MODULE 4.1C

SHORT RANGE PROGNOSIS

Preparing a Prognostic Chart

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Introduction

In preparing a prognostic chart you should first be able to apply the techniques of this module. Documents 4.1A to 4.1F must therefore be reviewed and a thorough knowledge of their limitations must be recognised.

The application of these techniques to individual synoptic features will usually result in a very reliable product even in the 6 to 18 hour range.

Steps in Producing a Short-Range Prog

1. Determine the relevant weather systems in area of interest for your short-range prog.

2. Examine the surface chart carefully. Determine at least twelve (12) hours of history for the various lows, highs fronts, troughs and ridges.

3. Determine the T+6, T+12 positions of all lows and troughs using extrapolation and any other techniques. Determine the depth of the lows.

4. Determine the T+6, T+12 positions of all fronts. Adjust lows, troughs and fronts for internal consistency.

5. Determine the T+6, T+12 positions of all surface highs and ridges indicating central pressures.

6. Examine the 500 mb chart. Determine (and adjust where necessary) the history for the shortwave troughs, ridges and vorticity extrema. Do a control-line chart.

7. Extrapolate the 500 mb features to T+6, T+12 hour.

8. Use knowledge about climatology - favoured location for cyclogenesis, storm tracks, topographical effects.

9. Add a few sample isobars - 8 or 16 mb intervals will suffice.

10. Adjust gradient. Compare progged gradient against current gradient for strength and orientation. Check pressure changes at a few points.

11. Check the gradient with the positions of lows, highs, troughs and ridges. You may have to go back and adjust some of these features.

12. Fill remaining isobars. Re-adjust gradient if necessary.

13. Examine critically. Does it look like a weather map?

14. Transfer to good copy.