

HMS COLOSSUS



SURVEY REPORT 2007

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Site Name	HMS Colossus
Licence	Survey
Date issued	11 th December 2006
Designation	2001/2403

Summary

Monitoring of the condition of the wreck continued this year with four separate inspections undertaken. The sediment monitoring reference points were all renewed and relabelled. The sediment level monitoring which began in August 2003 was continued. The sediment levels on the site showed considerable fluctuation this year. The greatest fall in levels since monitoring began in 2003 was recorded in May this year. By October this year, overall sediment levels had risen to heights similar to those existing in October 2003.

Kevin Camidge
24 X 2007

Fieldwork Activities

There were three survey objectives this year:

- Monitor the deterioration of the exposed timber on the seabed.
- Record the sediment levels.
- Replace the existing sediment monitoring points with new non ferrous pins.

Diving was undertaken on four separate occasions

Date	Number of dives	Diver hours
21-23 May 07	4	7.5
14 July 07	2	2
22 August 07	6	6.5
18 October 07	2	2.5
TOTAL	14	18.5

Replacement of sediment monitoring points

The sediment monitoring points M1 – M8 were replaced with new stainless steel bars 600mm x 10mm diameter. These were placed in the original locations, each with exactly 100mm of the bar exposed above the seabed (except point M4 which was set at 150mm above the seabed). Each point was labelled with a yellow York Survey disk marked with the point's reference number.

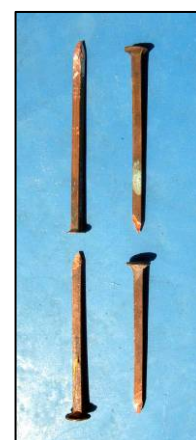
The reference points M10-M15 consisted of copper nails driven into the timber of the wreck itself – these allow monitoring of the sediment levels around the edge of the exposed timber. Several of these points had disappeared due to the loss of the timber to which they were attached. These points consisted of copper nails 125mm long.



Left: New monitor point M13 in position on the seabed (photo Sean Lewis)

Top right: New stainless steel monitor point

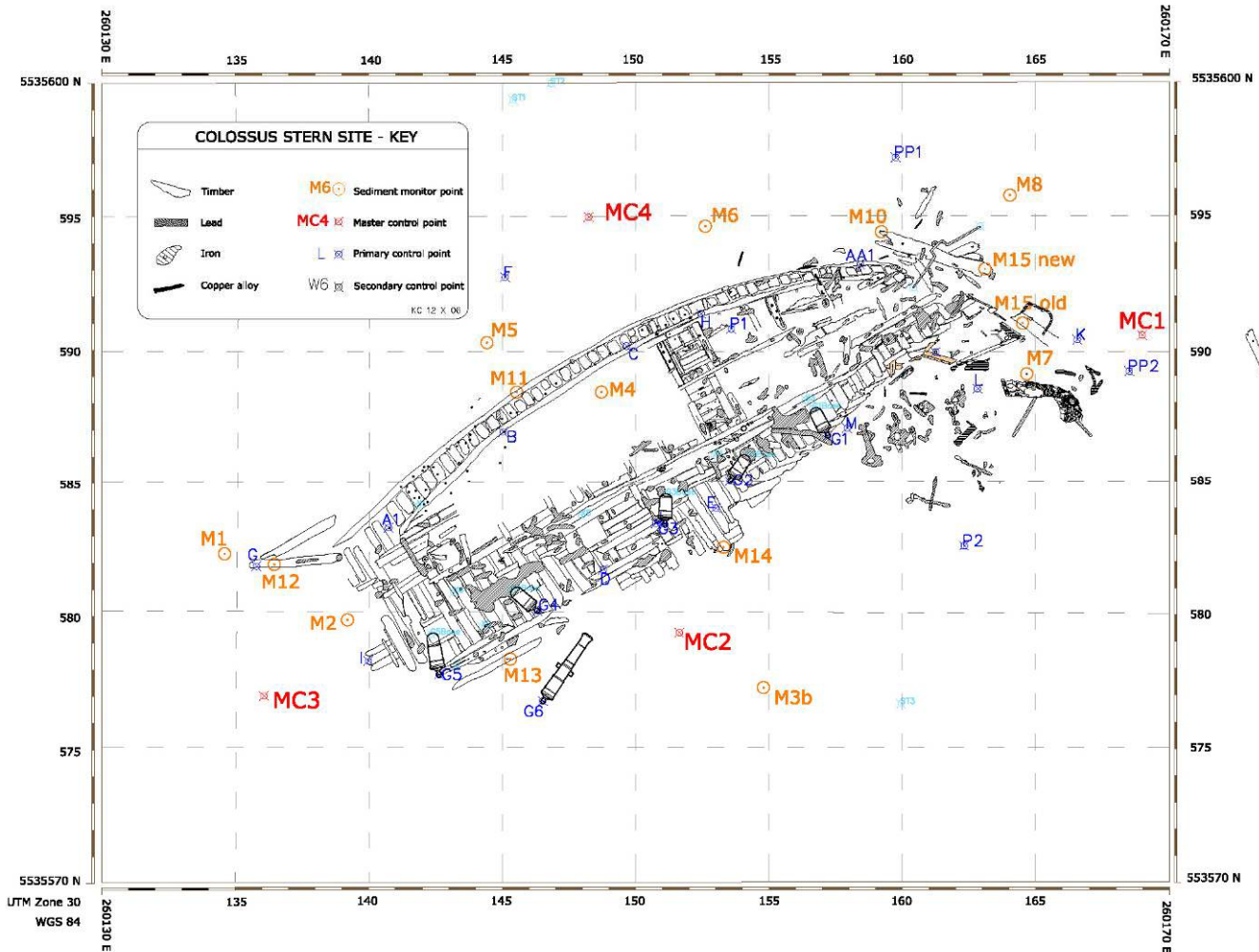
Right: New copper nails used to mark points M10-M15



