

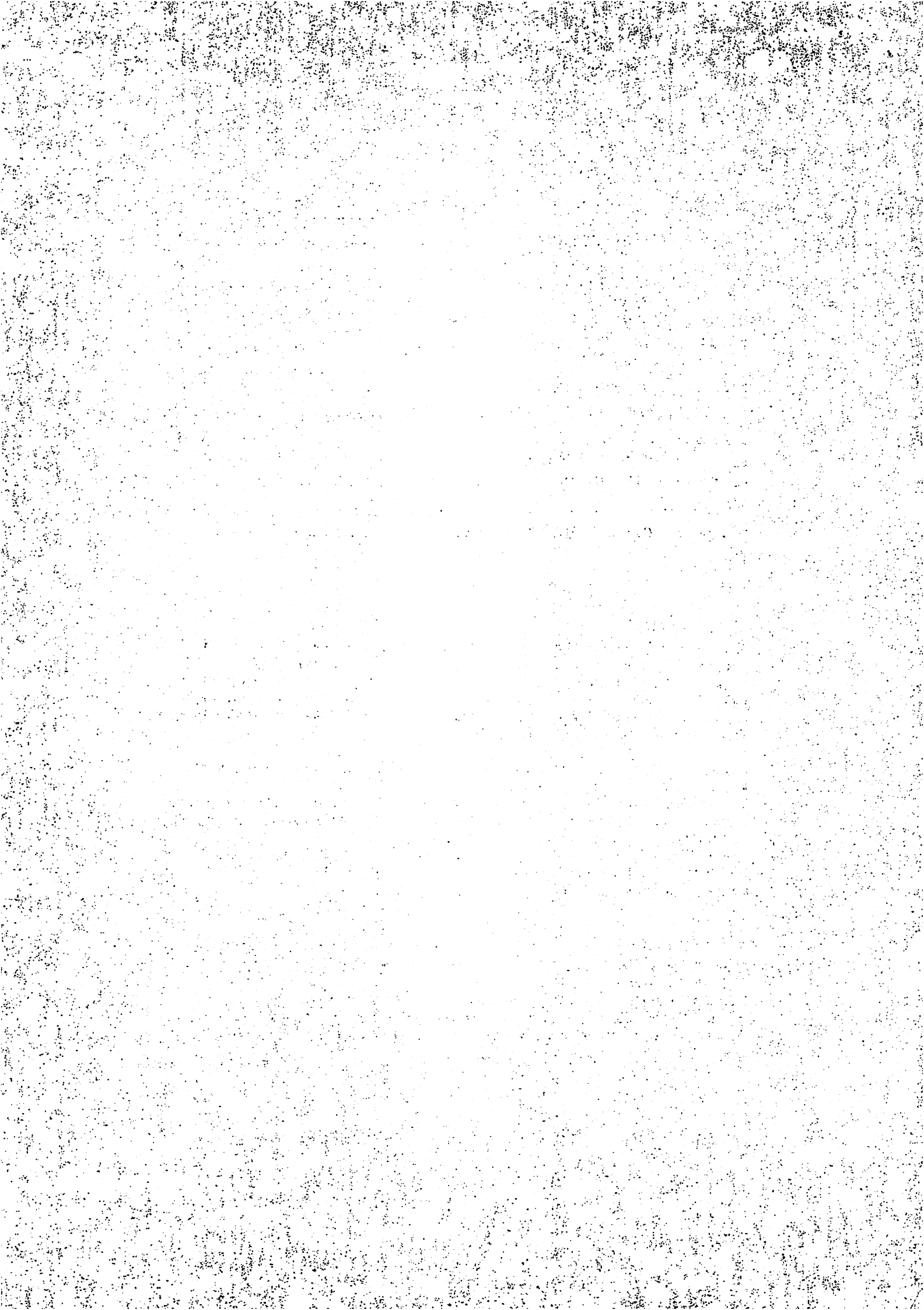


**5th - 9th  
June 2006**

# **Eastern Solent Marine Archaeology Project**

## **Report**







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### **i. Acknowledgements**

The 2006 field season of the Eastern Solent Marine Archaeology Project (SolMAP) has been generously supported by funding from the BSAC Jubilee Trust and PADI Project Aware International. Additional funds have been contributed from HWTMA core funds which have been supported this year by a range of trusts, organisations and individuals, details of which are included within the HWTMA Annual Report 'A Year in Depth' (enclosed with this report).

Recognition must be given to a number of individuals who generously gave their time to the project:

The volunteer dive team, which this year included: Douglas McElvogue, Mark Dunkley, Emily Loughman, Sophia Exelby, Virginia Dellino-Musgrave, Jolyon Chesworth, Vikki Swales and Remy Zyngfogel.

