

MANNED FLIGHT SIMULATOR FACILITY AT PATUXENT RIVER

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C-17 FLARE EVALUATION (GERMANY)

# "Today's and Tomorrow's T&E Acquisition Workforce"

NDIA - 25th Annual T&E
National Conference
"New Administration, New
Opportunities"

March 4, 2009

### Ms. Darlene Mosser-Kerner

Assistant DD, DT&E Policy and Guidance Engineering & Test Policy & Guidance OUSD(AT&L)/Systems & Software Engineering



### "Today's and Tomorrow's T&E Acquisition Workforce"

- One of seven mission critical acquisition career fields
- Workforce size, composition, education, retention, recruitment, and assignment is critical to ensuring accurate and complete support to acquisition decisionmakers
- Workforce has to be resourced to meet the challenges of more complex and interdependent systems
- Potential reduced DoD funding will impact the T&E support efforts and require planning for and obtaining multiple use T&E data early and often through product/system development



T&E Community must be flexible and adaptable



### T&E Mission Challenge

**DEVELOPMENTAL TEST & EVALUATION** 

 319 Programs on the CY 09 OSD T&E Oversight List







224 of the Programs are under DT&E Oversight



### **DEVELOPMENTAL TEST & EVALUATION**







# WHAT DOES TODAY'S T&E ACQUISITION WORKFORCE LOOK LIKE







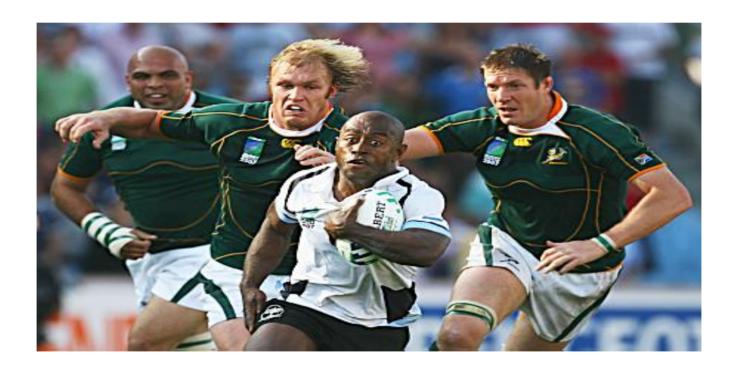
# T&E IS A TEAM PLAYER

**DEVELOPMENTAL TEST & EVALUATION** 

PROGRAM SPONSOR

BUDGET

**SCHEDULE** 



T&E FEELS LIKE EVERYONE IS AFTER THEM WHEN THEY HAVE THE BALL



### AT&L Acquisition Workforce

### **DEVELOPMENTAL TEST & EVALUATION**

### **Human Capital Fact Sheet**

Defense Acquisition Workforce Acquisition, Technology, and Logistics <sup>1</sup>	Civilian (Civ) AT&L Workforce	Military (Mil) AT&L Workforce	Total AT&L Workforce (Civ + Mil)
Size & Composition			
FY08 Workforce Size	110,934	14,945	125,879
FY13 Planned/Budgeted Size	112,949	15,899	128,848
Change in size 2005-2008	-7%	-3%	-7%
Civilian/Military Composition	88%	12%	_
Educational Attainment			
Bachelor's Degree or Higher	77%	81%	77%
Graduate Degree	26%	43%	28%
Certification (Cert)			
Level I or Higher	73%	61%	72%
Level II or Higher	63%	41%	61%
Level III	38%	19%	36%
Position Cert Requirement Met	62%	45%	60%
Planning Considerations			
% Baby Boomer/Traditional Generations	68%	17%	62%
Average Age	46.7	36.3	45.5
		-	-
Average Years of Service	17.8	13.3	17.3



