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TMC Marine – providing expert advice and support to the marine industry since 1979
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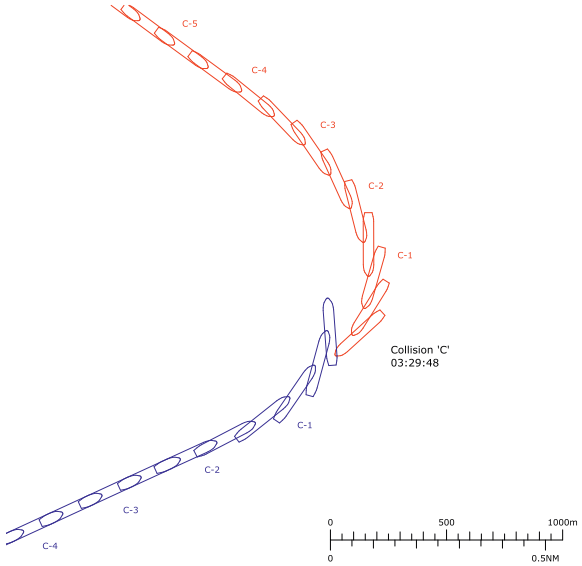
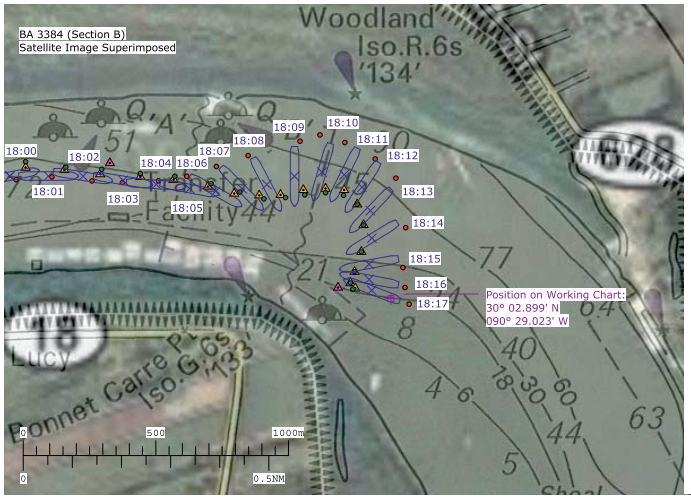
COLLISION ANALYSIS

TMC have over 15 years of experience running manoeuvring models to assist clients in understanding how a collision or grounding occurred. We have investigated the effect of shallow water on the hull speed and the turning ability of vessels, interaction effects such as squat and bank suction, the influence of wind and waves, bow thrusters and tug assistance among other things.

The volume of navigation data available from Collision and Grounding cases has increased significantly over the last 15 years, and TMC have evolved our analysis techniques and software accordingly.



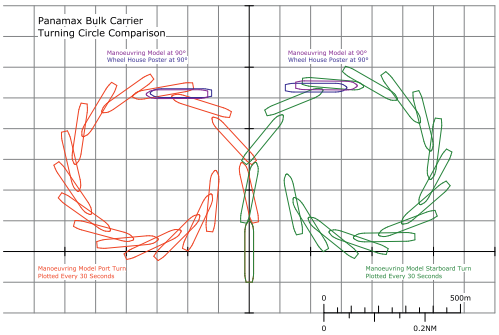


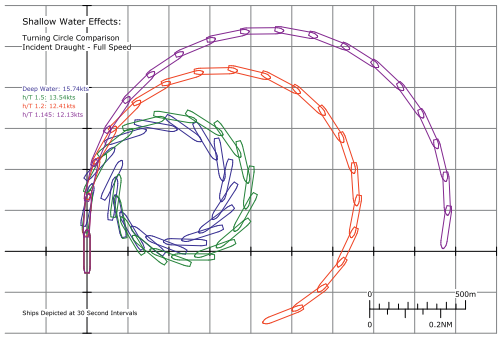
Traditionally the only data available would come from witness statements, log-book/bell-book entries, a limited number of vessel positions marked on working charts, and occasionally a course recorder trace or an engine data logger.

In order to piece together the evidence available, TMC developed our own in-house mathematical manoeuvring model software in order to help us to build reconstruction plots.

Today TMC increasingly produce reconstruction plots by extracting the electronic data available: from the NMEA sentences and X-Band/S-Band radar screen-captures recorded by a vessel's voyage data recorder (VDR), AIS data from various sources, analysis of port radar and VTS data, and detailed study of portside closed circuit television camera footage.

TMC's in-house suite of manoeuvring software also allows us to investigate the outcome and influence of any number of possible "What if?" scenarios, and we constantly develop and evolve our collision analysis and software to ensure that we can continue to meet the precise requirements of our clients.





Alongside the traditional (computer generated) paper plots used in Court and Arbitration, TMC's BridgeView program gives a realistic view of a developing situation as it might be seen from the perspective of the Watch Officer on the bridge of a vessel, together with displays of navigational data, the X-Band/S-Band Radar screen-captures, and recorded bridge audio from the vessel's VDR.

TMC have the in-depth knowledge and the flexibility to customise our software, presentation and methodology if required, so that our analysis is always tailored to meet the different requirements of each specific case.