DESCRIPTION OF SHIP’S SQUAT/UKC/SPEED LOSS AND TIDE CALCULATIONS

BRIEF DESCRIPTION

By predicting the maximum ship’s squat for a given situation, the advantages that can be gained are numerous, from saving the cost of a very large repair bill to even extra earning capacity. With this unique Option, you can have calculated your ship’s squat in several speeds, as well as the under keel clearances, the speed loss in restricted waters and your vessel’s static condition from dynamic drafts.

This Option is based on the over than 36 years experience and research of Dr. Bryan Barrass (UK). Through our company, in cases of incident involving squat, Dr. Bryan Barrass is also available as expert witness.

This module incorporates the Tide Calculations, an option, which is using the Simplified Harmonic Method of Tidal Prediction (uses Harmonic Constants Published in Part III of these Tables and the Tidal Angles and Factors from Table VII) and various Inputs and calculates Tide of Height and UNDER KEEL CLEARANCE (UKC).

NOTE: The clients, who are already registered with United Kingdom Hydrographic Office concerning the Admiralty Digital Publications SDK, can make of use the Harmonic Data ((Digital Tide Tables) for a particular location (Port) as an add-on “(Communication Protocol)” to our software in order to avoid the manual input of Harmonic Constants.

This module includes the “STATIC CONDITION FROM DYNAMIC DRAFTS” feature that will assist in determining the Ship Static Drafts obtained from Dynamic Drafts due to Squat vs Current Speed in open water and confined channels.
Features of the ship's squat / under keel clearances / speed loss at restricted waters & static condition from dynamic drafts for vessel and office application like:

- Ship Static Condition from dynamic drafts
- Table Results with calculated Ship Squat, UKC and dynamic drafts vs Speed along with graph figures.
- Calculated grounding Speed, the Safe Speed, the Grounding Area and the Loss of Speed
- Table Results with calculated Ship Static Drafts
- Literature notes on how the Ship’s Squat affects the vessel’s behavior
- Print-out options
- In-House Development
- Automatic synchronization of data between vessel and office