



## BEST PRACTICES IN WATCH KEEPING PROCEDURES

Every sailor and every skipper has a preference for certain watch keeping schedules and procedures for offshore passages and blue water sailing. There are many variations, each offering distinct benefits. The Ocean Cruising Club has among its members many highly experienced sailors with different approaches to sailing – some singlehanded, others short-handed, and some with full and rotating crew.

We have collected a series of discussion points from OCC members as expressed in various OCC venues including the Forum, the Facebook page, and in publications that may be of assistance to individuals planning to sail long distances who wish to consider various options for standing watch. Keeping watch is an essential component of good seamanship, and the OCC supports the efforts of crew to become knowledgeable about the Rules of the Road, to familiarize themselves with best practices and to maintain a vigilant watch under all conditions. This is not a definitive prescription but a set of suggestions based on the collective experience of sailors who have each sailed long distances across oceans.

Keep in mind that it is up to the Master or Skipper of the vessel to make decisions about watch keeping procedures that will best suit his/her crew, vessel, and conditions.

### **1: Follow the Vessel's Standard Operating Procedures (SOP)**

Most skippers have rules they adopt for decision making aboard their vessel on passage. Those rules tell crew how often to make entries into the log (e.g., at least every hour and for every radio contact), under what circumstances to wake him/her (e.g., change of weather, sail change, gear issues, collision avoidance issues), and safety precautions to take (e.g., STAY ON THE BOAT which means lifejacket and tether offshore, clipped in before entering cockpit, always someone else on deck if going forward). It might also include guidelines about when to run the engine or generator. Good seamanship dictates SOP under certain circumstances like deciding when to shorten sail (the time to act is when you first think of it). Ask questions if you are not clear. The most important thing for the skipper to know is that he/she can trust the crew to alert them if there is uncertainty about a situation.

### **2: Get Plenty of Rest**

When off watch, make sure you rest even if you can't sleep. Short naps just before your watch will keep you alert longer while on watch. Get a minimum of 6 hours sleep if you can. Certain watch schedules facilitate long periods of rest during the day.

### **3: Wear the Right Gear**

Wear layers for warmth and comfort, always bring foul weather gear with you on deck, and always wear a life jacket with crotch strap and tether offshore. Clip in to a secure deck fitting before leaving the cockpit. Staying on the boat is the number one rule, especially when it comes to short-handed sailing. Consider carrying a personal locator beacon (PLB) or AIS SART device or both.

Most agree that keeping a constant watch on deck is not necessarily the best option depending on the conditions. A dry, warm, comfortable watch keeper is likely to be more effective than one who is cold and miserable. Good shelter on deck in the likes of a spray hood, dodger or a Hasler Pramhood is a necessity.

#### **4: Hydrate and Snack**

If you are prone to seasickness, stay well hydrated and replenish your electrolytes, vitamins and minerals with supplements. Eat light snacks to maintain alertness.

#### **5: Check the Course and the Sail Trim**

Our silent crewmembers, the autopilot and wind vane self-steering, are lifesavers for short-handed crew but they can on occasion be quite mischievous. With a wind vane set to a particular wind angle, you can be doing circles and not realize it. Autopilots can sometimes wander off course without any warning, especially if power is getting low. Check the compass every 30 minutes to make sure you are still on course. Adjust the sail trim accordingly if there is any change in course or wind direction and speed.

#### **6: Use Your Binoculars**

Scan the horizon every 10-15 minutes. Ships can move very quickly out there. Scan through a full 360 degree arc with binoculars. The horizon can be difficult to find on a dark night. If you can see stars, scan just below the lowest stars. Scanning with binoculars helps pick out objects in low light. Remember that collision avoidance is a primary objective of keeping watch. Note any approaching weather as well. While you are at it, use the binoculars to check the rig and sails for wear or any problems.

#### **7: Familiarize yourself with the COLREGs**

It is imperative for anyone standing watch to be able to interpret vessel lights, day shapes and sound signals and know the rules for effective collision avoidance. The international collision regulations COLREGs Rule 5 says ""Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision." That means there are situations where it may be appropriate not to have the radar on – broad daylight, unlimited visibility, etc. – but if there is a collision and the radar wasn't on, then you may be deemed to have not used it appropriately. This has been tested in court many times. This applies to AIS today as well. After scanning the horizon, check the AIS and radar systems to see if there might be any ships you failed to identify visually. Don't rely on AIS alone as many vessels still do not have AIS or do not turn it on at sea.

#### **8: Update the Ship's Log**

Enter vital information in the ship's log book at least once per watch. Once per hour can help you stay alert and note any issues before they become problematic. Enter navigation information (time, course, speed, position [lat/lon], sea state and weather conditions) separately from engineering information (battery, oil, water and fuel levels). Note times underway, course changes, landfall, anchoring and mooring. Note any sail changes and ships spotted. Log all radio contacts. Check and note water temperature and oil pressure if the engine is running.