The HWTMA dive team, which this year included: Julie Satchell, Jan Gillespie, Steve Campbell-Curtis, Paul Donohue, Alison Hamer and Garry Momber.

Mr Arthur Mack for his knowledge of the area and continued support.

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## 1. Project Background

### 1.1 Eastern Solent Marine Archaeology Project

The Eastern Solent Marine Archaeology Project (SolMAP) aims to involve volunteer divers in the targeted investigation, recording, presentation and conservation of the submerged cultural heritage. 2006 was the fourth season of this project, building on the work of previous seasons that have demonstrated the wealth of archaeology in the Eastern Solent area. For results of past seasons work see our website – [www.hwtma.org.uk](http://www.hwtma.org.uk).

The project involved a week of diving field investigation to gather data to improve our knowledge of the number and types of sites in the Eastern Solent. Figure 1 shows the number of known wreck sites in the area, although there are also many other, as yet unidentified sites. Gathering information on these sites is vital for enhancing long term conservation of the cultural heritage resource. The project results have been disseminated to a wide range of audiences from popular to academic.

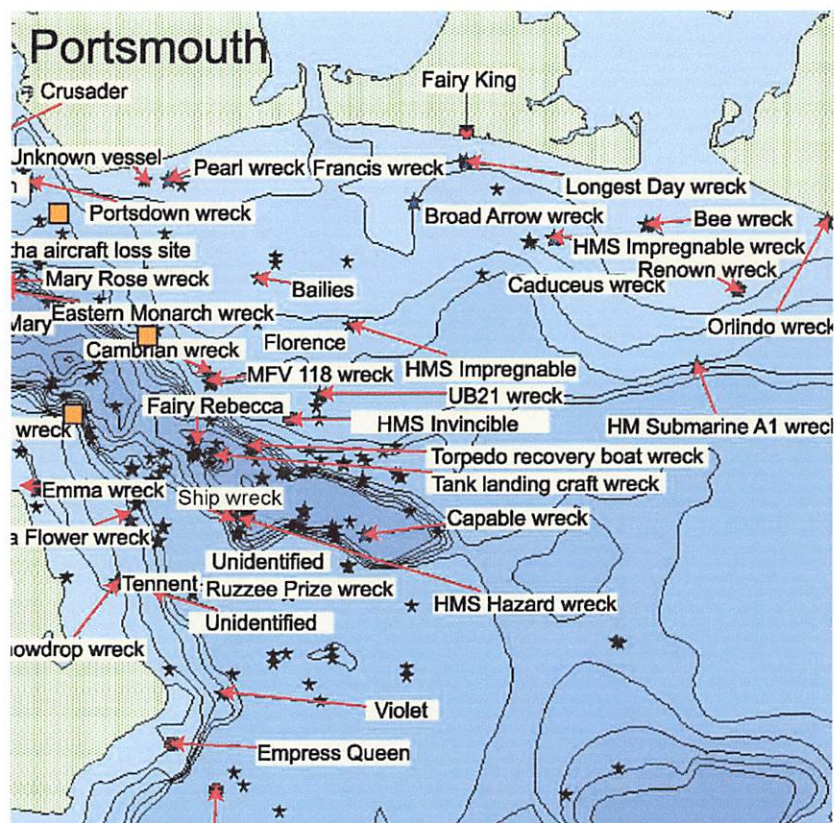


Figure 1: Distribution of known wrecks within the Eastern Solent

### 1.2 Promoting Public Access

As the underwater cultural heritage is hidden from the majority of the general public (unless they are divers), the gathering of high quality visual data from underwater is vital. Volunteer participants were involved in the collection of such data, giving them the opportunity to practice and develop skills in underwater photography and videography. The material has been used to generate displays and publicity to raise awareness and take the conservation message to a broad audience.



### 1.3 Diving Team and Project Logistics

An important aspect of SolMAP is the involvement of volunteer divers who learnt to apply recording skills during fieldwork on a variety of sites. This helps foster an increased understanding of marine archaeological sites and also provides an educational experience. The development of maritime archaeology in the UK has a long history of the involvement of volunteers and the avocational sector. These divers are an important resource of 'eyes on the seabed' and provide data to the heritage community. SolMAP aims to increase the promotion of marine heritage conservation awareness within the diving community.

The diving team consisted of a core team of professional divers who worked alongside the volunteer dive team (Figure 2). The project utilised a hard boat with space for up to ten divers. Management of the archaeological recording strategy and practice was undertaken by staff from the HWTMA who formed the professional diving team.



