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Training Development Process, Issues, and Concerns

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Training Development Process, Issues, and Concerns*

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* Based on a review of four acquisitions

This CNA Annotated Briefing (CAB) documents the analysis conducted under task 2 of the N7-sponsored Navy fleet training migration study. In the analysis, we reviewed the training development process for a set of acquisitions, identified major crosscutting training issues for these acquisitions, addressed some training management oversight and support questions, and probed to see if mechanisms exist to assess the cumulative impact of training decisions on the fleet.

We believe this project was well placed and timed since there are number of factors (addressed in this report) that are changing the acquisition process and increasing the importance of training in it.

This report, the fourth produced under the training migration study, represents the completion of the study effort.

Outline

- Study background
- Training development process and background information
  - Factors affecting the acquisition process
  - Training development process
  - System-based training requirements
- Training issues and questions
  - Issues identified in study
  - Questions raised at outset of the study

This slide outlines the topics addressed in the CAB and highlights the order in which the material will be presented.

We first will discuss the study purpose, describe our analytical approach, and introduce the four systems selected for the study.

Next we will discuss some dominant factors that are shaping and causing major changes to the Navy acquisition process. (The identification and discussion of these factors come from discussions with the system training developers and from the training program documentation for the four systems.) We also will summarize the process being used to develop the training programs for the four systems and the training requirements or goals they are being designed to meet.

The final part of the CAB will discuss crosscutting issues identified in our review and will address some management-oriented questions posed by the sponsor at the outset of the study.

Background

- Study approach
  - Select the set of major systems to consider
  - For each system, review training development process and identify the major training issues
  - Use system documentation and discussions with training SMEs as a basis for the study
- Acquisitions selected
  - LPD 17, DD 21, CVN X, VTUAV

As noted, our approach for the study was to select a sample of ongoing major acquisitions and to investigate the training development process and issues for these systems. We based our findings on our review of the available documentation for the systems and on our discussions with the system training developers, Navy OPNAV staff, and CNA training subject matter experts (SMEs).

In selecting the systems to include in the study, we focused on large acquisitions that will have a major and long-term impact on the force. Consistent with our task 1 efforts, we focused on the surface Navy systems. However, to add depth and perspective, we included an air system that interfaces with and is linked to the surface fleet.

The the four systems selected for the study are listed on this slide and discussed on the next one.

Summary Data for the Four Acquisitions

	Phase in Acq. Cycle	Deployment Schedule	Number of Systems	Manning Target per System*
LPD 17	Phase 2	FY 02 - FY 12	12	362 (20% reduction)
DD 21	Phase 1	FY 08 - FY XX	32	95 (80% reduction)
CVN X	Phase 0	FY 13 - TBD	12	About 5,000 (20% reduction)
VTUAV	Phase 1	FY 03 - TBD	57	18 per system (40% reduction)

* Includes operator and maintainer personnel for the system

This slide provides some summary data on the four systems selected for the study.

The LPD 17 (San Antonio class) is the newest Amphibious Transport Dock ship. The LPD 17, the first major ship design program under the revised acquisition regulations, is being acquired under an evolutionary (versus revolutionary) strategy. It has a primary expeditionary warfare mission that will replace 41 ships in four ship classes (LST 1179, LKA 113, LSD 36 and LPD 4).

The DD 21 is the first ship under the Surface Combatant for the 21st Century (SC21) program. It has more of a revolutionary acquisition strategy than the LPD 17 and CVN X. It features a common design concept, flexible mission updates, single support structure, streamlined acquisition strategy, and an open system architecture.

The CVN X represents the new family of aircraft carriers. It is still early in the acquisition cycle and is following an evolutionary (versus revolutionary) acquisition strategy.

The VTUAV (Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle) system consists of air vehicles (AV), ground control stations (GCS), ground data terminals (GDT), remote data terminals (RDT), modular mission payloads (MMP), and tactical communications devices. The initial buy (specified in the VTUAB ORD) is 23 systems, but the surface resource sponsor has decided to deploy the system on all surface combatants.

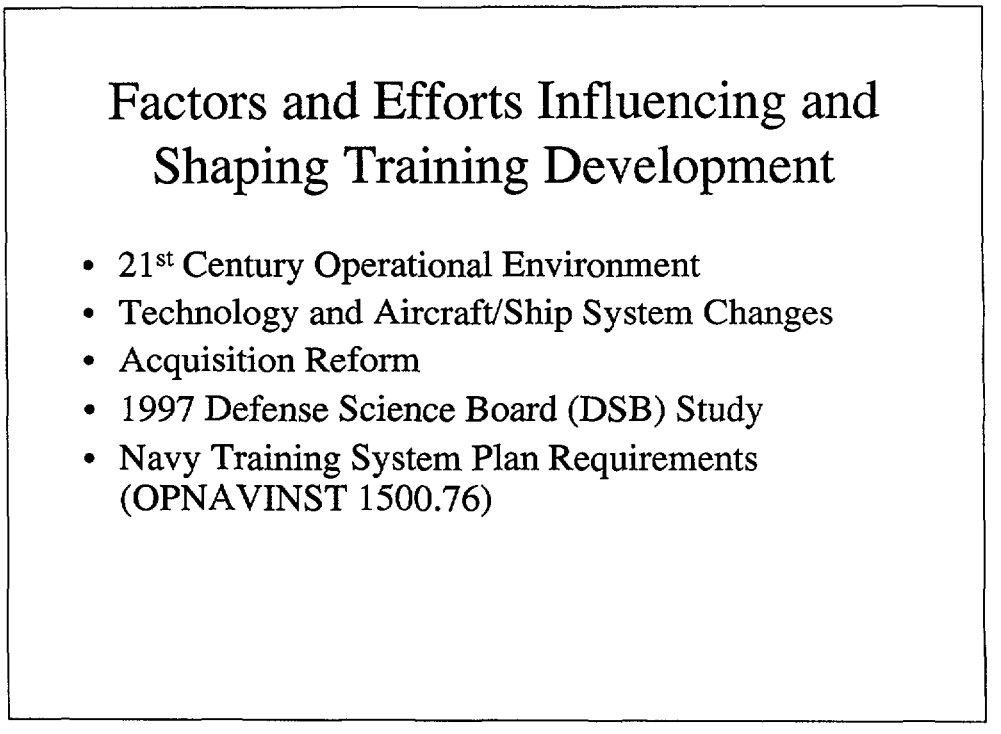
Similarities and Differences Across the Four Acquisitions

