**Title:** Breaking the Ice - Test and Training Integration: The New Partnership

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**Abstract:**

World events in recent years have precipitated a string of major changes within the DOD. The end of the Cold War caused us to rethink and revise our defense strategy which in turn led to major DOD downsizing. Our armed forces were reduced, military bases closed and or realigned, and budgets were significantly cut. The ramifications of these changes have already and are continuing to be felt throughout DOD. The coined phrase, "doing more with less" is becoming the reality rather than just a notion. The loss of resources (funding, personnel, and facilities) is having an adverse impact on both the T&E and training communities across the services. As the DOD budget shrinks so does the workload of the acquisition infrastructure however, the need to maintain these unique capabilities does not. Similar problems plague the operational forces as well. With the reduced operating funds, the operational units have fewer dollars to do business as usual. For instance the Fleet does not have the funding to steam to the traditional training locations as in the past. As the trend continues to downsize and consolidate the military, it becomes increasingly important to find more cost effective, innovative, and resourceful ways to maintain a strong national defense without compromise to readiness.

**Subject Terms:**
- DOD, T&E, Cold War

**Security Classification:**
- UNCLASSIFIED

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"BREAKING THE ICE"
Test and Training Integration: The New Partnership
Larry Hill, Atlantic Test Ranges
Naval Air Warfare Center Aircraft Division, Patuxent River, MD

ABSTRACT

World events in recent years have precipitated a string of major changes within the Department of Defense (DoD). The end of the Cold War caused us to re-think and revise our defense strategy which in turn led to major DoD downsizing. Our armed forces were reduced, military bases closed and or re-aligned, and budgets were significantly cut. The ramifications of these changes have already and are continuing to be felt throughout DoD. The coined phrase, "doing more with less" is becoming the reality rather than just a notion. The loss of resources (funding, personnel, and facilities) is having an adverse impact on both the Test & Evaluation (T&E) and training communities across the services. As the DoD budget shrinks so does the workload of the acquisition infrastructure however, the need to maintain these unique capabilities does not. Similar problems plague the operational forces as well. With the reduced operating funds the operational units have fewer dollars to do business as usual. For instance the Fleet does not have the funding to steam to the traditional training locations as in the past. As the trend continues to downsize and consolidate the military, it becomes increasingly important to find more cost effective, innovative and resourceful ways to maintain a strong national defense without compromise to readiness.

The concept of merging the T&E and training requirements is not a new one, but the impact of recent changes has forced the issue. The defense build up era of the 80's, where resources were once plentiful, has passed. One option to consider in resolving this issue is to maximize the utilization of our T&E resources by providing training support to the operational forces. The T&E Group of the Naval Air Warfare Center Aircraft Division (NAWCAD) Patuxent River has recognized the need and the benefits to both the T&E and the training communities and has taken a very aggressive role in promoting "Test and Training Integration: The New Partnership." Since June of 1994, NAWCAD has been working closely with several major commands of the Atlantic Fleet (NAVAIRLANT, CINCLANTFLT, SECOND FLEET) to explore and develop ways in which the T&E facilities and resources of Pax River may be used to support Fleet and Joint Task Force training requirements. The initiative was received with great enthusiasm by the Fleet to the point that COMNAVAIRLANT tasked Carrier Airwing Eight to assess the capabilities and resources of Pax River and how they may be used to support the various levels of training (unit level through large scale joint task force type exercises).

This paper will present a chronological report of the initiatives to date to include the lessons learned, the findings of Carrier Air Wing Eight's (CVW-8) assessment of our capabilities and their application to Fleet training, our continuing efforts, and the potential for future opportunities. It will demonstrate NAWCAD's efforts in "breaking the ice" between the once divided communities and the beginning of a new found partnership.
TEST AND TRAINING INTEGRATION:
THE NEW PARTNERSHIP

“BREAKING THE ICE”

The New Partnership

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NAVAIRWARCENACDIV
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Historically

- Atlantic Fleet Training Ranges and East Coast Test Ranges have operated autonomously with few exceptions.
- NAWC-AD has routinely supported Fleet Training:
  - Direct Support:
    - Target Hulk Preparation/Instrumentation/Operation
    - Vandal Launches (Off-Shore @ NASA Wallops)
    - FLEETEX & MISSILEX
  - Indirect Support:
    - Via NAVAIR Tactical Training Ranges Program Office (PMA-248) for Training Range Instrumentation Systems Development and Installation (TACTS, LATR, JTCTS, RBSS, TASETS, Nike Radar Support, etc.)
    - PCDS (TACTS PC Based Debriefing System) for ANG
Changing Environment

