



HM Coastguard



Exercise Sancho

Post exercise report



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Revision date: November 2022

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1 Executive Summary

- 1.1 Offshore renewables, particularly offshore wind, has seen a rapid growth in the UK since the first projects were constructed in the mid-2000s, including through emerging technologies and innovations.
- 1.2 Emergency Response arrangements and preparedness has improved greatly over this period with several project level exercises and trials being undertaken, many including search and rescue (SAR) resources, notably a large-scale exercise in 2012 'GUARDEX 2012'.
- 1.3 However, there has been no significant large-scale exercise conducted since that time which could create a vulnerability.
- 1.4 The Maritime and Coastguard Agency (MCA) requested, through the Offshore Renewable Energy Emergency Forum (OREEF), that a sub-group be established to plan and coordinate an exercise involving the wind industry, emergency services and other organisations.
- 1.5 TRIEX UK, meaning Triennial Renewables Exercise United Kingdom, signifies the intention to deliver a national multi-agency exercise every three years. The hope is a similar exercise can be conducted in interim years overseas.
- 1.6 The aim of Exercise Sancho, the 2022 TRIEX UK exercise, was "To test industry and the emergency service's emergency arrangements and procedures in response to a significant offshore renewables emergency".
- 1.7 The planning process, spread over a year, encouraged multiple members of the planning team to work together on developing a complex exercise.
- 1.8 Most of the planning was carried out with some remaining Covid-19 uncertainty, but the planning team were keen that wherever possible, the exercise itself should be carried out with live participation from all teams.
- 1.9 This collaborative exercise, utilising live resources, was highly successful and allowed industry, emergency services, SAR resources and support organisations to respond to a realistic, yet challenging scenario.
- 1.10 It is hoped that lessons identified through Exercise Sancho will support the development and improvement of emergency arrangements across the industry, both in the UK and overseas.

2 Acknowledgements

- 2.1 The exercise director, on behalf of the planning and evaluation teams, would like to thank OREEF and all its members for facilitating the preparation and delivery of Exercise Sancho, as the first of the TRIREX UK exercises.
- 2.2 A special thank you to the organisations which played pivotal roles in the participation of the exercise including Ørsted, RES, RWE, HM Coastguard, Lincolnshire, Humberside and Norfolk Police and SAR resources. The exercise command team, evaluators and participants were made very welcome from the various host organisations.
- 2.3 And thank you to all the exercise participants who remained focused and composed throughout the exercise, ensuring objectives could be met.
- 2.4 Appreciation to Ørsted for hosting the command team and observers, and for dedicating a full day at Race Bank with no planned routine operations, allowing responders to focus entirely on the exercise.
- 2.5 ASCO provided valuable logistics support in the transport of resource to Grimsby, resource which was made available thanks to North Star Shipping and Zelim, who also supported with footage for the exercise video, as did Lawson Media.
- 2.6 The exercise video was made possible thanks to G+ (Global Offshore Wind Health and Safety Organisation) and Vattenfall.
- 2.7 The US Coast Guard were a valuable support throughout and further information on their involvement is included in 4.7.

3 Introduction

- 3.1 The offshore renewables industry in the UK is responsible for the provision of suitable emergency response arrangements in accordance with relevant legislation such as the Health and Safety at Work etc. Act 1974.
- 3.2 Supporting guidance exists such as the Health and Safety Executive (HSE) and MCA [Regulatory Expectations for Emergency Response](#) document and the MCA's [Marine Guidance Note \(MGN\) 654 Annex 5](#).
- 3.3 In addition, G+ produce several good practice guidelines, including the [Integrated Offshore Emergency Response](#) (G+ IOER) document. The G+ IOER primarily outlines an approach by which organisations can effectively manage emergencies.

- 3.4 The purpose of the new TRIREX programme is to not only provide a platform for multi-agency cooperation and to ensure that there is a timely, measured, and effective response to incidents involving the offshore renewable energy industry, but that industry guidance documents, and good practice guidelines are appropriate.
- 3.5 To comply with legislation, offshore renewables duty holders¹ have a requirement to manage their own emergency response arrangements. These arrangements must be suitable for responding to all foreseeable emergencies and without an over reliance on the emergency services.
- 3.6 In the UK, HM Coastguard, part of the MCA is the coordinating authority in the maritime domain and will work with those duty holders to deliver the required emergency response.
- 3.7 For onshore, the police will work with the duty holders and other category 1² responders to support the response.
- 3.8 The owner, or operator, of offshore windfarms is generally the duty holder and would therefore have responsibility for emergency response. However, due to a required competitive tender process³, the offshore transmission assets are sold to an offshore transmission owner (OFTO) which normally means that the emergency response arrangements for the offshore substation (OSS) is different to that of the generating assets (i.e. the turbines).
- 3.9 An overview of the response arrangements in place for Exercise Sancho is contained in section 4 below.
- 3.10 OREEF is an industry led group with a membership including developers, OFTO, turbine manufacturers, regulators and trade associations, focussed on discussing emergency response issues, overseeing task specific work groups, identifying lessons learned following Emergency Response Plan (ERP) activations and updating the UK section of the G+ IOER.
- 3.11 HM Coastguard's offshore energy liaison officer, acting as the exercise director, established an exercise planning team which was responsible for the development of the exercise, reporting progress to OREEF.

¹ The entity that has the greatest extent of control over the site should be the duty holder and therefore take the responsibility of being the person in control. During construction, that could be a principal contractor or asset owner. During operation that could be the lead operator or asset owner.

² As defined in the Civil Contingencies Act 2004.

³ Electricity (Competitive Tender for Offshore Transmission Licences) Regulations 2015.

- 3.12 The planning team also developed and facilitated Exercise Orford, which was a tabletop exercise designed to test the scenario for Exercise Sancho, and further explore useful industry learning. Notes from Exercise Orford are included in Appendix F.
- 3.13 Thank you to SSE and EDS for their support in the planning and delivery of this valuable exercise.
- 3.14 The purpose of this report is to capture lessons learnt from Exercise Sancho and produce recommendations, observations, and areas of good practice to assist participating organisations, the wider industry, and emergency services develop their emergency arrangements.
- 3.15 This report is owned by OREEF and will be reviewed by the group to drive discussion within industry.

4 Exercise Overview

- 4.1.1 Exercise Sancho included offshore and onshore live-play and was conducted on 31 May 2022. While some initial injects were provided the day before, the main exercise ran from 0900 until shortly before 1700.
- 4.1.2 The exercise was designed to activate the operational, tactical, and strategic levels of the various responding organisations and while the scenario was complex, it was not unrealistic as it demonstrated how situations can quickly escalate, as can be seen in real examples.
- 4.1.3 The scenario began with several vessels from a fictitious environmental group causing interference at several windfarms, resulting in some personnel being deployed onto installations at Triton Knoll and Race Bank windfarms. This part of the scenario was all simulated.
- 4.1.4 Activity was reported at Rampion and Westermost Rough, though these were quickly resolved and not linked to the environmental group.
- 4.1.5 The protestors inadvertently set fire to one of their vessels with a flare, alongside the OSS at Race Bank. Personnel from the vessel (simulated by floating manikins) ended up in the water and in a life raft.
- 4.1.6 Smoke from the vessel drifted across the OSS, which contained offshore personnel, and in amongst the confusion and disruption caused by this action, the situation escalated resulting in injured persons onboard the OSS.

- 4.1.7 Industry resources, SAR helicopter and RNLI lifeboat all responded to account for all individuals.
- 4.1.8 Ørsted is the duty holder for the Race bank windfarm, however, Renewable Energy Systems (RES) are the duty holder for the OSS on behalf of the owner, Diamond Transmission Partners Race Bank Ltd (DTPRB).
- 4.1.9 Ørsted were participating offshore at the Race Bank windfarm plus onshore at their East Coast Hub (ECH) in Grimsby.
- 4.1.10 RES were participating offshore plus onshore with their Designated Person Ashore (DPA) in Grimsby and their control centre in Glasgow.
- 4.1.11 RWE responded to initial contact regarding protest activity within their windfarms, but their involvement reduced following the escalation at Race Bank.
- 4.1.12 It should be noted that while there were no routine operations at Race Bank, other Ørsted developments operating from the ECH were working as normal.
- 4.1.13 Midway through the exercise, lightning strikes impacted operations at several windfarms in the area and resulted in personnel on the OSS moving to a safe area. This passed after a period of time allowing all teams offshore to fully participate.
- 4.1.14 Due to the duration of time permitted for the exercise, it was not possible to explore all elements associated with such a scale of response, or to complete all actions. Other factors which would have required far more attention included, but not limited to, tactical and strategic elements such as:
- Police and industry interactions, including next of kin notifications
 - Detailed media response
 - Country level / strategic involvement
 - Offshore considerations such as any OSS or cable damage, due to the vessel fire, impact and subsequent vessel sinking
 - Environmental and salvage response
 - Investigation phase with the police and HSE.

Recommendation 1: for future exercises, the planning team should consider a longer duration exercise to fully test additional elements of a response, and/or ensure that these objectives can be initiated earlier in the exercise.

- 4.1.15 The exercise director stressed the value in keeping the scenario to only those with direct involvement of its planning to improve the realism of the response. This worked well, however, it resulted in some planning team members keeping all exercise details from their organisations, including information about the intent to conduct the

exercise. This meant some teams who would ordinarily have responded, only had short notice of the exercise and therefore could not participate.

Observation 1: providing suitable notice of the exercise to all relevant teams within an organisation would ensure a more complete response.

4.2 Exercise Planning Team

- 4.2.1 The exercise director appointed for Exercise Sancho was accountable to OREEF for the preparation and delivery of the exercise.
- 4.2.2 The core planning team (Appendix A) assembled by the exercise director to provide experience and expertise in key areas, included members from the emergency services, industry operators as well as supporting organisations.
- 4.2.3 Additional specialist input was requested on an ad hoc basis.
- 4.2.4 The planning team held monthly meetings between March 2021 and May 2022. Due to Covid-19 and the variety of physical locations for all team members, meetings were held remotely.

4.3 Exercise Command Team

- 4.3.1 The exercise director established a command team which included most of the planning team, minus those who would be responding to the exercise. Additional members were included to assist with the coordination of the exercise.
- 4.3.2 The command team was predominantly located at the ECH in Grimsby, being a central location for much of the exercise activity.
- 4.3.3 Some of the command team at remote locations, with support of evaluation team members (see below), supported with the management of the exercise by way of directing staff, linking in with predetermined members of the command team.

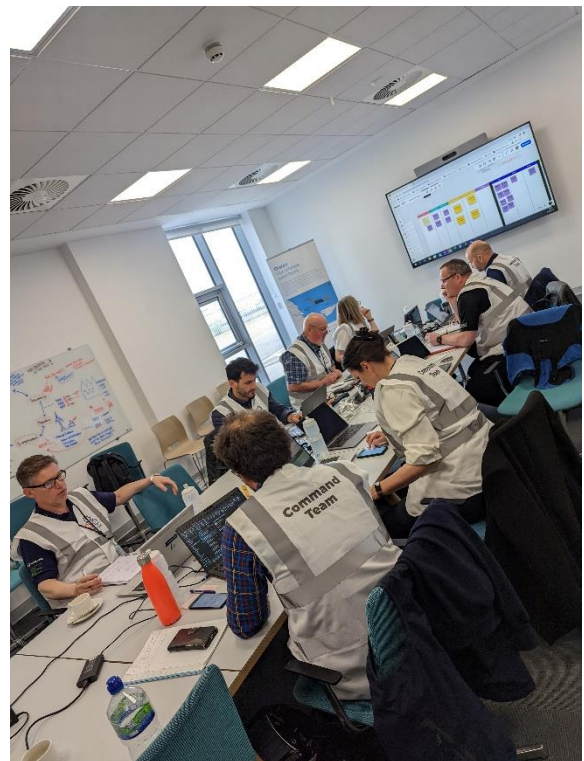


Figure 1: command team at the Ørsted ECH in Grimsby

4.4 Exercise Evaluation Team

- 4.4.1 The exercise director assigned a lead evaluator, who was responsible for the management of the evaluation team and to produce this final exercise report.
- 4.4.2 The evaluation team was put together from a range of stakeholders, including many from volunteers of G+ member companies. They were drawing on operational experience and knowledge of the offshore renewables industry and multi-agency working to provide insight into the response.
- 4.4.3 The team was responsible for the evaluation of the key response cells during the exercise, in accordance with the agreed evaluation criteria, to determine to what degree the objectives for that cell had been achieved.

4.5 Evaluation Methodology

- 4.5.1 The lead evaluator was collocated with the command team in Grimsby, with other members of the team at the same location and remotely, depending on the location of their cell.
- 4.5.2 The planning team, working with organisational representatives, identified the key cells responding to the scenario and which would require formal evaluation. The term 'cell' is used collectively to apply to any group, team or organisation responding to some part of the exercise, and to which an evaluator was present.
- 4.5.3 These were:
 - Joint Rescue Coordination Centre (JRCC) - Fareham
 - Maritime Rescue Coordination Centre (MRCC) – Humber
 - MCA Strategic and Tactical Coordination - Remote
 - Ørsted ECH Control Centre - Grimsby
 - Ørsted - Offshore
 - RES Control Centre - Glasgow
 - RES DPA - Grimsby
 - RES - Offshore
 - Police
 - Media
- 4.5.4 All ten cells were assigned an evaluator that worked in collaboration with the lead evaluator to independently review their response. Details of the evaluators within each group are provided in Appendix A.

