VISUAL SURVEY OF FLOATING PLASTIC DEBRIS

Method:

Continuous visual observation during dedicated 1-hour sessions.

How:

All recordings are made on print out of the datasheet found in the excel log sheet. Also see Table 1 for a complete overview of the parameters to be recorded. Note that for postprocessing purposes it is important to have a complete record of the required data.

Before the start of a session, the marine plastic observer (MPO) needs to record the conditions under which the observation was made. Date and time should be recorded to know when the survey was done. Vessel parameters are noted to be able to track back location and scanned area. Visual parameters are recorded to be able to assess the visual conditions under which the survey was taken. After recording of these parameters, the MPO chooses the side of the vessel (port or starboard) that allows best to see floating debris, given the current visual conditions.

See Figure 1, during the 1-hr observation watch the MPO is looking for debris floating within a 90-degree arc encompassing the area ahead of the ship and one side of the track-line. Eyes should be kept on the waters close to the vessel (0-50m). Whenever a floating item within the defined area is spotted, the MPO needs to specify it's characteristics by type and color. The types and colors of debris are already typified in a table and the MPO only needs to count the occurrences by means of keeping tally.

After the observation watch is finished, the MPO writes down the vessels position at the end of watch.

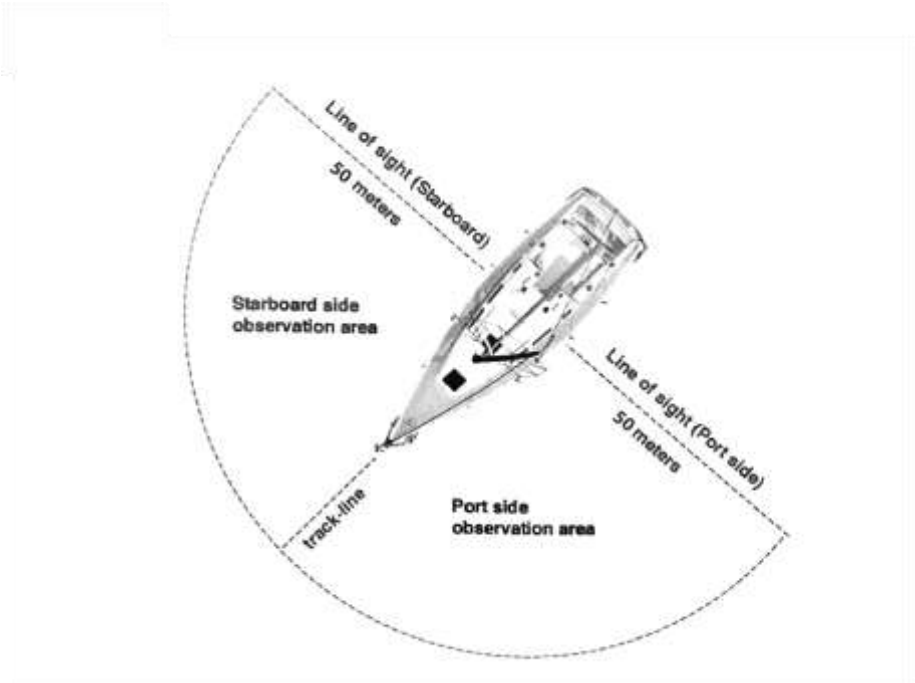

Figure 1 During a visual survey, the MPO is responsible for visually scanning the sea surface on either the port or starboard side of the vessel. Searching effort must be placed in waters close to the vessel, within 0-50 meters from the vessels' track line

Information to be recorded

Parameter	Unit	Scale	remarks
Local date	dd/mm/yyyy	[-]	[-]
Time of start section	local, 24hr clock	[-]	[-]
Time zone	UTC (+-)	[-]	[-]
Vessel position at start of watch (lat/lon)	Degrees minutes	[-]	[-]
Vessel position at end of watch (lat/lon)	Degrees minutes	[-]	[-]
Average vessel speed	knots	[-]	[-]
Wind direction	Cardinal directions or degrees	[-]	Coming from
Wind force	[-]	Beaufort's scale	[-]
Sea state	[-]	g / s / c / r	g=glassy (like mirror); s=slight (no/ few white caps), c=chippy (many white caps); r=rough (big waves, foam, spray)
Swell	[-]	o / m / l	o = low (<2m); m=medium(2-4m); l=large(>4m)
Visibility	[-]	p / m / g	p=poor(<1km), m=moderate(1-5km); g=good(>5km)
Sun glare	[-]	n / wf / sf / vf / wb /sb / vb	n=none; wf=weak forward; sf=strong forward; vf=variable forward;wb=weak behind;sb=strong behind
Precipitation	[-]	N/l/m/h/s/hl	n=none; l=light rain; moderate rain; h=heavy rain;s=snow;hl=hail
Type	[-]	[-]	hard fragment; rope; bottle; eeltrap cone; crate; net; buoy/float; jug/bucket; miscellaneous household items
Color	[-]	[-]	Black; white; colors of visible light spectrum (Red; orange; yellow; green; cyan; blue; purple;)

Table 1 Parameters to be recorded during an observation watch