Sediment level monitoring

The sediment level monitoring began in August 2003 as part of the Colossus site stabilisation trials commissioned by English Heritage (project # 3593). A copy of the full stabilisation report can be downloaded at www.cismas.org.uk.

Sediment level measurements were taken on each of the four dives undertaken this year.



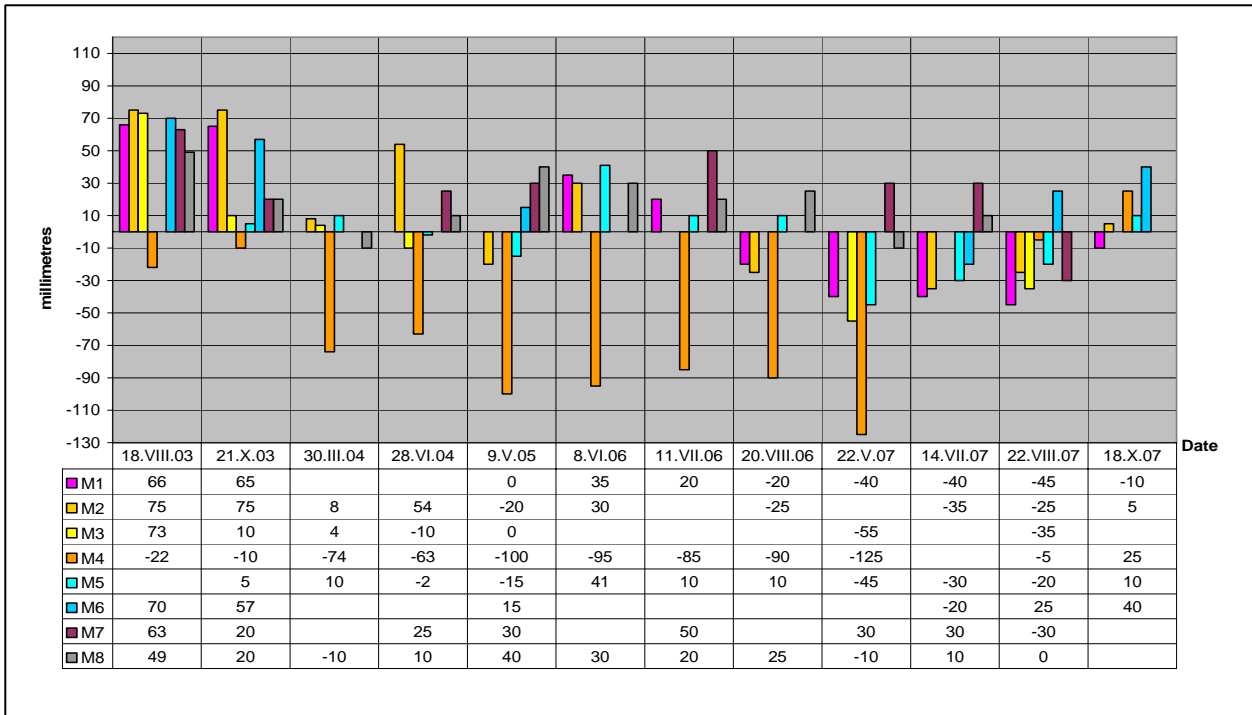
Plan showing the locations of the sediment monitoring points M1-M15. Note the new position for point M15.

