CUI

ATTENTION

Use this space to indicate categories, limited dissemination controls, special instructions, points of contact, etc., if needed.

Portions of this document have been designated as Controlled Unclassified Information (CUI) or Personally Identifiable Information (PII) by the US Navy. The US Navy has redacted the identified portions, and has not approved release of the portions redacted for CUI concerns because of the following reasons:

Critical Technology. To protect information and technical data that may be observed by adversary intelligence systems and determining what indicators hostile intelligence systems may obtain that could be interpreted or pieced together to derive critical information in time to be useful to adversaries.

Vulnerability Information. To protect information and technical data that provides insight into vulnerabilities of U.S. critical infrastructure, including warfighting infrastructure, vital to National Security that are otherwise not publicly available.

ATTENTION

All individuals handling this information are required to protect it from unauthorized disclosure.

Handling, storage, reproduction, and disposition of the attached document(s) must be in accordance with 32 CFR Part 2002 and applicable agency policy.

Access to and dissemination of Controlled Unclassified Information shall be allowed as necessary and permissible to any individual(s), organization(s), or grouping(s) of users, provided such access or dissemination is consistent with or in furtherance of a Lawful Government Purpose and in a manner consistent with applicable law, regulations, and Government-wide policies.

Standard Form 901 (11-18)
Prescribed by GSA/ISOO | 32 CFR 2002

CUI

Maximum Reliability

Standing Order 6
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) NAVSEA EOSS Manual for DDG Class Ships
(b) NAVSEA CSOSS Manual for DDG Class Ships
(c) COMNAVSURFORINST 3540.3(series) Engineering Department Organization and Regulations Manual (EDORM)

OOD Action:

- Set MPR after setting GQ (with the exception of Main Space Fires or Major Fuel Leaks), or Condition II AS/AW and prior to entering restricted waters or a minefield.
- If the tactical situation requires immediate action, set MPR and notify me as soon as feasible.
- If any equipment or condition cannot be met to meet MPR requirements, notify me of any deviations

DON'T GIVE UP THE SHIP

In order to maintain battle readiness and be more capable in the event that we suffer mechanical causalities or battle damage without loss of critical propulsion, ship control, or combat capability I will direct the setting of Maximum Plant Reliability (MPR). This will allow for the proper alignment and manning of the ship to provide maximum redundancies of critical systems when BIG BAD JOHN is most vulnerable.

Maximum Reliability is not Restricted Maneuvering Doctrine although they are typically set in conjunction. As such, it does not carry with it any limitations or restriction on the conduct of casualty actions.

All unnecessary personnel are to remain clear and all under instruction watch standers may only observe when Maximum Reliability has been set, unless explicitly designated in the watchbill.

[redacted]

When Maximum Reliability is set, the following watch stations shall be manned, at a minimum:

	Watch Team	
Plant Control Officer	CHENG or MPA	Net 15
Master Helmsman	Master Helmsman Qualified	Net 53
Lee Helm	Lee Helm Qualified	Net 83
Helm Safety Officer	Helm Safety Officer Qualified	Net 53
Oil Distribution Box	PSM Qualified	Net 83
Shaft Control Units	Engine Room Operator Qualified	Net 83
PACC	PACC Qualified	Net 53
EPCC	EPCC Qualified	Net 83
Switchboard Operators	EM/GSE/GSM	Net 83
FWD Gyro Room/DMS Tech	IC, ET/WSN-7 & DMS Tech	Net 25
AFT Gyro Room	IC or ET/WSN-7	Net 25
Aft Steering Helmsman	Master Helmsman Qualified	Net 53
Aft Steering Aux Mach Operator	EN/MM	N/A
Aft Steering Electrician	IC/EM	N/A
Aft Steering Officer	Helm Safety Officer Qualified	Net 53

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

Restricted Maneuvering Doctrine

Standing Order 7
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) NAVSEA EOSS Manual for DDG Class Ships
(b) NAVSEA CSOSS Manual for DDG Class Ships
(c) COMNAVSURFORINST 3540.3(series) Engineering Department Organization and Regulations Manual (EDORM)
(d) JOHNSMcCAININST 3540.3(series) ENGINEERING STANDING ORDERS

