Measure Distances and Volumes
- Monitor Site Development Progress

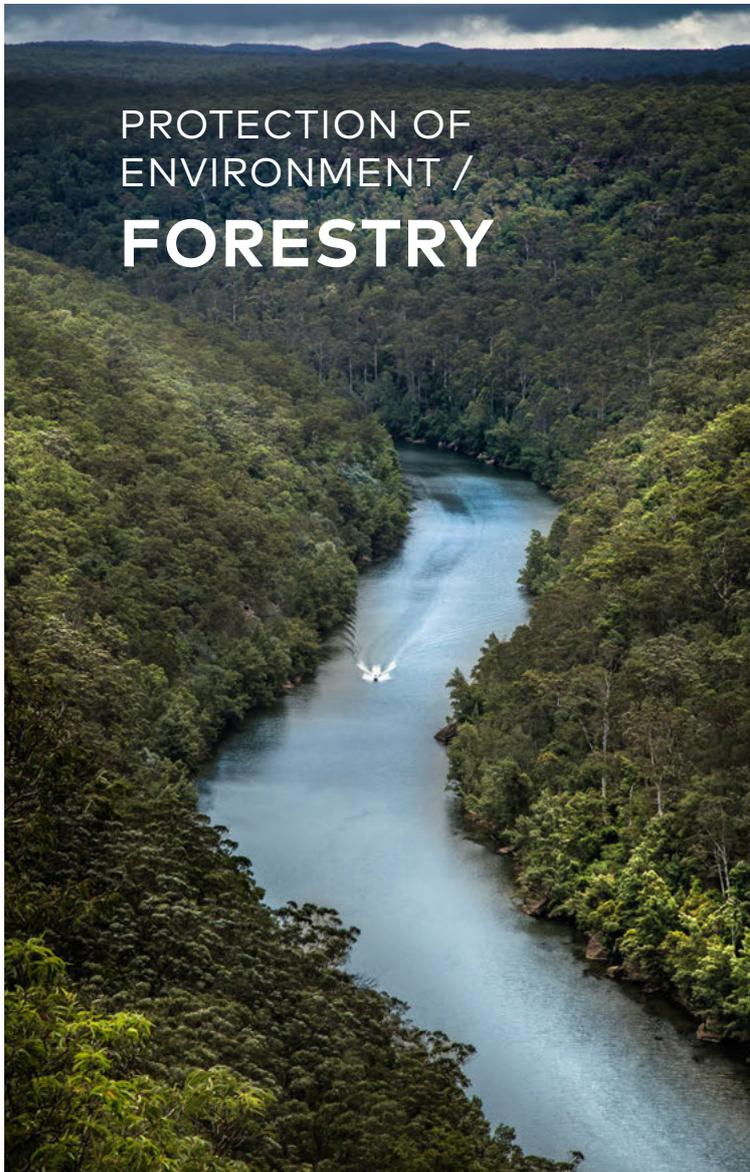
Marlyn improves operational efficiency, reduces downtime, and improves safety for surveyors and their equipment.

With PPK you can now achieve absolute X, Y, Z accuracies down to 3 cm (1.2 in), with fewer to no Ground Control Points needed.

- Cliff and Rock Formations
- Keep Track of Production and Inventory
- Contour Maps
- Improve Site Planning and Management
- Slope Analysis

Marlyn enables you to perform a survey from above, eliminating the need for surveyors to move around in the pit, minimizing corresponding downtime and greatly improving the safety of the surveyors. Marlyn can map an area faster and much more efficiently when compared to ground-based surveys. Fewer man hours are needed to create larger and accurate data sets, resulting in reduced costs.

Marlyn can easily be deployed from any surface. This enables her to be used in a wide variety of surveying applications.



- Detect Pest Infestations
- Quantify Moisture Levels
- Analyze Tree Crown Condition & Wildlife Damage
- Plan Reforestation

The quiet and energy-efficient electric motors are not only environment-friendly but also reduce the impact of noise on humans and animals.

