COMMUNICATIONS-APPLIED TECHNOLOGY

A Veteran-Owned Small Business

Tactical Voice Communications Solutions for

Emergency Response and Homeland Security

website: www.c-at.com/ICRI   or   e-mail: info@c-at.com

The Incident Commanders' Radio Interface (ICRI) …solution to a multitude of tactical problems…

- **Interconnects US/coalition military radios, municipal public safety radios, state and federal radios, land-line/cell/satellite telephones,** in moments through the unmanned ICRI.

- ICRI provides a rugged, highly portable, radio cross-band **(VHF, UHF, 800MHz),** cross platform **(digital/analog, trunked /talk-around, AM/FM)** capability for mutual aid operations.

- **Enhance the radio link** between warfighters operating in areas of poor RF propagation **(inside-outside buildings, tunnels)** and remotely located C^2 personnel by serving as a rapidly field-able "repeater."

ICRI

An effective and low cost solution to:

- **Establishing immediate C^2 with the dissimilar radios of Guard Special Response Teams, USAR, police, medical triage, and other supporting agencies**

- **Enhancing in-building and below grade radio communications**

ICRI-E....

The Equipment
ICRI-2TG, 5P

A component of the WMD-CST ADVON

- Small, rugged package/circuitry

- Highly portable
  Rapidly deployable (under 5 minutes)

- Multiple radio interconnect without adding technical complexity

- Minimal "operator" training

- Wide range of power sources (including "AA" batteries)

- *Low cost in equipment , allocated manpower, sustainment requirements*

ICRI Capabilities…
ICRI-E (DoD Guardian II Force Protection selection)

- 7.0 lbs
- 13.5" x 10.5" x 6.0"
- WATERPROOF, SAND-PROOF
- Internal housing for eight (8) "AA" alkaline/primary batteries provide an 24+ hour duty cycle; also uses external DC (7-21V)
- Uses standard "military" connectors and compatible with the H-250/350 "green gear" handset
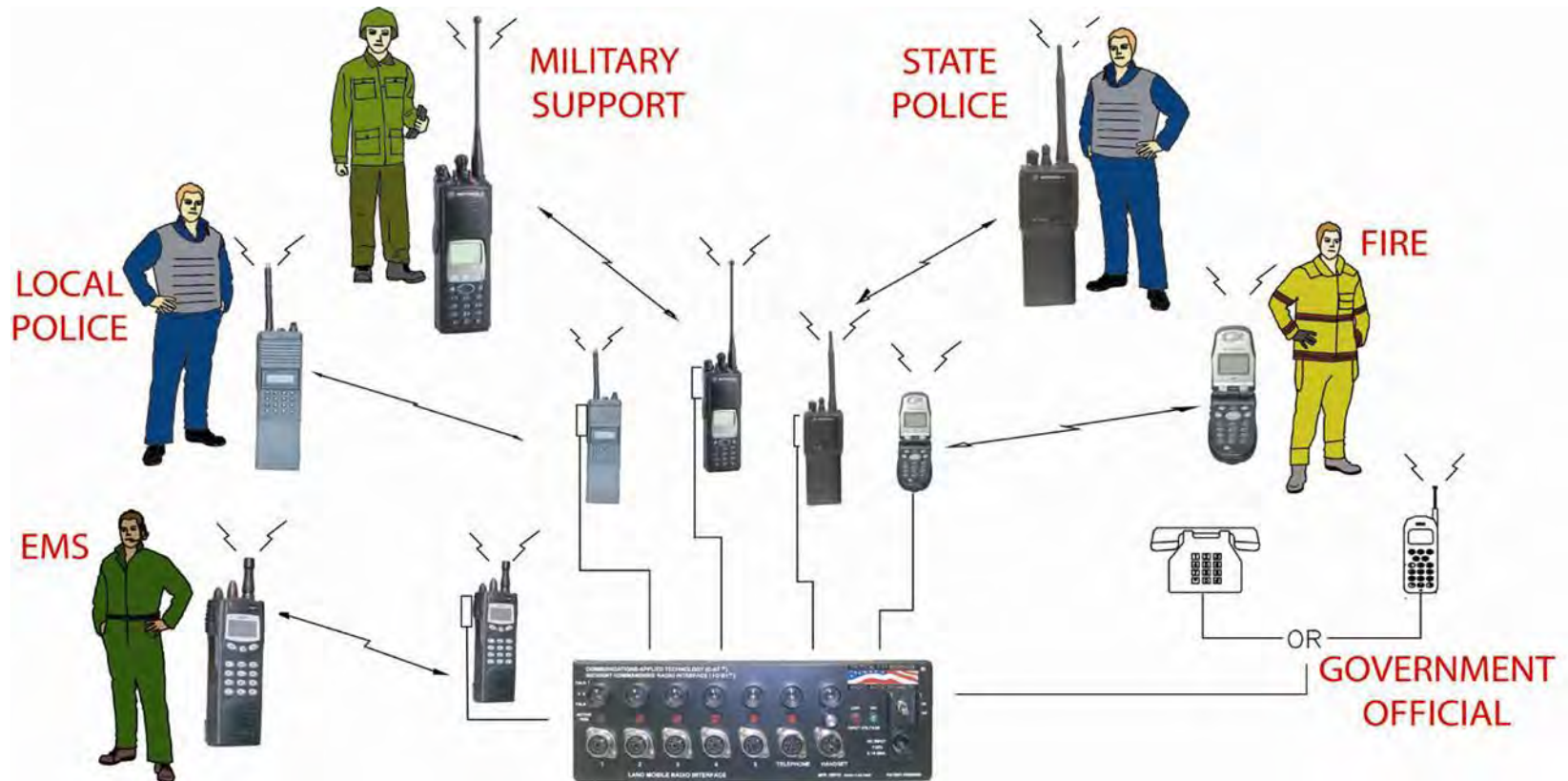
ICRI Mobile Command Post Capabilities…
ICRI-4TG, 10 Radio Port with RoIP/VoIP, Rack-mountable

