Online appendix B: Global ensemble precipitation forecasts.

a supplement to

Performance of Operational Model Precipitation Forecast Guidance During the 2013 Colorado Front-Range Floods

by

Thomas M. Hamill

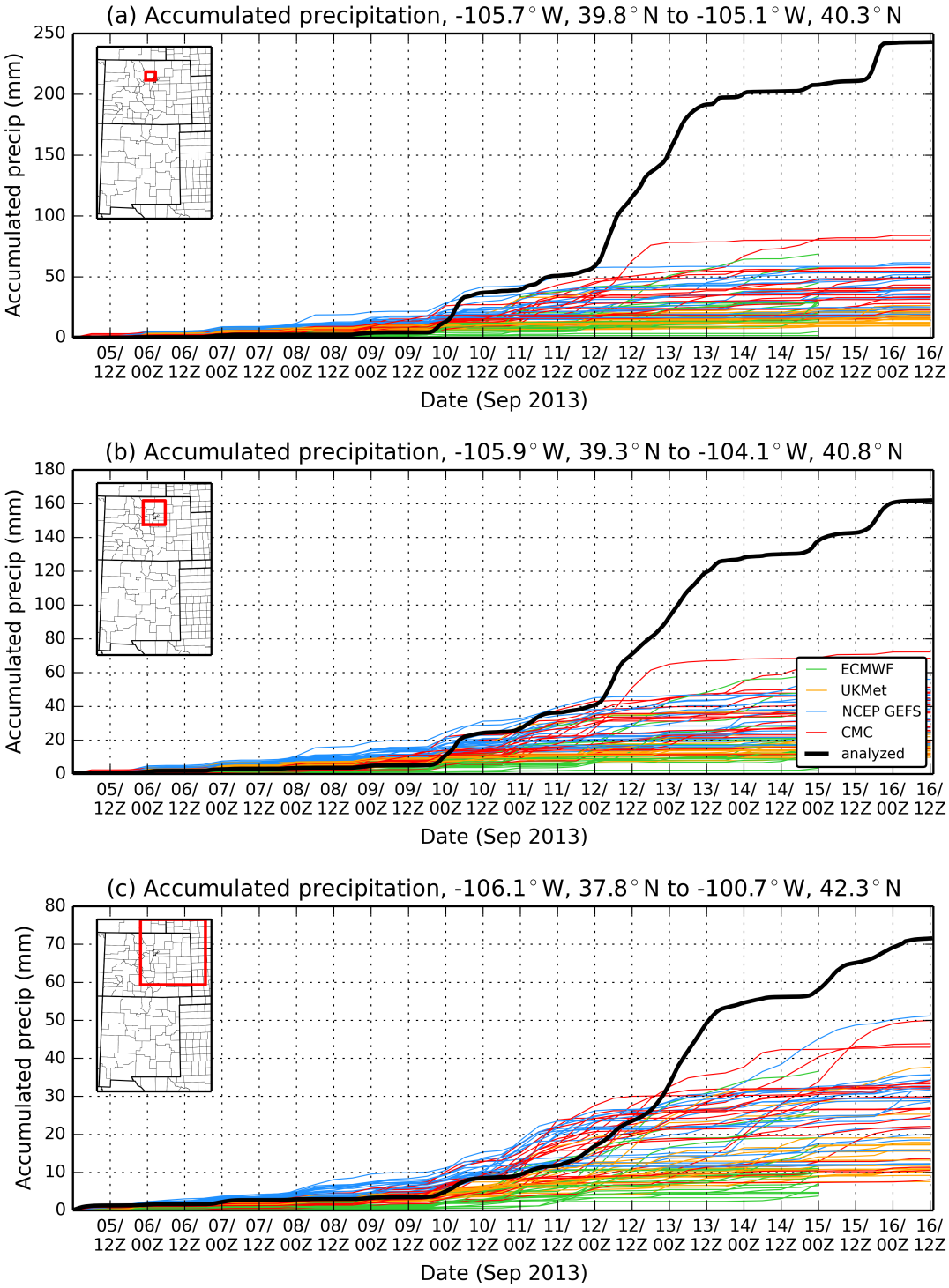

Figure B1: "Plume" diagrams of accumulated precipitation forecasts and the analysis for four global ensemble prediction systems, initialized 00 UTC 05 Sep 2013. The three panels provide the forecast and analyzed accumulated precipitation averaged over three increasingly large areas, denoted by the red box in each figure. Only the first 20 members of each ensemble prediction system are displayed.

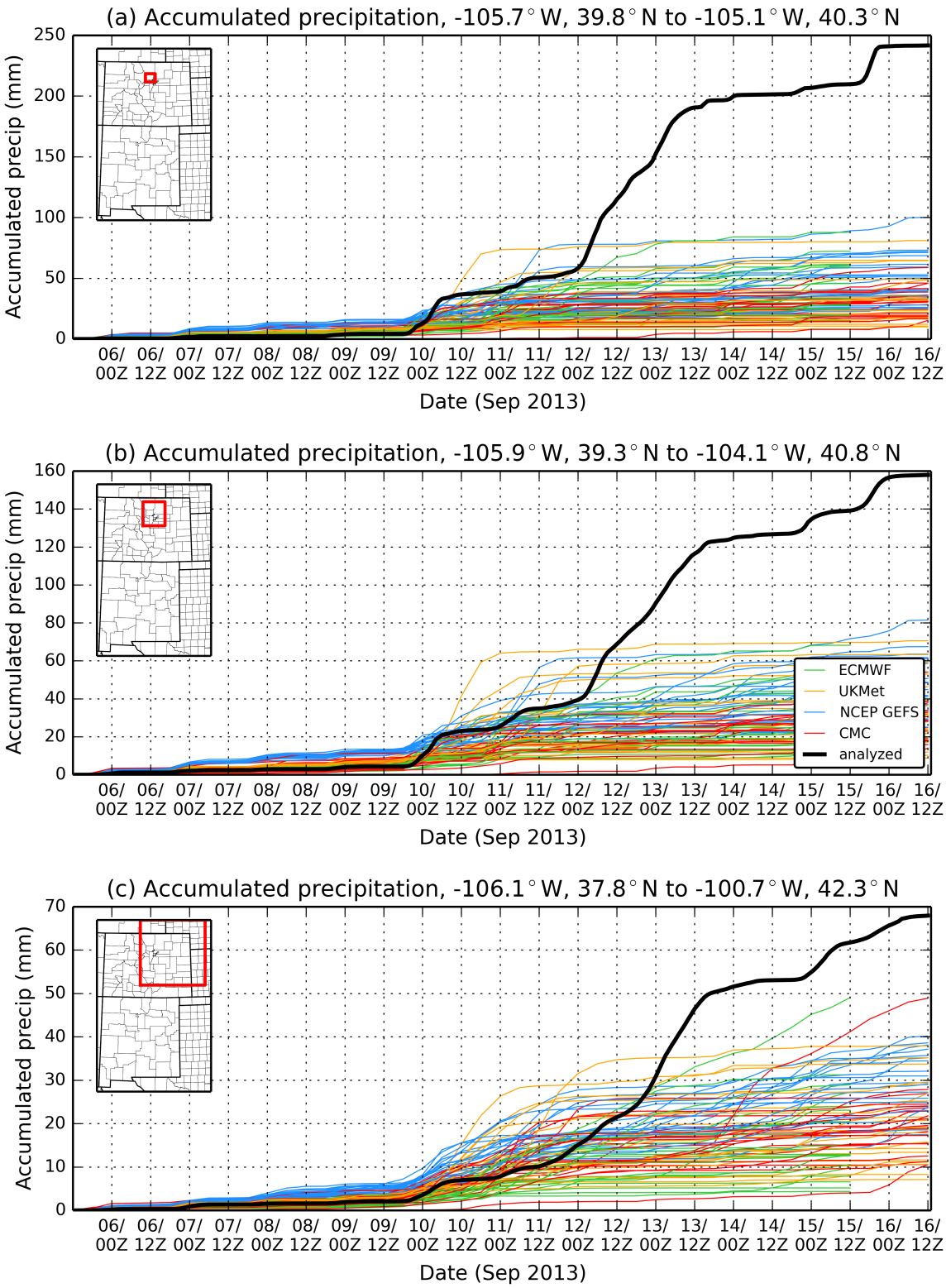

Figure B2: As in Fig. B1, but for the forecasts initialized on 12 UTC 05 Sep 2013.

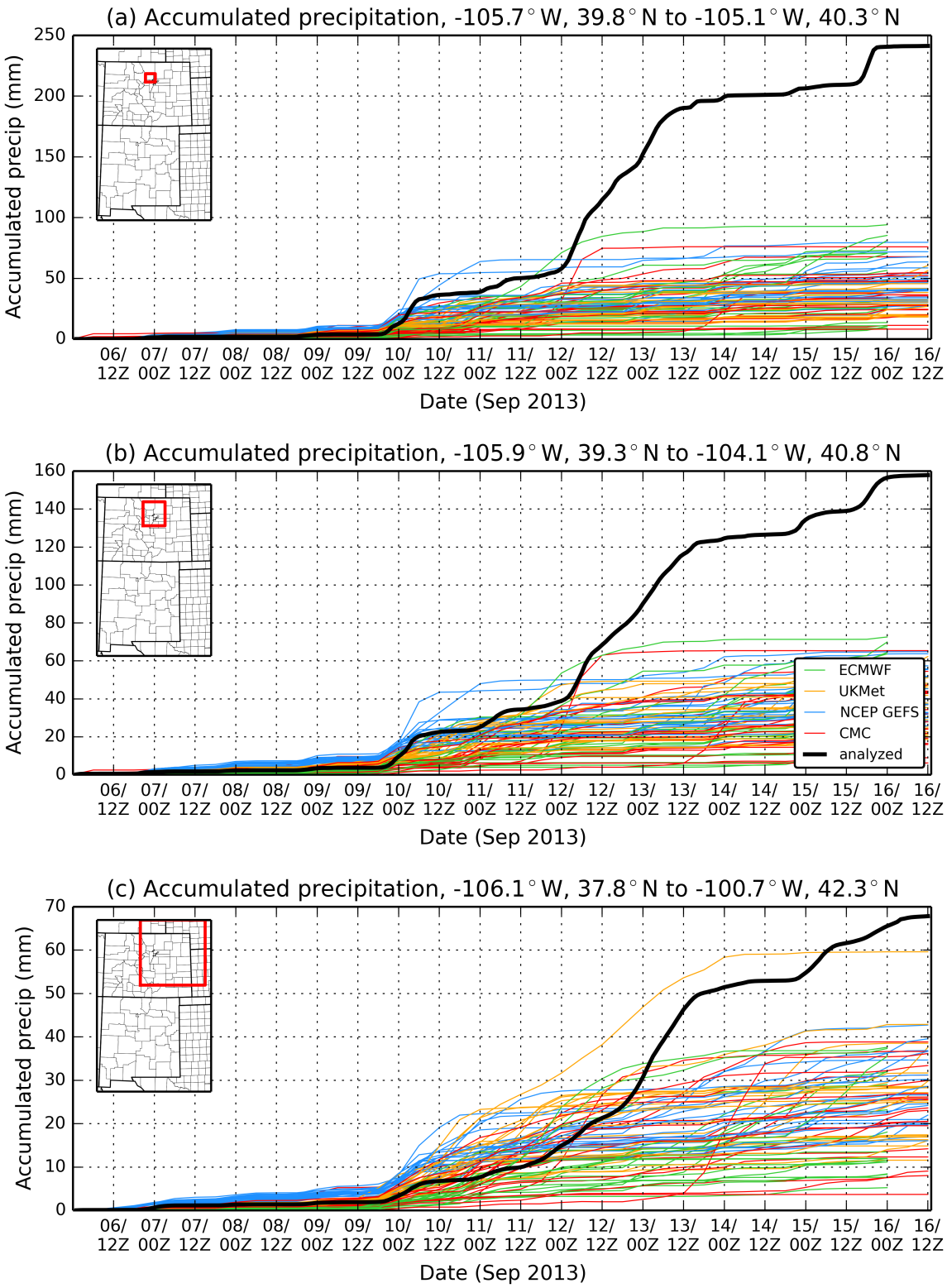

Figure B3: As in Fig. B1, but for the forecasts initialized on 00 UTC 06 Sep 2013.

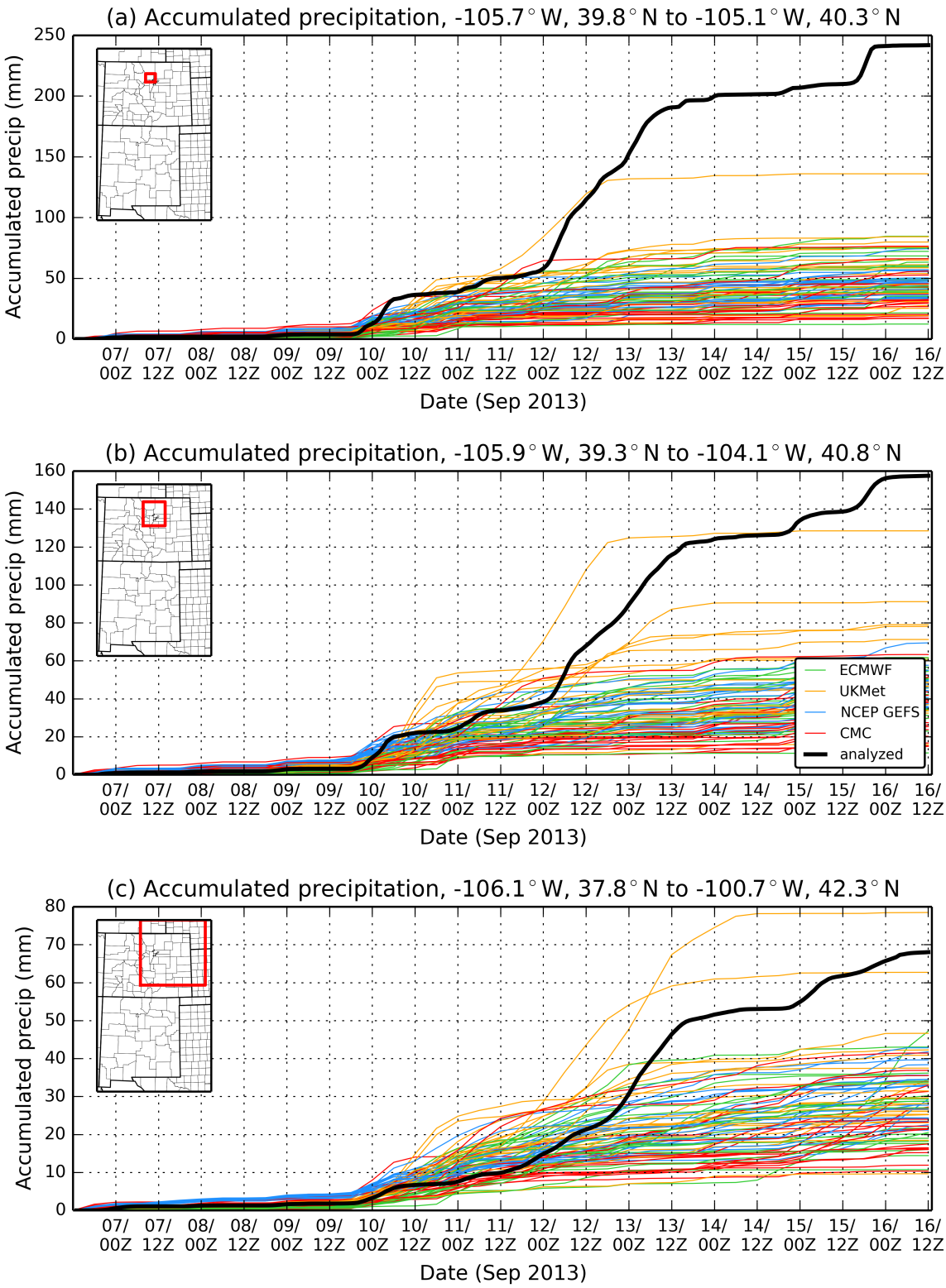

Figure B4: As in Fig. B1, but for the forecasts initialized on 12 UTC 06 Sep 2013.