- 4.5.5 Other organisations who participated in the exercise were invited to hold their own exercise evaluation and their feedback from those processes was welcomed to be included in this report.
- 4.5.6 Each evaluator was equipped with an evaluation form to help capture observations. Each form followed the same format and focused on five themes used to capture a variety of elements that impacted the response.
- Initial actions.
 - Ongoing actions
 - Communications
 - Teamwork
 - Specific technical duties.
- 4.5.7 Each evaluation form had 'key actions' highlighted for every evaluated theme. These 'key actions' were pulled from response plans and organisational process that should be implemented in response by that specific cell. This helped guide the evaluation as many evaluators were not familiar with the organisations responding and their procedures.
- 4.5.8 Each evaluator was also given a hot debrief form. Every formally evaluated cell along with the command team, conducted a short hot debrief to help draw out some key learning immediately.
- 4.5.9 A Microsoft form was also used to collect feedback from all exercise participants. Bridging questions were used to help obtain specific feedback dependent on the individual's role during the exercise. The online feedback is summarised in section 6.
- 4.5.10 The evaluation reports received from each evaluator have been analysed against organisation objectives (Appendix B), along with the additional feedback from other organisations and the online Microsoft form. The outputs from these have been summarised in this report as:

Recommendation - A key item or area identified which would benefit from an improvement to further enhance the effectiveness of a response in the future, and which will carry recommended remedial action. Recommendations are not recorded against individual organisations.

Observation - A key item or area identified of particular note, but which does not come with a recommended course of action. All observations should be considered, with individual organisations responsible for any desired outcome.

Good practice - An item or area identified of particular benefit, which resulted in a positive response or contribution during the exercise and should be encouraged in future.

- 4.5.11 OREEF will be responsible for the management and tracking of exercise recommendations, observations and good practice, where they apply to the industry as a whole. However, individual organisations or other groups may wish to respond to these to maximise effective learning.
- 4.5.12 Industry recommendations requiring a collective consideration should be coordinated by OREEF, or delegated to alternative groups, to ensure consistency and a timely response.
- 4.5.13 Individual organisation's representatives at OREEF will be responsible for taking any specific observations and good practice to their organisations for consideration and as required, feeding back to OREEF.

4.6 Observers

- 4.6.1 Due to the ongoing Covid-19 implications, multiple on and offshore locations and far-reaching interest in the exercise, a full in person observers' programme could not be arranged. However, a virtual Microsoft Teams call was established which observers from across the world could join.
- 4.6.2 The call had eight pre-identified speakers who were each located in a different cell responding to the exercise. The speakers gave insight into their area of the response and were able to demonstrate to the observers the current response arrangements.
- 4.6.3 Speakers included the exercise director and lead evaluator, Joint Maritime Security Centre (JMSC), HM Coastguard, HSE, Police Scotland, Ørsted ECH and offshore on the Service Operations Vessel (SOV).

Good practice 1: the use of a virtual observers call was seen as a positive inclusion, allowing a wide exposure of the exercise, and should be considered beneficial for future exercises.

4.7 Drift analysis

- 4.7.1 The US Coast Guard were able to send observers to the exercise, to engage with HM Coastguard and industry representatives regarding offshore wind development.
- 4.7.2 In addition, they provided eight self-locating datum marker buoys (SLDMB) which were deployed in the water around the windfarm, prior to the start of the exercise, to provide an insight into the drift characteristics through a windfarm.

- 4.7.3 The US Coast Guard oceanographer, who was able to travel offshore during the exercise, will analyse the collected data to help inform a wider work scope into drift calculations for a search required in the vicinity of a windfarm.
- 4.7.4 Sincere thanks to the US Coast Guard for their valuable support during Exercise Sancho.

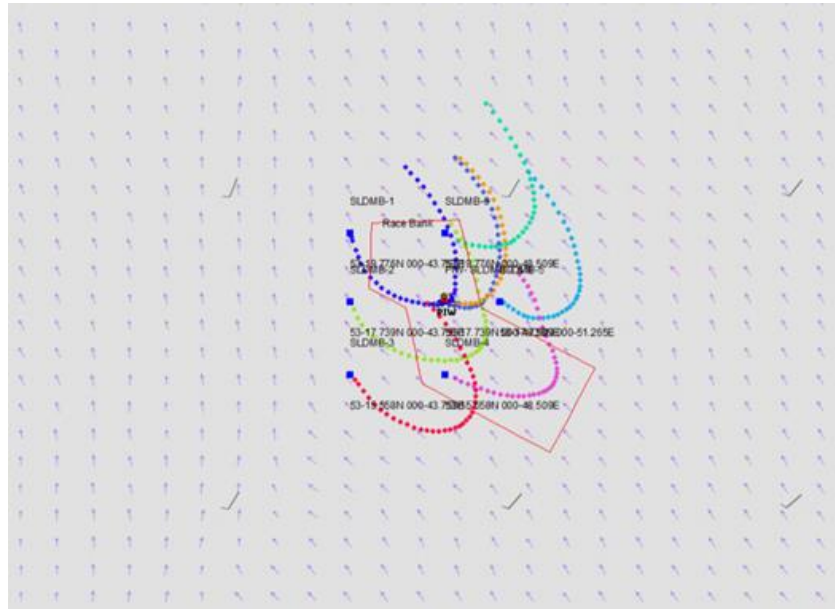


Figure 2 – SLDMB drift over the duration of the exercise

4.8 Exercise Video

- 4.8.1 As referenced in 2.5 and 2.6, an exercise video was created to capture some of the action from the exercise.
- 4.8.2 While it was not possible to show all elements of the exercise and not all organisations are represented, it does provide an excellent visual record of many of the response aspects, particularly offshore.
- 4.8.3 It does not explore lessons learned but it does demonstrate the highly collaborative nature of the exercise and complexity facing all participants.
- 4.8.4 The video can be found by visiting the [Widesight YouTube channel](#).

Evaluation

5 Evaluation Reports

The following reports are split by specific cells with common themes identified and summarised separately.

5.1 HM Coastguard

MRCC

- 5.1.1 Via a national network of 11 coordination centres, HM Coastguard maritime operations is responsible for initiating and coordinating civil maritime search and rescue within the UK's search and rescue region.
- 5.1.2 The HM Coastguard operational response was from MRCC Humber with support provided by the JRCC in Fareham.
- 5.1.3 It was agreed by the lead evaluator and the MRCC evaluator that the cell achieved the objectives.
- 5.1.4 The exercise started with the MRCC receiving calls from three windfarms Triton Knoll, Race Bank and Westernmost Rough. The MRCC staff collected all the required information. However, there were no questions about which wind farm assets were in the area.

Observation 2: by not querying the available windfarm assets at the start of the exercise, the MRCC limited their situational awareness making the effective coordination of vessels more challenging.

- 5.1.5 Despite all three incidents being reported at roughly the same time, the MRCC Humber team did not assume they were connected. This proved to be correct, with one log very quickly resolving itself.
- 5.1.6 The choice of incident type was complex as there was no clear option for this scenario, but through consultation with the team leader, the Search and Rescue Mission Coordinator (SMC) used an appropriate Standard Operating Procedure (SOP) and assigned the incident in the 'uncertainty phase', as there was initially doubt about the vessel's intentions.

Observation 3: an HM Coastguard SOP for a response to protestor type incidents may have provided useful support during this scenario.

- 5.1.7 The chosen SOP ensured that the SMC informed the duty Tactical Commander (TACOM) and the JMSC in a timely manner.

5.1.8 Once MRCC Humber were informed of the people in the water and a vessel fire at the Race Bank site, resources were quickly tasked, and confirmation sought that the windfarm vessels still had visuals of the people in the water.

Good practice 2: the MRCC tasked a windfarm vessel to monitor the protestors at the Triton Knoll site with the instruction to contact MRCC Humber if the situation changed. This action enabled the MRCC to focus on the Race Bank incident as much as possible.

5.1.9 The SMC entered a mission statement shortly after MRCC Humber was informed of the people entering the water. The SMC made regular comments, recording intentions and updating the situation in the mission log.

5.1.10 The first mission statement accurately recorded the situation and contained reasonable details for the tasking of assets. The mission statement continued to be updated throughout the exercise.

5.1.11 The SMC had a good plan for dealing with the casualties, arranging a place to land them ashore, where they would have the best access to medical facilities.

5.1.12 No broadcasts were made, and the reason was not recorded in the narrative. It was later found the MRCC assumed that given the number of windfarm vessels on scene and the lifeboats tasked, a broadcast would not be necessary.

5.1.13 Other feedback highlights some considerations in the MRCC's response that were overlooked in the initial stages of the exercise, these included:

- available assets were not determined before starting the rescue operation
- an on-scene coordinator was not officially appointed
- search and rescue plans and patterns for all vessels involved were not made.

5.1.14 All the points above are essential stages written in IAMSAR⁴. With the added fabrication required in an exercise paired with the pressures of an assessed exercise, assumptions might have been made by the MRCC in response which would not usually have occurred.

Observation 4: full information gathering and SAR plan preparation, including the appointment of an on-scene coordinator, would likely have eased some of the offshore coordination and communication challenges.

5.1.15 There were also communications problems highlighted by the vessels, with a significant period where no contact with HM Coastguard was possible. However,

⁴ International Aeronautical and Maritime SAR - provides guidelines for a common aviation and maritime approach to organizing and providing SAR services.

there was a high workload at the time for the MRCC, out-with the exercise, and this may have contributed to the challenges of radio communications during the exercise.

- 5.1.16 Early in the incident, the SMC noted in their logs that the Duty Counter Pollution and Salvage Officer (DCPSO) needed to be informed, and resources on the scene were asked to report any pollution they observed. The TACOM at the JRCC informed the DCPSO as the workload was high at MRCC Humber.

Good practice 3: seeking support from the HM Coastguard network to notify duty officers was a positive action to alleviate workload on the MRCC.

- 5.1.17 The team at MRCC Humber did not declare a Major Incident⁵. They noted that whilst the number of potential casualties was high, the presence of multiple declared and additional resources on scene mitigated the need for a Major Incident.

Lead evaluator comment: while there was sound discussion regarding the declaration of a major incident, additional factors such as onshore medical impact, media involvement or reputational considerations may have required additional focus, though this is highlighted further in 5.1.56.

- 5.1.18 Communications within the team at MRCC Humber were excellent. The team worked well together, asking questions or making suggestions. When the SMC, who was running this exercise as part of their SMC training, expressed a slight loss of awareness of the whole situation with all three sites, the team quickly provided support.

Good practice 4: the teamwork and communications within the MRCC provided valuable support to the SMC and ensured situational awareness was maintained.

⁵ Joint Emergency Services Interoperability Principles (JESIP), defines a major incident as “an event or situation with a range of serious consequences which requires special arrangements to be implemented by one (or more) emergency responder agency”

5.1.19 The TACOM located at the JRCC had good and frequent communication with the SMC via multiple methods, including responding to requests and comments entered in the narrative and through phone calls.

5.1.20 Due to some dummies being rescued before the requested drift time, some of them had to be redeployed in the water which meant that vessels were feeding back varied numbers of casualties to the MRCC. There was initial confusion in the MRCC when accounting for the casualties, however, they worked well to overcome this confusion despite it taking a while until the count was fully complete.



Figure 3: chart work at MRCC Humber

Lead evaluator comment: the confusion caused by vessel recovering dummies earlier than intended is covered in more detail in 5.3.9.

- 5.1.21 The SMC allocated tasks around the room and ensured that team members could be supported if required.
- 5.1.22 Briefings were held where necessary, with the distress phase incident relating to Race Bank being dealt with by three operators. The briefings ensured the whole team were aware of the incident requiring their focus.
- 5.1.23 The SMC considered team welfare and managed the work around the room so breaks could be taken. However, due to the high workload, some of the teams' breaks were comprised.

Good practice 5: while taking full breaks can be challenging during a busy response, the consideration of team welfare is vital and the national network should be fully utilised, where possible, to ensure this is achieved.

- 5.1.24 Maritime searches were planned using SARIS⁶, using appropriate values, and the search instructions and other taskings were satisfactory and correctly communicated.
- 5.1.25 The MRCC did note that they were limited by the turbines but utilising the SAR lanes as track spacing did help.

⁶ Electronic search planning system

- 5.1.26 It is common practice for search plans to be sent via email to lifeboats prior to them launching, however, due to Humber lifeboat pre-mobilising for the exercise, it was on the limits of range from shore.
- 5.1.27 That said, and as previously mentioned, the vessels in the field were not consulted on the coordination of the search planning. Working with vessels in the field to develop the search plan would have provided reassurance the plan was fit for purpose.

Observation 5: engaging with on scene vessels during the development of search plans can positively support this process and provide reassurance of the plan's suitability.

- 5.1.28 Overall, MRCC Humber worked well to respond to the challenging scenario that Exercise Sancho posed. The exercise gave the team experience in dealing with a large-scale response and exposure to the offshore wind industry.

HM Coastguard - JRCC

- 5.1.29 One of the functions provided by the JRCC is to deliver support and major incident response to the network of 9 MRCCs (plus London Maritime Rescue Sub Centre). The TACOM is the overarching network commander, providing leadership to all stations whilst on duty.
- 5.1.30 The effectiveness of the JRCCs response was evaluated with an evaluator located in the room with the TACOM, at the JRCC.
- 5.1.31 It was agreed by the lead evaluator and the JRCC evaluator that the cell achieved the objectives.
- 5.1.32 The exercise start coincided with the national network conference call, which is held to establish points of contact and responsibilities for the national network for the shift. Shortly after the call, the TACOM was briefed about the incident by MRCC Humber.
- 5.1.33 The TACOM, as requested by the MRCC, notified relevant duty officers.
- 5.1.34 Systems HM Coastguard use for vessel monitoring do not include alerts for when they approach or enter windfarms.
- 5.1.35 It may be beneficial if HM Coastguard could work with the offshore industry to set up warnings and alerts which may aid initial alerting and activation.