The sediment level measurements shown in green were taken this year; those in blue are last year's measurements. For the sake of completeness the measurements taken between 2003 and 2005 as part of the Colossus site stabilisation trials have also been included.

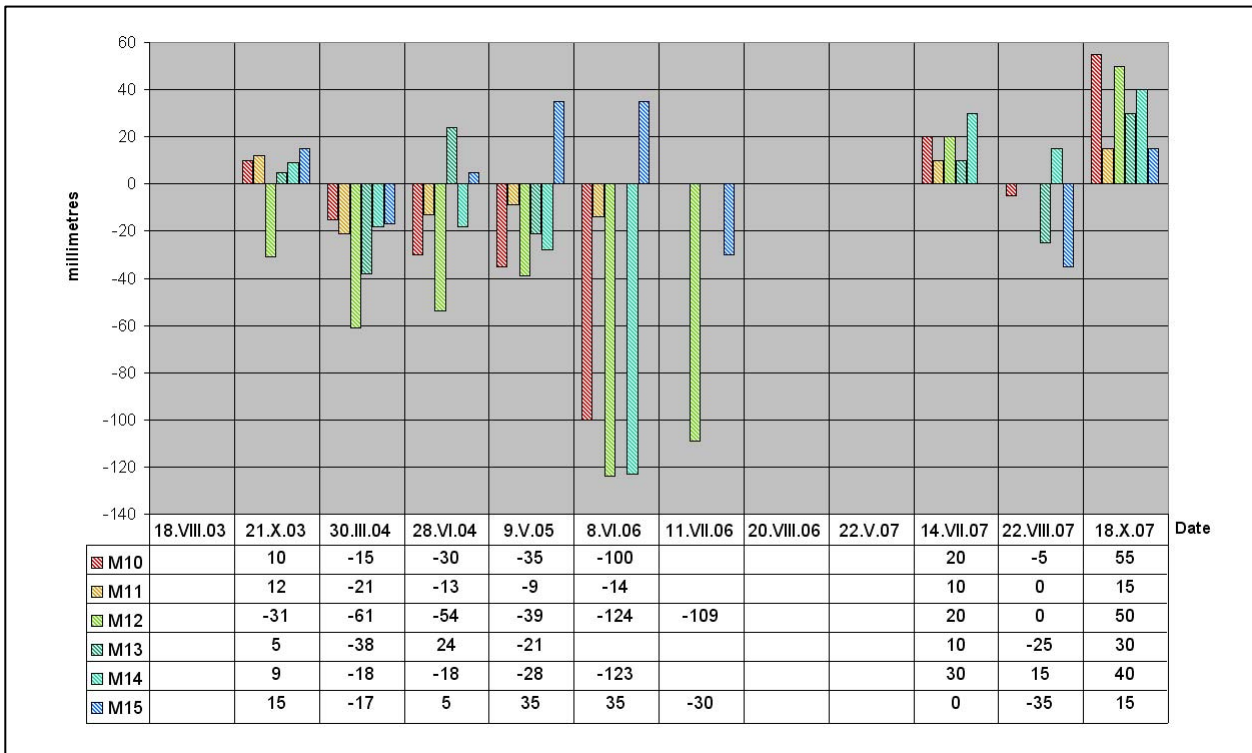
	18.VIII.03	21.10.03	30.3.04	28.VI.04	9.V.05	8.VI.06	11.VII.06	20.VIII.06	22.V.07	14.VII.07	22.VIII.07	18.X.07
M1	66	65			0	35	20	-20	-40	-40	-45	-10
M2	75	75	8	54	-20	30		-25		-35	-25	5
M3	73	10	4	-10	0				-55		-35	
M4	-22	-10	-74	-63	-100	-95	-85	-90	-125		-5	25
M5		5	10	-2	-15	41	10	10	-45	-30	-20	10
M6	70	57			15					-20	25	40
M7	63	20		25	30		50		30	30	-30	
M8	49	20	-10	10	40	30	20	25	-10	10	0	
Mean M1-M8	53.4	30.3	-12.4	2.3	-6.3	8.2	3.0	-20.0	-40.8	-14.2	-16.9	14.0
M10		10	-15	-30	-35	-100				20	-5	55
M11		12	-21	-13	-9	-14				10	0	15
M12		-31	-61	-54	-39	-124	-109			20	0	50
M13		5	-38	24	-21					10	-25	30
M14		9	-18	-18	-28	-123				30	15	40
M15		15	-17	5	35	35	-30			0	-35	15
Mean M10-M15		3.3	-28.3	-14.3	-16.2	-65.2	-69.5			15.0	-8.3	34.2
Mean ALL	53.4	19.5	-20.4	-5.4	-10.2	-25.2	-15.1	-20.0	-40.8	-0.7	-13.5	24.1

Table of sediment level changes relative to May 2003 for M1 to M8; August 2003 for M10 to M15. Values shown are in millimetres; positive values denote a rise in seabed level (relative to 2003) while negative values denote a fall in seabed levels (relative to 2003).