- Similarities
  - Shared drive to reduce total ownership costs and manning
  - Acq. reform-style industry/Navy partnership
  - Cited concerns, influences, and issues
- Differences
  - Unique combat missions
  - Status in acquisition process
  - Procedures and acquisition mandates

At the outset of the study, we were concerned that the four very different systems might not have much in common. Instead, we found a high degree of commonality in their stated assumptions, goals, issues, drivers and training development approaches.

Part of the observed similarity may be attributable to the fact that there is a small cadre of training developers who network and often move from one system to another one. (This observation is discussed further later in the CAB.) However, we believe the real reason for the observed commonality is simply that the systems face a common environment and have a similar set of constraints that influence and shape their training systems.

On balance, the similarities across the systems suggest that many issues (like those discussed in this CAB) could be better addressed from a more cross-platform, Navy-wide perspective than the current system-by-system one that appears to be in use today.



The system training documents for the four systems cited a number of factors that are having a significant impact on the acquisition process and training development within that process. These factors (listed on the slide and discussed below) are important because, collectively, they define the environment in which the training development is currently taking place. The following description of the factors was extracted from the system training documents and from discussions with the training developers.

Characteristics of surface warfare operational environment in 21st century:

- Proliferation of weapons of mass destruction, terrorism, political unrest, and economic instabilities
- More missions, requirements, and joint/allied operations
- Rapidly unfolding ambiguous scenarios with little time to reach complex decisions

Technology and system changes:

- Advanced technologies will be increasingly commonplace
- New software-dependent systems and technologies will affect training

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Factors and Efforts Influencing and Shaping Training Development (Continued)

- 21st Century Operational Environment
- Technology and Aircraft/Ship System Changes
- Acquisition Reform
- 1997 Defense Science Board (DSB) Study
- Navy Training System Plan Requirements (OPNAVINST 1500.76)

Acquisition Reform implications:

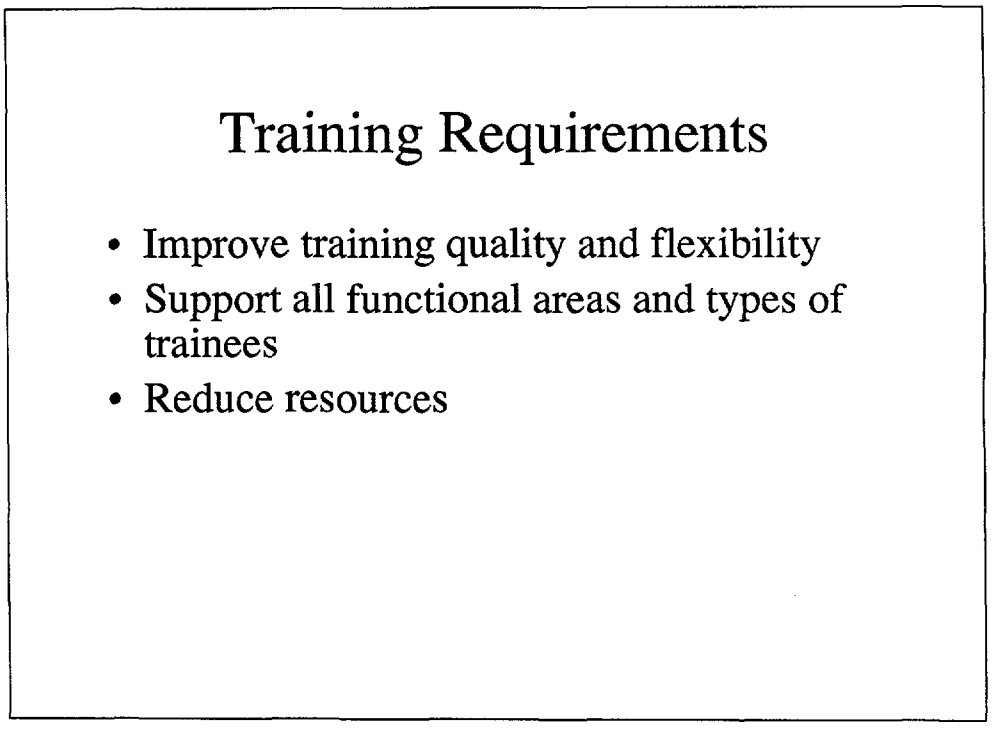
- More of design work done by industry via a Full Service Contractor (FSC)
  - New way -- FSC designs ship and proposes training, maintenance, and manning plans. Navy validates and approves plans
  - Old way -- Navy developed detailed design specifications and plans. Contractor built to these specifications.
- Training needs considered early in the design process. (However, competing contractors now independently develop training plans that are proprietary and concealed until final contractor is selected.)
- Drive to reduce total life-cycle costs.

