



~~TOP SECRET~~

**DEPARTMENT OF THE NAVY**  
 COMMANDER  
 U.S. FLEET FORCES COMMAND  
 1562 MITSCHER AVENUE SUITE 250  
 NORFOLK, VA 23551-2487

5830  
 Ser N01L/002  
 28 Aug 09

~~TOP SECRET//Unclassified upon removal of basic investigation, enclosures, first and second endorsements~~

**FINAL ENDORSEMENT** on (b)(6) ltr 5830 of  
 30 Apr 09

**From:** Commander, U.S. Fleet Forces Command  
**To:** File

**Subj:** COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

1. (U) Executive Summary. On 20 March 2009 (0058D, local time) while crossing the Strait of Hormuz at periscope depth on a southbound course, USS HARTFORD collided with USS NEW ORLEANS (LPD 18). As a result of the collision, 15 HARTFORD crewmembers received minor injuries. There were no injuries aboard NEW ORLEANS. The cause of this collision was human error.

2. (U) As discussed by previous endorsers, this was an avoidable mishap. Correction of any one of nearly thirty tactical and watchstander errors, or adherence to standard procedures, could have prevented this collision. As we continue to learn in every mishap, the price of safety and success at sea is eternal vigilance. We place great responsibility in the hands of Commanding Officers at sea and rely upon them and their leadership teams to enforce the necessary standards by their own examples and by holding subordinates accountable. In this case, the command team failed to do so, and a high price has been paid for that shortcoming.

3. (U) In light of this incident, Commander, Submarine Force directed that a review of submarine collisions going back to the collision of the USS GREENEVILLE (SSN 772) in February 2001 be conducted to discern common themes and deficiencies, identify the lessons learned and corrective actions that could have served to prevent the subsequent mishaps, evaluate the

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

inspections and assessments during the Fleet Response Training Plan that could have identified precursors to these mishaps and enabled timely intervention, and develop a plan of action to ensure that submarine leadership teams are trained and prepared through their training continuum to safeguard the culture and standards of the Submarine Force. I am directing Commander, Submarine Force to complete this review within 90 days of the date of this endorsement. Upon completion of the review, I am to be briefed on the conclusions and way ahead.

4. (U) All appropriate accountability measures have been completed. In addition to the ongoing review discussed in paragraph 3, Commander, Submarine Force has developed a series of near and longer-term actions to be taken to prevent future mishaps. As directed by the prior endorsers, completion of action taken on the investigation's recommendations shall be reported in writing to USFF through the USFF Fleet Judge Advocate.

5. (U) The following modifications are made to the investigation:

a. (U) Opinion 11.a. is modified as recommended in the Second Endorsement.

b. (U) Add Recommendation 24: U.S. Fleet Forces Command conduct a review of existing Fleet Commander pre-deployment certification reporting requirements to verify the content and distribution of those reports provide the chain of command adequate indication of a submarine's training and readiness for deployment (i.e. visibility similar to that available for surface ships and aircraft squadrons).

c. (U) Add Recommendation 25: Commander, Submarine Force incorporate the complete investigation, including a review of the root causes and lessons learned, into the Submarine Command Course curriculum for all prospective Executive and Commanding Officers.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

6. (U) Subject to the foregoing, the findings of fact,  
opinions, and recommendations contained in this investigation,  
as modified by Commander, U.S. FIFTH Fleet and Commander,  
Submarine Force, are approved. This investigation is considered  
final and no further endorsement is required.

  
J. C. HARVEY, JR.

Copy to:  
OPNAV (N23 /N09D)  
COMPACFLT  
COMSUBPAC  
COMFIFTHFLT  
COMSECONDFLT  
COMNAVNETWARCOM  
ONI  
COMSUBGRU TWO  
COMSUBRON FOUR  
COMSUBDEVRON TWELVE  
CTF 51  
CTF 54  
NAVIOCOM Georgia



**DEPARTMENT OF THE NAVY**

COMMANDER SUBMARINE FORCE  
7958 BLANDY RD  
NORFOLK, VA 23551-2492

5830  
Ser N00/S044  
2 Jul 09

SECOND ENDORSEMENT on [redacted] (b)(6) ltr 5830 of  
30 Apr 09

From: Commander, Submarine Force  
To: Commander, U.S. Fleet Forces Command

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

1. (U) Forwarded, concurring in the findings of fact, opinions and  
recommendations as modified by the first endorsement, except where noted  
below.

2. (U) Executive Summary. On 20 March 2009 (0058D, local time) while  
crossing the Strait of Hormuz on a southbound course, USS HARTFORD collided  
with USS NEW ORLEANS (LPD 18). As a result of the collision, 15 HARTFORD  
crewmembers received minor injuries (no injuries to crew of NEW ORLEANS). The  
cause of this collision was preventable human error.

3. [redacted]  
(b)(1)

4. (U) Concur with the opinions of the Investigating Officer as modified by  
Commander, U.S. FIFTH Fleet except as indicated below.

(a) (U) Personnel standing ESM Operator watch are not responsible for  
making recommendations regarding [redacted] (b)(1)  
Recommend striking [redacted] (b)(1) and" from fourth  
and fifth lines of the first sentence of Opinion 11.a.

5. (U) Concur with the recommendations of the Investigating Officer as  
modified by Commander, U.S. FIFTH Fleet as amplified below.

a. (U) Individual Accountability (Recommendations 1-13). The  
Investigating Officer recommended disciplinary action (non-judicial  
punishment) for 11 HARTFORD crewmembers (CO, XO, OOD/WEPS, NAV, JOOB, Sonar  
Supervisor, SAMS Operator, TAWS Operator-On Watch, TAWS Operator-Of Going,  
Auxiliary Sonar Operator, WEPS LCPC). Appropriate administrative action for  
poor performance was recommended for: 5 HARTFORD crewmembers (COB, JOOW,  
PTOW, PTOW and CEP Operator); the Senior (b)(1) specialist; and 4 DSE team  
members (DSE Officer, ESM Operator and ESM Supervisor). All individual  
accountability actions have been completed.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

(1) (U) The Commanding Officer (CO) was relieved by CTF 54 due to a loss of confidence in his ability to command. A request to detach the CO for cause has been submitted to Navy Personnel Command.

(2) (U) The Chief of Boat (COB) was reassigned to Commander, Submarine Squadron FOUR. (b)(6)

(b)(6)

(3) (U) Commander, Submarine Group TWO held a non-judicial hearing (b)(6) the Commanding Officer, Executive Officer, and Weapons Officer (OOD) on 11 June 2009.

(4) (U) Commander, Submarine Squadron FOUR held a non-judicial hearing (b)(6) to the Navigator, Weapons LCPO, AUX Sonar Operator, TAWS Operator on-watch, Sonar Supervisor, TAWS Operator off-going, and SAWS Operator on 10 June 2009.

(5) (U) Commander, Submarine Squadron FOUR held a non-judicial hearing on 16 June 2009 (b)(6) the JOOD (b)(6)

(b)(6) Appropriate administrative actions have been taken.

(6) (U) Commander, Submarine Squadron FOUR has taken appropriate administrative actions concerning the performance of the JOOW and 2 FTOWs.

(7) (U) The HARTFORD CEP Operator (b)(6)

(b)(6)

(8) (U) The individual accountability recommendations made in the original report regarding temporary duty personnel have been completed as follows:

(a) (U) Farragut Technical Analysis Center (ONI) took appropriate administrative action concerning the performance of the Senior (b)(1) Specialist.

(b) (U) Naval Information Operations Command, Georgia (NIOC) took appropriate administrative action concerning the performance of the three Direct Support Element (DSE) team members (DSE Officer, ESM Operator and ESM Supervisor).

b. (U) Recommendations 14 and 15. Commander, Submarine Squadron FOUR has established a plan of action and milestones and is in the process of completing recommendations 14 (command climate survey) and 15 (comprehensive assessment and upgrade for HARTFORD crew). By copy of this investigation, Commander, Submarine Squadron FOUR is directed to report completion of actions on recommendations 14 and 15 in writing as specified in paragraph 7 of the first endorsement.

(b)(1)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

(b)(1)

d.

(b)(1)

(b)(1)

e.

(b)(1)

(b)(1)

f. The following additional recommendations are made:

(1)

(b)(1)

(b)(1)

(2)

(b)(1)

(b)(1)

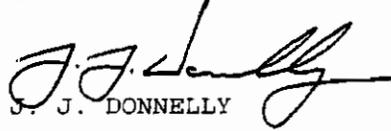
(3)

(b)(1)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

6. (U) The HARTFORD team had the necessary training, tactical skills and equipment to prevent this collision. The fact that a preventable collision did occur was due to ineffective and negligent command leadership.

  
J. J. DONNELLY

Copy to:  
OPNAV (N23/N09D)  
COMPACFLT  
COMSUBPAC  
COMFIFTHFLT  
COMSECONDFLT  
COMNETWARCOM  
ONI  
COMSUBGRU TWO  
COMSUBRON FOUR  
COMSUBDEVRON TWELVE  
CTF 51  
CTF 54  
NAVIOCOM Georgia



**DEPARTMENT OF THE NAVY**  
**COMMANDER, U.S. FIFTH FLEET**  
**FPO AE 09501-8008**

IN REPLY TO:  
5830  
Ser N00/180  
3 Jun 09

FIRST ENDORSEMENT on [REDACTED] (b)(6) ltr 5830 of  
30 Apr 09

From: Commander, U.S. FIFTH Fleet  
To: Commander, U.S. Fleet Forces Command  
Via: Commander, Submarine Forces

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

Encl: (145) [REDACTED] (b)(1)  
(146) [REDACTED] (b)(1)  
(147) [REDACTED] (b)(6) emails of 12 May and 29 Apr 09 (U)  
(148) [REDACTED] (b)(1)  
(149) [REDACTED] (b)(1)  
(150) [REDACTED] (b)(1)  
(151) [REDACTED] (b)(1)  
(152) [REDACTED] (b)(1)

1. (U) Forwarded.

2. (U) Executive Summary. The investigating officer's unclassified executive summary at pages 10 - 12 accurately describes what went wrong on USS HARTFORD to produce this catastrophic failure in contact management and safe navigation at sea during a strait transit and crossing evolution at periscope depth. Overall, this exceptionally costly and preventable mishap was caused by human error on USS HARTFORD and resulted in serious detrimental impacts on Fleet operations. The surface unit involved in the incident, USS NEW ORLEANS, was a victim of circumstance and bears no fault for the incident.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

3. (U) As directed in reference (a), both Commander, Task Force (CTF) 51 and CTF 54 were provided an opportunity to review the investigation report and submit comments for consideration in the initial review of the report and preparation of this endorsement. The feedback from CTF 54, enclosure (145), has been considered in the review and endorsement of this report. CTF 51 reviewed the report and did not submit any comments.

4. (U) The Findings of Fact (FOF) of the investigating officer are approved subject to the following:

a. (U) The effects convention used to indicate some of the modifications is to italicize additions and ~~strikethrough~~ deletions.

b. Add FOF 107a: (U) A detailed damage assessment was completed on NEW ORLEANS in dry dock on 26 April 2009. Four repair areas were assessed including a newly identified 10-foot scrape in the hull between frame 123 and frame 126 on the port side. The other repair areas included damage to tanks 8-63-1-F and 8-73-1-W, a 6 foot by 6 foot dent between frame 78 and frame 80 on the port side, and more significant damage to tank 8-95-0-W than previously reported because approximately 300 square feet of shell plate surrounding the two ruptures was dished and dented, including damage to the keel plate. [Encl 147]

c. Add FOF 111a: (U) The revised estimated cost of repairs for NEW ORLEANS after completion of dry dock on 12 May was \$2,297,575, approximately \$2.3 million. [Encls 147, 148]

(b)(1)

e. (U) Modify FOF 113, line 4, by replacing "HATFORD" with "HARTFORD."

f. (U) Modify FOF 119, lines 7-8, by replacing "COMFIFTHFLT Daily Intentions and Orders Message (DIMS)" with "COMUSNAVCENT/CMF/C5F Daily Intentions and Orders Message (DIOMS)."

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

k. Insert new header after FOF 205: **Post-collision  
operational impacts on U.S. FIFTH Fleet**

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

5.

