

ANCILE: Dismounted Strike Warning and Position Tracking

Approved for Public Release

06-11-14

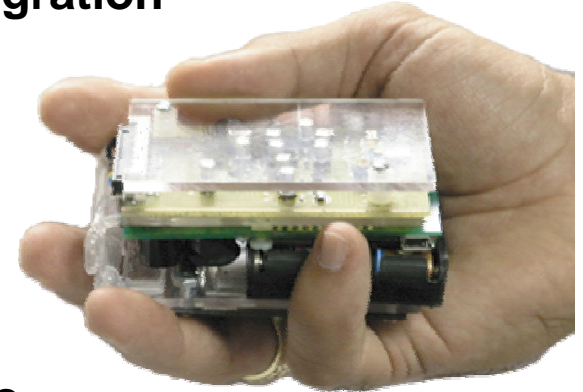
What is ANCILE?

Note: Ancile is not an acronym but rather a name taken from the mythological shield and talisman of power to protect the Roman Army

- **Novel technology combination and architecture integration**

- **Capability:**

- Warns dismounted soldiers about incoming indirect fires
- Same device can report dismounted locations to “Blue Force” C2 systems



- **Characteristics:**

- Pager-sized device
- Simple Operation
- Less than one pound

4 Patents
and 4 PCTs
Pending

~3 Year
Collaborative
Effort between
PEO C3T & USMA

Strike warning and position tracking for dismounted soldiers

Inside the ANCILE Pager

Small

**Low
Cost**

3 inches

Battery Case
4 x AAA Batteries

Radio Module
1 watt output
256-bit AES Encryption
Frequency-hopping

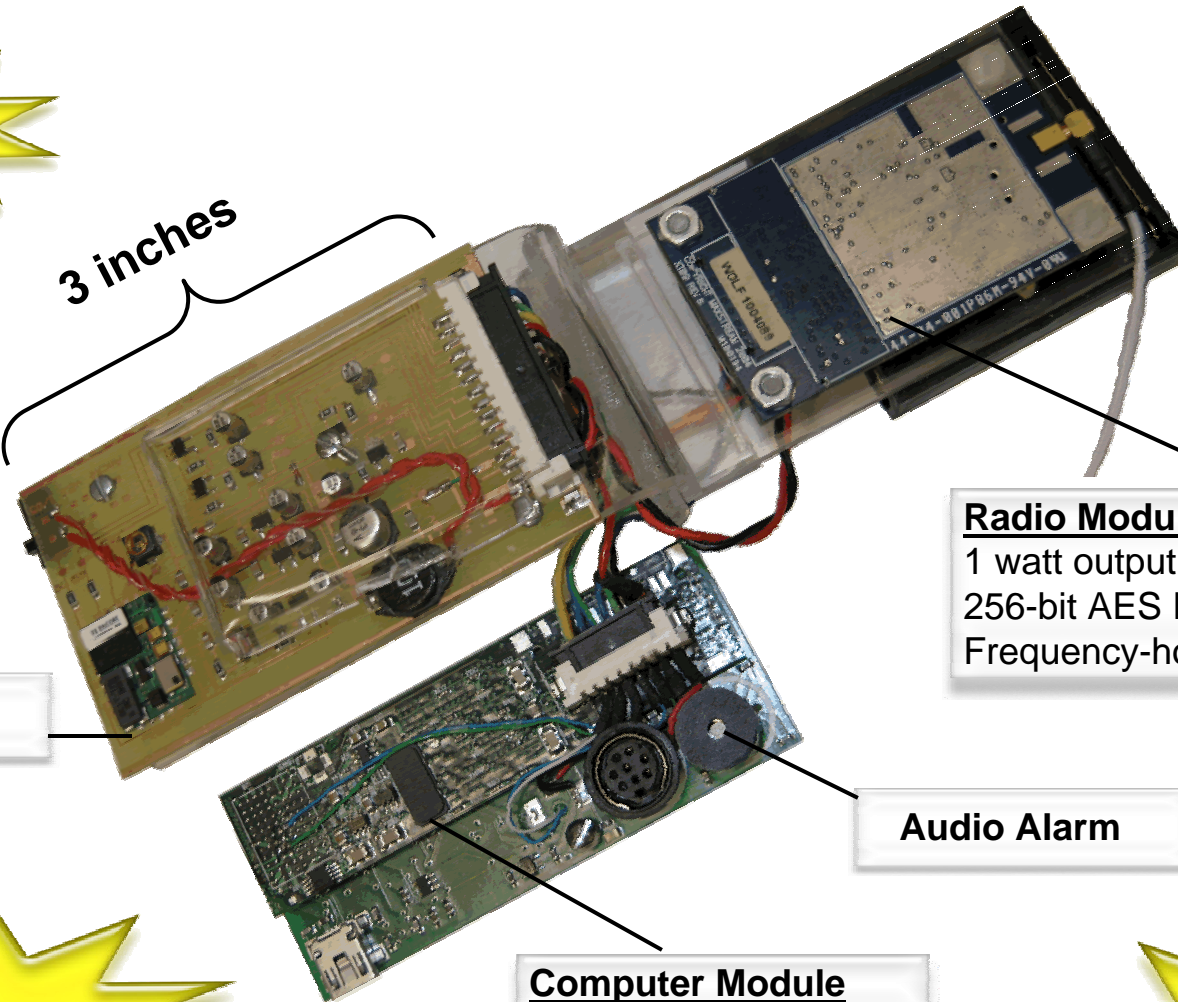
GPS Module

Audio Alarm

Lightweight

Computer Module
Linux 2.6 kernel
400 MHz processor
64 MB Persistent RAM

**COTS
Components**

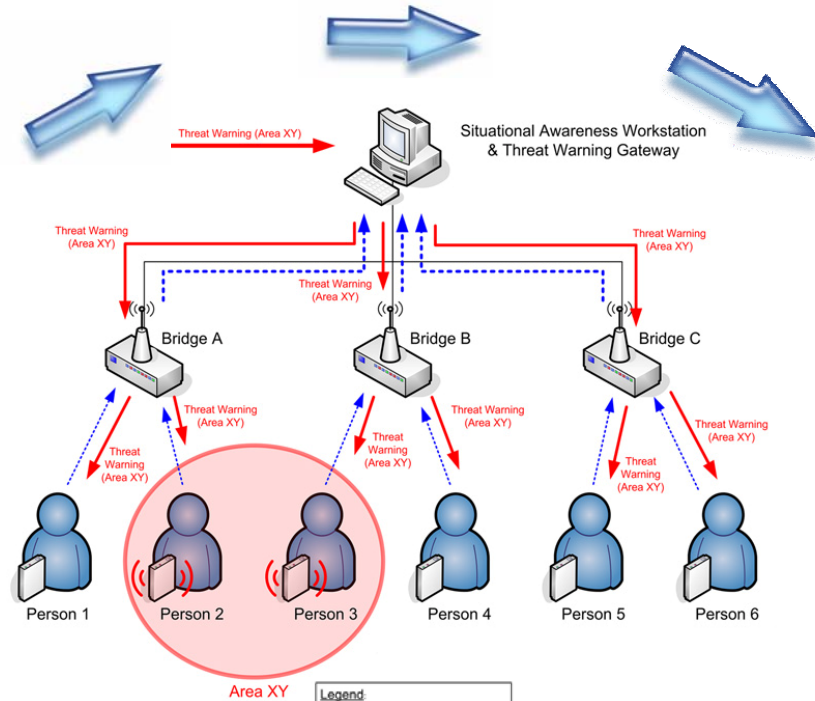
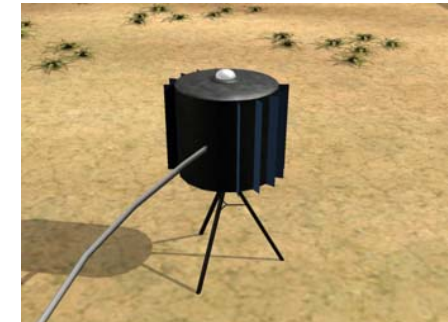


How Does ANCILE Work?