*Figure 2: The Eastern SolMAP dive team*

### 1.4 Archaeological Objectives for 2006 Field Season

The principle archaeological objectives for the 2006 season were:

- Ground truth previously unrecorded wrecks and fishermen's net snags to gain baseline data for the Maritime Sites and Monuments Record
- Site survey of the 'Mystery wreck' off Horse Tail Sands
- Dive site of HMS Impregnable to widen previous survey and monitor any changes

## **2. HMS *Impregnable***

The Navy's 90 gun second rate ship-of-the-line HMS *Impregnable* was launched in 1786 from Deptford. Built to Thomas Slade's London Class design, the ship was launched into a navy at the peak of its strength. *Impregnable* spent most of its life undertaking routine activities, with its most notable battle being that of the 'Glorious First of June' in 1794. The ship was wrecked in Hayling Bay in October 1799 after running into the hazardous shoal waters.

### **2.1 Site Background**

The site of *Impregnable* was re-located in 2003 when the first archaeological survey of the site was undertaken. Since this date further work has built on knowledge of the visible site remains and established monitoring points. Visible on the seabed are four large mounds of concreted iron ballast blocks, around which a small number of lower hull timbers can be seen. The ballast blocks were located within the centre of the hold of the vessel and remain in their original position.

As the site lies in only 6 metres of water, salvage work at the time of wrecking reduced the physical remains to the water line. Over time the organic wood remains have perished to seabed level. However, the site provides an unusually intact example of late 18<sup>th</sup> century ballasting of a naval vessel.

The site also has an important connection to HMS *Victory*. When *Impregnable* wrecked in 1799 it was one of the larger ships in the navy. This loss meant that HMS *Victory*, which had been sent to be converted into a hospital ship, was brought back into commission.

### **2.2 Archaeological investigation**

The site of HMS *Impregnable* was first surveyed in 2003, during which a site plan was produced. In subsequent seasons it was noted that the surrounding shingle seabed tended to shift revealing more or less of the wreck site. To monitor this movement, points were established from which regular measurements are taken.

Research and data gathering during 2004 and 2005 had highlighted a number of tasks which required further archaeological work during 2006. Aims for fieldwork included:

- The identification of an anomaly to the south of the site with the potential of being related to the wreck
- Continued measurement of monitoring points
- The need to undertake detailed survey of a ballast block from within one of the concreted mounds on the seabed

### **Results**

*Anomaly to south of site:* This anomaly is positioned around eleven metres away from the main 'ballast mound' area of the site. It was initially revealed through geophysical survey data. The anomaly was located by divers and appears to have some ferrous content. Its position indicates that it may be part of the stern of the vessel. The presence of further wreck remains here



provides an indication that there may be more evidence below seabed level. However, to investigate this further would require intrusive excavation.

*Monitoring points:* Seabed monitoring measurements were taken at the established points around the site. These are located on the corner of each of the mounds of iron ballast. Recording this information is adding to our knowledge of how seabed movement affects the site over time. This year the seabed levels to the south west of the site had increased, while levels around the rest of the site had remained relatively static.

*Ballast block removal and survey:* In order to answer research queries on the individual ballast bars that are concreted into the mounds, one of them was removed. This action aimed to answer questions relating to the shape, stacking and composition of the ballast. Removal was undertaken with care so that minimum concretion was disturbed, although it was discovered that a range of small artefacts have been trapped within the concretion lying over the bars. Small finds encountered during the removal of the concretion included two cannon balls and a worn pewter button.

The ballast bar itself was found to differ from later examples that are known from shipwrecks and terrestrial contexts. The bars on *Impregnable* are rectangular, whereas later examples are tapered to make them easier to handle. Additionally, the remains of wooden wedges were discovered between the bars, still in place from the time they were originally stacked in the hold.