Lead evaluator comment: work is already underway within HM Coastguard to assess any process for monitoring vessel movements within or in the vicinity of windfarms. However, vessels are not excluded in the UK from entering windfarms which contributes to the complex development of policy.

- 5.1.36 The TACOM, in consultation with the MRCC, decided to flex the network to reduce MRCC Humber's operational area therefore ensuring the incident had sufficient support. This was achieved very effectively although further comment is included below on maximising these benefits.
- 5.1.37 Any planned large-scale activity such as exercises, involving the network, should fully consider any predicted high profile forecast activity, and appropriate support put in place.
- 5.1.38 Throughout the incident, duty officers contacted the TACOM for updates and briefings. The excessive communication impacted the commander's ability to complete their actions and tasks to support the incident.
- 5.1.39 As per the relevant instruction on the Coastguard Information Portal, it is important for call back detail to be included on initial contact with duty officers. This would support the ongoing liaison, particularly when the coordinating MRCC is busy, and to avoid overloading the TACOM.
- 5.1.40 The JRCC requested a SAR tote⁷ from the MRCC to support an awareness of on-scene activity and casualty status; however, this proved difficult as the information was being recorded on a whiteboard.

Recommendation 2: HM Coastguard should review training, guidance and supporting documentation to ensure staff have the knowledge and support to deliver a SAR tote.

- 5.1.41 There was inconsistency in the telephone number used for contacting the TACOM during the exercise, causing distraction and confusion. The TACOM should only be contacted using the TACOM line, with the JRCC controller number used for non-incident purposes.

Observation 6: clarification and more explicit guidelines regarding the process for calls to the TACOM would be helpful.

Observation 7: emails relating to incident activity should be sent to and from the JRCC commander email, rather than the commander's individual email address.

Recommendation 3: HM Coastguard should ensure that all methods for contact and communicating with commanders are considered and reviewed.

⁷ A running record keeping track of personnel numbers during an incident e.g. an evacuation.

- 5.1.42 Due to the nature of the incident, multiple communications were passing through the JRCC and the TACOM via many different methods. This quantity occasionally impacted the quality of communications.

Observation 8: operational support could have helped with some administrative communication tasks such as identifying relevant operations rooms and their contact details.

- 5.1.43 Overall, the JRCC successfully supported the MRCC and took on the role of TACOM while juggling multiple incidents outside of the exercise. It highlighted the flexibility and resilience within the national network and the impressive capability of the staff at the JRCC.

HM Coastguard – Strategic and Tactical Coordination

- 5.1.44 HMCG mobilised internal gold and silver coordinating groups and multiagency strategic and tactical groups to assist with responding to the scenario that Exercise Sancho provided.
- 5.1.45 The effectiveness of these groups was evaluated, with comments below incorporating those raised by external organisations.
- 5.1.46 It was agreed by the lead evaluator and the strategic and tactical evaluator that the cell achieved their objectives.
- 5.1.47 A couple of hours into the exercise an HM Coastguard Gold Group (CGG) meeting was convened virtually via MS Teams.
- 5.1.48 There was no apparent reference in the incident narrative that this meeting had taken place.

Observation 9: as well as meetings being minuted, it is beneficial to ensure that the minutes are circulated to relevant individuals and cells, to support the awareness of these meetings being held.

- 5.1.49 The chair implemented the Joint Emergency Services Interoperability Principles (JESIP) and Joint Decision Model (JDM) to help structure the meeting and discussion. The meeting established good and clear strategic aims and objectives.
- 5.1.50 During meetings, officers were given the opportunity to expand on previous situation reports. However, this ultimately was time consuming and therefore, updates on the activity should be kept to critical information and avoid repetition of the common operating picture.

- 5.1.51 The meeting conducted a joint risk assessment to understand the potential risks across the whole organisation.
- 5.1.52 SAR assets and their availability were assessed along with a forward look considering potential escalation points.
- 5.1.53 Escalation to Department for Transport (DfT) ministers and the executive board was considered, however, the group was unsure about the scope of the exercise and if those representatives in DfT or the executive should be contacted for real.
- 5.1.54 For future exercises, ensure the scope of the exercise is clarified further for participants.

Lead evaluator comment: while further clarification could be considered, the exercise welcome pack and telephone directory made it clear which organisations had been pre-warned, including DfT, and that any other organisations should be contacted for real.

- 5.1.55 The CGG did not consider how the actions and outcomes from the group would link and feed into other internal responding cells, therefore, risking potential duplications and missed communications within HM Coastguard's response.

Observation 10: clarification and agreement within the CGG meeting around who and how these communications were distributed would have been beneficial.

- 5.1.56 It was agreed at the meeting that the current events were not to be declared as a major incident due to resources not being stretched and limited pressure from media interest, nor were reputational or political concerns at a level to trigger this.
- 5.1.57 A silver meeting was held after the CGG, but this was delayed due to the volume of calls the TACOM was receiving and to allow the commander to respond to an incident ongoing outside of the exercise.
- 5.1.58 As the incident progressed, a Strategic Coordinating Group (SCG) chaired by HM Coastguard was held. As Local Resilience Forums (LRF) were not fully engaged in the exercise due to the limited scale of their response to the scenario, only HM Coastguard and police attended the SCG.
- 5.1.59 Good multiagency working was observed in the meeting, with the JDM and JESIP principles implemented throughout the meeting.
- 5.1.60 Some questions were raised by the police around the alerting and communication of this meeting by HM Coastguard and whether these communications were facilitated in the agreed manor. Further comments in relation to this is covered in section 5.4.

- 5.1.61 A battle rhythm⁸ was established for situational awareness and requesting further updates.
- 5.1.62 In the SCG, the question of declaring a major incident was again reviewed. It was agreed that the emergency would not be declared a Major Incident because while reputational impacts were considered, the response would not fall outside of operational capabilities.
- 5.1.63 A comprehensive multiagency response was considered, identifying other agencies that needed to be alerted.
- 5.1.64 Multiagency strategic aims and objectives were identified. The discussion considered assets and organisation's capabilities with a forward look to the salvage operations and potential response escalations.
- 5.1.65 Unlike the SCG, the internal HM Coastguard response did not utilise METHANE and IIMARCH⁹ for the incident reporting.

Observation 11: including recognised briefing structures as outlined in JESIP is proven good practice and should be encouraged in all multiagency meetings.

- 5.1.66 Throughout the exercise, the internal HM Coastguard Situation Report (SITREP) was noted to be unclear regarding continuity, formatting and further information that should have been included.

Recommendation 4: HM Coastguard should review the operating procedure between tactical and strategic groups, and how the SITREP is utilised.

- 5.1.67 The DCPSO did not attend the SCG due to a lack of signal at their location and due to operational matters, did not pick up email notifications.

Recommendation 5: the resilience of on-call MCA officers should be assessed to ensure availability of specialist teams for incident response and meeting attendance.

Observation 12: using alerting and tasking to notify duty officers of upcoming meetings, may be a more efficient way than purely relying on email notifications.

- 5.1.68 Towards the end of the incident, a Tactical Coordinating Group (TCG) was chaired by the TACOM. It is worth noting that at this point of the exercise, the SAR response

⁸ An organised response to an incident, which may include the coordination of meetings and outline of expectations and intent.

⁹ Reporting and briefing frameworks outlined in JESIP. METHANE: Major Incident, Exact Location, Type of Incident, Hazards, Access, Number of Casualties, Emergency Services. IIMARCH: Information, Intent, Method, Administration, Risk Assessment, Communications, Humanitarian Issues.

phase had been completed, which should have handed primacy of the response to the police.

Observation 13: improving the HM Coastguard guidance and process for formally transferring primacy from HM Coastguard to the police would support clarity of command during incidents.

- 5.1.69 The TCG ran well with good multiagency communication and teamwork. However, including industry representatives and external organisations in the TCG would have been hugely beneficial in confirming the best recovery approach and providing insight into specific considerations.
- 5.1.70 No industry attendance at the TCGs highlights an unfamiliarity of guidance for HM Coastguard staff to assist them in identifying who should be invited to a TCG and SCG.
- 5.1.71 TACOM do not currently have access to or knowledge of the supporting documentation for TCGs or CGS groups.

Recommendation 6: guidance and training of strategic and tactical staff in response to major incidents should be made more readily available.

Lead evaluator comment: work is currently ongoing reviewing and updating HMCGs Command Control and Coordination procedures. This work takes into account the supporting guidance and training for strategic and tactical staff.

- 5.1.72 Overall, the HM Coastguard strategic and tactical responses were activated successfully with feedback highlighting that once those connections were made and multiagency working facilitated the response, organisations worked well together. However, getting everyone around the same table (virtually or physically) appeared to be the challenge.

5.2 RES

- 5.2.1 The organisation's headquarters is in King's Langley in Hertfordshire, however, their operational base for accessing Race Bank is in Grimsby, with their emergency control centre based in Glasgow.
- 5.2.2 Their Glasgow control centre was formally evaluated, as well as their DPA in Grimsby along with the team on the OSS.

RES Offshore Substation

- 5.2.3 On board the OSS at the start of the exercise was a team from both RES and Ørsted. While it is not common to have both organisations present at the same time, it is entirely possible.
- 5.2.4 As part of the exercise preparation, an experienced offshore health and safety professional was identified as the formal evaluator located on the OSS, allowing them to be best placed to evaluate the cell's response.
- 5.2.5 It was agreed by the lead evaluator and the RES offshore evaluator that the cell achieved their objectives.
- 5.2.6 The team onboard the OSS reacted quickly when seeing the protesters waving flares. Their initial actions were to place all team members in the welfare unit and make a report to the DPA and the vessels in the field. These acts secured everyone's safety on board the OSS.
- 5.2.7 However, the access point was not secured, which could have created more issues as the emergency developed. See Recommendation 15
- 5.2.8 There was an initial delay in establishing the command team on the platform.

Observation 14: with the numbers of staff and varied stakeholders on board the OSS, it is essential to have clear emergency plans, for all personnel, to support the establishment of response teams.

- 5.2.9 However, command was quickly established with the RES Person in Charge (PIC) taking on the leading role in the OSS response.
- 5.2.10 Once inside the welfare unit, the team were briefed by the PIC on the current situation. The PIC then moved to the communications room to continue reporting to the onshore RES team and monitor the CCTV.
- 5.2.11 With a movement of the PIC from the welfare unit there was absence in leadership for the main party on board the OSS.
- 5.2.12 The lack of clear leadership in the welfare unit was eventually challenged and resolved with deputising RES staff taking a leading role while the PIC was absent. The lack of leadership could have created issues with the response if left unchecked.

Observation 15: having a person designated as second in command may have supported the leadership requirements when the PIC was absent.

- 5.2.13 As the team tried to communicate with the vessels, it was apparent that using standard communication equipment was challenging. Signal issues and a lack of emergency communication protocol prevented effective communication at this stage.
- 5.2.14 Unlike other industries such as rail, radio protocol/etiquette and phonetic alphabet are not part of the GWO training. When communicating with emergency services, personnel were expected to know the phonetic alphabet and have a basic grasp of the emergency response process.

Recommendation 7: industry should consider a means of providing training on radio protocol/etiquette and phonetic alphabet.

- 5.2.15 On the OSS, RES hold a folder containing their emergency response procedures and processes. Initially, due to the staff's knowledge and experience, some actions did not need prompting from the folder. However, as the exercise progressed and the response became more complex, the team referred more to the folder.

Good practice 6: having tangible guidance such as the emergency response documents was very useful.

Observation 16: it could be stressed that referring to procedures during an emergency, from the outset, is recommended to support actions, particularly in stressful situations.

- 5.2.16 When a person boarded the platform, the PIC used an alarm system to deter protesters.
- 5.2.17 Once the fire broke out on the protester's vessel, there was confusion on whether any rooms would be suitable for refuge when fire or smoke engulfed the platform.
- 5.2.18 Smoke hoods were present in the welfare unit. However, this equipment was not mentioned or briefed to the working party during the vessel induction and therefore not utilised in the response.

Observation 17: fire and smoke response could be added to response procedures within the guidance documents on the OSS and briefed accordingly.

- 5.2.19 The response required from the staff on the OSS quickly escalated with the notification of people in the water.
- 5.2.20 There were positive discussions with members from the working party regarding the duties laid out in SOLAS and international waters legislation for people in the water.
- 5.2.21 The PIC delegated two people to point fingers at dummies in the water, demonstrating knowledge of the best practice in a situation with a man overboard.

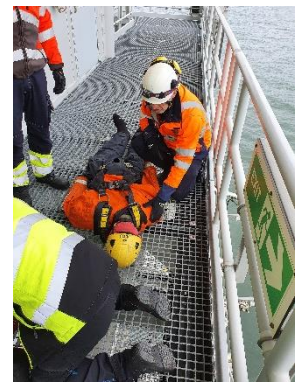
However, no one considered deploying life rafts or safety rings which were available in abundance on the cable deck.

Observation 18: there were differences between the rescue equipment available on the OSS and that which was brought by the team, meaning there was a delay in effecting rescue because of the lack of familiarity. This is noted as a common occurrence across industry.

Recommendation 8: industry should consider the familiarisation and training of rescue equipment policy on offshore structures, particularly regarding differences between standard rescue equipment offshore and to that brought on by teams. Any difference should be highlighted during welcome briefings.

5.2.22 Following the identification of injured persons on the OSS, the teams began providing first aid. Teams appeared to be well versed in actions needed for typical injury and incident situations.