(b)(1)

(b)(1)

6. (U) The recommendations of the Investigating Officer are approved subject to the following:

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

a. (U) Since none of the individuals determined by the investigating officer to bear some responsibility for the incident are currently under the operational or administrative control of my command, and initial disposition actions on suspected violations of the UCMJ should be made at the lowest appropriate level, recommendations 1 - 13 are referred to the administrative chains of command for review and any action they deem appropriate. By copy of this investigation, recommendations 1 - 10 are referred to Commander, Submarine Group TWO; Commander, Submarine Squadron FOUR; and Commanding Officer, USS HARTFORD, which will require an initial determination on the appropriate level for taking the initial actions; recommendations 10 (only for the ESM Operator), 12, and 13 are referred to Commander, Naval Network Warfare Command and Commanding Officer, Navy Information Operations Command Georgia, which will require an initial determination on the appropriate level for taking the initial actions; and recommendation 11 is referred to the Commander, Office of Naval Intelligence (ONI).

b. (U) CTF 54 took preliminary action on recommendation 4 by temporarily reassigning (b)(6) on 14 April 2009 pending review of the command investigation. He was directed to report to Submarine Squadron FOUR.

c. (U) By copy of this investigation, Commander, Submarine Squadron FOUR is requested to take action on recommendations 14 and 15.

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

7. (U) A written report on the action taken on each recommendation referred above should be made to the Force Judge Advocate, U.S. Fleet Forces Command with a copy to the Fleet Judge Advocate, U.S. FIFTH Fleet and the Force Judge Advocate, Submarine Forces.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

8. (U) The evidence custodian for all documentary and physical evidence and other items collected during the investigation is the Naval Activities Control Officer (NACO), U.S. FIFTH Fleet. This includes Privacy Act statements; original rights warning advisements; investigator's notes; tape recordings of witness interviews; and audio, photographic, and video files.

9. (U) Poor tactical planning skills and inadequate supervisory oversight on USS HARTFORD combined with substandard watchstanding practices set this unit up for failure in the most challenging contact management environment for a submarine. This incident comes down to weak and complacent leadership, which led to inadequate planning and preparation of the crew for a significant evolution and OPSEC shift; failure to understand and use operational risk management tools including the risk management pyramid; and poor basic watchstanding skills, practices, and level-of-knowledge. As leaders entrusted with the safety and security of the personnel and material resources critical to our national defense, we must take all actions necessary to prevent this serious lapse of professional competency from happening ever again.

  
W. E. GORTNEY

Copy to:  
OPNAV (N23/N09D)  
COMPACFLT  
COMSUBPAC  
COMSECONDFLT  
COMNETWARCOM  
ONI  
COMSUBGRU TWO  
COMSUBRON FOUR  
COMSUBDEVRON TWELVE  
CTF 51  
CTF 54  
NAVIOCOM Georgia  
USS HARTFORD

5830  
30 Apr 09

From: [REDACTED] (b)(6)  
To: Commander, U.S. FIFTH Fleet

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

Ref: (a) JAGMAN 5800.7E, Chapter II (U)

(b) [REDACTED] (b)(1)

(c) [REDACTED] (b)(1)

(d) [REDACTED] (b)(1)

(e) [REDACTED] (b)(1)

Encl: (1) COMFIFTHFLT ltr 5830 Ser N013/020 of 21 Mar 09 (U)

(2) COMFIFTHFLT ltr 5830 Ser N013/021 of 31 Mar 09 (U)

(3) COMFIFTHFLT ltr 5830 Ser N013/024 of 19 Apr 09 (U)

(4) [REDACTED] (b)(1)

(5) [REDACTED] (b)(1)

(6) USS NEW ORLEANS Deck Log of 19-20 Mar 09 (U)

(7) USS NEW ORLEANS Position Log of 19-20 Mar 09 (U)

(8) [REDACTED] (b)(1), (b)(6)

(9) [REDACTED] (b)(1), (b)(6)

(10) [REDACTED] (b)(1), (b)(6)

(11) [REDACTED] (b)(1), (b)(6)

Subj: **COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR... ..  
ABOUT 20 MARCH 2009 (U)**

- (12) [REDACTED] (b)(1), (b)(6)
- (13) [REDACTED] (b)(1)
- (14) [REDACTED] (b)(1)
- (15) [REDACTED] (b)(1)
- (16) [REDACTED] (b)(1)
- (17) [REDACTED] (b)(1)
- (18) [REDACTED] (b)(1)
- (19) [REDACTED] (b)(1), (b)(6)
- (20) [REDACTED] (b)(1)
- (21) [REDACTED] (b)(1), (b)(6)
- (22) [REDACTED] (b)(1), (b)(6)
- (23) [REDACTED] (b)(1), (b)(6)
- (24) [REDACTED] (b)(1)
- (25) [REDACTED] (b)(1)
- (26) **USS NEW ORLEANS Memorandum of Post-Collision Actions (U)**
- (27) [REDACTED] (b)(1)
- (28) [REDACTED] (b)(1)
- (29) [REDACTED] (b)(1)
- (30) [REDACTED] (b)(1), (b)(6)
- (31) [REDACTED] (b)(1), (b)(6)
- (32) **USS NEW ORLEANS Pilot Information Card (U)**
- (33) [REDACTED] (b)(1), (b)(6)
- (34) [REDACTED] (b)(1), (b)(6)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

- (35) [REDACTED] (b)(1), (b)(6)
- (36) [REDACTED] (b)(1), (b)(6)
- (37) [REDACTED] (b)(1), (b)(6)
- (38) [REDACTED] (b)(1), (b)(6)
- (39) [REDACTED] (b)(1), (b)(6)
- (40) [REDACTED] (b)(1)
- (41) [REDACTED] (b)(1)
- (42) [REDACTED] (b)(1)
- (43) [REDACTED] (b)(1), (b)(6)
- (44) [REDACTED] (b)(1)
- (45) [REDACTED] (b)(1)
- (46) USS HARTFORD Watchbills, Mar 09 (U)
- (47) [REDACTED] (b)(1)
- (48) [REDACTED] (b)(1)
- (49) [REDACTED] (b)(1), (b)(6)
- (50) [REDACTED] (b)(1), (b)(6)
- (51) [REDACTED] (b)(1), (b)(6)
- (52) [REDACTED] (b)(1)
- (53) [REDACTED] (b)(1)
- (54) [REDACTED] (b)(1)
- (55) [REDACTED] (b)(1), (b)(6)
- (56) [REDACTED] (b)(1), (b)(6)

**Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)**

(57)

(b)(1), (b)(6)

(58)

(b)(1), (b)(6)

(59)

(b)(1), (b)(6)

(60)

(b)(1), (b)(6)

(61)

(b)(1), (b)(6)

(62)

(b)(1), (b)(6)

(63)

(b)(1), (b)(6)

(64)

(b)(1), (b)(6)

(65)

(b)(1), (b)(6)

(66)

(b)(1), (b)(6)

(67)

(b)(1), (b)(6)

(68)

(b)(1), (b)(6)

(69)

(b)(1), (b)(6)

(70)

(b)(1)

(71)

(b)(1)

(72)

(b)(1)

(73)

(b)(1), (b)(6)

(74)

(b)(1), (b)(6)

(75)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

- (76) Periscope Operator Qualification Card for (b)(6)  
(b)(6) (HARTFORD Watch Section 1 JOOD) (U)
- (77) (b)(1)
- (78) (b)(1)
- (79) (b)(1)
- (80) (b)(1)
- (81) (b)(1), (b)(6)
- (82) (b)(1)
- (83) (b)(1), (b)(6)
- (84) (b)(1), (b)(6)
- (85) (b)(1)
- (86) (b)(1)
- (87) (b)(1)
- (88) (b)(1), (b)(6)
- (89) (b)(1)
- (90) (b)(1)
- (91) (b)(1)
- (92) (b)(1)
- (93) (b)(1)
- (94) (b)(1)
- (95) (b)(1), (b)(6)
- (96) (b)(1)
- (97) COMUSNAVCENT METOC Report (U)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

- (98) USS NEW ORLEANS - Damage and Repair Photographs (U)
- (99) [REDACTED] (b)(1)
- (100) [REDACTED] (b)(1)
- (101) USS NEW ORLEANS Collision Repair Report (U)
- (102) [REDACTED] (b)(1)
- (103) [REDACTED] (b)(1), (b)(6)
- (104) [REDACTED] (b)(1), (b)(6)
- (105) [REDACTED] (b)(1), (b)(6)
- (106) [REDACTED] (b)(1)
- (107) [REDACTED] (b)(1), (b)(6)
- (108) [REDACTED] (b)(1)
- (109) [REDACTED] (b)(1), (b)(6)
- (110) [REDACTED] (b)(1)
- (111) [REDACTED] (b)(1)
- (112) [REDACTED] (b)(1)
- (113) [REDACTED] (b)(1), (b)(6)
- (114) [REDACTED] (b)(1)
- (115) [REDACTED] (b)(1), (b)(6)
- (116) [REDACTED] (b)(1), (b)(6)
- (117) [REDACTED] (b)(1), (b)(6)
- (118) [REDACTED] (b)(1), (b)(6)
- (119) Excerpts from Standard Submarine Combat Systems  
Department Organization and Regulation Manual  
(COMNAVSUBFORINST 5400.40) (U)

oj: **COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)**

- (120) [REDACTED] (b)(1), (b)(6)
- (121) [REDACTED] (b)(1), (b)(6)
- (122) [REDACTED] (b)(1), (b)(6)
- (123) [REDACTED] (b)(1), (b)(6)
- (124) [REDACTED] (b)(1), (b)(6)
- (125) [REDACTED] (b)(1), (b)(6)
- (126) [REDACTED] (b)(1), (b)(6)
- (127) [REDACTED] (b)(1)
- (128) [REDACTED] (b)(1), (b)(6)
- (129) [REDACTED] (b)(1), (b)(6)
- (130) [REDACTED] (b)(1), (b)(6)
- (131) [REDACTED] (b)(1), (b)(6)
- (132) [REDACTED] (b)(1), (b)(6)
- (133) [REDACTED] (b)(1)
- (134) [REDACTED] (b)(1)
- (135) [REDACTED] (b)(1)
- (136) **USS HARTFORD Watchbills, Oct-Nov 08 (U)**
- (137) [REDACTED] (b)(1)
- (138) [REDACTED] (b)(1)
- (139) [REDACTED] (b)(1)
- (140) [REDACTED] (b)(1)
- (141) [REDACTED] (b)(1)
- (142) [REDACTED] (b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(143)

(b)(1)

(144)

(b)(1), (b)(6)

#### Preliminary Statement

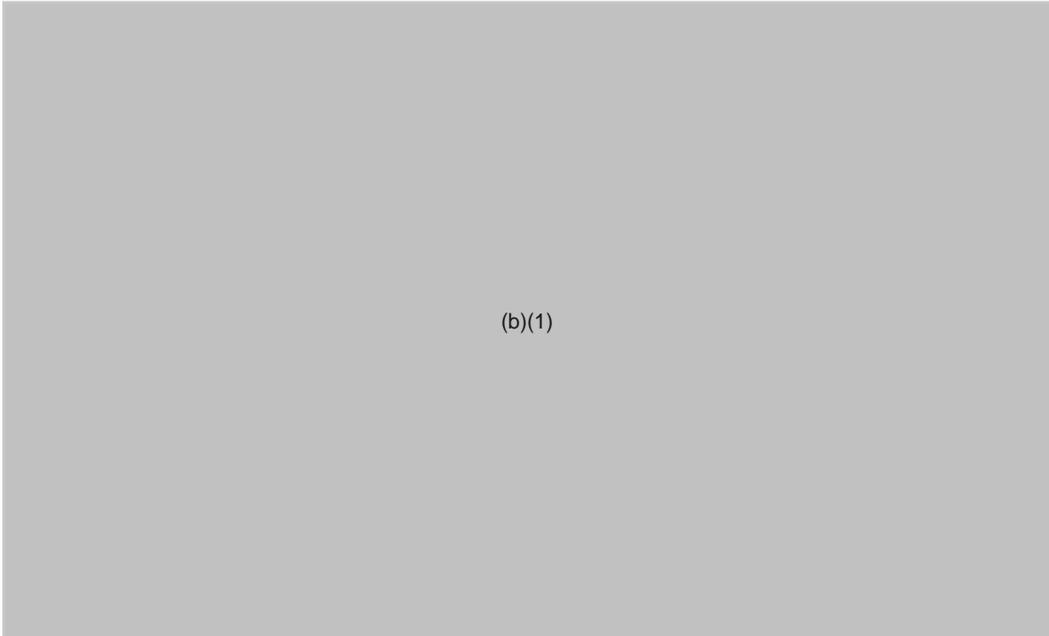
1. (U) Pursuant to enclosure (1) and in accordance with reference (a), an investigation was conducted into the facts and circumstances surrounding the collision between USS NEW ORLEANS (LPD 18) and USS HARTFORD (SSN 768) on or about 20 March 2009 while transiting the Strait of Hormuz. All reasonably available evidence was collected and all directives articulated in enclosure (1) have been satisfied.