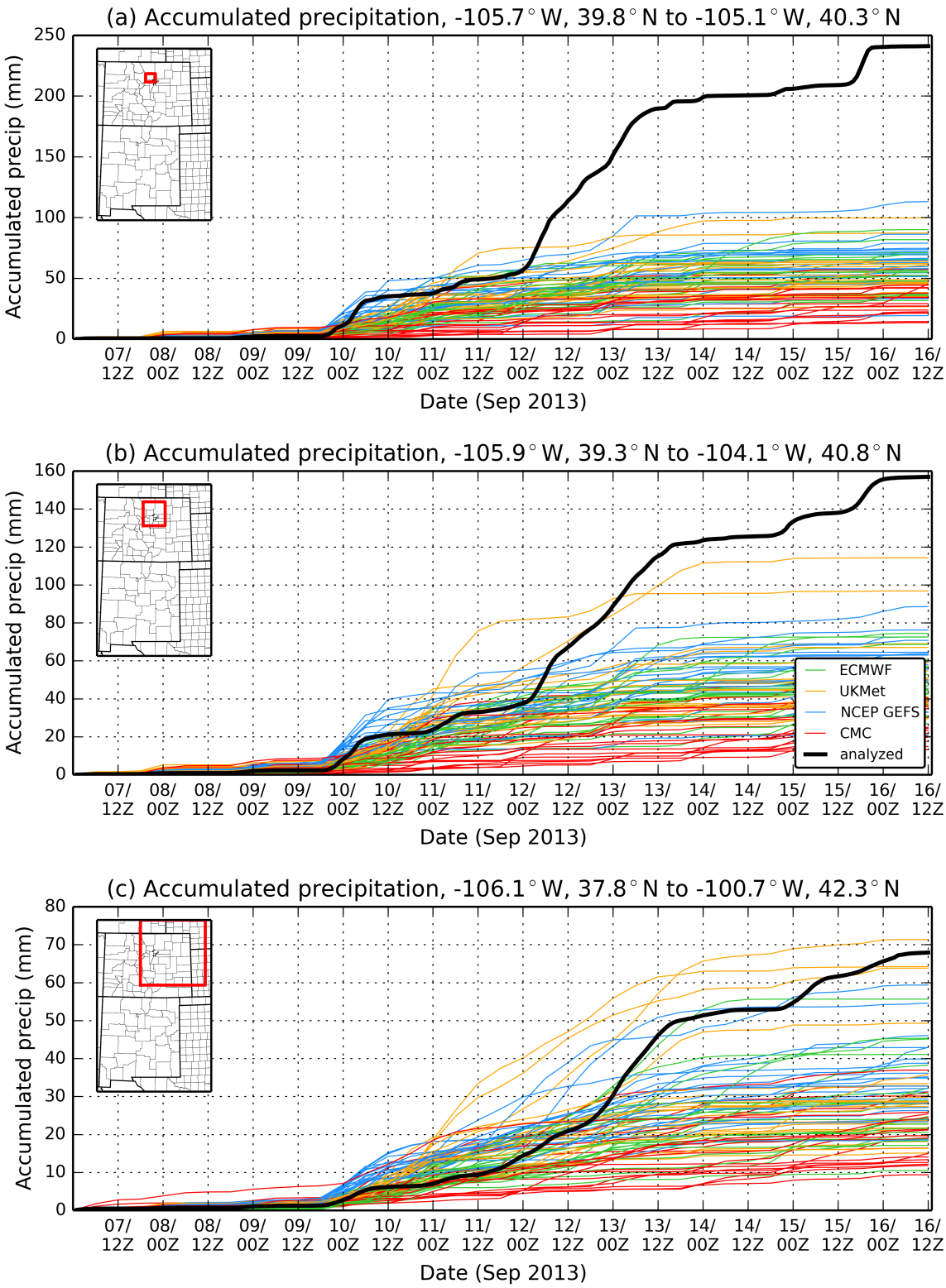

Figure B5: As in Fig. B1, but for the forecasts initialized on 00 UTC 07 Sep 2013.

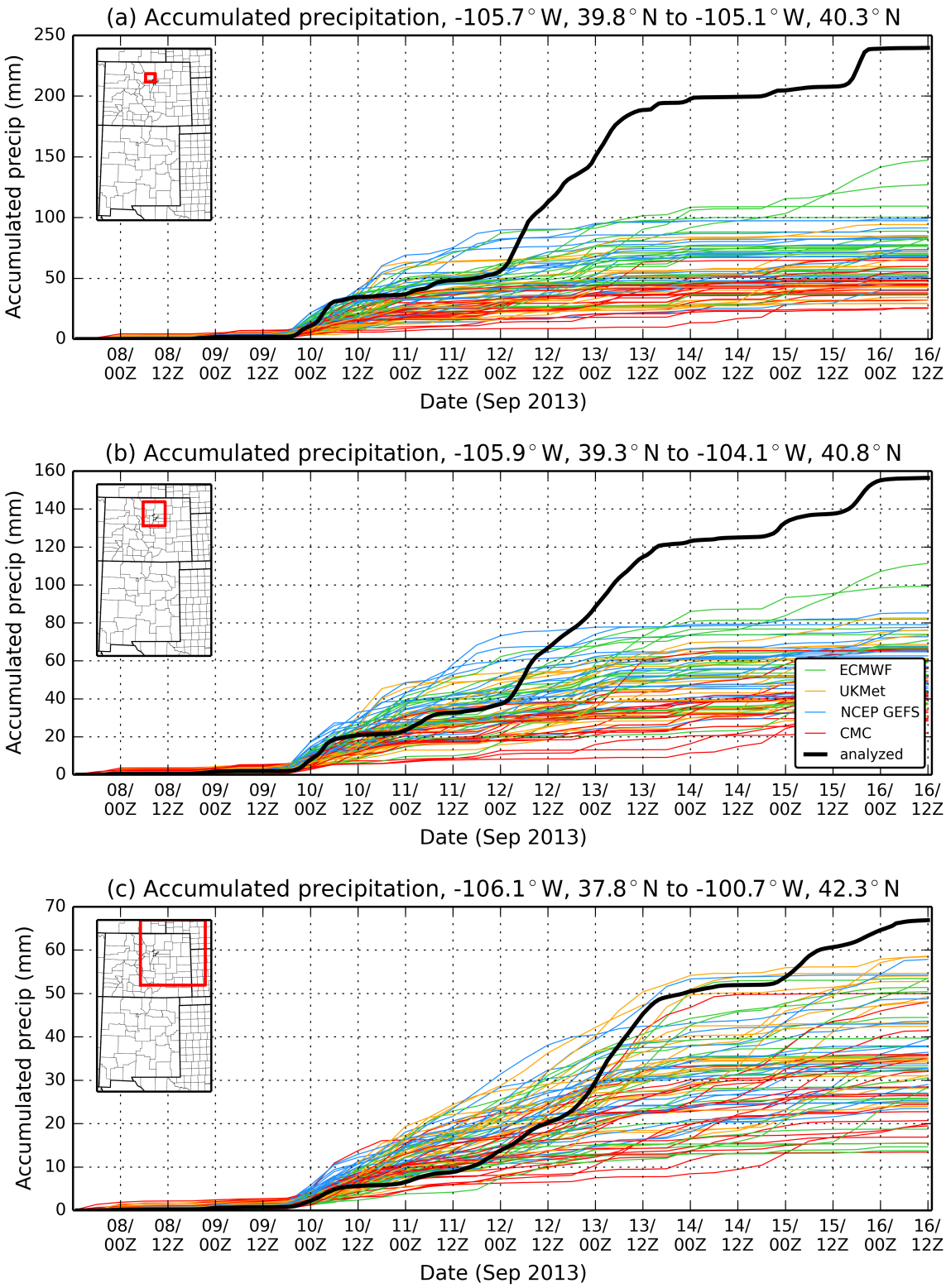

Figure B6: As in Fig. B1, but for the forecasts initialized on 12 UTC 07 Sep 2013.

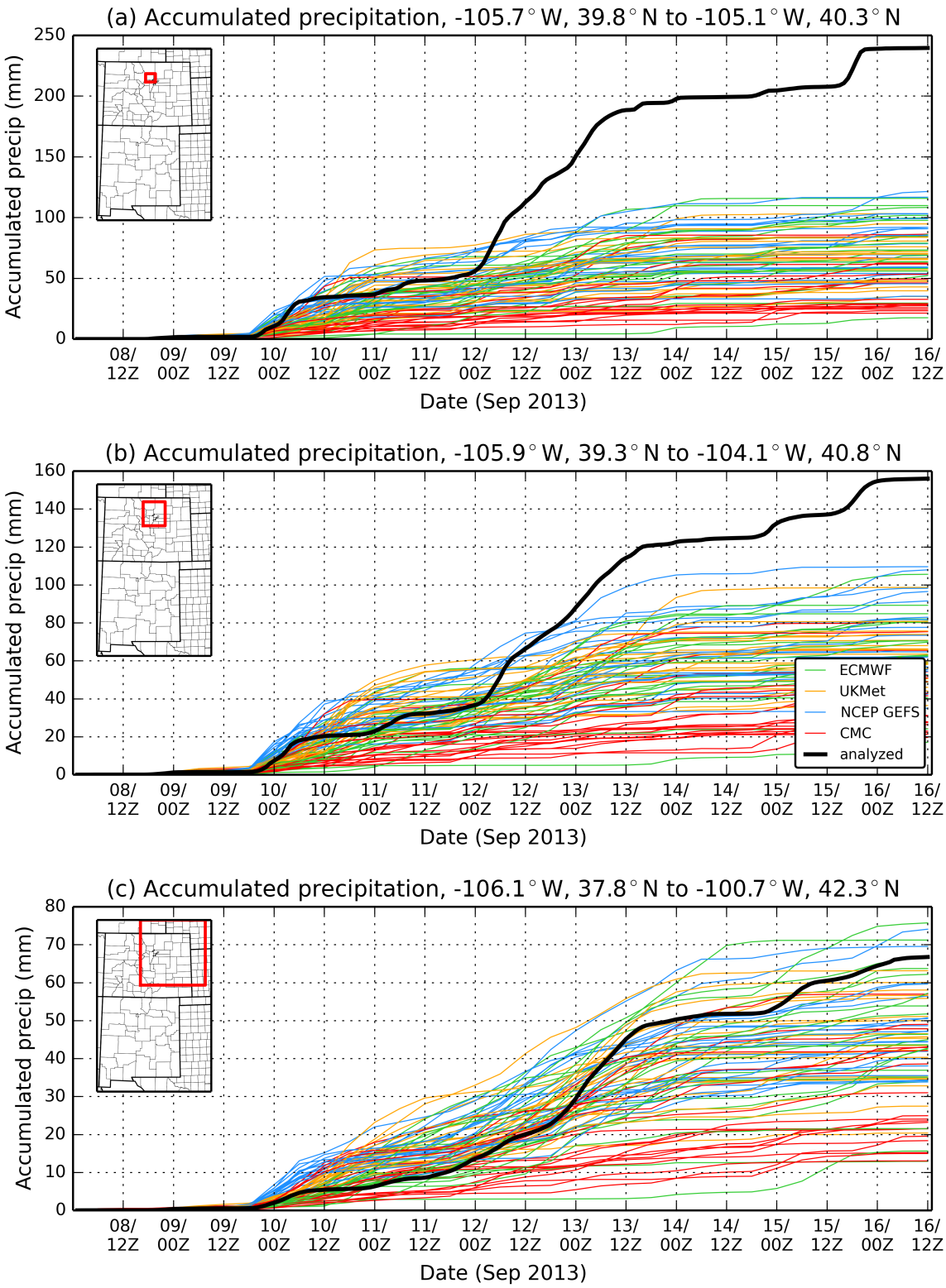

Figure B7: As in Fig. B1, but for the forecasts initialized on 00 UTC 08 Sep 2013.

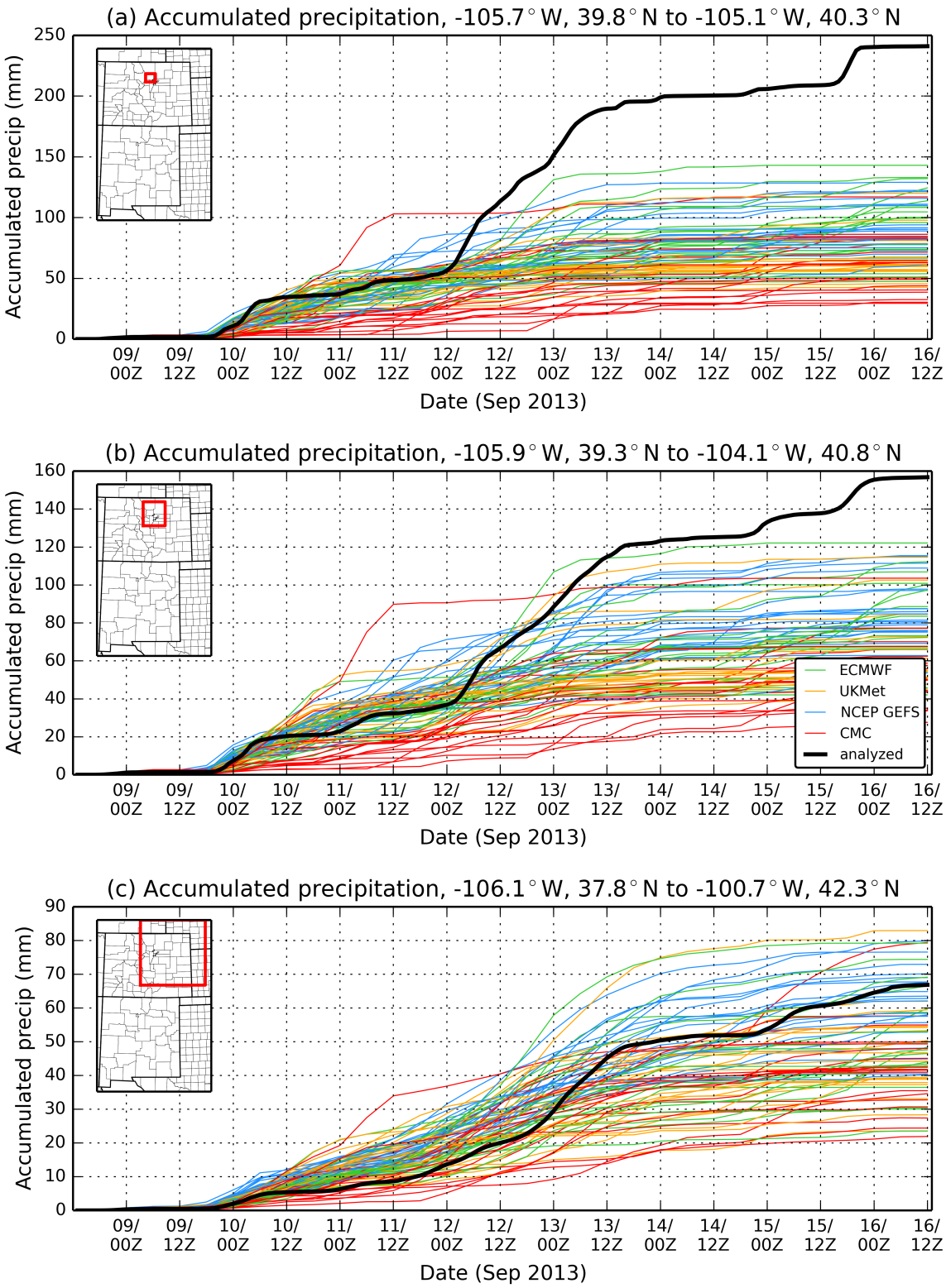

Figure B8: As in Fig. B1, but for the forecasts initialized on 12 UTC 08 Sep 2013.