5.2.23 However, the first aid response was negatively affected by the interference of observers, where they did not allow for autonomous action, instead directed step by step direction on casualty care.



Observation 19: all observers and participants that have input outside those 'realistically' responding should be significantly briefed on the scope of their role and input.

5.2.24 That said, observers did note that the lack of oxygen or pain relief on the OSS was a concern.

5.2.25 Communications for the OSS throughout the exercise were challenging, with the platform having significant signal issues.

Observation 20: all future OSS communication plans and procedures should consider signal issues and ensure sufficient testing of equipment is carried out. This should include steps to provide information about Wi-Fi networks on the OSS for all staff and visitors.

5.2.26 Later in the exercise, the team worked effectively and found solutions to evacuate casualties from the OSS onto vessels.

5.2.27 When rigging rescue equipment to evacuate casualties from the platform, the teams had no established evacuation plan and had to find solutions such as suitable structural anchor points.

5.2.28 The team relied on hoists to evacuate the casualties, however, these can often fail due to the marine environment which was apparent when one of the hoists failed during the exercise.

Observation 21: the OSS should have a pre-defined rescue plan and personnel trained on its use, to enable quick evacuation to a vessel.

Good practice 7: other rescue points such as the winching point were extremely well-maintained, with no debris or materials that could become airborne.

5.2.29 In the OSS hot debrief, concerns were raised around team sizing and if there are adequate numbers on the OSS when working in normal conditions. A specific concern was voiced regarding an emergency incident involving the rescue of an incapacitated person. There was concern that with the current working practices, the teams would not have the capability to enact a rescue.

Lead evaluator comment: this issue has been raised by different teams throughout the exercise and a recommendation is therefore included in section 7.

5.2.30 Overall, the response by RES staff on the OSS was good, the team responded appropriately. The PIC led well and delegated tasks effectively and followed key procedures. Unfortunately, first aid was not effectively tested but the wider team did work well together, particularly as this was the first time most of the team had been tested in realistic conditions.

RES Designated Person Ashore

5.2.31 The DPA is part of the RES onshore operations that service a day-to-day function, however they also play a vital role in the RES response to an offshore emergency. The DPA is written into RES emergency response plans and procedures, bearing coordination and management functions.

5.2.32 The DPAs response was formally evaluated by an evaluator located in the office within Grimsby where the DPA is based. As per the intention of this report, the content of this section is focussed predominantly on the DPA process, rather than the individual's performance.

5.2.33 It was agreed by the lead evaluator and the RES DPA evaluator that the cell achieved all the objectives.

5.2.34 Prior to the exercise start it was noted that the RES plan had very limited previous experience of been drilled or exercised.

- 5.2.35 Once alerted of the incident, the DPA activated quickly, and assumed the role of the incident commander.
- 5.2.36 As the DPA is a single person with a wide remit during an emergency, some of the DPAs initial actions, including contacting the police and sending forms, were time intensive and meant the response was not particularly efficient.

Observation 22: reviewing the RES DPA's responsibilities in an emergency, providing more support or redistribution of tasks, may improve the efficiency of the emergency arrangements.

- 5.2.37 Initially the DPA had difficulty making contact with Lincolnshire Police, however later in the exercise, once a fatality had been confirmed, the DPA was made aware that contact with Lincolnshire Police had already been established by RES. There was confusion regarding the correct liaison with Lincolnshire Police, since those making contact during the emergency were not as per current procedures within the RES Emergency Response Plan.

Lead evaluator comment: specific numbers were nominated to be used for Lincolnshire Police during the exercise, which may have contributed to the difficulty in making initial contact.

Observation 23: reviewing roles and responsibilities within RES' ERP, including initial alerting of external parties, and ensuring all relevant individuals receive suitable training, may further enhance the efficiency of the response to an emergency.

- 5.2.38 It was also highlighted that there is no designated emergency response room in Grimsby. In normal 'post' Covid-19 times when the office is occupied, this may pose a challenge to the incident commander regarding concentration, noise levels and distractions.
- 5.2.39 Throughout the response, the DPA was contacted by other RES personnel requesting information, however, at times the questions distracted the incident commander and resulted in missing updates from the OSS.
- 5.2.40 Overall communications between the DPA and OSS were successful. However, there was a lack of shared situational awareness between the two responding cells.
- 5.2.41 No secondary means of communication existed between the DPA and OSS, and there was also no means of communication between the DPA and vessels. Having VHF and MF for monitoring purposes would have benefited the DPA situational awareness.

Lead evaluator comment: while the above is accepted as increasing situational awareness, care should also be given to further overloading a single role. It may be more useful to consider overall situational awareness across the organisation. See Observation 25.

- 5.2.42 Overall the DPA responded very well considering their capability and lack of experience handling a very complicated scenario such as Sancho. That said the exercise highlighted some key steps which RES could take to improve develop the DPAs capability.

RES Control Centre.

- 5.2.43 RES have a control centre located in Glasgow which forms a key part in the organisational response to any emergency.
- 5.2.44 An external individual was selected to evaluate the control centre's response, however unfortunately, the evaluator had to withdraw last minute, therefore it was agreed the control centre manager would evaluate the cell.
- 5.2.45 It was agreed by the lead evaluator and the RES control centre manager that the cell met all objectives.
- 5.2.46 Initially at the start of the exercise two separate incidents were reported to the control centre at the same time. One reporting an intruder incident and vessel fire, the second a separate facility fire with no actions identified at that stage.
- 5.2.47 RES utilise a standard 'Grab Card' for information gathering, which worked well overall, however, the call relating to the facility fire took roughly 15 minutes to complete. A rapid response is vitally important at the initial stages of an emergency and 15-minute communications are too lengthy.

Observation 24: reviewing the 'Grab Card' while considering the METHANE model when sharing information may ensure a more rapid communication.

- 5.2.48 With consideration from other feedback, in the early stages of the exercise, there was confusion as to the functions, roles and responsibilities held by the control centre.
- 5.2.49 The control centre supported the operational team on the OSS providing them with updates on situation reports and various guidance and advice in dealing with the response and acted as a point of contact when required.
- 5.2.50 However, between the DPA and the control centre, lines of communications were getting crossed and duplication of communications was occurring, highlighting the need for clear communication plans.

5.2.51 Throughout the exercise, the control centre communicated with various RES onshore staff, who were able to offer support and insight that could aid the response. The control centre then relayed the information to the team on the OSS.

Observation 25: communication policies and procedures could be more clearly defined, along with initiating responsibilities and which escalation points of contact there are in the organisation's response.

Observation 26: feedback highlighted that it would be beneficial to have the responsibilities of the RES control centre better defined and shared across the organisation, including the integration with roles such as the DPA.

5.2.52 Internal business communications were developed between the Control Centre and support services within RES.

5.2.53 DTPRB also highlighted that there was positive learning surrounding the briefing of OFTO directors and discussion on who would front any media interviews and of the organisational command structure.

Observation 27: looking at the organisational response and considering it in terms of Gold, Silver and Bronze, similarly to the emergency services, could aid in the clarification of responding roles.

5.2.54 Internal business communications were developed between the Control Centre and support services within RES.

5.2.55 Overall, the Control Centre provided valuable support and resources to the organisation's response to Exercise Sancho. Once established in the response the control centre was a highly capable asset that help process and distribute information across the organisation and external parties. The exercise highlighted some potential developments in the cells response that could help RES take the steps need to advance its efficiency.

5.3 Ørsted Response

5.3.1 Ørsted are a Danish headquartered organisation with a head office in London. Their UK windfarms are managed from two main hub centres of which the ECH in Grimsby includes the operations for the Race Bank windfarm.

5.3.2 The ECH, including the Offshore Coordination Control room (OSC), and the team onboard the Edda Passat were formally evaluated.

Ørsted Offshore

- 5.3.3 A formal evaluator, experienced with offshore windfarms, was assigned to the Ørsted offshore response, located on the SOV Edda Passat enabling a good overview of Ørsted's offshore response.
- 5.3.4 It was agreed by the lead evaluator and the Ørsted offshore evaluator that the cell achieved their objectives.
- 5.3.5 The Ørsted offshore team were split across three different locations, the SOV, Windcat 32 (a Crew Transfer Vessel (CTV)), and on the OSS.
- 5.3.6 At the start of the exercise, Windcat 32 was directly in the field and relayed an initial situation report accurately via radio to the offshore coordinator (in the ECH).
- 5.3.7 Once the SITREP was relayed to the offshore coordinator, Windcat 32 maintained its position, ensuring accurate situational awareness was fed back to the offshore coordinator.
- 5.3.8 Initially, the offshore coordinator alerted the ERCC, providing clear instructions and situational reports that were entered into the Crisis and Incident Management (CIM) software recording system.



Good practice 8: initial communication was excellent, with the OSC adding further detail into CIM ensuring both on and offshore were updated as the situation progressed.

- 5.3.9 Due to some miscommunication, once the dummies were deployed into the water, Windcat 32 immediately proceeded to recover casualties instead of letting them drift. One floating dummy and the life raft were recovered, however, the Edda Passat instructed them to redeploy the dummies, quickly resolving the situation.
- 5.3.10 The deployment and subsequent redeployment of dummies created confusion and stressed the communications from the field to HM Coastguard, as mixed numbers of casualties were provided.

Observation 28: the command team must ensure all operational cells are clear with exercise instructions.

Lead evaluator comment: this is accepted as the requirement to let dummies drift was included in the exercise master list of events¹⁰ and could have been highlighted further, however, vessel operators were also briefed on this point pre-exercise and therefore it is important for organisations to circulate relevant instructions to all participants.

- 5.3.11 Onboard the Edda Passat, with the notification of the security breach within the windfarm, the Emergency Response Team (ERT) on board the vessel was activated. They proceeded to lock down the vessel as per security protocols and notified the Østensjø team in their head office.

Good practice 9: actions taken on the Edda Passat ensured regular updates were made to HM Coastguard and the ECH operation controllers who instigated the Ørsted ERP. These actions all aligned with the ERP for Østensjø and Ørsted.

- 5.3.12 As the exercise progressed, Windcat 32 utilised various communication methods. 'P3' was the private communication platform for Race Bank traffic, TETRA¹¹ for communicating with the Ørsted office and VHF 73 for HM Coastguard and other vessels.
- 5.3.13 Race Bank Traffic¹² should use the Ørsted operations manager, onboard the SOV, as their point of contact, who should then work with the master in person when responding to emergencies. The master should engage with HM Coastguard, ensuring lines of communication remain clear throughout.

Observation 29: if a clear communications process between Ørsted, on and offshore, and HM Coastguard had been followed, the overall communications picture would have been more effective.

- 5.3.14 Communications on Windcat 32 were challenging, as the crew consisted of only two personnel and when the deckhand began recovering casualties using the rescue sling and davit, the skipper would assist with winching once the casualty was secured into the davit. Unfortunately, this left communications in the bridge unmanned for a period.
- 5.3.15 Once casualties were secured on the vessel, the skipper effectively passed on all required details.

Lead evaluator comment: this is recognised as a common discussion point and similar comments are noted from the OSS. This is summarised in section 7.

¹⁰ The document used by the exercise command team and di-staff to coordinate the inputs to the exercise

¹¹ Terrestrial Trunked Radio

¹² The operational coordinators situated onshore in the ECH

5.3.16 Personnel on the vessel then provided first aid treatment to the casualties, but this was limited since both had seafarer's first aid, but not advanced training. The casualty's needs were tailored towards advanced first aid training.

Observation 30: the CTV crew first aid training, as per STCW¹³ requirements, limited their effectiveness at responding to casualties, particularly as the exercise casualty cards were written with advanced first aiders in mind.

5.3.17 Communications from the vessel to the shoreside controllers went well until the lightning strike. The lightning caused some issues internally due to resources and other sites having ongoing works.

5.3.18 Once communication was received that vessels could start recovering casualties, Windcat 32 proceeded to recover a floating dummy and the life raft containing a further dummy.

Good practice: Windcat 32 recorded detailed logs of the incident, showing good communication frequency between the Edda Passat and Ørsted's shoreside response.

5.3.19 Unfortunately, the communication between Ørsted and other external responding organisations was not as successful.

5.3.20 As per MRCC feedback in 5.1.13, no on-scene coordinator was established in the response. It later appeared that the Edda Passat had been assumed as the on-scene coordinator due to the questions about the conditions of the casualties and status in the field.

5.3.21 The assumption regarding the on-scene coordinator role also created issues for communications. Multiple vessels contacted the MRCC to relay information, they often gave mixed messages and meant some critical communications were missed. See Observation 4.

5.3.22 The communication issues peaked from patchy communications to a total loss of communications between HM Coastguard and the vessels in the field for approximately twenty minutes. This occurred at a critical point within the exercise with persons entering the water.

5.3.23 Generally, teamwork in the field was good, with all parties involved being very proactive during the rescues.

¹³ International Convention on Standards of Training, Certification and Watchkeeping for Seafarers

Ørsted Onshore Response

- 5.3.24 The team within the OSC comprised the mission controller and deputy control room manager. Between them, they coordinate and manage the vessels that operate within the windfarm boundary.
- 5.3.25 As part of the exercise preparation, an evaluator and member of directing staff were situated within the OSC so they would be best placed to evaluate the cell's response.
- 5.3.26 It was agreed by the lead evaluator and the Ørsted onshore evaluators that the cell achieved all the objectives.
- 5.3.27 At the start of the exercise, the OSC was alerted to various reports of activity taking place offshore, with operators recording all the relevant details passed to them. At this stage, the OSC initiated CIM, the crisis management system Ørsted use and they contacted HM Coastguard.
- 5.3.28 The initial notification of the incident from the RES control centre took some time, delaying the ERCC and OSC from completing their incident management duties.

