

ScanEagle™ A-15

✈ 1 - 2 person operations

✈ Over 15 hours per flight

✈ Smallest UAV with
inertially stabilized
payload turret

✈ Runway independent

✈ Only fixed-wing UAV
able to operate from
both land and water

✈ 24/7 operations with
day and night-specific
sensor packages

✈ Modular design with
field-replaceable units

✈ Over 2,500 flight hours
in Iraq



ScanEagle™ delivers an unmatched combination of endurance, low cost, utility, and small operational footprint. Able to fly for over 15 hours, the ScanEagle A-15 is composed of 5 major modules that are all field replaceable: the nose, fuselage, avionics, wings, and propulsion. The standard payload, housed in the nose, can also be swapped in the field in only a few minutes for a wide variety of sensors available through Insitu.



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Weights

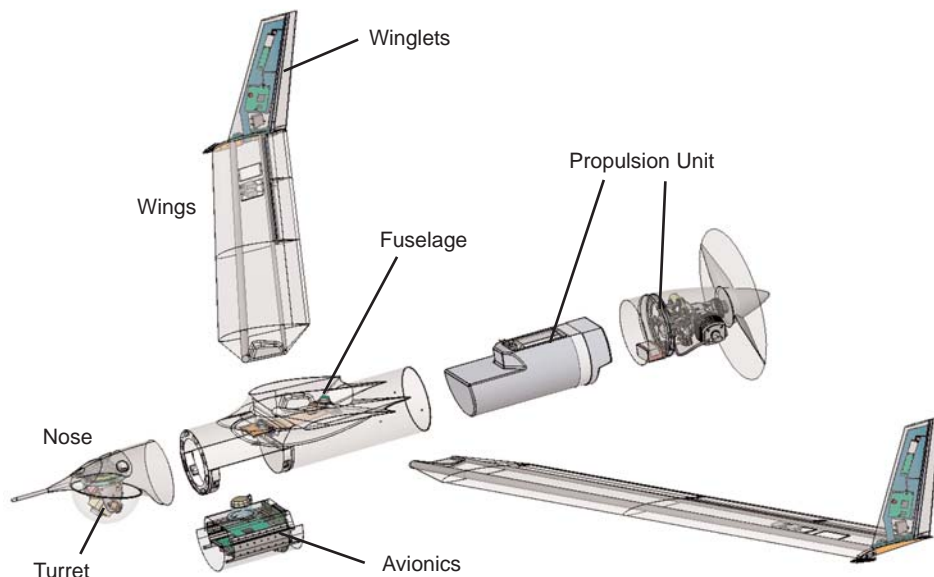
<i>Empty Weight</i>	26.5 lb	12 kg
<i>Fuel and payload</i>	13.2 lb	6 kg
<i>Max Fuel</i>	11.9 lb	5.4 kg
<i>Max takeoff weight</i>	39.7 lb	18 kg

Performance

<i>Max Level Speed</i>	70 knots	36 m/s
<i>Cruise Speed</i>	49 knots	25 m/s
<i>Service Ceiling</i>	16,400 ft	5000 m
<i>Endurance</i>	15 hours	15 hours

Dimensions

<i>Wing Span</i>	10.2 ft	3.1 m
<i>Fuselage Diameter</i>	7.0 in	0.2 m
<i>Length</i>	3.9 ft	1.2 m



Optional Features

(contact Insitu for availability)



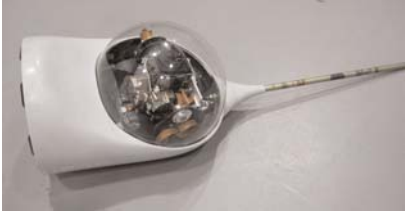


- Carburetor Heat
- Ice-phobic Wing Covering

Features	Details
Communications	Communications up to 100 km 2.4 GHz video & 900 MHz spread spectrum frequency hopping command/telemetry (2.3 GHz licensed video & UHF command/telemetry available)
Propulsion	3W aircraft engine
Fuel	Auto gas (JP-8 in development)
Noise	Detachable muffler
Electrical Power	Generator Internal rechargeable battery External shore power
Payload Power	80W total (dedicated 15V, 5V, 3.3V buses)
Expansion Slot	Expansion slot allows full access to flight computer and payloads Expansion board accomodates 8260 PowerPC board, TI DSP card, CF storage
Rain Resistant Pitot	New plumbing for 2005 avoids precipitation accumulation, even in severe weather
Custom Painting	Custom color schemes with corporate logos, national emblems, and military service insignias available by quote