In the event of an accident, a well-kept and up to date log provides some evidence that the vessel was being well-run and a watch was being kept. This vital legal document can be used in a court of law. Keep your logs neat, concise, and use proper entry procedures. That includes log entry corrections, too. Use a single line to cross out an error and initial the correction near the entry. That way, the correction can still be read and you can address any questions to the person who made the correction.

### 9: Put on the Kettle

Just before you wake the next watch keeper, put on the kettle for that all important hot mug of tea, coffee or soup. Some people avoid caffeine so they can sleep better while off watch, but everyone likes something warm especially during the night.

### 10: Give a Thorough Briefing

The most important part of passing the baton is to provide a thorough briefing. What did you see, what did you change/adjust, what should the next person pay particular attention to? Were there any vessels or fishing gear, and where are they now? Has there been a change in wind or sea state? Did you hear any radio contacts? Did you see any wildlife? Keep it simple and easy to remember.

### 11. Use Reminder Devices

Kitchen timers are wonderful for reminding crew to go up on deck every 10-15 minutes and have a thorough look around. Wrist watches and countdown devices that have an easy reset feature are also popular. Of course, devices such as AIS, radar proximity alarm or radar detector can be invaluable in alerting to the presence of other ships in the vicinity. One member has even constructed a clockwork countdown timer which activates a bright red LED and a 90 db piezo buzzer when it reaches zero (and a dim green LED to show it is active and counting down).

### 12. Which schedule works best?

Every team has a different routine they prefer. Most say the routine in daytime is less rigid than at night. Daytime is when short-handed crews get most of their rest. Single-handing is not the best option for safety, but sometimes it is the only option. Generally, crew makes adjustments for the special considerations onboard. If one person doesn't like night time and the other does, then watches are arranged accordingly. The experience of the crew must also be taken into consideration. A crew member who is inexperienced should be teamed with someone who is.

Here are a few options for preferred watch keeping schedules:

| Some Options for Watchkeeping Schedules |                                                                                                                                 |                                                                                                                                                                               |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Crew                                    | Schedule                                                                                                                        | Benefit                                                                                                                                                                       |
| Single-handed                           | 20 minutes sleep cycle with loud alarms (timer, AIS, radar proximity, radar detector, off course alarm, battery low alarm, etc) | The amount of time to traverse the distance to the horizon seen from the deck of a small vessel. Heave to for longer rest during the day.                                     |
| Double-handed                           | 6h on/6 h off                                                                                                                   | Long sleep/relaxation time but also long watch at night                                                                                                                       |
|                                         | 6h on during the day, 4 h on at night                                                                                           | Both get to see sunrise and sunset on alternating days and no one gets the midnight shift two days in a row. A loosely defined 6 hours during the day ensures plenty of rest. |
|                                         | 6h on during the day, 3h on at night                                                                                            | Stays on same shift every day so it becomes routine.                                                                                                                          |
|                                         | 4h on/4h off day and night                                                                                                      | Easy to keep track. The main meal would be during the 1600 to 2000 watch which                                                                                                |

|           |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
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|           |                                                                                   | would be shared. The 4 hour watch ties in with the science of sleep – the sleep cycle from light sleep through deep sleep to REM sleep takes 90 – 100 minutes, and the first two such cycles are when most of the good work of renewal is done. So you fit two such cycles neatly into four hours, with enough time to get to sleep, and to rouse yourself for your watch. |
|           | 2h on/2h off at night, loose during the day                                       | Least tiring period at night time, long rest periods during the day                                                                                                                                                                                                                                                                                                        |
|           |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Crew of 3 | Overlapping 6h or 4h hour intervals. (One crew member changes every 2 or 3 hours) | Fresh crew shares watch with tired crew. Always have 2 people watching each other ready to assist.                                                                                                                                                                                                                                                                         |
|           | Non-overlapping 4h intervals                                                      | Each person has only two 4h watches daily.                                                                                                                                                                                                                                                                                                                                 |
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| Crew of 4 | Non-overlapping 3h intervals.                                                     | Each person has only two 3h watches daily.                                                                                                                                                                                                                                                                                                                                 |
|           | Two crew paired for watches same as double-handed                                 | Two crew will always have someone watching the other if a problem occurs                                                                                                                                                                                                                                                                                                   |
|           |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Crew of 5 | Overlapping 4h intervals                                                          | One watch per night per person, but always two people on watch together                                                                                                                                                                                                                                                                                                    |
|           |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                            |
| Crew of 6 | Non-overlapping 4 h intervals                                                     | Two watches daily per person, but always two people on watch together                                                                                                                                                                                                                                                                                                      |