Observation 31: review the external notification process for RES and Ørsted and work to understand what information each agency needs and how best to deliver that information efficiently.

- 5.3.29 From the start and throughout the exercise, the team worked well with tasks delegated appropriately between staff members by the mission controller (MC).
- 5.3.30 The OSC staff reviewed various situation cards to support emergency response and procedures, however, none were applicable for the specific scenario.

Observation 32: while not every possible scenario can be detailed, following a response to exercises or live emergencies, cards could be reviewed to better equip the ERCC staff for their response.

- 5.3.31 As the situation started escalating, the OSC identified trained people and additional assets that were able to respond. These resources were appropriately tasked.
- 5.3.32 The team continued to monitor communications, update CIM, and notify the duty manager, along with other responding actions.

Observation 33: with a small team responding to such a complex incident, it may have been beneficial for the duty manager to be more visible to support the team as some actions were being missed or delayed.

5.3.33 At times, the noise levels within the OSC almost became unmanageable although as raised in 5.3.17, routine operations were also ongoing at the four other windfarms during the exercise which may have led to an increased noise level.

Observation 34: while routine operations were ongoing concurrently with the exercise, creating an unusually high noise level within the OSC, more awareness of this volume may have created a more effective environment to work in.

5.3.34 It was also noted that it was not possible to take welfare breaks given the high workload.

5.3.35 The control room had significant challenges identifying how many people were manifested on certain vessels and were not aware of who and how many people had transferred to the OSS from RES Vessels.

Lead evaluator comment: there is currently no detailed content included in an ERCoP for OFTOs and this may have contributed to this issue. However, Recommendation 14 should consider the ERCoP requirement within a wider scope of consideration.

Observation 35: not having awareness of the numbers or detail of the personnel infield working for RES created complication for the ERCC responding to the scenario.

5.3.36 With the initial notification from the ERCC, Ørsted's ECH Local Emergency Response Team (LERT) were activated.

5.3.37 The LERT reviewed the situation and initial actions considering the impact on people, assets, environment and reputation and then decided to escalate the emergency to the Country Emergency Management Team (CEMT) for tactical support.

Good practice 10: physically the ECH meeting rooms worked well for LERT and CEMT Meetings. The value of meeting face to face was highlighted as much more beneficial than through MS Teams, especially for multi-agency working.

5.3.38 The LERT lead provided support and direction throughout the exercise. Additionally, CIM was used effectively to share updates.

Good practice 11: this two-stage approach ensured internal communications were maintained effectively and enabled a clearer shared situational awareness.

5.3.39 LERT meeting minutes were recorded in CIM by the ERCC.

5.3.40 The CEMT media advisor provided press release statements and media management and participated in regular emergency response team meetings.

- 5.3.41 Media queries, responses and statements were recorded in CIM by the CEMT media advisor and action cards, and checklists were logged in CIM.

Good practice 12: all information was shared between LERT & CEMT in CIM, and an exported report could have been made available during the response.

Observation 36: CIM provided considerable value in recording and logging the response and therefore, considering options for sharing access with external stakeholders during an emergency could be incredibly valuable in improving situational awareness and understanding.

- 5.3.42 The ERCC did not receive any persons of concern¹⁴ requests till much later in the incident (partly due to the lightning pause). This essential information slowed the next of kin information transfer to the police due to the delay. In a real-life scenario, person of concern details of Ørsted personnel would be more readily available for the ERCC.
- 5.3.43 Communications from the OSS team to Ørsted offshore coordinator were productive and informative. From an Ørsted perspective, more regular communications and updates would have provided more assurance and better situational awareness that OSS staff welfare was secure.

Observation 37: an agreed communications policy could be established for joint response, this could be included in a bridging document or ERCoP.

Good practice 13: a communications sheet is included within the Ørsted ERP for Race Bank, which proved to be valuable and put to good use during the exercise.

- 5.3.44 Overall, Ørsted onshore response supported and facilitated the offshore staff effectively. The teams followed their emergency policies and procedures and utilised their operating systems effectively to provide a valuable emergency response.

5.4 Police

- 5.4.1 Three Police forces were involved in Exercise Sancho, Humberside, Lincolnshire and Norfolk. Additionally, Police Scotland's Energy Industry Liaison Unit assisted throughout the planning and delivery of the exercise.
- 5.4.2 The police evaluation was facilitated through the collection of key police staff's feedback from across all three police forces involved in the exercise. The feedback was then formulated into a single return ensuring the considerations from all the forces involved was included.

¹⁴ Ørsted term for those on site directly affected by the incident

- 5.4.3 It was agreed by the lead evaluator and the police lead that from a policing perspective, most of the objectives set by the police for the exercise were achieved. The final police objective was only partly met as there was not an opportunity to fully test the handover to the investigation phase of the scenario.
- 5.4.4 At the start of the exercise, Humberside Police were informed by HM Coastguard of an incident occurring around Race Bank windfarm.
- 5.4.5 Following this notification, Humberside Police quickly contacted Lincolnshire Police informing them about the incident and passing on the relevant initial information.
- 5.4.6 The initial notification was efficient and effective.
- 5.4.7 At this stage of the exercise HM Coastguard had primacy as this was a clear search and rescue mission. However, there appeared to be some issues in relation to contact numbers for the MRCC and communication between police and HM Coastguard was challenging, with concerns around initial alerting and notification procedures.

Lead evaluator comment: the implementation of specific numbers which were nominated to be used during the exercise, may have contributed to the difficulty in making initial contact. Similarly, to section 5.2.36.

- 5.4.8 At the initial stages of the exercise, feedback highlights it was unclear which industry organisation held primacy for the incident.
- 5.4.9 As the incident progressed, Lincolnshire Police updated their internal logs, and stated the consideration of deploying an Incident Liaison Officer (ILO)¹⁵.

Good practice 14: Lincolnshire Police demonstrated good practice and horizon scanning when considering the deployment of an ILO and other responding assets.

- 5.4.10 The interoperability between Lincolnshire and Humberside Police worked well, with positive communication and information sharing.
- 5.4.11 As the incident progressed, internal police gold was notified for awareness.
- 5.4.12 Lincolnshire Police contacted HM Coastguard a couple hours into the exercise and were informed about a Strategic Coordinating Group meeting which the police were invited to.

¹⁵ a trained police officer who deploys to a company Emergency Response Room in response to a major offshore energy incident

- 5.4.13 It is not clear what invites were sent for this meeting, but it may highlight poor communication between agencies.

Lead evaluator comment: HM Coastguard initially established internal briefing groups which included strategic and tactical commanders. HM Coastguard indicated to the police that this group was taking place, however, it was later in the exercise when the police were invited to the HM Coastguard led strategic coordinating group. The communication of the intent of these meetings appears to have lacked clarity within HM Coastguard.

- 5.4.14 Later in the exercise, in the police log, it does highlight the co-location of an officer based in the MRCC was considered but for exercise purposes, this was not actioned.

Observation 38: while not possible for the exercise, deploying an officer to the MRCC would have aided in developing a more joint up response.

- 5.4.15 The Implementation of the JESIP Principles across the response and better communication between agencies would help create more clarity and an effective joint up response.

Lead evaluator comment: while it is accepted that utilising JESIP in multi-agency scenarios is a tried a tested process, it should be noted that maritime incidents use different terminology based on international process. Therefore, it may not be possible or recommended to utilise JESIP across the whole response but it should certainly be used as much as possible.

- 5.4.16 Three hours into the exercise the police began to receive enquires about the response from the media.

- 5.4.17 Lincolnshire Police contacted the Coroner's Office due to the given circumstances and asked them to stand by. The Scenes of Crime Officer (SOCO) was also made aware.

Good practice 15: the notification of the Coroner's Office and Scenes of Crime Officer shows good horizon scanning and forward thinking from the Police.

- 5.4.18 As the incident progressed, the ILO from Humberside Police arrived at Ørsted and co-located with the ERT in Grimsby.

- 5.4.19 The ILO made sharing of information and understanding of roles in response much clearer. With presence at Ørsted, the police were able to identify the ERCC had a documented timeline of the incident on their systems which was easily shared and accessible.

Good practice 16: the mobilisation of the ILO and ability to efficiently share an incident timeline was very beneficial.

- 5.4.20 From a policing perspective they were unsure on the role of the Emergency Response Cooperation Plan (ERCoP) and if the plan was used to direct the company's response.

Lead evaluator comment: the police have been consulted on the development of the ERCoP, however, all feedback on its effectiveness is useful and further comment should be sought to assess any requirement for improvement.

Recommendation 9: ERCoP guidance and structure should be reviewed to provide clarity on the document's role in response, or where additional training and/or awareness of its use by the police, would be beneficial.

- 5.4.21 As the incident progressed and a fatality was confirmed, Lincolnshire Police Silver effectively liaised with RES in relation to recovery of body and the requirement for offshore transport for police.

Lead evaluator comment: the next of kin notification process was not robustly tested in the exercise, therefore joint working between RES and police is ongoing to fully confirm expectations regarding the notification process.

- 5.4.22 Police logs show there was a discussion around the mechanisms of getting investigators to company premises.

- 5.4.23 Furthermore, the police logs documented they would send staff to RES and Ørsted with the aim of improving communications between the organisations.

- 5.4.24 Police feedback highlighted that the limited external communication between responding organisations, contributed to overarching lack of situational awareness in the response from across all the partners.

- 5.4.25 A particular challenge raised in feedback was the teamwork and information sharing between police and HM Coastguard.

- 5.4.26 Communication between the organisations could be reviewed along with clearer understanding of each organisations capabilities and functions in response.

Lead evaluator comment: as highlighted in Observation 38, an ILO deployed to the MRCC would have improved the flow of information.

- 5.4.27 Overall, the exercise provided a good opportunity to test and validate the planned arrangements for ensuring a coordinated multi-agency response to a serious offshore incident that required UK Police input.

5.5 Media

- 5.5.1 In response to the scenario, media teams from all organisations involved would be required to appropriately engage with reporters and news agencies.
- 5.5.2 The live play was facilitated by a member of the command team, who was fully engaged with running the media injects and responses during the exercise.
- 5.5.3 The facilitator did not have a formal role as a media evaluator but was well-placed to observe the actions of exercise players to those media injects and therefore was able to offer observations on the outcomes.
- 5.5.4 It was agreed by the lead evaluator and the media facilitator that the cell achieved the objectives set for the media.
- 5.5.5 It is worth noting that if this scenario were real, it would have become a very high-profile incident. Therefore, to allow participants to engage fully with the technical and procedural aspects of incident management, the amount of live media play was maintained at a controlled level. The managed media input was reflected in many of the responses seen from organisations during the day.
- 5.5.6 A special Media Enquiry Form was created to generate more meaningful feedback, which was sent to players at various times during the exercise.
- 5.5.7 The form not only posed questions that media organisations would have asked as the exercise unfolded, but also sought responses from players requesting information on their likely actions on receipt of these questions. Questions such as whom they would liaise with, who might comment on their behalf and what they might be prepared to say in possible public statements at different times during the day.
- 5.5.8 Five versions of this form were sent (approximately one every hour) to a range of participants, each requesting a considered response within 15 minutes of receipt.
- 5.5.9 Unfortunately, the MCA press office could not participate. The press office would have had a significant role in the overall media response, this rendered it difficult to evaluate the other players fully.
- 5.5.10 When Exercise Sancho began, some media calls and emails were sent to participating organisations at an early stage, routinely seeking contact names and telephone numbers for those organisations.
- 5.5.11 The initial response was varied. One call to MRCC Humber generated the correct reply from them that calls should be directed to the MCA Press Office.

- 5.5.12 When advised, however, that the press office was not participating in the exercise, the MRCC's answer was still to contact the MCA Press Office. No details were given for a possible MRCC Humber contact and emails were returned as "undeliverable".
- 5.5.13 There was no worthwhile response from the MCA during the exercise, which as outlined above, negated the valuable media-response lessons that could have been learned.
- 5.5.14 The other contacts initially engaged included; Ørsted, RES, Lincolnshire Police, Humberside Police and, as stated above, nominally the MCA.
- 5.5.15 Lincolnshire Police and Ørsted engaged with the exercise and established a worthwhile and reliable communications route from the outset.
- 5.5.16 Media Enquiry Form No.1 was sent out early in the exercise regarding the Race Bank windfarm incident. The form sought to confirm the incident was ongoing, requested an outline of any actions and ascertain the likely nature and content of any statement.
- 5.5.17 Lincolnshire Police replied ten minutes after receiving the enquiry, which was commendable, although stating they were unaware of any incident at that time.
- 5.5.18 Ørsted replied twenty minutes after receiving the form with relevant details as requested.
- 5.5.19 No other responses were received, although RES did not receive this enquiry form until much later due to errors in their email contact address, which impacted the initial RES media response.

Good practice 17: it was encouraging to note that even at this very early stage, Ørsted recognised the importance of discussing potential media responses with police and other relevant agencies, including the MCA.

Recommendation 10: media teams should have the technical means to communicate with each other such as by Microsoft Teams, or similar systems, to ensure coordinated media responses are produced. Industry should consider this requirement across relevant organisations and be written into emergency response plans.

- 5.5.20 Media Enquiry Form No.2 sought answers to the information that some people had climbed onto the Race Bank turbines.
- 5.5.21 Some responses were received promptly, and while there were some attempts to deal with the queries as requested, there was an apparent reluctance to answer some of the media questions. Reluctance to respond was to be a theme that would be repeated throughout the exercise.