Action:

- Request my permission to set RMD prior to entering restricted waters, steaming in close formations, conducting connected replenishments, or any other situation that may require safety of ship over equipment.
  - Set RMD in an emergency situation or general quarters and inform me at the best opportunity.
- Once ordered, EOOW will use best judgment to meet minimum equipment requirements listed below. Inform me of any deviations.
- No maintenance, trouble-shooting, equipment configuration changes, or tag out is to be performed during RMD without my explicit permission.
- No changes to approved watch bills will be made without my permission.
- If setting RMD and MPR, set RMD after MPR has been configured.

Restricted Maneuvering Doctrine

The Restricted Maneuvering Doctrine maintains continuity of the ship's propulsion and electrical power when the safety of the ship depends upon our ability to maneuver. This doctrine intentionally risks damaging equipment by delaying or deviating from EOCC in those situations where controlling or immediate actions places the ship at greater risk. The CO, XO, TAO, or OOD may place the Restricted Maneuvering Doctrine in effect. The Restricted Maneuvering Doctrine can be placed in effect at any plant configuration.

NO DEVIATION FROM RMD WILL OCCUR WITHOUT MY APPROVAL

[redacted]

Combat Systems

No system status will be modified once RMD is ordered, unless directed by the CSO and approved by the CO. Any preapproved modification will be signed by the CO (e.g. Combat Systems Underway Check Off List)

GEDMS Casualty

- Shift Steering to Back Up Manual Mode
- Transfer control of throttles and propulsion auxiliaries to the UCCs.
- Relay Conning orders to the UCC operators via NET 53

GTG/Electrical Casualties

- The EOOW may take normal EOCC actions until only one GTG remains online.
- Do not trip the breaker or secure the last engine providing power until I give the order to secure.
- If minimum equipment is achieved and logics do not automatically drive First Stage Load Shed, then manually drive First Stage Load Shed to prevent loss of the online GTG.
- Class "C" fires and GTG mechanical failures shall be handled in accordance with EOCC unless the affected GTG is the last remaining online GTG. In that case, do not trip the Generator Circuit Breaker (GTB) or secure the GTG until directed by the Commanding Officer

GTM Casualties

- Thrust control will remain at the SCC and PLCs will not be moved to zero.
- Full Power: The EOOW may take normal EOCC actions on the first of two online engines on each shaft.
- Split Plant: The EOOW will order online start of the offline engine on the affected shaft.
- Last engine on the shaft will be placed in Battle Override and remain in operation until I give the order to secure.
- Do not secure F/O System.
- Class "B" Fire in GTM: Carry out normal EOCC actions but do not secure the affected fuel oil system.

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

Restricted Maneuvering Doctrine Continued

MRG/Shafting Casualties

- EOOW will notify the OOD of the casualty and perform EOCC with the following exceptions:
  - Throttle control is to remain at the SCC
  - If controllable, EOOW will not take control of the shaft but rather order slow the affected shaft one major speed change and order compensating turns on the unaffected shaft.
    - EOOW will advise the OOD on the number of compensating turns
  - If uncontrollable, EOOW will not take control and will not stop the affected shaft until ordered by the OOD

Thrust Control Casualties

- Thrust control shall remain at the SCC. Thrust Control shall be transferred under the following conditions:
  - UCC Failure: Follow EOCC procedures with the exception of placing manual throttles at IDLE and pitch at ZERO. Conning orders shall be passed via NET 53 to the UCC operator who will acknowledge and answer engine orders in LOCKOUT MANUAL mode.
  - Class "C" Fire in the UCC: EOOW notify OOD of the casualty, Emergency Stop GTMs in the affected Main Engine room at the PACC, and trail the shaft. Man Net 53 at the OD box and set to trail shaft 120 percent pitch. Transfer auxiliaries to LOCAL.

