



# ITEA Symposium 2020

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# “Test and Evaluation – Enabling Acquisition and Capability Development”

## A DOT&E Perspective

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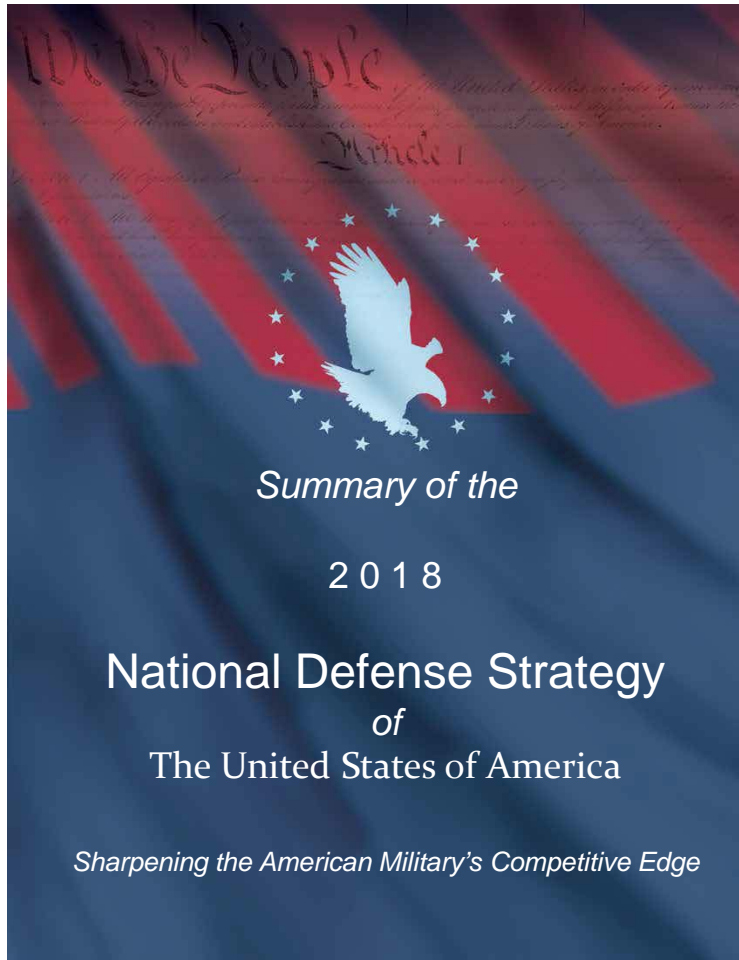
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# National Defense Strategy



