

IMCA DP Station Keeping Event Bulletin 02/16

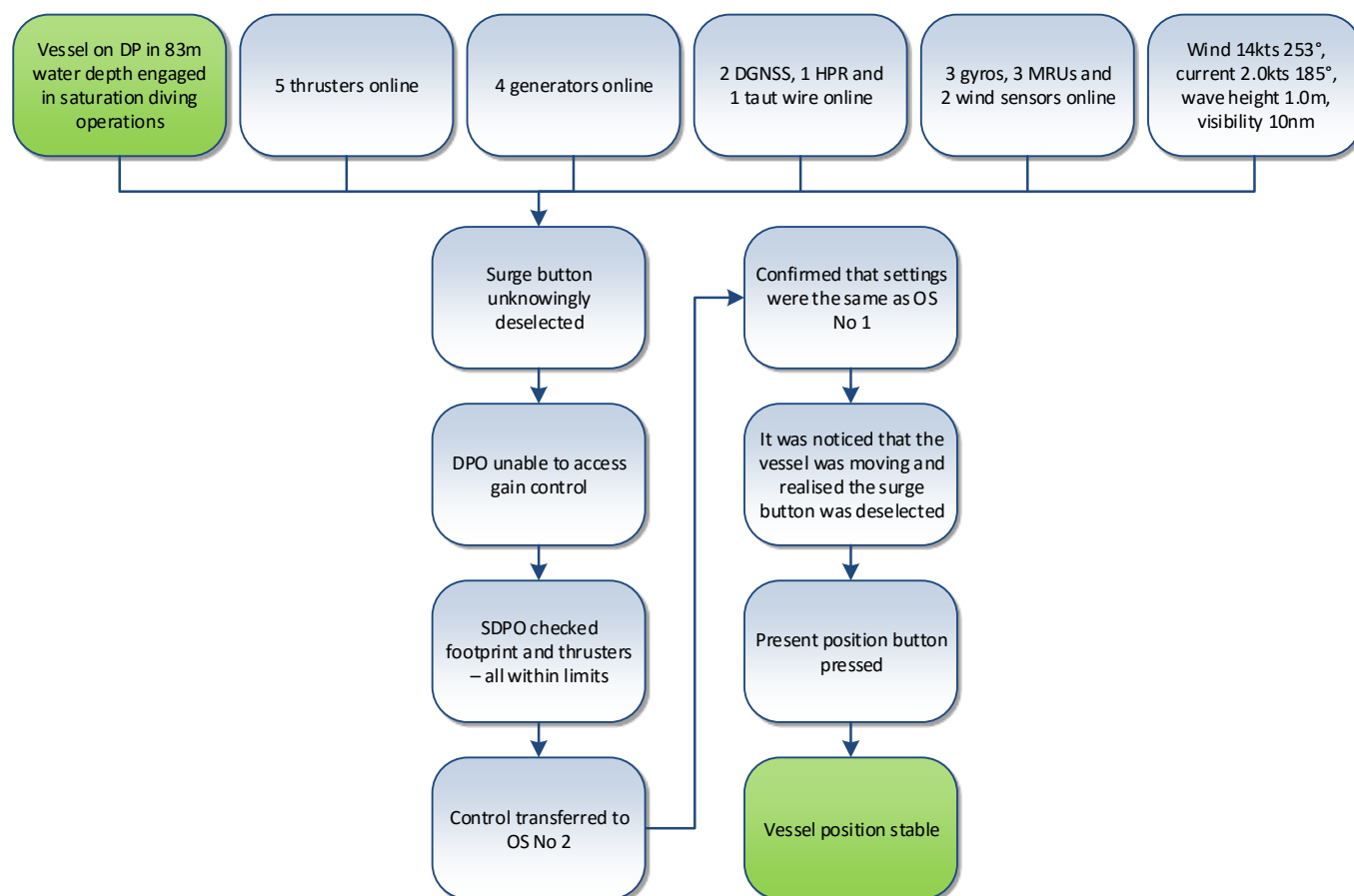
June 2016

The following event trees have been compiled from recent reports received by IMCA. The originators granted IMCA permission for the trees to be analysed and commented on by the IMCA DP Focused Workgroup. To ensure anonymity not all of the information contained in the original report was made available to the persons analysing these event trees.