CRP Casualties

- Throttle control is to remain at the SCC.
- EOOW will order the respective OD Box Operator to take manual control and maintain the last ordered pitch.
- OD Box Operator will answer the ordered pitch.
- If pitch control is regained at the OD Box then control will remain at the OD Box until the OOD orders control shifted back to the SCC.

Steering Casualties

- Carry our normal EOCC procedures in accordance with Standing order 9
- At no time shall the Helmsman test for positive rudder control

Gyro Casualty

- Shift to alternate gyro
- If alternate gyro fails, shift to DFGMC and steer by magnetic headings. Shift inputs into VMS to manual and correct for magnetic heading

Loss of Fuel Oil Pressure

- Throttle Control is to remain at the SCC. The affected fuel oil service system will be restored or kept running while investigating for leaks.
  - If both shafts are operating, follow normal EOCC procedures for the GTMs within the effected space; however maintain thrust control at the SCC.
  - If at trail shaft, do not secure the fuel oil service system in the engine on the unaffected shaft or until ordered by the CO to secure.
- In the Event that fuel oil logics automatically secure the pumps, EOOW will order watchstanders to investigate Fuel Oil Service System and place Fuel Pumps in Manual until a major fuel oil leak has been discovered or ordered by the Commanding Officer to secure.

Flammable Liquids Leak/Main Space Fire

- Follow normal EOCC with the exception of equipment that impact ship's maneuverability. Throttle control will remain at the SCC. Maintain ordered speed on the affected shaft and take no action on the unaffected shaft.
- Secure the fuel oil service system with CO permission.
- Place online the standby GTG and then unload and secure the GTG in the affected space. Apply double Bus Tie Breaker (BTB) protection on the switchboard if located in the affected space.
- Remove heat sources and shift auxiliary equipment from the affected space.
- Do not stop the starboard shaft for a fire in MER2.

Main Space Flood

- Throttle control remain at SCC
- Maintain ordered speeds and take no action on either shaft, GTMs or supporting equipment.
- Place online the standby GTG and then unload and secure GTG in the affected space

400Hz Failure

- Secure the affected SSFC
- Once at minimum equipment, CSOOW will request permission prior to carrying out normal casualty control procedures on the last SSFC or its associated equipment.

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

MFTA/Nixie/ASW Emergency Responses

Standing Order 8
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) TM 3-21.1-13 SQQ-89 A(V)15 ACB 209/211 Sonar Employment Manual
(b) NTTP 3-21.33 Surface Torpedo Attack Tactics, Countermeasures, and Evasion Manual
(c) NAVSEA CSOSS Manual for DDG Class Ships
(d) S9165-AE-MMA-010 WINDOW, SONAR DOME, RUBBERSDRW-1 FOR DDG 51 CLASS

OOD Action:

- Consult with the QMOW to verify charted depth and identify potential submerged navigational hazards along the track/patrol area prior to streaming and prior to each course/speed change.
- Request my permission prior to streaming MFTA or Nixie. Inform me of any potential hazards and maintain vigilance to identify future hazards.
  - Request my permission prior to entering within 5 NM of array [redacted]
  - Have the Navigator adjust the ship's safety draft in VMS to array restricted waters.
- Log the deployment and retrieval of MFTA and Nixie in the Deck Log.
- Be aware of all deployment, retrieval, and streaming limitations.
- [redacted]
- [redacted] prominently displayed on the Bridge (centerline forward), in CIC (TAO Console), and on the throttles (SCC, PACC, and PLCC) to remind us of the limitation imposed on us with the array deployed.
- [redacted]

SAFE NAVIGATION OF THE SHIP INCLUDES ALL STREAMED EQUIPMENT!

- The OOD is responsible for the safe navigation of the ship, which includes MFTA and Nixie.
- The OOD must always be cognizant of tow depth relative to the available water depth, as well as the maneuvering limitations associated with MFTA and Nixie when deployed.
- However, these instructions do not override safety of navigation or risk of collision. In extremis, it is better to lose or damage MFTA or Nixie, than to damage the ship.

