

28 Feb 14

From: [REDACTED] (b) (3) (B), (b) (6)  
To: Commander, CTF SIX FIVE

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE USS TAYLOR'S (FFG 50) POSSIBLE GROUNDING  
IN VICINITY OF (IVO) SAMSUN, TURKEY

Ref: (a) JAGINST 5800.7F (JAG Manual)  
(b) U.S. Navy Regulations  
(c) COMNAVSURFORINST/COMNAVAIRFORINST 3530.4B (NAVDORM)  
(d) NGA Chart 55161 2nd Edition March 19, 2011

- Encl: (1) Commander, CTF 65 ltr 5830 Ser CTF65/018 of 13 Feb 14  
(2) Deck Log of 12 Feb 14, 0000 through 0933  
(3) Statement of [REDACTED] (b) (3) (B), (b) (6) of 26 Feb 14  
(4) Statement of [REDACTED] (b) (3) (B), (b) (6) of 26 Feb 14  
(5) Statement of [REDACTED] (b) (3) (B), (b) (6) of 16 Feb 14  
(6) Official Navy Biography, [REDACTED] (b) (3) (B), (b) (6)  
(7) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(8) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(9) Statement of [REDACTED] (b) (3) (B), (b) (6) of 16 Feb 14  
(10) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(11) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(12) Statement of [REDACTED] (b) (3) (B), (b) (6) of 17 Feb 14  
(13) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(14) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(15) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(16) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(17) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(18) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(19) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(20) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(21) Statement of [REDACTED] (b) (3) (B), (b) (6) of 15 Feb 14  
(22) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(23) Statement of [REDACTED] (b) (3) (B), (b) (6) of 16 Feb 14  
(24) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(25) Statement of [REDACTED] (b) (3) (B), (b) (6) of 16 Feb 14  
(26) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(27) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(28) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(29) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(30) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(31) Statement of [REDACTED] (b) (3) (B), (b) (6) of 14 Feb 14  
(32) [REDACTED] (b) (3) (B), (b) (6) e-mail of 24 Feb 14

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- (33) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (34) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (35) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (36) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (37) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (38) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (39) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (40) Statement of (b) (3) (B), (b) (6) of 14 Feb 14
- (41) Sea and Anchor Watchbill of 12 Feb 14
- (42) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (43) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (44) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (45) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (46) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (47) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (48) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (49) (b) (3) (B), (b) (6), Summary of Interview of 24 Feb 14
- (50) (b) (3) (B), (b) (6) e-mail of 7 Feb 14
- (51) (b) (3) (B), (b) (6) e-mail of 20 Feb 14
- (52) (b) (3) (B), (b) (6) e-mail of 20 Feb 14
- (53) (b) (3) (B), (b) (6) e-mail of 20 Feb 14
- (54) (b) (3) (B), (b) (6) e-mail of 18 Feb 14
- (55) (b) (3) (B), (b) (6) email of 24 Feb 14
- (56) (b) (3) (B), (b) (6) email of 24 Feb 14
- (57) (b) (3) (B), (b) (6) email of 24 Feb 14
- (58) USS TAYLOR ltr 1200 of 12 Mar 12 (DESIGNATION AS ASSISTANT NAVIGATION OFFICER)
- (59) USS TAYLOR ltr 1200 of 11 Nov 13 (DESIGNATION AS NAVIGATION OFFICER)
- (60) Statement of (b) (3) (B), (b) (6) of 25 Feb 14
- (61) Gyro Bearing Record (Bearing Book) of 12 Feb 14, 0625 through 0917
- (62) CIC Watch Log of 12 Feb 14, 0200 through 0953
- (63) CIC Navigation Log of 12 Feb 14, 0620 through 0740
- (64) Engineering Watch Log of 12 Feb 14
- (65) Engineering Bell Log of 12 Feb 14, 0000 through 1000
- (66) Navigation Brief of 12 Feb 14
- (67) Bridge Paper Chart 55161 with inbound track and fixes
- (68) CIC Paper Chart 55161 with inbound track and fixes
- (69) Notice to Mariners Chart Corrections, Chart 55161 through 8/2014

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- (70) RHIB Report of 12 Feb 14
- (71) Kingfisher WRN-6 GPS position record of 12 Feb 14,  
0623 through 1051
- (72) (b) (3) (B), (b) (6) e-mail of 12 Feb 14
- (73) (b) (3) (B), (b) (6) e-mail of 21 Feb 14
- (74) Navigation Assessment Qualification of 30 May 13
- (75) Crew Certification Report of 25 Apr 13
- (76) AN/PSN-13 DAGR Figure of Merit Table
- (77) AN/WRN-6 Figure of Merit Table
- (78) Entering Port/Restricted Waters Checklist of 12 Feb  
14
- (79) Navigation Brief Muster Sheet of 11 Feb 14
- (80) Chartlet with RHIB soundings plotted by (b) (3) (B), (b) (6)
- (81) Chartlet with RHIB soundings plotted by (b) (3) (B), (b) (6)
- (82) USS TAYLOR (FFG 50) Draft Report of 12 Feb 14
- (83) USS TAYLOR (FFG 50) Draft Report of 17 Feb 14
- (84) TAYLORINST 3530.4L (Navigation Bill)
- (85) Night Orders of 11-12 Feb 14
- (86) Nobeltec screen capture with AIS tracks displayed
- (87) Fix/Position Reconstruction, USS TAYLOR (FFG 50) for  
12 Feb 14
- (88) USS TAYLOR (FFG 50) Chart (Cagliari, Italy)
- (89) USS TAYLOR (FFG 50) Chart (Funchal, Portugal)
- (90) USS TAYLOR (FFG 50) Chart Preparation Checklist
- (91) EOD MU8 25 foot Sounding Positions, Samsun, Turkey of  
19 Feb 14
- (92) National Geospatial-Intelligence Agency, Using  
Nautical Charts with Global Position System, accesses  
on 28 Feb 14 (<http://dnc.nga.mil>)

#### Preliminary Statement

1. As directed by enclosure (1), per reference (a), I conducted a command investigation to inquire into the facts and circumstances surrounding a potential grounding of the USS TAYLOR (FFG 50) in vicinity of Samsun, Turkey on 12 February 2014.

2. (b) (3) (B), (b) (6) from CTF 65 was appointed to assist me and (b) (3) (B), (b) (6), from CNE-CNA-C6F provided legal advice to me during this investigation. Upon my appointment,

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(b) (3) (B), (b) (6) and I travelled to Samsun, Turkey on 13 February 2014 to conduct interviews and gather evidence for this investigation. We interviewed 32 members of the crew including the Commanding Officer and Executive Officer. We were not able to interview the Turkish pilot.

3. No difficulties of a substantial nature were encountered during the course of this investigation. All witnesses were available onboard the ship. Most of the interviews were conducted, and the documentary evidence collected, during my visit to the ship in Samsun, Turkey from 13 - 16 February 2014.

4. The initial reports regarding the incident indicated USS TAYLOR (FFG 50) may have hit an uncharted submerged object well within safe waters in the channel. Thus, I asked all members of the crew to submit written statements prior to interviews. However, after collecting all of the written statements, and after recreating the ship's plot based on position logs, I started to question the initial reports. At this point, the evidence started to indicate the ship actually hit the sea floor, possibly outside charted safe waters. Thus, I began to reasonably suspect that members of the crew may have been derelict in their duties during the approach to port. From that point forward, I read each crewmember their Article 31b rights prior to the interviews. This included the Commanding Officer, Executive Officer, Navigator and Assistant Navigator. All crewmembers acknowledged their rights and chose to make statements. All crewmembers fully cooperated throughout the investigation both during interviews and while collecting evidence.

5. During the transit into Samsun harbor, the ship used DAGR GPS to navigate, but AN/WRN-6 and Furuno RADAR GPS units also electronically recorded data. (b) (3) (B), (b) (6) and I used data from all three logs to reconstruct the ship's positions leading up to the grounding. The positions are plotted by us on enclosure (87).

6. Following the incident, the Commanding Officer arranged for Turkish divers to assess potential damage to the ship within a few hours of the incident. They discovered a bent propeller

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blade and lube oil leaking from the propeller hub. Thereafter, Commander, U.S. SIXTH Fleet, sent EOD Mobile Unit 8 (EOD MU8) divers to further assess the USS TAYLOR (FFG 50) for potential damage. The dive team arrived on 13 February 2014, at the same time as (b) (3) (B), (b) (6) and me. Their assessment of damage included three bent blades and an O ring protruding visibly from the hub. Inspection of the hub following removal of the blades revealed damage to the hub, requiring a hub replacement as well as blade replacement. A final assessment of damages, as well as a total cost for necessary repairs was not available at the conclusion of my investigation.

7. As used in this report, unless otherwise annotated, the term "the chart" refers to the large scale inset of Samsun harbor on NGA chart 55161 2<sup>nd</sup> edition, Black Sea, Turkey, Samsun and Approaches. The breakwater labelled on the chart as "Kuzey Mendirek" is referred to in my report as the north jetty. The breakwater labeled as "Dogu Mendirek" is referred to as the south jetty. To provide a sense of scale and plotting accuracy, 1/16 of an inch is approximately 22 yards based on the scale of the chart. All azimuths, headings, courses, and bearings described in this report are in relation to true north. Finally, all times are local to Samsun, Turkey, which is ZULU plus two.

## Findings of Fact

### Background

1. USS TAYLOR (FFG 50) was conducting operations in the Black Sea during early to mid February 2014. [Encl (2)]
2. The ship prepared to make port in Samsun, Turkey on 12 February 2014 to take onboard fuel and provisions. [Encl (4)]
3. (b) (3) (B), (b) (6) is the Commanding Officer onboard USS TAYLOR (FFG 50). He reported aboard 01 April 2011 as Executive Officer and assumed command on 15 November 2012. [Encls (5), (6)]

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4. (b) (3) (B), (b) (6) is the Executive Officer onboard USS TAYLOR (FFG 50). [Encl (7)]

5. (b) (3) (B), (b) (6) is the Command Master Chief onboard USS TAYLOR (FFG 50). [Encl (8)]

6. On the day of USS TAYLOR's transit through Samsun harbor, the following crew members were assigned key positions on the Sea and Anchor detail [Encl (41)]:

- a. (b) (3) (B), (b) (6) Navigator
- b. (b) (3) (B), (b) (6) Officer of the Deck (OOD)
- c. (b) (3) (B), (b) (6) Junior Officer of the Deck (JOOD)
- d. (b) (3) (B), (b) (6) Conning Officer
- e. (b) (3) (B), (b) (6) Helm Safety Officer
- f. (b) (3) (B), (b) (6) Plant Control Officer
- g. (b) (3) (B), (b) (6) Engineering Officer of the Watch (EOOW)
- h. (b) (3) (B), (b) (6) Combat Information Center Watch Officer (CICWO)
- i. (b) (3) (B), (b) (6) Assistant Navigator
- j. (b) (3) (B), (b) (6) CIC Watch Supervisor
- k. (b) (3) (B), (b) (6) CIC Piloting Officer
- l. (b) (3) (B), (b) (6) CIC Navigation Plotter
- m. (b) (3) (B), (b) (6) Bridge Navigation Plotter

USS TAYLOR (FFG 50) Preparations for Entering Port in Samsun, Turkey

7. The Navigator supervised the generation of the navigation transit plan for USS TAYLOR (FFG 50) to enter into Samsun, Turkey on 12 February 2014. [Encls (13), (66)-(68)]

8. (b) (3) (B), (b) (6) assumed duties as the ship's Navigator in November 2013. [Encls (13), (59)]

9. The Commanding Officer approved and signed the Navigation Brief, which was presented to the Sea and Anchor detail watch team at 1400 on 11 February 2014. [Encls (13), (66), (79)]

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10. All required members of the Sea and Anchor detail signed the muster sheet indicating they attended the brief. [Encl (79)]

11. According to the Navigation Brief, the USS TAYLOR (FFG 50) was scheduled to moor port-side-to along the Industrial Quay on the morning of 12 February 2014. [Encl (66)]

12. The navigation track prior to entering the harbor contained two legs. The first was a south westerly leg toward the port area. [Encls (66)-(68)]

13. The second was a westerly leg that entered restricted waters before running between a northern jetty and a southern jetty. The chart preparation team plotted the second leg to run on course 288 approximately parallel to the north jetty, which runs on a bearing of 290. [Encls (66)-(68)]

14. The Surface Ship Navigation Department Organization and Regulations Manual (NAVDORM) defines restricted waters as "any position within two nautical miles (2nm) of ... waters less than the ship's Navigation Draft/Safety Depth." [Ref (c)]

15. After passing through the two jetties, the track entered the harbor and turned to the left to reach the Industrial Quay where the ship planned to moor. [Encls (66)-(68)]

16. There is no visual navigation range that an incoming ship could use to determine if it is right or left of track entering Samsun harbor. [Encls (67), (68)]

17. The navigation light on "NAVAID R-3" is prominently visible from the entrance of the harbor. The chart preparation team did not designate the light as a visual NAVAID and did not use it to take visual bearings. [Encls (3), (66)-(68)]

18. In preparing the navigation chart, the ship marked a ten meter contour line around the north and south jetties as the limit of the ship's safe navigable waters. This ten meter contour line constituted the "danger contour" designated by the ship per the NAVDORM. [Encls (67), (68)]; [Ref (c)]

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19. The 288 leg of the track was plotted so that the closest point of approach (CPA) to the danger contour to the north was approximately 90 yards. The CPA of the danger contour to the south was approximately 60 yards. [Encls (67), (68)]

20. The navigation brief included a note that the channel was as narrow as 200 yards, but did not mention the CPAs to the left or right of track. [Encls (42), (43), (66)]

21. The NAVDORM requires restricted water charts to be "annotated for shoal water, points of hazards, or dangers; including overhead obstructions, with danger bearings or danger ranges for hazards that are not identified by a navigation aid." [Ref (c)]

22. The end of the north jetty and the end of the south jetty are identified by lights which are navigation aids (NAVAIDs). However, there is no buoy line marking the ten meter depth contour around the north and south jetties. [Encls (67), (68)]

23. The ship did not plot any danger bearings or danger ranges on the chart for the approach into Samsun harbor. [Encls (67), (68)]

24. The ship did not annotate any minimum sounding changes on the chart. This is included in the Piloting Preparations checklist from the NAVDORM, but not in the chart requirements section. [Encls (67), (68)]; [Ref (c)]

25. The decision not to use danger bearings, danger ranges, or minimum soundings for the transit into Samsun harbor is consistent with the ship's previous practice based on a review of the ship's charts for entrance in to Cagliari, Sardinia and Funchal, Portugal. Specifically, no danger bearings are plotted on those charts although unmarked hazards to navigation in the vicinity of the ship's track exist. In addition, no minimum soundings are annotated on those charts. [Encls (88), (89)]

26. There are no stations in the Samsun, Turkey area that could provide tide or current predictions. The navigation team requested the ship's husbanding agent to provide input from the

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port captain regarding tides and currents. The husbanding agent responded directly stating that tidal range and currents were minimal inside the harbor. [Encls (13), (50), (54)]

27. The navigation team did not request assistance from U.S. SIXTH Fleet meteorology cell to predict tides and currents. Had they asked, the meteorology cell would not have had any further information to provide. [Encls (13), (54)]

28. The weather report indicated 10-knot winds would come from the south during the transit. [Encls (7), (66)]

29. At the Navigation Brief, the CIC navigation RADAR operator briefed that the AN/SPS-55 surface search RADAR was not working properly and could not transmit in short pulse. He briefed that this would result in degraded radar fixes. [Encls (8), (10), (19), (25), (34), (35)]

30. It was decided at the navigation brief that the CIC would attempt to take RADAR fixes during Sea and Anchor detail the following day using AN/SPS-55 long pulse. Further, it was decided that if the long pulse could not provide accurate fixes, CIC would attempt fixes with the MK-92 RADAR. Finally, it was decided that if neither the AN/SPS-55 nor MK-92 RADARs could provide accurate fixes, then the CIC would use GPS fixes only. [Encls (5), (7), (8), (10), (11), (34)]

31. During the actual approach into Samsun harbor, CIC attempted to get fixes using the AN/SPS-55 and MK-92 RADARs, but could not get accurate fixes. The ranges to designated NAVAIDS were not logged. Further, the inability to get accurate RADAR fixes was not reported to the Bridge. [Encls (5), (13), (35), (62)]

32. The CIC only used GPS position for fixes. [Encls (35), (63)]

33. The ship's Navigation Bill states that the primary fix source for CIC should be GPS. However, the Navigation Bill and the NAVDORM require both the Bridge and CIC to also obtain a visual and/or RADAR fix every third fix while in restricted waters. [Encl (84)]; [Ref (c)]

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34. Neither the Bridge nor the CIC navigation teams obtained visual or RADAR fixes every third fix. [Encls (62), (63), (67), (68)]

35. The Assistant Navigator was unaware that the navigation teams were not taking visual fixes, and believed that knowing what type of fixes were being taken was not his responsibility. [Encl (23)]

36. There was no discussion at the navigation brief of whether set and drift might require the ship to alter course, creating a "crab angle" nor how that would affect the stern of the ship's proximity to shoal water. [Encls (3), (66)]

37. The ship had no plan to bias to one side or the other of the track, and did not discuss the limit of how far to the right or left track they would allow before taking specific corrective action. [Encls (3), (13), (66)]

38. All required chart corrections, including Notice to Mariner (NOTMAR) corrections, were plotted and recorded correctly. [Encls (67)-(69)]

39. (b) (3) (B), (b) (6) served as the Navigation Plotter during the Sea and Anchor detail into Samsun harbor. On 17 February 2014, the Investigating Officer observed (b) (3) (B), (b) (6) correctly setup the Parallel Motion Protractor (PMP) for the chart used during the approach to Samsun harbor, including correctly accounting for a 0.4° east gyro error. [Encls (3), (41)]

40. On 17 February 2014, the Investigating Officer observed (b) (3) (B), correctly demonstrate how to compute gyro error by azimuth to the sun, including sighting and use of the Stella program. [Encl (3)]

41. The ship does not use the Piloting Preparations sample checklist from the NAVDORM. However, most actions in the NAVDORM checklist were accomplished. Items from the NAVDORM piloting preparation checklist not completed were:

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- a. The ship did not label sounding tripwires.
- b. The ship did not label waypoints for input into GPS units.

[Encls (23), (67), (68), (90)]; [Ref (c)]

42. There exists no navigation requirement on the ship to enter track points in GPS units. The ship did enter the track into the Furuno RADAR and the AN/SSN-6 Navigation Sensor System Interface (NAVSSI) systems. [Encl (23)]

43. The Ship does use a "Harbor Ready Charts" checklist and an "Entering Port/Restricted Waters" checklist. The first checklist deals strictly with chart preparation. The second checklist deals mostly with engineering and ship's husbandry. The ship does not retain Harbor Ready Charts checklists, and the one used for Samsun was not available to the Investigating Officer. [Encls (23), (78), (84), (90)]

44. The specific navigation items on the "Entering Port/Restricted Waters" checklist are:

- a. Check Navigation Equipment
- b. Calibrate the Digital Flux Gate Magnetic Compass
- c. Ensure Pilot card on station

[Encl (78)]

45. All chart preparation requirements listed in section 3-4 of the NAVDORM were completed with exception of danger bearings and danger ranges for unmarked navigation hazards. [Encls (67), (68)]; [Ref (c)]

46. The ship's Harbor Ready Charts checklist includes a signature block for danger bearings and danger ranges. [Encl (78)]

Material Conditions onboard USS TAYLOR (FFG 50) at the Time of Sea and Anchor Detail into Samsun Harbor

47. The ship was equipped with two types of military grade Global Positioning Units (GPS): an AN/WRN-6 GPS unit (WRN-6) and two AN/PSN-13 DAGR (DAGR) GPS units. [Encls (13), (84)]

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48. The Commanding Officer, Officer of the Deck, Junior Officer of the Deck, and Conning Officer did not use a handheld GPS unit to monitor the ship's position during the transit. [Encls (5), (14), (15), (18)]

49. The DAGR GPS units on the Bridge and in CIC were each plugged into their own external antenna and power supply for the Bridge and CIC navigation plotters to use. These were considered independent fix sources by the ship. [Encl (13)]

50. The ship has a Nobletec electronic navigation program that uses GPS inputs from the Furuno GPS receiver. The ship is not certified for electronic navigation, and uses the Nobeltec as a situational awareness tool. Of note, the Nobeltec does not display the electronic chart for the Samsun port. [Encls (3), (23), (86)]

51. The Bridge recorded DAGR GPS logs to the nearest second of arc. One second of arc is 33 yards. The CIC recorded DAGR GPS logs to the nearest .01 minutes of arc which equals 20 yards. [Encls (61), (63)]

52. The Furuno GPS data was recorded by the Nobeltec program to the nearest .001 minute of arc, which is 2 yards. [Encls (3), (4), (86)]

53. The Nobletec program recorded GPS positions during the Sea and Anchor transit continuously. [Encls (4), (86)]

54. Throughout the entire Sea and Anchor transit into Samsun harbor, the DAGR GPS unit maintained a Figure of Merit (FOM) 1, meaning fixes from these units were accurate to within 27 yards. [Encls (61), (76)]

55. The NAVDORM requires GPS units to maintain FOM 1 or FOM 2 when piloting within restricted waters. [Ref (c)]

56. The WRN-6 GPS logs were captured at three minute intervals during the entire portion of the Sea and Anchor transit during

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which the ship was within two nautical miles of shoal water.  
[Encl (71)]

57. Because a fix from a FOM 1 GPS unit could be off by up to 27 yards, a ship could be in shoal water even if the GPS fix is plotted in safe navigable waters. [Encl (76)]

58. The NAVSSI system and the Furuno RADAR provided a graphic representation of the ship's position relative to the track, but no direct measure of the distance from track. The Furuno RADAR does not automatically provide a distance between the ship and the track, but range rings were displayed to provide a rough measure. [Encls (3), (4), (5), (23)]

59. Neither the Furuno RADAR operator nor the NAVSSI operator called out the ship's distances from track during the transit. [Encls (42), (43), (44)]

60. The ship had other GPS units capable of providing the specific distance between the ship's position and the track, but the ship did not use this capability. [Encls (3), (13)]

61. The watch bill signed by the Executive Officer and approved by the Commanding Officer had no department heads in critical navigation positions, even though entering an unfamiliar port. [Encl (41)]

62. The ship has three line officer department heads on board - the Operations Officer, the Chief Engineer, and Combat Systems Officer (CSO). The CSO was on watch as the Tactical Action Officer (TAO). Per the ship's Navigation Bill, the TAO has no navigation responsibilities. The Operations Officer was assigned by the Executive Officer to roam the ship to provide general back-up on all matters. The CHENG was assigned as the Plant Control Officer, but was ill that morning. [Encls (9), (41), (42), (84)]

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Environmental Conditions and Timeline of Events for Sea and  
Anchor Transit into Samsun Harbor

63. The Officer of the Deck stationed the Sea and Anchor Detail at 0615 on 12 February 2014. [Encls (2), (5), (7), (8), (13), (18)-(20)]

64. Sunrise was at 0634, and visibility was unlimited. [Encls (2), (15)]

65. Seas were calm during the Sea and Anchor transit. [Encl (13)]

66. The contact picture was light and did not distract from ship navigation. [Encls (13), (19), (20), 86]]

67. The ship's draft on 12 February 2014 was recorded as 24 feet 9 inches. [Encl (82)]

68. The ship entered restricted waters at about 0700. [Encl (61)]

69. The NAVDORM requires ships to determine set and drift once on each leg less than 1,500 yards and every third fix for legs greater than 1,500 yards during transits through restricted waters. Set and drift is a measure of the effect of wind and current on the ship, described in terms of direction and speed. [Ref (c)]

70. CIC logged only one set and drift during the Sea and Anchor transit, logging set and drift toward 230 at 2.3 knots at 0630, prior to the ship entering restricted waters. [Encl (62)]

71. Approximately 3-5 nautical miles from the harbor, the Bridge and CIC plotted several GPS fixes that did not correlate. In one case, the Bridge plotted the ship 1,200 yards left of track and CIC plotted the ship 200 yards left of track. The Assistant Navigator went to CIC and discovered that CIC was calculating distance to track incorrectly. The Assistant Navigator corrected the calculation discrepancy. [Encls (13), (25), (33), (36), (37)]

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72. The Bridge Navigation Plotter stated he determined set and drift 15-20 times during the transit, but the deck log contained no set and drift entries after 0205. [Encls (2), (49)]

73. The ship's Navigation Bill requires all set and drift determinations to be recorded in the Deck Log while in restricted waters. [Encl (84)]

74. The Bridge shifted from the Chart 55161 small scale inset to the Chart 55161 large scale inset at 0712. [Encl (61)]

75. The ship changed course incrementally from 0713 until the grounding between headings of 292 and 281. [Encls (2), (13)]

76. Both the CIC and Bridge navigation teams stated they were aware they were being set to the north, which pushed the ship right of track. However, set and drift was not determined because of the incremental changes. [Encls (2), (5), (7), (13), (14), (18), (33), (36), (38)]

77. The Auxiliary Power Units (APUs) were lowered as planned at 0715. [Encls (2), (20)]

78. The DAGR GPS position for time 0715 showed the ship left of track. This fix was plotted by both the CIC and Bridge navigation teams on their charts. [Encls (61), (63), (67), (68)]

79. The APUs were trained to 240 relative at 0716 in preparation for the upcoming turn to the left. [Encl (2)]

80. The DAGR GPS position for time 0718 showed the ship on track. This fix was correctly plotted by the Bridge navigation team on their chart. The CIC plotted this fix in an incorrect position approximately 220 yards south of the actual position. This was the last GPS fix plotted prior to the grounding. [Encls (52), (61), (63), (67), (68)]

81. The fact that the CIC incorrectly plotted the 0718 fix was not detected until this investigation commenced. [Encls (52)]

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82. The Turkish Pilot boarded USS TAYLOR (FFG 50) at 0720 via pilot boat and arrived on the bridge at 0721. The Pilot did not bring a handheld GPS. [Encls (2), (5), (7), (8), (10), (13), (14), (20), (37)]

83. (b) (3) (B), (b) (6) briefed the Pilot on ship's characteristics including draft, length, single controllable pitch propeller, starboard stern walk, two APUs, and ground tackle make up using the Pilot card. [Encls (5), (7), (13), (20),]

84. At the time of the Commanding Officer's brief to the Pilot, the ship was approximately 590 yards from the north jetty and approximately 440 yards from the nearest shoal water to the east of the north jetty. [Encls (67), (68)]

85. A reconstruction of the DAGR GPS position for time 0721 shows the ship 30 yards right of track. Neither the CIC nor Bridge navigation teams plotted this fix. [Encls (61), (63), (67), (68), (87)]

86. At some point after 0721, the Conning Officer directed the use of the laser range finder to determine the distance from the ship to the north jetty. This was not briefed as part of the Navigation Brief. [Encls (15), (18), (66)]

87. A reconstruction of the DAGR GPS position for time 0724 shows the ship 60 yards right of track. The Bridge navigation team neither recorded nor plotted the time 0724 DAGR GPS position. [Encls (61), (63), (67), (68), (87)]

88. The CIC Plotter claims to have plotted a GPS fix at 0724, immediately before the ship shuddered. The CIC chart has an unlabeled fix in the vicinity of the actual 0724 position. [Encls (48), (68)]

89. The ship did not correctly plot any fixes between 0718 and 0725 (the time of the grounding). Instead, sometime between 0718 and 0721, the ship started using "constants," or plotting only continuous lines of position (LOP) from NAVAID V-1 to mark the turn point. [Encls (35), (36), (37), (39), (51), (52)]

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90. The Bridge and CIC navigation teams stated that after entering "constants," plotting LOPs takes precedence over plotting fixes. [Encl (43)-(49), (51), (52)]

91. Most members of the navigation teams stated they were taught at "RADNAV" in Mayport, Florida or the Surface Navigator's Course in Newport, Rhode Island to stop taking GPS fixes after entering "constants" 1,000 yards before a turn. [Encls (43)-(49)]

92. The CICWO and CIC Plotter stated that plotting GPS fixes after entering "constants" was good practice, but not required. [Encls (45), (48)]

93. Initial feedback to the Assistant Investigating Officer from the Center for Surface Combat Systems' Senior QM Refresher course and RADAR Navigation (RADNAV) Team Trainer course, as well as the Surface Warfare Officer School's Surface Navigator course, indicate that all three schools teach students to start taking constant bearings at 1,000 yards if the ship is traveling at ten knots, but that navigation teams must evaluate whether a slower speed would make waiting longer more prudent. The schools teach that fix intervals are "inviolable." [Encls (55)-(57)]

94. At 0721, the ship was traveling at six knots. [Encl (2)]

95. The NAVDORM and the ship's Navigation Bill requires no greater than three minute fix intervals while in restricted waters. [Encl (84)]; [Ref (c)]

96. The ship went at least six minutes without plotting a fix. [Encls (2), (61), (63), (67), (68)]

97. At some time between 0721 and 0725 after the brief on ship's characteristics from the Commanding Officer, the Pilot recommended coming right to course 290. The Pilot never looked at the ship's position relative to a chart prior to recommending this course. [Encls (5), (7), (13)]

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98. The Navigator and Conning Officer non-concurred with the Pilot's recommendation because of the ship's position to the right of track. [Encls (5), (13), (18)]

99. Instead of following the Pilot's recommendation, the ship continued to incrementally change heading to 281 to attempt to make course 288 good over ground. [Encls (5), (7), (13), (18)]

100. The ship's stern grounded at 0725. The ship's propeller impacted with sufficient force to stop the shaft. [Encls (21), (64), (65)]

101. USS TAYLOR (FFG 50) has a controllable pitch propeller, meaning the shaft continues to rotate even when the engines are running with zero ahead or astern propulsion ordered. In such a case, the angle of the propeller blades is set to provide no thrust. The shaft stopping while the engines are running is a casualty condition. [Encl (60)]

102. At the time of impact, the ship's ordered course was 281. [Encls (2), (13), (14), (25), (37)]

103. At the time of impact, the ship's "crab angle" was 7 degrees to port, meaning the stern of the ship was further to starboard than the bow. This "crab angle" put the stern approximately 10 yards closer to shoal water to the north. [Encls (2), (87)]

104. The Pilot believed the ship was in good water even though the ship had impacted something. [Encls (5), (7), (18), (29)]

105. The Bridge team did not suspect they had grounded. [Encls (5), (13), (14), (22)]

106. They also believed the ship was in good water at the time. [Encls (5), (13), (14), (22), (30), (39)]

107. There was some confusion as to whether the shaft had stopped because of an engineering casualty or a fouled propeller. [Encls (5), (18), (22)]

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108. The reconstructed DAGR GPS position at time 0725 has the ship twenty yards south of the ten meter danger contour. As stated above, this fix is recorded to the nearest integer second of arc. [Encls (61), (87)]

109. The reconstructed Furuno GPS position at the time of the grounding has the ship on the ten meter danger contour. [Encls (87)]

110. The Junior Officer of the Deck reported that the range to the north jetty prior to impact was 140 yards by laser range finder. He did not estimate how long before impact this occurred. [Encls (14), (15), (18)]

111. The reconstructed range from the 0725 DAGR GPS position to the north jetty was 115 yards. [Encl (87)]

112. Within 2 minutes of the impact, the Command Master Chief directed a manual sounding. The sounding tape read thirty seven feet from the stern step starboard lifelines to the sea floor. The Command Master Chief stated he informed the Commanding Officer of the thirty seven foot sounding. [Encl (8)]

113. Based on the known height of the stern step on the day of the incident, the ship's starboard quarter was in 20 feet of water, which was 4 feet 9 inches shallower than the maximum draft of the ship. [Encl (4)]

114. The ship stopped making headway after the grounding, and the bow began to drift to the north. [Encls (14), (15), (22)]

115. A reconstruction of the DAGR GPS fix at 0727 shows the ship inside the ten meter danger contour south of the north jetty. [Encl (87)]

116. A series of APU orders were given to attempt to back the ship, as well as to keep the bow of the ship from rotating further into shoal water. [Encls (7), (18), (20), (22)]

117. At 0728 the ship's fathometer lost tracking. [Encl (37)]

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118. The Commanding Officer did not assume the Conn, but he directed the OOD to take the actions listed in Findings of Fact 120-131 below. [Encls (2), (5), (14)]

119. At 0731 the JOOD ordered the two Gas Turbine Engines (GTE) 1A and 1B to be shut down and the shaft brake engaged based on his understanding of the Commanding Officer's orders. [Encls (14), (15), (64)]

120. The Commanding Officer subsequently ordered GTE 1A and 1B restarted. At 0733 GTE 1A was restarted. [Encls (14), (15), (26)]

121. A "shaft not rolling" report was made to the Bridge along with the recommendation to secure GTEs within 14 minutes to prevent engine damage. At 0734 the Commanding Officer ordered GTE 1A and 1B shut down. [Encls (2), (26)]

122. The Commanding Officer coordinated with the Pilot to make up the tugs so that the ship could be pulled back out of the approach to the harbor. The aft tug was made up to the ship at 0732. The forward tug was made up at 0734. [Encls (2), (5), (7), (14), (15), (28), (29)]

123. The RADAR Operator/TACON watch reported the ship's closest point of approach to the north jetty was 70 yards during the time the ship was without headway. [Encl (19)]

124. At 0737 GTE 1A and 1B were ordered restarted. [Encls (2), (26)]

125. At 0738 GTE 1B was started, but the shaft still did not rotate. [Encls (26), (64)]

126. At 0740 the shaft began rotating indicating the ship was no longer aground. In quick succession, engine back 2/3 was ordered, right 35 degree rudder was ordered, engine back 1/3 was ordered, and All Stop was ordered. [Encls (2), (7), (26), (64)]

127. The ship was aground for 15 minutes from 0725 to 0740. [Encls (2), (26), (64), (65)]

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128. In quick succession at 0742, left 35 degree rudder was ordered, engine ahead 1/3 for 2 knots was ordered, and GTE 1A was reported online. [Encls (2), (64)]

129. At 0748 the fore and aft tugs cast off from the ship.  
[Encl (2)]

130. At 0755 the ship steadied on course 080 away from the approach to the harbor. [Encl (2)]

131. At 0801, the Commanding Officer ordered the RHIB lowered into the water to take soundings at the harbor entrance. He did this in order to verify whether the channel was safe to transit.  
[Encls (2), (5), (8), (11)-(14)]

132. The RHIB used sounding tape to determine depths. The RHIB's fathometer was out of commission. The RHIB reported normal soundings along the original intended track, with deeper soundings south of the track. This report correlates with the chart. [Encls (5), (7), (8), (12), (14), (67), (80), (81)]

133. At 0805, the EOW logged abnormal noise coming from the shaft. The Chief Engineer informed the Executive Officer of the strange sound, and that all other conditions appeared normal. The Executive Officer stated that Engineering reported all conditions normal and that the abnormal noise was not reported until just before the ship approached pierside. The abnormal noise was not reported to Commanding Officer until the ship was pierside. [Encls (5), (7), (9), (26), (42), (64)]

134. The Commanding Officer did not determine exactly what happened prior to deciding to reenter the harbor. Specifically, there was no brief to the Bridge team as to the cause of the incident prior to reentering the harbor. [Encls (5), (7), (14), (18)]

135. The Commanding Officer did gather the XO, CMC, Navigator, Assistant Navigator, Conning Officer, and OOD to discuss a second approach through the harbor. [Encls (5), (7), (8), (13), (14), (18), (22)]

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136. The OOD described the gathering as a quick "shoot from the hip" gathering of key navigation personnel to decide on a plan everyone felt comfortable with to reenter the channel. [Encl (43)]

137. Neither the Chief Engineer nor the Plant Control Officer was consulted as part of the discussion. They were in the Central Control Station (CCS) further assessing the situation. [Encls (5), (9), (42)-(44)]

138. At that point, the Executive Officer was not tracking any issues or damages to the engineering plant. He said the throttle was tested and the shafted was responding appropriately, so he believed the Commanding Officer had all engineering reports necessary to make a decision about reentering the channel. [Encls (42)-(44)]

139. The Commanding Officer asked if anyone had concerns, and if all were comfortable with a second approach. The Assistant Navigator initially voiced concern about the condition of the propeller and not knowing what caused the incident. [Encls (5), (7), (8), (14), (18), (22)]

140. The Commanding Officer decided on a second approach, using a track more to the south of the original track. The new track was plotted on both the Bridge and CIC charts. [Encls (5), (7), (8), (13), (67), (68)]

141. The Commanding Officer ordered the RHIB to take soundings ahead of the ship throughout the second transit. [Encls (5), (7), (8), (14), (18)]

142. The Commanding Officer ordered the ship to attempt a second approach into Samsun harbor, passing the jetty at 0856. [Encls (5), (67)]

143. The ship passed approximately 60 yards south of the grounding point during the second attempt. [Encl (86)]

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144. The ship transited through the harbor without further incident and moored at 0917. [Encl (2)]

145. After arriving pierside, the EOWW logged a loss of 23.6 gallons of hydraulic oil from the Controllable Pitch Propeller (CPP) hydraulic oil sump. [Encl (64)]

146. After mooring, the Commanding Officer and the Chief Engineer heard the abnormal noise from the shaft. [Encls (5), (9)]

147. Shortly after mooring, the Commanding Officer coordinated with Turkish divers to assess the condition of the propeller. The divers reported a slightly bent propeller blade, along with oil leaking from the hub. This correlated with the known oil leak from the CPP system. [Encls (5), (64)]

148. After hearing the abnormal noise in the shaft, receiving the report of a slightly bent propeller blade, and receiving a report of hydraulic oil leak from the divers, the Commanding Officer recommended to Commander, CTF 65 that he refuel and return to sea. [Encl (4)]

149. At approximately 1009, the Commanding Officer reported to Commander, CTF 65 that he believed the ship was centered in the channel at the time of the incident. His report did not mention that he required tugs to clear the channel, nor that he was stopped in the channel for 15 minutes. His report makes no mention of the possibility of grounding. [Encl (72)]

150. On 13 February 2014, the Commanding Officer told the Investigating Officer that he was "fair in the channel" at the time of the grounding. [Encl (3)]

151. In his 16 February 2014 statement, the Commanding Officer stated that he believed the ship was 50 yards right of track after the Pilot was on board and prior to the ship's grounding. [Encl (5)]

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Post Grounding Damage Assessment, Hydrographic Survey, and  
Hydraulic Oil Cleanup

152. On 13 February 2014, Commander, U.S. SIXTH Fleet sent EOD Mobile Unit 8 (EOD MU8) divers to further assess the USS TAYLOR (FFG 50) for potential damage. [Encl (3)]

153. The dive team assessment of damage included three bent propeller blades and an O ring protruding visibly from the hub. [Encl (3)]

154. The dive team also took soundings of the Samsun port in vicinity of where USS TAYLOR (FFG 50) grounded. [Encls (73), (91)]

155. The dive team conducted a hydrographic survey and collected 14 soundings along a 25-foot contour to the south of the north jetty. [Encls (73), (91)]

156. The dive team verified the positions by two independent handheld GPS receivers. The dive team measured the depths by a handheld depth sounder on the surface and analog depth gauges on dive equipment. [Encls (73), (91)]

157. The survey data provided by the dive team shows that the ten meter contour extends further south into the channel than current chart reflects. [Encls (87), (91)]

158. Shortly after arriving pierside, the USS TAYLOR (FFG 50) worked with port authorities to place an oil boom around the stern of the ship to contain any leaking oil. [Encl (32)]

159. The ship discovered that 2190 Lube Oil was leaking out of the shaft due to damage to the hub assembly and 4D propeller blade. [Encl (32)]

160. On 13 February 2014, the ship isolated the CPP Head Tank and Sump and stopped the 2190 Lube Oil from flowing into the shaft. Based on ship's logs, approximately 322 gallons of 2190 Lube Oil was lost from the Tank and Sump. [Encl (32)]

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161. Not all of the 322 gallons leaked into the water. Some still remains in the shaft, but the remaining amount will continue to slowly leak into the water due to damage to the hub assembly. [Encl (32)]

162. The leak has been contained within the oil boom. [Encl (32)]

163. The ship began cleanup efforts immediately using absorbent pads. Starting on 15 February 2014, port authorities took over cleanup efforts with the support of the ship. [Encl (32)]

Additional Findings of Fact Regarding Navigational Procedures  
Used During the Sea and Anchor Transit into Samsun Harbor:

164. Pursuant to the NAVDORM and the ship's Navigation Bill, the Executive Officer is responsible for direct supervision of the Navigator and navigation team while in restricted waters unless otherwise directed by the Commanding Officer. [Encl (84)]; [Ref (c)]

165. The ship records visual LOPs to the nearest whole degree even though half degree resolution is possible from the pelorus. [Encl (3)]

166. The total azimuthal separation of visual NAVAIDS when the ship first steadied on the approach course was 6 degrees. The ship designated a NAVAID off the beam to the south, but never took any bearings to it during the transit. [Encls (61), (67), (68)]

167. The ship took bearings to NAVAIDS V-1, V-2, and V-3 but did not use those bearings to plot any visual fixes while in restricted waters. [Encls (61), (67), (68)]

168. The ship took no RADAR fixes while in restricted waters. [Encls (35), (61), (63), (67), (68)]

169. The bearings taken to NAVAID V-3 do not correlate with the ship's position via GPS for any logged positions. Recorded bearings to NAVAIDS V-1 and V-2 do correlate with logged GPS

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positions. Re-plotting the logged bearings demonstrates the ship was actually taking bearings to the ferry terminal. [Encls (3), (49), (61), (87)]

170. No debrief of navigation watch standers occurred either before reattempting to enter the harbor, or following mooring. [Encls (5), (7), (8)]

171. The ship was unable to provide any written comments from the navigation check ride conducted by their administrative chain of command. They were able to provide the certification message, but it only contains a statement of certification. [Encls (4), (74), (75)]

172. The Assistant Navigator stated that all visual NAVAIDS were verified during the Sea and Anchor detail. [Encl (23)]

173. The Assistant Navigator did not feel the ship was standing in danger in any way before the ship grounded. [Encl (22)]

174. When asked by the Investigating Officer, the Navigator correctly answered most technical questions regarding navigation correctly. She did not understand chart accuracy. Additionally, she stated that the Surface Navigator's Course taught her to go to constant lines of position 1,000 yards from the turn. [Encls (3), (17), (44)]

175. When asked by the Investigating Officer, the Assistant Navigator:

- a. Could not explain how a danger range works. When asked, the Assistant Navigator stated that an appropriate danger range would be approximately 2400 yards from the end of the north jetty.
- b. Could not explain how a danger bearing works.
- c. Could explain the process by which chart reproduction is validated through a known 6 inch line on the chart, but could not explain what chart accuracy was and how it varies with scale. Error for chart scale was 14 yards.

[Encls (3), (4), (92)]

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176. A thorough review of the ship's Bridge and CIC charts revealed two identical errors on two presumably independently prepared charts.

- a. The turn bearing to V-3 was logged as 116R. The correct turn bearing should have been 063R.
- b. The turn range to R-4 was improperly labelled as 925 yards. The correct range was 750 yards.

[Encls (67), (68), (87)]

### Opinions

1. Based on a reconstruction of the Nobeltec GPS positions, the ship ran aground at the north jetty charted ten meter contour. Based on a reconstruction of the DAGR GPS positions, the ship ran aground twenty yards to the south of the ten meter danger contour. [FF (47), (50), (53), (57), (100), (108), (109)]
2. The Nobeltec GPS track is recorded to a higher resolution than the DAGR GPS track, and thus provides better resolution of the ship's position up to and during the grounding. The Nobeltec data was recorded to nearest .001 minute, while the Bridge DAGR was hand recorded only to the nearest one second of arc. The ship ran aground at the charted ten meter contour at approximately N 41 18.256, E 036 21.312. [FF (51), (52), (57), (100), (109)]
3. Regardless of the precise location of grounding, a prudent mariner applying fix and chart error to hazards of navigation and complying with the requirements of the NAVDORM and the ship's Navigation Bill would not have run aground transiting into Samsun harbor. [FF (17), (20), (23), (31), (36), (37), (45), (51), (59), (60), (75), (85), (87), (89), (90), (96), (175)]
4. The ship's position by GPS was never in doubt. Figure of merit for all GPS fixes logged in the bearing book from 0425-0700 is FOM 1. [FF (53)-(56)]

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5. The ship experienced a northerly set during the 288 approach leg. It recognized this, but changed course only incrementally. These incremental course changes precluded the ship from precisely calculating set and drift. [FF (13), (28), (75), (76)]

6. The inability to predict tides and currents did not appreciably contribute to the grounding. The primary cause for the northerly set was winds from the south. [FF (26)-(28)]

7. The principal cause of the grounding was an overall poor level of knowledge, combined with low standards in the execution of navigation. Specifically:

- a. Failure to consider fix accuracy (27 yards) and chart accuracy (14 yards) in creating adequate offset to the NGA derived ten meter contour. [FF (20), (36), (51), (57)]
- b. Failure to recognize that the manner in which they chose to plot GPS fixes impacted the margins they had in a narrow channel. Bridge DAGR GPS was recorded to the nearest second of arc which equals 33 yards. CIC DAGR was recorded to the nearest .01 minutes of arc which equals 20 yards. This method is not inappropriate; however, the ship did not account for this by applying an offset to the hazard. [FF (19), (20), (51)]
- c. Failure to provide a danger range or danger bearing to keep the ship clear of the ten meter danger curve. [FF (21)-(23)]
- d. The ship stopped taking fixes when they entered constant bearings 1,000 yards from the turn, which meant the ship went at least six minutes without a fix. The NAVDORM and Navigation Bill require no more than three minutes between fixes while in restricted waters. This is an across the board knowledge deficiency on the ship. The Navigator and Assistant Navigator stated no fixes were plotted between 0718 and 0725 because the ship was taking constant bearings and therefor taking fixes was not necessary. No one

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on the ship questioned this practice. [FF (89), (93)-  
(96)]

8. Additional poor navigation practices that did not directly contribute to the grounding, but do indicate low navigation standards on the ship included:

- a. Failure to correctly identify visual NAVAIDs. [FF (169)]
- b. Failure to plot any visual fixes. [FF (167), (169)]
- c. Failure to obtain RADAR or visual fixes every third fix in restricted waters. [FF (34), (168)]
- d. Failure to properly prepare turn bearings and ranges. The improperly labelled turn range may explain why the ship ended up left of track on the final leg while approaching the pier. [FF (176)]

9. While almost all members of the navigation team knew they were right of track, no one recommended or took aggressive action to correct the situation. [FF (75), (76), (98), (99)]

10. The Turkish Pilot added to confusion when he recommended a course of 290, further to the right, with the ship already right of the planned track. Since he did not check ship's position against a navigation reference, he simply directed the ship to parallel the jetty course and did not account for set and drift. [FF (13), (97), (98)]

11. The APU orders given immediately after the impact prevented the ship from grounding by the bow. [FF (114)-(116)]

12. The ship places too much confidence in the ability of a RHIB with a sounding tape to accurately and safely determine the navigability of waters. This should not be enough to convince a prudent mariner that it is safe to reenter the channel. [FF (131), (132), (140), (141)]

13. The Commanding Officer's initial report of being centered in the channel was factually wrong. This reflects poorly on his judgment regarding the importance of establishing facts or

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE USS TAYLOR'S (FFG 50) POSSIBLE GROUNDING  
IN VICINITY OF (IVO) SAMSUN, TURKEY

acknowledging uncertainty with formal reports. [FF (108),  
(109), (149)]

14. A prudent Commanding Officer would have concluded from all of the facts available that the ship had run aground regardless of whether it was inside or outside the danger contour. [FF (112), (113), (121)-(123), (125), (126), (149)]

15. The ship's original track did not maximize the distance from hazards. A more northerly approach course would have maintained the same 60 yards of clearance from the southern jetty danger contour and greatly opened the range from the northern jetty danger curve. The only added risk would have been a larger turn angle. This would have been mitigated with prediction of advance and transfer, with a tug made up on the starboard bow, and an effective danger range to the southern jetty. [FF (13), (19)]; [Ref (d)]

16. Although not ideal, the original track still could have been safe. A prudent mariner with open water to the left of track would abort the approach rather than accept being right of track in the vicinity of NAVAID V-1. At a minimum, a prudent mariner would have taken aggressive action rather than incremental changes if right of track. [FF (28), (75), (76), (98), (99)]

17. The Navigation team's preparation for entering port was inadequate. Specifically:

- a. Maximum allowable deviation from track was not briefed, with actions to correct. The use of the laser range finder was smart, but failure to prescribe what was "safe" by tripwires at the Navigation Brief limited its effectiveness. [FF (20), (37), (86)]
- b. Not all GPS units capable of loading the ship's track were programmed. More specifically, neither of the two GPS units with the track loaded provided real time direct indication of distance from the track. [FF (60)]
- c. NAVAIDS were not planned effectively. [FF (17), (166), (169), (172)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE USS TAYLOR'S (FFG 50) POSSIBLE GROUNDING  
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- d. Waypoints were not titled on the chart so that they could be identifiable with GPS units. [FF (41)]
- e. The ship did not plot danger ranges and danger bearings for hazards not marked by NAVAIDs. [FF (24), (45)]
- f. Minimum Soundings were not briefed or plotted. [FF (24)]
- g. The ship did not develop a sensor plan of how to ensure the ship was to be maintained safe. [FF (86)]
- h. The navigation brief was focused on many areas beyond navigation (e.g. force protection, material conditions, etc), but did not have sufficient detail on navigation. [FF (9), (20), (36), (86)]
- i. The ship had multiple errors in turn bearings and ranges on the approved charts. [FF (176)]

18. The ship had sufficient electronic navigation equipment and information to safely navigate if used properly. The navigation team lacked an understanding of what information to track, what tripwires to set, and what action to take when tripwires were met. [FF (37), (47), (53)-(56), (59), (60), (172)-(175)]

19. The Assistant Navigator was derelict in his duties. Specifically he:

- a. Failed to demonstrate the level of knowledge expected of a Senior Chief Quartermaster or of an Assistant Navigator. [FF (175)]
- b. Did not validate NAVAIDs during piloting. [FF (169)]
- c. Did not effectively train the navigation team. [FF (90)-(92), (174)]
- d. Provided negative training in the method the navigation team uses during approaches to turns. Specifically, the team violated NAVDORM requirements by exceeding three minutes between fixes while in restricted waters. [FF (85), (87), (90)-(92), (95), (96)]
- e. Failed to detect that the ship was standing into danger. [FF (173)]
- f. Did not effectively train a new Navigator (3 months). [FF (8)]
- g. Did not effectively observe the navigation team while in restricted waters. [FF (35)]

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h. Did not effectively assist the Navigator in all aspects of the navigation, piloting, and navigation administration during the transit as required by the ship's Navigation Bill. [FF (35), (176)]

20. In the opinion of the Investigation Officer, the Assistant Navigator feels no responsibility for the grounding. [FF (35), (173)]

21. The Navigator was derelict in her duties. Specifically she:

- a. Only provided advice to match the ship's track instead of recommending a correcting course to close the track. [FF (98), (99)]
- b. Did not adequately prepare the navigation team in both the Navigation Brief and the preparation of the charts. [FF (9), (20), (24), (25), (36), (86), (176)]
- c. Allowed the navigation team to violate NAVDORM requirements by exceeding three minutes between fixes while in restricted waters. [FF (85), (87), (90)-(92), (95), (96)]
- d. These failures to execute her duties are mitigated somewhat by the short period of time she has been Navigator. She used the same standards for entering Funchal and Cagliari. Thus, I believe she has not been trained appropriately. [FF (8), (25), (91)]

22. The Executive Officer was derelict in his duties. Specifically he:

- a. He made no recommendations regarding navigation to the Commanding Officer prior to the ship grounding. [FF (76)-(99)]
- b. Did not effectively supervise the Navigator as required by the ship's Navigation Bill. [FF (164)]
- c. Signed a Sea and Anchor detail watchbill for entry into an unfamiliar port with a constrained entrance without any department heads in positions where they would be required to provide navigation backup. [FF (61), (62)]

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23. The actions of the Commanding Officer following the grounding call his ability to make good judgments under stress into question. Postulate for the moment that the ship shuddered, the shaft stopped, the ship came to a stop while in the center of the channel, and there was no report of abnormal noise on the shaft. Given this, the Commanding Officer:

- a. Directed main propulsion restored without clear understanding of the cause of the shaft stopping, and after having regained control of the movement of the bow toward the jetty with the APUs. [FF (116), (120)]
- b. Directed GTEs restarted while the tugs were still pulling the ship off whatever hazard it encountered, potentially further damaging the propeller. This was not a good decision with two tugs made up and sufficient control of ship established. GTEs were running while still aground (as indicated by no shaft movement) for three minutes. [FF (124)-(126)]
- c. Made the decision to reenter the harbor without debriefing the entire navigation team to determine if it was possible the ship ran aground. [FF (134)]
- d. Did not involve the Chief Engineer or Plant Control Officer in the decision to reenter the harbor. [FF (137)]
- e. Reentered the harbor 90 minutes later without consulting with CTF-65. [FF (140), (142), (149)]

24. The Commanding Officer was derelict in his duties. Specifically, he:

- a. Approved and executed a navigation plan that allowed the ship to run aground. [FF (7)-(46), (63)-(100)]
- b. Failed to detect when his ship was standing into danger. He did not effectively determine that the ship was heading into peril. [FF (75), (105), (106)]
- c. Failed to prioritize effectively. The brief to the Pilot occurred after time 0721. The ship was within 440 yards of shoal water during this brief. He should have insisted on an earlier, further boarding point. [FF (84)]

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
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IN VICINITY OF (IVO) SAMSUN, TURKEY

### Recommendations

1. Prior to the ship leaving port, CTF-65 should direct a survey of sufficient resolution to ensure safe navigation of the ship out of the port.
2. CTF-65 should verify that the instructors at the Surface Navigator's Course, the RADNAV Team Trainer course, and the Senior QM Refresher Trainer course are correctly teaching NAVDORM requirements, and not teaching students to cease taking fixes every three minutes starting at 1,000 yards from a turn while in restricted waters.
3. CTF-65 should ensure the ship receives immediate training on:
  - a. The use of the Piloting Preparations Checklist in the NAVDORM
  - b. Danger bearings
  - c. Danger ranges
  - d. Fix accuracy, and how the method of recording GPS data impacts decisions regarding fix accuracy
  - e. Chart accuracy
  - f. Required offsets to hazards to navigation
4. CTF-65 should work with the ship's administrative chain of command to determine if an exportable real time training capability exists that could be used to certify the ship prior to exiting Samsun harbor.
5. CTF 65 should review the navigation evaluation written comments and use them to determine if there are further recurring deficiencies to address during recertification of the ship.
6. CTF-65 should supervise the outbound transit from Samsun, and should monitor at least two actual piloting evolutions to ensure the ship is properly trained.
7. The ship should obtain, and test through operation on a RHIB, a method to plot the ship's position in real time on an

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IN VICINITY OF (IVO) SAMSUN, TURKEY

electronic chart as a situational awareness tool. This is not a replacement for the certified navigation of the ship on paper chart. A possible method is to purchase electronic charts for the Nobeltec program.

8. The CIC Piloting Officer, CIC Watch Officer, CIC Watch Supervisor, and CIC Plotter should be disqualified, and receive letters of instruction. Sufficient information was available in the CIC to prevent the ship from grounding if properly applied.

9. The Officer of the Deck and the Conning Officer have specific responsibilities for the safe navigation of the ship. They did not prepare themselves, in that they did not determine and brief in conjunction with the navigation brief what sensors they would use to ensure the ship was safe. They did not independently assess whether the corrective actions recommended by the Navigator were sufficient to keep the ship safe. Mitigating this, they are both very junior in their careers and it is apparent that they were executing at the standard they were trained to. I recommend issuing them non punitive letters of caution for their lack of understanding regarding what the seriousness of their responsibilities for safe ship navigation entails.

10. The Assistant Navigator should be held accountable at Non Judicial Punishment (NJP), detached for cause, and removed from the ship.

11. The Navigator should be held accountable at NJP, but not detached for cause. If partnered with an effective Assistant Navigator, I believe she can be a successful Navigator and restore the standards required for safe navigation within the watch team. I believe she can be part of the solution.

12. The Executive Officer should be held accountable at NJP for failing to supervise the Navigation team effectively in accordance with the ship's Navigation Bill. The decision to detach him for cause is difficult. I recommend retaining him onboard the ship to provide leadership continuity, if he indicates an understanding of his responsibility for the

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IN VICINITY OF (IVO) SAMSUN, TURKEY

grounding and a willingness to supervise the development of the navigation team.

13. The Commanding Officer should be held accountable at NJP and detached for cause. He was derelict in his duties and negligently hazarded USS TAYLOR (FFG 50) as evidenced by the following:

- a. Ineffective training of the navigation team. As he was Executive Officer prior to Command, he was or should have been aware of the standards of the team and either did not detect or did not correct them.
- b. Improper actions at the time of the grounding. Restoration of propulsion occurred after the tugs were already made up, so there should have been no sense of urgency to restore propulsion. Restoration of propulsion with the propeller stuck in the mud may have caused further damage to the controllable pitch propeller or main reduction gears.
- c. The decision to reenter the harbor. There were two "end states" and a continuum of possibilities between. One end state was that the ship ran aground or afoul a submerged object while in charted good water. The other end state is that the ship ran aground in known bad water due to ineffective navigation. In either case the Commanding Officer should not have reentered port until he had at least informed CTF-65 of the incident and gotten technical resolution regarding further use of the propulsion plant. He should have further determined whether his navigation team had executed properly. Instead, he simply believed their statements prior to reentering the harbor.
- d. Incomplete report to the CTF commander. Prior to the Investigating Officer's arrival on the ship, Commander, CTF 65 was not aware that tugs were required to free the ship, nor that the ship had been aground for 15 minutes.
- e. This was a preventable grounding. It is the Commanding Officer's duty to ensure the safety of the ship. He was ineffective at ensuring his team's preparations, which made the grounding possible.

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
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f. Finally, his recommendation to CTF-65 that he get back underway reflected exceedingly poor judgment given the casualty the ship suffered.

14. Commander, SIXTH Fleet should review periodicity of harbor surveys in conjunction with fleet port scheduling. The EOD MU8 survey data showing 25 foot soundings indicate that the survey periodicity on this port was insufficient to prevent undetected shoaling. This does not mitigate the responsibility of the ship to remain clear of the hazard if able, and there was ample opportunity, information, and ability for USS TAYLOR (FFG 50) to do so.

(b) (3) (B), (b) (6)



DEPARTMENT OF THE NAVY

COMMANDER  
TASK FORCE SIX FIVE  
PSC 817 BOX 350  
FPO AE 09622-0350

5830  
CTF65/018  
13 Feb 14

From: Commander, Task Force SIX FIVE

To: (b) (3) (B), (b) (6)

Subj: COMMAND INVESTIGATION INTO THE FACTS AND CIRCUMSTANCES  
SURROUNDING THE USS TAYLOR'S (FFG 50) POSSIBLE GROUNDING IN  
VICINITY (IVO) SAMSUN, TURKEY

Ref: (a) JAGMAN 5800.7E

1. This appoints you, per reference (a) chapter II, to inquire into the facts and circumstances surrounding the USS TAYLOR's possible grounding, IVO Samsun, Turkey on 12 February 2014.

2. Investigate the USS TAYLOR's possible grounding, and recommend appropriate administrative or disciplinary action. Report your findings of fact, opinions, and recommendations in letter form by 28 February 2014, unless an extension of time is granted. If you have not previously done so, review reference (a) in its entirety before beginning your investigation.

3. (b) (3) (B), (b) (6) CTF 65 is hereby assigned to assist you during your investigation. He can be reached at DSN 626-3640 or email (b) (3) (B), (b) (6)

4. You may seek legal advice from (b) (3) (B), (b) (6) throughout the course of your investigation. He can be reached at DSN 626-4607 or via email at (b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

Copy to:

(b) (3) (B), (b) (6)

Enc (1)

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER		
D	A	F	G	0	5	0
1	2	3	4	5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	12
12	13	14	15
16	17		22

USS TAYLOR  
AT / PASSAGE FROM SOCIHI  
TO SAMSUN

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
1200		
L _____		BY _____
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POSITION	ZONE	TIME
2000		
L _____		BY _____
λ _____		BY _____

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					2200 0200
0800					LOOK TO THE WATCH VIEW US BEFORE STEAMING INDEPENDENTLY ENROUTE TO SAMSUN TURKEY CURRENTLY ON A COURSE OF 245 AND A SPEED OF 5 KTS MATERIAL CONDITION MODIFIED BEPRA SET THROUGHOUT THE SHIP EMCON DELTA SET DARKENSHIP SET THROUGHOUT THE SHIP WITH THE EXCEPTION OF NAV LIGHTS BURNING BRIGHT 1AW RULES OF THE ROAD ENGINEERING PLANT STATUS AS FOLLOWS: #1, 2 A/C, #1, 2 R/A #1 REEFER #2 LPA/C #2 HPA/C #3, 4 F/A 1 R CTE #1, 2 SSING ONLINE LOG IS OFF THE BRIDGE XO IS OFF THIS BRIDGE NAV IS OFF THE BRIDGE. [REDACTED] HAS THE COU [REDACTED] HAS THE DECK
0830	CL	245			
0900	SMD	245			239 DFCMC
0948	MA/SN		15		
					CO CO BRIDGE
	MA/13		10		
1055	CL	150			
	MA/13		5		
0058	SMD	150			148 DFCMC
					RED DECK
0100					AMBREK DECK
0103					RED DECK
0109					AMBREK DECK
0130					GREEN DECK
					RED DECK
	MA/13	245			
0131	SMD	245			239 DFCMC
	MA/13		15		

# SHIP'S DECK LOG SHEET

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SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4		5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	B 12
12	13	14	15 16 17

USS TAYLOR

AI/PASSAGE FROM BLACKSLA

TO 241100Z

CLASS	HANDL
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78	79

POSITION	ZONE	TIME
0800		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
1200		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
2000		
L _____		BY _____
λ _____		BY _____

LEGEND  
 1 - CELESTIAL  
 2 - ELECTRONIC  
 3 - VISUAL  
 4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					0200-0700
0132	AAFL		20		(b) (3) (B), (b) (6) HAS THE CONN
0140	AAFL		22		(b) (3) (B), (b) (6) HAS THE DECK
					(b) (3) (B), (b) (6)
0140					0200-0700
0145					ASK ME ALL WITH ADMINISTRATIVE WATCH D/W IS BEFORE
0150	STBY	2415		240 DFCAL	(b) (3) (B), (b) (6) HAS THE DECK
0154				1A & B 107E ONLINE	
0154	AAFLK		24		
0200	AAFL		28		
0205				2200' 2KTS	
0202	AAFL		20		
0320	LOR	140			
0327	AAS		165		
0325	LOR	170			
0324	STBY	170		164 DFCAL	
0330				GREEN DECK	
0333				YELLOW DECK	
0331				YELLOW DECK	
0335				AMBER DECK	
				RED DECK	
0336	R70	2415			
0337	AAFL		20		
0340				AMBER DECK	
0341	STBY	2415		240	
0345				SECURE FROM FLIGHT HQ/CLARTERS	

# SHIP'S DECK LOG SHEET

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USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4		5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	12
12	13	14	15
16	17		22

USS TAYLOR  
AT / PASSAGE FROM BLACK SEA  
TO SAMSUN

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
1200		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
2000		
L _____		BY _____
λ _____		BY _____

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18 - 21	23 - 29	30 - 32	33 - 36	37 - 40	41

<del>0350</del>	AAF		23		
<del>0359</del>	→TDY	240		235	DFCML
0359	AAFLK		25		
0405					AMBER DECK
0412					RED DECK
0446	AAF		14		
0504	AAF		20		
0509	L5R	225	2		
<del>0510</del>	CL	220			
0510	→TDY	220		223	DFCML
0515	L5R				
0517	AAS		15		
0517	CL	150			
<del>0521</del>	AA <sup>2</sup>		10		
0521	AAS		15		
0529	R15R	240			
<del>0531</del>	CR	235			
0531	AHF		22		
<del>0534</del>	AHF		22		
0534					AMBER DECK.
0539					RED DECK.
<del>0539</del>	CR	240			
<del>0539</del>	→TDY	240		235	DFCML
<del>0539</del>	L5R	235			
0556					LC IS ON THE BRIDGE.
0604	AHF		20		
0605					(b) (3) (B), (b) (6) HAS THE COMM.
0615					STATION THE 3/A DETAIL.
0619					(b) (3) (B), (b) (6) HAS THE DECK.
					(b) (3) (B), (b) (6)

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SHIP TYPE				HULL NUMBER		
D	A	F	G	0	5	0
1	2	3	4	5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	2
12	13	14	15
16	17		22

USS TAYLOR  
 AT / PASSAGE FROM BLACK SEA  
 TO SAMSUN, TURKEY

CLASS	HANDL
U	/
78	79

POSITION	ZONE	TIME
0800		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
1200		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
2000		
L _____	BY _____	
λ _____	BY _____	

LEGEND  
 1 - CELESTIAL  
 2 - ELECTRONIC  
 3 - VISUAL  
 4 - D R

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					2800 - 2700 (EDITED)
					(b) (3) (B), (b) (6)
					2700 - 2600
0601					ASSIGNED THE WATCH LTJG MC BEEB
0624					AFT STEERING M/R.
0625					ENG DEPARTMENT M/R.
0634					SUNRISE
0637					ANCHOR READY R2 LETTING GO VIA BRAKE METHOD
0638	A2F		22		
0639					RECEIVED DRAFT REPORT, FUEL AND WATER REPORT, AND LIQUID LOAD REPORT.
					ENC 3 LE M/R.
0645	CL	225			
0651	AAS		15		
0654	AAS		17		
0658					PILOT CONTACTED IN BTR.
0659	LSR				
	STBY	222			
0700	AA 2/3		13		
0705					CHT IN TRANSIT MODE 1, 2, 4 SSDG TRNG BLS PARALLEL
0706	R15R	288			
0708	STBY	280			
	CR	293			
0710	AA 1/3		7		
0712					LOWER P15 SPD
	AA 1/3		6		
0713					APL 15% ESTABLISHED
	CL	292			
					APL 15% ESTABLISHED

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER		
D	A	F	G	0	5	0
1	2	3	4	5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	5
12	13	14	15
16	17		22

USS TAYLOR

AT / PASSAGE FROM BLACK SEA

TO SAMSUN TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____		BY _____
A _____		BY _____

POSITION	ZONE	TIME
1200		
L _____		BY _____
A _____		BY _____

POSITION	ZONE	TIME
2000		
L _____		BY _____
A _____		BY _____

LEGEND  
 1 - CELESTIAL  
 2 - ELECTRONIC  
 3 - VISUAL  
 4 - D R

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41

					0700 - 0700 CONT'D
<del>0714</del>					APL 75% EXTENDED
<del>0715</del>					AP FULLY EXTENDED
<del>0716</del>					TRAIN P/S APL 180
	CL	290			
<del>0716</del>					TEST OF P/S APU TEST 2AT
					TRAIN P/S APU 210
					SET RMD
	CL	287			
<del>0718</del>	CR	298			
<del>0719</del>					PILOT BOAT ALONG SIDE PORT SIDE.
	CL	281			
<del>0720</del>					PILOT IS ONBOARD
<del>0721</del>	CR	296			
					PILOT IS ON THE BRIDGE. PILOT IS (b) (3) (B), (b) (6)
<del>0722</del>	CL	292			
<del>0721</del>	CL	281			
<del>0726</del>					LOSS BOTH ENGINES
					START P/S APU
	R30R				
					SHAFT STOPPED
	ASTCP				
<del>0727</del>					TRAIN P/S APU 180
					START P/S APU
<del>0728</del>					TRAIN P/S APU 220
					LOSS TRACKING ON FAITHC
					FCM ON PALMER AND WRN 6
<del>0731</del>					1A AND 1B LIFE STOPPED. WAFT BRAKE ENGAGED.
					START 1A 1B LIFE
<del>0732</del>					APL TWO WIFE UP
<del>0733</del>					INITIATED START OF 1A LIFE

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4	5	6	7	

YEAR	MONTH	ZONE	DAY
4	0	2	B 12
12	13	14	15 16 17

USS TAYLOR  
AT / PASSAGE FROM BLACK SEA  
TO SAMSUN, TURKEY

CLASS	HANDL
U	/
78	79

POSITION	ZONE	TIME
0800		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
1200		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
2000		
L _____		BY _____
λ _____		BY _____

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D.R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					<del>0730</del> - 1200 (CONT'D)
<del>0733</del>					1A GTE STARTED
<del>0734</del>					SHAFT NOT ROLLING
<del>0735</del>					TRAIN P/S APU 240
<del>0736</del>					FWD TUG MADE UP
<del>0737</del>					STOP ALL ENGINES.
<del>0738</del>					HEAVY STRAIN FWD AND AFT TUG
<del>0739</del>					TRAIN P/S APU 2000
<del>0740</del>					TRAIN P/S APU 1800
<del>0741</del>					START 1A AND 1B GTE
<del>0742</del>					1B GTE STARTED
<del>0743</del>					SHAFT IS UNRESPONSIVE.
<del>0744</del>					SHAFT ROLLING
<del>0745</del>	AB $\frac{2}{3}$				
<del>0746</del>	R35R				
<del>0747</del>	AB $\frac{1}{3}$				
<del>0748</del>	ASTOP				
<del>0749</del>					MAN THE BOAT DECK
<del>0750</del>	L35R				
<del>0751</del>					1A AND 1B GTE STARTED
<del>0752</del>	AA $\frac{1}{3}$		2		
<del>0753</del>					STOP P/S APU
<del>0754</del>					TRAIN P/S APU 240
<del>0755</del>					START PORT APU
<del>0756</del>	AA $\frac{1}{3}$		5		
<del>0757</del>	RMID				
<del>0758</del>	R35R				
<del>0759</del>					STOP P/S APU
<del>0760</del>	AA $\frac{1}{3}$		3		
<del>0761</del>					START P/S APU
<del>0762</del>					FWD AND AFT TUGS CAST OFF.

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4	5	6	7	

YEAR	MONTH	ZONE	DAY
4	0	2	B 1 2
12	13	14	15 16 17

USS: TAYLOR  
AT/PASSAGE FROM BLACK SEA  
TO SAMSON, TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
1200		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
2000		
L _____	BY _____	
λ _____	BY _____	

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					0200 - 1200 (CONT'D)
0749					BOAT DECK M/R.
					TRAIN P/S APV 180
0750	R MID				
					STOP P/S APV
0751	AA 1/3		5		
0752	CL	0800			
0754					RHIB IS AT THE RAIL.
0755	STDY	0800			
0801					RHIB IS AWAY PORT SIDE
	R35R				
0802					TRAIN P/S APV 240
					START P APV
0803					THROTTLE CONTROL SHIFTED TO THE PILOT HOUSE
					TRAIN P/S APV 180
					STOP P/S APV
	R MID				
0804	AA 2/3		10		
	AAS		15		
	AA 2/3		10		
	ASTOP				
	AB 1/3		5		
0805	AB 2/3		10		
	AB 1/3		5		
	ASTOP				
0807					200
					SOUNDING CENTERLINE 68 FEET
	AA 1/3		5		
	L3GR				
					START PORT APV
0757					RIVER CITY ONE SET

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4	5	6	7	

YEAR	MONTH	ZONE	DAY
4	0	2	B 1 2
12	13	14	15 16 17

USS TAYLOR  
AT / PASSAGE FROM BLACK SEA  
TO SAMSON, TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
1200		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
2000		
L _____	BY _____	
λ _____	BY _____	

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					1200 - 1200 (CONT'D)
<del>0810</del>					SOUNDING LEFT OF CENTERLINE 73 FEET
<del>0811</del>					TRAIN P/S APU 240
<del>0811</del>					START STBD APU
<del>0811</del>	RMID				180
<del>0812</del>					SOUNDING AFT OF PORT LIGHT MARKER 65 FEET
<del>0812</del>	CR	190			
<del>0813</del>					LOSS OF STEERAGE WAY.
<del>0814</del>					200
<del>0814</del>	R20R	200			
<del>0815</del>					STOP STBD APU
<del>0815</del>					SOUNDING INBETWEEN JETTIES, CENTERLINE 42 FEET.
<del>0818</del>					SOUNDING AT TURN TO PORT 43 FEET.
<del>0823</del>					SOUNDING ALONG TRACT PERPENDICULAR TO BREAKWATER
<del>0823</del>					62 - 66 FEET
<del>0823</del>					TRAIN P/S APU 240.
<del>0824</del>	L35R				
<del>0824</del>					START P/S APU.
<del>0825</del>	AA 1/3		3		
<del>0827</del>					SOUNDING 60 YARDS FROM END OF BREAK WATER AND
<del>0827</del>					50 YARDS FROM BREAK WATER, PORT SIDE OF TRACT
<del>0827</del>					42 FEET.
<del>0828</del>	AA 1/3		5		
<del>0829</del>	ASTOP				
<del>0829</del>	RMID				
<del>0830</del>					TRAIN P/S APU 180.
<del>0831</del>					TRAIN P/S APU 180.
<del>0831</del>					XO OFF THE BRIDGE.
<del>0832</del>					XO ON THE BRIDGE.
<del>0832</del>	L35R				

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP SECURITY MARKING HERE

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SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4	5	6	7	

YEAR	MONTH	ZONE	DAY
4	0	2	B 12
12	13	14	15 16 17

E

USS: TAYLOR  
 AT / PASSAGE FROM BLACK SEA  
 TO SAMSUN, TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
D800		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
1200		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
2000		
L _____	BY _____	
λ _____	BY _____	

LEGEND  
 1 - CELESTIAL  
 2 - ELECTRONIC  
 3 - VISUAL  
 4 - D R

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					0700-1200 (CONT'D)
<del>0833</del>	AA $\frac{1}{3}$		5		TRAIN P/S APU 220
<del>0834</del>					STOP PORT APU
<del>0835</del>	AA $\frac{2}{3}$		10		SOUNDING CENTER CHANNEL ENTRANCE 51 FEET.
<del>0838</del>	RMID				TRAIN P/S APU 180
<del>0839</del>	R35R				TRAIN P/S APU 120
<del>0840</del>	AA $\frac{1}{3}$		4		SOUNDING 30 YARDS FROM BREAK WATER 47 FEET.
<del>0841</del>					START P/S APU
<del>0842</del>	AA $\frac{1}{3}$		3		MIDSHIPS TUG MADE UP. FWD TUG MADE UP
<del>0843</del>	STDY	263			TRAIN P/S APU 180
<del>0844</del>	AA $\frac{1}{3}$		6		SOUNDING 10 YARDS FROM BREAK WATER 38 FEET.
<del>0846</del>	R5R	285			
<del>0847</del>	CR	290			
<del>0848</del>	R5R	295			
<del>0849</del>	STDY	295			
<del>0851</del>	CL	290			
<del>0851</del>	LR	295			
<del>0851</del>	STDY	292			
<del>0851</del>	R5R	295			

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
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SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4		5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	B 12
12	13	14	15 16 17

USS TAYLOR  
AT / PASSAGE FROM BLACK SEA  
TO SAMSUN, TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
1200		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
2000		
L _____	BY _____	
λ _____	BY _____	

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41
					0700 - 1200 (CONT'D)
<del>0832</del>					TRAIN P/S APU 290
<del>0853</del>	LSR	290			
	LSR	285			
<del>0854</del>	LSR	280			
	RSR	290			
<del>0855</del>					SOUNDING CENTER OF CHANNEL 61 FEET.
	L10R				
<del>0856</del>	L30R				
	L35R				
<del>0858</del>					START PORT APU
	L10R				
					STOP PORT APU
	R MID				
<del>0859</del>	L10R	195			
<del>0900</del>	STDY	195			
<del>0901</del>	LSR	190			
					SOUNDING CENTER OF CHANNEL 66 FEET.
<del>0903</del>	LSR	185			
<del>0904</del>	STDY	185			
	LSR	182			
<del>0905</del>					SOUNDING AT PIER 72 FEET
	STDY	182			
<del>0906</del>	RSR	184			
	RSR	185			
	RSR	190			
<del>0908</del>					SOUNDING MIDDLE OF BERTH 73 FEET
					TRAIN P/S APU 180
					START PORT APU
	RSR	200			
<del>0909</del>					TRAIN STBD APU 120

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4		5	6	7

YEAR	MONTH	ZONE	DAY
4	0	2	B 12
12	13	14	15 16 17
E			

USS: TAYLOR

AT / PASSAGE FROM BLACK SEA

TO SAMSUN, TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
1200		
L _____		BY _____
λ _____		BY _____

POSITION	ZONE	TIME
2000		
L _____		BY _____
λ _____		BY _____

LEGEND  
 1 - CELESTIAL  
 2 - ELECTRONIC  
 3 - VISUAL  
 4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
18-21	23-29	30-32	33-36	37-40	41

					0700-1200 (CONT'D)
<del>0909</del>					START STBD APU
<del>0910</del>	L10R				
<del>0910</del>	L30R				
<del>0910</del>	R MID				
<del>0910</del>	AA 1/3		3		
<del>0910</del>	STDY	189			
<del>0911</del>					TRAIN STBD APU 140
<del>0911</del>					TRAIN STBD APU 170
<del>0911</del>					SOUNDING FWD BERTH 70 FEET
<del>0912</del>	L15R				
<del>0912</del>					TRAIN P/S APU 190
<del>0912</del>	AA 1/3		4		
<del>0912</del>					TRAIN P/S APU 170
<del>0913</del>					TRAIN P/S APU 160
<del>0913</del>	L5R				STOP P/S APU
<del>0913</del>	STDY	173			
<del>0913</del>	AA 1/3		2		
<del>0914</del>	AA 1/3		1		
<del>0914</del>					LOSS OF STEERAGE WAY
<del>0914</del>					START STBD APU
<del>0915</del>					TRAIN P/S APU 140
<del>0915</del>	ASTOP				
<del>0915</del>					STOP STBD APU
<del>0916</del>					START STBD APU
<del>0916</del>	AB 1/3		2		
<del>0916</del>	AB 1/3		3		
<del>0916</del>					TRAIN P/S APU 160
<del>0917</del>					START P/S APU
<del>0917</del>					MOORED SHIFT COLORS
<del>0917</del>					STOP P/S APU

# SHIP'S DECK LOG SHEET

IF CLASSIFIED STAMP  
SECURITY MARKING HERE

USE BLACK INK TO FILL IN THIS LOG

SHIP TYPE				HULL NUMBER			
D	A	F	F	G	0	5	0
1	2	3	4	5	6	7	

YEAR	MONTH	ZONE	DAY
4	0	2	3
12	13	14	15
16	17	18	19
20	21	22	23

USS TAYLOR  
AT / PASSAGE FROM BLACK SEA  
TO SAMSUN, TURKEY

CLASS	HANDL
U	
78	79

POSITION	ZONE	TIME
0800		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
1200		
L _____	BY _____	
λ _____	BY _____	

POSITION	ZONE	TIME
2000		
L _____	BY _____	
λ _____	BY _____	

LEGEND  
1 - CELESTIAL  
2 - ELECTRONIC  
3 - VISUAL  
4 - D. R.

TIME	ORDER	CSE	SPEED	DEPTH	RECORD OF ALL EVENTS OF THE DAY
16-21	23-29	30-32	33-36	37-40	41
					0700-1200 (CONT'D)
0917	AA 1/3		5		
	ASTOP				
	AB 1/3		2		
	R35R				
0918					TRAIN P/S APU 160
	AB 1/3		5		
	AA 1/3		5		
	ASTOP				
0919					TRAIN PORT APU 180
					START PORT APU
					STOP PORT APU
0920					START PORT APU
					STOP PORT APU
0921	AB 1/3		1		
0922					LINE 2, 3 SINGLED
0923					LINE 5 SINGLED
					LINE 1, 6 SINGLED
					ALL LINES FWD SINGLED
					ALL LINES AFT SINGLED
0925					FWD AND AFT TUG CAST OFF
0926					LINE 3 DOUBLED
					PILOT OFF THE BRIDGE
0928					LINE 6 DOUBLED
					LINE 2 DOUBLED
					PILOT IS AWAY
0929					ALL LINES FWD DOUBLED
0930					TRAIN P/S APU 180
	RMD				
0931					SECURE RMD
0933					SECURE MAX PANT

**WITNESS STATEMENT**

(b) (3) (B), (b) (6)

Name  
CNE/CNA/C6F

Rank/Rate  
ACOS

Command:  
(b) (3) (B), (b) (6)

Division:  
(b) (3) (B), (b) (6)

Email

Phone

I, (b) (3) (B), (b) (6) hereby make the following statement:

1. On 13 February 2014, (b) (3) (B), (b) (6) and I flew to Samsun, Turkey for this investigation. C6F sent EOD MU8 divers on the same aircraft to further assess the ship's damages.
2. On 15 February 2014, I spoke with the EOD MU8 divers, who told me they found three bent propeller blades and an O ring protruding visibly from the hub.
3. The USS TAYLOR (FFG 50) uses the Nobeltec TimeZero navigation program to provide situational awareness to the ship, to include recording ship's track and provide AIS information. The ship does not have the electronic charts for Samsun available, which would increase the effectiveness of this program as a situational awareness tool. The ship recorded Nobeltec GPS data continuously to the nearest .001 minute of arc.
4. The Master Bearing Book shows that TAYLOR records visual bearings to the nearest integer degree. By standard instrument rules, without a vernier, the ship could record visual bearings to the nearest 0.5 degree.
5. The Assistant Navigator could not explain how a danger bearing worked. While consulting the chart, he stated that an appropriate danger range to R-1/V-1 would be about 2400 yards. The actual danger range for R-1/V-1 should be 150 yards. 2400 yards would completely enclose the harbor entrance.
6. None of the members of the navigation team I interviewed discussed crab angle at the navigation brief or how it would affect the ship's proximity to shoal water.
7. On the 55161 chart large scale inset, 1000 yards is about 2.88 inches. 1/16 of an inch at this scale is thus equal to about 22 yards.
8. Both the NAVSSI display and the Furuno Radar display provide a graphic representation of the ship relative to the ship's track, but no direct measure of the ship's distance to track. Furuno Radar range rings do provide the means to estimate the cross track error.
9. The ship did not enter the track into the DAGR GPS units, the Northstar 951X, nor the Nobeltec TimeZero application. They have entered tracks into the Northstar GPS in the past based on the stored tracks in the unit. Entering the tracks into the Nobeltec TimeZero will provide real time indication of distance to track.
10. Upon my arrival to the ship, the Commanding Officer offered his unsolicited opinion that the incident occurred while "fair in the channel".
11. On the 17<sup>th</sup>, I watched (b) (3) (B), (b) (6) correctly setup the PMP for the chart used during the approach to Samsun harbor, including correctly accounting for a 0.4° east gyro error.
12. On the 17<sup>th</sup>, I watch (b) (3) (B), (b) (6) correctly demonstrate how to compute gyro error by azimuth to the sun, including sighting and use of the Stella program.

