

# Marlyn Cobalt



MARLYN COBALT V2.4 OCTOBER 2023  
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ATMOS



Atmos is a leader in geospatial drone technologies. With a deep awareness of our future challenges in resources, population growth, and climate change, our team of dedicated problem solvers are working hard to help you plan with efficiency, accuracy, and precision.

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

Our flagship product Marlyn Cobalt is proudly designed, engineered, tested, and manufactured from our headquarters in Leiden, The Netherlands.



Plan with precision

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# 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 ANYWHERE

Marlyn only needs a 2x2m [6.5x6.5ft] flat area to takeoff and land, allowing you to be flexible in your operations. Easy backpack transport is also perfect for those heading off the beaten track.

## SURVEY ANY TIME

With Marlyn you get the benefit of flying in wind conditions of up to 45km/h [28mph] at ground level, and 55km/h [34mph] at cruise altitude resulting in up to 30% more days per month.

## ABSOLUTE ACCURACY

Attain centimetre level accuracies with Sony's 61MP full-frame A7R IV, combined with Topcon'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) [28mph], 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



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!



# Fly with Confidence



## AUTOMATED FLIGHT

Marlyn is designed to be used even as a first-time drone. That is why all elements of the flight from takeoff to survey to return to home, are completely automatic. Landing is done easily by the user.



## MANUAL FLIGHT TAKEOVER

Be ready for absolutely any scenario! At every step of the flight Marlyn is capable of being taken over for position-controlled flight in both helicopter or airplane mode.



## HOLDS HELICOPTER POSITION

Marlyn hold its GPS position during helicopter mode. This provides peace of mind and soft touchdowns when flying in high winds or challenging locations.



## QUAD-CHUTE MODE

If Marlyn flies within 30m [98ft] of the takeoff altitude, it automatically transitions into helicopter mode, making it impossible to steer Marlyn into a dangerous position.



## REMOTE ID

All Marlyn Cobalt users are backed with an FAA approved Remote ID module that guarantees legal operations in the United States and elsewhere.



## GEOFENCE

Use a height and/or circumference-based Geofence to ensure that Marlyn is always flying clear of sensitive areas.

## MARLYN'S BACKPACK

With Marlyn's included backpack you can survey from the most remote and challenging locations with everything you need for the survey.

## OPERATE FROM ANY 2X2M [6.5X6.5FT] AREA

Takeoff like a helicopter and fly like an airplane. With Marlyn you can operate from anywhere and cover up to 320Ha [790 Acres] per flight. No more finding large clear areas for belly landing!

## TAILSITTER DESIGN

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

## SAFETY LIGHTS

The built-in smart navigation and anti-collision lights give you visibility in the air, and turn off automatically to signal when the drone is off and safe to approach.



# Key Hardware

A

## ATMOS AUTOPILOT

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

B

## 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 when necessary. Handy indicator lights also provide a readout of the current State of Charge.