ScanEagle™ A-15 Payloads

Payloads	Details	Descriptions	Available?
EO	Color, 25x zoom 640x480 pixel sensor 30 fps FoV: 45° to 1.8°	The standard payload for ScanEagle A-15, offers excellent daylight imaging detail with ability to hold frame on objects of interest for extended durations.	Yes
IR-160	Basic thermal night vision, 160x120 pixel sensor, 30 fps FoV: 15°	The basic thermal IR option, offers video without requiring ambient light. Good at low altitudes, for dusk to dawn ops.	Yes
IR-320	Improved thermal night vision 320x240 pixel sensor, 60 fps FoV: 18°	Improves on basic IR-160 option to allow detection of finer detail or flight at higher altitudes.	Yes
IR-640	Highest resolution thermal IR, 640x480 pixel sensor	Higher resolution IR cameras are in development.	Please call
EO+IR Dual Bay	EO camera and a IR-160 or a IR-320 camera	Gives the best of both EO and IR imagery. Offers the ability to collect data 24 hours a day, from dawn to dusk and back.	Advance orders only
Comm Relay Node	Communications relay node, Alticom Camera Turret optional	Flexible long-range wireless communications relay node for extending ISR range of ScanEagle or for building agile communications networks with other units.	Please call
Magnetometer	Magnetometer in nose, vector magnetometers in each winglet	World class magnetometer sensing optimized to match or beat the best available manned platforms.	Please call
Low Light	Dusk and strong moonlight video, 640x480 pixel sensor, 10 ⁻² lux (EO)	Monochrome cameras that operate in dim light are in development.	Please call
Near IR	Dim moonlight, IR illuminated vision, 320x240 pixel sensor, 10 ⁻⁴ lux (SWIR)	Near IR cameras can be more sensitive than low light cameras - some even having the capability to see eye safe laser pointers.	Please call

ScanEagle™ A-15 Accessories

Images	Accessories	Descriptions	Available?
 <p>Storage case</p> <p>(Above) With unstowed ScanEagle ready for inspection.</p> <p>(Left) With stowed ScanEagle ready for shipping.</p>  <p>A-15 EO to IR Conversion Kit IR payload nose module (ventral view).</p>  <p>A-15 IR to EO Conversion Kit EO payload nose module (ventral view with sample camera installed).</p>  <p>Camera & Turret EO camera and turret. (IR cameras similar in shape and size).</p>  <p>Winglet Modems Modems pre-installed in winglets. Simply swap the winglets.</p>	Storage Case	Aircraft folds naturally into durable resin clamshell enclosure. Integrated internal folding cradle holds aircraft securely for assembly, inspection, testing, and ground running. Ideal for protection between flights, during shipment, and storage. Stowed: (L)82" x (W)22.25" x (H)15.25" Unstowed: (L)86.5" x (W)22.25" x (H)37.5" Weight: 81.81.5 lb	Yes
	A-15 IR to EO Conversion Kit	Kit provides EO payload module with nose module and dome. Allows conversion of IR ScanEagle A-15 to EO ScanEagle in field. Alticam camera turret not included.	Yes
	A-15 EO to IR Conversion Kit	Kit provides IR payload module with nose module and window. Allows conversion of EO ScanEagle A-15 to IR ScanEagle in field. Alticam camera turret not included.	Yes
	Alticam EO 640	Standard Alticam EO inertially stabilized camera turret. Color NTSC video with remote control of focus, 25x zoom, and wide range of camera functions.	Yes
	IR-160 Camera & Turret	Alticam inertially stabilized camera turret with thermal IR fixed zoom camera (160x120 pixel sensor). NTSC video with fixed zoom. Standard lens is 30 mm with ~15° field of view.	Yes
	IR-320 Camera & Turret	Alticam inertially stabilized camera turret with thermal IR fixed zoom camera (320x240 pixel sensor). NTSC video with fixed zoom. Standard lens is 25 mm with ~18° field of view.	Yes
	IR-640 Camera & Turret	Highest resolution thermal IR camera available. Higher resolution thermal IR cameras are currently in development.	Please call
	2.3-2.5GHz Video Winglet Modem	Video transmission in extended frequency band. Offers additional flexibility, alternative to crowded radio spectrum, and extra power for extending ScanEagle's video range. Tunable to 16 user-defined channels (license required).	Yes
	Winglet Modem	A second modem installed in the right winglet can provide TT&C (tracking and control) wireless communications relay, long range telemetry, backup a second channel, or act as replacement unit.	Yes