The combination of infrared images and NDVI (normalized difference vegetation index) photos produces images that can be used to **measure intrinsic tree characteristics related to plant health, growth and biomass.**



- Identify Problem Areas in a Field
- Optimize Fertilization and Irrigation
- Minimize Pesticide Usage
- Estimate and Increase Crop Yield

Multispectral cameras can detect light reflectance in the visible and invisible spectrum that can be used to **determine the plant stress on an individual level.**

Combining Marlyn with a multispectral camera gives you the opportunity to visualize the crop health for a large terrain.

OUTPUTS



“

Without Marlyn, it would not be possible for us to map Silhouette island, which is known as a tropical island with rough conditions.”

Jean-François Rossignol

TFC International Ltd. | Managing Director

“Our available map dates back to the 1970’s and it only vaguely shows the different habitats. The high-resolution photographs and maps made by Marlyn will save us a lot of time and money.”

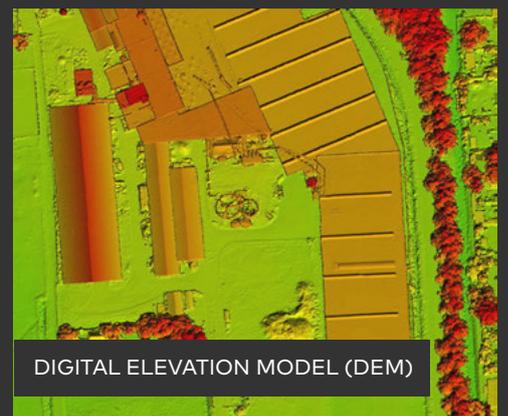
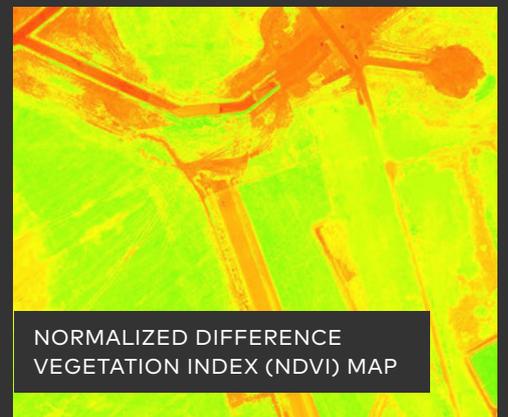
François Baguette

Island Conservation Society | Conservation Officer

“Marlyn's flexibility cuts our operational time in half by providing us with a huge amount of savings in both resources and equipment!

Pieter Franken

Skeye B.V. | Managing Director



MEET OUR TEAM

EMPOWERING
PROFESSIONALS
TO GATHER
GEO-SPATIAL DATA
EFFORTLESSLY



In an evolutionary world of radical changes, being able to adapt and implement new technologies in your business processes is of vital importance for companies and professionals that want to stand out.

Geospatial information is now the driver for business success across many industries and applications.

Knowing this at Atmos, we have developed **Marlyn**, the land surveying tool that will make this data collection effortless and precise.

Marlyn, is the first VTOL drone that combines the flexibility of a multirotor with the efficiency and speed of a fixed-wing.

Thanks to our in-house developed technology and her unique design, **Marlyn**, is built to safely perform surveying/mapping projects in any terrain, even under windy conditions.

That's why we are the number one choice for those seeking both high accuracy and ease of use.

Marlyn, the go-anywhere mapping solution made by surveyors for surveyors.

Timeline | Milestones

It's been more than 6 years already... among multiple awards and continuous research and development projects, these are some of our major milestones.



- 2012** ■ First drone worldwide to combine VTOL with fixed-wing in a fully autonomous flight
- 2013** ■ Company Foundation
- 2014** ■ Atmos UAV is honored on the TU Delft Wall of Fame
- 2015** ■ First time **Marlyn** is used by the Dutch Government for mapping applications
- 2016** ■ Patented design approved for high wind resistance VTOL drone
- 2017** ■ Being the first after 50 years to map part of the tropical Silhouette island
- 2018** ■ Atmos UAV raised capital to fuel further growth and expansion



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REQUEST A
DATASET ▼



Survey grade results
gathered with ease