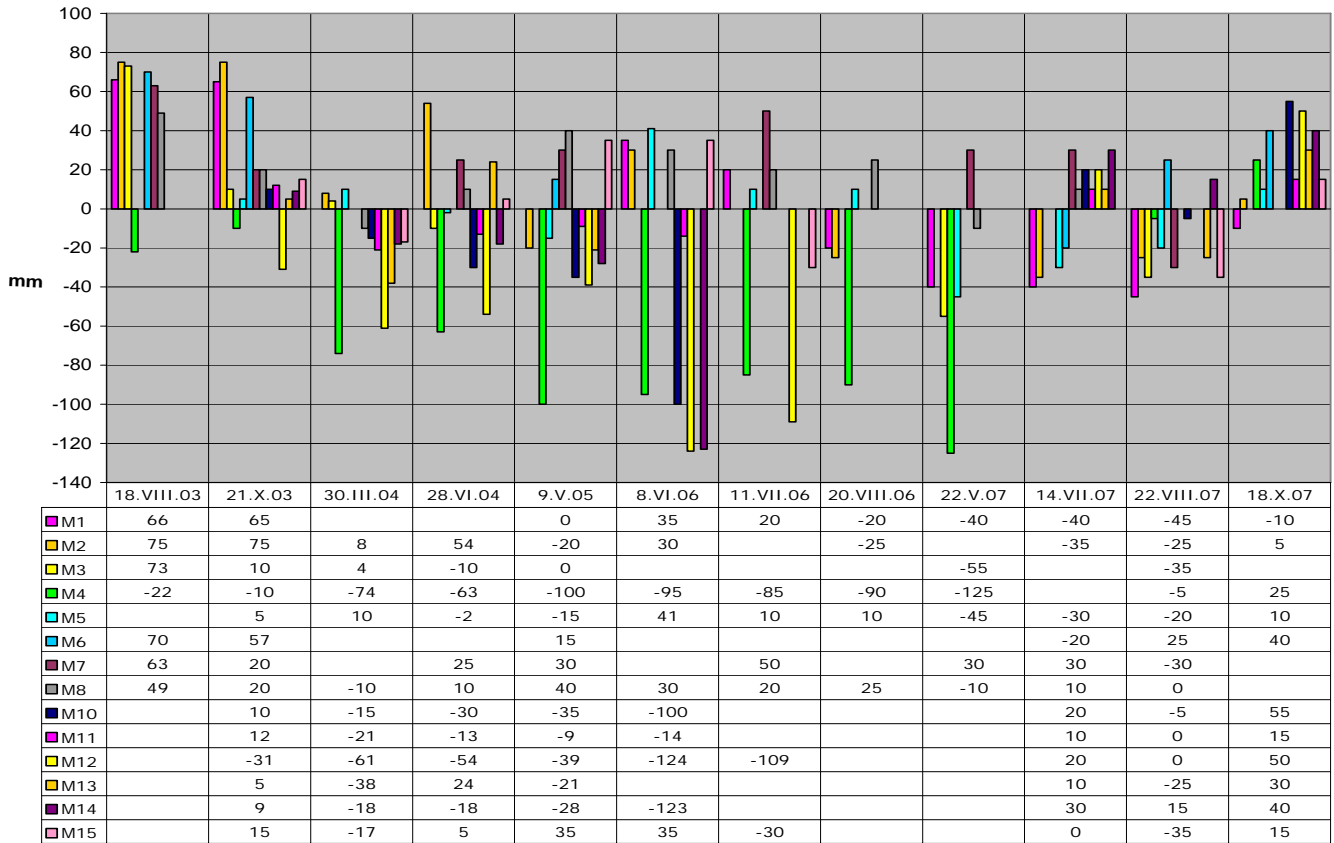
A blank entry in the table indicates that the diver was unable to locate the monitor point. Often the points are very difficult to find due to the large amount of weed which covers the site over much of the summer period.



