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Experiences and the impact on U.S. Navy's damage control training



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Overall Classification of this Briefing is

UNCLASSIFIED

S u r f a c e W a r f a r e S c h o o l s C o m m a n d

To Ready Sea-bound Warriors...





Agenda

- N79 Who we are & what is our mission
- Experience shapes how we advance
- Advancing our training
- Elite Firefighting
- Infrastructure modernization
- Strengthening partnerships
- Compete and win





N79 Mission

“Provide a continuum of professional education and training in support of ship survivability and Chemical, Biological, and Radiological Defense systems requirements that prepares officers and Sailors to fight and win at sea”

-N79 Mission Statement



Aircraft Firefighting Trainer – San Diego, CA



Sailors from USS MOMSEN (DDG 92)



N79 and worldwide capability

Impacting Surface Warfare on a Global Scale

Officer Training

MSTP
Warfighting
Engineering
Damage Control



Enlisted Training

NSS
Engineering
Damage Control



24 Learning Sites and Detachments – 12 Geographically Dispersed Areas
~ 77,000 Sailors (US & International) Annually – ~1,596 Staff



Experience shapes how we advance

- The Navy has a long history of successfully combatting casualties aboard ships – training Sailors matters.
- Every lesson in naval history has also uncovered gaps/seams in our abilities to combat these casualties efficiently and effectively.
- Examples:
 - USS *Forrestal* - Lack of understanding of firefighting agents, combat control, suppression and cooling tactics
 - USS *Ranger* - Lack of understanding of thermal layering, heat transfer, Backdraft, flashover and vertical access firefighting
 - USS *George Washington* - Lack of understanding of fire dynamics, thermal layering equipment, thermal transfer and control and boundary setting
 - USS *Bonhomme Richard* - Lack of understanding of fire loading, fire movement, control and dynamics, incident command, resource availability, and multi-agency integration



USS FITZGERALD (DDG 62) (Jun 2017)



USS *Bonhomme Richard* (LHD 6) (July 2020)



USS JOHN S. MCCAIN (DDG 56) (Aug 2017)



Advancing our training

- Updates to U.S. Navy firefighting and damage control doctrine
 - Align with International Fire Service Training Association/National Fire Protection Association (IFSTA/NFPA) Firefighter I & II courses
 - Leverage and incorporate techniques and procedures used in IFSTA/NFPA courses with our own
- Integrate with Navy F&ES/municipal fire departments
 - Include shore-based commands, federal fire department, and local fire departments in drills/training supporting incident command structure
 - NIMS (National Incident Management System)
- Advanced firefighter school and pipeline training
 - Specifically tailored to the Damage Controlman (DC) rate
 - Introduce advanced fire scenarios such as flashovers, backdraft, and fire prevention (Elite Firefighting Course – 2024)
- Increase level of knowledge and proficiency across the Fleet



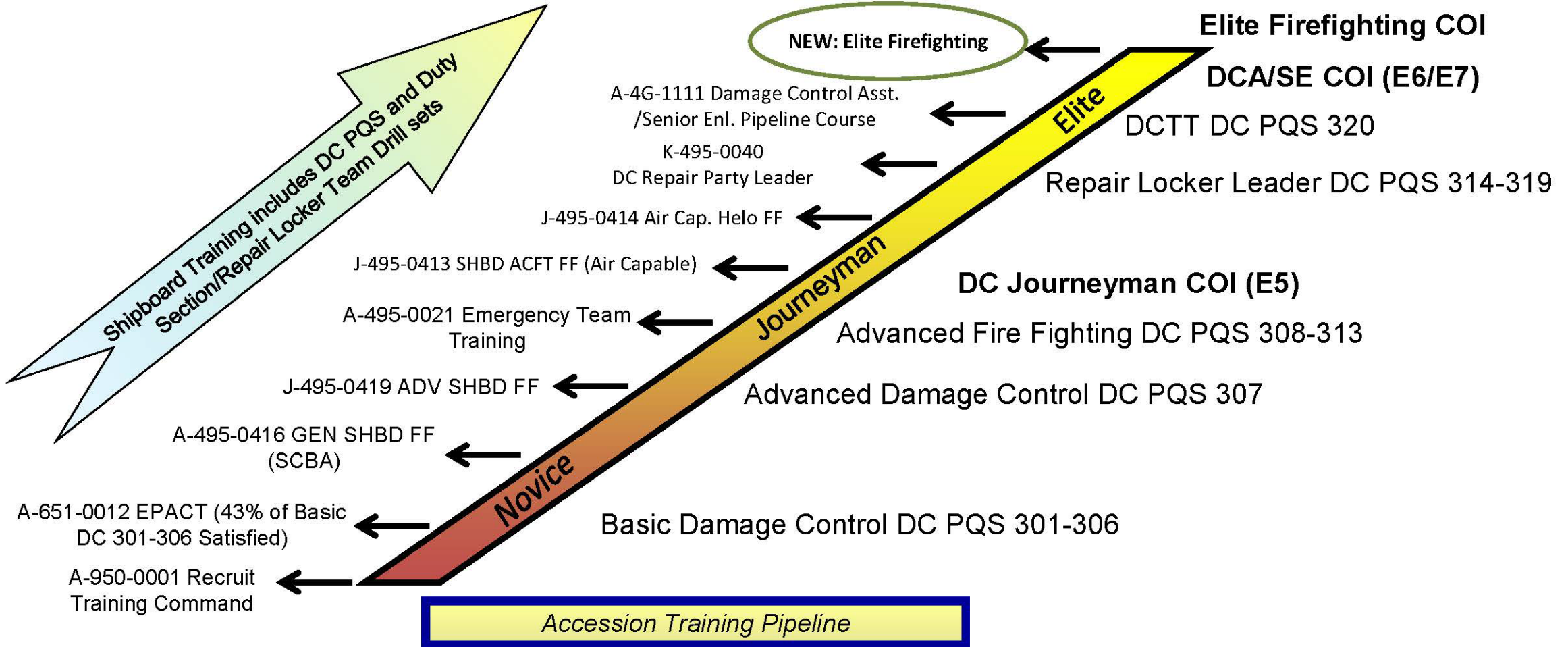
USS MOMSEN (DDG 92) during DC-I (July 2024)



