

Tomahawk II, Mark 1 through Mark 4 specifications

The following document will provide an overview of the specifications, payload, capabilities and configuration of Tomahawk 2.

CLASS: Tomahawk II is a C4ISTAR Group 3, Tier 2 UAV.

DIMENSIONS: The wingspan is 18-foot (6m). Length is 12 feet (4 meters). MTOW Weight 280 lbs. Payload 75 pounds (35 kilos) pounds Excluding fuel. Duration 8 to 10 hours typically, or approximately 16 hours* with additional fuel as the payload and with a camera. The maximum takeoff weight is approximately 180 Lbs. The aircraft takeoff and landing are automated, navigation is mouse point and click. The system is inexpensive to operate with a crew of two and maintain. The internal avionics boxes are replaceable eliminating extensive maintenance troubleshooting. The engine burns regular automotive fuel.

Command and Control system radius is 100 to 200 + Km line-of-sight mesh radio or a Satcom transceiver on the Iridium network with Hi-res video and HD Photo capture capability (optimizing network utilization) through Realtime image processing software.

Encryption: FIPS 197, 256 Block Federal Communication Encryption available.

T-II will provide long-range intelligence, communications and targeting information (ISTAR), as a deterrence platform and a persistent presence asset that is quickly deployable. The system has 4 payload options (Mark 1 – Mark 4) and 3 C2 options.:

Mk 1. is intended for maritime/terrestrial surveillance with a surface scan radar capable of coherent change detection for detecting traffic or IEDs. Standard payload includes a 7" ISR camera.

Mk 2 is intended for Border Patrol or Maritime patrol with a light arms interdiction capability. No radar. 7" TISR camera included. Offensive payload is a light arm semi-automatic weapon of 7.62 or 5.56 NATO with 500 round magazine, or 4 guided wing-mounted small munitions.

A non-lethal payload is currently in development with a Patent pending.

Mk 3. Will have additional fuel capacity with an ISR camera for an exceptional long range ISR patrol or station keeping environment.

Mk4 can carry an internal box payload or external cylinder payload for delivery applications. For example: Medical supplies carried internally can be flown to an airfield, or a Land / Maritime survival pack in the external cylinder can be air dropped over a region of interest.

Mark 4b: Large LIDAR or MAD detector payloads may be carried. Agriculture spectral imagery cameras may also be carried. Our flight profile ensures effective, dense data return from the payload. Large areas may be mapped such as national parks, coastlines, tree plantations and forests.

Mark 4C: Fire detection and fire-retardant observation and deployment

C2 Configurations:

1. Line of sight military mesh radios options A and B: 100 Km and 200 Km respectively
2. Line of sight Military mesh radio option C, high bandwidth: 250 Km
3. Satellite Terminal. Duration as provided in paragraph 2 above. Communication range unlimited.

* Estimate only. Weather and other variables not compensated for.