2. (U) Due to the breadth of the investigation, which included approximately 140 hours of interviews with 75 witnesses from HARTFORD, NEW ORLEANS, and members of various external organizations, three separate extensions of time were requested and granted. Enclosures (2) and (3) extended the due date in writing. A final extension was also granted verbally prior to submission of this report on 30 April 2009.

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

a. (U) Technical difficulties prevented review of  
HARTFORD's Continuing Training Support Software (CTSS) records.



(b)(1)

5. (U) In conducting this investigation, all provisions of the Privacy Act were satisfied. When required, signed Privacy Act notification forms were obtained and are maintained at COMUSNAVCENT, along with a copy of this investigation and documentary evidence.

6. (U) In view of possible administrative or punitive actions that might result based on the findings of this investigation, a number of witnesses were advised of their rights in accordance with Article 31b of the Uniform Code of Military Justice. All witnesses who were advised of those rights waived those rights and agreed to participate in this investigation. All interviews with witnesses were tape recorded and summarized. Summaries of witness interviews are enclosed within the report and all tape

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

recordings are safeguarded at COMUSNAVCENT. Original, signed acknowledgment of rights and waiver forms are maintained at COMUSNAVCENT and are appended to each witness' summary of interview as applicable.

7. (U) COMUSNAVCENT convened a Safety Investigation Board (SIB) which was conducted concurrently with this investigation. The SIB did not share privileged witness or derivative information with the investigation team. However, evidence obtained during this investigation was made available to the SIB.

8. (U) (b)(6) was the Investigating Officer. (b)(6) served as the submarine subject matter and technical expert assigned to assist the Investigating Officer. (b)(6) served as the investigation team's legal advisor. (b)(6) assisted (b)(6) on submarine-related matters. (b)(6) provided additional legal support and was relieved by (b)(6). (b)(6) USN provided additional paralegal support and was relieved by (b)(6).

9. (U) The subject line of this report indicates the date of the collision based on local time, because it took place on 20 Mar 09, 0058D. However, all times below are indicated in Greenwich Mean Time ("Zulu") which results in times and dates reported as taking place on 19 Mar 09 (collision occurred at 19 Mar 09, 2058Z). All bearings and courses are stated as true bearings and courses unless otherwise noted.

10. (U) All personnel on watch at the time of collision were verified by the Investigating Officer to be properly qualified. A list of involved personnel is provided in enclosure (4).

#### Executive Summary

1. (U) USS HARTFORD (SSN 768) collided with USS NEW ORLEANS (LPD 18) in the Strait of Hormuz at 2058Z on 19 March 2009 (0058D, local time, on 20 March 2009). At the time of collision, HARTFORD was at periscope depth and had just entered

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

into an Interrupted Search pattern (also commonly referred to as a "Dip Scope" routine) by lowering the periscope. HARTFORD was in the process of crossing the Strait Transit Lane on a roughly southbound course. NEW ORLEANS was within the Strait Transit Lane on a roughly westbound course inbound to the Persian Gulf.

2. (U) Actions aboard HARTFORD were completely responsible for causing the collision; no actions aboard NEW ORLEANS were contributively negligent. There were no casualties to ship sensors, degradations to equipment, or deficiencies in doctrinal guidance that played a causal role in the series of events that precipitated the collision. HARTFORD's sensors provided all necessary data that should have enabled the watch team to identify the presence of NEW ORLEANS and take action to avoid collision.

3. (U) The direct cause of this collision was the occurrence of roughly 30 primary errors resulting from watchstanding and supervisory lapses aboard HARTFORD during the hour preceding collision. Each primary error, if averted, could have singlehandedly prevented the collision -- much like removal of a single domino in the classic analogy.

4. (U) These primary errors provide the answer to "what" happened to cause the collision [see Findings of Fact 1-112]. The answer to "how" and "why" those primary errors were able to occur near-simultaneously lies within the collision's root cause: ineffective command leadership [see Findings of Fact 113-195]. That ineffective command leadership was manifest in two ways: tactically (on 19 Mar 09) and professionally (i.e., the cumulative effect of day-to-day failures to maintain high standards and to hold personnel accountable).

a. (U) The Commanding Officer demonstrated ineffective tactical leadership by not developing a comprehensive plan to conduct the Strait transit and crossing evolution. That plan failed to consider either the risks involved or the potential need for mitigating measures to manage those risks. He then compounded those errors by failing to communicate the plan in either a Piloting Brief or via his Commanding Officer's Night

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

Orders. As a result, watchstanders and supervisors lacked the comprehensive situational awareness and sense of heightened risk that should have been foremost on everyone's mind.

b. (U) The Command Team (Commanding Officer/Executive Officer/Chief of the Boat) failed professionally to maintain high standards and hold personnel accountable on a daily basis. This resulted in a command climate that fostered poor watchstanding practices, the absence of questioning attitudes, the lack of forceful watch team backup, and a general level of complacency.

5. (U) The net result was that when HARTFORD was faced with a challenging, yet achievable, Strait transit and crossing evolution on 19 Mar 09, the combination of poor tactical planning and poor watchstanding practices caused this collision.

Findings of Fact

**OVERVIEW**

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

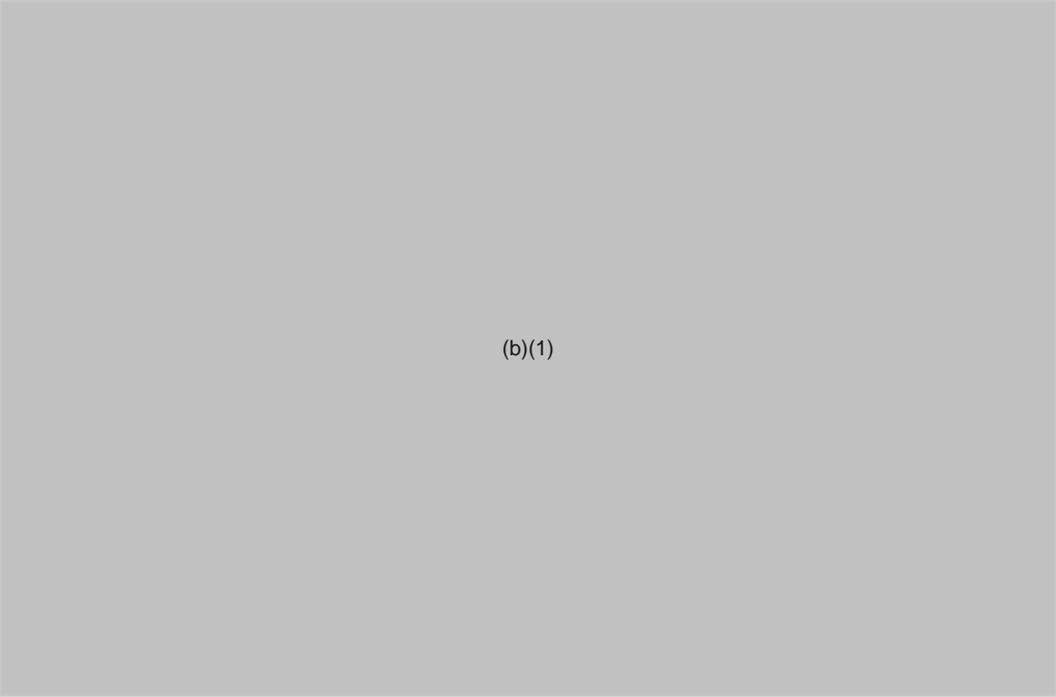
(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

**TIMELINE OF COLLISION - SEQUENCE OF EVENTS**

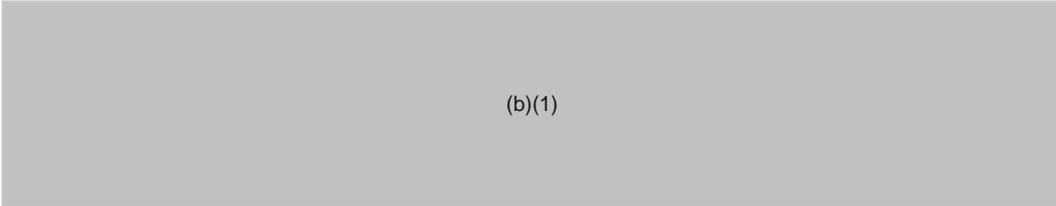
**Initial conditions on the surface**

7. (U) Sunset occurred at 1425, and moonrise was expected to occur at 2213. The seas were calm. It was a dark and clear night with a slight haze near the horizon. [Encis 10-12, 19, 22, 29]



(b)(1)

**Initial conditions aboard HARTFORD at approximately 2000**



(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

15. (U) Watch Section 1's Officer of the Deck (OOD, (b)(6)  
(b)(6) - Weapons Officer (WEPS)), Junior Officer of the Deck  
(JOOD, (b)(6)), and Junior Officer of the Watch  
(JOOW, (b)(6)) were conducting 30-minute  
rotations on the #2 Scope. The JOOD had just relieved as Scope  
Operator and was on #2 Scope conducting a continuous search  
during his assigned rotation period due to end at 2030. The  
Contact Management Manual recommends approximately 15 minute  
rotations of Scope Operators. [Encls 19, 21, 22, 48]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

20. (U) The Executive Officer (XO) (b)(6) was in  
his rack sleeping before he was to assume the Command Duty  
Officer (CDO) position during the midwatch. [Encl 62]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

#### Events leading to the collision

24. (U) Shortly after 2000, the Sonar Auxiliary (AUX) Operator (b)(6) left Sonar to wake up the Augment Sonar Operator (b)(6) for his scheduled watch relief at 2030. The Messenger of the Watch was not routinely used to perform wake-ups for Sonar watchstanders. Sonar watchstanders engaged in informal conversations for the majority of the time from 2000 until the collision. [Encls 24, 25, 64-69]

25. (U) At approximately 2000, the JOOD relieved the OOD as Scope Operator in accordance with the established scope rotation sequence. The OOD assumed the JOOD's contact management duties, but no formal turnover or relief of those duties was performed. The unspoken intent was for the OOD to "cover" the Contact Manager role for the period the JOOD was Scope Operator. The OOD did not look out of the periscope again prior to the collision. [Encls 19, 21]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

28. (U) At approximately 2015, the Sonar AUX Operator briefly returned to Sonar after conducting his wake-up call. He soon left again to conduct other activities which resulted in him being absent from Sonar for roughly 40 minutes of the hour preceding collision. During his absence, he provided an unsolicited head relief to the Fathometer Watch, made his own head call, and was in the process of obtaining Tylenol from the Medical Department Representative (MDR) space at the time of collision. [Encls 24, 55, 64-68, 74]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

44. (U) There was no formal process defining how contacts were to be shared between the two watchstanders who shared the duties of FTOW. Initially one FTOW would be responsible for odd-numbered contacts and the other FTOW would be responsible for even-numbered contacts. This practice had degraded during deployment to the point that by 19 Mar 09 it was unclear which FTOW was covering which contacts. [Encl 73]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 26 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 16) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

83. (U) Upon colliding with HARTFORD, NEW ORLEANS experienced a shudder and rumbling and then slowed to 3 knots to investigate. A fuel oil slick was visible and appeared to be leaking from the ship. [Encls 6, 26, 28, and ref (b)]

84. (U) NEW ORLEANS launched a RHIB to assess damage and found none visible. Two starboard ballast tanks were flooded to the waterline and NEW ORLEANS reported at least one of her fuel tanks was contaminated with 5.5 feet of sea water. List

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

stabilized at 1.5 degrees to starboard. Flooding was controlled  
and did not endanger stability. [Encls 6, 26, 28, 90]