USS MOMSEN (DDG 92) during DC-I (July 2024)



Advancing the Individual Training Pipeline





Elite Firefighting

- Introduced a new 2-week Elite Firefighter COI to reinforce the skills necessary to make informed, real-time tactical decisions
 - Tactical approaches
 - Advance fire suppression and extinguishment techniques
 - Resource availability, Organizational support and capabilities
 - Communication and coordination during firefighting operations and
 - Incident management.
- Five Modules of instruction
 - Fire Dynamics
 - Hazards of High Heat Spaces
 - Advanced Firefighting Tactics
 - Forcible Entry and Personnel Rescue
 - National Incident Management System (NIMS) Incident Response Strategy
- Meet the training demands of NAVSEA 8010 compliance and drill requirements
- Manage watchbills in accordance with 8010 guidelines



Elite Firefighting Bangor, Washington



Investments in Training

- Navy Human Performance Optimization – in planning/study
 - Leverage Navy HPO technologies initiatives
 - Learning from civilian firefighter operational stress management
 - USA Warrior Performance Platform (WP2)
- Maximize realism in live-firefighting scenarios
 - Improve and shape the complexity of training events
- Complexity to induce stress and improve performance
 - Stress inoculation testing (SIT)
- Increased survivability
- Data collection
 - Health assessments
 - Performance metrics
 - Improve and optimize performance



USS MOMSEN (DDG 92) BAE Shipyard (2024)



SWSC Farrier Firefighting School (Norfolk, VA)



Advancing our trainers

- Modernization plan supporting all SWSC trainers (FY-25 to FY-31)
 - Improve capacity, install additional venues and capabilities
 - Advanced/ complex firefighting in reconfigurable spaces
 - Flashover / rollover
 - Forced entry / breaching / multiple level attack
 - Cableways / high voltage/weapons / fuels / batteries/chimney fires
 - Ventilation/ uptake fire
 - Industrial environments
- Command and Control:
 - Industrial environments/multiple agencies response
- Facility Enhancements:
 - High Temperature Fire Liner System
 - High intensity heat/reconfigurable spaces/multi-story-multi-fire progression
 - Safety monitoring systems
 - Additional props include a moveable wall system
 - Installed fire suppression systems (water mist)



Firefighting Trainer (Yokosuka, Japan)



Damage Control Wet Trainer (San Diego, CA)



Advancing our trainers

- By modernizing and improving our training infrastructure we will:
 - Enable Elite Firefighting to be taught at multiple sites
 - Enhanced training techniques employed during Shipboard Firefighting courses
 - Modernize the training structure to achieve a realistic environment, such as:
 - Training in dense smoke or simulated near zero visibility
 - Advanced application techniques
 - Equipment alignment with Fleet use
 - Use of realistic attack methods
 - Sustain the trainer operationally and materially
 - Minimize training gaps & losses
 - Provide opportunity for further advancements



19F1 Firefighting Trainer (Mayport, FL)



19F1 Farrier Firefighting Trainer (Norfolk, VA)



Strength in partnerships

- Expansion of firefighting training:
 - Rota, Spain; Sasebo/Atsugi, Japan; Okinawa; Guam
- Joint Forces training abroad:
 - Naval Damage Control conference (UK)
 - Exercise Toxic Fjord (Norway/Bergen)
- Joint Forces training at Norfolk Naval Base, VA:
 - International DCA/SE (Norfolk)
 - Hosted annually
 - Curriculum focus: DC Admin, Stability/Buoyancy, DC Systems, Gas Free Engineering, CBRN-D Procedures
 - Hands-on training in USN firefighting and wet trainer facilities
 - Shared experiences: techniques, tactics, and procedures



International DCA/SE Class (Norfolk, VA)



Centro De Adiestramiento Seguridad Interior (Rota, Spain)



Compete and win

- To compete, we must advance the trainers:
 - Increase capacity in all Fleet concentration areas
 - Modernize to ensure sustainability
 - Modernize to enable flexible scenarios and increase complexity
 - Develop realistic shipboard scenarios using equipment installed in ships
 - Decrease trainer outages to ensure optimum throughput and minimize course losses
 - Modernize the trainer to induce flashover, rollovers, backdrafts, forcible entry, lithium battery and compressed gas fires
 - Improve and heighten safety across all high-risk training

- To win, we must advance the training:
 - Expand 8010 training and multi-unit/multi-agency integration
 - Modernize advanced and elite firefighting training
 - Modernize the training facility to support new tech/equipment
 - Optimize human performance through HPO initiatives
 - Continue partnerships in training, sharing experiences, and techniques/procedures



SWSC ELS Pearl Harbor, Hawaii



SWSC ELS Yokosuka, Japan

Thank You!
Questions



USS MOMSEN (DDG-92) The "Lucky Swedes"