### T&E Workforce as part of the AT&L Workforce

	man Capital		Total	Defense
Defense Acquisition Workforce Test and Evaluation <sup>1</sup>	Civilian (Civ) T&E Workforce	Military (Mil) T&E Workforce	T&E Workforce (Civ + Mil)	Acquisition Workforce
Size & Composition				
FY08 Workforce Size	5,608	1,812	7.420	125.879
FY13 Planned/Budgeted Size	5,630	1,834	7,464	127,539
Change in size 2005-2008	-4%	14%	0%	-7%
Civilian/Military Composition	76%	24%	-	88% / 12%
Educational Attainment				
Bachelor's Degree or Higher	95%	91%	94%	77%
Graduate Degree	30%	43%	33%	28%
Certification (Cert)				
_evel I or Higher	76%	49%	69%	72%
_evel II or Higher	68%	24%	57%	61%
_evel III	52%	8%	41%	36%
Position Cert Requirement Met	67%	29%	58%	60%
Planning Considerations				
% Baby Boomer/Traditional Generations	58%	10%	46%	62%
Average Age	43.8	34.6	41.5	45.7
		-	-	
Average Years of Service	15.4	11.5	14.5	17.3
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		_	_	_
		_	_	_



# AT&L Headcount by Component (As of End of FY2008)

Count and Composition (FY08) Acquisition, Technology, and Logistics						
Service/Agency	FY08	FY08 (%)	Civ	Mil	Civ (%)	Mil (%)
Army	40,269	32.0%	38,689	1,580	96.1%	3.9%
Navy	43,066	34.2%	38,579	4,487	89.6%	10.4%
Air Force	24,827	19.7%	16,067	8,760	64.7%	35.3%
DCMA	7,334	5.8%	7,334	0	100.0%	0.0%
DLA	3,927	3.1%	3,927	0	100.0%	0.0%
Other Defense	6,456	5.1%	6,338	118	98.2%	1.8%
Total	125,879	100.0%	110,934	14,945	88.1%	11.9%



# **T&E Count & Composition**

Count and Composition (FY08)  Test and Evaluation						
Service/Agency	FY08	FY08 (%)	Civ	Mil	Civ (%)	Mil (%)
Army	2,135	28.8%	2,117	18	99.2%	0.8%
Navy	2,476	33.4%	2,034	442	82.1%	17.9%
Air Force	2,622	35.3%	1,276	1,346	48.7%	51.3%
DCMA	31	0.4%	31	0	100.0%	0.0%
DLA	1	0.0%	1	0	100.0%	0.0%
Other Defense	155	2.1%	149	6	96.1%	3.9%
Total	7,420	100.0%	5,608	1,812	75.6%	24.4%



# AT&L Career Field Count & Composition

		Count an	d Composition			
		Acquisition, Tec	hnology, and Logis	tics		
Service/Agency	FY08	FY08 (%)	Civ	Mil	Civ (%)	Mil (%)
Auditing	3,638	2.9%	3,638	0	100.0%	0.0%
BCEFM	7,085	5.6%	6,840	245	96.5%	3.5%
CON	25,680	20.4%	21,773	3,907	84.8%	15.2%
FE	4,920	3.9%	4,919	1	100.0%	0.0%
Property	451	0.4%	451	0	100.0%	0.0%
IT	3,934	3.1%	3,579	355	91.0%	9.0%
LCL	13,361	10.6%	12,415	946	92.9%	7.1%
PQM	9,138	7.3%	8,445	693	92.4%	7.6%
PM	12,781	10.2%	8,070	4,711	63.1%	36.9%
Purchasing	1,196	1.0%	1,184	12	99.0%	1.0%
SPRDE (ST)	480	0.4%	416	64	86.7%	13.3%
SPRDE (SE)	34,501	27.4%	32,385	2,116	93.9%	6.1%
SPRDE (PSE)	36	0.0%	36	0	100.0%	0.0%
T&E	7,420	5.9%	5,608	1,812	75.6%	24.4%
Other	129	0.1%	129	0	100.0%	0.0%
Not Listed	897	0.7%	817	80	91.1%	8.9%
Unknown	232	0.2%	229	3	98.7%	1.3%
Total	125,879	100.0%	110,934	14,945	88.1%	11.9%