Vessel managers, DP operators and DP technical crew should consider if these events and comments are relevant to their own vessel DP operation so that they can be used to assess and assist the safe operation of the vessel.

Any queries regarding this bulletin should be directed to IMCA Technical Adviser Andy Goldsmith (andy.goldsmith@imca-int.com). Members and non-members are welcome to contact Andy if they have experienced DP events which can be securely analysed and then shared anonymously with the DP industry.

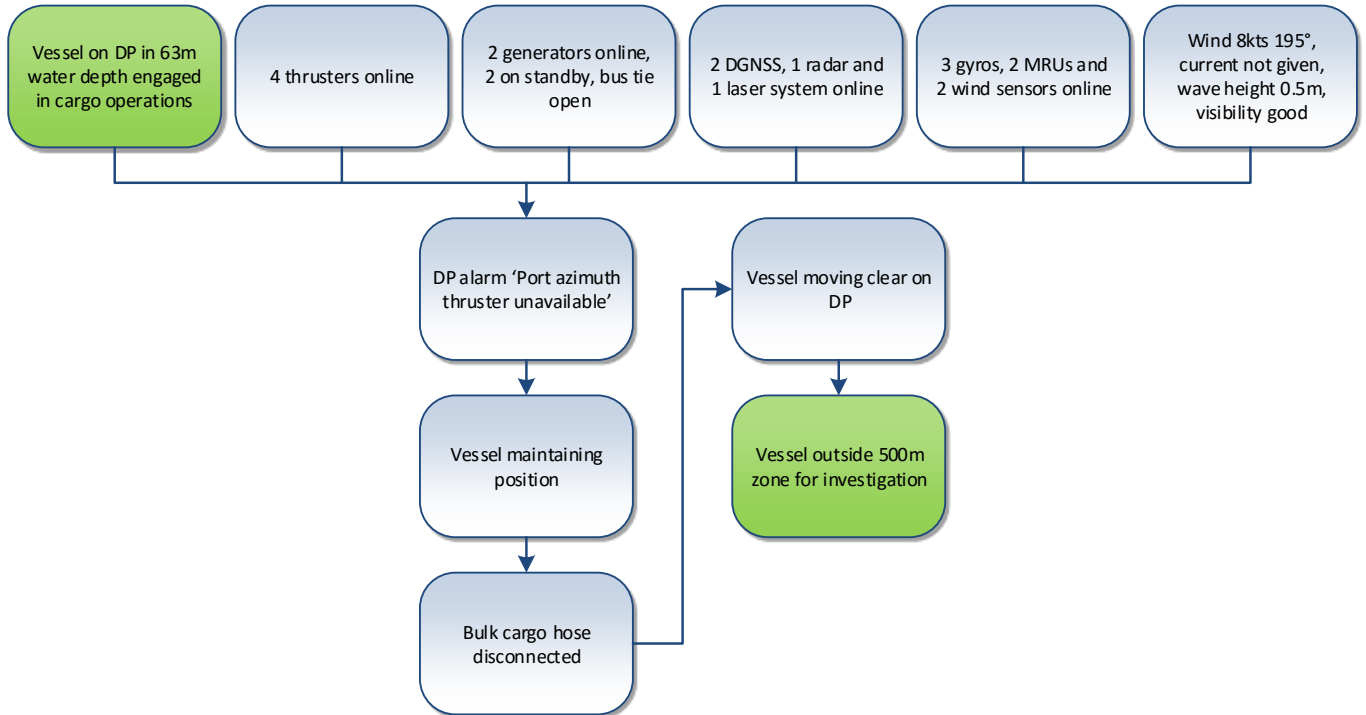
1 Unintentional Deselection of a DP Control Function



Considerations from the above event:

- ◆ This event highlights the possible consequences of deselecting critical DP system buttons. Significant changes to any system should not be made during critical phases of an operation.
- ◆ It was considered highly likely that the DPO was performing multiple tasks when the surge button was unknowingly deselected.
- ◆ Tools are available within position reference systems to monitor vessel position and alarm if the vessel moves outside a set limit.
- ◆ Vessel operators should note that this type of event continues to occur and might therefore consider whether additional barriers should be put in place for critical switches.

