5830 1 July 2008

UNCLASSIFIED

CONFIDENTIAL - Unclassified upon removal of enclosures (33), (37), (134) and (136)

From: RADM Frank M. Drennan, USN To: Commander, U.S. Pacific Fleet

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

Ref: (a) JAGMAN 5800.7c

Encl: (1) Appointing Order of 6 Jun 08

(2) CD Containing Video Filmed by USS CROMMELIN (FFG 37) Crew and Still Photos from Video

(3) Ship's Drawing 7th Deck to 03-Level, Frame 156 to 220

(4) Illustration of 6-189-1-Q Auxiliary Boiler Exhaust and Supply Space

(5) Damage Control Messages

(6) Ship's Deck Log Sheet of 22 May 08

(7) LCDR USN, Statements of 22 May, 11, 12, 14 and 20 Jun 08

(8) LTJG USN, Statement of 12 Jun 08

(9) Photos of Damage Control Plots

(10) Medical Casualty Information of 22 May 08

(11) Photos of Compartment Damage

(12) Damage Assessment Summary

(13) Structural Damage Assessment

(14) Assessment of Electric and Electronic Damage

(15) DD Form 200 of 27 May 08 for Food Loss from Fire Damage

(16) LT USN, Statement of 28 May 08

(17) MM1 , USN, Statement of 16 Jun 08 (18) EMC , USN, Statement

of 16 Jun 08

(20) Ship Alteration CVN68-8053k, Auxiliary Boiler Deactivation and Removal, Record

(21) NAVSEA Ship Alteration 8053k Status Slide

(22) Unit Level Training Slides Depicting a Standard Cycle and USS GEORGE WASHINGTON'S Cycle

(23) CDR USN, Statement of 13 Jun 08



UNCLASSIFIED CONFIDENTIAL

- (24) USS GEORGE WASHINGTON (CVN 73) Schedule 20 Jan 04 26 May 08
- (25) USS GEORGE WASHINGTON (CVN 73) Phase I Inspection Discrepancy List of 12 Jun 07
- (26) USS GEORGE WASHINGTON (CVN 73) Phase II Inspection Discrepancy List of 14 Aug 07
- (27) NAVAL SAFETY CENTER Survey of 27 Sep 07
- (28) USS GEORGE WASHINGTON (CVN 73) Command Assessment of Readiness and Training Phase II (CART II) Report of 19 Oct 07
- (29) CDR USN, Statement of 16 Jun 08
- (30) COMNAVAIRFORINST 3500.20B (excerpt)
- (31) OPNAVINST 3120.32C (excerpt)
- (32) USS GEORGE WASHINGTON (CVN 73) Ship's Organization and Regulation Manual (excerpts)
- (33) CTF 20 211959Z MAY 07
- (34) PRESINSURV 041800Z JAN 08
- (35) Post-INSURV Summary Presentation
- (b)(6) & (b)(7)(C)
- (36) ATGLANT TSTA/FEP Report for USS GEORGE WASHINGTON (CVN 73)
- (37) COMCARSTRKGRU EIGHT 241527Z MAR 08
- (38) COMNAVAIRLANT 241439 MAR 08
- (39) COMNAVAIRFOR Report of Maintenance Material Management (3-M) Assessment
- (40) Damage Control continuous training plans
- (41) Repair Locker Qualification Summary of 12 Jun 08
- (42) Required Versus Onboard Graduates of Required Fire fighting Schools
- (43) Training Records
- (44) Drill Guides and Authorizations
- (45) Repair Locker Allowance Equipage List
- (46) Repair Locker Shortage List
- (47) YNCS USN, Statement of 12 Jun 08
- (48) MM2 L, USN, Statement of 13 Jun 08
- (49) MM1 USN, Statement of 16 Jun 08
- (50) DCCS USN, Statements of 10 and 16 Jun 08
- (51) MMC USN, Statement of 16 Jun 08
- (52) LTJG USN, Statements of 11 and 16 Jun 08
- (53) LT USN, Statement of 16 Jun 08
- (54) MMC USN, Statement of 13 Jun 08
- (55) MM3 USN, Statement of 16 Jun 08

CONFIDENTIAL

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD
USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008 (b)(6) & (b)(7)(C)

137	
(56)	LTJG USN, Statements of 23 May, 9 and
	16 Jun 08
(57)	HTC USN, Statement of 16 Jun 08
	CS3 USN, Statement of 16 Jun 08
	MM2 USN, Statement of 16 Jun 08
	CDR , USN, Statements of 23 May and
, /	16 Jun 08
(61)	LCDR USN, Statement of 23 May and
(02)	19 Jun 08
(62)	LT USN, Statement of 10 Jun 08
	MMC , USN, Statement of 11 Jun 08
(64)	
(02)	13 and 17 Jun 08
(65)	MM1 USN, Statements of 24 May, 2, 4,
,	and 13 Jun 08
(66)	MM2 USN, Statements of 24 May, 3 Jun,
,,	12 and 13 Jun 08
(67)	MM2 USN, Statements of 3, 12, and
(0,,	13 Jun 08
(68)	MM2 USN, Statements of 24 May and
(00)	13 Jun 08
(69)	MM3 USN, Statements of 2, 3, and
1007	23 Jun 08
(70)	MM3 USN, Statements of 3, 4, and
(,,,	12 Jun 08
(71)	MMFN USN, Statements of 3 and
(/	12 Jun 08
(72)	MM3 USN, Statements of 3 and
(,-,	12 Jun 08
(73)	MM3 USN, Statements of 3 and
, ,	12 Jun 08
(74)	ENFN USN, Statements of 3 and
11212 DES	12 Jun 08
(75)	MM1 USN, Statement of 24 Jun 08
	MMC USN, Statement of 3 Jun 08
	OPNAVINST 5100.28 (excerpt)
	Material Safety Data Sheet for Refrigerant
	Compressor Oil (01-434-9390)
(79)	CDR USN, Statements of 12 and
1.00	16 Jun 08
(80)	Direct Turnover Hazardous Material Log
	Relational Supply (R-Supply) Transmittal Log for
	Refrigerant Lubricating Oil (01-443-9390)
(82)	

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008 (b)(6) & (b)(7)(C)