Good practice 18: senior officers at Lincolnshire Police were disinclined to make any public comment at this stage, however, their press officer was working hard to ensure adequate statements were made and continued to provide a flow of helpful comments.

5.5.22 Media Enquiry Form No.3 was issued a couple of hours into the exercise, and again responses were mixed and short on confirmatory detail.

5.5.23 From the responses received and information accessed in the command team, it was evident that the key players involved in the incident were talking to each other or indicating their intention to.

Observation 39: the sluggish media response across exercise participants would likely have been unsustainable had this been a live incident.

Good practice 19: despite the limited or non-responses from some organisations, it was clear that dialogue had been established between some of them.

5.5.24 Media Enquiry Form No.4 was marked as “Urgent” as it had become apparent that someone might have died during the incident.

5.5.25 In a live incident, this would have significantly escalated media enquiries and it would be expected that organisations involved would have ramped-up their responses proportionately.

Observation 40: despite a significant change in the scenario, there was no evidence of this from a media point of view and there remained a reluctance to answer any of the detailed questions posed, or provision of an explanation why there was limited response.

5.5.26 Lincolnshire Police responded shortly after with a useful statement that went some way to addressing the issues raised.

Observation 41: disappointingly, despite formal requests, no organisation was willing to nominate a spokesperson to appear on the lunchtime news bulletins. It is unlikely this would have been sustainable in a live incident.

Recommendation 11: industry should fully consider media response and who may be made available to appear for interview and/or as part of a press conference.

5.5.27 Issues emerged during the day regarding the primacy of different organisations in providing a coherent and coordinated response.

5.5.28 While it was clear that the MCA would take primacy in response in the early stages of the exercise, as the incident developed and ultimately resulted in the loss of life, there was no defined point at which the police would have taken over primacy.

Observation 42: the lack of clarity over primacy could have led to confusion in media response. Clear guidelines regarding the primacy of different public bodies during the evolutions of a major incident should be reinforced to ensure an effective and coordinated media response.

5.5.29 At this stage of the scenario, in line with protocols, the DfT Press Office would be contacted. Two email contacts were given, and they were both emailed for comment. No responses were forthcoming during the exercise.

5.5.30 The final Media Enquiry Form, No.5 sought to increase the pressure on participants to agree on comprehensive statements and provide spokespersons for interviews.

5.5.31 Unfortunately, this was again met with minimal response.

5.5.32 It was incredibly disappointing to note that one organisation which replied to media queries near End Ex was still responding along the lines of a holding statement with no substantial detail. This would not have been acceptable or advisable, in a real-world scenario.

5.5.33 The sluggishness of response by some organisations, and the lack of attention to addressing the questions being asked by some others, showed that in a real-world scenario, the media might have overwhelmed the organisations involved.

Good practice 20: Ørsted and Lincolnshire police engaged with strategic officers to respond more effectively to the media enquiries. This was positive to see and contributed to Ørsted and Lincolnshire Police responding at a realistic and worthwhile level.

5.5.34 Unfortunately, due to the geographical spread of participants, it was not possible to establish clearly during the exercise whether or not the media teams of all the participating organisations were speaking effectively and regularly to each other to ensure fast and reliable responses to the media queries they faced.

5.5.35 Overall, Exercise Sancho allowed participants in the public and private sectors to interact and share information to ensure that an effective media response would be forthcoming.

6 Online Feedback

- 6.1.1 An online feedback form was provided to all participants of the exercise. The aim of this was to gather additional information over and above that provided by the evaluators.
- 6.1.2 In total, 24 participants completed the form, and these have been analysed by the lead evaluator. While not all comments can be included in this report, some have been incorporated throughout and an additional qualitative section added below.
- 6.1.3 The participant feedback will also be reviewed by OREEF to ensure all relevant learning can be captured.
- 6.1.4 The form included branched question pathing, meaning dependent on the individual's role in the exercise, questions were able to be open ended while still tailored to their involvement.
- 6.1.5 It is noted that eight of the responses came from members of the command and/or evaluation/di-staff teams and therefore a different perspective on the effectiveness of the exercise.
- 6.1.6 Furthermore, three responses came from individuals who despite the intention for them to be included during the exercise, ultimately had very limited or no involvement.

Quantitative

- 6.1.7 The form posed several high-level questions in the form of statements related to the exercise and scenario response. The responses were answered on a quantitative rating scale from 1 to 5, 1 being to fully disagree with the statement and 5 to fully agree.
- 6.1.8 The initial question was **'Based on the exercise aim: To test industry and the emergency service's emergency arrangements and procedures in response to a significant offshore renewables emergency. The exercise was a success.'** Responses indicated the exercise was a success with an average score of 4.13. 75% of responses scoring 4 or 5.
- 6.1.9 When answering the question **'The exercise enabled me to effectively practice my response in the case of an actual offshore wind emergency.'** The average response was 3.54 with 50% of responses scoring 4 or 5.
- 6.1.10 Similarly answers for the question **'As a result of the exercise, I feel adequately prepared to respond to related real-life scenarios'** scored 3.67.

- 6.1.11 These responses support findings throughout this report, indicating that there is still a need for more exercising and training of emergency response processes to better prepare individuals for responding to a real-life scenario.
- 6.1.12 When answering the question ‘**My organisation had suitable resilience/backup to allow for a protracted response to an incident, such as this exercise scenario.**’ The average response was 4.13, with no responses falling below 3 out of 5.

Qualitative

- 6.1.13 The form also contained roughly ten open ended quantitative questions which enabled participants to feedback on certain key points in further detail. As mentioned above, not all these points can be included within the report however in addition to those added throughout, the following were key comments made.
- 6.1.14 The RNLI noted that no dummies were available to be recovered by the time they got there and there was too much communication on VHF channels.
- 6.1.15 They did note that the whole team got something out of the exercise, including benefit for a training coxswain.
- 6.1.16 The RIX Tiger, one of the responding CTVs, commented that at times, communications were bad, due in part to electrical storms on the day. A booster in field may be a valuable improvement.

Lead evaluator comment: it is worth noting that the MCA had requested access to a VHF radio at Race Bank prior to construction, however for a variety of reasons, this was ultimately not possible on this occasion.

Communications issues were also raised in 5.3.22.

Observation 43: the lack of an offshore VHF radio available to HM Coastguard, to support SAR communications, was a limiting factor during the exercise, and should be avoided in future wherever possible.

Recommendation 12: industry should consider what communications issues may exist between offshore windfarms and HM Coastguard, particularly at greater distance from shore. Exercise Sancho demonstrates the value of clear VHF communications during an emergency response scenario.

- 6.1.17 RWE noted the worth of the exercise and highlighted the excellent response from their personnel to the escalating scenario. Potential improvements were identified regarding internal communications, particularly with notifications to ensure relevant management and internal communications are managed effectively.

7 Lead Evaluator Summary

7.1 Several common themes were identified throughout Exercise Sancho which should be fully considered by the industry in further improving emergency response preparedness.

7.2 Many of these are included throughout the report, however, this section provides a collection of key areas identified by evaluator feedback and participator comments.

7.3 It was highlighted that insufficient crew numbers on CTVs and installations can be a limiting factor when it comes to emergency response. The CTV with two crew struggled to maintain effective communications while casualty handling and the OSS personnel queried their ability to respond to a casualty if there were less individuals available.

Recommendation 13: industry should carefully consider the numbers of crew and/or personnel on vessels and installations to ensure a response to foreseeable emergencies is fully effective.

7.4 Primacy was frequently raised as being a contributing factor of confusion during the exercise. It is vitally important that a single duty holder has responsibility for emergency response during an incident and where there are complications or multiple duty holders involved, a clear plan must exist.

7.5 Through both Exercise Orford and Sancho, it has been clear that there were not effective plans in place to outline the roles and responsibilities between the OFTO and generator regarding emergency response. The exercises showed that while organisations were well placed to respond to their own emergencies, the complexities of interoperability for a joint response were not well known or practiced.

Recommendation 14: OREEF should convene a subgroup to consider the emergency response implications between the generator and the OFTO, which may involve communications, information sharing (including personnel details where appropriate) and guidance regarding primacy.

7.6 Some of the focus of these exercises was on peaceful protestor activity though during Sancho and Orford, discussions took place relating to procedures for the response to protest, or other unauthorised access to installations (or vessels). The default position from industry appeared to be not to approach such persons, however depending on the situation, guidance from the police may suggest early engagement as being beneficial.

Recommendation 15: industry should fully consider the implications of unauthorised access to installations and/or vessels (including processes for securing

infrastructure), discuss this with relevant partners and the emergency services, and issue guidance to duty holders on suggested responses.

7.7 It is recognised that the industry are well used to practicing emergency drills, particularly with offshore personnel. This is also supported by excellent support from onshore teams. However, the benefits of running a large scale exercise such as Sancho were apparent and recognised widely through participant feedback.

7.8 While exercises on this scale are likely best reserved to TRIREX, regular exercising which includes onshore functions such as HR, media, and emergency service liaison should be encouraged to practice all elements of an organisation's emergency arrangements.

Recommendation 16: industry should consider whether an annual calendar of exercises could be created across industry, to include support organisations and emergency services, which would supplement individual organisation's own emergency drills and training. These would be on a smaller scale of TRIREX but nonetheless, test multiple elements of emergency arrangements.

7.9 While the industry has groups which receive emergency response reports, such as OREEF and G+, and use of the excellent [energy institute toolbox](#), it could be considered that not all learnings are suitably shared around industry, particularly following exercises. Given the international interest in Exercise Sancho and the global footprint of many of the organisations involved, it is also considered important to share relevant lessons across the world (recognising differences in policy and response structures)

Recommendation 17: OREEF should consider how best to capture emergency response feedback, particularly following exercises or drills, address suitable learning and expediently share to a suitable audience. It could be considered that an enhanced engagement in groups such as OREEF may further improve awareness and understanding of multi-agency emergency response.

7.10 Several areas of improvement in the response to Exercise Sancho have been targeted at HM Coastguard's command, control and coordination, as this is considered an appropriate area to address many of these observations.

7.11 Personnel welfare was raised by several evaluators and participants and while this was recognised and actioned within various cells, it is noted that it was not always possible to grant breaks. While this is at times unavoidable, suitable resilience should be carefully considered to allow for regular welfare breaks, particularly when dealing with a stressful situation such as emergency response.

Observation 44: being aware of team member welfare and having suitable resilience to account for breaks, wherever possible, is important to ensure the wellbeing of those responding in a stressful environment.

8 Conclusion

- 8.1 Exercise Sancho proved that the renewables industry and the emergency services are well prepared to respond to a large-scale incident impacting an offshore windfarm.
- 8.2 There were significant learnings across all organisations, and this should be embraced as a positive step in continual improvement of emergency preparedness.
- 8.3 There were communications challenges caused by several factors, but key areas of note related to insufficient number of individuals to cope with radio and telephone traffic, technical challenges with mobile and radio reception and processes lacking in the ability to deal with a large volume of information, which is not unrealistic during a response. However, it is recognised that routine operations were also continuing, which would not have been the case should this have been a real incident, at least from an industry point of view.
- 8.4 The exercise showed that principles contained within the G+ IOER had been incorporated into emergency response plans, although a review of the G+ IOER following identified learning through this report, will further support continual improvement. This is particularly relevant in relation to situational awareness and the effective exchange of information between partners.
- 8.5 It was recognised through hot debriefs and formal feedback, that Exercise Sancho was a valuable event, with individual and organisational benefit identified through the planning process and the response to the exercise. It highlights that there may always be learning, but there is no substitute for frequent exercising and TRIREX 2025 should be fully embraced.

Appendix A - Exercise Teams

Exercise Planning Team

The planning team included additional members as required, however, the below was the core team through most of the planning.

Name	Role	Organisation
Pete Lowson	Exercise director	HM Coastguard
Will Goldstein	Evaluation lead	HM Coastguard
Julia Stringer	Planning team and secretariat	HM Coastguard
Dave Atlee	Planning team and IT support	HM Coastguard
Jane Gordois	Planning team	Health and Safety Executive
David Cowie	Planning team	Police Scotland
Andy Reay	Planning team	Ørsted
Martin Mimmack	Planning team	Ørsted
Rob Fradley	Planning team	RES
Filippo di Salle	Planning team	RES
Sarah Bray	Planning team	Vattenfall
Roy Dickson	Planning team	RWE
Sean Byrne	Planning team	SGRE

Exercise Command Team

Name	Role	Organisation
Pete Lowson	Exercise director	HM Coastguard
Will Goldstein	Evaluation lead	HM Coastguard
Julia Stringer	Command team	HM Coastguard
Dave Atlee	Command team	HM Coastguard
David Cowie	Command team	Police Scotland
Andy Reay	Command team	Ørsted
Martin Mimmack	Command team	Ørsted
Filippo di Salle	Command team	RES
Sarah Bray	Command team	Vattenfall
Roy Dickson	Command team	RWE
Mike Lowson	Command team	Lowson Media

Evaluation and Distaff Team

Name	Cell	Organisation
Will Goldstein	Evaluation lead	HM Coastguard
Emma Gasston	JRCC	HM Coastguard
Alex Greig	MRCC	HM Coastguard
Colin Atkinson	MRCC	Vattenfall
Laura Edwards	HMCG Strategic and Tactical	HM Coastguard
Jamie Hall	Ørsted Onshore	Scottish Power
David Hallows	Ørsted Onshore	Inchcape
Andy Reay	Ørsted Offshore	Ørsted
Martin Mimmack	Ørsted Offshore	Ørsted

Charles McLuckie	RES Onshore	RES
Slav Litwin	RES Offshore	RES
Bleddyn Davies	RES Onshore / DPA	Vattenfall
Dave Cowie	Police	Police Scotland
Mike Lawson	Media	Lowson Media

Appendix B – Exercise Aim and Objectives

Exercise Aim

To test industry and the emergency service's emergency arrangements and procedures in response to a significant offshore renewables emergency.

