

INTRODUCTION

Whilst the notion of atmospheric predictability underpins the practice of weather forecasting, much work in this subject has, in the past, been undertaken with rather idealized models of the atmosphere. Part of the reason for this was derived from the feeling that predictability studies using complex Numerical Weather Prediction (NWP) models highlighted model errors rather than the properties of the real atmosphere. Over the last few years, however, with the rapid development of high quality NWP models, this attitude has largely vanished. Consequently, the subject of predictability has become a mainstream topic in atmospheric physics, and is flourishing.

In March 1986, ECMWF held a workshop on medium and extended range predictability which clearly reflected the new wave of optimism and excitement amongst workers in the field. It was felt at the time that the subject was moving so rapidly, that a second workshop should be held about two years later. Such a meeting was held on 16-18 May 1988.

Whilst in no way underestimating the importance of continuing predictability studies with low-order models, it was decided to concentrate in the 1988 workshop on results on medium and extended range predictability obtained using General Circulation Models (GCMs) or Numerical Weather Prediction Models. Of particular emphasis were problems associated with the possibility of predicting forecast skill. After the formal presentations three working groups discussed various topics.

A summary of the working group discussions, together with the papers presented at the workshop are given below. We thank the participants for helping create a lively and stimulating atmosphere during the meeting, and for producing a permanent record of the transactions.