(83)	ENS USN, Statement
	of 11 Jun 08
(84)	NAVSUP P-485 (excerpt)
	Record of Commander Fleet and Industrial Supply
-	Centers (COMFISCS), Afloat Consolidated Hazardous
	Material Reutilization and Inventory Management
	(CHRIMP) Technician Training and Assist Visits for
	USS GEORGE WASHINGTON (CVN 73)
(86)	Engineering Department Hazardous Material Training
5 × 50 × 50 × 50	and Muster of 9 Oct 07
(87)	COMNAVAIRFOR Supply Management Inspection Results
	for USS GEORGE WASHINGTON (CVN 73) of 7 Feb 08
(88)	Hazardous Material Division Designation Letters and
	Training Certificates
(89)	ENS USN, Statement of 16 Jun 08
	CAPT David Dober, USN, Statements of 12 and
	20 Jun 08
(91)	CAPT David Dykhoff, USN, Statements of 12 and
	20 Jun 08
(92)	CMDCM USN, Statement of 19 Jun 08
(93)	USS GEORGE WASHINGTON (CVN 73) Smoking Policy
	MM3 USN, Statements of 11 and
	16 Jun 08
(95)	ENS USN, Statement of 23 May 08
(96)	CWO3 USN, Statement of 12 Jun 08
(97)	LTJG USN, Statement of 11 Jun 08
(98)	USN, Statement of 23 May 08
(99)	LCDR USN, Statement of 11 Jun 08
(100	USN, Statement of 15 Jun 08
(101	USN, Statement of 2 Jun 08
(102	USN, Statement of 16 Jun 08
	USN, Statement of 16 Jun 08
(104	USN, Statements of 9
	and 16 Jun 08
	Timeline of Events for 22 May 08
	USN, Statement of 13 Jun 08
	USN, Statement of 13 Jun 08
	USN, Statement of 22 May 08
	USN, Statement of 16 Jun 08
	USN, Statement of 16 Jun 08
	USN, Statement of 11 Jun 08
	, USN, Statement of 20 Jun 08
	, USN, Statement of 16 Jun 08
(114) ABFAA USN, Statement of 23 May 08

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD
USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008 (b)(6) & (b)(7)(C)

(115)	ABF3 USN, Statement of 23 May 08
3	ABFAN USN, Statement
************	of 23 May 08
(117)	
(118)	
(119)	
(120)	[제공기계 :
(121)	
	CAPT USN, Statement of 17 Jun 08
(123)	
(124)	[18] [18] [18] [18] [18] [18] [18] [18]
(125)	
	of 16 Jun 08
(126)	IS2 USN, Statement of 16 Jun 08
(127)	EM3 USN, Statement of 16 Jun 08
(128)	PS3 USN, Statement of 11 Jun 08
(129)	
	of 16 Jun 08
(130)	ENS USN, Statement of 9 Jun 08
(131)	LTJG , USN, Statement of 13 Jun 08
(132)	LCDR , USN, Statement of 16 Jun 08
(133)	MM1 USN, Statement of 16 Jun 08
(134)	USS GEORGE WASHINGTON 221633Z May 08
(135)	MMC USN, Statement of 9 Jun 08
(136)	USS GEORGE WASHINGTON 121655Z May 08
(137)	AZC USN, Statement of 17 Jun 08
(138)	EMCM , USN, Statement of 20 Jun 08
(139)	EMCM , USN, Statement of 20 Jun 08
(140)	DC1 USN, Statement of 16 Jun 08
(141)	경제:
(142)	Preliminary Inquiry into the Fire that Occurred onboard USS GEORGE WASHINGTON (CVN 73) on 22 May 08
	The second substitution (c. 1. 1. or at 1. or

Preliminary Statement:

1. Pursuant to enclosure (1) and reference (a), a Command Investigation JAGMAN was conducted into the fire occurring onboard USS GEORGE WASHINGTON (CVN 73) ("GEORGE WASHINGTON") on 22 May 2008. LCDR USN, and LCDR USN, and LCDR USN, provided assistance in the interviews and collection of data enclosed with this report. Captain JAGC, USN, Force Judge Advocate, Commander, Naval Air Forces, provided legal counsel for the Investigating Officer (IO) and special assistants.

UNCLASSIFIED CONFIDENTIAL

- 2. All available evidence was reviewed and collected by the IO and the special assistants. The Commanding Officer (CO), Executive Officer (XO), Chief Engineer (CHENG), and Damage Control Assistant (DCA) were interviewed in order to determine their day-to-day involvement in the training, operation, and maintenance of the ship. Group and individual interviews were conducted with personnel assigned to repair lockers responsible for fire fighting efforts and personnel assigned to Damage Control Central (DCC). The IO and special assistants also consulted with independent experts from Afloat Training Group (ATG), Pacific, regarding ATG's knowledge of Damage Control (DC) training and required skills. Further, the IO interviewed Commander, Carrier Strike Group BIGHT and his Chief of Staff and Operations Officer regarding their observations during the fire and to obtain information regarding GEORGE WASHINGTON'S ULT and certification for integrated training prior to deployment.
- 3. The IO and his investigative team were unable to view the fire scene intact because repairs had already started on GEORGE WASHINGTON. However, the IO and his team were able to view photos of the damage. This inability to view the site intact did not impact the IO team's ability to fully review and investigate this matter.
- 4. The time line in this report is based upon a compilation of witness statements, ship's records and other evidentiary matters; therefore, the times reflected in this report may be imprecise by a few minutes on some occasions. All times cited in this report are local (+5R) unless otherwise specified.
- 5. This command investigation reviewed and incorporated the Preliminary Inquiry conducted by GEORGE WASHINGTON (Enclosure (142)). Additionally, this report incorporated statements from a Command Investigation JAGMAN started by GEORGE WASHINGTON on 26 May 2008. This JAGMAN investigation began on 6 June 2008 and superseded the GEORGE WASHINGTON JAGMAN. Although documents from the Preliminary Inquiry and draft GEORGE WASHINGTON JAGMAN were included in this report, the IO team conducted a full and independent assessment of the facts, to include addressing questions of responsibility and accountability.
- 6. The Naval Sea Systems Command has convened a separate investigation into the effect SHIPALT CVN68-8053K, Auxiliary Boiler Deactivation and Removal, had on fire. That



Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

investigation was ongoing at the time this investigation was completed.

Findings of Fact (FOF):

Overview

- 1. On 22 May 2008, sometime before 0740, a fire broke out in the unmanned Auxiliary Boiler Exhaust and Supply space (6-189-1-Q) on GEORGE WASHINGTON. [Encl (2)]
- 2. The location and geometry of space 6-189-1-Q is shown in enclosures (3) and (4). [Encls (3) and (4)]
- 3. The ship's crew and embarked personnel fought the fire for approximately 12 hours. [Encls (5) through (9)]
- 4. Thirty-seven sailors were treated by the ship's medical personnel for minor injuries incurred during fire fighting efforts. One person required a stay over 24 hours for first and second degree burns. [Encls (10) and (11)]
- 5. The damage to GEORGE WASHINGTON from the fire and fire fighting efforts is catalogued in the enclosures. [Encls (11) through (15)]



- 7. During the initial post-fire inspection by ship's personnel, approximately 90 one-gallon cans, later determined to be cans of refrigerant compressor oil, and 5 five-gallon metal containers with unknown contents consumed in the fire were found at the base of space 6-189-1-Q on the 6th deck. [Encl (16)]
- 8. During the initial post-fire inspection by ship's personnel, approximately 12 cigarette butts were found in the inlet plenum to the exhaust fan located in the Air Conditioning and Refrigeration Machinery Room (6-180-0-E) which discharged directly into the base of space 6-189-1-Q. [Encls (17) and (18)]

CONFIDENTIAL

- Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008
- 9. The forensic expert report suggests several theories about the cause of the fire in space 6-189-1-Q including self-heating, cigarette ignition of stored materials, and electrical failure igniting stored materials. [Encl (19)]
- 10. At the time of the fire, SHIPALT CVN68-8053K, Auxiliary Boiler Deactivation and Removal, was in progress on GEORGE WASHINGTON. Since only Phase I had been completed, the ship's drawings and DC plates were not yet updated. [Encls (20) and (21)]
- 11. GEORGE WASHINGTON had designated the newly created space (6-185-0-E) as the Air Conditioning and Refrigeration (AC&R) Workcenter office instead of the "Reserved for SD Storeroom" as called for in the SHIPALT CVN68-8053K brief. [Encls (20) and (21)]