MFTA Shiphandling Restrictions

[redacted]

MFTA Notes:

- A steady own-ship course and avoidance of following seas is recommended during launch and retrieval. If you must turn adhere to the above restrictions.
- [redacted]

Nixie Shiphandling Restrictions

[redacted]

Nixie Notes:

- [redacted]

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

MFTA/Nixie/ASW Emergency Responses Continued

MOB with Tow Streamed:

- Initiate MOB procedures IAW Standing Order #11
- Call away "Man the Stream Team, Retrieve the array"
- [redacted]
- [redacted]
- When approaching the MOB, slow to no less than 5 knots and launch the ready RHIB.

Dead in the Water Guidance:

- [redacted]
- Put on a 10° rudder in the direction of safe water.
- Immediately call away "Man the Stream Team, Retrieve the array".
- [redacted]
- The array shall be retrieved as quickly as possible and before the ship resumes throttle-related operations. Propellers should not be rotated during DIW array recovery.

Dual Tow Operation Guidance:

[redacted]

Shallow Water Operation Guidance:

- I define Shallow Water as any depth of less than 100 fathoms (600 ft)
- Each towed array search is to be treated as a precision navigation evolution. Increased awareness and monitoring of array depth, water depth obstructions, own-ship speed and maneuvering limitations are required.
- If at any time undue hazard exists, then retrieve the array immediately! Make the following announcement over the 1MC: "Man the Stream Team, Retrieve the array".
- Station a MFTA hoist equipment room watch continuously.
- Energize fathometer continuously during shallow water streaming.
- Bridge and CIC shift to 5 minute fixes and record depth each fix.
- [redacted]

SONAR Dome Casualty Guidance:

- The first indication of a SONAR Dome Casualty will be the CSOOWs receipt of a "Sonar Dome Low Pressure" alarm.
- Immediately slow the ship to 5 knots for evaluation.
- If a SONAR Dome Low Pressure alarm is consistently received, place a Sonar Dome watch to constantly monitor Sonar Dome pressure. Be particularly vigilant as you increase speed.
- [redacted]

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

Emergency Steering Procedures

Standing Order 9
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) NSTM 562 Surface Ship Steering Systems
(b) DDG 51 EOSS - MLSC

OOD Action:

- Pass the casualty over the 1MC.
- Man after steering.
- Notify the other ships in company of the casualty via any available circuit.
  - Do not delay making this report in order to find the signal
  - Be clear and concise on the extent of the casualty
  - BTB CH 16 is the best way to communicate a loss of steering to ships in our vicinity.
- Display the appropriate day shapes/navigation lights for a ship not under command IAW COLREGS.
- If risk of collision exists, inform those vessels via BTB that JSM has sustained a steering casualty and cannot maneuver in accordance with COLREGS.
- Slow to bare steerage way (when practical) and attempt to maneuver to safe waters using engines.
- Once steering control is restored, secure NUC Lights/Dayshapes. (CO notification)

Loss of Steering

EOCC procedure Major Loss of Steering Control (MLSC) provides the proper response to a loss of steering; however, the OOD's responsibilities do not begin and end with MLSC.

When RMD is set the Helmsman will at NO TIME test for positive rudder control without the CONN's Permission.

Helmsman Response

- Report a loss of control of the starboard/port rudders.
- Depresses the EMERGENCY OVERRIDE TO MANUAL pushbutton (i.e., Big Red Button). This takes the AN/UYK-44 computer and DMS out of the steering process and transmits steering signals via the traditional analog cables. In the event of a critical fault, this will occur automatically.
- Tests for rudder control and report results to the OOD.
- If rudder control is not regained, report "I have not regained rudder control, shifting to standby power units." Shift to standby power units (for each affected rudder) by selecting the standby HPU ENGAGE button and then selecting the online HPU STOP button. The Steering Control Subsystem may automatically shift units if the online units suffer a critical fault.
- Report to the OOD when this is accomplished, test for rudder control, and report results to the OOD.
- If rudder control is not regained, the Helmsman will take emergency steering control at the Helm Forward Station (HFS).
- If rudder control is not regained at the HFS, the Helmsman depresses the STEERING CASUALTY ALERT pushbutton to activate the TAKE CONTROL siren in After Steering.

