

Experience at the NCEP of the recent T170L42 upgrade

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Abstract

The Global Modeling Branch at the Environmental Modeling Center, NCEP recently made a major upgrade to the global analysis and forecast system (15 June 1998). Together with the resolution increase, we also made many changes to the analysis package and the forecast package. While the overall results showed improvement during the parallel tests, several problems in the new system were not discovered until after the implementation. These points to the weakness of the parallel testing that we need to address in the future. For most cases, the parallel data assimilation and forecast tests represent the most comprehensive possible test of an operational system. We get a chance to compare the new system with the current one in a real time situation and can usually discover the advantage and weakness of the changes. We will present our experience before and after the implementation and discuss the problems so that we can all learn from this experience.

Key words: resolution, parallel test, data assimilation