

SHEET 10 DETAILED CONTD.

0.78 falls. It is small and broad, with obvious correlation with altimeter trace, which makes its ultimate significance rather suspect.

10/3 and 10/4: Ratios of the E.M. highs have a wide range of values with three greater than or equal to 1.0 (3a, 3b, 4a) 10/4, which parallels the eastern branch of the magnetic high presumably ends in the vicinity of a transgressive linear where the magnetic high terminates. Further north along the same trend line there is a correlation between two E.M. highs and a linear, as well as several other possible associations of E.M. highs with faults and linears.

Both trends (3 west of 4) are discontinuous, which conforms with the concept of the more discrete nature of the intrusive bodies.

There is no doubt about the intimate association between these major trends already mentioned above and the basic intrusives as outlined by magnetic anomaly peaks. A similar association is observed and commented upon further to the south, notably on Sheet 14 (compare 14/5).

There could be considerable conjecture, however, over the origin of the E.M. responses. The following possibilities arise :-

- (i) Due to the higher conductivity value of the serpentinite and/or basic intrusives.
- (ii) Due to increased amounts and/or degree of salinity of ground water in fractures and/or faults associated.
- (iii) Due to disseminated and/or massive conductive mineral concentrations within the serpentinite.
- (iv) Due to variations in topography or ground-aircraft clearance in the vicinity of the body; topographic variations would probably have a geological origin.

Ground checking is necessary to enable a closer discrimination between these possible causes to be made. It is highly desirable that the E.M. anomalies associated with serpentinites should be accorded some detailed consideration, with a view to attempting to discern any change in characteristics of the E.M. anomalies which may be correlated with some variation in the nature of structure of the bodies. Unfortunately, chart appearance of these particular anomalies tends to favour (iv) as the cause, although there should be some conductivity contrast also contributing.