C

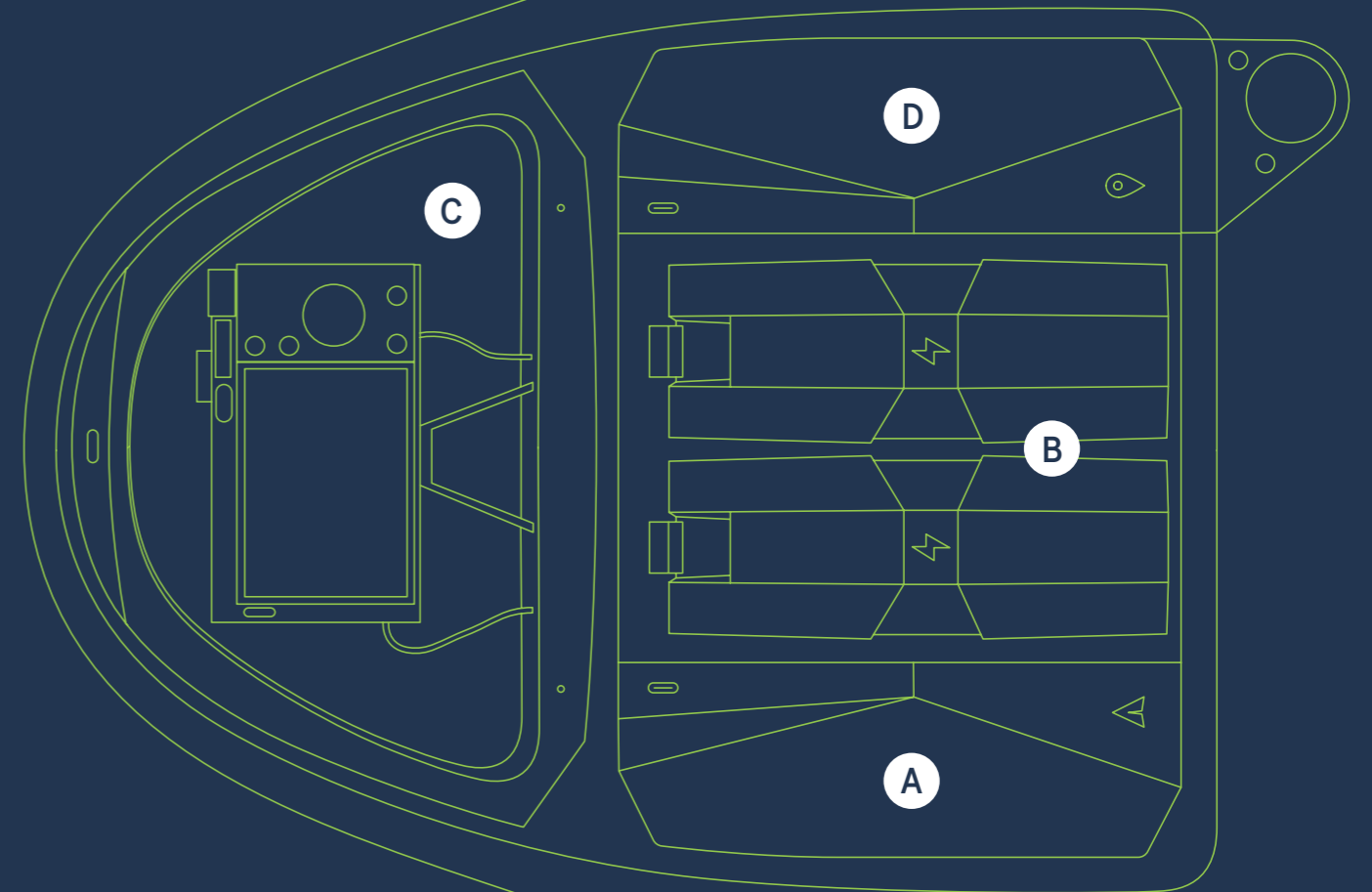
## QUICK SWAP PAYLOADS

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

D

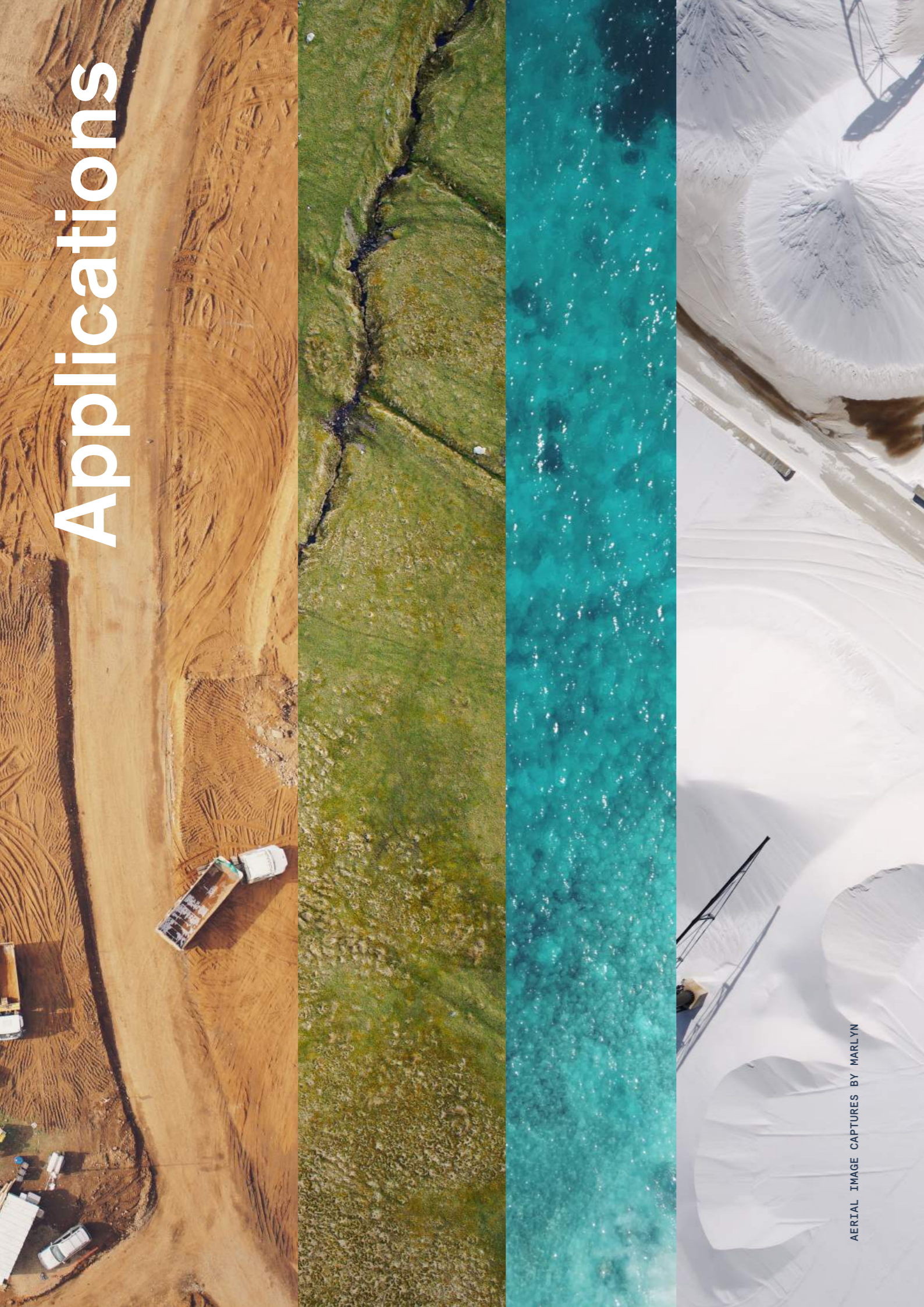
## TOPCON PPK MODULE

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





# Applications



AERIAL IMAGE CAPTURES BY MARLYN

The most versatile and capable VTOL survey drone. Marlyn is ready for your project.

### CONSTRUCTION & INFRASTRUCTURE

Marlyn changes the game for land surveyors. Delivering operational efficiency, reduced downtime, and increased safety. With PPK, accuracies down to the centimetre are easily achieved with fewer to no ground control points.