- World events in recent years have precipitated a string of major changes within DoD.....
  - End of the Cold War
  - Changed Threat (i.e. Third World, Regional Conflicts)
  - Revised Defense Strategy
  - DoD Downsizing
    - Force Reductions
    - Military Base Closures, Consolidations, & Re-alignments
    - Budget Cuts

- These changes, while all positive, have had a significant impact on both the Acquisition and Operational Communities.
Different Perspectives - Shared Problems

DoD Downsizing =

Operational Forces:
- Force Reductions
- Force Consolidations
- Reduced O&M Funding
- Loss of Resources

Test & Evaluation:
- Fewer Acquisition Programs
- Reduced Workload
- Reduced MRTFB Funding
- Transition to DBOF
TEST AND TRAINING INTEGRATION: THE NEW PARTNERSHIP

Testers still need to maintain the capabilities & resources necessary to support the RDT&E of new weapon systems as they emerge, and the deployed forces still need to maintain a high state of readiness and proficiency to defend our national interest at a reduced risk to loss of life and property.

The Bottom Line
TEST AND TRAINING INTEGRATION:
THE NEW PARTNERSHIP

"WE’RE ALL IN THE SAME BOAT"

"HAVING TO DO MORE WITH LESS"
TEST AND TRAINING INTEGRATION: THE NEW PARTNERSHIP

ITERATIVE APPROACH

• Establish open communications with Atlantic Fleet operators.

• Establish dedicated fleet liaison to maintain continuity.

• Gain a better understanding of their training requirements:
  • Through all Phases (Unit, Intermediate, Advanced, Joint)
  • By Warfare Areas (EW, ASW, Strike, AAW, etc.)
  • By Platform (Aircraft type: F/A-18, F-14, E-2C, S-3, etc.)
    (Ship type: CVW, LPD, LPA, etc.)
  • Current Shortcomings/Issues
TEST AND TRAINING INTEGRATION:
THE NEW PARTNERSHIP

Atlantic Test Ranges

Range
Functional Diagram

- LARGE TEST AREA
- AIRBORNE INSTRUMENTATION
- TRACKING INSTRUMENTATION DIVERSITY
- TARGET SUPPORT
- RANGE COMPUTATION & CONTROL
- REAL-TIME AIR VEHICLE/AVIONICS FLIGHT TEST & TRAINING RANGE
- REAL-TIME AVIONICS FLIGHT TEST SYSTEM
- REAL-TIME TELEMETRY PROCESSING
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ITERATIVE APPROACH continued...

- Comparison of their Training Range requirements with our Test Range Capabilities and Resources:
  - Airspace
  - Targets
  - Instrumentation
  - Specific Warfare or Mission Support

- Provided Range Capabilities Briefings & Facility Tours

- Have offered and provided several “test drive” training ops

- Dispel the Fleet Perceptions of Pax River as the “Flying Club”
TEST AND TRAINING INTEGRATION: 
THE NEW PARTNERSHIP

CHRONOLOGY OF KEY EVENTS

1995:

• June: - Initiative Begins...
  - NAWC-AD Liaison met with CNAL Staff to gather information on training range needs/issues.

• July: - NAWC-AD Representatives provided a focused brief to CNAL Staff in Norfolk
  - NAWC-AD Personnel invited to attend CINCLANTFLT Range Prioritization Conference

• Aug: - Liaison established initial contact with CINCLANTFLT
  - CNAL Staff Members Tour NAWC-AD
  - Pax River & NASA Wallops met to discuss/explore issues of mutual benefit/concern for both test & training interop.
TEST AND TRAINING INTEGRATION: THE NEW PARTNERSHIP

1995 CHRONOLOGY continued...

- Sept: - NAWC-AD coordinated visit by CNAL Staff LSO to NASA Wallops to determine feasibility of using airfield for a much needed FCLP site.
  - NAWC-AD Representatives provided a focused brief to CINCLANTFLT Staff in Norfolk
  - VAQ-209 EA-6B Aircrew/Staff were provided a demo flight of Range EW support capabilities & tour of Facilities

- Oct: - Liaison made initial contact with SEONDFLEET Staff
  - Follow-on CNAL Tour at NAWC-AD
  - NAWC-AD Representatives provided a focused brief to Second Fleet Staff in Norfolk
1995 CHRONOLOGY continued...

- Nov: - NAWC-AD Representatives provided a focused brief to Carrier Air Group Eight (CAG-8) Staff at NAS Oceana
  - NAWC-AD personnel traveled to Strike Warfare Center NAS Fallon, NV to observe Carrier Air Wing Advance Training Phase Exercise and tour the Range.

- Dec: - CAG-8 Staff Visit & Tour of NAWC-AD Range & Facilities
  - Discussions with VC-6 XO on potential interest of using NASA Wallops as a UAV Center
1996 CHRONOLOGY continued...