I swear (or affirm) that the information in the statement above is true to the best of my knowledge or belief.

(b) (3) (B), (b) (6)

(Witness' Signature)

28 FEB 2014  
(Date)

1521  
Time

Sworn to before me this date.

(b) (3) (B), (b) (6)

(Legal Advisor's Signature)

28 Feb 14  
(Date)

1521  
Time

Encl (3)

## WITNESS STATEMENT

Name: <b>(b) (3) (B), (b) (6)</b>	Rank/Rate: <b>(b) (3) (B), (b) (6)</b>
Command: CTF 65	Division: Europe OPS
Email: <b>(b) (3) (B), (b) (6)</b>	Phone: <b>(b) (3) (B), (b) (6)</b>

I, **(b) (3) (B), (b) (6)** hereby make the following statement to, **(b) (3) (B), (b) (6)**, who has identified himself as the investigating officer for the USS TAYLOR 12 Feb 2014 grounding incident.

As the CTF 65 Europe Operations Officer, I was involved with planning TAYLOR's Black Sea operations. TAYLOR was scheduled to conduct a brief stop for fuel (BSF) in Samsun, Turkey on 12 February, 2014 in order to take on fuel and provisions. This BSF was scheduled as part of her overall C6F deployment CONOPS, approved in December 2013.

On 13 February, I was assigned to assist in a command investigation of details surrounding TAYLOR's possible grounding during her transit into Samsun Harbor the day prior (12 February).

I observed the TAYLOR's recorded position history saved in the ship's Nobeltec electronic navigation system that runs on a stand-alone laptop. Nobeltec uses the ship's Furuno GPS antenna for its position inputs. By placing the cursor over the image of the track history in Nobeltec, the latitude and longitude can be read for any given position. No associated times are recorded for each position. The ship does not have any electronic charts loaded into the Nobeltec system.

In order to see the ship's Nobeltec position history in relation to the charted shoalwater, I transferred the positions in vicinity of the grounding from onto paper Chart 55161 by reading the latitude and longitude on the track history image where the ship's westward movement appears to stop and immediately begins moving to the north. I then captured three previous positions in 100 yard increments down the ship's position history leading up to the grounding. The recorded positions were:

- 1) 41° 18.529'N; 36° 21.296'E
- 2) 41° 18.515'N; 36° 21.359'E
- 3) 41° 18.499'N; 36° 21.421'E
- 4) 41° 18.481'N; 36° 21.482'E

This position history is depicted in the attached photograph of Chart 55161 labeled "Nobeltec."

I plotted the ship's logged 0725 position that was plotted by the bridge team immediately upon going aground. The latitude and longitude came from the bridge DAGR GPS and was logged as: 41° 18' 31"N; 36° 21' 18"E. This plotted position is depicted in the attached photograph of Chart 55161 labeled "DAGR."

I also plotted Nobeltec Position 1) from the above four positions on the chart with the DAGR fixes, and saw that the Nobeltec fix correlates to the 0725 bridge DAGR fix within 20 yards.

When the Investigating Officer asked TAYLOR's Executive Officer and Navigator to produce any written comments from the navigation check ride conducted by the ship's administrative ISIC, they stated that they only had the certification message, but did not have any written comments or feedback of the ship's performance.

Encl (4)

The ship was unable to provide any written comments from the navigation check ride conducted by their administrative chain of command. They were able to provide the certification message, but it only contains a statement of certification.

When asked a series of technical questions regarding navigation by the Investigating Officer, the Navigator was able to correctly explain a cable's length, the significance of offset angle during crabbing, tide and current stations, how to take a composite fix, and how to take a running fix. She was not able to correctly explain chart accuracy. She also stated that the Navigator course taught her to stop taking fixes and switch to taking constant lines of position to the NAVAID designated for the turn bearing 1,000 yards prior to the turn, she did not mention any consideration for speed when deciding when to switch to constant bearings.

In his statement, the ship's CMC reported that a sounding was taken from the starboard side of the stern-step while the ship was aground. The sounding measured 37 feet from the sea floor to the top of the lifeline. On 17 February, I measured the height from the waterline to the top of the lifeline at the stern-step as 15 feet, seven inches. By comparing the 12 February Draft Report with the 17 February Draft Report, I determined that the aft draft on the day of the grounding was one foot, five inches deeper than the day I measured the height of the stern-step above the waterline. By subtracting 15 feet, seven inches and one foot, five inches from the total 37 feet, I estimate the water depth by the starboard side of the stern at the time of the 12 February sounding while the ship was aground was 20 feet.

I was in (b) (3) (B), (b) (6) office during a phone conversation between the (b) (3) (B), (b) (6) at around noon on 12 February. After hanging up, the Commodore said that CDR Volpe provided the following timeline:

The ship was scheduled to arrive in port at 0800.

1150- The Ship's CMC called CTF65 and said CO needed to talk to the Commodore.

1205- The CO called and explained the situation. The initial report was there was seepage from the hub, but no tank level drop or sheen in the water. Turkish divers also said there was a minor bend to one of the blades. The CO's assessment - nothing significant - that he was able to proceed on duties assigned; he would get fuel and get back underway. The Commodore told him to wait for his clearance.

I swear (or affirm) that the information in the statement above is true to the best of my knowledge or belief.

(b) (3) (B), (b) (6)

(Witness's Signature)

28 FEB 2019

(Date)

1250

Time

Sworn to before me this date.

(b) (3) (B), (b) (6)

(Investigator's Signature)

28 FEB 2019

(Date)

1250

Time

**USS TAYLOR (FFG 50)**  
**CO CABIN**

2. CASE CONTROL NUMBER (CCN)

**VOLUNTARY STATEMENT**

I, **(b) (3) (B), (b) (6)**, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be **INVESTIGATING OFFICER**

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of: USS TAYLOR (FFG 50) Possible Contact with Uncharted Object on 12 FEB 14. TAY conducted an inbound transit into Samsun, TU on 12 Feb 14. Charts were reviewed and signed by the Chain of Command on 10 FEB 14 and a Navigation Brief was conducted for both the inbound and outbound transits on 11FEB14. The Navigation Brief discussed the existing shoal water on both sides of the channel entrance, the 200 yd width of the channel between the breakwater, the 80' turn into the harbor basin, SPS 55 and MK92 radar performance ISO navigation requirements and fix precedence and the 2009 AAR which discussed inaccurate water depths inside the harbor basin.

I had the ship enter the approach channel from the Southeast through the Samsun anchorage due to the presence of multiple anchored vessels and to properly line up on the 288 approach leg. I embarked the pilot IVO of the pilot pick up point outside of the breakwater and commenced my inbound transit at 6 kts with APUs tested and available and Restricted Maneuvering Doctrine set once the pilot was on the bridge. I personally briefed the pilot on the ship's characteristics, tug line up requirements, and intended track towards the harbor entrance. Base course was 288 and the ship was steering between 284 and 281 to make 288 good based on a Southern 10 kt wind. The Conning Officer, the pilot and I conned the ship from centerline and from the STBD bridgeway. As we proceeded inbound, I confirmed with the pilot that the ship was in good water and the Bridge Navigation team verified we were in good water to proceed through the breakwater into the harbor. Visually we appeared to be in the center of the channel based on the distance to the Red Flashing light on the port side, the quay wall/Green Flashing Light on the STBD side and structures on the piers on the Western side of the harbor. The Navigation team held the ship 50 yds right of track and correcting on course 282. The Pilot recommended altering course to STBD to course 290 but based on the prevailing wind conditions, I ordered the Conning Officer to come left to course 281 to further close the center of the channel based on the Navigator's recommendation. We continued through the channel on course 281 at 6 kts and IVO of the breakwater, there was a shudder felt aft at approx 0724L/0524Z. Almost simultaneously with the shudder, I received a report of a loss of both main engines and the shaft had stopped and the fathometer lost tracking. I ordered both engines stopped, shaft brake engaged and started APUs for propulsion and ordered the pilot to make up the tugs. The Navigation team immediately took a round of fixes and held the ship in good water and charted shoal water greater than 50 yards in the direction of the Northern quay wall. My CMC went to CIC to determine fix position and CIC held the ship in good water. The OOD took a laser range finder range from the Northern quay wall at a distance of approximately 147 yds which concurred with the plotted position. APUs were utilized to maintain the ships position while awaiting tugs. Tugs and APUs were required to back out of the harbor channel. Once outside the breakwater, I re-started main engines and cleared the channel to test throttle and pitch control. Engine throttle and pitch tests were SAT and all system readings were in parameters.

Upon completion of throttle checks, with permission from the pilot, I launched the RHIB and conducted soundings along my inbound track to verify channel depth and determine if the channel was safe to transit. Soundings along the southern side of the inbound track were in excess of 45 ft and in excess of charted depth. I met with the XO, CMC, NAV, ANAV and Conning Officer to discuss making another approach based on the soundings from the RHIB and utilizing a track on the southern side of the approach leg utilizing our last position in the channel as known shoal water and the RHIB as an escort. I again confirmed the track with the pilot and proceeded inbound and moored without further incident.

Once moored, I received a report from Engineering concerning an unusual shaft/prop noise IVO of aft steering. I proceeded to aft steering and listened to the shaft noise and determined diver support was required to verify the propellers and hub were free from any obstruction. I received Turkish Navy diver support and photos that indicated a bent propeller blade and a CPP leak from the blade/hub seal. Photos were provided to the CTF 65 COC to determine the next course of action. Additionally, I requested and received authorization from the Samsun port authority to conduct additional soundings in vicinity of my position at 0724L/0524Z. S/F soundings indicated actual water depth and charted depth in the vicinity of my position at 0724L/0524Z were different by approximately 5.0m or 15ft. S/F requested an additional boom once refueling was complete to contain the CPP leak and associated sheen. S/F has utilized the RHIB and absorbent pads to clean up the CPP oil sheen on a continuous basis. Currently awaiting a U.S. Navy Dive Team inspection result adjudication to determine extent of hub/prop damage and repair plan.

Article 31B rights were acknowledged and signed prior to interview.

Amplifying explanation(s) during interview:

I recall ship was 50 yards right of track based on Navigator's report AFTER pilot was onboard. Discussion of SPS-55 degradation (unable to use radar in short pulse) first came up at OPS brief on 10 Feb. At the Nav brief, it was discussed again. I asked whether there would be any issues with navigation keeping the SPS-55 in long pulse, and received an answer of "no, there should be none." It was decided that the piloting team in CIC would attempt to take radar fixes using the SPS-55 and if no success, then would attempt to use the Mk-92 radar. If neither radars would work to take fixes, then the CIC plot would rely on a separate GPS fix source from the bridge. The MK92 radar is my newest radar and was installed and operationally tested in December to support deployed operations.

As far as I was aware at the time, CIC was taking both radar and GPS fixes, I had received no report to the contrary.

**Encl (5)**

At the Nav brief, we discussed lowering the APUs and training them to port prior to entering the harbor so that we would have them available to assist in making the turn to 181T if necessary. This is not uncommon for sharper turns in restricted water for this ship. The precaution was taken due to the notes on the chart WRT inaccurate water depth within the harbor and reinforced by discussions with the local NCIS agent.

We did not discuss at the Nav brief the potential of backing out of the channel prior to entering the harbor. Backing characteristics of the ship have been trained to personally with my conning officers.

As far as I could see, the pilot did not have a handheld GPS with him.

Pilot did not look at any fix info prior to urging the bridge team to come right.

I told pilot I did not concur with coming right, and that I was going to come left. This was based on Nav's previous fix holding the ship right of track, and my visual perception.

There is a Furuno radar console on the port side of the pilothouse and a slaved Furuno display by my bridge chair. The track was displayed on the Furuno. From the Furuno picture, I could tell we were slightly right of track, but looking at the slaved display, I could not manipulate the repeater to determine how far right of track.

I understood I was being set slightly to the north, which was why Nav recommended coming left to 281T and why I concurred.

The Nav brief discussed predictions that prevailing winds would be from the South and that currents in the harbor would be negligible.

While not specifically discussed at the Nav brief, I had established limits in my own mind that I would let the ship get no more than 50 yards right or left of track on the approach to the harbor entrance (between the jetties).

I recall fuel state on 12 Feb was around 50%.

The ship had no more FFV onboard.

My initial thoughts during the incident were that I had experienced an unexplained engineering casualty, I had fouled my propeller on something on the bottom, or I had run soft aground in good water. I believed and was briefed that the ship was 50 yards right of track in good water at that time.

Prior to making second attempt to enter the harbor, I had the bridge and CCS both test for positive control of engines, both astern and ahead. The fact that both control stations demonstrated positive control and, there were no reports of unusual noise or vibrations within the engineering plant, convinced me that I did not have an engineering casualty, so I then believed the propeller had "snagged" something on the bottom at the harbor entrance and I put the boat in the water to sound the channel in vicinity of the harbor entrance. During this time, the TAO contacted the SDO via chat to inform them that the fathometer had lost tracking in the channel and tugs and APUs were utilized to exit the harbor as well as the plan for putting the RHIB in the water to conduct soundings of the harbor entrance. If the soundings were UNSAT or I lost fathometer tracking on the second attempt, the TAO informed the SDO I would anchor and make preps to refuel via barge.

With Pilot concurrence, I sent the RHIB to the harbor entrance while the ship waited outside the harbor. Once the RHIB established depths consistently in excess of 45 feet on the south side of the channel, I consulted with the XO, OOD, CONN, CMC, NAV, and ANAV as to whether they felt comfortable making a second attempt to enter, this time remaining to the south of our original planned track utilizing our last known position in the channel as known shoal water. QMCS initially felt uncomfortable, but then said he would feel ok with the idea if the RHIB were to precede the ship along the track taking soundings along the way.

I had Nav lay down a new track to the south our original planned track utilizing our last known position in the channel as known shoal water and confirmed with the pilot that the new track would be safe.

I reported via chat to CTF 65 that I was putting the RHIB in the water to take soundings of the harbor entrance and if SAT escort me into the harbor.

I sent a Navy Unit SITREP after discussing details of the event with the CDRE.

I attempted to call the CDRE to give an initial voice report once safely moored. When unsuccessful, I directed my OPS to contact the SDO via the Iridium phone because CBSP was down when we initially entered port. I also directed my CMC to contact (b) (3) (B), (b) (6) and inform the CDRE I needed to speak to him.

I did not conduct an immediate debrief upon securing from sea and anchor detail because I was informed of an unusual propeller wash noise coming from aft steering and I went to investigate. Once complete, I was informed of a possible oil leak from the CPP system which took priority over an immediate sea and anchor debrief. Once the refueling boom was in place and the oil leak was stabilized I conducted a DH debrief and discussed with the XO and NAV that an event debrief would be conducted prior to the outbound navigation brief.

I do not recall being advised that azimuth/gyro-error had not been computed for 11 Feb.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTING OF 02 PAGES WAS PREPARED BY (b) (3) (B), (b) (6) AND COMMENTS WERE ANNOTATED BY THE INVESTIGATING OFFICER(S) AS WE DICussed CONTENTS. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 16FEB14 on board the USS TAYLOR (FFG-50)

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

USN

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/ SUSPECT)	SSN	RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)	[REDACTED]	(b) (3) (B), (b) (6)	[REDACTED]
ACTIVITY/UNIT			DATE OF BIRTH
USS TAYLOR (FFG 50)			(b) [REDACTED]
NAME (INTERVIEWER)		RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)		(b) (3) (B), (b) (6)	USN
ORGANIZATION	BILLET		
COMNAVEUR-COMNAVAF-COMSIXTHFLT	Assistant Chief of Staff		
LOCATION OF INTERVIEW	TIME	DATE	
USS TAYLOR, in port Samsun, Turkey	0818 -2B	16 Feb 2014	

**RIGHTS**

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	(b) (3) (B), (b) (6) [REDACTED]
(2) I have the right to remain silent;	(b) (3) (B), (b) (6) [REDACTED]
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	(b) (3) (B), (b) (6) [REDACTED]
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	(b) (3) (B), (b) (6) [REDACTED]
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	(b) (3) (B), (b) (6) [REDACTED]

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

**Initials**

(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

**Initials**

(1) Your previous statement may not be admissible at courts-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	
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<p>martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).</p>	
<p>(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.</p>	
<p>(3) (Continue with the Rights Advisement and Waiver of Rights above.)</p>	

<p>SIGNATURE (ACCUSED/SUSPECT),  <b>(b) (3) (B), (b) (6)</b></p>	<p>TIME  0818</p>	<p>DATE  16 FEB 14</p>
<p>SIGNATURE (INTERVIEWER)  <b>(b) (3) (B), (b) (6)</b></p>	<p>TIME  0819</p>	<p>DATE  16 FEB 2014</p>
<p>SIGNATURE (WITNESS)  <b>(b) (3) (B), (b) (6)</b></p>	<p>TIME  0824</p>	<p>DATE  16 FEB 2014</p>

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

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# USS TAYLOR

USS TAYLOR CONTACTS CREST HISTORY LEADERSHIP

(b) (3) (B), (b) (6)  
Commanding Officer

(b) (3) (B), (b) (6) is originally from (b) (3) (B), (b) (6) and attended the United States Naval Academy where he graduated with a Bachelor of Science Degree in History in 1996.

His first tour of duty was aboard USS SPRUANCE (DD 963) from January 1997 until November 2000, where he served as Communications Officer, Training Officer and First Lieutenant. In October 2004, he reported to USS GETTYSBURG (CG 64) and served as Weapons Officer and Combat Systems Officer until January 2008. (b) (3) (B), (b) (6) recently finished his Executive Officer tour on USS TAYLOR (FFG 50) from April 2011 until October 2012. (b) (3) (B), (b) (6) has participated in deployments in the Mediterranean Sea, Black Sea, Caribbean Sea, Eastern Pacific, Arabian Gulf and the Horn of Africa.

(b) (3) (B), (b) (6) tours ashore include instructor duty at the United States Naval Academy as a member of the Leadership, Ethics, and Law Department. While assigned to the United States Naval Academy, he obtained a Master's Degree in Leadership and Human Resource Development from the Naval Postgraduate School. In February 2008, (b) (3) (B), (b) (6) was selected to attend the Naval Command and Staff College at The Naval War College in Newport, Rhode Island. While assigned to the Naval War College, he obtained a Master's Degree in National Security and Strategic Studies, a counterinsurgency subspecialty and Joint Professional Military Education Phase I. (b) (3) (B), (b) (6) served as a long-range operational planner (CJS) at the ISAF Joint Command (IJC) in Kabul, Afghanistan from July 2009 until July 2010.

(b) (3) (B), (b) (6) awards include the Defense Meritorious Service Medal; Navy Commendation Medal (4 awards); Navy Achievement Medal (5 awards) and various unit, service and campaign awards.

Commanding Officer :: Executive Officer :: Command Master Chief

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Encl (6)

USS TAYLOR (FFG 50)

**VOLUNTARY STATEMENT**

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50), make the followingFree and voluntary statement to **(b) (3) (B), (b) (6)**,Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

Sea and Anchor Detail was set at 0615 as scheduled as TAYLOR approached Samsun, Turkey. Contact was established by the CO and the OOD with the Samsun Pilots. ETA to the Pilot pick-up point was arranged for 0700, on TAYLOR's port side. Due to traffic density, predominantly anchored vessels surrounding the entrance to the harbor, the Pilot pick-up time was revised to 0720 as the Bridge team managed the contact picture in the approaches of the harbor.

After executing a right turn, ordered speed was at 6 knots when the ship steadied on the first leg of the planned track of 288 degrees True. The Pilot boat approached the ship on the port side as previously arranged on or about 0716. The Pilot was onboard at 0720 and on the Bridge at 0721 as the ship approached the harbor entrance. The ship speed over ground was 4 to 5 knots and the port and starboard APUs were lowered. The CO briefly discussed ship characteristics with the Pilot. The pilot assessed the ship's position and proceeded to the starboard bridge wing with the Captain and the Conning Officer. Ship's ordered course was 281 degrees True to regain track, and left of the planned track course of 288T. As forecasted and briefed, 10-knot winds were coming from the South setting the ship to the North. As the CO, Conning Officer, and the Pilot proceeded to the starboard bridge wing, they, I, the navigation and CIC teams held the ship in good water. The nearest shoal water was to starboard.

The Bridge and Combat team were not working on any emergent issues. The Pilot was at ease, conferring with the CO and the Conning Officer about the ships next turn to port, to planned course 218 degrees True. As briefed and planned, the APUs were trained to 240 degrees Relative to the ship in preparation for the next turn. The ship's head was within the channel, pointing towards a tower building under construction. In preparation for the turn to port, I made my way to the starboard bridge wing in order to track the ship's stern during the port turn to the next leg planned course, 218 degrees True. As I stepped and looked aft on the starboard bridge wing, the ship shuddered.

The CO asked, "what was that?" Reports from the Bridge and CCS were that the shaft stopped, this became evident as the ship rapidly slowed. The exact time of the shudder was determined to be on or about 0725 local. The CO asked the Pilot if we were in good water, he said yes. The CO employed the APUs and told the Pilot to direct tugs to make-up and assist. An astern bell order was given but the shaft did not respond. The CO then gave the order engage the shaft brake to stop the shaft, stopping any further potential movement of the shaft. The tugs reached the ship about 5 to 6 minutes after the shudder occurred (on or about 0731). By that time the ship had drifted due north what I estimate was 40 to 50 yards closing shoal water to starboard.

As the ship was backed and exited the harbor with APUs and Tugs, Engineering reported no electrical, damage control or Gas Turbine casualties. The only indications reported to me that accompanied the shudder was loss of shaft rpm and the loss tachometer signal data on 1B and 1A GTE Power Turbines (Channels A & B). On or about 0740, the ship regained propulsion. No abnormal conditions were reported, all propulsion plant parameters were reported within specifications. The CO ordered the RHIB launched in order to conduct soundings to assess the viability of reentering the harbor and port. During this period I directed the Navigator and the Navigation team, the TAO and the CIC Navigation team to preserve and not disturb the charted positions of the ship, specifically between the times of 0720 and 0730. Immediately after the event I urged the Navigation and CIC teams to ensure GPS FOM was checked and documented as well as to document any degradation to sensors or systems.

After the RHIB conducted several soundings, the CO gathered myself, CMC, Navigator and Assistant Navigator and asked if, given the reported soundings, we were comfortable to reenter the harbor. Concerned about the potential of encountering uncharted shoal water, **(b) (3) (B), (b) (6)** recommended against pulling into port. The CO made the decision to enter port with tugs made-up, on a track avoiding what the chart shows as good water South and Southwest of the Kuzey Mendrick quay wall light (FI G 2s 15m 10M) and trailing a track cleared by RHIB soundings. TAYLOR moored safely on or about 0915 local. Several of the soundings conducted at the entrance of the harbor later in the day did not concur with charted depth.

Article 31B rights were acknowledged and signed prior to interview.

**Encl (7)**

**Amplifying explanation(s) during interview:**

Was on bridge entire Sea and Anchor detail with the exception of a 1-2 minute period after the grounding to visit CIC and direct the piloting team to preserve the charts (tape down over top of the previous fixes)  
I remained inside the Pilot House when CO and Pilot went onto the starboard bridge wing immediately after the CO introduced himself and his bridge team and relayed the general ship's specifications  
After CO and pilot went outside, I checked surrounding areas of the ship, to include port side and forward, then went to my chair to compare my situational awareness with the chartlets  
Stern was not moving any direction during and immediately after ship shuddered and lost headway  
CO asked pilot if this was good water upon feeling shudder and loss of headway. Pilot responded with yes  
When I checked the chart on the 288T leg (approximately 4-5 minutes prior to grounding), the plot held the ship slightly to the right we came left to 282T to regain track  
Do not recall specific depths the RHIB crew sounded the harbor entrance after the ship was moored do recall they were in the 20 to 30 foot range  
Took me approximately a half hour to review the charts on the 10" I reviewed them in the chart room  
Nav brief lasted 40-45 minutes At the nav brief it was discussed that the SPS-55 would not be able to be used in short pulse which would result in degradation of fixes  
Do not recall brief covering proximity of shoal water to track, but did brief the overall width of the entrance channel and the fact that the shoal water surrounding the jetties would have a very abrupt contour  
Navigation check ride was conducted while I was onboard  
I did not notice whether the pilot had a handheld GPS with him  
No formal debrief was conducted following this transit; normally one is conducted following every sea and anchor transit  
Sea and anchor debrief records are retained in the next nav brief  
Recommended both tugs be made up prior to making second attempt to enter harbor Both tugs were made up on the starboard side prior to second attempt to enter harbor  
Gauged ship's position by comparing landmarks around the port visually with last observed fix on the chart  
No-go criteria was discussed at the nav brief, to include a major casualty, unavailability of tugs and pilots as well as inclement weather (25-30kts)

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////

**THE ABOVE STATEMENT CONSISTS OF 02 PAGES. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.**

**Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).**

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

15 FEB 14

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

**SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)**

**SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT**

<b>FULL NAME (ACCUSED/SUSPECT)</b> (b) (3) (B), (b) (6)	<b>SSN</b> (b) (3) (B), (b) (6)	<b>RATE/RANK</b> (b) (3) (B), (b) (6)	<b>SERVICE (BRANCH)</b> USN
<b>ACTIVITY/UNIT</b> USS TAYLOR (FFG 50)			<b>DATE OF BIRTH</b> (b) (3)
<b>NAME (INTERVIEWER)</b> (b) (3) (B), (b) (6)	<b>RATE/RANK</b> (b) (3) (B), (b) (6)	<b>SERVICE (BRANCH)</b> USN	
<b>ORGANIZATION</b> COMNAVEUR-COMNAVAF-COMSIXTHELT		<b>BILLET</b> Assistant Chief of Staff	
<b>LOCATION OF INTERVIEW</b> USS TAYLOR, in port Samsun, Turkey		<b>TIME</b> 2014-2B	<b>DATE</b> 15 Feb 2014

**RIGHTS**

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	<b>Initials</b>
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	 (b) (3) (B), (b) (6)
(2) I have the right to remain silent;	 (b) (3) (B), (b) (6)
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	 (b) (3) (B), (b) (6)
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	 (b) (3) (B), (b) (6)
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	 (b) (3) (B), (b) (6)

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

**Initials**

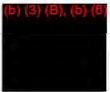
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

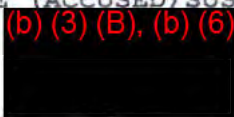


**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

**Initials**

(1) Your previous statement may not be admissible at courts-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)
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martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6) 
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	

SIGNATURE (ACCUSED/SUSPECT) 	TIME 2019	DATE 15 FEB 14
SIGNATURE (INTERVIEWER) 	TIME 2019	DATE 15 FEB 2014
SIGNATURE (WITNESS) 	TIME 2113	DATE 15 FEB 2014

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

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VOLUNTARY STATEMENT

I, (b) (3) (B), (b) (6) USS TAYLOR (FFG 50), make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of: Possible contact with an unknown submerged object.

On the morning of 12 FEB 14 I arrived on the bridge at approximately 0550 as the ship made its way towards Samsun, Turkey. The weather was clear with unrestricted visibility, winds blowing from the south-south west around 10 kts, sea state was almost zero, and no shipping contacts of any concern within 5+ nm of TAYLOR. Sea and anchor was set on time at 0615 and all manned and ready reports were received from all controlling stations, TAYLOR was ready for entering port.

As TAYLOR made its way towards the Samsun harbor the Samsun pilot arrived via pilot boat. The CO, OOD, and Pilot discussed intentions for entering port and agreed. From the centerline polaris the CO, OOD, and Samsun Pilot agreed TAYLOR was in center of channel and in good standing navigationally for entering through the breakwater and into the Samsun harbor, TAYLOR continued to proceed inbound. The CO, OOD, and Samsun pilot and I were out on the stbd bridge wing as we began to take the breakwater down TAYLOR's STBD side. Visually we were in the center of channel. Approx 0726 as we took the breakwater down the STBD side I felt what was a small nudge, seeing how the CAPT, OOD, and Pilot were on the STBD bridge wing, I thought it was the tugs making up on Port side so I went over to verify and observe. As I stepped out onto the port bridge wing I felt the ship shudder. I immediately stepped back in the pilot house as I felt the ship lose thrust. In the background I heard the report of "Fathometer has lost tracking". Simultaneously the CO stepped in from the STBD bridge wing and asked the status of the engines as CCS was making the report over the 21MC that they had no indications of shaft rotation and manually shut down the engines. The CO immediately ordered the use of APU's to keep us fair in the channel and ordered the Pilot to bring the tugs alongside.

I ran to the aft portion of the O-2 Level and asked the Safety observer on the flight deck if he had seen any discoloration in the water, his reply was no. I then ran back into the pilot house and reported to the CO there was visually no silt in the water anywhere surrounding the ship. The tugs were then coming alongside and bridge was ordering the restarting of both engines. I then dropped down to CIC and verified the ships position on their chart, it was plotted slightly right of track, but still very clear of any shoal water. I then proceeded down to the flight deck and met (b) (3) (B), (b) (6) who had a sounding tape and ordered him to take a sounding from the STBD corner of the stern step, which read 37ft to the top of the lifeline. I returned back to the pilot house at which point we had regained propulsion and were backing out of the channel using APU's, tugs, and own ships power. I had the OOD shoot our current distance from the STBD bridge wing to the quay wall with a laser range finder, to which he replied 147 yards, as we began to back out. TAYLOR then proceeded outbound from the channel under her own power. The CO ordered the lowering of the RHIB to proceed inbound in order to conduct soundings of the channel, harbor entrance and our designated berth.

Prior to reentering the harbor the CO asked XO, OOD, NAV, ANAV and I if we all felt comfortable reentering port, after the RHIB had conducted soundings and the ships track was modified from the original track. We all agreed we were comfortable with the new approach track and the ship would be following the RHIB to continually take fixes as we proceeded inbound. TAY moored safely PORT side to under her own power in Samsun harbor thereafter without incident.

Article 31B rights were acknowledged and signed prior to interview.

Amplifying explanation(s) during interview:

Normally go the bridge during Sea and Anchor. Went to CIC to check fix position after asking flightdeck Safety if he had any discoloration in the water. Stern step is the deck aft and lower than the flight deck. Discussion of whether or not to attempt entering the harbor again occurred after the RHIB took soundings of the harbor entrance, RHIB continued to take soundings ahead of the ship as the ship proceeded in again. Course of action for fixes in CIC would be to use the SPS-55 in long-pulse. If that wouldn't work, the Piloting team would attempt to use MK-92. If that failed, CIC would use GPS only.

//////END OF STATEMENT////// THE ABOVE STATEMENT CONSISTS 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

Investigating Officer

**SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)**

**SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT**

<b>FULL NAME (ACCUSED/ SUSPECT)</b> (b) (3) (B), (b) (6)	<b>SSN</b> (b) (3) (B), (b) (6)	<b>RATE/RANK</b> (b) (3) (B), (b) (6)	<b>SERVICE (BRANCH)</b> USN
<b>ACTIVITY/UNIT</b> USS TAYLOR (FFG 50)		<b>DATE OF BIRTH</b> 10 JAN 1979	
<b>NAME (INTERVIEWER)</b> (b) (3) (B), (b) (6)	<b>RATE/RANK</b> (b) (3) (B), (b) (6)	<b>SERVICE (BRANCH)</b> USN	
<b>ORGANIZATION</b> COMNAVEUR-COMNAVAF-COMSIXTHFLT		<b>BILLET</b> Assistant Chief of Staff	
<b>LOCATION OF INTERVIEW</b> USS TAYLOR, in port Samsun, Turkey		<b>TIME</b> -2B	<b>DATE</b> 15 Feb 2014

**RIGHTS**

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	<b>Initials</b>
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	  (b) (3) (B), (b) (6)
(2) I have the right to remain silent;	 (b) (3) (B), (b) (6)
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	 (b) (3) (B), (b) (6)
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	 (b) (3) (B), (b) (6)
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	

interview; and	(b) (3) (B), (b) (6)
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	<b>Initials</b>
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	<b>Initials</b>
(1) Your previous statement may not be admissible at court-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	(b) (3) (B), (b) (6)
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	(b) (3) (B), (b) (6)

SIGNATURE (ACCUSED/SUSPECT) (b) (3) (B), (b) (6)	TIME 1545	DATE 15 FEB 2014
SIGNATURE (INTERVIEWER) (b) (3) (B), (b) (6)	TIME 1600	DATE 15 FEB 2014
SIGNATURE (WITNESS) (b) (3) (B), (b) (6)	TIME 2006	DATE 15 FEB 2014

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

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USS TAYLOR (FFG 50)

## VOLUNTARY STATEMENT

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

The events that occurred during and shortly thereafter the Inbound (Sea & Anchor) transit to Samsun, Turkey.

- On 12 February, 2014 I was assigned as the Condition III, Section II TAO and stood duty in CIC during the "0200 to 0700" Watch (app. 0145 - 0620). At or around 0600, the Commanding Officer came in to CIC for a morning brief, during which time I informed him that I was not feeling well (nausea and dizziness resulting from a head cold) and that I would be going to see HMC as soon as I was relieved. I informed him that my MPA, **(b) (3) (B), (b) (6)** would be standing by as a qualified Plant Control Officer in my absence. He acknowledged and stated that was fine. I contacted **(b) (3) (B), (b) (6)** and told him I would come to CCS as soon as I was able. I was relieved as TAO by **(b) (3) (B), (b) (6)** around 0620 and left immediately for Medical. Upon my arrival in Medical, I was greeted by both **(b) (3) (B), (b) (6)** and **(b) (3) (B), (b) (6)**. I informed them that I was light-headed and nauseas and thought I might be a little dehydrated. HM3 asked me to sit and began to take my vitals (temp normal, BP slightly elevated). **(b) (3) (B), (b) (6)** then conducted a series of tests to estimate my level of dehydration. Upon completion of the tests, **(b) (3) (B), (b) (6)** asked me to lie down and gave me an I.V. drip in my right arm. After the I.V. bag was emptied (app. 15-20 mins), I got off the table. **(b) (3) (B), (b) (6)** told me I should get some rest and that he could assign me SIQ but I told him it was not necessary that I had too much to do. I then thanked **(b) (3) (B), (b) (6)** and left Medical. I then walked up one deck to my stateroom to drop off my waterbottle and to take some cold medicine (over-the-counter Non-Drowsy DAYQUIL). When I got to my stateroom, I called my MPA **(b) (3) (B), (b) (6)** to inform him I was out of medical and I was going to take my meds and sit for a minute as I was still feeling light-headed and nauseas. MPA stated all was fine and he had made a his report to the Executive Officer in the Pilot House that Engineering Department was ready to enter port and then we hung up the phone. I sat down in my stateroom chair and shortly thereafter (2-3 minutes) I felt a shudder followed by another shudder. Immediately, my phone rang and it was my MPA **(b) (3) (B), (b) (6)** informing me that the shaft had stopped and that there were several alarms in CCS. I informed **(b) (3) (B), (b) (6)** that I was on my way down and I left my stateroom for CCS. Upon entering CCS, I observed **(b) (3) (B), (b) (6)** all standing between the EPCC and PCC consoles. I then observed that both Gas Turbine Engines had been secured, the PCC was in Remote Manual and **(b) (3) (B), (b) (6)** (the EOW) passing information to the Pilot house. Shortly thereafter, the JOOD asked for both engines to be restarted and Max Plant be restored and **(b) (3) (B), (b) (6)** began to start the engines one at a time. Shortly thereafter the shaft began to roll and Max Plant was reset. I observed via the Focslc Camera (displayed on the T.V. in CCS) that we began to move and I began to assist **(b) (3) (B), (b) (6)** with making ordered speed changes as we had not yet transferred throttle control back to the Pilot House. Shortly thereafter, **(b) (3) (B), (b) (6)** transferred throttle control to the Pilot House IAW EOP CTB. Shortly thereafter, I ordered all Engineering Personnel to conduct space and equipment integrity checks throughout the Engineering Plant. Shortly thereafter, I received an "all conditions normal report" from all Engineering Spaces with the exception of Aft Steering. **(b) (3) (B), (b) (6)** reported hearing a strange sound coming from under Aft Steering. I then ordered **(b) (3) (B), (b) (6)** to investigate and he returned stating he too heard a strange sound coming from under Aft Steering. I reported this "strange sound" to the Executive Officer and informed him that all other conditions appeared normal. After mooring in Samsun, I ordered the shaft be left spinning so I and others could go to Aft Steering to observe for ourselves the conditions in and around the space. The Commanding Officer came into CCS and we then went into Aft Steering where we observed a strange noise coming from under Aft Steering. Shortly thereafter we ordered the shaft stopped and with it, the strange noise coming from under Aft Steering also stopped. I then received a report from **(b) (3) (B), (b) (6)** that there appeared to be oil in the water astern of the ship and I left to investigate. Upon my arrival, I noticed a small sheen of black/blue oil just astern of the ship and reported it to the Commanding Officer. I recommended we continue with securing the Engineering Plant from the Sea and Anchor detail and make an attempt to have divers investigate the propeller and shaft for any obstructions or damage. Later that morning, Turkish Divers came and I explained to them what they should look for and stood by as they dove under TAYLOR and collected several pictures with an underwater camera that was given to them by **(b) (3) (B), (b) (6)**. The pictures were downloaded to **(b) (3) (B), (b) (6)** personal computer and we shortly thereafter they were shown to the Commanding Officer in his Cabin. Several of the pictures revealed what appeared to be a bent propeller blade and oil coming from a separated hub seam. I then left the Commanding Officer's Cabin and went to CCS where I observed the CPP Head Tank Level reading via a DDI on the PCC. The DDI revealed an unaccounted for loss of 34 gallons of 2190 Lube Oil from 0000 until my reading (app. 0830). I informed the

Encl (a)

Commanding Officer of this loss and ordered (b) (3) (B), (b) (6) and (b) (3) (B), (b) (6) to take readings every hour on the CPP system to try and calculate "weepage," "seepage" or "leakage." I then began making preparations for taking on fuel

**Amplifying explanation(s) provided during interview:**

I believed the incident was caused by something caught in the propeller, such as a net or a line. The max speed ordered up following the incident was approximately 12 knots. After ship was pierside with 0 percent pitch, I was able to hear "whoosh" noise approximately every 1-2 seconds.

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////  
**THE ABOVE STATEMENT CONSISTS OF 02 PAGES. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.**  
Subscribed to and sworn before me this date of 16FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

Investigating Office

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) - TAO, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

At approximately 0717 It was reported to me that the pilot was on board and had reported to the pilot house. At approximately 0725 I was in CIC as the TAO and felt the ship begin to shake. I thought at first a tug had come along side to hard. I had the MK38 operator check for a tug in the area. When I realized there were no tugs along side yet, I immediately checked the Fathometer and saw that it had a depth of 16 feet. I also checked the MK38 camera again to see if we were moving and found that we were not. I then began to hear engineering reports about the shaft stopping.

The plot team then shifted to one minute fixes. I checked the chart and it fixes being plotted directly on our fix line. The fixes then began to be right of track after the loss of propulsion. I checked the chart again after the tug had pulled us loose and saw that approximately three fixes had been taken in off our track since the lost propulsion.

After the tug pulled us loose, engineering was able to regain propulsion and the ship began to back out under its own power.

Article 31B rights were acknowledged and signed prior to interview.

Amplifying explanation(s) during interview:

TAO is responsible for overall supervision of CIC.

Periodically checked Mk38 camera and chart table.

SPS-55 degradation had been discovered a couple days prior to the 12 Feb Nav transit.

SPS-55 degradation was discussed at the Nav brief.

**(b) (3) (B), (b) (6)** brought up point that SPS-55 would not be able to obtain accurate fixes.

It is still possible to obtain a degraded (less accurate) fix with the SPS-55 in long pulse.

Fixes being plotted after ship shook fell on the track initially, then after loss of propulsion, began falling to the right of track.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

Investigating Officer

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/ SUSPECT)	SSN	RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)	(b) (3) (B), (b) (6)	(b) (3) (B)	USN
ACTIVITY/UNIT			DATE OF BIRTH
USS TAYLOR (FFG 50)			19 NOV 1979
NAME (INTERVIEWER)		RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)		(b) (3) (B)	USN
ORGANIZATION	BILLET		
COMNAVEUR-COMNAVAF-COMSIXTHFLT	Assistant Chief of Staff		
LOCATION OF INTERVIEW	TIME	DATE	
USS TAYLOR, in port Samsun, Turkey	1500 -2B	15 Feb 2014	

RIGHTS

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	(b) (3) (B), (b) (6)
(2) I have the right to remain silent;	(b) (3) (B), (b) (6)
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	(b) (3) (B), (b) (6)
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	(b) (3) (B), (b) (6)
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	(b) (3) (B), (b) (6)

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	<b>Initials</b>
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	<b>Initials</b>
(1) Your previous statement may not be admissible at courts-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	(b) (3) (B), (b) (6)

SIGNATURE (ACCUSED/SUSPECT) (b) (3) (B), (b) (6)	TIME 1300	DATE 15 Feb 14
SIGNATURE (INTERVIEWER) (b) (3) (B), (b) (6)	TIME 1520	DATE 15 FEB 2014
SIGNATURE (WITNESS) (b) (3) (B), (b) (6)	TIME 1520	DATE 15 FEB 2014

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

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# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

After Sea & Anchor detail was set, I began making my rounds to receive manned and ready reports from my Department. Once complete, I went to the Bridge to observe the remainder of the evolution. While on the Bridge, I spent most of my time walking back and forth between to two bridge wings to help locate and identify contacts. I was on the Port bridge wing when we made the turn to place us on the inbound leg. After steadying on the course, I observed us to be visually left of the center of the channel. Looking at the Furuno repeater, I noticed our COG was approximately 6 degrees greater than our Heading. Moving to the Starboard bridge wing, I still held us visually left of track and our COG trended as before. As we proceeded inbound, the ship slowly shuddered and I heard a report of the fathometer losing tracking. I moved to the Port bridge wing and began supervising preparations for making up the Forward tug. We backed out of the channel and launched the RHIB to conduct soundings.

**Amplifying explanation(s) during interview:**

- Noticed COG was 6 degrees different from ship's heading on 288T leg.
- No specific recollection of Nav reporting set and drift
- North jetty of breakwater was 500-1000 yds away when visually estimated ship was left of track.
- Navigation/Admin Department is not part of Ops Department.
- Did not hear any conversations with pilot because I was on the bridge wings.
- Was not involved in conversation or decision to make second attempt at entering harbor.
- SPS-55 short-pulse degradation was discussed during the Nav Brief, but don't recall specific discussion of impact to navigation fixes from CIC
- Contact picture was light on the way in.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

Investigating Officer

# VOLUNTARY STATEMENT

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

To my knowledge, all components of the RHIB were in working condition the morning of 12FEB, to include the Depth Finder and GPS. After discussing RHIB operations with previous Boat Officers, I was made aware that the Depth Finder was not working. Coordinating with CE division, the Depth Finder was fixed the evening of 12FEB, **(b) (3) (B), (b) (6)**.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////  
THE ABOVE STATEMENT CONSISTING OF 01 PAGE WAS TYPED BY **(b) (3) (B), (b) (6)** AS WE DICUSSED CONTENTS. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 17FEB14 on board the USS TAYLOR (FFG-50)

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

Investigating Officer

**(b) (3) (B), (b) (6)**

TAYLOR Legal Officer  
Witness

## VOLUNTARY STATEMENT

(b) (3) (B), (b) (6)

, make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

While preparing for the Samsun Sea and Anchor, I read on the chart and in the Black Sea Sailing Directions that "Depths in the harbor are continuously changing and mariners are advised to consult the port authorities for the latest information." There are also no current or tide tables available to Samsun. I consulted (b) (3) (B), (b) (6), the MLS Turkey representative for Samsun. He confirmed via email that the charted depths on the chart are current and correct, and that tides and currents for Samsun are negligible. This was briefed at the Nav Brief.

I arrived on the bridge at 0600. The JOOD hailed the pilot of BTB ch 12/16 an hour prior to pilot pickup as briefed with no response. We attempted to hail again as 'US NAVY WARSHIP 50' and had positive comms with the pilot. They said to call again at 2 nm outside of the breakwater. Shortly after that, they hailed us again and told us to contact them when 7 cables outside the breakwater. We set sea and anchor at 0615. The navigation detail was manned and ready with no issues. As we continued along our track (on the approach panel of the chart at this point), we saw multiple anchored vessels outside of the harbor. We were in 5 minute fixes as we were 3-4 nm from land. I shifted to 3 minute fixes prior to entering restricted waters to give the navigation and bridge team better situational awareness. One anchored vessel was on our track line, specifically on our waypoint to turn to course 288. Course 288 was the course that would bring us through the enter to the harbor. We decided to come South of the vessel instead of North. My input was that maneuvering North of the vessel would place us too close to the breakwater when it came time to come to course 288 and we would want more time to line up and ensure we were on track. When we were approximately 5 nm from the entrance to the harbor I had a good visual on the lighted towers that mark the breakwaters and the entrance to the harbor. While transiting close to other anchored vessels, we slowed to 10-15 kts. This resulted in us being slightly later than planned to our pilot pickup point.

Every fix was compared with combat. On the approach chart, approx 5 nm from the harbor, there were two fixes in which our reports did not concur. I held us 1,200 yds left of track and CIC held us 200 yds left of track. (b) (3) (B), (b) (6) went to CIC to correct the issue. Our fixes were in the same place and accurate, but CIC has measured distance left of track incorrectly. It did not occur again after it was corrected.

The Pilot came onboard at approx 0715 and talked through the upcoming evolution with the Captain. At that time communications with the Pilot appeared effective and the Pilot spoke adequate English. Because we had come South to maneuver around an anchored vessel, we were left of our planned track. Once my bearing takers were within visual range of the lights marking the entrance to the harbor, we started doing composite fixes and all composite fixes were excellent. I had full confidence that our fixes were accurate. At this point our base course was 288.

As we closed the breakwater, TAY experienced a strong set to North. Steering 5-10 degrees left of our course was required to make our desired course over ground. Using my Nav reports, I recommended to the CO/OOD/CONN courses to steer based on our desired course. At this point we were approaching the breakwater. At time 21, my fix held us slightly right of track with approx 1,200 yds from our turn. After giving my report, we shifted to constants on V-1, which was the light on the Northern breakwater. Approaching our turn (next course 218), I called out ranges to turn. Combat's ranges to turn varied ours by approx 50 yds. I noticed we were getting set to the North, so I recommended coming left to 285 (base course 288). We were still getting set to North, so I recommended coming left to 281 to make 288 good as our last charted fix was on track. At this point we were still in constant bearings on V-1 approaching our turn. Our speed over ground was 4 kts and our steered course 281, making 287-288 over ground. I visually held us in center of the channel, however our bow was slightly to the left due to steering left of track to make our desired course. At this time, the pilot continued to recommend coming right, saying that there was plenty of good water in that direction. At approx 0725 I felt shuddering back aft. We immediately dropped a fix at time 0725. Our fix held our position in good water (not in charted shoal). At that point we switched to one minute fixes. I held us drifting North at approx 0.5 kts. Before the event, our last fathometer reading was 27 feet beneath the keel. At the event, we lost tracking on the fathometer. We stayed in one minute fixes until the tugs and our maneuvering successfully pulled us out of the hazard. While we were drifting North, I held us on shoal water at our furthest Northern position. At this time I received a report from CIC via our phone talker that CIC held us in shoal water after TAY had drifted North for 3-4 minutes. At time of event, and electronic range finder held us at 120 m from the breakwater, concurring with charted position (not in charted shoal water).

After the event I heard that engines were offline and shaft break had been engaged. I heard a lot of communication about the engines being brought back online, APUs being trained, and making up the tugs to pull us out. At this point I was focused on our plot. After being pulled from the hazardous location, TAY headed East/Northeast towards good water while we discussed what our next course of action would be. At this point, the Nav team picked a location for anchorage based on the contact picture and plotted it. We were moving towards good water and open ocean.

While loitering outside of the harbor, we put the RHIB in the water to conduct soundings. The RHIB confirmed that port side of the channel had much deeper water. We re-laid a track that kept us in the port side (more Southern side) of the channel. The bridge and Nav team had a discussion on the bridge wing to see if everyone was comfortable pulling in. At that point, I was comfortable pulling in as long as we stayed to the left of the channel and had the tugs on our starboard side to help keep us away from the hazard. Upon deciding we would attempt to enter again, TAY turned around to approach the channel keeping on the port side. We were still in one minute fixes. Tugs were put on starboard side to help keep us from drifting further North. On our second approach, I held TAY approx 60 yds from our original track and position of the first approach. Once inside the harbor, TAY experienced a strong set towards the East. We needed to steer 5-10 degrees right to make our desired course. Once safely alongside the pier, TAY sent lines over and moored.

**Article 31B rights were acknowledged and signed prior to interview.**

**Amplifying explanation(s) during interview:**

Military-grade GPS fix sources onboard are WRN-6 and DAGR(sp?).

Shoal water is marked at 36feet or 10meters

On day of incident, light wind, unrestricted visibility, sea state 1

Contact picture did impact navigation transit, but did not distract me from navigating.

Pilot was onboard entire time from 0720 local until ship moored

Nav brief was held 1400 local the day prior (11 Feb).

Ship's ordered course at the time of the incident was 281T; base course was 288T

Could see a light on the feature designated as R3 from the inbound (288T) leg on approach to the harbor entrance

Shifted to large scale chart inset prior to pilot embarking.

No means to predict tides or currents for Samsun

Set and drift was not reported on 288T leg because too many course changes were being made; I knew from course over ground that ship was being set to the north.

Pilot looked at our chart after coming onto the bridge.

I did not see the pilot look at a handheld GPS or any other fix source prior to making the recommendation to come right

Nav brief lasted approximately 45 minutes. The fact that a casualty to the SPS-55 had occurred the previous day was briefed and discussed, even though the casualty was thought to have been resolved.

Unaware whether CIC was using radar fixes or solely GPS fixes, but the CIC log shows only GPS info with no radar ranges

CIC was passing ranges to turn that were based on a designated turn range to R3

Did not specifically brief in/ex limits right or left of track, but briefed entrance channel depth, position of shoal water relative to the track

I approved the track with no changes from the proposed track submitted to me

There were no danger bearings or danger ranges on any of the charts I have forwarded with approval

I have forwarded charts with approval for 20 restricted water transits.

There was no debrief conducted following the sea and anchor transit. Debriefs are always conducted as a matter of general policy, but on this occasion none was conducted

I felt comfortable with making a second attempt to enter the harbor, staying to the left of our planned track, because RHIB had taken soundings of the harbor entrance showing depths around 70 feet on the south side of the breakwater entrance.

I laid down a new track approximately 60 yards south of the original track.

I made reports of being 40 yards right of track for the 0721fix. We switched to constants immediately following this

In three minute fixes prior to switching to constants on V1

Ship's position was never in doubt in my mind

Later determined that CIC's non-concurring fixes were actually plotted in the same position as the bridge's fixes, but that CIC was measuring distance from track incorrectly.

While in constants, my determination of right/left of track was based on prior distance from track taking into account course over ground indications.

Nav team (at the chart table) was not using Furuno radar.

QMCS verifies the track entered into the Furuno is correct

In contact with C6F lessons learned manager

Consulted sailing directions, PVST AARs, and the MLS Turkey representative

Could not use Admiralty Total Tide because Samsun has no tide/current station. I check Admiralty Total Tide prior to all Navigation transits

Gyro error was not computed on the 11<sup>th</sup> because of cloud cover

Do not regularly log no-azimuths in celestial calculations book.

Computed set/drift every third fix on the leg previous to the 288T leg

DAGR GPS antennas are on top of the Pilot House separated by 8 feet

Pilot recommended coming right, I immediately announced non-concurrence; the Pilot continued to recommend coming right saying "good water."

On command climate: crew likes coming to work and sailors are extending onboard specifically because of CO. CO is a great Captain.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 02 PAGES. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

LTJG USN

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

<b>FULL NAME (ACCUSED/ SUSPECT)</b> (b) (3) (B), (b) (6)	<b>SSN</b> (b) (3) (B), (b) (6)	<b>RATE/RANK</b> (b) (3) (B), (b) (6)	<b>SERVICE (BRANCH)</b> USN
<b>ACTIVITY/UNIT</b> USS TAYLOR (FFG 50)		<b>DATE OF BIRTH</b> 13NOV68	
<b>NAME (INTERVIEWER)</b> (b) (3) (B), (b) (6)	<b>RATE/RANK</b> (b) (3) (B), (b) (6)	<b>SERVICE (BRANCH)</b> USN	
<b>ORGANIZATION</b> COMNAVEUR-COMNAVAF-COMSIXTHFLT	<b>BILLET</b> Assistant Chief of Staff		
<b>LOCATION OF INTERVIEW</b> USS TAYLOR, in port Samsun, Turkey	<b>TIME</b> -2B	<b>DATE</b> 15 Feb 2014	

**RIGHTS**

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	(b) (3) (B), (b) (6)
(2) I have the right to remain silent;	(b) (3) (B), (b) (6)
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	(b) (3) (B), (b) (6)
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	(b) (3) (B), (b) (6)
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	(b) (3) (B), (b) (6)

interview; and	(b) (3) (B), (b) (6)
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	<b>Initials</b>
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	<b>Initials</b>
(1) Your previous statement may not be admissible at court-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	(b) (3) (B), (b) (6)
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	

SIGNATURE (ACCUSED/SUSPECT) <b>(b) (3) (B), (b) (6)</b>	TIME 1837	DATE 15 FEB 14
SIGNATURE (INTERVIEWER) <b>(b) (3) (B), (b) (6)</b>	TIME 2001	DATE 15 FEB 2014
SIGNATURE (WITNESS) <b>(b) (3) (B), (b) (6)</b>	TIME 2005	DATE 15 FEB 2014

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

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## VOLUNTARY STATEMENT

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I took the deck at approximately 0615 on Wednesday, February 12, 2014. My JOOD was **(b) (3) (B), (b) (6)** and my Conning Officer was **(b) (3) (B), (b) (6)**. The evolution was very smooth and orderly as my JOOD was running the INPORT checklist and my CONN was maneuvering as necessary to maintain charted course. We had set max plant with the exception of the 3<sup>rd</sup> ssdg to avoid light loading the generators. I was receiving manned and ready reports and establishing communications with various watch stations. Just prior to taking the deck, my JOOD contacted the SUMSUN Pilot on B/B channels 16 confirming 2 tugs and 1 pilot. We informed him that we expected to be near our pilot pick up point around 0700. He responded by requesting for us to once again contact him when we were approximately "7 cables" before our pilot pick up point. Still on our south/westerly track, we encountered several anchored merchant ships that were on our charted course. We slowed to maneuver around the vessels causing us to be east (left) of track. My JOOD had contacted the pilot again to inform him of our revised pilot pickup time of approx 0720. Once clear of the anchored merchants, we turned to starboard to course 288. On this leg several small Turkish coast guard boats maneuvered around Taylor to provide security during our transit into port. I then ordered CCS to start the 3<sup>rd</sup> SSDG. Soon after we slowed to extend and optest P/S APU's. Operational APU test was satisfactory. We then set the Restricted Maneuvering Doctrine. At approximately 0720 we took on the pilot and immediately **(b) (3) (B), (b) (6)** went over the pilot card and tug make up with him. It was decided that the fwd tug would be made up on the starboard side foc'sle and the aft tug to the amidships chocks. Along the 288 track and prior to the P/S entrance jetties, we noticed we were getting set to the north approx 5-7 degrees. The CONN had turned to port to make approximately 288 good. As Taylor proceeded into the jetties at approximately 4knts SOG we noticed the 2 tugs within the harbor waiting for us to enter the basin. As Taylor proceeded further into the harbor, the ship unexpectedly shuddered and stopped making headway. There was confusion at this point as to what had caused the shutter. The navigator immediately dropped a fix and held Taylor in charted good water. The ship slowly drifted to the north/right of track as the winds were coming from approx 220T at 10knts. The CONN had ordered an astern bell and trained the APU to approx 200. The ships began to shutter again and **(b) (3) (B), (b) (6)** shouted "stop" or something of that affect. At this time, I received a report from the JOOD that the engines were stopped. The Pilot, **(b) (3) (B), (b) (6)** and I were discussing a new plan for making the fwd tug to the port side foc'sle and the aft tug through the stern caulk. We had some difficulty relaying our intentions to the Turkish Pilot. Making up fwd/aft tugs took some time as the tugs proceeded outbound from the basin to our position. **(b) (3) (B), (b) (6)** then ordered that we bring 1A/1B GTE's back online in order to back out from our position. At this point the fwd/aft tugs were made up starboard side and pulling. I recall the APU's were trained between 240 and 180 to assist with backing out. I then received a report that that shaft had begun rolling again and an astern bell was ordered up. At this point, throttle control had been shifted to CCS for several minutes. Engine orders were given using the Engine Order Telegraph (EOT) and 21MC. The ship then began to move to the south (port) and backed out from its position. As the ship continued to back out of the entrance channel and cleared the jetties, the fwd and aft tugs were cast off. The Boat Deck was manned in order to lower the RHIB to take soundings of the entrance channel using a sounding tape. Once the boat crew was briefed, the RHIB was loaded, lowered and launched. Some of the initial readings were 40-42FT in the centerline of the entrance channel and much deeper to the south (port side) of the entrance channel. Readings on north side (stbd side) of the entrance channel were 36-38FT. **(b) (3) (B), (b) (6)** ordered the navigator to find a good anchorage while my bridge team maneuvered the ship away from the harbor into much deeper charted waters. At this point **(b) (3) (B), (b) (6)**, XO, JOOD, NAV, ANAV and I discussed our next plan. We decided that we would make a second attempt at entering port based off the readings of the RHIB crew, this time entering port of centerline of the entrance channel. **(b) (3) (B), (b) (6)** and the CONN maneuver the ship around the anchored merchant vessels to come to approx course 288. As this was happening, my JOOD and I were communicating with the RHIB on where we wanted soundings within the harbor. I also ordered CCS to transfer throttle control back tot the pilot house. As Taylor made here second approach, we received several reports from the RHIB crew that the depth of the water along our charted track was consistently between approx 60-70FT. As we entered the jetties for the second time, we had kept the ship slightly south (port) of our original charted track. Again, a more southerly course was needed to make approx 288 good as we passed through the jetties. Once I received reports that the stern was clear of the P/S jetties, The CONN came to port to approx 181. Due to the winds, a more westerly course was needed to make 181 good. The Tugs were made up and the ship maneuvered as necessary to come port side too along the pier.

Article 31B rights were acknowledged and signed prior to interview.

**Amplifying explanation(s) during interview:**

Pilot was embarked on 288T leg.  
Don't recall set and drift, but know course over ground was approximately 5 degrees to the right of course steered.  
Originally interpreted CO's initial direction to mean bring EOT to all stop, but not sure what was passed to CCS via 21MC since I was on the starboard bridge wing.  
After ship shook and lost headway, pilot insisted there was good water ahead and to keep going forward.  
When JOOD reported engines were shut down, CO directed engines brought back online.  
ANAV had concerns about attempting to enter the harbor again.  
Boat crew used a handheld Motorola and a bridge to bridge radio to report soundings back to the ship.  
Boat crew reported consistently deeper soundings on the port side of the entrance than on the starboard side.  
Boat continued taking soundings inside harbor along track between entrance and berth.  
Received reports of ranges from fantail, but those ranges are visual estimates only.  
Pilot was given Max Draft of the ship by mistake, rather than that day's actual draft.  
Don't recall whether Nav gave any maneuvering recommendation.  
Nav plotted fix immediately after ship lost headway began shaking. Fix was in good water slightly right of track.  
Pilot seemed to have no problem with the current position and course and gave no maneuvering recommendations prior to ship shaking and losing headway.  
Reviewed charts with Nav and Conn the previous day (11 Feb).  
Noted 700 yards between shoal water near one jetty and shoal water near the other jetty, but do not recall how close track was to shoal water on either side.  
Nav brief lasted approximately 40 minutes.  
Do not recall whether there was any discussion about SPS-55 degradation during Nav brief.  
Track was displayed on Furuno radar  
Don't recall whether Furuno held ship on the track displayed.  
Believed ship was in good water at the time of the incident.  
Believe there was a new track laid down on chart for second attempt to enter harbor, but not certain

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////  
THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY  
CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.  
Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/ SUSPECT)	SSN	RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)	(b) (3) (B), (b) (6)	(b) (3) (B), (b) (6)	USN
ACTIVITY/UNIT			DATE OF BIRTH
USS TAYLOR (FFG 50)			28 Aug 1987
NAME (INTERVIEWER)		RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)		(b) (3) (B), (b) (6)	USN
ORGANIZATION	BILLET		
COMNAVEUR-COMNAVAF-COMSIXTHFLT	Assistant Chief of Staff		
LOCATION OF INTERVIEW	TIME	DATE	
USS TAYLOR, in port Samsun, Turkey	1335 -2B	15 Feb 2014	

RIGHTS

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	(b) (3) (B), (b) (6)
(2) I have the right to remain silent;	(b) (3) (B), (b) (6)
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	(b) (3) (B), (b) (6)
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	(b) (3) (B), (b) (6)
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	(b) (3) (B), (b) (6)

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	<b>Initials</b>
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	<b>Initials</b>
(1) Your previous statement may not be admissible at court-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	(b) (3) (B), (b) (6)
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	

SIGNATURE (ACCUSED/SUSPECT) (b) (3) (B), (b) (6)	TIME 1341	DATE 15 Feb 14
SIGNATURE (INTERVIEWER) (b) (3) (B), (b) (6)	TIME 1520	DATE 15 FEB 2014
SIGNATURE (WITNESS) (b) (3) (B), (b) (6)	TIME 1520	DATE 15 FEB 2014

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

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USS TAYLOR (FFG 50)

**VOLUNTARY STATEMENT**

N/A

(b) (3) (B), (b) (6) USS TAYLOR (FFG 50) - JOOD, make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I relieved the watch around 0538 to establish situational awareness prior to setting the sea and anchor detail. The checklist was in good order with the major items complete the night prior, such as rudder swing checks and the digital flux gate magnetic compass checks. The draft report was not on the bridge yet but was around the time of setting S&A. The S&A OOD and CONN relieved their watches prior to setting S&A. Once the draft report was received, I updated the pilots card with the max draft found in the right column of the report as a matter of precaution, the max draft on the card read 8.1 meters even though the actual draft was less. I hailed the pilot at 0600 on CH16 and confirmed two tugs and pilot pickup at 0700 outside the harbor entrance. The checklist was complete with the exception of placing CHT in transit mode and setting Restricted Maneuvering Doctrine (RMD) because we were still greater than 3NM from land and we briefed setting RMD just prior to entering the harbor. At around 0644 I hailed the pilot again to inform him of our delayed arrival due to slowing for anchored traffic outside the harbor, and informed him of our new pilot pickup time of 0720. He copied all. We started the third ship diesel and upon slowing, lowered and tested both APUs, satisfactory. I don't exactly remember when, but at one point the CONN requested that I shoot some laser ranges to the northern quay wall. The laser range finder could not pickup any return at first, but eventually it did so I would call out ranges on the starboard bridge wing where the CONN, OOD, and CO were. The second to last range I called was 125 meters, shooting the rocks at the base of the starboard harbor entrance light house nearly on our starboard beam before taking station inside the pilothouse to monitor the bridge team and remain in earshot of the 21 MC. The pilot was already onboard at this time. I accidentally hit the mode button before that hit, changing it from yds to meters. I quickly reverted back and called 140 yds. The CONN acknowledged and I stepped inside. Shortly after, the ship shook. I don't remember what CCS initially said, but they did say that the shaft stopped rolling. Simultaneously to this report, the CONN and CO loudly ordered all stop over the X1JV and then standing in the starboard bridge wing door, the CO yelled something to the effect of stop engines. Whatever was said exactly, I ordered CCS to stop the GTEs. When they reported PT brake engaged and GTEs stopped, I relayed that to the OOD and CO. The CO then ordered GTEs back online so I ordered CCS to restart GTEs. At this time, we were using APUs to try to back out and were making-up tugs to assist. I stepped out to the starboard bridge wing and insure the CONN, OOD, and CO knew that the shaft lost all turns prior. CCS almost immediately reported 1 GTE online, but the shaft would not roll. The 14 minute timer before automatically shutting down the GTE had started. The tugs were now made-up to help back out. Between them and the APUs, the ship started to back out and CCS reported that shaft fouled sensor had cleared. Shortly after CCS reported turns on the shaft and we continued to back out. Throttle control was in CCS so I relayed throttle orders over the 21 MC on behalf of the CONN until the situation had stabilized. After asking for permission from the CO to transfer control, we transferred throttle control to the pilot house and continued to circle the harbor entrance while the RHIB deployed and conducted soundings. The RHIB reported soundings in excess of 42 ft from the center of the channel to the southern harbor entrance, but reported at least one 16ft sounding closer the the northern quay wall. As we steered closer to the southern entrance, the RHIB remained ahead of us and continued to report soundings in excess of 49ft. The soundings in the vicinity of the pier were over 72ft so we decided to moor.

**Article 31B rights were acknowledged and signed prior to interview.**

**Amplifying explanation(s) during interview:**

Laser range of 140 yards to the jetty to starboard was obtained prior to ship shaking; the end of the jetty was just forward of the beam of the ship.

First laser range that was obtained was over 200 yards to the end of the jetty.

Recalled from brief that danger depth curve began approx 90 yards out from the jetty (toward the track).

When shaking started, ship seemed to lose all headway. Shortly thereafter, Engineering reported shaft had stop turning.

I heard CO order the engines to be stopped (do not recall exact words CO used), so I relayed the order via 21MC to CCS to stop main engines.

CO then asked why engines were stopped and ordered engines brought back online. After relaying the order to CCS to bring engines back online, I answered his question by reporting to the CO that engineering had reported the shaft had stopped turning prior.

Visibility was unlimited

I was assigned to take soundings of the area near the north jetty after the ship moored, and found soundings less than 25 feet farther south from the jetty than the chart depicts. I determined distance from jetty via laser range finder.

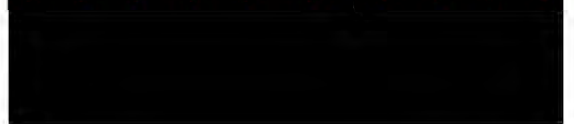
//////////////////////////////////////END OF STATEMENT//////////////////////////////////////  
THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY  
CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.  
Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)



Investigating Officer

(b) (3) (B), (b) (6)



SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/ SUSPECT) <b>(b) (3) (B), (b) (6)</b>	SSN <b>(b) (3) (B), (b) (6)</b>	RATE/RANK <b>(b) (3) (B), (b) (6)</b>	SERVICE (BRANCH) USN
ACTIVITY/UNIT USS TAYLOR (FFG 50)		DATE OF BIRTH 02 MAY 1980	
NAME (INTERVIEWER) <b>(b) (3) (B), (b) (6)</b>	RATE/RANK <b>(b) (3) (B), (b) (6)</b>	SERVICE (BRANCH) USN	
ORGANIZATION COMNAVEUR-COMNAVAF-COMSIXTHFLT	BILLET Assistant Chief of Staff		
LOCATION OF INTERVIEW USS TAYLOR, in port Samsun, Turkey	TIME 0908 B	DATE 15 Feb 2014	

RIGHTS

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s) Dereliction of duty;	<b>(b) (3) (B), (b) (6)</b>
(2) I have the right to remain silent;	<b>(b) (3) (B), (b) (6)</b>
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	<b>(b) (3) (B), (b) (6)</b>
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	<b>(b) (3) (B), (b) (6)</b>
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	<b>(b) (3) (B), (b) (6)</b>

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	Initials
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	Initials
(1) Your previous statement may not be admissible at court-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	(b) (3) (B), (b) (6)

SIGNATURE (ACCUSED/SUSPECT) <b>(b) (3) (B), (b) (6)</b>	TIME 0917	DATE 15 FEB 2014
SIGNATURE (INTERVIEWER) <b>(b) (3) (B), (b) (6)</b>	TIME	DATE
SIGNATURE (WITNESS)	TIME	DATE

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

**(b) (3) (B), (b) (6)**

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USS TAYLOR (FFG 50)

VOLUNTARY STATEMENT

N/A

I, (b) (3) (B), (b) (6), USS TAYLOR (FFG 50) - ATTWO, make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

On 13 February 2014 I was standing ATTWO for Sea & Anchor on the 0-2 level tracking and reporting small vessels. Once the ship was getting closer to the harbor entering into the channel I noticed the ship shutter a little in an unfamiliar manner. I was standing on the Port side directly behind the Pilothouse and did not notice anything so I quickly moved over to the Starboard side to take a look. There was nothing on either side of the ship and it appeared we were in the center of the channel. I heard the Captain quickly order for the boat deck to be manned. I assumed the boat was being launched so we could verify the depth of the channel by having the RHIB take soundings. I reached the Turkish Coast Guard on VHF Ch 14 to inform them we were dropping our RHIB in the water to verify the depth of the water. The ship backed out of the channel and had the RHIB take soundings of the channel and harbor. From the same position on the 0-2 level the second trip through the channel appeared exactly the same as the first track except there was no shuttering. Shortly after entering into the harbor the ship moored safely.

Amplifying explanation(s) during interview:

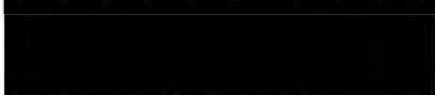
I was on port side aft of pilothouse when I felt the ship shake/shudder. I saw the tugs were not near the ship. I immediately went to the starboard side to see if there was a boat or tug coming alongside, and saw no tugs or boats alongside either side. Assessment of being centered in the channel was based on visual estimate that jetty on port side the same distance from the ship's path as the jetty on the starboard side. Turkish Coast Guard acknowledged, but did not ask any additional details about TAYLOR launching RHIB.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

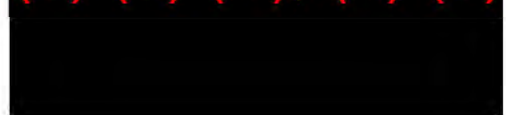
Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)



Investigating Officer

(b) (3) (B), (b) (6)



USS TAYLOR (FFG 50)

VOLUNTARY STATEMENT

N/A

I, (b) (3) (B), (b) (6) USS TAYLOR (FFG 50), make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I was the off going Officer of the Deck prior to setting the Sea and Anchor detail. At approximately 0615, I was relieved as Officer of the Deck by (b) (3) (B), (b) (6). The ship was on track and on time for Pilot Pickup at 0700. After being relieved as OOD, I went to bed since I was not assigned to a watch station for inbound Sea and Anchor. I needed to get some sleep since I was tired from the previous watch and, I was assigned to be the Outbound Sea and Anchor Anti-Terrorism Tactical Watch Officer (ATTWO).

Amplifying explanation(s)

Took the watch at approximately 0145 local. Conducted flight ops from 0300 until 0330. I called the CO several times during flight ops. He seemed alert during all calls. Approximately 1.5 hours behind PIM when took the watch. Regained PIM and making 15 kts by the time I was relieved.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG 50)

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

## VOLUNTARY STATEMENT

I, (b) (3) (B), (b) (6), USS TAYLOR (FFG 50), make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I arrived on the bridge at approximately 0555 and took the conn after a proper turnover. Sea and anchor was set at 0615. At about 9 miles northeast of the first turn I spotted numerous anchored vessels just outside the harbor, one of which was in the middle of our initial track. Once the ship got about 3 miles from the anchored vessels, we altered course to port to avoid the anchored vessel which lied in the middle of our track. This course change would force us to be left (south) of track once we made our turn west to course 288T towards the harbor entrance. Once we turned, I recall being as far as 300 yards left of track as we proceeded towards the harbor. The ship experienced a strong northerly set as we approached the harbor entrance. We adjusted our course as necessary, keeping the bow pointed between the two breakwaters and using the condominium in the middle of the channel as a visual reference. We made several slight course changes to the left and right to account for the northerly set and for being south of track. I asked (b) (3) (B), (b) (6), Junior Officer of the Deck, to grab the laser range finder and provide ranges to the starboard breakwater, as I was concerned about the northerly set and our proximity to shoal water on the starboard side. As we approached within 500 yards east of the breakwater, the pilot recommended courses to the right of 285T. At this point, navigation held the ship on track. The Navigator and I continued to vocally and openly express our disagreement with the pilot's recommendations due to our northerly set. As a result, we steered courses between 282T and 288T (to the best of my recollection), maintaining a course over ground of around 288T, which was the course plotted on our track. Once the ship was abeam of the breakwater on the starboard side, I steered course 281T to maintain 288T over ground (this of which I am certain of). Navigation still held us on track. The JOOD reported 120 meters to the breakwater, and I knew we were in good charted water. Immediately thereafter, the ship shuddered and came to a stop. We initially asked if a tug hit us; the OOD reported no tugs were alongside. The JOOD reported the shaft had stopped turning and therefore both main engines were emergency stopped. We already had the APU's down, so we trained them to 240R and turned both on to try to pull us out. Captain told the pilot to bring the tugs alongside, make up, and pull us astern to get us out. The pilot was adamant that we were still in good water and that we should proceed into the harbor. The Captain demanded the pilot make up the tugs and pull us out. The pilot did so. As the tugs were being made up, the APU's kicked up a lot of mud but did not successfully move the ship. I continuously observed the bow, beam, and stern to check for motion and noticed nothing until the tugs began to pull. Once the tugs got us safely away from the breakwater and the harbor entrance, I performed a port twist and began driving the ship to the northeast away from the harbor and surrounding anchored vessels. I left the APU's on and the engine at 5 knots to keep the ship controlled and moving slowly to give the navigation team and the Captain time to discuss an

alternate plan. It was determined that we could not get the much needed fuel and supplies at anchor. The Captain called the Navigator, QMCS, XO, CMC, OOD, JOOD, and I to the bridge wing and asked if any of us were uncomfortable trying again to enter the harbor. QMCS was the only one who was uncomfortable. He was afraid it might happen again and be even worse. The rest of the assembly seemed to agree that if we lowered the RHIB to take soundings well ahead of the ship, we would be able to turn around or back out in time, if shoal water was detected. As a result, we lowered the RHIB which took soundings with a sounding tape in front of the ship, all around the harbor entrance, and eventually into the harbor. Navigator laid a secondary track that had the ship approaching the entrance from the southeast and maintaining closer proximity to the breakwater on the left side of the channel. We proceeded safely along this new track into the harbor, and with some on-setting wind, moored safely to the pier. The pilot was of little assistance.

**Article 31B rights were acknowledged and signed prior to interview.**

**Amplifying explanation(s) during interview:**

Decided to use condominium as a reference based on it being directly ahead of the ship when the ship was in the center of the channel.

Did not hear any Navigation reports that caused me to be alarmed prior to the incident.

I recall being 300 yards left of track at the start of the 288T leg.

Pilot initially recommended course 290T after arriving in the pilothouse; at that time, course over ground was to the right of 290T as reported by the Navigator and as I saw visually displayed on the Furuno.

Pilot urged CO to continue on even after ship shook and lost all headway, repeating that the ship was in "good water."

Pilot was interacting with both the conn and the CO.

While pulling the ship, the line came off the bitt on the tug.

Do not recall what the pilot did after the ship started making way on its own power prior making the tugs up again.

Pilot was not involved in conversation on whether or not to re-attempt to enter the harbor.

I reviewed the charts prior to the Nav brief. I recall observing there was approximately 100 yards of safe water on both sides of the track at the harbor entrance.

Don't recall whether Navigator reported the ship being right of track at any time on the 288T leg; I do recall Navigator reporting the ship being on track as the ship was approaching the jetty.

Nav brief was approximately 30 minutes. I briefed the track during the brief.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 02 PAGES. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

[Redacted Signature]

Investigating Officer

(b) (3) (B), (b) (6)

[Redacted Signature]

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/SUSPECT) <b>(b) (3) (B), (b) (6)</b>	SSN <b>(b) (3) (B), (b) (6)</b>	RATE/RANK <b>(b) (3) (B)</b>	SERVICE (BRANCH) USN
ACTIVITY/UNIT USS TAYLOR (FFG 50)			DATE OF BIRTH 12 NOV 1987
NAME (INTERVIEWER) <b>(b) (3) (B), (b) (6)</b>		RATE/RANK <b>(b) (3) (B)</b>	SERVICE (BRANCH) USN
ORGANIZATION COMNAVEUR-COMNAVAF-COMSIXTHFLT		BILLET Assistant Chief of Staff	
LOCATION OF INTERVIEW USS TAYLOR, in port Samsun, Turkey		TIME 1049 -2B	DATE 15 Feb 2014

**RIGHTS**

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s) Dereliction of duty;	<b>(b) (3) (B), (b) (6)</b>
(2) I have the right to remain silent;	<b>(b) (3) (B), (b) (6)</b>
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	<b>(b) (3) (B), (b) (6)</b>
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	<b>(b) (3) (B), (b) (6)</b>
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	<b>(b) (3) (B), (b) (6)</b>

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	<b>Initials</b>
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	<b>Initials</b>
(1) Your previous statement may not be admissible at court-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	(b) (3) (B), (b) (6)

SIGNATURE (ACCUSED/SUSPECT) (b) (3) (B), (b) (6)	TIME 1049	DATE 15 FEB 2014
SIGNATURE (INTERVIEWER) (b) (3) (B), (b) (6)	TIME 1524	DATE 15 FEB 2014
SIGNATURE (WITNESS) (b) (3) (B), (b) (6)	TIME 1524	DATE 15 FEB 2014

The statement which appears on this page (and the following 2 page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

(b) (3) (B), (b) (6)

SIGNATURE (ACCUSED/SUSPECT)

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# VOLUNTARY STATEMENT

**(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) – Radar/TACON, make the following

**(b) (3) (B), (b) (6)**

Free and voluntary statement to

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

Upon setting the Sea and Anchor detail at 0615, I assumed the watch as Radar/Tacon operator on the Bridge. I was keeping track of the anchored vessels and small contacts outside the harbor. All contacts were safely avoided. Once we were well clear of all contacts and on track to enter the harbor, I began taking ranges via Furuno to the edge of the breakwater on the starboard side. I passed ranges and speed over ground to the conning officer when he was inside the pilot house and the OOD when the conn was on the bridgewings. While making our approach to the harbor, the highest speed I passed was just over 5kts over ground.

As we continued I was comparing the reports I heard from the Navigator regarding left or right of track to the overlay of the track on the radar screen. During our first attempt to enter the port, I continually heard Nav pass, "On track", which was what I observed on the radar as well. We continued on track up to the breakwater. I passed when we were within 100 yards of the starboard side breakwater as we were passing the lighthouse. Since I believed we were beyond that navigation hazard I began to take ranges to the port side breakwater. After passing one range of about 250 yards, the ship began to shake. I looked up from my radar screen to see that the ship had begun to walk sideways towards the starboard side breakwater.

At this point I immediately started calling ranges to the starboard side breakwater. The shortest range we closed to according to the Furuno was 70 yards. After that, our range began opening as we backed out towards the anchored vessels and moved to the north. We then made our second approach and moored successfully.

**Amplifying explanation(s) during interview:**

- Nav track was displayed on the Furuno screen.
- Prior to ship shaking/stopping, the closest the ship came to the breakwater to starboard (per Furno) was 100yds.
- After the ship lost headway, the closest the ship came to the breakwater to starboard (per Furuno) was 0.035 NM.
- Furuno was in S1 (shortest possible pulse) during Sea and Anchor.
- Don't remember how close any of the anchored vessels outside the harbor were in relation to the trackline displayed on the Furuno.
- SPS 55 long/short pulse degradation was discussed at the Nav brief.
- SPS 55 material degradation was discovered 2-3 days prior to transit and documented with 2K/work candidate.
- Track line in Furuno entered by Navigation team, but is used for SA only.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////  
THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.  
Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

VOLUNTARY STATEMENT

I, (b) (3) (B), (b) (6), USS TAYLOR (FFG 50) - Helm Safety, make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I am (b) (3) (B), (b) (6), the Electronic Warfare Officer on board USS Taylor (FFG 50). On Wednesday February 12, 2014, Sea and Anchor was set at 0615 and I made it up to the bridge at 0620 to assume the duties of Helm Safety. I am a qualified Helm Safety Officer. We made our approach toward the anchorage outside the Samsun Port. There were a few small contacts, but nothing that threatened the ship at any time. We moved through the anchorage at a speed of about 5 knots, and began to lower APU's. Afterwards, we picked up the pilot on the port side. The pilot came to the pilot house, and the Captain introduced himself, the OOD, and the CONN. The Captain then proceeded as he always does with the pilot card to explain to the pilot the controlling forces for maneuvering the ship i.e. one propeller, starboard stern walk, APU's. We began to turn to starboard to make our way into the break water of the port. When we finally finish making our turn to starboard, the navigation detail based on an excellent GPS fix held us left of track and recommended that we come right to get into the center of the channel. The CONN and Captain obliged and proceeded to come right. Before we reached the break way, I looked at furuno and noticed the ship was right in the middle of the channel. As I looked back forward we felt a shudder. I looked around, and then we felt another shudder and the Captain told us to stop the engines, and then subsequently stop the shaft. We then used APU's to pull the bow away from the rocks and shoal water on our starboard side. However we needed to hook up the tugs in order to maneuver the entire ship away from the channel. After we were safely out of the channel, we manned the boat deck, and proceed to place the rhib in the water. The rhib then proceeded to take soundings of the depth of the water in the channel which ranged from 41-65 feet. Meanwhile, the ship did circles just outside the channel in the anchorage area. When we made out second approach we were slightly left of track, and made it into the channel and subsequently moored port side successfully. Up to this point the navigation detail and CIC navigation detail were both agreeing on fixes and the position of the ship to my knowledge.

