



ENHANCED MISSION EFFECTIVENESS
AND FORCE PROTECTION

**Modular, scalable family of systems
supporting soldiers in both urban and
open terrain**

Micro Air Vehicle

PROVIDING UNPRECEDENTED SITUATIONAL AWARENESS IN SMALL UNMANNED PLATFORMS



System Features

- Two air vehicles, one ground station
- Packable within two standard Modular, Light Weight, Load Carrying Equipment (MOLLE) packs
- Deployment and stowing operations accomplished in less than five minutes
- Simple, intuitive operation requiring minimal operator training
- Capable of carrying day and thermal cameras, radio relays, and data links
- Vertical takeoff and landing enables “hover and stare” mission profile
- Adaptable to other modular payloads compliant with the mechanical and electrical interfaces

Specifications

Components

- 2 MAVs
- 1 ground station
- Support equipment

Packability

- Less than 40 lbs. system weight
- Packable in or on a MOLLE
- 12.5 lbs. air vehicle wet weight

Air Vehicle Performance

(at 100°F / sea-level)

- 40 minutes endurance at 5,500 ft.
- 25 feet/second rate of climb
- 50 knot airspeed
- Take-off and landing in 15-knot winds
- Fly in 20-knot winds
- 10,500-foot service ceiling

Operational Environment

- Temperature: 0°F to 100°F
- Humidity: 100%
- Rain: 0.5 inch per hour
- Salt, fog, sand and dust

Payloads

- Forward and downward looking EO and IR imaging sensors
- Modular interchangeable sensor packaging

Target Detection

- Detect and recognize man-sized target at 250m (day) and 125m (night)
- Target location error of 80 meters

Video Recording

- Air vehicle stores 10 minutes of sensor imagery
- Ground station stores 60 minutes of sensor imagery

Flight Modes

- Autonomous flight with dynamic re-tasking and manual intervention
- Hover and stare
- Remote launch

Flight Planning

- Up to 100 waypoints in a flight plan
- Up to 10 preplanned flight plans stored on Ground Station
- Multiple loiter patterns

Acoustics

- Inaudible (60 dBA) at 100m

Fuel

- JP-8 or gasoline, non-volatile lubricants

Communications

- 10 kilometer range with common military UAV frequencies

Navigation

- 10-meter horizontal position accuracy
- 4-meter pressure altitude accuracy
- Inertial and GPS with SAASM capabilities

Aerospace Electronic Systems

Defense & Space Electronic Systems

Honeywell International Inc.

9201 San Mateo Blvd. NE

Albuquerque, NM 87113-2227

Tel: 505.828.7872

www.honeywell.com

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