



# **NDIA Automatic Testing Committee**

## **DoD ATS Liaison**

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# DoD Automatic Test Systems Executive Directorate (ATS ED)

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- DoD ATS Management Board met yesterday
  - **NxTest IPT** – Developing with Boeing a generic ATS “Nx OMS”
  - **Framework WG** – Planning Phase 3 demos for AUTOTESTCON 2010
    - Has been very successful in receiving special project R&D funds to advance their work
  - **TPS IPT** – Working a number of initiatives with the NxTest IPT and the Framework WG [Net Centric, Training, Handbooks, Std TPS language, etc]
    - Finalizing the update to MIL-PRF-32070
  - **JOLATS IPT** -- Will meet in May or June in Lakehurst, NJ to be briefed by the Navy’s Integrated Diagnostics & Automated Test Systems (IDATS) Team
    - Completion of a Technology Transition Initiative (TTI) project to develop an O-level net-centric **D**iagnostics **A**vionics **T**ester (DAT) to support the F/A-18 ATFLIR Pod
    - Award of a patent for the Smart Connector under development by the IDATS team to help break WRA ambiguity groups at the O-Level.
  - **IA IPT** – You will hear later what they are doing
  - Great deal of interest in the two NDIA ATC tasks

# DoD ATS ED Document Library

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- Purpose of the Documents:
  - Spread awareness of DoD ATS policy and goals
  - Implement ATS-related processes

[www.acq.osd.mil/ats](http://www.acq.osd.mil/ats)

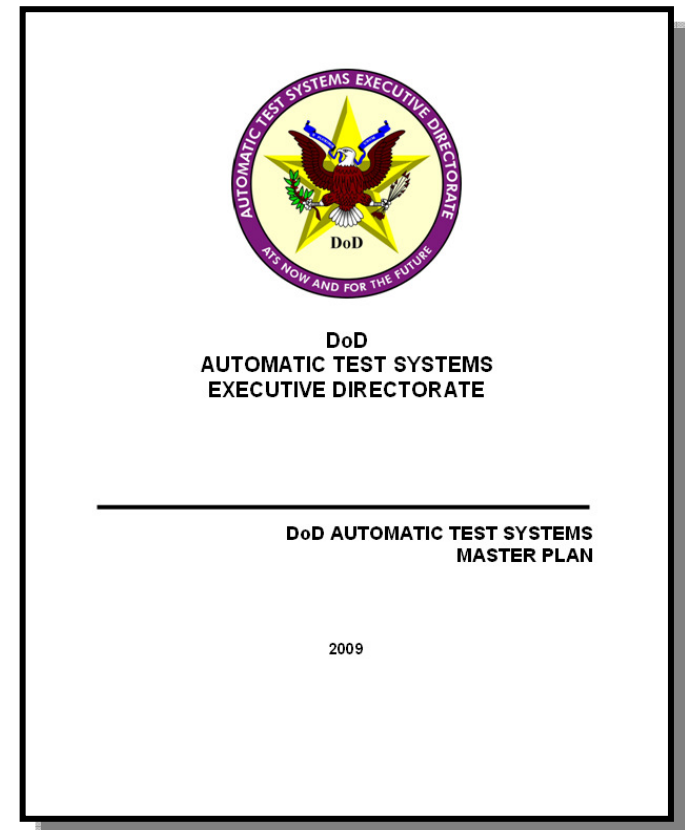
## ▶ ATS ED Document Library

- [Joint O-Level ATS IPT Charter](#)
- [2006 DoD ATS Program Plan](#)
- [2009 DoD ATS Master Plan](#)
- [2009 DoD ATS Selection Process Guide](#)
- [2004 DoD ATS Joint Services Memorandum of Agreement among SAEs](#)
- DoD ATS Framework-related documents:
  - [ATS ED Notice 6 \(Critical Interface Specifications\)](#)
  - [ATS Framework Tutorial CD-ROM](#)
  - [ATS Framework Status](#)
  - [ATS Framework Roadmap](#)
  - [Framework Definition Guide](#)
  - [DoD ATS Architecture Guide \(1.5 meg\)](#)
  - [Framework Objectives Matrix](#)
  - [Framework Objectives Matrix - Instructions](#)
  - [Simplified Framework Diagrams](#)
- [2004 DoD ATS Handbook](#)
- [TPS Development Spec \(MIL-PRF-32070\)](#)
- [Navy Generic OTPS RFP -](#)
- [Navy CASS Family OTPS Sustainment Process](#)
- [TPS Lessons Learned relative to CASS, IFTE and ARGCS](#)
- [2005 Navy ATE and TPS Acquisition Handbook](#)