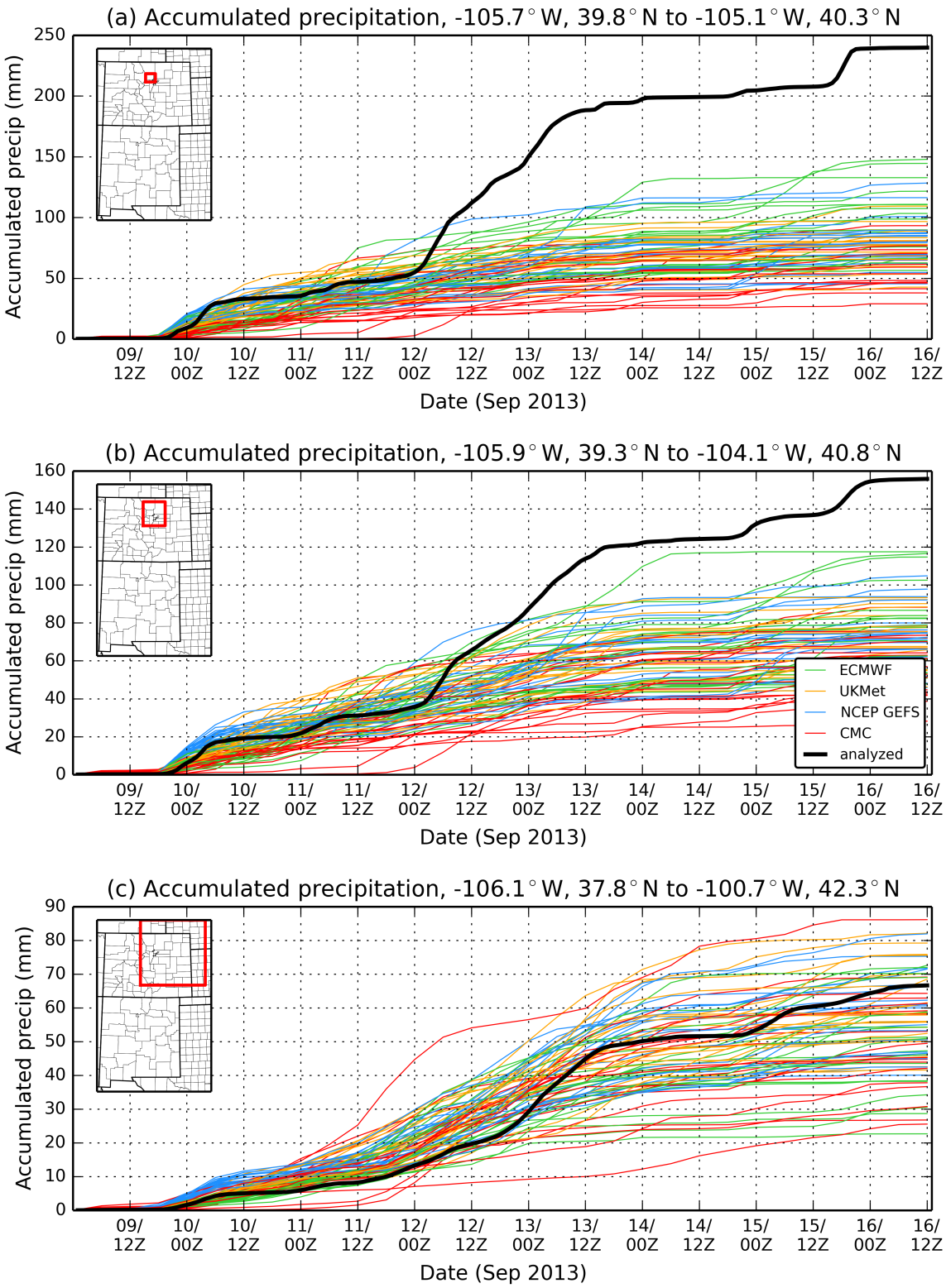

Figure B9: As in Fig. B1, but for the forecasts initialized on 00 UTC 09 Sep 2013.

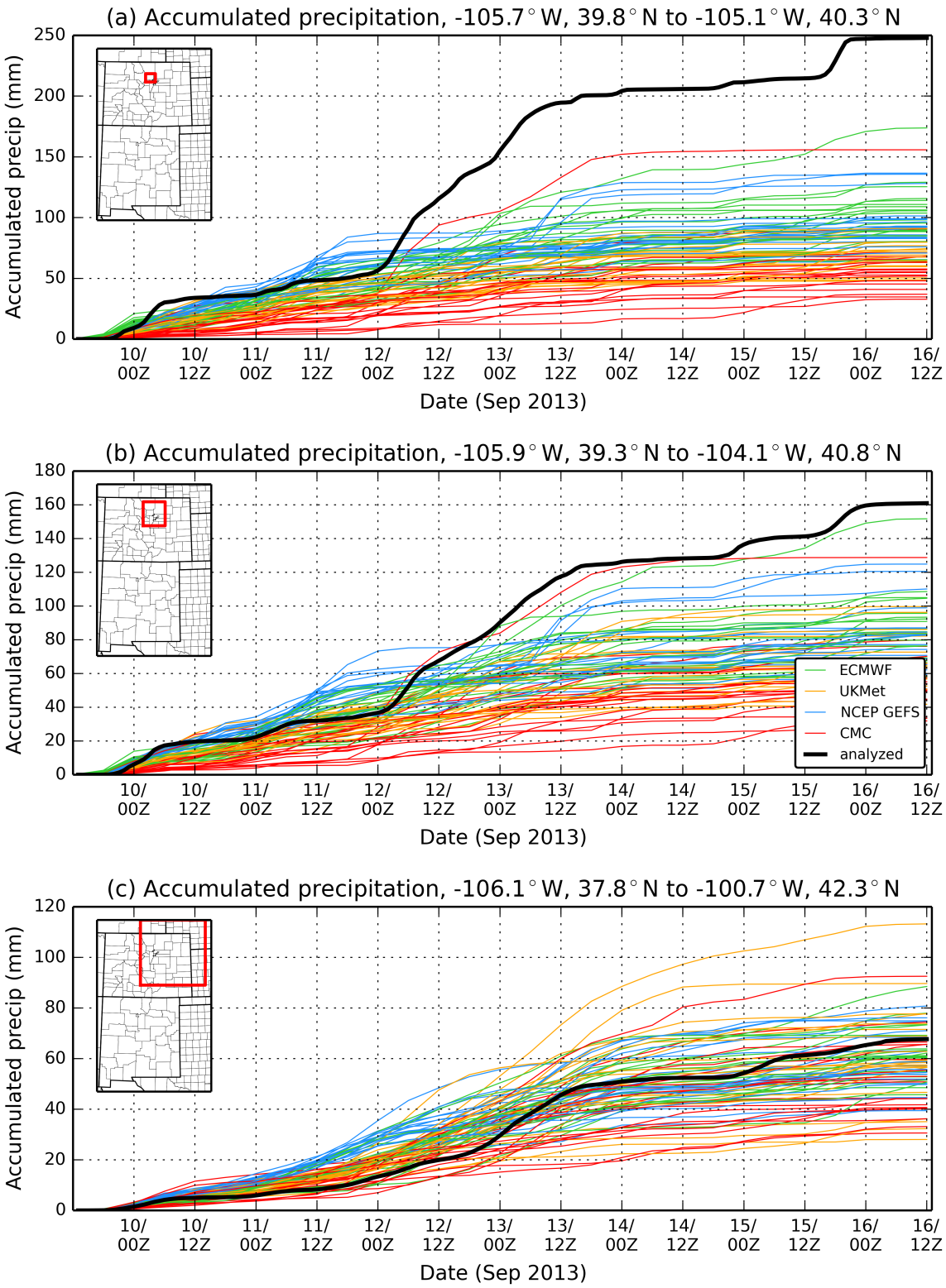

Figure B10: As in Fig. B1, but for the forecasts initialized on 12 UTC 09 Sep 2013.

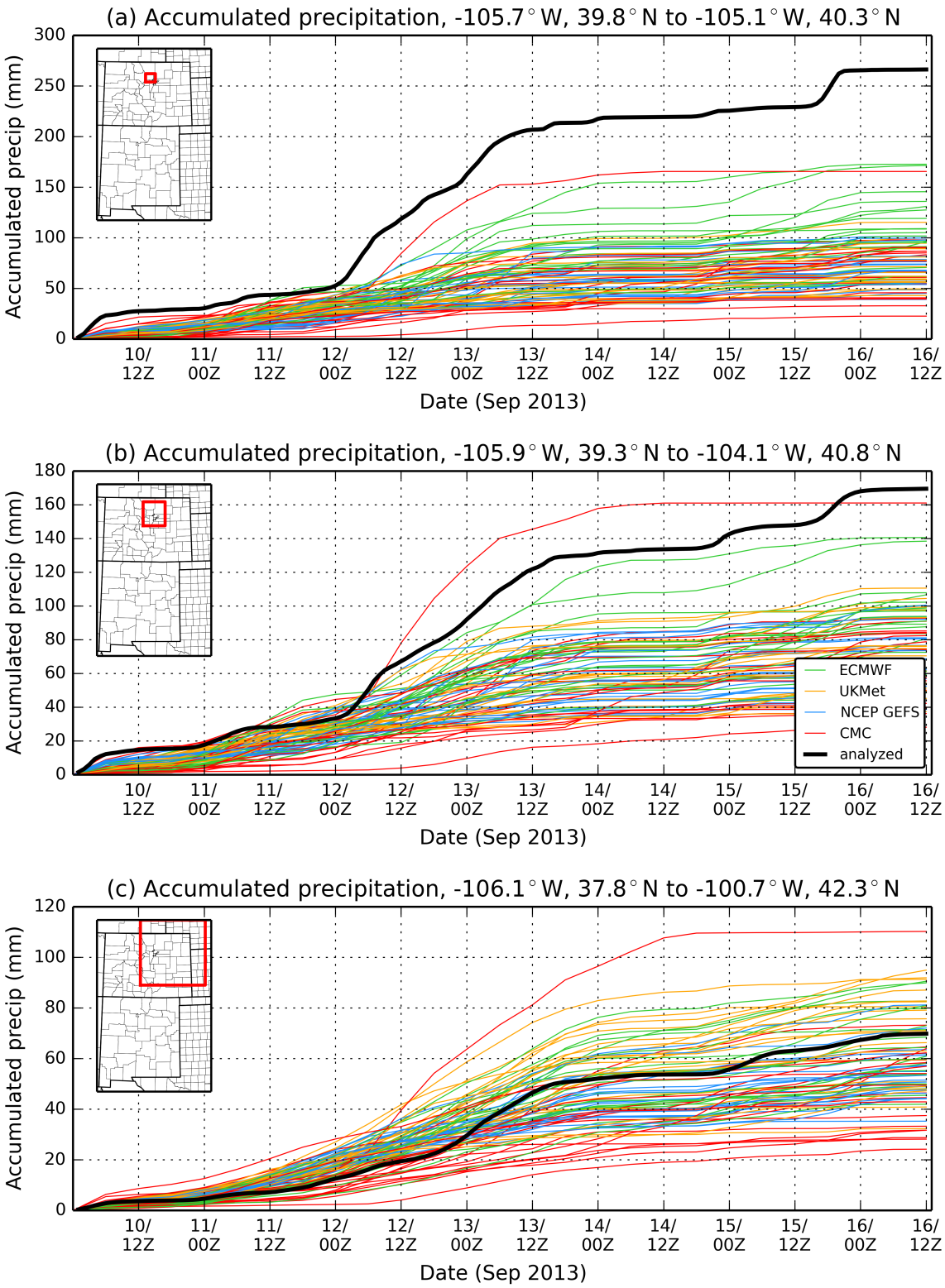

Figure B11: As in Fig. B1, but for the forecasts initialized on 00 UTC 10 Sep 2013.

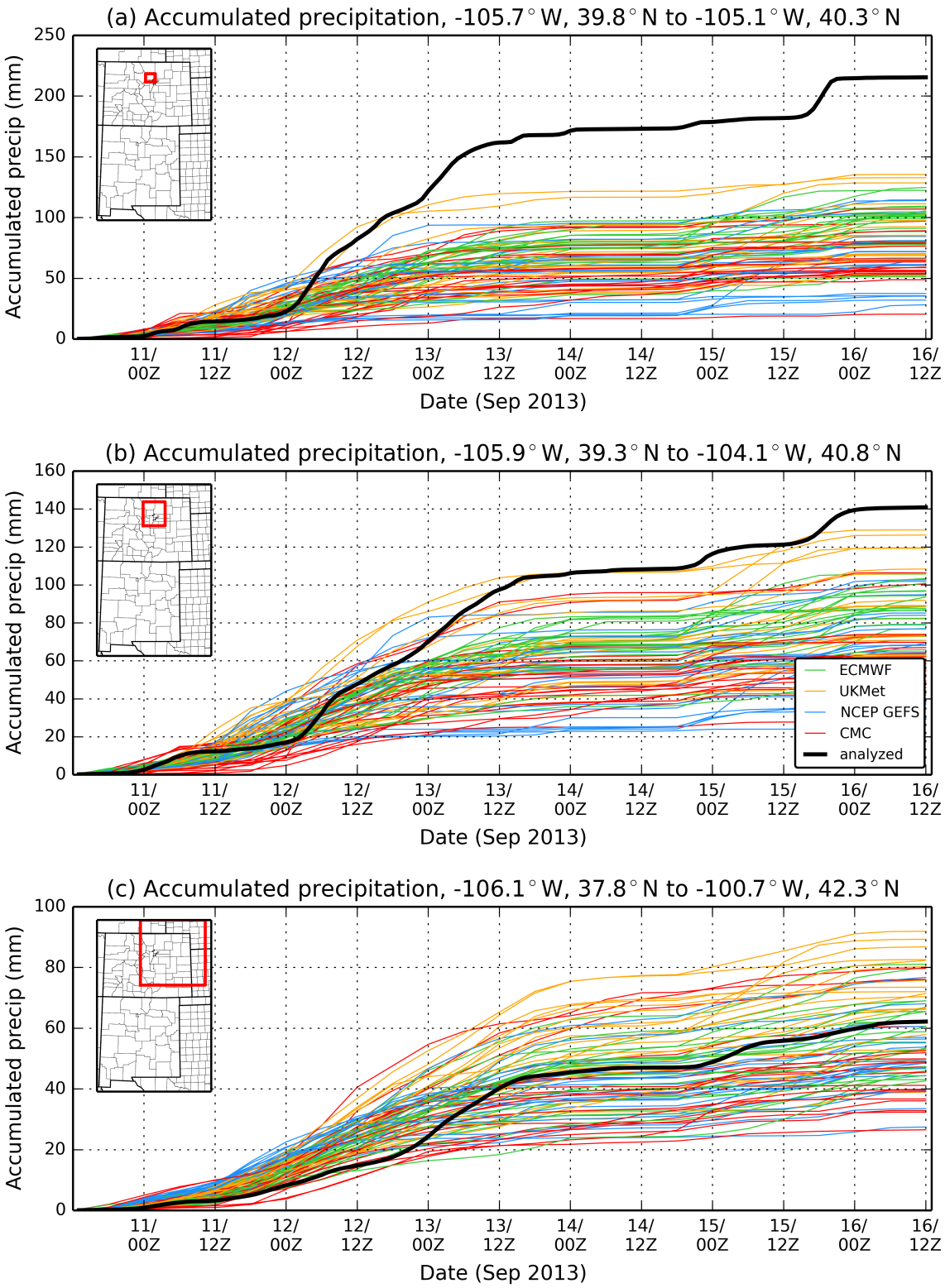

Figure B12: As in Fig. B1, but for the forecasts initialized on 12 UTC 10 Sep 2013.

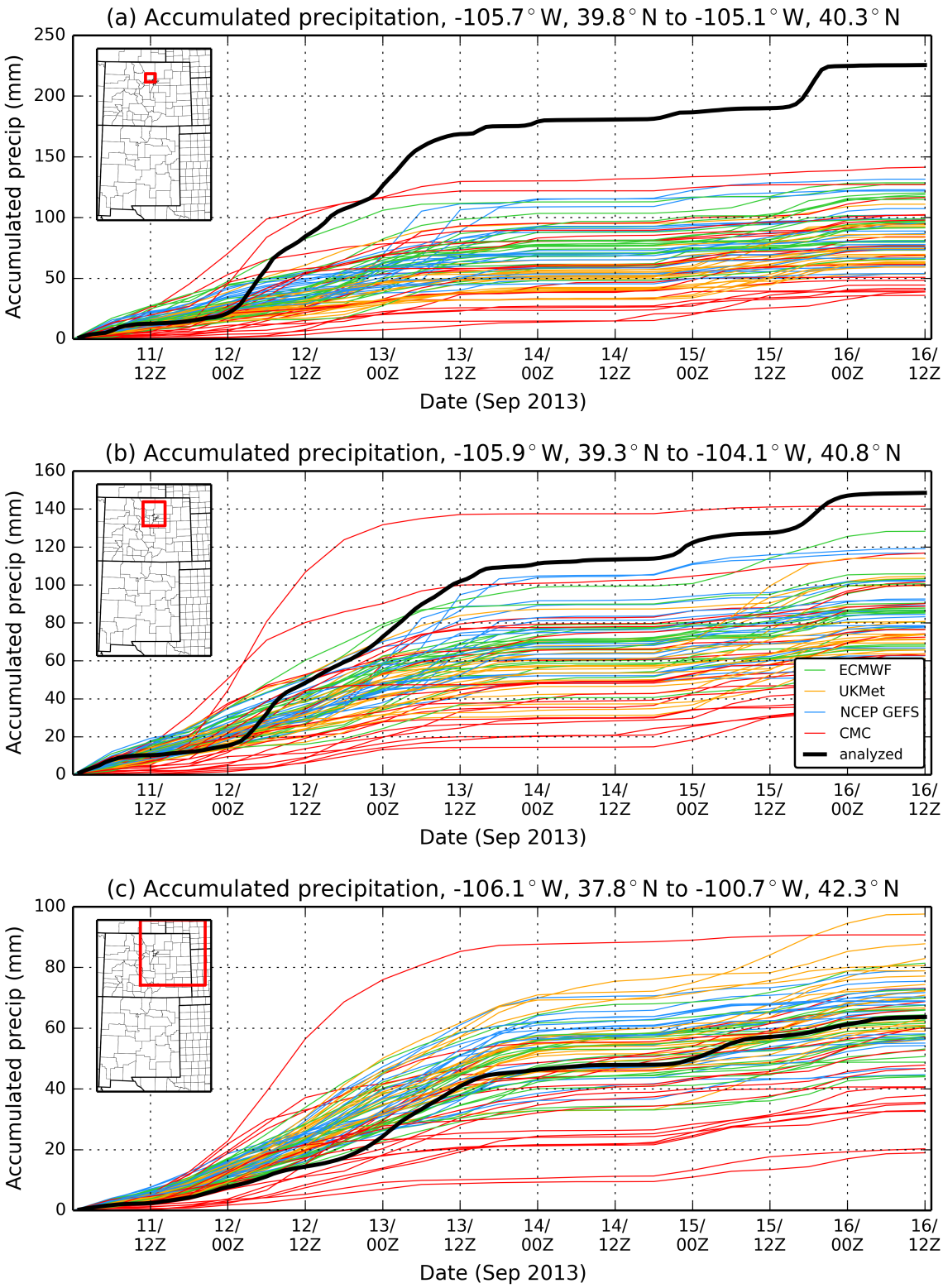

Figure B13: As in Fig. B1, but for the forecasts initialized on 00 UTC 11 Sep 2013.

