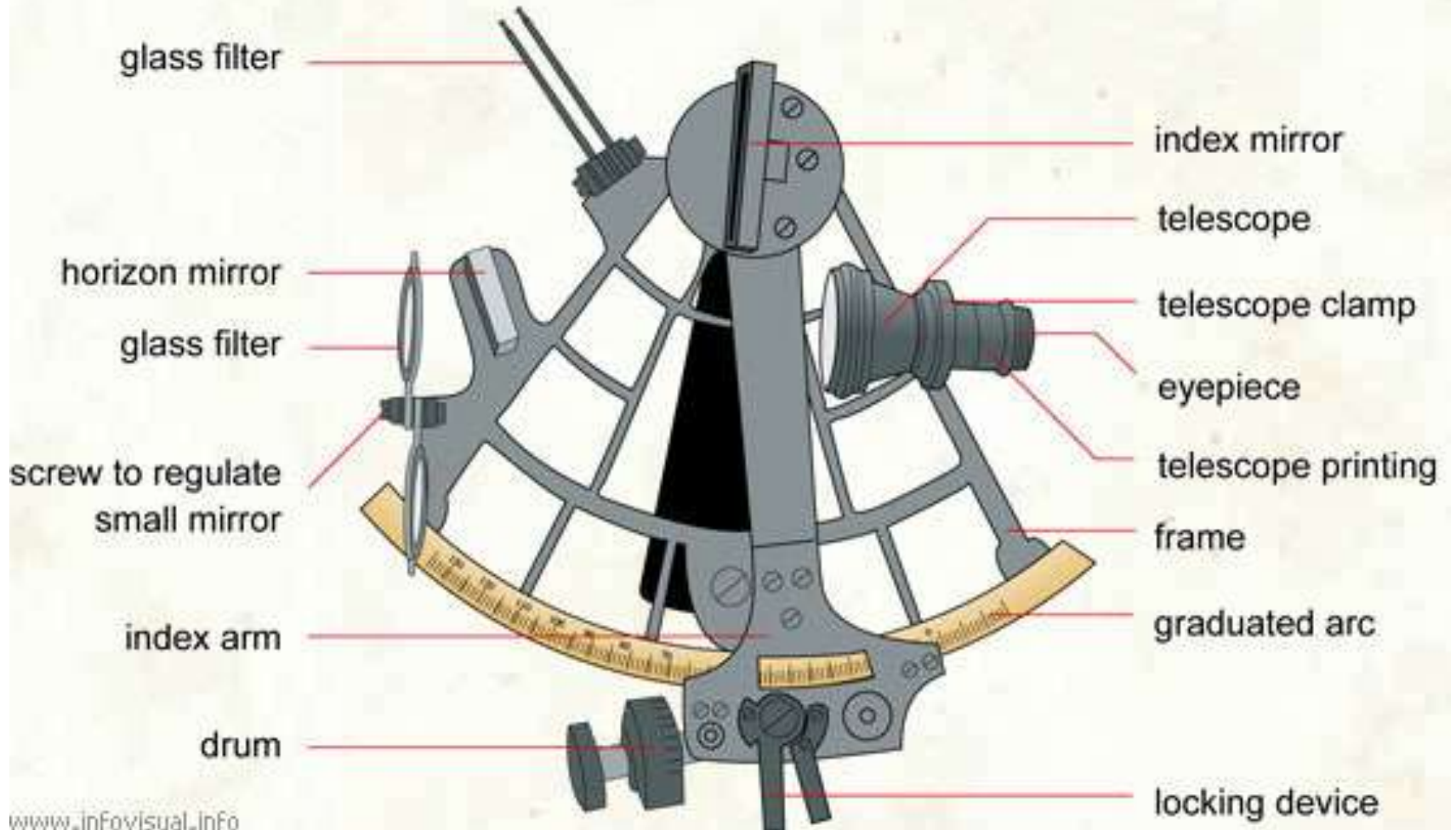


# North West Sailing



## The Sextant

# SEXTANT



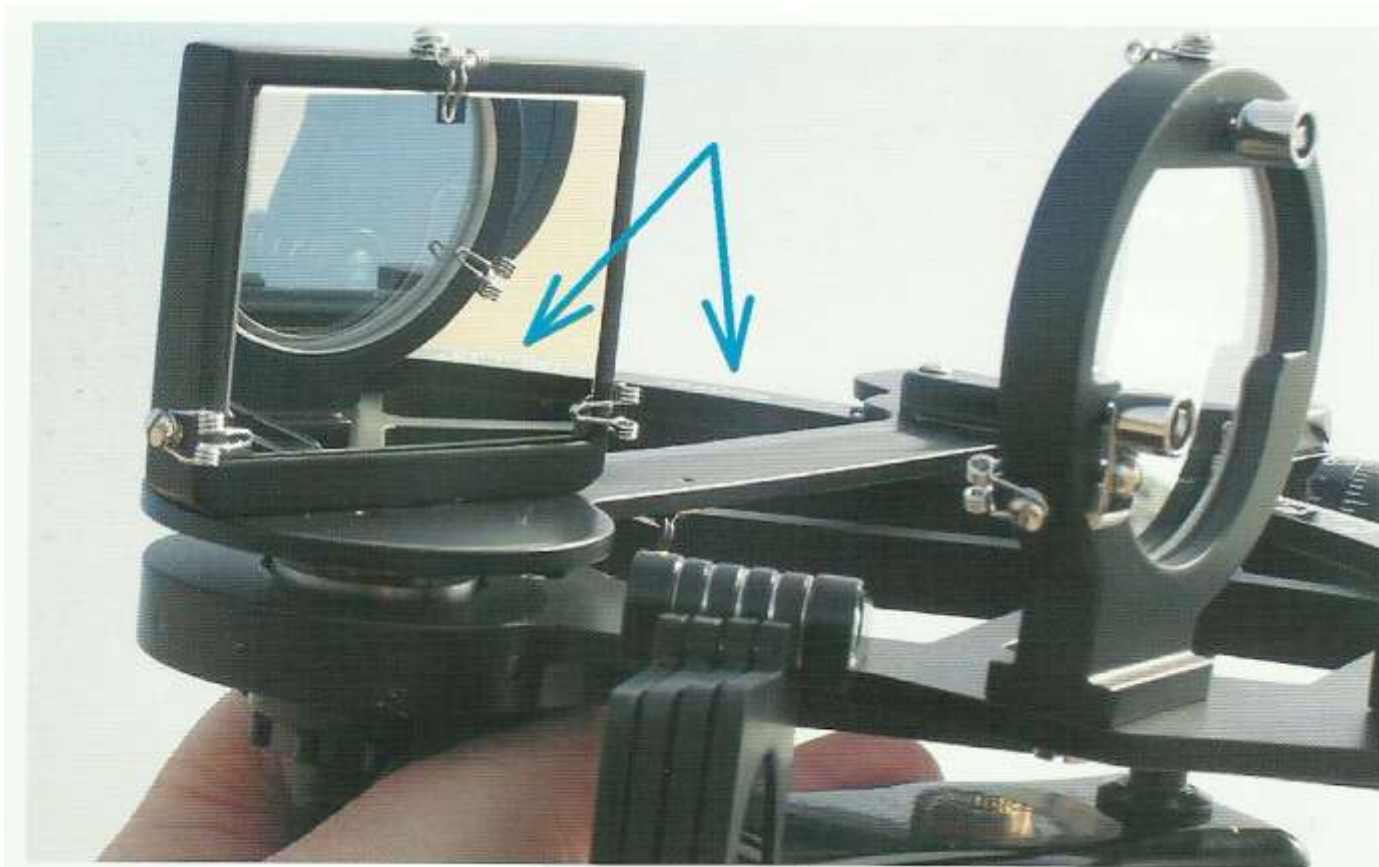
www.infovisual.info

# Setting up the Sextant

- Perpendicularity
- Side Error
- Index Error

# Perpendicularity

Perpendicularity checks that the index mirror is perpendicular to the frame



# Side Error



Side error arises when the horizon glass is not perpendicular to the frame.

