

ROYAL METEOROLOGICAL SOCIETY: AUSTRALIAN BRANCH

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The Future of Meteorology in Australia

W.J. Gibbs

Dr Gibbs, Director of the Bureau of Meteorology, addressed the annual meeting. While there are some individuals who ignore their meteorological requirements, such as boaters who never seek a forecast before they go out on the water, the meteorologist can identify an almost all pervasive community need for meteorology down to its effect on personal conversation. To some extent the question of 'Who needs meteorology?' is answered by the fact that weather forecasts are every day placed on the front pages of daily newspapers, command prime time on television, and are given hourly on radio stations.

The potential destruction from extreme weather events is horrific. Statistics for Australia, as in the United States, indicate a decrease in the number of lives lost in tropical cyclones over the years. However, the value of property lost, e.g. \$1000 million for Tracy, shows a trend to increase and such economic cost does not include the penalty of the consequent social dislocation. Cost benefit analyses of meteorological services in most countries come up with impressive ratios of between 40 and 20 to 1.

In times of restrictions on government spending, coupled with the fact that most meteorological work in Australia is government financed, meteorology is confronted by increased competition for its share of the public dollar. The recent Committee of Inquiry into the Bureau of Meteorology has recommended that the public should finance only services for the national welfare, and that, for local and special users, the user-pays principle should apply. Dr Gibbs saw some difficulty in determining the demarcation between these customer groups. He wished to see a maintenance of the current level of meteorological services.

Observations and telecommunications account for about 50 per cent of the Australian Bureau's budget and for one third of the manpower. This is an expensive supporting function for the Bureau and presents an avenue for a future reduction in both cost and manpower via effective use of automation.

Dr Gibbs saw the ideal situation as one where the forecaster who issued the final forecast had all the processes of data acquisition, analysis, and prognosis under his direction. There is some conflict between the need to centralise as the volume of data increases, while maintaining an intimate contact with the local user. Under the competent direction of George Rutherford, central analysis had been set up, reducing the previous duplication of broadscale analyses. Dr Gibbs paid tribute to the people who had pioneered the development of the numerical weather prediction system in Australia and saw some recent developments as heralding improved skill scores. He saw a future requirement for more effort in the investigation of small-scale systems. A table illustrated an improvement over the last few seasons in forecasting the position of tropical cyclones. There were, however, some other

areas where accuracy had reached a plateau. An active research program continues to be essential for progress in meteorology, and the Bureau, as an operational unit, will have to concentrate on applied research, which should not be at the total exclusion of basic research.

Dr Gibbs saw the future for meteorology as being rosy and expressed pleasure at the recent establishment and achievements of the Australian Branch of the Royal Meteorological Society. He suggested that the Branch consider a role of providing accreditation of meteorological consultants.