1997 Defense Science Board (DSB) Study Findings:

- Navy compelled to build smaller crew ships with increased capabilities.
- Some recommendations follow: embed training in systems, provide adaptive training that tailors itself to the needs of the individual and provides training on demand, and expand the use of performance aids.

Navy Training System Plan Requirements (OPNAVINST 1500.76)

- Improve training and education so that fewer resources are needed to meet performance requirements
- Reduce number of people and training required by developing enhanced and adaptive training.



This slide lists the training requirements extracted from the reviewed training development materials. An expanded discussion of the requirements is provided below.

Under the "improve training quality and flexibility" requirement, we included the need to develop training that:

- Is readily adaptable to changing missions and demands;
- Adapts to the needs of the trainee and the ship; and,
- Integrates schoolhouse and shipboard training.

It also includes the need to develop onboard, embedded, and deployable training vehicles; training strategies, methods, and systems that prepare for varied, unexpected, stressful, and rapidly changing environments; full mission rehearsal; and continuous learning.

The requirement to support all functional areas and types of trainees mandates that the training support crews and embarked/deployed individuals and teams in such functional areas as:

- Shipboard integration, familiarization, pre-commissioning crew phasing, and introduction training
- Engineering, navigation, combat system, damage control (including fire fighting), condition assessment, medical, command & control, maintenance, administration, and crew career advancement

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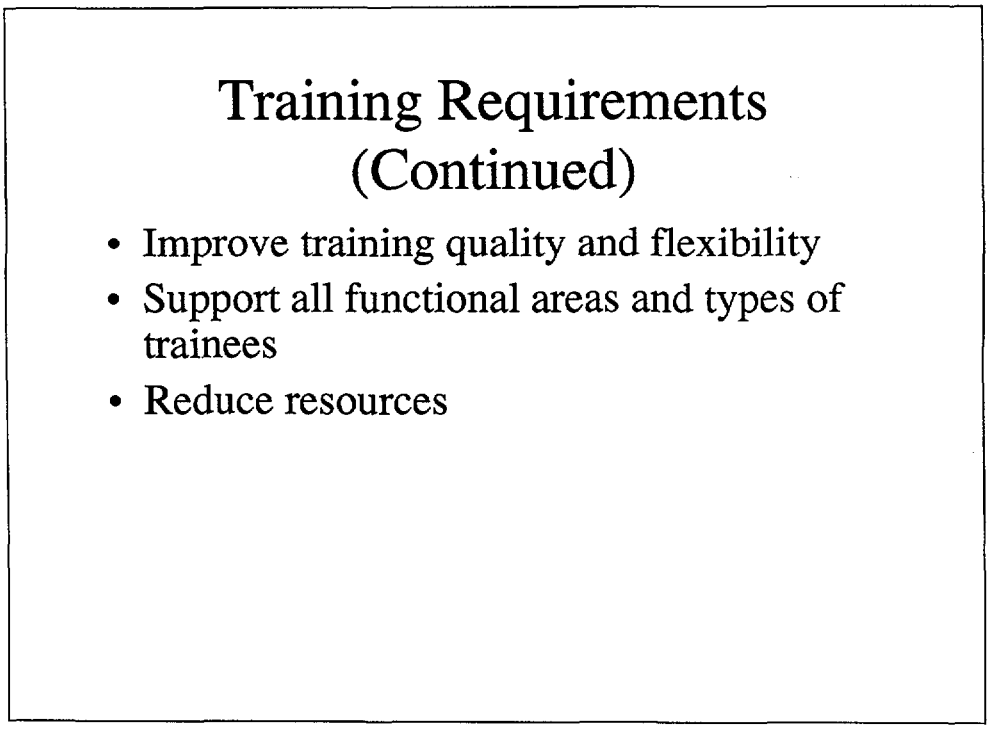
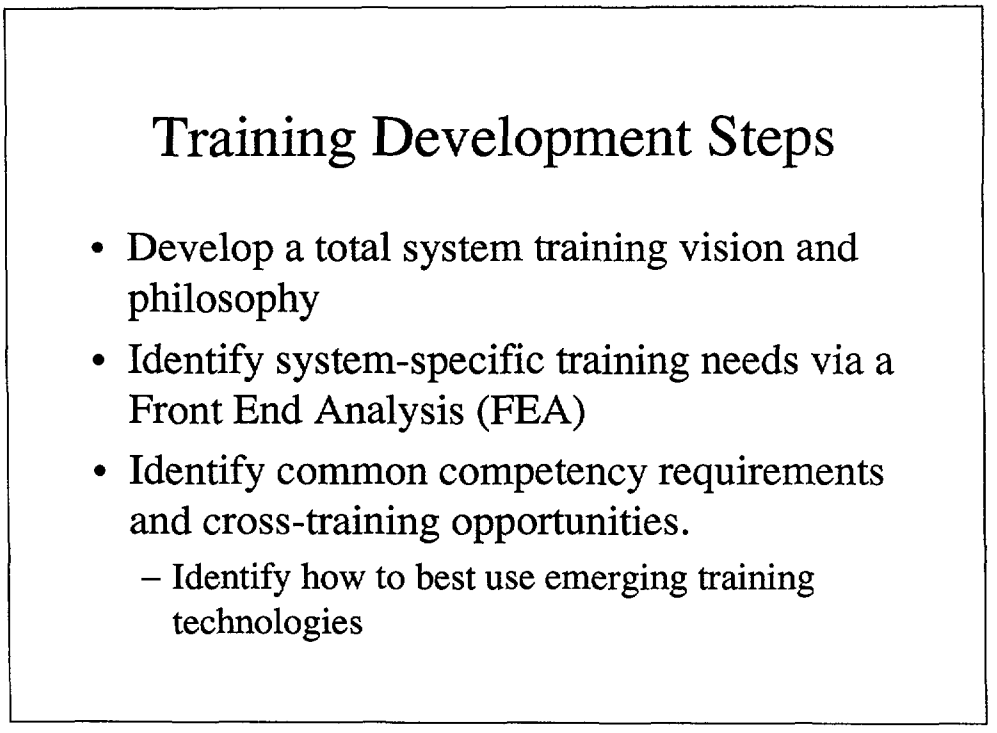


