small fault closure can be seen west and south of Esso Crayfish A-1 The eastern limit of the horizon is the Upper Cretaceous hinge line through Geltwood Beach-1, on the down side of which the Pretty Hills Unconformity cannot be mapped.

6) Isopach Base of Tertiary to Senonian Marker - Plate 11
This isopach was drawn to demonstrate Upper Cretaceous basining in the Gambier Sub-Basin. Faults have been ignored and the map "smooth contoured". Thickness values have been obtained from a time-depth curve which is the average of Shell Voluta 1-A and Geltwood Beach-1, as shown on Figure 4.

Upper Cretaceous basining towards the present day continental shelf is demonstrated.

F) OTHER CONSIDERATIONS

In Victoria and Tasmania it has proven difficult to map a Pre-Tertiary seismic horizon. In the Final Subsidy Report of the offshore Otway Basin Marine Seismic Survey of September 1, 1967 by Wiggin et al, a Pre-Tertiary structural dip map was submitted. Some of the EP-67 seismic program was designed to check dip closures. The Esso Prawn A-1 abandonment was a test on such a dip closure.

The EP-67 survey and other digital reprocessing has shown the Pre-Tertiary to be extremely complicated. Thicknesses of Upper Cretaceous encountered at Shell Voluta 1-A and Esso Prawn A-1 were considerably larger than had been anticipated. The angular unconformity at the Top of Otway at Shell Pecten A-1 cannot be traced basinward.

All this suggests a complex Upper Cretaceous fault province which as yet has not been, and may not easily be, resolved.

G) MAGNETIC SURVEY

Continuous magnetic profiling has been an aid to interpretation in areas of shallow basement or igneous activity such as West King Island and the King Island Sub-Basin. Over areas of deep basement, magnetic anomalies were negligible. No separate maps have been drawn for magnetic interpretation.

## CONCLUSIONS AND RECOMMENDATIONS

The EP-67 survey and digital reprocessing of old seismic data has been successful in delineating the following features:

1) In South Australia, an Upper Cretaceous and Tertiary hinge line that is the Western limit of a densely faulted sub-province in the Otway Basin.

2) Numerous fault closures that could be prospective Lower Tertiary and Upper Cretaceous hydrocarbon traps in the fault sub-province.

3) A potential stratigraphic trap and small structural closure that Esso Nautilus A-1 is testing.

4) Three Tertiary structures in the east side of the Otway Basin.

Data quality on this survey is a considerable improvement over previous surveys, largely due to digital processing of digitally recorded multiple coverage