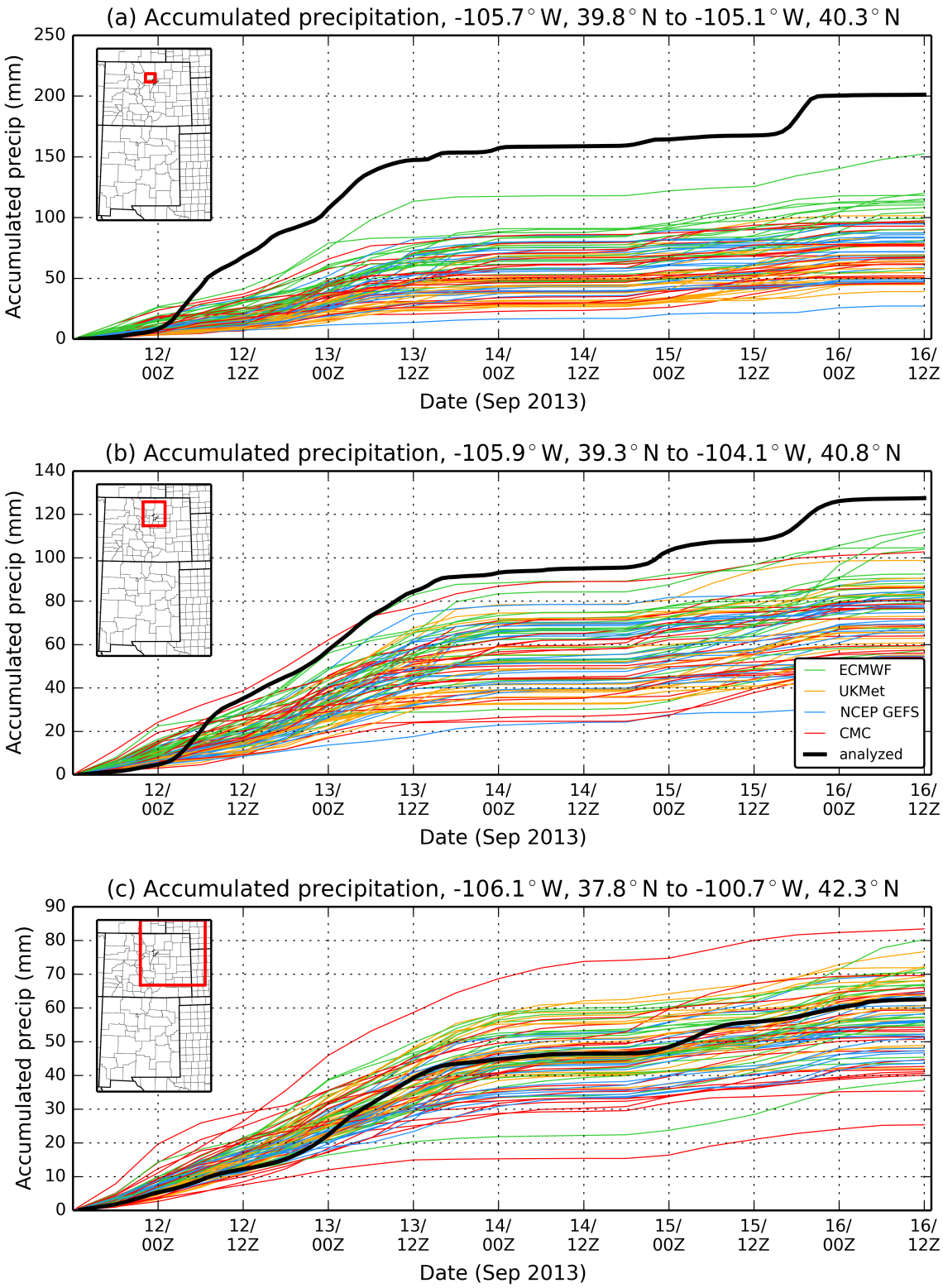

Figure B14: As in Fig. B1, but for the forecasts initialized on 12 UTC 11 Sep 2013.

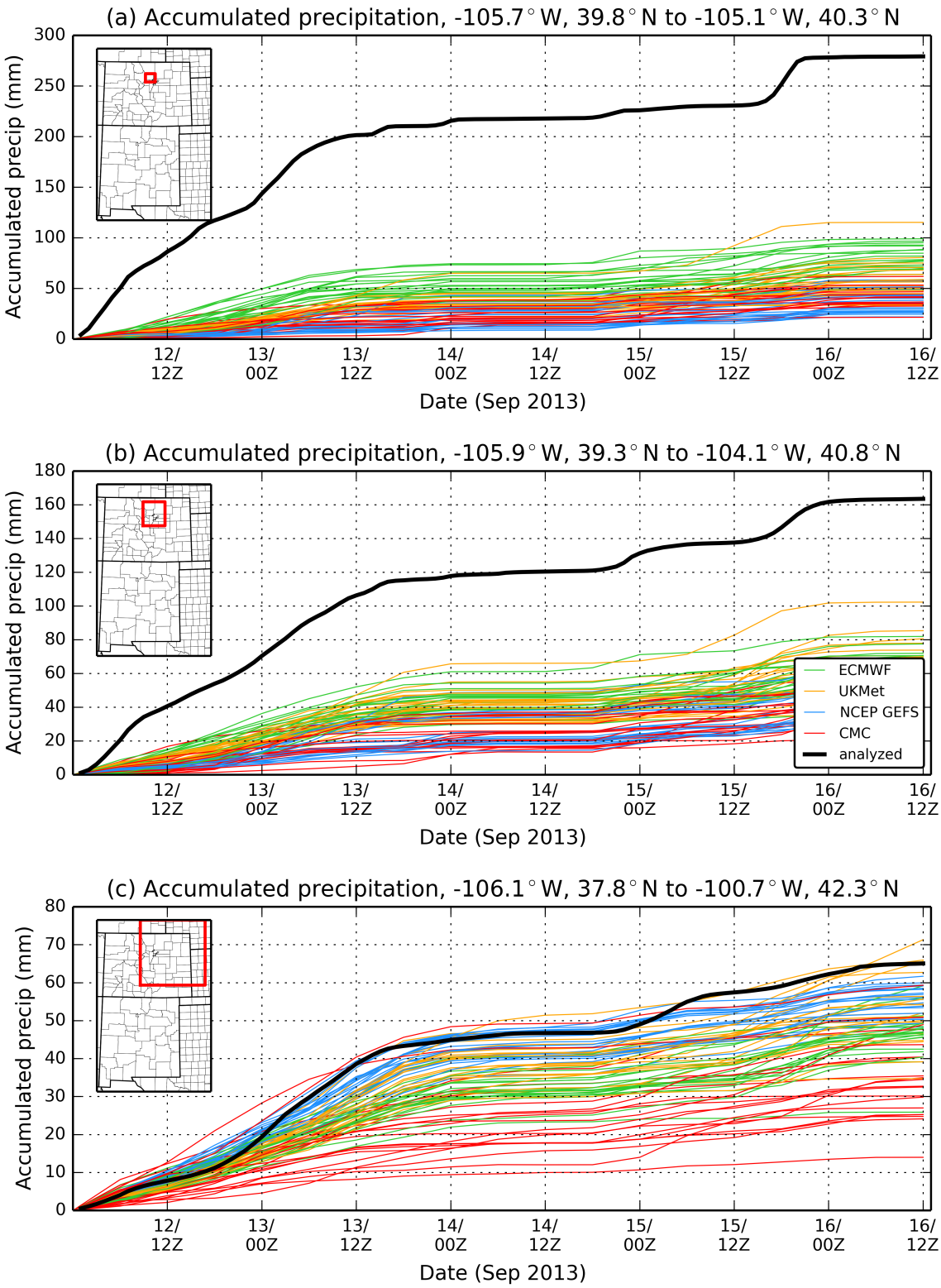

Figure B15: As in Fig. B1, but for the forecasts initialized on 00 UTC 12 Sep 2013.

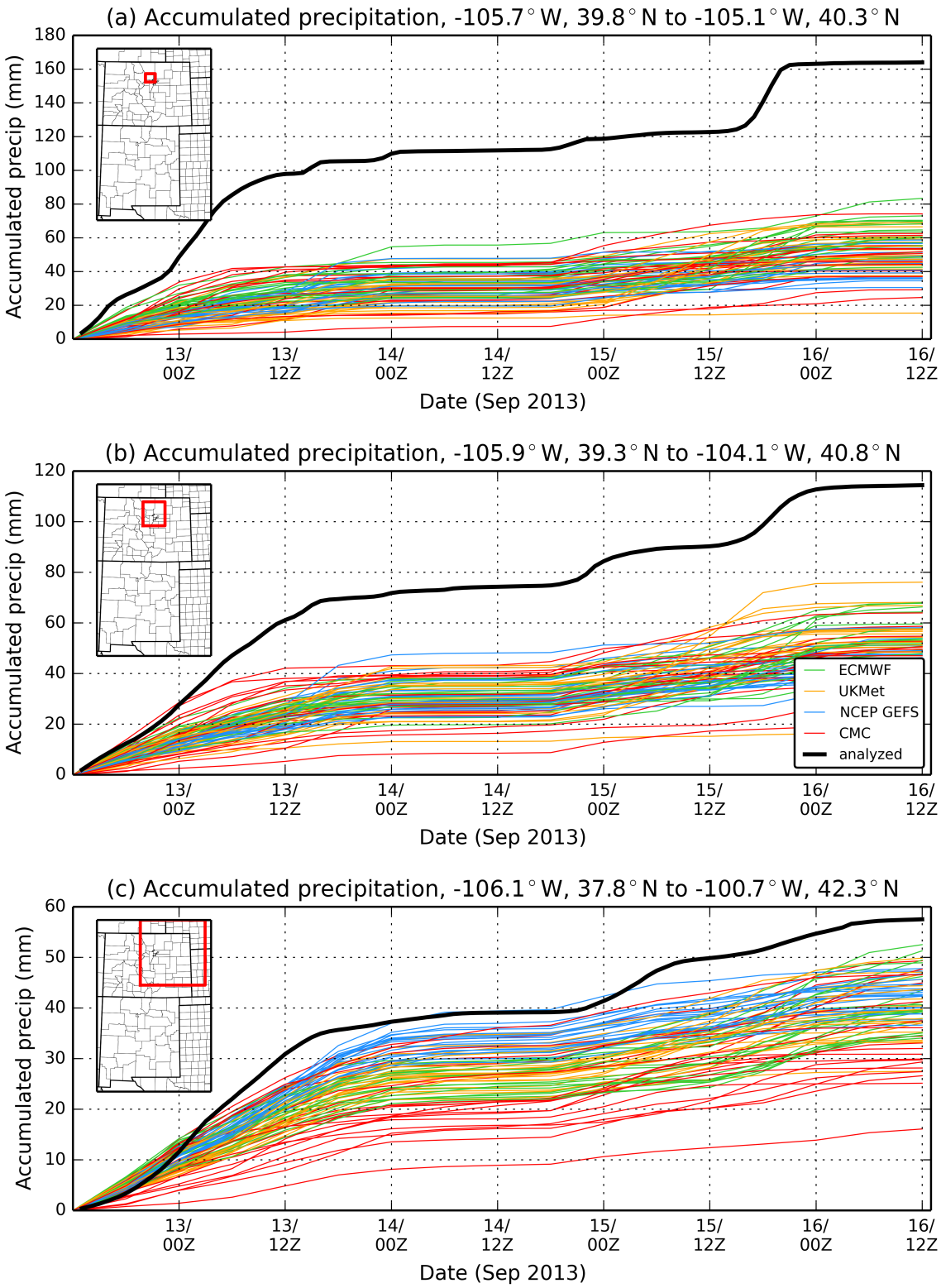

Figure B16: As in Fig. B1, but for the forecasts initialized on 12 UTC 12 Sep 2013.

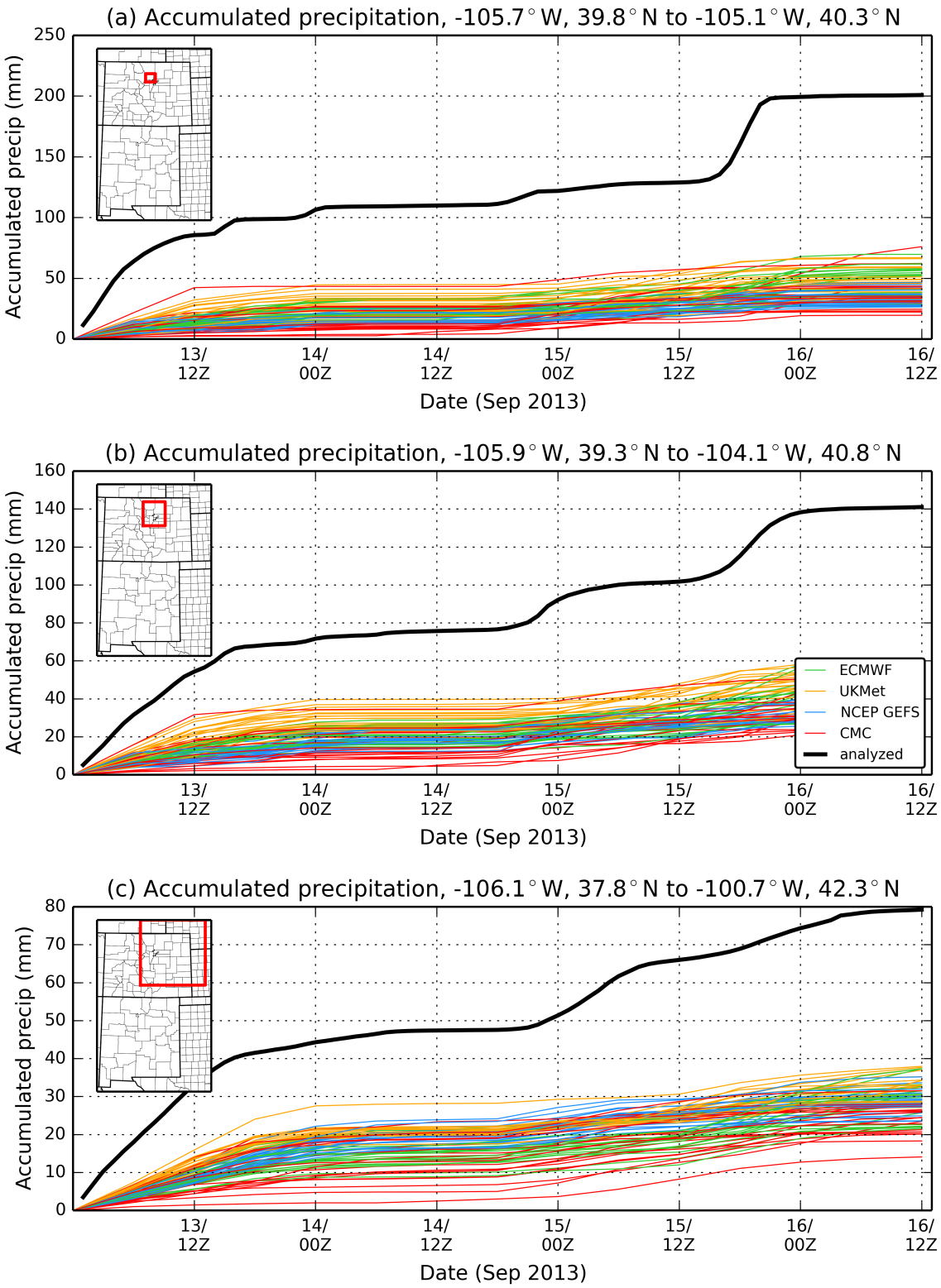

Figure B17: As in Fig. B1, but for the forecasts initialized on 00 UTC 13 Sep 2013.