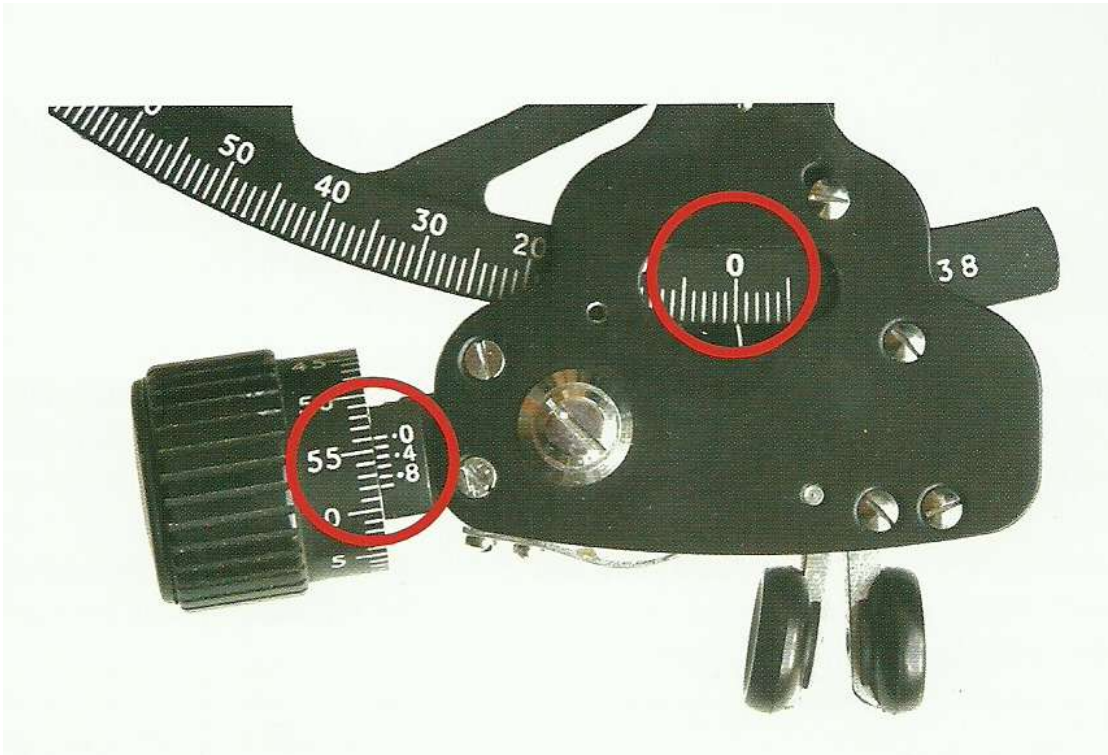
The effect is to offset the reflected image sideways from the direct image

# Index Error



It happens if the mirrors aren't parallel to each other when the instrument reads zero.

# Correcting Index Error

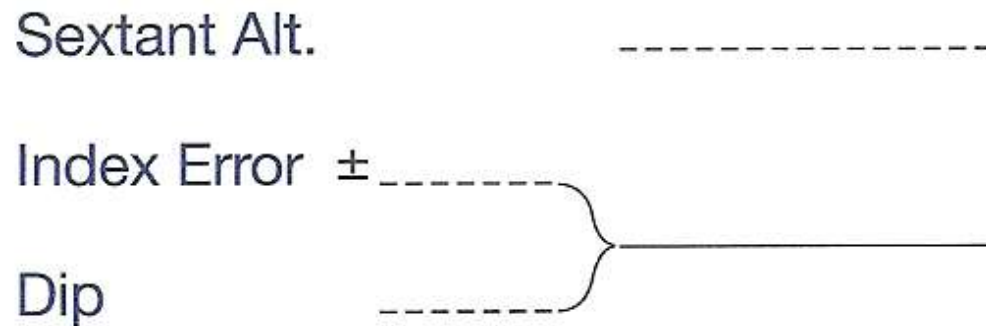


If it is off add it back on  
(add)  
(As per this pic)

If it is on, then take it off  
(subtract)

# Index Error

- Off the arc then add
  - Reading .58 then Index Error = +0.2
- On the arc then subtract
  - Reading .2 then Index Error = -0.2





