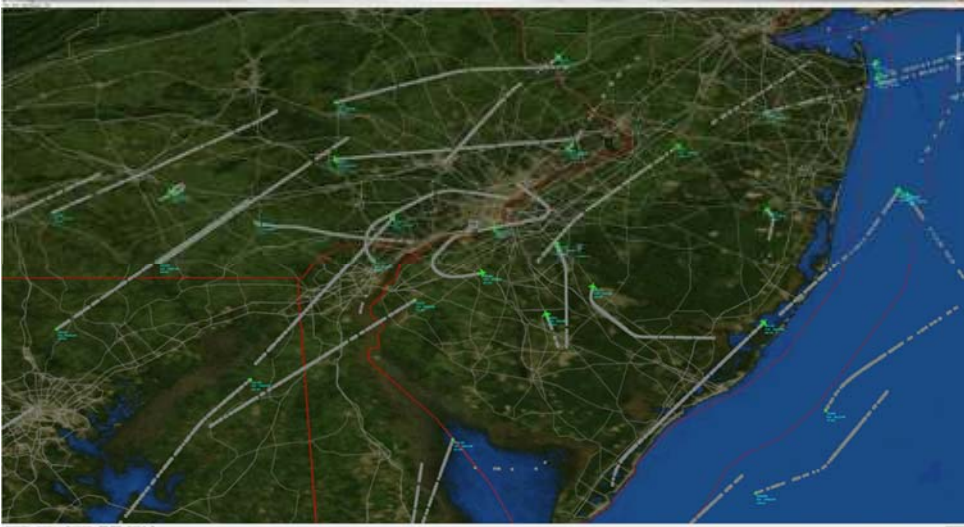




# UAS Situational Awareness Tactical Kit

## Display Manned & Unmanned Aircraft



## Features

- Provides Enhanced Situational Awareness
- Track UAS without radar or ADS-B
- Accept & Decode 1090MHz ADS-B & 978MHz UAT
- Display Disparate Surveillance Sources including UAS and ADS-B

**The UAS Situational Awareness (USA) Tactical Kit** is designed to increase the safety of UAS operations by providing enhanced situational awareness of manned and unmanned aircraft. The kit provides tracking of cooperative UAS aircraft alongside manned aircraft equipped with ADS-B utilizing the Sunhillo Margate II ADS-B Receiver. The aircraft are displayed on a feature rich Surveillance Monitoring System (SMS) which allows geofencing, recording, and graphical overlays.

### FEATURES:

**UAS Tracking:** The UAS-Connector (UAS-C) and UAS-C Gateway included in the USA kit have addressed the major surveillance challenges flying BVLOS and/or in controlled airspace creating a ubiquitous surveillance picture for critical operations in controlled airspace. Tracking of UAV's does not rely on

Radar or ADS-B. By connecting to the UAS Ground Control System (GCS), Sunhillo's UAS-Connector (UAS-C) converts the positional data that is already being sent from the UAS to the GCS into a radar or ADS-B message using Sunhillo's proprietary software. This process requires no additional equipment on the aircraft saving payload.

The UAS-C Gateway aggregates any UAV connected with a UAS-C endpoint so the aircraft position can be shared with ATC or a local command center and displayed with other radar and ADS-B Targets for situational awareness. The UAS-C can be directly connected to a network infrastructure or used remotely via LTE.