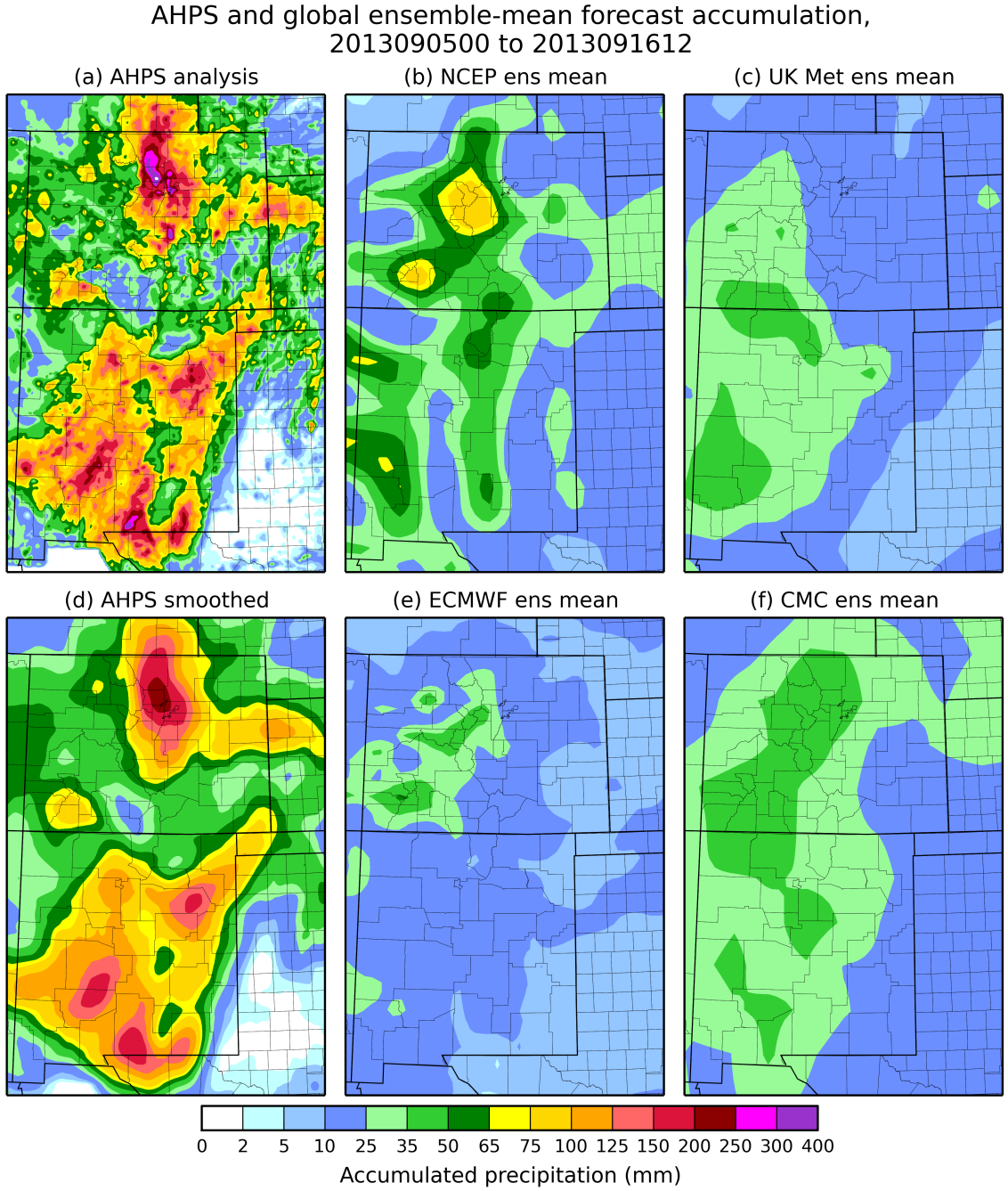

Figure B18: (a) Analyzed precipitation for the period 00 UTC 05 Sep 2013 – 12 UTC 16 Sep 2013. Corresponding smoothed analyses (~1-degree grid spacing) are shown in panel (d). Panels (b), (c), (e), and (f) present the ensemble-mean forecasts from the NCEP GEFS, the UK Met Office, ECMWF, and CMC, respectively.

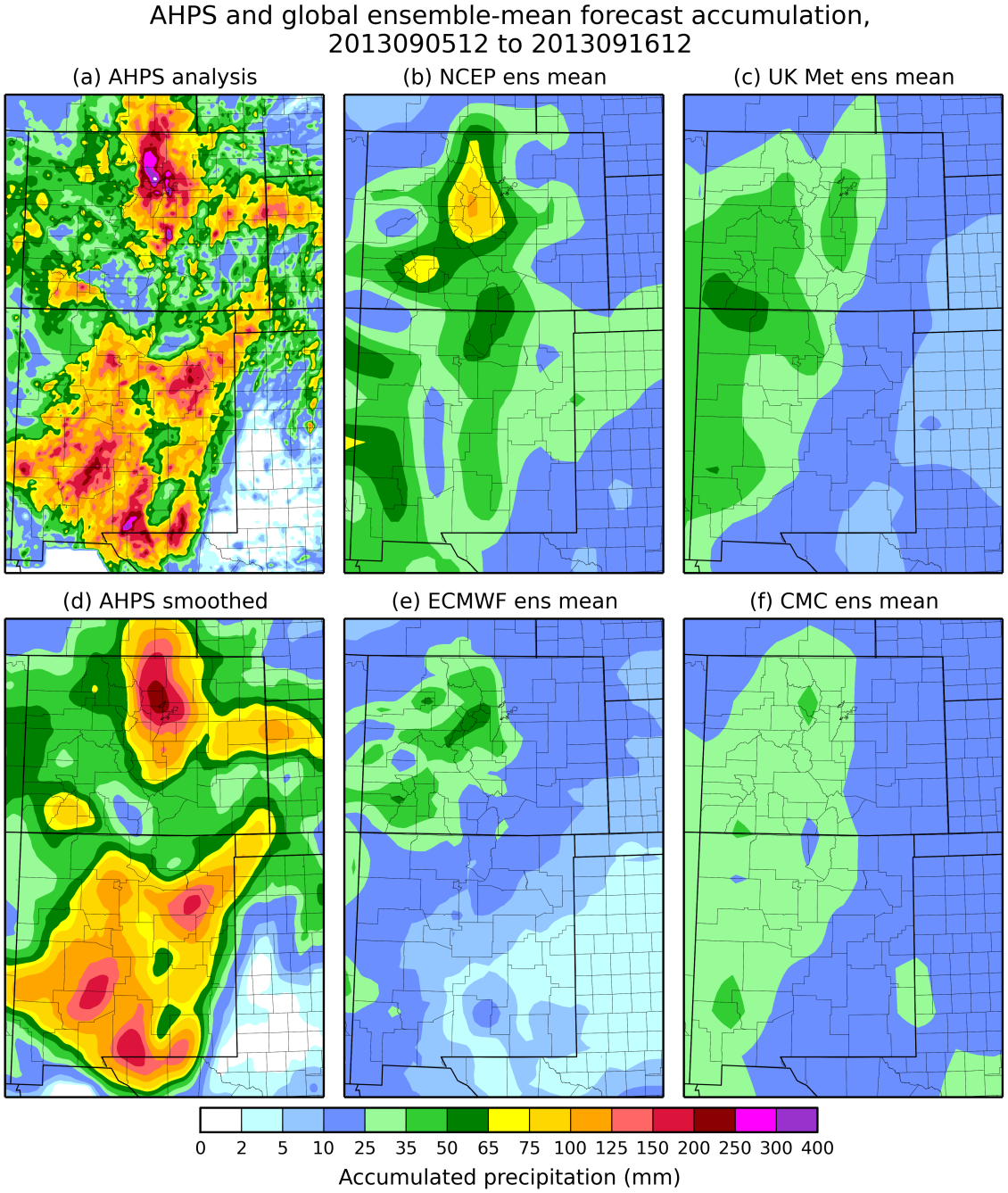

Figure B19: As in Fig. B18, but for the period 12 UTC 05 Sep 2013 – 12 UTC 16 Sep 2013.

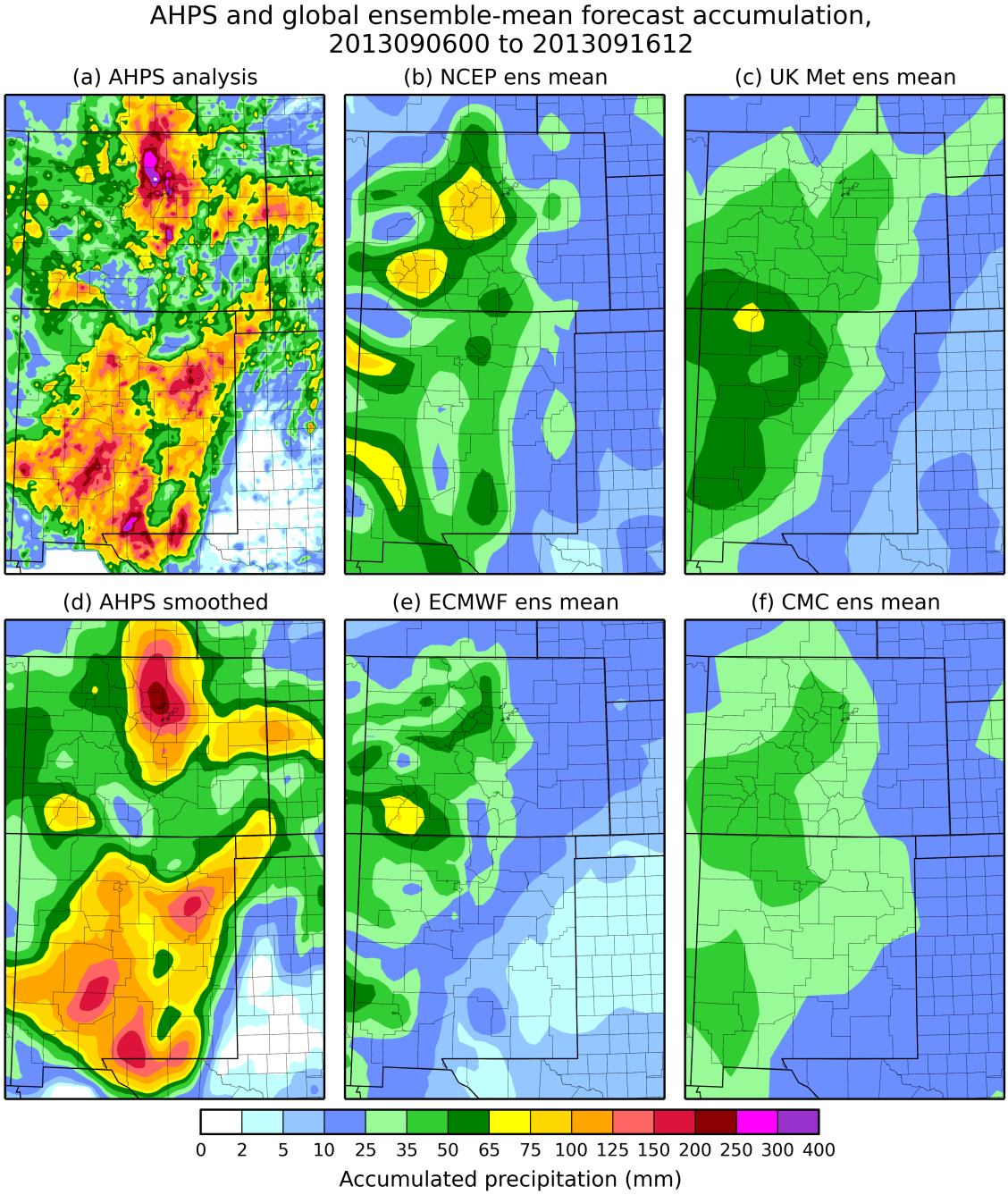

Figure B20: As in Fig. B18, but for the period 00 UTC 06 Sep 2013 – 12 UTC 16 Sep 2013.

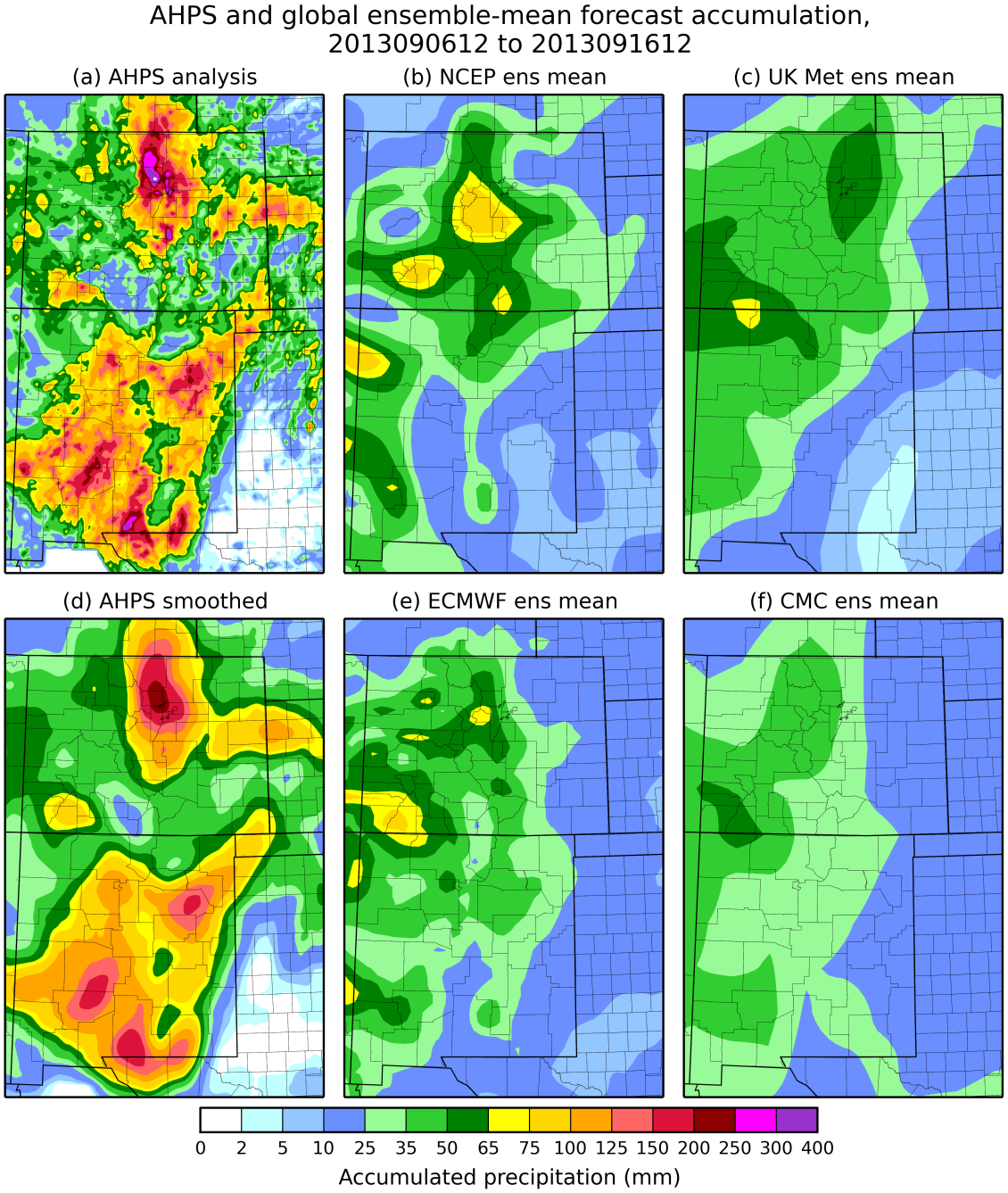

Figure B21: As in Fig. B18, but for the period 12 UTC 06 Sep 2013 – 12 UTC 16 Sep 2013.

