

with its Paleozoic flank on Sheet 4 approximately at  $146^{\circ}45'$ . The Jurassic system of anomalies had previously lost its prominent north-south grain in places as the dolerites apparently form the shape of Tasmania in the southeast where arcuate northeast-southwest systems occur. One can conjecture that the Port Dalrymple salient continues offshore through the syncline core southeastward under the coastal plain as is manifested by the northwest-southeast oriented system of anomalies entering approximately at  $42^{\circ}40'/148^{\circ}20'$ . Moreover, one can attempt to connect the northeastern flank of this system with similar trends just southwest of Cape Tourville at  $42^{\circ}10'/148^{\circ}05'$ .

Before leaving this eastern part of Tasmania, one must observe that the anomalies offshore are generally distinctly different from the Jurassic terrane. Many are characterized by east-west or subcircular forms which contrast sharply with the alternating positive and negative systems with north-south axis. It might be speculated that the offshore anomalies come from a Precambrian surface.

Jurassic terrane is missing west of a NNW line from  $43^{\circ}30'/146^{\circ}40'$  to  $42^{\circ}15'/146^{\circ}00'$  and indeed the magnetic field along the southwestern and western coasts differs from that over the dolerites. This is not to say that the field isn't generally intensely anomalous; but anomalies trend more northwesterly, do not vary as rapidly, and are not quite as sharp.

Beginning in the south, the small re-entrant of Lower Paleozoics on the mainland between  $146^{\circ}30'$  and  $40'$  is in an area of weak magnetic field as though there may be a nonmagnetic section between the dolerites on the east and the undifferentiated Paleozoics on the west. The contact with the latter is as abrupt as with the former. The anomaly in the Paleozoics is sharp and oriented slightly west of north. (More detailed geologic mapping shows that the rocks onshore are Precambrian).

This anomaly is separated by a very narrow minimal area from another anomaly system which is somewhat unique for the area as it is east-west in trend. Little section can be expected over it, but farther offshore and west of it the field is flat as though there might be good sedimentary section.