

Marlyn Plan with Precision



Marlyn Cobalt Metric V1.2 July 2021
Specifications subject to change without notice.

ATMOS

Atmos is a technically advanced geospatial scale up, backed by a young team of innovative and dedicated problem solvers — based in Leiden, the Netherlands.

Our passionate team is driven by the desire to advance new technologies which empower industries to plan for the future with accuracy and precision.

We specialise in high quality surveying and mapping VTOL drones, capable of operating in even the roughest weather conditions.



Contents



03 How can Marlyn help you?

04 Marlyn wind performance

05 Software — Navigator + GeoTagger

06 Marlyn feature overview

08 Applications

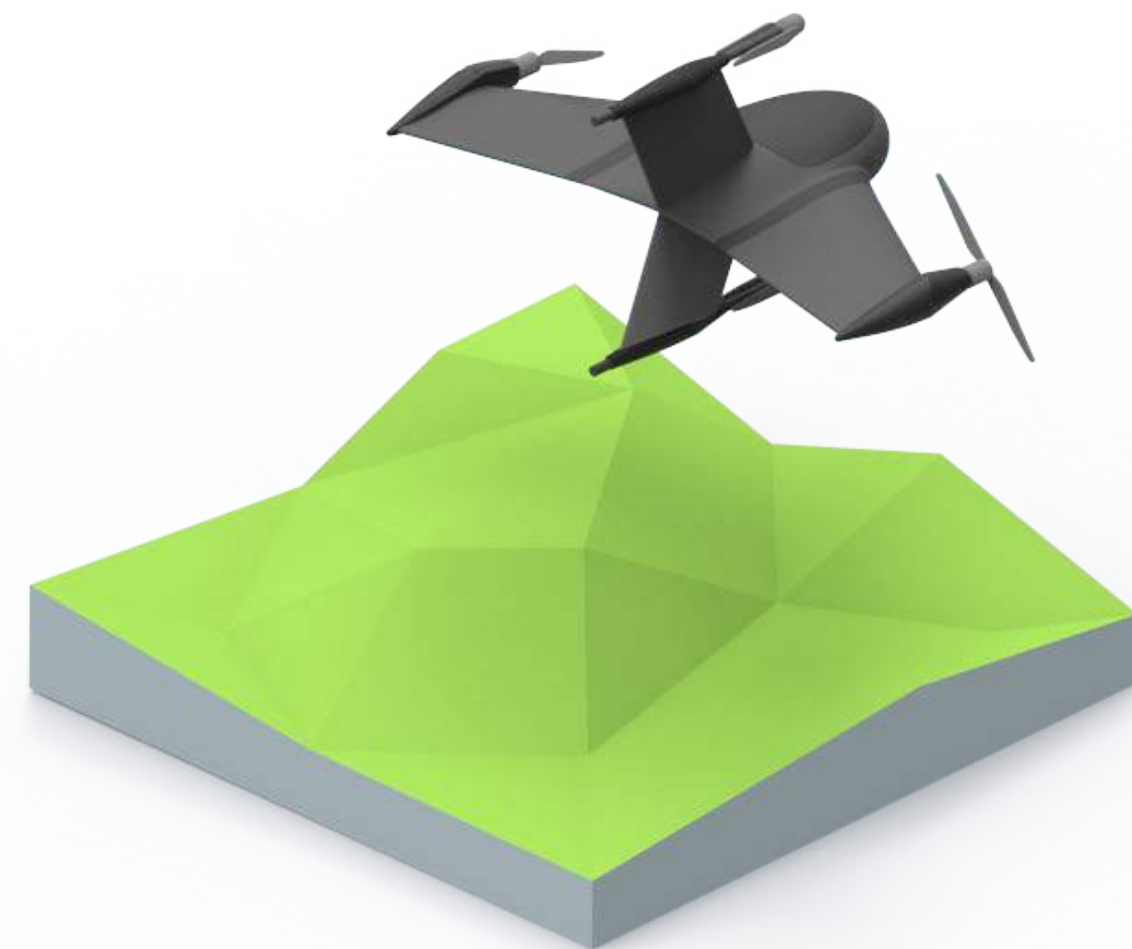
10 Cameras — Introduction & Overview

12 What comes with Marlyn?

13 Testimonials



How is Marlyn helping surveyors?



Increased Efficiency

Marlyn speeds up your data capture by surveying large areas up to 30x faster than traditional land surveying methods, and up to 10x faster than Multicopter drones.

Survey Any Time

With Marlyn you get the benefit of flying in wind conditions of up to 45km/h at ground level, and 55km/h at cruise altitude resulting in up to 30% more days per month.

