## On Board Navigational Procedures Audit Form (Part D) - Resilience

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| Vessel: |  |  | Name of Auditor/ Master: |  |
| Review Start Date: |  |  | Review End Date: |  |
| Voyage From: |  |  | Voyage To: |  |

\* \* This form will be completed by Company representative conducting dynamic (sailing) navigation audit & external navigation auditor \*\*

| **Code** | **Activity** | **Comment** | **Reference** |
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| **4** | **Human Element / Resilience** | | |
| **4.1** | Executive Summary | | |
| 4.1.1 | Narrative Summary of Review |  | Assessment / Review is to be carried out for each of the five key tasks or whichever key task is practically possible. Key task selected for assessment/review to be indicated in the response column of 4.2 below |

#### Note: For all questions in 4.2 & 4.3, please enter resilience score 1 to 5 in reSILIENCE SCALE column, ENTER POSITIVE OR NEGATIVE FACTORS IN COMMENTS COLUMN.

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| **Code** | **Activity** |
| **4.2** | **Analysing Resilience** |
|  | Select appropriate key task from below in the response column:   |  |  |  | | --- | --- | --- | | 1. | Preparing for, Accepting and Handing Over a Navigational Watch at Sea |  | | 2. | Conducting an independent Navigational Watch |  | | 3. | Bridge Team Operations with a Pilot on Board |  | | 4. | Bridge Team Operations without a Pilot on Board |  | | 5. | Navigating in difficult conditions. |  |   \* Note – Select the task to be analyzed from the 5 tasks mentioned above by selecting a checkbox in front of the respective task. |

