

Report of the Resurvey Working Group (RWG)

Meetings Held During the Reporting Period

1. RWG10, 15th to 16th September 2019, Virtual. Chaired by UK (Payne).

The meeting was attended by the following member states: BE (Verstraeten, Van Campenhout), DE (Vahrenkamp), DK (Hansen), NL (Loog), FR (Lamarre, Le Gleau), NL (Loog), SE (Olsson), UK (Parker, Nicholls (Secretary))

In addition, the following observer was present: UK MCA (Colenutt)

Apologies were received from: BE (Delau), DK (Vedel), IL (Leifsson)

2. RWG11, 14th to 15th December 2021, Virtual. Chaired by UK (Payne).

The meeting was attended by the following member states: BE (Verstraeten), DE (Vahrenkamp), DK (Hansen, Baron), NL (Loog), SE (Olsson), UK (Parker, Talbot, Nott (Secretary))

In addition, the following observer was present: UK MCA (Colenutt)

Apologies were received from: FR (Lamarre, Le Gleau)

The following members of the North Sea Shipping Group were also present for a joint session: S Bats, B Dafner, H Croxon, K Storm, K Trumpler.

3. An interim virtual meeting is planned for May 2022.

4. RWG12 will be hosted by NL in September 2022.

Progress on NSHC Action Items

No/year Agenda item	Subject	Action	When	Status
6/2014 (Concl.122)	Risk Assessment	Undertake a risk assessment analysis for the North Sea area, including the Dover Strait.		OPEN Initial polygons have been provided to DE. RWG12 will continue to build on initial picture, although see request for further guidance.

Stepping Down of Chair

Having been involved with the group since 2016 and chaired 5 meetings since 2018, I am unfortunately having to stand down as chair for a number of reasons. On a personal level, I have enjoyed immensely working with such a knowledgeable and welcoming group, and hope under my chair, the group has continued to build on previous good works and moved a lot closer to completing the outstanding action items from the NSHC. No volunteers from the group were forthcoming at RWG11 to take over the chair, so the NSHC is requested to appoint a suitable replacement.

Risk Assessment (NSHC Conclusion 122)

5. Having previously discounted a harmonised risk map due to conflicting national models, during the RWG8 the new chair reinvigorated the discussion, and it was agreed that the provision of CATZOC polygons and Resurvey Areas in a common format would provide a basic common risk picture to allow easier cross state discussions and further discussion of resurvey effort. Subsequent meetings have worked on the provision of polygons in a standardised format to enable further discussions.
6. During the RWG10 further questions were asked regarding the purpose of the map if member states use their own models for planning. Given the resource to carry out the work the RWG are seeking further guidance from the NSHC as to the expectations and goals of the Harmonised Risk Map given that MS produce their own internal development methodologies.

Applicability of Alternative Survey Techniques (NSHC Conclusion 97 refers)

7. RWG10 saw wide-ranging discussions on CSB, drones and autonomous vehicles. Outcomes and decisions for each methodology are noted below:

CSB:

There was a consensus among MS that there is a lack of clarity on the international level, both politically and legally about regulations around CSB. The group will continue to monitor the situation and exchange experiences.

Drones:

It was noted that several MS are making use of drones for both Nav aid fixing and bathymetric point cloud creation from stereo imagery. The group will continue to monitor and exchange experiences and technical specifications.

Autonomous Surveying:

It is noted from the small amount of work conducted by MS to date, that autonomous/unmanned operations are no less manpower intensive than manned vessel operations. Further, the focus by companies on the navigation of these vessels is often to the detriment of the survey oversight and resultant output.

Seabed Mobility

8. Discussions continued from the RWG9 but while the requirements for this work are known, with the exception of Smart Sea (NL), which didn't complete its final aim, there has been little progress to create a suitable model at either a small or large scale.

Policies on Surveying in and around Offshore Wind Farms

9. Following on from RWG9 the Chair has briefed the North Sea Shipping Group and a number of their representatives joined RWG11 to provide a briefing on their work and exchange views/ideas, which included a much wider list than simply offshore wind farms regulations.
10. Of particular interest was the potential to share several bits of work conducted by the NSSG including a [general risk assessment](#) of the North Sea. While this is useful, it should be noted that it does not include any assessment of bathymetry.

11. The groups will continue to stay in touch and plan on further joint sessions during virtual intermediate meetings.

Evaluation of Environmental Impacts and Budgets

12. With growing pressures on programme managers to evaluate and reduce the carbon footprint of survey operations, it was agreed that the RWG was a good forum for exchanging views and experiences. As such it will be made a standing agenda item of the group.

