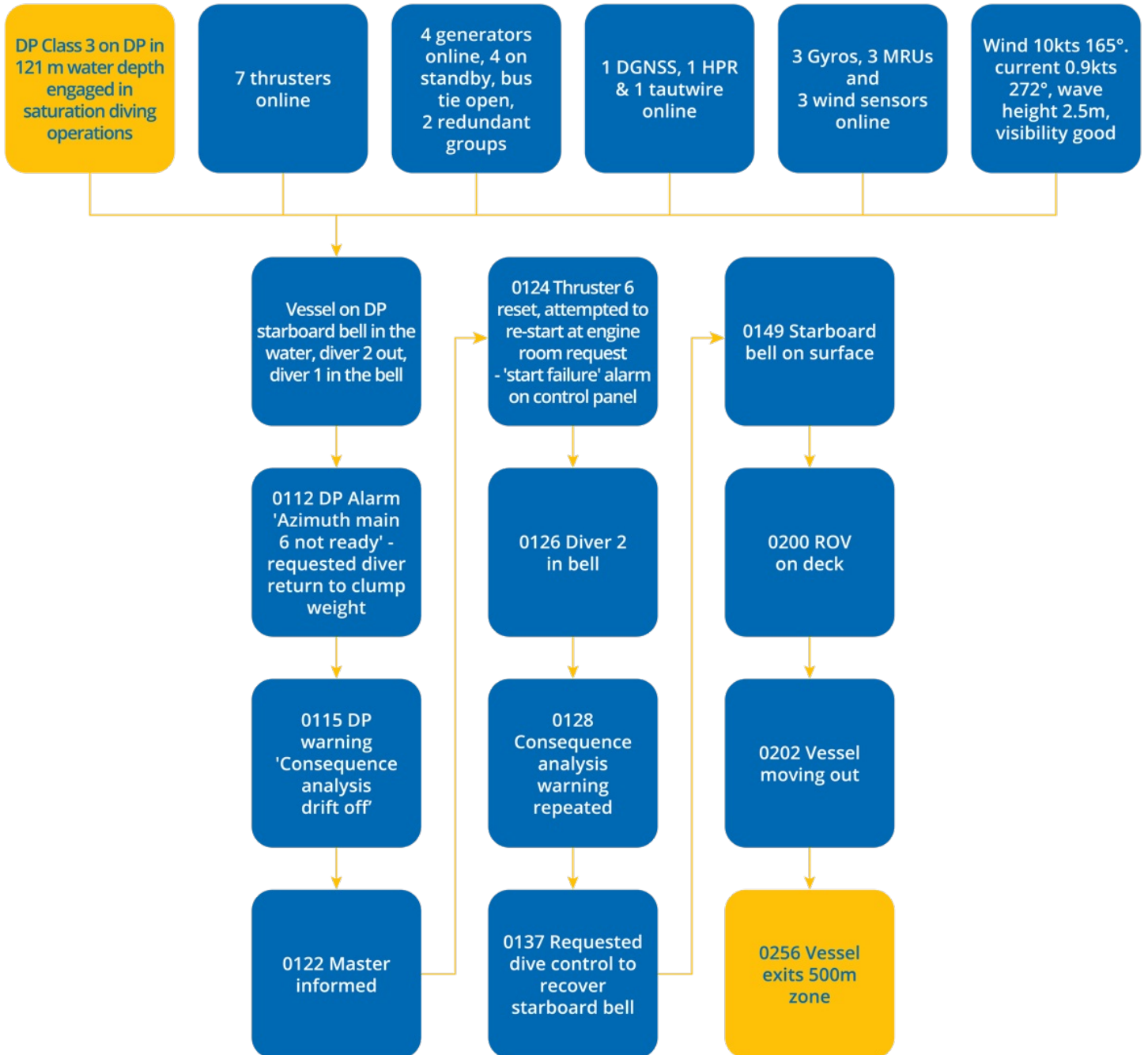


Electrical fault causes loss of thruster

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One of the three frequency converters on the port azimuth thruster was found to be burnt out.



Comments

One of the three frequency converters on the port azimuth thruster was found to be burnt out.

Initial actions:

- The thruster was isolated and faulty converter dismantled.
- Under the instructions from the manufacturer, the thruster was set up to work up to a maximum of 60% of the load.
- The activity specific operating guidelines (ASOG) was revised to reflect the new power limits on the main propulsions.

Considerations

- The DP Yellow Alert should be initiated.
- The vessel had lost redundancy, but was not losing position. It is highly likely the damage caused by the burnt-out converter would have been visible, so thruster six should have been checked prior to restarting.
- The best policy is often to take time and assess the situation prior to attempting a restart.
- Reducing the maximum power available from one azimuth thruster to 60% would require the capability plots to be revised in order to reflect this limitation in post failure position keeping ability. It is assumed that appropriate DP capability plots were produced to support the revision in the ASOG.

The case studies and observations above have been compiled from information received by IMCA. All vessel, client, and operational data has been removed from the narrative to ensure anonymity. Case studies are not intended as guidance on the safe conduct of operations, but rather to assist vessel managers, DP operators, and technical crew.

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