Preparation for Deployment

- 12. GEORGE WASHINGTON'S Unit Level Training (ULT) occurred over a 9-month period. A standard carrier ULT phase occurs over a 6-month period based upon a 32-month cycle. [Encls (22) through (24)]
- 13. GEORGE WASHINGTON completed Crew Certification (CREW CERT) Phase I on 12 June 2007. Overall, the ship performed at the CREW CERT level and was ready to continue to the CREW CERT Phase II level. [Encls (22) and (25)]
- 14. On 14 August 2007, GEORGE WASHINGTON completed CREW CERT Phase II. The Damage Control Training Team (DCTT) was evaluated as ineffective during the observed drill, and the level of knowledge of DCTT was rated weak. Overall, the ship performed at the CREW CERT level and was ready to continue to the Fast Cruise and Sea Trials level. [Encls (22) and (26)]
- 15. Naval Safety Center conducted a safety survey of USS GEORGE WASHINGTON on 27 September 2007, noting 171 total discrepancies which are average for CVNs. [Encl (27)]
- 16. The ship completed Command and Assessment of Readiness and Training Level (CART II) on 19 October 2007. The CART II report listed concerns about the DCTT's ability to train the crew in basic damage control. The report further cited unqualified

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

members of the DCTT as a "major concern for ATG." [Encls (22), (28) and (29)]

- 17. COMNAVAIRFORINST 3500.20B, The AIRCRAFT CARRIER TRAINING AND READINESS MANUAL (CVTRAMAN), assigns an aircraft carrier's Executive Officer as the DCTT leader. Further, the DCA and Fire Marshal are assigned responsibility for training the DCTT.

 [Encl (30)]

 (b)(6) & (b)(7)(0)
- 18. Per OPNAVINST 3120.32C, the CHENG is specifically responsible for the proper performance and functions of DC and fire fighting. CDR the CHENG, reported onboard GEORGE WASHINGTON in January 2008. [ENCL (31)]
- 19. Per OPNAVINST 3120.32C, the DCA is responsible for the supervision and organization of the ship's DCPO program. LCDR DCA for GEORGE WASHINGTON, reported onboard in December 2007. [Encl (31)]
- 20. GEORGE WASHINGTON Ship's Organization and Regulations
 Manual (GW SORM) states the Fire Marshal is responsible for
 keeping the ship at the maximum level of DC readiness. The Fire
 Marshal is also responsible for aiding the DCA in the prevention
 and the fighting of fires. LT reported onboard GEORGE
 WASHINGTON on 31 January 2008 and assumed the role of Fire
 Marshal from DCCS about the time of the fire. LT
 also filled the role as DCTT Coordinator after GEORGE
 WASHINGTON'S Tailored Ship's Training Availability (TSTA) and
 Final Evaluation Period (FEP). [Encl (32)]
- 21. On 14 December 2007, the ISIC responsibility and Tactical Control (TACON) for GEORGE WASHINGTON shifted from COMNAVAIRLANT (COMNAVAIRLANT) to COMCARSTRKGRU EIGHT (CCSG8). [Encl (33)]
- 22. The Board of Inspection and Survey (INSURV) conducted a material inspection onboard GEORGE WASHINGTON from 16-21 December 2007. The inspectors determined that the ship's ability to self assess itself in DC was "unsat" based on the cumulative deficiencies noted in all DC related areas. The ship, however, received an overall passing grade and a passing grade in DC equipment operating conditions. [Encls (34) and (35)]



- Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008
- 23. The TSTA/FEP report from ATG LANT, dated 10 March 2008, gave GEORGE WASHINGTON an overall grade of "OUTSTANDING." In the "Areas of Concern" section, the report stated that "Of major concern is a needed effort to increase basic DC training and knowledge throughout the ship's crew." The report further stated that the ship's DCPO program "requires serious attention" and was evaluated as "UNSAT" in enclosure (2) of the report. [Encls (22) and (36)]
- 24. During TSTA/FEP, ATG provided over 200 hours of additional DC training to GEORGE WASHINGTON'S DCTT. [Encl (7)]
- 25. On 24 March 2008, CCSG8 certified GEORGE WASHINGTON as ready to proceed to the Integrated Training Phase and listed no outstanding training deficiencies requiring a corrective action plan. [Encl (37)]
- 26. On 24 March 2008, Commander, Naval Air Forces, Atlantic (COMNAVAIRLANT) concurred with CCSG8's certification that GEORGE WASHINGTON was ready to proceed to intermediate phase training. [Encl (38)]
- 27. A 3M Assessment was completed on 11 April 2008, with an overall assessment of unsatisfactory. The performance of spot checks ship-wide and DC Accomplishment Confidence Factor (ACF) resulted in the score of 89.71, below the minimum required score of 90 percent. [Encls (22) and (39)]
- 28. Following the 3M Assessment, the ship began a plan to correct the deficiencies in the DCPO program. [Encl (40)]

Damage Control Training and Qualification

- 29. As of 12 June 2008, 50 percent of the required personnel were qualified for their assigned positions within repair lockers. [Encls (41) and (42)]
- 30. The crew's training records (various dates) and Fleet Training, Management and Planning System (FLTMPS) of 3 Jun 2008 indicate that 84 percent of required personnel had attended General Shipboard Fire Pighting, 35 percent of required personnel had attended Advanced Shipboard Fire Fighting, and 100 percent of required personnel had attended Damage Control Repair Party Leader training. [Encls (42) and (43)]



- Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008
- 31. There is no record of training conducted by the DC Division between October 2007 and April 2008. [Encl (40)]
- 32. The ship conducted 22 DC drills between January 2008 and May 2008. The last DC drill conducted was 8 May 2008. [Encl (44])

Damage Control Equipment

- 33. As of 3 April 2008, 72 of 186 line items required in repair lockers were below the required allowance level. The ship placed an order for some of these items on 21 June 2008. [Encls (45) and (46)]
- 34. On 22 May 2008, the majority of Fire Fighting Ensembles (FFEs) assigned to Repair 1B were without liners because they were being laundered. DCCS the Leading Damage Controlman, had implemented a program to send the FFE liners to the laundry for cleaning, one repair locker at a time. [Encls (47) through (51)]
- 35. Multiple repair lockers reported issues with short Naval Fire Fighter Navy Fire Fighter's Thermal Imager (NFTI) battery life and long battery recharge times. [Encls (52) through (55)]
- 36. Several repair lockers and investigators reported instances of the NFTI whiting out due to high ambient space temperatures. [Encls (56) through (59)]

Incident Involving Improper Storage of Refrigerant Compressor Oil in April 2008

- 37. During a walk through of spaces in April 2008, CDR

 CHENG, found refrigerant oil stored below the deck plates in Auxiliary Boiler Room (7-185-0-E). He identified the oil to LTJG

 Auxiliary Division Officer (A-DIVO), who subsequently ordered MMC

 and MM2

 to turn it into the Hazardous Material (HAZMAT) Division.