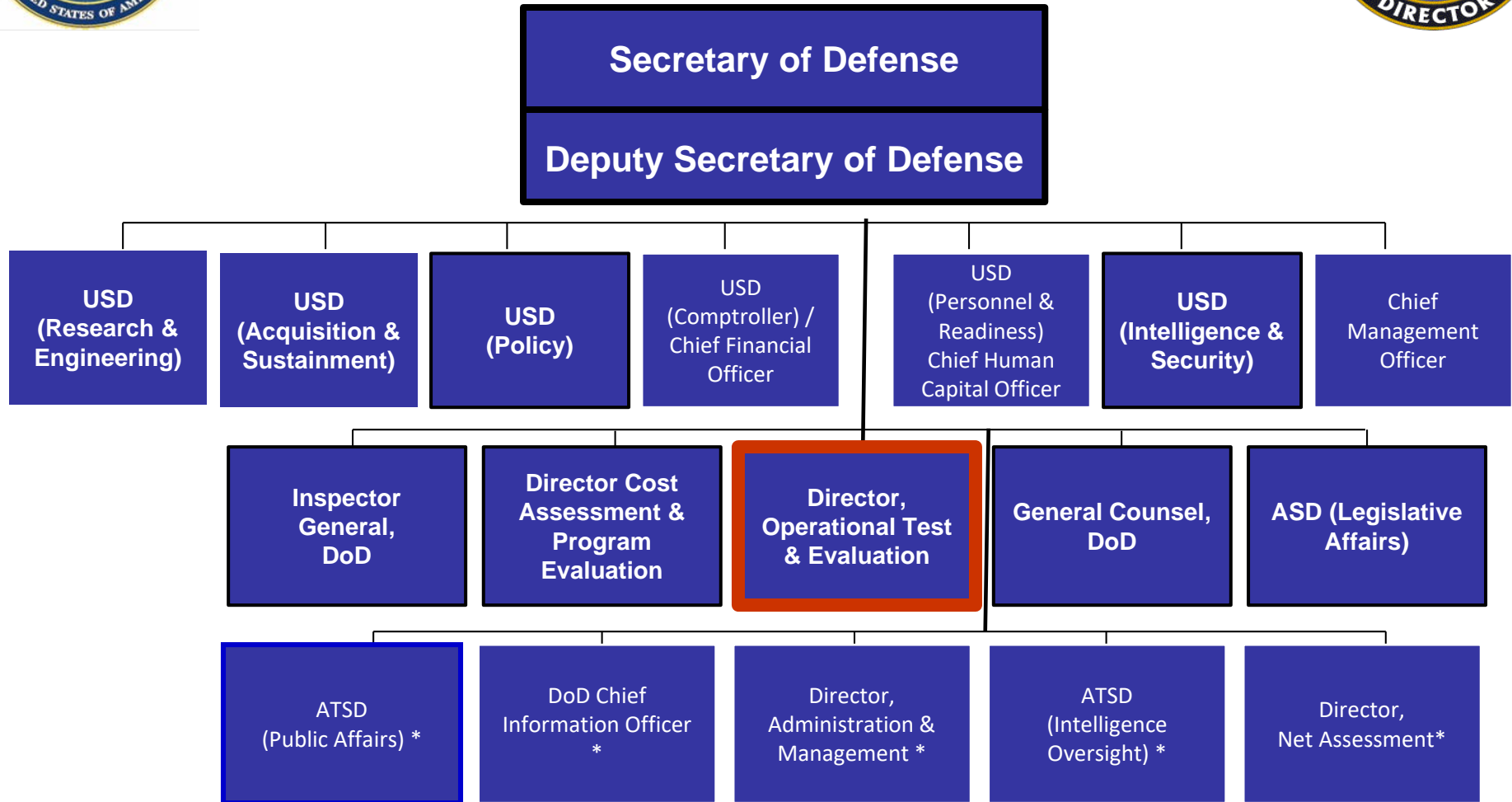
- Renewed focus on Strategic Competition
- Three Lines of Effort
  - Build a More Lethal Force
  - Strengthen Alliances and Attract new Partners
  - Reform the Department for Greater Performance and Accountability
- Modernize Key Capabilities
- Invest in New Technologies



# OSD Organization Structure



## Principal Staff Assistants



\* All positions shown are **Presidentially Appointed, Senate-confirmed (PAS)** except those with \* which are **SES** positions

Acronyms in to the Secretary of Defense; SES – Senior Executive Service; PAS – Presidentialy Appointed, Senate-Confirmed: OSD - Office of the Secretary of Defense; USD – Under Secretary of Defense; DoD – Department of Defense; ASD – Assistant Secretary of Defense; ATSD – Assistant to the Secretary of Defense



# Operational Test & Evaluation Responsibilities



- Congress created the Director of Operational Test and Evaluation in 1983. Its establishment, authority and governing direction are provided in Sections 139 and 2399 of Title 10 USC, and include the following provisions:
  - Appointed by the President and confirmed by the Senate.
  - Provide policy, guidance, and oversight for all OT&E for DoD.
  - Review and approve adequacy of OT&E strategies and plans.
  - Report annually to SecDef and Congress on OT&E and status/condition of OT&E resources and infrastructure.
  - Report on major acquisition programs fielded or procured before the full-rate production decision.
  - Review and make recommendations to SecDef on all budgetary and financial matters relating to OT&E, including operational test facilities, resources, and ranges.
  - Advise DOD officials responsible for developmental test and evaluation.
- FY 2002 NDAA and subsequent NDAAs
  - Report annually to the Secretary of Defense and Congress on Ballistic Missile Defense System testing and current capability.
- FY 2003 NDAA
  - Evaluation responsibility of fielded systems for cybersecurity and interoperability.
- FY 2007 NDAA
  - Report on the operational capabilities of the items or components that the Director considers appropriate based on the testing conducted of systems fielded before formal OT&E.