**Events aboard HARTFORD after the collision**

85. (U) At 2058:15, the Torpedoman of the Watch (TMOW, (b)(6)  
(b)(6) sounded the Collision alarm and made an emergency report  
of "Collision in the Torpedo Room." [Encl 58 and ref (c)]

86. (U) At 2058:30, the OOD made a LMC announcement to "Rig  
Ship for Collision." [Encls 19, 20, and ref (c)]

87. (U) At 2059, the CO arrived in the Control Room. His  
arrival was delayed due to the forward Control Room door being  
temporarily jammed shut by a battle lantern. [Encls 19, 21, and  
ref (c)]

88. (U) At 2100, a fuel leak in the Machinery Room from the aft  
bulkhead was reported via 4MC. The ship rigged for Fire and  
General Emergency. [Encl 20 and ref (c)]

89. (U) At 2101, light smoke was reported from the Machinery  
Room and Torpedo Room. Emergency Air Breathing (EAB) masks were  
partially donned in the Control Room. The light smoke was  
subsequently determined to be coming from the ship's dryer.  
[Encls 19, 20, 58, and ref (c)]

90. (U) At 2101, the CO took the Conn. The XO reported there  
was no longer any light smoke in the Torpedo Room, and all  
weapons were secure. Approximately 30 minutes prior to  
collision, the Torpedo Room had secured from backhauling  
torpedoes and conducting weekly preventive maintenance. DC  
Central was manned with one report of an injured man in the  
Crew's Mess. EABs were removed. [Encls 20, 49, 58]

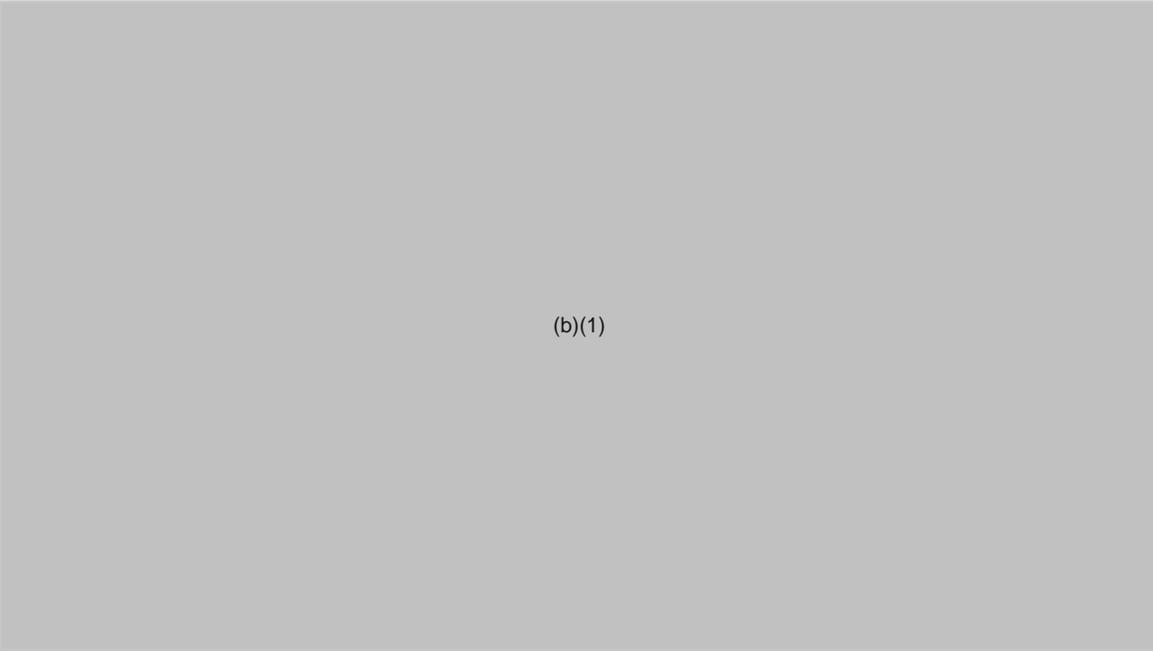
91. (U) At 2104, the Bow Planes were determined to be out-of-  
commission, and the #2 Scope would not rise as the ship  
attempted to proceed to PD. The CO initially ordered a depth of  
60 ft and again attempted to raise both scopes with negative  
results. [Encls 20, 58, and ref (c)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

92. (U) As the CO continued with attempts to raise the periscope, he gave a series of ordered depths alternating from 90 to 100 feet. He could not get either of the ship's two periscopes to rise. Over the next 15 minutes the CO evaluated the status of the ship and attempted to maneuver the ship based upon his assessment of the contact situation via Sonar data. The CO then assessed how best to return to PD and surface the ship. [Encls 20, 58, ref (c)]

93. (U) At 2121, an emergency retrieval of the fat-line towed array was conducted while the ship was between a depth of 90 to 100 feet. Baffle clears were performed to determine the best course for coming to PD. [Encls 20, 58, and ref (c)]

94. (U) At 2142, HARTFORD broached, conducted a 10 second emergency blow, and surfaced about 3000 yards from NEW ORLEANS. The emergency blow was required due to a locked-in Induction Pipe Flood alarm having rendered the Low Pressure Blow system inoperable. [Encls 20, 58, and refs (b), (c)]



(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

98. (U) Upon surfacing, HARTFORD's crew discovered that the bridge clamshells were jammed shut preventing access to the bridge. They were subsequently opened 3 to 4 hours after surfacing, as HARTFORD transited towards Bahrain. Opening the bridge clamshells required the use of wedges and a portable hydraulic jack. [Encls 27, 49, 58, 92]

(b)(1)

**Personnel injuries and vessel damage**

101. (U) There were no injuries to personnel aboard NEW ORLEANS. [Encls 8, 26, 27, 93]

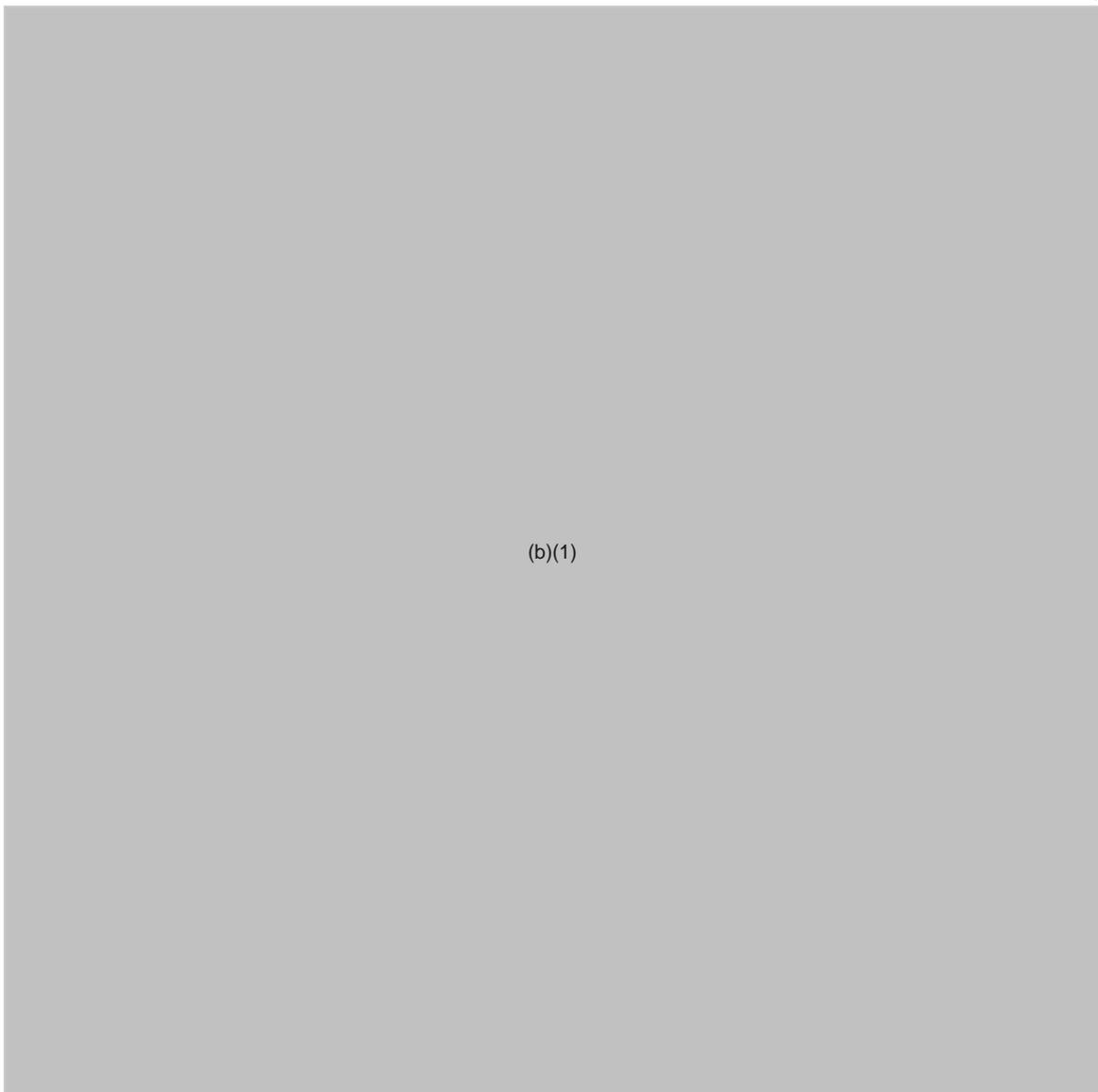
102. (U) Aboard HARTFORD, 15 crewmembers sustained minor injuries. The ship's Medical Department Representative (MDR, (b)(6) initially feared there would be a large number of severe injuries, so he quickly coordinated several teams to search for injured personnel. However, he later characterized the crew's injuries in the following manner: "I've had more cuts and scrapes at a swim call." [Encls 89, 95, 96]

103. (U) The crew's injuries included: one Sailor with a broken finger; one Sailor with bruised ribs; six Sailors with minor back injuries; three Sailors with minor contusions; three Sailors with minor abrasions; and one Sailor who had diesel lube oil splashed into his eyes. [Encls 89, 95, 96]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

105. (U) Because of the light weight of the fuel and the  
distance from land, the approximately 25,000 gallons of DFM  
released by NEW ORLEANS dispersed and dissipated before any  
substantial clean-up efforts could begin. [Encl 97]



(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

**PLANNING FOR THE SOH TRANSIT ON 19 MAR 09**

**Plan Development and Daily Ops/Intel Brief**

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

**Pre-Watch Brief Prior to Collision**

(b)(1)

**TRIPWIRE DEVELOPMENT AND USE**

(b)(1)

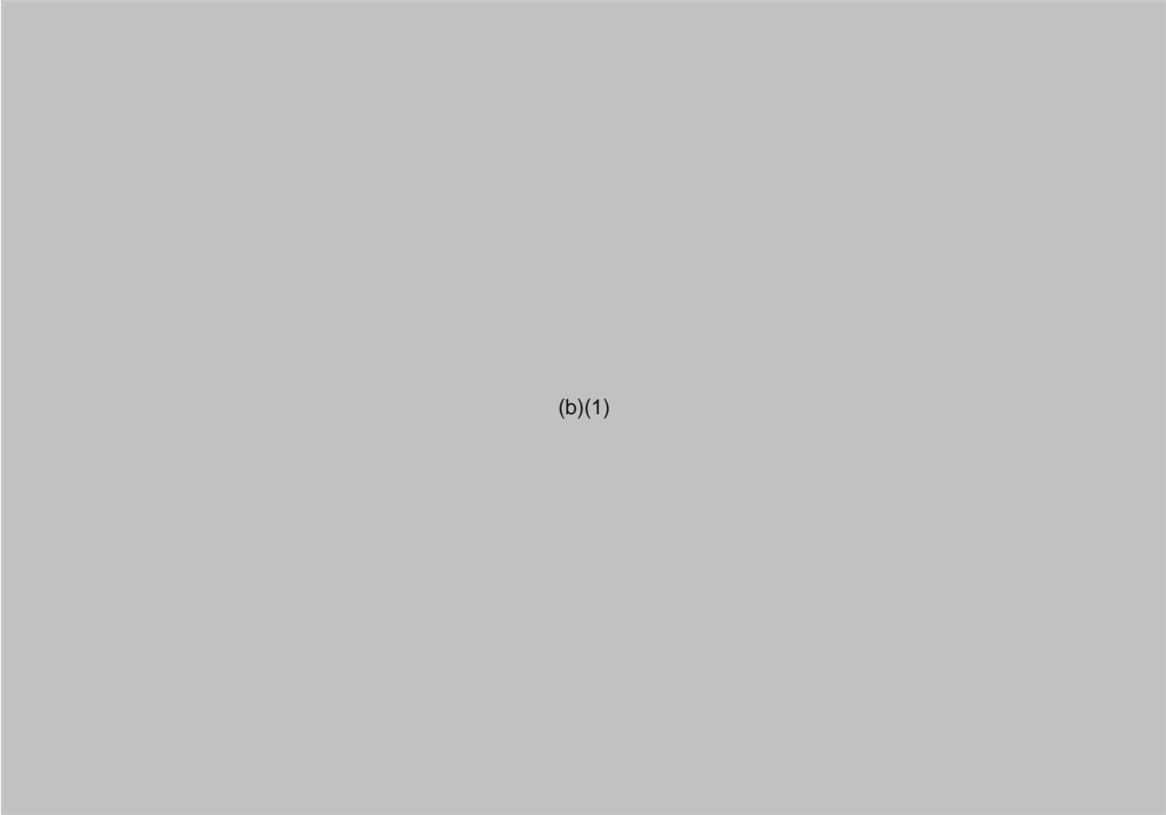
Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