| **Code** | **Activity** | **Response** | **Comment** | **Reference** |
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| 4.2.1 | Task achievement: How effectively, efficiently and correctly was the task achieved? | Select | Positive indicator:    Negative indicator: | **Resilience Scale:**  Scale 1: The task was abandoned and never completed  Scale 2: The task came close to success, but failed  Scale 3: The task came close to failure or running out of time but succeeded in the end  Scale 4: The task was achieved on time with all risks being kept to a minimum  Scale 5: The task was achieved in a highly creative and unusually effective manner that dealt with all foreseeable risks  **Negative Indicators**: Crew become unduly distracted by other tasks or incidents. Crew fail to follow procedures when they should. Confusion or lack of agreement over the plan. Lack of coordination amongst crew.  **Positive Indicators:** Crew follow procedures appropriately. Crew respond creatively and successfully to unusual circumstances that required them to deviate from usual procedures or rules. Other tasks dependent on this one was able to start promptly. |
| 4.2.2 | Communications: How effectively, efficiently and correctly were the communications achieved? | Select | Positive indicator:        Negative indicator: | **Resilience Scale:**  Scale 1: One or more critical communications were not made, or else misunderstood, resulting in an incident or near-incident  Scale 2: Critical communications were not made at all or made in ways that risked misunderstanding, although no incidents occurred  Scale 3: Communications revealed some weaknesses such as not following correct protocols or using wrong channels  Scale 4: All necessary communications were made and confirmed at the right time and in the right manner  Scale 5: The timing and clarity of all communications were exceptional in terms of maintaining task momentum, risk aversion and overall safety to dealt with all foreseeable risks  **Negative Indicators**: Failure to communicate, late or misunderstood communications result in a reportable incident. Communications have to be repeated. Crew member have to request information he should receive without asking. Communication channel is used that is less than optimal for message to be relayed. Communications are ignored or dismissed  **Positive Indicators:**  Receiver confirms receipt and understanding of message. Speaker uses language and jargon appropriate to receiver. Speaker makes allowances for receiver being busy, stressed, in noisy environment etc. Clear, comprehensive and timely briefings are given to all relevant crew members. Crew members ask questions when necessary and the questions are answered appropriately  *Above indicators apply to safety- or task-critical communications within the ship and with other vessels, port staff, etc.* |
| 4.2.3 | Teamwork: How effectively, efficiently and appropriately did team members work with each other? | Select | Positive indicator:        Negative indicator: | **Resilience Scale:**  Scale 1: Teamwork was largely absent, putting at severe risk safety, task performance or both  Scale 2: Teamwork was generally poor creating a level of risk to safety, task performance or both  Scale 3: Teamwork was adequate; the task was completed but not without some delays or risks.  Scale 4: Teamwork quality was good enough to result in satisfactory task performance and standards.  Scale 5: Teamwork was outstanding leading to highly coordinated task performance that was significantly better than good, with all foreseeable risks being anticipated well and unforeseeable risks countered effectively.  **Negative Indicators**: Crew members behave as individuals with separate agendas. Crew members fail to coordinate and cooperate when required. Crew members show little understanding of the tasks and roles of others. Crew members do not take account of the needs and work of others. Crew members do not assess the impact of their actions on others.  Nobody demonstrates any leadership  **Positive Indicators:** Crew members share and review their common goals. Crew members keep an eye on each other and back each other up when needed. The crew adapts to changing conditions by re-allocating tasks and roles as needed. Crew members are open to learning from each other regardless of rank. Leadership is clearly demonstrated by the member of crew who is most suited to take this role given the operational situation at the time. |
| 4.2.4 | Technical utilisation: How effectively, efficiently and correctly were the available technical resources used? | Select | Positive indicator:        Negative indicator: | **Resilience Scale:**  Scale 1: The available equipment and/or procedures were ignored or misused to the serious detriment of safety or task performance  Scale 2: The available equipment and/or procedures were substantially underused, creating unnecessary risks to safety or task performance  Scale 3: The available equipment and/or procedures were not generally well used although safety and task performance were not obviously put at risk  Scale 4: Technical resources were used appropriately to get the task done.  Scale 5: Technical resources were used in imaginative ways that showed deep technical understanding and significantly enhanced efficiency without compromising safety  **Negative Indicators**: Crew members do not use technical resources when appropriate. Crew members show signs of lack of familiarity with technical resources or difficulty in operating.  Crew members use technical resources incorrectly or in an unsafe manner (eg. without doing risk assessment or taking short cuts)  **Positive Indicators:** Crew members use the appropriate technical resources for the task. Crew members are efficient in their use of technical resources. Crew members demonstrate they know how to use technical resources safely |
| 4.2.5 | Disruptions and distractions: How effectively and efficiently were disruptions and distractions managed? | Select | Positive indicator:        Negative indicator: | **Resilience Scale:**  Scale 1: Performance was completely disrupted by otherwise normal operational events. Safety was put at severe risk  Scale 2: Disruptions were (or would have been) handled poorly, resulting in potential risk to safety and the success of the activity  Scale 3: Disruptions were not handled very well, with some hiatus and the need for time-out for reconfiguration  Scale 4: Disruptions were handled with only minor disturbance and delays to the ongoing task and without compromising safety  Scale 5: Crew members prioritised and managed disruptions with insight and expertise that maintained optimal task efficiency and full attention to safety  **Negative Indicators**: The crew are taken by surprise by disruptions. The crew shift disproportionately shift their attention to disruptions to the detriment of the primary task. The crew display confusion and disarray in the face of disruptions. There is shouting and discussion that does little to help with disruption. There are unnecessary delays in responding to disruptions  **Positive Indicators:** The crew are aware of disruptions in a timely manner. The crew understand the nature of disruptions and their implications with minimal discussion. The crew have a collective understanding of how to adjust their tasks and roles in the face of disruptions. The crew respond to disruptions without delay and without losing focus on the primary task. Crew members remain calm and organised in the face of disruptions |
| 4.2.6 | Changes to plans and priorities: How effectively, efficiently and appropriately were plans and priorities changed in the face of emerging demands? | Select | Positive indicator:        Negative indicator: | **Resilience Scale:**  Scale 1: The need to change plans and priorities was poorly managed, putting at severe risk own ship and crew or other ships or personnel on shore. Ship performance was severely degraded  Scale 2: The need to change plans and priorities was met poorly, putting own ship and crew or other ships or shore personnel at some risk. Ship performance was degraded  Scale 3: The need to change plans and priorities was barely adequately managed, possibly compromising safety or performance  Scale 4: The need to change plans and priorities was managed, avoiding undue risks to safety and performance.  Scale 5: The crew rapidly adapted plans and revised priorities in ways that were highly innovative while maintaining or even improving safety and performance.  **Negative Indicators**: The crew is slow to recognise the need to alter plan or priorities. Changes in plans or priorities are acted on reluctantly  When the plan changes, crew members are confused, slow and uncertain how to respond. Crew members do not express any reservations about the change in plan. Crew members do not ask questions to clarify any areas of uncertainty  **Positive Indicators:** The need to change plan or priorities is recognised and accepted in a timely manner. Senior crew members share their intentions and plans as they develop. Senior crew members give revised instructions clearly and in a timely manner, taking account of the tasks the crew is currently undertaking. Questions and suggestions from crew members are encouraged, listened to and responded to with respect. Crew members voice their ideas and views confidently but with respect. Crew members respond to changes in plans promptly, smoothly and efficiently. Tasks, roles and resources are re-allocated as necessary with minimum discussion. |
| 4.2.7 | Pressure: How easily and smoothly did the team cope with the pressures of the situation? | Select | Positive indicator:        Negative indicator: | **Resilience Scale:**  Scale 1: The team collapsed under the pressures of the situation and safety was severely compromised as well as productive performance  Scale 2: The pressures of the situation were poorly handled, resulting in substantial under-performance and potential impact on safety, although no incidents resulted was degraded.  Scale 3: The crew members responded satisfactorily to the pressures but were at the edge of their comfort zone  Scale 4: The pressures of the situation were normal and were handled confidently, competently and with due regard to safety  Scale 5: The pressures of the situation were particularly challenging, but handled confidently, competently and with due regard to safety  **Negative Indicators**: Safety critical tasks are omitted or done badly. Emerging risks are ignored  Coordination of crew members breaks down. Safety critical communications are not made or got lost in the confusion. Crew members freeze under pressure, unable to act. Levels of shouting, aggression, destructive criticism increases with pressure.  **Positive Indicators:** Crew members are aware when they are under pressure and respond accordingly. Crew members take extra care, especially over safety-critical tasks. Crew members remain calm, acting promptly but without undue haste.  Crew members monitor each other for signs of stress and provide additional support to anyone who appears over-stressed. Crew members eliminate unnecessary communications, but when they communicate, they speak clearly and precisely. |
| 4.2.8 | Shore Follow Up required (Y/N)? | Select |  |  | |
| 4.2.9 | Average Resilience Score |  |  |  | |