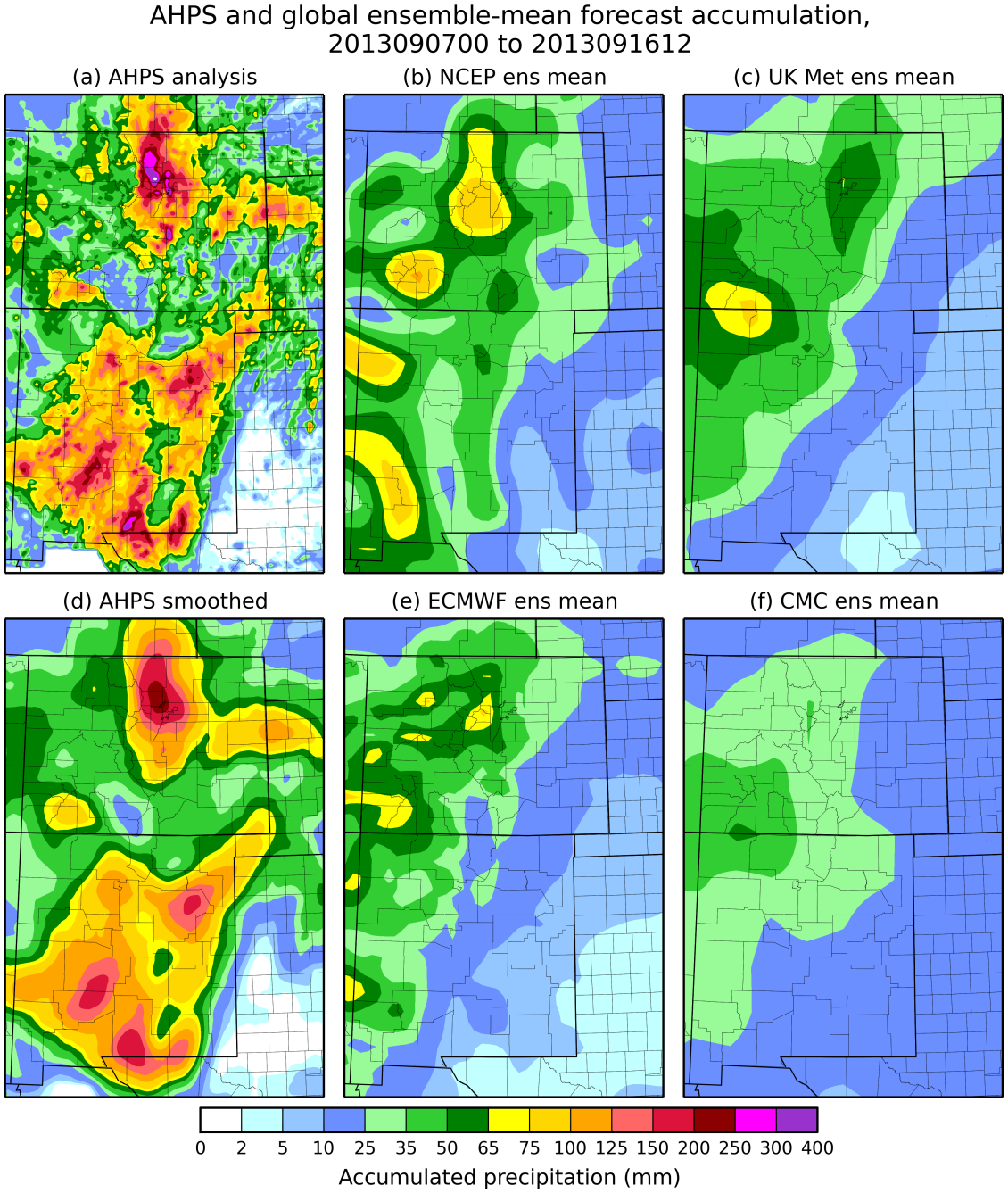

Figure B22: As in Fig. B18, but for the period 00 UTC 07 Sep 2013 – 12 UTC 16 Sep 2013.

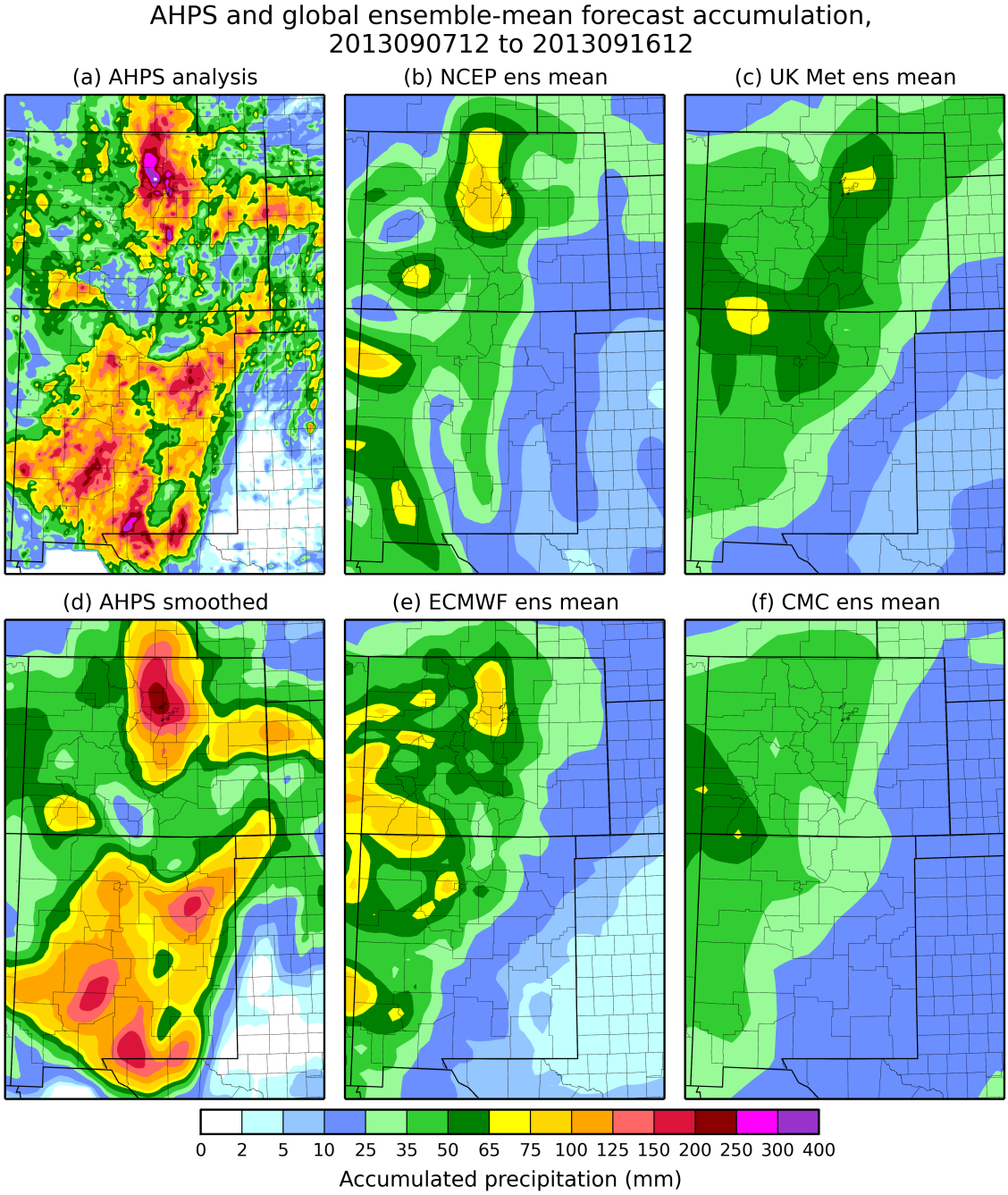

Figure B23: As in Fig. B18, but for the period 12 UTC 07 Sep 2013 – 12 UTC 16 Sep2013.

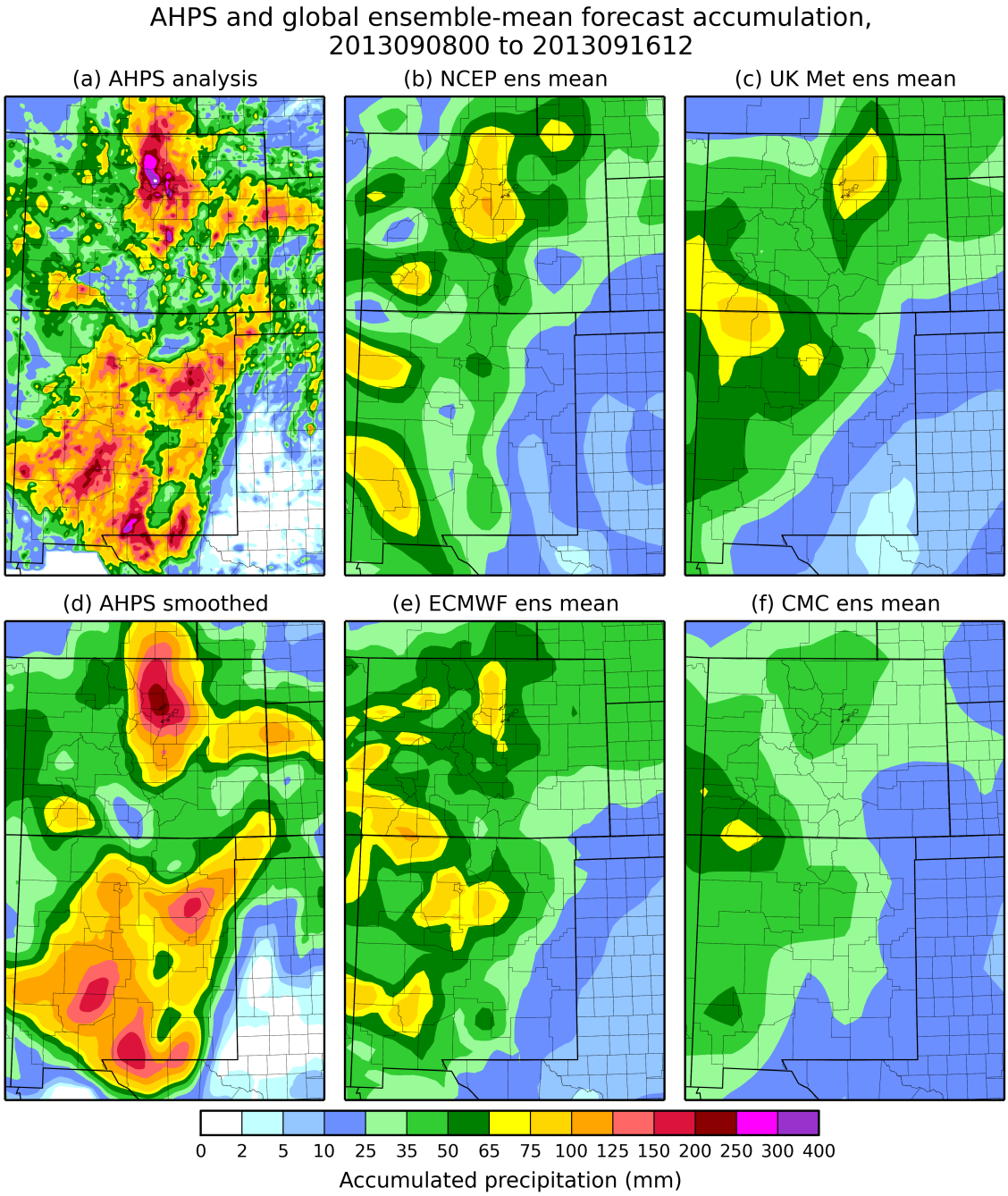

Figure B24: As in Fig. B18, but for the period 00 UTC 08 Sep 2013 – 12 UTC 16 Sep 2013.

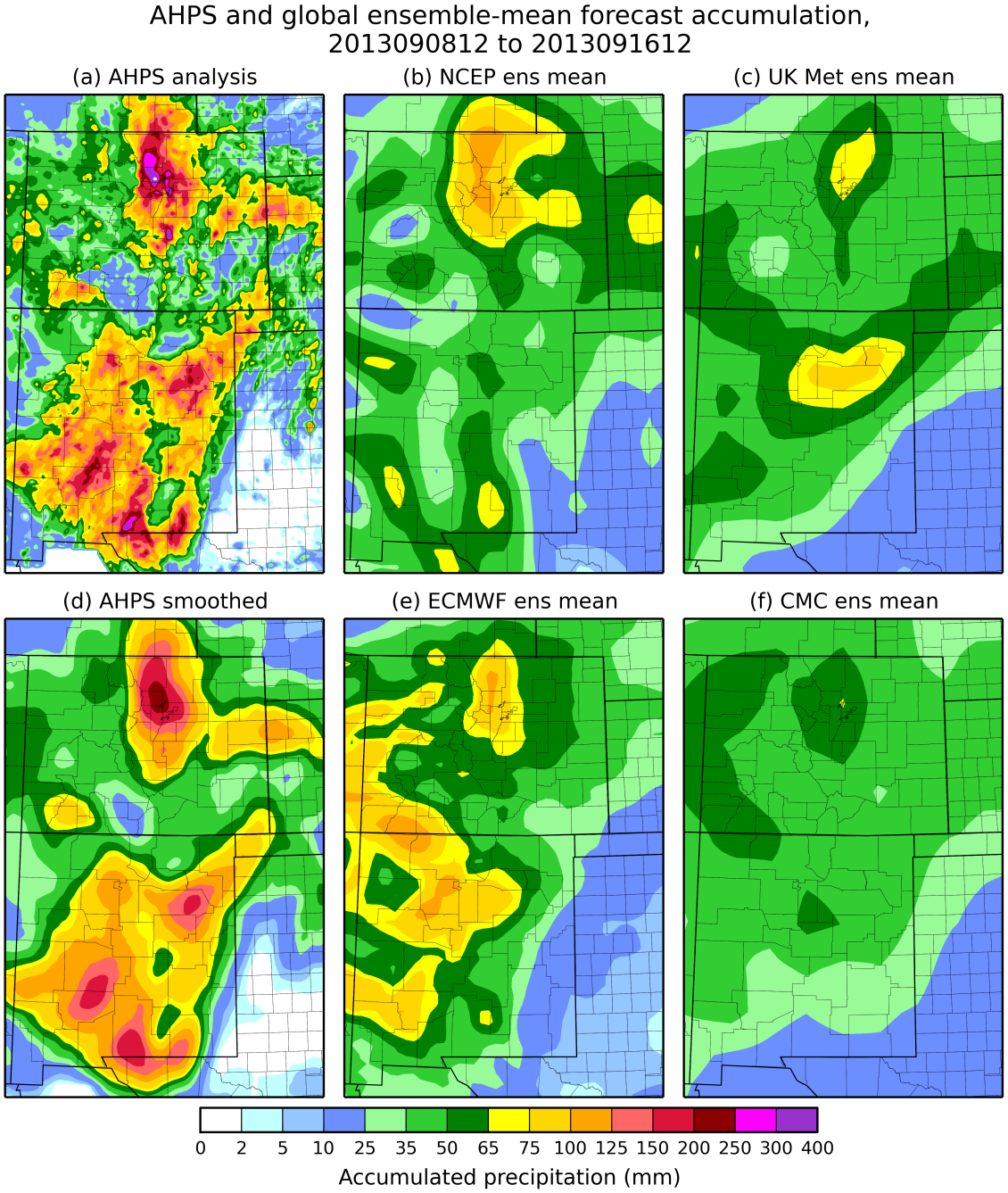

Figure B25: As in Fig. B18, but for the period 12 UTC 08 Sep 2013 – 12 UTC 16 Sep 2013.