136. (U) The CEP Operator on watch during the collision stated  
that he would generally get the JOOD to look at the data before  
he would announce a tripwire. [Encl 81]

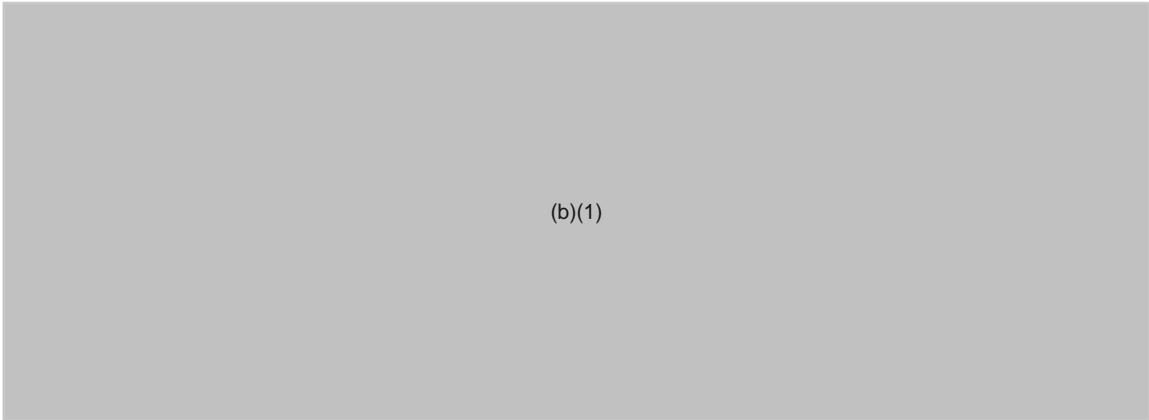
(b)(1)

**Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)**



(b)(1)

**SITUATIONAL AWARENESS ON THE NIGHT OF COLLISION**



(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

143. (U) Additionally, the AUX Operator was out of Sonar obtaining Tylenol from the MDR space. The NAV was in the wardroom taking an EOOW continuous training examination while listening to his iPod. [Encls 24, 25, 55, 61, 64-68, 74]

(b)(1)

#### **WATCHSTANDING FORMALITY AND ATTENTIVENESS**

145. (U) Chief Petty Officers routinely observed informal behavior by watchstanders but did not immediately correct it. Some Chief Petty Officers attempted to correct this type of

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

behavior without success, and other Chief Petty Officers participated in the behavior. For example:

a. (U) Helmsmen and Planesmen stated that they would often slouch in their seats with one hand on the controls. They would also sometimes take off their shoes while driving the ship. These behaviors were not normally corrected by the DOOW or the COW, even though they knew it was not accepted by the command. [Encls 88, 116-118]

b. (U) The WEPS Department LCPO, (b)(6) indicated that he was "pretty informal" and acknowledged that although he believed his Sonar division had a good level of knowledge, he assessed Sonar division as "below average" in the area of formality. The Senior (b)(1) Specialist stated that, on about five separate occasions prior to 19 Mar 09, he had noticed that various Sonar AUX Operators would be missing for extended periods. He reported that information and his concern to (b)(6) (b)(6) but the activity continued. [Encls 44, 68]

c. (U) On 19 Mar 09, during the 1800-2400 watch, Sonar watchstanders and off-watch Sonar Division members, who were in Sonar without official duties to perform, engaged in informal conversations several times during the hour prior to the collision. The AUX Operator, a Chief Petty Officer, was present for some of this activity, but he did nothing to stop the informality. [Encls 24, 25]

146. (U) Approximately forty minutes prior to the collision, the TAWS Operator (b)(6), with the concurrence of the Sonar Supervisor, inserted a false sonar contact (S-768) into the system so that he could use up all of his sonar trackers for amusement. This caused the OOD to inquire into the nature of contact S-768. The Sonar Supervisor misrepresented the issue to the OOD by explaining that the reason contact S-768 was gained was Sonar's attempt to "test" the responsiveness of the trackers. [Encls 24, 25, 66]

147. (U) In the hour prior to the collision, the Sonar Supervisor did not use the 27MC to report several contact gains,

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

interference patterns, and amplifying information. In some cases, these items were relayed verbally to the FTOW or were simply not reported. [Encls 24, 25, 66]

148. (U) The Sonar Supervisor left Sonar frequently during the hour before collision. He stated he had to do this because it was easier to get information from the FTOW than from the JOOD/OOD. As a general practice, during previous watches, the Sonar Supervisor was frequently observed leaving Sonar to observe the AIS display and to assist in correlating contacts. [Encl 66]

149. (U) The XO had noticed, during the two weeks preceding collision, that all the Sonar Supervisors were spending too much time out of Sonar. He attempted to correct this on the spot with specific Sonar Supervisors, but additional follow-up was not accomplished, and the problem persisted. [Encl 62]

150. (U) It was generally accepted practice by Sonar Division that the AUX Operator could leave Sonar to perform wake-up calls, make drink runs, take personal head breaks without a relief, provide head breaks to the Fathometer Watch, and take smoke breaks. Various levels of the chain of command made statements that indicated widely varying views on AUX Operator watchstanding standards. The Combat Systems Standard Organization and Regulation Manual requires three operators (one being the AUX Operator) and one supervisor in Sonar. It also states that AUX Operator "duties may include, surfaced fathometer operations and short duration activities beyond the confines of the Sonar Control room. These activities may include minor equipment maintenance (PMS and paper changing), noise offender isolation, system recovery actions and HF active for PD." [Encls 19, 55-58, 62, 64-66, 68, 69, 119]

151. (U) In Radio, the message router would frequently take smoke breaks. While the message router was not available, the Radioman of the Watch (RMOW) would occasionally leave his watch to go to the Control Room, leaving no qualified RMOWs in Radio while the ship was at PD. It was also reported that a RMOW bought and installed speakers in Radio that allowed music to be

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

played from an iPod while on watch. This was hidden from the  
Chain of Command. [Encls 120-122]

152. (U) The 19 Mar 09 1800-2400 ESM Operator made  
recommendations for PATRIOT employment that were not in  
accordance with the litany (i.e., the reporting format) required  
by the ship's ESM Search Plan. This was not corrected by  
watchstanders. [Encls 23-25, 85]

(b)(1)

154. (U) On the 19 Mar 09 1800-2400 watch, no ESM intercept  
bearings were plotted on the CEP during the hour preceding  
collision. As a general practice aboard HARTFORD, ESM bearings  
were not recorded on CEP. [Encls 50, 73, 81]

#### LEVEL OF KNOWLEDGE ISSUES

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON 20  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

162. (U) All JOOWs, most JOODs, and some OODs interviewed had difficulty drawing line-of-sight diagrams for Sonar display data. Additionally, most JOOWs could not draw an overlead line-of-sight. Most JOOWs, most JOODs, and most OODs stated a contact with high bearing rate was a larger concern than a contact with a 0-degree per minute bearing rate. [Encls 22, 60, 109, 123, 125]

(b)(1)

#### **WATCHBILL MANAGEMENT ISSUES**

165. (U) The most recent Enlisted Underway Deployment Watchbill revision was issued and became effective on 7 Mar 09. The most recent Officer Underway Watchbill revision was issued and became effective on 9 Mar 09. [Encl 46]

166. (U) Sonar manning employment required use of an Augment watchbill that required every Sonar watchstander to stand watch for an additional 3 hours of either on-coming or off-going time every few days in order to man the Fathometer Watch with a Sonar Technician. This was done in order to avoid the need to assign the Fathometer Watch to another qualified Sailor from another rate. The Augment watchbill became necessary partly as a result of HARTFORD having: 1) left two Sonar watchstanders in homeport for schools; 2) taken the LCPO off the watchbill; and 3)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

assigned a junior ST to Food Service Attendant duty. [Encls 44,  
46, 57, 67-69, 126]

167. (U) The Enlisted Underway Deployment Watchbill contained  
errors in assignments:

a. (U) The Augmented Sonar watchstanders who were assigned  
to stand Fathometer Watch for three hours of their off-watch  
time, routinely made decisions at the watch team level to stand  
watches in Sonar during their Augmented assignment. The  
Fathometer Watch would then be stood by a different individual  
(typically the most junior ST on the Sonar watchbill). [Encls  
46, 58, 64, 67, 74]

b. (U) Specific watchstanders such as the Engine Room  
Supervisors were not assigned by the watchbill to operate  
PATRIOT Radar, yet they were serving as the actual PATRIOT Radar  
Operator. [Encls 46, 50, 51]

c. (U) Auxiliary Electrician Forward watchstanders were  
not assigned by the watchbill to stand CEP Operator, but they  
were serving as the actual CEP Operator. [Encls 46, 81]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

(b)(1)

**CREW CONCERNS ABOUT LACK OF ACCOUNTABILITY**

172. (U) During interviews, many crewmembers both reported and referred to multiple liberty issues (b)(6) (b)(6) [Encls 49, 58, 62, 68, 73, 81, 86, 117, 118, 120, 122, 130, 131]

173. (U) Several crew members, (b)(6) were placed on liberty risk over portions of the deployment. Consequently, many crew members expressed a belief that the Liberty Risk Program was applied unfairly. Many crew members, including Chief Petty Officers, also expressed a belief that (b)(6) (b)(6) During his interview, (b)(6) (b)(6) However, he acknowledged "not having a good liberty plan" upon returning to port in Bahrain, (b)(6) alcohol. [Encls 49, 68, 73, 81, 86, 117, 118, 120, 122, 126, 130, 131]

(b)(1)

a. (U) Many crewmembers stated there were numerous "known" sleepers (five specific names were reiterated by the majority of those crewmembers interviewed). Those personnel would routinely fall asleep ("nod off") on watch, and no disciplinary action was taken. When discussing watchstanders who often slept on watch, (b)(6) stated: "people complain, it pisses them off, but 'they'

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

take no action, because it never goes anywhere." He further  
stated: "it gets swept under the carpet, no one gets punished  
for things." Of the five "known" sleepers identified by the  
crew, two of them were on the 1800-2400 watch during the  
collision: the SAWS operator (b)(6) and the senior FTOW  
(b)(6). There is no evidence that either (b)(6) or  
(b)(6) were sleeping on the 1800-2400 watch prior to the  
collision. [Encls 50, 51, 55, 57, 65, 68, 73, 81, 86, 88, 95,  
103, 107, 116-118, 120, 122, 126, 130, 132]

(b)(1)

