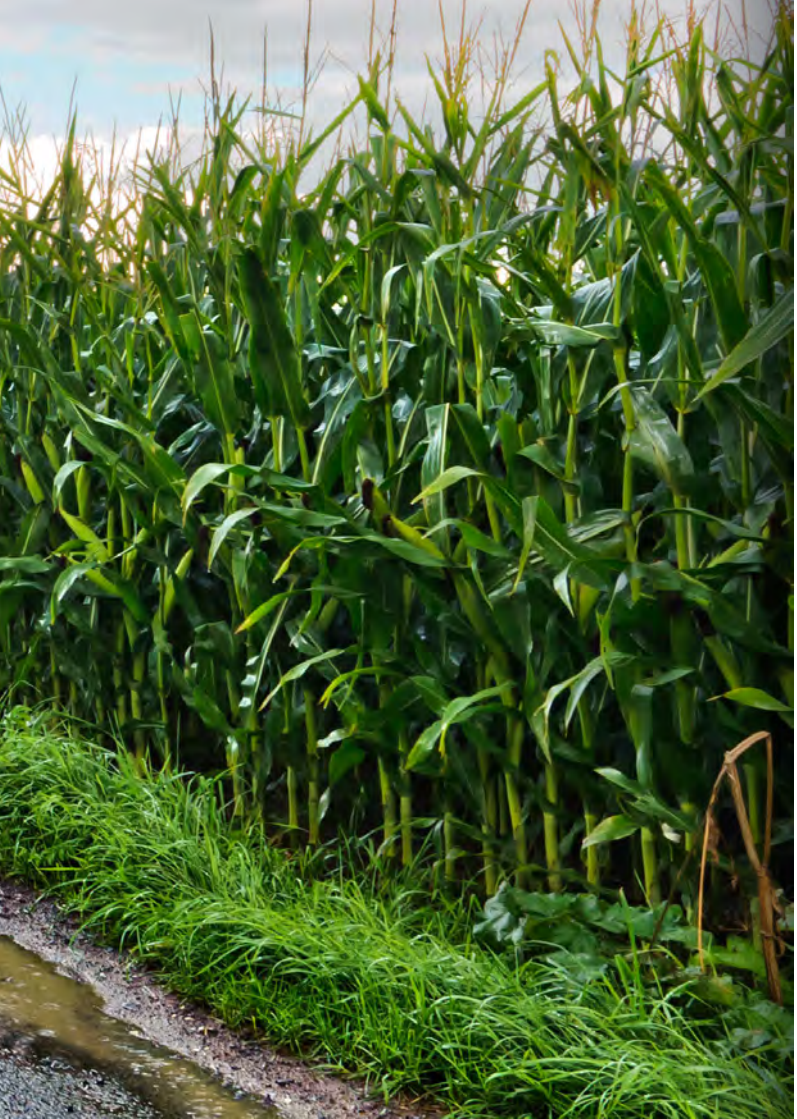

MARLYN
mapping
without
limits
ATMOS UAV



MEET MARLYN

Marlyn is the latest mapping & surveying drone by Atmos UAV, which makes a great leap forward compared to others. By reliably combining helicopter flexibility and fixed-wing performance, **Marlyn** maps more land in less time, with the accuracy you need.

Her ultimate goal is to give professionals across all industries access to the skies, enabling them to further increase their business effectiveness by gathering data in a safer and more efficient way.

Marlyn maps 1 km^2 in 30 minutes with a GSD of 3 cm.