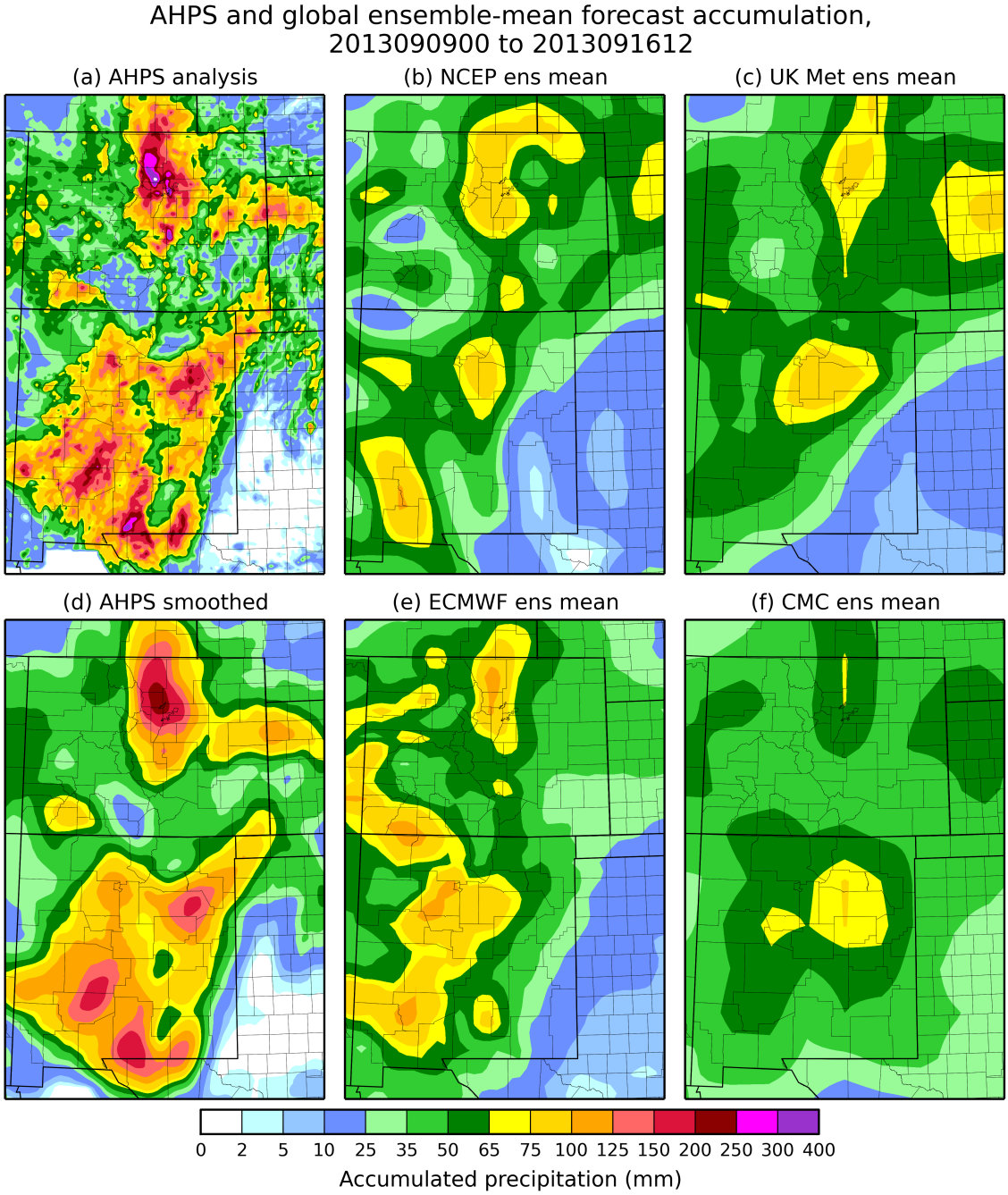

Figure B26: As in Fig. B18, but for the period 00 UTC 09 Sep 2013 – 12 UTC 16 Sep 2013.

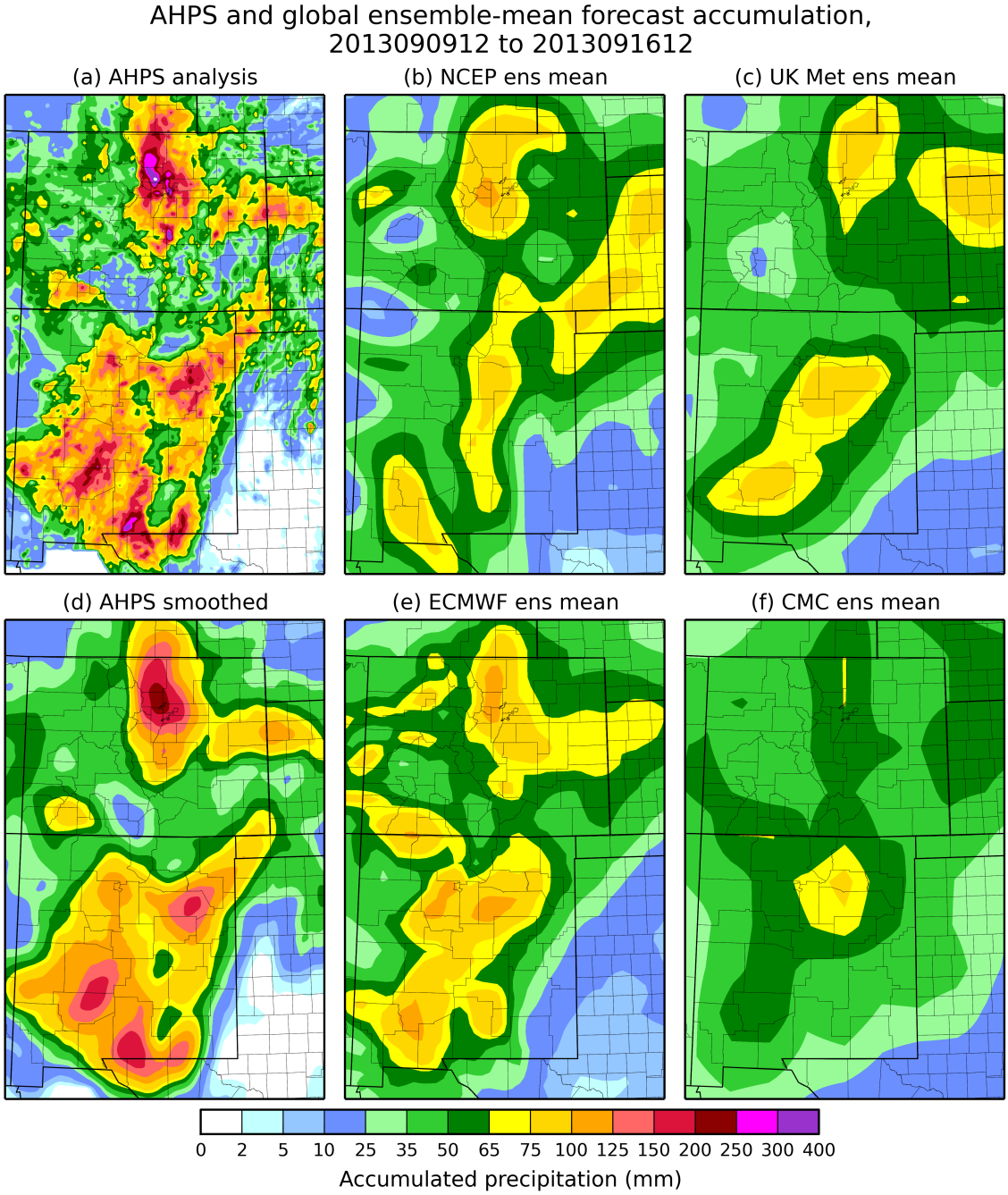

Figure B27: As in Fig. B18, but for the period 12 UTC 09 Sep 2013 – 12 UTC 16 Sep 2013.

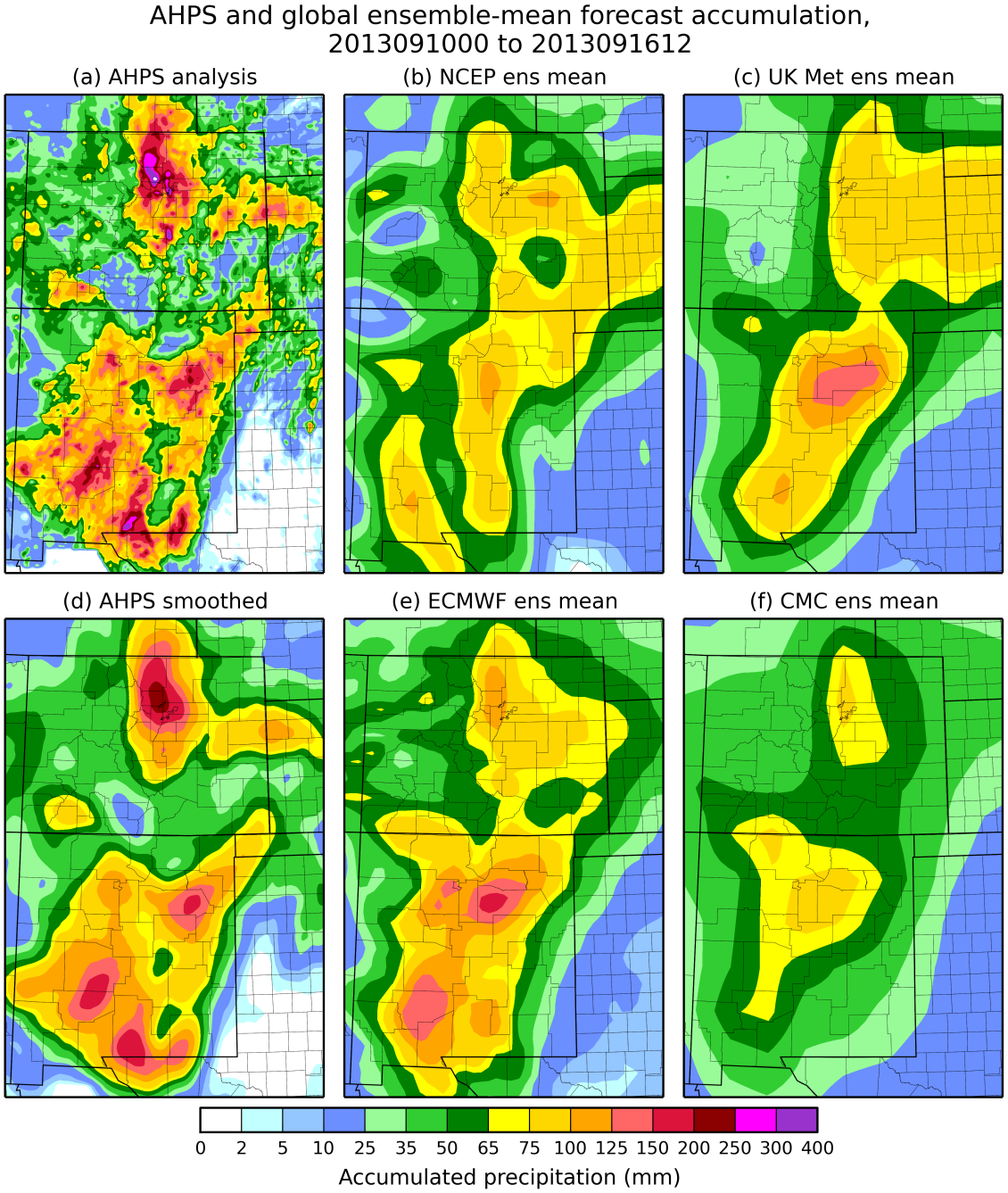

Figure B28: As in Fig. B18, but for the period 00 UTC 10 Sep 2013 – 12 UTC 16 Sep 2013.

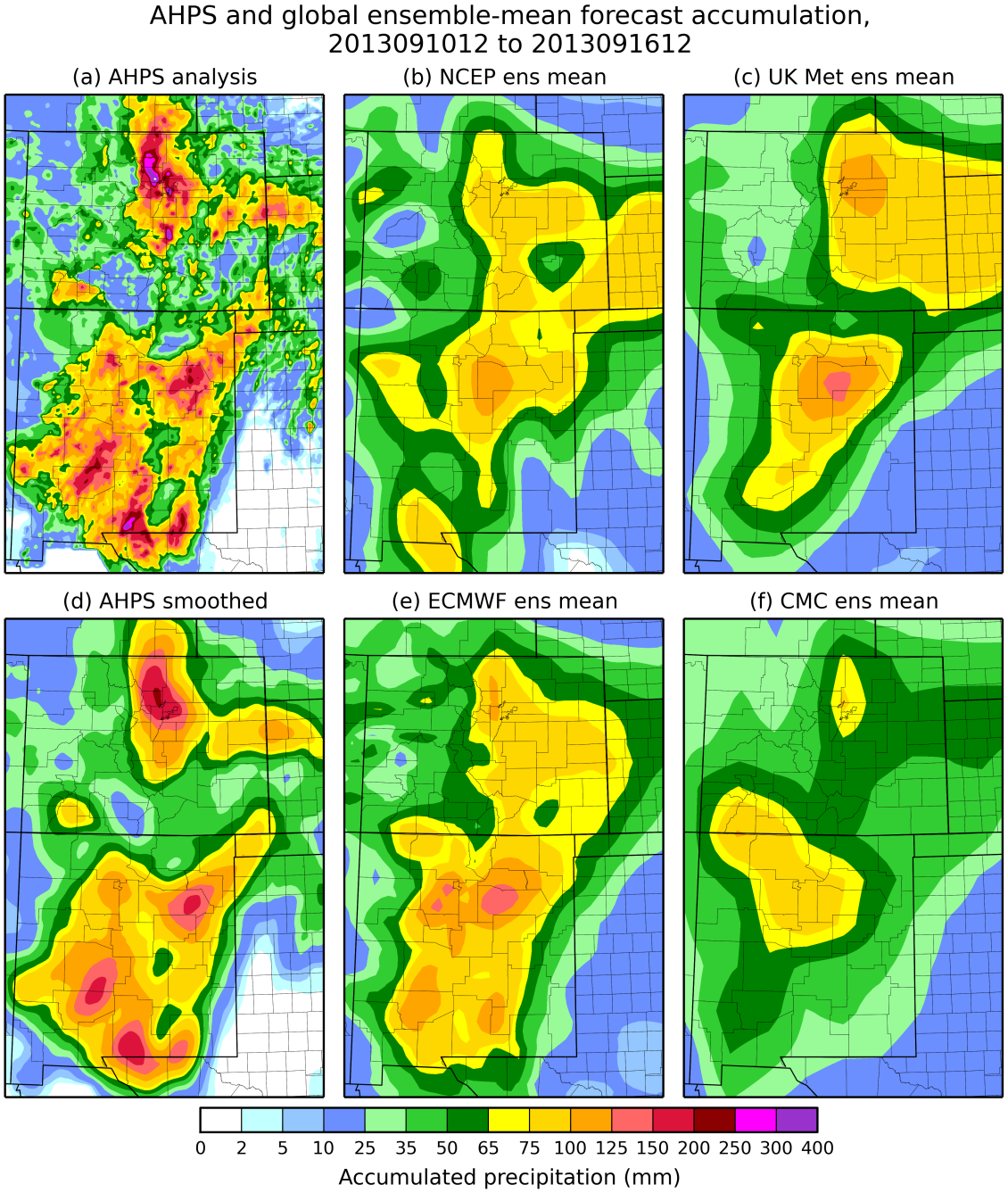

Figure B29: As in Fig. B18, but for the period 12 UTC 10 Sep 2013 – 12 UTC 16 Sep 2013.

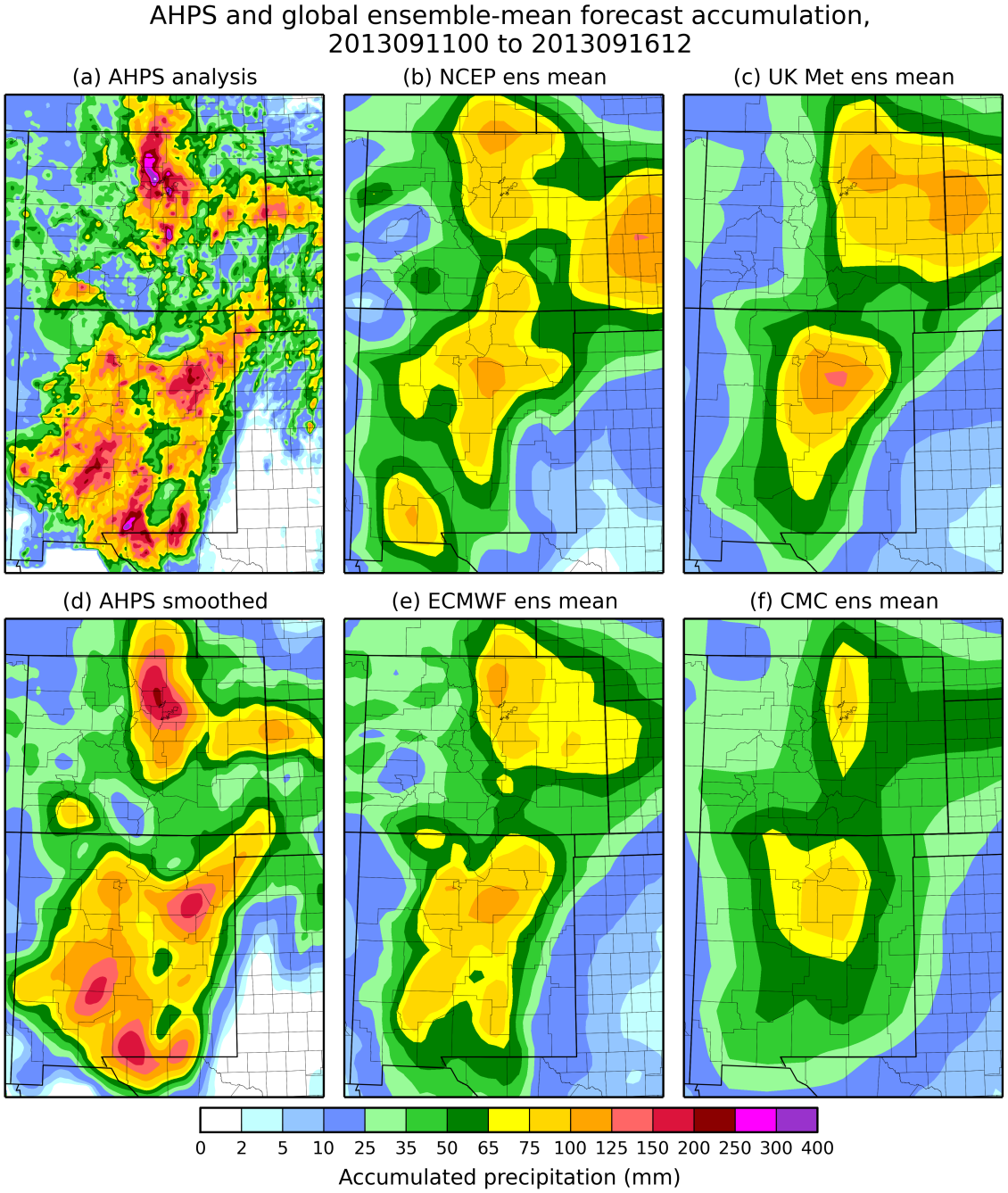

Figure B30: As in Fig. B18, but for the period 00 UTC 11 Sep 2013 – 12 UTC 16 Sep 2013.