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| **4.3** | **Improving Resilience** | | | |
| **Code** | **Activity** | **Response** | **Comment** | **Reference** |
| 4.3.1 | Typicality - How typical was the team’s behaviour across the tasks observed? | Select |  | Ref to Typicality score diagram below. |

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| Typicality Score | | | | |
| **1** | **2** | **3** | **4** | **5** |
| **Team behaviour in one task was completely atypical (very good or bad) & not at all its behaviour in other tasks** | **Team behaviour in one task was fairly atypical and not very representative of its behaviour in similar tasks - but it happened more than once** | **The observed team behaviour in all the tasks varied quite a lot. It is impossible to predict its behaviour in future tasks** | **The observed team behaviour is fairly typical and representative of its behaviour in similar tasks in most respects** | **The observed team behaviour in this task is completely typical and highly representative of its behaviour in similar tasks in every respect.** |

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| **4.4** | **Debriefing probes for improving resilience (Key Findings)** | | |
| **Code** | **Type of De-Brief Comments for Resilience Factor** | **Resilience Scale** | **De-Brief Comments** |
| 4.4.1 | De-brief comments - Task achievement | Select |  |
| 4.4.2 | De-brief comments - Communications | Select |  |
| 4.4.3 | De-brief comments - Teamwork | Select |  |
| 4.4.4 | De-brief comments - Technical utilisation | Select |  |
| 4.4.5 | De-brief comments - Disruptions and distractions | Select |  |
| 4.4.6 | De-brief comments - Changes to plans and priorities | Select |  |
| 4.4.7 | De-brief comments - Pressure | Select |  |