

HMS COLOSSUS



SURVEY REPORT 2009

KEVIN CAMIDGE

Site Name	HMS Colossus
Licence	Survey
Designation	2001/2403

Summary

Monitoring the condition of the wreck continued this year with four separate inspections undertaken. The sediment level monitoring which began in 2003 was continued. The sediment levels on site remained low throughout the year. Previously buried parts of the wreck continue to expose due to the diminution of the sediment levels. During the final inspection of the site in September an area of new timber was noted at the western edge of the wreck.

In May this year a diver trail was installed on the site – this work was commissioned by English Heritage. The project report for the diver trail is attached. A limited high resolution sidescan sonar survey of the site was undertaken.

Kevin Camidge
10.XI.2009

Fieldwork Activities

The following activities were undertaken on the site this year:

- Monitoring of the deterioration of the exposed timber on the seabed.
- Recording of the sediment levels.
- Installation of a diver trail on the site.
- Production of an underwater guide book for divers.
- Recording of the exposed stern wreckage, using high resolution sidescan sonar.

Diving was undertaken on the following occasions

Date	Task	Number of dives	Diver hours
20-24 May 09	Installing diver trail	14	16
20 May 09	Monitoring	2	2.5
31 May 09	Monitoring	4	4.5
6 Aug 09	Monitoring	2	2.5
7 Sept 09	Monitoring	4	5
TOTAL		26	30.5

Additional Timber Exposed

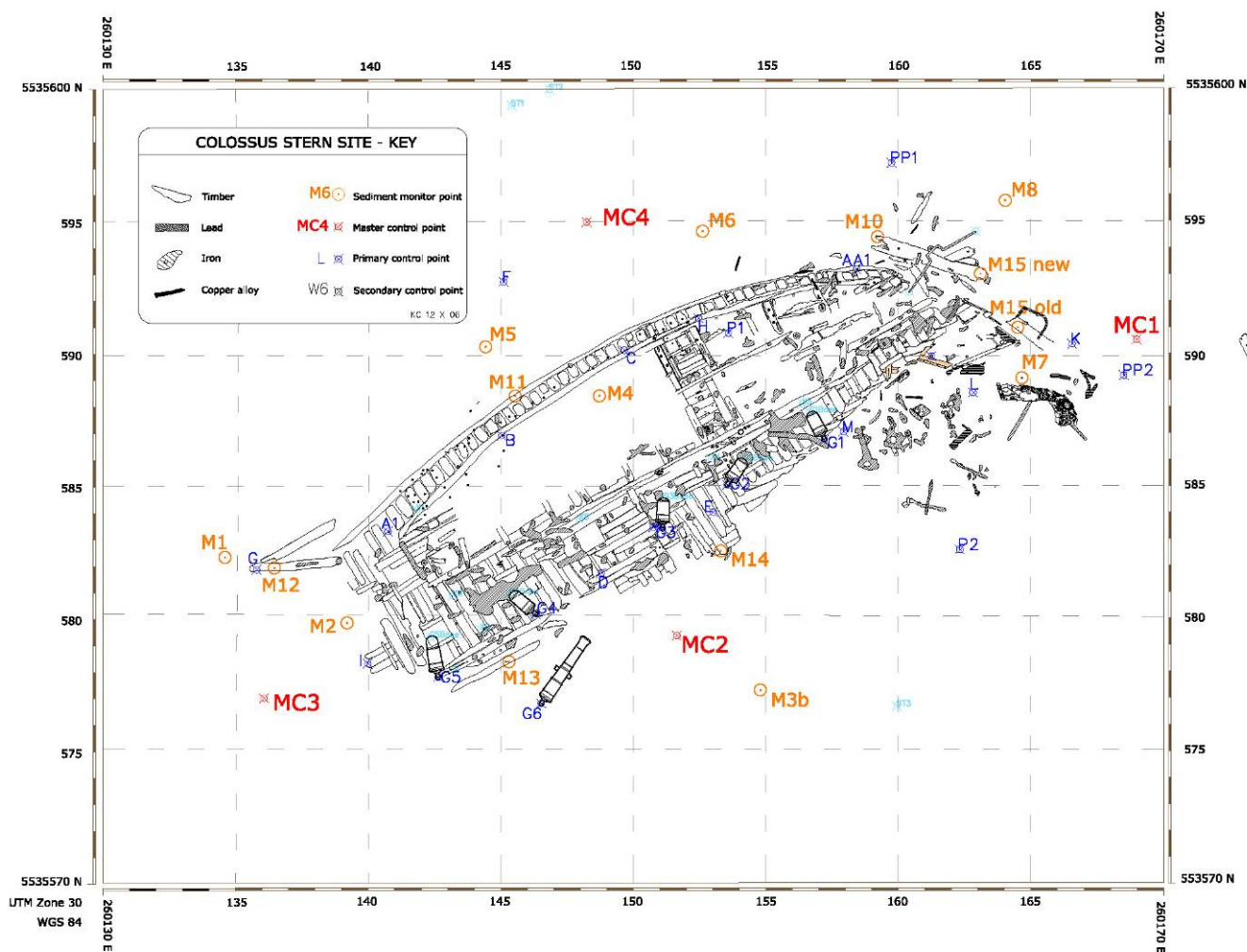
The area of exposed timber and copper sheathing reported in 2009 (to the south of the wreck near sediment monitoring point 3b) was further investigated in 2009. Sadly, this had largely been dispersed by early 2009; all that remained were a few pieces of copper sheathing and some fragments of timber.