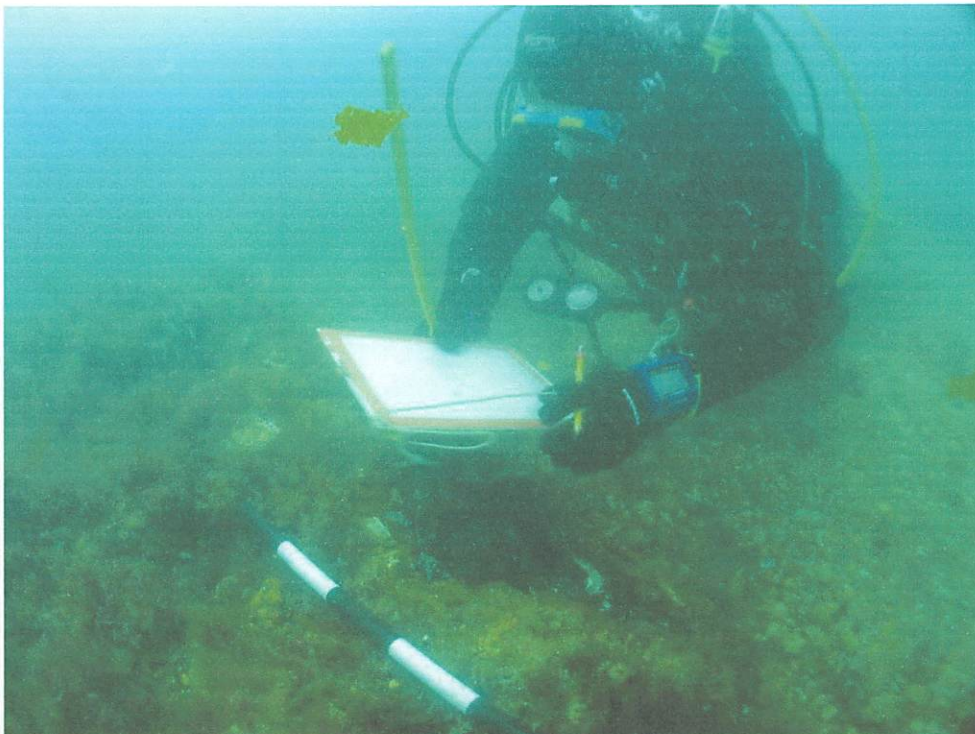


Figure 3: Diver recording the wreck of HMS Impregnable

### **3. Mystery wreck off Horse Tail Sands**

#### **3.1 Background**

Little is known of the as yet unidentified wreck lying off the southern edge of Horse Tail Sands. The site was originally located when a local fisherman snagged his nets on what turned out to be a substantial area of wooden wreckage in 11 metres of water.

#### **3.2 Archaeological investigation**

Survey work on this site began in 2004. During this first season it became clear that the site was split into two substantial timber sections, each measuring over 20 metres in length but separated by a gap of around 20 metres. Lying between the two are scattered parts of the ship and fittings such as hatch combings and knees.

During 2006 survey and sampling continued to narrow down the identity of the 'mystery wreck'. Divers concentrated on surveying the eastern section of wreckage before moving to the centre of the site and positioning the dispersed elements.

This intriguing site has a number of features which narrow down the date range of the ships origin. These include a mixture of hull fastenings such as wooden tree nails, copper and yellow metal. A particularly interesting find is a carronade, situated at the Western end of the site. These features, along with a number of small finds, are being analysed to help focus documentary research on recorded ship losses in the area.

Survey undertaken included using planning frames and offset measurements to produce 1:20 scale drawings of the structure and associated fastenings. These have been added to the main site plan, which is now substantially complete in outline, with further detail to be included. Survey drawings were augmented by both video footage and still photography (see figure 4).

A number of wood samples and diagnostic fixtures were recovered to help our research into the identity of this fascinating site.





*Figure 4: Diver records eroding copper fastening on the 'Mystery Wreck'*

#### **4. Anomaly inspection**

The Eastern Solent is an area that can truly be described as a ship graveyard. Figure 1 shows the known wreck sites in the area, although there are many more records of vessel losses which are yet to be located. Due to high levels of marine activity, the need for detailed cartographic information has led to regular Hydrographic surveys. Many of these have revealed unidentified wreck sites and obstructions on the seabed. Added to this are fisherman's net snags; resulting in the location of a number of features which may be of historic or archaeological significance that require inspection by divers.

##### **4.1 Methodology**

During the 2006 season several dives were undertaken close to the mouth of Chichester Harbour to investigate a semi circular anomaly that had been located by a local fisherman.

The position of the anomaly was buoyed using a DGPS system and divers undertook a circular search around this central point. After initially failing to locate the anomaly, the buoy was repositioned in order for further searches to take place over a larger area of seabed. Unfortunately nothing was located at this position during the available diving window.



*Figure 5: Diver enters the water to undertake anomaly inspection*

## **5. Conclusions and future plans**

The 2006 diving season of Eastern SolMAP was highly successful. The data gathered adds greatly to our knowledge of the marine archaeological resource and will be passed on to local and national Historic Environment Records.

Additional aims of introducing volunteer divers to archaeology in the marine zone were also fulfilled, with a large number of participants having the opportunity to participate in a hands-on recording experience.

Data and images gathered are now being used within display and presentation materials aimed at the wider public to help introduce a broad audience to our nation's important maritime history and archaeology.

There is still a lot of work to be undertaken on the maritime archaeological resource of the Eastern Solent. This will continue in future years with priorities being:

- Ground truthing of unidentified wrecks and anomalies
- Survey of historic shipwrecks
- Involving volunteer divers in recording their heritage
- Dissemination of the results to a wide audience from school children through to academic conferences