- General military training, own ship team training, mission rehearsal and stimulation-based battle force tactical training.
- Operational, proficiency, skill maintenance, and training for individuals, teams, and ship-wide training scenarios.

The "reduce training resources" requirement includes the following: reducing life-cycle costs, exploiting emerging innovations, managing training information, reducing shipboard instructor requirements, and minimizing human intervention in the training process.



This slide summarizes the training development approach discussed in the source materials. As shown, the process typically starts with the development, approval, and endorsement of a total ship (system) training vision and philosophy.

Next, an FEA is used to identify ship-specific training needs. The FEA:

- Addresses the training requirements of the entire ship (system) and embarked/detached crew
- Addresses the ship-based individual and team competencies (knowledge and skills) needed
- Accounts for all equipment by establishing the individual operator, maintenance, and team skill requirements to support the equipment
- Provides the data needed to identify common competency requirements and cross-training opportunities
- Provides N1 with data needed for recruiting and personnel distribution.

Finally, the data developed in the FEA is used to establish common competency requirements and to identify cross-training opportunities. Also at this step, the process assesses how to make best use of emerging training technologies, as well as existing training programs and methods, to meet the training requirement.

Issues Identified in the Study

- Three acquisition reform initiatives individually and collectively increase training risks
- General vs. equipment-specific training strategies, skills, and occupations
- Increasing importance of ship familiarization and introduction training

This slide lists three high-level and cross-platform issues identified in the study. Each of the issues will be discussed in turn.

Issue: Acquisition Reform Initiatives Increase Training Risks

- Three acquisition-reform-based initiatives individually and collectively increase risks
  - Drive to reduce total ownership costs (TOC)
  - Revised industry-Navy acquisition approach
  - Relaxed timetable for locking in system design (and therefore training strategy)
- Only limited options available to identify and address training problems

The need for and value of acquisition reform is clear and cannot be denied. However, we believe that three of its basic tenets individually and collectively pose a significant risk for training.

The first item cited involves the primary acquisition reform goal to reduce system TOC. In large part, the TOC will be reduced by decreasing the costs of its major components, which are manning and training. Our concern is that the inherent difficulty of estimating the TOC for a new system, combined with the pressure to estimate a small TOC, could lead to artificially low and invalid training cost estimates. The significance of this risk is increased by the fact that there are no real mechanisms or resources available to correct major training development problems after the acquisition period is complete. (The OMN funds available to the resource sponsor for training are quite small, relative to OPN training resources, and are not designed to develop or correct major training problems.)

The second acquisition-reform-related area of concern involves the transition period during which the Navy is shifting from a very hands-on role (where the Navy developed detailed specifications and the contractor developed the training according to those specifications) to one of oversight and approval. While the historical Navy role was not necessarily the best or the most efficient one, the Navy was familiar and comfortable with it.

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Issue: Acquisition Reform Initiatives Increase Training Risks (Continued)

- Three acquisition-reform-based initiatives individually and collectively increase risks
  - Drive to reduce total ownership costs (TOC)
  - Revised industry-Navy acquisition approach
  - Relaxed timetable for locking in system design (and therefore training strategy)
- Only limited options available to identify and address training problems

Under acquisition reform, the Navy role has shifted and the contractor has been given much more latitude and responsibility. In our opinion, the lack of control and the flux involved in developing the best way to operate under the new way of doing business represent a real threat to the training function. This will be especially true until the process settles down and best processes and operating procedures can be identified and institutionalized.

The third area of concern is related to the goal to relax the timetable requirements for locking in system and (since training is tied to the system design) training specifications. There are obvious advantages to providing as much time as possible before finalizing a system design. However, we believe that there could be a cost because it restricts the time available for functions (such as training development) that lag design specification. This reduction in the time available to design and develop training, by itself and in concert with the other acquisition reform initiatives mentioned, introduces or adds to the training risk.

The final point made on the slide is that options are limited for those concerned about addressing the training risks and preventing or correcting training problems when they occur. The next slide addresses our preliminary look at several options.

Some Alternative Ways To Address Issues Identified

- Ensure that TOC estimates are valid
  - Difficult to do
- Ensure that training development is fully funded, complete, and correct
  - Technically and politically difficult
- Develop contingency plans and resources to address any residual training problems

This slide provides some preliminary thoughts on the alternatives for addressing the training risks introduced by the acquisition reform initiatives. As indicated we do not see any obvious or easy answers.