# DoD ATS Master Plan

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- First published in 1997 to summarize overall plans
- Periodically re-published after coordination and update by the DoD ATS Processes IPT
  - Membership from ATS Leadership Offices in each Service
- The 2009 update was a general clean up



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# DoD ATS Master Plan

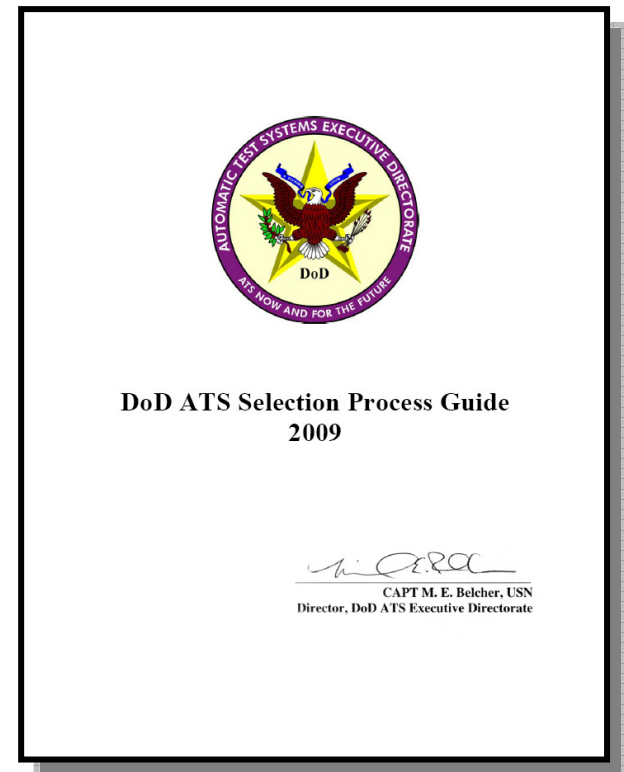
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- Provides a consolidated Master Plan for the implementation of DoD ATS acquisition policy and investment strategy
  - Contains the historical evolution of DoD ATS acquisition management policy,
  - Describes the Services' ATS management organizations – lists POCs
  - Describes the DoD ATS organization and identifies the major participants in the DoD ATS management structure
  - Defines the evolving DoD ATS modernization strategy
- Details the management processes involved in implementing the DoD ATS procurement policy
- Presents established criteria for designating DoD ATS families and for adding testers to current designated families
- Discusses the process for obtaining approval to acquire automatic testers that do not comply with DoD ATS policy
- Provides a roadmap for the Services' ATE

# DoD ATS Selection Process Guide

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- First published in 1998 to provide policy, processes and POCs.
- Periodically re-published after coordination and update by the DoD ATS Processes IPT
  - Membership from ATS Leadership Offices in each Service
- Most recent update – August 2009
  - Per DoDI 5000.02 of 2 December 2008, OSD policy focus now on approved DoD ATS Families
  - COTS no longer automatically OK
  - ATS selection process simplified and tools updated