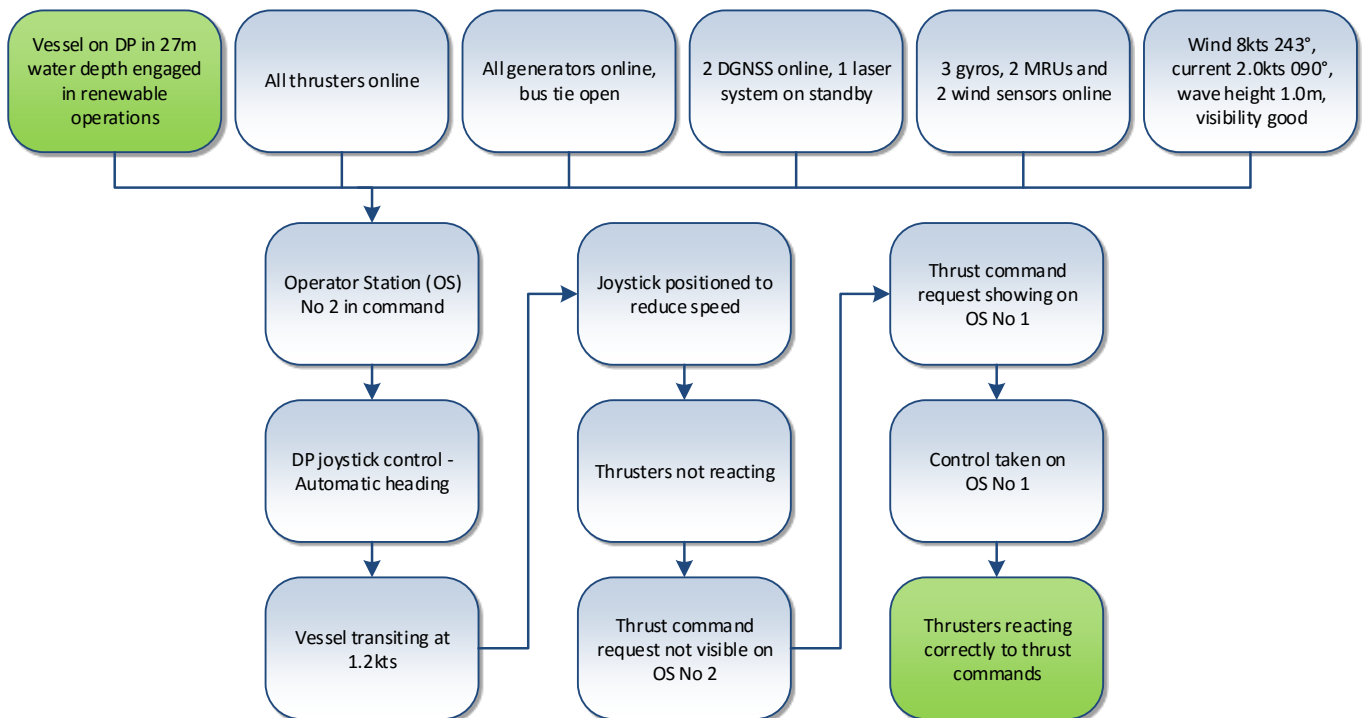
2 Thruster Failure and Unavailability



Considerations from the above event:

- ◆ The crew followed good procedures by suspending operations in a controlled manner ready for investigation.