Amplifying explanation(s) during interview:

Don't recall where the heading line on the Furuno was in relation to the jetties.

Do not remember whether turn to starboard onto the 288T leg occurred before or after the pilot came onboard.

Used 5 degrees of rudder for all course changes of "come right... or come left..." leading up to the incident. After the incident, rudder angle orders were given with no steadying courses.

No debrief was conducted following the Sea and Anchor evolution.

//////END OF STATEMENT////// THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) – Plant Control Officer, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

On 13 February 2014 around 0725 while standing the watch as PCO in CCS in our way to entering import to Samsun Turkey, the ship shook and came to an abrupt stop and I looked the tach loss channel A/B signal illuminated on 1A and 1B GTE on the PCC and shaft was not rotating. The EOOW called the bridge in the 21MC and notified the shaft was not rotating then after several minutes the shaft suddenly started to speed up and the bridge ordered the EOOW to stop the shaft. The EOOW placed 1A/1B in remote manual and the shaft came up to a complete stop. EOOW recommended the bridge to stop 1A/1B GTE to prevent damage to the PT and the GTE. The bridge concurred and ordered to stop the shaft and EOOW stop 1A/1B GTE; EOOW ordered to the watchstanders to investigate for any damage or unusual noise in their spaces and personnel reported all conditions normal. The bridge ordered to start 1A and 1B GTE, the EOOW started 1A but still no rotation on shaft, EOOW recommended to the bridge to stop 1A and bridge concurred; then bridge ordered EOOW to start 1B GTE but no shaft rotation indication upon start 1B GTE, the EOOW notified bridge and after approximately two minutes the shaft started to rotate and the bridge ordered engines back 1/3 then all stops. Bridge ordered start 1A GTE and then transfer control of 1A and 1B GTE to SCC from PCC. Subsequently ship continued on route to Samsun TU pierside.

**Amplifying explanation(s) during interview:**

Felt like something hit the ship (similar to a tug coming alongside). Stopped engines after shaft stopped turning the second time. It was instantaneous both times the shaft stopped turning. Heard thump at the same time the shaft stopped turning the first time. Heard no noise when the shaft stopped turning the second time. No leaks were found in any of the engineering spaces during or after the incident.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 15FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**

[Redacted Signature]

**VOLUNTARY STATEMENT**

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

At 0725 I **(b) (3) (B), (b) (6)** was standing by the Captains chair looking out the window from the bow perspective between the jetties just making sure that Taylor wasn't drifting to far left or right of track ensuring we were in the center of the channel. Thinking about how the chart referenced shoal water and what was apparent visually TAYLOR was fair centered in the channel to enter port safely. On or about 0726 I felt the ship jerk and immediately stated "What was that? The jerk stopped and then I felt it again at that moment I ran out to the bridge wing to see if a tug was getting tied then I noticed the ship completely stopped a forward motion. Simultaneously I heard over the 21MC the both engines stop from the EOOW and that was followed by we have no shaft rotation at that moment the only issue I thought was going on was an engineering casualty which would be resolved very shortly. Then I heard the OOD inform engineering to restart engines and the CO inform them not to do anything just yet. Once we figured out what the issue was as in the possibility of being stuck in sand or mud we tied up tugs trained APU's and freed ourselves and TAYLOR was underway her own power, and entered port safely.

**Amplifying explanation(s) during interview:**

I started plotting fixes to verify ship's position only after ship had entered the harbor following backing out after first attempt to enter harbor

Immediately before shaking started, starboard jetty appeared by visual estimation to be approximately 160-170yards away, while the jetty to port appeared to be 300-400 yards away (also by visual estimation)

Was assigned Senior QM watchstation on watchbill

Estimate 120-130 yards (visual estimate only) away from the jetty to starboard immediately before ship began to gain sternway backing away from the harbor entrance.

Did not feel ship was standing into danger at any point until ship lost headway and began drifting toward jetty to starboard

Recommended not attempting again to proceed into port based on uncertainty that arose from first attempt.

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

[Redacted signature area]

Investigating Officer

**(b) (3) (B), (b) (6)**

[Redacted signature area]

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCM)

N/A

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

Not aware whether visual fixes were obtained during transit. My watchstation would not normally be expected to know what type of fixes are being taken at any given time.

All visual NAVAIDS were visually verified prior to entering the harbor.

Azimuths are taken every day underway. That is a good practice to find gyro error. Senior QM/Nav refresher did not specify whether that requirement was still in place, so unaware of whether it is still a written requirement, but I continue to ensure one is taken daily as a matter of safe/good practice regardless of whether the requirement is written.

The only occasions an azimuth would not be taken at sea is if no sun could be observed due to overcast weather. In that case no log entry would be made in the Navigation Workbook.

Chart waypoints are not required to be entered into any other system, but as a matter of safe/prudent practice we enter it into the Furuno Radar, NAVSSI and Nobeltec. On this occasion we did not enter the track into Nobeltec because previously it was down

Unaware of whether a track could be entered into DAGR or not; I have never attempted to.

Composite NAVAID is an aid that could be used as both a visual and a radar NAVAID (such as a pier with a light at the end).

Black Sea Sailing Directions exist.

We do not use the piloting preparation checklist appendix from the NAVDORM; we use the preparation checklist that is included in TAYLOR's NAVBILL.

Article 31B rights acknowledged and signed prior to interview.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 16FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

Investigating Officer

**(b) (3) (B), (b) (6)**

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/ SUSPECT)	SSN	RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)	(b) (3) (B), (b) (6)	(b) (3) (B), (b) (6)	USN
ACTIVITY/UNIT			DATE OF BIRTH
USS TAYLOR (FFG 50)			01 FEB 2014
NAME (INTERVIEWER)		RATE/RANK	SERVICE (BRANCH)
(b) (3) (B), (b) (6)		(b) (3) (B), (b) (6)	USN
ORGANIZATION	BILLET		
COMNAVEUR-COMNAVAF-COMSIXTHFLT	Assistant Chief of Staff		
LOCATION OF INTERVIEW	TIME	DATE	
USS TAYLOR, in port Samsun, Turkey	-2B	16 Feb 2014	

RIGHTS

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	(b) (3) (B), (b) (6)
(2) I have the right to remain silent;	(b) (3) (B), (b) (6)
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	(b) (3) (B), (b) (6)
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	(b) (3) (B), (b) (6)
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	(b) (3) (B), (b) (6)

interview; and	(b) (3) (B), (b) (6)
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

**Initials**

(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

**Initials**

(1) Your previous statement may not be admissible at court-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	(b) (3) (B), (b) (6)
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martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	(b) (3) (B), (b) (6)
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	(b) (3) (B), (b) (6)
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	(b) (3) (B), (b) (6)

SIGNATURE (ACCUSED/SUSPECT)	TIME	DATE
(b) (3) (B), (b) (6)	1459	16 FEB 2014
SIGNATURE (INTERVIEWER)	TIME	DATE
(b) (3) (B), (b) (6)	1520	16 FEB 2014
SIGNATURE (WITNESS)	TIME	DATE
(b) (3) (B), (b) (6)	1920	16 FEB 2014

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

USS TAYLOR (FFG 50)

VOLUNTARY STATEMENT

N/A

I, (b) (3) (B), (b) (6) USS TAYLOR (FFG 50) – Focsle Safety, make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I (b) (3) (B), (b) (6) was the safety observer on the forcastle for the Sea Anchor detail on February 12, 2014 at 0715 I was standing in front of Line 2 bits on port side looking forward and watching my guys prepare to tie up the tug when they approach. At 0725 I felt the ship shake and come to a stop I looked over the Bow and notice we where in the middle of the channel. Then I switched over to starboard side main deck and noticed mud being kicking up by the APU's so I had my POIC have the anchor detail to stand by to drop the anchor I know something was wrong. Then the tugs approached they did not have lines so we passed them lines, then the ship began to back down to port. Shortly after that the tugs released the forward tug line them self's after we exit the jetties. However I still had my anchor detail ready to drop the anchor at a moments notice as the word was being passed to man the boat. We put the boat in the water in the anchorages area and they began to take sounding in the entrance of the channel and they continued to take soundings the entire way until we got pier side.

Amplifying explanation(s) during interview:

Estimate of being in the center of the channel was based on visual estimate – both jetties looked to have the same bearing from the focsle.

As soon as felt jolt, immediately looked at starboard jetty and could tell that the ship had lost almost all headway.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

Investigating Office

(b) (3) (B), (b) (6)

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) - CICWO, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

Watch seemed normal to begin with.  
 TAO was on watch prior to my arrival.  
 RADM watchbill muster sheet was on station ahead of time as always.  
 All reports were flowing smoothly.  
 I was spending more time than normal supervising the log-keeper, since log-keeper was new.  
 Saw pilot boat approach through Mk-38 camera.  
 Received word that pilot boat was alongside, then 1-2 minutes later, received report that pilot was on the bridge.  
 I maintained stand-off distance from the plot so as not to crowd the piloting team.  
 The piloting team was using GPS to plot fixes which is normal.  
 No gyro error that day.  
 No issue getting fixes. I watched the team plot some fixes.  
 Changed course to 284T and changed speed, possibly to 10 knots (don't recall exactly).  
 Then changed course to 281T.  
 During the course change to 281T, felt the ship vibrate and heard a noise that sounded like APUs typically sound.  
 CCS then reported via 21MC that screw was possibly "hung on something." It physically stopped the shaft from rolling.  
 I did not immediately think the ship had run aground.  
 CCS then reported loss of both engines.  
 Bridge ordered engines to be re-energized.  
 After engines were brought back online, the vibrations continued again and the bridge ordered engines stopped.  
 Bridge ordered APUs trained and tugs brought alongside.  
 The APU was what moved the ship; not the tugs.  
 The tug made up aft had heavy strain on the line. I could not see the second tug.  
 Ship backed out of harbor entrance where incident occurred then turned around once in good water.  
 CMC came down and briefed me on the new plan to attempt to enter the harbor a second time.  
 Don't recall what time ship entered inside breakwater second time, but it was less than an hour later.  
 Watched the piloting team plot approximately 2-3 times prior to incident.  
 All reports from the piloting team were that the ship was on track; none reported right or left of track.  
 Earlier in the watch, the bridge and CIC had at least one fix that did not concur.  
 I instructed the log keeper to log it.  
 At the nav brief, it was discussed that the SPS-55 would not be able to be used in short pulse and that fixes would be degraded in long pulse.  
 Mk 92 was energized, but don't believe any fixes were taken via Mk 92.  
**Article 31B rights acknowledged and signed prior to interview.**

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////  
 THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY  
 CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.  
 Subscribed to and sworn before me this date of 16FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**

[Redacted Signature]

SUSPECT'S RIGHTS ACKNOWLEDGEMENT/STATEMENT (See JAGMAN 0170)

SUSPECT'S RIGHTS AND ACKNOWLEDGEMENT/STATEMENT

FULL NAME (ACCUSED/ SUSPECT) <b>(b) (3) (B), (b) (6)</b>	SSN <b>(b) (3) (B), (b) (6)</b>	RATE/RANK <b>(b) (3) (B), (b) (6)</b>	SERVICE (BRANCH) USN
ACTIVITY/UNIT USS TAYLOR (FFG 50)		DATE OF BIRTH 7/04/1977	
NAME (INTERVIEWER) <b>(b) (3) (B), (b) (6)</b>	RATE/RANK <b>(b) (3) (B), (b) (6)</b>	SERVICE (BRANCH) USN	
ORGANIZATION COMNAVEUR-COMNAVAF-COMSIXTHFLT	BILLET Assistant Chief of Staff		
LOCATION OF INTERVIEW USS TAYLOR, in port Samsun, Turkey	TIME -2B	DATE 16 Feb 2014	

RIGHTS

I certify and acknowledge by my signature and initials set forth below that, before the interviewer requested a statement from me, the interviewer warned me that:

	Initials
(1) I am suspected of having committed the following offense(s)  Dereliction of duty;	<b>(b) (3) (B), (b) (6)</b>
(2) I have the right to remain silent;	<b>(b) (3) (B), (b) (6)</b>
(3) Any statement I do make may be used as evidence against me in trial by court-martial (or NJP);	<b>(b) (3) (B), (b) (6)</b>
(4) I have the right to consult with lawyer counsel prior to any questioning. This lawyer counsel may be a civilian lawyer retained by me at my own expense, a military lawyer appointed to act as my counsel without cost to me, or both;	<b>(b) (3) (B), (b) (6)</b>
(5) I have the right to have such retained civilian lawyer and/or appointed military lawyer present during this	<b>(b) (3) (B), (b) (6)</b>

interview; and	
(6) If I decide to answer questions now without a lawyer present, I will have the right to stop this interview at any time.	(b) (3) (B), (b) (6)

**WAIVER OF RIGHTS**

I further certify and acknowledge that I have read the above statement of my rights and fully understand them, and that,

	Initials
(1) I expressly desire to waive my right to remain silent;	(b) (3) (B), (b) (6)
(2) I expressly desire to make a statement;	(b) (3) (B), (b) (6)
(3) I expressly do not desire to consult with either a civilian lawyer retained by me or a military lawyer appointed as my counsel without cost to me prior to any questioning;	(b) (3) (B), (b) (6)
(4) I expressly do not desire to have such a lawyer present with me during this interview; and	(b) (3) (B), (b) (6)
(5) This acknowledgement and waiver of rights is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.	(b) (3) (B), (b) (6)
(6) I further understand that, even though I initially waive my rights to counsel and to remain silent, I may, during the interview, assert my right to counsel or to remain silent.	(b) (3) (B), (b) (6)

**NOTE: IF THE SUSPECT INDICATES THEY ARE WILLING TO MAKE A STATEMENT, THEY SHOULD FIRST BE ASKED WHETHER THEY HAVE MADE A STATEMENT IN RESPONSE TO QUESTIONS ABOUT THE SUSPECTED OFFENSE TO ANYONE THEY BELIEVED WAS ACTING IN A LAW ENFORCEMENT CAPACITY PRIOR TO THE PRESENT INTERVIEW. IF THE SUSPECT INDICATES THEY HAVE PREVIOUSLY MADE SUCH A STATEMENT, ADVISE THE SUSPECT AS FOLLOWS:**

**CLEANSING WARNING**

	Initials
(1) Your previous statement may not be admissible at courts-martial (or NJP) and may not be usable against you. (It may not be possible to determine whether a previous statement made by the suspect will be admissible at some future court-	

martial (or NJP); this suggests it may be wise to treat it as inadmissible and provide the cleansing warning).	
(2) Regardless of the fact that you have talked about this offense before, you still have the right to remain silent now.	
(3) (Continue with the Rights Advisement and Waiver of Rights above.)	

SIGNATURE (ACCUSED/SUSPECT) <b>(b) (3) (B), (b) (6)</b>	TIME 1610	DATE 16 FEB 14
SIGNATURE (INTERVIEWER) <b>(b) (3) (B), (b) (6)</b>	TIME 1612	DATE 16 FEB 14
SIGNATURE (WITNESS) <b>(b) (3) (B), (b) (6)</b>	TIME 1612	DATE 16 FEB 14

The statement which appears on this page (and the following \_\_\_\_\_ page(s), all of which are signed by me), is made freely and voluntarily by me, and without any promises or threats having been made to me or pressure or coercion of any kind having been used against me.

\_\_\_\_\_  
SIGNATURE (ACCUSED/SUSPECT)

\_\_\_\_\_  
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**VOLUNTARY STATEMENT**

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USN, USS TAYLOR (FFG 50), make the followingFree and voluntary statement to **(b) (3) (B), (b) (6)**,Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I was the EOOW during the sea and anchor mooring to Samsun, Turkey on 12FEB2014. Around 0724 I heard an unusual noise coming from the bottom of the ship followed by a shake. Soon after the shaft stopped abruptly and alarms on the Propulsion Control Console started to go off on lost of Power Turbine speed signals due to no movement. I notified the bridge that the shaft has stopped and that I have no casualties in the engineering plant indicating the cause. A moment past and the shaft seemed to brake free for a brief second and speeded up rapidly over 100 Shaft RPM. The bridge called down to stop the shaft and since the bridge had throttle control and were at all stop the only thing I could do was to place the engine in remote manual so I notified the bridge and I placed the engines in remote manual. At that point the shaft suddenly stopped again and I advice the bridge to shut down the engines to prevent damage to the PT turbines and MRG, because the shaft was not moving. The bridge ordered me to shutdown the engines and I manually stop 1A and 1B GTE. After a few minutes the bridge ordered me to start main engines so I started 1A GTE. After increasing the throttle 10 to 12 percent to archive shaft movement it was unsuccessful. I notified the bridge that the shaft was not rotating and I remind them that after 14 minutes of the GTE running without the Power Turbine moving it could damage the Power Turbine. The bridge ordered me to stop main engines so I manually stopped 1A GTE. After a few minutes the bridge ordered me to start main engines again so I started 1B GTE. After increasing the throttle 10 to 12 percent to archive shaft movement it was unsuccessful. I notified the bridge of the shaft still not moving. A moment later the shaft broke free and we had rotation. I notified the bridge we had rotation of the shaft and they ordered all engines back 1/3 and then all stop which I executed. Soon after that I started the second turbine 1A GTE and I notified the bridge I'm at full power and the engine room reported all conditions normal. The bridge ordered several speed commands and then they ordered for throttle control to be transfer back to the bridge. I transferred throttles to the bridge and monitored my plant. After further investigation from the watchstanders aft steering reported an unusual noise coming from the shaft. They described it as a cupping noise. I notified the bridge and we proceed to pull into port. After we moored **(b) (3) (B), (b) (6)** went topside for a visual inspection and notified me we were leaking oil from the back of the ship. I checked my sump levels and I noticed a dropped of about 30 gallons of L/O from the CPP sump. I notified the bridge of the lost of oil and monitored the level throughout the day.

**Amplifying explanation(s) during interview:**

Loud noise from beneath the ship sounded like scraping. Watchstanders were able to hear noise in CCS.

MER reported all conditions normal after shaft stopped and locked Aft steering reported "cupping noise." Not sure what aft steering

watchstanders meant by "cupping." Cupping noise could not be heard in CCS. CPP hydraulic oil tank level had been at 671 gallons for the past month, and read 646 gallons after arrived pierside. Stopped GTEs only after received permission from the bridge. Shaft stopped for 2-3 minutes.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCM)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) – CIC Watch Sup, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I was standing CIC Watch Supervisor at the time of the incident. At 0924L I was standing by the TAO console looking at the shipping traffic when I felt the ship shake, I thought it was the tug coming along side, then around 0927L I felt the ship shake again at that time I went over to the chart table to look at our plot where I saw we had just come off of constants and laid a GPS posit which had us right outside of shoal water on the Starboard side. Not knowing if we had ran aground I made sure everything that was said over the 21mc was getting into both CIC's watch log and NAV log.

**Amplifying explanation(s) during interview:**

Thought something was wrong after felt the ship shake a second time; felt like a different type of shake than when tugs come alongside – felt harder with more shaking.

Did not feel the ship lose headway.

Second fix after plot came off constants was just outside the danger depth contour line in fair water.

Don't recall whether first fix after plot came out of constants was before or after the shaking.

Did not review chart preparations because Nav/CICO took the charts to review personally prior to my having a chance.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**

[Redacted Signature]

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50) – Fantail Safety, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50).

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

On February 12 at 0700 am (local) I was standing Flight Deck Safety Observer for the line handlers during Sea and Anchor detail. My point of view of the channel was from the helicopter hangar doors aft, across the flight deck. We appeared to be entering port as normal, in the center of the channel, similar to any of the multiple sea and anchor details I have observed as a safety.

At approximately 0725-0728 I felt the ship shudder, sort of a slow and shimmy. The movement was a slight side to side motion, while taking off way. A few minutes there after, we (the ship) appeared to be drifting, or blowing from the center of the channel towards the starboard side from our perspective, nearer to the green lighthouse indicator at the mouth of the jetties.

Following the unusual shudder, while we were closing in on the quay wall, the tugs were used to pull us backwards out to sea in a reverse manner. I had no means of accurately determining distance i.e. no instrumentation, but we appeared to be in the center of the channel. Some individuals made comments about the color of the water, but the tugs were already making quite a bit of current in the area of my watch station. I could not determine if the water were any murkier, or muddier than it was before we entered the channel, nor could I determine accurately if it was TAYLOR making the current operating her astern propulsion, or the tugs doing so with their forward propulsion.

**Amplifying explanation(s) during interview:**

Deceleration was very quick, but felt very smooth; simultaneous with side-to-side motion

Did not have a laser range-finder on the fantail during the transit

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

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Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

Investigating Officer

**(b) (3) (B), (b) (6)**

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) - ATTWO (U/I), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

While standing Anti-Terrorism Tactical Watch Officer under Instruction for USS TAYLOR during sea and anchor entering port in Samsun Turkey on 12FEB2014 I was standing on the port side bridge wing when I felt a slight drag underfoot. I then noticed a slight list to the starboard side of the ship. I proceeded to the starboard side bridge wing and heard **(b) (3) (B), (b) (6)** tell the Pilot something was wrong. The CO then asked **(b) (3) (B), (b) (6)** to verify the charts to verify "exactly where we are in the channel." After it was confirmed we were dead center of the channel 120 yards from the quay wall the CO said "hook these tugs up and get me out of here, something is not right." The pilot said "No, no these waters are good these waters are good." The CO proceeded to have the tugs hook up port side forward and aft and pull us back out to sea. He then directed to man the boat deck to conduct soundings in the Channel. After soundings were complete we proceeded back into the Channel to our pier.

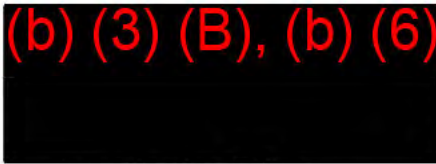
**Amplifying explanation(s) during interview:**

Did not feel like an immediate stop. Felt a little vibration like a tug would have felt like coming alongside. Also noticed a slight list to starboard that coincided with time that the ship was shaking. When ship stopped shaking, list went away.

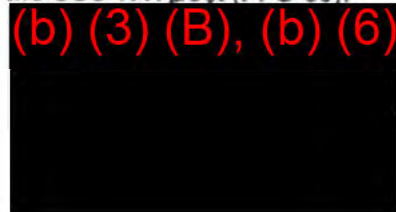
//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**  


Investigating Officer

**(b) (3) (B), (b) (6)**  


USS TAYLOR (FFG 50)

VOLUNTARY STATEMENT

N/A

I, (b) (3) (B), (b) (6), USN, USS TAYLOR (FFG 50) – Nav Brg Recorder, make the following

Free and voluntary statement to (b) (3) (B), (b) (6)

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

My observations during USS Taylor sea and anchor detail inbound Samsun, Turkey. The sea and anchor detail was stationed at 0615 12Feb14. The navigation team was manned and ready as usual and was conducting business as usual. Upon commencing our turn at the break water, everything seemed normal, fathometer repeater over the chart table concurred with charted depth, visuals were cutting resulting in composite fixes and we shifted to constants and started to conduct count down to make the turn. And when the visual cut, we obtained composite fixes. Upon doing our usual count down, as the Nav recorder, I felt a little bang and a very short vibration. I observed the chart to confirm our location. As I looked at the chart, we appeared to be in safe water. I assumed that due to the tug being in the process of connecting, we might have been bump by one of the tugs. Based on the fact that we were in good water and didn't know what had happened, so I recommended to the navigator to shift to one minute fixes. We immediately shifted to one minute fixes. The ships position was reconfirmed by the Nav plotter. And it held us within safe water. QMCS also took the plot and confirmed the ship's position and we remained in one minute fixes for almost the entire time. The tugs were connected and started to maneuver away from that area. The fathometer repeater loss tracking after the vibration took place and later regained tracking when we recommenced our approach. After the ship was away from the area where we experienced the vibration, the boat deck was manned and the Rhib was putted in the water to conduct soundings of the area. After the soundings were completed, we recommenced our approach inbound and avoided the area of where the vibration occurred by going a little south and moored safely.

Amplifying explanation(s) during interview:

QMCS took the plot for a couple fixes to confirm ship's position after shortly after the shaking/bump, then turned the plot back over to QM3.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

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Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

Investigating Officer

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USN, USS TAYLOR (FFG 50) - FANTAIL POIC, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

On 12FEB14 during Sea and Anchor detail I was the fantail POIC. The ship was in the channel about 120 yards from the starboard side jetties and the fantail had just made a report to the bridge about the stern passing the green and white marker on the starboard side when forward movement stopped. CMC asked me from the O-2 level to check the color of the water behind the stern. I reported to him that the color of the water was blue green. The bridge then ordered the fantail to make up the aft tug through the center stern chock. The tug then pulled the ship aft out of the channel past the end of the jetties. After the tug cast off I was asked by the CMC if I saw anything in the water. The water was filled with prop wash from the tug but nothing else was evident. After some time the ship made a second approach with out incident and was moored port side to the pier.

**Amplifying explanation(s) during interview:**

Estimated visually that ship was 120 yards from the starboard side jetty.

When CMC asked me to check the color of the water astern of the ship. I noticed no sediment or sheen in the water

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

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Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 8:50 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** RE: Follow-up Questions

(b) (3) (B), (b) (6)

IRT your questions:

1. Upon receiving a report of an "unusual sound" coming from Aft Steering. I asked (b) (3) (B), (b) (6) (my Top Snipe) to go back and take a listen to see if he heard the same sound and concurred that it was indeed "strange." He returned and reported hearing the "unusual sound."

I do not recall exactly when I reported the "strange sound" to the XO over the phone, but I know it was before we moored.

2. IRT the 2190 Lube Oil Spill, the clean-up is ongoing because of the 2190 contained inside of the hub and the following is my best recollection:

- A boom was pre-arranged for our arrival in Samsun on 12 February as we were scheduled to take on nearly 95,000 gallons of F-76 (Fuel). The port brought and hooked the boom up shortly after our arrival. As soon as it was determined that Navy Divers were going to assess the propeller damage, a new oil boom was directed to be delivered by the Commanding Officer since the refueling boom was removed.

- Initially (12 FEB), we calculated (and reported) a loss rate of 3-4 gallons per hour but during the 0200-0700 watch on 13 FEB we observed an increase in the loss rate and revised our reported leakage rate to reflect 6-8 gallons per hour. Upon conferring with CDS-14's N4 Shop

(Mayport) on 13 FEB, we isolated the CPP Head Tank and Sump and they have not leaked since.

- The initial report in our SITREP was a loss 200 gallons based on leakage rate. Once the CPP System was isolated and secured and LOQM logs were thoroughly reviewed, a total of approximately 322 gallons of 2190 Lube Oil have been "lost" since 12 FEB. A closeout SITREP has not been sent because the leak from the 4D blade has not stopped. The leak is contained inside the oil boom and monitored by ship's force and inner boom cleanup efforts are coordinated between S/F and host nation port authority on a daily basis.

- The Shaft, Hub, Head Tank and Sump associated with the CPP System contain (approximately) 2,000 gallons of 2190 Lube Oil.

- The shaft can only be drained by using a purge valve located on the hub assembly and we believe it is still intact and secure as we have not detected any water intrusion up stream.

- The blade removal and hub assessment are ongoing with divers in the water. The hub will continue to leak as there is no way to completely isolate the oil contained in the hub. The 4D blade, which is the only one with a 2190 oil leak, has been removed and has been rotated into the

6 o'clock position to reduce any further 2190 leakage until a temporary port cover can be installed.

- S/F began clean-up efforts immediately and utilized every absorbent resource contained in our "Spill-Kit" and the others available onboard shortly after our arrival. Upon exhausting all of our on-hand resources we requisitioned more through Supply and our Husbanding Agent (H/A).

When those arrived, S/F put them out onto the surface of the water. S/F was instructed by the H/A to cease all clean-up efforts on the 15th but has continued to assist host nation port authority on a daily basis.

- Clean-up efforts are ongoing and will continue until diving operations are complete. Once the oil leak is stopped, repairs and testing complete, a closeout SITREP will be sent.

Please let me know if you require anything any further.

V/R

(b) (3) (B), (b) (6)  
Chief Engineer  
SWO  
USS TAYLOR (FFG 50)

-----Original Message-----

From: (b) (3) (B), (b) (6)  
Sent: Monday, February 24, 2014 12:07 PM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: Follow-up Questions

(b) (3) (B), (b) (6)

I am a JAG at C6F helping (b) (3) (B), (b) (6) and (b) (3) (B), (b) (6) with the TAYLOR investigation. (b) (3) (B), (b) (6) asked me to send you some follow-up questions we had on two subjects:

1. In your statement, you said (b) (3) (B), (b) (6) reported a strange sound coming from under Aft Steering. You said you reported this to the XO. Do you remember when you reported it? If you do not know the exact time, can you give me the general time relative to the incident or mooring?

2. Can you give me a synopsis of the hydraulic oil spill and cleanup? I know the ship sent an OPREP-3, but it was incorrectly marked CONFIDENTIAL. Specifically, can you tell me, how much oil, was it contained by a boom, who set up the boom, when did the leak stop, who cleaned it up, when was it cleaned up, and when was the entire evolution complete?

Thanks.

V/r (b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)  
Assistant Force Judge Advocate  
International and Environmental Law  
U.S. Naval Forces Europe - U.S. SIXTH Fleet U.S. Naval Forces Africa - Task Force SIX  
DSN: (314) 626-4607  
Comm: 011-39-081-568-4607

All personally identifiable information in this email and attachments is FOR OFFICIAL USE ONLY -- PRIVACY SENSITIVE. Any misuse or unauthorized disclosure can result in both civil and criminal penalties.

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCM)

N/A

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50) - *Piloting Officer*, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

The events of 12FEB14 during USS Taylor sea and anchor detail for pulling into Samsun, TU. During the evolution I was Piloting Officer Under Instruction with **(b) (3) (B), (b) (6)** overseeing my actions. En route to the pilot pick up the bridge and CIC were intermittent with concurring with each other. **(b) (3) (B), (b) (6)** went to the chart table in CIC and checked our track on the chart. Before picking up the Pilot, the bridge and CIC began concurring with their fixes. We were either right of track or on track. Making our way in we shifted to constant fixes along the track. Loss of engines was reported. Immediately following that report I had Navigation Plotter plot a GPS fix. It showed us outside of shoal water. Our next fix was at 0526Z and that fix had us in shoal water. We shifted to one minute fixes for several fixes and those fixes had in shoal water. Once Taylor was pulled out of shoal water by tugs, we made our way out of the harbor. Trace paper was placed on the chart over the area of shoal water so that none of the markings on the chart would be disturbed. **(b) (3) (B), (b) (6)** came over to the chart table with a new track for our second approach. The second approach was successful.

**Amplifying explanation(s) during interview:**

Fixes plotted right of track after bridge and CIC fixes began concurring were 80-100 yds right of track. I performed most of the duties of Piloting Officer with **(b) (3) (B), (b) (6)** supervising as the qualified watchstander. CIC piloting team erased zero plotted fixes from the chart after the incident occurred.

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

Investigating Officer

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**VOLUNTARY STATEMENT**

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50) – Shipping, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I **(b) (3) (B), (b) (6)** was the Shipping Officer for the approach to Samsun. As we approach the break water I was talking to the bridge phone talker about contact information. When I felt the ship shaking I asked the bridge phone talker what was going on and he replied that we stopped in the middle of the break water. I asked where the tugs where at that time and recommended getting a tug on the starboard bow to make sure that the ship didn't hit the rock wall right off the bow. I then got report that tugs where going to try and pull us back down our track from which we came. After we were free we then proceeded to go out and turn around and try the approach again.

**Amplifying explanation(s) during interview:**

I reported all vessels around the area of the turn to the 288T leg  
Vessels in the way of making the turn to the 288T leg were at anchor  
Experienced no impact to contact management due to SPS 55 degradation  
SPS 55 has not been able to go into short pulse for 4-5 days  
I personally raised the subject of the SPS 55 short pulse degradation at the Nav Brief; decision was made to keep the radar in local and switch to remote for the inbound nav transit. All agreed to keep in long pulse throughout transit.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

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Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

USS TAYLOR (FFG 50)

**VOLUNTARY STATEMENT**

N/A

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50) - NAV SCOPE OPERATOR, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

I was Nav Scope Operator for Sea & Anchor. I was unable to get radar fixes due to the condition of the SPS 55 radar. This limited me to long pulse on the SPS 55 so we switched to the MK92 radar which wasn't any better to navigate. But from what I observed everything was going fine on the approach to the turn. Then we shifted to Constance off of Longitude and we seemed to be on course to make the turn then the ship started to shudder and shift.

**Amplifying explanation(s) during interview:**

Unable to use SPS 55 for radar fixes because being in long pulse, close to the harbor resulted in double radar video of objects (piers, etc)

Was able to take composite (radar/GPS) fixes until approximately 2-5 NM from the harbor entrance

Was not aware of short-pulse degradation during the Nav Brief. Only became aware shortly before Sea and Anchor detail was manned on 12 Feb. Informed plotter and Piloting Officer that ship would be able to take radar fixes as soon as degradation became known

Instructed by general direction not to use Furuno Radar for navigation

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

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Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**

[Redacted Signature]

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50), make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

The events of 12Feb14. **(b) (3) (B), (b) (6)** was the Piloting Officer.

Before on the approach to Samsun about 3 to 4 miles out, the bridge and CIC was not concurring. Then we made some adjustment and the bridge and CIC was concurring on fixes 2 to 3 miles out. Now after that we were coming up on a turn and the fix before we concurred. Afterwards we shifted to constants. Granted when you our on constants you are constantly mark longitude as per the Navdorm so we didn't have a fix other than the one we concurred on before and we were slightly right of track. So then came the shaking of the ship, then the tug bumped into us. After that we backed out and sent our RHIB in to do soundings.

**Amplifying info at interview:**

"Adjustments" when bridge and CIC fixes were not concurring, consisted of verifying GPS data was accurately plotted. Last fix prior to shifting to constants was just prior to 1000 yards to turn mark on chart. Fix was 10-20 yards right of track. No recommendation based on this fix because bridge already ordered course change to port. I have been onboard 5 years. Reported set and drift one or two times. Had room (safe water) to be off track by 80-100 yards to either side of the track

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////  
THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.  
Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

Investigating Officer

**(b) (3) (B), (b) (6)**  
[Redacted Signature]

**VOLUNTARY STATEMENT**

I, **(b) (3) (B), (b) (6)** USS TAYLOR (FFG 50) – CIC Nav Log Keeper, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

**(b) (3) (B), (b) (6)** was cic nav log keeper for the approach to Samsun TU. During our approach to Samsun TU, cic and bridge were not concurring on a few fixes several miles out from the pilot pick up point. After several fixes not concurring cic and bridge made a few adjustments together, and started to concur on fixes leading up to the pilot pick up point. En route to pilot pick up point at fix time 0515z/0715 local, ordered course was 290t, with approximately 6 kts rung up. At fix time 0518z/0718 local, course was ordered to 288t and shortly after that ordered to 284t during the same fix time with 6kts still rung up, en route to pilot pick up. At time 0520z/0720 local, pilot was logged aboard Taylor. Shortly after pilot was aboard, at fix time 0521z/0721 local, cic and bridge shifted to Constance, and I logged the position as we shifted to Constance. During Constance, cic was calling out longitude, to determine the distance till the turn. At time 0524z/0724 local course was ordered to 281t. at this same time the ship shook roughly, as I logged another position at the same fix time the course change occurred and the ship shook. The loss of both engines was reported within seconds of the ship shaking, and engines were taken off line. After the fix was plotted on the chart cic held Taylor right of track slightly. At time 0526z/0726 local, another fix was logged, after fix was plotted on chart, cic held us at that time in shoal water. After this fix time, lost tracking on the fathometer was logged. Cic continued to hold Taylor in shoal water for several fixes after the 0526z/0726 local fix time. Tracking was regained on the fathometer after taylor was able to back out of shoal water. Once free from the shoal water taylor navigated away from the harbor, while the rhib was sent to do soundings for depths to determine safe navigation. After the rhib started the soundings, Taylor turned around and started the approach a second time.

**Amplifying explanation(s) during interview:**

I do not know what adjustments were made to resolve bridge and CIC non-concurring on fixes earlier in the transit. Felt ship shaking at the same time I was logging course change to 281T

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

Investigating Officer

**(b) (3) (B), (b) (6)**

USS TAYLOR (FFG 50)

VOLUNTARY STATEMENT

N/A

I, (b) (3) (B), (b) (6), USN, USS TAYLOR (FFG 50) – CIC Nav Plotter, make the following

Free and voluntary statement to (b) (3) (B), (b) (6),

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

The events that happened on 12FEB2014 I was standing NAV PLOTTER, and we made our approach to the break water and we were in state of taking consistent fixes. I took a fix at 0524z and held us roughly 10 yards right of track. Moments later they past lost power to both engines and we started to shake. Immediately took another fix at 0526z and held us just on the 12.1 meter depth sounding just south of the 10-meter curve on the right side of the track and then took another fix after that held us 10 yards inside of shoal water. At this point I was consistently dropping one fix right after another and continued to hold us in the same spot. They had said in combat that the tugs were attempting to pull us out in which they did and we continued on taking fixes every min after until we moored up. No other problems from my account after we were pulled away from shoal water.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

(b) (3) (B), (b) (6)

Investigating Officer

(b) (3) (B), (b) (6)

# VOLUNTARY STATEMENT

1. PLACE

USS TAYLOR (FFG 50)

2. CASE CONTROL NUMBER (CCN)

N/A

I, **(b) (3) (B), (b) (6)**, USN, USS TAYLOR (FFG 50) – Nav Plotter, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)**

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50)

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

It was a very normal sea and anchor detail, everyone was manned and ready. The JOOD was following the checklist, RMD was set. As we commenced our approach into Samsun. I was plotting and once we had shifted to the harbor chart we had three excellent composite fixes off of V-1, which was also our turn bearing on our first leg in. Every line of position was cutting once we were about eleven hundred yards away from our turn we switched to constants on V-1. Once we marked our turn we felt a lot of movement under the ship and our shaft quit rolling. The Navigation team and CIC then shifted to 1 minute fixes due to how much we were getting set prior. Our first fix after the incident still had us roughly one hundred and twenty five yards from shoal to the starboard side. I then asked **(b) (3) (B), (b) (6)** to check the fix recorded in the bearing book with what I had plotted on the chart, he concurred with what I had. We slowly started to drift to the north of our track closing the shoal water, and the Navigator continuously gave ranges to shoalwater, once our shaft began rolling again we backed down. The CO told the pilot he wanted to lower the RHIB and go take soundings of the breakwater and where the ship had began to vibrate and shake. Even though the fathometer at the time of all the movement and shaft stopping had us in 27 feet of water beneath the keel. After, we got a safe distance away and the RHIB was conducting soundings we slowed down and lowered APU's. The Navigator then had us put a track on the chart to hug the south end of the breakwater, knowing that the water was safe because the RHIB had just conducted soundings, most of which ranged from 68 to 73 feet. We commenced our second approach in at roughly the same speed as before our 4 knots over ground with tugs and APU's. The RHIB was roughly 150 to 200 yards away continuously conducting soundings. The Navigation teams did not shift from 1 minute fixes until we were moored. Our fathometer lost tracking on a dozen occasions because of how rough the tugs pushed the ship. I have been the detailed navigation plotter for almost 2 years and there was never a time that I thought anyone was doing anything that was unsafe towards the ship and navigation.

**Amplifying explanation(s) during interview:**

Marked the turn simultaneous to shaking/vibrations starting  
Navigator announced "Navigation marks the turn; next course..." simultaneous to vibrations/shaking starting  
New track laid down for second inbound approach toward harbor was laid down on acetate (tracing paper)  
Plotted the 0721fix just prior to switching to constant bearings on V1  
Next fix plotted was at 0725 at the direction of Navigator after shaking/vibrations started  
Set and drift should be recorded in the deck log (not the bearing book) once every third fix for DRs less than 1500yds  
I calculated set and drift 15-20 times over the course of sea and anchor detail, both before and after the shaking/vibrations.  
Set/drift remained approx 260T / 2kts throughout transit  
Immediately after making turn to 288T leg, fix had ship left of track by approx 150 yards.  
The 0721 fix had the ship 50-75 yards right of track.  
Once pilot came onto the bridge, he recommended coming right, and recommend using white building/tower on the other side of the harbor as a range.

//////////////////////////////////////END OF STATEMENT//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**

Investigating Officer

**(b) (3) (B), (b) (6)**

**VOLUNTARY STATEMENT**

I, **(b) (3) (B), (b) (6)**, USS TAYLOR (FFG 50) \_\_\_\_\_, make the following

Free and voluntary statement to **(b) (3) (B), (b) (6)** \_\_\_\_\_,

Whom I know to be INVESTIGATING OFFICER, USS TAYLOR (FFG 50) \_\_\_\_\_.

I make this statement of my own free will and without any threats or promises extended to me. I fully understand that this statement is given concerning my knowledge of:

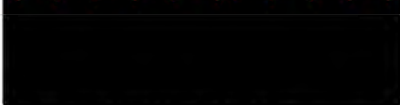
Everything happened very fast so I don't remember much. But what I do remember is feeling a sudden jolt and vibration. Looking to the side and noticing that we were not moving anymore and seconds later feeling and seeing the ship rapidly shake back and forth. After that we made up forward tug and it pulled us back and we circled back around.

//////////////////////////////////////**END OF STATEMENT**//////////////////////////////////////

THE ABOVE STATEMENT CONSISTS OF 01 PAGE. I HAVE BEEN GIVEN THE OPPORTUNITY TO MAKE ANY CHANGES I DESIRE. THIS STATEMENT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

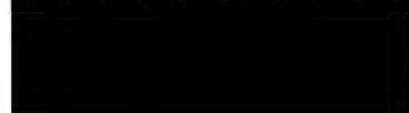
Subscribed to and sworn before me this date of 14FEB14 on board the USS TAYLOR (FFG-50).

**(b) (3) (B), (b) (6)**



Investigating Officer

**(b) (3) (B), (b) (6)**



*FORWARD LOOKOUT.*

# UNDERWAY WATCH BILL

## SEA AND ANCHOR

### SAMSUN, TURKEY

10 Feb 2014

EFFECTIVE 12 FEB 2014 THRU 12 FEB 2014

UIC: 21231

WATCH STATION	SECTION	RANK RATE	NAME	BRANCH	QUAL	PRD
OFFICER OF THE DECK	1	(b) (3) (B), (b) (6)		USN	Q	Apr 2015
JUNIOR OOD	1			USN	Q	Mar 2015
CONNING OFFICER	1			USN	Q	Jan 2015
STT	1			USN	Q	Apr 2015
ATTWO	1			USN	Q	Nov 2014
	1			USN	U/I	Jan 2015
	2			USN	Q	Aug 2014
RADAR/TACON	1			USN	Q	Oct 2016
HELM SAFETY	1			USN	Q	Oct 2015
MASTER HELMSMAN	1			USN	Q	Sep 2014
BMOW	1			USN	Q	Nov 2014
1JV PHONE TALKER	1			USN	Q	Feb 2016
1JS PHONE TALKER	1			USN	Q	Nov 2016
BRIDGE LOGKEEPER	1			USN	Q	Oct 2015
STATUS BOARD	1			USN	Q	Dec 2015
NAV EVALUATOR	1			USN	Q	Nov 2015
SENIOR QM	1			USN	Q	Sep 2015
NAV PLOTTER	1			USN	Q	Dec 2015
NAV RECORDER	1			USN	Q	Apr 2016
BEARING TAKER PORT	1			USN	Q	May 2017
BEARING TAKER STBD	1			USN	Q	Feb 2018
APU STATUS BOARD	1			USN	Q	May 2015
FATHOMETER	1			USN	Q	Apr 2017
LOOKOUT (FORWARD)	1			USN	Q	Apr 2015
LOOKOUT (AFT)	1			USN	Q	Mar 2017
TAO	1			USN	Q	Apr 2015
CIC WATCH OFFICER	1			USN	Q	Mar 2015
SDT	1			USN	Q	Feb 2017
CIC WATCH/TRACK SUP	1			USN	Q	Oct 2017
PILOTING OFFICER	1			USN	Q	May 2014
SHIPPING OFFICER	1			USN	Q	May 2015
CIC NAV PLOT/NAV LOG	1			USN	Q	May 2016
NAV RADAR OPERATOR	1	USN	Q	May 2016		
NAVLOG KEEPER	1	USN	Q	Jul 2017		
GCCS-M OPERATOR	1	USN	Q	Jan 2015		
WCC	1	USN	Q	Jun 2016		
SCAT MK38 ROC	1	USN	Q	Feb 2015		
CSOOW	1	USN	Q	Feb 2017		
AAT	1	USN	Q	Apr 2015		
VIDEO/BRIDGE AAT	OC	USN	Q	Jan 2016		
RADIO WATCH OFFICER	1	USN	Q	Jan 2015		
NAVMACS OPERATOR	1	USN	Q	Sep 2014		
MIDSHIP SAFETY	1	USN	Q	Dec 2014		
MIDSHIPS PHONETALKER	1	USN	Q	Dec 2014		
MIDSHIP LINE POIC	1	USN	Q	Feb 2015		
MIDSHIPS LN HNDLR	1	USN	Q	Mar 2015		
	1	USN	Q	Oct 2017		
	1	USN	Q	Nov 2017		
CORPSMAN	1	USN	Q	Mar 2016		

Legend: Q = PQS Qualified; I = Interim Qualified; U/I = Under Instruction/PQS Assigned; N/Q = Not Qualified/Not Assigned

**UNDERWAY WATCH BILL**  
**SEA AND ANCHOR**  
**SAMSUN, TURKEY**  
EFFECTIVE 12 FEB 2014 THRU 12 FEB 2014

10 Feb 2014

UIC: 21231

WATCH STATION	SECTION	RANK RATE	NAME	BRANCH	QUAL	PRD
CORPSMAN	1	(b) (3) (B), (b) (6)		USN	Q	May 2015
PILOT ESCORT	1			USN	Q	Jul 2015
QD OOD	1			USN	Q	Sep 2015
QD POOW	1			USN	Q	Apr 2014
SNOOPIE TEAM	OC			USN	Q	Nov 2014
	OC			USN	U/I	Oct 2016
FOC'SLE SAFETY	1			USN	Q	Oct 2015
FOC'SLE ANCHOR/POIC	1			USN	Q	Aug 2018
FOC'SLE PHONE TALKER	1			USN	Q	Mar 2015
CAPSTAN OPERATOR	1			USN	Q	Jul 2018
BRAKEMAN	1			USN	Q	Mar 2015
PIN AND MAUL	1			USN	Q	Oct 2014
LINE 1 POIC	1			USN	Q	Sep 2016
LINE 1 HANDLERS	1			USN	Q	Mar 2016
	1			USN	Q	Nov 2015
	1			USN	Q	Mar 2015
LINE 2 POIC	1			USN	Q	Aug 2016
LINE 2 HANDLERS	1			USN	Q	Feb 2015
	1			USN	Q	Jan 2015
	1			USN	Q	Jan 2015
	1			USN	Q	Feb 2015
LINE 3 POIC	1			USN	Q	Oct 2018
LINE 3 HANDLERS	1			USN	Q	Jun 2015
	1			USN	Q	May 2015
	1			USN	Q	Jun 2015
FANTAIL SAFETY	1			USN	Q	Mar 2016
FANTAIL POIC	1			USN	Q	Jan 2015
AFT CAPSTAN OPERATOR	1			USN	Q	Nov 2014
FANTAIL PHONETALKER	1			USN	Q	Apr 2016
LINE 4 POIC	1			USN	Q	Sep 2015
LINE 4 HANDLERS	1			USN	Q	Oct 2015
	1			USN	U/I	Mar 2017
	1			USN	Q	Sep 2015
	1			USN	U/I	Feb 2017
LINE 5 POIC	1			USN	Q	Jan 2015
LINE 5 HANDLERS	1			USN	Q	Oct 2016
	1			USN	U/I	Mar 2017
	1			USN	Q	Nov 2016
LINE 6 POIC	1			USN	Q	May 2017
LINE 6 HANDLERS	1			USN	U/I	May 2015
	1	USN	Q	Apr 2016		
	1	USN	Q	Apr 2015		
BOAT OFFICER	1	USN	Q	Mar 2015		
COXSWAIN	1	USN	Q	Aug 2016		
BOAT ENGINEER	1	USN	Q	Aug 2016		
SAR SWIMMER	1	USN	Q	Mar 2017		
BOAT DAVIT OPERATOR	1	USN	Q	Dec 2014		
SEA PAINTER	1	USN	Q	Mar 2015		
LIZARD LINE	1	USN	Q	Apr 2015		

Legend: Q = PQS Qualified; I = Interim Qualified; U/I = Under Instruction/PQS Assigned; N/Q = Not Qualified/Not Assigned

# UNDERWAY WATCH BILL

## SEA AND ANCHOR

### SAMSUN, TURKEY

10 Feb 2014

EFFECTIVE 12 FEB 2014 THRU 12 FEB 2014

UIC: 21231

WATCH STATION	SECTION	RANK RATE	NAME	BRANCH	QUAL	PRD
RHIB LINE HANDLERS	OC	(b) (3) (B), (b) (6)		USN	Q	Mar 2015
	OC			USN	Q	Jun 2015
	OC			USN	Q	Mar 2015
PLANT CONTROL	1			USN	Q	Apr 2014
EOOW	1			USN	U/I	Sep 2014
	1			USN	U/I	Nov 2014
	1			USN	Q	Sep 2014
ELECT PLNT CTRL CONS	1			USN	Q	Jun 2016
SOUNDING SECURITY	1			USN	Q	Aug 2016
ANCHOR WINDLASS ENG	1			USN	Q	May 2017
ANCHOR WINDLASS ELEC	1			USN	Q	Jul 2015
APU ROOM OPERATOR	1			USN	Q	Jul 2015
1 SWITCHBOARD	1			USN	Q	Feb 2016
AMR 1 ASM	1			USN	Q	Aug 2016
2/3 SWITCHBOARD	1			USN	Q	May 2016
AMR 2 UPPER LEVEL	1			USN	Q	Sep 2015
	1			USN	Q	May 2016
AMR 2 LOWER LEVEL/OK	1			USN	Q	Oct 2015
PSM/LOP	1			USN	Q	Jan 2017
OD BOX	1			USN	Q	Jul 2016
AMR 3 ASM	1			USN	Q	Jul 2016
AFT STRG ELECTRICIAN	1			USN	Q	Jun 2015
AFT STRNG ENGINEMAN	1			USN	Q	Jun 2015
AFT STRG HELMSMAN	1			USN	Q	Jun 2014
AFT STRG SAFETY OFF	1			USN	Q	Dec 2014
PHONE TALKER CCS	1			USN	Q	May 2018
FIRE MARSHALL	1			USN	Q	Apr 2015
RAPID RESPONSE	OC			USN	Q	Aug 2016
	OC			USN	Q	Nov 2016
ON SCENE LEADER	1			USN	Q	Feb 2017
TEAM LEADER	OC			USN	Q	Feb 2016
REPAIR ELECTRICIAN	1			USN	Q	Feb 2015
INVESTIGATOR	OC			USN	Q	Jan 2015
	OC			USN	Q	Mar 2015
NOZZLEMAN	1	USN	Q	Jul 2014		
HOSE TEAM MEMBER	1	USN	Q	Apr 2018		
	1	USN	Q	Nov 2017		
AFFF STATION OPERATO	1	USN	Q	Apr 2015		
ARMORER	1	USN	Q	Oct 2014		
LRAD OPERATOR PORT	1	USN	Q	Oct 2016		
LRAD OPERATOR STBD	1	USN	Q	Mar 2015		
SCAT MT 51	1	USN	Q	Jul 2014		
SCAT MT 52	1	USN	Q	Jan 2017		
SCAT MT 65	1	USN	Q	Jan 2017		
SCAT MT 66	1	USN	Q	Apr 2015		
SCAT MT 67	1	USN	Q	Apr 2016		
SCAT 02 LVL M203 GUN	1	USN	Q	Jan 2016		
	1	USN	Q	Oct 2016		
AMMO RUNNER	1	USN	Q	Mar 2015		

07

Legend: Q = PQS Qualified; I = Interim Qualified; U/I = Under Instruction/PQS Assigned; N/Q = Not Qualified/Not Assigned

**UNDERWAY WATCH BILL**  
**SEA AND ANCHOR**  
**SAMSUN, TURKEY**  
EFFECTIVE 12 FEB 2014 THRU 12 FEB 2014

10 Feb 2014

UIC: 21231

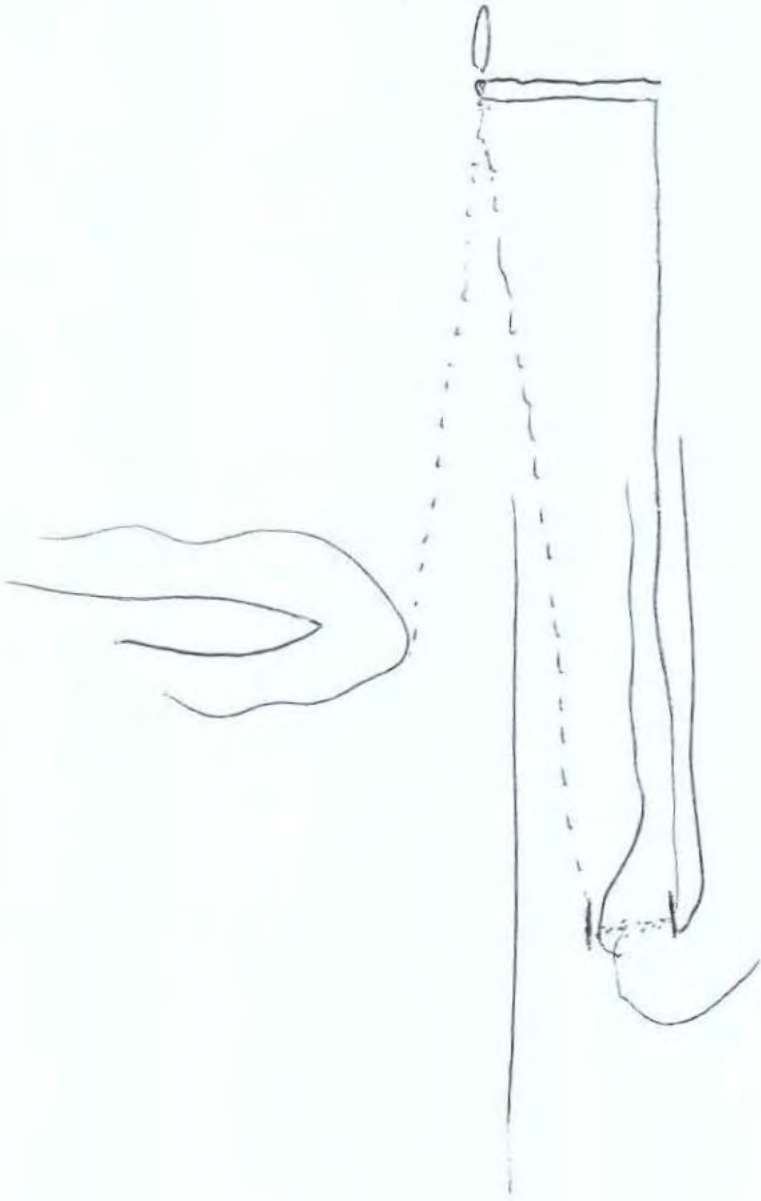
WATCH STATION	SECTION	RANK RATE	NAME	BRANCH	QUAL	PRD
FOCSLE LINE GUNNER	1		(b) (3) (B), (b) (6)	USN	Q	Aug 2016
FANTAIL LINE GUNNER	1		(b) (3) (B), (b) (6)	USN	Q	Jul 2015

Additional Instructions:

- [REDACTED] and [REDACTED] will alternate Inbound/Outbound as ATTWO.
- [REDACTED] and [REDACTED] will alternate Inbound/Outbound as EOOW (U/I).

Submitted By:  
Reviewed By:  
Approved By:

(b) (3) (B), (b) (6)



Summary of Interview

(b) (3) (B), (b) (6) (Executive Officer)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey. Prior to commencing the interview, I reminded him of his Article 31b rights previously read to him in his earlier interview. He stated he understood his rights and agreed to continue the interview.

I asked him if the Furuno RADAR or NAVSSI operators called out distances to the right or left of track during the ship's transit. He said he recalled the ranges being called from the Navigator's report. He said the last one he remembered was 25 yards right of track. He said that report was at least 3 minutes prior to the grounding. He said another report could have happened before the grounding but he did not hear it. He said ranges from the Furuno were called out, but only ranges to the NAVAIDs, not distance from track.

I asked him if the CHENG or Plant Control Officer was present during the meeting held by the CO prior to reentering the port area. He said the meeting was between CO, XO, CMC, ANAV, NAV, and OOD and did not include CHENG or the Plant Control Officer. He said it occurred on the starboard bridge wing. He said that the CHENG and PCO were assessing the plant at the time. He said that therefore, they were remote and not accessible for the meeting. He said that they were not tracking any issues or damages to the engineering plant. He said the throttle was tested and the shafted was responding appropriately, so the CO had all the reports. He said the CHENG reported an unusual from the shaft just prior to approaching pierside. He said he told the CO of the noise just after mooring.

I asked him why there were no Department Heads on the Bridge watchbill. He said the ship normally has a second tour division

officer assigned to be the OOD during special evolutions, in this case the DCA. He also said the ship normally has a department head roam the ship to watch all matters, in this case it was the Operations Officer. He said this roaming position was not officially on the watchbill. He said the TAO for special evolutions was normally a department head, in this case the CSO.

I asked him who created and approved the second track into the port area. He said the CO approved the second track, but he does not recall who put the track on the chart. He said he was not 100% sure the charts were reliable or whether the ship had fouled the shaft.

I asked him how far he thought the original track was from shoal water to the north. He said 75-100 yards. He does not recall that being briefed, but remembers it based on his chart review. He does remember the width of the channel being briefed as 200 yards.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. He said this was normal and that they had practices and operated that way. He said in hindsight, the ship should started taking constant bearings at less than 1000 yards. When asked about the requirements, he stated that plotting a fix every 3 minutes was required.

Summary of Interview

(b) (3) (B), (b) (6) (Officer of the Deck)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey. Prior to commencing the interview, I reminded him of his Article 31b rights previously read to him in his earlier interview. He stated he understood his rights and agreed to continue the interview.

I asked him if the Furuno RADAR or NAVSSI operators called out distances to the right or left of track during the ship's transit. He said they did not, but that the Navigator made it a part of her reports. He said he did not know from where she got her information. He said the Furuno operator was calling out speed over ground but not course over ground.

I asked him if the CHENG or Plant Control Officer was present during the meeting held by the CO prior to reentering the port area. He said the CO, NAV, ANV, OOD, and Conning Officer got together, but the CHENG and PCO were not there. He said the meeting was just a quick grouping of key navigational personnel to see if everyone felt comfortable making a second attempt to enter the harbor. He said it was a "shoot from the hip meeting" to come up with a quick plan everyone felt comfortable with. He said there were no indications of an engineering casualty at that time, which is why CHENG or the Plant Control Officer were not called. He said he did not believe there had been an engineering casualty.

I asked him who created and approved the second track into the port area. He said he assumed it was the navigator, but did not have eyes on the actual chart when it was written down. He does recall that the RHIB found deeper soundings to the south of the original track, which is why the new track went to the south.

I asked him how far he thought the original track was from shoal water to the north. He said he thought the distance was a couple hundred feet. He said he did not recall that number briefed, but he remembers looking himself at the chart. He said there was no specific limit briefed on how far from track (or how close to shoal water) would be allowed, and he said he did not have such a specific limit in mind during the transit.

Summary of Interview

(b) (3) (B), (b) (6) (Navigator)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey. Prior to commencing the interview, I reminded her of her Article 31b rights previously read to her in her earlier interview. She stated she understood her rights and agreed to continue the interview.

I asked her if set and drift was being logged. She did not recall whether it was being logged. But she said it was required to be logged. She said she repeated set and drift in her Nav reports. She said (b) (3) (B), (b) (6) was assigned to record information in the deck log because the ship did not have enough QMs to man that watch. She said it was possible the Yeoman did not hear the report, or did not realized he was required to log the reports.

I asked her if the Furuno RADAR or NAVSSI operators called out distances to the right or left of track during the ship's transit. She said neither operator called out distances. She said her report of distances was based on fix positions concurred on by the Bridge and CIC. She said the NAVSSI operator was not using the cursor to determine the exact distance of the ship from the track.

I asked her if the CHENG or Plant Control Officer was present during the meeting held by the CO prior to reentering the port area. She said CHENG was not present because he could not leave Central Control Station (CCS).

I asked her who created and approved the second track into the port area. She said that she proposed the new track and the CO approved it.

I asked her why no visual fixes were plotted. She said the NAVDORM requirement was that every third fix must come from a different fix source. Thus, she said it was not required to take visual fixes because the ship was taking composite fixes. She said the composite fixes were excellent and the position of the ship was never in doubt.

I asked him how far she thought the original track was from shoal water to the north. She said 100 yards. She said she measured this from the track when she was reviewing the charts during chart preparation.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. She said the ship does not normally take fixes after entering "constants." She said that this was common practice and instructed to her. She said she learned this at the Surface Nav course in Newport.

I asked her when she took over as Navigator. She said she attended the school in October 2013 and assumed duties as Navigator in November.

Summary of Interview

(b) (3) (B), (b) (6) (CICWO)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey. Prior to commencing the interview, I reminded him of his Article 31b rights previously read to him in his earlier interview. He stated he understood his rights and agreed to continue the interview.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. CIC was still taking GPS fixes during "constants" based on good practice. He was not sure if the plotter actually plotted the fixes as he could not see. At first he was unsure of the rule, but then he said he thought taking fixes was not required. He then said that fixes were required to be taken every three minutes.

Summary of Interview

(b) (3) (B), (b) (6) (CICWO)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. He said that after starting "constants" they stopped plotting fixes. He said they have always done it that way. He said he was taught to do it that way in the RAD NAV course in Mayport. He said he honestly did not know the requirement.

Summary of Interview

(b) (3) (B), (b) (6) (CIC Piloting Officer)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. He said that they were taught in RAD NAV to just mark "constants" at 1000 yards. He said the RAD NAV course was taught by the Center for Surface Combat Systems (CSCS) in Mayport. He said he went in January or February 2013. He said he did not know the NAVDORM requirement.

Summary of Interview

(b) (3) (B), (b) (6) (CIC Plotter)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. He said he was still plotting fixes, but was in the process of also taking "constants." He said was plotting GPS longitudes because the RADAR was broken. He said that he was plotting GPS fixes. He said at time 0721, they started "constants" so he did not plot the actual time 21 GPS fix. But he said he did plot the time 24 fix which he pointed out to the assistant investigating officer on the chart [a fix does appear in the general area of time 24, but is not labelled, or the label is too obscured to read]. As he was finishing plotting the time 24 fix, the ship shuddered. He said plotting GPS fixes while in "constants" was not a requirement, just good practice. He said he did not attend all of the RAD NAV course because he had to leave early for personal reasons.

Summary of Interview

(b) (3) (B), (b) (6) (Bridge Plotter)

Interview Location: C4I Building and USS TAYLOR (via phone)

Interview Date: 24 Feb 14

Assistant Investigating Officer: (b) (3) (B), (b) (6)

Legal Support Present at Interview: (b) (3) (B), (b) (6)

On 24 Feb 14, I re-interviewed (b) (3) (B), (b) (6) with follow-up questions regarding the grounding of USS TAYLOR (FFG 50) IVO Samsun, Turkey.

I asked him why set and drift were not logged. He said it was probably because a Yeoman was on the deck log and may not have known it was required. He said given manning this was usual.

I asked him when he calculated set and drift whether he recorded it as though the ship was being pushed from or toward a specific direction. He said that he recorded it as toward. He said he calculated set and drift toward 260 just before the turn to 288 around 0710. This means he calculated set and drift pushing the ship to the southwest.

I asked him why he plotted no visual fixes. He said he would have plotted visual fixes had at least three NAVAIDS been "cutting" but only two were "cutting." He said the requirement for an different fix source every third fix interval was for an alternate source, including composite fixes. Thus, he said they did not have to plot visual fixes.

I asked him why the ship stopped plotting GPS fixes at 1000 yards from the turn. He said ATG recommended switching to constants 1000 yards from a turn. He said the ship used to switch to constants 500 yards from a turn but during the Navigation Check Ride conducted by ATG, it was recommended they switch to 1000 yards. He said he was taught to no longer plot fixes after starting constants at 1000 yards at the RAD NAV course in September 2012. He said the former Navigator and Assistant Navigator were at that course.

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 12:50 PM  
**To:** (b) (3) (B), (b) (6)  
**Subject:** FW: Navigation questions regarding Samsun for USS TAYLOR  
**Attachments:** (b) (3) (B), (b) (6)

Sir,

Please see forwarded email correspondence below. My designation letter is also attached.

V/R,  
(b) (3) (B), (b) (6)  
USS TAYLOR (FFG 50)

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Friday, February 07, 2014 8:55 PM  
**To:** (b) (3) (B), (b) (6)  
**Subject:** Re: Navigation questions regarding Samsun for USS TAYLOR

Dear (b) (3) (B), (b) (6),

The charts are still valid. There are no currents inside the breakwater, but there may be strong winds or low visibility situations ( mists / fogs ) that may effect navigating during winter, fogs are seen especially in the early morning hours. The dephts to the coal pier is 11+ .I strongly advise to go bow in ( mooring port side to ) and stay close to the breakwater on the approach.  
Tides are very very low and to be diregarded.

Best Regards,  
(b) (3) (B), (b) (6)

MLS Turkey

Office: +90 212 2442600  
Fax: +90 212 2517152  
(b) (3) (B), (b) (6)

CONFIDENTIALITY NOTICE: This e-mail message (including any document/s attached hereto) is privileged and confidential to the addressee and is intended only for the use of the addressee. If you are not the named addressee you are hereby notified that you may not read, copy, forward, disclose or otherwise use it or any part thereof in any manner whatsoever. You are kindly asked to urgently notify us accordingly by e-mail reply, and to delete the message.  
P Before printing this email, assess if it is really needed

> On 7 Şub 2014, at 20:38, (b) (3) (B), (b) (6) (Taylor NAV)" (b) (3) (B), (b) (6) wrote:

>

> (b) (3) (B), (b) (6)

>  
> Thanks for the assistance. The Sailing Directions state that "The channels and depths shown in the inner harbor are subject to frequent changes. For the latest information mariners are directed to contact the Harbor master." Currently my charts show good water (greater than 10m) on our approach to the coal pier. I wanted to verify that this is still valid. Also, as there are no tide or current tables available I was wondering what the average current in the approach to the harbor is. Also, does Samsun frequently experience strong winds that make mooring difficult? Thank you for your help.

>  
> V/R.  
> (b) (3) (B), (b) (6)  
> NAVIGATOR  
> USS TAYLOR (FFG 50)

> -----Original Message-----  
> From: MLS Turkey [mailto:turkey@mlscorporation.com]  
> Sent: Friday, February 07, 2014 8:06 PM  
> To: (b) (3) (B), (b) (6)  
> Cc: (b) (3) (B), (b) (6)  
> Subject: Re: Navigation questions regarding Samsun for USS TAYLOR

>  
> Dear Sir,  
>  
> I am the best person to talk to, I will be happy to help.

>  
> Best Regards,  
> (b) (3) (B), (b) (6)  
>  
> MLS Turkey  
>  
> Office: +90 212 2442600  
> Fax: +90 212 2517152  
> (b) (3) (B), (b) (6)

> CONFIDENTIALITY NOTICE: This e-mail message (including any document/s attached hereto) is privileged and confidential to the addressee and is intended only for the use of the addressee. If you are not the named addressee you are hereby notified that you may not read, copy, forward, disclose or otherwise use it or any part thereof in any manner whatsoever. You are kindly asked to urgently notify us accordingly by e-mail reply, and to delete the message.

> P Before printing this email, assess if it is really needed

>  
> On 7 Şub 2014, at 19:52, "(b) (3) (B), (b) (6)" (Taylor NAV)" (b) (3) (B), (b) (6) wrote:

>  
>  
> (b) (3) (B), (b) (6)

> I am the Navigator onboard USS TAYLOR and I have a few questions pertaining to navigating within the harbor. Do you have an email of someone I can direct these questions to? Thank you for your support.

>  
>  
> Very respectfully,  
>  
> (b) (3) (B), (b) (6)  
>  
> NAVIGATOR  
>  
> USS TAYLOR (FFG 50)  
>  
>

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Thursday, February 20, 2014 6:36 AM  
**To:** (b) (3) (B), (b) (6)  
**Subject:** RE: Time 0721 fix  
**Attachments:** Bridge Chart Page 2 - 288T leg close-up (3).JPG

Sir,

I concur that there is not a fix time 0721 plotted. It seems that my prior statement was incorrect. We had shifted to constants prior to time 21, and my bearing recorder logged the GPS position at time 21. I have circled fix 0718 on the provided image. This is affirmed by the LOPs that are plotted directly after fix 18 since we had just started constants on V-1. Once we shift to constants, constants take preference over plotting the next fix because we are concerned about marking the next turn correctly.

V/R,

(b) (3) (B), (b) (6)

USS TAYLOR (FFG 50)

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Wednesday, February 19, 2014 9:11 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** Time 0721 fix

Nav,

In further reviewing the bridge's 12 Feb inbound chart, I don't see a time 0721 fix plotted. I'd like to confirm with you that I'm just not missing it somewhere. If I have missed it, please circle the fix on the attached photos and re-send.

Please acknowledge receipt of this email. Also, keep in mind your Art.

31B rights still apply, and I ask that you do not discuss this email request with anyone else onboard until after the investigation is completed and the report is released.

Thanks in advance.

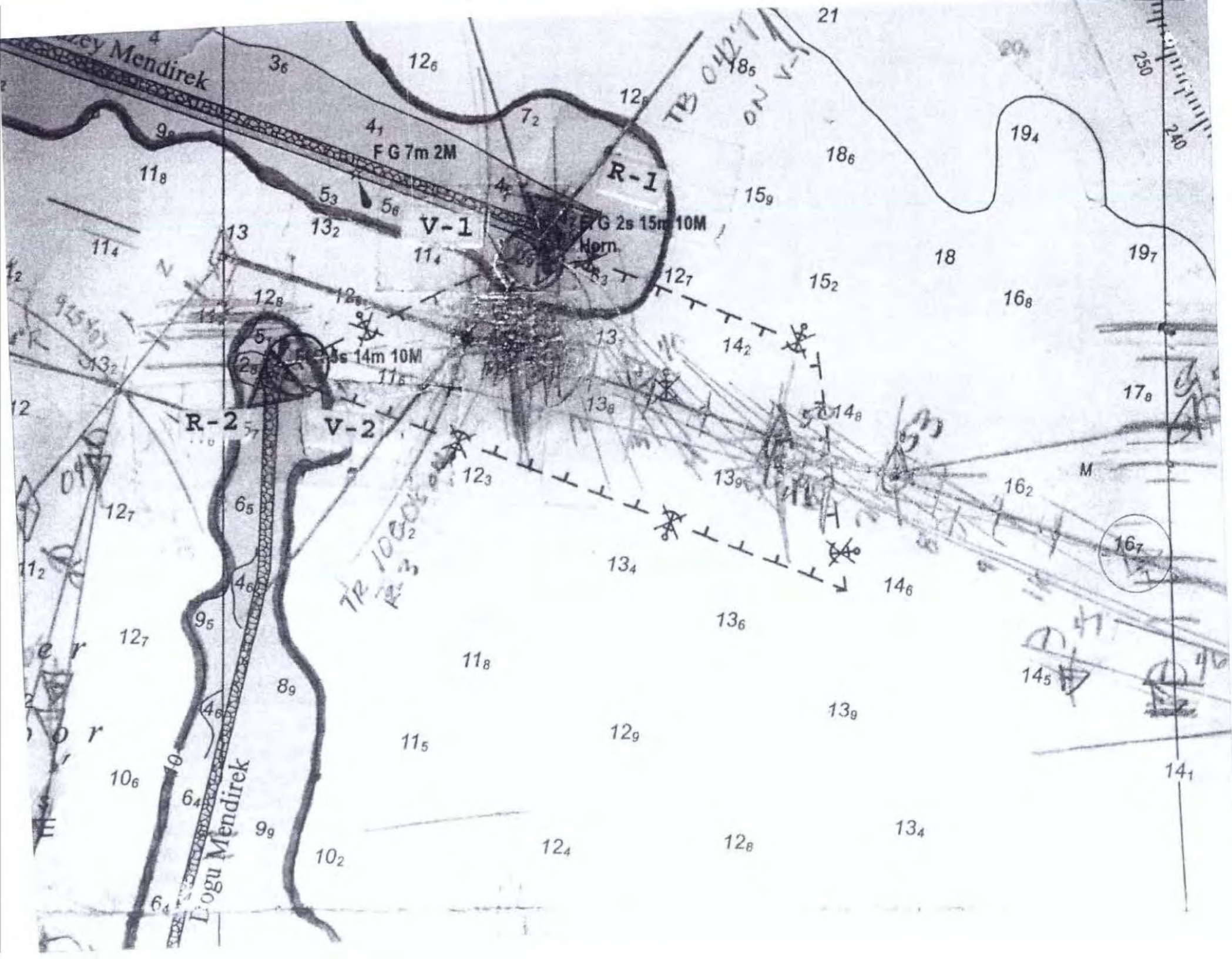
Very respectfully,

(b) (3) (B), (b) (6)

Europe OPS Officer  
CTF-65/CDS-60

DSN: 626-3640

Comm: +39-081-568-3640



(b) (3) (B), (b) (6)

From: (b) (3) (B), (b) (6)  
Sent: Thursday, February 20, 2014 8:51 PM  
To: (b) (3) (B), (b) (6)  
Subject: RE: Time 0718 and 0721 fixes  
Attachments: chart.ppt

LCDR  
Time 18 is in the circle and time 21 there was no GPS fixes due to constants V/R OSC

-----Original Message-----

From: (b) (3) (B), (b) (6)  
Sent: Thursday, February 20, 2014 4:53 PM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: RE: Time 0718 and 0721 fixes

Sorry, Chief. Correct photos attached this time.

V/r,

(b) (3) (B), (b) (6)

Very respectfully,  
(b) (3) (B), (b) (6)  
Europe OPS Officer  
CTF-65/CDS-60

DSN: 626-3640  
Comm: +39-081-568-3640

-----Original Message-----

From: (b) (3) (B), (b) (6)  
Sent: Thursday, February 20, 2014 6:32 AM  
To: (b) (3) (B), (b) (6)  
Subject: RE: Time 0718 and 0721 fixes

LCDR,

The charts you sent me are from the bridge not cic, from the chart you sent me it looks like they are on constants at the time you are looking for.

V/R

(b) (3) (B), (b) (6)

-----Original Message-----

From: (b) (3) (B), (b) (6)  
Sent: Thursday, February 20, 2014 12:42 AM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: Time 0718 and 0721 fixes

OSC,

In further reviewing CIC's 12 Feb inbound chart, I don't see time 0718 or 0721 fixes plotted. I'd like to confirm with you that I'm just not missing it somewhere. If I have missed either of them, please circle the fix(es) on the attached photos and re-send.

Please acknowledge receipt of this email. Also, I ask that you do not discuss this email request with anyone else onboard until after the investigation is completed and the report is released.

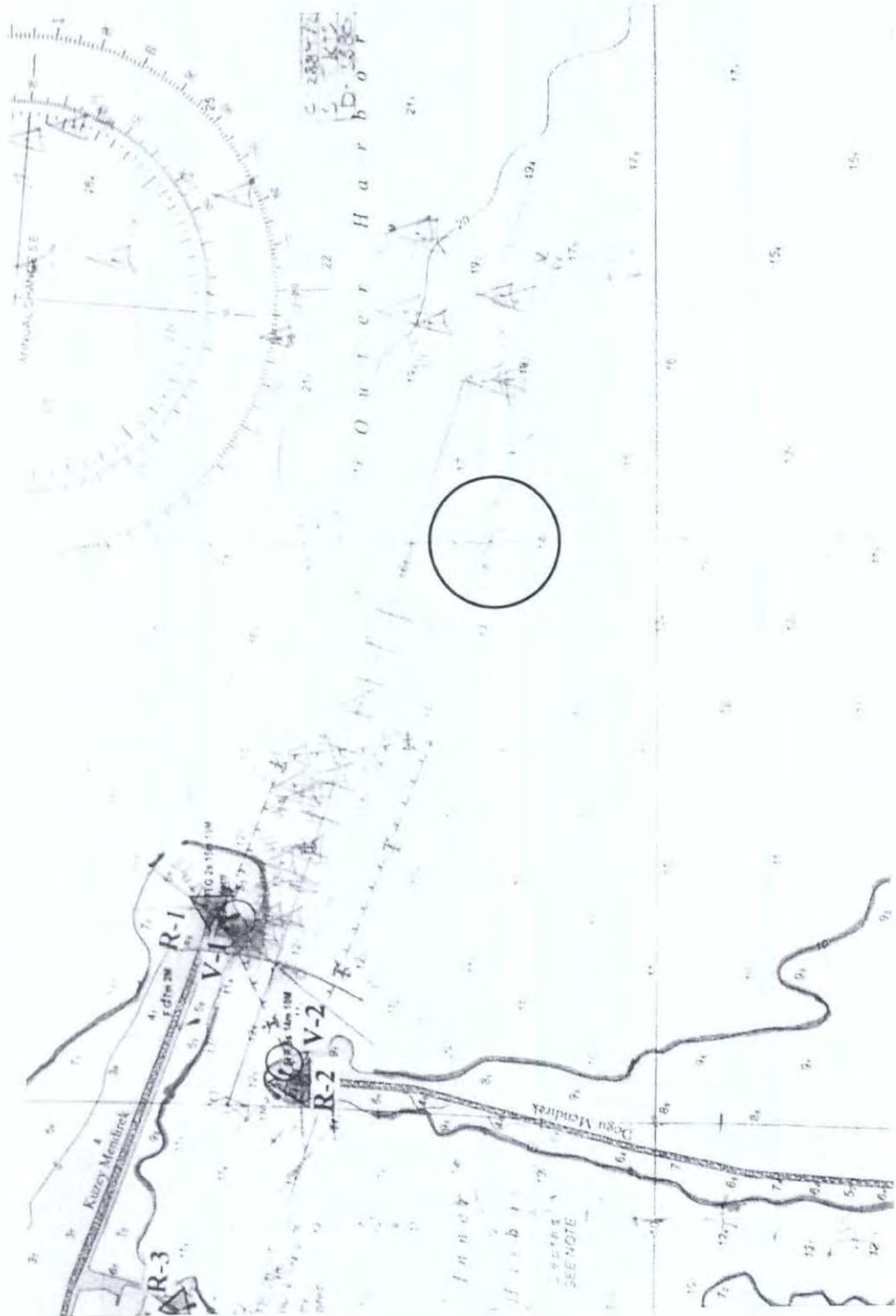
Thanks in advance.

Very respectfully,

**(b) (3) (B), (b) (6)**  
Europe OPS Officer  
CTF-65/CDS-60

DSN: 626-3640

Comm: +39-081-568-3640



(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Thursday, February 20, 2014 8:28 AM  
**To:** (b) (3) (B), (b) (6)  
**Subject:** RE: Time 0718 and 0721 fixes

Good morning Sir,

I also left out that we shifted to constants at time 21 so there wouldn't be a fix on the chart at time 21. So if you need me to point out the 18 fix on the bridge chart please let me know sir and I will send it as soon as possible.

V/R

(b) (3) (B), (b) (6)

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Thursday, February 20, 2014 12:43 AM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** Time 0718 and 0721 fixes

OS2,

In further reviewing CIC's 12 Feb inbound chart, I don't see time 0718 or 0721 fixes plotted. I'd like to confirm with you that I'm just not missing it somewhere. If I have missed either of them, please circle the fix(es) on the attached photos and re-send.

Please acknowledge receipt of this email. Also, I ask that you do not discuss this email request with anyone else onboard until after the investigation is completed and the report is released.

Thanks in advance.

Very respectfully,

(b) (3) (B), (b) (6)  
Europe OPS Officer  
CTF-65/CDS-60

DSN: 626-3640  
Comm: +39-081-568-3640

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Thursday, February 20, 2014 6:22 AM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** RE: Time 0718 and 0721 fixes

Good morning Sir,

After reviewing the information sent, I notice they were pictures of the bridge charts and not CIC's. I was wondering if you could send pictures of ours if you could?

V/R

(b) (3) (B), (b) (6)

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Thursday, February 20, 2014 12:43 AM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** Time 0718 and 0721 fixes

OS2,

In further reviewing CIC's 12 Feb inbound chart, I don't see time 0718 or 0721 fixes plotted. I'd like to confirm with you that I'm just not missing it somewhere. If I have missed either of them, please circle the fix(es) on the attached photos and re-send.

Please acknowledge receipt of this email. Also, I ask that you do not discuss this email request with anyone else onboard until after the investigation is completed and the report is released.

Thanks in advance.

Very respectfully,  
(b) (3) (B), (b) (6)  
Europe OPS Officer  
CTF-65/CDS-60

DSN: 626-3640  
Comm: +39-081-568-3640

UNCLASSIFIED

(b) (3) (B), (b) (6)

From: (b) (3) (B), (b) (6)  
Sent: Friday, February 21, 2014 11:53 AM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: (U) USS TAYLOR

Classification: UNCLASSIFIED

(b) (3) (B), (b) (6)

As you know I'm the CNE-CNA-C6F METOC LCPO and filling in for the Command Oceanographer. Here are the answers to the two questions you asked me.

1) Did the USS TAYLOR contact me about tidal data and or ocean currents for the port of Samsun, Turkey?

The USS TAYLOR did not contact me about tidal data or ocean currents for the port of Samsun, Turkey.

2) Had the USS TAYLOR contacted me about the tidal data and or ocean currents for the port of Samsun, Turkey what information would I have provide them?