### AT&L Acquisition Workforce Career Fields

		Count and Composition	on				
	Acqui	sition, Technology, an	d Logistics				
Service/Agency 2005 2006 2007 2008 2008 (%)							
Auditing	3,536	3,486	2,852	3,638	2.9%		
BCEFM	8,119	7,747	7,387	7,085	5.6%		
CON	26,025	27,748	26,038	25,680	20.4%		
FE	8,356	3,927	4,394	4,920	3.9%		
Property	571	530	481	451	0.4%		
IT	5,472	4,843	4,423	3,934	3.1%		
LCL	12,493	12,332	12,604	13,361	10.6%		
PQM	9,397	8,966	8,364	9,138	7.3%		
РМ	12,284	12,775	12,427	12,781	10.2%		
Purchasing	2,438	1,680	1,170	1,196	1.0%		
SPRDE (ST)	314	291	483	480	0.4%		
SPRDE (SE)	34,752	35,142	34,710	34,501	27.4%		
SPRDE (PSE)	0	0	0	36	0.0%		
T&E	7,384	7,280	7,419	7,420	5.9%		
Other	237	465	98	129	0.1%		
Not Listed	320	811	3,070	897	0.7%		
Unknown	2,672	219	112	232	0.2%		
Total	134,370	128,242	126,032	125,879	100.0%		



# **T&E Occupational Codes**

### **DEVELOPMENTAL TEST & EVALUATION**

Top 5 OCC Series  Test and Evaluation (Civilian)					
OCC Series - Description	Total	Total (%)	Cumulative (%)		
0855 - Engineer, Electronics	1,644	22.2%	22.2%		
0801 - Engineer, General	1,110	15.0%	37.1%		
0830 - Engineer, Mechanical	662	8.9%	46.0%		
0861 - Engineer, Aerospace	394	5.3%	51.3%		
1515 - Operations Research Analyst	389	5.2%	56.6%		

#Occ Series in Career Field = 55



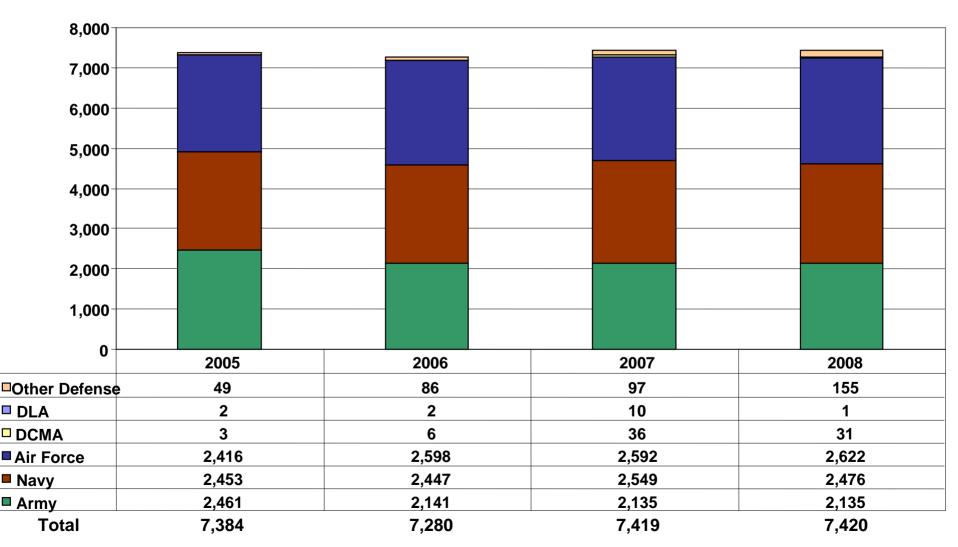
## AT&L T&E Headcount by Component

(As of End of FY2008)

