

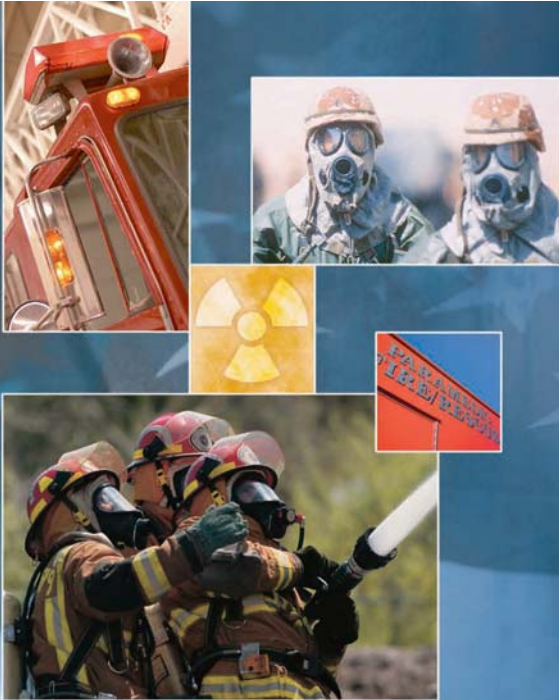
HM-1 HAZMAT Weather Station

First Responder Weather Monitoring System

With the creation of the Department of Homeland Defense many Hazmat teams now face new challenges and responsibilities. The Rainwise HM-1 Weather Station provides real-time information for monitoring and responding to emergency situations. The station works in conjunction with CAMEO/ALOHA software which enables responders to evaluate and predict plume dispersion patterns. The HM-1 was designed for rapid deployment and can be setup by one person in less than 2 minutes. The HM-1 has been engineered to combine high performance and durability at an affordable price.

KEY FEATURES include:

- Rapid deployment in under 2 minutes
- Compact, rugged construction
- Long range spread spectrum radios
- Real-time display
- CAMEO/ALOHA support
- 5-year Warranty



The HSA-1 Sensor Assembly

The compact sensor assembly is constructed from durable polycarbonate, fiberglass and aluminum. The assembly contains a number of sensors to measure commonly required parameters, such as wind speed, wind direction, temperature, humidity and barometric pressure. In addition to the aforementioned sensors, the HSA-1 also includes a radiation detector. This helps insure personnel safety when responding to an unknown incident. A built in electronic compass makes installation quick and easy with no alignment required. The coded long range spread spectrum radio has a range of up to 7 miles (900 MHz version). This provides the ability to monitor environmental conditions at a safe distance. The assembly can be hosed down for easy decontamination.



The RDI-1 Display & Data Logger

The RDI-1 has large bright LED displays that can be easily read in low ambient light and have wide viewing angles. The RDI-1 tracks minimum and maximum values for each parameter. The data logger is compatible with the CAMEO/ALOHA plume modeling software package. The data logger has a battery backed up, real-time clock and 32K of non-volatile RAM which means data will not be lost when the unit is powered down. Data is logged even while CAMEO is being used. The logged data can be retrieved and viewed with a number of other third party software applications. At least one of these applications is supplied with each RDI-1. The display and data logger are housed in a tough copolymer enclosure. The display can be powered from its own internal sealed lead acid batteries, 12VDC vehicle adapter or AC battery charger. Several RDI-1's can receive data from a single HSA-1 sensor assembly.



Transport Case & Tripod

The entire HM-1 weather station fits into a single compact transport case. The station can be deployed and be fully operational in under two minutes. No tools are required and the tripod features a unique push button locking system that is secure and easy to use. The tripod is adjustable to a fully extended wind sensor height of 10 feet. A ground anchor kit is included to secure the station when the system is deployed in extreme weather conditions.



Specifications

HSA-I SENSOR ASSEMBLY

Wind Speed

Range: 0-67 ms-1 (0-150 mph)
Resolution: 0.45 ms-1 (1.0 mph)
Threshold: 0.45 ms-1 (1.0 mph)
Accuracy: ± 2% of full scale

Wind Direction

Range: 0-360 – no dead band
Resolution: 1.0°
Accuracy: ± 3.0°

Temperature

Range: -45°C to 74°C (-50°F to +166°F)
Resolution: 1°C (1.0°F)
Accuracy: ± 0.27°C (± 0.5°F)

Dew Point

Range: -45°C to 74°C (-50°F to +166°F)
Resolution: 1°C (1.0°F)
Accuracy: ± 1.1°C (± 2.0°F)

Relative Humidity

Range: 0-100 %
Resolution: 1 %
Accuracy ± 2.0 % (-40°C to +60°C)

Barometric Pressure

Range: 700 to 1100 millibars
(16.3 to 32 inches of Hg)
Resolution: 1 millibar (0.01 inches Hg)
Accuracy: ± 1.5 millibars (-10°C to +60°C)

Nuclear Radiation

Range: 0.1 to 50+ REMS / hour
Resolution: 0.1 REMS / hour

Radio Transmitter

(USA & Canada)
Range: 7 miles – line of sight
Frequency: 902.0 to 928 Mhz
(FCC approved – no license required)
(International)
Range: 3 miles – line of sight
Frequency: 2.4 Ghz (FCC, CE and ETSI approved)