Organisational Objectives

HM Coastguard

- To exercise the national network and HM Coastguard procedures in relation to a major renewables incident.
- To test national maritime and aviation decision making at tactical and strategic levels.
- To exercise the multi-agency interfaces between HM Coastguard, the other emergency services and industry as per the principles of integrated offshore emergency response.

Police

- Test the efficiency and effectiveness of initial notification processes
- Test the efficiency and effectiveness of Police interoperability (Lincolnshire, Norfolk, Humberside)
- Test the efficiency and effectiveness of Police response with partners
- Test the efficiency of process from Search and Rescue to Recovery to Investigation

Ørsted

- Robustly test the ERP where applicable to the exercise
- Include full involvement of all site stakeholders
- Where operationally possible, conduct a casualty evacuation by SAR helicopter from the Windcat vessel

RWE

- Test out the RWE internal emergency response procedures and arrangements
- Test out the RWE integrated emergency response against IOER requirements
- Identify any lessons learned/areas for improvement both internally and for the industry as a whole

RES

- Test RES ERP and RES Control Centre response
- Involve staff in a meaningful offshore exercise including substation evacuation
- Test integrated emergency response i.e. interfaces with other parties

Media

- To exercise the response and test communication between key media responders involved during a renewables scenario.

Appendix C – Summary of Recommendations

Recommendation 1: for future exercises, the planning team should consider a longer duration exercise to fully test additional elements of a response, and/or ensure that these objectives can be initiated earlier in the exercise.

Recommendation 2: HM Coastguard should review training, guidance and supporting documentation to ensure staff have the knowledge and support to deliver a SAR tote.

Recommendation 3: HM Coastguard should ensure that all methods for contact and communicating with commanders are considered and reviewed.

Recommendation 4: HM Coastguard should review the operating procedure between tactical and strategic groups, and how the SITREP is utilised.

Recommendation 5: the resilience of on-call MCA officers should be assessed to ensure availability of specialist teams for incident response and meeting attendance.

Recommendation 6: guidance and training of strategic and tactical staff in response to major incidents should be made more readily available.

Recommendation 7: industry should consider a means of providing training on radio protocol/etiquette and phonetic alphabet.

Recommendation 8: industry should consider the familiarisation and training of rescue equipment policy on offshore structures, particularly regarding differences between standard rescue equipment offshore and to that brought on by teams. Any difference should be highlighted during welcome briefings.

Recommendation 9: ERCoP guidance and structure should be reviewed to provide clarity on the document's role in response, or where additional training and/or awareness of its use by the police, would be beneficial.

Recommendation 10: media teams should have the technical means to communicate with each other such as by Microsoft Teams, or similar systems, to ensure coordinated media responses are produced. Industry should consider this requirement across relevant organisations and be written into emergency response plans.

Recommendation 11: industry should fully consider media response and who may be made available to appear for interview and/or as part of a press conference.

Recommendation 12: industry should consider what communications issues may exist between offshore windfarms and HM Coastguard, particularly at greater distance from shore. Exercise Sancho demonstrates the value of clear VHF communications during an emergency response scenario.

Recommendation 13: industry should carefully consider the numbers of crew and/or personnel on vessels and installations to ensure a response to foreseeable emergencies is fully effective.

Recommendation 14: OREEF should convene a subgroup to consider the emergency response implications between the generator and the OFTO, which may involve communications, information sharing (including personnel details where appropriate) and guidance regarding primacy.

Recommendation 15: industry should fully consider the implications of unauthorised access to installations and/or vessels (including processes for securing infrastructure), discuss this with relevant partners and the emergency services, and issue guidance to duty holders on suggested responses.

Recommendation 16: industry should consider whether an annual calendar of exercises could be created across industry, to include support organisations and emergency services, which would supplement individual organisation's own emergency drills and training. These would be on a smaller scale of TRIREX but nonetheless, test multiple elements of emergency arrangements.

Recommendation 17: OREEF should consider how best to capture emergency response feedback, particularly following exercises or drills, address suitable learning and expediently share to a suitable audience. It could be considered that an enhanced engagement in groups such as OREEF may further improve awareness and understanding of multi-agency emergency response.

Appendix D – Summary of Observations

Observation 1: providing suitable notice of the exercise to all relevant teams within an organisation would ensure a more complete response.

Observation 2: by not querying the available windfarm assets at the start of the exercise, the MRCC limited their situational awareness making the effective coordination of vessels more challenging.

Observation 3: an HM Coastguard SOP for a response to protestor type incidents may have provided useful support during this scenario.

Observation 4: full information gathering and SAR plan preparation, including the appointment of an on-scene coordinator, would likely have eased some of the offshore coordination and communication challenges.

Observation 5: engaging with on scene vessels during the development of search plans can positively support this process and provide reassurance of the plan's suitability.

Observation 6: clarification and more explicit guidelines regarding the process for calls to the TACOM would be helpful.

Observation 7: emails relating to incident activity should be sent to and from the JRCC commander email, rather than the commander's individual email address.

Observation 8: operational support could have helped with some administrative communication tasks such as identifying relevant operations rooms and their contact details.

Observation 9: as well as meetings being minuted, it is beneficial to ensure that the minutes are circulated to relevant individuals and cells, to support the awareness of these meetings being held.

Observation 10: clarification and agreement within the CGG meeting around who and how these communications were distributed would have been beneficial.

Observation 11: including recognised briefing structures as outlined in JESIP is proven good practice and should be encouraged in all multiagency meetings.

Observation 12: using alerting and tasking to notify duty officers of upcoming meetings, may be a more efficient way than purely relying on email notifications.

Observation 13: improving the HM Coastguard guidance and process for formally transferring primacy from HM Coastguard to the police would support clarity of command during incidents.

Observation 14: with the numbers of staff and varied stakeholders on board the OSS, it is essential to have clear emergency plans, for all personnel, to support the establishment of response teams.

Observation 15: having a person designated as second in command may have supported the leadership requirements when the PIC was absent.

Observation 16: it could be stressed that referring to procedures during an emergency, from the outset, is recommended to support actions, particularly in stressful situations.

Observation 17: fire and smoke response could be added to response procedures within the guidance documents on the OSS and briefed accordingly.

Observation 18: there were differences between the rescue equipment available on the OSS and that which was brought by the team, meaning there was a delay in effecting rescue because of the lack of familiarity. This is noted as a common occurrence across industry.

Observation 19: all observers and participants that have input outside those 'realistically' responding should be significantly briefed on the scope of their role and input.

Observation 20: all future OSS communication plans and procedures should consider signal issues and ensure sufficient testing of equipment is carried out. This should include steps to provide information about Wi-Fi networks on the OSS for all staff and visitors.

Observation 21: the OSS should have a pre-defined rescue plan and personnel trained on its use, to enable quick evacuation to a vessel.

Observation 22: reviewing the RES DPA's responsibilities in an emergency, providing more support or redistribution of tasks, may improve the efficiency of the emergency arrangements.

Observation 23: reviewing roles and responsibilities within RES' ERP, including initial alerting of external parties, and ensuring all relevant individuals receive suitable training, may further enhance the efficiency of the response to an emergency.

Observation 24: reviewing the 'Grab Card' while considering the METHANE model when sharing information may ensure a more rapid communication.

Observation 25: communication policies and procedures could be more clearly defined, along with initiating responsibilities and which escalation points of contact there are in the organisation's response.

Observation 26: feedback highlighted that it would be beneficial to have the responsibilities of the RES control centre better defined and shared across the organisation, including the integration with roles such as the DPA.

Observation 27: looking at the organisational response and considering it in terms of Gold, Silver and Bronze, similarly to the emergency services, could aid in the clarification of responding roles.

Observation 28: the command team must ensure all operational cells are clear with exercise instructions.

Lead evaluator comment: this is accepted as the requirement to let dummies drift was included in the exercise master list of events and could have been highlighted further, however, vessel operators were also briefed on this point pre-exercise and therefore it is important for organisations to circulate relevant instructions to all participants.

Observation 29: if a clear communications process between Ørsted, on and offshore, and HM Coastguard had been followed, the overall communications picture would have been more effective.

Observation 30: the CTV crew first aid training, as per STCW requirements, limited their effectiveness at responding to casualties, particularly as the exercise casualty cards were written with advanced first aiders in mind.

Observation 31: review the external notification process for RES and Ørsted and work to understand what information each agency needs and how best to deliver that information efficiently.

Observation 32: while not every possible scenario can be detailed, following a response to exercises or live emergencies, cards could be reviewed to better equip the ERCC staff for their response.

Observation 33: with a small team responding to such a complex incident, it may have been beneficial for the duty manager to be more visible to support the team as some actions were being missed or delayed.

Observation 34: while routine operations were ongoing concurrently with the exercise, creating an unusually high noise level within the OSC, more awareness of this volume may have created a more effective environment to work in.

Observation 35: not having awareness of the numbers or detail of the personnel infield working for RES created complication for the ERCC responding to the scenario.

Observation 36: CIM provided considerable value in recording and logging the response and therefore, considering options for sharing access with external stakeholders during an emergency could be incredibly valuable in improving situational awareness and understanding.

Observation 37: an agreed communications policy could be established for joint response, this could be included in a bridging document or ERCoP.

Observation 38: while not possible for the exercise, deploying an officer to the MRCC would have aided in developing a more joint up response.

Observation 39: the sluggish media response across exercise participants would likely have been unsustainable had this been a live incident.

Observation 40: despite a significant change in the scenario, there was no evidence of this from a media point of view and there remained a reluctance to answer any of the detailed questions posed, or provision of an explanation why there was limited response.

Observation 41: disappointingly, despite formal requests, no organisation was willing to nominate a spokesperson to appear on the lunchtime news bulletins. It is unlikely this would have been sustainable in a live incident.

Observation 42: the lack of clarity over primacy could have led to confusion in media response. Clear guidelines regarding the primacy of different public bodies during the evolutions of a major incident should be reinforced to ensure an effective and coordinated media response.

Observation 43: the lack of an offshore VHF radio available to HM Coastguard, to support SAR communications, was a limiting factor during the exercise, and should be avoided in future wherever possible.

Observation 44: being aware of team member welfare and having suitable resilience to account for breaks, wherever possible, is important to ensure the wellbeing of those responding in a stressful environment.

Appendix E – Summary of Good Practice

Good practice 1: the use of a virtual observers call was seen as a positive inclusion, allowing a wide exposure of the exercise, and should be considered beneficial for future exercises.

Good practice 2: the MRCC tasked a windfarm vessel to monitor the protestors at the Triton Knoll site with the instruction to contact MRCC Humber if the situation changed. This action enabled the MRCC to focus on the Race Bank incident as much as possible.

Good practice 3: seeking support from the HM Coastguard network to notify duty officers was a positive action to alleviate workload on the MRCC.

Good practice 4: the teamwork and communications within the MRCC provided valuable support to the SMC and ensured situational awareness was maintained.

Good practice 5: while taking full breaks can be challenging during a busy response, the consideration of team welfare is vital and the national network should be fully utilised, where possible, to ensure this is achieved.

Good practice 6: having tangible guidance such as the emergency response documents was very useful.

Good practice 7: other rescue points such as the winching point were extremely well-maintained, with no debris or materials that could become airborne.

Good practice 8: initial communication was excellent, with the OSC adding further detail into CIM ensuring both on and offshore were updated as the situation progressed.

Good practice 9: actions taken on the Edda Passat ensured regular updates were made to HM Coastguard and the ECH operation controllers who instigated the Ørsted ERP. These actions all aligned with the ERP for Østensjø and Ørsted.

Good practice 10: physically the ECH meeting rooms worked well for LERT and CEMT Meetings. The value of meeting face to face was highlighted as much more beneficial than through MS Teams, especially for multi-agency working.

Good practice 11: this two-stage approach ensured internal communications were maintained effectively and enabled a clearer shared situational awareness.

Good practice 12: all information was shared between LERT & CEMT in CIM, and an exported report could have been made available during the response.

Good practice 13: a communications sheet is included within the Ørsted ERP for Race Bank, which proved to be valuable and put to good use during the exercise.

Good practice 14: Lincolnshire Police demonstrated good practice and horizon scanning when considering the deployment of an ILO and other responding assets.

Good practice 15: the notification of the Coroner's Office and Scenes of Crime Officer shows good horizon scanning and forward thinking from the Police.

Good practice 16: the mobilisation of the ILO and ability to efficiently share an incident timeline was very beneficial.

Good practice 17: it was encouraging to note that even at this very early stage, Ørsted recognised the importance of discussing potential media responses with police and other relevant agencies, including the MCA.

Good practice 18: senior officers at Lincolnshire Police were disinclined to make any public comment at this stage, however, their press officer was working hard to ensure adequate statements were made and continued to provide a flow of helpful comments.

Good practice 19: despite the limited or non-responses from some organisations, it was clear that dialogue had been established between some of them.

Good practice 20: Ørsted and Lincolnshire police engaged with strategic officers to respond more effectively to the media enquiries. This was positive to see and contributed to Ørsted and Lincolnshire Police responding at a realistic and worthwhile level.

Appendix F – Exercise Orford Report

Introduction

Exercise Orford provided an opportunity to explore, discuss and validate the plans and procedures enacted at Greater Gabbard Windfarm for responding to an offshore incident within a multiagency environment. From the exercise elements of good practice and points of learning were identified. This report will aim to highlight both aspects of the exercise and summarise with several observations.