 [Encls (7), (56), (60) through (74)]
- 38. Based on the CHENG's order to turn in all of the oil, EA-03 personnel began turning in the refrigerant oil to HAZMAT Division. The EA-03 personnel, however, turned in only 256 of



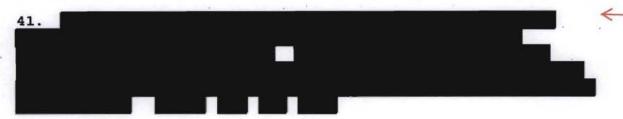
UNCLASSIFIED CONFIDENTIAL

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

approximate 346 gallons. [Encls (63), (65) through (67), (69) through (71)]



40. Twenty-eight nuts must be removed to access space 6-189-1-Q through a manhole cover. [Encl (3)]



- 42. MM2 stated that the oil was stored in 6-189-1-Q in corder to have it "on hand" for frequent use because "it is hard to get things from HAZMAT." [Encl (66)]
- 43. MM2 reported that he observed lagging material bags with unidentified contents in 6-189-1-Q at the time the refrigerant oil cans were loaded into the space. [Encl (66)]
- 44. MM2 verified this space had been used to store foul weather jackets and technical publications since 2005.

 [Encls (66) and (67)]
- 45. On the evening of the day he found the refrigerant oil, the CHENG informed the leadership of his department at their evening meeting to check their spaces and clear out any HAZMAT. The CHENG also notified his XO about the matter. Further, at the next Department Head meeting, the CHENG told his fellow Department Heads about the incident and that they should check their spaces for improperly stored HAZMAT. [Encls (7), (56) and (60)]
- 46. On the evening of the day on which the CHENG found the oil, LCDR , the Auxiliaries Officer (AUXO), and LTJG , A-DIVO, separately performed a walk through of

UNCLASSIFIED CONFIDENTIAL

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

7-185-0-E and noted that all the refrigerant oil appeared to be removed from the space. [Encls (56), (61) and (64)]

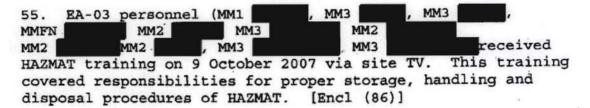
- that all oil was reported to LTJG turned into the HAZMAT Division based on his walk through of 7-185-0-E and not reports from subordinates. [Encls (64) through (66)] (b)(6) & (b)(7)(C)
- as RA-03 LPO on replaced MM1 48. MM1 statement, MM1 1 May 2008. According to MM1 did not tell him about the unauthorized stowage of items. [Encl (75)]
- 49. At various times between August 2007 and 22 May 2008, personnel in EA-03 stored refrigerant compressor oil and various other hazardous materials (paint and paint thinner) in their workspaces. [Encls (56), (60), (61), (65) through (73) and (76)]

Hazardous Material Handling Procedures and Training

- 50. GW SORM contains the requirements of the NAVOSH Program Manual for Forces Afloat (OPNAVINST 5100.19E) as it pertains to the management of HAZMAT onboard. [Encl (32)]
- The refrigerant compressor oil is classified as a Group 11 HAZMAT (lubricants/oils). [Encls (77) and (78)]
- 52. GW SORM section 38050-5.c.3 requires that HAZMAT Division enter the receipt and issuance of Direct Turnover (DTO) HAZMAT into Hazardous Inventory Control System (HICS). The receipt and issuance of refrigerant oil to EA-03 Division was never entered into HICS. [Encls (62), (63), (79) through (83)]
- Direct Turnover (DTO) material is that which is received directly by the requesting work center and not stored by the Supply Department. [Encl (84)]
- The Commander Fleet and Industrial Supply Centers (COMFISCS), Afloat Consolidated Hazardous Material Reutilization and Inventory Management (CHRIMP) Technician provided routine HAZMAT program assistance on 5 September 2007 and HICS database 'assistance and training on two separate occasions in October

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

2007 for personnel in the GEORGE WASHINGTON HAZMAT Division. [Encl (85)]



- 56. The current and previous HAZMAT Coordinators and the HAZMAT Supervisor attended all training courses required by higher authority. [Encls (87) and (88)]
- 57. On 7 February 2008, the COMNAVAIRFOR Supply Management Inspection team evaluated the HAZMAT management onboard GEORGE WASHINGTON as "Excellent (159 of 170 points or 93.5 percent)." [Encl (87)]

General

- 58. The ship did not hold regular zone inspections as required by the GW SORM. [Encls (55), (59), (60), (79), (89) through (92)]
- 59. GEORGE WASHINGTON'S smoking policy was not covered as part of indoctrination or "School of the Ship" training. The policy is contained in the GW SORM and on the ship's intranet.
 [Encl (93)]
- 60. Two GEORGE WASHINGTON personnel stated they found cigarette butts outside of authorized smoking areas. One of the locations was identified as an area under an exhaust ventilation duct in #4 Pump Room. [Encls (66) and (94)]

Summary of Facts Relating to the Casualty

61. At approximately 0600 on 22 May 2008, while preparing for their tasks in the underway replenishment detail aft of Elevator #3, near Frame 235, ENS stated to BMC that he could smell smoke and suspected the ship's incinerator as the source of the smell. [Encl (95)]

- 62. After making his report to the bridge, ENS was informed that the incinerator was secured. [Encl (95)]
- 63. The ship's incinerator exhaust is located on the starboard side, near Frame 220. [Encl (3)]
- 64. At 0650, the Underway Replenishment Detail was ordered stationed. [Encl (6)]
- 65. At 0729, all stations were manned and ready to receive USS CROMMELIN (FFG 37) ("CROMMELIN"). The JP-5 System was aligned to issue fuel to CROMMELIN. [Encls (6) and (96)]
- 66. At approximately 0745, GEORGE WASHINGTON'S Executive Officer, Captain Dober, reported to the OOD that he had observed white smoke aft of the island from his vantage point on the Auxiliary Conn located on the 07 level, starboard side. [Encl (97)]
- 67. After receiving the XO's report, LT the Officer of the Deck (OOD), requested the status of the ship's incinerator from LCDR the Engineering Officer of the Watch (EOOW). [Encls (98) through (100)]
- 68. When the EOOW was informed by the Engineering Watch Supervisor that the incinerator was still in operation, he ordered it secured. Before the EOOW reported this information to the OOD, he received a report of white smoke in Squadron Ready Room #5 (03-185-0-L). [Encls (99) and (100)]
- 69. At approximately 0745, LCDR , MMCM , and CWO4 saw heavy smoke and a glow on the bulkhead in the aft, starboard corner of the Dry Provisions Storeroom (5-180-03-A). [Encls (101) through (103)]
- 70. Around 0745, while retrieving an IPOD from his locker in the Air Conditioning and Refrigerant (AC&R) Division Office (6-185-0-Q) on the 6th deck, MM2 noticed a wisp of white smoke coming from the manhole access cover to the Auxiliary Boiler Exhaust and Supply space (6-189-1-Q). MM2 called Damage Control Central (DCC) to report the smoke, but stated that the line was busy. MM2 departed the space to report to the At-Sea Fire Party (ASFP) without contacting DCC. [Encl (66)]