Range	▸	Up to 60 km
Weather limit	▸	Up to 6 bft & Rain proof
GSD	▸	Up to 1.5 cm
Typical take-off & landing area	▸	2 x 2 m

THREE REASONS TO FLY WITH MARLYN

TAKE-OFF & LAND LIKE A HELICOPTER

The minimum take-off and landing area required is only 2 x 2 meters

FLY LIKE AN AIRPLANE

Marlyn's aerodynamically optimized wing maps up to 10x faster than multirotors

BELLY LANDINGS BELONG IN THE PAST

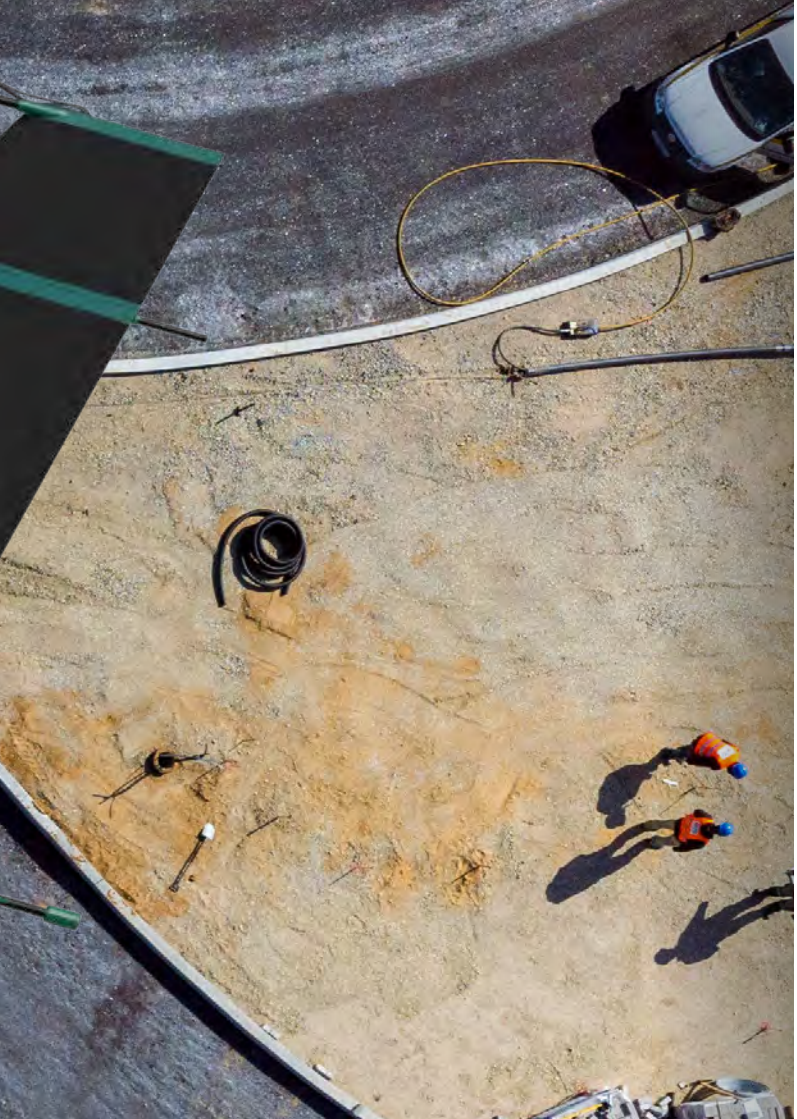
Marlyn makes accurate and controlled vertical landings

WHAT'S IN THE MARLYN BUNDLE?

Marlyn is delivered as a complete system that consists of the following:

- **Marlyn** hybrid mapping drone, including the camera specifically selected for surveying
- Interface (modem) to connect to your laptop or tablet
- Two sets of flight batteries incl. battery charger
- Atmos planning & ground control software
- Protective travel case and spare parts for small in-the-field maintenance

We also offer a version of **Marlyn** that is equipped with a **PPK-module**, that significantly increases the absolute positional accuracy and requires fewer to no ground control points.