1. Enemy forces launch mortar rounds against a friendly patrol.



2. Counter-battery systems, like FireFinder and LCMR, detect the rounds and generate a warning message.



4. Ancile pagers in the predicted danger zone alert the soldiers well before the rounds hit them.

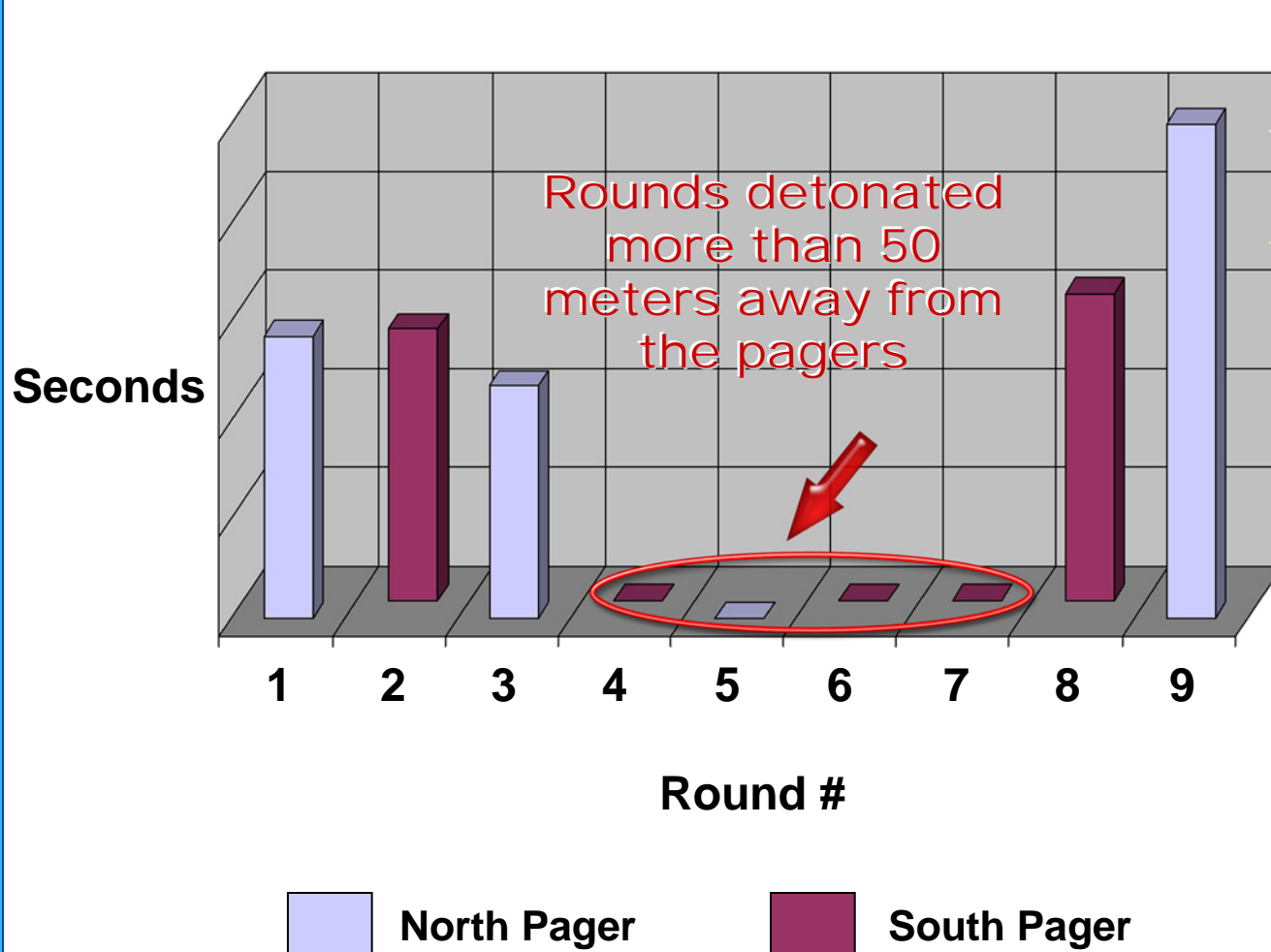


3. A small bridge device on the tactical net receives the warning message and relays it to the Ancile pagers.



* Same Comms and GPS mechanisms can be used in reverse for “Blue Force” Position Reporting

ANCILE Pager Warning Times



Partnered with
RDECOM-ARDEC
to license ANCILE
technology



Successfully Demonstrated during Yuma Proving Grounds Live Fire Event

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www.ANCILE.net