Count and Composition (FY08)			
Test and Evaluation			
Service/Agency	Count		
Army	2135		
Navy	2360		
Marine Corps	116		
Air Force	2622		
Defense Contract Management Agency (DD63)	31		
Defense Information Systems Agency (DD04)	37		
Defense Logistics Agency (DD07)	1		
Defense Threat Reduction Agency (DD61)	11		
Dept of Defense Test Resource Mgmt Center (DD68)	6		
Missle Defense Agency (DD27)	86		
National Defense University (DD69)	1		
Office of Inspector General (DD26)	1		
Organization of the Joint Chiefs of Staff (DD02)/Defense System Management College	6		
Under-Secretary of Defense/AT&L (OUSD/AT&L)	7		
Total	7420		



## **Count and Composition Test and Evaluation**





# T&E acquisition work force composition by generations

**DEVELOPMENTAL TEST & EVALUATION** 

Generation	National Workforce*		DoD Workforce (Civilian)**		Defense Acquisition Workforce (Civilian)***		Defense Acquisition T&E Workforce (Civilian)****	
	Workforce (millions)	% Workforce	Workforce	% Workforce	Workforce	% Workforce	Workforce	% Workforce
Traditional								
(born before 1946)	7.4	4.8%	45,625	6.7%	6,624	5.9%	237	4.2%
Baby Boomers			·		·			
(1946-64)	56.7	36.5%	438,971	64.5%	74,887	67.3%	3,327	59.3%
Generation X								
(1965-76)	41.8	26.9%	132,948	19.5%	18,544	16.7%	1,127	20.1%
Generation Y								
(1977-1989)	42.8	27.5%	62,676	9.2%	11,286	10.1%	921	16.4%
Millenium								
(1990-present)	6.6	4.3%	153	0.0%	0	0.0%	0	0%

Notes:

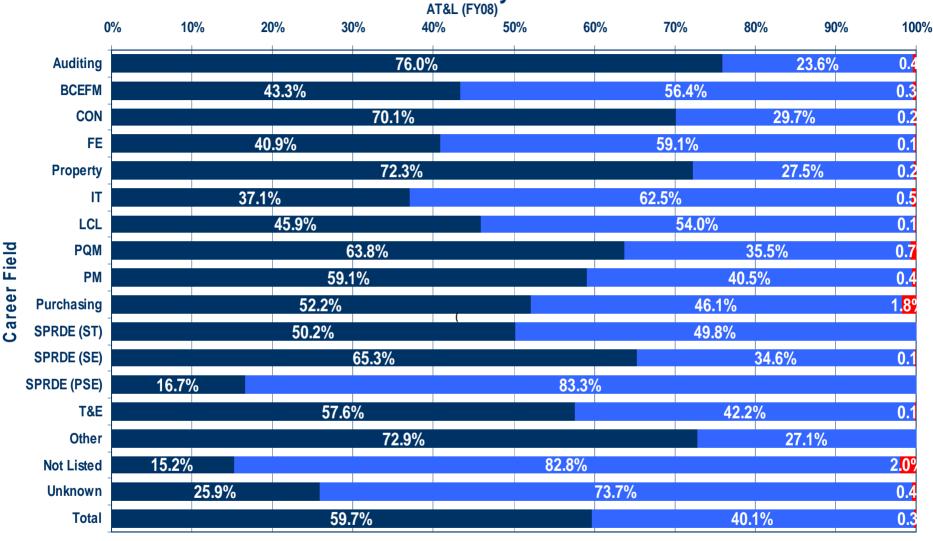
<sup>\*</sup>Source: Projected 2010 workforce size - DAU analysis using Bureau of Labor Statistics workforce participation data (Dec 2007) & US Census Bureau population data (2004) (best available data from agency web sites as of July 2008)

