



We are nicely sailing towards St Malo, from Terceira. Weather conditions however have been adverse.

On June 1, conditions improved and a first (noon) sight can be done. We want to try to derive an instantaneous position fix.

The ship's logbook shows an average course steered of 56°, and a distance covered of 1015 NM.

The noon sight reading noted the highest reading of 63°11.5', from 12H30M12S till 12H33M30S.

Lower Limb, HoE 3.5m, IE 2' off.

# Mer Pass Find the Fix Excercise

MER PASS PRO FORMA				De Zeezeilers <small>Zeezeilschool</small>	RYA <small>TRAINING CENTRE</small>									
<p>Date: <input style="width: 100%;" type="text"/></p> <p>EP/DR: <input style="width: 100%;" type="text"/> .X N / S E / W</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">h</td> <td style="text-align: center;">m</td> <td style="text-align: center;">s</td> </tr> <tr> <td>Mer Pass</td> <td><input style="width: 30px;" type="text"/></td> <td><input style="width: 30px;" type="text"/></td> </tr> <tr> <td>(1) Long Time</td> <td><input style="width: 30px;" type="text"/></td> <td><input style="width: 30px;" type="text"/></td> </tr> <tr> <td>LMT time</td> <td><input style="width: 30px;" type="text"/></td> <td><input style="width: 30px;" type="text"/></td> </tr> </table>		h	m	s	Mer Pass	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	(1) Long Time	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	LMT time	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>
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<p>Sextant Reading  (lower / upper)</p> <p>Hight of Eye <input style="width: 30px;" type="text"/> m</p> <p>Index Error <input style="width: 30px;" type="text"/> on / off</p>	<p>Greenwich Date: <input style="width: 30px;" type="text"/> m <input style="width: 30px;" type="text"/> d</p> <p>Chronometer <input style="width: 30px;" type="text"/> m <input style="width: 30px;" type="text"/> s</p> <p>Correction <input style="width: 30px;" type="text"/> m <input style="width: 30px;" type="text"/> s</p> <p>UT Sight <input style="width: 30px;" type="text"/> m <input style="width: 30px;" type="text"/> s</p>													
<p>Sex. Alt. <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> .X</p> <p>I.E. <input style="width: 30px;" type="text"/> (off +, on -)</p> <p>(2) DIP <input style="width: 30px;" type="text"/> (-/+)</p> <p>Apparent Alt. <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/></p> <p>(3) Alt.corr. <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/></p> <p>True Alt. (Ho) <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/></p>	<p>(4) Decl. <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> .X N / S d= <input style="width: 30px;" type="text"/> (+/-)</p> <p>(5) d' <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> (+/-)</p> <p>Decl. <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> N / S</p>													
<p>Ho <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> .X (-/+)</p> <p>ZD <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/></p> <p>Decl. <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> N / S</p> <p>Latitude <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> .X N / S</p>	<p>Longitude: may be derived from Time between SUN stops rising and SUN starts declining</p> <p><small>if ship and Sun on same hemisphere, if LAT &gt; Decl: Lat = Decl + ZD</small></p> <p><small>if ship and Sun on same hemisphere, if LAT &lt; Decl: Lat = Decl - ZD</small></p> <p><small>if ship and Sun on opposite hemispheres, Latitude = ZD - Decl</small></p>													