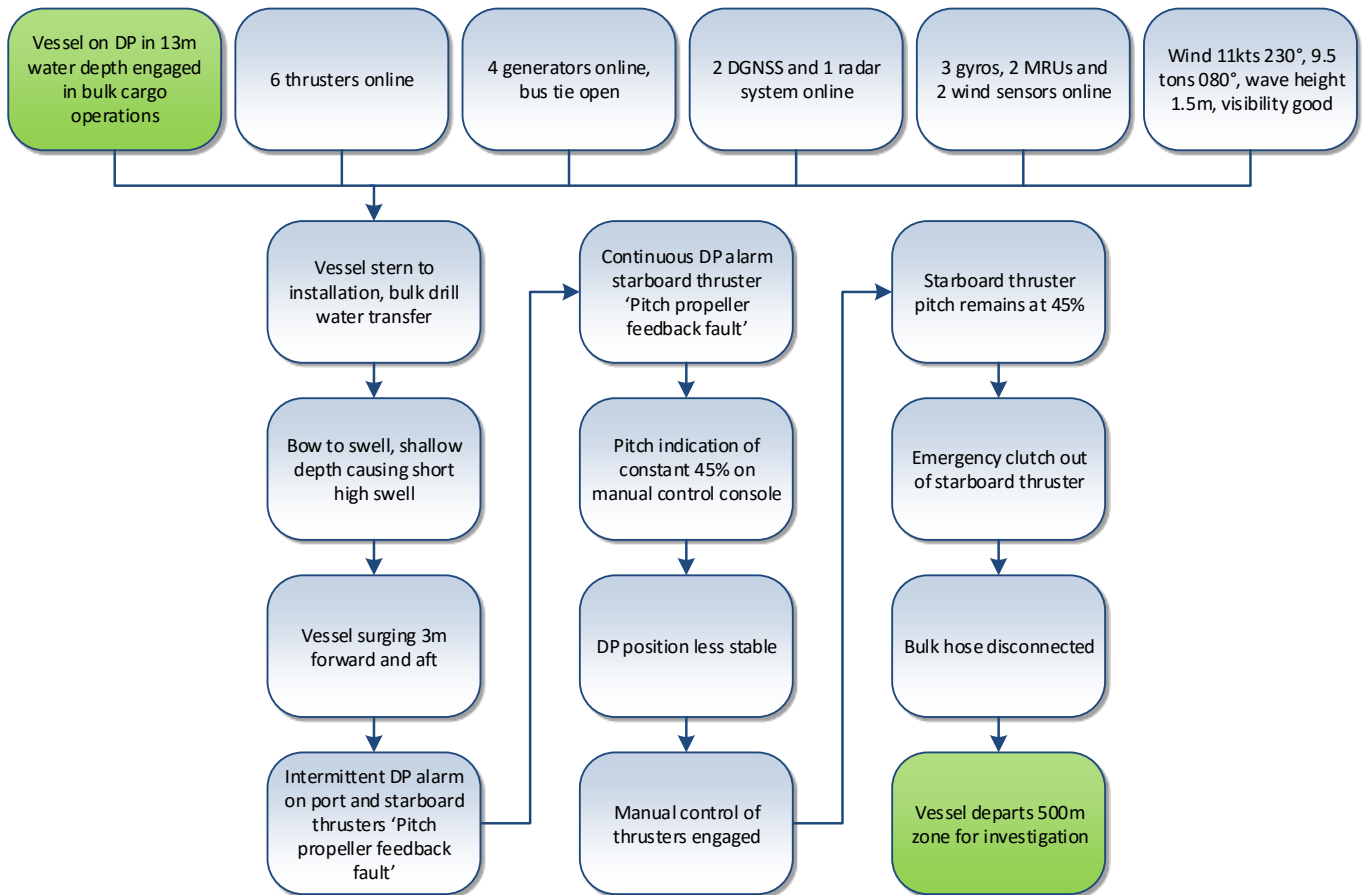
3 Differences Between Operator Stations



Considerations from the above event:

- ◆ Whilst it is not clear what caused this event it does stress the importance of field arrival and set up tests designed to identify operator station differences.

