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R.V. ERNEST HOLT

Report for Cruise 3/67

Staff

Duration

P. G. W. Jones  
R. R. Dickson  
G. P. Fox  
G. C. Baxter  
G. P. Willis  
J. W. Read

29th March-17th April 1967

Aim

To assess the variability of the current, temperature and salinity fields along the 66°00'N parallel between 02°00'W and 06°00'E.

This was a joint exercise with the Geophysical Institute of the University of Bergen. The plan was for the University to lay the current meter buoys from R.V. H.U.SVERDRUP. R.V. ERNEST HOLT would then work one hydrographic section repeatedly in the vicinity of the buoys. R.V. HELLAND HANSEN of the University was to relieve R.V. ERNEST HOLT and continue making hydrographic observations.

Narrative

ERNEST HOLT departed from Grimsby at 0745 hours GMT on 29th March. After compass adjustments in the Humber, the vessel made a fair passage to Bergen, arriving at 0500 hours on the 31st. It was then learnt from the Geophysical Institute that the laying of the current meter network by H.U.SVERDRUP had been delayed owing to bad weather. Having taken fuel and water, ERNEST HOLT departed from Bergen at 0800 hours on 1st April. The vessel proceeded northwards towards the survey area and made radio contact with H.U.SVERDRUP that afternoon. The ship was informed that one buoy had been laid, but that owing to a bad weather forecast H.U.SVERDRUP was intending to seek shelter near the Halten light house. It was decided that ERNEST HOLT should join her. The two vessels met at midday on the 2nd and both ships steamed up the fjords to Stoksund where they anchored and laid alongside. During the next 24 hours exchanges of scientists took place between the two vessels. With an improved weather forecast on the morning of the 3rd, both ships sailed at 1300 hours for the survey area. H.U.SVERDRUP laid the remaining three current meter buoys and returned to Bergen. ERNEST HOLT commenced the hydrographic section for the first time at 0600 hours on the 4th. However, at 0030 hours on the 5th, work ceased owing to a northeasterly gale, and the vessel laid and dodged until 0900 hours on the 6th. Work then continued uninterrupted until the 12th. During most of this period the weather was exceptionally good with an anticyclone over the area. At 2030 hours on the 12th, force 7-8 southwesterly winds stopped work and the ship laid and dodged until 1730 hours on the 13th. The weather then temporarily moderated and a hydrographic section was completed by 0900 hours on the 14th. Radio contact was then made with HELLAND HANSEN which was sheltering from the weather near the Halten light house. The positions of the hydrographic stations were radioed to the Norwegian scientists and ERNEST HOLT then departed for Grimsby. A stop was made at the Marsten pilot station to receive mail that had been delivered to Bergen during the cruise. The vessel docked at Grimsby at 2130 hours on the 17th after a rather poor weather passage home.

Investigations made

The hydrographic section was worked four times along the 66°00'N parallel between 06°00'E and 01°30'W. Stations were 10 miles apart and temperature and salinity was sampled down to 1000m. The bathythermograph was lowered to 270m at each station.

The position of the current meter buoys was checked everytime they were passed during daylight hours. Three of the buoys transmitted a radio signal.

The DF set provided by the Geophysical Institute proved to be rather difficult to use as a homing device.

On one section the F.M. Temperature Depth Recorder system was used successfully down to 1000m at stations midway between the hydrographic stations. The TDR was also used on some other hydro stations.

The sea surface thermograph was run continuously during the survey.

The GEK electrodes were towed on 1½ sections, bad weather preventing their use on the last part of the final section.

Special meteorological observations for the Geophysical Institute were made by the Officer of the Watch at hourly intervals when possible during the period of the survey. This programme replaced the usual "Selected Ships" observations.

It was intended to use the PDR and Humber transducer to obtain a bathymetric profile of the whole section. However, the bottom trace was lost below 1380 fathoms.

The Mufax facsimile recorder was used regularly to receive weather charts. The best reception was from the German transmitter at Offenbach. Pictures were also received from Oslo, Stockholm and Bracknell, but reception was generally poor. This service should prove valuable to the ship when outside waters covered by the BBC forecasts.

P. G. W. Jones

19th April 1967

Seen in draft: E. A. B.  
G. W. A.

Initialled: A. J. L.

Distribution:

Dr. Cole  
Mr. Lee  
Captain Aldiss  
Dr. Cushing  
Mr. Bolster  
Mr. Burd  
Mr. Cattley  
Mr. Corlett  
Mr. Garrod  
Dr. Harden Jones  
Mr. Iles  
Mr. Holden  
Dr. Jamieson  
Mr. Margetts  
Mr. Trout  
Dr. Purdom  
Mr. Bridger  
Mr. Mitson  
Mr. Tungate  
Mr. Williams

Mr. Wood  
Mr. Adams  
Mr. Mills  
Mr. Kay  
Miss Conolly  
General Lab.  
Lab. Registry  
Library (2)  
Mr. Whiting  
ERNEST HOLT file  
(N.I.C. next cruise)  
Mr. Simpson  
Dr. Reynolds  
Chief Inspector  
All D.I.s  
Fisheries Registry  
Captain Binnington  
Mr. Sutcliffe  
Skipper Argumont  
Mr. Burgess

Mr. W. Baird  
Prin. Inf. Officer, D.A.F.S.  
Mr. Glover  
Dr. Grant  
Hydrographic Department  
Dr. Lovern  
Dr. Lucas  
Director, N.I.O.  
Dr. Peachey  
Mr. Shelbourne  
Mr. Steele  
W.F.A.  
Director, Bergen  
Mr. Joensen  
Director, Reykjavik

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Mr. Fox  
Mr. Baxter  
Mr. Willis  
Mr. Read