I would have informed them that Samsun, Turkey is not a reporting station in my GFMPPL ( Geophysical Fleet Mission Program Library) database. I would have been able to tell them that in that area there is a very small tidal range of 0.05 meters / 0.2 feet. As for information on currents I would have told them to ask the port operations and pilot to get the best idea for currents in and around the port of Samsun, Turkey.

If you need any more information on this matter please let me know.

Very Respectfully,

(b) (3) (B), (b) (6)

CNE-CNA-C6F METOC LCPO

DSN: (314) 626-2374

COMM: 011-39-081-568-2374

(b) (3) (B), (b) (6)

Classification: UNCLASSIFIED

UNCLASSIFIED

Encl (54)

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 2:35 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** RE: Navigation questions  
**Attachments:** Pub 9 Danger Bearing.png  
**Signed By:** (b) (3) (B), (b) (6)

(b) (3) (B), (b) (6),

Hopefully the answers below answer your questions as far as what we teach in the Surface Navigator Course. Please let me know if we can be any more help.

1) We encourage navigators to start shooting constant bearings at approximately 1000 yards from the slide bar/wheel over point. At any speed greater than 10 knots, the three minute fix interval requirement would not be exceeded; however at any speed less than 10 knots, they must plot another fix. For example, if transiting at 5 knots, another fix would be required to remain within the required fix interval. However at any speed less than 10 knots they must plot another fix. For example, if transiting at 5 knot another fix would be required to remain within the required fix interval. It is highlighted in the lessons and labs that constant bearings are single lines of position and that your ship could be anywhere on that line. It is the navigator's responsibility to determine where the ship is by combining that line of position, the dead reckoning from the most recent fix, and set and drift. The NAVDORM does not specify exact procedures for constant bearings, but these can be delineated in the ship's Navigation Bill.

2) The wording of that requirement can lead to some confusion. By stating that shoal/hazard is "identified by a NAVAID" means that it has its own NAVAID, such as a cardinal buoy, isolated danger buoy, or wreck buoy. Danger bearings are drawn from a fixed NAVAID (that does not specifically mark that shoal/hazard) tangent to shoal/hazard not marked by its own NAVAID. It is the job of the navigator and CO to determine what shoals/hazards require danger bearings. In the absence of clear cut requirements, students are encouraged to use prudence and discretion when determining what danger bearings to lay on a chart.

Very Respectfully,

(b) (3) (B), (b) (6)

Course Lead, Surface Navigators Course (N72)  
Surface Warfare Officers School  
Newport, Rhode Island  
(401) 841-7258

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Friday, February 21, 2014 12:34 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** Navigation questions

(b) (3) (B), (b) (6),

(b) (3) (B), from CTF 65 here. Like I said on the phone, I'm the assistant investigating officer for a ship that recently went aground here in our AOR, and was wondering if you could provide some answers on the questions below.

1) From the Surface Navigator curriculum, at what point approaching a turn during a restricted waters transit should a navigation team switch from taking fixes to taking constant bearings (or ranges for the CIC team) to count down distance to a turn? The NAVDORM states that ships shall not exceed 3 minute fixes while piloting in restricted waters (less than 2NM from shoal water), but does not address (at least as far as I could find) when/whether navigation teams should switch to taking constant bearings to the NAVAID designated for the turn bearing or constant RADAR ranges to NAVAID designated for the turn range.

2) Also from the Surface Navigator curriculum, based on what criteria would a danger bearing and/or danger range be REQUIRED for a given navigation transit? The NAVDORM states that restricted water charts will include danger bearings or ranges laid out for "hazards which are not identified by a navigation aid," but how precisely does the contour of shoal water need to be marked with NAVAIDs to be considered "identified by a navigation aid"?

Thanks in advance!

Very respectfully,  
(b) (3) (B), (b) (6)  
Europe OPS Officer  
CTF-65/CDS-60

DSN: 626-3640  
Comm: +39-081-568-3640

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 7:30 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** RE: Navigation Question

(b) (3) (B), (b) (6),

The simplest answer to your question is:

Depends on ship's speed.

Philosophically, Turn Countdown's (Constants) should be commenced at a point along the track/during the cyclic routine such that the REQUIRED FIX INTERVAL will not be exceeded.

For example: If the ship is doing 10 knots, and constants are commenced at 1000 yards from the turn, it is very likely that the prescribed fix interval of 3 minutes will be exceeded. Doubly true if the ship is going 7 knots and constants are commenced at the same 1000 yards.

BLUF: The prescribed fix interval is procedurally inviolable. A SET DISTANCE to commence constants cannot be quantified. It must be based on ship's speed versus fix interval.

Example: Ship's speed = 9 kts. Fix interval = 3 minutes. I would ADJUST (shorten) my fix interval for one round such that I obtain a fix at 1000 yards from the turn then, following the fix, would immediately shift to constants.

Male sense?

As always, I'm happy to answer any questions or provide additional info.

Best regards,

(b) (3) (B), (b) (6)

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 9:47 AM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** Navigation Question

(b) (3) (B), (b) (6),

(b) (3) (B), (b) (6) from CTF 65 here. I'm the assistant investigating officer for a ship that recently went aground here in our AOR, and was wondering if you could help me out on the following question.

From Radar Navigation Team Trainer curriculum, at what point approaching a turn during a restricted waters transit should a navigation team switch from taking fixes to taking constant ranges (switch to constants) to count down distance to a turn? The NAVDORM states that ships shall not exceed 3 minute fixes while piloting in restricted waters (less than 2NM from shoal water), but does not address (at least as far as I could find) when/whether navigation teams should switch to taking constant RADAR ranges to the NAVAID designated for the turn range.

Thanks in advance.

Very respectfully,

**(b) (3) (B), (b) (6)**

Europe OPS Officer

CTF-65/CDS-60

DSN: 626-3640

Comm: +39-081-568-3640

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 8:59 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** FW: Navigation questions  
**Signed By:** (b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

We teach the NAV/SENIOR QM REFRESH COI here at Det East. I forwarded your questions to my QMC and below are the answers that we developed. Let me know if you have any other questions.

R/

1) From the Nav/Senior QM Refresher curriculum, at what point approaching a turn during a restricted waters transit should a navigation team switch from taking fixes to taking constant bearings (or ranges for the CIC team) to count down distance to a turn? The NAVDORM states that ships shall not exceed 3 minute fixes while piloting in restricted waters (less than 2NM from shoal water), but does not address (at least as far as I could find) when/whether navigation teams should switch to taking constant bearings to the NAVAID designated for the turn bearing or constant RADAR ranges to NAVAID designated for the turn range.

Answer: Correct... The NAVDORM does not address "when/whether" a Nav Team is to switch to constant bearings or ranges. In our Nav/Senior QM class we supervise a mock Sea and Anchor detail and touch on "shifting to constants" at a distance of 1K yds. I believe this to be "situation dependent". In my 20+ years of service as a QM, I have seen where the Navigator wanted constant bearings with distances over 1K yds and I have seen it when the Navigator started constants with under 1K yds to go due to the ship approaching a turn where the speed was slower than that of the proposed SOA. In conclusion, the "standard" that I have always witnessed was to start the count down at 1k yds purely due to the fact that tracks have always been labeled in 100 yd increments starting at 1K yds prior to the turn.

2) Also from the Nav/Senior QM Refresher curriculum, based on what criteria would a danger bearing and/or danger range be REQUIRED for a given navigation transit? The NAVDORM states that restricted water charts will include danger bearings or ranges laid out for "hazards which are not identified by a navigation aid," but how precisely does the contour of shoal water need to be marked with NAVAIDs to be considered "identified by a navigation aid"?

Answer: The best example for this question would be the "3 sisters" buoy line here in Hampton Roads near Old Point Comfort. In this instance the line of shoal water parallel to the channel is marked by these three yellow buoys, therefore a danger bearing would not be required IAW the NAVDORM, BUT I have served with CO's who still wanted the danger bearing plotted on the chart to give that location the "extra emphasis" it deserves.

In our Nav/Senior QM class we teach straight from the NAVDORM and state that danger bearings and ranges are required when hazards to navigation are not marked by a navigation aid and that they are established from a fixed navigation aid.

-----Original Message-----

**From:** (b) (3) (B), (b) (6)  
**Sent:** Monday, February 24, 2014 12:50 PM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** RE: Navigation questions

Sir,

I've finished my research of the NAVDORM (versions C and D) and along with (b) (3) (B), (b) (6) assessment, I too could not find anything exact regarding the questions in this email. I looked in the previous version of the NAVDORM to determine if anything might have been left off with the newest version. Both versions were exactly the same in their guidance concerning his two questions.

I included my answers in the below email directly after his questions.

If there is anything else needed, please let me know.

Have a great afternoon!

V/R,  
QMC

-----Original Message-----

From: (b) (3) (B), (b) (6)  
Sent: Monday, February 24, 2014 10:48 AM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: FW: Navigation questions

QMC,  
I need answers to the questions below as soon as you can get them to me (today). Thanks.  
R/

-----Original Message-----

From: (b) (3) (B), (b) (6)  
Sent: Friday, February 21, 2014 1:03 PM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: Navigation questions

(b) (3) (B), (b) (6),

(b) (3) (B), (b) (6) from CTF 65 here. I'm the assistant investigating officer for a ship that recently went aground here in our AOR, and was wondering if you could provide some answers on the questions below.

1) From the Nav/Senior QM Refresher curriculum, at what point approaching a turn during a restricted waters transit should a navigation team switch from taking fixes to taking constant bearings (or ranges for the CIC team) to count down distance to a turn? The NAVDORM states that ships shall not exceed 3 minute fixes while piloting in restricted waters (less than 2NM from shoal water), but does not address (at least as far as I could find) when/whether navigation teams should switch to taking constant bearings to the NAVAID designated for the turn bearing or constant RADAR ranges to NAVAID designated for the turn range.

2) Also from the Nav/Senior QM Refresher curriculum, based on what criteria would a danger bearing and/or danger range be REQUIRED for a given navigation transit? The NAVDORM states that restricted water charts will include danger bearings or ranges laid out for "hazards which are not identified by a navigation aid," but how precisely does the contour of shoal water need to be marked with NAVAIDs to be considered "identified by a navigation aid"?

Thanks in advance!

Very respectfully,

(b) (3) (B), (b) (6)

Europe OPS Officer

CTF-65/CDS-60

DSN: 626-3640

Comm: +39-081-568-3640



DEPARTMENT OF THE NAVY

COMMANDING OFFICER  
USS TAYLOR (FFG 50)  
FLEET POST OFFICE  
NA 34685-1564

1200  
FFG 50  
12 Mar 12

From: Commanding Officer, USS TAYLOR (FFG 50)

To: (b) (3) (B), (b) (6)

Subj: DESIGNATION AS ASSISTANT NAVIGATION OFFICER

Ref: (a) COMNAVSURFPAC/AIRPAC/AIRLANT/SURFLANTINST 3530.4C

1. Per reference (a), you are hereby designated as Assistant Navigation Officer in USS TAYLOR (FFG 50).

2. You will execute the duties and responsibilities outlined in reference (a). In addition, you will coordinate with the Senior Watch Officer to ensure all junior officers are trained in navigation and other responsibilities they are entrusted with.

3. This designation will remain in effect unless terminated by the Commanding Officer or upon your permanent detachment from TAYLOR.

(b) (3) (B), (b) (6)

Copy to:  
Command File

Encl (58)



DEPARTMENT OF THE NAVY

COMMANDING OFFICER  
USS TAYLOR (FFG 50)  
FLEET POST OFFICE  
AA 34092-1504

1200  
FFG 50  
11 Nov 13

From: Commanding Officer, USS TAYLOR (FFG 50)

To: [REDACTED] (b) (3) (B), (b) (6) [REDACTED]

Subj: DESIGNATION AS NAVIGATION OFFICER

Ref: (a) COMNAVSURFPAC/AIRPAC/AIRLANT/SURFLANTINST 3530.4D

1. Per Reference (a), you are hereby designated as Navigation Officer onboard USS TAYLOR.

2. You will execute the duties and responsibilities outlined in reference (a). In addition you will coordinate with the senior watch officer to ensure all junior officers are trained in navigation and other responsibilities they are entrusted with.

(b) (3) (B), (b) (6)

Encl (59)

**WITNESS STATEMENT**

Name: <b>(b) (3) (B), (b) (6)</b>	Rank/Rate: CDR
Command: COMSIXTHFLT	Division: N33
Email: <b>(b) (3) (B), (b) (6)</b>	Phone: 626-4008

I, **(b) (3) (B), (b) (6)**, hereby make the following statement to **(b) (3) (B), (b) (6)**, who has identified himself/herself as a preliminary inquiry officer for the USS TAYLOR grounding.

I served as the XO on FFG-60 (USS RODNEY M. DAVIS) from 2005-2006. The FFG class of ship has a single shaft with a controllable reversible pitch propeller. Under normal operating conditions the shaft is rotating at all times. When traveling above ~12 knots/hr the propeller blades are set to maximum pitch and the ship speed is controlled by adjusting shaft rotations per minute (rpm). When the ship is traveling less than ~12 knots/hr (including zero or reverse) the shaft continues to turn (at approximately 55 rpm) and thrust is controlled by the pitch of the propeller blades. At zero knots/hr, the blades are set to zero thrust while the shaft continues to turn at 55 rpm. When entering port, the shaft is normally only stopped when all lines are over and the ship is securely moored to the pier. Stopping the shaft when underway is only done under casualty conditions.

I swear (or affirm) that the information in the statement above is true to the best of my knowledge or belief.

**(b) (3) (B), (b) (6)**

26 FEB 12  
(Date)

0857  
Time

Sworn to before me this date.

**(b) (3) (B), (b) (6)**  
(Investigator's Signature)

(Date)

Time

IN FOUND SAMSUNG TURKEY  
PLACE

GYRO ERROR

.4E

DABR

DATE TIME	V-3/V-2	V-1/			DEPTH
06 25		V-1/			CIPS 41 25.7 N 036 35.3 E FOM/77 FMS
30					41 24.8 N 036 53.8 E FOM/58 FMS
35					41 23.8 N 036 52.2 E FOM/50 FMS
40					41 22.8 N 036 30.6 E FOM/272 FT
45	215/				41 21.7 N 036 23.8 E FOM/255 FT
50	226/				41 20.5 N 036 27.0 E FOM/189 FT
55	256/260				41 19.6 N 036 25.7 E FOM/122 FT
07 00	269/273	274/			41 18.6 N 036 24.5 E FOM/82 FT
03	272/274	278/			41 18.2 N 036 24.0 E FOM/65 FT
06	289/285	290/			41 17.9 N 036 23.6 E FOM/57 FT
09	289/290	296/			41 17.9 N 036 23.1 E FOM/45 FT
12	280/289	296/			41 18.0 N 036 22.38 E FOM/59 FT
15	277/286	297/			41 18.12 N 036 22.16 E FOM/57 FT
18	274/282	298/			41 18.19 N 036 21.59 E FOM/51 FT
21	SHIPLETS TO CONSTANT ON V-1				41 18.25 N 036 21.41 E FOM/27 FT
25	035/				41 18.31 N 036 21.18 E FOM/275 FT
27	035/		SHIFT TO 1 MIN PAGES		41 18.52 N 036 21.18 E FOM/29 FT
28					41 18.32 N 036 21.18 E FOM/405 FT



DATE TIME	V-1 / V-2	V-3				DEPTH
50		V-3				GIPS 41 18 24 N 036 21 34 E Pom' 25 FT 41 18 23 N 036 28 36 E Pom' 26 FT 41 18 23 N 036 21 43 E Pom' 30 FT 41 18 26 N 036 22 01 E Pom' 42 FT 41 18 32 N 036 22 36 E Pom' 58 FT 41 18 41 N 036 22 44 E Pom' 65 FT 41 18 44 N 036 22 43 E Pom' 69 FT 41 18 53 N 036 22 32 E Pom' 68 FT 41 18 47 N 036 22 50 E Pom' 65 FT 41 18 34 N 036 22 29 E Pom' 61 FT 41 18 51 N 036 22 26 E Pom' 55 FT 41 18 21 N 036 22 22 E Pom' 44 FT 41 18 12 N 036 22 24 E Pom' 40 FT 41 18 15 N 036 22 30 E Pom' 44 FT 41 18 14 N 036 22 31 E Pom' 45 FT 41 18 17 N 036 22 23 E Pom' 47 FT 41 18 11 N 036 22 17 E Pom' 36 FT 41 18 12 N 036 22 04 E Pom' 54 FT
51	282 / 282	285 /				
53		SHIPPED TO	3 MIN	FIXES		
56						
08 01						
04	192 /					
07	257 /	—	—	—		
10	251 / 245	254 /				
13	257 / 254	263 /				
17	—	—				
20	275 / 268	274 /				
23	287 / 278	281 /				
26	✓ 285 /	282 /				
29	284 / 280					
32	—	278 /				
35	287 / 278	273 /				
38	290 / 280	283 /				
41	300 / 286	287 /				
44	301 / 287	288 /	1 MIN	FIXES		

DEPTH	GIPS
POM/25 FT	41 18 24 N
POM/26 FT	036 21 34 E
POM/30 FT	41 18 23 N
POM/42 FT	036 29 36 E
POM/58 FT	41 18 23 N
POM/65 FT	036 21 43 E
POM/69 FT	41 18 26 N
POM/68 FT	036 22 01 E
POM/65 FT	41 18 32 N
POM/61 FT	036 22 36 E
POM/44 FT	41 18 41 N
POM/40 FT	036 22 44 E
POM/44 FT	41 18 53 N
POM/47 FT	036 22 32 E
POM/45 FT	41 18 47 N
POM/47 FT	036 22 30 E
POM/36 FT	41 18 39 N
POM/34 FT	036 22 29 E
	41 18 31 N
	036 22 26 E
	41 18 21 N
	036 22 22 E
	41 18 17 N
	036 22 24 E
	41 18 15 N
	036 22 30 E
	41 18 19 N
	036 22 31 E
	41 18 18 N
	036 22 31 E
	41 18 17 N
	036 22 25 E
	41 18 11 N
	036 22 17 E
	41 18 12 N
	036 22 09 E

DATE TIME	V-1	V-2	V-3	V-4	GIPS	DEPTH
14	303	788	289	144	41 18 12 N	POM/31 FT
16	305	288.5	288		036 21 02 E	POM/30 FT
17	307	288.5	288		41 18 15 N	POM/28 FT
18	308	289	276		036 21 60 E	POM/28 FT
19	310.5	287			41 18 14 N	POM/28 FT
50	313	285	285.5		036 21 54 E	POM/27 FT
51	319	288	289		41 18 16 N	POM/26 FT
52	329	279	285		036 21 33 E	POM/25 FT
53	33	277			41 18 25 N	POM/25 FT
54	038	282	280		036 21 22 E	POM/22 FT
55	667	240	280		41 18 24 N	POM/20 FT
56	080	205	280		036 21 16 E	POM/21 FT
57			279	226	41 18 31 N	POM/22 FT
58			286	227	036 21 05 E	POM/21 FT
59			295	229.5	41 18 32 N	POM/20 FT
60			306	231	036 21 01 E	POM/20 FT
61			316	247	41 18 31 N	POM/20 FT
62			322	250	036 20 57 E	POM/23 FT
63			328.5	281	41 18 28 N	POM/23 FT



TIME

TEXT

12 FEB 14

0000

USS TAYLOR IS CURRENTLY ~~HAZARD~~ U/W IN POSIT 42° 17' N 035° 25' E  
EN ROUTE TO SAMSUN, TURKEY. ALL EQUIPMENT IS UP AND OPERATN  
COMMS PLAN VERIFIED.

OOD: (b) (3) (B), (b) (6) TAG: (b) (3) (B), (b) (6) CICWO: (b) (3) (B), (b) (6)

JOOD: (b) (3) (B), (b) (6) CONN: (b) (3) (B), (b) (6)

0004

2347: 11 FEB 14 CUTLASS HTI QUERIED BY TURKISH AIR FORCE

0009

1 HR 28 MIN ~~APPROX~~ BEHIND PLM

0010

OPS NORMAL 3 SOULS 3+20

C/S 28 KTS

REPORT WAS MADE CDS GO SDR ABOUT QUERIES

OPS ~~NOT~~ <sup>OK</sup>

0041

OPS NORMAL 3 SOULS 3+10

0044

SPS-49 ~~SEE~~ IN STANDBY w/ EMCON SET

0108

SHIFT CHARTS 55100

0114

FLIGHT QUARTERS

0110\*

OPS NORMAL 3 SOULS 2+24

0118

RD

0121

C/S 20 KTS

0125

C/L 190°T

0127

C/S 15 KTS

C/L 170°T

0129

OD

0009

1 HR 28 MIN ~~AMBER~~ BEHIND PIM

0010

OPS NORMAL

3 SOULS 3+20

C/S 28 KTS

REPORT WAS MADE CDS GO SDR ABOUT QUERIES

OPS ~~NOT~~ <sup>CBR</sup>

0041

OPS NORMAL 3 SOULS 3+10

0044

SPS-49 ~~SEE~~ IN STANDBY w/ EMLON SET

0108

SHIFT CHARTS 55100

0114

FLIGHT QUARTERS

0110\*

OPS NORMAL 3 SOULS 2+24

0118

RD

0121

C/S 20 KTS

0125

C/L 190°T

0127

C/S 15 KTS

C/L 170°T

0129

GD

471 ON FINAL

0131

OVER DECK

0133

ON DECK

AD

0135

RD

C/L 245°T

0138

C/S 20 KTS

0140

AD

0142

RD

0144

SECURE EQ

CDS RELOAD

0149

C/L 240°T @ 23 KTS

CDS RELOAD COMPLETE

0155

RADAR LANDFALL 205°T 55NM

GCLS REBOOT

0203

AMBER DECK

TIME TEXT  
0218 RD  
0222 GICCS REBOOT COMPLETE

0253 C/S 23 KTS

0304 C/S 18 KTS

0315 L5° R

0317 C/S 15 KTS

CIC 180° T

C/S 10 KTS

0326 SWITCH TO 15 MIN FIXES.

0327 L/S 15 KTS

VC 24° T

0331 C/S 22 KTS

0338 RED DECK

0340 CO IN CIC

0350 ENTERED 12 MILES OF TURKISH LAND.

0355 CO OUT OF CIC

0359 SWITCH TO 10 MIN FIXES.

0400 WP 3 SET MT 76, 31

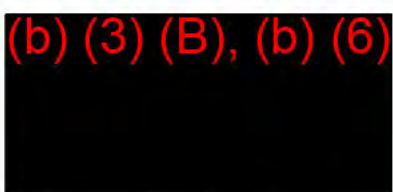
0403 WP 3 SET MT 22

0404 C/S 20 KTS.

0402 CHAFF DOWNLOADED.

WP 3 SET AW, SW, LW

0415 CIC NO PRB (b) (3) (B), (b) (6)

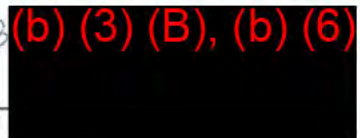


0417 SHIFT TO 5 MIN FIXES

0418 MAN FORCE PROTECTION DETAIL

0419 MAX PLANT RELIABILITY

0421 TAD PRB (b) (3) (B), (b) (6)



X

0327

C/S 15 KTS

UC 240°T

0331

C/S 22 KTS

0338

RED DECK

0340

CO IN CIC

0350

ENTERED 12 MILES OF TURKISH LAND

0355

CO OUT OF CIC

0359

SWITCH TO 10 MIN FIXES.

0400

WP 3 SET MT 76, 31

0403

WP 3 SET MT 22

0404

C/S 20 KTS.

0407

CHAFF DOWNLOADED.

WP 3 SET AW, SW, LW

0415

CIC NO PRB (b) (3) (B), (b) (6)

0417

SHIFT TO 5 MIN FIXES

0418

MAN FORCE PROTECTION DETAIL

0419

MAX PLANT RELIABILITY

0421

TAD PRB (b) (3) (B), (b) (6)

X

X

0431

MK 92 IN RADIATE

0438

C/S 22 KTS

0440

CIC 225°T

0454

C/S 17 KTS

0459

CIC 222°T

0503

C/S 10 KTS

0506

CIC 288°T

FEB 14

TIME

TI

~~0507~~ R FULL RUDDER  
~~0508~~ CIC 294°T  
~~0510~~ CIS 7KTS  
~~0512~~ CIS 6KTS  
~~0513~~ CIC 292°T  
~~0515~~ CIC 290°T  
~~0517~~ SET RMD  
~~0519~~ CIC 288°T  
~~0520~~ CIC 284°T  
~~0520~~ PILOT ON BOARD  
~~0522~~ PILOT ON BRIDGE  
~~0523~~ \* CIC 288°T ~~289~~ 281°T  
~~0526~~ \* LOST BOTH ENGINES  
~~0527~~ ALL STOP  
~~0527~~ LOST TRACKING ON FATHOMETER  
~~0527~~ LOST SHAFT  
~~0528~~ SOMETHING WRAPPED AROUND SHAFT  
~~0528~~ STOP SHAFT  
~~0528~~ ENGAGE SHAFT BREAK  
~~0528~~ STOP MAIN ENGINES  
~~0524~~ \* <sup>MOV</sup> CONTACT  
~~0524~~ \* TUGS ~~CONNECTED~~ TO SHIP. VIBRATIONS FELT ON SHIP.  
~~0532~~ TUGS BEGIN TO PULL  
~~0533~~ AFT TUG MADE UP  
~~0533~~ CONDUCTING SOUNDINGS TAPE UP SOUNDING RED 37.  
~~0534~~ CCS STOPPING ENGINES  
~~0534~~ STOP ALL ENGINES  
~~0534~~ FORWARD TUG MADE UP

0517

SET RMD

0519

CIC 288°T

CIC 284°T

0520

PILOT ON BOARD

0522

PILOT ON BRIDGE

0523

CIC 288°T ~~299~~ 281°T

0526

LOST BOTH ENGINES

ALL STOP

0527

LOST TRACKING ON FATHOMETER

LOST SHAFT

SOMETHING WRAPPED AROUND SHAFT

STOP SHAFT

0528

ENGAGE SHAFT BREAK

STOP MAIN ENGINES

0524

<sup>THRU</sup> TUGS ~~CONNECTED~~ TO JUMP. VIBRATIONS FELT ON SHIP.

0532

TUGS BEGIN TO PULL

AFT TUG MADE UP

0533

CONDUCTING SOUNDINGS TARE UP SOUNDING RED 37.

0534

CCS STOPPING ENGINES

STOP ALL ENGINES

FORWARD TUG MADE UP

0536

STOPPING APUS RECOMMENDED BY CHENG

0539

SHAFT BRAKE 1 BRAVO GT STARTED

SHAFT NOT RESPONSIVE

SHAFTS ROLLING

0540

BACK 2/3 RDS

HARD RIGHT RUDDER

BACK 2/3 RDS

ALL ENGINES BACK 1/3 RD

ALL STOP

MAN BOAT DECK

0542

HARD LEFT RUDDER

TIME

TEST

17 FEB 14

- 0543 ENGINES AHEAD 2 KTS
- 0543 RIVER CITY 1 SET
- 0544 SOUNDING TAPE SENT TO BOAT DECK
- 0544 C/S 5 KTS
- 0545 RUDDER AMIDSHIP
- 0546 DROPPING ANCHOR RECOMMENDED
- 0547 SOUNDING AREA WITH RHIBS TO MAKE ANCHORAGE
- 0547 LEFT 30° RUDDER
- 0549 C/S 3 KTS
- 0549 CO'S ANCHORING AT 41° 17' 49 N 036° 22' 00 E.
- 0551 PLACING RHIBS AT THE RAIL
- 0552 RUDDER MID
- 0554 C/S 5 KTS
- 0601 C/C 080° T
- 0601 RHIBS AWAY PORT SIDE
- 0604 \* HARD LEFT RUDDER
- 0604 C/S 10 KTS
- 0605 ENGINES ALL STOP
- 0605 BACK 5 KTS
- 0605 BACK 10 KTS
- 0605 BACK 5 KTS
- 0605 ALL STOP
- 0605 TESTING APU'S
- 0606 C/S 3 KTS
- 0609 LEFT ROLL RUDDER
- 0609 CRANGE RHIBS INBOUND
- 0612 RUDDER MIDSHIP
- 0613 C/C 190° T
- 0615 C/C 200° T
- 0621 RUNNING APU'S.

- 0549 CO'S ANCHORING AT 41°17'49 N 036°22'00 E.
- 0551 PLACING RHIBS AT THE RAIL
- 0552 RUDDER MID
- ~~0553~~ C/S SKTS
- 0554 C/C 0800T
- 0601 RHIBS AWAY PORT SIDE
- ~~0602~~ HARD LEFT RUDDER
- ~~0604\*~~ C/S 1812S
- ~~0605~~ ENGINES ALL STOP
- 0605 BACK SKTS
- ~~0606~~ BACK 1812S
- ~~0607~~ BACK SKTS
- ~~0608~~ ALL STOP
- 0608\* TESTING APUS
- 0608 C/S SKTS
- ~~0609~~ LEFT FULL RUDDER
- 0609 ORANGE RHIBS INBOUND
- 0612 RUDDER MIDSHIPS
- 0613 C/C 1900T
- 0615 C/C 2000T
- 0621 RUNNING APUS.
- 0625 XO IN CIC
- ~~0626~~ LEFT FULL RUDDER
- 0627 50 YDS FROM BREAKWATER FROM LEFT <sup>OF</sup> RIGHT TRACK SOUNDINGS 42 FT.
- 0630 ALL STOP
- ~~0631~~ RUDDER MIDSHIPS
- 0631 XO IN CIC
- ~~0632~~ XO OUT OF CIC
- 0633 HARD LEFT RUDDER

TIME	TEXT	12 FEB 11
0633	C/S 5 KTS	
0634	C/S 10 KTS	
0638	TUGS CONTACT WITH SHIP	
	RUDDER MIDSHIPS	
0639	HARD RIGHT RUDDER	
	4 TUGS MADE UP	
	C/S 4 KTS	
<del>0640</del>	<del>BOTH TUGS MADE UP. C/S 3 KTS</del>	
0642	C/S 6 KTS	
	C/C 263°T	
0643	C/S 7 KTS	
	SHIPPING NOTIFIED BRIDGE APU'S ARE STILL <del>OFF</del> DOWN.	
	C/S 5 KTS	
0644	C/C 285°T	
0645	C/S 6 KTS	
0647	ALONG THE BREAKWATER STBD SIDE IS NOW 14 FT. FOR SOUNDING.	
	C/C 295°T	
0649	C/C 298°T	
0651	C/C 292°T	
0652	C/C 295°T	
0653	TAD NOTIFIED BRIDGE 295°T IS COMING NEAR SHOAL WATER.	
	C/C 290°T	
	C/C 280°T	
0654	C/C 285°T	
	C/C 290°T	
	PASSING BREAKWATER	
0655	LEFT 5° RUDDER	

0640	C/S 4 KTS BOTH TUGS MADE UP. C/S 3 KTS
0642	C/S 6 KTS C/C 263°T
0643	C/S 7 KTS SHIPPING NOTIFIED BRIDGE APUS ARE STALLED DOWN.
0644	C/S 5 KTS C/C 285°T
0645	C/S 6 KTS
0647	ALONG THE BREAKWATER STBD SIDE IS NOW 14 FT. FOR SOUNDING.
0649	C/C 295°T C/C 298°T
0651	C/C 292°T
0652	C/C 295°T
0653	TAG NOTIFIED BRIDGE 295°T IS COMING NEAR SHOAL WATER.
0654	C/C 290°T C/C 280°T C/C 285°T C/C 290°T
0655	PASSING BREAKWATER LEFT 5° RUDDER LEFT 10° RUDDER NO NEW COURSE GIVEN
0656	HARD LEFT RUDDER. NO COURSE GIVEN
0657	LEFT 10° RUDDER NO COURSE GIVEN
0659	C/C 195°T
0701	C/C 190°T
0703	CURRENT SOUNDING NEXT TO PIER SIDE 72 FT
0704	C/C 182°T
0706	C/C 184°T C/C 185°T
0707	C/C 190°T C/C 195°T

12 FEB 14

TIME	TEXT
0708	C/C 200°T
0709	LEFT STANDARD RUDDER
<del>0710</del>	LEFT FULL RUDDER
<del>0711</del>	RUDDER AMIDSHIPS
0710	CLS 3KTS
<del>0711</del>	C/C 189°T
0711	LOST TRACKING PATHO
0714	C/C 173°T
<del>0715</del>	RUDDER AMIDSHIPS
0715	ALL STOP
0716	BACK 2 KTS
<del>0717</del>	MOORED SHIFT COLORS PORT SIDE SAMSUN, TURKEY.
0717	HARD RIGHT RUDDER
0722	CASTING QFF FWD AND AFT TUGS
<del>0723</del>	SECURE RADIATING ON MK 012
0724	MK 012 IN WARM UP
0731	SECURE FROM RMD
0733	SECURE FROM MAX PLANT RELIABILITY
0753	SECURE SEA AND ANCHOR DETAIL

N.F.E.T

(b) (3) (B), (b) (6)

11:00 AM MIDSHIP

- 0715 ALL STOP
- 0716 BACK 2 KTS
- ✓ MOORED SHIFT COLORS PORT SIDE SAMSUN, TURKEY.
- 0717 HARD RIGHT PUDDER
- 0722 CASTING OFF FWD AND AFT TUGS
- ✓ SECURE RADIATING ON MK 012
- 0724 MK 02 IN WARM UP
- 0731 SECURE FROM RMD
- 0733 SECURE FROM MAX PLANT RELIABILITY
- 0753 SECURE SEA AND ANCHOR DETAIL

N.F.E.T

(b) (3) (B), (b) (6)

PROTTER 012 0212AMBL

NA 64 012 NAMEC  
SHIPPING 012 CURRION LHAMBO

TIME	1	2	3	4	FIX	FOM	FATH	LIR	LAT	LONG
420					GPS	1	213		41° 26.65	036° 36.07
425					GPS	1	220	OT	25.24	35.31
430					GPS	1	229	LT	24.82	33.81
435					GPS	1	223	LT 1600	23.84	32.24
440					<del>GPS</del> Composite	1	224	L 800	22.83	30.61
45	POINT				Composite	1	239	L 400	21.71	28.71
50	POINT				Composite	1	185	L 200	20.57	27.08
55	5.3 NA				GPS	1	141	OT	19.61	25.27
500	LAND				GPS	1	182	L 900	18.68	24.54
03	PL NA				GPS	1	173	L 300	18.30	24.08
6					GPS	1	55		17.96	23.66
28									17.90	23.13
4									17.90	23.13
2					GPS	1	45	L 290	18.07	22.64
5					GPS	1	36	L 100	18.21	22.28
8	RAIL				GPS	1	37	L 180	18.72	21.97
1	1470				GPS	1			18.43	21.60
4					GPS	1			18.50	21.34
6					GPS	1			18.53	21.30
8					GPS	1			18.54	21.31
9					GPS	1		LT	18.54	21.30
0					GPS	1		LT	18.54	21.30
1					GPS	1		LT	18.53	21.30
3					GPS	1		LT	18.54	21.30
4					GPS	1		LT	18.54	21.30
5					GPS	1		LT	18.54	21.30
6					GPS	1		LT	18.54	21.30
7					GPS	1		LT	18.54	21.30
8					GPS	1		LT	18.54	21.30
9					GPS	1		LT	18.52	21.30
0					GPS	1		LT	18.51	21.33

Encl (63)

15		GPS	1	36	L100	18.21	22.28	11
18	Rel 14.80	GPS	1	37	L180	18.72	21.97	11
21		GPS	1			18.43	21.60	
24		GPS	1			18.50	21.34	
26		GPS	1			18.53	21.30	
28		GPS	1	LT		18.54	21.31	
29		GPS	1	LT		18.54	21.30	
30		GPS	1	LT		18.54	21.30	
31		GPS	1	LT		18.53	21.30	
33		GPS	1	LT		18.54	21.30	
34		GPS	1	LT		18.54	21.30	
35		GPS	1	LT		18.54	21.30	
37		GPS	1	LT		18.52	21.30	
39		GPS	1	LT		18.52	21.30	
40		GPS	1	LT		18.51	21.33	
41		GPS	1	LT		18.49	21.43	
43		GPS	1	27		18.47	21.59	
44		GPS	1	20	R120	18.47	21.63	
48		GPS	1	25		18.47	21.57	
		GPS	1	25		18.44	21.55	
		GPS	1	26	L90	18.38	21.41	
		GPS	1	30		18.39	21.72	
		GPS	1	42	R20	18.44	22.02	

DTG	DTB	CIC	CIS	CIR	BIC	HAZ	AID	REMARKS
12nm						SW PB 3nm		
11nm		230	20			SW PB 2.75nm		
9.5nm						SW PB 2nm		SHIFT TO 15161
8.5nm			22			SW PB 3.5nm		STD 230 @ 23
7.5nm						SW PQ 4.1nm		
7.6nm						SW PQ 4.2nm		
7.8					✓	SW PQ 5.5nm		UNABLE TO MEASURE RADAR DUE TO NOT BEING ABLE TO SWITCH TO SHORT RANG
7.2					✓	SW SBW 3nm		
7.400		272	19		✓	SW SBW 4800 FPS		
7.200			10			SBW 1800		
7.400		288				SW SBW 1400		MKTW
		294						
		293						SHIFT TO 15161
7.00		292	6		✓	SW PB 1600		
7.00		290			✓	SW PB 1400		
7.00		286			✓	SW PB 1000		
		281						SHIFT DISTANCE FOUR "
								LOSS OF BOTH REAR ENGINES ENGINES TAKE OFF LINE

USS TAYLOR				HULL NUMBER FFG-50	
DAY	MONTH	YEAR	TIME ZONE	TIME ZONE CHANGE TO	TIME ZONE CHANGE FROM
12	FEB	14	-2B		
AT/PASSAGE FROM			PASSAGE TO		TOTAL MILES TRAVELED TODAY
BLACK SEA					294
EQUIPMENT STATUS					
MAIN ENGINES		PLANT STATUS		BOILERS	
1A GTE		UNDERWAY			
GENERATORS 1 & 2			STEERING GEAR COMBINATION PORT ACTIVE, STBD IDLE		
DAYS OUT OF DRY DOCK 3,019		CATAPULT STATUS		DAYS SINCE LAST HULLCLEANING 60	
DRAFT FWD 15'4"	DRAFT AFT 15'4"	DRAFT MEAN 15'4"	TONS 3187		
LIQUID LOAD 1447φ2			PERCENT OF FULL LOAD (%) 49.7		
MAJOR EQUIPMENT OUT OF COMMISSION: NR 7 EDUCTOR, MK 13 GMLS. THE FOLLOWING ALARMS ARE IN CUTOUT: STERN TUBE WATER PRESSURE, NR 3 SSDG OVERSPEED LOCAL IC ALARM.					
EXAMINED AND CERTIFIED TO BE CORRECT					
SIGNATURE OF ENGINEERING OFFICER/RANK <b>(b) (3) (B), (b) (6)</b>				DATE OF SIGNATURE 13 FEB 14	
RECORD ALL EVENTS OF THE DAY				DAY	MONTH
				12	FEB
				YEAR	14
0000	THE SHIP IS CURRENTLY OPERATING IN THE BLACK SEA. MATERIAL CONDITION MOD ZEBRA IS SET WITH THE EXCEPTIONS LOGGED IN THE DC CLOSURE LOG. THE FOLLOWING EQUIPMENT IS IN OPERATION: SEE ATTACHED ADDENDUM SHEET. MAIN FUEL TANK 5-204-2-F, AUX FUEL TANK 3-240-2-F & 5-201-3-F ON SUCTION. THE FOLLOWING ALARMS ARE IN CUTOUT: STERN TUBE WATER PRESSURE, NR 3 SSDG OVERSPEED LOCAL IC ALARM. EPCC SUPERVISORY CONTROL MODE IN THE AUTO POSITION. THE EOOW IS <b>(b) (3) (B), (b) (6)</b>				
10014	ALLOWED AND STARTED 1B F10 SERVICE PUMP 1AW CSWP.				
10016	STARTED 1B 210 SERVICE PUMP 1AW CSWP.				
10017	SECURED 1A 31W SERVICE PUMP 1AW CSWP.				
10021	STARTED 1B 410 SERVICE PUMP 1AW CSWP.				
10023	STOPPED 1A 410 SERVICE PUMP 1AW CSWP.				
10030	ALLOWED AND STARTED 1B F10 SERVICE HEATER 1AW F01.				
10037	STOPPED AND SECURED 1A F10 SERVICE HEATER 1AW F01.				
10039	STOPPED 1A F10 SERVICE PUMP 1AW CSWP.				
10044	INITIATED START 1B 610 1AW CAMS. PEAK TS.4 741°F AT 46 SECONDS.				
10046	7 MINUTE IDLE TS.4 1B 610 708°F. AT 5.4 33°F 1AW CAMS.				
10054	PLACED 1B 610 IN PIC AND 1A 610 IN R/M 1AW CSWP.				
CLASSIFICATION: <u>UNCLASSIFIED</u>					

ENGINEERING LOG ADDENDUM SHEET

UNCLASSIFIED

DATE: 12 FEB 14

AMR 1	
	STATUS
# 1 SSDG	Online
# 1 W/H CIRC PUMP	On
PORT FIN STABILIZER	Operating
STBD FIN STABILIZER	Operating
# 1 REEFER UNIT	On
# 2 REEFER UNIT	Secured
#2 EDUCTOR	Secured
AMR 2	
# 2 SSDG	Online
# 2 W/H CIRC PUMP	On
# 2 SAC	Secured/Disengaged
# 3 SSDG	Standby
# 3 W/H CIRC PUMP	Secured
# 2 A/C UNIT	Secured
# 3 A/C UNIT	On
# 1 HPAC	On (Auto)
# 1 LPAC	On (Auto 115)
# 1 LPAD	Secured
1A F/O SERVICE PUMP	On ( Auto)
1B F/O SERVICE PUMP	Secured
# 1 F/O PURIFIER	Secured
# 2 F/O PURIFIER	Secured
# 1 F/O XFER PUMP	Secured
# 2 F/O XFER PUMP	Secured
# 1 BILGE PUMP	Secured
# 2 BILGE PUMP	Secured
F/O STRIPPING PUMP	Secured
AUX F/O XFER PUMP	Secured
# 2 FIREPUMP	Secured
# 3 FIREPUMP	On
#3 EDUCTOR	Secured
AMR 3	
# 4 SSDG	Secured
# 4 W/H CIRC PUMP	On
# 4 SAC	Secured/Disengaged
# 2 HPAC	Secured
# 2 LPAC	On (Auto 110)
# 2 LPAD	On
# 1 P/W PUMP	Secured
# 2 P/W PUMP	Secured
HOT P/W PUMP	On
HP RO UNIT	Secured
# 1 RO UNIT	On
# 2 RO UNIT	On
# 1 SUPP ELEC HEATER	Secured
# 2 SUPP ELEC HEATER	Secured
JP-5 SERVICE PUMP	Secured
JP-5 XFER PUMP	Secured
JP-5 STRIPPING PUMP	Secured
# 4 FIREPUMP	On
# 5 FIREPUMP	Secured
AMR 3 WST WTR DR TK	Secured
#5 EDUCTOR	Secured

MER	
	STATUS
1A GAS TURBINE ENG	On (Online)
1B GAS TURBINE ENG	Secured
1A L/O SVC PUMP	On (Lead)
1B L/O SVC PUMP	Standby
COASTDOWN PUMP	Secured
1A MAIN S/W PUMP	On
1B MAIN S/W PUMP	Secured
CPP STANDBY PMP	On (Auto)
BLEED AIR SYSTEM	Secured
PRAIRIE AIR SYSTEM	Secured
MASKER AIR SYSTEM	Secured
ANTI-ICING SIR SYSTEM	Secured
L/O PURIFIER (MRG/CPP)	Secured
UPS	Auto (Aligned)
MRG DEHUMIDIFIER	Secured
#4 EDUCTOR	Secured
CCS	
MATERIAL COND. SET	Mod. Zebra
ICAS	Operational
DEGAUSSING	On
FUEL SVC TANK SUCT	5-204-2-F
POTABLE WATER SUCT	5-308-1-W
POTABLE WATER FILL	5-292-3-W
SHORE POWER	Tagged Out
CHT (INPORT/AT SEA)	At-Sea
CHT PMP ROOM / # 1 FIREPUMP ROOM	
# 1 CHT XFER PUMP	Auto (Lead)
# 2 CHT XFER PUMP	Auto (Lag)
# 1 COMMINUTOR	On
# 2 COMMINUTOR	On
CHT LP AIR AERATOR	Secured
OWS (SAREX)	Secured
# 1 FIREPUMP	On
400 HZ / AC Mach RM/ EDUCTOR RM	
#1 EDUCTOR	Secured
#6 EDUCTOR	Secured
# 1 A/C UNIT	On
# 1 400 HZ SFC	On
# 2 400 HZ SFC	Secured
# 3 400 HZ SFC	On
APU ROOM	
PORT APU	Secured
STBD APU	Secured
AFTER STEERING	
PORT STRG GEAR UNIT	On (Active)
STBD STRG GEAR UNIT	On (Idle)
AFT MACERATOR	Auto
#8 EDUCTOR	Secured

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Classification : UNCLAS

Page Number: \_\_\_\_\_

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
0405	ALIGNED MAIN F/O XFER ALIGNMENT TAKING SUCTION ON S-250-2-F IAW TVAT-	12	FEB	14
	STARTED NR 2 F/O XFER PUMP FILLING S-204-2-F IAW FOPG			
0442	COMMENCE JP'S HOSE FLUSH FROM 3-322-1-J TO S-328-0-1 IAW SSAF			
0444	SECURE JP'S SERVICE PUMP IAW SS/F			
0448	COMMENCE REFUELING HELD FROM 3-322-1-J IAW SSPE			
0453 0545	STOP JP'S SERVICE PUMP IAW SSPE			
0454	COMMENCE JP'S XFER FROM S-328-0-1 TO 3-322-1-J IAW TSST			
0458	STOPPED JP'S XFER PUMP IAW TSST			
0503	STOPPED NR 2 F/O XFER PUMP IAW FOPG AND PLACED NR 2 F/O PURIFIER IN STANDBY IAW FOPG			
0504	P/W TEST SAT ON S-308-1-W 2.2 PPM BROMINE IAW BPRM			
0506	SHIFTED P/W SUCTION FROM S-292-3-W TO S-308-1-W AND FILL FROM S-308-1-W TO <del>S-292-3-W</del> S-292-3-W IAW LOP PLACED NR 2 RO IN FILL IAW ROD <sup>174</sup> 11 FEB			
0507	PLACED NR 2 F/O PURIFIER IN OPERATION IAW FOPG. STARTED NR 2 F/O XFER PUMP TAKING SUCTION ON S-250-1-F FILLING S-204-2-F IAW TVAT/FOPG			
0508	PPS SAT ON S-204-2-F C/B			
0510	SHIFTED MAIN F/O SUCTION FROM S-204-1-F TO S-204-2-F IAW LOP			
0512	STOPPED NR 2 F/O XFER PUMP IAW FOPG AND PLACED NR 2 F/O PURIFIER IN STANDBY IAW FOPG			
0513	PLACED NR 2 F/O PURIFIER IN OPERATION IAW FOPG. STARTED NR 2 F/O XFER PUMP TAKING SUCTION ON S-250-1-F FILLING S-204-1-F IAW TVAT/FOPG			
0524	PIE AS EOOD BT (b) (3) (B), (b) (6)			
	ASSUMED THE WATCH AS EOOD			
0550	PLACED NR 2 RO IN ROD			
0615	STATION SEA & ANCHOR DETAIL			
0628	STOPPED NR 2 F/O XFER PUMP IAW FOPG			
0630	STOPPED AND SECURED NR 1 & NR 2 RO IAW ROD			

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
		12	FEB	14
0856	INITIATED NORMAL STOP IA GTE IAW CMA3			
0859	SHIFTED MAIN P/W SUCTION FROM 5-244-2-F TO 5-244-1-F.			
0902	NORMAL STOP COMPLETE IA GTE IAW CMA3.			
0913	PLACED NR 1 AND NR 2 RO IN DUMP IAW ROD			
0919	STOPPED AND SECURED NR 1 RO IAW ROD.			
0920	SHIFTED AUX F/O XFER SUCTION FROM 3-240-2-F TO 3-240-1-F AND 5-201-3-F TO 5-201-1-F IAW LOP.			
0921	STARTED AUX F/O XFER PUMP FILLING 3-240-2-F FROM 5-204-1-F IAW FOAT/TVATA.			
0925	STOPPED AUX F/O XFER PUMP IAW FOAT.			
0926	STARTED AUX F/O XFER PUMP FILLING 5-201-3-F FROM 5-204-1-F IAW FOAT/TVATA.			
0929	STOPPED AUX F/O XFER PUMP IAW FOAT/TVATA.			
0942	PPS SAT ON 3-292-6-F, 3-240-2-F AND 5-201-3-F, C & B			
0945	ECOW P/R BY (b) (3) (B), (b) (6)			
	ASSUMED THE WATCH AS FOLLOWS.			
0952	INITIATED AUTO START IA GTE TS.4 952°F IN 40 SECONDS IAW CMA3.			
0954	TWO MINUTE IDLE TS.4 1132°F Δ TS.4 100°F			
0955	PLACED IA GTE IN P/C IAW CRPT			
0956	STARTED IA F/O SERVICE PUMP IAW CRPT			
0926	P/W TEST SAT ON 5-308-1-W > 2 PPM BROMINE IAW BPRM			
0929	SHIFTED P/W SUCTION FROM 5-292-3-W TO 5-308-1-W. PLACED 5-292-3-W ON FILL IAW LOP. PLACED NR 2 RO IN FILL IAW ROD.			
0935	SET FLIGHT QUARTERS			
0925	P/W TEST SAT ON 5-292-3-W. > 2 PPM BROMINE IAW BPRM			
0927	SHIFTED P/W SUCTION FROM 5-308-1-W TO 5-292-3-W AND FILL FROM 5-292-3-W TO 5-308-1-W IAW LOP			
0934	ALIGNED AND STARTED NR 2 F/O PURIFIER IAW FORD.			
0940	PLACED NR 2 RO IN DUMP IAW ROD			

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
		12	FEB	14
0631	STOPPED NR2 FLO PURIFIER JAW FORD. ALIGNMENT SECURED JAW TRAT.			
0701	STARTED NR4 SSD G JAW CDSP			
0705	LOADED NR4 SSDG TO THE BUS JAW CDSP. LHT PLACED IN TRAMIT MODE JAW PRS			
0717	RESTRICTED MANEUVERING DOCTRINE IS SET			
0724	SHAFT STOPPED AND UNUSUAL NOISE CAME FROM THE BOTTOM OF THE SHIP CAUSING LOSS OF A/B SIGNAL LOST ALL CONDITIONS WERE MONITOR IN ENGINEERING & SPACES. THE SHAFT S- BROKE FREE FOR A BRIEF MOMENT AND SPEED SPEEDS UP VERY RAPIDLY. THE BRIDGE CALL DOWN TO STOP THE SHAFT AND SENSE THE COMMAND WAS ALREADY ORDERED ALL STOP THE EOCW HAD TO PLACE 1A & 1B GTE IN REMOTE MANUAL TO PREVENT THE SHAFT FROM OVERSPEEDING. SHAFT STOPPED AND DID NOT BRAKE FREE. EOCW ADVISED THE BRIDGE TO STOP AND SECURE THE SHAFT <del>TO PREVENT</del> AND ENGINES TO PREVENT DAMAGE TO THE MRG AND THE P7 TURBINE. BRIDGE ORDERED SHAFT STOPPED.			
0728	SHAFT SECURED, STOPPED 1A & 1B GTE JAW CSM. SHAFT BRAKE ENGAGED JAW LUSU			
0733	BRIDGE ORDERED TO RELEASE SHAFT BRAKE AND START MAIN ENGINES. INITIATED AUTO START 1A GTE JAW CFAS 75.4 992.08 @ 39 SEC. SHAFT DID NOT BRAKE FREE EOCW TRIED TO BRACE IT SA PLACE TRUS IN THE SHAFT UNSUCCESSFUL.			
0735	EOCW ADVISE THE BRIDGE WE HAVE 14 MINS BEFORE DAMAGING THE P7 TURBINE JAW EOSS. BRIDGE ORDERED SHUT DOWN GTE. MANUAL STOPPED 1A GTE JAW CSM.			
0738	BRIDGE ORDERED TO START 1A & 1B GTE'S. INITIATED AUTO START 1B GTE JAW CFAS 75.4 917.08 @ 38 SEC. INDICATION OF SHAFT NOT MOVING.			
0740	INDICATION OF SHAFT ROLLING.			

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
0741	BRIDGE ORDERED ENGINES MAKE 1/3. BRIDGE ORDERED ALL ENGINES STOP	12	FEB	14
0742	INITIATED AUTOMATIC 1A GTE INTO CENTS 5.4 1013°F @ 39 SEC			
0802	PLACED 1A & 1B GTE IN PROGRAMMED CONTROL THE CAPT.			
0803	TRANSFERRED THROUGH THE CONTROL FROM THE PCC TO THE SCC THE CAPT.			
0805	TO RECAP ON THE INCIDENT. AROUND 0724 WE HEARD UNUSUAL NOISE COMING FROM THE BOTTOM OF THE SHIP. SOON AFTER THE SHAFT COMPLETELY STOPPED. TWO MINUTES LATER THE SHAFT BROKE FREE AND SPEED UP RAPIDLY. THE BRIDGE CALLED DOWN TO STOP THE SHAFT AND SOON BRIDGE HAD CONTROL OF THE SHAFT AND THE 4 HAD ORDERED ALL STOP. EOWW NOTIFIED THE BRIDGE AND PLACED THE ENGINE IN REMOTE MANUAL. AT THAT POINT THE SHAFT WENT BACK TO ALL STOPPED. EOWW TRIED TO BRAKE SHAFT FREE WITH NO RESULTS. EOWW RECOMMENDED TO THE BRIDGE TO STOP THE ENGINES AND INVESTIGATE. BRIDGE ORDERED TO STOP ENGINES. EOWW AFTER STOPPING ENGINES ORDERED ALL SPACES TO CONDUCT AN INSPECTION IN THE ENGINEERING PLANT. ALL CONDITIONS WERE NORMAL. THE BRIDGE ORDERED THE ENGINES TO START. STARTED 1A GTE BUT THE SHAFT REFUSED TO MOVE. AFTER A FEW TRIES TO BRAKE SHAFT FREE EOWW REPORTED THE BRIDGE AFTER 14 MINS THE GTE SHOULD BE STOP TO PREVENT DAMAGE TO THE POWER TURBINE. THE BRIDGE ORDERED TO SECURED MAIN ENGINES. EOWW MANUAL STOP 1A GTE. AFTER A FEW MINUTES THE BRIDGE ORDERED TO START MAIN ENGINES. EOWW STARTED 1B GTE BUT THE SHAFT WAS STILL NOT MOVING. AFTER TWO MINUTES THE SHAFT STARTED ROTATING. BRIDGE ORDERED ALL ENGINES MAKE 1/3 AND THEN ALL STOP. EOWW STARTED 1A GTE AND TRANSFERRED THROUGH THE CONTROL TO THE BRIDGE. AFTER FULLIN INVESTIGATION AND STOPPING REPORT UNUSUAL COUPLING NOISE COMING FROM THE SHAFT AND THE CPP COMP LEVEL DROPPED FROM 671 GAL TO 647.4 GAL			

CLASSIFICATION UNCLASSIFIED

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TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
0932	Secured from RESTRICTED MANEUVERING	12	FEB	14
0933	TRANSFERRED THRUSTLE CONTROL FROM THE ECC TO THE PIC IAW CTS			
0934	PLACED IA & IB GTE IN REMOTE MANUAL IAW CRPT			
0939	REMOVED THE LOAD FROM MR4 SSDG IAW CSFC			
0944	STOPPED MR4 SSDG IAW CSFC			
0952	STOPPED IA & IB GTE IAW CSFC			
0953	STOPPED IA & IB F/O SERVICE PUMP IAW CFCOP			
0954	Secured from SEA AND ANCHOR DETAIL. Secured THE WATER AS FODW AND ASSUMED ALL DUTIES AS FDD.			
0955	ENGAGED AND STARTED MR6 TURNING GEAR IAW MRSG SHAFT COUNTER READS 664, 304			
1001	Secured DEGAUSSING IAW LOP			
1016	Secured BELL LOGGON IAW CA			
1021	REFUELING ALIGNMENT VERIFIED BY (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)			
1027	TAGGED OUT CPP SYSTEM FOR INSPECTION ENCL (CON) CPP/ HUB/BLADE INSPECTION 12 FEB 14 (00)			
1104	CNT CONNECTED TO THE PIC IAW PRS.			
1154	STOPPING <del>MR4</del> MR6 TURNING GEAR IAW MRSG SHAFT COUNTER READS 664, 316			
1225	CPP SYSTEM SECURED IAW PHOS.			
1227	TAGS CLEARED ON ENCL (CON) CPP HUB/BLADE INSPECTION 12 FEB 14 (00)			
1239	INITIAL SAMPLE FOR F-76 SAT. FLASH POINT 168°F <del>FROM</del> <sup>MIN</sup> ISLW ← 2200 IAW TRM MANUAL S41.			
1254	STARTED CPP STBY PUMP IAW PHOS			
1255	REFUELING ALIGNMENT FOR F-76 VERIFIED BY (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)			

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
		12	FEB	14
1300	PIR AS CCS SUPERVISOR BY (b) (3) (B), (b) (6)			
	(b) (3) (B), (b) (6)			
	ASSEMBLED THE CANTON AS CCS SUPERVISOR			
1349	TOP SIDE RISER OPEN.			
1352	COMMENCE REFUELING OF F-76. BEGINNING SAMPLE TAKEN UNSAT DUE TO LIGHT SEDIMENT. BOTTOM ORDED.			
1407	15 MINUTE EFFICIENCY SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
1427	15 MINUTE EFFICIENCY SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
1437	15 MINUTE EFFICIENCY SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
1452	15 MINUTE EFFICIENCY SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
1507	15 MINUTE EFFICIENCY SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
1522	15 MINUTE EFFICIENCY SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
1520	MIDPOINT SAMPLE TAKEN.			
1532	MIDPOINT SAMPLE EVALUATED CLEAR AND BRIGHT.			
1543	15 MINUTE EFFICIENCY SAMPLE TAKEN. SAT.			
1558	15 MINUTE EFFICIENCY SAMPLE TAKEN. SAT.			
1559	SECURED CPP STANDBY PUMP IAW PHOS.			
1613	15 MINUTE EFFICIENCY SAMPLE TAKEN. SAT.			
1625	ENERGIZED DECAUSSING IAW COP			
1628	15 MINUTE EFFICIENCY SAMPLE TAKEN. SAT.			
1643	15 MINUTE EFFICIENCY SAMPLE TAKEN SAT			
1654	ENDPOINT SAMPLE EVALUATED CLEAR AND BRIGHT.			
1700	SECURE FROM REFUELING OF F-76.			
1755	CPP HEAD TANK SAMPLE TAKEN IAW 2451/001 R-414 SAMPLE REVEALED ABOUT 4-6 DROPS OF WATER IN A 32OZ BOTTLE - CPP SYSTEM IS SECURED IAW PHOS. HEAD TANK IS 18 GALLONS AND FALLING SENSE IDLE. CHIEF ENGINEER NOTIFIED.			
1804	SECURED THE TOP SIDE RISER FOR F-76.			

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
		12	FEB	14
1827	SECURED REFUELING ALIGNMENT 1AW TWT.			
1845	DE-ENERGIZED DECAUSSING 1AW COP			
1848	COP SYSTEMS ALIGNED AND STARTED 1AW PWS.			
1902	1/2 PURIFIER IN OPERATION HEATER ALIGNED RECIRCULATING COP SUMP TO SUMP 1AW COPD.			
1932	L/O PURIFIER EFFICIENCY SAMPLE ON COP SYSTEM SAT. NO VISIBLE WATER OR SEDIMENT IN INLET & OULET SAMPLE. CHIEF ENGINEER NOTIFIED. S/F WILL CONTINUE TO TAKE EFFICIENCY SAMPLE ONLY HOLD AT PBL (C) UNTIL <sup>FUTURE</sup> NOTICE.			
1947	VERIFYING ALIGNMENT OF REFUELING AF-76 WITH (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)			
1948	TOP SIDE RISER OPEN.			
1950	COMMENCED REVERSE OF F-7C BEGINNING POINT SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT BSW ORDERED			
2007	END POINT SAMPLE TAKEN. UNSAT DUE TO LIGHT SEDIMENT.			
2011	SECURED REFUELING OF F-7C TOP SIDE RISER CLOSED ALIGNMENT SECURED.			
2013	L/O PURIFIER EFFICIENCY SAMPLE ON COP SYSTEM SAT. NO VISIBLE WATER OR SEDIMENT IN INLET & OULET SAMPLE. CHIEF ENGINEER NOTIFIED HEAD TANK COP SAMPLE TAKEN UNSAT. 1/2 INCH OF WATER IN A 32 OZ BOTTLE. CHIEF ENGINEER NOTIFIED			
2025	TOOK AS CCS SUPERVISOR BY (b) (3) (B), (b) (6)			
	ASSUMED THE WATCH AS CCS SUPERVISOR.			
2045	DRAWED COP HEAD TANK APPROX. 5 GALLONS OF OIL TO REMOVE ALL RESIDUAL OF WATER - WILL RETAKE COP HEAD TANK SAMPLE @ 202250			
2053	ALLOWED L/O PURIFIER TAKING SUCTORS FROM 3 330 2 F FLOW COP SUMP 1AW COPD			
2109	SECURED FLOW OF COP HEAD TANK SUMP. ALLOWED L/O PURIFIER COP			

CLASSIFICATION UNCLASSIFIED

PAGE  
NO.

TIME	RECORD OF ALL EVENTS OF THE DAY	DAY	MONTH	YEAR
	Sump to Sump Tank LOPO.	12	FEB	14
2117	L/O PURIFIER EFFICIENCY SAMPLE INLET & OUTLET FOR CPP SAT C&IS CPP HEAD DMR SAMPLE SAT C&IS CHIEF ENGINEER NOTIFIED			
2210	CURRENT CPP SUMP LEVEL IS 671 GALLONS BY DDI. EVEN THOUGH CPP SUMP LEVEL HAS DECREASED FROM INITIAL SOUNDING OF 695 GALLONS AFTER L/D XFER FROM STORAGE. THIS COULD BE DUE TO THE THE L/O PURIFIER IS IN OPERATION PURIFYING CPP SUMP TO SUMP TANK LOPO. S/P WILL MONITOR AND RECORD SUMP LEVEL EVERY 15 MIN AND IN ENGINEERING LOG. CHIEF ENGINEER HAS BEEN NOTIFIED.			
2221	L/O PURIFIER EFFICIENCY SAMPLE INLET & OUTLET FOR CPP SAT C&IS CHIEF ENGINEER NOTIFIED.			
2225	PS & W FOR ALL UNSAT SAMPLES DURING REFUELING ARE SAT < 2% METS			
2240	PS SAT ON 5-204-LF, 5-201-LF AND 3-240-LF, CLEAR & BRIGHT			
2317	L/O PURIFIER EFFICIENCY SAMPLE INLET & OUTLET FOR CPP SAT C&IS CHIEF ENGINEER NOTIFIED			
2359	CONTINUES THE WATCH AT CCS SUPERVISOR AND THE DUTY AT EDU TO 13 FEB 14			
	(b) (3) (B), (b) (6)			
	(b) (3) (B), (b) (6)			

2000 / 2104 / 23699 LUBE OIL QUALITY ASSURANCE LOG

Equipment Capacity Type	Time	Sump LVL	Watch Initial	EOOW EDO Initial	Time Sample Taken	Sample Code	Sump LVL At Sample	Clear/Bright (Y/N)	Contaminate (CL/FW/S)	Visible Sediment Test S/U	BS&W Sed <.1 Comb <.2	Watch Initial	EOOW EDO Initial	REQ
1 AC 5 QTS/ 2190 TF03110	0020	N	(b) (3) (B), (b) (6)									(b) (3) (B), (b) (6)		Weekly When Online
2 LPAC 5 QTS/ 2190 TF03110	0025	N												Weekly When Online
1 HPAC 5 GALS/ 2190 TF01100	0030	N												Weekly When Online
2 HPAC 5 GAL TF01100	0035	N												Weekly When Online
MRG/ 2190 >1100=H 1100-900=N =< 899=L D311000					5015	N	945	Y	-					Daily When Online By DDI 203
CPP/ 2190 >850= H 849-660=N =<659=L D415000	0115	671			1933	OTH	(598)	Y	-					Weekly When Online By DDI 207
LSB/2190 14 GAL D431100					1434	N	N	Y	-	-	-			Daily When Online
MRG CLR WTR SIDE		N/A			1015	N	SAT		UNSAT					Daily When Online

DAILY LUBE OIL TRANSFER LOG

Time of Xfer	Lube oil Xfered from	Lube oil Xfered to	Type of lube oil Xfered	Storage Tank level prior to Xfer	Storage Tank level after Xfer	Amount of lube oil Xfered	Watch Initials	EOOW/ EDO Initials
2017	3-286-2F	LPAC Sump	2190	744710	644 (40)	100 GAL	(b) (3) (B), (b) (6)	

2104 LUBE OIL

Equipment Capacity/ EIC	Time	Sump Level FC/FH/N/L	Watch Initial	EOOW EDO Initial	Time Sample Taken	Sample Code	Sump level at sample FC/FH/N/L	Fuel Dilution <5% SAT	Thicke n-ing <35% Sat >35% Unsat	Watch Initial	EOOW EDO Initial	Required Periodicity
1 SSDG 165 / 3701610			(b) (3) (B), (b) (6)		0055	D	FH	SAT	SAT	(b) (3) (B), (b) (6)		Daily When Online
2 SSDG 165 / 3701610					0057	D	FH	SAT	SAT			Daily When Online
3 SSDG 165 / 3701610	0015	FL										Daily When Online
4 SSDG 165 / 3701610	0020	FL										Daily When Online

KITTIWAKE TEST LOG

SSDG	DAILY VISC	BASE VISC	DAILY - BASE	/BASE	X 100	TOTAL	OIL TEMP	TBN BASE	100 HR TBN*
1	92.4	105.9	-13.5	-0.12	-12.74	-12.74	22.4°	647	
2	92.1	94.7	-2.6	-0.02	-2.74	-2.74	22.5°	1244	
3		101.4						1018	
4		93.0						1115	
VISCOSITY % CHANGE	-10	-18	-25	-30	-35	NEGATIVE DILUTION	2 mg KOH/g MINIMUM		
FUEL DILUTION %	1	2	3	4	5	POSITIVE THICKNING	*SEE F&W FOR HR TO NEXT TBN		

23699 SYNTHETIC LUBE OIL

Equipment/ Capacity/ EIC	Time	Sump Level Normal 19-24for GTE H/N/L for SAC	Watch Initials	EOOW/EDO Initials
1A GTE / 32 GAL/ D111000	0116	21.44	(b) (3) (B), (b) (6)	(b) (3) (B), (b) (6)
1B GTE / 32 GAL/ D111000	0116	24.76		
Nr 2 SAC / 5 GAL/ D170000	0050	N		
Nr 4 SAC / 5 GAL/ D170000	0055	N		

DAILY F/O SYSTEM LOG

DATE 12 FEB 14

HOUR	FOSP ONLINE	FOSP PSI	GTM SUPPLY	SRVC TNK	SRVC TNK LVL	FLTR/SEP PFLT	FLTR/SEP D/P	PREFLTR D/P	OIL KING	EOWW
MAX	1A	58PSI	////////	////////	////////	1A	12 PSID	10 PSID	(b) (3) (B), (b) (6)	
MIN	1B	////////	8	////////	8,000 GAL	1B	0 PSID	0 PSID		
0000	1A / 1B	53 / 53	36	204-2	8,000	1A / 1B	0.5 / 1.5	4.7		
0100	1A / 1B	54 / 54	36	204-1	14,300	1A / 1B	0.5 / 2.5	4.4		
0200	1A / 1B	54 / 54	28	204-1	12,000	1A / 1B	0.5 / 1.0	3.5		
0300	1A / 1B	54 / 54	32	204-1	10,000	1A / 1B	0.5 / 1.0	3.5		
0400	1A / 1B	54 / 54	32	204-1	9,600	1A / 1B	0.5 / 1.0	3.5		
0500	1A / 1B	54 / 54	32	204-2	14,200	1A / 1B	0.5 / 1.0	3.8		
0600	1A / 1B	54 / 54	32	204-2	14,000	1A / 1B	0.5 / 1.0	3.5		
0700	1A / 1B	54 / 54	32	204-2	13,800	1A / 1B	0.5 / 1.0	3.5		
0800	1A / 1B	54 / 52	32	204-7	13,600	1A / 1B	0.5 / 1.0	3.5		
0900	1A / 1B	54 / 52	32	204-2	13,400	1A / 1B	0.5 / 1.0	3.5		
1000	/	/				/	/	/		
1100	/	/				/	/	/		
1200	/	/				/	/	/		
1300	/	/				/	/	/		
1400	/	/				/	/	/		
1500	/	/				/	/	/		
1600	/	/				/	/	/		
1700	/	/				/	/	/		
1800	/	/				/	/	/		
1900	/	/				/	/	/		
2000	/	/				/	/	/		
2100	/	/				/	/	/		
2200	/	/				/	/	/		
2300	/	/				/	/	/		

UPON FILTER/SEPERATOR CHANGE OUT, LOG START HOUR ON BACK OF LOG.

# USS TAYLOR FFG-50 FUEL OIL TESTING LOG

DATE \_\_\_\_\_

SAMPLE DATA			SERVICE TANK DATA							XFER SYSTEM DATA						
TIME	PPS	C&B	BS&W	TANK ONLINE	REASON FOR TEST	PUMP (A/B)	FIL/SEP (A/B)	SED (MG/L)	WTR (PPM)	C&B	REASON FOR TEST	C&B	TANK WIP	SAT/UNSAT	OIL KING	EDO EOOW
0119				204-2	SMVS	B	B			SAT						
				204-2	SMCCFD	B	B	0.042	0							
0142	204-1															
	201-3															
	240-2															
	292-0															
0201				204-1	SMUS	A	A			SAT						
				204-1	SMCCFD	A	A	0.044	0							
0330											WIP		250-1	SAT		
0335											WIP		250-2	SAT		
0410				204-1	SMUS	A/B	A/B			SAT						
				204-1	SMCCFD	A/B	A/B	0.042 0.044	0	SAT	SAT					
0410											5MPD	SAT				
0435											30MPD	SAT				
0518											5MPD	SAT				
0543											30MPD	SAT				
1352	BEG	UNSAT	SAT													
1532	MID	SAT														
1654	END	SAT														
1950	BEG	UNSAT	SAT													
2007	END	UNSAT	SAT													
2240	204-1	SAT														
	201-1	SAT														
	240-1	SAT														

(b) (3), (b) (6), (b) (3), (b) (6)

SMCCFD DUE AFTER START-UP  
5 MIN AND 30 MIN FIL/SEP SUMP VISUAL SAMPLE AFTER STARTING FO SERVICE

WIP- PRIOR TO XFER FROM STORAGE TANK  
5MPD & 30MPD- (PURIFIER DISCHARGE, VISUAL)  
5MTPD & 30MTPD- (TRANSFER PUMP DISCHARGE) FOR RECIRC

DATE 11 FEB 14

FROM: OIL KING  
TO: OOD (UNDERWAY)/CDO (INPORT)

SUBJ: ENGINEERING DEPARTMENT LIQUIDS TRANSFER CHECK LIST

REF: (a) EOSS PROCEDURE FOCL (FUEL OIL SYSTEM CHECKLIST)  
(b) EOSS PROCEDURE SNOK (STANDARD NOTES FOR THE OIL KING)

1. IAW REFS (a), (b) and (c), ENSURE BILGES AND DRIP PANS ARE FREE OF FUEL, FLANGE SHIELDS ARE IN PLACE AND VALVES AND REMOTE OPERATORS ARE INSTALLED, LABELED AND OPERATIONAL.

2. THE FOLLOWING LIQUID IS TO BE TRANSFERRED IAW REFS (a), (b):

- F-76
- F-44

NOTE 1: THIS CHECKLIST IS NOT REQUIRED DURING HELICOPTER REFUELING OPERATIONS.  
NOTE 2: AUXILIARY FUEL TRANSFERS WILL BE CONDUCTED IAW TVATA.

3. PUMPING DEVICE TO BE USED NR2 FLO XFER PUMP

4. SUCTION IS TO BE TAKEN ON S-254-2-F Storage/ Service Tank.

5. DISCHARGING TO S-244-2-F Service Tank.

6. TANK (S) BEING FILLED OVERFLOWS TO:

- OVERFLOW VENT IN SPACE \_\_\_\_\_
- OVERFLOW TANK S-104-4-F

\*NOTE: TOPSIDE WATCHES WILL BE POSTED TO OBSERVE OVERBOARD DISCHARGE DURING INPORT TRANSFERS AS PER REF (b).

7. THE WATCH ASSIGNMENTS ARE AS FOLLOWS:

GTBD OVERFLOW _____	PORT OVERFLOW _____
TANK SOUNDER 1 _____	TANK SOUNDER 2 _____
PUMP OPERATOR <u>(b) (3) (B), (b) (6)</u>	CCS WATCH <u>(b) (3) (B), (b) (6)</u>

8. SYSTEM ALIGNMENT:

- a. EDO/EOOW (PERMISSION TO ALIGN)
- b. OIL KING (ALIGNED BY)
- c. WRENG/ MPA INPORT (VERIFIED BY)

**(b) (3) (B), (b) (6)**

9. PERMISSION IS GRANTED TO CONDUIT ABOVE TRANSFER BY **(b) (3) (B), (b) (6)**

10. COMMAND DUTY OFFICER/EOOW IS NOTIFIED OF COMPLETED TRANSFER EVOLUTION.

**(b) (3) (B), (b) (6)**

EDO/EOOW INITIALS \_\_\_\_\_

**USS TAYLOR FFG-50**  
**POTABLE WATER ACCOUNTABILITY LOG**

DATE: 12 FEB 04

TIME	GALS BRHT FWD	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2		
		0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
STAT 308-1		1	2	4	4	2	1	4	2	2	7	4		2	4	1	1	4	4	4	2	2	2	2	4	
GALS 308-1		2123	2014	2123	2123	1916	2123	2123	1541	1589	8850	8200	888		826	444	539	950	2010	2010	2010	2010	1654	826	444	444
STAT 308-2		4	4	4	4	4	4	4	4	4	4	4		4	4	4	4	4	4	4	4	4	4	4	4	
GALS 308-2		2123	2123	2123	2123	2123	2123	2123	2123	2123	2123	2123		2123	2123	2123	2123	2123	2123	2123	2123	2123	2123	2123	2123	
STAT 292-3		2	1	2	2	1	2	2	4	4	4	4		4	2	2	2	2	2	2	4	4	4	4	4	
GAL 292-3		1357	2200	2225	1990	2125	2175	1940	1767	1767	1767	1761	1767		2200	2200	1688	1416	1592	1298	750	485	485	485	485	
STAT 292-2		4	4	4	4	4	4	4	4	4	2	2	2		4	4	4	4	4	4	4	4	4	4	2	
GAL 292-2		2060	2346	2346	2346	2346	2346	2346	2346	2346	2000	1720	1720		616	616	616	616	2346	2346	2346	2346	2346	2346	1990	
TOTAL WATER		7663	8757	8617	8582	8664	8767	8532	7577	7124	6778	6478	6456		5845	5402	4965	5105	8071	7777	7224	6464	6645	5780	5398	5242
WATER %		80	98	94	97	97	99	96	89	80	70	73	0		66	62	56	58	91	87	82	79	67	65	60	57
CONSUMED		468	113	55	235	163	0	235	955	453	346	200	0		803	383	491	202	0	294	549	265	356	828	382	356
PRODUCED		449	923	113	0	185	163	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
ASM INTS		(b) (3) (B), (b) (6)																								
EDO/																										
EOOW																										

Legend: 1=Fill, 2=Suction, 3= Recirc, 4=Standby







# USS TAYLOR (FFG-50) ENGINEERING LOG SOUNDING AND SECURITY REPORTS

DATE: 12 FEB 14

0845	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO. PRELUBED STANDBY SSDG IAW CEAO <u>YES</u> / NO.
08129	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
08230	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
08325	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
08420	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO. PRELUBED STANDBY SSDG IAW CEAO <u>YES</u> / NO.
08525	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
09021	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
0930	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
0929	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO. PRELUBED STANDBY SSDG IAW CEAO <u>YES</u> / NO.
0915	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1011	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1130	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1232	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO. PRELUBED STANDBY SSDG IAW CEAO <u>YES</u> / NO.
1330	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1450	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1520	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1630	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO. PRELUBED STANDBY SSDG IAW CEAO <u>YES</u> / NO.
1720	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1810	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
1920	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
2024	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO. PRELUBED STANDBY SSDG IAW CEAO <u>YES</u> / NO.
2122	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
2230	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.
2331	SOUNDING & SECURITY, IEM REPORTS ALL CONDITION NORMAL. <u>YES</u> / NO. EPCC GROUND TEST SAT. <u>YES</u> / NO.

