ISR Reach-Back
An HSI Assessment from TW04

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FORCEnet Concept

Command and control component of Sea Power 21
Designed to enhance commanders’ tactical situation awareness and decision making abilities

Definition: the operational construct and architectural framework for naval warfare in the Information Age, integrating warriors, sensors, command and control, platforms, and weapons into a networked, distributed combat force.

– CNO
 ISR Reach-Back

Goal
- Video exploitation for targeting via a remote (ashore) facility

Process
- Request for information
- Assignment
- Collection
- Processing

Ashore
- Exploitation
- Analysis/Fusion
- Dissemination
- Management
Trident Warrior

- Assess and implement FORCEnet systems
- Focus on network-centric warfare to improve tactical situation awareness
  » Rapidly field improved FORCEnet command and control warfighting capability to the Fleet
  » Develop supporting tactics, techniques, and procedures

Trident Warrior 2004 (TW04)

- 4–15 October 2004
- Southern California operating theater
ISR Reach-Back in TW04

Afloat-Ashore functional distribution

- Afloat (Tarawa ESG)
  » Joint Information Center
  » Supporting Arms Coordination Center
- Ashore (FIST)
  » Fleet Intelligence Support Team
- Technologies
  » WebCOP, HITS, JSIPS-N, AFATDS, SACC-A, BFT

HSI evaluation

- Effectiveness
- Usability
- Scientific guidance on “how to get there”
Evaluation Procedures

Participants
- 13 from JIC
- 3 from SACC
- 7 from FIST

Data Collection
- ISR/Fires scenarios
- Questionnaires
- Focused interviews
- Observer checklists
- Automated logs

Fleet exercise constraints
- Variable training on technologies
- Variable orientation briefings
- Poor weather
- Sporadic connectivity
- Unavailable Common Operating Picture technology (WebCOP)
Overall Results

Technical objectives were achieved
- RFIs passed
- Exploited images passed

Usability mediocre
- Mid 50s out of 100
- Other systems high of 80s and low of 40s

Mental workload moderate
- 3-4 out of 7
In-Depth Evaluation

- Request for information
- Assignment
- Collection
- Processing
- Exploitation
- Analysis/Fusion
- Dissemination
- Management
Request For Information (to FIST)

Understand request
- 3.5 out of 5

Understand COP
- 2.9 out of 5

Use of chat
- Extended chat exchanges – 15-50 exchanges on some issues
- Chat/email effectiveness: 2.9 - 3.6 out of 5

Poor “remote” understanding
- SACC (afloat) COP: 3.0 out of 5
- FIST (ashore) COP: 2.0 out of 5
Image Exploitation (in FIST)

Effectiveness
- Information content: 2.8 out of 5
- Sufficient detail for targeting: 1.3 out of 5
- Sufficient for ESG intelligence: 2.1 out of 5

Factors
- High variability
  » Specific images
  » Variable COP
- Low image quality, timeliness, detail
- Difficult access: 1.7 out of 5
Dissemination (to JIC)

Connectivity
- Sporadic
- Multiple links in chain

File formats
- Some unreadable afloat

Transfer procedures
- Locations
- Naming conventions
- Feedback

Database integration
Summary – HSI Concerns

Poor shared SA technologies
- No WebCOP
- Chat/Email sporadic
- Chat/Email “sparse”

Poor information management
- Databases
- Compatibilities
- Business rules

Caveats
- Poor weather
- Insufficient training
- Leading edge technologies
**HSI Recommendations**

Distributed information management of images and analyses
- Effective, transparent business rules
- The Devil is in the details

Shared situation awareness
- Commander’s intent
- Commander’s information requirements
- Proximity to tactical situation – battle rhythm
- Proactive support
- Common Operating Picture
  - Good COP, Bad COP
- Team SA

Robust, integrated communications
- Beyond connectivity – integrated with COP
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