



VV&A for Virtual Testing in DoD

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VV&A for Virtual Testing in DoD

At least two levels of M&S confidence:

Challenging: Product design, pre-test prediction,
and test data supplementation

More challenging: VIRTUAL TESTING

(e.g., simulation where testing not feasible)

- Live Fire Test & Evaluation of:
 - ships and submarines
 - missile defense lethality
 - certain aircraft
- nuclear yield



VV&A for Virtual Testing in DoD

Simulation-Based Acquisition (SBA):

a concept for an acquisition process
that reduces the time, resources
and risk associated with acquisition,
and improves the quality of the fielded product

Challenges:

- Reconcile SBA with congressionally-mandated Test and Evaluation
- Assess prospects for “virtual testing”

Solution:

VV&A?

Problems:

- V&V methodology for Computational Mechanics under development
- DoD “Accreditation” is a management decision not necessarily based on V&V
- Myriad of testing and simulation uncertainties