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

**(b) (3) (B), (b) (6)**

# BELL LOGS

## USS TAYLOR FFG-50

FOR DAY OF: 12

FOR MONTH OF: FEB 2014

**EXAMINED DAILY AND CERTIFIED TO BE CORRECTED:**

SIGNATURE OF REVIEW:

(b) (3) (B), (b) (6)

DATE OF  
REVIEW:

13 Feb 14

APPROVED BY:

(b) (3) (B), (b) (6)

ENGINEERING OFFICER:

DATE OF  
APPROVAL:

13 Feb 14

TIME MONTH DAY ORDER STATION PITCH RPM SHAFT REV ORD PITCH ORD RPM  
000000 02 12 BR BR 23.3 122 958255 23.2 119  
!@#%&'()\*+,-./0123456789:;(-)?@ABCDEF  
(-)?@ABCDEF GHIJKL MNOPQRST UVWXYZ \ ] ^ \_ [ " # \$ % & ' ( ) \* + , - . / 0 1 2 3 4 5 6 7 8 9 : ; ( = ) ? @ A B C D E F G

(b) (3) (B), (b) (6)

02-21

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT	REV	ORD	PITCH	ORD	RPM
024541	02	12	BR	BR	23.3	118	963824			23.2		119
064853	02	12	BR	BR	23.3	88	954191			23.2		86
024910	02	12	BR	BR	23.2	88	964214			23.2		86

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
084940	02	12	BR	BR	18.5	72	964246	ORD	18.7	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
084941	02	12	BR	BR	18.7	70	964258	ORD	18.7	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
085012	02	12	BR	BR	18.7	58	964261	ORD	18.7	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
085056	02	12	BR	BR	18.6	61	964267	ORD	18.7	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
085347	02	12	BR	BR	12.2	73	964494	ORD	9.9	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
085349	02	12	BR	BR	9.9	79	964505	ORD	9.9	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
085425	02	12	BR	BR	9.9	79	964510	ORD	9.9	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012002	02	12	BR	BR	9.9	64	964554	ORD	9.9	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012158	02	12	BR	BR	9.9	59	964890	ORD	9.9	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012220	02	12	BR	BR	13.1	49	965006	ORD	13.1	51	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012222	02	12	BR	BR	13.1	44	965013	ORD	13.1	51	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012210	02	12	BR	BR	13.1	44	965015	ORD	13.1	51	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012244	02	12	BR	BR	19.7	46	965203	ORD	23.2	50	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012249	02	12	BR	BR	23.2	46	965207	ORD	23.2	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
012256	02	12	BR	BR	23.2	46	965213	ORD	23.2	55	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013330	02	12	BR	BR	23.2	58	965447	ORD	23.2	53	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013346	02	12	BR	BR	23.2	74	965466	ORD	23.2	53	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013417	02	12	BR	BR	23.2	78	965505	ORD	23.2	53	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013430	02	12	BR	BR	23.2	82	965522	ORD	23.2	111	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013450	02	12	BR	BR	23.2	104	965555	ORD	23.2	111	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013507	02	12	BR	BR	23.2	111	965585	ORD	23.2	123	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013529	02	12	BR	BR	23.2	121	965922	ORD	23.2	123	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013539	02	12	BR	BR	23.2	128	967004	ORD	23.2	131	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013538	02	12	BR	BR	23.2	132	967024	ORD	23.2	151	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013507	02	12	BR	BR	23.2	140	969032	ORD	23.2	152	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013546	02	12	BR	BR	23.2	139	969328	ORD	23.2	151	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013502	02	12	BR	BR	23.2	156	969368	ORD	23.2	151	

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013502	02	12	BR	BR	23.2	158	969433	ORD	23.2	151	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013502	02	12	BR	BR	23.2	158	969432	ORD	23.2	151	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013502	02	12	BR	BR	23.2	162	970422	ORD	23.2	158	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
013502	02	12	BR	BR	23.2	174	970422	ORD	23.2	158	
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM



022	53	12	BR	BR	19.3	181	999945	23.2	37
TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	RPM
052877	02	12	BR	BR	23.2	69	999949	27.2	81

0524 PK AS 6005 BY

(b) (3) (B), (b) (6) (b) (3) (B), (b) (6)

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
053020	02	12	BR	BR	23.2	78	999890		23.2		110
053048	02	12	BR	BR	23.2	102	999719		23.2		110
053121	02	12	BR	BR	23.2	108	999783		23.2		110
053236	02	12	BR	BR	23.2	113	999920		23.2		122
053249	02	12	BR	BR	23.2	120	999945		23.2		122
053300	02	12	BR	BR	23.3	124	003302		23.2		122
053516	02	12	BR	BR	23.2	114	003951		23.2		108
053656	02	12	BR	BR	23.2	107	004132		23.2		110
053859	02	12	BR	BR	23.2	113	007579		23.2		121
053913	02	12	BR	BR	23.2	119	007605		23.2		121
055211	02	12	BR	BR	23.3	108	009185		23.2		79
055226	02	12	BR	BR	23.2	89	009209		23.2		79
055250	02	12	BR	BR	23.2	81	009242		23.2		79
055505	02	12	BR	BR	23.2	79	009414		23.2		92
070000	02	12	BR	BR	23.2	88	009843		23.2		92
070104	02	12	BR	BR	18.0	87	009938		18.0		66
070110	02	12	BR	BR	18.0	75	009949		18.0		66
070127	02	12	BR	BR	18.0	70	009965		18.0		66
070216	02	12	BR	BR	18.0	63	010018		18.0		66
070547	02	12	BR	BR	23.2	56	010294		23.2		53

070558	02	12	BR	BR	23.2	53	010304		23.2		53
070701	02	12	BR	BR	23.2	53	010307		23.2		53
071126	02	12	BR	BR	15.4	51	010532		15.4		65
071137	02	12	BR	BR	15.3	56	010542		15.4		65
071472	02	12	BR	BR	12.0	52	010647		12.0		57

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
072603	02	12	BR	BR	12.2	1	011269	ORD	12.2	ORD	65
072706	02	12	BR	BR	6.7	16	011271	ORD	.9	ORD	65
072721	02	12	BR	BR	7.2	109	011303	ORD	7.4	ORD	65
072726	02	12	BR	BR	13.2		011305	ORD	12.3	ORD	65
072734	02	12	BR	BR	13.3	11	011306	ORD	12.4	ORD	65
07274	02	12	BR	BR	7.5	29	011309	ORD	6.3	ORD	65
072746	02	12	BR	BR	2.7	26	011311	ORD	1.5	ORD	65
072751	02	12	BR	BR	.1	30	011313	ORD	.1	ORD	65
072751	02	12	BR	BR	0.	34	011313	ORD	.1	ORD	65
072759	02	12	BR	BR	0.	51	011319	ORD	.1	ORD	65
072814	02	12	Z	BR	0.	59	011333	ORD	.1	ORD	65
072840	02	12	Z	BR	0.		011345	ORD	.1	ORD	65
074052	02	12	Z	BR	0.	42	011356	ORD	.1	ORD	65
074104	02	12	Z	BR	-4.0	45	011365	ORD	-4.6	ORD	65
074108	02	12	Z	BR	-5.9	44	011368	ORD	-6.3	ORD	65
074113	02	12	Z	BR	-12.0	40	011371	ORD	-11.7	ORD	65
074119	02	12	1/3	BR	-13.1	35	011375	ORD	-12.4	ORD	65

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD PITCH	ORD RPM
174151	02	12	Z	RR	-12.8	45	Ø11397	- 9.0	65
174158	02	12	Z	RR	- 4.2	44	Ø11400	- 2.9	65
174153	02	12	Z	RR	0.	44	Ø11403	- .1	65
174210	02	12	Z	RR	0.	43	Ø11411	- .1	65
174220	02	12	Z	RR	0.	47	Ø11410	- .1	65

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
074140	02	12	1/3	BR	5.8	52	011480	000	5.4	000	55
074143	02	12	1/3	BR	6.3	51	011490	000	5.4	000	55
074146	02	12	1/3	BR	6.3	51	011493	000	5.7	000	65
074149	02	12	1/3	BR	7.1	52	011504	000	6.8	000	65
074152	02	12	1/3	BR	12.5	48	011566	000	12.8	000	65
074155	02	12	1/3	BR	16.3	36	011570	000	14.4	000	65
074158	02	12	1/3	BR	15.8	36	011572	000	14.8	000	65
074161	02	12	1/3	BR	10.5	37	011577	000	9.8	000	65
074164	02	12	1/3	BR	10.2	42	011581	000	9.4	000	65
074167	02	12	1/3	BR	10.2	43	011584	000	9.4	000	65
074170	02	12	1/3	BR	9.6	43	011602	000	8.9	000	65
074173	02	12	1/3	BR	9.6	46	011686	000	9.8	000	65
074176	02	12	1/3	BR	5.0	50	011690	000	4.4	000	65
074179	02	12	1/3	BR	6.8	53	011696	000	6.2	000	65
074182	02	12	1/3	BR	6.8	52	011700	000	6.2	000	65
074185	02	12	1/3	BR	10.1	49	011906	000	9.3	000	65
074188	02	12	1/3	BR	10.1	46	012003	000	9.3	000	65
074191	02	12	1/3	BR	10.1	52	012304	000	9.3	000	65
080000	02	12	1/3	BR	0.	59	012434	000	7.0	000	75
080003	02	12	1/3	BR	2.0	59	012437	000	7.0	000	75
080006	02	12	1/3	BR	10.6	49	012453	000	7.0	000	75
080009	02	12	BR	BR	10.6	4	012466	000		000	
080012	02	12	BR	BR	10.6	48	012477	000		000	
080015	02	12	BR	BR	10.3	47	012482	000	10.1	000	65
080018	02	12	BR	BR	14.8	50	012554	000	23.2	000	75
080021	02	12	BR	BR	23.2	41	012560	000	23.2	000	53
080024	02	12	BR	BR	23.2	42	012555	000	23.2	000	82
080027	02	12	BR	BR	23.2	46	012567	000	23.2	000	82
080030	02	12	BR	BR	23.2	48	012568	000	23.2	000	82
080033	02	12	BR	BR	23.2	47	012574	000	23.2	000	50
080036	02	12	BR	BR	17.8	38	012579	000	.8	000	65

080039	02	12	BR	BR	23.2	42	012555	000	23.2	000	82
080042	02	12	BR	BR	23.2	46	012567	000	23.2	000	82
080045	02	12	BR	BR	23.2	48	012568	000	23.2	000	82
080048	02	12	BR	BR	23.2	47	012574	000	23.2	000	50
080051	02	12	BR	BR	17.8	38	012579	000	.8	000	65

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
880543	02	12	BR	BR	2.2	50	012590	-14.7			75
880547	02	12	BR	BR	-14.6	59	012603	-14.7			44
880554	02	12	BR	BR	-14.7	45	012606	-14.7			44
880558	02	12	BR	BR	-14.7	36	012612	-14.7			67
880567	02	12	BR	BR	-14.7	43	012614	-14.7			83
880570	02	12	BR	BR	-14.7	61	012616	-14.7			89
880582	02	12	BR	BR	-14.7	71	012628	-14.7			42
880591	02	12	BR	BR	-8.8	42	012636	.9			65
880595	02	12	BR	BR	1.8	59	012649	.8			65
880603	02	12	BR	BR	1.8	59	012652	.8			65
880738	02	12	BR	BR	5.1	64	012701	5.4			65
880748	02	12	BR	BR	5.5	56	012710	5.4			65
880751	02	12	BR	BR	10.5	56	012715	10.8			65
880821	02	12	BR	BR	10.8	45	012723	10.8			65
880808	02	12	BR	BR	10.9	44	012727	10.8			65
882502	02	12	BR	BR	6.1	49	013525	4.8			65
882517	02	12	BR	BR	4.8	56	013535	4.7			65
882527	02	12	BR	BR	4.8	57	013545	4.8			65
882920	02	12	BR	BR	9.4	59	013710	10.3			65
882924	02	12	BR	BR	10.4	49	013714	10.3			65
882932	02	12	BR	BR	10.4	45	013720	10.3			65
882940	02	12	BR	BR	10.4	45	013726	10.4			65
883030	02	12	BR	BR	5.7	48	013768	.8			65
883040	02	12	BR	BR	7.7	58	013780	.8			65
883054	02	12	BR	BR	7.7	59	013785	.9			65
883342	02	12	BR	BR	5.1	55	013955	10.3			75

883349	02	12	BR	BR	10.4	53	013952	10.4			65
883365	02	12	BR	BR	10.4	46	013968	10.4			65
883405	02	12	BR	BR	10.4	47	013976	10.4			65
883520	02	12	BR	BR	16.6	44	014032	23.2			75
883527	02	12	BR	BR	23.2	17	014077	27.2			45

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD	PITCH	ORD	RPM
883540	02	12	BR	BR	9.4	39	014044	ORD	9.3	65	65
883546	02	12	BR	BR	9.3	44	014050	ORD	9.3	65	65
883516	02	12	BR	BR	9.3	46	014071	ORD	9.3	65	65
883356	02	12	BR	BR	10.3	46	014243	ORD	10.3	65	65
884634	02	12	BR	BR	6.9	48	014273	ORD	6.8	65	65
884643	02	12	BR	BR	6.8	52	014280	ORD	6.7	65	65
884211	02	12	BR	BR	4.5	53	014357	ORD	4.5	65	65
884210	02	12	BR	BR	4.5	55	014364	ORD	4.5	65	65
884236	02	12	BR	BR	4.5	56	014378	ORD	4.5	65	65
884252	02	12	BR	BR	9.5	59	014394	ORD	12.2	75	75
884257	02	12	BR	BR	12.2	45	014398	ORD	12.2	65	65
884304	02	12	BR	BR	12.4	39	014403	ORD	12.2	65	65
884309	02	12	BR	BR	12.4	39	014405	ORD	12.2	65	65
884357	02	12	BR	BR	16.2	40	014438	ORD	16.2	65	65
884403	02	12	BR	BR	16.3	33	014445	ORD	16.2	65	65
884415	02	12	BR	BR	16.3	33	014449	ORD	16.2	65	65
884426	02	12	BR	BR	11.2	36	014455	ORD	10.2	65	65
884437	02	12	BR	BR	10.4	43	014462	ORD	10.3	65	65
884449	02	12	BR	BR	10.4	44	014472	ORD	10.2	65	65
884544	02	12	BR	BR	14.2	46	014513	ORD	14.3	65	65
884554	02	12	BR	BR	14.3	38	014519	ORD	14.3	65	65
880000	02	12	BR	BR	14.3	39	015039	ORD	14.3	65	65
886214	02	12	BR	BR	13.2	41	015191	ORD	13.2	65	65
881181	02	12	BR	BR	9.4	42	015551	ORD	4.4	65	65
881116	02	12	BR	BR	4.3	55	015553	ORD	4.3	65	65

881124	02	12	BR	BR	4.3	56	015570	ORD	4.3	65	65
881250	02	12	BR	BR	7.2	56	015655	ORD	7.3	65	65
881432	02	12	BR	BR	3.4	52	015734	ORD	3.3	65	65
881441	02	12	BR	BR	3.1	56	015744	ORD	3.3	65	65
881450	02	12	BR	BR	1.9	57	015753	ORD	1.8	65	65
881450	02	12	BR	BR	1.9	57	015753	ORD	1.8	65	65

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD PITCH	ORD RPM
091658	02	12	BR	BR	-1.2	59	015819	-1.2	55
091659	02	12	BR	BR	-1.2	55	015876	-1.2	55
091704	02	12	BR	BR	-1.6	51	015886	-1.6	55
091705	02	12	BR	BR	-1.6	51	015888	-1.6	55
091720	02	12	BR	BR	-1.7	60	015902	-1.7	65
091745	02	12	BR	BR	-1.7	51	015928	-1.7	65
091803	02	12	BR	BR	5.3	54	015945	11.3	75
091811	02	12	BR	BR	10.1	46	015953	1.0	55
091819	02	12	BR	BR	-1.3	59	015950	-1.7	55
091824	02	12	BR	BR	-1.6	56	015966	-1.7	65
091831	02	12	BR	BR	-1.7	62	015973	-1.7	65
091832	02	12	BR	BR	-1.7	62	015974	-1.7	65
091837	02	12	BR	BR	-4.6	55	015979	-14.7	75
091846	02	12	BR	BR	-14.7	49	015989	-14.7	42
091853	02	12	BR	BR	-8.9	42	015994	3.0	65
091858	02	12	BR	BR	-1.6	49	015997	3.5	75
091904	02	12	BR	BR	7.8	63	016004	10.8	75
091909	02	12	BR	BR	10.9	48	016008	10.8	65
091915	02	12	BR	BR	6.6	44	016013	1.0	65
091929	02	12	BR	BR	1.1	57	016025	1.0	65
091933	02	12	BR	BR	1.0	58	016023	1.0	65
092145	02	12	BR	BR	-1.1	60	016161	-1.3	65
092201	02	12	BR	BR	-1.9	51	016177	-1.0	65
093442	02	12	Z	ER	-1.9	61	016950	0.0	75
095305	02	12	Z	ER	0.	13	018057	0.0	75
095325	02	12	Z	ER	0.	0	018059	0.0	75

TIME	MONTH	DAY	ORDER	STATION	PITCH	RPM	SHAFT REV	ORD PITCH	ORD RPM
088000	02	12	Z	ER	0.		018059	0.0	75



**SAMSUN INBOUND/OUTBOUND**  
**12 FEB 2014**

**(b) (3) (B), (b) (6)**

CLASSIFICATION: FOUO

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**SCHEDULE OF EVENTS**

LOCAL TIME IS -2E

- 0615L SET SEA AND ANCHOR DETAIL
- 0700L PILOT PICK UP
- TBD MOORED STBD SIDE
- TBD SECURE FROM SEA AND ANCHOR DETAIL
  
- TBD SET SEA AND ANCHOR DETAIL
- TBD PILOT PICK UP
- TBD UNDERWAY
- TBD SECURE FROM SEA AND ANCHOR DETAIL

NAV

FOUO

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**WATCHBILL**

OOD	TBD
JOOD	TBD
CONN	TBD
HELM SAFETY	TBD
MASTER HELMSMAN	TBD
AFT HELM SAFETY	TBD
TAO	TBD
CICWO	TBD
AFTWO	TBD
EDOW	TBD

NAV

FOUO

3

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## Tide and Current



THERE ARE NO CURRENT OR  
TIDE TABLES AVAILABLE FOR  
SAMSUN, TURKEY

FROM SAMSUN HARBOR  
MASTER - TIDES AND  
CURRENTS WITHIN THE BASIN  
ARE NEGLIGIBLE

NAV

FOUO

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## WEATHER



### 0700L FORECAST 12FEB14

TEMPERATURE	40°F
WIND CHILL	NA
WINDS	S 10 KTS
SKY COVER	0%
DEWPOINT	33°F
HUMIDITY	77%
PRECIPITATION	0%
SEAS	N 3-5 FT
VISIBILITY	>10 NM
WATER TEMP	47°F

### SUMMARY

Fog/mist/low visibility situation  
may occur in the early morning  
hours, especially during winter.

NAV

FOUO

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## ASTRONOMICAL DATA



CIVIL TWILIGHT	0605	TIME ZONE	-2B
SUNRISE	0633	MOONRISE	1458
SOLAR TRANSIT	1149	LUNAR TRANSIT	2210
SUNSET	1705	MOONSET	0515
CIVIL TWILIGHT	1805	ILLUMINATION	89%

NAV

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## CHARTS



LATEST EDITIONS WITH CORRECTIONS VERIFIED:

Chart No.	Ed.	NTM	BUOYAGE	IALA A
55161	2	12/11	SHOAL	36 FT
			DATUM	WGS 84
			NTM	12/11

NAV FOUO 7

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## VISUAL NAVAIDS



NAME	POSITION	DESCRIPTION
V-1	41°18.48'N 03°21.20'E	Fl, G 2s 15m 10M
V-2	41°18.25'N 03°21.85'E	Fl, R 5s 14m 10M
V-3	41°18.34'N 03°28.31'E	TANKS
V-4	41°18.12'N 03°28.32'E	Fl, R 6m 2M
V-5	41°18.20'N 03°22.16'E	BEACON

BEARING TANKS FOUO 8

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## RADAR NAVAIDS



Name	Position
R-1	41°18.48'N 03°21.20'E
R-2	41°18.20'N 03°21.85'E
R-3	41°18.20'N 03°28.32'E
R-4	41°18.12'N 03°28.32'E
R-5	41°18.51'N 03°21.16'E
R-6	41°18.25'N 03°22.39'E
R-7	41°18.10'N 03°22.84'E

RADAR OPERATOR FOUO 9

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### TRACK



LEG	CSE	SPD	DIST	TB/TR
1	288°T 282°M	5 KTS	3,530YDS	TB 042°T/114°R on V-1 TR 5100 YDS on E
2	218°T 212°M	5 KTS	526YDS	TB 282°T/ 116°R ON V-3 TR 625 YDS on R-4
3	181°T 175°M	5 KTS	1,880YDS	

LEG	CSE	SPD	DIST	TB/TR
1	000°T 355°M	5 KTS	1,880YDS	TB 267°T/ 268°R ON V-4 TR 650 YDS on R-2
2	042°T 037°M	5 KTS	526YDS	TB 291°T/ 111°R ON V-3 TR 325 YDS on R-2
3	108°T 102°M	5 KTS	3,530YDS	

CDR/1 FDU/1 10

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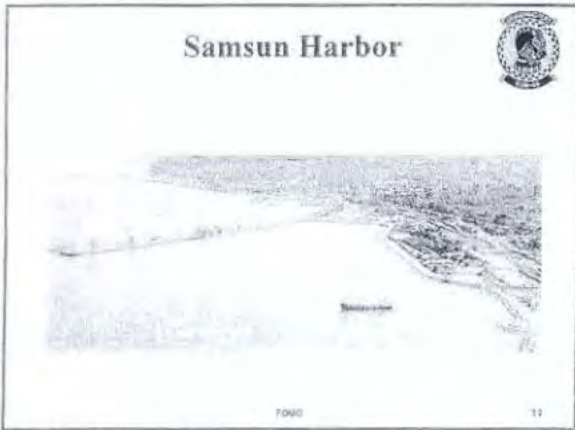
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### TRACK



WIDTH / DEPTH OF CHANNEL  
 Breakwater Width: 200 yds / 600 ft  
 SHALLOW WATER EFFECTS  
 5 kt = 0.4 ft 10 kt = 1.5 ft 15 kt = 3.5 ft  
 TSS / PRECAUTIONARY AREAS  
 NTR:

NAV FOUO 12

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**TRACK**



**SIGNIFICANT NAV AIDS / TERRESTRIAL RANGES**  
 There are no available charted ranges.  
 Lighted nav aids at entrance to harbor.

**PIER HEADING**  
 CBSP - 194°T - 284°T  
 Stbd - 001°T  
 Port - 181°T

**PILOT PICKUP / DROPOFF LOCATION**  
 1 nm E of the main harbor entrance.

**SPEED RESTRICTIONS**  
 NTR

NAV FOUO 13

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**EMERGENCY ANCHORAGE**



**LOCATION**  
 Area for emergency anchorage is available Southeast of harbor entrance.

**BOTTOM TYPE**  
 Mud.

**SCOPE OF CHAIN**  
 10-12m (33-47ft) depth. 3-5 shots required.

NAV FOUO 14

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**GROUND TACKLE**



**ANCHOR STATUS**  
 The anchor will be made ready for letting go via the brake method.  
 The hawsing stopper will be passed.

**MOORING / SPECIAL PROCEDURES / BROW PLACEMENT**  
 Stbd side to Coal pier using standard mooring configuration.  
 Brow is placed midships.

**READY LIFE BOAT STATUS**  
 Defender 1 FMC.

**PILOT / ACCOM LADDER**  
 Pilot's ladder will be rigged amidships port and starboard sides.  
 Accom ladder will be stowed.

NAV FOUO 15

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## EXTERNAL COMMS



CH	GUARD	USE
VHF 16	CENTERLINE / CIC	SAFETY CHANNEL/ SAMSUN PILOTS
VHF 16	CO CHAIR / CIC	SAFETY CHANNEL/ SAMSUN PILOTS
VHF 12	CO / CIC	SAMSUN PILOTS
FLEET TAC	CIC	
NAVY REP	CIC	
MAJ/AD	CIC	
SAT BICOM	CIC	
SFR CHAT	CIC	

033

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*2N 4/E*  
*2N 2 -*  
*4/10/18-12:30*

## OPERATIONAL CONSIDERATIONS



**ENTERING/DEPARTING MOVEMENTS**  
 NTR  
**HARBOR SPECIAL EVENTS, MEDIA COVERAGE, FLIGHT OPS**  
 NTR  
**TUG/PILOT ARRANGEMENTS**  
 1. Two tugs, one pilot. The pilot will embark at pilot pickup point on chart. Vessels should contact:  
 - Samsun pilots on VHF channel 16/12 one hour prior to pilot pickup point to confirm arrangements.  
**HOT AREAS**  
 NTR  
**SHIPS U/W IN OPAREA**  
 As briefed by OPS

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*Will be in the vicinity*  
*port side*  
*5:00: 11:00 to 12:00*

## SPECIAL CONSIDERATIONS



**HONORS**  
 Honors will be conducted IAW NTP-13B.  
**FLAG OFFICER MOVEMENTS, VISITORS, HARBOR EXERCISES**  
 NTR  
**DEBRIEF/HOTWASH SCHEDULE**  
 On bridge wing following securing from sea and anchor detail.  
**UNIFORM**  
 Coveralls and ballcaps for all hands; sleeves down/up at the discretion of the controlling station.

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## TACTICAL REQUIREMENTS



TACTICAL SITUATION, CONDITIONS OF READINESS

- Warning status
- Weapons status
- Weapons posture
- Download Plan
- FPCON level

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## CIC CONSOLE STATUS



CONSOLE	STATUS
ASWE	OOC
TAO	UP
REMRO	DEG
ADT	UP
WCO	UP
TRACK SUP	UP
ASTAC	UP

\*\*\*NO CHANGES\*\*\*

080

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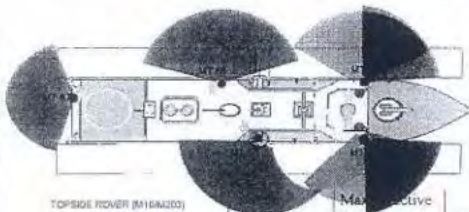
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## TAY SCAT Configuration



TOPSIDE ROVER (M16M203)

SCAT

ATMAC (ROWING)

● .50 Cal

● M240

Weapon	MAX Effective Range	Min. Range
.50 Cal	2000 YDS	50 YDS
M240	1968 YDS	30 YDS

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### SMALL BOAT PPR

PASS WORD: EMERGENCY WARNING  
 SMALL BOAT  
 DETERMINE INTENT - BTB, LRAD, 5 SHORT  
 BLASTS, PENCIL FLARES, LA-9P (Night)  
 MANUEVER AS SITUATION PERMITS TO  
 AVOID VESSEL  
 FIRE WARNING SHOTS  
 IF CONTACT REMAINS UNRESPONSIVE,  
 AND IS ASSESSED TO DEMONSTRATE  
 HOSTILE INTENT, TAY WILL ENGAGE WITH  
 SHIP'S WEAPONS PER CO'S ORDER.



ATTWO
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### NAV EQUIPMENT STATUS



EQUIPMENT	STATUS	EQUIPMENT	STATUS
SPS-55 RADAR	UP	DAGR GPS (PILOTHOUSE)	UP
MK-93 RADAR	UP	DAGR GPS (CIC)	UP
FURUNO RADAR	UP	WRN-6 GPS	UP
SPA-25G REPEATER (2)	UP	NORTHSTAR GPS	UP
WSN-3 GYRO	UP	FURUNO GPS	UP
MK-27 GYRO	UP	AIS GPS	UP
GYRO REPEATER (3)	UP	RUDDER INDICATOR (2)	UP
DFGMC	UP	RPM INDICATOR (2)	UP
FATHOMETER	UP	INTERNAL COMMS	UP
BM LOG	UP	COLLEGS	UP
EPIRBS (1)	UP	SCC	UP
DRT	UP	NAVSSI	UP

NAVSSI primary station monitor down, standby computer monitor has been rigged at the start table.

NAV
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### NAV EQUIPMENT CONFIGURATION



GYRO/REPEATER ERROR		RADAR RNG/BRG ERROR	
GYRO	0.6E°	SPS-55	0.0° 10 YDS
PORT	0.1W°	FURUNO	3.0° 50 YDS
CENTERLINE	0.9W°	<b>NAVSSI SETTINGS</b>	
STARBOARD	0.7W°	SPEED LEADER	ENABLED
HELM	0.0°	FIX INTERVAL	1 MIN
AFT STEERING	0.2E°	DNCs	H1508580 A1508580
CIC	0.8W°	DETERMINED BY AZIMUTH OF THE SUN (GYRO), FRANKLIN METHOD (SPS-55), AND FIX COMPARISON (FURUNO) 38JAN16.	
DFGMC	Variation 3° E		

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## DEVIATIONS FROM EOCC IAW RMD



CASUALTY	RESPONSE
CLASS "B" FIRE IN MAIN SPACE	<ul style="list-style-type: none"> <li>- Watch team will combat fire in space with PGP and AFFF hose reels without securing or cooling equipment.</li> <li>- If forced to evacuate space, secure ventilation, discharge Halon, and activate edge sprinkling.</li> <li>- EOWW will take no further action including mechanical or electrical isolation without permission.</li> <li>- Tivista control will be maintained in the pilothouse for as long as is possible.</li> </ul>
FIRES OUTSIDE MAIN SPACE	<ul style="list-style-type: none"> <li>- Handled in accordance with normal underway procedures; spaces will not be mechanically or electrically isolated without CO's permission.</li> <li>- EOWW will ascertain and report projected impacts to the engineering, combat, and navigational capabilities of the ship.</li> <li>- Permission to isolate space given by CO.</li> </ul>

NOTE - Many deviations from EOCC IAW RMD are situationally dependent and require a discussion between the CO and the OOD.

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## EMERGENCIES



EMERGENCY	RESPONSE
LOSS OF STEERING	<ul style="list-style-type: none"> <li>- Stop engine unit.</li> <li>- If control is not regained, sound casualty alarm in aft steering.</li> <li>- Pass casualty over IMC.</li> <li>- Order aft steering to take control.</li> <li>- Testing from ECC or after steering will be explicitly ordered by the OOD and shall not exceed 3 degrees.</li> <li>- Helm safety officer and aft steering will utilize the RUV for rudder and course orders.</li> <li>- Consider use of APUs / anchor / tugs where appropriate.</li> </ul>
LOSS OF PROPULSION	<ul style="list-style-type: none"> <li>- Consider use of APUs / tugs.</li> <li>- Emergency anchorage possible.</li> </ul>
LOSS OF GYRO	<ul style="list-style-type: none"> <li>- Announce "combat systems casualty: loss of gyro".</li> <li>- Shift to MK 27 gyrocompass.</li> <li>- If MK-27 gyrocompass in test, switch to OPDMC, bearing takers will take relative bearings, navigation will switch to relative plot, steer by magnetic heading.</li> </ul>

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## EMERGENCIES



EMERGENCY	RESPONSE
LOSS OF RADAR	<ul style="list-style-type: none"> <li>- Announce "combat systems casualty: loss of SPS-50".</li> <li>- Shift to secondary radar, MK 00.</li> </ul>
REDUCED VISIBILITY	<ul style="list-style-type: none"> <li>- Break out low vis checklist.</li> <li>- Reconsider sail speed.</li> <li>- Energize navigation lights, sound signals IAW COLREGS.</li> <li>- Navigation consider shifting primary plot to CIC.</li> </ul>
LOSS OF COMMS	<ul style="list-style-type: none"> <li>- Shift to handheld VHF B2B radios.</li> </ul>
MAN OVERBOARD	<ul style="list-style-type: none"> <li>- Restricted waters: tugs or security boat. Unrestricted: shipboard.</li> <li>- Sound six short blasts, break communicating red, B2B calls.</li> <li>- Pass "man overboard" over IMC, follow MOB checklist.</li> <li>- Request assistance of nearby vessels if appropriate.</li> </ul> <p>STAY TIME 47°F = 45 MIN NO SHARK ATTACK HAZARD</p>

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### RISK ASSESSMENT

I - Catastrophic  
 II - Critical  
 III - Marginal  
 IV - Negligible

		Probability of Occurrence			
		A	B	C	D
SEVERITY	I	1	1	1	1
	II	1	1	1	4
	III	1	1	4	5
	IV	1	4	5	5

Severity: I-Catastrophic II-Critical III-Marginal IV-Negligible  
 Probability: A-Likely to Occur B-Probably will occur in time  
 C-May occur in time D-Unlikely

18V FDUC 19

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### RISK ASSESSMENT

HAZARD	S/P	CONTROLS	RAC
COLLISION	D/I	<ul style="list-style-type: none"> <li>- Monitor MW COLREGS</li> <li>- Receive potential collision early via ETC</li> <li>- OOD and Shipping Officer will monitor traffic visually/radar/AIS</li> <li>- Shipping provide bridge with contact reports and recommendations via net.</li> <li>- ATWD will provide EA in small boat workable</li> </ul>	3
GROUNDING	D/I	<ul style="list-style-type: none"> <li>- Pilot report on bridge</li> <li>- Charts corrected MW latest NTR</li> <li>- Tracks reviewed, verified, and approved</li> <li>- Reference to NAV/DG/EE elements for continued waters navigation</li> <li>- Risk report and resolve discrepancies, provide recommendations</li> <li>- Minimize distractions to the Navigation Team by limiting conversation to only Sea and Anchor related</li> </ul>	3

18V FDUC 20

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### RISK ASSESSMENT

HAZARD	S/P	CONTROLS	RAC
COMMUNICATIONS FAILURE	B/III	<ul style="list-style-type: none"> <li>- Current PMS</li> <li>- Performance evaluation</li> <li>- Bridge systems available and on station</li> </ul>	3
INCLEMENT WEATHER	B/III	<ul style="list-style-type: none"> <li>- Proper attire on station including berthes and coverings/ gear where applicable</li> <li>- Heat hydrated</li> </ul>	3
LINE HANDLING MISHAP	B/II	<ul style="list-style-type: none"> <li>- Proper PPE worn</li> <li>- Safety observers on station</li> <li>- Adherence to established procedures</li> </ul>	2
BREAKDOWN IN BRM	C/II	<ul style="list-style-type: none"> <li>- Adherence to essential and established procedures</li> <li>- Senior leadership provide bridge backup to UO and junior watchstanders where required</li> <li>- Ensure watchstanders are ready to stand watch</li> </ul>	3

18V FDUC 21

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**RISK ASSESSMENT**



HAZARD	S/P	CONTROLS	RAC
MAN OVERBOARD	C/II	<ul style="list-style-type: none"> <li>Lookout duty officer on station</li> <li>Tug/security boat at station</li> <li>All hands remain clear of lines</li> </ul>	3
NAV EQUIPMENT MALFUNCTION	B/II	<ul style="list-style-type: none"> <li>Redundant systems online</li> <li>Emergency casualty procedures (radio); water/rafts prepared to operate</li> <li>Switch to alternate to backup NAV SYSTEMS</li> </ul>	2
STEERING/PROP CASUALTY	C/II	<ul style="list-style-type: none"> <li>Control PMS</li> <li>REDUNDANT SET</li> <li>Emergency casualty procedures (radio); secondary controlling station prepared to execute</li> </ul>	3

NAV FOGD 35

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**RISK ASSESSMENT**



**RISK TO MISSION**  
Grounding or mishap results in loss of available asset.

**RISK TO PERSONNEL**  
The primary threat to personnel is a man overboard or a line handling mishap. Tugs and security boats will be on station during the harbor transit.

NAV FOGD 36

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**RISK ASSESSMENT**



**EQUIPMENT**  
Tug performance vs. requirements

**PEOPLE**  
Pilot expertise

**PROCEDURE**  
Refueling  
Restricted harbor movement

NAV FOGD 37

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### GO/NO-GO CRITERIA



#### EQUIPMENT/PERSONNEL

Redlines not satisfied.

Tugs/pilot unavailable.

#### VISIBILITY/WEATHER

Visibility less than 1500 YDS.

Winds in excess of 30 kts.

Severe weather/sea.

#### GO/NO-GO POINT

Prior to entering harbor.

NAV

FOUR

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### OBSERVATIONS



TDC

NAV

FOUR

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### FINAL COMMENTS



- OOD
- JOOD
- CONN
- ATTWO
- DHs
- CMC
- XO
- CO

FOUR

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*APPROVAL*



SUBMITTED \_\_\_\_\_

REVIEWED \_\_\_\_\_

APPROVED \_\_\_\_\_

10/9

FOUD

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CO  
X

(b) (3) (B), (b) (6)



## SAMSUN INBOUND

### 12 FEB 2014

(b) (3) (B), (b) (6)

CLASSIFICATION FOOO




## SCHEDULE OF EVENTS

LOCAL TIME IS -2B

- 0515L SET SEA AND ANCHOR DETAIL
- 0700L PILOT PICK UP
- TBD MOORED STBD SIDE
- TBD SECURE FROM SEA AND ANCHOR DETAIL


NAV FOOO



## WATCHBILL

OOD	TBD
JOOD	TBD
CONN	TBD
HELM SAFETY	TBD
MASTER HELMSMAN	TBD
APT HELM SAFETY	TBD
TAO	TBD
CICWD	TBD
ATTWO	TBD
EOOW	TBD

NAV FOOO




## Tide and Current

THERE ARE NO CURRENT OR TIDE TABLES AVAILABLE FOR SAMSUN, TURKEY

FROM SAMSUN HARBOR MASTER - TIDES AND CURRENTS WITHIN THE BASIN ARE NEGLIGIBLE

NAV FOOO

-2B or -3C?




## WEATHER

**0900L FORECAST 12FEB14**

TEMPERATURE	47°F
WIND CHILL	NA
WINDS	S 10 KTS
SKY COVER	50%
DEWPOINT	38°F
HUMIDITY	58%
PRECIPITATION	30%
SEAS	NE 3-5 FT
VISIBILITY	>10 NM
WATER TEMP	55°F

**SUMMARY**  
Fog/mist/low visibility situation may occur in the early morning hours, especially during winter.

NAV FOOO



## ASTRONOMICAL DATA

CIVIL TWILIGHT	0708	TIME ZONE	-2B
SUNRISE	0736	MOONRISE	0150
SOLAR TRANSIT	1236	LUNAR TRANSIT	0709
SUNSET	1736	MOONSET	1224
CIVIL TWILIGHT	1805	ILLUMINATION	41%

NAV FOOO

### CHARTS

LATEST EDITIONS WITH CORRECTIONS VERIFIED:

Chart No.	Ed.	NTM	BUOYAGE	IALA A
55161	2	12/11	SHOAL	36 FT
			DATUM	WGS 84
			NTM	12/11

NAVFOUOT

### VISUAL NAVAIDS

NAME	POSITION	DESCRIPTION
V-1	47°12.40'N 124°21.20'E	FL G 2s 15m 18M
V-2	47°12.20'N 124°21.82'E	FL R 1s 15m 18M
V-3	47°12.20'N 124°21.82'E	TABLE
V-4	47°12.12'N 124°22.32'E	FL R 5m 20M
V-5	47°12.20'N 124°22.10'E	BEACON

BEARING TABLESFOUO8

### RADAR NAVAIDS

Name	Position
R-1	47°12.40'N 124°21.20'E
R-2	47°12.20'N 124°21.82'E
R-3	47°12.20'N 124°21.82'E
R-4	47°12.12'N 124°22.32'E
R-5	47°12.20'N 124°22.10'E
R-6	47°12.20'N 124°22.30'E
R-7	47°12.10'N 124°22.94'E

RADAR OPERATORFOUO9

### TRACK

LEG	CSE	SPD	DIST	TB/TR
1	288°T 282°M	5 KTS	3,530YDS	TB 042°T/114°R on V-1 TR 5100 YDS on E
2	218°T 212°M	5 KTS	520YDS	TB 282°T/118°R ON V-6 TR 925 YDS on R-4
3	181°T 175°M	5 KTS	1880YDS	

CONVFOUO10

### Samsun Harbor

FOUO11

### TRACK

WIDTH / DEPTH OF CHANNEL  
Breakwater Width: 200 yds / 600 ft  
SHALLOW WATER EFFECTS  
5 kt = 0.4 ft 10 kt = 1.5 ft 15 kt = 3.5 ft  
TSS / PRECAUTIONARY AREAS  
NTR

NAVFOUO12

180 38' N  
~~180 38'~~ 180 38' N

NO  
V-6  
↓  
V-3

CBSP CUT-OUT: 199-249°T

Pier heading ~~325°T~~ STBD SIDE-TO: 325°T / 323°T

### TRACK

**SIGNIFICANT NAVAIDS / TERRESTRIAL RANGES**  
 There are no available charted ranges.  
 Lighted navaids at entrance to harbor.

**PIER HEADING**  
 CBSP - 199°T - 249°T  
 STBD - 325°T / 323°T

**PILOT PICKUP / DROPOFF LOCATION**  
 1 nm E of the main harbor entrance.

**SPEED RESTRICTIONS**  
 NTR

NAV F000 11

### EMERGENCY ANCHORAGE

**LOCATION**  
 Zone A, B, C, and D are available as noted on chart.

**BOTTOM TYPE**  
 Mud.

**SCOPE OF CHAIN**  
 25-60m (82-200ft) depth; 3-9 shots required.

13 14/13 02-11

NAV F000 14

### GROUND TACKLE

**ANCHOR STATUS**  
 The anchor will be made ready for letting go via the brake method.  
 The hawsing stopper will be passed.

**MOORING / SPECIAL PROCEDURES / BROW PLACEMENT**  
 Port side to Coal pier using standard mooring configuration.  
 Brow is placed midships.

**READY LIFE BOAT STATUS**  
 Defender 1 FMC.

**PILOT / ACCOM LADDER**  
 Pilot's ladder will be rigged amidships port and starboard sides.  
 Accom ladder will be stowed.

NAV F000 18

### EXTERNAL COMMS

CH	GUARD	USE
VHF 16	CENTERLINE / CIC	SAFETY CHANNEL/ SAMSUN PILOTS
VHF 16	CO CRAIN / CIC	SAFETY CHANNEL/ SAMSUN PILOTS
VHF 12	NO / CIC	SAMSUN PILOTS
FLEET TAC	CIC	
NAVY RED	CIC	
MADRID	CIC	
SAT HICOM	CIC	
SUPR. CHAT	CIC	

NAV F000 19

STBD side to

### INTERNAL COMMS

CIRCUIT STATIONS	
UV	FLIGHT DECK, MIDSHIPS QUARTERDECK, LINE HANDLERS, APU ROOM, CCS
XUV	CONN (BRIDGEWINGS), HELM SAFETY, AFT STEERING
UJL	SURFACE TRACKER, LOOKOUTS, STATUS BOARD
UJS	PILOTING OFFICER, BRIDGE PHONE TALKER, SHIPPING OFFICER
UV	ALL MAIN SPACES AND CCS
JW	BEARING TAKERS, BEARING BOOK RECORDER, FATHOMETER OPERATOR, CIC BEARING RECORDER
CH 2A	CONTROLLING STATIONS HANDHELD RADIOS

SP phones primary, FP radios used as backup - pier ranges/safety passed over FP radios.

NAV F000 17

### OPERATIONAL CONSIDERATIONS

**ENTERING/DEPARTING MOVEMENTS**  
 NTR

**HARBOR SPECIAL EVENTS/MEDIA COVERAGE/ FLIGHT OPS**  
 NTR.

**TUG/PILOT ARRANGEMENTS**  
 1. Two tugs, one pilot. The pilot will embark at pilot pickup point on chart. Vessels should contact:  
     • Samsun pilots on VHF channel 16/12 one hour prior to pilot pickup point to confirm arrangements.

**HOT AREAS**  
 NTR.

**SHIPS UAW IN OPAREL**  
 As briefed by OPE.

OPS F000 20

## SPECIAL CONSIDERATIONS



### HONORS

Honors will be conducted IAW NTP-13B

FLAG OFFICER MOVEMENTS, VISITORS, HARBOR EXERCISES

NTR

DEBRIEF/HOTWASH SCHEDULE

On bridge wing following securing from sea and anchor detail

UNIFORM

Coveralls and ballcaps for all hands; sleeves down/up at the discretion of the controlling station.

088

FOUO

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## TACTICAL REQUIREMENTS



TACTICAL SITUATION, CONDITIONS OF READINESS

- Warning status
- Weapons status
- Weapons posture
- Download Plan
- FPCON level

096

FOUO

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## CIC CONSOLE STATUS



CONSOLE	STATUS
ASWE	DOC
TAO	UP
RBMRO	DEG
ADT	UP
WCO	UP
TRACK SLIP	UP
ASTAC	UP

\*\*\*NO CHANGES\*\*\*

088

FOUO

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## TAY SCAT Configuration



TOPSIDE COVER (M16A20)

SCAT

ATTWO (R0110)

50 CW

M240

Weapon	Range	Min. Range
.30 Cal	2000 YDS	50 YDS
M240	1968 YDS	30 YDS

FOUO

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## SMALL BOAT PPR



- PASS WORD: EMERGENCY WARNING SMALL BOAT

- DETERMINE INTENT - BTB, LRAD, 5 BSHORT BLASTS, PENCIL FLARES, LA-UP (Night)

- MANOEUVRE AS SITUATION PERMITS TO AVOID VESSEL

- FIRE WARNING SHOTS

- IF CONTACT REMAINS UNRESPONSIVE, AND IS ASSESSED TO DEMONSTRATE HOSTILE INTENT, TAY WILL ENGAGE WITH SHIP'S WEAPONS PER CO'S ORDER.

ATTWO

FOUO

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## NAV EQUIPMENT STATUS



EQUIPMENT	STATUS	EQUIPMENT	STATUS
SPS-55 RADAR	UP	DAQR OPS (PILOTHOUSE)	UP
MK-92 RADAR	UP	DAQR OPS (CK)	UP
FURUND RADAR	UP	WIN-4 GPS	UP
SPA-25G REPEATER (2)	UP	NOR-THESTAR GPS	UP
WSN-2 GYRO	UP	FUR UND OPS	UP
MK-27 GYRO	UP	AIS OPS	UP
GYRO REPEATER (3)	UP	BLUNDER INDICATOR (2)	UP
DFGMC	UP	RPM INDICATOR (2)	UP
FATHOMETER	UP	INTERNAL COMMS	UP
EM LOG	UP	COLREGS	UP
EFDBS (1)	UP	SCC	UP
DRT	UP	NAVSS	UP

DAQR primary station monitor down, standby computer monitor has been rigged at the chart table

NAV

FOUO

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## NAV EQUIPMENT CONFIGURATION



GYRO/REPEATER ERROR		RADAR RNG/BRG ERROR	
GYRO	0.6E°	SPS-55	0.0° 10 YDS
PORT	0.1W°	FURUNO	3.0° 50 YDS
CENTERLINE	0.9W°	<b>NAVSSI SETTINGS</b>	
STARBOARD	0.7W°	SPEED LEADER	ENABLED
HELM	0.0°	FIX INTERVAL	1 MIN
AFT STEERING	0.2E°	DNCs	H1508580 A1508550
CIC	0.8W°	DETERMINED BY AZMUTH OF THE SUN (GYRO), FRANKLIN METHOD (SPS-55), AND FIX COMPARISON (FURUNO) 20MIN4	
DFGMC	Variation 3° E		

NAV

FOUO

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## ENGINEERING EQUIPMENT STATUS



EQUIPMENT	STATUS	EQUIPMENT	STATUS
1A GTE	UP	NR 1 A/C	UP
1B GTE	UP	NR 2 A/C	UP
NR 1 SSDG	UP	NR 3 A/C	UP
NR 2 SSDG	UP	NR 1 B/PAC	UP
NR 3 SSDG	UP	NR 2 B/PAC	UP
NR 4 SSDG	UP	NR 1 LPAC	UP
PORT APU	UP	NR 2 LPAC	UP
STBD APU	UP	CLF SVS	UP
PORT SGU	UP	MKG SYS	UP
STBD SGU	UP	PWD CAPSTAN	UP
SHIP'S WHISTLE	UP	AFT CAPSTAN	UP
STAD FNS	UP		

NR 4 SAC upgraded, available.

FOUO

FOUO

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## PLANT CONFIGURATION



EQUIPMENT	STATUS	EQUIPMENT	STATUS
1A GTE	ONLINE	NR 1 SSDG	ONLINE
1B GTE	ONLINE	NR 2 SSDG	ONLINE
PORT SGU	STANDBY	NR 3 SSDG	SECURED
STBD SGU	ENGAGED	NR 4 SSDG	STANDBY
APUs	AVAILABLE	EPCC	VERRIDE

RMD WILL BE SET AT PILOT PICKUP

THIRD SSDG ONLINE UPON SETTING MAX PLANT

APUs WILL BE EXTENDED PRIOR TO ENTERING THE HARBOR

FOUO

FOUO

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## REDLINES



CCC	RQMT	STATUS	MOB-N	RQMT	STATUS
SUBPUMP	1	UP	STEERING UNITS	2 OF 2	UP
1000 PUMPS	3 OF 3	UP	FUELER	1 OF 1	UP
SEA DISTRIBUTION	2 OF 3	UP	SURFACE A/DIS	1 OF 2	UP
SEA APU	2 OF 2	UP	SYNCHRONIZERS	1 OF 2	UP
SEA BUC	2 OF 2	UP	SYNCHRONIZERS	1 EACH	UP
SEA	32 OF 32	UP	SHADOWN COMPAD	1	UP
SEA	2 OF 2	UP	THERMISTOR	1	UP
SEA	1	UP	SW	1	UP
SEA	2 OF 2	UP	VALVES	2 OF 2	UP
SEA	YES	UP	APU	2 OF 2	UP
SEA	2 OF 2	UP	LAGAS	1 EACH	UP
SEA	MURKIN	UP	STERNAL COUING	YES	UP
SEA	100%	UP	SAFTY COUING	YES	UP
SEA	100%	UP	NO	YES	UP
SEA	YES	UP			

NAV

FOUO

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## REDLINES



MOB-E	RQMT	STATUS	MOB-E	RQMT	STATUS
BIAPTS	1 OF 1	UP	A/C	1 OF 3	UP
ENGINE	2 OF 2	UP	CR 2 VS UP	YES	UP
SPY AND PUMP	1 OF 2	UP	CR 1 W/ W/2 VS UP	YES	UP
HOLDS PUMPS	1 OF 2	UP	CR 1 W/ W/1 VS UP	1 OF 1	UP
LD BUC PUMP	1 OF 2 AND COAST DOWN	UP	CO LIMITED	1 OF 2	UP
ELAC VAPOR PUMP	1 OF 1	UP	<b>MOB-S</b>		
FOURTH PUMP	2 OF 2	UP	ANCHOR WHOLAND	1 OF 1	UP
FOURTH PUMP	1 OF 2	UP	ANCHOR	1 OF 1	UP
CONSOLE	1 OF 1 CCS 1 OF 1 MER	UP	<b>NCO</b>		
CONSOLE	2 OF 4 w/ 1 OF 2 BACs	UP	ASBERS	1 OF 2	UP
SPC (W/RE)	2 OF 2	UP	SPC W/2 PUMPS	1 OF 2	UP
W/RE	2 OF 2	UP	SPC W/1 BUC VS UP	1 OF 2	UP
LPAC	1 OF 2	UP			
APU	1 OF 2	UP			

NAV

FOUO

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## DEVIATIONS FROM EOCC LAW RMD



CASUALTY	RESPONSE
GTE CASUALTIES	Conduct normal EOCC for all single GTE casualties; place remaining GTE in battle override. EOCC will notify OOD and obtain CO permission prior to carrying out any action to secure the fuel oil service system.
MAJOR FUEL OIL LEAK	If leak can be isolated with hull the system maintained, only the affected pumps and piping will be secured; fuel pressure will be maintained via the remaining fuel oil service pump. Fuel oil will be flushed to the bilge using APFF hose reels and form a vapor lock using installed APFF bilge spoolovers. If the leak cannot be quickly isolated without affecting propulsion, securing the fuel oil system will be delayed until hogs can come alongside or the ship is clear of danger.
MKG / SHAFT CASUALTIES	The EODIV will notify the OOD and obtain permission from the CC prior to carrying out any EOCC action for MKG or shaft casualties.

NOTE - Many deviations from EOCC LAW RMD are situationally dependent and require a discussion between the CO and the OOD.

FOUO

FOUO

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### DEVIATIONS FROM EOCC IAW RMD

CASUALTY	RESPONSE
LOSS OF CPP PITCH CONTROL	<ul style="list-style-type: none"> <li>The OOD will immediately direct CO box operator to shift pitch control to manual, set the last ordered pitch and verify correct pitch is indicated.</li> <li>Subsequent pitch/write orders will be passed from the Team Safety Officer to CCS via the 1JV or the 2IMC and EOD, EOOW will order CO Box operator to set ordered pitch via 2JV.</li> </ul>
SSDG CASUALTIES	<ul style="list-style-type: none"> <li>Conduct EOCC for all single casualties, the EOOW will not secure either of the two remaining SSDGs without permission from the CO via the OOD.</li> </ul>
CLASS "C" FIRE SWBD / ELEC DIST SYS	<ul style="list-style-type: none"> <li>EOOW will report casualty and suspected impacts to OOD and will obtain permission prior to restoring power.</li> </ul>

NOTE - Many deviations from EOCC IAW RMD are situationally dependent and require a discussion between the CO and the OOD.

DOO                      FOOW                      31

### DEVIATIONS FROM EOCC IAW RMD

CASUALTY	RESPONSE
CLASS "B" FIRE IN MAIN SPACE	<ul style="list-style-type: none"> <li>Watch team will combat fire in space with PKP and AFFF hose reels without securing or isolating equipment.</li> <li>If faced to evacuate space, secure ventilation, discharge Halon, and activate slope sprinkling.</li> <li>EOOW will take no further action including mechanical or electrical isolation without permission.</li> <li>Throttle control will be maintained in the pitthouse for as long as is possible.</li> </ul>
FIRES OUTSIDE MAIN SPACE	<ul style="list-style-type: none"> <li>Included in accordance with normal underway procedures, spaces will not be mechanically or electrically isolated without CO's permission.</li> <li>EOOW will ascertain and report protected impacts to the engineering, combat, and navigational capabilities of the ship.</li> <li>Permission to isolate spaces given by CO.</li> </ul>

NOTE - Many deviations from EOCC IAW RMD are situationally dependent and require a discussion between the CO and the OOD.

DOO                      FOOW                      32

### EMERGENCIES

EMERGENCY	RESPONSE
LOSS OF STEERING	<ul style="list-style-type: none"> <li>Stop engine unit.</li> <li>If control is not regained, sound casualty alarm in all steering.</li> <li>Pass casualty over IMC.</li> <li>Order all steering to take control.</li> <li>Testing from SCC or after steering will be explicitly ordered by the OOD and shall not exceed 3 degrees.</li> <li>Helms safety officer and all steering will utilize the X/JV for rudder and course orders.</li> <li>Consider use of APUs / anchor / tugs where appropriate.</li> </ul>
LOSS OF PROPULSION	<ul style="list-style-type: none"> <li>Consider use of APUs / tugs.</li> <li>Emergency anchorage possible.</li> </ul>
LOSS OF GYRO	<ul style="list-style-type: none"> <li>Announce "combat systems casualty: loss of gyro"</li> <li>Shift to Mk 27 gyrocompass.</li> <li>If Mk-27 gyrocompass is lost, switch to DFDMC bearing tables; will take relative bearings, navigation will switch to relative plot, steer by magnetic heading.</li> </ul>

DOO                      FOOW                      33

### EMERGENCIES

EMERGENCY	RESPONSE
LOSS OF RADAR	<ul style="list-style-type: none"> <li>Announce "combat systems casualty: loss of SPS-56"</li> <li>Shift to secondary radar, MK 92.</li> </ul>
REDUCED VISIBILITY	<ul style="list-style-type: none"> <li>Breath out low vis checklist.</li> <li>Reconsider safe speed.</li> <li>Energize navigation lights, sound signals IAW COLREGS.</li> <li>Navigation consider shifting primary plot to CIC.</li> </ul>
LOSS OF COMMS	<ul style="list-style-type: none"> <li>Shift to handheld VHF 82B radios.</li> </ul>
MAN OVERBOARD	<ul style="list-style-type: none"> <li>Restricted waters, tugs or nearby boat. Unrestricted, shallow.</li> <li>Sound all short blast, break occupying red 020 calls.</li> <li>Pass "man overboard" over IMC, follow MOB checklist.</li> <li>Request assistance of nearby vessels if appropriate.</li> </ul> <p style="text-align: center;"><b>STAY TIME 47F = 45 MIN</b> <b>NO SHARE ATTACK HAZARD</b></p>

DOO                      FOOW                      34

### RISK ASSESSMENT

		Probability of Occurrence			
		A	B	C	D
I	I	1	1		
II	I			1	4
III				4	5
IV			4	5	5

Severity: I-Catastrophic II-Critical III-Marginal IV-Negligible  
 Probability: A-Likely to Occur B-Probably will occur in time C-May occur in time D-Unlikely

DOO                      FOOW                      35

### RISK ASSESSMENT

HAZARD	S/P	CONTROLS	RAC
COLLISION	D/I	<ul style="list-style-type: none"> <li>Monitor IAW COLREGS.</li> <li>Execute potential conflicts early via 82B.</li> <li>OOD and Shiping Officer will monitor traffic manually/automatically.</li> <li>Shiping provide bridge with verbal reports and recommendations via IMC.</li> <li>ATTRO will provide 82B on small boat contacts.</li> </ul>	3
GROUNDING	D/I	<ul style="list-style-type: none"> <li>Fast support on bridge.</li> <li>Charts corrected they used ITCM.</li> <li>Track reviewed, verified, and approved.</li> <li>Adherence to NAVDOPM standards for vessel/underway navigation.</li> <li>Nav report and status discrepancies, verbally recommendations.</li> <li>Advances instructions to the Keegan-1 area by engine room/bridge to any 82B and anchor status.</li> </ul>	3

NAV                      FOOW                      36

## RISK ASSESSMENT



HAZARD	S/P	CONTROLS	RAC
COMMUNICATIONS FAILURE	B/III	Current PMS. Roundrobin checks. Backup systems available and in station.	3
INCLEMENT WEATHER	B/III	- Proper stow in station including sunglasses/communication gear where applicable. - Keep hydrated.	3
LINE HANDLING MISHAP	B/II	- Proper PPE worn. - Safety observers in station. - Adherence to established procedures.	2
BREAKDOWN IN BRM	C/II	- Adherence to checklist and established procedures. - Senior leadership provide backup to BRM unit per authorization, when required. - Ensure watchstanders are knowledgeable in their work.	3

NAV

FOUO

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## RISK ASSESSMENT



HAZARD	S/P	CONTROLS	RAC
MAN OVERBOARD	C/II	- Lookout/ally alerts in station. - Tug/security boats in station. - All hands station size of boat.	3
NAV EQUIPMENT MALFUNCTION	B/II	- Redundant systems active. - Emergency casualty procedures briefed watchstanders prepared to execute. - Switch to alternate (e.g. backup IAW NDVR).	2
STEERING/PROP CASUALTY	C/II	- Current PMS. - RADMAR on. - Emergency casualty procedures briefed, secondary steering systems prepared to execute.	3

NAV

FOUO

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## RISK ASSESSMENT



### RISK TO MISSION

Grounding or mishap results in loss of available asset.

### RISK TO PERSONNEL

The primary threat to personnel is a man overboard or a line handling mishap. Tugs and security boats will be on station during the harbor transit.

NAV

FOUO

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## RISK ASSESSMENT



**EQUIPMENT**  
Tug performance vs. requirements

**PEOPLE**  
Pilot expertise

**PROCEDURE**  
Refueling  
Restricted harbor movement

NAV

FOUO

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## GO/NO-GO CRITERIA



### EQUIPMENT/PERSONNEL

Redlines not satisfied.

Tugs/pilot unavailable.

### VISIBILITY/WEATHER

Visibility less than 1500 YDS.

Winds in excess of 30 kts

Severe weather/seas

### GO/NO-GO POINT

Prior to entering harbor

NAV

FOUO

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## OBSERVATIONS



TBD

NAV

FOUO

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*FINAL COMMENTS*



OOD  
JOOD  
CONN  
ATTWO  
DHs  
CMC  
XO  
CO

FOUO

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*APPROVAL*



SUBMITTED \_\_\_\_\_

REVIEWED \_\_\_\_\_

APPROVED \_\_\_\_\_

NAV

FOUO

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# *SAMSUN INBOUND/OUTBOUND*

*12 FEB 2014*

**(b) (3) (B), (b) (6)**

CLASSIFICATION: FOUO



# *SCHEDULE OF EVENTS*



LOCAL TIME IS -2B

0615L SET SEA AND ANCHOR DETAIL

0700L PILOT PICK UP

TBD MOORED PORT SIDE

TBD SECURE FROM SEA AND ANCHOR DETAIL

1515 SET SEA AND ANCHOR DETAIL

1545 PILOT PICK UP

1600 UNDERWAY

TBD SECURE FROM SEA AND ANCHOR DETAIL



# *WATCHBILL*



OOD

JOOD

CONN

HELM SAFETY

MASTER HELMSMAN

AFT HELM SAFETY

TAO

CICWO

ATTWO

EOOW

(b) (3) (B), (b) (6)



# Tide and Current



**THERE ARE NO CURRENT OR  
TIDE TABLES AVAILABLE FOR  
SAMSUN, TURKEY**

**FROM SAMSUN HARBOR  
MASTER – TIDES AND  
CURRENTS WITHIN THE BASIN  
ARE NEGLIGIBLE**



# *WEATHER*



<b>0700L FORECAST 12FEB14</b>	
<b>TEMPERATURE</b>	<b>40°F</b>
<b>WIND CHILL</b>	<b>NA</b>
<b>WINDS</b>	<b>S 10 KTS</b>
<b>SKY COVER</b>	<b>0%</b>
<b>DEWPOINT</b>	<b>33°F</b>
<b>HUMIDITY</b>	<b>77%</b>
<b>PRECIPITATION</b>	<b>0%</b>
<b>SEAS</b>	<b>N 3-5 FT</b>
<b>VISIBILITY</b>	<b>&gt;10 NM</b>
<b>WATER TEMP</b>	<b>47°F</b>

## **SUMMARY**

Fog/mist/low visibility situation may occur in the early morning hours, especially during winter.



# *ASTRONOMICAL DATA*



CIVIL TWILIGHT	<b>0605</b>	TIME ZONE	<b>-2B</b>
SUNRISE	<b>0633</b>	MOONRISE	<b>1458</b>
SOLAR TRANSIT	<b>1149</b>	LUNAR TRANSIT	<b>2210</b>
SUNSET	<b>1705</b>	MOONSET	<b>0515</b>
CIVIL TWILIGHT	<b>1733</b>	ILLUMINATION	<b>94%</b>



# CHARTS



## LATEST EDITIONS WITH CORRECTIONS VERIFIED:

Chart No.	Ed.	NTM
55161	2	12/11

**BUOYAGE**

**IALA A**

**SHOAL**

**36 FT**

**DATUM**

**WGS 84**

**NTM**

**12/11**



# *VISUAL NAVAIDS*



NAME	POSITION	DESCRIPTION
V-1	41°18.40'N 036°21.20'E	FL G 2s 15m 10M
V-2	41°18.28'N 036°21.03'E	FL R 5s 14m 10M
V-3	41°18.34'N 036°20.21'E	TANKS
V-4	41°18.13'N 036°20.32'E	FL R 6m 2M
V-5	41°16.26'N 036°22.10'E	BEACON



# ***RADAR NAVAIDS***



<b>Name</b>	<b>Position</b>
<b>R-1</b>	<b>41°18.40'N 036°21.20'E</b>
<b>R-2</b>	<b>41°18.28'N 036°21.03'E</b>
<b>R-3</b>	<b>41°18.38'N 036°20.37'E</b>
<b>R-4</b>	<b>41°18.13'N 036°20.32'E</b>
<b>R-5</b>	<b>41°16.51'N 036°21.18'E</b>
<b>R-6</b>	<b>41°16.25'N 036°22.28'E</b>
<b>R-7</b>	<b>41°16.16'N 036°23.04'E</b>



# TRACK

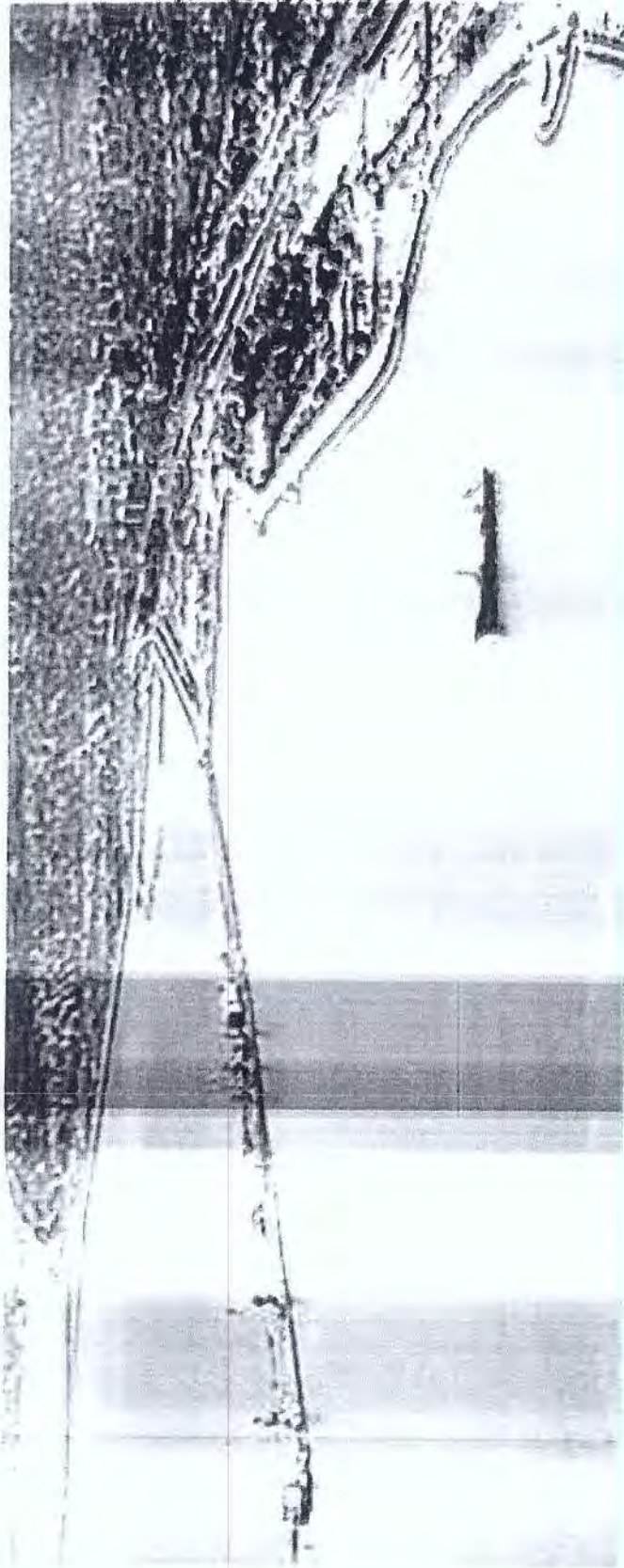


LEG	CSE	SPD	DIST	TB/TR
1	288°T 282°M	5 KTS	3,530 YDS	TB 042°T/114°R on V-1 TR 5100 YDS on E
2	218°T 212°M	5 KTS	520 YDS	TB 282°T/ 116°R ON V-3 TR 925 YDS on R-4
3	181°T 175°M	5 KTS	1,880 YDS	

LEG	CSE	SPD	DIST	TB/TR
1	009°T 355°M	5 KTS	1,880 YDS	TB 267°T/ 268°R ON V-4 TR 650 YDS on R-2
2	042°T 037°M	5 KTS	520 YDS	TB 291°T/ 111°R ON V-3 TR 325 YDS on R-2
3.	108°T 102°M	5KTS	3,530 YDS	



# Samsun Harbor





# *TRACK*



WIDTH / DEPTH OF CHANNEL

**Breakwater Width: 200 yds / 600 ft**

SHALLOW WATER EFFECTS

**5 kt = 0.4 ft    10 kt = 1.5 ft    15 kt = 3.5 ft**

TSS / PRECAUTIONARY AREAS

**NTR**



# *TRACK*



## **SIGNIFICANT NAV AIDS / TERRESTRIAL RANGES**

**There are no available charted ranges.**

**Lighted nav aids at entrance to harbor.**

### **PIER HEADING**

**CBSP - 194°T - 284°T**

**Port - 181°T**

### **PILOT PICKUP / DROPOFF LOCATION**

**1 nm E of the main harbor entrance.**

### **SPEED RESTRICTIONS**

**NTR**



# *EMERGENCY ANCHORAGE*



## LOCATION

**Area for emergency anchorage is available Southeast of harbor entrance**

## BOTTOM TYPE

**Mud.**

---

## SCOPE OF CHAIN

**10-12m (33-47ft) depth; 5 shots required.**



# ***GROUND TACKLE***



## **ANCHOR STATUS**

**The anchor will be made ready for letting go via the brake method.**

**The hawsing stopper will be passed.**

## **MOORING / SPECIAL PROCEDURES / BROW PLACEMENT**

**Port side to Coal pier using standard mooring configuration.**

**Brow is placed midships**

## **READY LIFE BOAT STATUS**

**Defender 1 FMC.**

## **PILOT / ACCOM LADDER**

**Pilot's ladder will be rigged amidships port and starboard sides.**

**Accom ladder will be stowed.**



# EXTERNAL COMMS



CH	GUARD	USE
VHF 16	CENTERLINE / CIC	SAFETY CHANNEL/ SAMSUN PILOTS
VHF 16	CO CHAIR / CIC	SAFETY CHANNEL/ SAMSUN PILOTS
VHF 12	XO / CIC	SAMSUN PILOTS
FLEET TAC	CIC	
NAVY RED	CIC	
MAD/IAD	CIC	
SAT HICOM	CIC	
SIPR CHAT	CIC	

PORT POC:

- Husbanding Agent (b) (3) (B), (b) (6)
- Port Captain (b) (3) (B), (b) (6)



# INTERNAL COMMS



CIRCUIT	STATIONS
1JV	FLIGHT DECK, MIDSHIPS QUARTERDECK, LINE HANDLERS, APU ROOM, CCS
X1JV	CONN (BRIDGEWINGS), HELM SAFETY, AFT STEERING
1JL	SURFACE TRACKER, LOOKOUTS, STATUS BOARD
1JS	PILOTING OFFICER, BRIDGE PHONE TALKER, SHIPPING OFFICER
2JV	ALL MAIN SPACES AND CCS
JW	BEARING TAKERS, BEARING BOOK RECORDER, FATHOMETER OPERATOR, CIC BEARING RECORDER
CH 2A	CONTROLLING STATIONS HANDHELD RADIOS

SP phones primary, FP radios used as backup – pier ranges/safety passed over FP radios.



# ***OPERATIONAL CONSIDERATIONS***



**ENTERING/DEPARTING MOVEMENTS**

**NTR**

**HARBOR SPECIAL EVENTS, MEDIA COVERAGE, FLIGHT OPS**

**NTR.**

**TUG/PILOT ARRANGEMENTS**

- 1. Two tugs, one pilot. The pilot will embark at pilot pickup point on chart. Vessels should contact:**
  - Samsun pilots on VHF channel 16/12 one hour prior to pilot pickup point to confirm arrangements.**

**HOT AREAS**

**NTR.**

**SHIPS U/W IN OPAREA**

**As briefed by OPS.**



# ***SPECIAL CONSIDERATIONS***



## **HONORS**

**Honors will be conducted IAW NTP-13B.**

**FLAG OFFICER MOVEMENTS, VISITORS, HARBOR EXERCISES**

## **NTR**

### **DEBRIEF/HOTWASH SCHEDULE**

**On bridge wing following securing from sea and anchor detail.**

## **UNIFORM**

**Coveralls and ballcaps for all hands; sleeves down/up at the discretion of the controlling station.**



# *TACTICAL REQUIREMENTS*



## TACTICAL SITUATION, CONDITIONS OF READINESS

- **Warning status**
- **Weapons status**
- **Weapons posture**
- **Download Plan**
- **FPCON level**



# *CIC CONSOLE STATUS*

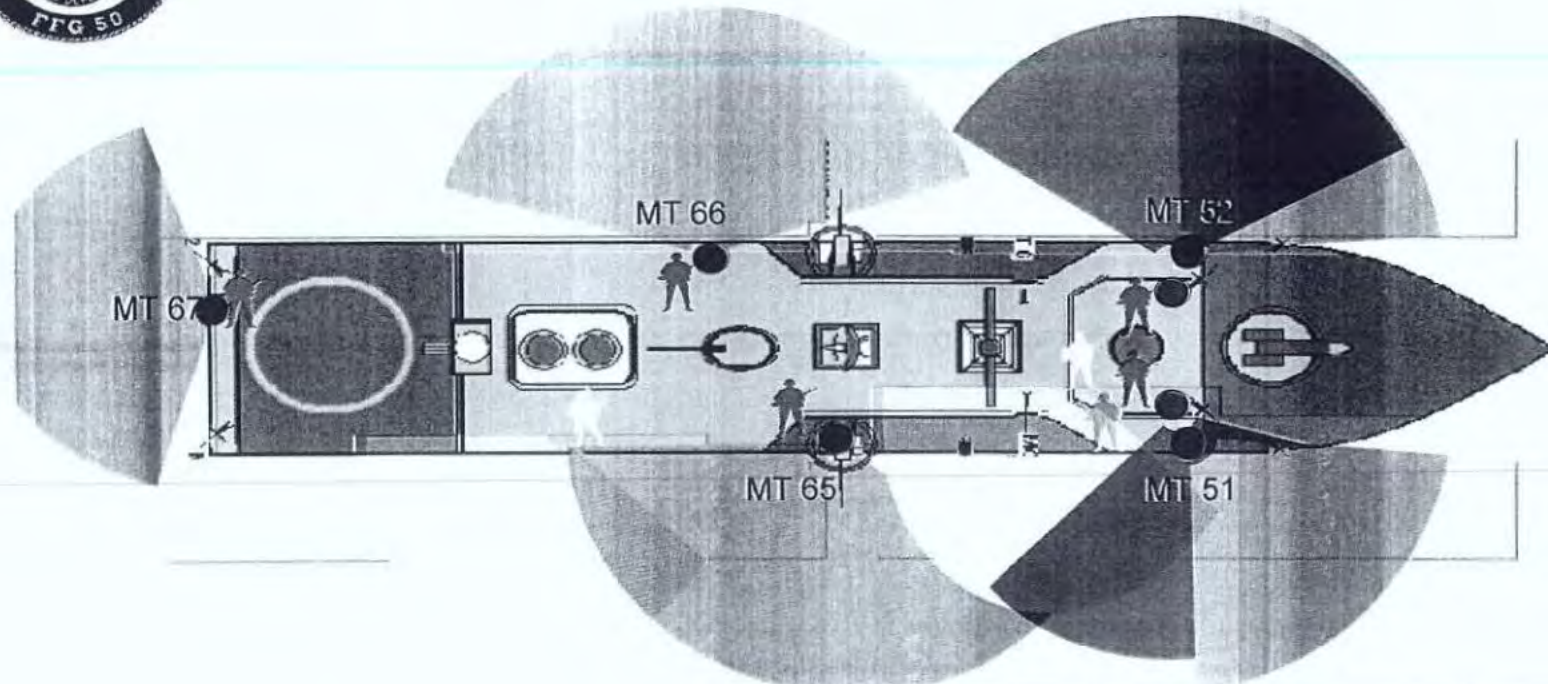


CONSOLE	STATUS
ASWE	OOO
TAO	UP
REMRO	DEG
ADT	UP
WCO	UP
TRACK SUP	UP
ASTAC	UP

**\*\*\*NO CHANGES\*\*\***



# TAY SCAT Configuration



TOPSIDE ROVER (M16)



SCAT



ATTWO (ROVING)



.50 Cal



M240

Weapon	Max Effective Range	Min. Range
.50 Cal	2000 YDS	50 YDS
M240	1968 YDS	30 YDS



# *SMALL BOAT PPR*

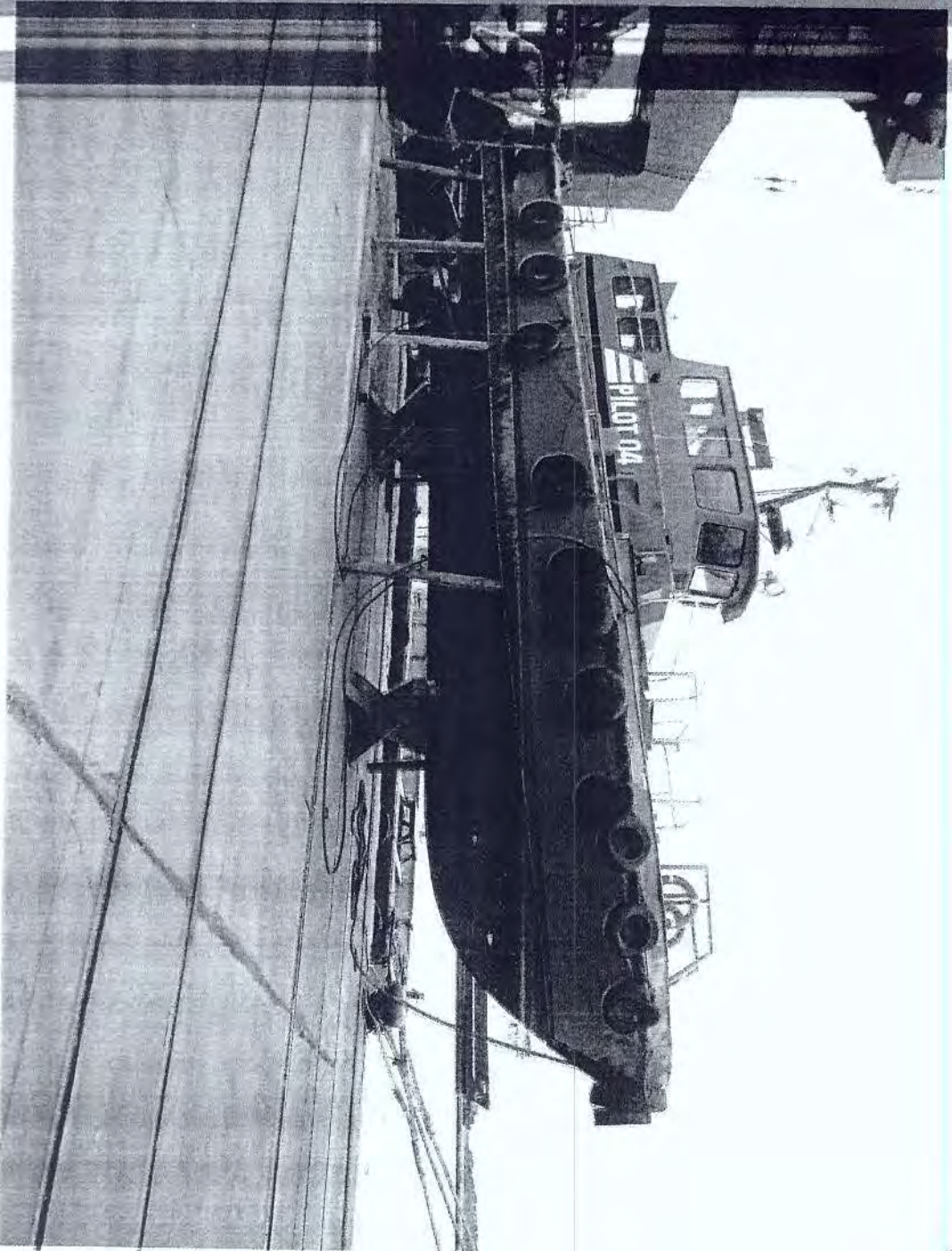


- PASS WORD: EMERGENCY WARNING  
SMALL BOAT
- DETERMINE INTENT - BTB, LRAD, 5 SHORT  
BLASTS, PENCIL FLARES, LA-9P (Night)
- MANUEVER AS SITUATION PERMITS TO  
AVOID VESSEL
- FIRE WARNING SHOTS
- IF CONTACT REMAINS UNRESPONSIVE,  
AND IS ASSESSED TO DEMONSTRATE  
HOSTILE INTENT, TAY WILL ENGAGE WITH  
SHIP'S WEAPONS PER CO'S ORDER.





# PILOT BOAT



FOUO



# Tugs



FOUO



# NAV EQUIPMENT STATUS



EQUIPMENT	STATUS	EQUIPMENT	STATUS
SPS-55 RADAR	UP	DAGR GPS (PILOTHOUSE)	UP
MK-92 RADAR	UP	DAGR GPS (CIC)	UP
FURUNO RADAR	UP	WRN-6 GPS	UP
SPA-25G REPEATER (2)	UP	NORTHSTAR GPS	UP
WSN-2 GYRO	UP	FURUNO GPS	UP
MK-27 GYRO	UP	AIS GPS	UP
GYRO REPEATER (3)	UP	RUDDER INDICATOR (2)	UP
DFGMC	UP	RPM INDICATOR (2)	UP
FATHOMETER	UP	INTERNAL COMMS	UP
EM LOG	UP	COLREGS	UP
EPIRBS (1)	UP	SCC	UP
DRT	UP	NAVSSI	UP

NAVSSI primary station monitor down; standby computer monitor has been rigged at the chart table.



# NAV EQUIPMENT CONFIGURATION



GYRO/REPEATER ERROR	
GYRO	0.4E°
PORT	0.2W°
CENTERLINE	0.3W°
STARBOARD	0.5E°
HELM	0.0°
AFT STEERING	0.2E°
CIC	0.8W°
DFGMC	Variation 6° E

RADAR RNG/BRG ERROR	
SPS-55	0.0° 10 YDS
FURUNO	3.0° 50 YDS
NAVSSI SETTINGS	
SPEED LEADER	ENABLED
FIX INTERVAL	1 MIN
DNCs	H1508580 A1508580

DETERMINED BY AZIMUTH OF THE SUN (GYRO), FRANKLIN METHOD (SPS-55), AND FIX COMPARISON (FURUNO) 10FEB14.



# ENGINEERING EQUIPMENT STATUS



EQUIPMENT	STATUS	EQUIPMENT	STATUS
1A GTE	UP	NR 1 A/C	UP
1B GTE	UP	NR 2 A/C	UP
NR 1 SSDG	UP	NR 3 A/C	UP
NR 2 SSDG	UP	NR 1 HPAC	UP
NR 3 SSDG	UP	NR 2 HPAC	UP
NR 4 SSDG	UP	NR 1 LPAC	UP
PORT APU	UP	NR 2 LPAC	UP
STBD APU	UP	CRP SYS	UP
PORT SGU	UP	MRG SYS	UP
STBD SGU	UP	FWD CAPSTAN	UP
SHIP'S WHISTLE	UP	AFT CAPSTAN	UP
STAB FINS	UP		

**NR 4 SAC degraded, available.**



# *PLANT CONFIGURATION*



<b>EQUIPMENT</b>	<b>STATUS</b>	<b>EQUIPMENT</b>	<b>STATUS</b>
1A GTE	<b>ONLINE</b>	NR 1 SSDG	<b>ONLINE</b>
1B GTE	<b>ONLINE</b>	NR 2 SSDG	<b>ONLINE</b>
PORT SGU	<b>STANDBY</b>	NR 3 SSDG	<b>SECURED</b>
STBD SGU	<b>ENGAGED</b>	NR 4 SSDG	<b>STANDBY</b>
APUs	<b>AVAILABLE</b>	EPCC	<b>OVERRIDE</b>

**RMD WILL BE SET AT PILOT PICKUP**

**THIRD SSDG ONLINE UPON SETTING MAX PLANT**

**APUs WILL BE EXTENDED PRIOR TO ENTERING THE HARBOR**



# REDLINES



CCC	RQMT	STATUS
B2B/VHF	1	UP

MOB-DC	RQMT	STATUS
FIRE PUMPS	3 OF 5	UP
SCBA CH STATIONS	2 OF 3	UP
SCBA ABPA	2 OF 2	UP
SCBA EBAC	2 OF 3	UP
SCBA	50 OF 55	UP
P100	2 OF 3	UP
HULL INTEGRITY	YES	UP
AFFF STATIONS	2 OF 2	UP
BILGE SPRINKLING	MMR/AMR	UP
HALON	100%	UP
MODULE CO2/HALON/HFP	100%	UP
MAIN DRAINAGE	YES	UP

MOB-N	RQMT	STATUS
STEERING UNITS	2 OF 2	UP
RUDDER	1 OF 1	UP
SURFACE RADAR	1 OF 2	UP
GYROCOMPASS	1 OF 2	UP
GYROREPEATERS	1 EACH	UP
MAG/DFGM COMPASS	1	UP
FATHOMETER	1	UP
GPS	1	UP
RUDDER INDICATOR	2 OF 3	UP
RPM	2 OF 2	UP
RADAR REPEATER	1 EACH	UP
INTERNAL COMMS	YES	UP
MEET COLREGS	YES	UP
SCC	YES	UP



# REDLINES



MOB-E	RQMT	STATUS
SHAFTS	1 OF 1	UP
ENGINES	2 OF 2	UP
S/W SVC PUMPS	1 OF 2	UP
F/O SVC PUMPS	1 OF 2	UP
L/O SVC PUMP	1 OF 2 AND COAST-DOWN	UP
ELEC CRP/CP PUMP	1 OF 1	UP
F/O XFER PUMP	2 OF 2	UP
F/O PURIFIER	1 OF 2	UP
CONSOLES	4 OF 4 CCS, 1 OF 1 MER	UP
GENERATORS	2 OF 4 w/ 1 OF 2 SACs	UP
SFCs (400 HZ)	2 OF 3	UP
HPACs	2 OF 2	UP
LPACs	1 OF 2	UP
APUs	1 OF 2	UP

MOB-E	RQMT	STATUS
A/C	3 OF 3	UP
CHT SYS OP	YES	UP
OILY WASTE SYS OP	YES	UP
HOT WATER TNK/HTR	1 OF 1	UP
RO UNITS	1 OF 2	UP

MOB-S	RQMT	STATUS
ANCHOR WINDLASS	1 OF 1	UP
ANCHOR	1 OF 1	UP

NCO	RQMT	STATUS
REEFERS	1 OF 2	UP
POT WTR PUMPS	1 OF 2	UP
HOT WTR CIRC PUMPS	1 OF 2	UP



# *DEVIATIONS FROM EOCC IAW RMD*



<b>CASUALTY</b>	<b>RESPONSE</b>
<b>GTE CASUALTIES</b>	<ul style="list-style-type: none"><li>- Conduct normal EOCC for all single GTE casualties; place remaining GTE in battle override.</li><li>- EOOW will notify OOD and obtain CO permission prior to carrying out any action to secure the fuel oil service system.</li></ul>
<b>MAJOR FUEL OIL LEAK</b>	<ul style="list-style-type: none"><li>- If leak can be isolated with half the system maintained, only the affected pump and piping will be secured; fuel pressure will be maintained via the remaining fuel oil service pump.</li><li>- Fuel oil will be flushed to the bilge using AFFF hose reels and form a vapor lock using installed AFFF bilge sprinklers.</li><li>- If the leak cannot be quickly isolated without affecting propulsion, securing the fuel oil system will be delayed until tugs can come alongside or the ship is clear of danger.</li></ul>
<b>MRG / SHAFT CASUALTIES</b>	<ul style="list-style-type: none"><li>- The EOOW will notify the OOD and obtain permission from the CO prior to carrying out any EOCC action for MRG or shafting casualties.</li></ul>

**NOTE** - Many deviations from EOCC IAW RMD are situationally dependent and require a discussion between the CO and the OOD.