Power

4 Alkaline D cells
Battery life: Greater than 1000 hours

Physical

Weight: 4 Kgs (8.8 lbs)
Dimensions: 1600 mm x 240 mm x 2400 mm
(63" x 9.5" x 9.5")

RDI-I DISPLAY AND COMPUTER INTERFACE

Displays

0.56" Red LED displays

Serial Interface

3 Wire RS-232. CAMEO / ALOHA supported.
Third party software support for archiving.

Data Logger Memory

32 KB Non-volatile RAM
Minimum logging interval: 1 minute
Capacity: 90 days at 1 hour rate

Data Logger Clock

Battery backed up Real-time clock.
Accuracy: 1 minute per month

Power

Internal sealed lead-acid battery pack.
AC powered option through battery charger:
12VDC vehicle adapter.
Battery Life: Greater than 24 hours.

Physical

Weight: 4 Kgs (8.8 lbs)
Dimensions: 311 mm x 190 mm x 120 mm
(12.25" x 7.5" x 4.75)

Construction

Copolymer resin based, high impact plastic.

TRIPOD & TRANSPORT CASE

Case

Weight: 21 Kgs (47 lbs)
(Complete system)
Dimensions: 914 mm x 483 mm x 356 mm
(36" x 19" x 14")
Construction: Copolymer resin based,
high impact plastic.

Tripod

Height: 10 feet (maximum)
Construction: Aluminum, fiber-glass and plastic
Copolymer resin based, high impact plastic.

MADE IN THE USA

Along with all of our consumer and industrial products, the HM-1 is made in America.

5 YEAR WARRANTY

We are so confident that our equipment will stand up to the elements that we offer a 5 year warranty on all of our industrial stations including the HM-1. Rainwise is the only manufacturer in the weather station industry that has such an extensive guarantee.

The new HM-1 Ultrasonic is the most advanced system of its kind

Our new Hazmat weather station has the most advanced wind speed and wind direction sensor on the market today. Lightweight, robust and lacking the fragility of conventional cups or propellers, the ultrasonic sensor is a natural fit for the rough and tumble first responder arena. Easily deployed and vehicle mountable, no first response team should be without it.

Multiple Parameters Include:

- WIND SPEED
- WIND DIRECTION
- TEMPERATURE
- HEAT INDEX
- HUMIDITY
- BAROMETER
- WIND CHILL
- DEW POINT
- NUCLEAR RADIATION

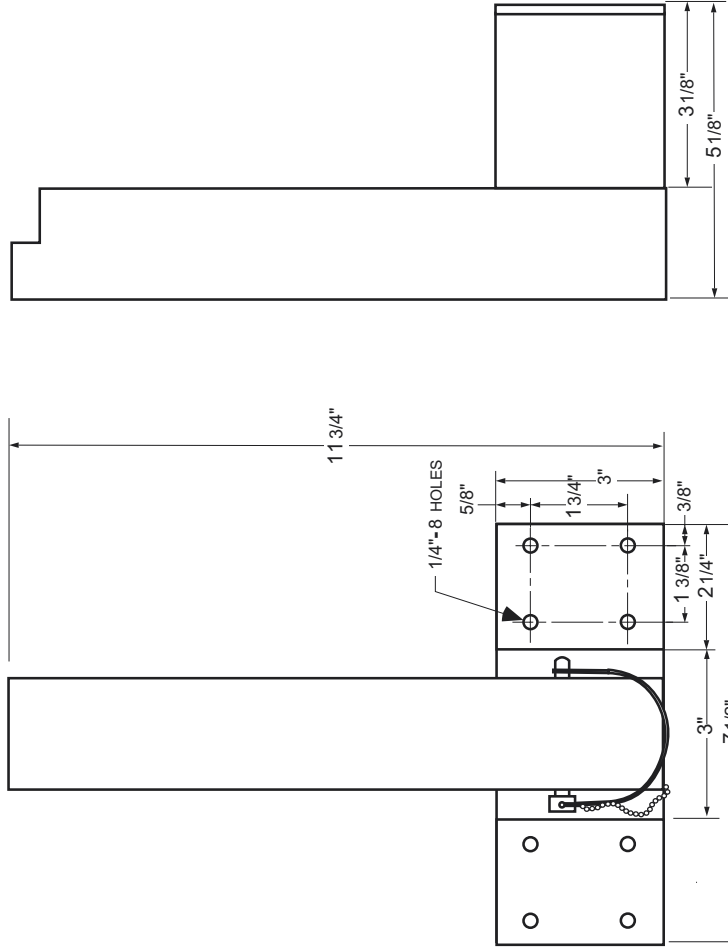


**HAZMAT
FIRE
POLICE
EMS**

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- 7 mile wireless communication
- Automatic Electronic Compass
- CAMEO/ALOHA Compatible
- Integrated Data Logger
- Operates one full week on four D-cell batteries
- Two-minute Field Deployment by One Person!
- 5-year Warranty

REVISION:



FRONT VIEW

SIDE VIEW



Rainwise Inc.
25 FEDERAL ST BAR HARBOR, MAINE 04609

SCALE:	Full
MATERIAL:	Aluminum
FOR:	HM-1

TITLE:	HM-1 Vehicle Mount	
DRAWN	BY: JSB	DWG. NO.
DATE:	6-9-06	
		06090600

HM-1