

**PROVISIONAL CRUISE REPORT**

**VESSEL:** John Stephenson  
**OWNER:** Cheverton Industrial and Marine Services Ltd, Whitegates Yard.  
 Arctic Road, Cowes, Isle of Wight - Telephone: Cowes (0983) 297111  
**CRUISE LOCATION:** West Solent  
**CRUISE PERIOD:** 26-30 January 1981  
**PERSONNEL:** D N Langhorne (Senior Scientist) P M Hooper  
 A D Heathershaw D J Corns  
 E J Moore  
**OBJECTIVES:** To carry out a detailed survey of the different hydrodynamic bedforms (primarily gravel waves) on the south side of the West Solent, between Yarmouth and Hampstead Ledge.  
**PROCEDURE AND METHODS:** Trisponder remote stations were set up on the yacht racing staging at the entrance to Lymington river (43485E, 93528N) and on the roof of the hut at the seaward end of Yarmouth pier (43543E, 90002N). Batteries were provided for the former whilst mains power was used for the latter.  
 The Raytheon echo sounder transducer and EG & G sidescan sonar fish were pole mounted on the starboard side of MV John Stephenson.  
 The survey craft was navigated using the Trisponder Track Plotter (scale: 1:5000)  
**EQUIPMENT PERFORMANCE:**  
 1. Sidescan sonar: Good. Using the new hull mounted configuration it was possible to obtain good data to both port and starboard. The former transmitting beneath the vessel.  
 2. Echo sounder: Good.  
 3. Trisponder: Good. Minor interference occurred on the second day. Probably as a result of a second system operating in the area (FSL Waterwitch). Remote No 3 was set up replacing No 2.  
**RESULTS:** Good sonar records were obtained which showed the contrasting bedform morphology. Zones of long wavelength ( $\approx 15$  m) short wavelength ( $\approx 5$  m) gravel waves and featureless gravel with well defined boundaries were delineated.  
**ITINERARY:**  
 25.1.81. E J Moore and PMH travelled to Lymington.  
 26.1.81. E J Moore: familiarization and boat instruction from Cowes. PMH: setting up Trisponder remote stations.  
 27.1.81. DNL, ADH and DJC to Lymington. PM: setting up equipment on board vessel in Lymington.  
 28.1.81. Echo sounding and sidescan sonar survey in West Solent.  
 29.1.81. Continuation of survey.  
 30.1.81. Operations delayed due to fog. PM: operations cancelled. Proceeded to Yarmouth, using radar, to recover Trisponder remote station. PMH: returned to Taunton in hired van. DJC: to Southampton by car. DNL, ADH and EJM: returned vessel to Cowes and thence by ferry to Southampton. Staff returned to Taunton.  
**Prepared by:** *D N Langhorne* D N LANGHORNE  
**Approved by:** *K R Dyer* K R DYER  
**Date:** 29.4.81

CHARTER VESSEL "JOHN STEPHENSON"

The John Stephenson is a charter vessel supplied by Cheverton Workboats, Cowes, Isle of Wight. The boat was built by them as a survey vessel for the Wessex Water Authority for use in the Bristol Channel and has now been replaced.

The boat is available for charter ex Cowes, and with no skipper or crew for £80 per day. Fuel is charged at cost, (approximately 80p per gallon) and fuel consumption is around 4 gallons per hour.

The charter which was completed in the Solent in January showed up several advantages of this type of purpose built vessel over conventional fishing boats.

The large deckhouse, fitted with sidebenches and chart tables enabled the helmsman to be in direct contact with the scientists and in a position to view all the records. The steering, hydraulic with twin balanced rudders, was very precise and a survey line accuracy of  $\pm 2-3$  m was possible.

Manoeuvring at slow speeds was particularly good and station keeping was possible in a tide-way.

The vessel, although having much of the equipment normally found on larger vessels, is small enough and manoeuvrable enough to be accommodated in normal marina type berthing.

Passage making would be quite feasible with this boat making it available for areas other than the Solent if required.

There is an aft cockpit approximately 10' x 8' which is a valuable working deck space but no form of lifting gear is fitted. A solid bracket for our echo sounder and sidescan sonar transducers has been fitted to the boat for our use.

The vessel is fitted out and maintained to D.O.T. requirements for Class VIII A and was in good condition. The only mechanical problems were a blown fuse in the fresh water pump circuit and a compass light failure.

Specification:	Length overall	40 ft
	Beam	13 ft
	Draft	4 ft
	Engines	Twin Perkins 6 cylinder turbo-charged diesels
	Freshwater capacity	100 galls
	Fuel capacity	175 galls
	Speed	Max 13 knots
	Range	Approximately 400 nautical miles at 10 knots