### 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.

### SURVEYING & GIS

Compared to terrestrial survey methods, a drone survey yields a point cloud of millions of cm-accurate data points over a 320Ha [790 Acres] area each flight, giving you comprehensive data coverage and a big efficiency boost.

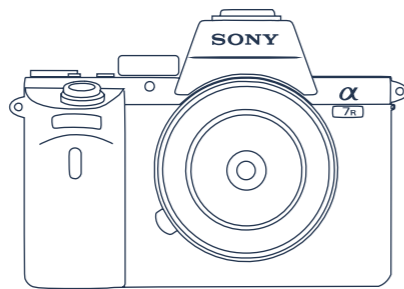
### PRECISION AGRICULTURE

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.

### MINING & AGGREGATES

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

With Marlyn's quick swap payload system you're ready to fly in just a minute.



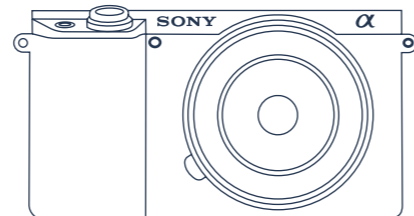
SONY  
A7R IV

FULL FRAME

RGB

61.0 MP

LOWEST GSD:  
1.4 CM/PX [0.5IN/PX]



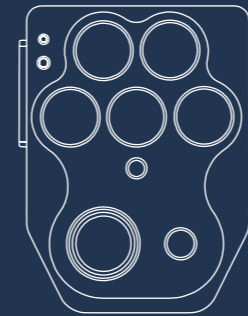
SONY  
A6100

APS-C

RGB

24 MP

LOWEST GSD:  
1.96 CM/PX [0.8 IN/PX]



