APPENDIX A

SURVEY REPORT

The survey was accomplished with Decca Hi-Fix navigation equipment in range-range mode. The operation depends on phase comparison of electromagnetic waves of known frequency at the master station. Since 360° change of phase is equivalent to one wavelength and since the distance between master and slave is traversed twice by the signal, the same phase difference would be measured if the distance between master and slave were altered by one-half wavelength. The master station aboard the recording vessel worked in conjunction with two HF and two LF slave stations occupying 11 different locations. Signals from two stations provided a fix on the ship's position.

Calibration of stations was determined either by baseline and baseline extension crossings of two slave stations or by sextant sightings to known markers at individual station sites or by a combination of both methods.

Comparison frequencies

HF 1917 kH2
LF 1725.3 kH2

Lane width (1/2 wavelength)

HF 85.473 yds
LF 94.970 yds