Survey Anywhere

Marlyn only needs a 2x2m flat area to take off and land, allowing you to be flexible in your operations. Easy backpack transport is also perfect for those heading off the beaten track.

Absolute Accuracy

Attain accuracies as low as 1cm with Sony's 42MP, full-frame RX1RII combined with Septentrio's PPK module, an Aerial surveying match made in heaven!

Fly when others cannot



We know wind, we're Dutch! To handle rough conditions we've engineered Marlyn to operate in winds of up to 12.5m/s (45kph), which can result in up to 30% more surveying days each month!*

Marlyn is the UAV for those who need total control. The wingtip mounted propellers and large tail-fin give Marlyn stability in survey/airplane mode, while constantly correcting attitude to get sharp aerial images in the toughest of winds.



*Compared to competing products, calculated referencing Meteoblue weather and location data.

Advanced software you can trust.



No mapping drone is complete without a professional software package, and with Marlyn you get the best in the business.

Navigator

Navigator is your one stop shop for flight planning, pre-flight checklists, and flight operation, and is designed to be used without any live connection in the field, meaning you can venture into any survey environment with ease!

GeoTagger

Wave goodbye to long workflows, multiple sets of software, and complicated debugging. Assigning accurate positions to your flight images is easier than ever with GeoTagger. You simply select the folders from your different data streams, choose a processing type, and press Geotag!

Meet Marlyn



Tailsitter Design

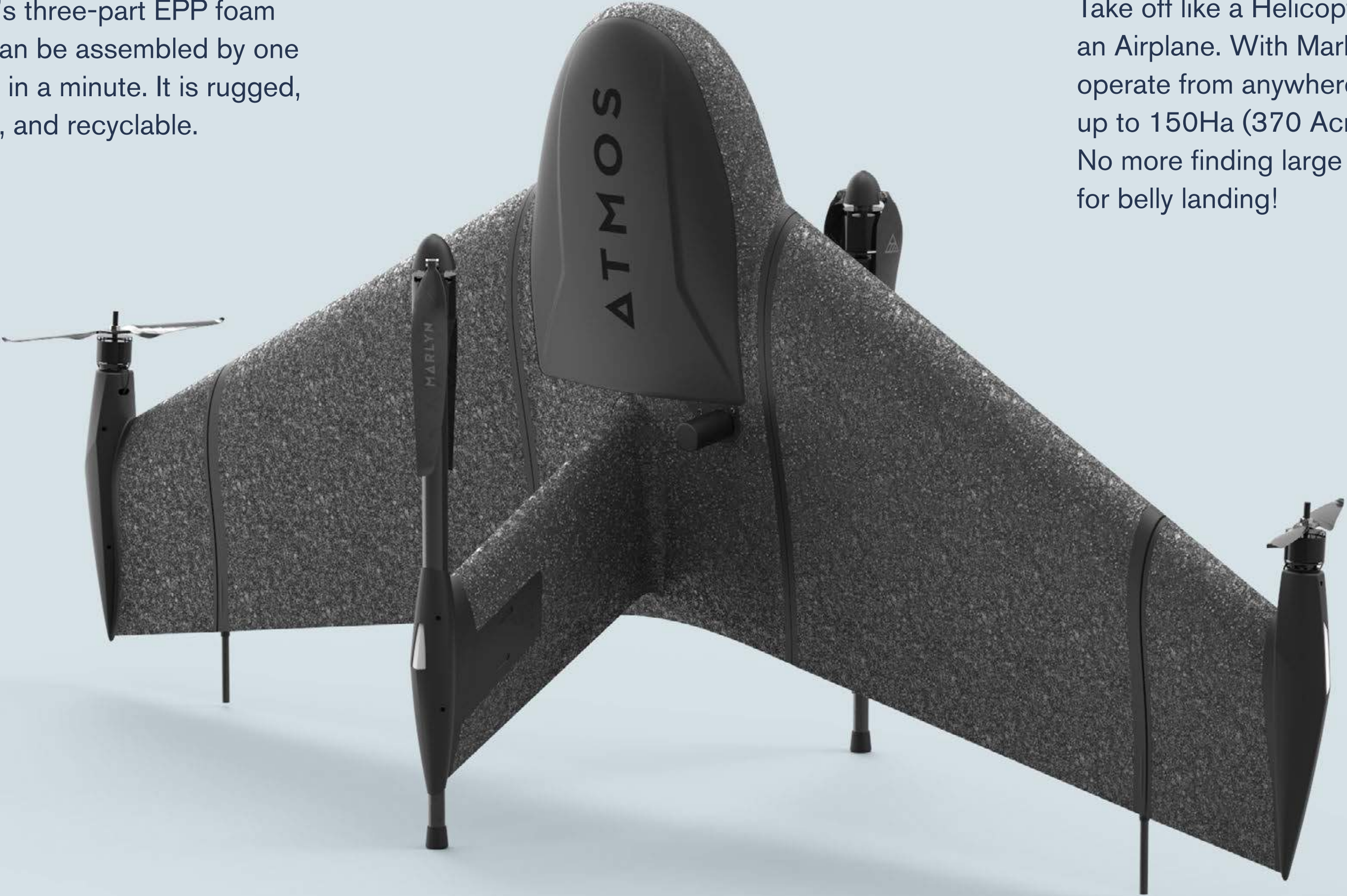
Marlyn's three-part EPP foam body can be assembled by one person in a minute. It is rugged, flexible, and recyclable.