# Live Fire Test & Evaluation Responsibilities

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- Congress created the Live Fire Test and Evaluation (LFT&E) program in 1986. Its establishment, authority, and governing direction are provided in Section 2366, and Section 139 of Title 10 USC.
- DOT&E assumed responsibility for LFT&E in 1995 in compliance with the 1994 Federal Acquisition Streamlining Act.
- Title 10 Provisions:
  - Provide policy, guidance, oversight, and test plan approval for LFT&E.
  - Review and approve LFT&E strategies and plans; submit LFT&E Reports.
  - Report annually to Secretary of Defense and Congress on LFT&E.
  - Report on acquisition category I and II programs before the full-rate production decision.
- FY 2007 NDAA
  - Amend Title 10, Section 139: Added Responsibility to review and advise on operational and/or survivability testing of DoD Force Protection Equipment.
- FY 2009 NDAA
  - Amend Title 10, Section 2366: Expanded SecDef/DOT&E authority to designate any other programs for oversight for realistic survivability testing.



# Other DOT&E Responsibilities



- **1999 DOD Reorganization:**
  - Center for Countermeasures (CCM);
  - Threat Systems Office (TSO);
  - Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME);
  - Joint Aircraft Survivability Program (JASP);
  - Joint Live Fire program (JLF);
  - International Test and Evaluation (IT&E) Program;
  - Central Test and Evaluation Investment Program (CTEIP); and,
  - Major Range and Test Facility Base (MRTFB).
- **2002 DOT&E Initiative:**
  - Created the Test and Evaluation Science and Technology (T&E/S&T) Program.
- **2002 DOD Reorganization:**
  - Inherited Joint Test & Evaluation program—re-engineered and re-engineered again.
- **2005 DOD Reorganization:**
  - Transferred CTEIP and T&E/S&T to the Test Resource Management Center (TRMC) in accordance with Section 169 of Title 10 USC; transferred MRTFB oversight to TRMC.

Acronyms in slide: DOD – Department of Defense; DOT&E – Director, Operational Test and Evaluation; CCM – Center for Countermeasures; TSO – Threat Systems Office; JTTCG/ME – Joint Technical Coordinating Group for Munitions Effectiveness; JASP – Joint Aircraft Survivability Program; JLF – Joint Live Fire; IT&E – International Test and Evaluation; CTEIP – Central Test and Evaluation Investment Program; MRTFB – Major Range and Test Facility Base; T&E/S&T – Test and Evaluation Science and Technology; TRMC – Test Resource Management Center