- 4 talk group selection for all ports
- Cell and land-line telephone (POTS/PSTN) compatible
- Commercial and military satellite compatible
- Low band, VHF, 220-900MHz legacy and P25 portable/mobile compatible
- VoIP options include DTMF pad/hook/flash switch
- Operates on external 6.5V-20, 115/220 AC
- Low current drain: 200mA @12V

Standard Application

- Frequency/channel is agency defined, not stipulated by ICRI
- Radios supplied by individual supporting teams
- Connect through radios' external speaker mic jack
- Does not require agencies to share encryption keys

ICRI in Action

Extending Situational Awareness
Extending communications into subterranean areas
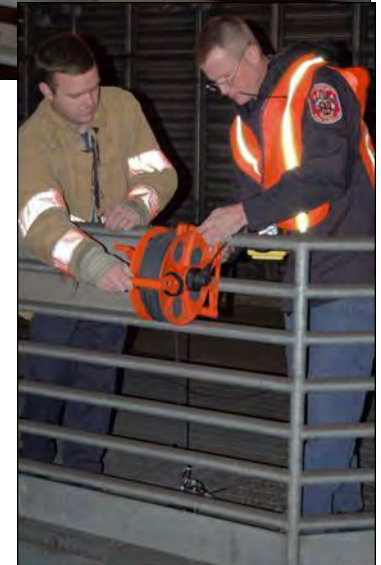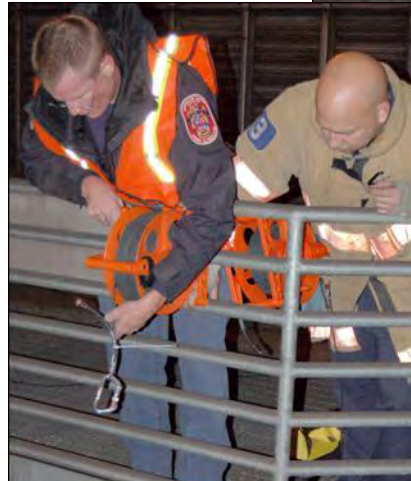
ICRI Capabilities…
in support of tunnel and large structure entries
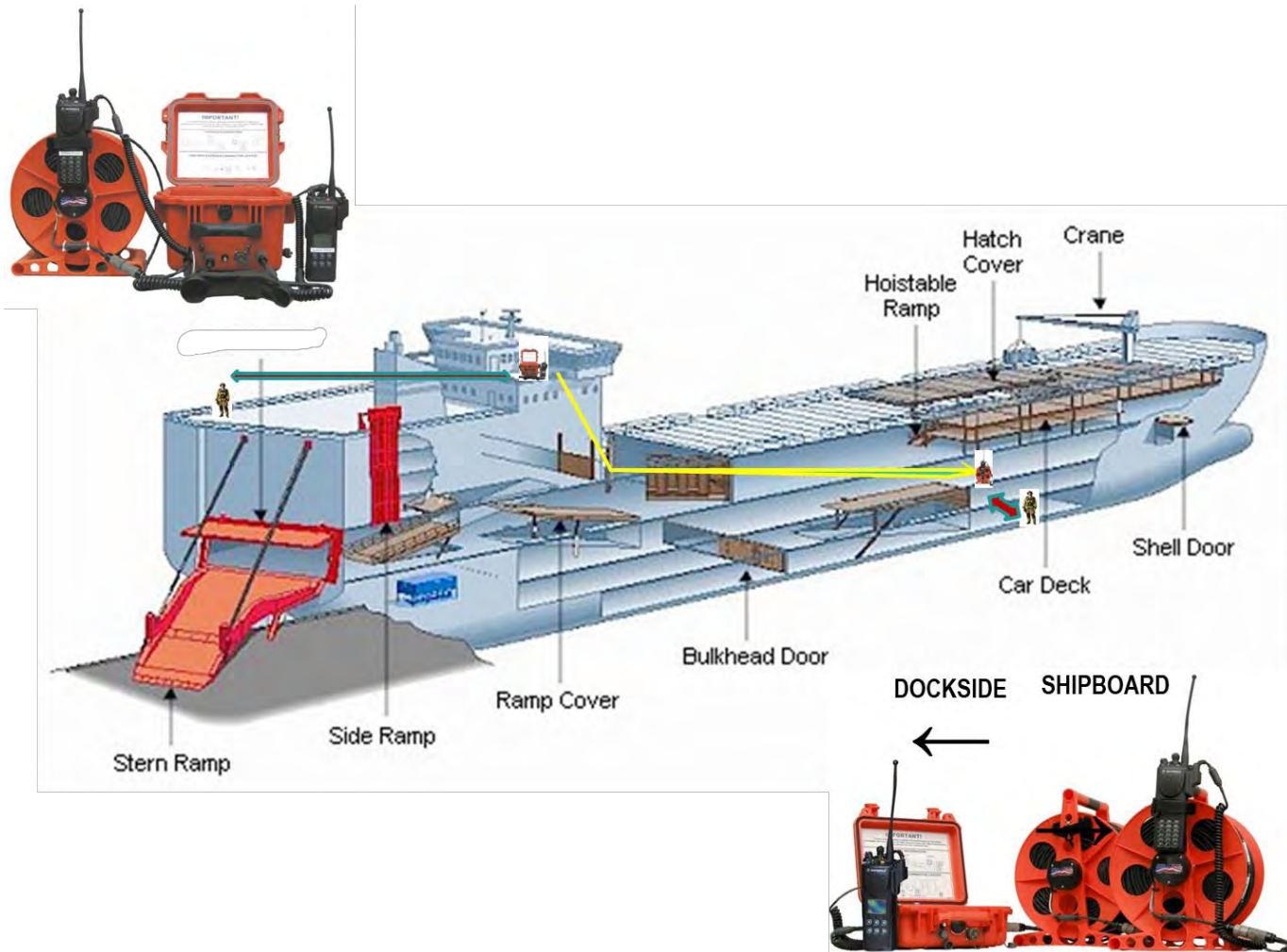
ICRI-2PED