Survey Categorisation of Single Beam Data

13. Andy Talbot gave a guest presentation on work currently underway at the UKHO about the CATZOC allocation of single beam surveys in ports and mobile areas. Disparities in S44 and CATZOC standards make allocation in these areas difficult especially as often it is a different authority that specifies and plans the surveys.
14. Discussion with others MS revealed that this was an issue for many MS. Reviewing of area status as opposed to survey status is often used to allow single beam surveys to maintain a CATZOC allocation, as opposed to grant one in the first instance. The UK will continue to assess their particular issues and report back as appropriate.

15. The NSHC is invited to:
 - a. **Note** this report.
 - b. **Appoint** a successor to the chair of the RWG.
 - c. **Provide** guidance on the expected goals and outputs of the harmonised risk map.
 - d. **Note** the current findings regarding the requirement for greater survey oversight of manned vessels.

NSHC Re-survey Working Group – Decisions Lists

Number	Decision item	Responsible	Comments
1-11 th RWG	MS to share area polygons showing windfarm locations that are both actively being developed or licensed for future development.	MS	
2-11 th RWG	MS to encourage their respective organisations converge Seabed Mobility & Temporal degradation of data quality policies with S100 guidance	MS	

NSHC Re-survey Working Group –Actions List

Number	Action item	Responsible	Comments	Due
25-8 th RWG	Supply SDB specifications & upload to website	FR, DE	Awaiting upload	RWG9
28-8 th RWG	Provide Lidar specifications & upload to website	FR, DE	Awaiting upload	RWG9
6-9 th RWG	DE to create folders on internal website (e.g. for technical instructions)	DE	In progress, website currently down	31/01/2020
7-9 th RWG	DE to upload all information provided by FR prior to this meeting for all to review	DE	In progress, website currently down	31/01/2020
10-9 th RWG	Put into chairs report that the RWG view there is a position to work together on seabed mobility. We now require technical input. Mobility to be added as an agenda item at next meeting.	Chair	Completed, Chair to add to report	20/12/2019
11-9 th RWG	All MS to provide/update their polygons for interval rather than surveyed and planned. In line with intervals agreed last year. DE to update map as heat map rather than separate colours.	MS	Completed, to be reviewed when re-survey map is issued	MS – 20/12/2019 DE – 31/01/2020
12-9 th RWG	Add a standing agenda item for offshore wind farm policies for discussion each year and how its impacting survey plans	Chair	Completed, Chair to add to report and new standing agenda	RWG10
13-9 th RWG	Share contact details for licencing for wind farms for upload to website	MS	UK completed 12/12/2019 UK details shared within UK parties but still need to supply for website Other MS to also supply their details NL and DK – complicated here	RWG10
16-9 th RWG	MS to provide studies/experiences of SDB and airborne work for upload to website	MS	Nothing received to-date NL: SDB survey awaiting completion, details will then be forwarded DE: to create folder for papers on website	20/12/2019
17-9 th RWG	UK (MCA) to provide details/potential visit on autonomous survey work	UK	Not yet completed and fluid. Will inform if opportunity arises.	RWG10
1-10 th RWG	Share contact details for licencing for wind farms for upload to website.	All MS	Carried forward from actions 13-9 th & 2-9 ^a th	Next Meeting

2-10 th RWG	Chair to contact the North Sea Windfarm WG regarding their expectations around re-survey programmes in and around these areas.	Chair	Complete	Next Meeting
3-10 th RWG	Chair to re-issue CSB paper to MS.	Chair	Complete	End of September 2020
4-10 th RWG	Chair to discuss with NSHC to fast track CSB paper for review, sign off and approval to submit the paper to the Hydrographic Review	Chair	Carried forward now 2-11th Chair to forward to for review	End of September 2020
5-10 th RWG	Chair to discuss with Koen and Bernd to ensure all survey intervals and gaps are updated in GIS product	Chair	Complete	End of October 2020
6-10 th RWG	Chair to submit a paper to NSHC about constraints of the proposed Harmonised Risk Map. This paper will seek for clarification from NSHC about the expectations and goal of the Harmonised Risk Map and expected output. It is to outline the issues and provide an alternative solution based on data that can be provided, which would be a planning tool not a risk map.	Chair/DE	Chair presented to NSHC directly Complete	Before next NSHC
7-10 th RWG	BE and NL to discuss fishing regulations within the new acoustic calibration area	BE/NL	Complete	By next meeting
8-10 th RWG	FR and UK to discuss survey of sand dunes across the UK/FR border. Both nations are to send their survey plan polygons to ensure deconfliction occurs and to simplify diplomatic process	UK/FR	Complete Follow on action: FR to take official route to send UK areas of proposed survey location and share survey data.	Prior to next survey
9-10 th RWG	NL to provide MS with LAT2020 matrix download link and explanation of how to use.	NL	Completed	End of October 2020
10-10 th RWG	Chair to re-engage with the North Sea Windfarm Forum to discuss expectations of resurveying in and round windfarm areas.	Chair	Completed	Next Meeting
11-10 th RWG	MS to exchange national regulation strategies for surveying around Marine Renewable Energy sites	All MS	Carried forward now 3-11th	Next Meeting
12-10 th RWG	NL to provide a summary of Seabed mobility from a previous risk report	NL	Completed	End of October 2020
13-10 th RWG	Chair to ask S100 Data quality working group about the latest development with temporal degradation. Clarify the categories used to describe seabed mobility and temporal degradation.	Chair/FR	Carried forward now 4-11th	End of 2020
14-10 th RWG	Chair to include comment in the report to NSHC to inform them about survey labour expectations from unmanned vessel expectations.	Chair	Complete	Prior to next NSHC

