ANCIENT MONUMENTS LABORATORY

REPORT

SERIES/No	GEOPHYSICS 30/84
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TITLE	GARTON & SLINGSBY, N. HUMBERSIDE (Computer plots)

ANCIENT MONUMENTS LABORATORY

NOTES ON COMPUTER PLOTS OF MAGNETOMETER DATA FROM GARTON AND SLINGSBY, 1984

Report no. G 30/84

The plots enclosed show magnetometer data from three Iron Age barrows surveyed by A L Pacitto. The readings were taken at ½m intervals using a 1m fluxgate magnetometer, and were supplied to the A M Laboratory for plotting.

The surveys each show a strong magnetic anomaly of a kind likely to be caused by buried iron, and given that each is located within the ditch of an Iron Age barrow they are almost certain to represent chariot burials. The results are displayed both as graphs drawn through the lines of readings, and as contours which provide a clearer indication of the ground plan of the features. (Negative contours are marked by small ticks.) Some weaker anomalies visible towards the edges of plot 3a may represent a weak magnetic response from the barrow ditch.

The three strong anomalies all have characteristics which could plausibly be attributed to iron wheel rims buried at some depth. They have a width of up to 4-5m and a shallower profile than the sharp spikes which are caused by iron litter in the topsoil. The amplitudes of the positive anomalies are similar (160-180nT), and each anomaly has distinct positive and negative peaks which vary in their relative orientation. This variation (provided the orientation with respect to N is constant) provides perhaps further confirmation that the anomalies represent permanently magnetised ferrous objects and are not the result of induced magnetisation which would correspond in direction to the earth's field.

These results are remarkably clear and consistent and will provide a useful standard by which to identify chariot burials in magnetic surveys elsewhere, especially if it can be confirmed that to place such an interpretation on the anomalies is correct.

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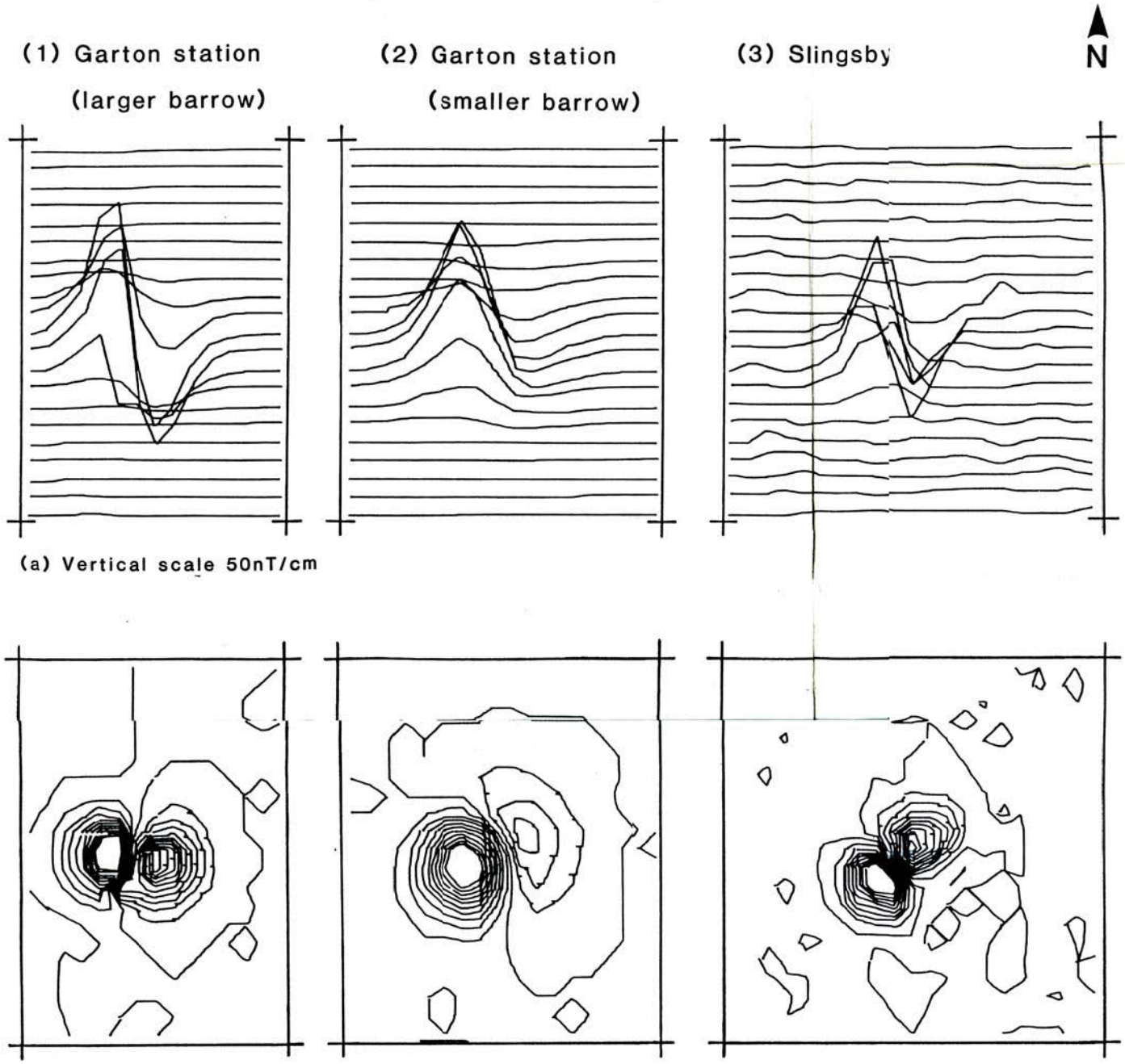
GARTON and SLINGSBY: Magnetometer Surveys 1984



Plotted by: A.M.Laboratory

Surveyed by: A.L.Pacitto

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