<sup>\*\*</sup>Source: OSD P&R Report: DoD Civilian Workforce Statistics/DoD Demographics/May2006 Edition

<sup>\*\*\*</sup>Source: AT&L Datamart FY07 AT&L Workforce Count/AT&L workforce data; does not contain 456 files with null for age

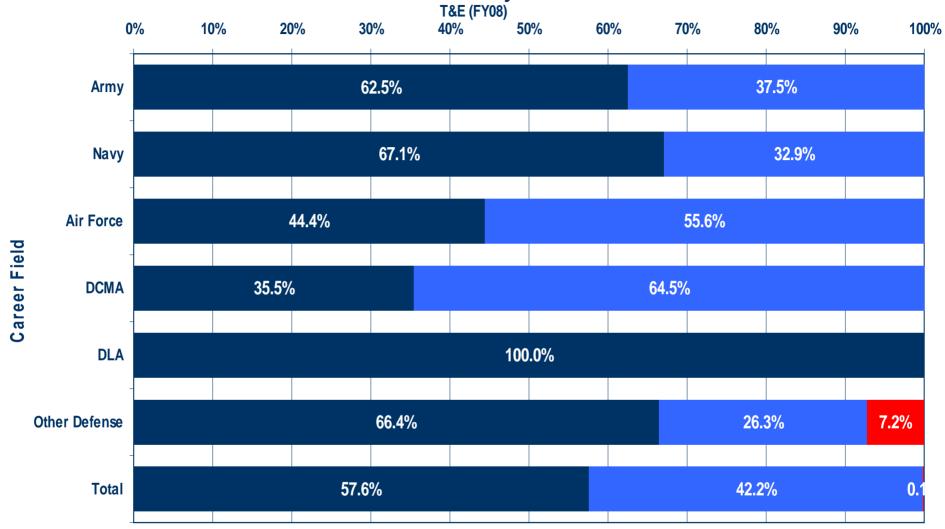
<sup>\*\*\*\*</sup>Source: AT&L Datamart FY07 AT&L Workforce Count/BCEFM workforce data; does not contain 12 files with null for age

### **Certification Rates by Career Field**



- Meets or exceeds position certification requirements
- Position certification requirements Not Met\*
- Unknown

**Certification Rates by Career Field** 



- Meets or exceeds position certification requirements
- Position certification requirements Not Met\*
- Unknown

These workforce members are in a "Grace Period" and in compliance with DAWIA policy

Source: AT&L Workforce Datamart

<sup>\*</sup>The "Not Met" category includes workforce members who have been in their positions for less than 24 months.



### **DEVELOPMENTAL TEST & EVALUATION**



# WHAT WILL TOMORROW'S T&E ACQUISITION WORKFORCE LOOK LIKE







# Tomorrow's T&E Challenges

- DoDI 5000.02 Changes affecting T&E mission:
  - ➤ Materiel Development Decision Review
  - Competitive Prototyping
  - ➤ More Frequent Program Reviews
  - ➤ Configuration Steering Boards
  - ➤Integrated DT and OT



# SEC. 852. DoD ACQUISITION WORK FORCE DEVELOPMENT FUND NDAA FY 2008

DEVELOPMENTAL TEST & EVALUATION

"...(a) Establishment- The Secretary of Defense shall establish a fund to be known as the `Department of Defense Acquisition Workforce Fund' (in this section referred to as the `Fund') to provide funds, in addition to other funds that may be available, for the recruitment, training, and retention of acquisition personnel of the Department of Defense."



