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ADVANCED USER INTERFACE DESIGN
and
ADVANCED INTERNETTING
for
TACTICAL SECURITY SYSTEMS

Space and Naval Warfare Systems Center
San Diego, California 92152-5001

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TACTICAL SECURITY ISSUES

- OPERATIONS
  - Tactical Environment
  - Joint Force Involvement
  - Diverse Missions
- TECHNOLOGY
  - Stand-alone Designs
  - Growth Provisions
  - Special Interfaces

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FAMILY of INTEGRATED TACTICAL SECURITY SYSTEMS

- US ARMY MP SCHOOL CONCEPT
- FORCE XX1 ARMY
- POINT and AREA SECURITY
- WAR and MOOTW
- INTEROPERABLE with JOINT FORCES
- MAN PORTABLE
- OPEN ARCHITECTURE
- MAXIMUM USE of COTS and GOTS
- PROVIDE for TECHNOLOGICAL GROWTH

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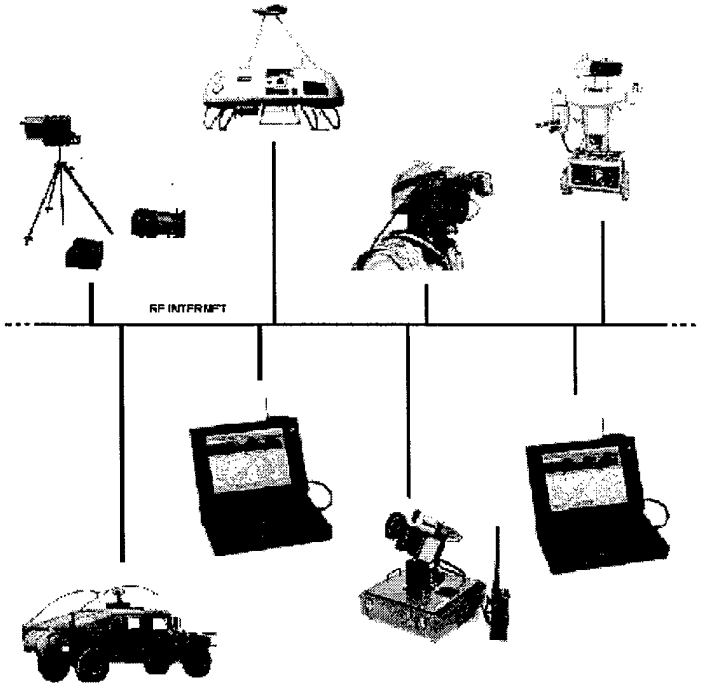
DSWA TECHNOLOGY PROJECTS



ADVANCED USER INTERFACE for TACTICAL SECURITY

TACTICAL SECURITY SENSOR INTERNETTING

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AITS OBJECTIVES

- PROOF-OF-CONCEPT PROTOTYPE

  Man-portable

  Modular — "plug and play"

- TO SUPPORT

  Situation Awareness

  Intuitive Operation

  Reduced Workload

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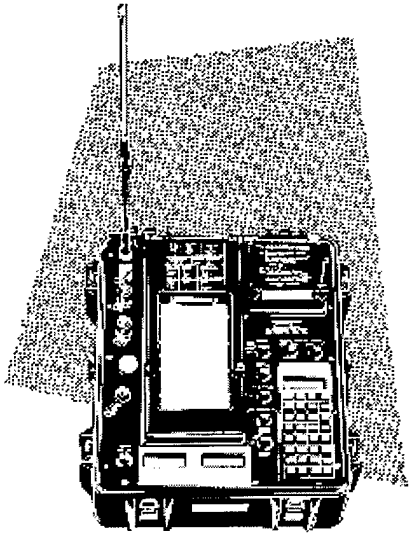
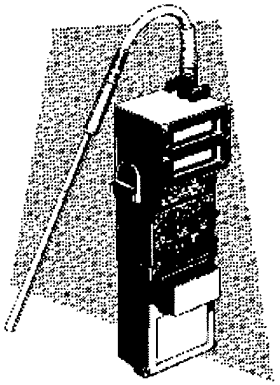
CURRENT INTERFACE RESOURCES





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APPROACH

- **PHASE 1**

  Examine User Needs

  Design Interface Concept

- **PHASE 2**

  Build Prototype

  Validate with User Communities

  Document

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INTERFACE FEATURES

- WEARABLE SYSTEM
- SEE-THROUGH DISPLAYS
- VOICE INTERACTION
- INTEGRATED COMMUNICATIONS

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TACTICAL SENSOR INTERNETTING and INTEGRATION

- **GOALS**

  Effective, Robust Use of Bandwidth

  Control of Multiple Tactical Sensors

  Common Tactical Picture

  "Soldier as Sensor"

- **ISSUES**

  Tactical Node Handling

  Internet Overhead

  Intelligent Data Handling

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TSSII APPROACH

- SOFTWARE PROTOCOLS ON TOP of INTERNET
- BUILD OVER UDP VICE TCP
- DIRECT ACCESS to IP FUNCTIONALITY

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FOR FURTHER INFORMATION

- **ADVANCED INTERFACE**

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- **TACTICAL SENSOR INTERNETTING**

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- **GENERAL PROJECT INFO**

http://marlin.spawar.navy.mil/D37/