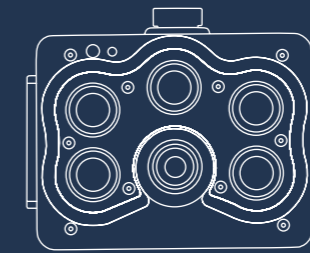
MICASENSE  
ALTUM PT

5 INDIVIDUAL SENSORS  
+1 PANCHROMATIC SENSOR  
+ FLIR LWIR

RGB, RED EDGE, NIR

SPECTRAL 3.2 MP  
PANCHROMATIC 12 MP  
LWIR 0.8 MP

LOWEST GSD:  
1.69 CM/PX [0.7IN/PX]



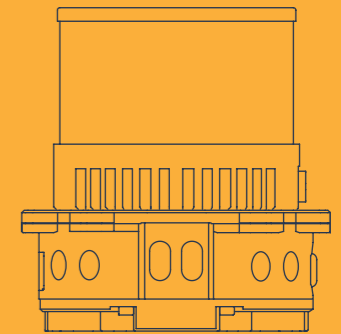
MICASENSE  
REEDGE P

5 INDIVIDUAL SENSORS  
+1 PANCHROMATIC SENSOR

RGB, RED EDGE, NIR

SPECTRAL 1.6 MP  
PANCHROMATIC 5.1 MP

LOWEST GSD:  
2.6 CM/PX [1IN/PX]



ATMOS  
LIDAR

POINT RATE:  
640,000 PTS/S

PRECISION:  
2-3 CM [0.8-1.2 IN]

HORIZONTAL FOV:  
UP TO 100 DEG

RANGE:  
150 M [490 FT]

# Included with Marlyn

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RADIO CONNECTIONS

MARLYN RADIO MODULE & RC

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BATTERY CHARGER

ISDT DOUBLE CHARGER (60 MIN PER SET)

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BATTERIES

2 SETS (4 BATTERIES) - EACH BELOW 100WH

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PORTABILITY

BACKPACK & ACCESSORIES CASE

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SOFTWARE

NAVIGATOR & GEOTAGGER (+ UPDATES)

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TRAINING

ACCESS TO OUR ONLINE LEARNING PORTAL

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## INTRODUCING ATMOS ASSIST

Atmos Assist is an optional service which provides Marlyn users with minimum downtime, including a warranty extension, priority technical support, replacement of parts, and the possibility to get temporary replacement products during maintenance and/or repair.

Ask your local distributor for more information.



Survey anywhere with  
Marlyn's dedicated backpack.



IT'S JUST LIKE A DJI,  
VERY EASY TO FLY!

TOMAS JAHODA - DRONPRO

I'VE FLOWN AND  
ANALYZED DATA FROM  
THREE MANUFACTURERS,  
BUT MARLYN IS BY FAR  
THE MOST ACCURATE!

CAIUS BEZNOSZKA - BLACK LIGHT

MARLYN'S PERFORMANCE  
COMBINED WITH TOPCON'S  
GNSS BOARD AND CORRECTION  
SERVICES WILL GIVE USERS  
UNPRECEDENTED RESULTS.

IAN STILGOE -  
TOPCON POSITIONING GROUP

MARLYN MADE THAT  
LOOK EASY!

ALEC CAMPBELL - CYBERHAWK

SO MUCH MORE STABLE IN  
THE WIND THAN THE EBEE.

JAAP DE VOS - VAN OORD

MARLYN'S FLIGHT IS  
FANTASTIC, VERY SMOOTH  
TO TAKEOFF, VERY SMOOTH  
TO LAND.

KYLE CANNING - VOLATUS

THE ZEISS LENS WITH  
THE SONY A7RIV RESULTS  
IN HUGE COVERAGE WITH  
IMPRESSIVE LEVEL OF  
DETAIL WHEN COMBINED  
WITH MARLYN.

MAARTEN ZWARTS -  
FACULTY OF GEOSCIENCES  
UTRECHT UNIVERSITY

# Let's fly

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 distributors continues to expand.

To locate an Atmos distributor  
or to organise a demo visit:  
[www.atmosuav.com](http://www.atmosuav.com)

# Made in Europe



PROUDLY DESIGNED, ENGINEERED,  
AND MANUFACTURED IN THE NETHERLANDS.

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