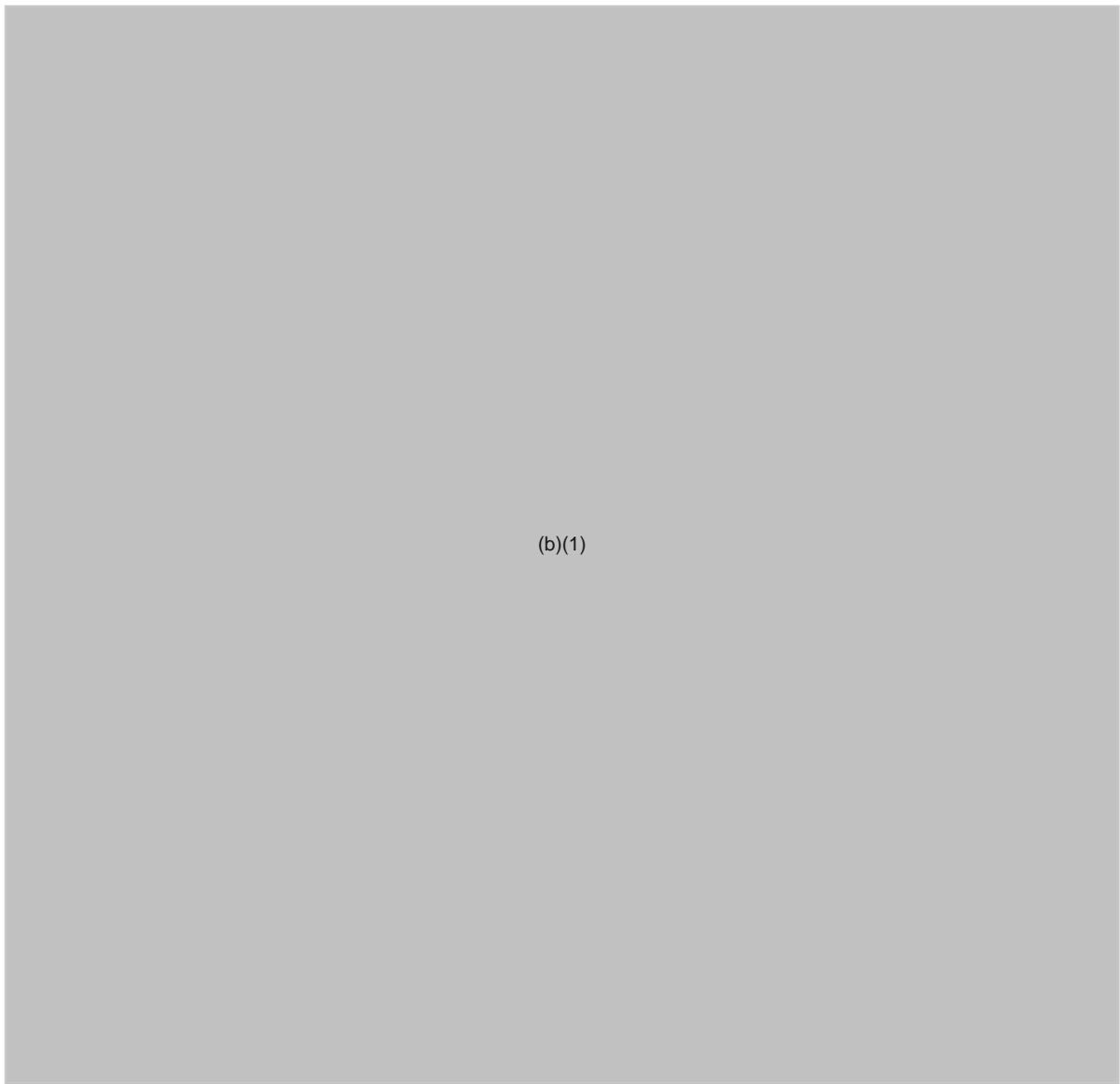
c. (U) Counseling sheets were routinely not routed back to  
Division Leading Petty Officers (LPOs). For example, some (b)(6)  
(b)(6) subordinates noted that he would often refuse to send  
counseling sheets up the chain of command because of  
administrative errors. [Encls 98, 103, 105, 107]

175. (U) The XO stated that a Command Climate Survey had not  
been performed since his arrival in Nov 07. [Encl 62]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

**PRE-COLLISION INDICATORS**

**Contact Management**



(b)(1)

**Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)**

(b)(1)

**Issues Noted During Pre-Deployment Training and Certification**

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

**EXTERNAL-COMMAND FACTORS**

**COMFIFTHFLT Automatic Identification System Use**

(b)(1)

**Common Tactical Picture**

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

OPINIONS

**GENERAL**

1. (U) HARTFORD was entirely at fault for the collision. No actions aboard NEW ORLEANS were contributively negligent during the SOH transit. [FF 1-1i2, 196-202]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

2. (U) HARTFORD's sensors were functioning properly and presented the data necessary to detect NEW ORLEANS. HARTFORD's Fire Control System (FCS) adequately displayed all contact data, and existing doctrinal guidance for Contact Management was adequate. [FF 1-112, 196-202]

(b)(1)

- (U) CO was not in the Control Room during any portion of the SOH crossing.
- (U) NAV (offgoing OOD) did not return to the Control Room for any portion of the SOH crossing after being relieved as the 1200-1800 OOD.
- (U) JOOD, as Scope Operator, failed to see NEW ORLEANS on the periscope during his continuous search routine.
- (U) JOOW, as Scope Operator, failed to see NEW ORLEANS on the periscope during his continuous search routine.
- (U) JOOW used High or Super High Power to perform his dedicated search down the bearing to contact S-4 without initially using the Low Power setting.
- (U) The OOD did not look out of the periscope during the hour prior to collision.
- (U) #2 Scope was lowered prior to the JOOW completing the second dedicated visual search for contact S-4 that had been requested by the FTOW.

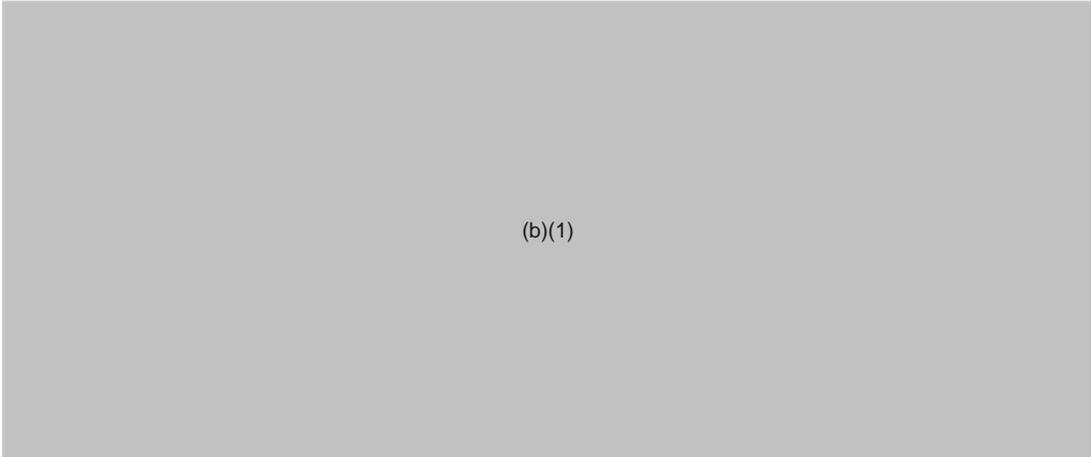
(b)(1)

- (U) ESM contacts were not recorded on CEP, so no ESM intercepts were correlated to contact S-4.
- (U) Watch team did not identify contact S-4 as a warship.

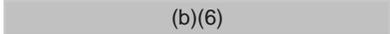
Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

- (U) Watch team did not recognize contact S-4's 0-degree per minute bearing rate as a collision threat.

- 
- (U) JOOD did not perform his Contact Manager duties the half-hour prior to collision.
  - (U) Sonar watchstanders failed to maintain situational awareness on sonar contact data while engaging in informal communications during the hour preceding collision.



(b)(1)

- (U) Sonar Supervisor was not in Sonar the minute before collision as near field effect became visible.
- (U) AUX Operator  (b)(6) was not in Sonar for 40 minutes of the hour before collision.
- (U) FTOWs entered an accurate close-range solution for contact S-4 at time 2035 but immediately revised that solution to an inaccurate long-range solution.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

- (U) FTOWs revised their accurate solution for contact S-4, because they assumed the contact's low bearing rate meant that S-4 must be distant, and they held no close contacts on AIS that could match their close range solution for S-4.

(b)(1)

5.

(b)(1)

(b)(1)

a. (U) The Strait transit/crossing plan was incomplete and only partially thought through. [FF 1-81, 113-144]

b. (U) Articulation of the CO's tactical vision (his "Commander's Intent") for execution of that plan was incomplete and, therefore, ineffective. [FF 1-81, 113-144]

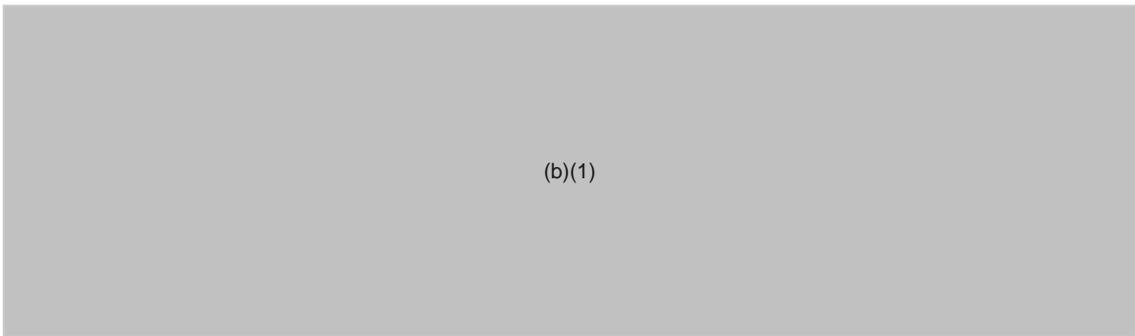
Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

c. (U) There was no recognition of the inherent risks the intended Strait transit/crossing entailed, and no effort to consider potential mitigation measures to minimize those risks. [FF 1-81, 113-144, 176-184]

d. (U) Watchstander formality was poor. Watch team continuity and focus were also seriously impaired by the cumulative effect of numerous temporary watch reliefs and routine absences of on-watch personnel for protracted periods. [FF 1-81, 140-154, 165-171]

e. (U) Watchstander complacency was high. For example, HARTFORD's watch teams routinely failed to critically evaluate the validity of FCS contact solutions by comparing it to raw sensor data. [FF 1-81, 113-195]

f. (U) Watchstander level-of-knowledge was poor on the concept of relative motion and on the importance of bearing drift to collision avoidance. The ship's self-assessment process neither recognized that deficiency nor took action to correct it. Nearly every watchstander interviewed, when presented with raw bearing information and sonar data, indicated (through their answers) that a constant-bearing-rate contact was of less concern than a high-bearing-rate contact. [FF 155-164]



(b)(1)

6. (U) Moreover, the Command Team also appears to have been somewhat detached and "hands off" in their leadership of the crew, as evidenced by an observable gap between Command Team expectations and the crew's understanding of those expectations.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

The impact of this detached, "hands-off" leadership style contributed to the ineffectiveness of command-level communications and engendered a command climate that gave the appearance of tolerating routine inattentiveness and lax professional standards. This appearance of a lack of standards, and of a general reticence to hold personnel accountable to standards, did not inspire either the questioning attitude or the forceful watch team backup that could have enabled watchstanders to overcome even the inadequate Strait transit/crossing plan they were tasked to execute -- and avoid this collision in the process. [FF 113-154, 165-175]

7. (U) Secondary factors within HARTFORD's lifelines are also cataloged within the Findings of Fact, as well as a few external-command factors involving commands outside of HARTFORD. These secondary factors and external-command factors also contributed to enabling the collision to occur, but (in contrast to the primary errors) none of those factors, if addressed and remedied, would have prevented the collision. In the case of the external-command factors, all are relatively minor issues, and each is individually addressed in paragraph 11 below. [FF 1-81, 113-205]