For both technical and political reasons, we believe it is and will continue to be difficult to develop valid TOC estimates and to ensure that training development is fully funded and valid. We did not identify any obvious solutions to the issues raised, and a more complete investigation of them is outside the scope of this effort.

The third bulleted item simply suggests that contingency plans should be considered and put into place. However, identification of specific things to do is not a trivial task and was not the focus for this study.

Issue: General* Versus Equipment-Specific Training Strategies

- New, lower manned, ships (systems) require a different training strategy than legacy ships
  - New ships require general (proficiency) school training & just-in-time equip-specific training**
  - Legacy ships require equipment-specific training
- Concurrent use of the two strategies would not allow assignments across platforms
  - Inconsistent with current assignment process

* Also sometimes called skill-based or proficiency-based training,

** VTUAV operator training will likely remain equipment specific

Over time newer ships have tended to require fewer billets than the ships they replace. However, they have also required a richer mix of equipment-based, NEC-specific billets. (See N7 data comparisons for the DDG 2 and DDG 51 in the backup slide on page 30.) Not surprisingly, the Navy formal training program over time has increasingly reflected an equipment (NEC) orientation.

The newest ships now in the acquisition cycle have a mandate to dramatically reduce their TOC. This drive, in turn, requires major reductions in manning. At the same time, the new ships—with increased capabilities and complexity—need more subject matter expertise and specialized skills.

The strategy for meeting the TOC-driven "smaller crew" mandate calls for extensive cross-training (so crew members can cover more than one function) and technology-enabled just-in-time training (which allows crew members to be trained on systems when required). This strategy is feasible for new ships because of technology advances and the commitment to the technology made by the program offices. To be effective, the newer ships require the schoolhouse to provide skill or proficiency-based training that teaches concepts and how to use the technology-based tools that provide just-in-time equipment-based training.

Legacy ship systems often do not have access to the technologies planned for the newer ships. Therefore, while the newer ships (e.g., DD 21, LPD 17, and CVN X) require proficiency-based training, legacy ships continue to require equipment-based schoolhouse training.

Unfortunately, the proficiency-based training and equipment-based training are not inherently interchangeable, and the Navy must decide what to do.

Discussion of the Training Strategy Issue

- A proficiency-based training strategy can save resources, but only with change
  - Requires a shift from an equipment orientation and revised rating/NEC occupational structures
  - Requires technology investment for legacy ships
- Some strategies would increase costs
  - For example, maintain the current training approach and add skill-based training for new ship assignees

We identified two potential advantages of a proficiency-based training strategy:

- Increased flexibility (needed to meet increased operational demand with reduced manning)
- Lower costs (in time to train and personnel management/support).

However, the flexibility gained with proficiency-based training is also tied to reduced costs. (It enables lower manning levels, which in turn are linked to more efficient and lower cost ship operations.)

Moving to a proficiency-based training strategy would require significant change. For instance, to realize the potential efficiency and cost savings that we believe are possible, the Navy would have to:

- Shift from the equipment-oriented training strategy
- Revise the (largely equipment-oriented) rating/NEC occupational structure to a broader skill-based occupational grouping structure
- Invest in training-related technology for some legacy ships and systems.

As noted on the slide, there are approaches that would address the issue being discussed but would increase costs in doing so. One of the most obvious would involve making little or no change to the way the Navy currently trains except to provide additional skill and technology-based training to those who will be assigned to a new ship.

Discussion of the Training Strategy Issue (Continued)

- Issue will "go away" over time, but not soon
  - Will be a lengthy transition period with a mix of legacy and new ships
  - Legacy ship requirements will dominate for the next 20-30 years
- Natural tendency: make marginal changes to the status quo
  - Could hinder cost reductions in transition period

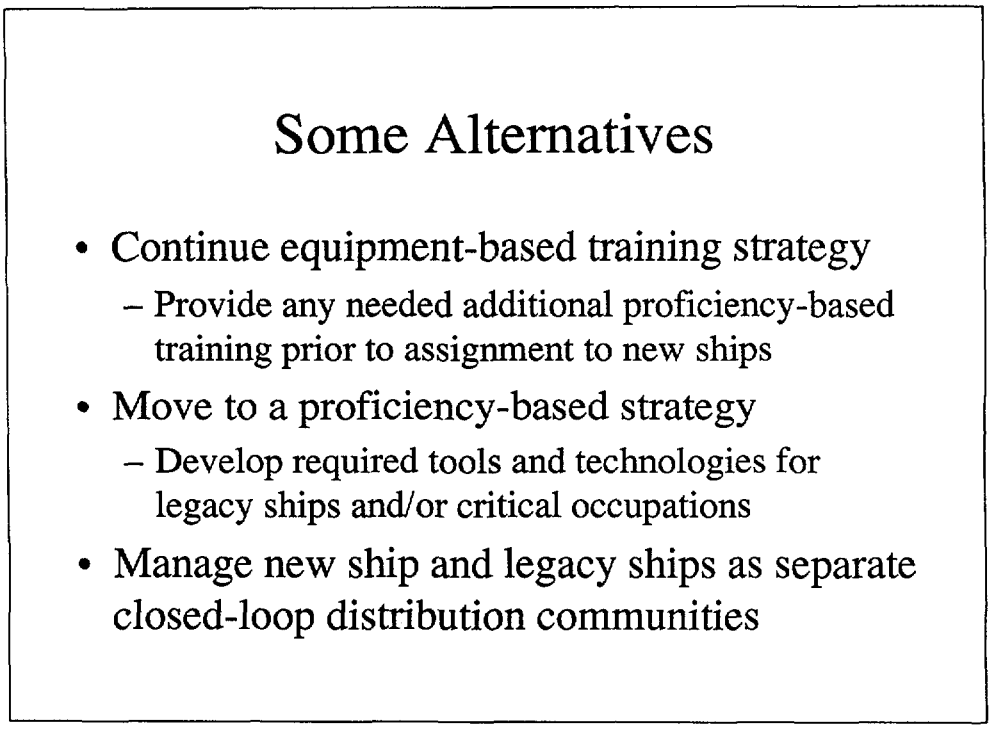
It is true that over time, as more technology rich ships are procured, the Navy will be able to make the transition to the skill-based training strategy required for the new ships and systems. But this will take a long time. In fact, legacy ship requirements will continue to dominate for the next 20-30 years. This is supported in the backup slide on page 31 (extracted from the Surface Warfare Training Vision), which shows that the DD 21 accounts for only 5 percent of surface fleet manning by 2020.

