

Statement of Interest

For several years I have been leading the development of the Commonwealth Bureau of Meteorology's data assimilation component of the operational numerical weather prediction system. This has led to my current position as Data Assimilation Team Leader within ACCESS. This involvement in both operational numerical weather prediction and estimating the uncertainty of initial conditions has also led to my involvement with both the Bureau's ensemble prediction systems, and high resolution NWP. Related efforts at other centres have demonstrated that these types of systems provide crucial and valuable information for improving the use of weather information by the broader community, provided that suitable effort is put into re-designing the display and distribution of the information. The amount and complexity of the information contained within such numerical prediction systems means that established methods for distributing weather forecasts are no longer appropriate. Furthermore, the assessment of both types of systems should be in terms of user-focussed metrics, rather than the traditional skill scores based on dynamical variables.

At a recent meeting to determine the future of probabilistic forecasting with the advent of the ACCESS model it was clear that to realize the potential of ensemble forecasting systems requires the Bureau to determine how the information is best communicated to the community – both public and commercial.

The need for social sciences to be involved in product presentation and assessment for both types of forecasts in particular has also been highlighted within THORPEX. I was part of the group that ensured this was explicitly included within the Southern Hemisphere THORPEX Science plan.

Full utilization of forecasts from these systems will also involve educating the community on the meaning of the new information as well as updating the forecast presentation and distribution. The processes for achieving these changes however, do not generally form part of the background of those developing numerical systems. I see participation in WAS*IS as an excellent opportunity to begin the integration of social science considerations within the numerical forecasting components of both ACCESS and the Bureau.

As an ACCESS Team Leader directly involved with numerical prediction the integration of the social sciences into the interpretation and use of numerical weather products is of major interest. This is particularly true at the moment, during the planning of what products ACCESS needs to deliver, how the models should be configured to meet these requirements, and how the performance will be assessed.