Several square metres of newly exposed timber were noted at the western edge of the wreck. This is where the vessel originally broke apart, in the vicinity of the main mast. Interestingly, although these areas of timber have not been noticed previously, and do not appear on the site survey, they do show signs of attack by wood borers in places. This would indicate that they were exposed previously (before 2001) and were subsequently reburied by rising sediment levels. This area of timber needs to be surveyed and added to the site plan.

Sediment level monitoring

The sediment level monitoring began in 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 in May, August and September this year.

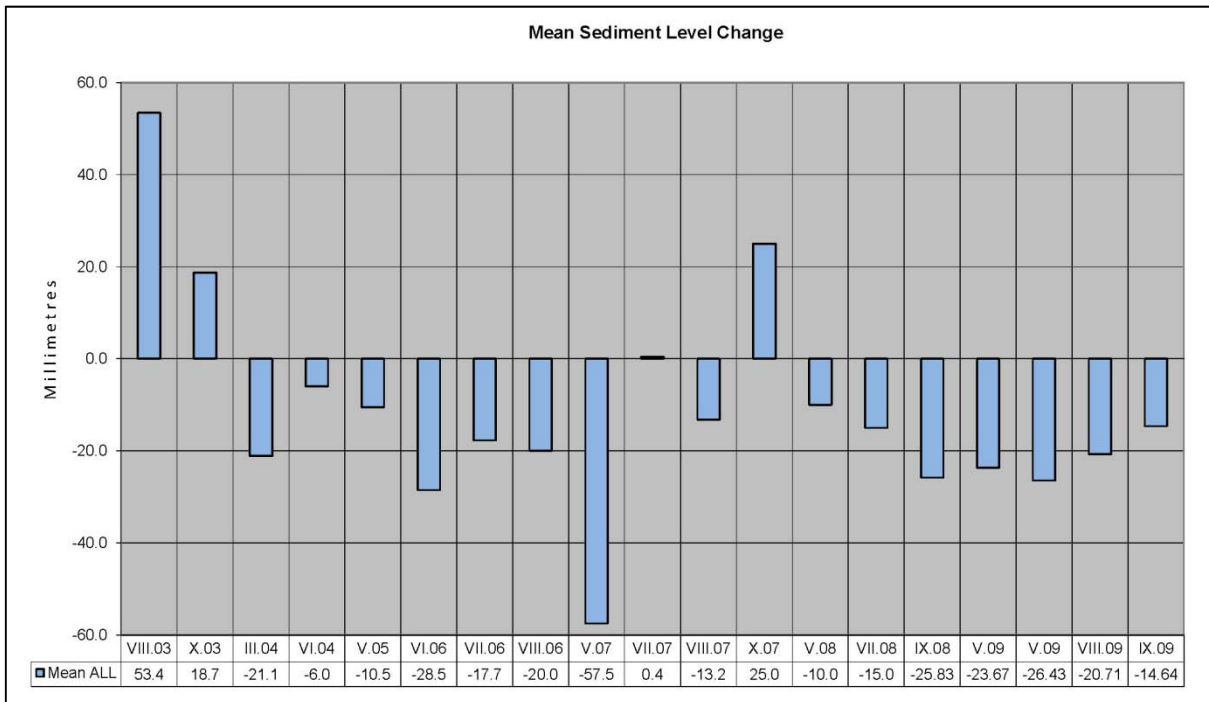


The sediment level measurements shown in blue were taken this year.