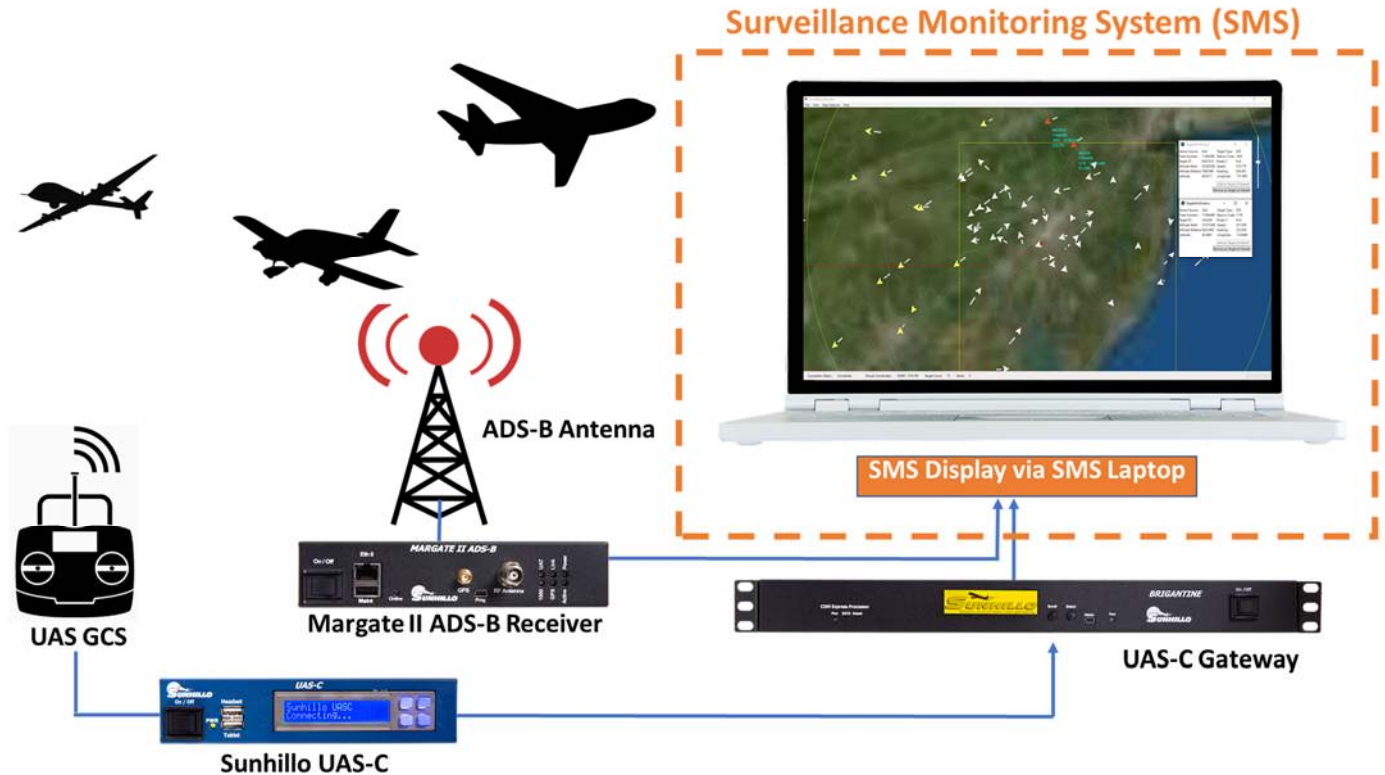
**ADS-B Tracking:** The USA kit includes Sunhillo's Margate II ADS-B Receiver, ADS-B Antenna, and GPS Antenna. The Margate II

accepts and decodes the 1090MHz ADS-B transmission directly into a module from a front panel female TNC connector for the ADS-B antenna feed. The unit features a fully integrated GPS receiver with a front panel SMA Connector for the GPS input. Outputs support multiple formats including ASTERIX (Cat 21 or 33).

### Display UAS and ADS-B Targets:

Sunhillo's Surveillance Monitoring System (SMS) is a powerful total package solution designed for displaying disparate surveillance sources. With a fully customizable display and Geofencing, the SMS provides situational awareness to fit your requirements. Selecting any target will bring up the Target Information panel which displays important details such as the target ID, speed, and heading. A See & Avoid tablet attaches to the UAS-C for local situational awareness at the GCS.

# UAS Situational Awareness Tactical Kit CONOPS



## USA Tactical Kit Components

### UAS-Connector (UAS-C)

- Connects to UAS GCS to receive the UAS positional information
- Tablet for UAS pilot See & Avoid

### UAS-C Gateway

- Utilizes Sunhillo's Brigantine SGP platform
- Converts the UAS positional information to radar or ADS-B targets for display

### Margate II ADS-B Receiver Kit

- Kit contains the Margate II, ADS-B antenna, 100ft ADS-B cable, GPS antenna
- Accepts and decodes ADS-B to track all equipped aircraft

### Surveillance Monitoring System

- System includes Laptop and SMS Software
- Situational Awareness display of radar, ADS-B, and UAS targets
- (Optional) can display radar targets with additional Sunhillo Surveillance equipment

### Portability

- A hardened secure waterproof carry-on sized luggage case is utilized to house the UAS-C, UAS-C Gateway, Margate II ADS-B Receiver, and SMS Laptop.
- Antenna's are compact and lightweight

