

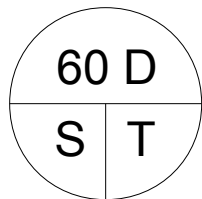
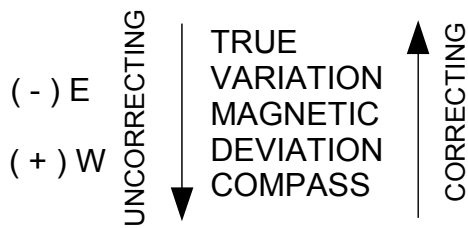
## Charting Quick Reference

This is sized for 8.5 inch x 11 inch paper (Letter size)  
I use 65 lb Cover or Card Stock of a contrasting color  
Contrasting color makes the sheet easier to find  
Print on front and back then cut paper in half  
Best results print full size  
Also print test copy is recommended

Revised Aug 23,2014

Feedback: [mike@captnmike.com](mailto:mike@captnmike.com)

## Navigators Quick Reference Card



Distance  
Speed  
Time (Min)

025 or 025T – TRUE

025M – MAGNETIC

025C – COMPASS

TIME = 4 DIGITS (24HR)

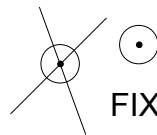
COURSE = 3 DIGITS ( 000 (common) or 000.0 )

S 10 or S 10.5 = SPEED ( 0.1 KTS MOST APPS)

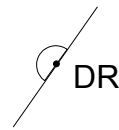
RELATIVE BEARING + SHIPS HEADING = ACTUAL

C 090T

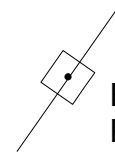
S 10.5



FIX



DR



ESTIMATED  
POSITION

Speed (S):  $S = ( 60 \times D ) / T$   
Speed in Knots or Nautical Miles per Hour

Time (T):  $T = ( 60 \times D ) / S$   
Time is always in minutes

Distance (D):  $D = ( S \times T ) / 60$   
Distance is always nautical miles (nm)

1 nm = 1 Minute of Latitude = 6000 ft = 2000 yards (Many Calculations)

60 nm = 1 Degree of Latitude

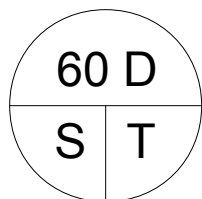
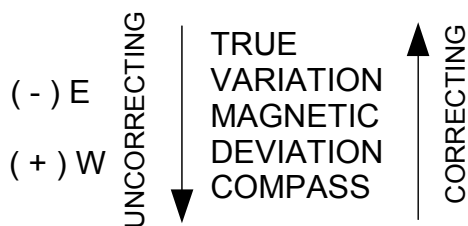
1 nm = 1852 meters = 6076 ft (International Treaties)

1 nm = 6100 ft (some calculations)

1 meter / second = 1.94 knots

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Time (Min)

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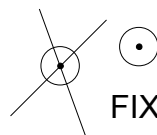
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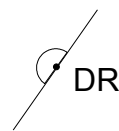
RELATIVE BEARING + SHIPS HEADING = ACTUAL

C 090T

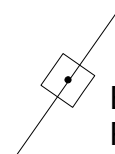
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## Navigators Quick Reference Card

| ITEM               | DIAGRAM         | DESCRIPTION                                                                                                                  |
|--------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------|
| DR Plot            | C 090<br>S 10.5 | Course (090 True) written above line, Speed (10.5 Knots) written below line                                                  |
| DR Position        |                 | Time (24 Hour) Written at angle to semicircle denoting DR position                                                           |
| LOP                |                 | Lightly draw line with Time (24 Hour) above LOP and True bearing beneath                                                     |
| Estimated Position |                 | Square located where dashed perpendicular line from DR position touches LOP                                                  |
| Visual Fix         |                 | Circle where two or more LOP's cross. Time written parallel to LOP lines                                                     |
| Electronic Fix     |                 | Time and method (if relevant)                                                                                                |
| Running Fix        |                 | Circle containing the intersection of a given LOP and another LOP advanced (or retired) in time with RFIX and the time taken |
| Known Position     |                 | Triangle with Time written alongside                                                                                         |

Summary of Common Navigation Drafting Symbols and Their Usage  
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| ITEM               | DIAGRAM         | DESCRIPTION                                                                                                                  |
|--------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------|
| DR Plot            | C 090<br>S 10.5 | Course (090 True) written above line, Speed (10.5 Knots) written below line                                                  |
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