



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
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WASHINGTON, DC 20350-2000

OPNAVINST 3541.2B
N96
17 APR 2012

OPNAV INSTRUCTION 3541.2B

From: Chief of Naval Operations

Subj: SHIPBOARD DAMAGE CONTROL AND FIRE PROTECTION INITIATIVES

Ref: (a) NTP 3-20.31, Surface Ship Survivability
(b) OPNAVINST 1500.75B
(c) OPNAVINST 3541.1E
(d) OPNAVINST 5430.48E
(e) OPNAVINST 9070.1

1. Purpose. To issue policy and assign responsibility for implementing shipboard damage control (DC) and fire protection (FP) initiatives.

2. Cancellation. OPNAVINST 3541.2A.

3. Background. This comprehensive effort addresses essential ship survivability measures to enhance Navy's mission capability and operational effectiveness posture. Reference (a) provides standard doctrine and procedures dealing with surface ship survivability (SSS). Reference (b) establishes policy and procedures to abate and minimize mishaps during high-risk training. Reference (c) pertains to SSS training in order to maintain a high level of ship survivability knowledge and skills throughout the fleet. Reference (d) defines the missions, functions and tasks of the Office of the Chief of Naval Operations (OPNAV) staff promulgated through the OPNAV Organization and Operations Manual. Reference (e) establishes the policy and assigns responsibility for incorporating survivability features in new surface ship designs, overhauls, and new and existing combat systems and equipment.

4. Policy. In concert with the Chief of Naval Operations (CNO) commitment to progress in platform survivability, including personnel protection, all afloat commands shall ensure the implementation of DC and FP initiatives designed to maintain the highest level of operational readiness and warfighting

sustainability throughout the fleet. DC and FP concepts shall be developed and engineered into all surface ship platforms, shipboard interface systems and associated equipment, materials, procedures, training, and supplies. For new starts, DC and FP considerations shall begin in the concept formulation phase and shall be maintained throughout the life of the platform. Overhaul and modernization programs shall employ the most rigorous and affordable application of DC and FP improvements on a priority basis following established SSS requirements.

5. Objectives. To implement coherent, responsive and centrally coordinated ship DC and FP initiatives which:

a. Achieve damage and fire recoverability through the preservation or restoration of watertight and fumetight integrity, structural integrity, stability, maneuverability and offensive sea power in the event of fire, explosion, toxic gases, loss of electrical power, flooding, grounding, collision, or combat damages.

b. Reduce personnel casualties to the minimum and facilitate care of the injured.

c. Ensure state-of-the-art technologies are properly focused and continuously assessed to achieve early pay-off results.

d. Foster and encourage the transfer of DC and FP improvements across all warfare sponsors and fleet commands.

e. Reduce operational and maintenance workload associated with DC and FP in concert with CNOs' initiatives to reduce shipboard manning.

f. Increase the effectiveness and safety of personnel responding to casualties through the provision of personnel protection equipment.

6. Applicability and Scope. DC and FP initiatives encompass the development, acquisition, deployment, sustainment and support of procedures and material used in responding to accidents, damage, fire or combat operations. DC initiatives encompass personnel, equipment and systems required to respond and recover from groundings, collisions, flooding, structural

damage, loss of communications, loss of power, toxic environments, and personnel casualties. FP initiatives encompass the ability to detect, isolate, suppress, extinguish, and or otherwise control shipboard fires. The passive FP component encompasses the development and acquisition of fire tolerant materials used in platform construction or system upgrades, brought on board as part of normal operations, or used for personnel protection. Fire resistant design and fire safety shall be provided to reduce reliance on personnel actions or active fire fighting systems. The goal is to prevent or minimize the broad degrading effects of fire or damage on mission performance in both peacetime and hostile environments. DC and FP initiatives incorporate active and passive survivability features and, are essential components of major ship survivability system designs.

7. Responsibilities

a. OPNAV Director, Surface Warfare Division (N96) is the CNO's executive agent for implementing Navy DC and FP initiatives. In addition to the responsibilities set forth in reference (c), and in conjunction with the Warfare Division directors, OPNAV (N96) shall:

(1) Provide continuous coordination, direction, management focus and control to ensure the implementation of affordable DC and FP initiatives.

(2) Formulate policy, priorities and operationally relevant requirements consistent with the DC and FP goal.

(3) Ensure planning, programming, staffing and budgeting to support the DC and FP objectives.

(4) Issue directives to ensure implementation, accountability and funding across all warfare and platform sponsors and fleet commands, including the need to address DC and FP considerations in requirements documents.

b. Commander, Naval Sea Systems Command, in support of and in coordination with OPNAV (N96) and other Warfare Division directors as appropriate, shall:

(1) Provide comprehensive technical management, direction, coordination, oversight, assessment and focus for Navy DC and FP initiatives to ensure state-of-the-art awareness, transfer of technology, responsive test and evaluation capability and implementation of cost effective improvements. These functions shall include, but not be limited to, the following items:

(a) Coordinate with the technical and fiscal programs developed by other commands to ensure the DC and FP goal is achieved.

(b) Review and recommend prioritization of all DC and FP initiatives to ensure the greatest return for Navy's investment.

(c) Evaluate industrial independent research and development funding to support Navy DC and FP needs.

(d) Ensure DC and FP technology transfer among all fleet commands.

(e) Provide DC and FP documentation as required.

(f) Develop appropriate methodologies and perform passive FP assessments of platform design features including arrangements, fire loading, fire resistance, smoke and toxicity, ventilation, materials, fire insulation and fire zones for application into new design characteristics and top level requirements.

(g) Determine the desirability, feasibility, benefits and costs associated with implementing and developing passive FP improvements, including, but not limited to, the reduction of fire hazard associated with:

1. Clothing and fabrics.
2. Paints and coatings.
3. Power and signal cables.

materials. 4. Outfitting, furnishing, and habitability

5. Thermal and acoustic insulation.

6. Packaging material.

7. Hydraulic working fluids.

8. Fiber reinforced plastics and wood.

9. Plastics, foams, and adhesives.

10. Passive countermeasures system materials.

11. Fuels (ship, aviation, auxiliary).

(h) Determine the hazards and apply hazard reduction techniques to systems and equipment brought aboard for shipboard or mission use, including, but not limited to:

1. Aircraft (manned and unmanned).

2. Vehicles (manned and unmanned).

3. Ammunition and Explosives.

4. Energy Storage Devices.

(2) Establish and validate DC and FP procedures matched to actual and anticipated operational threats.

(3) Per acquisition reform initiatives, ensure all applicable specifications, standards, manuals and other directives are updated and or developed as necessary to reflect DC and FP performance requirements.

(4) Develop and implement initial certification requirements for DC and FP systems and equipment. Develop and implement a periodic recertification process and criteria for maintaining certification.

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8. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per Secretary of the Navy Manual 5210.1 of January 2012.



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