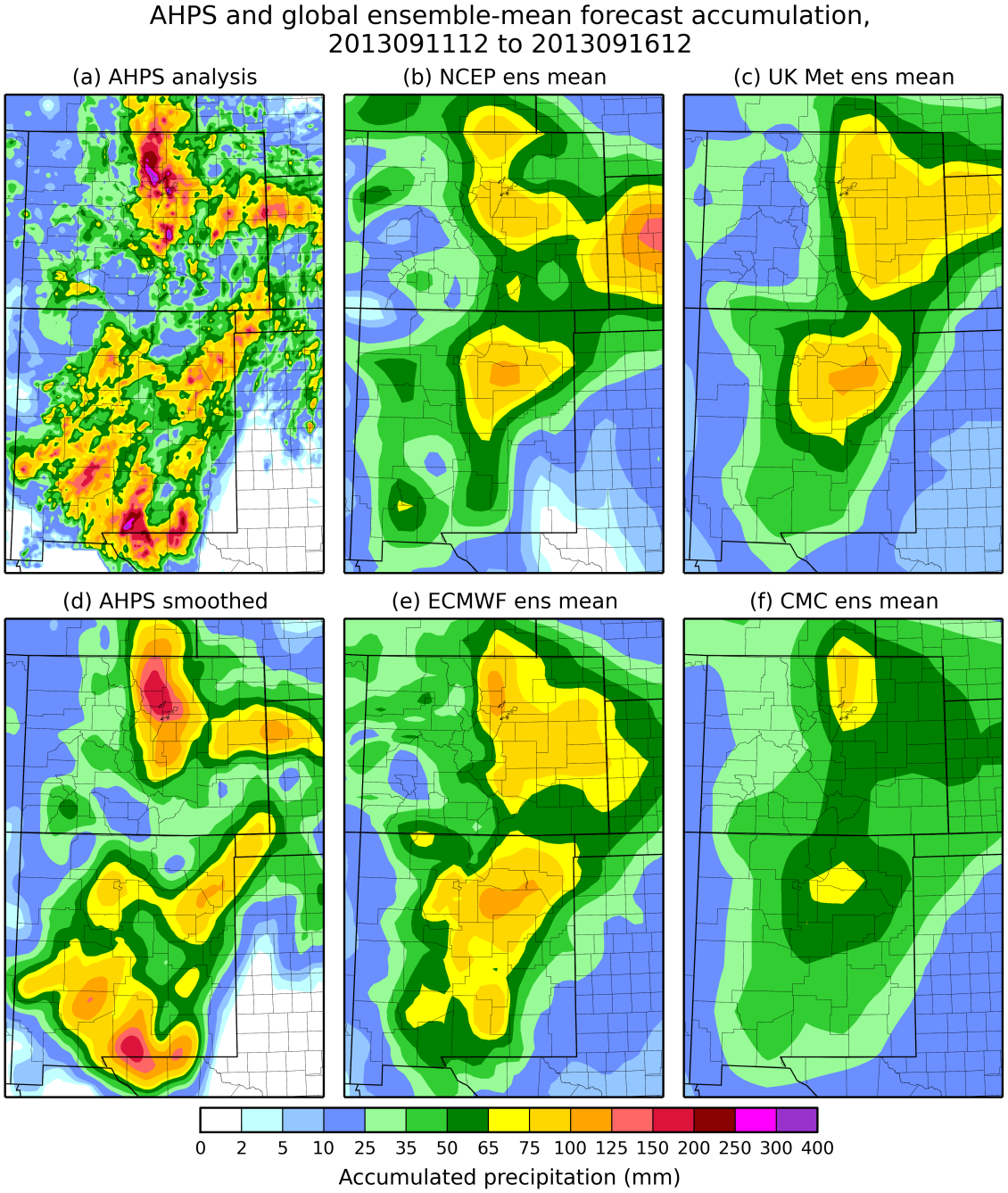

Figure B31: As in Fig. B18, but for the period 12 UTC 11 Sep 2013 – 12 UTC 16 Sep 2013.

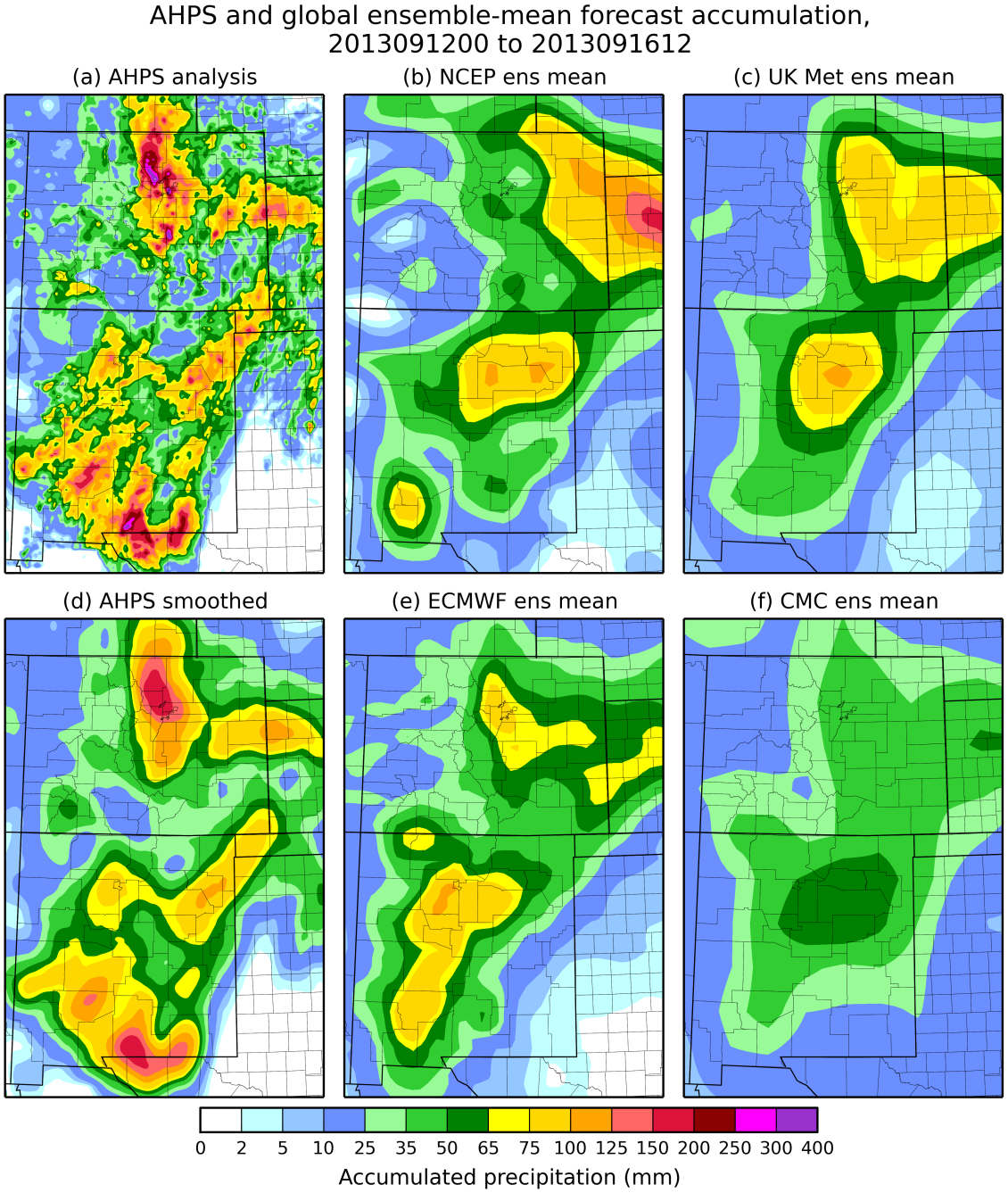

Figure B32: As in Fig. B18, but for the period 00 UTC 12 Sep 2013 – 12 UTC 16 Sep 2013.

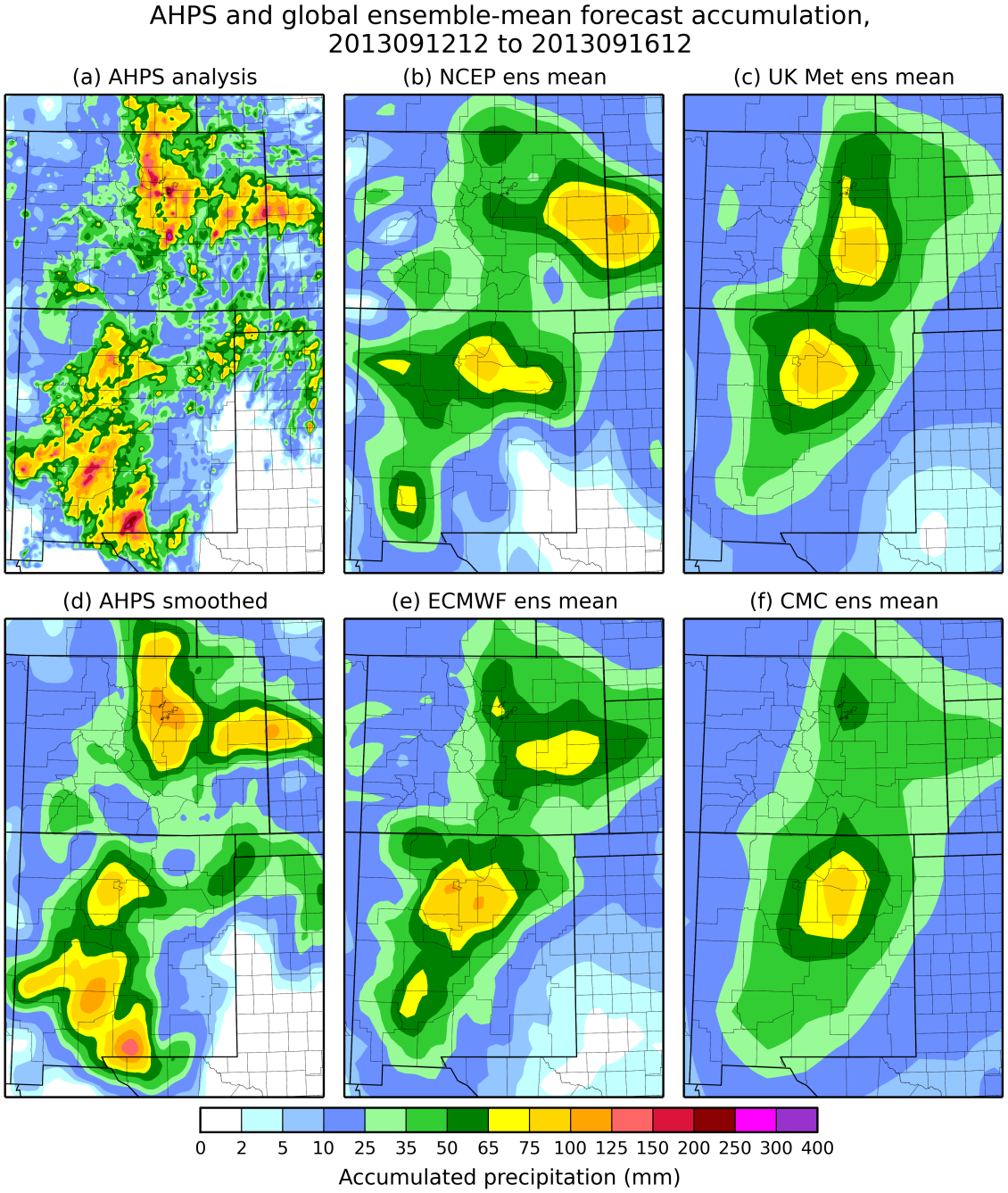

Figure B33: As in Fig. B18, but for the period 12 UTC 12 Sep 2013 – 12 UTC 16 Sep 2013.

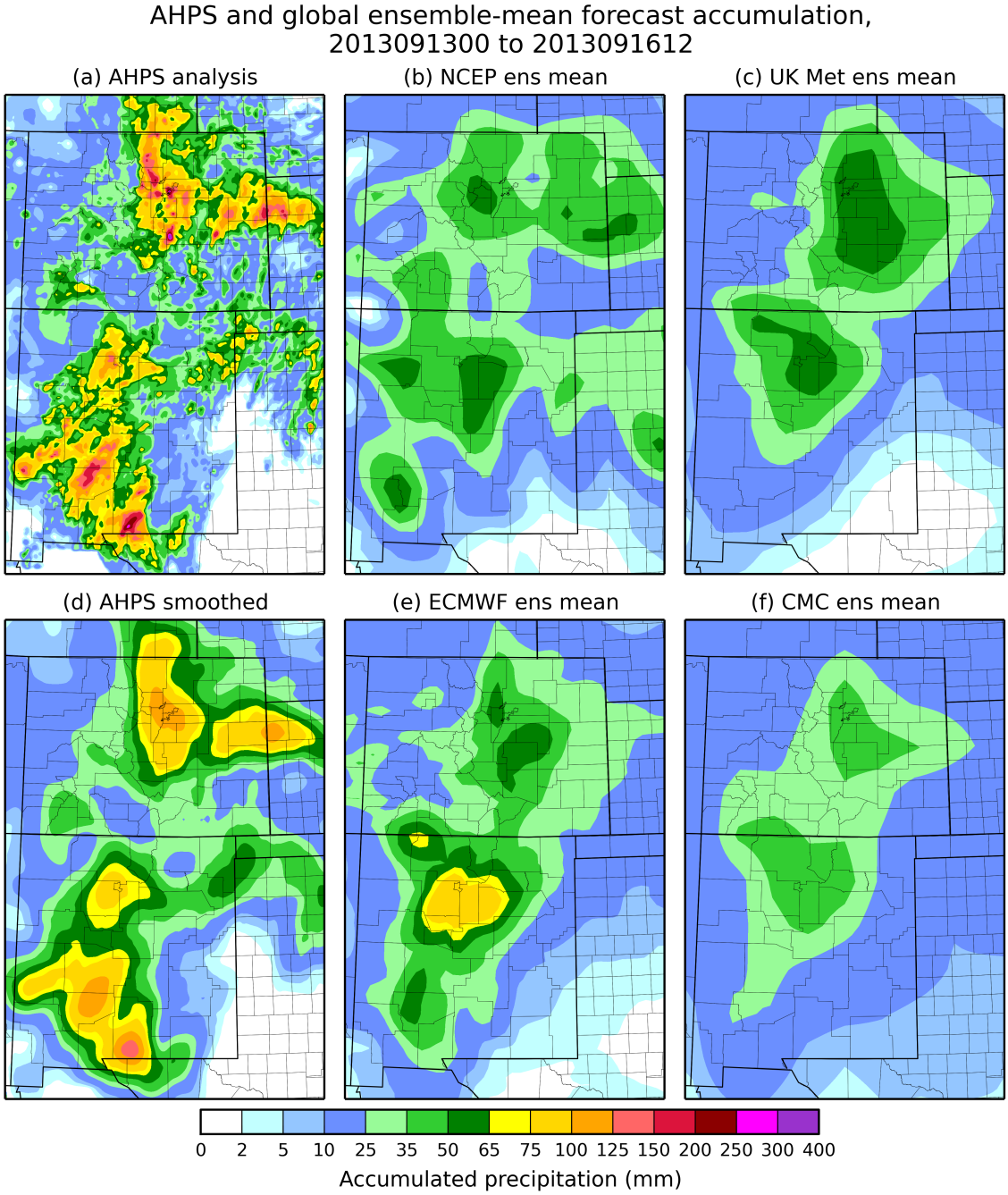

Figure B34: As in Fig. B18, but for the period 00 UTC 13 Sep 2013 – 12 UTC 16 Sep 2013.