The question is what to do during this lengthy transition period.

As already discussed, proficiency-based training strategy (if implemented correctly) ultimately should save money in both training and personnel areas, such as:.

- Student load (time to train)
- Detailing and placement
- C school planners and curriculum managers
- Instructors.

To achieve the saving, however, the Navy will have to make technology investments for legacy ship and systems or develop a "hybrid" training strategy that includes elements of both equipment-oriented and skill-oriented training. It does not appear to be feasible to use a purely skill-based strategy for the legacy systems/platforms without investment in the required enabling technologies.



There are significant implications associated with whatever training strategy decision the Navy decides to pursue.

The first alternative listed assumes that the Navy will continue to provide equipment-based training to everyone. This training may not provide the needed cross-training flexibility or skills needed to employ the technology tools and just-in-time training strategy planned for the new ships. These deficiencies could be overcome with additional training for assignees to new ships. But, as already noted, that decision would likely increase rather than reduce the TOC for the new systems. In addition, continuing equipment-based training, which is generally considered to be more costly than skill-based training, also could increase the TOC of a ship or system relative to skill-based training.

The second alternative considered assumes that the Navy will provide skill-based training to everyone. This means that the trainees must have access to the technology-based tools (such as Interactive Electronic Technical Manuals (IETMs)) for performing equipment-specific duties. However, the required IETMs and the other associated technology-based tools may not exist for legacy systems. Therefore, either additional equipment-specific training will be required for those going to legacy ships or the technology-based tools will have to be developed and installed for the legacy systems without them.

Finally, the Navy could develop parallel skill-based and equipment-based training tracks. This decision, which in effect would create separate communities for legacy and new ships, would lead to duplication and could reduce management flexibility. It also could lead to higher costs than the other two options noted.

Issue: Growing Importance of Familiarization & Introduction Training (Some Background Information)

- Ship familiarization (procurement) training
  - Provided to initial crews of a new ship at a contractor site or the shipyard
- Ship introduction training ("I training")
  - Provided to new crew members about systems and configurations on a specific ship
- Funding
  - Acquisition typically funds familiarization training , but not I training which typically is a ship responsibility

The training for a new system is developed concurrently with the procurement of the system. Therefore, the training for a system is typically delivered to the Navy about the same time as the system enters the force.

The training developed for the system is inserted in the formal training process or pipeline. This training prepares future system operators and maintainers but it does not "catch" the people charged with operating or maintaining the new system at delivery. Therefore, two types of training must be developed for a new system.

First, familiarization training (also sometimes called initial or procurement training) must be developed and delivered to these people who will operate and maintain the systems without benefit of the formal "steady state" training. This training must be continued until the training developed for the system can be inserted in the formal training pipeline and people are trained on the new system.

Second, follow-on or "steady state" training is developed for use in the formal training setting.

Operator and maintainer training (both procurement and follow-on) for a new system is typically developed as part of the acquisition process using procurement funds. Follow-on training for a system is usually transitioned to the schoolhouse for delivery. (Once the follow-on training is developed and validated, the resource sponsor supports the delivery and maintenance of the training with operations and maintenance (OMN) funds.)

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Background (Continued)

- Ship familiarization (procurement) training
  - Provided to initial crews of a new ship at a contractor site or the shipyard
- Ship introduction training ("I training")
  - Provided to new crew members about systems and configurations on a specific ship
- Funding
  - Acquisition typically funds familiarization training , but not I training which typically is a ship responsibility

Familiarization or procurement training, provided to initial crew (and maybe the first few crews), is overseen by the system program manager. This training often occurs at a contractor site or a shipyard. On occasion, familiarization training is provided for only selected skills (e.g., operators for combat systems) and/or there are no plans/resources to train subsequent crews.

There is also another type of system-based training that must be considered. This training is required because systems are often placed on a number of different platforms with unique environments, configurations, software systems, and procedures. Therefore, even when people are trained on a system, they require training about how to operate or maintain the system on the platform to which they are assigned. This platform-specific system training is called introduction training or I training.

I training is typically included in procurement training for the initial crews because procurement training is often very "hands on" and one-on-one with an SME for the system. Those receiving follow-on training however typically require I training after they report to the ship.