# *DEVIATIONS FROM EOCC IAW RMD*



<b>CASUALTY</b>	<b>RESPONSE</b>
<b>LOSS OF CPP PITCH CONTROL</b>	<p>-The OOD will immediately direct OD box operator to shift pitch control to manual, set the last ordered pitch and verify correct pitch is indicated.</p> <p>- Subsequent pitch/throttle orders will be passed from the Helm Safety Officer to CCS via the 1JV or the 21MC and EOT, EOOW will order OD Box operator to set ordered pitch via 2JV.</p>
<b>SSDG CASUALITIES</b>	<p>- Conduct EOCC for all single casualties, the EOOW will not secure either of the two remaining SSDGs without permission from the CO via the OOD.</p>
<b>CLASS "C" FIRE SWBD / ELEC DIST SYS</b>	<p>- EOOW will report casualty and suspected impacts to OOD and will obtain permission prior to isolating power.</p>

**NOTE** - Many deviations from EOCC IAW RMD are situationally dependent and require a discussion between the CO and the OOD.



# *DEVIATIONS FROM EOCC IAW RMD*



<b>CASUALTY</b>	<b>RESPONSE</b>
<b>CLASS "B" FIRE IN MAIN SPACE</b>	<ul style="list-style-type: none"><li>- Watch team will combat fire in space with PKP and AFFF hose reels without securing or isolating equipment.</li><li>- If forced to evacuate space, secure ventilation, discharge Halon, and activate bilge sprinkling.</li><li>- EOOW will take no further action including mechanical or electrical isolation without permission.</li><li>- Throttle control will be maintained in the pilothouse for as long as is possible.</li></ul>
<b>FIRES OUTSIDE MAIN SPACE</b>	<ul style="list-style-type: none"><li>- Handled in accordance with normal underway procedures; spaces will not be mechanically or electrically isolated without CO's permission.</li><li>- EOOW will ascertain and report projected impacts to the engineering, combat, and navigational capabilities of the ship.</li><li>- Permission to isolate space given by CO.</li></ul>

**NOTE** - Many deviations from EOCC IAW RMD are situationally dependent and require a discussion between the CO and the OOD.



# *EMERGENCIES*



<b>EMERGENCY</b>	<b>RESPONSE</b>
<b>LOSS OF STEERING</b>	<ul style="list-style-type: none"><li>- Stop online unit.</li><li>- If control is not regained, sound casualty alarm in aft steering.</li><li>- Pass casualty over 1MC.</li><li>- Order aft steering to take control.</li><li>- Testing from SCC or after steering will be explicitly ordered by the OOD and shall not exceed 3 degrees.</li><li>- Helm safety officer and aft steering will utilize the X1JV for rudder and course orders.</li><li>- Consider use of APUs / anchor / tugs where appropriate.</li></ul>
<b>LOSS OF PROPULSION</b>	<ul style="list-style-type: none"><li>- Consider use of APUs / tugs.</li><li>- Emergency anchorage possible.</li></ul>
<b>LOSS OF GYRO</b>	<ul style="list-style-type: none"><li>- Announce "combat systems casualty: loss of gyro".</li><li>- Shift to MK 27 gyrocompass.</li><li>- If Mk-27 gyrocompass is lost, switch to DFGMC, bearing takers will take relative bearings, navigation will switch to relative plot, steer by magnetic heading.</li></ul>



# EMERGENCIES



EMERGENCY	RESPONSE
LOSS OF RADAR	<ul style="list-style-type: none"><li>- Announce "combat systems casualty: loss of SPS-55".</li><li>- Shift to secondary radar, MK 92.</li></ul>
REDUCED VISIBILITY	<ul style="list-style-type: none"><li>- Break out low vis checklist.</li><li>- Reconsider safe speed.</li><li>- Energize navigation lights, sound signals IAW COLREGS.</li><li>- Navigation consider shifting primary plot to CIC.</li></ul>
LOSS OF COMMS	<ul style="list-style-type: none"><li>- Shift to handheld VHF B2B radios.</li></ul>
MAN OVERBOARD	<ul style="list-style-type: none"><li>- Restricted waters: tugs or security boat. Unrestricted: shipboard.</li><li>- Sound six short blasts, break oscar/pulsating red, B2B calls.</li><li>- Pass "man overboard" over 1MC, follow MOB checklist.</li><li>- Request assistance of nearby vessels if appropriate.</li></ul> <p><b>STAY TIME 47°F = 45 MIN</b></p> <p><b>NO SHARK ATTACK HAZARD</b></p>



# RISK ASSESSMENT



**Risk  
Assessment  
Code**

- 1 = Critical**
- 2 = Serious**
- 3 = Moderate**
- 4 = Minor**
- 5 = Negligible**

		Probability of Occurrence			
		A	B	C	D
S E V E R I T Y	I	1	1	2	3
	II	1	2	3	4
	III	2	3	4	5
	IV	3	4	5	5

Severity: I-Catastrophic II-Critical III-Marginal IV-Negligible

Probability A-Likely to Occur B-Probably will occur in time  
C-May occur in time D-Unlikely



# RISK ASSESSMENT



HAZARD	S/P	CONTROLS	RAC
COLLISION	D/I	<ul style="list-style-type: none"><li>- Maneuver IAW COLREGS.</li><li>- Resolve potential conflicts early via B2B.</li><li>- OOD and Shipping Officer will monitor traffic visually/radar/AIS.</li><li>- Shipping provide bridge with contact reports and recommendations via net.</li><li>- ATTWO will provide SA on small boat contacts</li></ul>	3
GROUNDING	D/I	<ul style="list-style-type: none"><li>- Pilot support on bridge.</li><li>- Charts corrected IAW latest NTM.</li><li>- Track reviewed, verified, and approved.</li><li>Adherence to NAVDORM standards for restricted waters navigation.</li><li>- Nav report and resolve discrepancies, provide recommendations.</li><li>- Minimize distractions to the Navigation Team by limiting conversation to only Sea and Anchor related</li></ul>	3



# RISK ASSESSMENT



HAZARD	S/P	CONTROLS	RAC
COMMUNICATIONS FAILURE	B/III	<ul style="list-style-type: none"> <li>- Current PMS.</li> <li>- Preunderway checklists</li> <li>- Backup systems available and on station.</li> </ul>	3
INCLEMENT WEATHER	B/III	<ul style="list-style-type: none"> <li>- Proper attire on station including sunglasses/sunscreen/rain gear where applicable.</li> <li>- Keep hydrated.</li> </ul>	3
LINE HANDLING MISHAP	B/II	<ul style="list-style-type: none"> <li>- Proper PPE worn.</li> <li>- Safety observers on station.</li> <li>- Adherence to established procedures.</li> </ul>	2
BREAKDOWN IN BRM	C/II	<ul style="list-style-type: none"> <li>- Adherence to checklist and established procedures.</li> <li>- Senior leadership provide forceful backup to U/Is and junior watchstanders where required.</li> <li>- Ensure watchstanders are ready/able to stand watch</li> </ul>	3



# RISK ASSESSMENT



HAZARD	S/P	CONTROLS	RAC
MAN OVERBOARD	C/II	<ul style="list-style-type: none"><li>- Lookouts/safety officers on station.</li><li>- Tugs/security boats on station.</li><li>- All hands remain clear of lines.</li></ul>	3
NAV EQUIPMENT MALFUNCTION	B/II	<ul style="list-style-type: none"><li>- Redundant systems online.</li><li>- Emergency casualty procedures briefed; watchstations prepared to execute.</li><li>- Switch to alternate fix sources IAW NAVBILL.</li></ul>	2
STEERING/PROP CASUALTY	C/II	<ul style="list-style-type: none"><li>- Current PMS.</li><li>- RMD/MPR set.</li><li>- Emergency casualty procedures briefed; secondary controlling stations prepared to execute.</li></ul>	3



# ***RISK ASSESSMENT***



## **RISK TO MISSION**

**Grounding or mishap results in loss of available asset.**

## **RISK TO PERSONNEL**

**The primary threat to personnel is a man overboard or a line handling mishap. Tugs and security boats will be on station during the harbor transit.**





# ***RISK ASSESSMENT***



## **EQUIPMENT**

**Tug performance vs. requirements**

## **PEOPLE**

**Pilot expertise**

## **PROCEDURE**

**Refueling**

**Restricted harbor movement**



# ***GO/NO-GO CRITERIA***



## **EQUIPMENT/PERSONNEL**

**Redlines not satisfied.**

**Tugs/pilot unavailable.**

## **VISIBILITY/WEATHER**

**Visibility less than 1500 YDS.**

**Winds in excess of 30 kts**

**Severe weather/seas**

## **GO/NO-GO POINT**

**Prior to entering harbor**



# ***OBSERVATIONS***



Possible language barrier

Pilot interaction

Line handling

Tugs

- **Corner chock/center chock**
- **Bow line**
- **Have heaving lines available**



# *FINAL COMMENTS*



**OOD**

**JOOD**

**CONN**

**ATTWO**

**DHs**

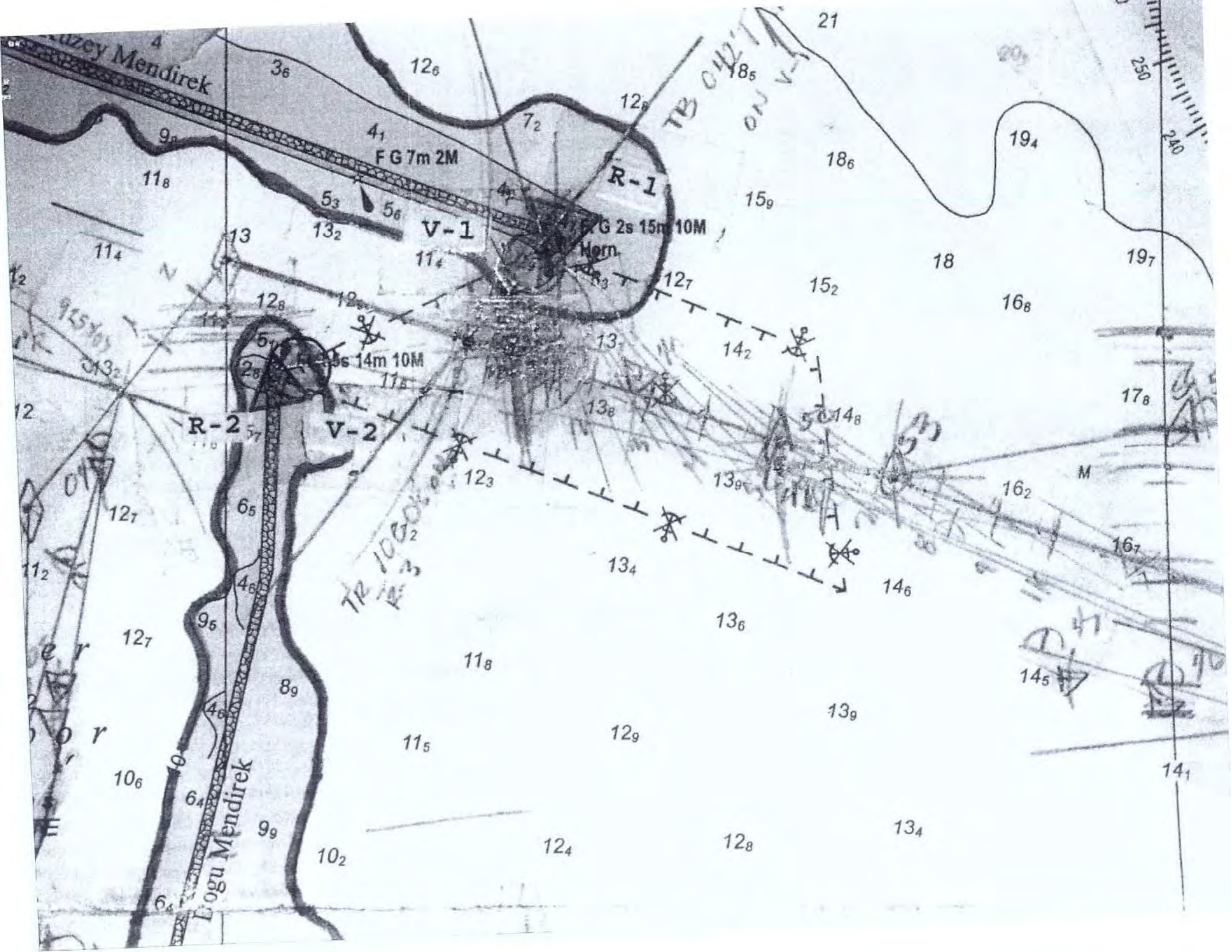
**CMC**

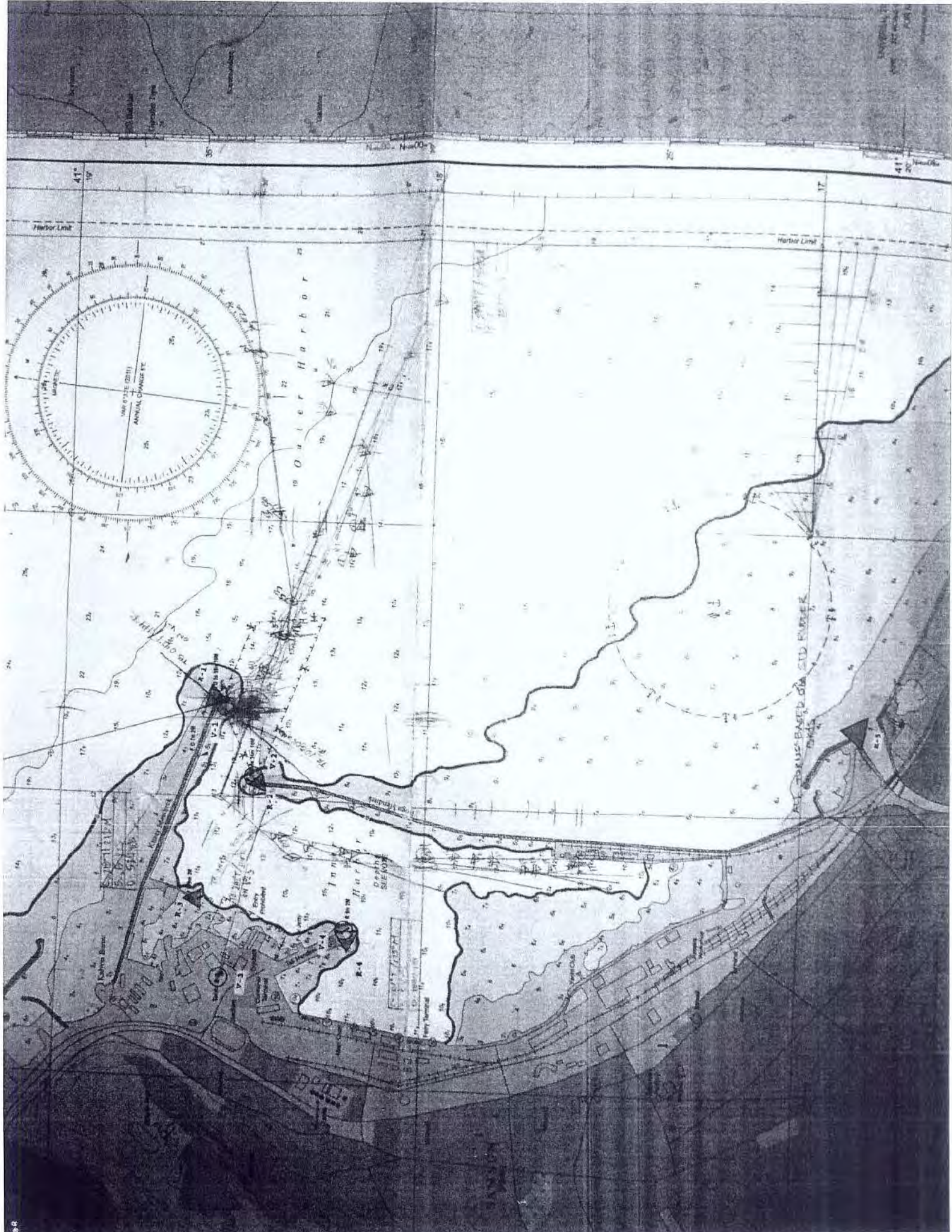
**XO**

**CO**

FOUO









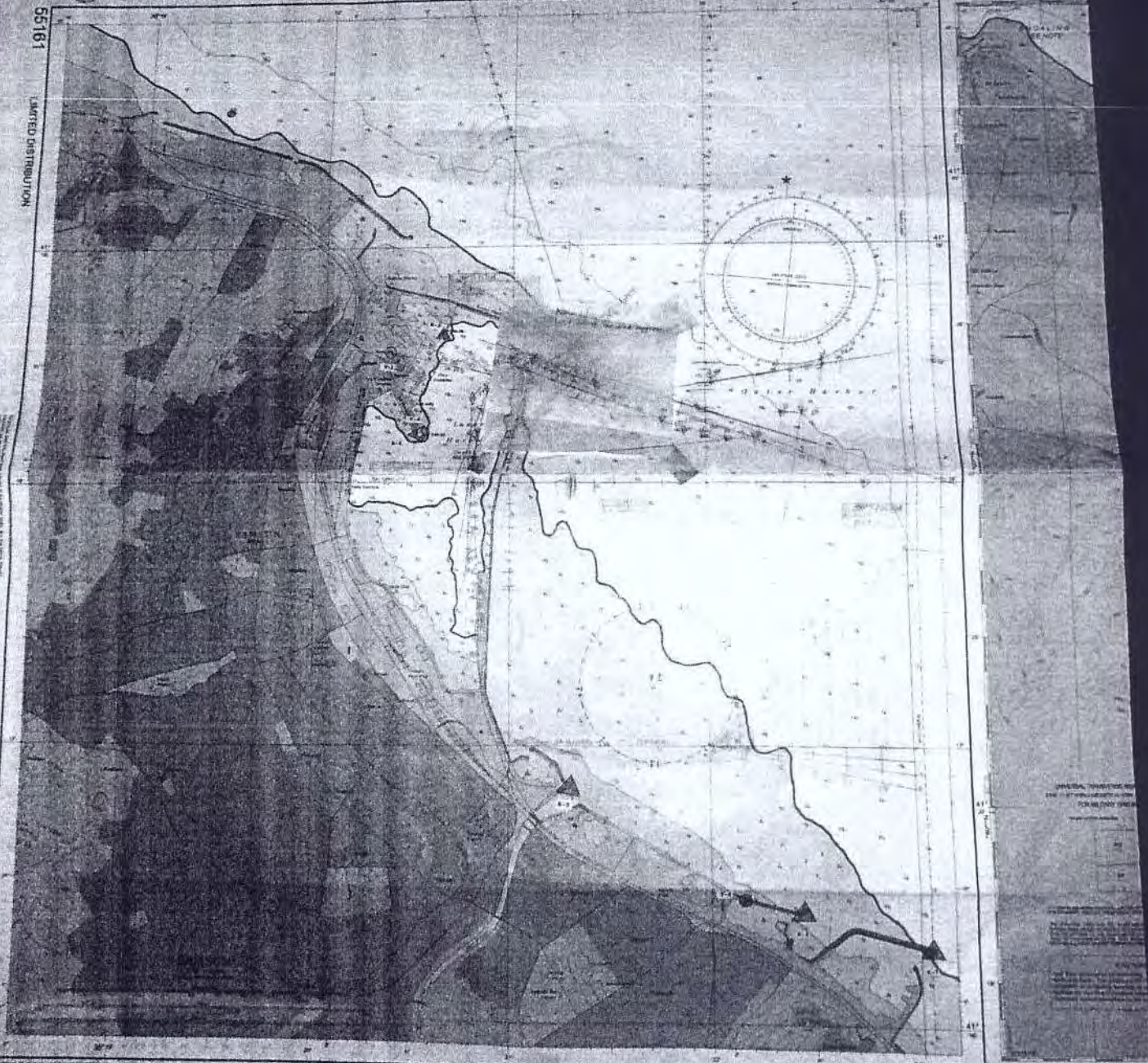
Scale of Soundings  
 1:50,000  
 1:100,000  
 1:200,000  
 1:400,000  
 1:800,000  
 1:1,600,000

Official Number of  
 this Chart 55161  
 The Soundings and Contours are Chart No. 1

BLACK SEA  
 TURKEY  
**SAMSUN AND APPR**  
 (Scale 1:50,000)

55161

LIMITED DISTRIBUTION



UNION OF SOVIET REPUBLICS  
 TURKEY  
 (Scale 1:50,000)

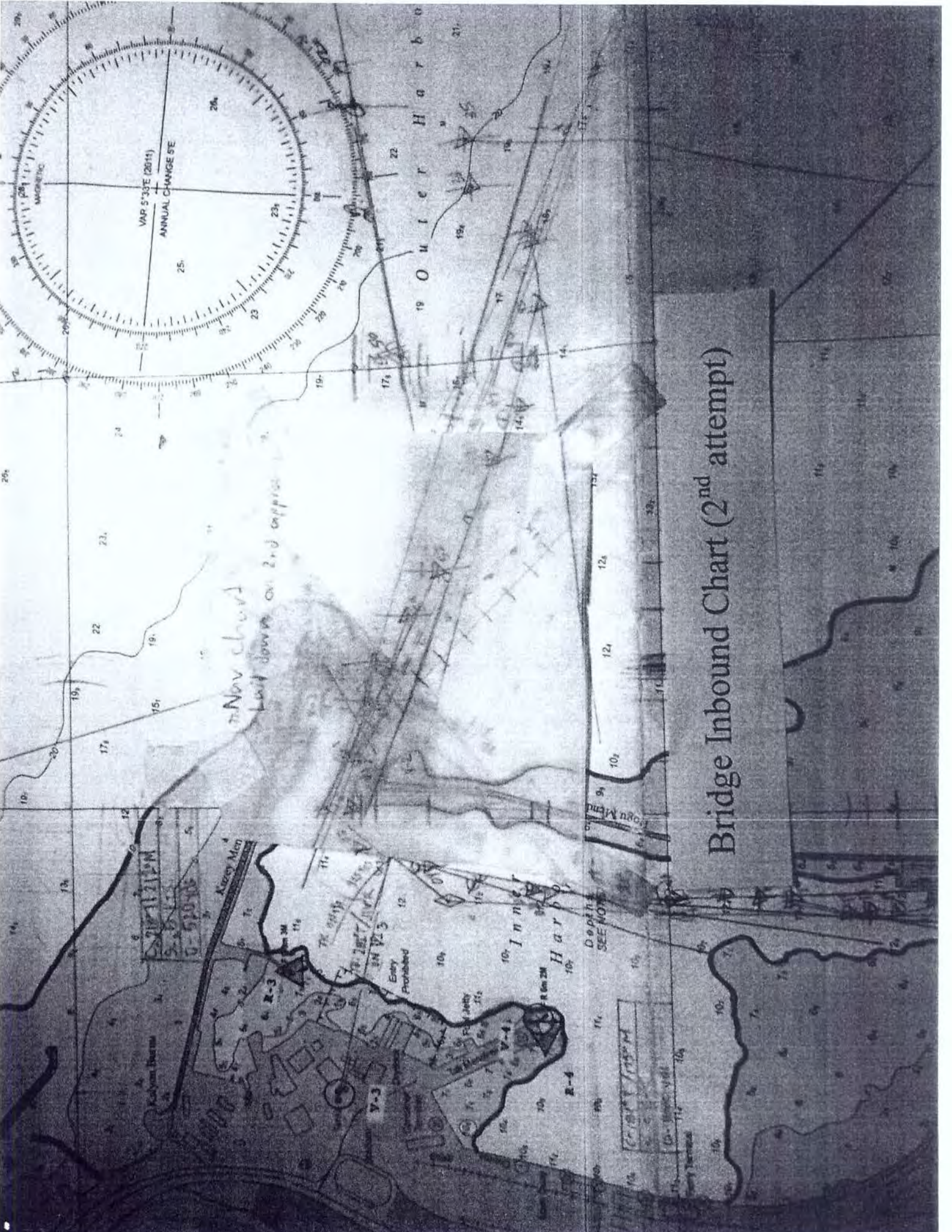
Reference to the  
 NOTICES TO MARINERS  
 (Scale 1:50,000)

55161

SOUNDINGS IN METERS

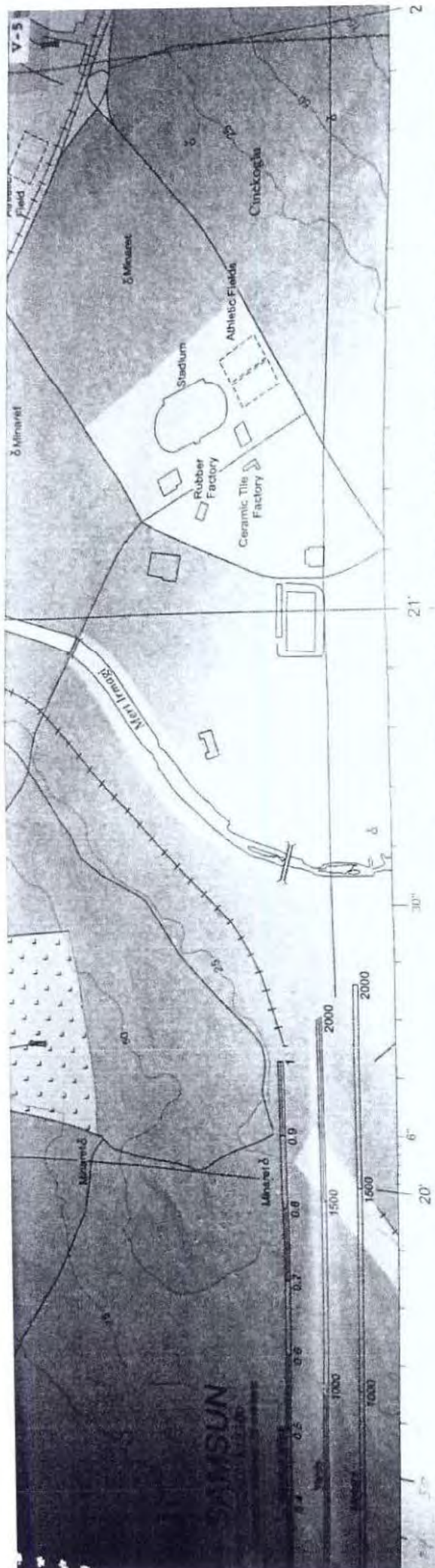
NO. 1000	NO. 1000	NO. 1000	NO. 1000
1000	1000	1000	1000
1000	1000	1000	1000
1000	1000	1000	1000





*Nov chart  
Laid down on 2nd attempt*

Bridge Inbound Chart (2<sup>nd</sup> attempt)



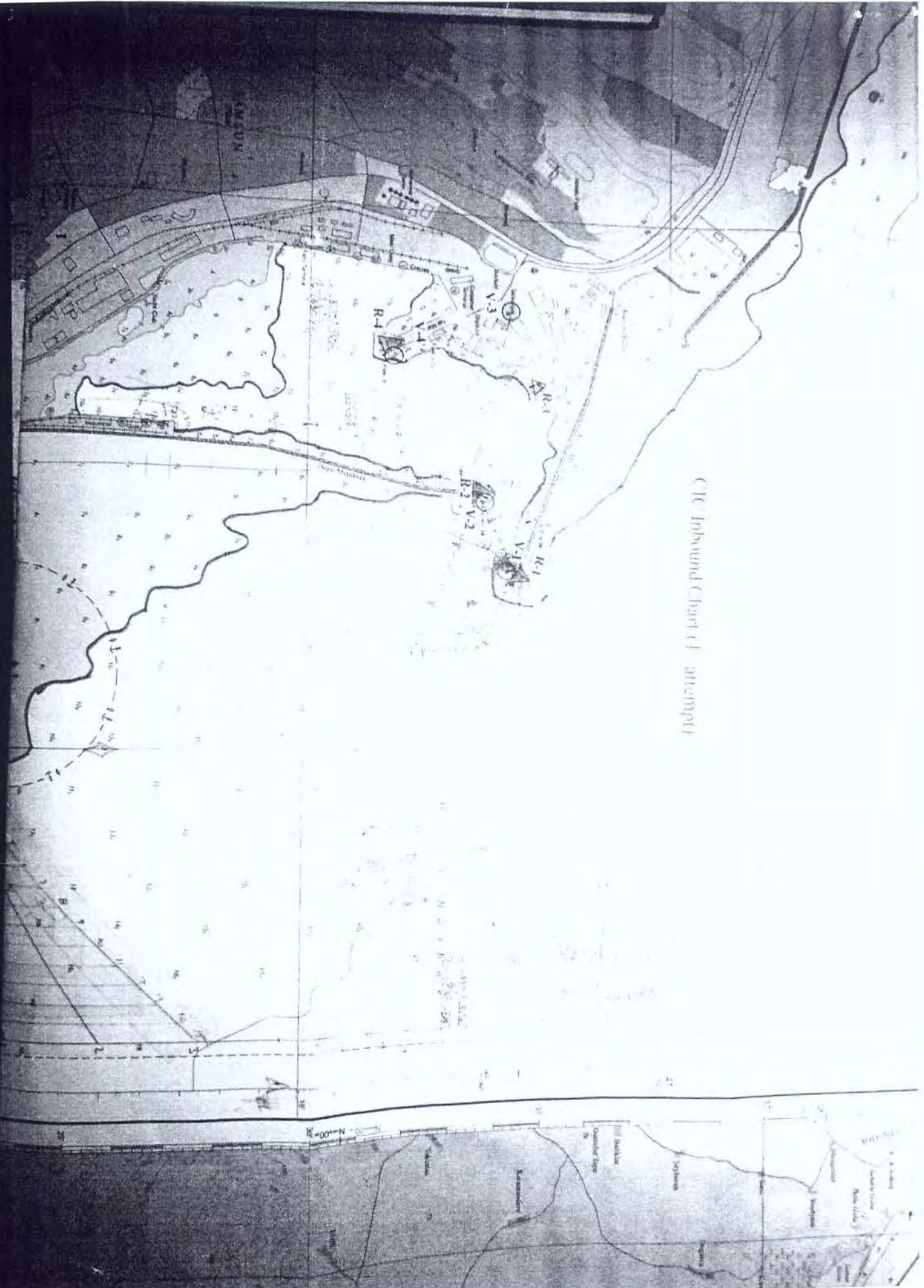
# SOUNDINGS IN METERS

(b) (3) (B), (b) (6)

PREPARED	
REVIEWED	
SUBMITTED	
REVIEWED	
APPROVED	
	SENIOR QM
	NAVIGATOR
	NO
	CO



CTC Inbound (Part 1 - attempt)





CIC Inbound Chart (2<sup>nd</sup> attempt)

SOUNDINGS IN METERS

PREPARED  
REVIEWED  
SUBMITTED  
REVISED  
APPROVED

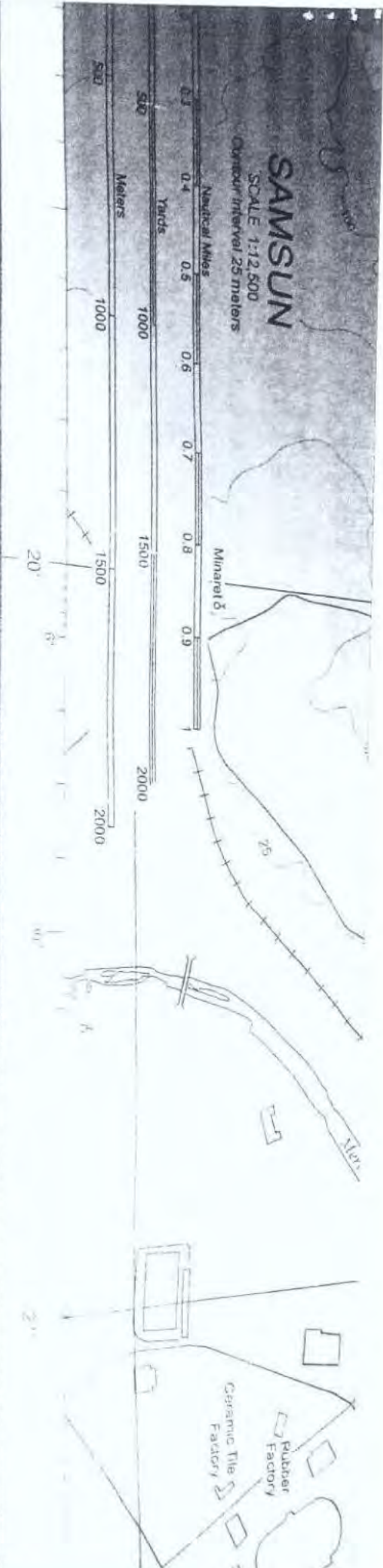
(b) (3) (B), (b) (6)

CHART NO.  
APPROVED BY  
NAVIGATOR  
XO  
CD





(1) Inbound (Bar) (3rd attempt)



# SOUNDINGS IN METERS

1000  
 1500  
 2000  
 2500  
 3000  
 3500  
 4000  
 4500  
 5000  
 5500  
 6000  
 6500  
 7000  
 7500  
 8000  
 8500  
 9000  
 9500  
 10000

(b) (3) (B), (b) (6)

1000  
 1500  
 2000  
 2500  
 3000  
 3500  
 4000  
 4500  
 5000  
 5500  
 6000  
 6500  
 7000  
 7500  
 8000  
 8500  
 9000  
 9500  
 10000





NATIONAL GEOSPATIAL INTELLIGENCE AGENCY

## CHART CORRECTIONS QUERY RESULTS

NTM Search Option: All

Chart Search Option: Specific Charts : 55161

Corrected through U.S. Notice to Mariners No. : 8/2014 (22 February 2014)

**Note:** Chart Corrections Data may contain special characters, such as morse code symbols, and characters from the Danish alphabet. This web page is best viewed with a browser which supports HTML 3.2.

55161 2 Ed. 3/19/11 NEW EDITION N22/11

(NGA)

55161 2 Ed. 3/19/11 LAST NM N22/11 N35/11

Add

Submarine pipeline [L41.1] between  
41° 24' 45" N 36° 11' 04" E

41° 24' 52" N 36° 12' 05" E

(30(156)11 Istanbul)

55161 2 Ed. 3/19/11 LAST NM N35/11 N9/12

Add

Light Fl(4) Y 10s 10m 5M  
41° 15' 04" N 36° 26' 39" E

Add

Light Fl(4) G 10s 10m 5M  
41° 14' 50" N 36° 26' 47" E

Add

Light Fl(4) R 10s 10m 5M  
41° 14' 47" N 36° 26' 45" E

(5(23)12 Istanbul)

55161 2 Ed. 3/19/11 LAST NM N9/12 N4/13

Add

Depth 5.1 meters Wk [K26] "Rep (2012)"  
41° 22' 12" N 36° 15' 15" E

(51(303)12 Istanbul)

55161 2 Ed. 3/19/11 LAST NM N4/13 N3/14

Change

Characteristic of buoy (mooring) to Fl(3) Y 8s  
41° 15' 53" N 36° 24' 27" E


Encl (69)

and add legend "3 Buoys"

(41(257)13 Istanbul)

Please direct any questions or comments pertaining to the site to [webmaster\\_nss@nga.mil](mailto:webmaster_nss@nga.mil)



 [Print Page](#)

# USS TAYLOR (FFG 50) RHIB Report

Date: 21 Feb 14

EN Checks	SAT	UNSAT
<u>Liquid Levels</u>		
Engine oil Level	/	
marine outdrive gear oil	/	
Coolant (50% anti-freeze)	/	
Fuel 118 L (min. 110 liters)	/	
Fuel tank stripped	/	
Water sep drained as necessary	/	
<u>Visual Inspections</u>		
Engine air intake filters secure	/	
F/O lines/fittings	/	
F/O Return valve open	/	
Seawater strainer "	/	
Sea cock operational, shut	/	
PKP bottle	/	
Bilges (Clean and dry)	/	
<u>Electrical Test</u>		
Lights and Horn	/	
Extra Lights	/	
VHF Radio	/	
Battery ___ V (26-30)	/	
Battery secured, terminals tight	/	
Shorepower cable connected	/	
Electric bilge pump	/	
<u>Parts Inventory</u>		
Water pump impeller	/	
Alternator belt	/	
Bicycle pump	/	
Engine Hours	96320	
Davit Operational Test		

SAT	UNSAT
/	

Performed by: [Redacted]

OPTEST TIME COMPLETED: 0200

YES / NO NOT ATTEMPTED

Optest will be conducted every Monday and Friday I/P, daily U/W

Upon completion of checks, reinstall equipment covers IAW  
MRC 6131 A-1R. BM Initial: \_\_\_\_\_

BM Checks	SAT	UNSAT
<u>Equipment</u>		
Boat hook	/	
Life ring	/	
Anchor w/ 200' of line	/	
2 Mooring Lines (30' each)	/	
First Aid Kit	/	
Oars	/	
Emergency Steering tiller	/	
Signal kit	/	
Tool kit (with knife)	/	
Bilge Plug Removed * Placed on Steering Wheel	/	
SAR Medevac litter	/	
2 Grapnel hooks	/	
2 Heaving lines, 100'	/	
Hatchet	/	
"Chem" lights (green/blue)	/	
2 Battle lanterns	/	
2 "D" cell flashlights	/	
V- Blade rescue knife	/	
Console Cover in place and secure	/	
Outdrive stored in down position	/	
Hoisting slings inspected for damage	/	
Manual bilge pump	/	
<u>Search Kit</u>		
Grease pencil and rag	/	
Stop watch ( or wrist watch)	/	
Tending Line	/	
<u>Sponson Check/ Inflation Level</u>		
RHIB 3 psi	/	
Sponson Foot Pump	/	
<u>Stowage Box 02- level</u>		
1 White hard hat	/	
1 Yellow hard hat	/	
4 blue hard hats	/	
<u>Electronics</u>		
Note any worn, damaged, or missing antennas or equipment		
GPS	/	
ICOM	/	
Crewfinder	/	

# USS TAYLOR (FFG 50) ZODIAC Report

EN Checks	SAT	UNSAT
Fuel tank level	/	
<u>15HP Zodiac Outboard</u>		
Engine Oil Level	/	
Gear Oil Level	/	
<u>20HP Zodiac Outboard</u>		
Engine Oil Level	/	
Gear Oil Level	/	

BM Checks	SAT	UNSAT
Zodiac Inflation		
Oars	/	
Transferred to ZODIAC from RHIB in event of RHIB breakdown		
	In RHIB	In ZODIAC
1st Aid Kit	/	
* hook	/	
ng	/	
ng Lines (30' each)	/	
Foot Pump	/	

Lubricate Boat Davit P  
and IAW PMS

Performed By: \_\_\_\_\_

*RHIB Report*

Remarks: ZODIAC STOWAGE SAR LITTER & Console covers TO BE kept removed

Boat Engineer: (b) (3) (B), (b) (6)

Boatswainmate: (b) (3) (B), (b) (6)

LCPO: \_\_\_\_\_

AUXO: \_\_\_\_\_

1st LT: \_\_\_\_\_

SOURCE

WRN-6

41.4349666666667, 36.5981666666667, 12 Feb 2014, 04:23:25  
41.4249666666667, 36.5821833333333, 12 Feb 2014, 04:26:27  
41.41515, 36.5662166666667, 12 Feb 2014, 04:29:29  
41.41515, 36.5662166666667, 12 Feb 2014, 04:29:29  
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41.3084166666667, 36.3566333333333, 12 Feb 2014, 05:24:00  
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41.30875, 36.35525, 12 Feb 2014, 05:36:08  
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41.3078, 36.3596333333333, 12 Feb 2014, 05:48:14  
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41 15.31 36 21.99  
15.413 25 21.69 41.2  
18.50 20 21.90  
15.531 30 21.312 18.2

Encl (11)

41.31011666666667, 36.3788, 12 Feb 2014, 06:02:45  
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41.30343333333333, 36.37405, 12 Feb 2014, 06:27:16  
41.30351666666667, 36.37433333333333, 12 Feb 2014, 06:27:40  
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41.30415, 36.37513333333333, 12 Feb 2014, 06:29:09  
41.30446666666667, 36.37521666666667, 12 Feb 2014, 06:29:34  
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41.30501666666667, 36.37563333333333, 12 Feb 2014, 06:32:46  
41.30518333333333, 36.3751, 12 Feb 2014, 06:35:47  
41.3045, 36.37293333333333, 12 Feb 2014, 06:38:49  
41.30316666666667, 36.37111666666667, 12 Feb 2014, 06:41:51  
41.30348333333333, 36.36845, 12 Feb 2014, 06:44:52  
41.30348333333333, 36.36845, 12 Feb 2014, 06:44:52  
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41.30006666666667, 36.34745, 12 Feb 2014, 07:06:03  
41.29675, 36.34711666666667, 12 Feb 2014, 07:09:05  
41.29486666666667, 36.34668333333333, 12 Feb 2014, 07:12:07  
41.29486666666667, 36.34668333333333, 12 Feb 2014, 07:12:07  
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41.29325, 36.34723333333333, 12 Feb 2014, 07:45:24  
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41.29321666666667, 36.34728333333333, 12 Feb 2014, 08:27:46  
41.29321666666667, 36.34728333333333, 12 Feb 2014, 08:30:47  
41.29325, 36.34725, 12 Feb 2014, 08:33:49  
41.29325, 36.34725, 12 Feb 2014, 08:33:49  
41.29325, 36.34726666666667, 12 Feb 2014, 08:36:50  
41.29325, 36.34728333333333, 12 Feb 2014, 08:39:52  
41.29326666666667, 36.34726666666667, 12 Feb 2014, 08:42:53  
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41.2932467095784, 36.3472826830809, 12 Feb 2014, 08:51:39

(b) (3) (B), (b) (6)

**From:** (b) (3) (B), (b) (6)  
**Sent:** Wednesday, February 12, 2014 10:09 AM  
**To:** (b) (3) (B), (b) (6)  
**Cc:** (b) (3) (B), (b) (6)  
**Subject:** TAY Safeky Inport Samsun

Commodore,

BLUF: TAY safely inport and refueling to commence soon. The fathometer lost tracking in the center of the inbound channel. Both engines tripped off line and I immediately locked the shaft and backed out with APUs and utilized tugs to ensure I was in safe water. No issues to report after testing all systems.

As I proceeded into the harbor at 5 kts, in the center of the channel IVO of the breakwater both of my engines tripped off line without any indication and my fathometer lost tracking. Last fathometer reading was 27 ft beneath the keel.

The shaft stopped and I ordered the shaft brake engaged. I utilized APUs to back out of the channel and made up tugs to ensure I was able to get into good water. I informed the BWC that my fathometer lost tracking and I was backing out of the harbor to verify water depth. My position was verified by WRN-6, DAGR, FURUNO GPS, laser range finder and composite fixes on both the bridge and CIC. All fixes verified ships position was in the center of the channel and verified by the pilot. Once outside the channel, I restarted main engines once I was in known good water and tested for positive engine and pitch control with no issues.

I launched the RHIB to verify water depths on my inbound track and all water depths were in excess of 42'. Once water depths were re-verified, I utilized the RHIB for continuous soundings along the track and re-commenced my inbound leg on the south side of the channel and moored pierside without any further issues. I intend to have divers look at my shafting to ensure there are no issues with the prop or shafting.

V/R,  
(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)  
Commanding Officer  
USS TAYLOR (FFG 50)  
FPO AA 34093-1504  
co@ffg50.navy.mil  
co@ffg50.navy.smil.mil

(b) (3) (B), (b) (6)

(b) (3) (B), (b) (6)

N

From: (b) (3) (B), (b) (6)  
Sent: Friday, February 21, 2014 2:54 PM  
To: (b) (3) (B), (b) (6)  
Cc: (b) (3) (B), (b) (6)  
Subject: TAY Dive  
Signed By: (b) (3) (B), (b) (6)

CDRE,

The NAV of USS TAYLOR provided the following information over the phone:

To generate the 25 FT depth points on the chart, members of CTF 68 and TAY took a RHIB out and approached the shore until the fish finder on board the RHIB read 25 FT. The fish finder displays depth to the tenth of a meter. The accuracy of the fish finder was not known. The depth measurements were verified with a measurement by depth tape. There was also a diver in the water to investigate the contours of the harbor bottom, and he verified depth using his analog meter on his dive equipment. The position on the chart of the 25 FT points was generated in the following manner:

The crew on board the RHIB had two GPS devices, a Garmin GPSMAP 76CSx and a Garmin FORETREX 401. Both GPS devices state a GPS position accuracy of <10 m. Wherever a 25 FT depth was measured, the GPS positions on the two GPS devices were compared qualitatively to ensure that they were in close agreement. The GPS position of the GPSMAP 76CSx was documented. The crew also employed a laser range finder to qualitatively ensure that the GPS reading made sense. The laser range finder displays to the nearest yard.

V/r,

(b) (3) (B), (b) (6)

PATUZOVW RUOISAA4943 1501429-UUUU--RHBVJJT.  
ZNR UUUUU ZOV RUOISAA0001 ZUI RHMFISS0001 1501429  
P 301427Z MAY 13 PSN 451035H18  
FM COMDESRON FOURTEEN  
TO ZEN/COMNAVSURFLANT NORFOLK VA  
RHBVJJT/USS TAYLOR  
INFO ZEN/COMAFLOATRAGRU MAYPORT FL  
ZEN/COMDESRON FOURTEEN

BT

UNCLAS

SUBJ/SUBJ/USS TAYLOR (FFG 50) NAVIGATION ASSESSMENT QUALIFICATION//

MSGID/GENADMIN/CDS-14/-/MAY//

REF/A/DOC/CNAF-CNSF/30AUG2010//

REF/B/MSG/CDS-14/291419ZMAY13//

AMPN/REF A IS CNAF-CNSFINST 3530.4C NAVDORM.

REF B IS USS TAYLOR NAVIGATION ASSESSMENT

QUALIFICATION REPORT.//

POC/(b) (3) (B), (b) (6)/CDS-14/LOC:MAYPORT FL/TEL:904-270-5801 X122/

(b) (3) (B), (b) (6) /

RMKS/1. IAW REF A, USS TAYLOR NAVIGATION ASSESSMENT WAS  
COMPLETED ON 24 MAY 13. DETAILS OF THE ASSESSMENT WERE  
DISCUSSED WITH THE COMMANDING OFFICER.

2. THIS MESSAGE CANCELS REF B AND AUTHORIZES USS TAYLOR  
FOR UNRESTRICTED NAVIGATION OPERATIONS.//

BT

RATUZYUW RUEOMFE1541 1152002-UUUU--RHBVJJT.  
ZNR UUUUU ZUI RUEOMCG0578 1152003  
R 251955Z APR 13 PSN 121360K13  
FM COMDESRON FOURTEEN  
TO ZEN/COMNAVSURFLANT NORFOLK VA  
INFO RHBVJJT/USS TAYLOR  
ZEN/COMNAVSURFOR SAN DIEGO CA  
ZEN/COMAFLOATRAGRU MAYPORT FL  
ZEN/COMDESRON FOURTEEN

BT

UNCLAS

QQQQ

SUBJ: USS TAYLOR (FFG 50) CREW CERTIFICATION REPORT  
UNCLASSIFIED/

MSGID/GENADMIN/CDS-14/-/APR//

SUBJ/USS TAYLOR (FFG 50) CREW CERTIFICATION REPORT//

REF/A/DOC/CNSF/09MAR12//

REF/B/DOC/CNSPLINST 3500.10/29JUN12//

NARR/REF A IS SURFACE FORCE READINESS MANUAL.

REF B IS READINESS EVALUATION (READ-E)

INSTRUCTION.//

POC/(b) (3) (B), (b) (6)/CDS-14/-/TEL: (904) 270-5801, X131/

PAGE 02 RUEOMFE1541 UNCLAS

EMAIL: (b) (3) (B), (b) (6) //

GENTEXT/REMARKS/1. IAW REFS A AND B, CDS-14

CONDUCTED CREW CERT ISO USS TAYLOR (TAY) 17-18 APR.

2. A REVIEW OF THE SHIP'S TRAINING AND ADMINISTRATION  
WAS CONDUCTED WITH NO MAJOR DISCREPANCIES.

3. AN ASSESSMENT OF WATCHSTANDER LEVEL OF KNOWLEDGE  
WAS CONDUCTED WITH NO MAJOR DISCREPANCIES.

4. AN ASSESSMENT OF THE SHIP'S CRITICAL EQUIPMENT FOR  
NAVIGATION, SEAMANSHIP, ANS SEARCH AND RESCUE (SAR) WAS  
CONDUCTED WITH NO MAJOR DISCREPANCIES.

5. SENIOR ASSESSOR COMMENTS:

A. ALL CREW CERT REQUIREMENTS WERE MET AND VERIFIED BY CDS-14  
AND ATGM WITH NO MAJOR DISCREPANCIES. TAY IS SAFE TO COMMENCE  
OPERATIONS AT SEA, BUT WILL REMAIN IN MOB-N RESTRICTED  
OPERATIONS STATUS UNTIL UNDERWAY CREW CERT REQUIREMENTS ARE  
ACCOMPLISHED. CDS-14 EXPECTS TO CLEAR TAY FOR RESTRICTED  
OPERATIONS 24MAY13.//

BT

Encl (15)

AN/PSN-13

Table 9-1. Figure of Merit

FOM INTEGER	EPE IN METERS, 1 SIGMA
1	EPE $\leq$ 25 27.3 yds
2	25 $\leq$ EPE $\leq$ 50
3	50 $\leq$ EPE $\leq$ 75
4	75 $\leq$ EPE $\leq$ 100
5	100 $\leq$ EPE $\leq$ 200
6	200 $\leq$ EPE $\leq$ 500
7	500 $\leq$ EPE $\leq$ 1000
8	1000 $\leq$ EPE $\leq$ 5000
9	5000 $\leq$ EPE

9.4.4.3. **Estimated Time Error and Time Figure of Merit Field.** Refer to field 4 of Figure 9-20. This field displays estimated time error (ETE) as a  $\pm$  value. ETE field data format is  $\pm$  NNN, where N represents nanoseconds (ns), microseconds ( $\mu$ s), or milliseconds (ms). The time data is estimated to be accurate to within the  $\pm$  value. Time error is also displayed as time figure of merit (TFOM) numbers 1 through 9, where 1 is the best. Refer to Table 9-2.

Table 9-2. Time Figure of Merit

TFOM INTEGER	ETE
1	ETE $\leq$ 1 nsec
2	1 nsec $\leq$ ETE $\leq$ 10 nsec
3	10 nsec $\leq$ ETE $\leq$ 100 nsec
4	100 nsec $\leq$ ETE $\leq$ 1 $\mu$ sec
5	1 $\mu$ sec $\leq$ ETE $\leq$ 10 $\mu$ sec
6	10 $\mu$ sec $\leq$ ETE $\leq$ 100 $\mu$ sec
7	100 $\mu$ sec $\leq$ ETE $\leq$ 1 msec
8	1 msec $\leq$ ETE $\leq$ 10 msec
9	10 msec $\leq$ ETE

9.4.4.4. **Estimated Vertical Error and Figure of Merit Field.** Refer to field 6 of Figure 9-20. This field displays the estimated vertical error (EVE) as a  $\pm$  value. EVE field data format is N.N, NN, or NNN, where N represents miles, nautical miles, kilometers, feet, yards, or meters. Vertical position data is estimated to be accurate to within the  $\pm$  value. Overall position error is displayed as figure of merit (FOM) numbers 1 through 9, where 1 is the best. Refer to Table 9-1. Time-since-fix is displayed when the DAGR is not able to compute position data using satellites (SV). It is displayed as NN, where N represents seconds-since-fix (ssf), minutes-since-fix (msf), hours-since-fix (hsf), or days-since-fix (dsf). Scenario time (ST) is displayed when rehearsal mode is active. The seconds into the scenario are also displayed.

9.4.4.5. **Navigation Method Field.** Refer to field 5 of Figure 9-20. The Navigation Method field displays the active navigation method. The navigation method is selected using the NAV Setup page. Navigation methods are None, Direct To, Course To, Course From, and Route. Refer to Paragraph 9.2.2.1 for more information on navigation methods.

Table 4-2. Figure of Merit to Estimated Position Error

Figure of merit	EPE	
	Meters	Feet
1	Less than 25	Less than 82
2	Less than 50	Less than 164
3	Less than 75	Less than 246
4	Less than 100	Less than 328
5	Less than 200	Less than 656
6	Less than 500	Less than 1640
7	Less than 1000	Less than 3280
8	Less than 5000	Less than 16400
9	Unknown	Unknown

4-6.4 Operator Messages. Under certain conditions, the figure of merit (FM) display will alternate with one or more operator message. If any of these conditions exist, the messages will alternate with FM once per second. FM will always be displayed every other second. Refer to Table 4-3 for a complete listing and description of these messages.

Encl (77)

DATE OF ENTERING: 12 FEB 14

ENTERING PORT/RESTRICTED WATERS CHECKLIST

This check-off list will be carried out by the OOD and he will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the OOD notified immediately. When an item requires obtaining further instructions, these instructions will be annotated on the check-off list for reference. Times are estimates; therefore, all events will be carried out when directed or indicated by PCD.

NOTE: Events indicated by an asterisk (\*) require a deck log entry.

SEQUENCE	EVENT	RESP	TIME	INITIAL
WHEN DIRECTED	LOG COMMENCEMENT OF ENTERING PORT CHECKLIST IN DECK LOG*	OOD	1645	(b) (3) (B), (b) (6)
	PUMP BILGES WHEN CONDITIONS PERMIT AND SHIP IS BEYOND 50 NM LIMIT.	ENG	DIDP	
	DEBALLAST AS REQUIRED.	ENG	N/A	
	PASS THE WORD. "HOLD ALL TRAFFIC STATION" WHEN WITHIN 50 NM OF LAMP.	OOD	0543	
	CHECK NAVIGATION EQUIPMENT.	ANAV	(b) (3) (B), (b) (6)	
	SET UP AND CHECK ALL HARBOR AND TUG FREQUENCIES.	OOD	1645	
-24 HRS	CONDUCT STEERING CHECKS IAS PMO. *	OOD	2216	
	CALIBRATE WFGMC. *	ANAV	2216	
	CONDUCT NAVIGATION BRIEF WITHIN 2 HRS BEFORE ENTERING PORT.	NAV	1400	
	CONDUCT FRESH WATER WASHDOWN	1ST	N/A	
	VERIFY CORRECT PCMS CONDITION.	CICWO	1645	
-70 MIN	ENSURE 3 FP RADIOS AND 8 SOUND POWERED PHONES ON BRIDGE.	OOD	0615	
	ENSURE NAV BRIEF FOLDERS ARE ON STATION FOR CO, XO, OOD, AND CONN	NAV	0621	
	ENSURE PILOT CARD ON ST.	NAV	0617	
-60 MIN	CONTACT HARBOR CONTROL TO VERIFY TASK ASSIGNMENT, ARRIVAL TIME, TUGS, AND PILOT.	OOD	0605	
	ENSURE COFFEE AND "HARBOR PILOT" COFFEE CUPS ARE AVAILABLE ON BRIDGE.	ASUPPO	0615	
	ENSURE WATER AND CUPS ARE AVAILABLE AT EACH CONTROLLING STATION.	ASUPPO	0615	

ENTERING PORT CHECK-OFF LIST

(b) (3) (B), (b) (6)

WHEN 12NM FROM LAND, PLACE RO UNITS IN DUMP.	OOD	<u>0549</u>
SET MAXIMUM PLANT RELIABILITY CONFIGURATION FOR ENTERING PORT VIA 21MC.	OOD	<u>0604</u>
SECURE IFF.	CICWO	<u>0544</u>
PASS THE WORD (WHEN SET): "MAXIMUM PLANT RELIABILITY SET, TIME <u>0614</u> " *	OOD	<u>0614</u>
TEST THROTTLE CONTROL.	OOD	<u>0614</u>
PASS THE WORD: "MAKE ALL PREPARATIONS FOR ENTERING PORT, SHIP WILL ANCHOR/MOOR <u>PORT/STBD</u> SIDE TO <u>        </u> AT TIME <u>        </u> . UNIFORM FOR ENTERING PORT IS <u>        </u> ."	OOD	<u>0604</u>
CHECK THE SMARTNESS OF THE SHIP FOR ENTERING PORT.	CMAA	<u>0558</u>
-40 MIN PASS THE WORD: "STATION THE SEA AND ANCHOR DETAIL." * (IAW POD/NAV BRIEF)	OOD	<u>0615</u>
MANNED AND READY CHECK LIST:	JOOD	MANNED
<ul style="list-style-type: none"> <li>- NAVIGATION DETAIL</li> <li>- PILOT HOUSE</li> <li>- AFT STEERING</li> <li>- CIC</li> <li>- RADIO</li> <li>- CSOOW</li> <li>- SIGNAL SHACK BRIDGE</li> <li>- FOC'SLE</li> <li>- QUARTER DECK</li> <li>- FANTAIL</li> <li>- CCS</li> <li>- APU ROOM</li> <li>- FP DETAIL</li> </ul>		(b) (3) (B), (b) (6)
TEST S/P PHONES FROM PORT AND STBD BRIDGE WINGS.	CONN	<u>0605</u>
TEST SHIP'S WHISTLE. *	OOD	<u>0621</u>
CONDUCT TIME CHECK. *	OOD	<u>0606</u>
PASS THE WORD: "ALL DEPT. HEADS MAKE READINESS REPORTS TO THE EXECUTIVE OFFICER IN THE PILOT HOUSE." * 25	OOD	<u>0621</u>
WHEN 3NM FROM LAND, SECURE CHT.	OOD	<u>0638</u>
TEST ANCHOR WINDLASS.	ENG	<u>0637</u>
LAY OUT MOORING LINES.	1 <sup>ST</sup> LT	<u>0631</u>
WHEN ANCHORING, PASS THE FOLLOWING TO 1 <sup>ST</sup> LT:	JOOD	<u>AT 0631</u>

ENTERING PORT CHECK-OFF LIST

(b) (3) (B), (b) (6)

- DEPTH OF WATER AT ANCHORAGE
- TYPE OF BOTTOM AT ANCHORAGE
- SCOPE OF CHAIN TO BE USED
- TIDE AND CURRENT INFORMATION

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

WHEN MOORING TO A PIER, PASS THE FOLLOWING INFORMATION TO 1<sup>ST</sup> LT: JOOD

- RANGE OF TIDE AND CURRENT
- TIME OF EXPECTED HIGH TIDE
- WHETHER RHIB WILL BE LAUNCHED

NO PASS

(b) (3) (B), (b) (6)

ENSURE PILOT CARD FILLED OUT. JOOD

0608

ENSURE ANCHOR IS READY FOR LETTING GO. 1<sup>ST</sup> LT

0630

TEST ANCHOR WINDLASS. 1<sup>ST</sup> LT

0630

TEST AFT CAPSTAN. 1<sup>ST</sup> LT

0635

ENSURE COFFEE/WATER/SNACKS FOR PILOT ARE AVAILABLE ON THE BRIDGE. JOOD

0620

COMPARE GYRO READING IN AFT STEERING WITH GYRO READING AT SCC. CONN

0620

INSPECT WEATHER DECKS TO ENSURE CREW IS IN PROPER UNIFORM. CMAA

0620

-20 MIN (IF NECESSARY) LOWER BOAT IF DIRECTED IAW LOWERING RHIB CHECKLIST. OOD/BMC

N/A

(IF NECESSARY) PASS THE WORD: "ALL HANDS FALL INTO RANKS TO PORT/ STBD." OOD

N/A

NOTE: MAXIMUM SPEED ALLOWED WITH APUS LOWERED IS 5 KNOTS!

ORDER EOW TO SET RESTRICTED MANEUVERING. \* OOD

0710

PASS THE WORD: "RESTRICTED MANEUVERING CASUALTY CONTROL PROCEDURES ARE NOW IN EFFECT." \* (EVERY 30 MINUTES) OOD

0710

ENSURE FLAGSTAFF AND JACKSTAFF ARE IN PLACE. JOOD

0645

REPORT READINESS TO ENTER PORT TO THE XO/CO. OOD

0645

RECEIVE PILOT ON BOARD. \* MAC

0720

HAUL UP "CODE HOTEL" ANAV  
 BREAK THE INTERNATIONAL CALL SIGN. ANAV

0720  
0720

TAKE DFGMC OUT OF AUTOCOMPENSATION MODE. ANAV

NO PASS

PIER MOORING (IF REQUIRED) ENSURE INPORT LIGHTS ARE SHOWING CORRECTLY. OOD

N/A

ENTERING PORT CHECK-OFF LIST

(b) (3) (B), (b) (6)

CENTERLINE AND RETRACT APUs. OOD

PASS THE WORD: "SECURE FROM RESTRICTED MANUEVERING DOCTRINE." \* OOD

0932

PASS THE WORD: "SECURE FROM MAXIMUM PLANT RELIABILITY." \* OOD

0934

(b) (3) (B), (b) (6)

PASS THE WORD: "SECURE FROM SEA AND ANCHOR DETAIL (IF APPLICABLE: WITH THE EXCEPTION OF \_\_\_\_)." \* OOD

0953

PASS THE WORD: "THE OOD IS SHIFTING HIS WATCH FROM THE PILOT HOUSE TO THE AFT/CENTERLINE QUARTERDECK." \* OOD

1003

DELIVER THE DECK LOG AND SHIP'S BELL TO THE QUARTERDECK. BMOW

1003

TURN IN COMPLETED UNDERWAY CHECK OFF LIST TO NAV/ANAV.

(b) (3) (B), (b) (6)

MUSTER SHEET FOR NAVIGATION BRIEF  
INBOUND SAMSUN, TURKEY

Conducted By: (b) (3) (B), (b) (6)

1. Commanding Officer (b) (3) (B), (b) (6)
2. Executive Officer (b) (3) (B), (b) (6)
3. Operations Officer (b) (3) (B), (b) (6)
4. Asst. Navigator (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
5. OOD (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
6. JOOD (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
7. Conning Officer (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
8. Helm Safety Officer (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
9. Master Helmsman (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
10. Nav Plotter (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
11. Bearing Recorder (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
12. Bearing Taker (Port) (b) (3) (B), (b) (6)
13. Bearing Taker (Stbd) (b) (3) (B), (b) (6)
14. CIC Watch Off. (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
15. Piloting Officer (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
16. CIC Officer (b) (3) (B), (b) (6)
17. Senior OS (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
18. Shipping Officer (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
19. CIC Nav Plotter (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
20. CIC Watch Supervisor (b) (3) (B), (b) (6)
21. 1<sup>st</sup> LT (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
22. Foc'sle (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)
23. Aft Steering Safety Officer (b) (3) (B), (b) (6)
24. Aft Steering Helmsman (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)

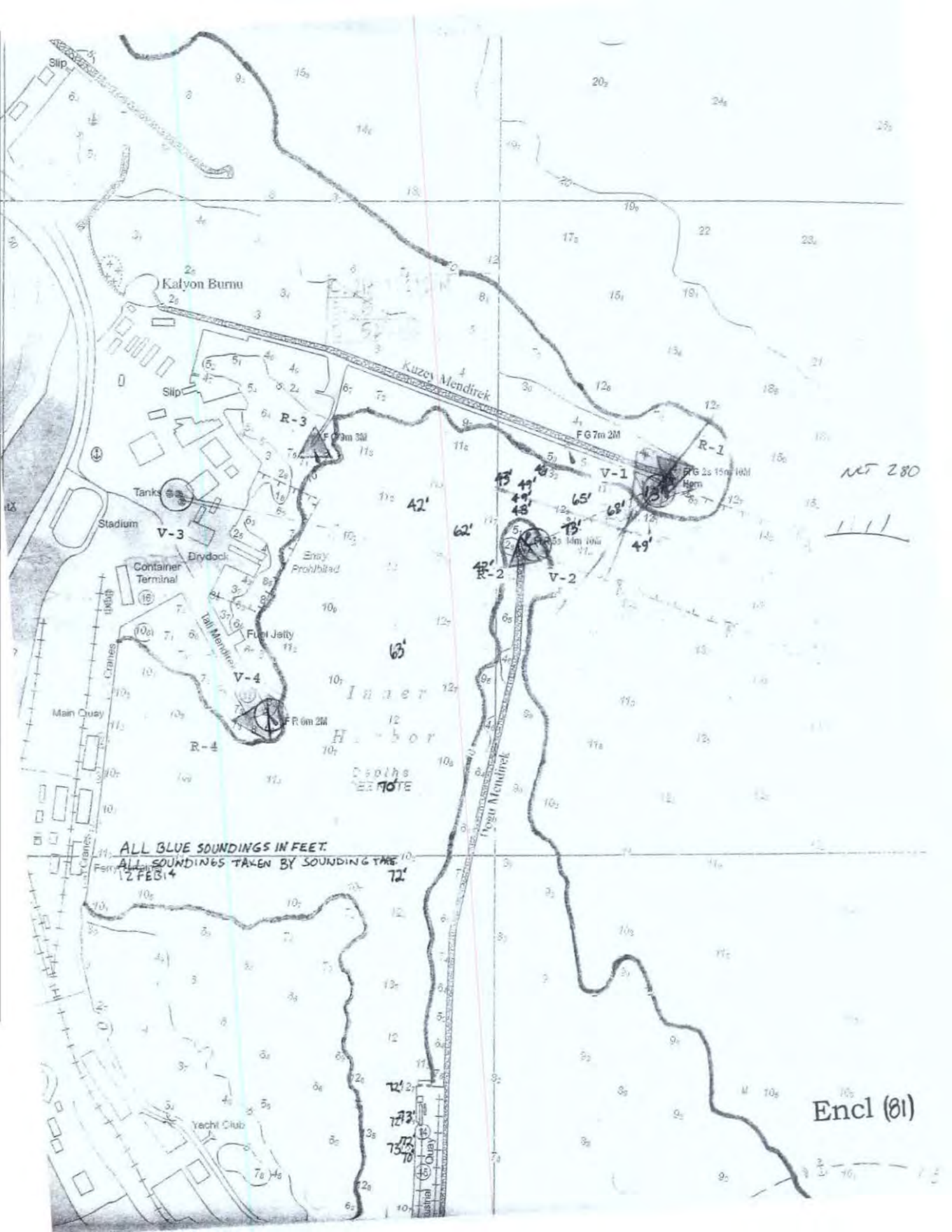
- 25. EOOW (b) (3) (B), (b) (6)
- 26. Fantail (b) (3) (B), (b) (6)
- 27. ATTWO (b) (3) (B), (b) (6)
- 28. Midships (b) (3) (B), (b) (6)





All soundings made  
by sounding tape and  
measured in feet

Encl (89)



NET 280  
 1111

ALL BLUE SOUNDINGS IN FEET.  
 ALL SOUNDINGS TAKEN BY SOUNDING TANK  
 12 FEB 14

72'  
 73'  
 75'  
 70'

Encl (81)

WHEN INTERVIEWED, [REDACTED] (b) (3) (B), (b) (6) STATED THAT  
HE RECORDED POSITIVE SOUNDINGS AT POSITIONS  
[REDACTED] PERPENDICULAR TO NAVAIDS. HE DID NOT  
RECORD GPS LOCATION

(b) (3) (B), (b) (6)

**DAILY DRAFT REPORT**

(REV 02/02) From: Damage Control Assistant/Fire Marshal  
 To: Commanding Officer  
 Chief Engineer/Engineering Duty Officer  
 Officer

Date: 13 FEB 14  
 Daily

Via:

	TODAY	PREVIOUS	MAX
FWD DRAFT	15'4"/4.69	15'4"/4.69	16'2"
AFT DRAFT	15'4"/4.67	15'4"/4.67	16'8"
FWD NAV (+6'5")	21'9"/6.43	21'9"/6.43	22'7"
AFT NAV (+9'5")	24'9"/7.31	24'9"/7.31	26'7"
DRAFT MEAN	15'4"/4.69	15'4"/4.69	16'2"
LIST	0	0	1
TRIM	0	0	1
DISPLACEMENT	3787	3808	4100
TP1"	32.6	32.65	33.5
LCB (AFT FR# 204)	+3.3	+3.4	+4.6
LCF (AFT FR# 204)	23.84	23.84	24
MT1"	775	777	797
F-76	54.0	57.7%	95%
F-44	87.6%	87.6%	95%

• TPI = TONS PER INCH IMMERSION FLOODING LENGTH: 15% (61.2 FT) OR 3 CONSECUTIVE MAJOR WATER TIGHT SPACES  
 • LCB = LONGITUDINAL CENTER OF BUOYANCY  
 • LCF = LONGITUDINAL CENTER OF FLotation  
 • MT1" = MOMENT TO CHANGE TRIM ONE INCH FUEL TONS

FUEL STATE	SEAWATER BALLAST TANK	GALLONS	
68%	5-32-0-W	0/0	DEBALLASTED / BALLASTED
61%	5-116-0-W	0/0	DEBALLASTED / BALLASTED
49%	5-328-1-W	0/0	DEBALLASTED / BALLASTED
49%	5-328-2-W	0/0	DEBALLASTED / BALLASTED
98%	5-250-1-F	0/0	DIRTY BALLAST TANK
94%	5-250-2-F	0/0	DIRTY BALLAST TANK
96%	5-100-3-F	0/0	DIRTY BALLAST TANK
19%	5-100-4-F	0/0	DIRTY BALLAST TANK

- At 4100 tons, the ship is displacement critical: a weight increase above the 4100 ton displacement limit will impact ship strength and reserve buoyancy and is unacceptable.
- An even keel attitude is acceptable if the 16'2" limiting draft marks forward and aft and at midship are not submerged, and the corresponding draft of 16'2" aft is observed. Similarly, trim by the stern is acceptable if the midship mark at 16'2" and the aft mark at 16'8" are exposed.

**Remarks:**

PRIOR TO

AFTER EVOLUTION

UNDERWAY	
ENTERING	(X)
ANCHORAGE	
REPAIRING	(X)
DOCKING	
ON LOAD	
DAILY	X

MAJOR ON LOAD	
MAJOR OFF LOAD	
REFUELING	
UNDOCKING	
BALLASTING	
DEBALLASTING	
DEFUELING	

(b) (3) (B), (b) (6) (b) (3) (B), (b) (6) (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)

Encl (82)

**DAILY DRAFT REPORT**

(REV 02/02) From: Damage Control Assistant/Fire Marshal

Date: 17 FEB 14

To: Commanding Officer

Via:

Chief Engineer/Engineering Duty Officer  
Officer

	TODAY	PREVIOUS	MAX
FWD DRAFT	14'9"/4.49	14'9"/4.49	16'2"
AFT DRAFT	16'9"/5.10	16'9"/5.10	16'8"
FWD NAV (+6'5")	21'2"/6.45	21'2"/6.45	22'7"
AFT NAV (+9'5")	26'2"/7.97	26'2"/7.97	26'7"
DRAFT MEAN	15'6"/4.62	15'6"/4.62	16'2"
LIST	0	0	1
TRIM	0	0	1
DISPLACEMENT	3960	3965	4100
TPI*	33.3	33.2	33.5
LCB (AFT FR# 204)	+3.0	+3.0	+4.6
LCF (AFT FR# 204)	23.78	23.80	24
MT1*	805	789	797
F-76	90.4%	91.2%	95%
F-44	85.9%	85.9%	95%

\* TPI = TONS PER INCH IMMERSION    FLOODING LENGTH: 15% (61.2 FT) OR 3 CONSECUTIVE MAJOR WATER TIGHT SPACES  
 \* LCB = LONGITUDINAL CENTER OF BUOYANCY  
 \* LCF = LONGITUDINAL CENTER OF FLOTATION  
 \* MT-1 = MOMENTS TO CHANGE TRIM ONE INCH (FOOT TONS)

FUEL STATE	SEAWATER BALLAST TANK	GALLONS	
68%	5-32-0-W	0/0	DEBALLASTED / BALLASTED
61%	5-116-0-W	0/0	DEBALLASTED / BALLASTED
49%	5-328-1-W	0/0	DEBALLASTED / BALLASTED
49%	5-328-2-W	0/0	DEBALLASTED / BALLASTED
98%	5-250-1-F	0/0	DIRTY BALLAST TANK
94%	5-250-2-F	0/0	DIRTY BALLAST TANK
96%	5-100-3-F	0/0	DIRTY BALLAST TANK
19%	5-100-4-F	0/0	DIRTY BALLAST TANK

- At 4100 tons, the ship is displacement critical: a weight increase above the 4100 ton displacement limit will impact ship strength and reserve buoyancy and is unacceptable.
- An even keel attitude is acceptable if the 16'2" limiting draft marks forward and aft and at midship are not submerged, and the corresponding draft of 16'2" aft is observed. Similarly, trim by the stern is acceptable if the midship mark at 16'2" and the aft mark at 16'8" are exposed.

**Remarks:**

PRIOR TO

UNDERWAY	
ENTERING	
ANCHORAGE	
REFUELING	
DOCKING	
ON LOAD	
DAILY	30

AFTER EVOLUTION

MAJOR ON LOAD	
MAJOR OFF LOAD	
REFUELING	
UNDOCKING	
BALLASTING	
DEBALLASTING	
DEFUELING	

(b) (3) (B), (b) (6) (b) (3) (B), (b) (6) (b) (3) (B), (b) (6) (b) (3) (B), (b) (6)



## DEPARTMENT OF THE NAVY

COMMANDING OFFICER  
USS TAYLOR (FFG 50)  
FLEET POST OFFICE  
AA 34093-1504

3530  
FFG 50/NAV  
25 Feb 13

USS TAYLOR (FFG 50) INSTRUCTION 3530.4L

Subj: NAVIGATION BILL

Ref: (a) COMNAVSURFLANTINST 3530.4 (Series) (Surface Ship Navigation Department Organization and Regulations)  
(b) OPNAVINST 3120.32 (Series) (SORM), Articles 323 and 630.13  
(c) U.S. Navy Regulations, 1990, Article 0857  
(d) COMPACFLTINST 3130.3 (Series)  
(e) COMLANTFLTINST 3140.9 (Series)  
(f) Pub No. 9, *The American Practical Navigator*  
(g) TAYLORINST 3121.1 (Series) (Commanding Officer's Standing Orders)

Encl: (1) Navigation Standards  
(2) Commanding Officer's Ready Charts and Publication List  
(3) Anchoring Checklist  
(4) Entering Port/Restricted Waters Checklist  
(5) Helicopter Operations Checklist  
(6) Low Visibility Checklist  
(7) Replenishment at Sea/Underway Replenishment Checklist  
(8) Lowering/Recovering RHIB Checklist  
(9) Mine Countermeasure/Swept Channel Checklist  
(10) Towing Checklist  
(11) Pre-Underway Checklist  
(12) Launch/Retrieval of AN/SQS-19 TACTAS Checklist  
(13) Abandon Ship Checklist  
(14) Man Overboard Checklist  
(15) Position Report Template  
(16) QMOW Turnover Checklist

1. Purpose. Per references (a) through (g), this instruction establishes the minimum standards for the Navigation Department and safe navigation of TAYLOR. This instruction is to be used in conjunction with reference (g) for the safe navigation of the ship.

2. Responsibility. The Navigator is responsible for maintaining this bill.

Encl (4)

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3. Cancellation. TAYLORINST 3530.4K

4. Duties and Responsibilities. With respect to navigation, the following duties and responsibilities exist as stated in references (a) through (c), and as amplified below:

a. Commanding Officer (CO). The Commanding Officer is responsible for the safe navigation of the ship. As stated in reference (b), "the presence of a Pilot onboard will not relieve the CO or any subordinate from his/her responsibility for the proper performance of the duties with which he or she may be charge concerning the navigation and handling of the ship." The CO must be especially dutiful in maintaining the safety of the ship when the pilot recommends deviating from the planned track to avoid shipping or any other reasons. Pilots, as advisors to the CO and the navigation team, should be familiarized with the ship's characteristics and planned navigation track prior to beginning the proposed transit.

b. Executive Officer (XO). The Executive Officer shall be ready to assist the CO and Navigator in all aspects of navigation and ship handling. During restricted water transits the XO shall not be assigned to a specific watch station so that he/she is free to supervise all aspects of the transit and assist as needed. Additionally, the XO will review all navigation briefs, transit routes and associated charts for completeness. The XO is responsible for direct supervision of the Navigator and navigation team while in restricted waters unless otherwise directed by the Commanding Officer. If the CO assigns the XO to fill another critical supervisory position, then another senior officer should be assigned as the navigation team supervisor. This does not relieve the XO of his navigation responsibilities.

c. Navigator. The Navigator will be designated in writing by the CO and is responsible, under the CO, and the XO, for the safe navigation and piloting of the ship. The Navigator will receive all orders relating to his/her navigational duties directly from the CO and will make all reports in connection therewith directly to the CO. Additional duties of the Navigator include:

(1) Advise the CO, the XO, and the Officer of the Deck (OOD) as to the ship's movements. To this end he/she will:

(a) Maintain or cause to be maintained an accurate plot of the ship's position at all times utilizing Global Positioning System (GPS), visual, RADAR, and all other appropriate means. No single source of navigation information will be used to the exclusion of others.

(b) While underway, fixes from all available sources as delineated in paragraph 5.e below, will be compared to determine fix uncertainty. When the uncertainty is considered excessive as per reference (g), the Navigator will investigate and resolve the problem. Conditions permitting, the same procedure will be employed before entering restricted waters, including prior to getting underway.

(c) Establish a close liaison between CIC and the bridge for comparison of navigation information.

(d) Notify the CO, XO, OOD, and Conning Officer immediately when the determination is made that the ship is standing into danger. Ensure this report is acknowledged, and make course and speed recommendations to prevent the ship from entering dangerous waters.

(e) Ensure all recommendations by the Navigator/Navigation Evaluator are recorded in the ship's deck log.

(f) Give careful attention to the ship's course, speed, and available depth of water when approaching land or shoals.

(g) Maintain records of all observations and computations made for navigating the ship, with results and dates included. Such records will form a part of the ship's official records.

(h) Report in writing to the CO, with a copy to embarked staff, when underway, the ship's position at 0800, 1200, and 2000 each day and at such other times as the CO may require, utilizing enclosure (15).

(i) Procure, maintain and ensure adequate inventory control and destruction procedures for all products, reference (a) appendix (g), as required by the CO and higher authority.

(j) Establish adequate inventory control procedures to ensure required navigation charts, and publications are

stocked on board in accordance with references (d) and (e), and that all material is properly maintained and stowed.

(k) Review chart and publication requirements and allowances annually, and provide any requests for new products or changes to unit allowances to the TYCOM via the chain-of-command. Ensure an updated DLA Form 1832 is maintained at all times to include submitting updated 1832 forms annually, or when an account point of contact changes, whichever is shorter.

(m) Determine the charts for use during a transit (scale, units of measurement, etc.) and verify the geodetic system on which the chart in use is based on, ensuring adjustments are made to the GPS equipment to match the chart datum.

(n) Recommend to the CO which ready charts (paper/DNC) and paper/electronic publications are to be kept continuously up to date.

(p) Ensure records of corrections affecting charts and publications are maintained via correction trees and record of change pages. All corrections shall be made prior to use.

(q) Personally supervise navigation of the ship when the ship is in restricted waters and when at battle stations, unless specifically designated by the CO to stand another watch. In this case, another officer qualified to serve as Navigator will be directed in writing by the CO to perform these duties.

(r) Ensure that the Seamanship Training Team (STT) is in place whenever manning, ORM, and operational requirements permit. To this end, the senior QM/OS, or any other designated member of the STT, shall observe all actions of the navigation team while in restricted waters, and document any notable item, including good and bad practices and procedures. All areas noted shall be reviewed as soon as feasible after each evolution as part of lessons learned "hot wash" as well as in a formal STT debrief. Additionally, these observations should be added to future briefs for similar evolutions, and be retained for review during future ISIC/ATG evaluations.

(s) Before entering restricted waters, study all available sources of information concerning navigation of the ship therein. Additionally, prepare and conduct a navigation brief no more than 24 hours prior to the planned evolution in accordance with reference (a).

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(t) Prior to anchoring, ensure the appropriate chart and electronic displays showing the ship's anchorage position and all navigation aids to be used are identified to the OOD and CIC. Upon anchoring, plot the anchor's position, swing and drag circles. Conduct three consecutive fixes and determine if the bridge and CIC concur. If the consecutive fixes between the bridge and CIC plots are determined satisfactory, on the bridge create a reference using appropriate paper materials, and bring the reference to CIC to physically compare the positions. Determine if the anchor is holding and establish the fix interval in accordance with reference (g).

(u) Prepare the CO's Night Orders as prescribed by the CO. At a minimum, include operating areas, night steaming instructions, aids to navigation, and fix interval (if other than prescribed in reference (g)).

(2) Ensure the proper operation, care, and maintenance of navigational equipment. To this end, he/she will:

(a) Establish the requirement to determine and record gyrocompass heading and repeater error(s) at least once daily while underway and prior to restricted maneuvering situations. Log and report the results to the CO. Direct comparisons of the master gyrocompass, auxiliary gyrocompass, and Digital Fluxgate Magnetic Compass (DFGMC) to be made and recorded for every course change over 10 degrees, or at least half-hourly.