# SEC. 852. DoD ACQUISITION WORK FORCE DEVELOPMENT FUND NDAA FY 2008

- Eleven Initiative areas to focus fund allocation for training, retention, and recruitment
- Components and Agencies to identify specific items for each Initiative for its acquisition career fields

1	
1	Training Enhancement & Capacity Expansion
2	Comprehensive Acquisition Workforce and Student Information System
3	Competency Management & Assessments
4	Workforce Planning - Pilot Program
5	Retention and Recognition Incentives
6	Career Broadening and Academic Programs
7	Intern Programs
8	Recruiting Incentives
9	Outreach Programs
10	Journeyman Hiring
11	Highly Qualified Experts (HQE's)

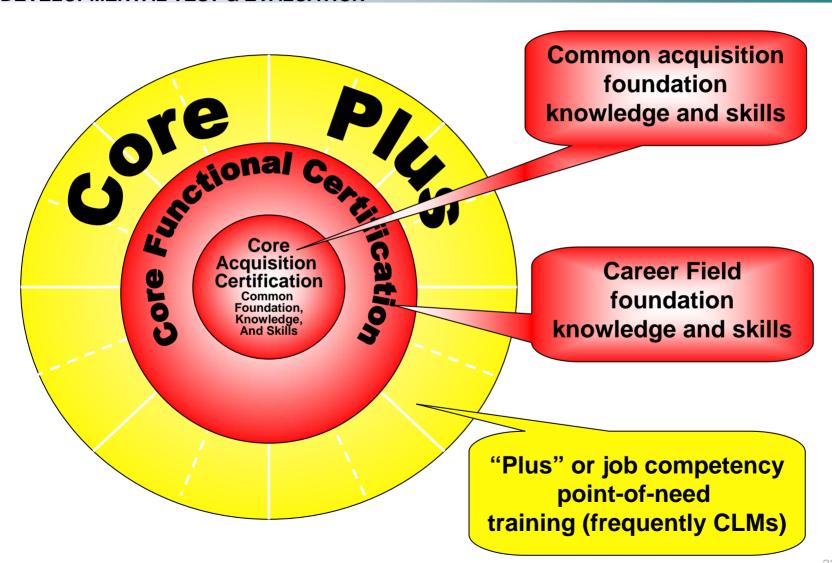


### Tomorrow's T&E Workforce

- Size About the same total number
- Composition Divided along the same Component/Agency Lines
- Age Younger
- Retention Current economy will slowdown retirements
- Competency More Focused



# Education & Training





# Core Plus Guide

### **DEVELOPMENTAL TEST & EVALUATION**

Type of Assignment

Core Certification Standards

Unique Position Training Standards

Core Plus Development Guide

**Footnotes** 

#### Program Management (Advanced) Level III

Type of Assignment	Representative Activities
Weapon Systems	IPT lead & oversight, pre-award contract matters, financial management, risk management, systems engineering, total ownership cost, contract coordination, & communications. As appropriate, coordination on net-centric technology as a key enabler that allows a C2 capability to operate in the joint operational environment and force protection with a minimally sized forward footprint: or oversight and/or management of significant segments of a DoD Space MDAP.
Services	DoD professional, admin & mgmt support service contracting as relates to developing clearly stated & actionable requirements packages, coordination with local Procurement Contracting Officers and ensuring opportunities for socio-economic business concerns. Performs all Acquisition Strategy Requirements actions noted in Attachment 1 to AT&L Services Memo of 10/2/06.
Business Mgt Systems/IT	Transformation integration, planning and performance, and investment management as applies to the acquisition community, program office(s) & system(s) under development.
International Acquisition	Groundwork for future cooperation during pre-system acquisition or participated in successful cooperative development or production partnerships during system acquisition with allied & friendly foreign nation. Participation in successful cooperative development or production partnership during pre-system acquisition or system acquisition with allied & friendly foreign nations. Other type of assignment also applies.

	Core Certification Standards
Acquisition Training <sup>2</sup>	None Required
Functional	PMT 352A: Program Management Office Course     PMT 352B: Program Management Office Course CR

SYS 202: Intermediate System Planning, Research, Development, & Engineering (Required for certification on 4/1/08 Education Formal education not required for certification.

