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NAVCOM is a converter/calculator for converting true directions into magnetic and compass directions and for unconverted from compass and magnetic directions into true directions. It is used during navigational charting and course plotting on marine navigational charts.

NAVCOM also includes a time-speed-distance calculator which solves time-speed-distance calculations used for navigational purposes.

To use NAVCOM, first determine what you know and what you need to solve.

TRUE DIRECTIONS TO COMPASS READINGS

TRUE DIRECTIONS TO MAGNETIC BEARINGS

MAGNETIC BEARINGS TO TRUE DIRECTIONS

COMPASS READINGS TO TRUE DIRECTIONS

HOW TO CREATE A DEVIATION TABLE

TIME-SPEED-DISTANCE CALCULATIONS

TRUE -> COMPASS

1. Enter the true bearing into the TRUE bearing field.
2. Enter the local variation from the chart of the area you are interested in using the East and West variation buttons.
3. Either:
 - a. Enter the deviation of the vessel's compass from the magnetic heading shown by NAVCOM using the East and West deviation buttons.or
 - b. Press the Auto button to enter a deviation table for the vessel which already exists. NAVCOM will look up the proper value for each magnetic reading calculated.

TRUE -> MAGNETIC

1. Enter the true bearing into the TRUE bearing field.
2. Enter the local variation from the chart of the area you are interested in using the East and West variation buttons.

MAGNETIC -> TRUE

1. Enter the magnetic bearing into the MAGNETIC bearing field.
2. Enter the local variation from the chart of the area you are interested in using the East and West variation buttons.

COMPASS ->TRUE

1. Enter the magnetic bearing into the COMPASS reading field.
2. Either:
 - a. Enter the deviation of the magnetic bearing from the vessel's compass shown by NAVCOM using the East and West deviation buttons.or
 - b. Press the Auto button to enter a deviation table for the vessel which already exists. NAVCOM will look up the proper value for each reading reading entered.

HOW TO CREATE A DEVIATION TABLE

A deviation table allows NAVCOM to automatically look up your vessel's deviation of its compass at any heading needed. This greatly speeds up the process of converting between TRUE and Compass directions.

TO CREATE A DEVIATION TABLE

Using a text editor such as "Windows Write" or any other text editor which can create "text only" files, create a file of any name of up to 8 characters with the extension ".DEV", which has the following characteristics:

1. Lines which begin with a hyphen "-" character are comments.
2. Any portion of a line following a hyphen is a comment.
3. Blank lines are permitted.
4. The file must contain a line which begins with the word "Correcting", followed by any number of lines (at least 3) which contain the deviation from compass to magnetic, formatted as 3 digits, a comma followed by up to 3 digits and the letter "E" (for East deviation) or "W" (for West deviation).

EXAMPLE: 030,5E

Which means at compass reading 030, the compass reading deviates by 5 degrees East. (the actual magnetic heading is 035M).

5. The file must contain a line which begins with the word "Uncorrecting", followed by any number of lines (at least 3) which contain the deviation from magnetic to compass, formatted as 3 digits, a comma followed by up to 3 digits and the letter "E" (for East deviation) or "W" (for West deviation).

EXAMPLE: 270,3W

Which means at magnetic heading 270, the compass reading deviates by 3 degrees West. (the actual compass reading would be 273C).

NOTE: See the sample deviation files "CRUISE.DEV" and "WORKBOOK.DEV" supplied with NAVCOM



TIME-SPEED-DISTANCE CALCULATIONS

To calculate **T-S-D**, you will know 2 of the three values. Simply place the cursor into the fields you know and enter their values. The third will be calculated using the two values you enter.

NOTE: Which value is calculated is controlled by which two fields the cursor was last in. The remaining field value is calculated.