Aim and Objectives

Exercise Orford was designed to build a shared understanding of current capability and implications for HM Coastguard, police services and offshore industry organisations in responding to a significant offshore renewables incident.

A full list of exercise objectives and an exercise overview can be found in the separately attached Exercise Orford PowerPoint issued by Pete Lawson who acted as the exercise facilitator and delivered the exercise via a mix of in person delivery in Lowestoft and via Microsoft Teams.

Exercise Orford was also used as a trial of the scenario and supporting information in preparation for the national like play Exercise Sancho in May 2022.

Exercise Planning

A small team was convened to plan, facilitate and deliver the hybrid exercise. This group was led by Pete Lawson, HM Coastguard's offshore energy lead, with the support of other organisation's representatives and checked through the Exercise Sancho Planning Team.

The planning team representatives were as follows:

- Pete Lawson, HM Coastguard
- Julia Stringer, HM Coastguard
- Vanessa Shillings, SSE
- Glynn Fereday, SSE
- Rod McLay, EDS

Evaluation Methodology

The exercise facilitator was supported by both the lead evaluator for Exercise Sancho and an additional support staff officer enabling a detailed record to be kept of the discussion and key points raised throughout.

Post exercise a Microsoft Form was issued to all participations to capture and record further exercise feedback. Five simple questions were asked which centred around key points of the response.

The Excel spreadsheet containing all the answers to the MS form is retained on SharePoint by the HMCG Resilience Team – resilience@mcga.gov.uk

Exercise Evaluation

The following sections summarise the key observations noted during the exercise.

Serial 1

Safety zones – There is a need to consider different restricted areas or safety zones which might be in place around Offshore Renewable Energy Installations (OREI) as they would impact who has access, authority and response to potential crimes.

Primacy – In the response, SSE was highlighted as the lead agency agreed in the bridging document drawn up between EDS and SSE.

- Prior to creating of the bridging document, this would have needed to be addressed in the response phase, which would have hampered the response efforts. (Observation 1)

Protestor Engagement - EDS agreed that staff offshore on assets would not engage with protestors. This was later questioned by police highlighting the potential questions and issues with the approach, along with the good practice the police use with onshore protests. It was recognised that consideration given to how organisations should deal with protest activity would be beneficial. (Observation 2)

Serial 2

Wider notification – The early and effective notification was identified as a priority for the wider civil resilience forum, specifically the police.

Shared Situational Awareness – With the establishment of the SSE Emergency Response Team along with the multitude of agencies that are responding and interested parties, an effective way to share information and actions is needed.

- An open live MS Teams call was suggested as the way in which the this could be achieved, though care should be taken over who would attend this and if the calls would be left open or scheduled. (Observation 3).
- EDS, police and other affected parties could send a local representative to attend the SSE emergency response room.

Communications and Media – The importance of a joint up media response was highlighted and shared awareness around what affected agencies were circulating. It was agreed that getting communications departments together in the response would be beneficial. This would need to be achieved quickly, as protestors are very proficient and utilising media to push their message.

- The emergency response documentation needs to be updated accordingly. (Observation 4).

Serial 3

Situational awareness – The importance of keeping track of where people are and therefore the clear communications between organisations.

Communications and media – Social media and messaging policies for staff offshore both from EDS and SSE need to be reaffirmed during the incident and include why circulation restrictions are requested.

- This could be sent out with the stop working message early during a response. (Observation 5).

Onshore Coordination - The importance of early information sharing and good coordination of the landing points for casualties was highlighted. SSE and EDS should consider requirements for the establishment of a reception centre for onshore support, debriefs and repatriation which may also involve police. HM Coastguard must be aware of this for coordination purposes.

Serial 4 & 5

Investigation of Death – It was identified that currently no police staff are GWO trained. Therefore, special permission (dispensation) may be required to get police officers offshore to investigate the death.

- An agreed approach, requirements and process on how and when dispensation would be given should be considered. (Observation 6).

Preservation of the Scene - Prior to dispensation, the police would engage with offshore operators and potentially offshore staff directly to arrange and provide details around how the body should be dealt with before the police arrival.

Next of Kin information –next of kin (NOK) details from both SSE and EDS would be required by the police at an early stage during a response. If there is a death, the police are responsible for NOK notifications and this would need to be completed before any information is provided to the media.

- If deployed, a police Incident Liaison Officer (ILO) would be the conduit for NOK information, otherwise, it would be discussed remotely. (Observation 6).

Observations

Observation 1 - Information on primacy should be included in emergency response documentation, including the ERCoP.

Observation 2 - Operators should review their strategy for engaging with protestors, both onshore and offshore.

Observation 3 - The method for remotely communicating during an emergency to share information across parties (e.g. Microsoft Teams), should be included in emergency response plans and agreed between relevant parties.

Observation 4 - Both the ERCoP and bridging document could be updated to include media arrangements. It could be useful to draft agreed prewritten statements for all parties to use in the event of an emergency.

Observation 5 - In emergency response plans it might be useful to include a reminder for offshore staff, of the organisations Social Media Policy and the reasoning why. The reminder could be sent out along with a stop work message.

Observation 6 - Police should be included in the updating of the ERCoP to include their requirements and internal processes when dealing with an offshore emergency and specifically the handling of a deceased person. Police information is included in the ERCoP template.

Appendix G – Glossary of Terms

Title	Abbreviation	Description / Definition
Battle Rhythm		An organised response to an incident, which may include the coordination of meetings and outline of expectations and intent.
Country Emergency Management Team	CEMT	A high-level group within Ørsted which responds to any emergency incident that requires strategic level direction.
Coastguard Gold Group	CGG	The HM Coastguard internal strategic level group that forms in response to a major incident or emergency that requires strategic direction or guidance.
Crisis and Incident Management	CIM	A computer incident management system used by Ørsted in response to emergencies that supports the recording and sharing of incident detail.
Crew Transfer Vessel	CTV	A crew transfer vessel is a ship used chiefly for shuttling offshore employees and equipment to and from their work place on various types of offshore facilities.
Duty Counter Pollution and Salvage Officer	DCPSO	A role within HM Coastguard that holds a key responding function to any pollution, salvage and offshore industry emergencies.
Department for Transport	DfT	The Department for Transport is the United Kingdom government department responsible for the English transport network and a limited number of transport matters in Scotland, Wales and Northern Ireland that have not been devolved.
Designated Person Ashore	DPA	Plays a key role in the effective implementation of a Safety Management System and takes responsibility for verification and monitoring of all safety and pollution prevention activities- The DPA is likely to be the initial onshore emergency point of contact for a company.
Duty Holder		The entity that has the greatest extent of control over the site should be the duty holder and therefore take the responsibility of being the person

		in control. During construction, that could be a principal contractor or asset owner. During operation that could be the lead operator or asset owner.
East Coast Hub (Grimsby)	ECH	Ørsted's East Coast Hub is an operating centre that manages the logistics and routine operations of their windfarms, and are integral within the emergency response plan.
Emergency Response Control Centre	ERCC	A cell that would be stood in response to an emergency. They could hold various functions depending on the emergency and type of response required.
Emergency Response Cooperation Plan	ERCoP	A document containing key emergency response processes, policies and functions. Specifically in reference to interagency cooperations between offshore industry and the emergency services.
Emergency Response Plan	ERP	A site specific written procedure for responding to emergencies that minimise the impact of the event and facilitate recovery from the event.
Emergency Response Team	ERT	A group of trained individuals who prepare for and respond to any emergency incident, in support of offshore personnel.
Global Health and Safety Organisation,	G+	A global health and safety organisation bringing together the offshore wind industry to pursue shared goals and outcomes.
G+ Integrated Offshore Emergency Response	G+ IOER	Good practice guidelines to identify risk and provide guidance on how to respond to incidents.
Global Wind Organisation	GWO	A non-profit body founded by wind turbine manufacturers and owners, aiming to improve the wind turbine industry through the deployment of common international standards for safety training and emergency procedures.
High Frequency	HF	High frequency is the range of radio frequency electromagnetic waves between 3 and 30 megahertz.

Human Resources	HR	The personnel of a business or organisation, regarded as a significant asset in terms of skills and abilities.
Health And Safety Executive	HSE	The Health and Safety Executive is a UK government agency responsible for the encouragement, regulation and enforcement of workplace health, safety and welfare, and for research into occupational risks in Great Britain.
International Aeronautical And Maritime Search And Rescue	IAMSAR	The International Aeronautical and Maritime Search and Rescue Manual is a manual for organisation and operation of maritime and aviation search and rescue.
Information, Intention, Method, Administration, Risk Assessment, Communications, Human Rights And Issues	IIMARCH	A model to assist personnel to meet briefing objectives, and to assess the most suitable method and environment in which to deliver the briefing.
Incident Liaison Officer	ILO	A trained police officer who would deploy to an industry or emergency service partner premises to provide advice and support, and to improve communication with police incident commanders.
Joint Decision Model	JDM	A JESIP model that aims to help commanders bring together available information, reconcile objectives and then make effective decisions together.
Joint Emergency Services Interoperable Principles	JESIP	A set of five principles to ensure the blue light services are trained and exercised to work together as effectively as possible at all levels of command in response to major or complex incidents.
Joint Maritime Security Centre	JMSC	A centre aimed to increase awareness and understanding of maritime security threats mission and enable cross government coordination to deliver a whole-system response.
Joint Rescue Co-Ordination Centre	JRCC	The coordination centre at Fareham, Hampshire, where HMCGs tactical and strategic coordination is located, along with other national functions including the Mission Co-ordination Centre and Aeronautical Rescue

Local Emergency Response Team	LERT	A mid-level group within Ørsted who respond to any emergency incident that requires tactical level decision making and coordination.
Local Resilience Forum	LRF	A local resilience forum is a multi-agency forum formed in a police area of the United Kingdom by key emergency responders and specific supporting agencies. It is a requirement of the Civil Contingencies Act 2004.
Major Incident		JESIP defines a major incident as “an event or situation with a range of serious consequences which requires special arrangements to be implemented by one (or more) emergency responder agency”
Maritime Coastguard Agency	MCA	The Maritime and Coastguard Agency is an executive agency of the Department for Transport, working to prevent the loss of lives at sea and is responsible, through the Secretary of State for Transport to Parliament, for implementing British and international maritime law and safety policy.
Marine Guidance Notes	MGN	A collection of notes produced by the MCA that give guidance and recommendations about best practice to industry on interpretation of law and general safety advice.
Maritime Rescue Coordination Centre	MRCC	The Maritime Rescue Co-ordination Centres (MRCC) are responsible for co-ordinating sea rescue with the UK EEZ.
Next Of Kin	NOK	A person's closest living relative or relatives.
Offshore Transmission Owner	OFTO	The organisation that owns the electrical transmission assets of an offshore windfarm in the United Kingdom electricity market.
Offshore Renewables Energy Emergency Forums	OREEF	A forum to facilitate partnerships and multiagency working across different actors and stakeholders within the offshore renewables energy sector, specially focused on emergencies.
Offshore Renewable Energy Installations	OREI	These are structures that exist offshore such including wind farms, and wave and tidal energy devices.

Offshore Sub Station	OSS	An offshore installation which houses the electro-technical switchgear & transformers, gathering electricity from the turbines for transmission to the onshore electrical grid.
Person In Charge	PIC	A designated individual in charge in a particular situation, often the most senior person.
Point Of Contact	PoC	A person or department that can be approached for information or assistance on a specific topic or emergency.
Race Bank Traffic		The operational coordinators situated onshore in the ECH
Renewables Energy Systems	RES	A global renewable energy company which has been active in the renewable energy industry for over 30 years.
SAR tote		A running record keeping track of personnel numbers during an incident e.g. an evacuation.
Standards of Training, Certification and Watchkeeping for Seafarers	STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers sets minimum qualification standards for masters, officers and watch personnel on seagoing merchant ships and large yachts.
Search And Rescue	SAR	Search and rescue is the search for and provision of aid to people who are in distress or imminent danger.
Search and Rescue Information System	SARIS	A computer-based system for the creation of maritime search plans, used by HM Coastguard and utilised during the exercise.
Strategic Co-Ordinating Group	SCG	A group brought together to take overall responsibility for a multi-agency response and to establish a strategic framework within which lower levels of command and co-ordinating groups will work.
Situation Report	SITREP	A structured report on the current emergency situation, issued by a cell or individual.

Self-Locating Datum Marker Buoys	SLDMB	A drifting surface buoy designed to measure surface ocean currents.
Search And Rescue Mission Coordinator	SMC	The official temporarily assigned to co-ordinate response to an actual or apparent distress situation.
Scenes Of Crime Officer	SOCO	An officer who gathers forensic evidence for the British police.
Standard Operating Procedure	SOP	A set of instructions compiled by an organisation to help workers carry out operations.
Service Operations Vessel	SOV	Vessels that are used to house and provide transportation for crew who need access to wind turbines at sea to maintain and ensure ongoing operations of the turbines.
Tactical Commander	TACOM	A role within HM Coastguard that is responsible for the quality of Coastguard operations. They are accountable for leading and managing operational teams at the JRCC and the other MRCCs. Additionally providing tactical management support to the strategic commander.
Tactical Coordinating Group	TCG	A multi-agency group of silver commanders from single agencies that meets to determine, co-ordinate and deliver the tactical response to an emergency.
Terrestrial Trunked Radio	TETRA	A radio system utilised for private communication and used by industry personnel and coordination centres.
Triennial Renewables Exercise	TRIREX	A large-scale multi-agency exercise which will be conducted once every three years.
Very High Frequency	VHF	Very high frequency is the range of radio frequency electromagnetic waves from 30 to 300 megahertz.



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