An Operational Tester's Perspective on how Distributed T&E fits the Vision for Testing in the New Decade

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L/V/C – The Operational Tester’s Perspective

• We must do it –
  – Time
  – Money
  – Security
  – Realism
Where are we Today?

• Some successes –
  – DJC2
  – PATRIOT
  – EA-18G

• Some work in progress –
  – DCGS-FOS
  – Ballistic Missile Defense System
  – CVN-21/Gerald Ford
  – GPS Enterprise

• Some areas still largely untouched
Why haven’t we made more progress?

• The same factors (perceptions) are in play –
  – Time
    • We don’t have time to build models, we are trying to produce something real
    • We need the final results before we spend money building models
  – Money
    • See above – (time is $)
  – Security
    • It takes too long to get the security agreements in place (if ever)
  – Realism
    • You will never build a model that is sufficiently realistic…

• On top of that, it is hard!
  – Phenomenology, lethality, environmental and communications models are essential yet they are also technically challenging and frequently lack sponsorship.
Why will things be different this time?

• The four imperatives grow increasingly strong –
  – Missile Defense
  – GPS Enterprise
  – Space systems
• Technology has improved the art of the possible
• We have amassed a wealth of experience over the last 3 years –
  – Projects such as the Joint IO Range have transitioned from
demonstration to operation
• Investments are beginning to produce tangible results
  – Sandia National Lab experiment in conjunction with USAF program of
record is examining the potential on a network system
  – Information Assurance Range participation in *Bulwark Defender 10*
• We are building stronger partnerships with the Developmental Test
Community- much L/V/C work is “operationally realistic
developmental testing”
Some Thoughts…

- Focus where the need is greatest…
  - Information Assurance/Defense of Networked Systems
  - Next generation command & control systems – such as the follow-on to the GCCS-FOS (Human Systems Engineering)
  - Ballistic Missile Defense Systems
  - Lethality

- Invest in the tools required to provide the data needed for rigorous analysis.
- Continue with small steps that build increasing capability ("Big Bang" approaches are too often obsolete when delivered.)
- Don’t let enthusiastic supporters over-promise.
- Experiment!