After Steering Response

- Establish communications with the Pilot House on net 53 and report manned and ready.
- When ordered, take steering control.
- Depress the EMERGENCY OVERRIDE TO MANUAL pushbutton, take control, and respond to steering orders provided by the CONN.
- If steering control is not regained, After Steering performs the following functions:
  - Turn engaged HPU LCU helm control switch to LOCAL.
  - After Steering responds to steering orders by the CONN via engaged LCU's HELM ORDER knob. Report results to the OOD.
  - If control is not regained, engage standby HPUs, turn newly engaged HPU LCU helm control switch to LOCAL.
  - After Steering responds to steering orders by the CONN via engaged LCU's HELM ORDER knob. Results are reported to the OOD.

If Steering Control Is Not Regained:

- Order various RPM and pitch combinations from which to steer the ship. This is the last resort action.
- With my permission, order the EOOW and After Steering to position the rudder(s) using, in order of priority, the fill and drain pump, manual hand steering pump, and then ratchets.

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

Helicopter Operations

Standing Order 10
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) NAVAIR 00-80T-122, Helicopter Operating Procedures for Air Capable Ships
(b) JOHNSMcCAININST 3100.5(Series) BRIDGE CHECKLISTS
(c) JOHNSMCCAININST 3710.1(Series) AVIATION OPERATIONS/SAFETY MANUAL FOR HELICOPTERS

OOD Action:

- Utilize the Helo Ops checklist (Ref b) in the OOD binder.
- Review the wind envelope and Polar Plot diagrams.
- Determine all combinations of course and speed that will provide acceptable winds and seas for the Helo.
  - My approval is required to conduct flight ops outside these.
  - Use a maneuvering board in addition to electronic sensor to determine solution.
- [redacted]
- OOD will control Green Deck after launch until the "State Report" is received from the Helo.
- Monitor helicopter fuel states. Know the baseline for fuel state reports from the helicopter.
- Order split plant, unless otherwise directed. RMD is not required for normal helicopter operations.
- Do not change course while a helicopter is on final unless in an emergency concerning the safety of the ship. In doing so, wave off the helo and provide intentions.
- Notify me before commencing aircraft refueling.
- Refer to OOD Helicopter Operations Binder.

THE MOST IMPORTANT PART!

- No matter what the tempo of operations or insistence from another unit in the formation, **flight deck operations will not commence until JSM is ready**.
- I will grant Green Deck but may defer this to the XO.
- BIG BAD JOHN will typically not go to Amber Deck. However, if required for rotor engagement or disengagement, I will grant Amber Deck and OOD will not maneuver as if the ship is at Green Deck.
- HCO will manage Red Deck. Typically, we will go to red deck after helo is away and no further operations are required. With the helo on deck, chocked & chained, and if required to maneuver, we will go to red deck.

Additional Guidance

Report to me:

- Any delays in helo ops and in-flight emergencies
- If Hawklink is inoperable or any other tactical limitation of the aircraft.
- When flight operations are complete for the day.
- When requesting Green Deck, report: "Captain, this is the OOD, with a Green Deck request. Winds are _____ degrees relative, _____ degrees true and in the envelope, pitch is _____, roll is _____, polar plots are within/approaching/out of limits, and flight quarters checklist is complete. Request Green Deck for recovery/launch/DLQs of _____(name of airframe)"

The diagrams here are for quick reference for SA during emergencies only. Prior to helicopter operations, utilize the Helicopter Operations binder.

DDG [redacted]

H-60A/B/F/G/H/J/K/L/Q/R/S
LAUNCH AND RECOVERY ENVELOPES

Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

Helicopter Operations Continued

EMERGENCY FLIGHT QUARTERS

- With a ready deck, the OOD is authorized to provide a Green Deck for an in-flight emergency. Similar to an emergency breakaway, an emergency flight quarters is an accelerated evolution. The checklist remains applicable, just expedite actions.