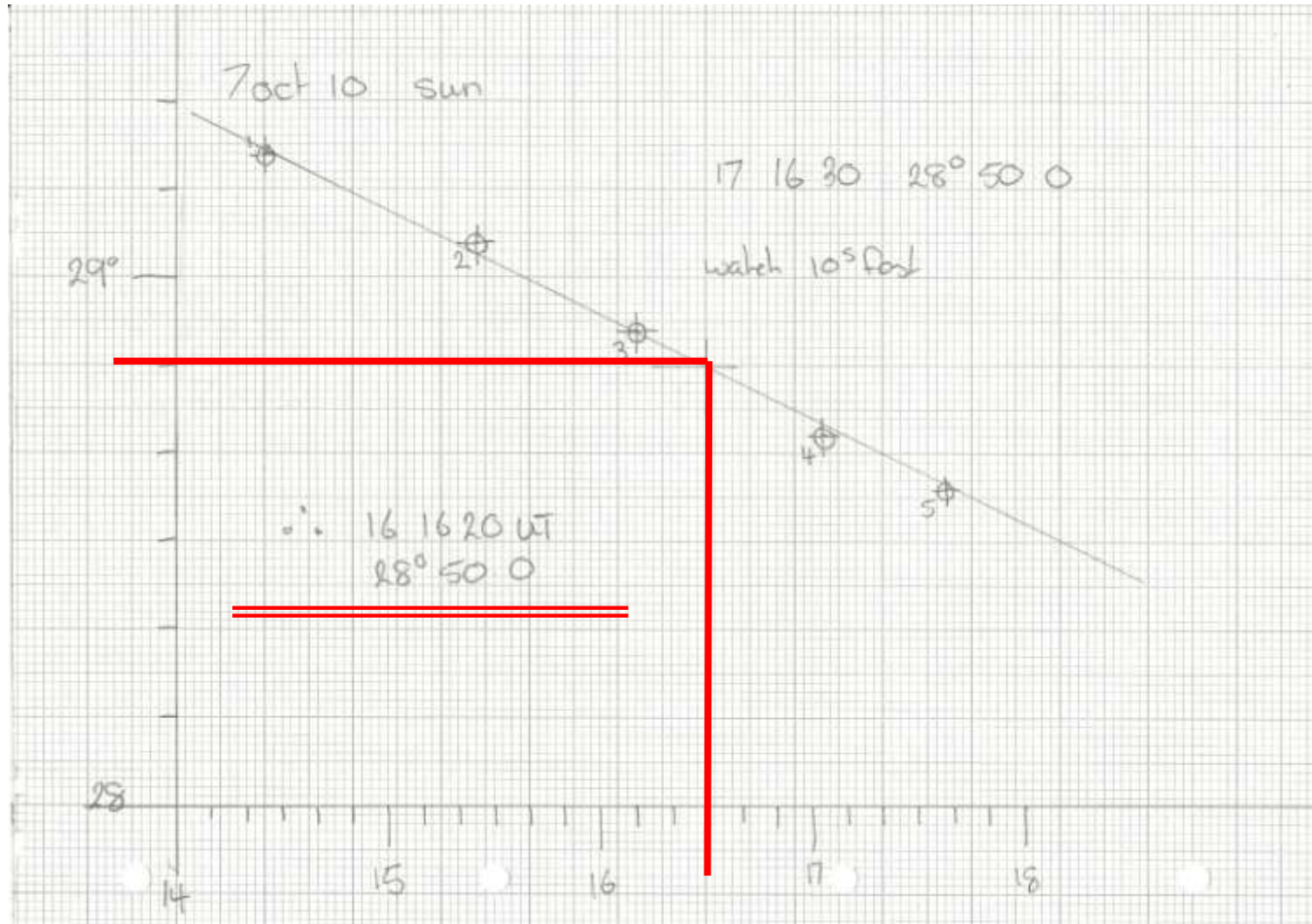
# Taking the sight

- 5 sights over time
- Average sight and time
  - Graph
  - Maths
- Remove any erroneous sights

# 5 Sights

<b>No</b>	<b>Time</b>	<b>Sextant sight</b>
<b>1</b>	<b>17h 14m 25s</b>	<b>29° 10'.4</b>
<b>2</b>	<b>17h 15m 24s</b>	<b>29° 0'.4</b>
<b>3</b>	<b>17h 16m 10s</b>	<b>28° 58'8</b>
<b>4</b>	<b>17h 17m 03s</b>	<b>28° 41'.8</b>
<b>5</b>	<b>17h 17m 37s</b>	<b>28° 35'.6</b>

# The graph



# Average

Time			Converted to decimal		Converted to decimal		
Hour	Min	Sec			Deg	Minute	
17	14	25	14.42		29	10.4	29.17
	15	24	15.40		29	0.4	29.01
	16	10	16.17		28	53.8	28.90
	17	3	17.05		28	41.8	28.70
	17	37	17.62		28	35.6	28.59
<b>Total</b>			<b>80.65</b>				<b>144.37</b>
<b>Average</b>	<b>17</b>	<b>16</b>	<b>8</b>	<b>16.13</b>	<b>28</b>	<b>52.4</b>	<b>28.87</b>