# Motorboat simulator navigational exercises No2

## Passage Planning:                                    Name:

**Plot a position on Chart Aus 811 from the information that has been reported, and use the simulator to find the following casualties. Use *Camden rescue east* Saved Scenery (Port Coastal):**

### Scenario 1:

Blue yacht reports unusual lights distant 0.75NM @ 303°M and gives its position:

| | | |
|---|---|---|
| Crowdy Head Light | (208°M) | Position _____ |
| North Brother(486) | (333°M) | |
| Perpendicular Point | (000°M) | Sounding _____ mtrs |

*Complete the passage details to investigate this report using the tugboat (max speed 10kts):*

TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

### Scenario 2:

*Determine the safest approach to pass a tow to the casualty in Scenario 1 (tug draft 1.8mtrs). Report his position by bearings and Lat /Long. to the VMR:*

| | | |
|---|---|---|
| Crowdy Head Light | (199°M) | Position _____ |
| North Brother(486) | (336°M) | |
| S.E. Diamond Head | (346°M) | |
| Perpendicular Point | (004°M) | Sounding        0 mtrs |

*Plan a passage to tow the casualty (tow speed 8kts) to the Camden Haven River entrance.* Pass Telegraph Rock with an offing of 0.5 NM to Waypoint One (when the tower on North Brother Mountain just clears Perpendicular Head) and then on to Waypoint 2 at the river entrance.

*Passage plan to Waypoint 1.*
TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

*Passage plan to Waypoint 2.*
TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

*At what time should Telegraph Rock be abeam?*
Distance_____NM                                    ETA + 0hrs 0mins _____

### Scenario 3:

At 7.5 NM by the log on passage to Waypoint 1 you sight a missing sailing dinghy swept onto the rocks 1NM abeam of you. *Report this position by Lat /Long. to the VMR. What would the dinghies bearings be if it sighted the mountains below:*

| | | |
|---|---|---|
| North Brother(486) | (_____°M) | Position _____ |
| N.E. Diamond Head | (_____°M) | |

## Scenario 4:

A Blue yacht (broken down) calls for assistance. *Find its position from the bearings given:*

| | | |
|---|---|---|
| Tacking Point Light | (017°M) | Position _____ |
| North Brother(486) | (233°M) | |
| Perpendicular Point | (093°M) | Sounding     2.6 mtrs |

*What is your passage plan from your present position?*

TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins


## Scenario 5:

Sailing dinghy is reported missing at Lake Cathie Entrance:
*Plan a passage to investigate* by passing 1NM clear of Grants Head to Waypoint One, (when the tower on Jolly Nose is in transit with Grants Head), and then on to Waypoint 2 at Lake Cathie Entrance.

*Passage plan to Waypoint 1.*
TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

*Passage plan to Waypoint 2.*
TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

*What is the sailing dinghies position from the given bearings?*

| | | |
|---|---|---|
| North Brother(486) | (198°M) | Position _____ |
| Perpendicular Point | (171°M) | |
| Transit Hill(118) | (022°M) | Sounding _____ mtrs |


## Scenario 6:

12 metre trawler requests fuel:
*What is your passage plan from your present position?*

| | | |
|---|---|---|
| North Brother(486) | (208°M) | Position _____ |
| Transit Hill(118) | (350°M) | |
| Jolly Nose/Cathie | (226°M) | Sounding  17 mtrs |

TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

*At the trawlers side you note (while heading on Mt Cairncross)  your compass appears to be in error. Calculate your deviation on this heading and explain what could cause the error.*
Compass on Mount Cairncross(533)    316°T    (304°M)
Charted on   Mount Cairncross(533)    ___°T    (___°M)    Deviation____ °E/W

**Scenario 7:**
*Note:*
*Set Environment - Wind northerly 20kts –Waves user define 2mtrs @ 100mtrs direction 180°.*

At 1115 a Green yacht reports as drifting off Port Macquarie in a Southerly current of 3 kts.:

Tacking Point                  (201°M)
Bird Rock                      (277°M)
Nobbies Head                   (247°M)                        Sounding  30 mtrs

At 1200 a rescue vessel (speed 13 knots) in a position at Bird Rock is available to respond.

*Describe your plan to intercept the yacht.*
TCTS _____°T   CCTS _____°C   Distance_____NM   ETA + _____hrs ___mins

*Describe the position of the yacht when you intercept and the return passage plan.*

Tacking Point                              Position _____
North Brother(486)
S E Jolly Nose
Perpendicular Point                        Sounding _____ mtrs
Nobbies Head

TCTS _____°T   CCTS _____°C   Distance_____NM   ETA + _____hrs ___mins


**Scenario 8:**
*Note: Use the environmental settings of Scenario 7.*
At 1000 a vessel reports a red buoy drifting off Port Macquarie in a current186° @ 2 kts.:

Red buoy position at 1000:                 Position _____

Nobbies Head                   (185°M)         Sounding  17 mtrs
Mount Cairncross(533)          (259°M)
Point Plomer                   (171°M)

At 1145 a rescue vessel (capable of 11 knots) is at the river mouth available to respond.
*Describe your plan to intercept the buoy.*

TCTS _____°T   CCTS _____°C   Distance_____NM   ETA + _____hrs ___mins

*Describe the position of the buoy when you intercept and the return passage plan.*
Transit Hill(118)              (_____°M)
Broken Bago                    (_____°M)
Point Plomer                   (_____°M)
Red buoy position at 1200:                 Position _____

                                           Sounding _____    mtrs

TCTS _____°T   CCTS _____°C   Distance_____NM   ETA + _____hrs ___mins

**Scenario 9:**
Blue yacht breaks down, anchors and calls for assistance:
At 1200 a rescue vessel (capable of 25 knots) is at the river mouth available to respond.
Between 000°M and 030°M, this rescue vessel experiences 2°W deviation
*Describe your plan to intercept the yacht.*

Broken Bago                     (222°M)         Position _____

Mount Cairncross(533)      (257°M)

Queens Head                (353°M)        Sounding      8 mtrs

TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

**Scenario 10:**
The Blue yacht says it spotted a Green buoy adrift 1.5 miles to the North East. Assume no current.
*Set up a search pattern to find and report the position of the buoy.*

Green buoy adrift:                               Position _____

Tacking Point                 (_____°M)

Broken Bago                   (_____°M)      Sounding _____ mtrs

Mount Cairncross(533)      (_____°M)

Point Plomer                  (_____°M)

TCTS _____°T   CCTS _____°C   Distance____NM   ETA + _____hrs ___mins

**Scenario 11:**
A trawler is overdue at Crowdy Harbour. Orange smoke has been reported east of Crowdy Head by an informant on the rocks below the lighthouse.
*Describe your search pattern to find the trawler and report its found position.*

**Scenario 12:**
A sailing dinghy is missing, last seen at the Hastings River mouth.
*Set up a search pattern to find and report the position of the sailing dinghy.*
**Show me some answers**

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