APPLICATIONS

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

LAND SURVEYING

MINING

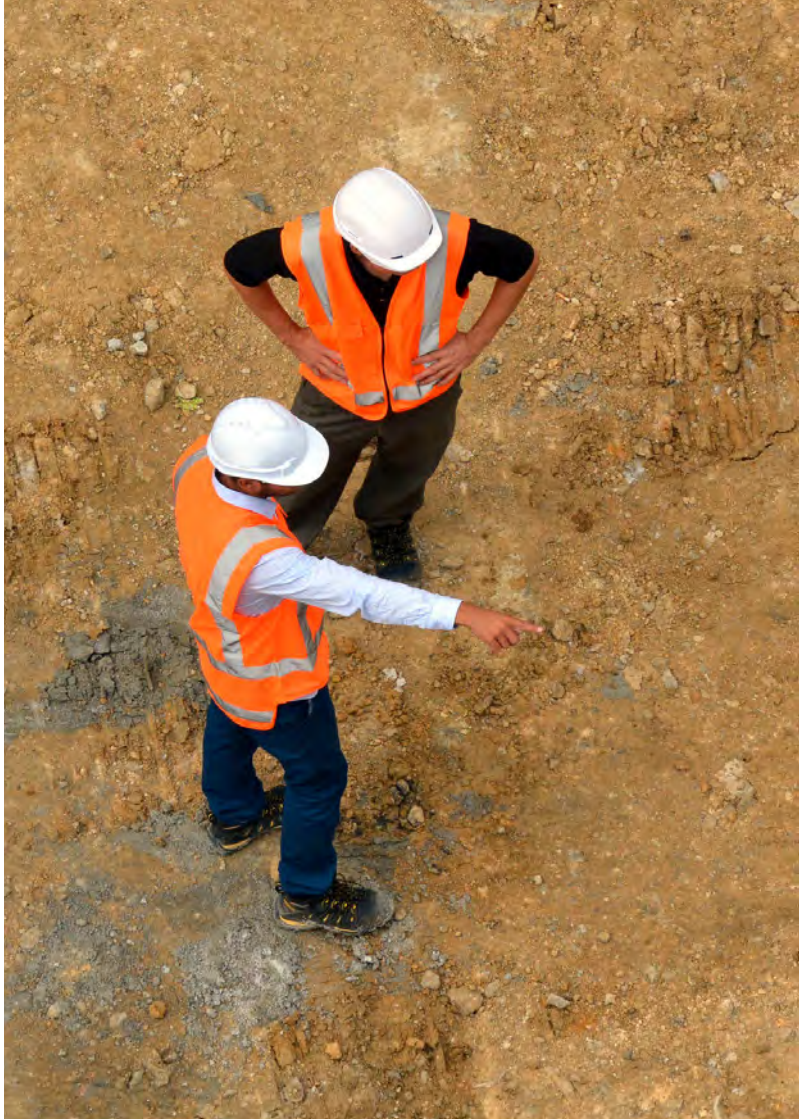
PRECISION AGRICULTURE

FORESTRY

LAND SURVEYING

Marlyn improves operational efficiency, reduces downtime, and improves safety for surveyors and their equipment. Stop worrying about the potential damage of belly landings. **Marlyn** will transform the way you collect data in any land surveying job.

- Digital elevation models
- Boundary & topographic surveys
- As-builts
- Resource mapping
- Progress-monitoring



MINING

Marlyn eliminates the need for surveyors to move around in the pit. While greatly improving safety and efficiency, **Marlyn** will provide you up-to-date high resolution orthophotos, volume calculations for stockpiles, generation of ground plans, and more.

- Cliff and rock formations
- Site planning
- Keeping track of mining equipment
- Contour maps
- Slope analyses

PRECISION AGRICULTURE

Marlyn's multispectral camera detects light reflectance in the visible and invisible spectrum to determine plant stress at an individual level. **Marlyn** can greatly improve efficiency and accuracy in crop health analyses.

- Identify problem areas in a field
- Optimize fertilization & irrigation
- Minimize pesticide usage
- Estimate & increase crop yield

FORESTRY

Marlyn's electric motors are quiet, energy efficient and reduce the impact of noise on humans and animals. With the obtained NDVI (normalized difference vegetation index) maps you have the information you need to measure intrinsic tree characteristics related to plant health, growth and biomass.