4 years acquisition experience with at least:

Experience

- 2 years in a program office/similar organization (dedicated matrix support to a PM, PEO, DCMA Program Integrator or Supervisors of Shipbuilding)
- 1 year in a program management position with cost, schedule, and performance responsibilities

#### Unique Position Training Standards 3

PEOs: PM/DPM of MDAP/MAIS: PM/DPM PMT 401: Program Mgr's Course CR and PMT 402: Executive Program Mgr's Course CR; of Significant Non Major Programs OR PMT 302: Advanced PM Course and PMT 402: Executive Program Mgr's Course CR

Core Plus Development Guide 4	Type Assignment			
Training <sup>2</sup>	Weapon Systems	Services	Business Mgmt, IT	International
ACQ 452: Forging Stakeholder Relationships CR	Х	Х	Х	
BCF 206: Cost Risk Analysis CR	X	Х	X	
BCF 207: Economic Analysis CR	X	Х	X	
BCF 209: Acquisition Reporting for Major Defense Acquisition Programs CR	X		X	
IRM 201: Intermediate Information Systems Acquisition CR	X	Х	X	
LOG 200: Intermediate Acquisition Logistics, Part A	X	Х		
LOG 204: Configuration Management	X		X	
LOG 235: Performance Based Logistics, Part A	X	Х		
LOG 236: Performance Based Logistics, Part B CR	Х	X		
PMT 304: Advanced International Management Workshop CR				Х
PMT 403: Program Manager's Skills (ACAT III only) CR	X	Х	X	
PQM 201A: Intermediate Production, Quality & Manufacturing, Part A	X			
SAM 301: Advanced Software Management CR	X	Х	X	
SYS 203: Intermediate SPRDE Part B CR	X			
TST 202: Intermediate Test & Evaluation CR	Х		•	
CLC 032: Understanding & Utilizing Performance Based Payments	Х	Х		
CLE 008: Six Sigma; Concepts and Processes	Х	Х	Х	
CLL 201: Diminishing Mfg Sources & Materials Shortages Fundamentals	Y	Y	Y	

At least 24 semester hours from among accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing quantitative methods, and organization and management (DANTES equivalency may be substituted)

- 2 additional years of acquisition experience
- 1 These Standards list the training, education and experience required for certification at this level.
- A "CR" following a course title indicates the course is delivered as resident based instruction.
- Workforce members assigned to the position(s) identified must meet the training standard(s) identified within six (6) months of assignment.
- When preparing your IDP, you and your supervisor should consider the training, education and experience listed in this and the lower level Core Plus Developmental Guides if not already completed.



# Summary

### **DEVELOPMENTAL TEST & EVALUATION**







### In Summary

The T&E Acquisition Work Force has and will continue to adjust and learn new skills, as necessary, to meet the product and system acquisition challenges, and provide accurate and complete performance and risk assessments decision-makers require

# Ms. Darlene Mosser-Kerner

703-697-3406

**DSN: 227** 

Darlene.mosser-kerner@osd.mil

Visit Our Website

http://www.acq.osd.mil/sse/dte/

# **BACK-UP CHARTS**



- Line Item 1: Training Enhancement and Capacity Expansion.
- Initiatives in this line item will provide additional throughput, curriculum development and other learning support to meet previously unmet demand. There is a gap between the Components' demand for certification and assignment-specific training and the capacity of the Defense Acquisition University to provide training. In addition, the Components have identified unique Component requirements that will be funded.
- Line Item 2: Comprehensive Acquisition Workforce and Student Information System.
- Initiatives in this line item will provide a single clearinghouse for workforce data, the statutorily mandated workforce management information system, and a commercial best-in-class student information system. The objective is to drive standardization, integrate systems, build transparency, and improve data quality, and ensure a comprehensive workforce analysis capability. This will enable strategic workforce planning and decision making capability. This line item will ensure current, accurate and transparent information is available on the Defense acquisition workforce for acquisition leaders.