In steady state, after the system is in place, I training is usually designated as ship-managed training. As a ship-managed function, there typically are no specific resources devoted for it and there is no oversight or management of the training beyond the ship level.

Issue Statement

- Historical emphasis on familiarization and I training has been mixed
  - Deficiencies addressed on board "out of hide"
  - Manning levels allowed flexibility
- Reduced manning levels will reduce flexibility and increase training importance
  - Crew must come to ship ready to perform
  - Just-in-time training capability should help

Historically the attention paid to familiarization and I training has varied widely from system to system and from platform to platform. Failure to emphasize these platform-oriented types of training has a cost in terms of the time and effort it takes to prepare new crewmembers to perform.

In the past, the higher manning levels allowed a ship to devote time "out of hide" to mitigate the deficiencies and prepare new personnel to operate and maintain systems on board ship. However, the manning levels for new acquisitions are being greatly reduced, which translates into a loss of redundancy. Departure of a crewmember will mean the loss of unique knowledge and skill to the ship until it can be transferred to a new crewmember. Said another way, the crew must come to the ship ready to perform, and a ship will not have the option of preparing to operate and maintain systems out of hide without a loss of capability.

It is true that just-in-time training could help in the preparation process but only if it is designed properly and can "model" platform-specific conditions.

Some Alternative Ways To Address Issues Identified

- Increase the attention, priority and emphasis on familiarization and I training
  - Both during acquisition and after fielding
  - Ensure that all applicable systems and functions are addressed
  - Increase I training oversight, guidance, and support across systems and platforms
- Focus on just-in-time training content

This slide highlights several possible ways to address the issues raised.

The first addresses the need for attention and emphasis of familiarization and I training. We believe it will likely be necessary for the Navy to pay more attention to I training to include oversight, standardization, and increased support.

One possible way to increase the emphasis would be to increase the attention paid to I training in the Training and Readiness (T&R) Manuals. Another possibility deals with just-in-time training and suggestions made by the fleet in our support of task 1 of this project. That is, the Navy may want to follow up on a suggestion made in the focus group discussions undertaken in task 1 and documented in CRM 99-140. This suggestion calls for three levels of onboard training. The first level would be general and would cover all ships and classes. The second would be class specific. The third would be ship specific and would be a natural place to include tailored ship-specific I training.

Topics Identified at the Outset of the Study

- Role of embedded and technology in training development plans
- N7/CNET role and involvement in training decisions during the acquisition process
- Mechanisms to assess and monitor the cumulative effect of training decisions on the ship and the fleet

This slide lists three topics identified for review at the outset of the study. They will be discussed in turn.

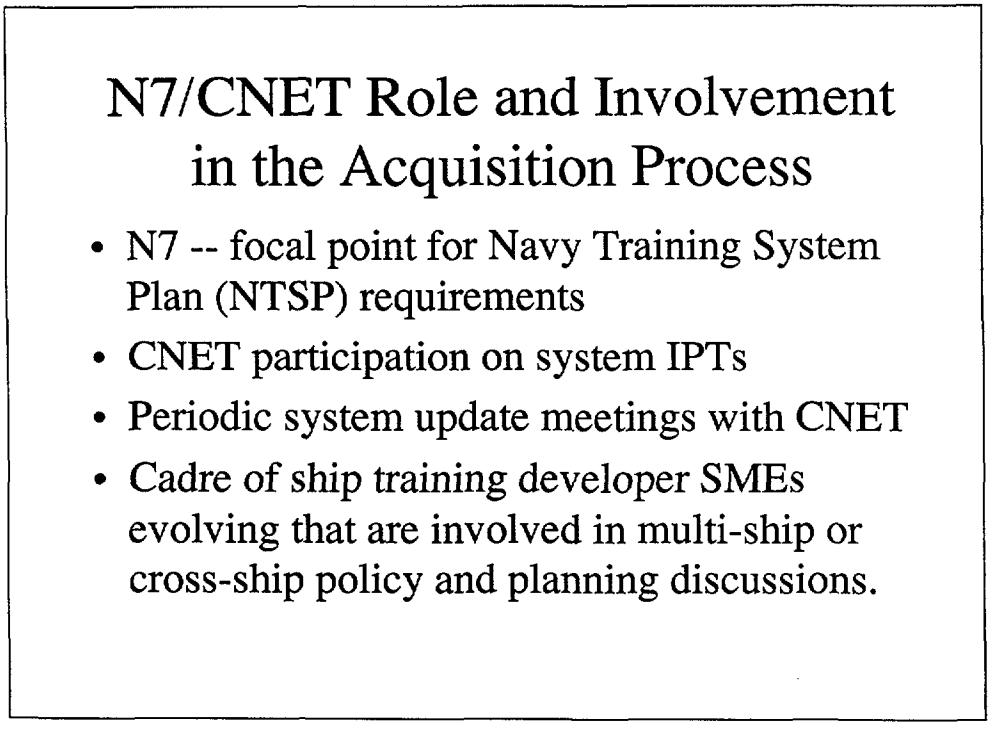
Do Acquisition Plans Make Full Use of Embedded Training and Technology?

- Answer: Use of technology and embedded training is being built into the objectives and plans for the acquisitions reviewed
- Use of technology is seen as critical to achieving manning and TOC reduction goals

We were asked to review whether the training developers for new systems were committed to the use of technology for training and to integrating technology into the training development efforts. We found that the training technologies are probably the most critical enabler envisioned for achieving the training requirements under the TOC-driven reduced manning and TOC target levels.

