

All times are DST, unless shown otherwise.

PART A

1. a) Variation on Chart 3, south of Namley Harbour, was $7^{\circ}20'W$ in 2005 decreasing $8'$ annually. So $7^{\circ}04'W$ in 2007 rounded to **$7^{\circ}W$** and $6^{\circ}24'W$ in 2012, rounded to **$6^{\circ}W$** .
b) Yes.
2. a) **$097^{\circ}(M)$** b) **$075^{\circ}(M)$**
3. a) **$263^{\circ}(T)$** b) **$285^{\circ}(T)$**
4. a) Deviation is the effect of the boat's magnetic field on the compass reading. It varies with the boat's heading.
b) Causes include:
Ferromagnetic (iron and steel) objects....engine, keel, hand-held flares, batteries, food or drink cans, some metal frame glasses etc.
Electromagnetic influences....from wire carrying electric current. Mobile phones.
Magnetic influences....from magnets found in loudspeakers and some navigation instruments.