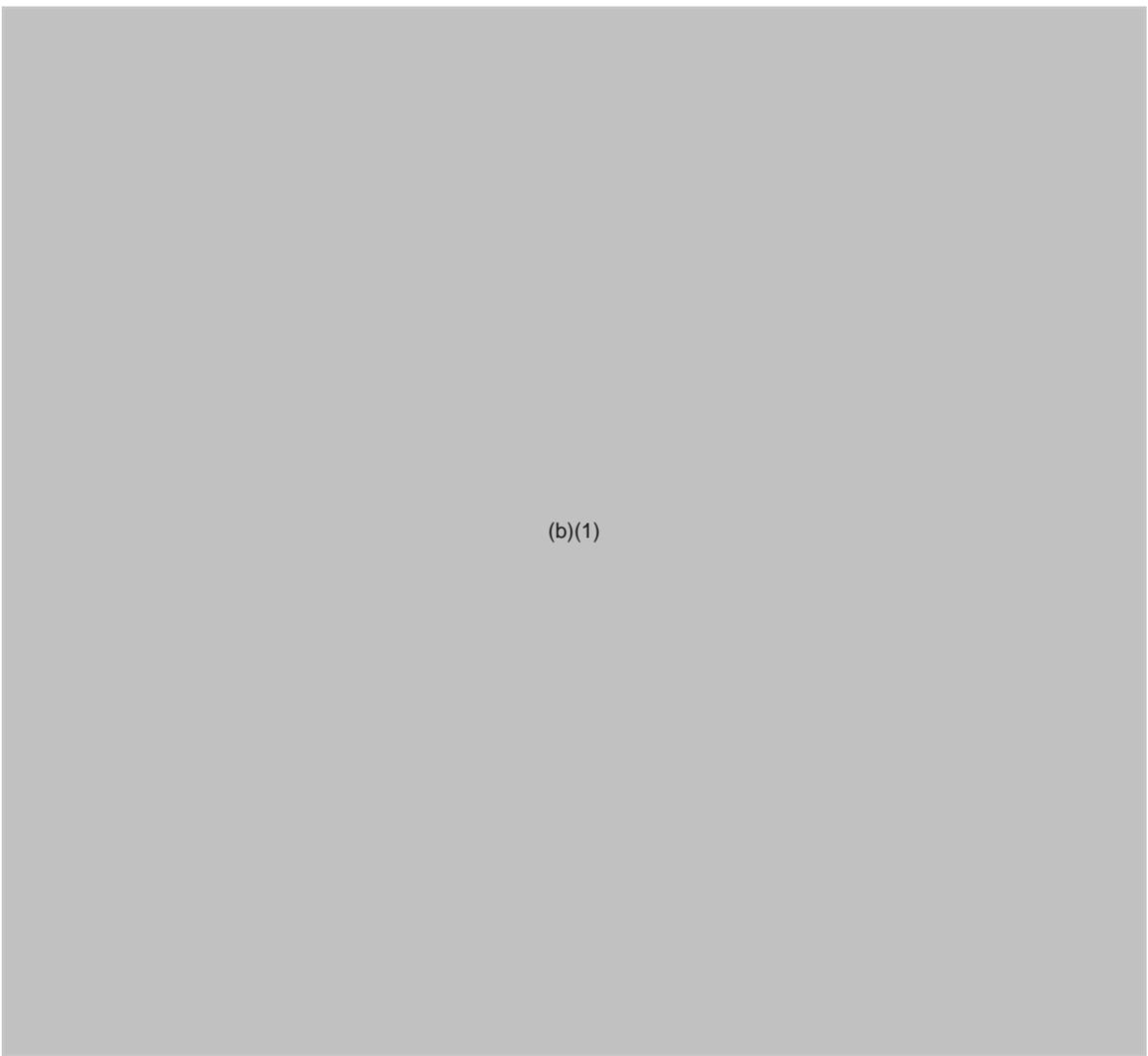
#### SECONDARY FACTORS

(b)(1)

a. (U) The intended Strait transit/crossing was neither unsafe nor unwise. HARTFORD should have been able to safely transit the SOH whether at PD or deep, regardless of the ship's assigned OPSEC condition. Although good arguments can be made for either option (transiting deep or at PD), the lesson to be learned from this collision is not that there is, or should be, a one-size-fits-all solution for a transit and/or crossing of

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

the SOH. Rather, the lesson is that regardless of the option selected, the planning and execution of that option's plan must be carefully considered and meticulously accomplished. In this case, virtually no planning was done, because the command attitude was "we've done this before." There is no "routine" SOH transit or crossing evolution, as this collision demonstrated. [FF 1-81, 113-144]



(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

g. (U) HARTFORD's OODs, JOODs, JOOWs, and FTOWs did not maintain a questioning attitude and demonstrated over-reliance and blind trust in AIS data. Using AIS as the principal means

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

for developing contact solutions entails risk, particularly when: 1) not all ships radiate AIS; and 2) when contradictory data is available from other sensors but is discounted, because it does not appear to correlate with AIS data. [FF 1-81, 196-202]

9. (U) Finally, before discussing the issue of accountability for the principal individuals involved in this collision, I want to clearly state my personal opinion regarding the absolutely superb caliber of the vast majority of crewmembers interviewed for this investigation. With very few exceptions, this crew is comprised of immensely dedicated and committed Sailors who know, and genuinely concur with, the standards we expect for them as crewmembers of a Navy ship. Those Sailors were universally impressive by their evident character and by the professional stamina they have collectively demonstrated in both weathering this event and embracing the new challenges that lie ahead for this ship. Those silent majority crewmembers are hungering for effective leadership. They are eager to restore their ship's standing, and they give every indication of being more than capable of delivering excellence. [FF 172-174]

#### ACCOUNTABILITY

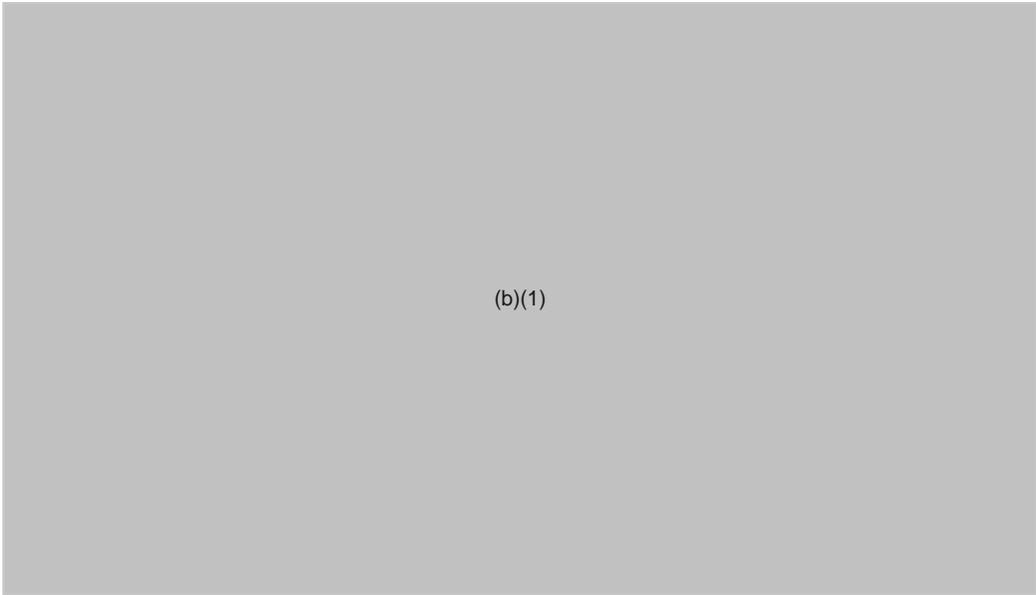
10. (b)(1) The following subparagraphs provide a listing of the specific failures exhibited by the responsible individuals in this collision:

a. (b)(1) The CO (b)(6) was derelict in the performance of his duties and negligently hazarded his ship by the following acts:

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)



(b)(1)

9) (U) Performed an ineffective review of the enlisted watchbill provided by the COB and endorsed by the XO. Allowed key watch positions to be filled by personnel who were not formally trained, permitted personnel to stand different watches than assigned by the watchbill, and tolerated a climate in which unauthorized team-impacting temporary watch reliefs were routine and widespread. [FF 53, 142, 143, 157, 165, 167, 170]

b. (b)(1) **The XO** (b)(6)  
(b)(6)

1) (U) Failed to provide effective back-up to the CO and the CO's tactical vision in his role as second in command. [FF 115, 118-120, 122, 127-133, 140, 149, 167, 168, 170, 183, 199]

2) (b)(1)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

3) (U) Failed to set and maintain high standards of watchstanding formality and attentiveness. He personally witnessed and corrected poor watchstanding formality, Sonar watchstander inattentiveness, and excessive instances of Sonar Supervisor "roaming" outside Sonar as much as two weeks prior to 19 Mar 09. However, he failed to implement measures to correct those problems to any discernable degree, and each of these problems remained manifest during the 1800-2400 watch on 19 Mar 09. [FF 24, 28, 79, 142, 143, 145, 148-151, 170, 174]

(b)(1)

5) (U) Provided an ineffective review of the enlisted watchbill provided by the COB for CO approval. Allowed key Section Tracking Party watch positions to be filled by personnel who were not formally trained, permitted on watch personnel to regularly miss Pre-Watch Briefs, permitted personnel to stand different watches than assigned by the watchbill, and tolerated a climate in which unauthorized team-impacting temporary watch

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

reliefs were routine and widespread. [FF 53, 157, 165, 167,  
170, 171]

c. (U) The COB [REDACTED] (b)(6)

[REDACTED] (b)(6)

1) (U) Failed to develop and manage an effective  
enlisted watchbill. His failures resulted in numerous instances  
in which the Sailors assigned to stand a given watch were  
different from the Sailors who actually stood that watch. [FF  
53, 157, 165, 167, 170, 171,]

2) (U) Failed to set and maintain high standards in  
watchstanding and formality among the crew, and failed to ensure  
his Chief Petty Officers enforced those standards on the  
deckplates. [FF 24, 28, 79, 142, 143, 145, 146, 148, 150, 151,  
174]

3) (U) Failed, by his personal involvement [REDACTED] (b)(6)

[REDACTED] (b)(6)

[REDACTED] (b)(6) to set an example for the crew. [FF  
172, 173]

d. [REDACTED] (b)(1) The NAV [REDACTED] (b)(6)

[REDACTED] (b)(6)

[REDACTED] (b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 760) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

e.

(b)(1)

The COD (WEPS -

(b)(6)

(b)(6)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

5) (U) Failed to look out of the periscope between  
JOOD and JOOW searches, contrary to Patrol Orders requirements.  
He also demonstrated poor judgment as OOD by not performing a  
quick visual search himself before lowering the scope at  
approximately 2055, following the negative visual search report  
from the JOOW. [FF 2, 4, 12, 15, 25, 33, 70, 73-75, 153]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 758) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

f.

(b)(1)

The JCOD

(b)(6)

(b)(6)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

g. (b)(1) The JOOW (b)(6)  
(b)(6)

(b)(1)

h. (b)(1) The Sonar Supervisor (b)(6)  
(b)(6)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

3) (U) Failed to announce that a 0-bearing rate tripwire threshold had been met for contact S-4 over the course of the 17 minutes prior to the collision. [FF 17, 59, 81, 138]

4) (U) Failed to maintain a formal watchstation during the one-hour period preceding collision by permitting his subordinate watchstanders and off-watch personnel to engage in non-watch-related discussions and unprofessional behavior. He personally engaged in those informal discussions, which included injection of a false sonar contact (contact S-768) for the purpose of watchstander amusement. He misled the OOD when questioned about contact S-768, by stating the activities in sonar were a test to verify proper tracker functionality. [FF 24, 145, 146]

5) (U) Failed to ensure required Sonar watchstations were manned. He permitted the AUX Operator to perform a series of unauthorized duties that had the cumulative effect of leaving the AUX Operator position unfilled in Sonar for approximately 40 minutes of the hour prior to collision. [FF 24, 28, 142, 143, 150]

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

i. (b)(1) The SAWS Operator (b)(6)  
(b)(6)

(b)(1)

4) (U) Failed to stand a formal watch during the hour  
period prior to collision by engaging in non-watch-related  
discussions and unprofessional behavior, and observing the  
injection of a false sonar contact (contact S-768) for the  
purpose of watchstander amusement. [FF 24, 145, 146]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 769) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

i. (U) The TAWS Operator (offgoing Augment watchstander,

(b)(6)

1) (U) Failed to stand a formal watch during the period from 2000 until he was relieved at approximately 2030. Personally engaged in non-watch-related discussions and unprofessional behavior, and personally injected a false sonar contact (contact S-768) for the purpose of watchstander amusement. [FF 24, 145, 146]

k. The TAWS Operator (oncoming Augment watchstander,

(b)(6)

(b)(1)

l. (b)(1) The AUX Operator and Sonar Division (b)(6)

(b)(6)

1) (U) Failed to provide effective supervisory oversight in Sonar as (b)(6) standing watch in Sonar with subordinate members of his division. He did not ensure that the Sailors standing watch with him in Sonar maintained a professional and vigilant watch during the hour prior to collision, and he permitted off-watch personnel to loiter in Sonar. He was either physically present in Sonar or passed through Sonar while the on-watch subordinate Sailors were engaged in non-watch-related discussions and unprofessional behavior. He personally engaged in a portion of those informal discussions, and he was present when a false sonar contact was

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

injected for the purpose of his subordinate watchstanders' amusement. [FF 24, 145, 146, 148]

2) (U) Demonstrated a pattern of being routinely absent from Sonar for protracted periods while assigned watch as Aux Operator. On the night of the collision, he left his assigned AUX Operator watchstation without relief for several separate tasks not within the authorized duties of an AUX Operator, and he remained absent from Sonar for approximately 40 minutes of the hour preceding collision. He made a wake-up call for the oncoming TAWS Operator, took a head break without obtaining a temporary relief as Aux Operator, provided an unsolicited head break to the Fathometer Watch, stood Fathometer Watch at the Fathometer watchstation concurrently with his AUX Operator watch duties, and went to the (b)(1) space to get Tylenol just prior to the collision. [FF 24, 28, 142, 143, 150]

3) (U) Failed to ensure his Sailors made formal contact reports via 27MC as required by both the Contact Management Manual (TM FZ3-21.76.03-06, Section 4.3.1) and the ship's Patrol Orders (SSN768INST S3121.1A). [FF 40, 47, 48, 59, 147, 148]

m.