- Detection of pest infestations
- Quantify moisture levels & tree crown condition
- Analysis of wildlife damage
- Reforestation planning

FLIGHT PLANNING

The ATMOS flight planning software allows you to easily and automatically generate the most efficient flight plan for your project. Define the boundary of the region you want to map, specify the ground resolution and overlap and you're ready for lift-off!

CAPTURE YOUR DATA

Due to **Marlyn's** unprecedented flexibility she can be deployed from any location by a simple push of a button – no additional accessories or actions are needed to launch and recover your drone.

During flight you will stay informed about relevant flight parameters and status information, such as position, height, battery level and image capturing progress. The in-house developed autopilot continuously monitors the flight data measured by the onboard sensors to guide **Marlyn** and optimize her flight.

As operator, you will remain in control with different intervention options at your disposal. Depending on the situation you can instruct **Marlyn** to hold position, return to home, land or take-over control manually.

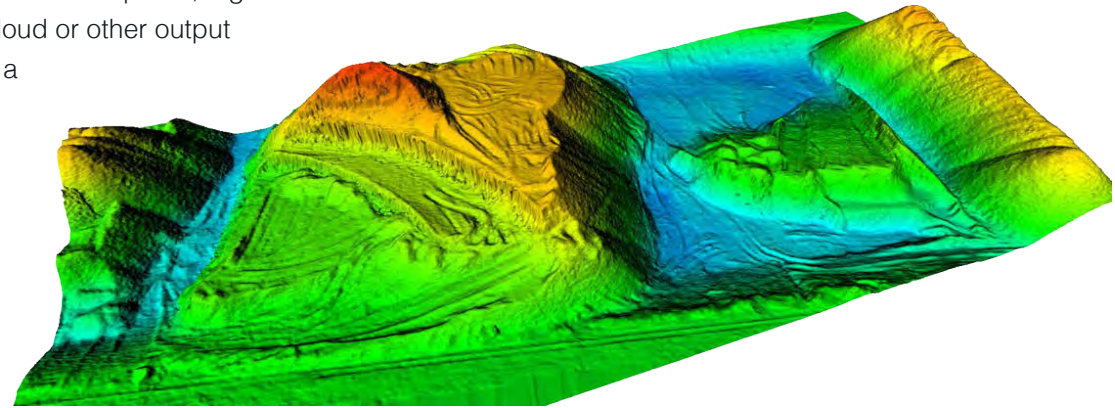
PROCESS YOUR DATA

After a controlled landing at the indicated landing spot, the captured data is automatically organized and imported into your preferred image processing software.

This post processing software transforms the data captured by **Marlyn** into an orthophoto, digital surface model, point cloud or other output that is compatible with a wide range of industry software suites.

ANALYZE YOUR DATA

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



PAYLOADS

Marlyn can be equipped with different payloads that allow you to gather the right data for your application.

SONY QX1

Specially selected for high quality mapping

- APS-C type Exmor™ CMOS sensor
- High light sensitivity (pixel size 4,3 µm)
- Adjustable shutterspeed
- Automatically triggered by **Marlyn's** autopilot

Not sure which payload to choose or is your payload not listed?

Contact us at **www.atmosuav.com/contact**

THERMAL

With an infrared camera as payload **Marlyn** generates full thermal maps of your assets. For example, this would allow you to check the functionality of your solar modules or assess your mine's water distribution.

MULTISPECTRAL

These multispectral cameras are designed to monitor the health of each individual crop on your field by capturing red-edge and near infrared bands. With the resulting NDVI maps you can significantly reduce usage of fertilizer and pesticides.

RTK-ACCURACY

This Post Processed Kinematics (PPK) module is a GNSS receiver that increases positional information up to RTK-accuracy, without having to rely on a live communication link. This module eliminates the need for ground control points, reducing your time in the field.

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ABOUT US

Atmos UAV designs, manufactures and markets high-end aerial data gathering solutions for civil professional applications such as land surveying, GIS, construction, mining, agriculture, environmental conservation and more.