



# Black Swift UAS

## SIMPLE, INTUITIVE, AND RELIABLE

The Black Swift S1™ UAS is the perfect introduction to commercial operation of unmanned aircraft. Our mission planning software is so intuitive that you can learn it while performing real photogrammetry missions. You will quickly see the many possibilities of our gesture-based planning software tied to our common flight management hardware and software.

For mapping and photogrammetry missions you will likely find that this is the only system that you need.

The Black Swift S1 UAS was designed as an advanced fully autonomous, yet simple to operate, survey and mapping platform. The combination of the ease-of-use of the BlackSwift S1 UAS along with the improved regulations allow new operators to get up and flying quickly. This allows entities needing this data to focus their efforts on using the data and doing the work rather than be primarily focused on UAS operations and certifications.

Ready-to-fly out of the box the Black Swift S1 UAS includes everything required for conducting survey missions, including the aircraft, batteries, ground station with tripod, tablet computer, field toolbox, carrying case, and control handset. Unlike other systems, no additional computers or support equipment are required for conducting missions.



The complete BlackSwift S1™ field kit with ready-to-fly aircraft, handset, battery and charger, Sony a5100 camera, Swift Core FMS, and tripod.

The Black Swift S1 UAS is capable of conducting fully autonomous flights in unimproved areas. Take-off is performed through a simple hand launch, and the advanced landing algorithm provides for robust and precise autonomous belly landings. The BlackSwift S1 UAS has a high operational ceiling, and has been used to perform mapping missions at altitudes up to 14,000 feet in Colorado. It has been employed for surveying work, land management, crop damage assessments, and large area ecological studies.

### A Unified System

The Black Swift S1 UAS utilizes Black Swift Technologies' SwiftCore™ Flight Management System, comprised of the SwiftPilot™, SwiftStation™, and SwiftTab™ user interface, along with support electronics. The entire system is designed for ease of use along with accurate flight tracking, even in high winds. The SwiftCore FMS is designed and engineered by Black Swift Technologies and is entirely made in the USA. The SwiftCore has been approved and used for major scientific missions by NASA, deployments by NOAA, and by a growing list of commercial users including engineering and survey professionals, construction and mining managers, as well as environmental monitoring by scientific and academic organizations.



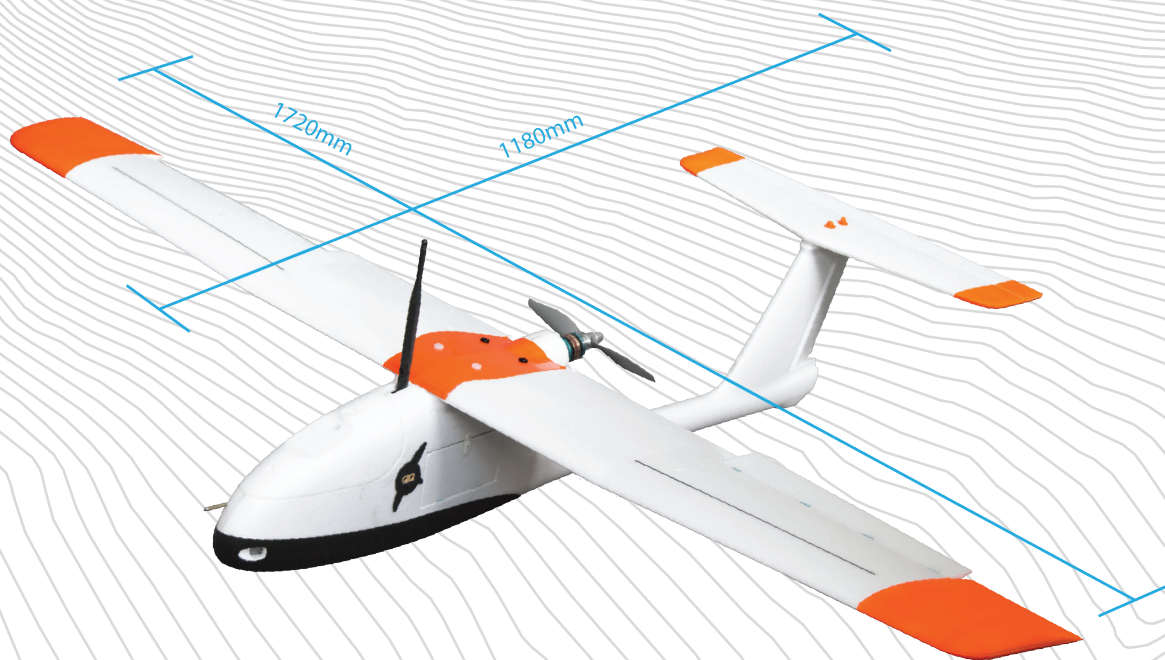
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**Modular by Design, Accurate by Nature™**



# Black Swift **S1** UAS



## Specifications

Mission length	1 hour
Storage medium	SD card
Area covered	600 acres (900 with battery upgrade)
Camera	24 MPixel
Photo transfer	SD Card
Tablet model	9.7" Android® Tablet
Ground station mass	2 lbs.
Ground station run time	4+ hours
Gross Takeoff Weight (GTOW)	6 lbs.
Software Development Kit (SDK)	Included
Field tripod	Included
R/C handset (for manual backup)	6-channel transmitter
Aircraft battery	8000 mAh LiPo
Battery charger	Performance LiPo charger

## Payload Options

The Black Swift S1 UAS can be outfitted with a variety of payloads for a myriad of information capture scenarios including:

### Camera/Sensor

Sony Alpha a5100 Digital Camera

MicaSense RedEdge Multispectral Sensor

FLIR Vue Pro

### Applications

Precision Aerial Data Collection  
Orthomosaic Mapping  
Topographic Mapping  
Volumetrics

Plant Health Analysis

Thermal Imaging



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