## CHRONOLOGICAL ORDER OF EVENTS LEADING TO THE COLLISION BETWEEN COURAGEOUS AND ANL

| Time     | Courageous   | ANL   |
|----------|--|---|
| 23:20    | <ul> <li>Course 050°. Speed 9 knots</li> <li>Proceeded in eastbound lane of the TSS</li> </ul>   | <ul> <li>Course 051°. Speed 23 knots</li> <li>Proceeded in eastbound lane of the TSS</li> </ul>   |
| 23:24    |  | Tracked Courageous on its radar   |
| 23:24:20 | <ul> <li>Trainee OOW ordered port helm to "U-turn"</li> <li>Operational decision to keep Courageous close to Horsburgh Lighthouse</li> </ul> |   |
| 23:25    | <ul> <li>Swung to port and steadied on 235°</li> <li>Proceeded in eastbound lane, against traffic flow</li> </ul>                            |   |
| 23:26    |  | <ul> <li>Noted Courageous' alteration to 235°</li> <li>Observed Courageous with their eyes &amp; on radar</li> <li>Assessed that Courageous would pass safely on its port side</li> </ul> |
| 23:30    | <ul> <li>Trainee OOW ordered port helm of 10° to remain closer to Horsburgh Lighthouse</li> <li>Contravened COLREGS Rule 14(a)</li> </ul>    |   |

| 23:32    | <ul> <li>Radar plotter reported that ANL &amp; Courageous were expected to pass each other at &lt; 3 cables (0.3nm or 500m)</li> <li>Distance between ANL &amp; Courageous reduced to 1.7nm(nautical miles) (which is equal to about 3km)</li> </ul> |   |
|----------|--|---|
| 23:33    | <ul> <li>2331-2333hrs: Trainee OOW ordered two more alterations first to 210°, and then to 200°</li> <li>Trainee OOW assumed that ANL would not alter course</li> <li>Contravened COLREGS Rule 14(a)</li> <li>Contravened COLREGS Rule 8</li> </ul>  | <ul> <li>Passed Horsburgh Lighthouse on starboard side</li> <li>Master ordered alteration to starboard to give Courageous wider berth</li> <li>Alteration to starboard was correct under COLREGS</li> <li>A little after 2333hrs, Master ordered further alteration to starboard</li> </ul> |
| 23:34    | <ul> <li>Trainee OOW ordered another alteration to 190° &amp; increased speed to 11-12 knots</li> <li>Distance between ANL &amp; Courageous reduced to 0.8nm (1.4km)</li> </ul>  | Sounded prolonged blast to alert Courageous   |
| 23:35    | Trainee OOW ordered helm to "hard-a-port" & OOW ordered full throttle  |   |
| 23:35:34 | Collision  |   |