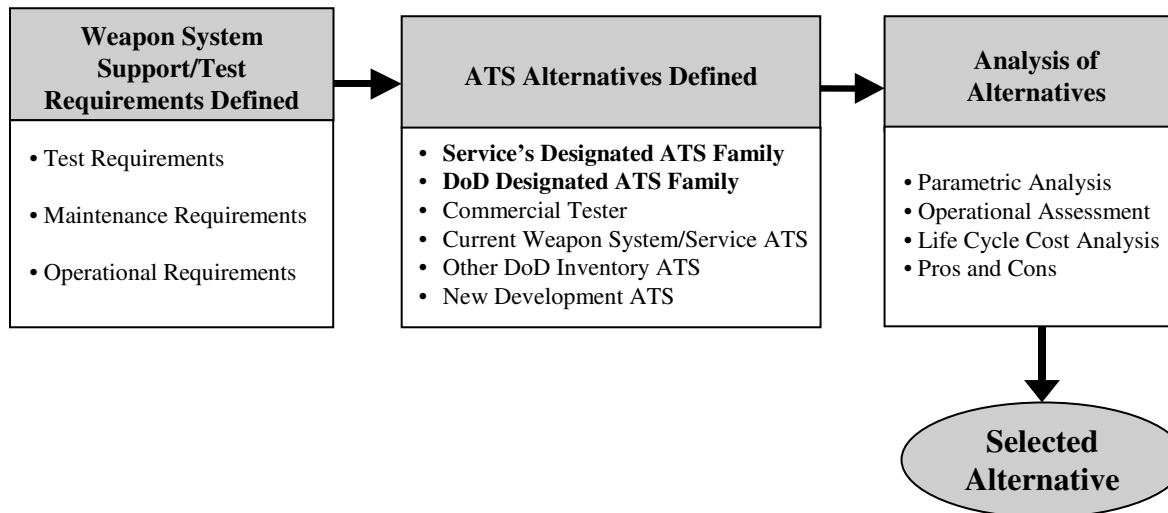


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# The ATS Selection Process

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- The updated ATS Selection Process



- Process flow:
  - Analysis is normally done by the platform program office
  - Reviewed by Service ATS Leadership Office and submitted to the AMB for review and vote
  - AMB makes recommendation to Milestone Decision Authority

# Analysis of Alternatives

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- Cost & Benefit Analysis
  - Analysis of parametric test requirements
    - Analytical comparison of Unit Under Test (UUT) parametric test requirements versus the test capability of candidate testers
  - Assessment of operational constraints
    - Operational requirements such as transportability (e.g., man-portable), environmental (e.g., excessive temperature, EMI or humidity), or deployability (e.g., rapidity of deployment)
  - Life cycle cost analysis
    - Must be able to show substantiating documentation to support all assumptions, sources of information, basis of estimates and calculations for the following:

<b>NON-RECURRING INVESTMENT COSTS</b>	<b>RECURRING SUSTAINING COSTS</b>
1.1 ATE Development	2.1 Manpower
1.2 ATE Production	2.2 Sustaining Training
1.3 TPS Development	2.3 ATE Support/Maintenance
1.4 TPS Production	2.4 ATE In-Service Engineering
1.5 Initial Training	
1.6 Interim Support	
1.7 Initial ATE Support/Maintenance	

# Cost Benefit Analysis (con't)

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- “Pros and Cons” Assessment to consider the following kinds of factors:
  - Ease of Use (the extent to which the ATS facilitates the operator’s ability to use the system)
  - TPS Transportability (the ability to rehost an existing Test program Set on a DoD Standard ATE)
  - Upgradeability or the ability of a test system to be improved incrementally through software and or hardware additions to expand support capability or performance
  - Age of Alternative ATS
  - Vertical Commonality (the extent to which the ATE will be used to support the weapon system at field, depot, and factory levels such that the non-recurring investment in the ATS can be minimized)
  - Horizontal Commonality (the extent to which the ATE is used by other weapon systems either within a Service or DoD)
  - Ease of TPS Development (the extent to which the engineering effort associated with TPS development is facilitated)
  - Adaptability (the ability of a test set to be reconfigured to test a UUT not previously tested on that system)

# Bottom Line

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- DoD ATS Master Plan and DoD ATS Selection Process Guide are published to provide guidance to:
  - achieve DoD's ATS policy goals: minimize life cycle cost and promote joint service interoperability
  - force a process to provide awareness
  - provides flexibility to the Services and to the AMB to help make smart decisions

# Accomplishments

Then



Now

	USN/ USMC (Air)	USAF	USMC (Ground)	Army
O-Level	JSECST (EW)		EMSS	
I-Level	CASS Family		VIPERT	IFE
D-Level		VDATS		
Factory	LM STAR commercial member			

- ATS policy is in place and is being followed in all the Services
- Services are working together to leverage each others' investments
- Our systems internally are beginning to look alike
- We are reducing support costs
- Technology insertion into existing ATE is easier and less costly
- And, someday we may achieve intra-service operability