Operate from Any 2x2m Area

Take off like a Helicopter and Fly like an Airplane. With Marlyn you can operate from anywhere and cover up to 150Ha (370 Acres) per flight. No more finding large clear areas for belly landing!

Fly in the Toughest Winds, up to 45km/h

With Marlyn you can take off, survey, and land comfortably in winds of up to 45km/h (28mph), more than any other survey drone. Surveyors deserve better than 30km/h wind limits!



1. Atmos Autopilot

No stress, with our integrated Auto Pilot your flight is automated from take-off to landing.

2. Smart Battery System

Marlyn's redundancy system gives you peace of mind: one battery functions as a failsafe for the other and can bring Marlyn home if necessary. Handy indicator lights also provide a readout of the current State of Charge.

3. Quick Swap Payloads

In the field you can switch sensors in a minute. With Marlyn's quick swap camera system you're ready for any project!

4. PPK

With an integrated high-end GNSS receiver, our PPK module gives Marlyn absolute X, Y, Z accuracy down to 1cm.



Applications



Construction & Infrastructure

Marlyn changes the game for land surveyors delivering operational efficiency, reduced downtime, and increased safety. With the PPK; accuracies down to 1cm [0.4in] are easily achieved with fewer to no ground control points.



Surveying & GIS

Compared to terrestrial survey methods, a drone survey yields a point cloud of millions of cm-accurate data points over a 150Ha area, giving you complete data coverage and a massive efficiency boost.

Mining & Aggrigates

Marlyn eliminates the need for surveyors to move around the pit minimising downtime and improving safety. Large, accurate data sets can be created efficiently, at reduced costs with less man hours.