- 71. At 0747, the EOOW announced "smoke, smoke, smoke, in compartment 03-185-0-1" on the 1MC and directed the ASFP to [Encls (6), (56) and (104)] respond from Repair Locker 7B.
- ordered the JP-5 At approximately 0747, CWO3 System secured. [Encl (96)]
- 73. At 0748, an "Emergency Breakaway" was ordered by GEORGE WASHINGTON and subsequently acknowledged and executed by CROMMELIN. [Encls (6) and (97)]
- At approximately 0755, MMCM went to Repair Locker 5 on the 2nd deck and wrote the location and description of the smoke and glow in 5-180-03-A on the Repair 5 DC plates and reported it to DCC. [Encls (51) and (101)]
- Between 0747 and 0820, DCC received at least eight reports of smoke in various locations from the 6th deck to the flight deck in the vicinity of Frame 180. There were several early reports of Class Bravo fire in the JP-5 pump room based on observable black smoke. [Encls (8), (50), (105) through (108)]
- 76. At approximately 0800, the ASPP investigators reported heat, smoke, but no flames during a search of the area in and around 03-185-0-L. [Encls (66), (104) and (106)]
- 77. At approximately 0800, the EOOW told CAPT the Reactor Officer (RO), that he suspected a fire in the ventilation system. According to RO's statement, he was not getting "wrapped up" in the details of the fire fighting actions because he was focusing on the reactor plants. RO indicated that XO, CHENG, and DCA were in DCC handling the matter. (99) and (100)]
- 78. At approximately 0810, MM2 ____, an investigator for the ASFP, reported to DC1 ____, a Rapid Responder on the ASFP, that he had seen smoke coming from the manway access cover in 6-189-1-Q. DC1 does not recall hearing MM2 [Encls (66) and (106)]
- 79. At 0816, Repair 7B reported to DCC that there was bubbling. paint in passageway 01-185-1-L. [Encls (5), (6), (109) and 110)]

- 80. At approximately 0818, DC2 reported that the Auxiliary Boiler Supply and Exhaust trunk in passageway 01-185-1-L was hot and recommended removing the access manway cover (01-188-1) to see if there was a fire inside. The ASFP requested from DCC to remove the cover. [Encls (5), (107), (111) through (113)]
- 81. Sometime between approximately 0820 and 0840, members of Crash and Salvage team removed the access manway cover (01-188-1) and observed heat, light smoke, but no flames. Since they saw no flames, the team placed the cover back on the access manway. [Encl (112)]
- 82. At approximately 0818, ABFAA , on station for refueling in the Pump Room #3 Control Room, attempted to leave the space when smoke entered the space. Subsequently, he, ABF3 , and EMFN , and EMFN used EEBDs to attempt evacuation via Access Trunk 6-190-1-T. Their evacuation was unsuccessful due to excessive heat along the egress route, and they returned to the Pump Room #3 Control Room and established communications with the V4 Division phone talker in DCC. [Encls (114) through (117]
- 83. In the ship's configuration on GEORGE WASHINGTON, the only route to a higher deck from Pump Room #3 on the 7th deck was via Access Trunk 6-190-1-T. [Encl (3)]
- 84. At approximately 0820, the DCA requested General Quarters (GQ) because the location of the fire could not be determined. [Encls (6), (7), and (97)]
- 85. At 0820, the CO approved GQ and it was ordered by the bridge watch team. CO went to DCC shortly thereafter. [Encls (6), (7), (91), (97), and (99)]
- Repair Locker 5 Officer, and proceeded to DCC.

 There, MMCM informed the DCA and ADCA of smoke and fire in 5-180-03-A, 6-185-0-L and possibly in 7-190-0-E.

 [Encl (101)]
- 87. At approximately 0825, RO, BOOW, and EM1 load Dispatcher, noticed amperage oscillations on the electric plant. Load centers were de-energized and resulted in loss of

(b)(6) & (b)(7)(C)

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

power aft of Frame 180 and the island. This removed power from the exhaust fan in the Air Conditioning and Refrigeration Machinery Room (6-180-0-E). [Encls (99), (100) and (118)]

- 88. On occasion during the fire fighting effort, the 1MC was grounded aft of Frame 180, 03-level and below making it garbled, too loud or difficult to hear. [Encls (55), (58), (119), and (120)]
- 89. At 0826, DCCS , believing there was a fire in the Pump Room #3, initiated HALON in the space from the remote operator on the 2nd deck. [Encls (60) and (114)]
- 90. At approximately 0826, the personnel in Pump Room #3 reported no fires in the pump room but that smoke was entering the space. [Encl (7) and (96)]
- 91. At 0830, Repair 3 reported to DCC a "panting" bulkhead with blistering paint in the Print Shop Storeroom (4-180-4-A). [Encl (5)]
- 92. At approximately 0835, HTC Repair Locker 1B Locker Officer, ordered MM2 and HTFN to take SCBAs to personnel potentially stranded in the 6-185-0-E. [Encl (48)]
- MM2 , HTFN and two hosemen entered the AC&R Division Office. The heat caused the naval fire fighters thermal imager (NFTI) to "white out" and attempts to move it to a cooler area did not correct the white out. No stranded personnel were found and there were no flames noted in the space. Subsequently, MMC and MM2 heard what they believed to be the sounds of a steam leak in the space. They determined that they were unprepared to combat a steam leak and backed the hose team out to the second deck. [Encls (5), (56), (94), and (121)]
- 94. At approximately 0900, MM2 returned to repair 1B and noticed his inner thighs, groin and arms were tender. He searched for a complete FFE set, but could not find any with a liner. To protect himself, he donned two FFEs without liners. [Encl (48)]

- 95. At 0903, MMC reported to DCC the damage he noted during his search of the 6-185-0-E. The damage on the starboard side aft of the office was subsequently plotted on the DC plates. The report of a glowing bulkhead discovered by MMCM earlier was also plotted at about this time.

 [Encl (8)]
- 96. At 0911, CCSG8 made the initial OPREP-3 NAVY BLUE voice report to NAVSO, C2F and COMNAVAIRLANT via Iridium phone. [Encl (122)]
- 97. At 0911, Repair 7B reported a hot manway access cover (02-188-1) on the Auxiliary Boiler Supply and Exhaust space in compartment 02-185-5-L, Female Crew Living Space. The cover was removed and water was sprayed into the opening for several hours securing around 1400. [Encls (5), (123) through (125)]
- 98. At approximately 0913, there was a loss of high pressure air to the SCBA recharge stations due to only one high pressure air compressor (HPAC) being online because of the loss of electrical power. A recharge station consisting of mobile air compressors was established on the port boat deck in the vicinity of frame 120 to recharge SCBAs. [Encls (8), (46), (126) and (127)]
- 99. At approximately 0920, a hoseteam from Repair 1B entered ADP (4-180-1-L) and noted a hot spot on the aft starboard side of the space and began spraying the area using solid stream and short bursts. [Encl (128)]
- 100. Between 0924 and 1300, several attempts were made to rescue the personnel trapped in Pump Room #3, but none were successful due to the excessive heat. [Encls (6), (47), (49), (55), (104), (129) through (132)]
- 101. At approximately 0924, DCCS directed MM2 to assist in the rescue efforts of the four personnel trapped in the Pump Room #3. While attempting to lift the front edge of the hatch to the 4th deck, MM2 was hit with a blast of hot air and dropped the hatch. He received 1st and 2nd degree burns to his wrists where his skin was exposed. [Encl (48)]

- Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008
- 102. During various times during the fire fighting efforts, some individuals reported SCBA bottles as empty because they did not open the isolation valve to allow pressure to the gauge.