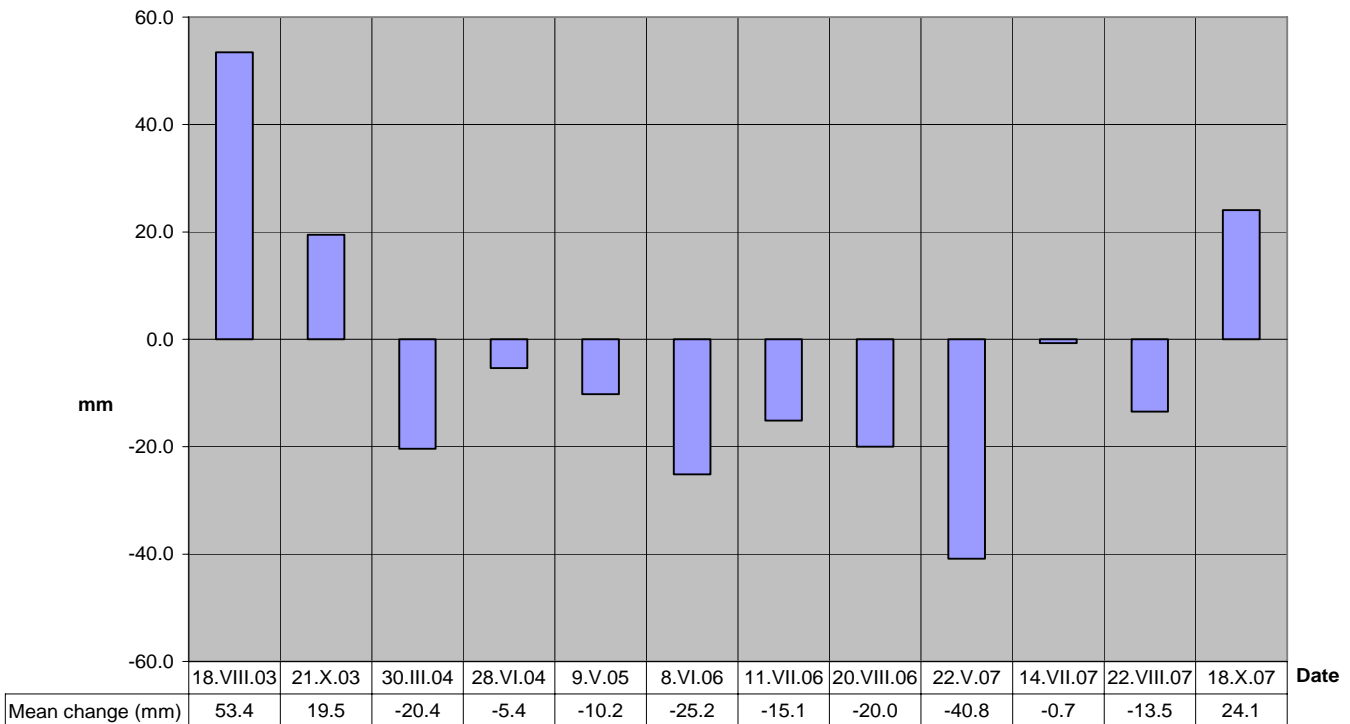
Bar chart showing the change in seabed sediment level (relative to the level in 2003) for monitor points M1 to M8. These points are located around the outside of the exposed timber – see location plan above



Bar chart showing the change in seabed sediment level (relative to the level in 2003) for monitor points M10 to M15. These points are located adjacent to the exposed timber – see location plan above



Bar chart showing the change in seabed sediment level (relative to the level in 2003) for all monitor points. Zero represents the seabed level in 2003; negative values denote a fall in sediment levels, positive values a rise in sediment levels



Bar chart showing the mean overall change in seabed sediment level (relative to the level in 2003) for all monitor points. Zero represents the seabed level in 2003; negative values denote a mean fall in sediment levels, positive values a mean rise in sediment levels

It is clear from the charts above that the sediment levels on the site have fluctuated considerably this year. The first set of measurements, taken in May, showed the largest overall fall in sediment levels ever recorded on the site. However the levels had risen again by July although they fell once more by August, finally rising again by October. The mean of the final measurements taken in October this year shows an overall level of sediment similar to those recorded in October 2003. This at first sight may seem like good news for the exposed timbers of the wreck. It should be remembered, however that these measurements indicate an increased level of sediment mobility, which could be a threat to the site.

Previously it has been noticed that the sediment levels have tended to rise throughout the summer months, but fall again during the winter months – presumably because of storm conditions resulting in greater sediment transport. It will be interesting to see what the levels are in spring 2008.

Kevin Camidge