

Failure is an Option

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Abstract

All DP vessels class 1 and above require some level of redundancy and therefore fault tolerance. So failure is always a consideration at the forefront of the DP vessel design and testing. The DP system design needs to be fault tolerant.

Frequently however designers and vessel crew are not comfortable with this concept of 'thinking failure' and seem to require the design to be fault resistant. They therefore choose to build in back up features that are brought into operation after a failure occurs (more in keeping with NASA's motto – **'failure is not an option'!!**). However all too often these create unnecessary complication, changeovers, operational traps, more failure modes etc.

This paper provides a number of examples from the author's own experience and other examples canvassed from the DP community.

The intent is to raise awareness of this issue and encourage interested readers to review their own DP vessels and designs from the point of view of unnecessary complication.

Before the examples are given is a short review of what a **'failure'** means in the context of a Dynamic Positioning system.

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