

## JOINT COLLOQUIA

3 October, 1957

## Some aspects of Meso-meteorology

by F.A. Berson

Dr. Berson of the C.S.I.R.O. Division of Meteorological Physics, outlined methods of synoptic analysis on the meso scale and gave a synthesis of meso scale pressure patterns which could be interpreted in terms of the processes inside and outside a thunderstorm cell or cluster. He spoke of the novel feature of the wake (tornado depression) and the problem of the pressure surge line when it became dissociated from the precipitation region. Slides illustrated the thunderstorm highs and wake depressions associated with an intense squall front earlier this year which was accompanied by several tornadic storms over Victoria and New South Wales.

Some statistics were given on the Australian problem of the high frequency, in perfectly dry conditions, of abrupt changes (jumps) in the elements, especially in pressure. Slides were shown illustrating a meso "high", a meso scale vertical circulation at the nose of an advancing cold front and a stationary meso scale wave on a front.

31 October, 1957

## Outbreaks of antarctic air over south-east Australia

by K.T. Morley

Mr. Morley, of the Bureau of Meteorology, defined a cold outbreak over south-east Australia as producing snow-cover down to low altitudes (2000 ft and below). He maintained that such conditions only occurred with certain types of surface pressure distribution which dictated a recent air trajectory from the Antarctic continent. He illustrated this by slides of a situation when air was thought to have moved more or less due north from the Antarctic continent to reach south-east Australia as a cold outbreak. The air arriving over south-east Australia on the following day, when conditions moderated, was considered