

Printed Condition Reports

PAXSTAB provides clear and easy to read printed summary of the loading condition

On-Screen Summary

PAXSTAB shows you constantly updated summary of the current loading condition

The screenshot displays the PAXSTAB software interface. At the top, it shows the ship name 'm.v. Palace of the Seas' and 'Training Conditions FSM'. Below this, there's a summary of arrival conditions at Southampton on 19-JUL-2014 at 06:00, including Trim (+ve bow) ≈ -0.434, KGF 10.882, DWT 3102.39, List (+ve stbd) ≈ 0.000, MaxKGF ≈ 11.061, Displacement ≈ 16287.73, GMf 0.991, and Diff -7.87. A table lists various tanks and their weights, VCG, LCG, TCG, and FSE. A 'Print Preview' window is open, showing a detailed summary table with columns for ITEM, S.G., WEIGHT, V.C.G., Mv, L.C.G., MI, T.C.G., Mt, and FSE(cm). A 'KG Envelope Curve' plot is also visible, showing a red line representing the limiting curve on a grid of KG(m) vs Draft(m). The plot includes a 'PROHIBITED AREA' above the curve and a 'PERMITTED AREA' below it. A data box on the plot shows KGF = 10.882, Draft = 7.63, and Trim = -0.434.

Limiting KG/GM Curve

PAXSTAB shows you constantly updated plot of the current draft/KG/GM on the Limiting Curve for the current trim.

PAXSTAB – Trim & Stability Overview

PAXSTAB's Trim & Stability Module is a computerised Stability System designed specifically for passenger ships which enables the ship's officer to quickly and accurately calculate the ship's intact stability condition.

At the heart of PAXSTAB is a database which contains ALL the ship's stability characteristics as well as details of its various compartments. To calculate a condition, all the ship's officer has to do is supply the volume, weight or sounding for each compartment. Using the supplied weights in conjunction with the stability database, the program automatically calculates displacement, drafts, GM, GZ and areas under the curve for a range of heel angles.

A summary of these results is continuously displayed in a status window at the top of the screen.

All of the calculations which are necessary to keep this summary up to date are performed instantaneously each time a volume, weight or sounding is entered by the officer

PAXSTAB also compares these results with the various statutory and company restrictions which apply to the ship. Failure to comply with these requirements, causes warnings to be displayed on the screen. In this way, the officer receives immediate feedback as to the effects of adding or removing each individual weight.

To see more information about a condition, PAXSTAB provides Summary and Detailed reports, also graphical presentations of the GZ and Limiting KG/GM Envelope Curves. These can be displayed on the screen or printed to provide a permanent record.

PAXSTAB - T&S - is Easy to Use

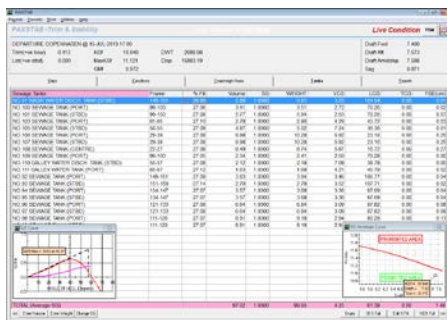
- Easy to use by ship's officers who have little or no previous computer experience.
- Automatic rejection of incorrect data entries.
- Current Condition Status constantly displayed.
- Comprehensive User Manual, complete with Training Exercises.

The screenshot shows a software window titled 'PAXSTAB - T&S - is Easy to Use'. It displays a 'Current Condition Summary' table with columns for Tank, Location, Displacement, Density, and other parameters. The table lists various tanks and their corresponding data points.

Current Condition Summary constantly displayed

PAXSTAB - T&S – Operating Modes

- 'Live', 'Training/Practice' and 'Standard' modes of operation.
- Ability to save, rework, copy and delete multiple loading conditions.
- Facilities to store frequently used or special loading conditions in 'Standard' mode.
- Sample conditions from the Approved Stability Information Booklet provided on-line for reference and easy verification of program results.



Option to have Limiting KG/GM Envelope Curve and/or GZ Curve constantly displayed on screen.

PAXSTAB T&S – has Support for:-

- Trimmed or Level Keel Hydrostatics.
- Trimmed or Level Keel Cross Curves of Stability.
- Cross Curves of Stability expressed as KN or MS Curves.
- Metric/Imperial units of measurement.
- Switching between Metric/Imperial units for Observed Draft input for ships which have both metric & imperial draft marks.
- Observed Draft measurements relative to Reference Points for vessels without conventional draft marks.
- Multiple ships on a single computer for use in owner's office .

PAXSTAB - T&S – Data Entry

- Input by Volume, Weight, Sounding (or Ullage).
- Flexible recording of difficult to estimate items, such as Stores, Sewage and Passenger Weights.
- Variable VCG, LCG, TCG and Free Surface depending on level of filling.
- Individual Specific Gravity recorded for each tank.
- Observed Drafts used to check accuracy of calculations.
- Corrections for Dock Water Density.
- Corrections for Hog or Sag.
- Automatic Adjustments for British Merchant Shipping Notice M1413.
- Stowage Plan Module for Hold cargo.
- 'Tabular', 'Cell', 'Quantity' and 'Graphical' input of vehicle deck loading plans for Ro-Ro vessels.
- Warnings of flooding through shell openings for Ro-Ro vessels.

PAXSTAB - T&S - Results Displayed & Printed

- Current Drafts, GM, etc. constantly displayed and automatically updated as each dwt. item is entered.
- Standard and Detailed Summaries displayed on screen or printed on request.
- All printed summaries include full range of drafts, centres of gravity, displacement, etc.
- GZ Curve may be displayed on-screen or printed.
- Limiting KG/GM Envelope Curve may be displayed on-screen or printed.
- Options to have GZ Curve and/or Limiting KG/GM Envelope Curve constantly displayed on screen and automatically updated each time a change is made to the condition.
- Warnings if any statutory or company imposed operating restrictions are breached.
- Angle of Heel calculations for asymmetrical loading, passenger crowding and turning at speed.
- Comprehensive Range of Reports including GM Calculation/Check Sheet, Data Entry/Collection Form (i.e. Sounding Sheet), Tank Capacity Tables, Stability Cross Curves, Vessel Hydrostatics, Tank Sounding Tables, etc.

Installation & Support:-

For each ship, Minitech will prepare a stability database from a number of sources including the most recent Inclining or Lightship Check Report, Approved Stability Information Booklet, Compartment Capacity Tables, Capacity Plan, General Arrangement, Hydrostatic Tables, Cross Curves of Stability and Curves of Limiting KG/GM.

Once initial setup is complete, Minitech provides a complete on board installation and training service. Minitech can also provide a post-installation Support Service, including telephone support, regular program updates and in-service visits.

System Requirements: Win XP with 1GB RAM, Vista or Win7/8 (32 bit) with 2GB RAM or Win7/8 (64 bit) with 4GB RAM, 30MB free hard disk space and a printer.