# Director's Focus Areas

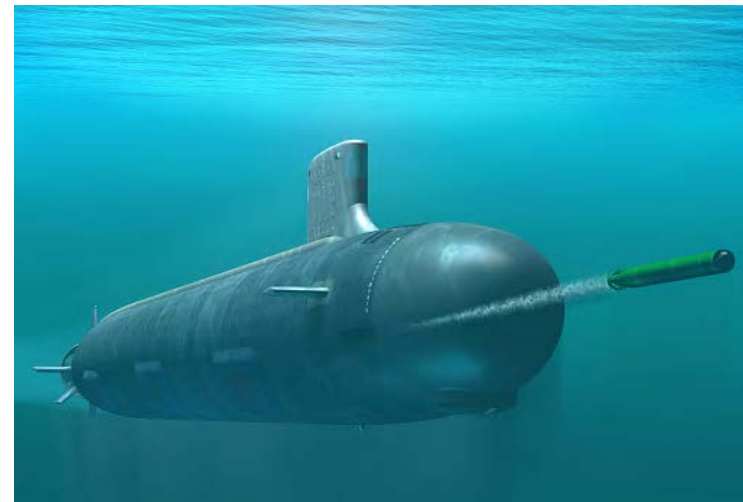
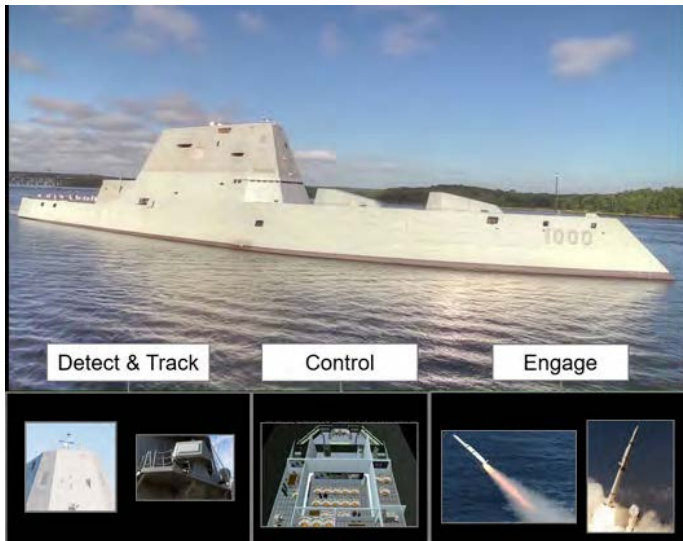
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- Securing Software and Cybersecurity
- Increasing Use of Prototyping and Experimentation
- Integrated Test and Evaluation**
- Improving Test Infrastructure**
- Improving the use of Modeling and Simulation
- Ensuring a Capable Workforce
- Ensuring DOT&E Relevance to the Department**
  - Shift Left
  - 5000 Series Revisions



# Integrated Test and Evaluation



Director's Top Priority





# Improving Test Infrastructure

## Test & Training Range Study

Can the ranges used for *operational test & evaluation* support DOT&E's mission to determine operational effectiveness, suitability, survivability and lethality of 21<sup>st</sup> century technologies against 21<sup>st</sup> century technologies?

- Physical Suitability: capacity/throughput, condition of infrastructure, security (cyber & physical), encroachment challenges (physical & spectrum)
- Technical Suitability: instrumentation, cyber and analytic tools/algorithms, M&S
- Operational Suitability: threat and threat countermeasure replication; capacity for advanced weapons; spectrum management; range cybersecurity

*Directed Energy*

*Hypersonics*

*Autonomous Systems & AI*

*6<sup>th</sup> Gen Aircraft*

*Space Systems & Threats*

*Advanced Active EW Capabilities*

*Advanced Acoustic and Non-acoustic Tech for Undersea Warfare*

**Our T&E Infrastructure Must Evolve**



# Shift Left



- ❑ NDS: Deliver more lethal and resilient capabilities at “speed of relevance.”
- ❑ How? Emphasize collaborative involvement of operational and live fire test communities throughout entire acquisition life cycle.
  1. OT teams and operators must be engaged in program from inception.
  2. OT involvement must provide continuous, timely feedback to program manager and other stakeholders; data collection and dissemination must be frequent and iterative.
  3. We must Integrate and combine data collection and testing among the contractor, developmental, and operational test teams.

Advancing T&E Efficiency and Efficacy



# DOT&E Policy Initiatives

5000 Series Update...and More



- Policy for Mid-Tier Acquisition
- Integrated DT/OT policy to support DoDI 5000.02 revision
- TEMP Guide for streamlined TEMPs
- Streamlined Test Plan Guide
- Policy for Collection of T&E Cost Data

Efficient Operational Testing to Acquire  
Effective and Suitable Weapons Systems



# Summary



- ❑ T&E community is a key enabler in acquisition and capability development
- ❑ DOT&E is adapting its policies to support the National Defense Strategy and help keep the acquisition process, and T&E itself, “relevant”
- ❑ Challenge for ITEA: Help us translate Industry best practices for testing into better DoD T&E

Remember “Speed of Relevance”



**QUESTIONS?**