1. Head toward the helicopter at best speed
2. Set emergency flight quarters
3. When within 3 NM (4 NM at night) turn toward Foxtrot Corpen.

- Power Failure Emergencies: Turn for optimum winds
- Control Emergencies: Turn for best decks

Order the EOOW to Full Power and set the Restricted Maneuvering Doctrine.

[redacted]

[redacted]

[redacted]

[redacted]

Man Overboard

Standing Order 11
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) SE376-AD-SUP-010 (NIXIE TECHMAN)
(b) Knights Modern Seamanship
(c) JOHNSMcCAININST 3120.4(Series) MAN OVERBOARD/RESCUE AT SEA BILL

OOD Action:

- Maintain visual sight of the man overboard. At night, utilize spotlights.
- Ensure life ring, distress marker lights (at night), and smoke float (unless there is fuel in the water) are thrown in vicinity of the man
- Immediately maneuver to swing the stern away from the man overboard.
- Use the appropriate recovery method (or stop the ship)
- Activate MOB on VMS.
- Sound six or more blasts of the ship's whistle
- Pass the word, "Man overboard _____ (PORT/STBD) side. This will be a _____ (helicopter/ship/boat) recovery. All divisions submit muster reports to the Bridge."
- Haul up OSCAR during daylight hours or energize pulsating red over red lights, at night.
- PLAIN VOICE R/T transmission (regardless of circuit). Utilize BTB CH16.
- CIC will plot the position.
- QMOW will mark the GPS Position.
- Pass MOBI position (when activated)
- Secure SQS-53, fathometer, and overboard discharge
- Keep all stations informed of progress & intentions on IVCS, SIWCS, and the 1MC.
- Breakout Man Overboard/Rescue at Sea Bill and follow guidance.

NEVER LOSE SIGHT OF THE MAN OVERBOARD!

- Prompt action on the part of the watch team can make the difference between ***life and death*** for a shipmate who has fallen overboard.
- You and your lookouts must remain vigilant not only for the safe navigation of our ship, but also for the safety of our shipmates. The aft lookout in particular is often our first and last line of defense for spotting and saving a man overboard. REMAIN ALERT.

Maneuvering Guidance

Man overboard recovery is to be made using the most rapid and safe means. The recovery method in order of priority is helicopter, ship, and then RHIB.

HELICOPTER RECOVERY – Establish communications with the helicopter. Remain clear of helicopter rescue operations. Determine a good F CORPEN and be prepared to receive a helicopter on short notice.

SHIP RECOVERY – The diagram to the right depicts the three "standard" shipboard MOB recovery approaches. Maneuver the ship to windward leaving the person in the lee of the ship. Once in position, deploy SAR swimmer and retrieve using shipboard J-Bar Davit or RHIB (if person is injured)

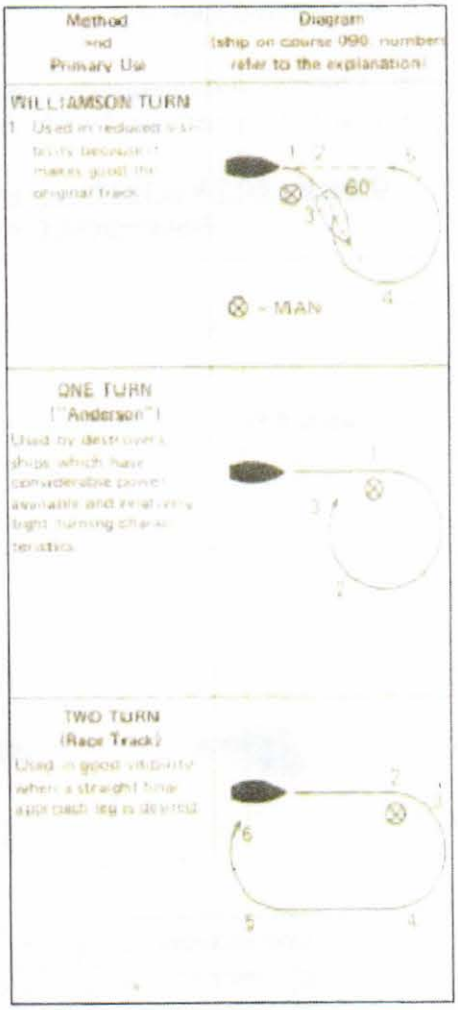
SMALL BOAT RECOVERY –Used at slow speeds (which require more time and tactical diameter to maneuver) and/or in confined channels. Slow and find a lee. If a lee is not readily apparent, create an artificial lee by turning continuously to starboard.