- Line Item 3: Competency Management and Assessments.
- Initiatives in this line item will provide a standardized competency management program, validated competency models for all career fields, tools to produce individual development plans, the ability to determine training needs, and support for human capital planning. The Department is committed to an enterprise competency management and workforce assessment capability. This will improve the Department's ability to appropriately identify workforce skill gaps, requirements, and needed learning assets.
- Line Item 4: Workforce Planning Pilot Program.
- This Air Force pilot initiative is being worked with OPM to develop a human capital architecture that includes interview tools, occupational questionnaires, and job previews. If successful, it has the potential to enable acquisition centers to deploy competency-based tools and create organization specific recruitment and retention strategies. A key outcome will be tailored succession plans that will help acquisition organizations transition from their current state to their forecasted "to be" mission.



- Line Item 5: Retention and Recognition Incentives.
- Initiatives in this line item will retain high performers with critical skills and in key leadership positions and improve retention in positions that are in short supply through incentives and programs designed to make a career in DoD acquisition more attractive. The forecasted loss of corporate knowledge and expertise has the potential to significantly impact the ability of the acquisition workforce to carry out its mission of achieving successful acquisition outcomes.
- Line Item 6: Career Broadening and Academic Programs.
- Initiatives in this line item will provide developmental assignments, rotations, programs at academic institutions, training outside one's current specialization, and opportunities to acquire joint and interagency experience. The legacy career structure for civilian employees has emphasized depth over breadth, which results in a "silo" framework that inhibits the broader perspective needed to manage complex acquisition programs. A more attractive career structure, which will improve retention in the acquisition workforce, is one that provides breadth of experience, training and education.



- Line Item 7: Intern Programs.
- Initiatives in this line item will: 1) recruit, hire and develop interns to be better qualified at the point of migration into the acquisition workforce; and 2) augment the current workforce in numbers above the currently programmed levels. Seventy-three percent of the current Defense acquisition workforce are in the Baby Boomer and Traditional generations and 19 percent (20,000 civilians) are eligible for full retirement. At the same time, there are skill and competency areas within the current workforce that have too few people and need to be built up.
- Line Item 8: Recruiting Incentives.
- Initiatives in this line item seek to attract qualified applicants in such critically needed areas as Science, Technology, Engineering, and Mathematics (STEM), minority applicants, and recent college graduates. This complements other hiring initiatives by enabling DoD to more effectively hire high demand talent in an increasingly competitive labor market. Hiring incentives include first-duty-station PCS moves, hiring bonuses, student-loan reimbursement, tuition assistance, scholarships, and SCEP (formerly Co-op) programs.



- Line Item 9: Outreach Programs.
- Initiatives in this line item will deliberately market the DoD acquisition community as an employer of choice. It is a DoD goal to maintain a diverse, capable, and ready civilian and military workforce, which this line item will support. According to the Gallup poll conducted for the Council for Excellence in Government, DoD is one of the most attractive brand names in the federal government. However, the acquisition community needs to be more active in reaching out to prospective employees. A preferred approach is to leverage federal, DoD P&R, and Component programs to improve the supply of quality candidates.
- Line Item 10: Journeyman Hiring Programs.
- Initiatives in this line item will target experienced employees, such as retiring military and seasoned industry candidates. Workforce analysis indicates a need for mid-career hires to complement our intern initiatives and to ensure strong bench strength to fill senior and executive positions as the Baby Boomer and Traditional generations depart the workplace.
- Line Item 11: Hiring Expert Knowledge Highly Qualified Experts (HQE).
- Initiatives in this line item are to hire temporary employees for up to five years. In many cases, there is a need for people with special expertise who are already at a senior level and are recognized experts in an acquisition field or related discipline. HQEs are hired under a special hiring authority granted by Congress. This line item complements other hiring initiatives.