The prediction of TCs on the intraseasonal range (~1-4 weeks lead) is still in its infancy, having only been successfully attempted in the last decade. In this paper we discuss our recent work on this topic, as applied to the southern hemisphere. Our first work on this topic was in 2004 when we developed a statistical prediction scheme with 5 predictors: one representing the climatological seasonal cycle of TC activity in each region; two representing the state of the MJO; and a further two representing interannual variability of the tropical Indo-Pacific. Modest skill was achieved out to at least week 3, with greater skill during episodes of strong MJO variability.

For the 2009/10 TC season, this scheme was improved through: (1) its generalisation to a grid of multiple overlapping regions; and (2) the use of improved predictors of interannual variability. The former change was motivated by the desire to make the forecasts more useful and better reflect the complicated spatial patterns of TC variability.

At the same time, the potential of the ECMWF monthly forecasting system for representing the MJO modulation of TC activity has been demonstrated, prompting a comparison of the skill and reliability of the two models. Calibrated ECMWF forecasts were found to display higher Brier Skill scores than the statistical model during the first 3 weeks, but the statistical model is slightly more reliable. Further, a multi-model combination of the statistical and dynamical models was found to be more skilful than either model alone.