

# NavMonPc NMEA Inputs and Priorities

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NavMonPc interprets and displays data carried in NMEA-0183 sentences. Since these NMEA sentences can have numerous options, and the same data can be carried by different sentence-types, NavMonPc will attempt to use the best available data. If some desired data is not provided, where possible NavMonPc will calculate this missing data using the available data.

The list below describes the parameters displayed by NavMonPc. The data used for each displayed item can often potentially come from many sources. In general NavMonPc searches the available NMEA received data, internally calculated data, and user-provided data, in the order shown here.

NMEA sentences are indicated by a three-letter identifier (RMC, HDT, etc.) Internally selected or calculated parameters are indicated by a lower-case identifier (cog, awa, tws, magvar, etc.)

## Lat/Lon

1. User
2. GGA
3. RMC

## GPS Time

1. RMC
2. ZDA
3. GGA
4. GLL
5. BWC

## Date

1. RMC
2. ZDA

## Magnetic Variation

1. RMC (option auto)
2. Calculated (option calc)
3. User-entered (option user)

## Speed Over Ground

1. RMC
2. VTG

## Course Over Ground

1. RMC
2. VTG (true)

3. VTG (magnetic) + magvar

## Heading

1. User-entered heading (if enabled)
2. HDT
3. VHW (true)
4. HDM + magvar
5. HDG + magvar
6. VHW (magnetic) + magvar
7. cog (if HDG = COG option enabled)

## Speed Through Water

1. VHW

## Apparent Wind Speed

1. MWV (relative)
2. VWR

## Apparent Wind Angle

1. MWV (relative)
2. VWR

## True Wind Speed

1. MWV (theoretical)
2. VWT
3. MWD
4. Calculated
  - a. option ground wind: awa, aws, sog, stw, hdg, cog
  - b. option water wind: awa, aws, stw, hdg

## True Wind Angle

1. MWV (theoretical)
2. VWT
3. MWD (twd, true) – hdg
4. MWD (twd, magnetic) + magvar – hdg
5. Calculated
  - a. option ground wind: awa, aws, sog, stw, hdg, cog
  - b. option water wind: awa, aws, stw, hdg

## True Wind Direction

1. MWD (true)
2. MWD (magnetic) + magvar
3. TWA + hdg

## **Depth**

1. DBT + dial offset
2. DPT + dial offset
3. DBK + dial offset
4. DBS + dial offset

## **Water Temperature**

1. MTW

## **Target Boat Speed**

1. TBS

## **Waypoint**

1. RMB
2. BWC
3. WPL
4. WCV
5. User-entered

## **Crosstrack**

1. XTE
2. Calculated

## **Transducer**

1. XDR

## Notes

Some NMEA sentences have alternate formats, and may omit certain data fields. See below for examples:

### **MWD (Wind Direction and Speed)**

MWD can carry any or all: Wind Direction True, Wind Direction Magnetic, Wind Speed in knots, Wind Speed km/hr

### **MWV (Wind Speed and Angle)**

MWV will carry either Relative or Theoretical (Apparent or True) wind data.

### **VHW (Water Speed and Heading)**

VHW can carry any or all: True Heading, Magnetic Heading, Speed in knots, Speed in km/hr

### **VTG (Course Over Ground and Ground Speed)**

VTG can carry any or all: True Course, Magnetic Course, SOG in knots, SOG in km/hr