	18.VIII.03	21.X.03	30.III.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	21.V.08	17.VII.08	17.IX.08	20.V.09	31.V.09	6.VIII.09	7.IX.09
M1	66	65			0	35	20	-20	-40	-40	-45	-10	-40	40	-70	-65	-85	-65	-60
M2	75	75	8	54	-20	30		-25		-35	-25	5	-50	-60	-65	-45	-25	-35	-40
M3	73	10	4	-10	0				-55		-35		0	-45		-9	-40	-30	-20
M4	-22	-10	-74	-63	-100	-95	-85	-90	-125		-5	25	30	20	-5	10	0	10	10
M5		5	10	-2	-15	41	10	10	-45	-30	-20	10	0	-5	-25	-40	-35	-35	-60
M6	70	57			15					-20	25	40	0	0	-50	10	20	40	20
M7	63	20		25	30		50		30	30	-30		-40	-25		-100	-85	-65	-80
M8	49	20	-10	10	40	30	20	25	-10	10	0		0	-10	30	-20	-5	0	10
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	-12.5	-10.6	-40.8	-32.38	-31.88	-22.50	-27.50
M10		10	-15	-30	-35	-100				20	-5	55	40	-30	25		10	-40	20
M11		12	-21	-13	-9	-14				10	0	15	40	30	5	20	5	0	25
M12		-31	-61	-54	-39	-124	-109			20	0	50	-40	-40	-55	-30	-45	-35	-30
M13		5	-38	24	-21					10	-25	30	-30	-20	-20	20	5	10	20
M14		9	-18	-18	-28	-123				30	15	40	-10	-15	-20		-45	-15	-30
M15		15	-17	5	35	35	-30			0	-35	15	-40	-50	0	-35	-45	-30	10
Mean M10-M15		3.3	-28.3	-14.3	-16.2	-65.2	-69.5			15.0	-8.3	34.2	-6.7	-20.8	-10.8	-6.25	-19.17	-18.33	2.50
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	-10.0	-15.0	-25.8	-23.67	-26.43	-20.71	-14.64

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). Measurements taken this year are shown in blue.

A blank entry in the table indicates that the diver was unable to locate the monitor point or that the point was missing. 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. It is clear that the sediment levels on the site have remained low this year. There has been less variation in sediment levels than was seen in previous years.



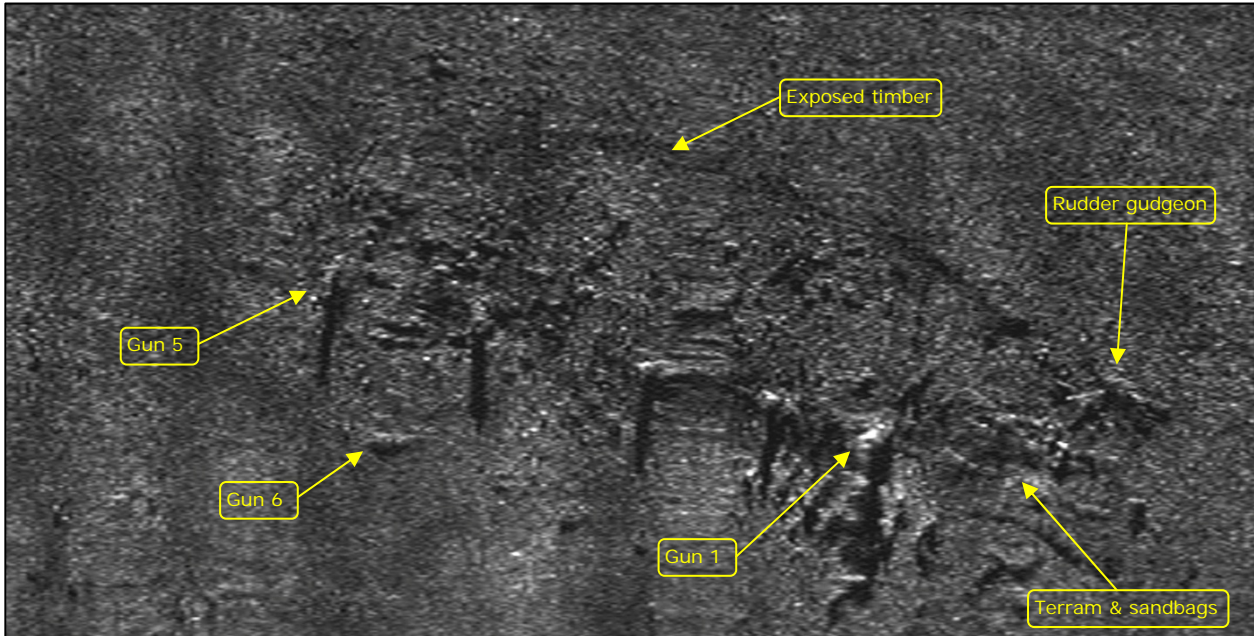
Bar chart showing the mean overall change in seabed sediment level (relative to the level in 2003) for all monitor points. All values are in millimetres. Zero represents the seabed level in 2003; negative values denote a mean fall in sediment levels, positive values a mean rise in sediment levels

The new diver trail

A new diver trail was installed on the site in May this year – this was commissioned by English Heritage. A copy of the diver trail report, including the underwater guide book, accompanies this report.

Sidescan sonar survey

The site was surveyed using the CISMAS C-Max CM2 dual frequency digital sidescan sonar unit, linked to MaxView control and recording software. Positioning was achieved using a Garmin 76C EGNOS-enabled GPS unit. The frequency used was 780 kHz at 25m range.



Detail from the sidescan sonar trace showing the site. Details such as the guns, timbers, rudder gudgeon, Terram mat and sandbags can all be seen. Compare this with the site plan shown on page 4.