We believe, based on our discussions and what we have read, that the training developers for the four systems are totally committed to embedded training and the use of technology for training. In fact, the success of the training development is largely based on the success of the technology being built into the training systems.

While the four systems are committed to embedded training and the best technologies, there appears (based in large part on our task 1 findings) to be a need to set training interface standards across the Navy. Perhaps CNET should lead the effort to defining standards that will enable interface devices to be used across many systems in "plug & play" fashion.



N7 (together with the Navy Secretariat, N1, and the resource sponsors) is very proactive in providing the needed vision, polices, and guidance for developing training for new systems. For instance, N7 is the Navy lead on the Navy Instruction, OPNAVINST 1500.76, which lays out the requirement for training plans for new acquisitions. N7 staffers also track and participate in policy-level discussions and meetings concerning specific programs and program issues.

The training developers and training SMEs contacted in our study also told us that CNET remains involved in the training development process for new systems via participation in Integrated Product Teams (IPTs). In addition, the leaders of the different acquisitions routinely meet with and update CNET on the status of their training development efforts.

Finally, we observed that there is a cadre of Navy training developers and SMEs (mostly from NAWC-TSD) involved in the training development process. These individuals, who work together and with the rest of the Navy, tend to integrate and add consistency across acquisitions by networking and collaborating on training development-related items, such as training policies, Navy Instructions, and draft training plans for the different acquisitions. In addition, these SMEs stay involved in training development for more than one acquisition. That is, they often move from system to system in positions of increasing responsibility.

Assessment

- System training developer SME view:
  - N7 and CNET role and involvement in training development process is adequate and appropriate
- Ample opportunities for CNET involvement on a system-by-system decision basis
  - Lack of a strategic emphasis/focus on assessing cumulative training impact and implications over all acquisitions

As indicated on the slide, the SMEs we spoke with during our review expressed the belief that the N7 and CNET role, involvement, and opportunity to participate in training development for systems are adequate and appropriate. Based on these discussions, there does appears to be ample opportunity for CNET and N7 to remain involved and connected to the training development efforts associated with specific systems. (This assessment refers to the opportunity to become involved in the training development process. We did not address the N7/CNET availability to become actively involved due to workload and competing priorities.)

Several fleet-based people mentioned a lack of focus or emphasis on tracking and assessing the cumulative impact that system-specific training decisions and trends have on the Navy as a whole. They noted that:

- Washington-based activities know the NTSP process but are not tied into fleet training and ship requirements, while
- Fleet TYCOMS trainers know the fleet requirements but are less familiar and involved with the NTSP process.

The result is a loss of total Navy perspective and focus. This topic is explored further in the next issue.

What Mechanisms Exist To Assess Cumulative Impact on the Fleet?

- Some mechanisms identified
  - Integrated ship-wide databases
  - Review and oversight of resource sponsors
  - Outreach efforts, such as LPD 17 issues web page
- No standing mechanism identified to systematically track the impact of training decisions across systems in the fleet

This issue investigated whether there are mechanisms and activities in place to track the cumulative impact of system-level training decisions on the fleet.

We identified several system-specific attempts (listed on the slide) to track the total impact a system will have on the fleet. These are steps in the right direction. But, we did not find any organization specifically charged (and resourced) to help assess the cumulative impact that the system-based decisions being made will have on the fleet relative to the status quo. Nor did we find tools, databases, or data collection mechanisms designed to facilitate this type of assessment across systems.

The surface resource sponsor recognizes the need for the tracking and assessment capability. They attempt, within available resources, to perform the assessment. However, workload and competing priorities preclude them from providing the focus and attention that the issue requires.

What is needed is an entity to track, analyze, and monitor training across acquisitions. Creating and maintaining this type of capability would be difficult. But, if successful, it could help identify and break down stovepipes by introducing/interjecting a Navy-wide strategic view for decisions that often are made primarily on a system-by-system basis.

This potentially important capability could identify problems and generally act as a fleet point of contact for tracking and assessing the impact of future system-based training development decisions on the fleet.

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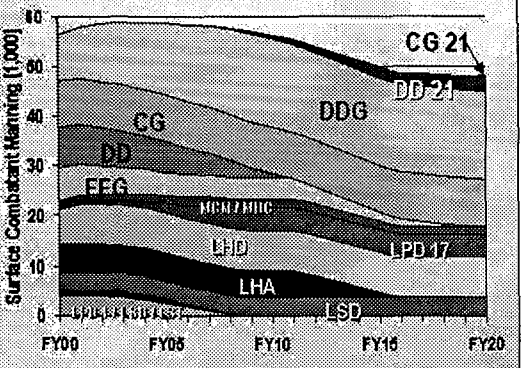
Backup Slides

Manning and Training Requirements DDG 2 vs. DDG 51

	DDG 2	DDG 51
Enlisted Billets	338	282
NEC Req'd Billets	116	201
NEC Billets /Tot Billets	.34	.71
Change in Tot Manning		-17%
Change in Training Man-years		+44%

The Context of the Problem

- Legacy Fleet
  - Is sizable
  - Will be with us for some time
  - Must be supported
- Many "optimal manning" initiatives are backfitable on the legacy fleet
- New ships and legacy fleet must be totally
  - Interoperable
  - Compatible
  - Supportable



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