15-10 th RWG	UK to share experiences of how data collected from drones and ASV's has been processed, validated and how any challenges were overcome, such as dense seaweed.	UK	Carried forward now 5-11 th	By next meeting
16-10 th RWG	UKHO to confirm if the directive of amending charting depiction of wrecks has come from working group	UKHO	Completed	18/09/2020
17-10 th RWG	MS to discuss with their HO cartographers about the system independent approach to wreck depiction on charts	All MS	Completed	30/09/2020
18-10 th RWG	UKHO to share findings with MS about their proposals for wreck charting depiction	UHKO	Completed	18/09/2020
19-10 th RWG	UKHO to send the registration link for UK's Hydrographic Society Remote Hydrography Conference	UKHO	Completed	18/09/2020
1-11 th RWG	Share contact details for licencing for wind farms for upload to website.	All MS	Carried forward from actions 1-10 th	Next Meeting
2-11 th RWG	Chair to discuss with NSHC to fast track CSB paper for review, sign off and approval to submit the paper to the Hydrographic Review	Chair	Carried forward from actions 4-10 th	Next Meeting
3-11 th RWG	MS to exchange national regulation strategies for surveying around Marine Renewable Energy sites	All MS	Carried forward from actions 11-10 th	Next Meeting
4-11 th RWG	Chair to ask S100 Data quality working group about the latest development with temporal degradation. Clarify the categories used to describe seabed mobility and temporal degradation.	Chair/FR	Carried forward from actions 13-10 th	Next Meeting
5-11 th RWG	UK to share experiences of how data collected from drones and ASV's has been processed, validated and how any challenges were overcome, such as dense seaweed.	UK	Carried forward from actions 15-10 th	Next Meeting
6-11 th RWG	Link for the INSPIRE portals to be added to the WG website	DE		Next Meeting
7-11 th RWG	All MS to ensure they have supplied updated existing and planned windfarm polygons to DE	MS		31 st March 2022
8-11 th RWG	UK to share to NL guidance on uses for templates and guides for survey data use/delivery/metadata.	UK		Next Meeting
9-11 th RWG	UK to provide to NL information regarding object detection requirements e.g. current survey specifications.	UK		Next Meeting
10-11 th RWG	Chair to add section into next meeting for MS to discuss further work and development on survey degradation and CATZOC allocation, following UKHO presentation of allocating CATZOC to Single Beam data.	Chair/MS		Next Meeting

11-11 th RWG	DE representative to talk to DE rep from North Sea Shipping Group to exchange spatial information regarding current windfarm locations in the North Sea	DE		Next Meeting
12-11 th RWG	Chair to arrange a brief from North Sea Shipping Group on the Shipping Analysis of the North Sea.	Chair		Next interim Meeting
13-11 th RWG	Chair to arrange regular attendance of North Sea Shipping Group to intermediate (virtual) meetings	Chair		Next interim Meeting
14-11 th RWG	All member states to give a short brief on windfarms in each MS area, who is responsible for surveys of windfarms, if a survey frequency has been determined and how it was determined and to highlight any areas where shipping routes are being re-directed because of windfarm development.	MS		Next Meeting
15-11 th RWG	Chair to obtain a list of representative names who sit on the North Sea Shipping Group and where necessary distribute to each MS.	Chair		Next Meeting
16-11 th RWG	NL to propose potential dates for next annual meeting in September 2022 and send out a poll for MS to vote on.	NL		April 2022