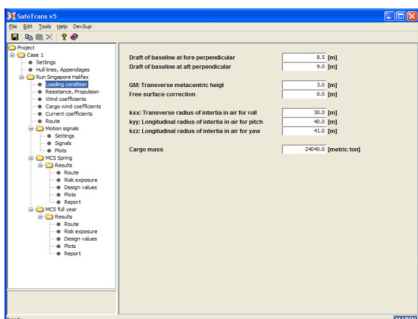# SafeTrans

The safe design and operation of marine transports

SafeTrans Office Software is an integrated tool to design and operate marine heavy lift transports and installations of major facilities. And in a safe and efficient manner, using modern PC-based analysis methods, databases, and hydrodynamics. SafeTrans covers all types of marine transportations along any distance, and shorter tow-outs and installations. SafeTrans can also provide guidance for critical operations such as pipe-lays, platform removal or drilling.

SafeTrans can accommodate tows (both wet and dry), and heavy-lift operations using vessels of virtually any shape and size. If you have detailed model data for your fleet, SafeTrans will utilise it.

SafeTrans uses intuitive graphical user interface to collect background information. An "outline" structure allows the user to navigate the program easily.
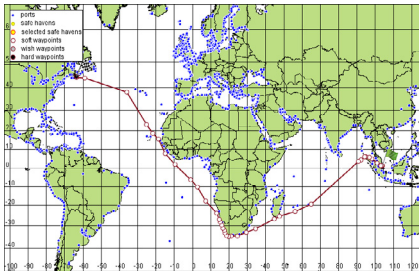
Applications

The SafeTrans software system has two major applications:

1. Sea transport simulations: an office-based simulator to calculate criteria, demonstrate tow scenarios, and optimise a tow. The simulations account for various risks including human errors. It considers delayed starts, routing changes, weather forecast errors, and safe havens. The simulator includes sophisticated ship dynamic models that can handle almost any shape or can be customised for your specific fleet.

2. Offshore operations: a simulation system for operations on one location, to be carried out in sequential steps with varying go/no-go criteria. Tasks which can be interrupted for weather and tasks which may not be disrupted (critical tasks) can be distinguished.
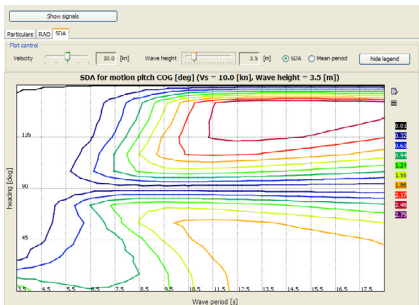
System features

A geographical plotting routine is included to define the planned route and indicate sailing restrictions. During simulation it shows vessel position and severe weather.

The program uses an intuitive Graphical User Interface that includes tool tips and on-line user manuals. Intermediate results are reviewed with Microsoft Excel, a familiar interface for everyone. Graphical presentation can be made with the help of wizard-guided analysis routines.

Routes can be quickly selected and reviewed using the graphical map interface. Databases are included for safe-havens, wind and waves, bathymetry, and marine hazards.

SafeTrans can handle virtually any vessel shape and uses sophisticated vessel dynamic models to simulate the motions.

For more information on the SafeTrans software and SafeTrans User Group contact: Rob Grin

T + 31 317 49 33 58
E SafetransUG@marin.nl

SafeTrans incorporates state-of-the-art ship dynamics that include non-linear roll damping, green water (water on deck) and wind loads. A recent 10-year wave and wind database is included and derived from state-of-the-art numerical forecast models. The database includes forecast time horizons up to 7 days. This allows SafeTrans to account for differing forecasting accuracy around the world.

An intuitive user interface helps the user to select the various modes of operation of the SafeTrans System and in this way allows efficient setup of input, computations and analysis actions.

SafeTrans - a de facto standard

Towing and installation of offshore facilities involves a broad spectrum of expertise and companies. With this in mind, the project was formed as a Joint Industry Project (JIP) with the goal to attract all the major players including towing & heavy lift companies, oil companies, drilling contractors, insurers, designers and warranty surveyors.

This goal was achieved with remarkable success: the JIP attracted 32 companies. These companies have worked closely together during the development to insure that the considerable experience of the participants is included in the SafeTrans software.

After the first release in 2001, a User Group was formed with at present 17 members, providing valuable feedback and exchange of user experience. The software was approved as engineering tool for marine transports and operations by DNV in 2007.

With this broad base of major players and active participation it is believed that SafeTrans becomes a de facto standard for the marine transportation industry.