Unique Circumstances

Towed Array – Immediately retrieve (unless tactical situation prevents). Recover the person by helicopter or RHIB. **Do not back down or slow less than 3 knots while towing.**

UNREP – Initiate emergency breakaway, request nearby vessel assist (if lifeguard assigned)

Flight Quarters – Wave-off helicopter, conduct helo recovery if able. Otherwise use the helicopter to assist in marking the man overboard.



Redacted portions of this document have been designated as Controlled Unclassified Information (CUI) by the US Navy.

Weather/Restricted Visibility

Standing Order 12
USS JOHN S McCAIN
Commanding Officer's
Standing Orders

Ref: (a) COMDTINST M16672.2 (series)
(b) Publication 9 - The American Practical Navigator
(c) JOHNSMcCAININST 3120.5(Series) HEAVY WEATHER BILL

OOD Action:

- Continuously assess the weather and all changes. Ensure QMOW is recording weather synoptic reports.
- Inform me and NAV if:
  - Barometric pressure changes by more than 0.04 inches in one hour (or less) or more than 0.08 inches in 3 hours (or less).
  - Difference between temperature and dew point is 3 degrees or less.
  - Seas increase by more than 3 to 5 feet during your watch.
  - True wind speed increases by more than 20 knots or shifts direction by greater than 45 degrees in an hour.
  - Visibility changes significantly. Visibility is less than 5NM. Provide a recommendation for setting Low Vis.
  - Indications of approaching storm or foul weather.
  - Seawater injection temperatures change more than 5 degrees in a two-hour period.
  - Floating ice, or any formation of ice on the ship.
  - Funnel clouds, waterspouts, lightning, or other phenomena.
- For heavy weather, secure the weather decks and take action as directed in the Heavy Weather Bill.
  - Request my permission prior to reopening or sending personnel topside.

TAKE ACTION EARLY!

Bad weather is one of the most dangerous events for a ship in peacetime.
Do not wait until bad weather has arrived before setting a higher readiness condition.

Actions during Restricted Visibility

Start the low visibility checklist early; do not wait until visibility diminishes to prepare. Upon encountering visibility of 3NM or less, regardless of the type of restriction, or as the OOD determines is necessary, energize navigation lights, sound the appropriate fog signals (if time permits, consult with me prior to sounding signals), reduce speed, and post the low visibility watch lookouts. Remember, when visibility is limited, sound becomes of paramount importance. A quiet Bridge and alert watch standers are critical to safe restricted visibility steaming.

- Utilize low visibility checklist located in reference (c).
- Energize Navigation lights.
- Notify CIC.
- Reduce to safe speed per reference (a).
- Station your most experienced watch stander on the navigation radar.
- If an uncorrelated fog signal is heard forward of the beam, reduce speed to bare steerageway.
- If closing on a radar contact and you have no visual contact, vary the fog signal intervals randomly (within 2 min intervals) to avoid sounding simultaneously with another ship.
- Keep at least 1 bridge wing door open. Open both doors if conditions warrant doing so.
- Station the Modified Navigation Detail, if needed. Notify me prior to setting the detail.
- Station the Low Visibility Detail as visibility conditions dictate – ensure all are dressed for the conditions and rotated frequently.
- If the situation warrants, recommend coming to split plant.