

## INTRODUCTION

The 1987 Seminar was number thirteen in the series of annual seminars which constitute the highlight of the Centre's educational programme. Previous seminars have provided overviews of the field of medium range forecasting (1975, 1981), physical parametrization (1976, 1977, 1985), dynamical meteorology and numerical methods (1979, 1983), data assimilation (1980, 1984), interpretation of NWP products (1978, 1982), and orographic effects (1986). The proceedings of these seminars form a substantial record (in every sense) of progress in the field. Some of the proceedings have been published by commercial publishers (1980, 1981), and others have been translated and published in Russian and Chinese.

The purpose of this year's seminar was to provide an up-to-date review of cyclone development and blocking from the observational, theoretical and modelling/forecasting viewpoints. The seminar was organised in three sessions: cyclogenesis, blocking, forecasting. The speakers in the sessions were as follows:

Cyclogenesis: Prof. Hoskins (Univ. of Reading), Prof. Bosart (State Univ. of New York), Dr. McIntyre (Univ. of Cambridge), Prof. Reed (Univ. of Washington), and Dr. Uccellini (NASA);

Blocking: Prof. Dole (MIT), Prof. Hoskins, Prof. Schilling (Univ. of Bonn), Dr. Speranza (FISBAT-CNR, Bologna), and Dr. Sardeshmukh (ECMWF);

Forecasting: Dr. Bengtsson (ECMWF), Dr. Machenhauer (Danish Met. Inst.), Dr. Simmons (ECMWF), Dr. Geleyn (EERM/CRMD), Dr. Tibaldi (ECMWF), and Dr. Böttger (ECMWF).

We are grateful to the speakers for their stimulating presentations, for their active contributions to the discussions, and finally for their efforts in producing the valuable record of the proceedings contained in the present publication. Unfortunately, the contribution by Dr. Bengtsson is not presented in these proceedings.