- 6 lbs
- Tactical Repeater
- 8" x 12" x 10"
- Two Radio I/O ports + telephone port + handset port
- 6 "AA" alkaline batteries in the internal housing provides a 30 hour duty cycle.
- Multiple cables (up to 5000') extends radio communications quickly and reliably

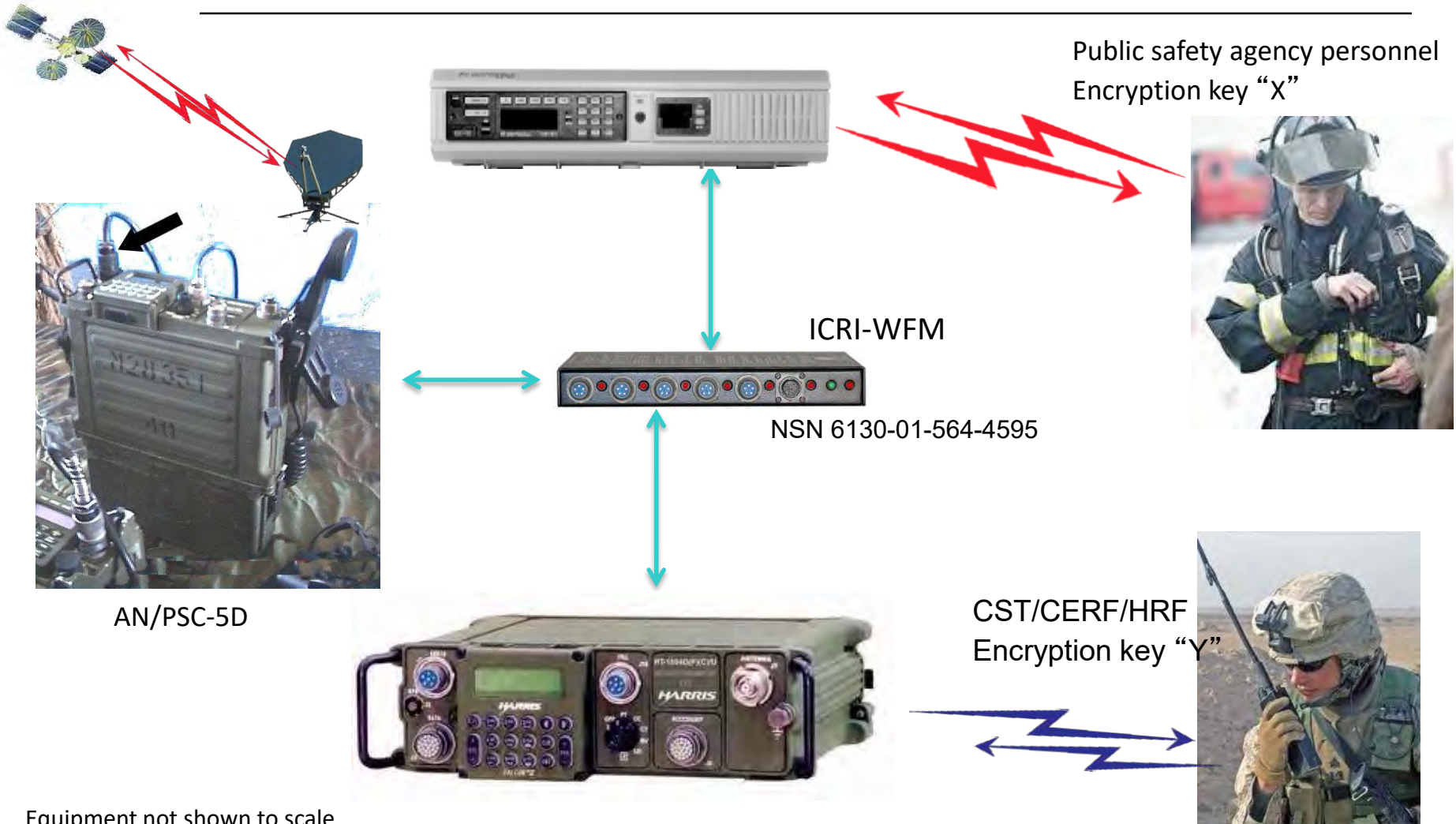# Recon team to TOC commo up to 5000' into a tunnel or subway system

Extending communications into ships

Extending Situational Awareness
Line-Of-Sight Radio Link to Beyond-Line-Of Sight
Using Military and Commercial satellites

ICRI Capabilities…
Seamless Radio Comms with Civilian Public Safety Personnel
On-Scene and Beyond

Public safety agency personnel
Encryption key "X"

ICRI-WFM

NSN 6130-01-564-4595

AN/PSC-5D

CST/CERF/HRF
Encryption key "Y"

Equipment not shown to scale
ALL VOICE TRANSMISSIONS OVER RF LINKS ARE ENCRYPTED

BGAN INMARSAT terminal with analog handset

To ICRI's 2-wire audio I/O port

All versions of the ICRI can be rapidly connected to a BGAN terminal via the analog telephone jack (a parallel connection with the phone.
Alternately, the ICRI can be configured with an internal PSTN circuit and a keypad.

2-wire RJ-11 port

IRIDIUM hand-held satellite terminal
Thuraya 7100, 7101, SO 2510, SO 2520 and Thuraya XT hand-held satellite terminals.

All versions of the ICRI can be rapidly connected to an IRIDIUM terminal via the **terminal's** 2.5 or 3.5mm headset jack.

All versions of the ICRI can be rapidly connected to an Thuraya terminal with a portable acoustic coupler.

acoustic coupler

4-wire RJ-22 port

Comments from the Field…
Charlottesville (VA) Fire Department

"The ICRI provides the immediate ability to achieve radio interoperability between any wireless radio and/or wireless device. The unique feature of the ICRI is that not only can it meet the Rapidcom requirement of being deployed within one hour of an incident; it can literally be setup within 5 minutes.

Key to successful implementation, this device can be used to achieve interoperable communications with very little training and no technical assistance which is particularly important to adapting to new agencies or devices that need to connect. It is scalable and provides and may be used in an extended capacity through the use of a wire cable allowing interoperability to be used in buildings, basements, below grade/confined space and tunnel incidents.

The ICRI is portable and can be used practically anywhere (in any vehicle, in a facility, etc.).

From a cost perspective it is one of the most competitive devices for this functionality on the market and is generally 1/3 the price of similar market products.

It has been tested, accepted and is being deployed in military, public safety and emergency management settings around the world."

Fire Chief Charles Werner

For Additional Information…

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DOL Veteran-owned, Small Business SIC

TACTICAL / 1ST RESPONSE

RADIO INTEROPERABILITY

MADE IN THE U.S.A