(b)(1)

The WEPS LCPO

(b)(6)

(b)(6)

1) (U) While present in Sonar for short periods from 2000 to 2058 on 19 Mar 09, he failed to provide effective supervisory oversight to Sonar watchstanders to ensure formality in their watchstanding and on-watch-related communications. He was either physically present in Sonar or passed through Sonar while his on-watch Sailors were engaged in non-watch-related discussions and unprofessional behavior. He personally engaged in a portion of those informal discussions and tacitly encouraged their continuation by his comments. Additionally, he failed to raise the baseline formality standards in Sonar after he recognized they were lacking. [FF 24, 145, 146, 167]

2) (U) Failed to take effective action to rectify (b)(6) pattern of routinely "roaming" outside Sonar to

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

observe the AIS display and to assist in correlating contacts.  
As a result of not effectively correcting this behavior, (b)(6)  
(b)(6) left his Sonar Supervisor watchstation less than a minute  
prior to collision to perform a task peripheral to his  
watchstanding responsibilities. Additionally, he was  
ineffective at improving the Sonar Supervisor's habit of not  
reporting contacts over the 27MC, despite having identified that  
habit as a weakness. [FF 40, 48, 63, 78-80, 138, 142, 147-149]

(b)(1)

n. (b)(1) Both FTOWs (b)(6)  
(b)(6)

(b)(1)

3) (U) Failed to enter ESM intercept bearings for  
display on CEP, which contributed to the watch team's failure to  
both correlate ESM intercepts to sonar contact S-4, or to  
correlate S-4 as a warship (i.e., as a contact that might not be  
transmitting AIS). [FF 52, 58, 66, 154]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

o. (b)(1) The ESM Operator (b)(6)  
(b)(6)

1) (U) Failed to attend the 19 Mar 09 Pre-Watch  
Brief, and failed to attend any Pre-Watch Brief for at least a  
month prior 19 Mar 09. [FF 53, 170]

(b)(1)

p. (b)(1) The Senior (b)(1) Specialist (b)(6)  
(b)(6)

1) (b)(1)

(b)(1)

2) (U) Failed to set an example and uphold a standard  
of focused watchstanding on the night of the collision. He  
distracted watchstanders by entering Sonar several times during  
the 1800-2400 watch on 19 Mar 09 and made multiple requests for  
(b)(1) documents that were unrelated to the current watch.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

Based upon one of his requests for (b)(1) documents, the  
Sonar Supervisor left Sonar less than a minute prior to the  
collision. [FF 22, 79, 80, 142, 145, 203-205]

(b)(1)

g.

(b)(1)

The DSO

(b)(6)

(b)(6)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

r. (b)(1) The ESM Supervisor (b)(6)

(b)(6)

(b)(1)

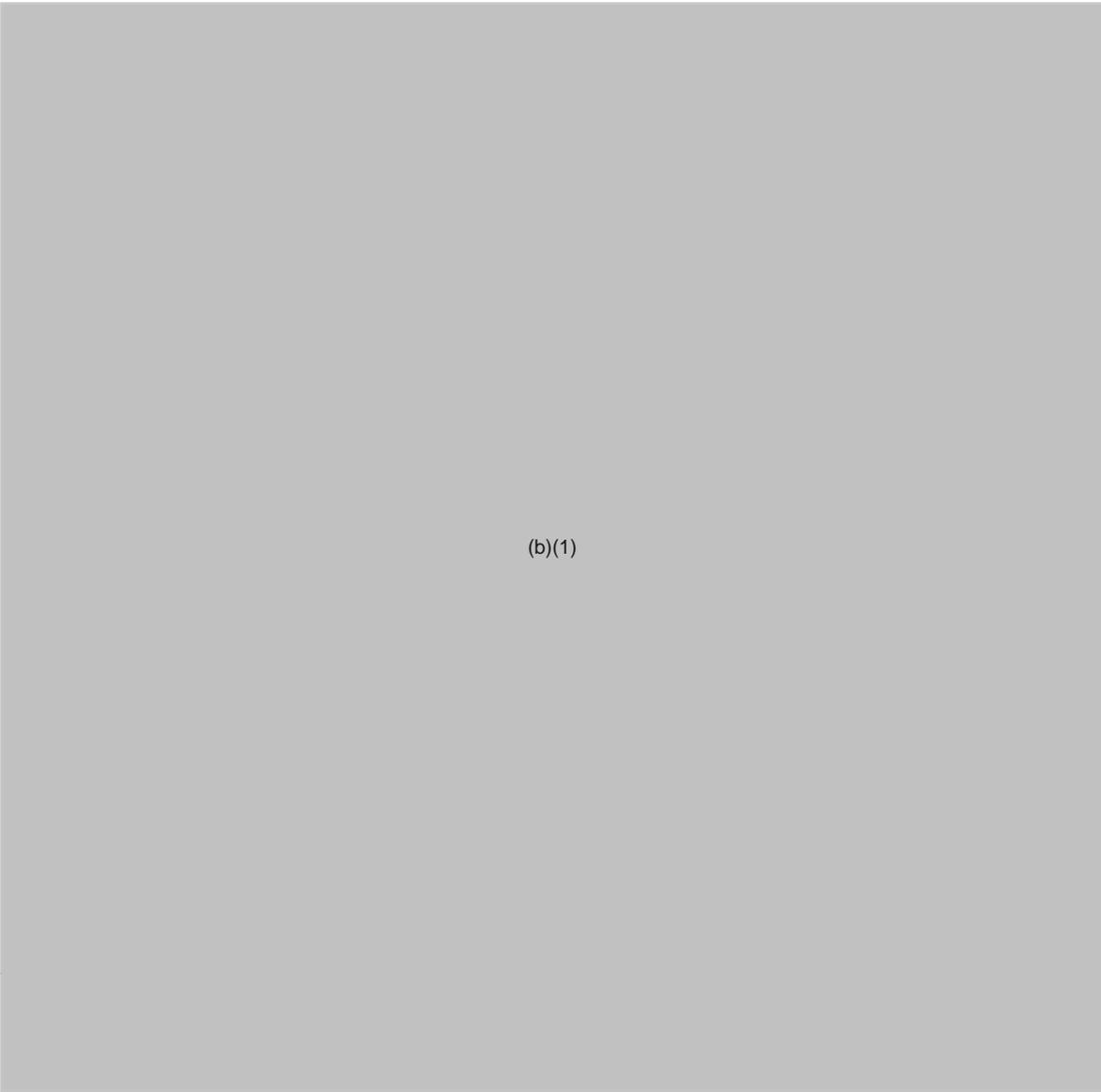
s. (b)(1) The CEP Operator (b)(6)

(b)(6)

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

**EXTERNAL-COMMAND FACTORS**



(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 758) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

Recommendations

**ACCOUNTABILITY**

1. (U) Recommend [REDACTED] be  
conducted for the former Commanding Officer [REDACTED] (b)(6)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

(b)(6), (b)(5)

(b)(6). Prior to completion of this report, (b)(6) was relieved by CTF 54 for loss of confidence in his ability to command.

2. (U) Recommend nonjudicial punishment proceedings be conducted for the Officer of the Deck (b)(6) and the Junior Officer of the Deck (b)(6)

(b)(6)

3. (U) Recommend nonjudicial punishment proceedings be conducted for the Executive Officer (b)(6)

(b)(6)

4. (U) Recommend (b)(6) be detached for cause as Chief of the Boat onboard HARTFORD based on substandard performance of duty. (b)(6)

(b)(6)

5. (U) Recommend nonjudicial punishment proceedings be conducted for the Navigator (b)(6)

(b)(6)

6. (U) Recommend nonjudicial punishment proceedings be conducted for the Sonar Supervisor (b)(6), SAWS Operator (b)(6), on-watch TAWS Operator (b)(6), and off-going TAWS Operator (b)(6)

(b)(6)

7. (U) Recommend nonjudicial punishment proceedings be conducted for the AUX Sonar Operator (b)(6)

(b)(6)

8. (U) Recommend nonjudicial punishment proceedings be conducted for the Weapons Department LCPO (b)(6)

(b)(6)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR ABOUT 20 MARCH 2009 (U)

9. (U) Recommend appropriate administrative action be taken for the Junior Officer of the Watch (b)(6) based on his poor performance as JOOW and Scope Operator. Recommend against disciplinary action based upon his relatively junior status and his genuine effort to conduct a second visual search down the contact bearing prior to being ordered a second time by the COD to lower the periscope.

10. (U) Recommend appropriate administrative actions be taken for both FIOWs (b)(6), the ESM Operator (b)(6), and the CEP Operator (b)(6) based on their poor performance of duty.

11. (b)(1) Recommend appropriate administrative action be taken for the Senior (b)(1) Specialist (b)(1) based on his poor performance of duty. (b)(6)

(b)(6) (b)(1) , (b)(6)

(b)(6)

12. (U) Recommend appropriate administrative action be taken for the Direct Support Element Officer (b)(6) based on his poor performance and inadequate supervision of his team.

(b)(6)

13. (U) Recommend appropriate administrative action be taken for the ESM Supervisor (b)(6) based on his poor performance and inadequate supervision of his team.

#### CORRECTIVE ACTIONS FOR HARTFORD

14. (U) Recommend the Immediate Superior in Command (ISIC) direct HARTFORD to conduct a Command Climate Survey to more fully assess and address the command climate issues that became apparent during this investigation. A Command Climate Survey has not been conducted in HARTFORD since at least November 2007. Given the serious nature of the several climate issues that

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

emerged from this investigation, recommend conducting this  
Command Climate Survey at the first available opportunity.

15. (U) Recommend HARTFORD's ISIC consider implementing a  
comprehensive assessment and upgrade program for the crew. That  
program should focus on: 1) improving watchstanders' basic  
level of knowledge concerning target motion analysis; 2)  
improving basic contact management skills; 3) improving  
understanding of tripwire development and use; 4) addressing  
appropriate employment and use of ship sensors and systems,  
including periscope, Sonar, ESM, PATRIOT Radar, and FCS; 5)  
developing better watchstander awareness of the need to  
prioritize and integrate the data received from all sensor data,  
vice relying too heavily upon receipt of AIS data; 6) improving  
officers' focus on monitoring the raw sensory data available  
from the CDR, vice focusing primarily on the derived solutions  
provided by the FCS; 7) improving watchstanders ability to apply  
Submarine Force "risk management pyramid" principles, and their  
relationship to OPSEC conditions, in scenario-based training;  
and 8) improving watchstanding formality, standards, and general  
discipline throughout the crew.

#### RECOMMENDATIONS FOR EXTERNAL ACTIVITIES

(b)(1)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE COLLISION OF USS HARTFORD (SSN 768) WITH  
USS NEW ORLEANS (LPD 18) IN THE STRAIT OF HORMUZ ON OR  
ABOUT 20 MARCH 2009 (U)

(b)(1)

(b)(6)