(b) Ensure UTC (USNO, i.e. GPS-based) time checks are passed throughout the ship before any special evolution and logged in the Ship's Deck Log. At a minimum, a time check will be conducted daily, while underway, before 0800.

(c) Adjust and compensate the DFGMC per required PMS and conduct an intentional compass calibration within 24 hours of conducting any special evolution, and 48 hours after getting underway. For this purpose, DFGMC calibrations are not part of PMS scheduling.

(d) Ensure assigned navigation equipment is maintained and properly adjusted in accordance with the Preventive Maintenance System (PMS). Any degradation to navigation equipment will be reported to the CO.

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(d) Prior to any special evolution or restricted maneuvering situation conduct calibration on the DFGMC in accordance with the PMS.

(3) Advise the CO, XO, OOD, Conning Officer, and CIC watch team of expected effects on the ship's maneuvering characteristics caused by casualties to the main propulsion or steering systems. To this end, the Engineer Officer is responsible for keeping the Navigator informed as to the capabilities and/or limitations of such systems.

(4) Ensure the proper preparation and entry accuracy of the Deck Log on a daily basis, in addition to the timely submission monthly to the Commanding Officer. A weekly compliance and proper log procedure review will be submitted to the CO.

(5) Ensure special navigation evolution checklists are completed and logged in the ship's deck log upon commencement and completion of such events.

(6) Prepare reports and records as required in connection with his/her navigational duties to include those pertaining to the compasses, hydrography, oceanography, meteorology, and electronic navigation systems.

(7) Ensure required navigational training is conducted for all appropriate personnel, such as junior officers, navigation watch standers, boat coxswains, and boat officers.

(8) Relieve the OOD, as delineated in reference (g) or as directed by the CO.

(9) Be a member of all qualification boards for Officer of the Deck.

(10) Report to the CO in all matters about the navigation of the ship and to the XO in matters concerning the administration of the navigation and to the Senior Watch Officer on the training of deck and watch officers.

(11) Maintain and track all navigation watch standers frequency of performance of all watch stations, corresponding with the Senior Watch Officer to ensure proficiency watches are properly assigned as necessary to meet frequency of watch standing requirements. This includes prerequisite watch positions that lead to a senior watchstation. A random LOK or

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oral exam may be provided at the discretion of the CO, XO, SWO, Training Officer, Navigator, or Command PQS Coordinator for the watchstation. Results of the random test will be maintained by the Navigator and Training Officer.

(12) Conduct weekly reviews and ensure corrections to the deck log for submission to to CO for review and approval no later than the Wednesday of the following week.

(13) Prepare a voyage plan for all underway periods, including pertinent navigational and operational information. At a minimum, the plan shall include detailed information on track data, Plan of Intended Movement (PIM), rendezvous points, operational commitments, hot areas or operational areas to avoid, and any other information deemed pertinent or applicable to the transit.

d. Assistant Navigator (ANAV) (if assigned). The Assistant Navigator will assist the Navigator in all aspects of navigation, piloting, and administration of navigation. He/she will ensure proper preparation of the various reports as required. The Assistant Navigator will be formally designated in writing by the CO.

(1) In accordance with reference (a), the assistant navigator is responsible for the review of the ship's charts, publications, and correction files to ensure their proper correction and maintenance.

(2) Observe all actions by the navigation team while in restricted waters, and document any notable item, including good and bad practices and procedures. Review observations as soon as feasible after each evolution as part of lessons learned "hot wash" as well as in a formal STT debrief.

e. Combat Information Center Officer (CICO). The CICO is responsible for ensuring the prompt and accurate preparation of CIC's charts. This includes the annotation of all pertinent navigational and track information required for restricted waters transits as well as voyage plans as directed by the navigator or the operations officer. The CICO shall review both copies of any charts to be used for the navigation of restricted waters prior to review by the CO and the XO.

f. Navigation Team. In addition to the CO, XO, Navigator, ANAV, and CICO there are other key crewmembers responsible for

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safe navigation. Listed below are the duties and responsibilities of the navigation team.

(1) Bridge.

(a) Navigation Evaluator. Evaluates the accuracy of the ship's position as determined by electronic and visual means. If not the Navigator, this person is responsible to the Navigator for evaluating fix accuracy and making fix reports as specified in this instruction. He/she supervises and coordinates the actions of all navigation team members. The Navigation Evaluator shall have no additional duties during navigation detail.

(b) Navigation Plotter. Maintains the navigation plot. He/she will plot and label each fix on the chart in use. He/she will extend the dead reckoning (DR) at least two fix intervals, compute or relay set and drift for legs greater than 1500 yards, and evaluate the ship's projected movements. He/she will make recommendations to the Navigator/Navigation Evaluator. He/she will compute or relay such items as distance right or left of proposed track, time and distance to the next course change, revised turn bearings, and any other tasks as directed by the Navigator/Navigation Evaluator. The Navigation Plotter will plot and compare visual, RADAR or composite positions as necessary not to exceed every third fix interval, even if using GPS as the primary fix source.

(c) Bearing Recorder. Acts as the Navigator's talker on the sound-powered phone circuit, relays information received to the Navigation Plotter, maintains the standard bearing book (OPNAV Form 3530/3) according to current directives, and gives "marks" to the bearing takers, as directed by the Navigator/Navigation Evaluator. In addition, the Bearing Recorder will log GPS position and Figure of Merit (FOM) at every mark in the bearing book or position log book. He/she will also report the FOM to the Navigation Plotter and Navigator/Navigation Evaluator. The Bearing recorder will record sounds with each mark utilizing the remote fathometer repeater.

(d) Bearing Takers. Obtain accurate bearings, compensating for known pelorus errors, to navigation aids designated by the Navigator and provide them to the Bearing Recorder. Advise the Bearing Recorder about navigation aids available for use, including the gain and loss of navigation aids from sight. Bearing takers will keep the aids in sight

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between the shots. Additionally, they will know the location and use of pelorus benchmarks.

(e) Fathometer Operator. Operates the fathometer on a scale that is commensurate with the depth soundings of the plotting chart (in feet/meters/fathoms) or as directed by the Navigator. Advises the Navigator whenever the scale is shifted. The minimum sounding expected should be known and reported if reached. The Navigator must be advised if difficulty is experienced obtaining a sounding. During restricted water transits the fathometer paper trace will be activated and recording, annotated with the time of each mark.

(f) Quartermaster of the Watch (QMOW). The Quartermaster of the Watch is the direct representative of the Navigator and provides a continuous navigational watch on the bridge outside of navigation detail. He/she will assist the Navigator and OOD in navigating the ship and will immediately inform the Navigator, OOD, and senior quartermaster when discrepancies arise. The QMOW has numerous duties, including the keeping of various records, logs, weather information, as well as obtaining fix information. The OOD must recognize this and if fix taking encumbers the QMOW from performing other duties, request that the Navigator or senior quartermaster provide additional assistance to the QMOW. This instruction cannot possibly cover all situations that may arise. However, he/she is charged with the following responsibilities:

1. Assist the OOD, Navigator, and Assistant Navigator in plotting the ship's position. Maintain a DR and estimated position (EP) plot. Immediately notify the Navigator and Assistant Navigator of any discrepancies noted during the watch.
2. Maintain the ship's deck log, magnetic compass record, and weather observation sheet.
3. Compare CIC derived positions and ship's relation to track and position of intended movement (PIM) with the bridge position and determine if differences exist.
4. Compute and log set and drift.
5. Note when a change in weather or the visibility decreases to less than the distance specified in reference (g). Make log entries as required.

6. Determine the master/auxiliary gyrocompass errors daily and before entering restricted waters.

7. Ensure compass comparisons between the bridge gyrocompass repeaters are made every time a new course is set (over 10 degrees from the previous comparison) and at least every 30 minutes. Such comparisons will be recorded in the magnetic compass record book or the deck log.

8. Note any malfunctions to all electronic navigation systems including speed and heading inputs. Inform the Navigator and OOD of any change in the status of such equipment and log in ship's deck log the time and nature of such.

9. Obtain soundings using the fathometer at each fix, or as directed by the CO, EMCON conditions permitting.

10. Calculate sunrise/sunset/moonrise/moonset. Determine and log gyro and repeater error as directed by the Navigator.

11. Record 0800, 1200, and 2000 positions in the ship's deck log. Prepare the ship's 0800, 1200, and 2000 ship's position reports for submission to the CO via the Navigator or Assistant Navigator.

12. Before special evolutions, ensure UTC (USNO) time checks are conducted on the IMC and logged in the ship's deck log. At a minimum, a time check will be conducted daily while under way before 0800.

13. Calculate when an aid to navigation or RADAR landfall should be sighted and report whether or not it is detected as specified in reference (g).

14. Prepare notes for CO's night orders notebook as directed by the Navigator.

15. Monitor the Helmsman/Lee Helmsman for compliance with ordered course and speed.

16. Conduct a watch turnover using a checklist such as that detailed in enclosure (16).

(2) Combat Information Center (CIC)

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(a) Piloting Officer. Evaluates the accuracy of the ship's position as determined by electronic means. Maintains direct communications with Navigation Evaluator via the Bridge Phone Talker and Shipping Officer. Supervises and coordinates the actions of all CIC navigation team members. Keeps the Shipping Officer advised of impending course and speed changes in order to determine which contacts should be prioritized.

1. Ensures the CIC navigation team obtains the ship's position and compares fixes from various sources to determine fix uncertainty. When uncertainty is considered excessive as per the CO's Standing Orders, the Piloting Officer will recommend all stop until the problem is resolved.

2. Ensures the following required information is logged into the RADAR navigation log and passed to the bridge navigation team:

- a. Fix time
- b. Fix quality
- c. Fix method
- d. Fix position relative to Track
- e. Nearest hazard to navigation
- f. Nearest aid to navigation
- g. Distance/time to next turn
- h. Next course leg
- i. Any navigation recommendations
- j. Set and drift (on legs greater than 1500 yards or when requested by the Navigator/Navigation Evaluator
- k. FOM when using fix information derived from GPS

(b) Navigation RADAR Operator. Provides all RADAR ranges as directed by the Navigation Plotter, Piloting Officer and Shipping Officer. Keeps the Navigation Plotter informed of designated points available for use.

(c) Navigation Plotter. Maintains CIC's navigation plot. He/she will plot and label each fix on the chart in use. He/she will ensure the Dead Reckoning (DR) plot is extended at least two fix intervals, compute and relay set and drift on legs greater than 1500 yards or when requested by the Navigator/Navigation Evaluator, and evaluate ship's projected movements. He/she will provide the required information for the Piloting Officer to make the required report.

(d) Navigation Recorder. Performs as a phone talker and monitors the bridge Bearing Recorder and Fathometer Operator. Maintains the CIC navigation log to coincide with the bridge Bearing Recorder "mark."

(e) Bridge CIC Phone Talker. Provides smooth flow of navigation information between the Navigator, CIC Piloting Officer, and Shipping Officer. Ensures reports and recommendations from the Piloting Officer and Shipping Officer are received and acknowledged by the Navigator and that the stated intentions of the CO, Navigator, OOD, and Conning Officer are reported to and acknowledged by the Piloting Officer.

(f) Shipping Officer. Maintains direct communications with the Piloting Officer and Bridge Phone Talker. Responsible for providing the evaluated surface display to the Conning Officer. Supervises and coordinates the CIC RADAR detection team and the lookouts and recommends proper actions to be taken in accordance with the Rules of the Road. Additionally, ensures a record of all surface contacts encountered are logged and recorded.

#### 5. Standard Navigation Policies and Requirements.

a. Policy. The navigation plot maintained on the Navigator's chart table on the bridge is designated as the primary navigation plot. The accuracy of the navigation depends on a knowledgeable assessment of all position data. Each source and fix technique is subject to some error. Therefore, the Navigation Evaluator must assess each position determination and evaluate it with respect to all others. The Navigation Team will plot all fixes and will compare fix information from all available sensors.

b. Preparation and use of charts. Chart preparations will be conducted independently by OI and NN divisions. The starting point of this planning process will be a common set of way points by the Navigator and reviewed by XO and ANAV. Charts will be reviewed by the leading OS/QM and CICO/NAV respectively. The Navigator will then ensure OI and NN charts are identical prior to approving them for navigation. Charts used for navigation in restricted waters require the additional approval of the XO and CO. In this case the Navigator will submit both charts as well as the associated Navigation Brief to the XO and CO for final approval.

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c. Use of Military-grade and civilian GPS units. GPS is authorized for use as the primary means for establishing ships position during all evolutions. Members of the navigation team and officers of the deck must be familiar with the basic use, capabilities, and limitations of all GPS sources. Northstar is Differential GPS (DGPS) capable and will automatically utilize DGPS when within range of a recognized DGPS broadcast. Northstar in DPGS mode is many times more accurate than WRN-6 or PSN-11 with FOM-1. Error in DGPS mode is normally 1-2 meters. In the event of all available military GPS units are displaying a FOM greater than required per reference (a), or in the event of a casualty which renders all available military GPS units inoperable, civilian GPS units may be utilized as the primary GPS fix source with the Navigator's recommendation and CO's permission. In the event that AIS is utilized as the primary fix source, portable Garmin X760s will be used to correlate and compare with AIS to minimize the effect of possible AIS spoofing.

d. The OOD is responsible to be informed of the position of the ship and all other particulars that may be used to keep the ship out of danger. It is the responsibility of all watch standers responsible to the OOD to aid in the detection and avoidance of danger. No watchstander should ever hesitate to request additional watch personnel or recommend to the OOD stationing the Modified Navigation Detail (consisting of a qualified QMOW, either the Navigator or Assistant Navigator on the Bridge, and a Piloting Officer in CIC) or the full navigation team if the situation warrants. The OOD is required to contact the Navigator prior to stationing any unplanned modified navigation detail and must obtain permission from the Commanding Officer prior to setting any unplanned full navigation team.

e. Fix Precedence. The bridge and CIC may utilize the same fix type, but not the same fix source. Additionally, reference (a) requires the fix type to be varied no less than every third fix if possible. If every third fix is being intentionally varied to meet this requirement, the particular fix being varied shall be offset between the bridge and CIC.

	Bridge	CIC
1	GPS - PSN-11	GPS - WRN-6
2	GPS - WRN-6	GPS - Northstar*
3	GPS - Northstar*	GPS - FURUNO*
4	GPS - FURUNO*	RADAR - SPS-55
5	GPS - AIS GPS*	RADAR - FURUNO

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6	Visual	RADAR - MK-92
7	RADAR - SPS-55	
8	RADAR - FURUNO	
9	RADAR - MK-92	
10	Celestial	

\*The use of non-military GPS units as a primary fix source is not authorized per reference (a) and must be authorized by the Commanding Officer. See paragraph 5.c for amplifying information.

Fix precedence applies in all waters. In restricted visibility, the primary plot will shift to combat at the discretion of the Navigator based on the quality of RADAR and GPS fixes.

f. Requirements. The navigation team must satisfy the following requirements while the ship is underway:

(1) Properly maintain the ship's Dead Reckoning (DR) plot in accordance with reference (a). The navigation team must rely upon DR as the foundation for maintaining an acceptable estimate of the ship's position between fixes.

(2) When utilizing a Dead Reckoning Table (DRT), ensure position inputs or updates are provided from an accurate fix source or method.

(3) Ensure all speed changes are entered in the dummy log as soon as they are ordered when the dummy log is providing speed data to the navigations systems.

(4) In certain situations, such as towing, the QMOW cannot utilize the ordered speed to DR, as the inherent error compounds over time due to restrictions placed on the ship. In these cases the rules of dead reckoning speed cannot be strictly applied and must be modified to better predict the ship's anticipated movement.

(5) Generate an estimated position (EP) by combining incomplete data from a variety of sources when insufficient data is present to fix the position of the vessel accurately in accordance with reference (a). The EP may combine the DR position with a single line of bearing, account for set and drift, compensate for tactical data, or represent a combination of these and other factors. Since DR positions are plotted for ordered courses and speed and do not compensate for known values or tactical characteristics of the ship, their relationship to

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the geodetic position may not always be accurate. To reduce the magnitude of error between the DR position and the geodetic position, the DR plot must be refined during the interval between fixes with a plot of estimated positions.

(5) Ensure charts (paper and electronic) to be used are certified safe for navigation and corrected/updated using all available information (i.e., Notice to Mariners, Local Notice to Mariners, Broadcast Notice to Mariners, NAVAREAs, HYDROPAC/LANTs, Vector Product Format Database Update (VDU)) and all area charts are compared to ensure that hazards to navigation are properly displayed and highlighted on all charts in use.

a. Ensure a correction tree consisting of the number and year of each Notice to Mariners from which corrections have been made, the date of the correction was applied, and the initials of the individual making corrections shall be entered in ink on the back of all paper charts. If the correction is from a Local Notice to Mariners, it shall be annotated as such with temporary changes annotated in pencil.

(6) Determine gyrocompass heading error at least daily when underway and prior to entering restricted waters.

(7) When utilizing celestial navigation, hand calculations will be the primary method with STELLA as a concurring secondary mean.

## 6. Requirements Prior to Entering Restricted Waters

a. Consult Sailing Directions, Coast Pilots, Fleet Guides, Port Directories, all available Port Visit After-Action Reports, and all other navigational publications as appropriate.

b. Determine, with the concurrence of the CO, when the engineering Restricted Maneuvering Doctrine will be initiated.

c. Tide and currents will be determined for each reference station passed. Sub-stations along the track should be used where tides and currents are critical to the shiphandler.

d. If not using NOAA tides/currents or NOAA tides/currents online, the "quarter tenth" method will be used to calculate tides and the "straight line" method will be used to calculate currents when operating in U.S. waters. Admiralty TotalTide will

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be used for all other areas of the world to compute tides and currents and as secondary means for U.S. waters.

e. The ship's proposed track and navigation information will be identical on all charts used for navigation, including those used by the CIC navigation team. On all tracks, the following items should be accurately plotted or indicated:

(1) The course (true and magnetic), speed, distance of each track leg, and distances remaining to turns.

(2) Danger bearings and ranges to navigation hazards not identified by navigation aids.

(3) Turn bearings in true and relative, turn ranges (in yards), and slide bars will be plotted allowing for the ship's advance and transfer tactical data on charts.

(4) A notation for each turn stating "Turn based on \_\_\_\_ knots and \_\_\_\_ rudder" combination.

(5) Bridge and CIC will indicate chart shift points so both are not shifted at the same time and so they do not require shifting during, or at the time of, an impending turn. The points should be approximately two fix intervals apart. The Bridge or CIC will have a good fix plotted before the next station shifts charts.

(6) An extended range scale will be placed on charts to facilitate laying of RADAR ranges or distances, as appropriate.

(7) Sound signal characteristics of all navigational aids will be determined and their specific characteristics labeled next to each NAVAID the ship will pass.

f. All charts will be reviewed, signed, and dated, prior to the navigation brief and their initial use. All subsequent changes will be addressed at the navigation brief and approved by the Commanding Officer. The following signing block will appear on every paper chart displaying a restricted water track:

PREPARED BY: _____	DATE: _____	Chart PO
REVIEWED BY: _____	DATE: _____	Leading QM/OS
_____	DATE: _____	NAV/CICO
SUBMITTED BY: _____	DATE: _____	NAV
REVIEWED BY: _____	DATE: _____	XO

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APPROVED BY: _____	DATE: _____	CO _____
--------------------	-------------	----------

g. A deliberate compass calibration of the Digital Flux Gate Magnetic Compass (DFGMC) will be conducted within 24 hours of conducting any special evolution (i.e., underway replenishment, navigation detail, restricted waters transit, anchoring, etc.) except for the initial underway.

7. Requirements While in Restricted Waters.

a. The Navigation Team should adhere, in so far as possible, to the following fundamental piloting principle: an optimum balance between accuracy and speed must be achieved while piloting. When operating in close proximity to shoals or hazards, accurate present and projected ship position information is required. In addition, such fix information must be updated as necessary to provide timely warning if the ship is standing into danger.

b. In general, the navigation detail will station 30 minutes prior to the sea and anchor detail or within 5 nautical miles of shoal water, whichever comes first. Securing the navigation detail will occur once TAYLOR is 5 nautical miles from shoal water and with concurring permission from the Commanding Officer.

c. Set and drift will be determined at least once on each leg less than 1500 yards and every third fix interval for legs greater than 1500 yards. Set and drift shall be computed more often if conditions dictate. All set and drift calculations accepted by the Navigation Evaluator will be logged in the Ship's Deck Log.

d. Course changes must take into consideration advance and transfer, set and drift, and the intersection of the DR and slide bar.

e. A fix is plotted as soon as TAYLOR is steady on a new course. The CO will be notified when a "no fix" situation arises. The CO will verbally acknowledge and it shall be logged in the ship's deck log.

f. If a fix appears to be inaccurate, another fix shall be taken immediately to determine the ship's position, followed by a second fix after one minute. The Navigation Evaluator will recommend to slow down, turn away from danger, or take all way

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off until an accurate fix is obtained and ensure all recommendations are recorded in the ship's deck log.

g. The fathometer is energized and recording when in restricted waters. Whenever possible, the fathometer will be set to coincide with the depth scale of the chart being used. Whenever soundings are less than the minimum designated values, notify the Navigator immediately. All soundings shall be compared with charted depths on each fix and reported to the OOD. Log all soundings in the standard bearing book.

h. At a minimum, every third fix will be a composite fix, consisting of two or more fix sources (GPS, RADAR, visual).

#### 8. Requirements While in Open Ocean

a. Set and drift will be computed and logged in the ship's deck log at a minimum of every three hours. Standard practice shall be every hour conditions permitting. A recommended course to compensate for set and drift will be given by the Navigator or the QMOW.

b. CIC navigation plotter will report and compare ship's position hourly with the QMOW.

c. Determine gyrocompass error by azimuth/amplitude of the sun daily, conditions permitting.

d. Submit weather observations every six hours and log any significant changes of the weather in the ship's deck log and weather Log.

**(b) (3) (B), (b) (6)**

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NAVIGATION STANDARDS AND DEFINITIONS1. NAVIGATION STANDARDS AND DEFINITIONS.

a. Navigational Draft. The navigational draft of TAYLOR is assumed to be 31' 5" (9.6m) and the limiting draft (full load displacement of 4100 tons) is 16' 8" (5.08m).

(1) The screws extend 9' 7" (2.92m) below the lowest point on the keel (26' 3 1/8" (8m)).

(2) The Auxiliary Propulsion Units (APUs), located between frames 100 and 105, extend 4' 2" (1.27m) below the lowest point on the keel when extended.

(3) The Sonar Dome, located on the keel between frames 40 and 65, extends 6' 5" (1.96m) beneath the lowest point on the keel.

(4) The determining projection is, therefore, limited by the Sonar Dome. Mechanical draft is the limiting draft aft, 16' 8" (5.08m), plus 9' 7" (2.92m) equating approximately 26' 3" (8.00m). Navigational draft takes the mechanical draft plus 20% (safety margin for propeller thrust and squatting), yielding 31' 5" (9.6m) as TAYLOR's navigational draft.

b. Shoal Water. Shoal water for TAYLOR is defined as any point where the charted depth of water is 36' (six fathoms) or less. All shoal water will be outlined on charts with a blue marker.

c. Height of Mast. TAYLOR's mast is 116' 2" (35.41m) from the designed water line, 14' 5" (4.39m). For navigation purposes, height of mast is 120' (36.58m).

d. Ship's Beam. TAYLOR's beam is 46' 11 1/2" (14.31m) at her widest point, amidships.




e. Length Overall. TAYLOR's length overall is 453' (138.07m) from stem to stern.

f. Displacement. TAYLOR's displacement or tonnage is 4100 metric tons.

g. Plotting Symbology. Standard Navigational Plotting symbols will be used on all charts.

Enclosure (1)

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-  Fixes obtained using only visual aids will be marked with a circle.
-  Fixes obtained using a combination of radar, GPS, and/or visual aids will be marked with a triangle.
-  When only two lines of position are obtained, an EP will be marked with a square.

Visual navigation aids used for restricted water transits will be marked on charts with a highlighted yellow circle and will be annotated with a capital "V" followed by the a numerical designation, i.e. "V1." Navigation aids used for radar ranges and bearings will be marked on charts with a highlighted orange triangle and will be annotated with a capital "R" followed by an numerical designation, i.e. "R1."

h. Ship's Tactical Data. Turn bearings and ranges will be determined based on standard allowances for ship's advance and transfer. Turn bearings will be calculated based on a turn using 15 degrees of rudder and 10 knots of speed. Deviations will be stated in the Navigation Brief.

i. Bridge and CIC References. The following navigational references will be maintained on the bridge:

- (1) Commanding Officer's Standing Orders;
- (2) Commanding Officer's Night Orders;
- (3) COMDTINST M16672.2 (Series), Navigational Rules of the Road;
- (4) Nautical Almanac and Air Almanac;
- (5) The American Practical Navigator (Bowditch);
- (6) Dutton's Navigation and Piloting;
- (7) H.O. 102, International Code of Signals;
- (8) Coast Pilots 1, 2, 3, 4, and 5;
- (9) H.O. 249 and H.O. 229, Sight Reduction Tables;
- (10) Aviation Reference Binder;
- (11) Navigation Checklist Binder.
- (12) OOD Reference Binder.

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j. FIX ACCURACY AND FIX INTERVAL GUIDELINES:

Area	Distance from Land or Shoal Water	Fix Accuracy/ GPS FOM	Maximum Fix/Fix Comparison Interval <sup>2</sup>
Restricted Waters <sup>3</sup>	Less than 2 nautical miles	50 yards/ FOM $\leq$ 2	3 minutes <sup>4,5</sup>
Piloting Waters	2-10 nautical miles	100 yards/ FOM $\leq$ 4	3-15 minutes as conditions warrant <sup>4</sup>
Coastal Waters	10-30 nautical miles	500 yards FOM $\leq$ 6	15-30 minutes as conditions warrant
Open Ocean (En Route Navigation)	Over 30 nautical miles	1500 yards FOM $\leq$ 7	30 minutes or as conditions warrant

2. BRIDGE TO BRIDGE PROTOCOL.

a. First establish 2-way communication using channel 16 in international and channel 13 in inland waters. Once communication has been established, switch to a working channel in international waters (inland stay on CH 13). Use only working channels 20A, 66A, 73, 74, or 77.

b. Identify the station being called.

"NORTHBOUND OR OUTBOUND BLACK-HULL CONTAINER/CARGO VESSEL OR TUG WITH TOW IN VICINITY OF (CHART REFERENCE, NAVAID, LAT/LONG)"

c. Identify yourself from the vessel called.

"THIS IS THE SOUTHBOUND OR INBOUND NAVY WARSHIP (NUMBER) \_\_\_\_\_ MILES OFF YOUR (PORT BOW) OR IN VICINITY OF (NAVAID OR LAT/LONG)"

d. Take the initiative using the "Rules of the Road" and state your proposal or intentions. Do not ask "Your Intentions."

e. Do not use Navy terms i.e. (I will shoot your stern, Group 3 Merchant, UNREP).

f. Use Nautical Miles or Yards (or meters if practical for international waters).

g. When communicating on bridge to bridge assume you are speaking to the Commanding Officer or Master of the vessel you

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are hailing. Ensure you are clear, concise, and use proper radio etiquette.

### 3. SAFETY MESSAGES.

#### a. Information delivered in a safety message:

- (1) Safety Signal Code Word 3 Times.
- (2) Name of Calling Station.
- (3) Position (LAT/LONG, Chart reference).
- (4) Nature of Safety Issue or Distress.
- (5) Assistance Required (if applicable).

b. SECURITE (Safety): Navigation Safety or Meteorological Warnings.

c. PAN PAN (Urgency): Very Urgent Safety of Ship, Aircraft, Person.

d. MAYDAY / M'AIDER (Distress): Grave and Imminent Danger to Ship or Aircraft and Request Immediate Assistance.

### 4. NAUTICAL MATH.

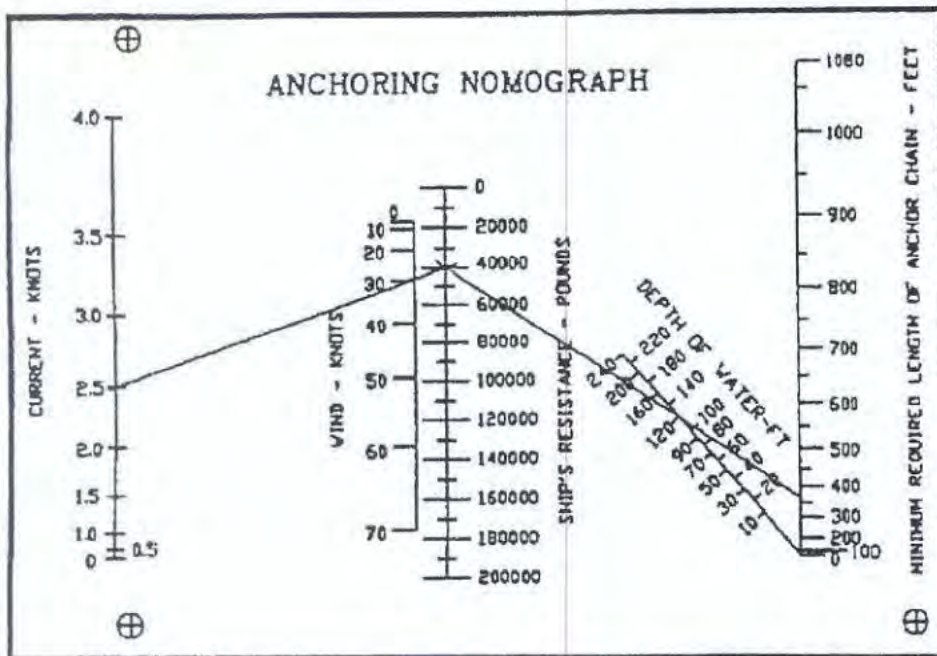
a. 3 MINUTE RULE: One knot is 2000 yards per hour. 3 minutes is 1/20 of an hour. Dividing 2000 by 20 equals 100. Thus, each knot of speed equals 100 yards in 3 minutes. (10kts is 1000yds in 3 minutes)

b. RADIAN RULE: The ratio of the hypotenuse to the short side of a 1 degree triangle is 60:1. Use the formula  $D/60=S/A$ , where D=distance in yards, S=lateral separation in yards, and A=angular difference.

c. WIND V/S CURRENT: It takes about 30 knots of wind to equal the force of a 1 knot current.

d. ANCHORING NOMOGRAPH: Use the following table when determining length of chain to be used when anchoring. A good rule of thumb is use length of chain 5 to 7 times the depth of the water in shallow water and 3 to 5 times the depth in deep water.

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⊕ = TARGET POINT (THREE TARGET POINTS ARE REQUIRED)  
 GIVEN: 2.5 KNOTS - CURRENT  
       30 KNOTS - WIND  
       120 FEET - DEPTH OF WATER  
 THEN: SHIP'S RESISTANCE = 40,000 POUNDS  
       REQUIRED LENGTH OF ANCHOR CHAIN = 360 FEET

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**COMMANDING OFFICER'S READY LIST**  
**USS TAYLOR (FFG 50)**

The following charts will be kept up-to-date at all times:

<u>CHART</u>	<u>TITLE</u>	<u>No.</u>
11479	East Coast Florida OpAreas	2
11488	Amelia Island to St. Augustine	2
11490	Approaches to St. Johns River; St. Johns River Entrance	2
11491	St. Johns River - Atlantic Ocean to Jacksonville	2
11496	Charleston/Jacksonville OpAreas	4
11525	Cherry Point OpAreas	2
12201	Virginia Capes OpAreas	2

The following charts will be kept up-to-date and shall have a restricted waters track plotted ready for immediate use:

<u>CHART</u>	<u>TITLE</u>	<u>No.</u>
11490	Approaches to St. Johns River; St. Johns River Entrance	4
12208	Approaches to Chesapeake Bay	2
12255	Naval Amphibious Base Little Creek	2
12254	Chesapeake Bay Cape Henry to Thimble Shoal Light	2
12245	Hampton Roads	2
25669	Approaches to San Juan	2
25670	Bahia de San Juan	2
26342	The Narrows to Grassy Bay	2
26344	Great Sound	2
26345	Hamilton Harbor	2

The following publications will be kept up-to-date at all times:

<u>PUBLICATION</u>	<u>TITLE</u>
COMDINST M16672.2E	Navigational Rules
Chart 1	Nautical Chart
Light List Vol. I	Atlantic Coast
Light List Vol. II	Atlantic Coast
Light List Vol. III	Atlantic and Gulf Coast
PUB 110	List of Lights
Coast Pilots Vol. III	Sandy Hook to Cape Henry
Coast Pilots Vol. IV	Cape Henry to Key West
ACP 130	Communication instructions/ Signaling procedures
ACP 131(E)	Communications instructions operating signals
ACP 100	Allied Call Sign and Address Group System Instructions and Assignments
ACP 113 (AF)	Call Signs for Ships
ATP 1(D) Vol. 2	Allied Maritime Tactical Signal/ Maneuvering Book
ATP 2 Vol. 2	Naval Control of Shipping Manual/ Guide to Masters
Pub 102	International Code of Signals. Visual, Sound, And Radio Communications
NTP 4(D)	Naval Telecommunications Procedures

**ANCHORING CHECKLIST**  
**TIME/DATE COMMENCED: \_\_\_\_\_**

This check-off list will be carried out by the OOD and he will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the OOD notified immediately. When an item requires obtaining further instructions, these instructions will be annotated on the check-off list for reference.

Events indicated by an asterisk (\*) require a deck log entry.  
 SOME ITEMS MAY BE N/A DUE TO SHIP ALREADY BEING IN PRESCRIBED CONFIGURATION OR EVOLUTION IS IMMEDIATELY FOLLOWING A SEA AND ANCHOR EVOLUTION.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
-24 HRS	CONDUCT STEERING CHECKS IAW PMS.	OOD	_____	_____
	CALIBRATE DFGMC IAW PMS.	ANAV	_____	_____
	CONDUCT ANCHORING BRIEF.	1 <sup>ST</sup> LT	_____	_____
-1 HR	PASS THE WORD OVER THE 1JV AND 21MC "SET MAXIMUM PLANT RELIABILITY CONFIGURATION FOR <u>ANCHORING</u> "	OOD	_____	_____
-45 MIN	PASS THE WORD: "STATION THE SEA AND ANCHOR DETAIL," * (IAW POD/NAV BRIEF)	NAV	_____	_____
	TEST SHIP'S WHISTLE. *	OOD	_____	_____
	TEST ALARM'S. *	OOD	_____	_____
	CONDUCT TIME CHECK. *	OOD	_____	_____
	TEST THROTTLE CONTROL.	OOD	_____	_____
	VERIFY THE TIME OF ANCHORING.	OOD	_____	_____
-40 MIN	MANNED AND READY CHECK LIST:	JOOD	<b>MANNED</b>	<b>READY</b>
	- NAVIGATION DETAIL		_____	_____
	- PILOT HOUSE		_____	_____
	- AFT STEERING		_____	_____
	- CIC		_____	_____
	- RADIO		_____	_____
	- CSOOW		_____	_____
	- SIGNAL SHACK BRIDGE		_____	_____
	- FOC'SLE		_____	_____
	- QUARTER DECK		_____	_____
	- FANTAIL		_____	_____
	- CCS		_____	_____
	- APU ROOM		_____	_____
	- FP DETAIL		_____	_____

-30 MIN	PASS THE WORD: "MAKE ALL PREPARATIONS FOR ANCHORING, SHIP WILL ANCHOR AT TIME." VERIFY WOOD CHIPS OR BREAD ON BRIDGE. SECURE IFF. TEST ANCHOR WINDLASS.	OOD  JOOD  CICWO  ENG	_____ _____ _____ _____
	PASS THE FOLLOWING TO 1 <sup>ST</sup> LT:  - DEPTH OF WATER AT ANCHORAGE: - SCOPE OF CHAIN TO BE USED: - TIDE AND CURRENT INFORMATION:	JOOD	_____
	BREAK THE INTERNATIONAL CALL SIGN.	SMOW	_____
	REQUEST TO MAKE ANCHOR READY FOR LETTING GO.	FOC'S LE	_____
	COMPARE GYRO READING IN AFT STEERING WITH GYRO READING AT SCC.	CONN	_____
	ENSURE FLAGSTAFF AND JACKSTAFF ARE IN PLACE. PASS THE WORD OVER THE 1MC AND 21MC: "SET RESTRICTED MANUEVERING DOCTRINE"	JOOD	_____
	PASS THE WORD: "RESTRICTED MANEUVERING CASUALTY CONTROL PROCEDURES ARE NOW IN EFFECT." (EVERY 30 MINUTES) * ENSURE INPORT LIGHTS ARE SHOWING CORRECTLY.	OOD	_____ _____ _____
600 YDS	PASS TO FOC'SLE: "STAND BY"	OOD	_____
	AT THE DROP POINT, PASS TO FOC'SLE: "LET GO THE ANCHOR!"	OOD	_____
	IF ANCHOR APPEARS TO BE HOLDING, REQUEST PERMISSION TO VEER OUT CHAIN.	FOC'S LE	_____
	PASS TO BRIDGE ALL INFORMATION AS CHAIN IS VEERED OUT.	FOC'S LE	_____
	REQUEST PERMISSION TO SECURE THE ANCHOR.	FOC'S LE	_____
	SET THE ANCHOR WATCH.	FOC'S LE	_____
	<u>WEIGHING ANCHOR</u>		

COMPLETE GETTING UNDERWAY CHECKLIST  
IF ANCHORED FOR MORE THAN 2 HOURS.  
PASS THE WORD: "STATION THE SEA AND  
ANCHOR DETAIL." \* (IAW POD/NAV  
BRIEF)

OOD

\_\_\_\_\_

OOD

\_\_\_\_\_

\_\_\_\_\_

MANNED AND READY CHECK LIST:

JOOD

MANNED

READY

- NAVIGATION DETAIL
- PILOT HOUSE
- AFT STEERING
- CIC
- RADIO
- CSOOW
- SIGNAL SHACK BRIDGE
- FOC'SLE
- QUARTER DECK
- FANTAIL
- CCS
- APU ROOM
- FP DETAIL

\_\_\_\_\_  
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TELL FOC'SLE TO HEAVE IN THE  
ANCHOR.

OOD

\_\_\_\_\_

REPORT "READY TO WEIGH ANCHOR."

FOC'S  
LE

\_\_\_\_\_

PASS REPORTS:

FOC'S  
LE

- "AT SHORT STAY"
- "UP AND DOWN"
- "ANCHOR'S AWEIGH"
- "ANCHOR IS IN SIGHT"
- "ANCHOR IS FOULED (OR CLEAR)"
- "ANCHOR IS AT THE WATER'S EDGE"
- "ANCHOR IS HOUSED."

\_\_\_\_\_

PASS THE WORD OVER THE 21MC AND 1  
MC: "SECURE FROM RESTRICTED  
MANEUVERING DOCTRINE. SECURE FROM  
MAXIMUM RELIABILITY  
CONFIGURATION."\*

OOD

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SECURE FROM SEA AND ANCHOR DETAIL\*

OOD

\_\_\_\_\_

\_\_\_\_\_

LOG COMPLETION OF CHECKLIST AND  
SUBMIT TO NAV FOR FILING\*

OOD

\_\_\_\_\_

\_\_\_\_\_

**ENTERING PORT/RESTRICTED WATERS CHECKLIST**  
**TIME/DATE COMMENCED:** \_\_\_\_\_

This check-off list will be carried out by the OOD and he will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the OOD notified immediately. When an item requires obtaining further instructions, these instructions will be annotated on the check-off list for reference. Times are estimates; therefore, all events will be carried out when directed or indicated by POD.

**NOTE:** Events indicated by an asterisk (\*) require a deck log entry.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
WHEN DIRECTED	LOG COMMENCEMENT OF ENTERING PORT CHECKLIST IN DECK LOG*	OOD	_____	_____
	PUMP BILDGES WHEN CONDITIONS PERMIT AND SHIP IS BEYOND 50 NM LIMIT.	ENG	_____	_____
	DEBALLAST AS REQUIRED.	ENG	_____	_____
	PASS THE WORD: "HOLD ALL TRASH ON STATION" WHEN WITHIN 50 NM OF LAND.	OOD	_____	_____
	CHECK NAVIGATION EQUIPMENT.	ANAV	_____	_____
	SET UP AND CHECK ALL HARBOR AND TUG FREQUENCIES.	OOD	_____	_____
-24 HRS	CONDUCT STEERING CHECKS IAW PMS. *	OOD	_____	_____
	CALIBRATE DFGMC. *	ANAV	_____	_____
	CONDUCT NAVIGATION BRIEF WITHIN 24 HRS BEFORE ENTERING PORT.	NAV	_____	_____
	CONDUCT FRESH WATER WASHDOWN	1ST	_____	_____
	VERIFY CORRECT PCMS CONDITION.	CICWO	_____	_____
-70 MIN	ENSURE 3 FP RADIOS AND 8 SOUND POWERED PHONES ON BRIDGE.	OOD	_____	_____
	ENSURE NAV BRIEF FOLDERS ARE ON STATION FOR CO, XO, OOD, AND CONN	NAV	_____	_____
	ENSURE PILOT CARD ON STATION	NAV	_____	_____
-60 MIN	CONTACT HARBOR CONTROL TO VERIFY PIER ASSIGNMENT, ARRIVAL TIME, TUGS, AND PILOT.	OOD	_____	_____
	WHEN 12NM FROM LAND, PLACE RO UNITS IN DUMP.	OOD	_____	_____
	SET MAXIMUM PLANT RELIABILITY CONFIGURATION FOR ENTERING PORT VIA	OOD	_____	_____

21MC.

SECURE IFF. CICWO \_\_\_\_\_

PASS THE WORD (WHEN SET): "MAXIMUM PLANT RELIABILITY SET, TIME \_\_\_\_\_" \* OOD \_\_\_\_\_

TEST THROTTLE CONTROL. OOD \_\_\_\_\_

PASS THE WORD: "MAKE ALL PREPARATIONS FOR ENTERING PORT, SHIP WILL ANCHOR/MOOR PORT/STBD SIDE TO \_\_\_\_\_ AT TIME \_\_\_\_\_. UNIFORM FOR ENTERING PORT IS \_\_\_\_\_." OOD \_\_\_\_\_

CHECK THE SMARTNESS OF THE SHIP FOR ENTERING PORT. CMAA \_\_\_\_\_

-40 MIN PASS THE WORD: "STATION THE SEA AND ANCHOR DETAIL." \* (IAW POD/NAV BRIEF) OOD \_\_\_\_\_

MANNED AND READY CHECK LIST: JOOD **MANNED** **READY**

- NAVIGATION DETAIL \_\_\_\_\_
- PILOT HOUSE \_\_\_\_\_
- AFT STEERING \_\_\_\_\_
- CIC \_\_\_\_\_
- RADIO \_\_\_\_\_
- CSOOW \_\_\_\_\_
- SIGNAL SHACK BRIDGE \_\_\_\_\_
- FOC'SLE \_\_\_\_\_
- QUARTER DECK \_\_\_\_\_
- FANTAIL \_\_\_\_\_
- CCS \_\_\_\_\_
- APU ROOM \_\_\_\_\_
- FP DETAIL \_\_\_\_\_

TEST S/P PHONES FROM PORT AND STBD BRIDGE WINGS. CONN \_\_\_\_\_

TEST SHIP'S WHISTLE. \* OOD \_\_\_\_\_

CONDUCT TIME CHECK. \* OOD \_\_\_\_\_

PASS THE WORD: "ALL DEPT. HEADS MAKE READINESS REPORTS TO THE EXECUTIVE OFFICER IN THE PILOT HOUSE." OOD \_\_\_\_\_  
 WHEN 3NM FROM LAND, SECURE CHT. OOD \_\_\_\_\_

TEST ANCHOR WINDLASS. ENG \_\_\_\_\_

LAY OUT MOORING LINES. 1<sup>ST</sup> LT \_\_\_\_\_

WHEN ANCHORING, PASS THE FOLLOWING TO 1<sup>ST</sup> LT: JOOD \_\_\_\_\_

- DEPTH OF WATER AT ANCHORAGE \_\_\_\_\_
- TYPE OF BOTTOM AT ANCHORAGE \_\_\_\_\_
- SCOPE OF CHAIN TO BE USED \_\_\_\_\_
- TIDE AND CURRENT INFORMATION \_\_\_\_\_

	WHEN MOORING TO A PIER, PASS THE FOLLOWING INFORMATION TO 1 <sup>ST</sup> LT:	JOOD	_____	_____
	- RANGE OF TIDE AND CURRENT		_____	_____
	- TIME OF EXPECTED HIGH TIDE		_____	_____
	- WHETHER RHIB WILL BE LAUNCHED		_____	_____
	ENSURE PILOT CARD FILLED OUT.	JOOD	_____	_____
	ENSURE ANCHOR IS READY FOR LETTING GO.	1 <sup>ST</sup> LT	_____	_____
	TEST ANCHOR WINDLASS.	1 <sup>ST</sup> LT	_____	_____
	TEST AFT CAPSTAN.	1 <sup>ST</sup> LT	_____	_____
	ENSURE COFFEE/WATER/SNACKS FOR PILOT ARE AVAILABLE ON THE BRIDGE.	JOOD	_____	_____
	COMPARE GYRO READING IN AFT STEERING WITH GYRO READING AT SCC.	CONN	_____	_____
	INSPECT WEATHER DECKS TO ENSURE CREW IS IN PROPER UNIFORM.	CMAA	_____	_____
-20 MIN	(IF NECESSARY) LOWER BOAT IF DIRECTED IAW LOWERING RHIB CHECKLIST.	OOD/BMC	_____	_____
	(IF NECESSARY) PASS THE WORD: "ALL HANDS FALL INTO RANKS TO PORT/ STBD."	OOD	_____	_____
NOTE:	MAXIMUM SPEED ALLOWED WITH APUS LOWERED IS 5 KNOTS!			
	ORDER EOOW TO SET RESTRICTED MANEUVERING. *	OOD	_____	_____
	PASS THE WORD: "RESTRICTED MANEUVERING CASUALTY CONTROL PROCEDURES ARE NOW IN EFFECT." * (EVERY 30 MINUTES)	OOD	_____	_____
	ENSURE FLAGSTAFF AND JACKSTAFF ARE IN PLACE.	JOOD	_____	_____
	REPORT READINESS TO ENTER PORT TO THE XO/CO.	OOD	_____	_____
	RECEIVE PILOT ON BOARD. *	MAC	_____	_____
	HAUL UP "CODE HOTEL"	ANAV	_____	_____
	BREAK THE INTERNATIONAL CALL SIGN.	ANAV	_____	_____
	TAKE DFGMC OUT OF AUTOCOMPENSATION MODE.	ANAV	_____	_____
PIER MOORING	(IF REQUIRED) ENSURE INPORT LIGHTS ARE SHOWING CORRECTLY.	OOD	_____	_____
	CENTERLINE AND RETRACT APUs.	OOD	_____	_____
	PASS THE WORD: "SECURE FROM RESTRICTED			

MANUEVERING DOCTRINE." \*

OOD \_\_\_\_\_

PASS THE WORD: "SECURE FROM MAXIMUM  
PLANT RELIABILITY." \*

OOD \_\_\_\_\_

PASS THE WORD: "SECURE FROM SEA AND  
ANCHOR DETAIL (IF APPLICABLE: WITH THE  
EXCEPTION OF \_\_\_\_)." \*

OOD \_\_\_\_\_

PASS THE WORD: "THE OOD IS SHIFTING  
HIS WATCH FROM THE PILOT HOUSE TO THE  
AFT/CENTERLINE QUARTERDECK." \*

OOD \_\_\_\_\_

DELIVER THE DECK LOG AND SHIP'S BELL  
TO THE QUARTERDECK.

BMOW \_\_\_\_\_

TURN IN COMPLETED UNDERWAY CHECK-OFF  
LIST TO NAV/ANAV.

OOD SIGNATURE

\_\_\_\_\_



PHOTOGRAPH IS PROHIBITED. FLIGHT QUARTERS." NOTE: DURING FLIGHT OPERATIONS WHEN FLIGHT QUARTERS ARE SET FOR A LONG DURATION, THE FOLLOWING WORD WILL BE PASSED OVER THE 1MC EVERY 15 MINUTES: "THE SHIP IS AT FLIGHT QUARTERS. THE SMOKING LAMP IS OUT"		
HOTEL at dip.		
Display restricted in ability to maneuver: During the day - ball over diamond over ball day shapes, at night red over white over red tasking lights.		
Confirm with Radio that correct circuits are patched to the bridge, CIC, and Helo tower.		
Establish phone communications with the following stations: (1JG sound powered phone circuit)  a. ASTAC _____ b. Helo Control Tower _____ c. Boat Deck* (First flight quarters of the day only) _____ d. CCS _____  *Boat Deck establish communications on 1JV		
Brief lookouts.		
(1) Test flight crash alarm from Helicopter Control Tower, LSO station, and Bridge. (Only required once a day, do not test after taps) (2) Test waveoff lights.		
After O2 Level FOD walkdown complete, report bridge "manned and ready for flight operations" to HCO.		
Receive "manned and ready. FOD walkdown complete" report from HCO.		
Verify communications established with Helo.		
Turn to FOXTROT CORPEN for desired winds. 1) <u>NOTE: WINDS are to be as close as possible to the heart of the envelope. True winds should be forward of the beam at night.</u>		
Verify winds in envelope, and pitch/roll within limits. Report to CO, "Checklist is complete; the winds are in the envelope. Request "Green deck" for LAUNCH/RECOVERY/HIFR/VERTREP of (Helo callsign)." ***Inform CO of any additional approaches or bounces being conducted. Ensure OOD specifies recovery type (i.e. RA, freedeck, or cleardeck)		
Give permission to LSO/HCO for "Green deck."		

Give permission to LSO/HCO for "Green deck."		
Close up HOTEL.		
Receive "OPS NORMAL" from helicopter via LSO/HCO. Secure		

flight quarters when "red deck" report is received from LSO/HCO and recommended by the LSO/HCO. Haul down HOTEL and day shapes. Adjust lighting appropriately for night steaming.		
Log Completion of Checklist and Submit to NAV for filing		

LOW VISIBILITY CHECKLIST  
 TIME/DATE COMMENCED: \_\_\_\_\_

This check-off list will be carried out by the OOD when visibility is less than 6000YDS and he will ensure the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the CO immediately notified. Enclosed are COLREG Rules 6 and 35.

Items annotated with \* are mandatory deck log entries.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
1.	PASS THE WORD: "STATION THE LOW VISIBILITY DETAIL <u>SECTION 1/ 2/ 3</u> (as applicable)." *	OOD	_____	_____
2.	IF APPLICABLE, INFORM NAVIGATOR AND SET NAVIGATION DETAIL (DEPENDING ON NAVAIDS, HAZARDS TO NAVIGATION, ETC.)	OOD	_____	_____
3.	LOG COMMENCING LOW VIS TRANSIT AND COMMENCING LOW VIS CHECKLIST IN THE DECKLOG. *	QMOW	_____	_____
4.	ENERGIZE NAVIGATION LIGHTS IAW RULES OF THE ROAD. *	OOD	_____	_____
5.	ORDER: "SILENCE ON THE BRIDGE." IF NECESSARY STATION ADDITIONAL PERSONNEL OUTSIDE (U/I ON STATION, MESSENGER, ETC.)	OOD	_____	_____
6.	SOUND FOG SIGNALS IAW THE RULES OF THE ROAD (cf. Enclosure 2). ENSURE PERIODICITY IS CHANGED FROM TIME TO TIME SO NOT TO BLACK OUT SOUND SIGNALS FORM OTHER TRAFFIC.	OOD	_____	_____
7.	DETERMINE AND PROCEED AT A SAFE SPEED (cf. Enclosure 1).	OOD	_____	_____
8.	PASS THE WORD: "SET MATERIAL CONDITION MODIFIED ZEBRA THROUGHOUT THE SHIP. MAKE MODIFIED ZEBRA REPORTS TO CCS."	EOWW	_____	_____
9.	BRIEF LOW VIS LOOKOUTS AND ENSURE ALL LOOKOUTS ARE ON THE INTERNAL CIRCUIT "JL".	OOD	_____	_____
10.	SHIFT RADIO CIRCUITS TO CIC (TG TAC, L/L, ETC.) TO KEEP BRIDGE QUIET.	CICWO	_____	_____
11.	CHECK SETTINGS ON BRDIGE-TO-BRIDGE RADIO (CH16).	BMOW	_____	_____

12.	DESIGNATE PRIMARY PLOT (CO'S DISCRETION). BRIDGE WILL PLOT BY GPS; CIC WILL RETAIN A RADAR PLOT.	OOD	_____	_____
	ENSURE PRIMARY PLOT HAS ESTABLISHED THE SHIP'S POSITION.	NAV OOD	_____	_____
13.	LOG MODIFIED ZEBRA SET THROUGHOUT THE SHIP IN THE DECKLOG.	QMOW	_____	_____
14.	(IF APPLICABLE) OPEN BRIDGE WING DOORS.	OOD	_____	_____
15.	LOG COMPLETION OF CHECKLIST IN THE SHIP'S DECK LOG	QMOW	_____	_____
16.	SUBMIT COMPLETED CHECKLIST TO NAV FOR FILING.	OOD	_____	_____

Enclosure (1) COLREGS International Rule 6

**RULE 6  
Safe Speed**

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:

- (i) the state of visibility;
- (ii) the traffic density including concentrations of fishing vessels or any other vessels;
- (iii) the maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;
- (iv) at night, the presence of background light such as from shore lights or from back scatter of her own lights;
- (v) the state of wind, sea and current, and the proximity of navigational hazards;
- (vi) the draft in relation to the available depth of water.

(b) Additionally, by vessels with operational radar:

- (i) the characteristics, efficiency and limitations of the radar equipment;
- (ii) any constraints imposed by the radar range scale in use;
- (iii) the effect on radar detection of the sea state, weather and other sources of interference;
- (iv) the possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;
- (v) the number, location and movement of vessels detected by radar;
- (vi) the more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.

**RULE 35****Sound Signals in Restricted Visibility**

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this Rule shall be used as follows:

(a) A power-driven vessel making way through the water shall sound at intervals of not more than 2 minutes one prolonged blast.

(b) A power-driven vessel underway but stopped and making no way through the water shall sound at intervals of not more than 2 minutes two prolonged blasts in succession with an interval of about 2 seconds between them.

(c) A vessel not under command, a vessel restricted in her ability to maneuver, a vessel constrained by her draft, a sailing vessel, a vessel engaged in fishing and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraphs (a) or (b) of this Rule, sound at intervals of not more than 2 minutes three blasts in succession, namely one prolonged followed by two short blasts.

(d) A vessel engaged in fishing, when at anchor, and a vessel restricted in her ability to maneuver when carrying out her work at anchor, shall instead of the signals prescribed in paragraph (g) of this Rule sound the signal prescribed in paragraph (c) of this Rule.

(e) A vessel towed or if more than one vessel is towed the last vessel of the tow, if manned, shall at intervals of not more than 2 minutes sound four blasts in succession, namely one prolonged followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel.

(f) When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power-driven vessel and shall give the signals prescribed in paragraphs (a) or (b) of this Rule.

(g) A vessel at anchor shall at intervals of not more than one minute ring the bell rapidly for about 5 seconds. In a vessel of 100 meters or more in length the bell shall be sounded in the forepart of the vessel and immediately after the ringing of the bell the gong shall be sounded rapidly for about 5 seconds in the after part of the vessel. A vessel at anchor may in addition sound three blasts in succession, namely one short, one prolonged and one short blast, to give warning of her position and of the possibility of collision to an approaching vessel.

(h) A vessel aground shall give the bell signal and if required the gong signal prescribed in paragraph (g) of this Rule and shall, in addition, give three separate and distinct strokes on the bell immediately before and after the rapid ringing of the bell. A vessel aground may in addition sound an appropriate whistle signal.

(i) A vessel of 12 meters or more but less than 20 meters in length shall not be obliged to give the bell signals prescribed in paragraphs (g) and (h) of this Rule. However, if she does not, she shall make some other efficient sound signal at intervals of not more than 2 minutes.

(j) A vessel of less than 12 meters in length shall not be obliged to give the above-mentioned signals but, if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.

(k) A pilot vessel when engaged on pilotage duty may in addition to the signals prescribed in paragraphs (a), (b) or (g) of this Rule sound an identity signal consisting of four short blasts.

## REPLENISHMENT AT SEA/ UNDERWAY REPLENISHMENT CHECK-OFF LIST

TIME/DATE COMMENCED: \_\_\_\_\_

This check-off list will be carried out by the OOD and he will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the OOD notified immediately. When an item requires obtaining further instructions, these instructions will be annotated on the check-off list for reference.

Events indicated by an asterisk (\*) require a deck log entry.




<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
+24 HRS	LOG COMMENCEMENT OF CHECKLIST	OOD	_____	_____
	CONDUCT RAS/ UNREP BRIEF.	1 <sup>ST</sup> LT	_____	_____
	CONDUCT RUDDER SWING CHECKS IAW PMS.*		_____	_____
	CONDUCT DFGMC CHECKS.*	OOD	_____	_____
+4 HRS	TEST S/P PHONES FROM PORT AND STBD BRIDGE WINGS.	CONN	_____	_____
	ENSURE ALL NECESSARY CIRCUITS ARE PATCHED TO AND ON THE BRIDGE.	OOD	_____	_____
	CONDUCT TIME CHECK FROM THE PILOTHOUSE.	OOD	_____	_____
	CONDUCT TEST OF SHIP'S GENERAL, CHEMICAL AND COLLISION ALARM.	OOD	_____	_____
	CONDUCT TEST OF SHIP'S WHISTLE.	OOD	_____	_____
	ADJUST STADIMETER	QMOOW	_____	_____
	ENSURE LASER RANGE FINDER IS OPERABLE.	NAV	_____	_____
	ENSURE P&D-LINE IS LAID OUT ON THE FOC'SLE.	1 <sup>ST</sup> LT	_____	_____
	(IF APPLICABLE) ENSURE THAT THE P&D-LINE MARKINGS ARE PREPARED FOR NIGHT OPERATIONS.	1 <sup>ST</sup> LT	_____	_____
	ENSURE WORKING AREA LIGHTING IS OPERABLE.	ELO	_____	_____
+60 MIN	VERIFY STATUS OF HF AND RADAR EQUIPMENT IAW OPTASK RAS	CICWO	_____	_____
	PASS THE WORD: "NOW STATION THE UNDERWAY REPLENISHMENT DETAIL. STATION 3/ 4/ 7/ 8. MUSTER LINEHANDLERS ON THE MIDSHIP	OOD	_____	_____



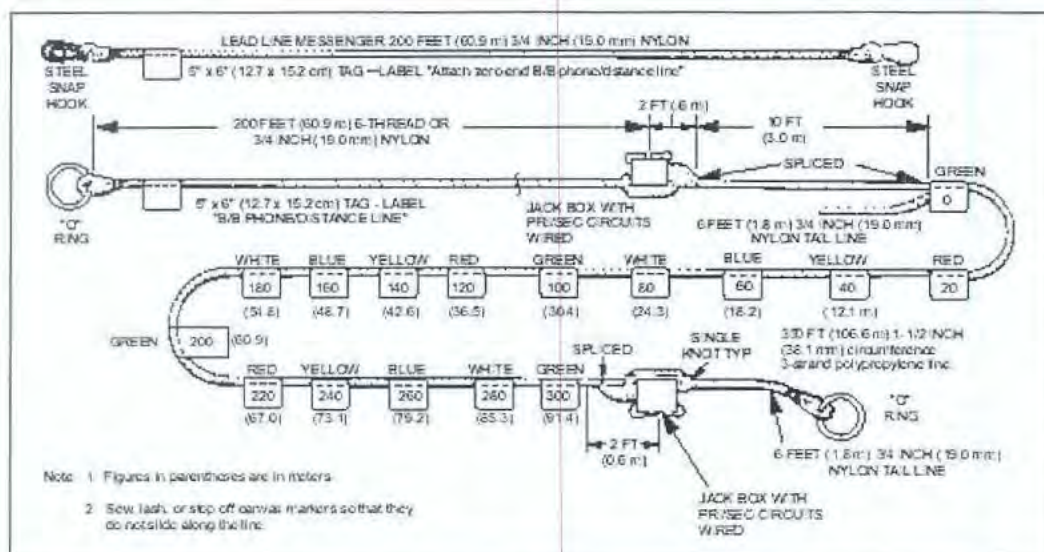
FORWARD AND AFT!" *	OOD	_____	_____
ROMEO HAULED DOWN - WHEN MESSENGER IS IN HAND AT STATION *	SMOW	_____	_____
HOIST SPECIAL OPERATIONS DAYSHAPES / LIGHTS. *	SMOW	_____	_____
PASS THE WORD:" STBY WHILE TENSIONING SPAN WIRE!" *	OOD	_____	_____
BRAVO CLOSED UP - TRANSFERRING FUEL/ AMMUNITION *	SMOW	_____	_____
PREP AT THE DIP - 15 MIN PRIOR TO BREAKING LAST STATION *	SMOW	_____	_____
BRAVO HAULED DOWN - COMPLETED PUMPING *	SMOW	_____	_____
PASS THE WORD:"STBY WHILE DE- TENSIONING SPAN WIRE!" *	OOD	_____	_____
PREP HAULED DOWN - ALL LINES CLEAR *	SMOW	_____	_____
HAUL DOWN SPECIAL OPERATIONS DAY SHAPES / LIGHTS. *	SMOW	_____	_____
PASS THE WORD: "ALL HANDS FALL INTO RANKS TO <u>PORT / STBD.</u> "	OOD	_____	_____
COMMENCE BREAKAWAY.	CONN	_____	_____
IF CONDUCTING AN EMERGENCY BREAKAWAY, PASS THE WORD: "ALL HANDS STAND CLEAR OF LIFELINES WHILE THE SHIP COMES ABOUT."	OOD	_____	_____
PASS THE WORD OVER THE 21MC AND 1 MC: "SECURE FROM RESTRICTED MANEUVERING DOCTRINE. SECURE FROM MAXIMUM PLANT RELIABILITY."*	OOD	_____	_____
ALIGN ROs WHEN CLEAR OF DELIVERY SHIP.	OOD	_____	_____
PLACE CHT IN AT SEA MODE.	OOD	_____	_____
SECURE FROM UNREP DETAIL	OOD	_____	_____
LOG COMPLETION OF CHECKLIST AND SUBMIT TO NAV FOR FILING	OOD	_____	_____

ENCLOSURE 1: VISUAL FLAG HOIST SIGNALS

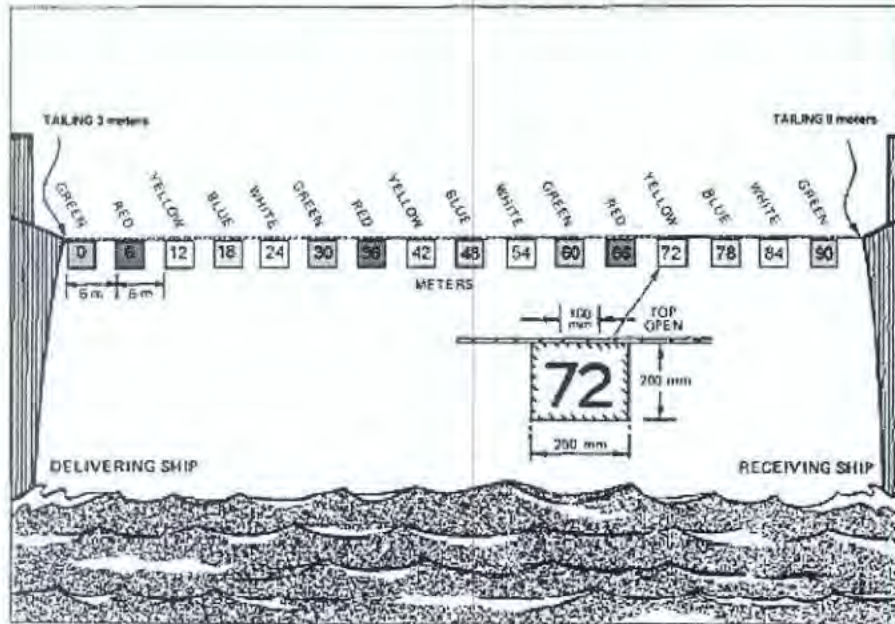
SIGNAL	MEANING
 R  Displayed on fore yardarm on side rigged	CONTROL SHIP (Abeam Method)  At the dip: Am steady on course and speed and am preparing to receive you on side indicated. Close up: Ready to receive you on side indicated. Hauled down: When messenger is in hand.
 R  Displayed on side hose is being streamed	CONTROL SHIP (Astern Method)  At the dip: Am steady on course and speed and am preparing to stream hose on this quarter. Close up: Am ready for your approach. Hauled down: Hose is on deck of receiving ship.
 R  Displayed on fore yardarm on side rigged	APPROACH SHIP (Abeam Method)  At the dip: Am ready to come abeam. Close up: Am commencing approach. Hauled down: When messenger is in hand.

SIGNAL	MEANING
 R  Displayed on side hose is being received	APPROACH SHIP (Astern Method)  At the dip: Am ready to close and take hose. Close up: Am commencing approach. Hauled down: Hose grappled and in hand on deck.
 PREP  Displayed at the outboard yardarm	At the dip: Expect to disengage in 15 minutes. Close up: Am disengaging at final station. Hauled down: All lines are clear.
 B  Displayed where best seen	Close up: Transferring fuel or explosives. At the dip: Temporarily stopped transfer. Hauled down: Transfer completed.

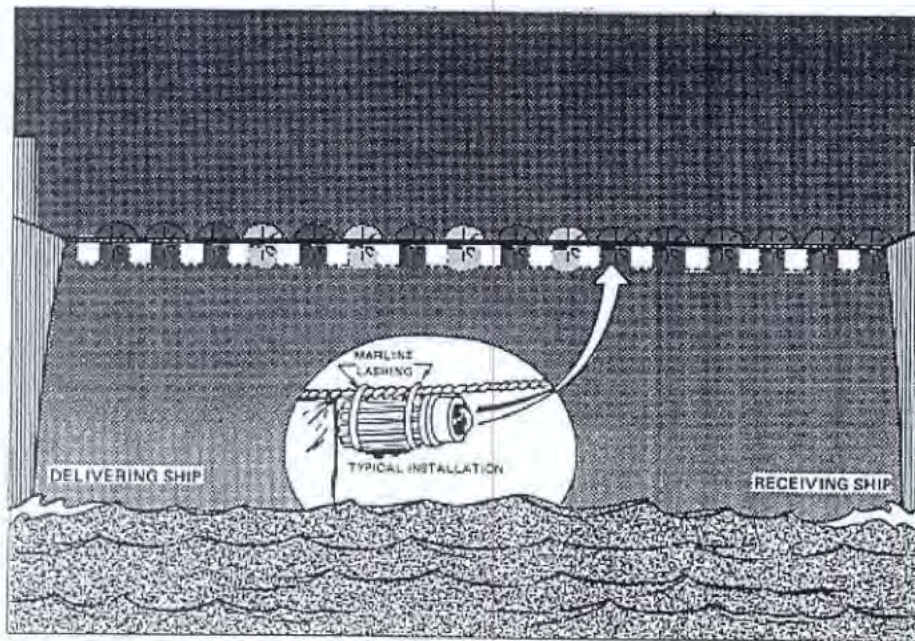
ENCLOSURE 2: U.S. NAVY PHONE & DISTANCE-LINE



ENCLOSURE 3: NATO DISTANCE LINE



ENCLOSURE 4: DISTANCE LINE MARKINGS FOR NIGHT OPERATIONS



NOTE:

At night, use chemical lights as indicated: two blue chemical lights, one on each side of the marker, at the 60, 100, 140, and 180 foot (18.2, 30.4, 42.6, and 54.8 m) markers; one red chemical light on the approach ship's side of the other markers. (One-cell, pin-on-type, red flashlights may be used in lieu of red chemical lights.)

LOWERING RHIB CHECKLIST  
 TIME/DATE COMMENCED: \_\_\_\_\_

THIS CHECKLIST WILL BE CARRIED OUT BY THE POIC EVERY TIME THE RHIB IS LOWERED. EVENTS MARKED WITH AN ASTERISK \* ARE TO BE LOGGED IN THE DECK LOG.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
1.	ASSEMBLE BOAT CREW AND ASSIGNED PERSONNEL ON STATION.	POIC	_____	_____
2.	CONDUCT SAFETY BRIEF.	SAFETY OBSERVER	_____	_____
3.	RELEASE HEAVY WEATHER GRIPS.	POIC	_____	_____
4.	TEST COMMS WITH BRIDGE VIA SOUND-POWERED PHONES AND WICS RADIO.	POIC	_____	_____
5.	REPORT MANNED AND READY TO THE BRIDGE.	POIC	_____	_____
6.	ENSURE BOAT CREW REPORTED MANNED AND READY TO THE BRIDGE.	BOAT OFF	_____	_____
7.	PASS NAMES OF BOAT CREW AND ANY PASSENGERS TO BRIDGE. (ENSURE 2 <sup>ND</sup> CLASS SWIM QUALIFIED)*	MA1	_____	_____
8.	REQUEST PERMISSION TO LOWER THE BOAT TO THE RAIL.	POIC	_____	_____
9.	REQUEST PERMISSION TO PUT BOAT IN THE WATER.	POIC	_____	_____
10.	UPON PERMISSION, LOWER BOAT TO THE WATER EDGE. *	POIC	_____	_____
11.	START BOAT'S ENGINE AND ENSURE IT IS RUNNING NORMALLY.	EN	_____	_____
12.	LOWER THE TRIM AND PUT BOAT IN THE WATER. *	POIC	_____	_____
13.	CAST OFF HOOK IMMEDIATELY.	COX	_____	_____
14.	SLACK STEADYING LINES.	POIC	_____	_____
15.	CAST OFF.	POIC	_____	_____
16.	ENSURE BOAT CLEARS TO PORT.	POIC	_____	_____
17.	REPORT BOAT CAST OFF TO BRIDGE. *	POIC	_____	_____
18.	LOG COMPLETION OF CHECKLIST AND SUBMIT TO NAV FOR FILING.	OOD	_____	_____

RECOVERING RHIB CHECKLIST

THIS CHECKLIST WILL BE CARRIED OUT BY THE POIC EVERY TIME THE RHIB IS RECOVERED. EVENTS MARKED WITH AN ASTERIX \* ARE TO BE LOGGED IN THE DECK LOG.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
1.	ASSEMBLE BOAT CREW AND ASSIGNED PERSONNEL ON STATION AND REPORT MANNED AND READY TO THE BRIDGE (IF APPLICABLE).	POIC	_____	_____
2.	CONDUCT SAFETY BRIEF.	POIC	_____	_____
3.	ENSURE COMMS WITH BRIDGE VIA SOUND-POWERED PHONES AND WICS RADIO.	POIC	_____	_____
4.	REQUEST PERMISSION FOR THE BOAT TO COME ALONGSIDE.	POIC	_____	_____
5.	WHEN BOAT IS RIDING THE SEA PAINTER *, PASS STEADYING LINES TO THE BOAT.	POIC	_____	_____
6.	ONCE BOAT IS OUT OFF THE WATER *, SHUT DOWN ENGINE.	EN	_____	_____
7.	WHILE HEAVING AROUND THE BOAT TO THE RAIL, CONTROL THE SWING OF THE BOAT WITH THE STEADYING LINES.	POIC	_____	_____
8.	AT THE RAIL *, SLACK SEA PAINTER AND RAISE THE TRIM.	POIC	_____	_____
9.	ENSURE THAT THE LINES ARE PASSED TO THE BULKHEAD CLEATS.	POIC	_____	_____
10.	DISEMBARK THE BOAT CREW AND ANY PASSENGERS.*	POIC	_____	_____
11.	REQUEST PERMISSION TO PUT THE BOAT IN THE SKIDS.	POIC	_____	_____
12.	PUT SKIDS INTO PLACE.	POIC	_____	_____
13.	REQUEST PERMISSION TO SECURE BOAT FOR SEA.	POIC	_____	_____
14.	PUT HEAVY WEATHER GRIPS INTO PLACE.	POIC	_____	_____
15.	REPORT BOAT SECURE FOR SEA.	POIC	_____	_____
16.	DEBRIEF OPERATION AS NECESSARY.	POIC	_____	_____
17.	LOG COMPLETION OF CHECKLIST AND SUBMIT TO NAV FOR FILING	OOD	_____	_____

**MINE COUNTERMEASURE/ SWEEP CHANNEL CHECKLIST**  
**TIME/DATE COMMENCED: \_\_\_\_\_**

This check-off list will be carried out by the OOD and he will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the CO notified immediately.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
-24 HRS	CONSOLIDATE MINE THREAT INTELLIGENCE.	TAO	_____	_____
	DETERMINE TRANSIT ROUTE AND TIME.	CICO	_____	_____
	CONDUCT BRIEF (WITH NAV BRIEF).	NAV	_____	_____
	REVIEW/ VERIFY QUIET SHIP BILL.	ENG	_____	_____
	VERIFY DEGAUSSING IS OPERATIONAL.	ELO	_____	_____
	VERIFY LIFEBOAT LIST IS CURRENT.	1 <sup>ST</sup> LT	_____	_____
	ENSURE ALL PERSONNEL ARE ISSUED INFLATABLE LIFE PRESERVERS.	1 <sup>ST</sup> LT	_____	_____
-1 HR	SET QUIET SHIP CONDITION Q1 OR Q2 (CO'S DISCRETION).	OOD	_____	_____
	EVERY 15 MINUTES PASS THE WORD: "THE SHIP WILL ENTER A MINE DANGER AREA IN TIME MINUTES."	OOD	_____	_____
	PASS THE WORD: "SECURE ALL MISSILE HAZARDS THROUGHOUT THE SHIP."	OOD	_____	_____
	BRIEF MINE WATCH PERSONNEL.	CICWO	_____	_____
	SET MATERIAL CONDITION MODIFIED ZEBRA MAIN DECK AND BELOW.	DCA/ DCC	_____	_____
- 30 MIN	PREPARE OPERATIONAL MINE REPORTS.	CICWO	_____	_____
	ENSURE PRAIRIE/MASKER AIR IS ENERGIZED (IF GREATER THAN 5 KTS).	ENG	_____	_____
	DISPLAY LIGHTS/DAY SHAPES FOR RESTRICTED IN THE ABILITY TO MANEUVER.	OOD	_____	_____
	AT SEA FIRE PARTY MAN REPAIR 5.	DCA	_____	_____
	ALL TOPSIDE PERSONNEL DON LIFE PRESERVERS AND HELMETS.	OOD	_____	_____
	STATION MINE WATCH DETAIL WITH BINOCULARS.	OOD	_____	_____
	(IF APPLICABLE) STATION THE SPECIAL SEA & ANCHOR DETAIL.	OOD	_____	_____

	(IF APPLICABLE) STATION THE LEADSMAN.	OOD	_____	_____
-10 MIN	SECURE THE FATHOMETER.	ASWO	_____	_____
	PASS THE WORD: "THE SHIP WILL ENTER A MINE DANGER AREA IN TEN MINUTES. ALL PERSONNEL NOT ON WATCH REMAIN INSIDE THE SKIN OF THE SHIP. ALL NON-ESSENTIAL PERSONNEL LAY TO THE O-2 LEVEL."	OOD	_____	_____
	MAKE THE ANCHOR READY FOR LETTING GO (IF APPLICABLE).	1 <sup>ST</sup> LT	_____	_____
	SHIFT THE DRT TO 1,000 YARDS SCALE.	CICWO	_____	_____
UPON ENTERING	TRANSIT AT SLOWEST POSSIBLE SPEED (7 KTS OR LESS IF NOT SWEEPED).	OOD	_____	_____
	PASS THE WORD: "THE SHIP HAS ENTERED A MINE DANGER AREA. ALL PERSONNEL NOT ON WATCH REMAIN INSIDE THE SKIN OF THE SHIP. ALL NON-ESSENTIAL PERSONNEL LAY TO THE O-2 LEVEL."	OOD	_____	_____
	LOG COMPLETION OF THE CHECKLIST IN THE SHIPS DECK LOG AND SUBMIT TO NAV	OOD	_____	_____

**TOWING CHECKLIST**  
**TIME/DATE COMMENCED:** \_\_\_\_\_

This check-off list will be carried out by the OOD and they will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions, abnormal circumstances or the status of an event changes, the checklist shall be annotated and the OOD notified immediately.

Events indicated by an asterisk (\*) require a deck log entry.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
+24 HRS	LOG COMMENCEMENT OF CHECKLIST	OOD	_____	_____
	CONDUCT TOWING BRIEF.	1 <sup>ST</sup> LT	_____	_____
	CONDUCT RUDDER SWING CHECKS IAW PMS.*	OOD	_____	_____
+4 HRS	TEST S/P PHONES FROM PORT AND STBD BRIDGE WINGS.	CONN	_____	_____
	CONDUCT TIME CHECK FROM THE PILOTHOUSE.	OOD	_____	_____
	CONDUCT TEST OF SHIP'S GENERAL, CHEMICAL AND COLLISION ALARM.	OOD	_____	_____
	CONDUCT TEST OF SHIP'S WHISTLE.	OOD	_____	_____
	VERIFY SURROUNDING AREA IS CLEAR OF EXCESSIVE SHIPPING	OOD	_____	_____
	ESTABLISH TYPE OF APPROACH: 45°, CROSSING THE "T", OR PARALLEL	OOD	_____	_____
	ENSURE LASER RANGE FINDER IS OPERABLE, CHARGED AND ON STATION.	NAV	_____	_____
	(IF APPLICABLE) ENSURE WORKING AREA LIGHTING IS OPERABLE.	ELO	_____	_____
	<b>WEATHER:</b>			
	REL WINDS (<20KTS): _____			
	TRUE WINDS: _____			
	SEA STATE (<4): _____			
	VISIBILITY: _____	OOD	_____	_____
+60 MIN	PASS THE WORD: "NOW STATION THE TOWING DETAIL. MUSTER LINEHANDLERS ON THE FANTAIL WITH <u>MUSTERING PO</u> " *	OOD	_____	_____
	PASS THE WORD OVER THE 1MC and 21MC: "SET MAXIMUM PLANT RELIABILITY FOR TOWING."	OOD	_____	_____
	ESTABLISH COMMUNICATIONS WITH FOC'SLE AND FANTAIL VIA 1JV	OOD	_____	_____
	CONDUCT BRIDGE TO BRIDGE RADIO	OOD	_____	_____

CHECK WITH TOWING/TOWED VESSEL

MANNED AND READY CHECKLIST:

- FOC'SLE
- PILOTHOUSE
- CIC
- AFT STEERING
- APU ROOM
- CCS
- FLIGHT DECK (IF APPLICABLE)
- AMIDSHIPS (IF APPLICABLE)
- CSOOV

JOOD	MANNED	READY
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

+30 MIN

\*\*\*\* WHEN MAXIMUM RELIABILITY IS REPORTED "SET", PASS THE WORD OVER THE 1JV AND 21MC: "SET RESTRICTED MANEUVERING"

OOD \_\_\_\_\_

CONDUCT SAFETY BRIEFS AT STATIONS. REPORT COMPLETION TO THE BRIDGE.

SAFETY OBSERVER \_\_\_\_\_

SECURE RO'S WHEN ASTERN OR WITHIN 2,000YDS OF TOWED VESSEL

OOD \_\_\_\_\_

PLACE CHT IN TRANSIT MODE.

OOD \_\_\_\_\_

ENSURE ENGINES ARE IN POWER MODE

OOD \_\_\_\_\_

OBTAIN THE CO'S PERMISSION TO MAKE APPROACH

OOD \_\_\_\_\_

HOIST FLAGS IAW ATP1 VOL II ONCE COMPLETE, HOIST SPECIAL OPERATIONS DAYSHAPES/LIGHTS IAW COLREGS. \*

SMOW \_\_\_\_\_

PASS THE WORD: "RESTRICTED MANEUVERING CASUALTY CONTROL PROCEDURES ARE NOW IN EFFECT." (EVERY 30 MINUTES) \*

OOD \_\_\_\_\_

HAUL DOWN SPECIAL OPERATIONS DAYSHAPES/LIGHTS. \*

SMOW \_\_\_\_\_

PASS THE WORD OVER THE 21MC AND 1 MC: "SECURE FROM RESTRICTED MANEUVERING DOCTRINE. SECURE FROM MAXIMUM PLANT RELIABILITY." \*

OOD \_\_\_\_\_

ALIGN RO'S WHEN CLEAR TOWING/TOWED VESSEL.

OOD \_\_\_\_\_

PLACE CHT IN AT SEA MODE.

OOD \_\_\_\_\_

SECURE FROM TOWING DETAIL

OOD \_\_\_\_\_

CONDUCT DEBRIEF. MAKE LESONS LEARNED/TRAINING RECCOMENDATIONS TO THE 1<sup>ST</sup> LT.

OOD \_\_\_\_\_

LOG COMPLETION OF CHECKLIST AND

OOD \_\_\_\_\_

TAYLORINST 3530.4L

SUBMIT TO NAV FOR FILING

PRE-UNDERWAY CHECKLIST  
 TIME/DATE COMMENCED: \_\_\_\_\_

Completion of this check-off list is the combined responsibility of the OOD (inport) and the OOD (underway) and the "responsible" individual for each line item. The appropriate individual will place his/her initials in the right hand column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated by the CDO or CO (as appropriate) be notified immediately. The Operations Officer will be responsible for initiation of this watchbill. The start and completion of this checklist shall be logged.

Events indicated by an asterisk (\*) require a separate deck log entry. Events indicated by a pound sign (#) are required for Berth Shifts.