Applications



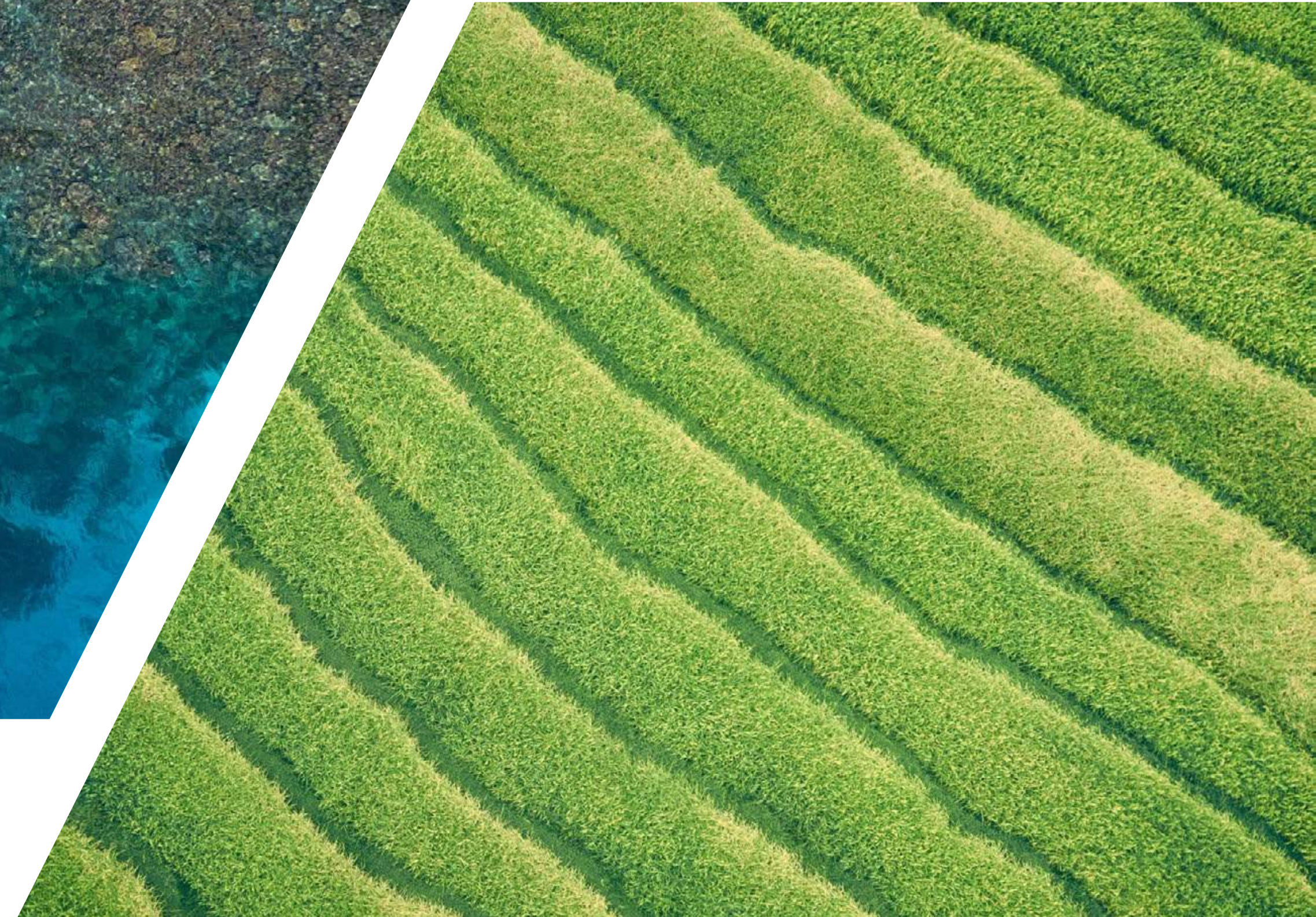
Environmental Protection

Marlyn is capable of seeing beyond the visual, providing new insights into plant health, animal behaviour, and more, that was previously thought impossible. This allows you to glean a variety of data to both monitor and provide corrective actions to your study area.



Precision Agriculture

Marlyn's multispectral cameras give you the ability to record crop health for larger terrains. Light reflectance in the visible and invisible spectra are used to determine plant stress on an individual level.



Cameras



Modular System for In-Field Swaps

Be ready for anything — Need an accurate DSM followed up by a multispectral survey? With Marlyn's quick swap camera system you're ready to fly in just a minute.



RGB



**Sony
RX1R II**



**Sony
A7C**

Sensor Layout

Full Frame

Full Frame

Spectral Bands

RGB

RGB

Pixel Count

42.4 MP

24.2 MP

Lowest GSD

0.85 cm/px

1.7 cm/px

Multispectral



**Micasense
Altum**



**Micasense
RedEdge-MX**

Sensor Layout

5 individual sensors + FLIR LWIR

5 individual sensors

Spectral Bands

RGB, Red Edge, NIR

RGB, Red Edge, NIR

Pixel Count

5 x 3.2 MP

5 x 1.2 MP

Lowest GSD

3.7 cm/px

6 cm/px

Included with Marlyn



Radio Connections Marlyn Radio Module & RC

Battery Charger ISDT Double Charger (60min per pair)

Batteries 2 Sets — Each below 100Wh

Portability Backpack & Accessories Case

Software Navigator & GeoTagger (+ Updates)

Training How to survey with Marlyn

Survey anywhere with Marlyn's dedicated backpack.



More surveyors are choosing Marlyn



“I wanted a reliable solution with high wind resistance. That’s why I chose Marlyn.”

Joaquim Borges de Macedo
Coordinator of Topography
CJR Renewables

“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
Managing Director
Terra Drone Europe

“The images are amazing. Superb resolution and well geolocated!”

Luis Vilasa
Senior Software Engineer
CGI

“Atmos’ support gives us confidence that they have our back in a fight and that's exactly what we require in our fast paced operations.”

Douglas Reid
Equipment Manager
Cyberhawk

Maximise your surveying potential



Marlyn is sold and supported through a global network of quality distributors.

As industries around the world discover the wide ranging benefits of Marlyn, our international network of dealers continues to expand.

To locate an Atmos dealer or to organise a demo visit:
www.atmosuav.com





sales@atmosuav.com
www.atmosuav.com
+31 (0) 15 744 0321

Social Media:
@atmosuav

Hangaargebied
Marinevliegkamp 356
2236ZZ Valkenburg (ZH)
The Netherlands

ATMOS