

ROYAL METEOROLOGICAL SOCIETY: AUSTRALIAN BRANCH MEETING

10 October 1977

Operational Meteorology

G. H. Sabin

Mr Sabin, Victorian Regional Forecasting Centre (RFC), illustrated his talk by a series of slides and began by likening the process of formulating a weather forecast to that of the operation of a factory production line. Data from a large number of sources are received and processed in order to obtain the final product - a prediction of the coming weather.

Sources of data include meteorological offices, cooperative observers such as lighthouse keepers, automatic weather stations, and satellites. Occasionally, uncertainty exists about the accuracy of some of the reports. In such circumstances, the meteorologist has to decide whether or not to accept the doubtful observations.

The speaker then discussed the various analyses and prognoses that are used during the determination of a forecast. Some of these are produced by the National Meteorological Analysis Centre and others are prepared at the Victorian Regional Forecasting Centre.

Mr Sabin emphasised that a set of perfect prognoses did not necessarily imply a perfect forecast. An important stage of the process of formulating a weather forecast is the interpretation of what the set of prognostic charts mean in terms of weather.

Examples of objective aids used by forecasters were presented and the speaker noted that several meteorologists at the Forecasting Centre spend considerable time in developmental work on new aids.

The layout of the Centre was illustrated by means of a slide. Four times a day members of the forecasting team participate in a formal discussion of the weather situation. Each forecaster presents his point of view and arising out of the discussion a forecast policy is established. Discussion also takes place between Victoria and forecasting centres in adjacent States in order to ensure that forecasts provided to border regions are consistent.

Mr Sabin then described the different types of forecasts prepared by the Bureau. In addition to those provided to the general public, forecasts and warnings are prepared for aviation and maritime interests, as well as those prepared for a number of special clients. These clients include the State Electricity Commission, the Country Fire Authority, confectionery manufacturers, sporting organisations, and the oil producing operations in Bass Strait.

During question time, Mr Sabin was asked for his opinion on the current trend towards the centralising of the forecasting operation. He replied that technology, particularly the increased availability of computer products and the need for co-ordination, was channelling us towards centralism. However, he suggested that one of the most effective ways of improving our forecasting ability is for the RFC forecasting staff to undertake research into local effects.

The speaker was then asked whether or not he thought that forecasts had improved during the past twenty-five years. Mr Sabin replied that although this was difficult to establish quantitatively, he felt that the coming of satellite cloud photographs had had a marked impact on forecast quality in that it enabled forecasts to be formulated with greater confidence, and to be couched in more specific terms, than hitherto.

H.S.