 [Encl (133)]
- 103. At approximately 1000, Repair 3 was ordered to evacuate to Repair 5 by DCC due to carbon monoxide levels in the area. [Encls (7), (8), (54), and (56)]
- 104. At approximately 1000, the EOOW told the RO that he suspected the fire was in the "old boiler exhaust" but didn't know the extent of the alteration on GEORGE WASHINGTON. The RO's statement indicates that about the same time the EOOW mentioned he thought it was a ventilation fire, the ADCA indicated he thought the source of the fire was in the Auxiliary Boiler exhaust plenum. The RO deferred to ADCA since ADCA had the best picture of what was going on in DCC based on direct reports from key personnel including MMC and DCCS.

 The CO, XO, CHENG and DC were also present in DCC.

 [Encls (99) and (100)]
- 105. At 1002, Repair 5 reported to DCC a Class A fire in Reactor and Engineering Training Lecture Room #2 (3-180-3-Q) and deployed one hoseteam and two investigating teams to the area. [Encls (5), (6) and (54)]
- 106. At 1007, Repair 5 reported to DCC that they commenced desmoking of 3-180-3-Q through the Brig Ladder Well to the Officer Quarter Deck. [Encls (5) and (7)]
- 107. At approximately 1042, high pressure air was restored to the SCBA recharge stations. [Encl (8)]
- 108. At 1100, Repair 5 reported to DCC that the Class A fire in 3-180-3-Q was out. [Encls (5) and (6)]
- 109. At 1130, Repair 5 reported to DCC a Class A fire in the cable way in Reactor and Engineering Training Office (3-186-1-Q) and in Reactor and Engineering Training Lecture Room #2.
 [Encl (5)]
- 110. At 1133 (DTG 221633Z MAY 08), the initial OPREP-3 NAVY BLUE message was transmitted. [Encl (134)]

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD
USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008
(b)(6) & (b)(7)(C

- 111. At 1135, LTJG , Assistant DCA (ADCA), determined that the possible source of the fires was in the Auxiliary Boiler Supply and Exhaust space (6-189-1-Q). [Encls (7) and (8)]
- 112. At approximately 1140, Repair 5 investigators reported white smoke in 4-180-1-L, and a mix of white and black smoke in the 6-185-0-E and 7-185-0-E. Hoseteams deployed to all three spaces reported that the NFTIs were not effective due to high ambient temperature. They also reported no fires located in 4-180-1-L or the 7-185-0-E, but a Class Alpha fire was in the 6-185-0-E. [Encl (54)]
- 113. At 1144, Repair 5 reported to DCC a Class A fire in the cableway located in passageway 3-180-1-L was contained. [Encls (5) and (6)]
- 114. At 1145, the ADCA ordered MMC to remove the manway access cover to the Auxiliary Boiler Supply and Exhaust space in 4-180-1-L and spray water into the space. [Encls (8), 52), and (135)]
- 115. At 1150, Repair 5 reported to DCC that the Class A fire in passageway 3-180-1-L, Reactor and Engineering Training Office and Reactor and Engineering Training Lecture Room #2 was out. [Encls (8) and (54)]
- 116. At 1154, Repair 5 reported to DCC that the Class A fire in 3-180-3-Q had reflashed. [Encls (5), (8) and (54)]
- 117. At approximately 1155, Repair 5 investigators reported white smoke around the Integrated Maintenance Office (4-191-1-Q) and a hoseteam was dispatched. The team reported having difficulty in finding the source of the fire due to the amount of smoke and high heat. The hoseteam reported that they thought the fire was located in the Dry Provisions storeroom located below the Integrated Maintenance office. [Encl (54]
- 118. At 1155 (DTG 221655Z MAY 08), OPREP-3 NAVY BLUE update message 01 was transmitted. [Encl (136)]
- 119. At Approximately 1200, the Repair 5 fire teams reported that it was difficult to access the Dry Provisions storeroom due to the amount of smoke, heat and stanchions throughout the space. [Encl (54)]

- 120. At approximately 1200, MM2 returned to the 2nd deck and was directed by DCCS along with other unidentified sailors, to proceed to the 6th deck for another attempt to rescue the four personnel trapped in the Pump Room #3 Control Room.

 After undoing a couple of "dogs", the rescue team was forced to evacuate due to boiling water sloshing from the ladderwells above them, insufficient hose length, and low air remaining in the SCBAs. [Encl (48)]
- 121. At 1200, Repair 5 reported to DCC that the Class A fire in 3-180-3-Q was out. [Encls (5) and (6)]
- 122. At 1215, the ADCA ordered AZC to remove the manway access cover for the Auxiliary Boiler Supply and Exhaust space in passageway 1-185-1-L and spray water into the space.
 [Encls (8) and (137)]
- 123. At 1220, the CO ordered an access cut between 2C and 2B shaft alleys to allow egress of the four personnel trapped in the Pump Room #3 due to multiple individuals complaining of difficulty breathing. Initial cutting efforts were delayed due to a low charge on the oxygen bottle for the first portable exothermic cutting unit (PECU) and a depleted battery on the second unit. The third PECU allowed for personnel to start cutting the bulkhead. [Encls (8), (52), (54) and (131)]
- 124. At 1227, the DCA announced that the source of fires appeared to be 6-189-1-Q. [Encl (6)]
- 125. At 1240, Repair 1B reported to DCC a Class A fire in the 6-185-0-E. [Encl (5)]
- 126. At 1244, Repair 1B reported to DCC that the Class A fire in compartment 6-185-0-E is contained. [Encl (5]
- 127. At 1324, personnel in proximity suits gained access the hatch to the Pump Room #3 Control Room, covered the four individuals with wool blankets soaked in AFFF, and evacuated safely. [Encl (6)]
- 128. At 1327, DCC ordered the cutting the access between 2C and 2B shaft alleys to stop. [Encl (6)]



- Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008
- 129. At 1345, the manway access cover to the auxiliary boiler exhaust and supply duct in passageway 1-185-1-L was removed and water was sprayed into the opening. [Encl (8)]
- 130. Around 1400, the ADCA expressed frustration to MMC that the manway access cover in 4-180-1-L had not yet been removed and emphasized the importance of getting the cover off for fire fighting efforts. [Encl (8)] (b)(6) & (b)(7)(C)
- 131. At 1545, the manway access cover to the Auxiliary Boiler Supply and Exhaust space in 4-180-1-L was removed and water is sprayed into the opening. [Encls (7), (8), (54), (135) and (138)]
- 132. A decrease in temperatures in the spaces was noted lower after fire fighting water was applied inside the manway access cover in ADP. [Encl (8)]
- 133. Between 1602 and 2016, the ship fought Class A fires in the 5-180-03-A and 6-185-0-E. The Class A fire in 5-180-03-A reflashed two times and the Class A fire in 6-185-0-E reflashed once. [Encls (5), (7), (8), (105), (135) and (139)]
- 134. Throughout the GQ time period, repair locker members and hose teams personnel stated that personnel were responding to areas outside their assigned GQ areas. [Encls (53), (56), (140) and 141)]
- 135. Throughout the GQ time period, the management of hose teams and investigators was being managed by repair locker 5 and not DCC. [Encls (7), (51) and (54)]
- 136. At 2016, the ship secured from General Quarters. [Encl (6)]

Opinions:

- 1. The start of the fire and its magnitude was the result of a series of human acts that could have been prevented by GEORGE WASHINGTON personnel. Specifically:
- a. The unauthorized storage of technical publications, clothing, and lagging materials in 6-189-1-Q.

