The P3 Mobile Remote Sensor System™ (MRSS-EX) is a ruggedized aluminum extrusion system designed to provide real-time tactical remote sensor information to individual warfighters in a broad range of operating areas. The MRSS-EX suite of sensors operates under Millennium Sensor’s P3 Technology Concept (Personnel-Centric Peripheral Protection). The MRSS-EX is designed for extreme rapid deployment. The sensors are man-portable, hand-placed, and can be operated in coordination with or in absence of other communications or security systems. A system can be deployed or redeployed in minutes to support high-speed advance or rapidly changing environments. The MRSS-EX improves situational awareness for small units or individual warfighter. The MRSS-EX System is small, light, extremely simple to deploy and use, and is suitable for a wide array of missions.

A typical MRSS-EX system consists of 10-20 wireless sensors and a belt-worn monitor/radio interface unit (BWM). A voice message is recorded during deployment to provide location and descriptive information about the sensor being placed. The BWM decodes the address of an activated sensor and announces the sensor location to the operator and optionally, over the full radio system. Optional serial data output allows interface to translators to SEIWG-005A message systems (TASS, BISS, REMBASS, TRSS, UCASS, or MAIS systems). The wireless sensors consist of point detection devices (P3-100 Point Sensor) and an optional infrared marker unit that allows visual identification of an activated sensor with night vision devices (P3-IR). The BWM can receive signals from up to 16 sensor zones, each having a unique identification. MRSS-EX sensors weigh < 6 oz. and are palm-sized for ease of transport, placement and operation.

In addition to sensor modules the MRSS-EX suite also offers optional mobile remote triggers (P3-400 MRT) that are keyed to specific sensor numbers. When a sensor is activated, the companion MRT provides a contact closure that can be used to trigger an IR illuminator, a long range radio link, a video camera or other devices that can be activated with a relay contact closure.

### P3 MRSS Applications

- Force protection/Force multiplication
- MOUT
- Temporary asset protection [vehicles, supplies]
- Surveillance
- Utility infrastructure
- Trail or roadway monitoring
- Military Police operations
- Temporary personnel control
- Dignitary/Embassy staff protection
- Monitor choke points
- Deny cover/approach
- Monitor temporary perimeters
- FLOT Operations
- Special Operations SR Missions
- Counter Drug Operations
- Border Patrol
P3 MRSS Features

- Field recorded voice report of sensor location when intrusion occurs (Keeps hands and eyes free)
- BWM (Body Worn Monitor) weight < 12 oz.
- Sensor weight < 6 oz.
- Individual sensor detection coverage:
  - Point detection device-motion (7 to 10 m diameter)
  - No alignment tools required
- Sensor UHF to BWM range $\geq 0.45$ km
- All sensor sizes are 2.1” x 1.25” x 4.25”
- All sensors have built in transmitters (no cables or interconnects—high speed setup)
- Fully field programmable (all programming requires only speaker/mic)
- Built in rechargeable batteries (Lightweight Li-Ion polymer—no memory)
- Field rechargeable: AC power, vehicle slave, field batteries
- Designed for close in, small team support
  - High degree of location precision (7 to 10 m diameter zones)
  - Reduce sensor to shooter time
  - Deployment, setup and operation of all sensors can be completed by single individual
- Unattended operation 7 days (10 activations/day)
- Up to 16 sensing zones
- Optional MRT same size and weight as sensors

MRSS - Operational Concept

MRSS Sensors

- P3-100 Point Motion Sensor
- IR Illuminator
- Wireless, Low Light Camera
- Visible Strobe
- Event Trigger
- Target Designator
- Video Receiver
- Video Monitor
- IR Strobe
- MRT Mobile Remote Trigger
- Digital Serial Data (DSD) Stream
- Sensor Report Broadcast
- Individual MRT Units keyed to specific MRSS Sensors
- Individual Warfighter or Small Team
- Video Threat Assessment
- CP
- Radio Interface (NOT Req’d)
- Sensor Report
- Direct To Warfighter