STRATEGIC DEFENSE INITIATIVE

BMD C³ Approach

23 OCT 92

Lt Col Robert Phelps, USAF
Acting Director, BM / C³ Directorate
Strategic Defense Initiative Organization

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BMD C^3 PROGRAM

- USSPACECOM Support Is Required For Effective Defense Against The Full Range Of Theater Threats
  - Intra-theater
  - Inter-theater
  - Intercontinental

- BMD C^2 Is The Mechanism Through Which USSPACECOM Support Is Provided To Theater CINCs

- Challenge Is To Build A BMD C^3 System That Supports Near-term TBMD Requirements And Is Extensible To Future Strategic Missions
BMD C^3 MUST SUPPORT

- Deployed Forces / Friends / Allies
  - Joint / Combined Structure
  - Multinational Assets
  - Tailored In Each Theater
    - Sensors
    - Weapons
    - Infrastructure

- Defense Of U.S. / North America
  - Joint / Combined Structure

- Future Missions
STRASTRIC-THEATER BMD C³ INTERFACES

USSPACECOM

BMD Cell

BMDDOC

Supported Theater

Supported Theater

Planning Coordination

Execution Coordination
BMD C³ CHARACTERISTICS

- Stable In Peacetime
- Effective In Wartime
- Flexible
  - Theater Independent
  - Facility Independent
  - Accommodate New Sensors And Weapons
  - Accommodate Multiple / Varied Command And Control Levels
  - Accommodate New Missions
- Distributed Functionally And Geographically
BMD C³ DESIGN CHARACTERISTICS

- Open System Architecture
- Object Oriented Information Architecture
- Communication Through Standard Message Sets
- Standardized Interfaces
- Distributed Processing
- Extensive Use Of COTS Hardware And Software
- Evolutionary Acquisition Strategy
# BMD C³ SOFTWARE ARCHITECTURE

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<th>Hardware Architecture</th>
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<td>Portable Operating System</td>
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<td>Interprocess Communications</td>
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<th>Communications Software</th>
<th>Custom Algorithm Applications</th>
<th>Database Interface</th>
<th>Display Definition</th>
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<tr>
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<td>COTS Database Management System</td>
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<td>Display Interface Software</td>
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BMD C³ DESIGN EFFORTS SHOULD CONTINUE

- BM / C³ Identified As "Long Pole In The Tent"
- Joint Development Team Established And Effective
- Information Architecture Formulation Underway
- Software Risk Mitigation Efforts In Progress
- Block 0 Facility Established At NTF
- BM / C³ Community Momentum Building
ISSUES

- Who Specifies / Manages Interfaces And Data Formats?
- What Is The Role Of Each Service?
- How Can Development Proceed Without All Requirements Being Specified?