UNCLASSIFIED CONFIDENTIAL

- b. The unauthorized storage of at least 90 gallons of refrigerant compressor oil and 5 five-gallon containers of an unknown substance in 6-189-1-Q.
 - c. Smoking in an unauthorized space, 6-180-0-E.
- d. MM2 failure to properly report smoke in 6-189-1-Q, a space where he knew that he and other crew members stored refrigerant compressor oil. [FOF 1 through 9; 37 through 49; 58 through 60; 70 and 78]

 (b)(6) & (b)(7)(C)
- 2. The evidence of cigarette butts found in the inlet plenum of the exhaust fan in 6-180-0-E that discharged directly into the base of the 6-189-1-Q strongly supports that a still-lit cigarette was the ignition source for the fire. [FOF 1, 2, 5, 8 through 11, 59 and 60]
- 3. The refrigerant oil was the fuel source that contributed the most to the intensity of the fire. [FOF 7, 9, 39 and 51]
- 4. The "chimney effect" created by the geometry of the Auxiliary Boiler Supply and Exhaust space, as well as the exhaust fan in 6-180-0-E that discharged directly on the source of the fire, resulted in a fire that grew quickly in intensity. [FOF 2, 5 and 10]
- 5. The individuals who placed or aided in the placement of the refrigerant compressor oil in the Auxiliary Boiler Supply and Exhaust space did so knowing they were violating the rules for storage of HAZMAT and the specific orders of a superior. [FOF 7, 37 through 49 and 55]
- 6. The failure of HAZMAT Division to enter into HICS the DTO of refrigerant compressor oil to Work Center EA-O3 allowed this material to remain unaccounted for by the HAZMAT Division for a lengthy period of time. If the material had been entered into HICS, it would have generated a delinquent turn in notice requiring EA-O3 personnel to account for the material's whereabouts. [FOF 37, 38, 42, 47 and 49 through 58]
- 7. A properly run zone inspection program could have uncovered the improper HAZMAT stowage habits of EA-03 personnel as well as the unauthorized smoking areas. [FOF 37, 38, 49 and 58]



- 8. Several factors beyond the fire fighting crew's control contributed to the time it took for them to bring the fire under control:
- a. The location of the original fire in the unmanned space 6-189-1-Q precluded observation of visible flames leading investigating teams to believe that the source of the fire was elsewhere.
- b. The very large surface area of the Auxiliary Boiler Supply and Exhaust space, which extended from the 6th deck to the 02 level and approximately 100 feet athwartships, created symptoms of the fire in multiple locations on multiple decks.
- c. DC Plates did not portray the Auxiliary Boiler Supply and Exhaust space in such a manner to clearly show all the compartments with which it shared a surface area.
- d. DC plates did not show all manway accesses to the Auxiliary Boiler Supply and Exhaust space. [FOF 1-3, 10, 61 through 136]
- 9. Because of the location of electrical distribution cables in the inaccessible space 6-189-1-Q, even the finest fire fighting efforts by the crew would not have prevented most of the subsequent damage to the cables once the fire started. [FOF 1, 2, 5, 6, 10, 61 through 136]
- 10. Some weaknesses in DC and fire fighting training and proficiency had a direct impact on the time it took the crew to locate and bring the fire under control. Specifically:
- a. The ship's DCC personnel were not proficient at sorting through the many reports for information on the location of the main fire, in particular the critical information regarding the location of a glowing bulkhead reported early in the fire.
- b. No one correlated the continuing discharge of smoke from the ship after setting "Condition ZEBRA" for GQ as a possible ventilation line up problem or a symptom that the fire was in a ventilation system.

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

- c. It took DCC personnel too long, approximately 50 minutes, to make a ship-wide announcement of the location of the fire after DCC determined the source of the fire.
- d. Once the location of the fire was determined to be in 6-189-1-Q, Damage Control Central personnel did not organize a focused, coordinated effort to rapidly gain access by all means available for the application of fire fighting agents.

(b)(5)

- e. DCC was not proficient at simultaneously coordinating the fire fighting efforts and the rescue of personnel from Pump Room #3.
- 11. Some improperly functioning or missing DC equipment, maintained by the ship's crew, impacted the crew's fire fighting and DC performance on 22 May 2008. Specifically:
- a. Missing FFE liners in one repair locker resulted in burns to one individual.
- b. Two inoperable/ineffective Portable Exothermic Cutting Units delayed the recovery of individuals in Pump Room #3.
- c. Several personnel reported having to use handheld flashlights because of a shortage of FFE helmet lights. [FOF 33-36, 61 through 136]
- 12. While it is clear that weaknesses in DC and fire fighting training and proficiency contributed to the length of the time that the fires burned onboard GEORGE WASHINGTON, it is impossible to determine the incremental damage to the ship that could have been avoided if these weaknesses had not existed. [FOF 29 through 36 and 61 through 136]
- 13. External inspection, assessment, and evaluation reports on the training and readiness of the GEORGE WASHINGTON generated as part of the Fleet Readiness Training Plan (FRTP) from 12 June 2007 to 18 March 2008 consistently pointed to weaknesses in the Damage Control Training Team's (DCTT) ability to train the crew and significant weaknesses in the Damage Control Petty Officer (DCPO) program. An INSURV and 3M inspection also validated weaknesses in the DCPO program. [FOF 12 through 36]

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

14. There is evidence that the ship began applying corrective action for the DCPO program following the 3M assessment in April 2008; however, it did not appear to be getting the senior-level attention warranted for this program prior to the fire. [FOF 28 through 32]



- 16. The TESTA/FEP report, while providing an overall grade of "OUTSTANDING," had the unintentional effect of downplaying significant problems in DC training and the DCPO program to Regardless, CCSG8 should have required GEORGE WASHINGTON to address corrective action for two reasons: 1) the deficiencies associated with ATG LANT's "major concern" that an effort was needed to increase basic DC training and knowledge throughout the ship's crew; and 2) the consistent DC weaknesses noted during GEORGE WASHINGTON'S ULT. [FOF 23-36]
- Several NFTIs may have "whited out" at ambient temperatures below the specification. [FOF 35, 36 and 93]
- If portable radios had been available to on-scene leaders, team leaders and investigators, it would have made it easier to coordinate fire fighting and damage control actions among a large number of teams. [FOF 61 through 136]
- The sustained by MM2 on his s were the result of wearing a FFE without a , and liner. The injuries sustained by MM2 were in the line of duty and not due to misconduct. [FOF 4, 34, 93, 94 and 101]
- (b)(6) & (b)(7)(C) 20. After discovering the cans of refrigerant compressor oil in the bilge of the Auxiliary Boiler Room (7-185-0-E), the CHENG took reasonable action to have it removed and properly stored. [FOF 37, 38, 45 and 46]
- The AUXO and the A-DIVO took reasonable action to ensure the refrigerant compressor oil had been removed from the bilge and delivered to a proper HAZMAT storage as ordered by the Chief Engineer. [FOF 37, 38, 46 and 47]



- 23. MMC and MMC did not follow proper procedures for storage of HAZMAT and set poor examples when they allowed their subordinates to store excess refrigerant compressor oil beneath the deckplates in 7-180-0-E. MMC also permitted the ordering of an excessive amount of refrigerant oil beyond normal "in-use" amounts.

