

SOP-GYRE-002 Loss of Steering

- 1.0 [Introduction](#)
- 2.0 [Responsibility](#)
- 3.0 [Procedures](#)

1.0 Introduction

The purpose of this procedure is to establish general instructions for responding to a loss of steering event onboard the R/V Gyre. This vessel may lose steering control at any time due to a variety of mechanical, electrical or physical problems. Understanding and following established protocols may mitigate the severity of the incident.

2.0 Responsibility

The Captain has overall responsibility and coordinates all activities in the event of the vessel losing steering. The Captain will begin procedures on the vessel to restore steering. The Captain will contact the engine room and inform the engineering staff of the situation.

The Chief Engineer is responsible for beginning any procedures or repairs necessary to restore steering capability. If steering cannot be restored on the vessel, the Captain will call for outside assistance.

3.0 Procedures

There are five modes of steering on the R/V Gyre: Autopilot, Non-Follow Up (NFU), Full Follow-Up (FFU), KNav and ship's wheel.

When steering is lost the following steps should be taken:

NOTE IN ALL LOSS OF STEERING CASES YOU MUST TRY FIRST TO CHANGE THE STEERING PUMP IN SERVICE, TO AVOID PUMP FAILURE.**

You must recover steering control with any of steering modes available depending which steering mode was lost.

- **Autopilot** - If you lose the Autopilot the following steering modes won't be available: Autopilot, FFU and KNav. You must try first to recover control of the

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			Page 1 of 2

steering with NFU or the Wheel. If those modes also fail then you must switch to Emergency Steering locally in the steering room with engineers assistance.

NFU - This mode works independently of the Autopilot. Try first to recover steering control of the vessel with any of the other steering modes. If that fails, switch to Emergency Steering locally in the steering room with the engineer's assistance.

Wheel - This mode works independently of the Autopilot. Try first to recover steering control of the vessel with any of the other steering modes. If that fails you must switch to Emergency Steering locally in the steering room with engineer's assistance.

FFU - This mode works through the Autopilot. If Autopilot fails, first try to recover the steering control of the vessel with any of the rest steering modes. If the other steering modes also fail, you must switch to Emergency Steering locally in the steering room with engineers assistance.

KNav - This mode works through the Autopilot. Loss of steering could be due to Autopilot failure or KNav failure. First try to recover steering control of the vessel with any of the other steering modes. If those also fail, you must switch to Emergency Steering locally in the steering room with engineers assistance.

Emergency Steering You must resort to emergency steering with the engineers assistance only when all the rest of the steering modes have failed.

Only after steering control of the vessel is recovered, can you investigate the cause of the failure and contact the home office and any other resources for assistance.

When under Emergency Steering control , you must inform any nearby vessels by VHF on CH/16, also use the appropriate signals (day-two black balls on yard arm, night-turn off white mast light and turn on 2 red mast lights), change the AIS status.

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			Page 2 of 2