



Battlespace Awareness Brief for Disruptive Technologies Conference

04 Sep 2008

**Overall briefing classification is:
UNCLASSIFIED**



- **Joint Capability Areas (JCA)**
- **Capability needs**



Why JCA's ?

- Mitigates the uncertainty of defining future adversaries by posturing to meet a wide range of security challenges.
- Focuses on effects rather than weapon systems
- Addresses the range of materiel and non-materiel resources required for each capability
- Senior leaders will focus on providing guidance and making decisions in the “front end” of the process.
- Capabilities are divided into capability categories.
- Battlespace Awareness is one of those categories



BA Joint Capability Area (U)

Tier I - Battlespace Awareness

Tier II - Intel, Surveil, & Recon

Tier III - ISR Planning & Direction

- Tier IV - Define & Prioritize Rqmts
- Develop a Collection Strategy
- Task & Monitor CPED Resources
- Evaluation & Feedback

Tier III - Collection

- Tier IV - Signals
- Imagery
- Materials
- Human
- Open source
- Direction

Tier III - Processing / Exploitation

- Tier IV - Correlate
- Convert
- Exploit

Tier III - Analysis & Production

- Tier IV - Intel Prep of Operational Environment
- Intel Support to Situational Understanding
- Indications & Warnings
- Intel Support to Targeting, FP & IO
- Battle Damage Assessment
- Science & Technology
- Counter Intelligence

Tier III - ISR Dissemination

Tier II – Environment

Tier III - Collect

- Tier IV– Acquire from non-DoD Source
- Land Environmental Measurement
- Ocean Environmental Measurement
- Hydrographic Measurement
- Bathymetric Measurement
- Astronomy Measurement
- Atmospheric Measurement
- Space Measurement

Tier III - Analyze

- Tier IV– Land Environment Data
- Ocean Environment Data
- Atmospheric Environment Data
- Space Environment Data

Tier III - Predict

- Tier IV– Land Environment Conditions
- Ocean Environment Conditions
- Atmospheric Environment Conditions
- Space Environment Conditions

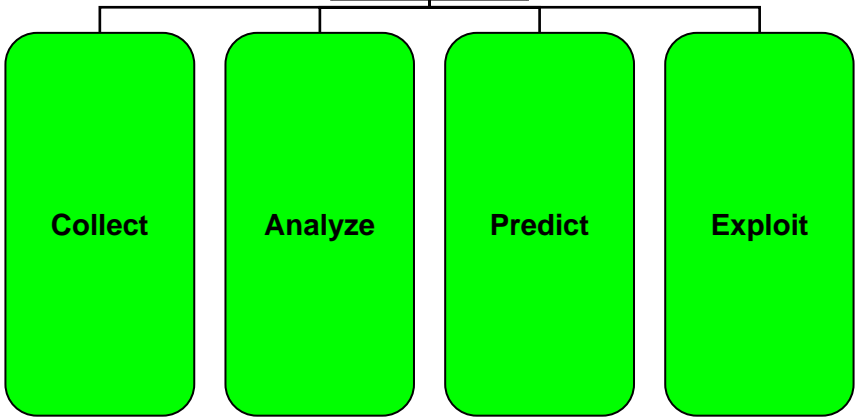
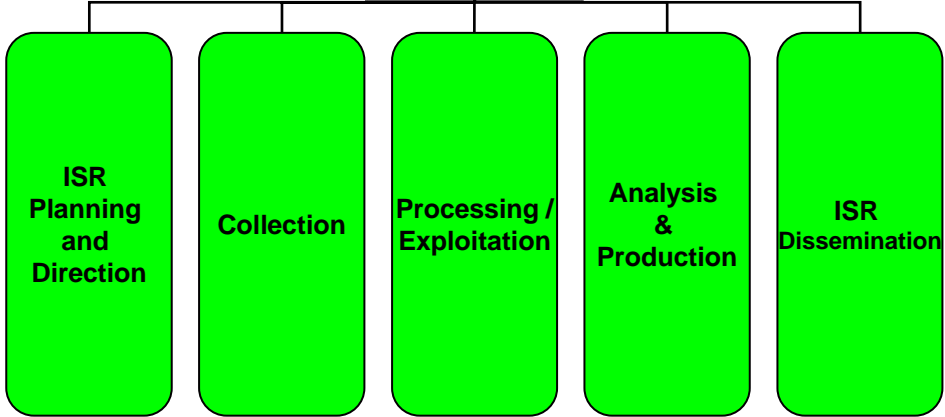
Tier III - Exploit

- Tier IV– Determine Environment Impacts
- Produce
- Publish
- Maintain

JROC Approved
Proposed JCA – in works



Approved Battlespace Awareness JCAs





General Capability Needs

- Technologies to locate and identify enemies embedded within the civilian population
- Sensor miniaturization in size, weight and power requirements
- Advanced sensors such as:
 - Passive radiometric detection systems that locate objects by detecting the difference in radiation between the object and the ambient background
 - Advanced optical sensors such as scanning and staring arrays.
 - Advanced ultraviolet sensors
 - Acoustic sensors
- Automatic target recognition (ATR) sensors



General Capability Needs (cont)

- Ability to remotely tag vessels
- Technology to detect targets beneath thick forest canopy
- Capability to send large amounts of data across the battlefield to the soldier who needs it
- Passive chemical sensors that "turn on" when exposed to chemical of interest
- Remote sensing of water depth
- Analytical tools
- Advanced data storage and retrieval systems



QUESTIONS