 [FOF 37 through 49]
- 24. MM2 did not make a reasonable effort to report the fact that he had observed smoke issuing from the Auxiliary Boiler Supply and Exhaust space manway access cover in the 6-185-0-E. [FOF 70 and 78]
- 25. Although the CHENG and DCA inherited a weak DC organization, they did not implement an effective plan in the five months prior to the fire to improve the DC organization, including implementing of a viable DCPO program. [FOF 18, 19, 22, 27, 28 and 29 through 36]
- 26. The XO, GEORGE WASHINGTON per Navy Regulations is responsible for carrying out the CO's policies including maintaining good order and discipline in the command. The XO is also responsible for the implementation and oversight of the Zone Inspection program. Further, the XO is responsible for exercises and training specifically, the oversight of the DCTT program. [FOF 14, 16, 17, 23, 29-32, 58 and 60]
- 27. By Navy Regulations, the CO, GEORGE WASHINGTON is ultimately responsible for the safety, well-being, and efficiency of his command. He is specifically responsible for ensuring that periodic inspections of the spaces are conducted for material condition and cleanliness and that flammable materials are stored in a safe manner. Although this fire resulted from the willful, improper acts of subordinates that were not directly under his control, the CO has the ultimate responsibility for command readiness and good order and discipline. [FOF 12 through 28, 37 through 49, 58 through 60]



Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

28. Numerous crewmembers fought the fire for over 12 hours under extreme conditions of heat and smoke, some to the point of exhaustion. There was ample evidence of a ship-wide effort by the crew to save their shipmates and limit damage to their ship. The efforts to rescue four crewmembers trapped below the fire was particularly noteworthy. [FOF 3, 4, 61 through 136]

Recommendations:

- 1. The ISIC for GEORGE WASHINGTON should:
- a. Conduct a thorough assessment of the GEORGE WASHINGTON'S DCPO program and the DCTT's ability to train the crew.
- b. Evaluate the need for additional unit level training and assessment of the GEORGE WASHINGTON crew in view of the pending transfer of approximately 900 sailors from USS KITTY HAWK (CV 63).
- 2. Commander, Naval Air Forces should:
- a. As part of their Supply Management Inspection, ensure direct turnover (DTO) material is properly tracked in the HICS system.
- b. Clarify FEP grading criteria to ensure individual areas that are unsatisfactory or require serious attention are not inadvertently downplayed because the aggregate grade is passing.
- 3. Commander, Naval Sea Systems Command should:
- a. Add appropriate portable radios to the Allowance Equipage List (AEL) for DC equipment for CVNs for use by onscene leaders, team leaders, investigators, repair lockers and DC Central personnel.
- b. Revise DC plates to better depict all of the spaces that share a common boundary with the Auxiliary Boiler Supply and Exhaust space and all manway accesses to the space.
- c. Revise the practice of not making configuration drawings and DC plate changes until the SHIPALT is fully completed.

UNCLASSIFIED CONFIDENTIAL

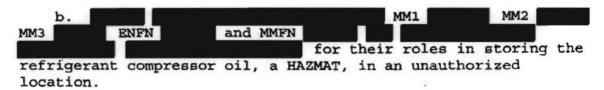
- d. Re-route electrical cables from the Auxiliary Boiler Supply and Exhaust space to an accessible location.
- e. Add a secondary personnel escape route from Pump Room #3 on GEORGE WASHINGTON and similarly configured CVNs.
- f. Investigate whether the current NFTI meets design specifications for performance in high ambient temperatures.
- 4. The CO, GEORGE WASHINGTON, should:
- a. Initiate a zone inspection program that is compliant with the ship's SORM. As part of this program, the ship should inspect all spaces, including voids, for unauthorized storage.
- b. Direct ship-wide training in receipt, handling and storage of HAZMAT with an emphasis on the rules concerning control and storage of "in-use" HAZMAT.
- c. Direct ship-wide training on the ship's smoking policy and authorized smoking areas.
- d. Take appropriate corrective actions after the ISIC's assessment of the DCTT and DCPO program.
- e. Consider approving a HAZMAT "in-use" locker for EA-03 work center.
- f. Recognize appropriate personnel directly involved in the rescue of the individuals trapped in the JP5 Pump Room #3 as well as others whose efforts to combat the fire were particularly noteworthy.
- 5. Commander, Afloat Training Group (ATG) should as part of future ULT:
- a. Specifically evaluate and report on the proficiency of DC teams and DCC personnel to fuse large amounts of information, both spurious and accurate, and to coordinate multiple, simultaneous DC efforts.
- b. Specifically evaluate and report on the crew's ability to manage resources and personnel during a DC effort over an extended period of time.

UNCLASSIFIED CONFIDENTIAL

(b)(5), (b)(6) & (b)(7)(C)

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

- c. Ensure Damage Control Central and key supervisory personnel understand the symptoms of a ventilation fire.
- 6. The ISIC or higher authority should consider taking the following actions regarding GEORGE WASHINGTON crew:
- for his failure to remove and/or report the unauthorized storage of technical publications and clothing.



- for his role in the unauthorized storage of refrigerant compressor oil and failure to report signs of a fire in a space that he knew contained HAZMAT.
- d. MMC and MMC and for their failure to adequately supervise the performance of EA-03 work center personnel and enforce the ship's policies on handling hazardous material.
- and ENS for failing to properly administer the HAZMAT program.
- f. LCDR LCDR LTJG and MM1 for failure to ensure proper HAZMAT procedures in their Department.
- and DCCS for their failure to aid the DCA in keeping the ship at the maximum level of DC readiness.
- for failure to correct the problems with the DC organization, specifically the DCPO program.

(b)(5), (b)(6) & (b)(7)(C)

UNCLASSIFIED CONFIDENTIAL

Subj: COMMAND INVESTIGATION INTO THE FIRE THAT OCCURRED ONBOARD USS GEORGE WASHINGTON (CVN 73) ON 22 MAY 2008

for failure to correct the problems with the DC organization, specifically the weaknesses of the crew's fire fighting training and proficiency.

(b)(5), (b)(6) & (b)(7)(C)

- j. Detach for cause CAPT Dober for substandard performance. Specifically, he failed to execute his duties to supervise and coordinate the work, exercises, training and education of the personnel in the command. CAPT Dober also failed to provide proper oversight and implementation of the DCTT and Zone Inspection programs onboard GEORGE WASHINGTON.
- k. Detach for cause CAPT Dykhoff for loss of confidence in that he failed to meet mission requirements and command readiness as well as maintain good order and discipline.

F. M. DRENNAN