

Integrator VTOL

High Seas, Long Endurance



UNCREWED AIRCRAFT SYSTEMS

KEY FEATURES & BENEFITS



Battle-tested Integrator UAS now offers no-sacrifice, maritime-ready VTOL capability for current and future customers. FLARES Vertical Takeoff and Landing system brings the smallest possible operational footprint to Integrator's best-in-class, modular payloads while preserving maximum endurance for long-range ISR and targeting.

FLARES is developed and produced by Hood Tech Corporation.

Same capability, smaller footprint

FLARES is a battery-powered vertical launch and recovery system for fixed-wing Integrator.

- No aircraft modifications required
- No stationary launch and recovery equipment required

VTOL without the sacrifice

Offers the same 27.5 hours of endurance and up to 50 pounds of payloads across up to 10 bays.

- No booms, no drag—no compromise

Increased portability & self-sufficiency

Small packout and footprint enable rapid repositioning and operation in tight spaces on land or ship.

- Unpack and launch with three operators in as little as 30 minutes

Optimized for maritime

Operates in challenging conditions like high seas and gusty winds, where tail-sitter aircraft cannot.

- Launches/recovers from small vessel helicopter decks
- Small stowage footprint
- Leverages lower center of gravity and wide base to handle high pitch and roll
- FLARES reliably completes mission—even with a rotor out

Common Ground Control Station

Small, modular, and expandable to minimize your footprint for expeditionary missions

- Multiple configurations for ultimate flexibility
- Available with auto-launch feature
- Multiple SATCOM datalink options available, including PLEO and GEO.



30 YEARS
OPERATIONAL
EXPERIENCE

1.5 MILLION
FLIGHT HOURS

GLOBAL
OPERATIONS

SYSTEM
MODULARITY

SERVICES,
ACQUISITION
AND FMS

LEARN MORE | Contact us at solutions@insitu.com
[insitu.com](https://www.insitu.com)

This document consists of basic marketing information subject to change without notice. Non-Technical / Administrative Data Only. Not subject to EAR or ITAR Export Regulations. Items subject to U.S. export controls require a valid license in accordance with EAR or ITAR, as applicable. Copyright © 2025 Insitu. All rights reserved.

DU040125

Integrator VTOL

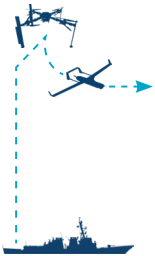
*Proven on land and sea
in the harshest conditions*



LAUNCH

FLARES mated with Integrator, climbs vertically to altitude (500 ft AGL), dashes into wind and releases Integrator into fixed-wing flight (<5 minutes).

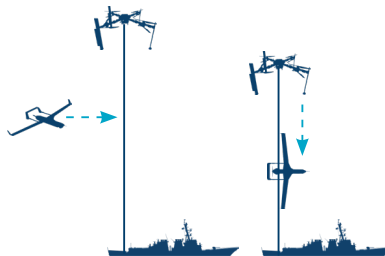
- FLARES returns to land/ship following reference GPS.
- In case of aborted launch, FLARES returns and lands vertically with Integrator still attached.



RECOVERY

FLARES takes off vertically tethered, hoisting capture rope into the air (~300 ft). Integrator catches on vertical line via wing hook (<5 minutes).

- FLARES descends as capture rope is spooled onto winch on Mast Augmented Recovery System (MARS) and Integrator settles onto top of mast.
- Unloaded FLARES lands on deck.



INTEGRATOR SPECIFICATIONS

SIZE AND WEIGHT

- Length: 8.2 ft / 2.5 m
- Wingspan: 15.7 ft / 4.8 m
- Max takeoff weight: 175 lb / 79 kg
- Max payload weight: 50 lb / 22.7 kg

PERFORMANCE

- Endurance: 27.5 hours
- Ceiling: >19,500 ft. / 5,944 m
- Max horizontal speed: 90+ knots / 46.3 m/s
- Cruise speed: 55 knots / 28.3 m/s
- Engine: EFI using JP-5/JP-8 fuel

PAYLOAD OPTIONS

- EO telescope (high zoom day FMV)
- MWIR/EO dual sensor (day & night FMV)
- Wide-area maritime search (AI-assisted)
- Laser designator/pointer/rangefinder
- Synthetic Aperture Radar (SAR)
- Alternative Navigation (Alt-Nav)
- Kinetics
- SIGINT, EW, comms relay, and more

PAYLOAD INTEGRATION

- On-board power: 350 W for payload
- On-board connectivity: Ethernet (TCP/IP)
- Extended Range variant available

FLARES SPECIFICATIONS

WEIGHT

- Max Integrator weight up to 175 lbs (79 kg)

TEMPERATURE RANGE

- -20 to +45 C

WIND RANGE

- 0-30 knots
- 10 knot gusts

DECK MOTION

- +/- 10 degrees roll
- +/- 5 degrees pitch

PACKOUT FOR FULL MISSION SET

- 463L pallet: 108 x 88 x 62 inches (2.74 x 2.24 x 1.57 m)



LEARN MORE | Contact us at solutions@insitu.com

[insitu.com](https://www.insitu.com)

The appearance of U.S. DOD visual information does not imply or constitute endorsement. This document consists of basic marketing information subject to change without notice. Non-Technical / Administrative Data Only. Not subject to EAR or ITAR Export Regulations. Items subject to U.S. export controls require a valid license in accordance with EAR or ITAR, as applicable. Copyright © 2025 Insitu. All rights reserved.

DU040125