

- 2) Latrobe Delta Topographic Surface structure is generally monoclinial dipping one to three degrees per mile into the Gippsland Basin. The significant feature of the Latrobe Delta is that onlapping sediments are truncated against the Basement Complex. Should the Latrobe Delta stratigraphy remain similar to that found deeper in the Basin, the areas where sediments onlap Basement depressions or between protrusions of the Basement complex extending basinward will form excellent stratigraphic traps. Two such areas are indicated on the Latrobe Delta structure and isopachous maps.

Two structural anomalies warrant comment. Most prominent of these would be the faulted closure on the northwest portion of Plate a and on line EC-108. This anomaly as mentioned in the discussion of the Lakes Entrance occurs from a Basement feature. The second anomaly is the small closure associated with another Basement high on line EC-163 and EC-159. This event may be due to some type of extrusive rather than sedimentary build-up.

- 3) The Basement structure picture in this area is of primary importance because the Basement anomalies form the traps for Latrobe sediments. The structural features shown on the Basement maps (Plates IIIa and IIIb) are probably topographic remnants left from the erosion of the Bassian Rise ridge. The Bassian Rise was very likely peneplained early in Cretaceous time with most of the sediments being carried into the central part of the Basin. Thereafter, very few sediments were deposited until the close of the Eocene when the Latrobe Delta Complex had filled most of the Gippsland and had begun to onlap the Bassian Rise. Succeeding sediments continued to onlap the rise until middle Miocene time when sediments probably either spilled over or were joined with sediments from the Bass Basin.

CONCLUSIONS AND RECOMMENDATIONS

The EC-67 Marine Seismic Survey was of very good quality. Results of interpretation of data received from the EC-67 and pre-existing surveys has shown the presence of good stratigraphic prospects along the southwestern margin of the Gippsland Basin. There are also one or two structural leads that may be of economic interest at a later time.

It is evident that the improved quality of the digital data of the EC-67 survey enabled detailed interpretation of the area covered by this report.

Additional digital shooting should be programmed to better define the truncation boundary between the Latrobe Delta and Basement, and to determine the areal extent of possible stratigraphic traps.