PASS THE WORD (TWICE DAILY): "THE PRE-UNDERWAY CHECKLIST IS ON THE QUARTERDECK"

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>INITIAL</u>
+96 HRS	FLY DEPARTURE MOVREP	NAV	_____
+48 HRS	VERIFY UNDERWAY TIME. #	OPS	_____
	ARRANGE FOR SERVICES (TUG, PILOT, LINE-HANDLERS, AND DISCONNECTION OF SHORE SERVICES). #	OPS	_____
	CHECK OPORD FOR REQUIRED REPORTS.	OPS	_____
	VERIFY LIGHT-OFF ORDERS AND MLOCs HAVE BEEN SIGNED. #	ENG	_____
	VERIFY GYRO OPERATION INCLUDING ALL INSTALLED REPEATERS. #	CSOOW	_____
+24 HRS	ASSUME RADIO GUARD.	COMMO	_____
	VERIFY ARRANGEMENTS FOR SERVICES. #	OPS	_____
	CONDUCT NAV BRIEF. #	NAV	_____
	CHECK NAVIGATION EQUIPMENT (INCLUDING NAV LIGHTS/BINOS). #	NAV	_____
	RECEIVE UPDATED DIVISION PERSONNEL ROSTER FOR ALL DIVISIONS.	ADMIN	_____
	TEST ANCHOR WINDLASS. #	ENG	_____
	VISUALLY INSPECT JP-5 FUEL HOSE AND RIG.	MPA	_____
	CONDUCT OPERATIONAL TEST OF SCC. #	CSOOW	_____
	CONDUCT STEERING CHECKS.	ENG	_____
	POST ALL WATCHBILLS FOR UNDERWAY #	SWO	_____
	ENERGIZE DEGAUSSING.	EDO	_____
	TEST RAST, FLIGHT DECK LIGHTS, AND FLIGHT DECK		

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>INITIAL</u>
	EQUIPMENT.	ENG	_____
	SET-UP COMMUNICATIONS CIRCUITS.	COMMO	_____
	DELIVER COPY OF COMMS PLAN TO PILOT HOUSE	COMMO	_____
	CONDUCT OPERATIONAL TEST OF NAVIGATION LIGHTS VIA ASSOCIATED TELLTALE PANEL. */#	ELO	_____
	CONDUCT OPERATIONAL TEST OF MOBI RECEIVER AND DIRECTION FINDER IAW PMS. ENSURE MOBI RECEIVER REMAINS ENERGIZED. #	1 <sup>ST</sup> LT	_____
	VERIFY CORRECT PCMS LEVEL SET THROUGHOUT THE SHIP.	EWO	_____
	DETERMINE GYRO AND REPEATER ERROR; LABEL ALL GYRO REPEATERS WITH ERRORS AND DATE.	NAV	_____
+2 HRS	VERIFY COMBAT SYSTEMS LIGHT-OFF CHECKLIST COMPLETED. #	CSOOW	_____
	NOTE ANY CHANGES IN UNDERWAY TIME. */#	CDO	_____
	VERIFY DISPOSITION OF RHIB. #	CDO	_____
	CHECK SHIP'S VEHICLES. #	SUPPO	_____
	ENSURE ALL BILLS ARE PAID	SUPPO	_____
	REMOVE AND STOW SECURITY DECK LIGHTING. #	ELO	_____
	ENSURE PILOT CARD IS READY ON STATION. #	NAV	_____
	ENSURE SMOKE FLOATS ARE ON THE BRIDGEWINGS.	1 <sup>ST</sup> LT	_____
	STOW PARKING SIGNS ONBOARD. (# ARRANGE FOR DELIVERY TO NEW PIER)	1 <sup>ST</sup> LT	_____
	CALL PORT HARBOR CONTROL FOR LATEST RIGHT WHALE MOVEMENT IN THE AREA.	NAV	_____
	PROVIDE: NAMES, SOCIAL SECURITY NUMBERS AND NEXT OF KIN OF ALL RIDERS TO ADMIN. *	CMAA	_____
	CONDUCT COMM CHECKS IN CIC AND PILOT HOUSE.	CICWO	_____
	ENSURE PIT SWORD IS ALIGNED TO SPEED REPEATERS.	CSOOW	_____
	TAKE DRAFT READINGS. *	DCA	_____
	CONDUCT EOT TEST IAW EOSS.	EDO	_____
	CONDUCT FOD WALKDOWN OF ALL WEATHER DECKS.	1 <sup>ST</sup> LT	_____
	RIG-IN BOOMS AND ACCOM LADDER.	1 <sup>ST</sup> LT	_____
+1 HRS	VERIFY THE SETTING OF MATERIAL CONDITION MODIFIED		

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>INITIAL</u>
	ZEBRA. #	FM	_____
	OBTAIN UPDATED DIVISION PERSONNEL ROSTER.	XO	_____
	OBTAIN PERMISSION FROM HARBOR CONTROL TO GET UNDERWAY.	OPS	_____
	VERIFY 8 WORKING SETS OF SOUND POWERED PHONES ON BRIDGE. #	EMO/NAV	_____
	ENSURE 2 CHARGED FORCE PROTECTION RADIOS ARE ON THE BRIDGE	OOD	_____
	LABEL AND DATE GYRO REPEATERS (CENTERLINE, BRIDGEWINGS, AND AFT STEERING) WITH GYRO AND REPEATER ERROR.	ANAV	_____
	LABEL AND DATE SPA-25 WITH REPEATER AND RANGE ERROR	OSC	_____
	VERIFY SHIP'S BELL (FORECASTLE) AND GONG (AFT O-2 LEVEL ARE OPERATIONAL.	NAV	_____
	INVENTORY SECURITY BADGES.	OOD	_____
	OBTAIN CREW MUSTER AND NOTIFY RESULTS TO XO. *	ADMIN	_____
	VERIFY U/W TIME FROM CDO AND PASS THE WORD: "THE SHIP EXPECTS TO GET UNDERWAY AT TIME _____." #	OOD	_____
	CONDUCT TURNOVER BETWEEN INPORT OOD AND U/W JOOD. ENSURE NO CONFLICTING MAN ALOFT/DIVERS/HERO CONDITIONS ARE IN EFFECT. #	OOD	_____
+45 MINS	PASS THE WORD (IAW POD): "STATION THE SEA & ANCHOR DETAIL." * #	OOD	_____
	RETURN PILOTHOUSE BELL, DECK LOG, AND CHECKLIST TO THE PILOTHOUSE. #	JOOD	_____
	PASS THE WORD: "THE OFFICER OF THE DECK IS SHIFTING HIS WATCH FROM THE QUARTERDECK TO THE BRIDGE." */#	OOD	_____
	TEST S/P PHONES FROM PORT AND STBD BRIDGE WINGS.	ANAV	_____
	SET MAXIMUM PLANT RELIABILITY CONFIGURATION FOR SEA & ANCHOR VIA 21MC. *	OOD	_____
	SECURE QUARTERDECK DECORATIONS. #	1 <sup>ST</sup> LT	_____
	PASS THE WORD (WHEN SET): "MAXIMUM PLANT RELIABILITY SET, TIME _____" *	OOD	_____
+30 MINS	PASS THE WORD: "ALL PERSONNEL NOT GETTING UNDERWAY ARE REQUESTED TO LEAVE THE SHIP." #	OOD	_____
	DISCONNECT POTABLE WATER. #	ENG	_____

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>INITIAL</u>
	DISCONNECT CABLE TV. #	EMO	_____
	RECEIVE DRAFT REPORT FROM CCS AND NOTIFY OOD/NAV/ CIC. */#	JOOD	_____
	SET APPROPRIATE EMCON CONDITION.	CICWO	_____
	ENSURE HANGAR DOORS ARE CLOSED. #	JOOD	_____
	DEPARTMENT HEADS REPORT READINESS FOR GETTING UNDERWAY TO XO.	DH'S	_____
	<b>MANNED AND READY CHECK LIST: */(# as applicable)</b>	<b>MANNED</b>	<b>READY</b>
	NAVIGATION	_____	_____
	PILOT HOUSE	_____	_____
	AFT STEERING	_____	_____
	CIC	_____	_____
	RADIO	_____	_____
	CSOOW	_____	_____
	FOC'SLE	_____	_____
	QUARTER DECK	_____	_____
	FANTAIL	_____	_____
	CCS	_____	_____
	APU ROOM	_____	_____
	FP DETAIL	_____	_____
	ASSEMBLE RIDERS ON THE MESS DECK	(CMAA)	_____
	LOWER AND CONDUCT OPERATIONAL TEST OF APUS. *	JOOD	_____
	SHIFT THROTTLE CONTROL FROM THE PCC TO THE SCC IAW EOSS (CP NO. CTB).	OOD	_____
	SHIFT STEERING CONTROL TO THE SCC IAW EOSS.	OOD	_____
	PASS THE WORD: "THE FOLLOWING IS A TEST OF THE SHIP'S GENERAL, CHEMICAL, AND COLLISION ALARMS FROM THE PILOTHOUSE. DISREGARD." UPON COMPLETION OF TEST, PASS THE WORD: "REGARD ALL FURTHER ALARMS." */#	JOOD	_____
	CONDUCT TEST OF THE SHIP'S WHISTLE. */#	JOOD	_____
	CONDUCT TIME CHECK ON 1MC. */#	JOOD	_____
	TEST ANCHOR WINDLASS. #	1 <sup>ST</sup> LT	_____
	MAKE THE ANCHOR READY FOR LETTING GO. #	1 <sup>ST</sup> LT	_____
	TEST AFT CAPSTAN. #	1 <sup>ST</sup> LT	_____
	VERIFY BRIDGE-TO-BRIDGE VHF RADIOS ARE TUNED AND TESTED. #	JOOD	_____
	ENSURE PILOT CARD IS FILLED OUT.	JOOD	_____
+15 MINS	VERIFY THE STERN IS CLEAR.	JOOD	_____

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>INITIAL</u>
	OBTAIN PERMISSION FROM XO TO DISCONNECT PHONE LINES.	JOOD	_____
	ENSURE COFFEE/WATER/SNACKS FOR PILOT ARE AVAILABLE ON THE BRIDGE	JOOD	_____
	ENSURE STOOL IS ON STATION	OOD	_____
	VERIFY CORRECT SETTINGS ON DFGMC. #	ANAV	_____
	SET THE PROPER NAVIGATION LIGHTS. #	JOOD	_____
	REQUEST PERMISSION FROM THE XO AND PASS THE WORD "THE BROW WILL BE REMOVED IN FIVE MINUTES." #	JOOD	_____
	COMPARE GYRO READING IN AFT STEERING WITH GYRO READING AT SCC.	CONN	_____
+10 MINS	RECEIVE PILOT ONBOARD, HOIST "CODE HOTEL" AND LOG PILOTS NAME. */#	JOOD	_____
	REMOVE THE BROW. #	OOD	_____
	SET RESTRICTED MANEUVERING VIA THE 21MC/1JV. #	OOD	_____
	ONCE REPORTED BY CCS, PASS THE WORD: "RESTRICTED MANEUVERING CASUALTY CONTROL PROCEDURES ARE IN EFFECT." * (PASS EVERY 30 MINS)/#	OOD	_____
+5 MINS	REPORT "CHECKLIST IS COMPLETE WE ARE READY TO SINGLE UP ALL LINES" TO THE XO. #	OOD	_____
	XO REPORT TO CAPTAIN "TAYLOR IS READY TO GET UNDERWAY." #	XO	_____
	SINGLE UP ALL LINES. */#	OOD	_____
	NOTIFY CCS TO STANDBY TO ANSWER ALL BELLS.	OOD	_____
	IF TRANSITING THE DEGAUSSING RANGE, PLACE THE FLUX GATE CAL IN "OFF".	NAV	_____
	TAKE IN ALL LINES AND PASS THE WORD: "UNDERWAY, SHIFT COLORS." FOLLOWED BY ONE PROLONGED BLAST (INLAND RULES ONLY). */#		
NOTE:	MAXIMUM SPEED ALLOWED WITH APUS LOWERED IS 5 KNOTS!		
WHEN DIRECTED	CENTERLINE AND RETRACT APUs.	OOD	_____
	PLACE FLUX GATE CAL IN "AUTO" AFTER TRANSITING THE DEGAUSSING RANGE. *	NAV	_____
	SECURE THE ANCHOR FOR SEA.	OOD	_____
	ALIGN THE MASKER SYSTEM.	ENG	_____

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>INITIAL</u>
	NOTIFY CCS WHEN 3 NM FROM LAND TO PLACE CHT IN THE AT SEA MODE.	NAV	_____
	PASS THE WORD: "SECURE FROM RESTRICTED MANUEVERING DOCTRINE." *	OOD	_____
	PASS THE WORD: "SECURE FROM MAXIMUM PLANT RELIABILITY." *	OOD	_____
	LOWER JACKSTAFF/FLAGSTAFF. (BERTH SHIFTS ONLY: RAISE JACKSTAFF/FLAGSTAFF AND PASS THE WORD: "MOORED, SHIFT COLORS" #)	JOOD	_____
	PASS THE WORD: "SECURE FROM SEA AND ANCHOR DETAIL, SET THE NORMAL UNDERWAY WATCH, ON DECK WATCHSECTION 1/ 2/ 3." #	OOD	_____
	LOG COMPLETION OF CHECKLIST AND PASS TO NAVIGATOR FOR FILING.	OOD	_____

LAUNCH/RETRIEVAL OF AN/SQR-19 TACTAS CHECKLIST  
 TIME/DATE COMMENCED: \_\_\_\_\_

This checklist must be completed prior to commencing launch and retrieval of TACTAS. The OOD must review the SONAR search plan. OOD must be familiar with the tactical situation and requirements of Towed Array Operation exercise or mission.

STREAMING

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
1.	VERIFY SEA STATE IS 5 OR LESS	OOD	_____	_____
2.	VERIFY WATER DEPTH IS SUFFICIENT TO DEPLOY ARRAY	OOD	_____	_____
3.	IDENTIFY TACTAS RESTRICTED WATERS IN THE VICINITY OF STEAMING AREA. ENSURE THEY ARE LABELED ON BRIDGE AND CIC NAV CHARTS	NAV	_____	_____
4.	OBTAIN CO'S PERMISSION TO STREAM	OOD	_____	_____
5.	PASS THE WORD "STATION THE ARRAY HANDLING DETAIL"	OOD	_____	_____
6.	MAN THE 61JS (BRIDGE/CIC/SONAR/TACTAS)	OOD	_____	_____
7.	UNLESS TACTICALLY SIGNIFICANT, ENSURE NIXIE IS RETRIEVED PRIOR TO TACTAS STREAMING	OOD	_____	_____
8.	MANEUVER TO DESIRED HEADING (AVOID FOLLOWING SEAS, REFRAIN FROM ANY COURSE OR SPEED CHANGES WHILE ARRAY IS IMMINENT)*	OOD	_____	_____
9.	INFORM CO, NAV, AND EOW THAT STREAMING HAS COMMENCED. ENSURE "TOWED ARRAY STREAMED" PLACARDS ARE HUNG ON BRIDGE, CIC AND CCS	OOD	_____	_____
10.	LOG WHEN ARRAY LAUNCH IS COMMENCED, AND WHEN ARRAY IS NO LONGER IMMINENT IN DECK LOG	OOD/SONAR	_____	_____
11.	INFORM NAV AND EOW WHEN ARRAY IS NO LONGER IMMINENT	OOD	_____	_____

12.	REPORT WHEN ARRAY IS AT DESIRED DEPTH	SONAR		
13.	REPORT FINAL CABLE SCOPE AND ARRAY DEPTH TO NAV AND ENTER INFO IN DECK LOG	OOD		
14.	PASS WORD "SECURE ARRAY HANDLING DETAIL"	OOD		
15.	LOG COMPLETION OF CHECKLIST AND SUBMIT TO NAV FOR FILING	OOD		

RETRIEVAL

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
1.	IN EMERGENCY, STATION FANTAIL OBSERVER	OOD	_____	_____
2.	VERIFY SEA STATE IS 5 OR LESS	OOD	_____	_____
3.	OBTAIN CO'S PERMISSION	OOD	_____	_____
4.	PASS THE WORD "STATION THE ARRAY HANDLING DETAIL"	OOD	_____	_____
5.	MAINTAIN 10-15 KNOTS	OOD	_____	_____
6.	MANEUVER TO REQUIRED COURSE (AVOID FOLLOWING SEAS, REFRAIN FROM ANY COURSE OR SPEED CHANGES WHILE ARRAY IS IMMINENT)*	OOD	_____	_____
7.	MAN THE 61JS (BRIDGE/SONAR/CIC/TACTAS)	OOD	_____	_____
8.	INFORM NAV AND EOOW WHEN ARRAY IS IMMINENT, ENTER IN DECK LOG	OOD	_____	_____
9.	REPORT WHEN ARRAY IS ON DECK, ENTER IN DECK LOG	OOD	_____	_____
10.	PASS WORD TO "SECURE THE ARRAY HANDLING DETAIL"	OOD	_____	_____
11.	LOG COMPLETION OF CHECKLIST AND SUBMIT TO NAV FOR FILING	OOD	_____	_____

## ABANDON SHIP CHECKLIST

TIME/DATE COMMENCED: \_\_\_\_\_

This check-off list will be carried out by the OOD and he will contact the "responsible" individual to verify the completion of each event. An initial will be placed in the appropriate column once verification has occurred. If any exceptions or abnormal circumstances exist, or the status of an event changes, the check-off list shall be annotated and the OOD notified immediately. When an item requires obtaining further instructions, these instructions will be annotated on the check-off list for reference.

Events indicated by an asterisk (\*) require a deck log entry.

<u>SEQUENCE</u>	<u>EVENT</u>	<u>RESP</u>	<u>TIME</u>	<u>INITIAL</u>
1.	PASS THE WORD: "ALL HANDS PREPARE TO ABANDON SHIP."	OOD	_____	_____
2.	ENSURE ALL ORDNANCE AMMUNITION COMPONENTS ARE SET ON SAFE.	CSO	_____	_____
3.	SAVE ALL RECORDS, ACCOUNTS, AND CASH AS PRACTICAL.	SUPPLY OFFICER	_____	_____
4.	SAVE LATEST PERSONNEL ROSTER AND LOGS AS PRACTICAL.	SHIP'S SEC	_____	_____
5.	ENSURE SECURE/SALVAGE DETAIL ARE GIVEN DIRECTION.	CHENG	_____	_____
6.	ENSURE PERSONNEL PROCEED TO LIFEBOAT STATIONS WITH EXCEPTION OF SALVAGE/SECURING TEAMS AND FIRST DIVISION.	DIVOS/ LCPOS	_____	_____
7.	CONDUCT MUSTER, ENSURE THAT ALL PERSONNEL HAVE RUBBER DUCKIES.	ABANDON SHIP OICs	_____	_____
8.	ORDER RIGGING OF LINES, NETS, AND LADDERS. (NETS AT MIDSHIPS PORT AND LADDERS ON FLIGHT DECK/FOC'SLE)	ABANDON SHIP OICs	_____	_____
9.	PASS THE WORD: "ALL HANDS ABANDON SHIP EXCEPT SECURING AND SALVAGE DETAILS."	OOD	_____	_____
10.	ORDER THE RELEASE OF LIFE RAFTS AND PROCEED OVER THE SIDE.	ABANDON SHIP OICs	_____	_____
11.	STANDBY TO RECEIVE SECURE/SALVAGE PERSONNEL AND FIRST DIVISION UPON COMPLETION OF THEIR DUTIES.	ABANDON SHIP OICs	_____	_____
12.	LOG COMPLETION OF CHECKLIST AND SUBMIT TO NAV FOR FILING.	OOD	_____	_____

TAYLORINST 3530.4L

MAN OVERBOARD CHECKLIST  
 TIME/DATE COMMENCED: \_\_\_\_\_

Upon hearing the report of a man overboard:

SEQUENCE #	ACTION	RESP	TIME	INITIALS
1	Determine type of recovery (Ship, Small Boat, Helo, Tug)	OOD	_____	_____
2	Order a full rudder to the same side as the man, Engine Ahead Flank to Conduct Anderson turn (Day), Williamson (Night)	CONN	_____	_____
	To conduct a Williamson turn shift the rudder so the swing of the ship's head reverses at sixty degrees from the original course. Once the rudder is shifted from the original maneuver, the order to steady on the reciprocal of the original course is given. This will cause the ship to pass down the original track.			
3	Immediately notify the OTC and other ships in company of the MOB situation and type of recovery (Ship, Small Boat, Helo, Tug)	OOD/TAO		
4	Activate Man Overboard alarm at SCC.	OOD	_____	_____
5	IMC Announcement and announce time man has been in the water 2 minutes thereafter	BMOW	_____	_____
6	(DAY) Hoist flag OSCAR on the yardarm where the MOB occurred. (NIGHT) Ensure Red over Red is flashing on Mast.	QMOW	_____	_____
7	<u>(EXERCISE) On the yardarm opposite to where the MOB occurred: hoist pennant CODE + flags UNIFORM YANKEE (I am carrying out exercises. Please keep</u>	QMOW	_____	_____

	<u>clear of me)</u>		
8	Make BTB r/t on channel 16 to inform shipping of man overboard and maneuvering if applicable.	OOD	_____
9	Receive report from CIC that sonar is passive.	CICWO	_____
10	Collect Muster Reports and inform OOD and XO of muster status. All QM's should lay to the bridge and all Junior Officers should lay to the bridge after mustering with their divisions.	BMOW/MUSTER PO	_____
11	Receive the following reports:	OOD/JOOD	_____
	A Sea water temp. _____	EOOW/CIC	_____
	B Survivability time _____		_____
	C Shark attacks: (probable / unlikely)	OOD	_____
	D True wind _____		_____
	E Speed _____	OOD/CIC	_____
12	Create a lee for launching the RHIB (if applicable)	CONN	_____
13	Lower the RHIB. <u>(After Lowering RHIB checklist has been accomplished)</u>	OOD/JOOD	_____
14	Obtain CO's permission to deploy SAR swimmer from the RHIB or the Forecastle.	OOD	_____
15	Recover the RHIB. <u>(After recover RHIB checklist has been completed)</u>	OOD/JOOD	_____
16	Log completion of checklist and submit to NAV for filing	OOD	_____

SHIP'S POSITION REPORT					
USS TAYLOR (FFG-50)					
REF: NAVSHIPS 9240/1 (REV 3.74)					
TO: COMMANDING OFFICER, USS TAYLOR					
FROM: NAVIGATOR, USS TAYLOR					
TIME (LOCAL)	ZONE	DATE			
LATITUDE	LONGITUDE	DETERMINED AT (L)			
METHOD: GPS	D.R.	VIS	RAD	CEL	
SET	DRIFT	DISTANCE MADE GOOD SINCE:		0800	
				1200	
				2000	
	@				
DESTINATION:	DISTANCE TO GO	PIM +/-	ETA (L)		
GYRO HDG	TRUE HDG	VAR +W	MAG HDG	DEV +W	COMP HDG
BAR PRES	WINDS	VISIBILITY	AIR TEMP	SEA TEMP	
	@				
REMARKS:					
RESPECTFULLY SUBMITTED BY:					
NAV__ ANAV__					

SHIP'S POSITION REPORT					
USS TAYLOR (FFG-50)					
REF: NAVSHIPS 9240/1 (REV 3.74)					
TO: COMMANDING OFFICER, USS TAYLOR					
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				1200	
				2000	
	@				
DESTINATION:	DISTANCE TO GO	PIM +/-	ETA (L)		
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METHOD: GPS	D.R.	VIS	RAD	CEL	
SET	DRIFT	DISTANCE MADE GOOD SINCE:		0800	
				1200	
				2000	
	@				
DESTINATION:	DISTANCE TO GO	PIM +/-	ETA (L)		
GYRO HDG	TRUE HDG	VAR +W	MAG HDG	DEV +W	COMP HDG
BAR PRES	WINDS	VISIBILITY	AIR TEMP	SEA TEMP	
	@				
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RESPECTFULLY SUBMITTED BY:					
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LATITUDE	LONGITUDE	DETERMINED AT (L)			
METHOD: GPS	D.R.	VIS	RAD	CEL	
SET	DRIFT	DISTANCE MADE GOOD SINCE:		0800	
				1200	
				2000	
	@				
DESTINATION:	DISTANCE TO GO	PIM +/-	ETA (L)		
GYRO HDG	TRUE HDG	VAR +W	MAG HDG	DEV +W	COMP HDG
BAR PRES	WINDS	VISIBILITY	AIR TEMP	SEA TEMP	
	@				
REMARKS:					
RESPECTFULLY SUBMITTED BY:					
NAV__ ANAV__					

# Commanding Officer's Night Orders

## USS TAYLOR (FFG 50)

11-12 FEB 2014

### Geographical Data

Time Zone:	-2B
Sunrise: 0624	Sunset: 1645
Moonrise: 1344 11FEB14	Moonset: 0417 12FEB14
Moon Illumination: 89%	Moon Illumination : 92%
Operating With:	N/A
OPCON	COMSIXTHFLT
TACON	COMSIXTHFLT
Area of Operation:	BLACK SEA

### Own Ship Data

<u>Off Going Line Up</u>	
GTE On-Line:	1A
SSDG's On-Line:	1,2
<u>On Coming Line Up</u>	
GTE On-Line:	1B
SSDG's On-Line:	1,2
Material Cond.:	Modified Z
EMCON Cond.:	DELTA
Deceptive Lighting:	N/A
Steam Box	N/A

### Rules of the Road/OOD

BOTH INTERNATIONAL & INLAND In order for a stand-on vessel to take action in a situation, she must determine that the other vessel \_\_\_\_\_.

### Additional Notes

- MONITOR VHF CH 16 AT ALL TIMES.
- A CELESTIAL FIX WILL OCCUR DAILY AT SUNSET IF WEATHER PERMITS.
- MAINTAIN 'POSITIVE CONTROL' OF PUB 102.
- SOA of 17 KTS FOR A 0500Z/0700L PILOT PICKUP

### Intentions

Where we can conduct flight operations is limited by our distance to land. We cannot launch the helo until we are outside of 80 nm of the Russian/Georgian coast, and we must be landing the helo at 30 nm of the Turkish coast. The following plan will ensure this.

Depart the most Southern corner of OPBOX Tonya at 2000L. Proceed at 15 kts towards our track until we reach 25 nm from the coast. Then proceed at 20 kts until we reach 80 nm from land (approx 0000L) so we can launch the helo as scheduled. Proceed at a speed to keep us ON PIM. Flight quarters are currently scheduled to be completed when we reach 30 nm from the Turkish coast (0430L), so ensure we are not ahead of PIM. Be prepared for our shadow to follow us to Turkish TTW. At 0500L begin calculating time/speed/distance to ensure a 0500Z/0700L pilot pickup.

Contact me if there is an adjustment to the above schedule.

**(b) (3) (B), (b) (6)**

Operations Officer's Comments

OPS's Wake up:       

- PILOT PICKUP SCHEDULED FOR 0700. LET ME KNOW IF THERE ARE ANY ISSUES CONTACTING THEM.
- WE ARE TRANSITING UNFAMILIAR WATERSPACE, KEEP AN EYE OUT FOR THE UNKNOWN

(b) (3) (B), (b) (6)

Submitted

Executive Officer's Comments

XO's Wakeup: 0415 x216

Be prepared to assist and respond in any emergency situation.

- PLAN AHEAD FOR FLIGHT OPS AND SEA + ANCHOR
- Review the track into SAMSON, TURKEY and ID expected NAVAIDS AS WE APPROACH THE COAST, LOOK FOR THEM AND REPORT AS APPROPRIATE
- TEST COMMS PATHS FOR FLIGHT OPS AHEAD OF FQ (b) (3) (B), (b) (6) @ 2330.
- REMAIN ALERT, DON'T TAKE ANYTHING FOR GRANTED

Commanding Officer's Comments

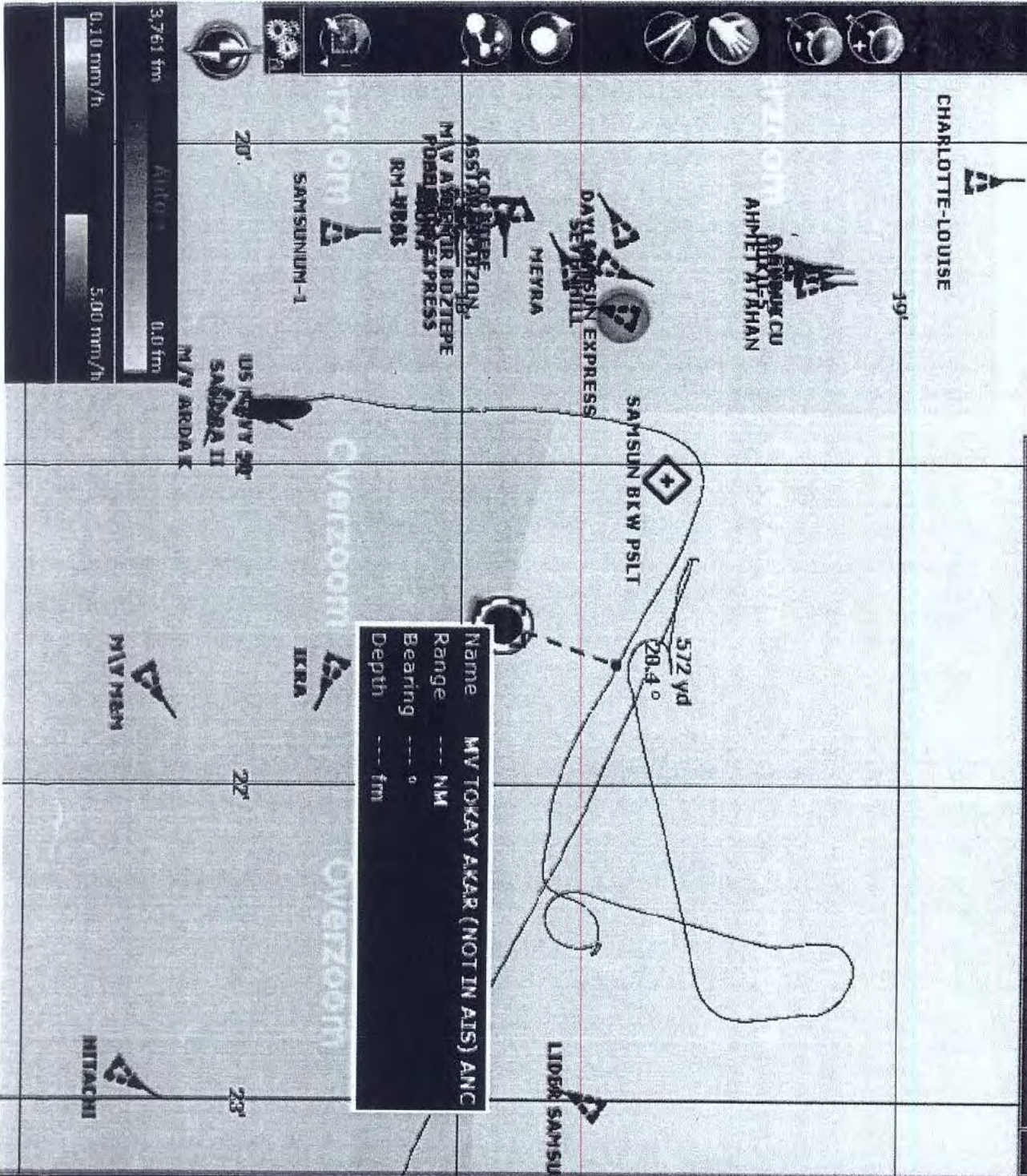
CO's Wakeup: 0430

- DEPART THE OPAREA AS BRIEFED. RETURN TO MTW @ 2500L VIA CMTT THAT TRV IS ENROUTE SAMSON FOR PSF. MAKE THE FOLLOWING ADDITIONAL REPORTS:
  - WHEN @ 2500M - increasing speed to 20K
  - WHEN @ 0800M - conducting FLT OPS
  - WHEN FLT OPS complete
  - WHEN ENTERING TURKISH TTWS
- ENSURE WE HAVE COMMS ESTABLISHED AND CONDUCT A ZIP-LIP LAUNCH IF FEASIBLE.
- CONTINUE TO MONITOR OF ESCORT'S ACTIONS AND POSITIONING. EXPECT TO GET A TURKISH ESCORT AS WE APPROXIMATE TTWS.
- LATE NIGHT WITH FLT OPS - CLARIFY AM SEA & ANCHOR. GET REST WHEN YOU CAN.
- KEEP PRESSING!

(b) (3) (B), (b) (6)

Watch:	OOD	JOOD	CONN	QMOW	BMOW	TAO	CICWO	RADIO/CWO	CSOOW	SONAR	EOOW
1200-1700											
1700-2200											
2200-0200	(b) (3) (B), (b) (6)										
0200-0700											

Navigation icons: Home, Back, Forward, Stop, Refresh, Search, Settings, etc.



Name M/V TOKAY AKAR (NOT IN AIS) ANC  
 Range --- NM  
 Bearing --- °  
 Depth --- fm

Cursor Information  
 Position N 41°18.092'  
 E 36°21.506'  
 BRG --- °  
 RNG --- NM  
 DPT --- fm

Weather Information  
 [Weather data area]

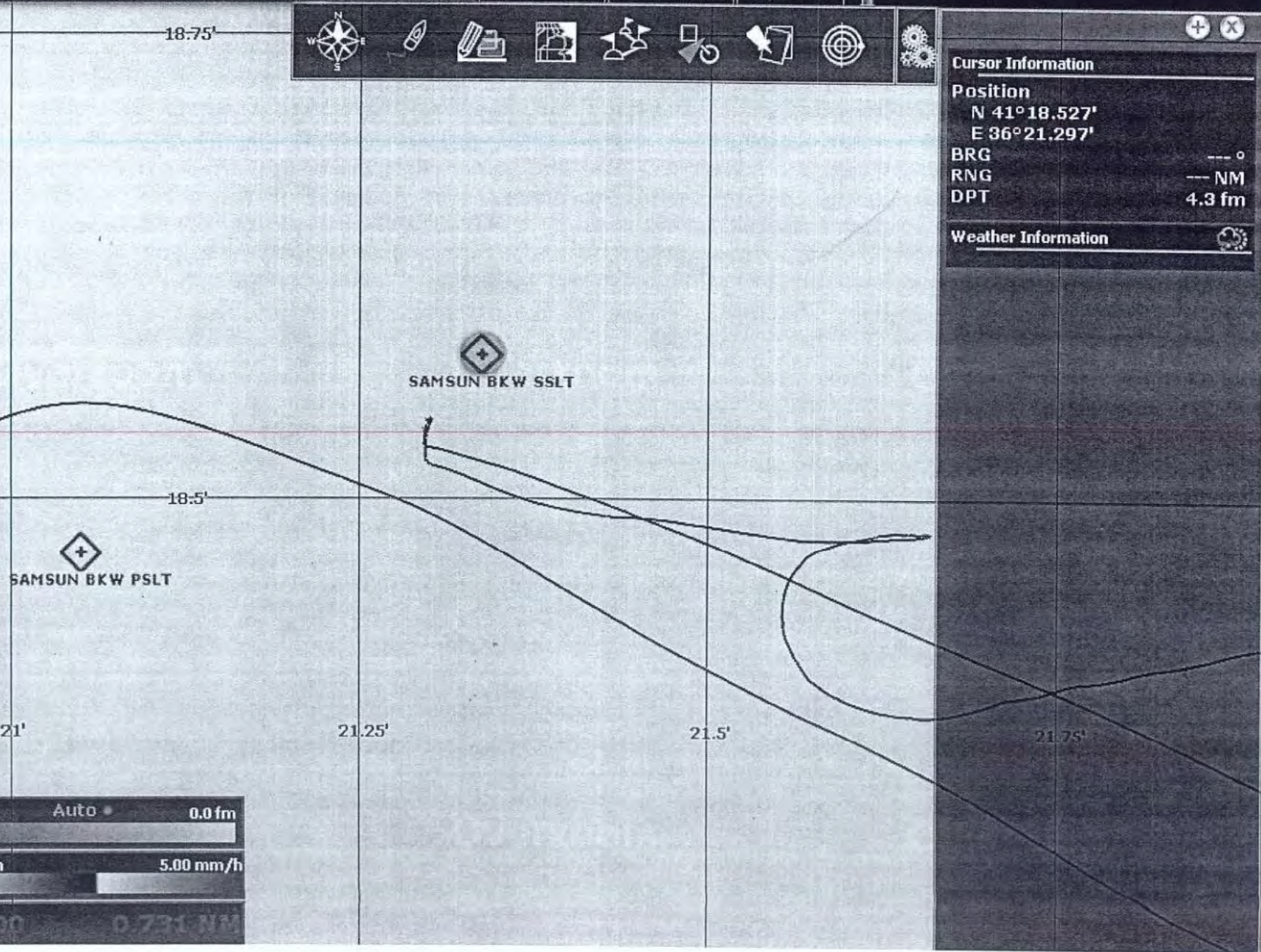
3,761 fm  
 Auto  
 0.0 fm  
 0.10 nm/h  
 5.00 nm/h



3,761 fm    Auto    0.0 fm

0.10 mm/h    5.00 mm/h

1:5,000    0.731 NM



**Cursor Information**

**Position**  
N 41°18.527'  
E 36°21.297'

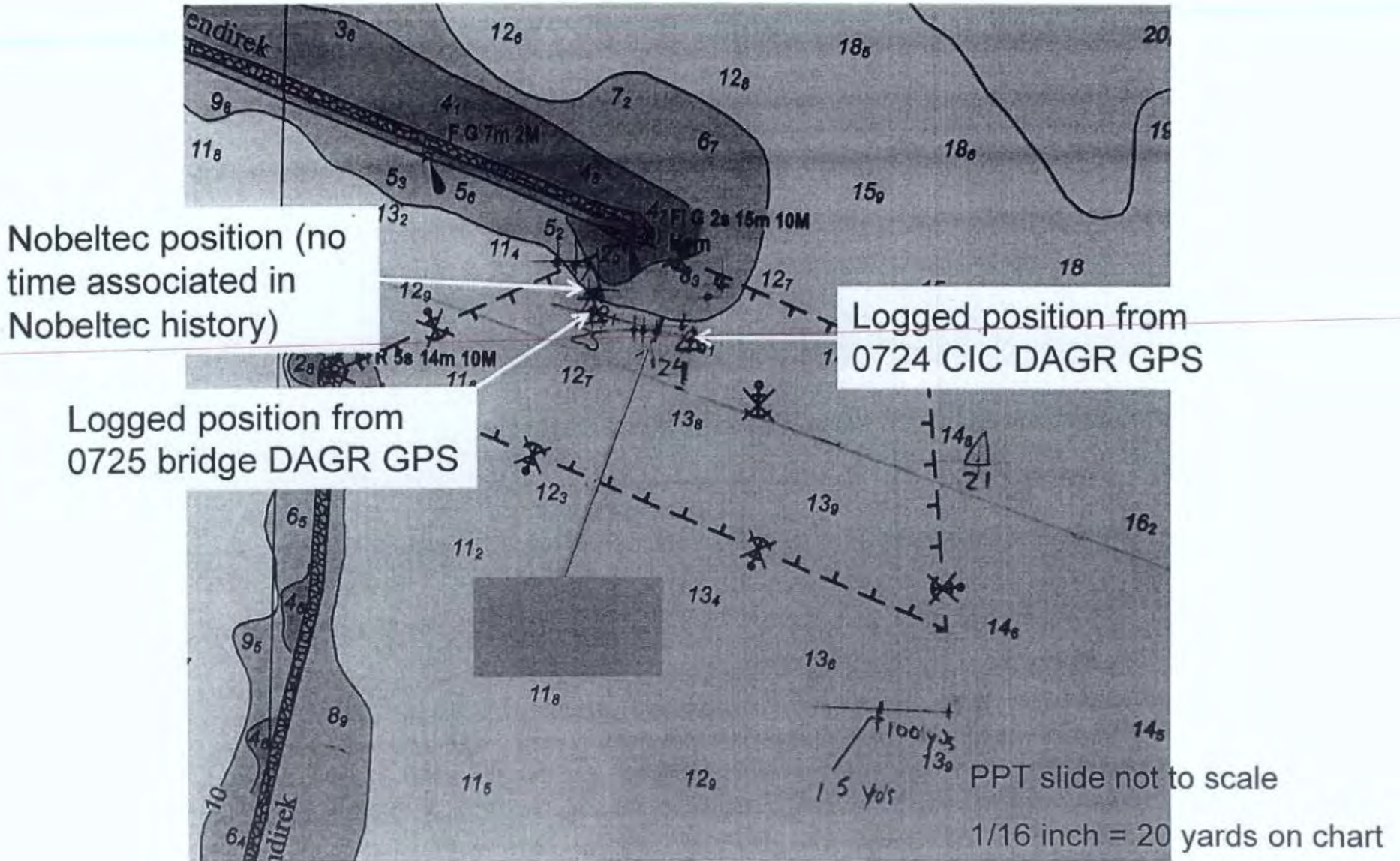
BRG --- °  
RNG --- NM  
DPT 4.3 fm

**Weather Information**

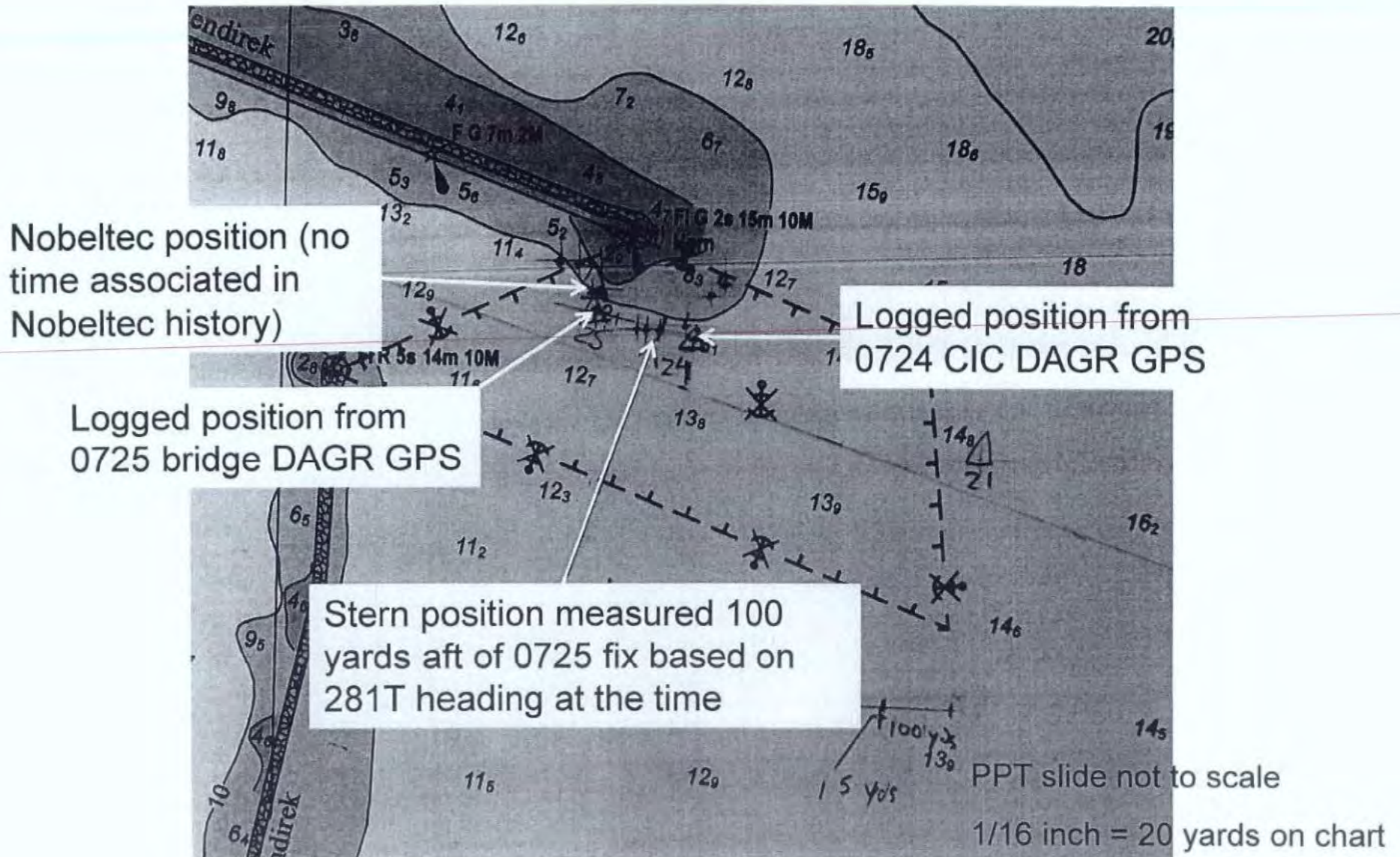
# Fix/Position Reconstruction of 12 Feb TAYLOR Grounding

26 Feb 2014

# Reconstructed Fixes (On Clean Chart)

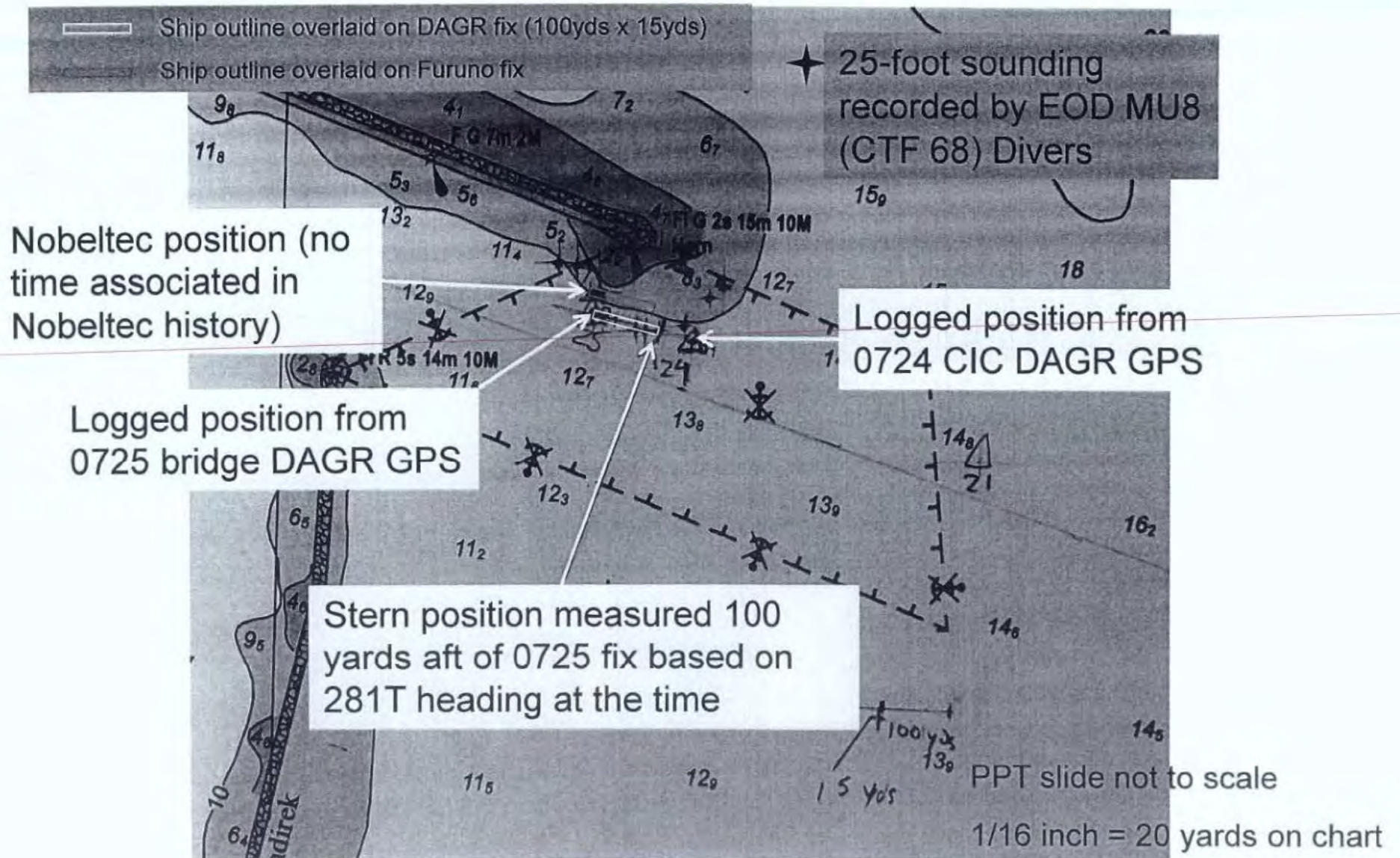


# Derived Stern Position (Based on Reconstructed Fixes)

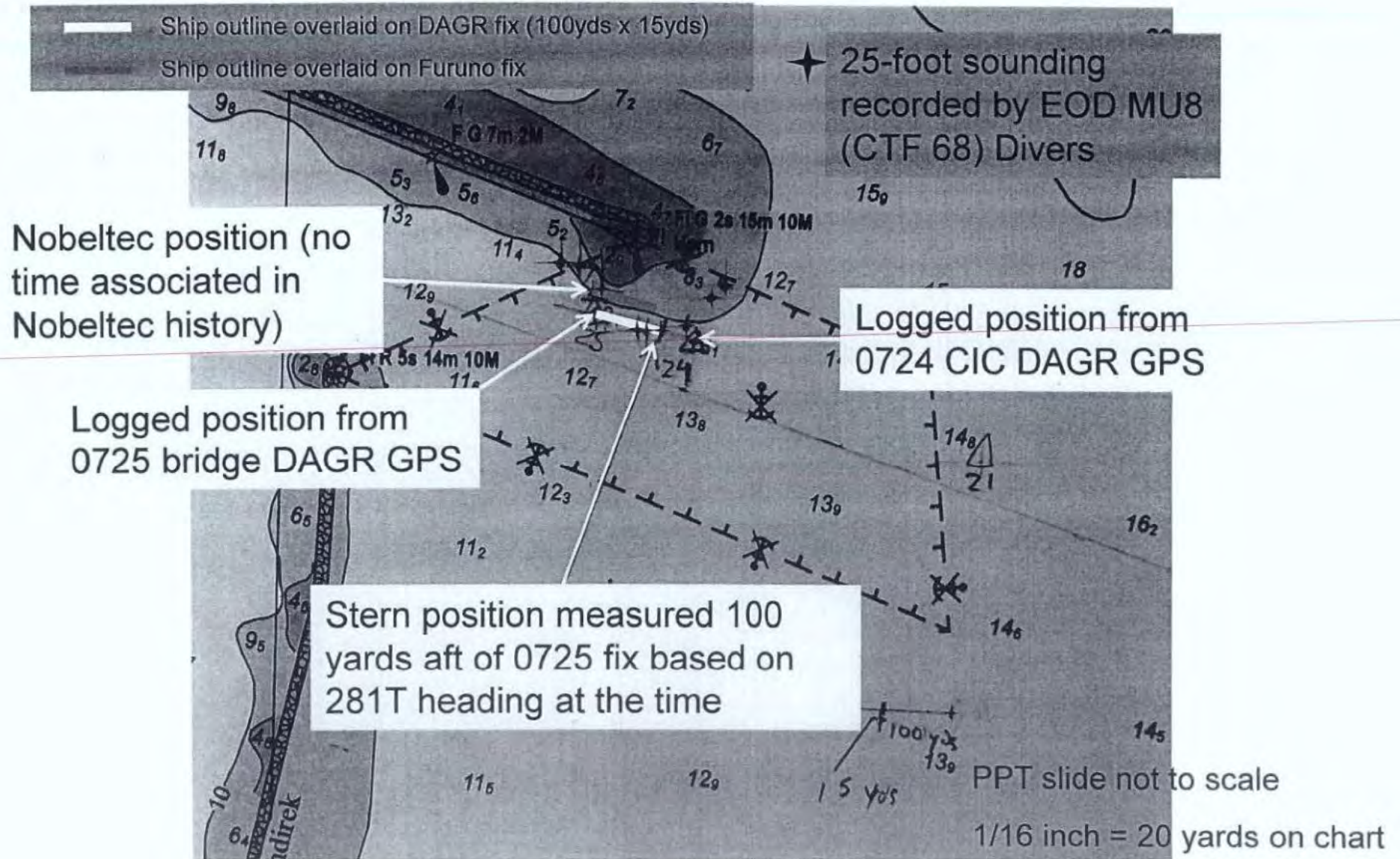




# Sounding Discrepancies (In Relation to Ship's Position)

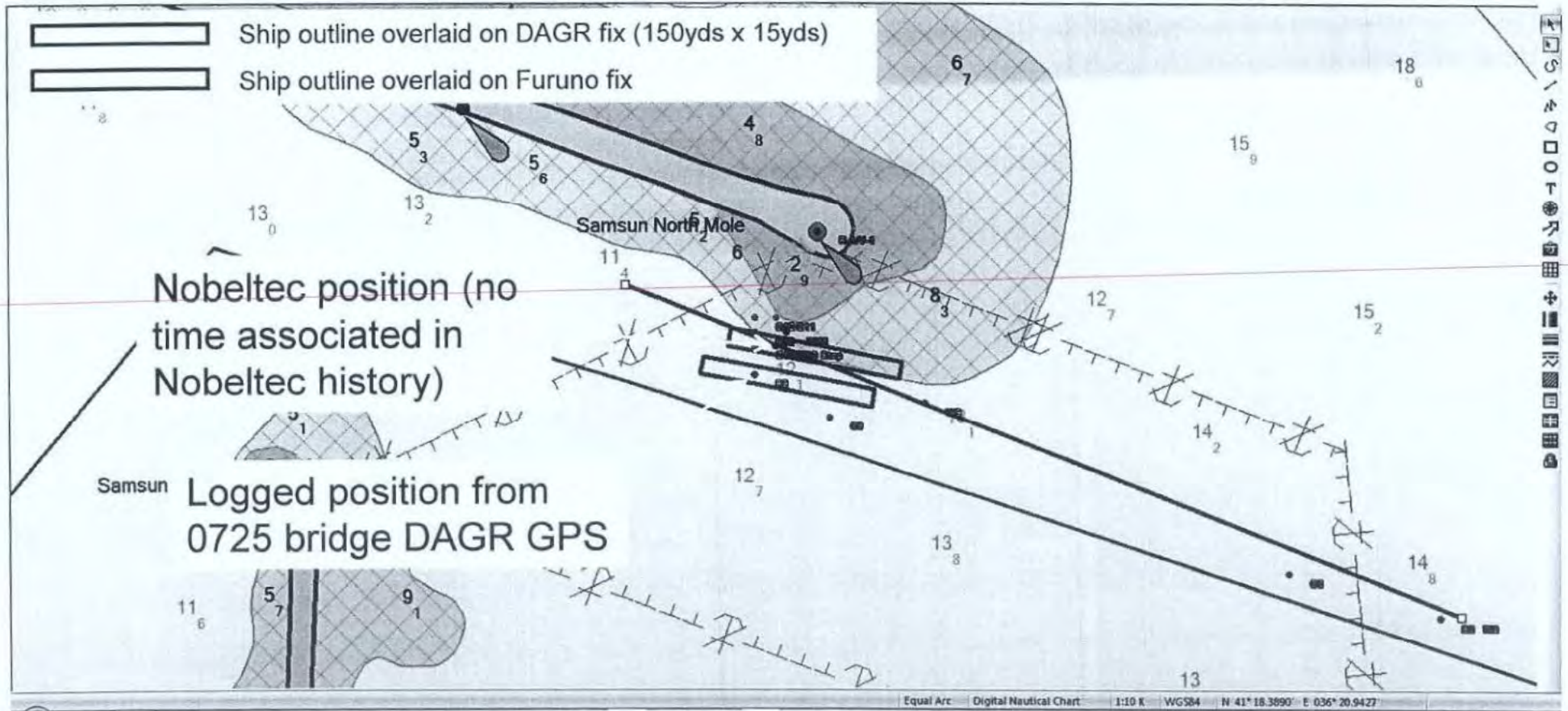


# Sounding Discrepancies (In Relation to Ship's Position)



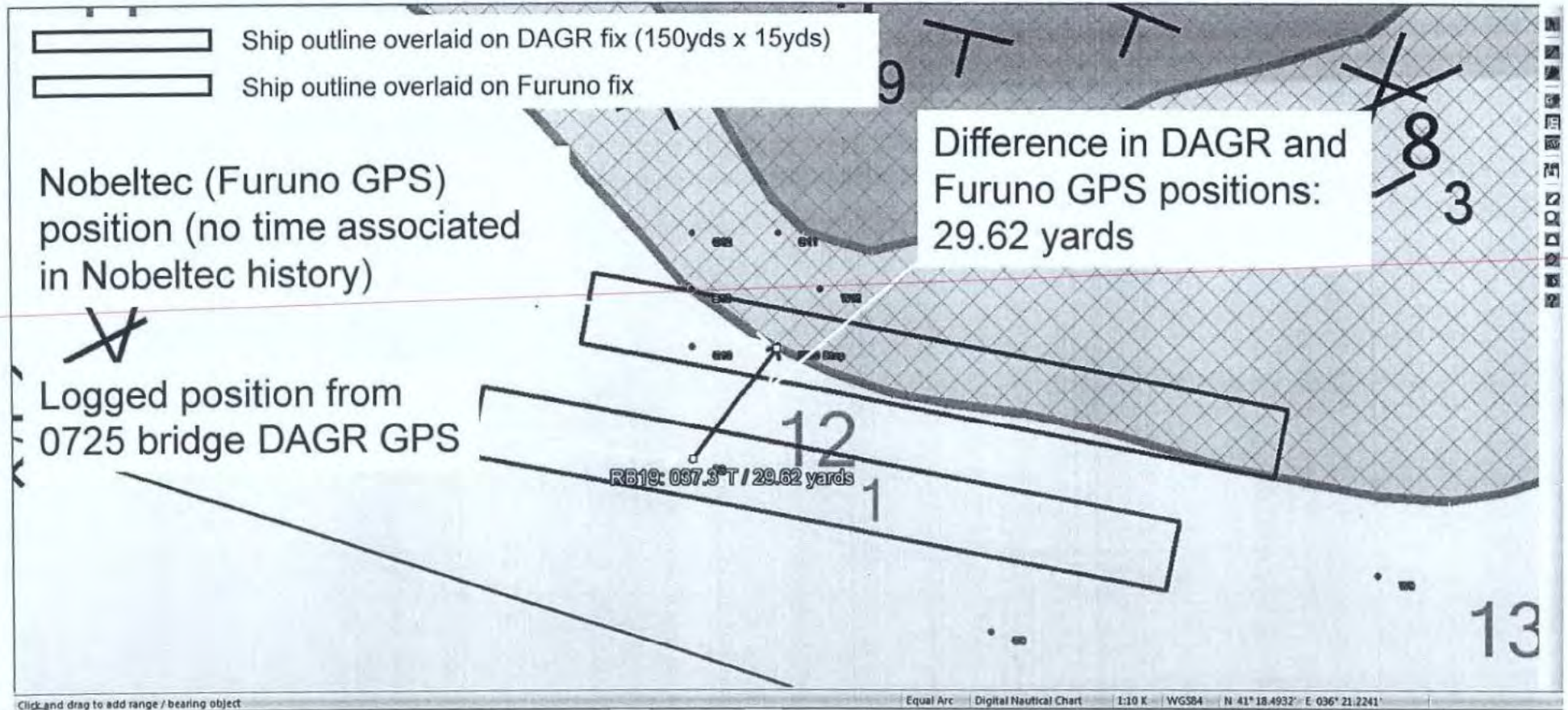
# Reconstructed Fixes

## (On Electronic Chart)



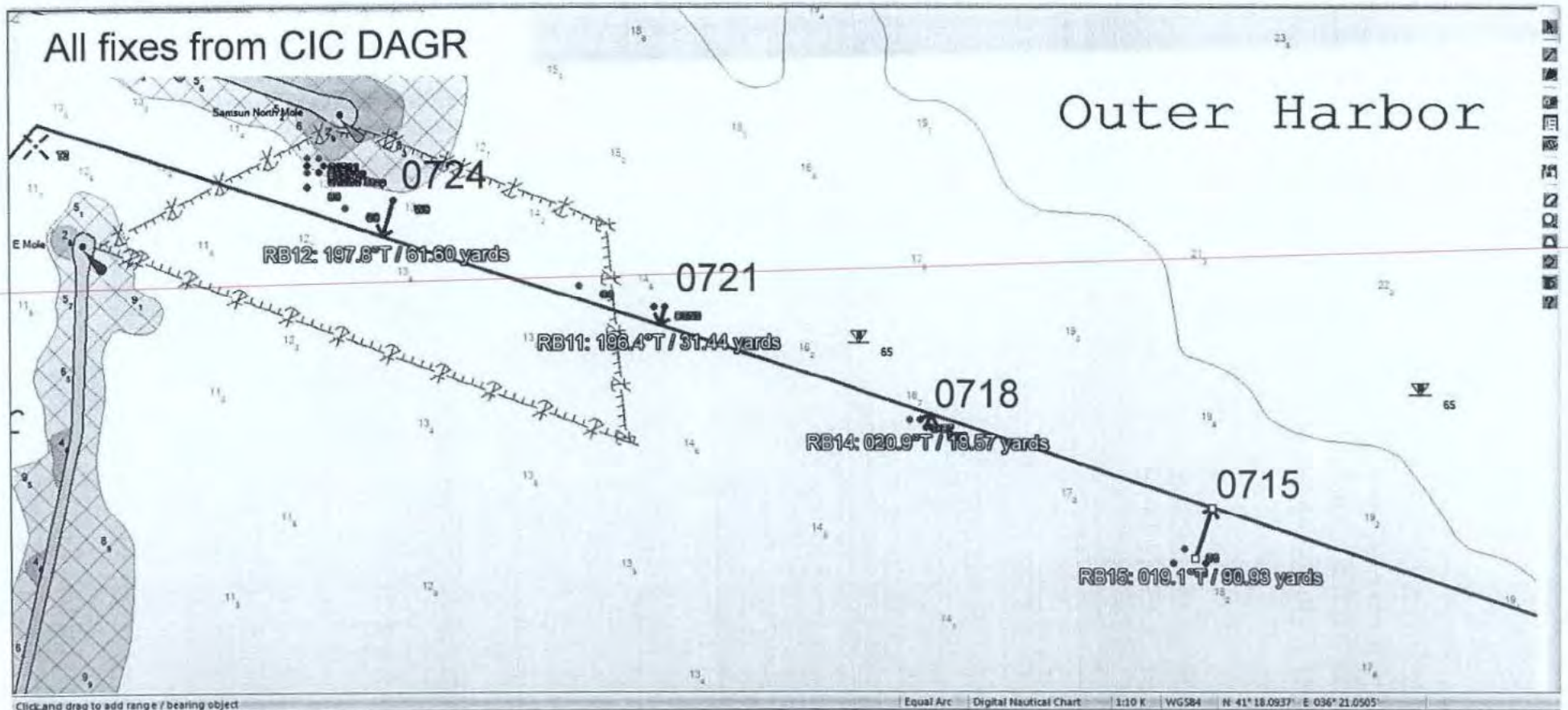
# Offset distance – Furuno & DAGR

## (On Electronic Chart)

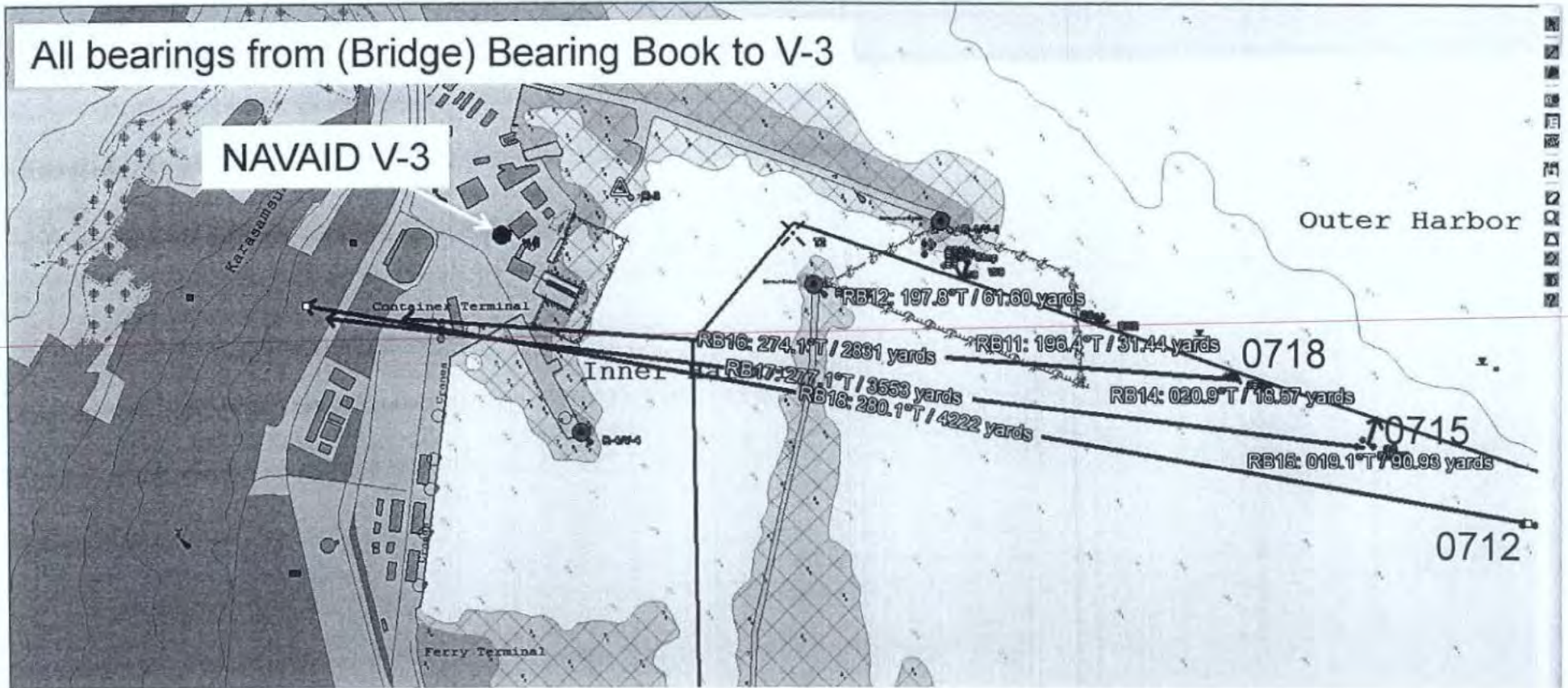


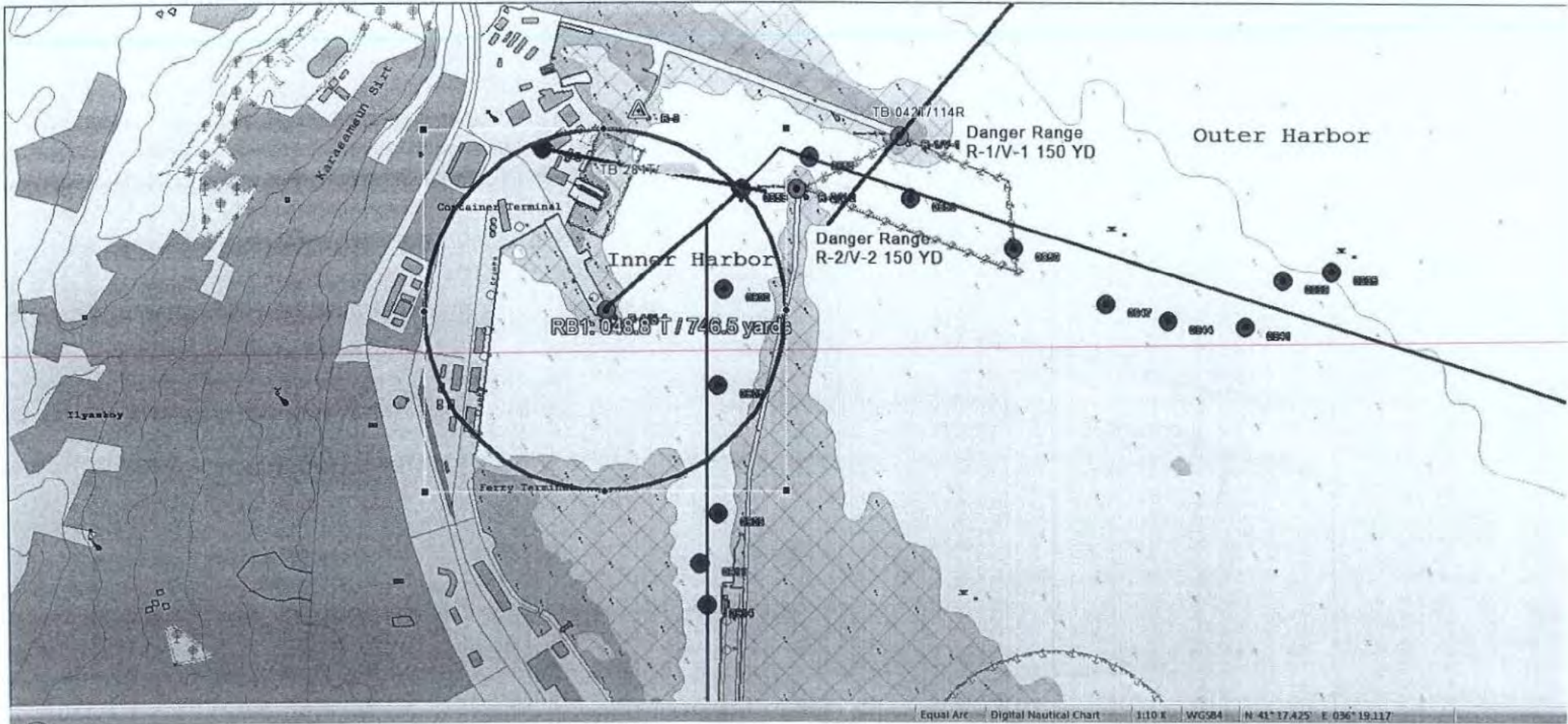
# Positions in Relation to Track

(On Electronic Chart)



# Logged Bearings to V-3





SOUNDING IN THE BAY



This chart was prepared by the Hydrographic Office of the United States Navy, and is published under authority of the Secretary of the Navy. It is published as a public document and is not to be sold. It is published as a public document and is not to be sold. It is published as a public document and is not to be sold.

REVIEWED BY	08/08	NAV/CIC
SUBMITTED BY		NAV
REVIEWED BY		NO
APPROVED BY		CO
DATE	21 JAN 68	
DATE	21 JAN 68	
DATE	21 JAN 68	

Encl (68)



# HARBOR READY CHARTS CHECKLIST

CHART #: \_\_\_\_\_

PORT/AREA: \_\_\_\_\_

	BRIDGE	CIC
CORRECTED W/SHOAL WATER:	_____	_____
TRACKS	_____	_____
TIME/SPEED/DISTANCE BOX	_____	_____
MAGNETIC HEADINGS	_____	_____
SHIFT CHART POINT	_____	_____
VISUAL	_____	_____
SLIDE BAR	_____	_____
TURN RANGE	_____	_____
TURN BEARINGS	_____	_____
ADVANCE AND TRANSFER	_____	_____
DANGER RANGE	_____	_____
DANGER BEARING	_____	_____
SPEED TRIANGLE	_____	_____
SET/DRIFT TRIANGLE	_____	_____
GAZETTEERS	_____	_____
PREPARED BY STICKER	_____	_____
ALL TURNS BASED ON 15 DEGREE RUDDERS AT 10 KNOTS	_____	_____

Lat-Deg	Lat-Min.min	N/S	Lon-Deg	Lon-Min.min	W/E
41	18.555	N	36	21.266	E
41	18.554	N	36	21.275	E
41	18.550	N	36	21.282	E
41	18.538	N	36	21.294	E
41	18.535	N	36	21.305	E
41	18.528	N	36	21.313	E
41	18.519	N	36	21.327	E
41	18.505	N	36	21.337	E
41	18.508	N	36	21.350	E
41	18.508	N	36	21.369	E
41	18.511	N	36	21.387	E
41	18.523	N	36	21.398	E
41	18.530	N	36	21.413	E
41	18.539	N	36	21.424	E

Encl (91)

## Using Nautical Charts with Global Positioning System

### INTRODUCTION

With the advent of the Global Positioning System (GPS), mariners can now navigate with much greater precision than ever before possible. This discussion focuses on the inherent limitations of nautical charts when plotting positions from GPS receivers.

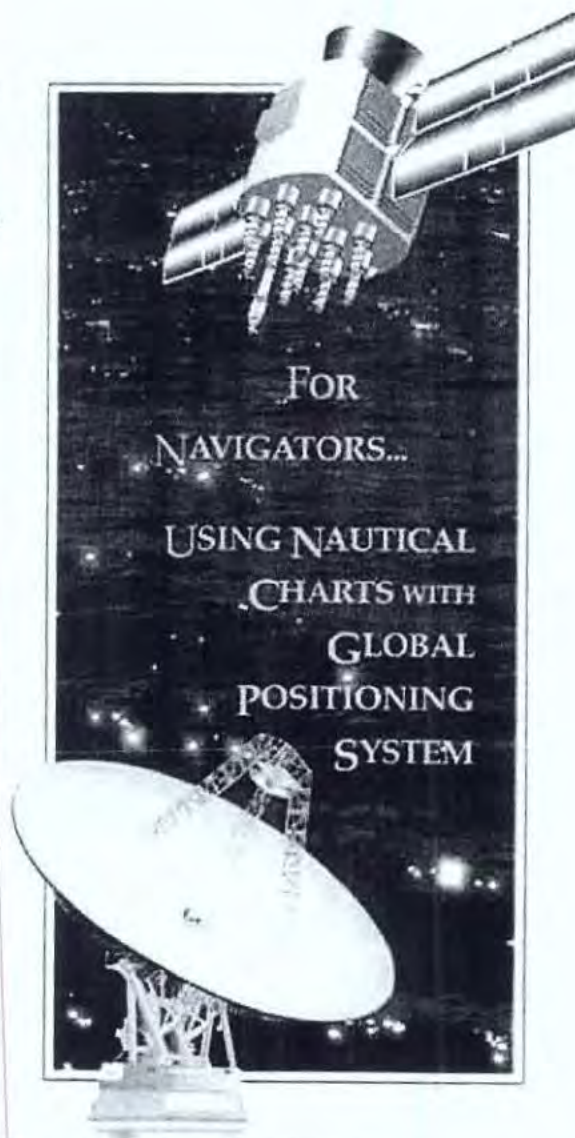
For the chart maker, accuracy of the chart must take into account the limitations of the navigator's acuity of vision, the lithographic processes and plotting techniques used, and the symbolization of features (e.g., line widths).

GPS users must ensure that latitude/longitude shifts are made when plotting GPS-derived positions on a chart with a different datum than the GPS. All new NGA charts are compiled on WGS Datum, the same datum used by GPS receivers in the default datum setting, although other datums can often be selected. Positions derived prior to the implementation of GPS were determined using various optical instruments focused on navigational aids, shore features, or celestial bodies. Knowing the limitations of these methods, mariners gave a wide berth to hazards depicted on charts, including aids to navigation, shoals and obstructions. The available navigational information and cartographic processes used by the chart maker to position hazards were more accurate than the means of navigation available to users of the chart. The situation is now reversed; using GPS, mariners now can obtain a more accurate position fix than the data used to compile the chart.

With GPS providing such accuracy, the mariner now needs to pay closer attention to the reliability of the chart. For example, mariners, to save steaming time, may become more trusting and rely on their GPS to pass hazards depicted on charts much closer than is prudent. However, the charted hazards may have been positioned by less accurate navigation means than GPS, and, in fact, may be significantly misplaced. In other words, the chart being used may contain unintentional errors due to limitations of the technology used at the time of data collection, which in many cases is a generation or more in the past.

### GPS ABSOLUTE ACCURACY

Military User Under Selective Availability (SA) and Anti-Spoofing (A/S). The military user always has access to full GPS accuracy, called the Precise Positioning Service. The horizontal accuracy is 21 meters, with a 95%



Encl (92)

probability that the GPS-derived position is within 21 meters of the true position on Earth. This accuracy equates to approximately 0.01 minute of latitude.

Thus, the best accuracy that a GPS fix could be plotted in this mode is 0.01 minute, regardless of the number of decimal places the GPS receiver displays. This accuracy is suitable for plotting in all normal navigation situations.

Military User with Real-Time Differential GPS. A military user of GPS in a differential mode may reach an accuracy of 2 to 7 meters.

Commercial GPS User. For the commercial GPS user the Standard Positioning Service, which may be limited by the engagement of Selective Availability (SA, a means of degrading the GPS signal to be used during a national emergency), is available all of the time. When SA is turned off, as it has been since May 1, 2000, civilian and military GPS receivers have the same accuracy. If SA were to be engaged, as during a national security emergency, the result would be degradation to 100 meters horizontal accuracy, again at 95% probability. This degradation still would result in a position accuracy of 0.05 minute, but this reduced accuracy would only become apparent when plotting these positions on larger scale charts (approximately 1:30,000 and larger). With these charts, the commercial GPS user should use extra caution when piloting with GPS in restricted waters. An accuracy of 2 to 7 meters (same as the military user) can be achieved, however, when GPS is used in a differential mode.

Many marine GPS receivers have technology installed that can use the Wide Area Augmentation Service (WAAS), a system designed primarily for aircraft use, but often available in the vicinity of ports and harbors. Accuracy using WAAS is similar to differential GPS.

## CHART ACCURACY

Specified Chart Accuracy. The NGA-specified accuracy standard for harbor, approach, and coastal charts is that features plotted on a chart will be within 1 mm at chart scale with respect to the datum, at a 90 percent confidence level. For a chart of 1:15,000 scale, a 1 mm error equates to  $\square$  15 meters (16.2 yards) on the real earth, which is of the same order of magnitude as the absolute GPS error. For a smaller scale chart of 1:80,000, the chart error is  $\square$  80 meters (86.4 yards), which is therefore the limiting factor in position plotting accuracy. The reverse can be true for large-scale (small area) charts, such as a harbor plan inset at 1:5,000 scale. In this case, the navigator's plotting accuracy is limited by the absolute accuracy of GPS, rather than the chart; however, features on this chart should be accurate to  $\square$  5 meters.

Cartographic Presentation. "Cartographic license" may also be a factor. When depicting two or more closely spaced features on a chart, the chart maker may displace one feature slightly so the symbols do not overlap. This adjustment will normally keep the feature within the limit of 1 mm plotting accuracy.

Positioning of Survey Data. Errors in the underlying hydrographic survey data will also affect accuracy. While NGA makes every effort to produce the most accurate chart possible given the available data, the prudent navigator should pass shoals or isolated dangers with utmost caution, no matter what navigation method is used. Few coastal surveys of years past were possible to differential GPS accuracies, and shoals may have moved significant distances since the surveys were done.

Pencil Width. Although seemingly trivial, the width of a pencil line becomes a significant source of error at some scales. At 1:15,000, the 0.5 mm line width of a mechanical pencil lead equates to 7.5 meters (8.1 yards) on the chart. At 1:80,000, the same pencil line width equates to 40 meters (43.2 yards) on the chart. Thus a dull pencil can become the largest source of error, and thus the standard of accuracy, in the use of the chart.

## DATUM TRANSFORMATION

World Geodetic System (WGS). GPS receivers

GPS SURVEY SHOWS ISLAND SHIFT

operate on the World Geodetic System (WGS) global geocentric reference system, or datum. It is global because, unlike other datums that only apply to certain regions, WGS can be used over the entire Earth. It is geocentric because, unlike other datums that use arbitrary points within the Earth as their origin, the origin of WGS is at the actual center of the globe. Most military and commercial receivers allow the user the capability to select the reference datum, but the receiver will default to WGS if none is selected.

Other Datums. Among other major datums used around the world, the Tokyo datum is an example of one that requires significant adjustments in both latitude and longitude to conform to GPS positions. Older Japanese and Korean charts are referenced to the Tokyo datum, for which positions must be shifted more than 700 meters to convert to WGS 84 datum.

Isolated datums, such as those used to position many islands in the Pacific Ocean, can be in error by a half mile or more (see figure). The datum shift to WGS 84 can be quite large, depending on the area of the world and the local datum in use. Remember that the chart and the navigation system used must always be referenced to the same datum.

## GPS RECEIVER LIMITATIONS

Some GPS receivers may not have a selectable datum feature and with these, extra care must be taken. However, accuracy should not be a problem if the chart in use is based on WGS. Some US charts that are not currently based on WGS 84 datum include a note that specifies the necessary adjustment in position to correctly place a WGS 84 position on the chart. The majority of such charts are of such small scale that differences in datum are of no consequence.

## USE OF TEMPLATES

The use of templates for plotting is an easy way to get reasonably accurate and repeatable plots. However, each template must be tied to the chart for which it will be used. Unlike topographic line maps, nautical charts are not published with consistent scales (such as at 1:50,000 or 1:100,000), but are scaled individually for the best use in navigating a particular area. This practice leads to a range of scales from 1:5,000 to 1:180,000, with various scales in between. Additionally, because of the projection used to display the curved surface of the earth on a flat sheet of paper, the latitude scale is not constant over the chart. The navigator must ensure that any locally produced templates are for the correct scale of the chart in use, and are used only in the latitude intended.

## ELECTRONIC CHARTS

Commercial and military vessels are now using various versions of electronic charts together with GPS for navigation, voyage planning and situational awareness. With an established maintenance system, electronic charts will be the navigation method of choice for most mariners.

For US military navigators, NGA's Digital Nautical Chart (DNC®) forms the basis for paperless ship navigation. The Digital Nautical Chart (DNC®) is a comprehensive, vector-based, geo-relational database containing maritime features essential for safe marine navigation. The database, on WGS datum, is compiled from a global portfolio of over 5,000 NGA and National Oceanic and Atmospheric Administration charts that supports marine navigation between 84° North latitude and 81° South latitude.

However, all paper chart accuracy cautions apply to the DNC® (or other electronic charts based on paper charts) when used with GPS for navigation.

## SUMMARY

GPS-derived positions are often more precise than the charts used for navigation. Navigators should be aware of

all the factors that may affect the use of GPS positions when plotting these positions on nautical charts. Mariners should continue to give wide berths to charted hazards, and ensure that the datum used by both the chart and the positioning system are the same, or that any difference is accounted for.

For further information, please contact:

*Maritime Safety Office - MS N64 SH  
National Geospatial Intelligence Agency  
7500 GEOINT Drive  
Springfield, VA 22150*



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