



2U RAMS Tactical Kit

Radar & ADS-B Monitoring System



Features

- **Situational Awareness display integrating ADS-B and optional radar via the Sunhillo Surveillance Monitoring System (SMS)**
- **Decode 1090 MHz ADS-B, 978 MHz UAT**
- **Network distribution across multiple operation centers**
- **Portable computer case**

The 2U Radar & ADS-B Monitoring System (RAMS) Tactical Kit

combines Sunhillo's proven Margate II ADS-B receiver, with the Surveillance Monitoring System (SMS) and packages the system into a portable waterproof 2U tactical kit.

The RAMS tactical kit provides Situational Awareness and real time tracking of all ADS-B equipped aircraft (Fixed wing, Helicopters, UAS) displayed on a high powered Laptop.

RAMS Tactical Kit Components:

The Margate II ADS-B Receiver is able to process 1090 MHz ADS-B and 978 MHz UAT. Sunhillo's ADS-B Receiver accepts the transmission directly into the Margate II from a TNC connector for the RF antenna feed.

Outputs include a variety of destinations and formats including ASTERIX CAT021 and FAA CAT033 over ethernet.

The Surveillance Monitoring System (SMS) reads data from ADS-B, CD-2, ASTERIX and other formats and converts the data to a common XML based Surveillance Data Object for display. The SMS is able to filter based on geographic location and outputs to a 4K display.

The enclosure is a waterproof, locking case with telescoping handle and wheels for easy transport. The 2U case is compact and portable enough to use as carry on luggage. The top of the case is padded and used to store the laptop. Sunhillo's 1U Rack Mounting Sleeve kit is included and is used to mount both the Margate II and optional RICl.

A high performance laptop is included to utilize the features and 4k capability of the SMS.

An ADS-B Antenna, with a range of 200 miles, is included with all Tactical kits along with a 50 ft low loss cable.

The optional **RICl** provides up to 4 ports of radar for surveillance data distribution and conversion to provide a complete situational awareness picture.

Margate II ADS-B Receiver Front and Rear Panels



Technical Specifications

Part Number:

→ 030-02-RAM-S01 **Definition:** RAMS Tactical Kit, ADSB, 2U, US

Ethernet

→ 10BASE-T, 100BASE-T, 1000BASE-T, IEEE-802.3

ADS-B Input

- Front Panel TNC Connector for ADS-B Antenna
- 978 MHz UAT and 1090 MHz ADS-B
- DF17, DF18 1090ES ADS-B, TIS-B

ADS-B Output Format

- ASTERIX CAT021 (v.23,v.26, v2.1, v2.4)
- ASTERIX CAT023/033 (FAA v3)

Power

- Power usage: 12W Max per unit
- 100-240VAC, 2 Amp Max Power Supply

Interface

- Margate II ADS-B includes GPS and RF antenna input

Protocols

- Synchronous, Asynchronous, HDLC/SDLC, Bi-Sync, Mono-Sync, TCP/IP, UDP/IP

Dimensions

2U Primary Case Dimensions

- Width: 23.5 in / 596.9 mm
- Height: 12 in / 304.8 mm
- Depth: 18.5 in / 469.9 mm
- Weight: 23.5 lbs / 10.66 kg

Populated 1U Rack Mount Sleeve Kit

- Height: 1.75 in / 44.45 mm
- Width: 17 in / 431.8 mm (without mounting brackets)
- Depth: 9.25 in / 234.95 mm
- Weight: 9 lbs / 4.08 kg

ADS-B Antenna

- 5 ft 7 in Vertical ADS-B Antenna with 50 ft cable
- Additional Cable length options:
 - 100 ft
 - 200 ft



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Sunhillo is an ISO 9001:2015 and ISO 27001:2022 certified company