

Commander Operational Test and Evaluation Force

MORS MINI SYMPOSIUM

Test & Evaluation, Modeling & Simulation, and
VV&A:

Quantifying the Relationship Between Testing
and Simulation

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4 Intended Uses of M&S in OT

- Pre – test planning
- Pre – test prediction
- Post – test analysis
- “Other than tested” scenarios

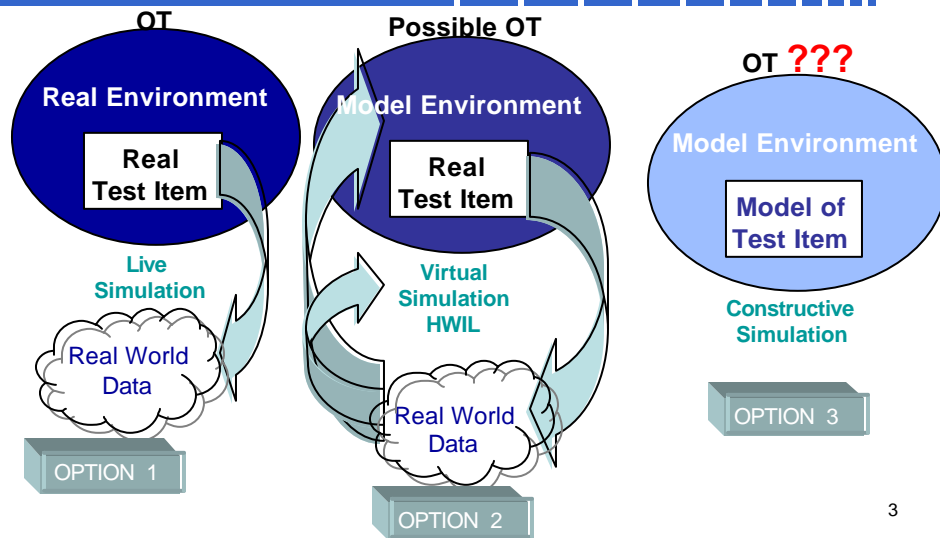
2

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3 Possible Options



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3



Validation: SME Vs. Test Data

- **Mature Programs**
 - Tend to use DT and OT test data for validation
- **Newer (less mature programs) use DT and SMEs for validation**

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4



Feedback of OT data into M&S?

- **Small reported percentage of programs perform***
- **Past examples**
 - T-Hawk
 - Standard Missile
 - CEC
 - RAM
- **Future Examples**
 - T-AKE (constellation of systems)
 - JSF
 - ESSM
 - CVNX

* Primarily surface weapon systems

5

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Why More Is Not Done

- **To Use M&S in OT and OT Data Used to Validate**
 - **Lack of Funding**
 - Who will pay for V&V?
 - **Timeline is too Short**
 - Takes too long to perform V&V WHY?
 - **Inadequate Coordination & Planning By Whom?**
 - Who will perform V&V?
 - Use existing documentation?

6

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CONCERNS

- **How do we know:**
 - we are modeling the right “thing”?
 - we are modeling enough of the right “thing”?
- **Without valid data prior to OT what alternative is there except SMEs?**
- **No effort being made to identify “validation data set” (METRICS !) during real world tests.**
- **No disciplined central control (NAVMSO? DMSO?).**

7