1996:

- NAWC-AD w/ the invite by C2F attended the Combined Joint Task Force Exercise (CJTFX) Planning Conference
- NAWC-AD Reps visited Aberdeen Test Center to explore potential for expanded & joint range interest.

Feb:
- NAWC-AD/DARO visit & tour of the AEGIS Combat Systems Center at NASA Wallops
- Aberdeen Test Center & Army XVIII Corp Reps visit Pax for facilities tour & capabilities brief
TEST AND TRAINING INTEGRATION: THE NEW PARTNERSHIP

1996 CHRONOLOGY continued...

- Mar: Second Fleet Staff & Air Force Air Re-Fuel Wing Staff visit to conduct site survey for involvement in the CJTFX
  - Liaison Makes Initial Contact/Visit of US Army Garrison at A. P. Hill, VA.
  - “Joint Test & Training Complex” (JTTC) Planning Conference (CTEIP Program, NAWCAD Lead)

- Apr: NAWC-AD Reps attended CJTFX Airspace Coordination Conference to provide face-to-face brief on Pax restricted airspace to be used during the exercise.
KEY RESULTS TO DATE

1995:

- An established continuing dialogue now exists between NAWC & key Atlantic Fleet Staffs in Norfolk Area

- CNAL assigned Carrier Air Wing Eight the task of formally assessing the utility of Pax River for Fleet TACAIR training through the various phases and NASA Wallops for FCLP

- VAQ-209 flew an EA-6B on the Chesapeake Test Range for an EW Capabilities Demonstration “Test Drive.” Two Applications were being explored:
  - Mission Aircrew Training
  - Mission Specific System Grooming Prior to Deployment
KEY RESULTS TO DATE continued...

1995:
- NAWC-AD successfully supported a time critical Fleet HARMEX
- 2 VAQ-209 EA-6B’s & 2 MAG-49 F/A-18’s flew a highly successful Captive HARMEX against Pax Range Assets
- CAG-8 plans several training missions in Pax River airspace using many of the NAWC-AD range capabilities (Dec 95-Apr 96)
KEY RESULTS TO DATE continued...

1996:

- CAG-8 Continues to fly training missions in Pax airspace and issues message stating their preliminary findings: “MISSIONS CONSIDERED HIGHLY BENEFICIAL”

- NAWC-AD will play an active role in the CJTFX 96-2
  - Hosting 2 Air Force Air Re-Fuel Wings (KC-135’s)
  - Strike & Tactical Recon Missions in Pax River Airspace against Pax Targets

- NAWC-AD T&E Group and Aberdeen Test Center signed MOU

- Second Fleet Staff planning to include Pax River in JTFX 97-1
KEY RESULTS TO DATE continued...

- CINCLANTFLT has requested support for emerging range requirements:
  - MISSILEX Support:
    - SLAM Target
    - Shipboard No-Fire STD MISSILE Scoring System
  - Shallow Water ASW Target

- The many tours and briefs provided by NAWC-AD has exposed a host of other unique capabilities to Commands and activities that did not know existed here at Pax. (i.e. Specialized Support at St. Inigoes: Shipboard C^4I, Identification Systems, IETM, etc.)
TEST AND TRAINING INTEGRATION: THE NEW PARTNERSHIP

MUTUAL BENEFITS

- SHARED RESOURCE WITH INCREASED MRTFB RANGE UTILIZATION

- OPERATORS GAIN ACCESS TO ADDITIONAL TRAINING AREAS WITH ADDED RESOURCES & CAPABILITIES

- CLOSE PROXIMITY TO ATLANTIC FORCES
  - REDUCED O&M COST TO SUPPORT TRAINING TAD

- ADDED VALUE TO DEPLOYED FORCES TO IMPROVE OPERATOR PROFICIENCY & READINESS
TEST AND TRAINING INTEGRATION: 
THE NEW PARTNERSHIP

MUTUAL BENEFITS continued...

- FLEET SCHEDULES RANGE SUPPORT & PAYS FOR SERVICES AS REQUIRED

- INCREASED SYNERGISM BETWEEN USER & DEVELOPER
  - FURTHER PROMOTES INTEROPERABILITY BETWEEN TEST & TRAINING COMMUNITIES
TEST AND TRAINING INTEGRATION:  
THE NEW PARTNERSHIP

ISSUES & CONCERNS

• SHARED RESOURCES & CONFLICTS RESOLUTION:
  • Airspace Compatibility
  • Established Priorities (Test vs. Training)
  • Critical Resources Scheduling i.e. :
    • RDT&E has priority during normal hours
    • Training has priority during off-hours

• FUNDING:
  • Atlantic Command(s) Block Fund NAWC-AD for Range Support Services (Desired)
  • MRTFB develop a reduced range cost for Operational Forces (based on minimized personnel & instrumentation redundancy)