Acquisition Effects on the Precision Strike Kill Chain

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Agenda

• “Big A” Perspective
  – Nature of the kill chain problem
  – Requirements analysis process

• “Small A” Perspective
  – Management approach
  – Today, tomorrow
Network Enabled Kill Chains
Any Sensor – Any Weapon – Any where – Any Time
• Systems Engineering between Programs and Kill Chains
  – Horizontal integration generates and assesses end-to-end capability

• Fund Programs of Record

• Fund Kill Chains/Capabilities (Systems Engineering and Integration)
Kill Chain and Network Links

Approval/ID on critical path

Net enabled weapons need a network
Situation

• For each scenario
  – Kill Chain involves several “platforms”
  – Myriad combinations with lots of gaps
• Management process to ensure automated chain requires changes to mission systems and platform operational flight program
  – For every platform in the scenarios
    • C², ISR, strike aircraft and netted weapon
Requirements Issues

• Network robustness
• Traditional or streamlined C2
• Extent of automation
• Quality of information
• Coalition interoperability

• New technology drivers
  – Sharing AESA images
“Small A” Challenge

• Must define a System-of-Systems Requirement and flow allocated requirements to all system components

• Program Office for each mission system and each platform, each with own
  – Knowledgeable team
  – Priorities
  – Resource constraints
  – Standing Contracts
“Small A” Challenge (cont’d)

• Must task and fund each Program Office

• Must coordinate individual efforts, including performance trades

• Must evaluate the performance of each component and the system-of-systems

• Must report
Systems Integrator Role

- Congressional concerns notwithstanding
- Must have a single organization to focus the program efforts
  - A separate office, or
  - A lead office from one of the system program offices
  - Government or contractor
  - Responsible for:
    - System-of-systems integration
    - Overall financial resourcing and management
    - Overall tasking to individual system program offices
    - Coordination among individual system program offices
    - Reporting
Management Approach

• Crawl, walk, run

• Experimenting in JFEXs, JCTDs, JTEs and funded demonstrations

• Future timeline will be driven by the results and lessons learned from the experiments
Summary

• Network-enabled kill chains are coming to a theater near you sooner than you expect

• Strike, ISR and C² platforms must collaborate in order to achieve integrated kill chains

• We still have technical and management issues to resolve