Continuing northward along the coast, the field is very anomalous even out to the edge of the survey, and most anomalies have north-south grain as though they represent magnetic inclusions in this metamorphic Paleozoic area. The surface map shows a geanticline trending west of north from the coastline at 43°15'/145°52' to 42°40'/145°40'. West of this there is a Paleozoic geosynclinal system and a narrow Tertiary band. This variation in general rock type makes little or no effect on the magnetic field which indicates that the Tertiary is thin and the geosyncline facies is as magnetic as the undifferentiated Paleozoics.

The rest of the area is very anomalous except for a northwesterly elongated zone just offshore at 41°50'. Another nonmagnetic narrow area is opening northward on the edge of the survey just offshore of Cape Gri. A potentially good sedimentary area at 41°30'/144°30' would appear to be related to a similarly prospective area on the offshore end of the sextet which is flown from far offshore to well inland. The offshore part of the band is on the Continental Slope where undoubtedly the most section of the area surveyed will appear. The onshore part of the band develops nothing spectacular. It seems to repeat the general magnetic field found over shallow basement, whether the geosynclinal area, undifferentiated Paleozoics, or even Precambrian itself.

Magnetic Basement Map

The magnetic basement is not difficult to map. Difficulties stem from defining its geologic age. The problem is encountered immediately in the northeast where the basement is apparently a combination of Paleozoic granite and Jurassic dolerite with the latter much more magnetic than the former. The granite is distinguished by small anomalies which yield depth estimates to its surface. Onshore and in the extreme northeast there seems to be no basis for defining another magnetic basement beneath the granites.

However, south of 41°15, about where there is placed a down-to-the-SSE fault, the small anomalies are the basis for removing shallow magnetic material under which a basin is mapped with an excess of 10,000 ft of section in recommended Area A at 41°21'/148°25'. Particular attention