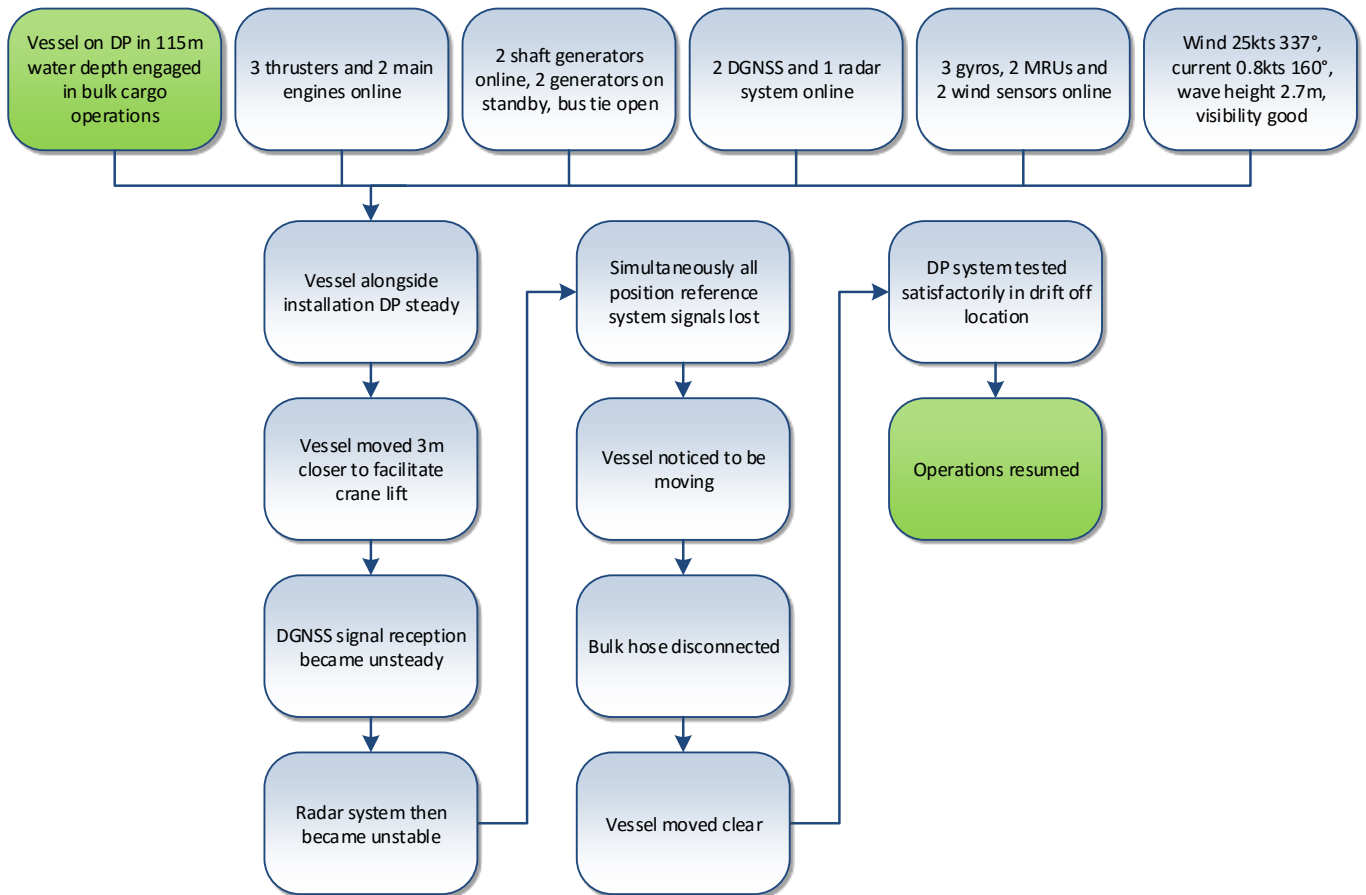
4 Thruster Fault



Considerations from the above event:

- ◆ All available means should be used to identify the faulty thruster and then shut it down as deselecting it from the DP system might not be effective.
- ◆ Depending on the time frame, it is recommended that the bulk transfer hose is disconnected prior to engaging manual control of thrusters.
- ◆ It should be noted that on a vessel that utilises main propellers for DP, pitch should fail safe to zero. This is because the second propeller, working astern, would not be able to compensate for the erroneous thruster working ahead.

5 Instability of Position Reference Systems



Considerations from the above event:

- ◆ It is not clear from the report whether it was the differential correction signal or satellite constellation that was shielded, however operators need to be aware of shielding and shadowing in similar situations.
- ◆ The GNSS constellation screen should be consulted and considered prior to moving closer to a possible obstruction.
- ◆ The reflector for the radar system might not have been sited for optimum performance; did the crane shield the radar from the reflector?