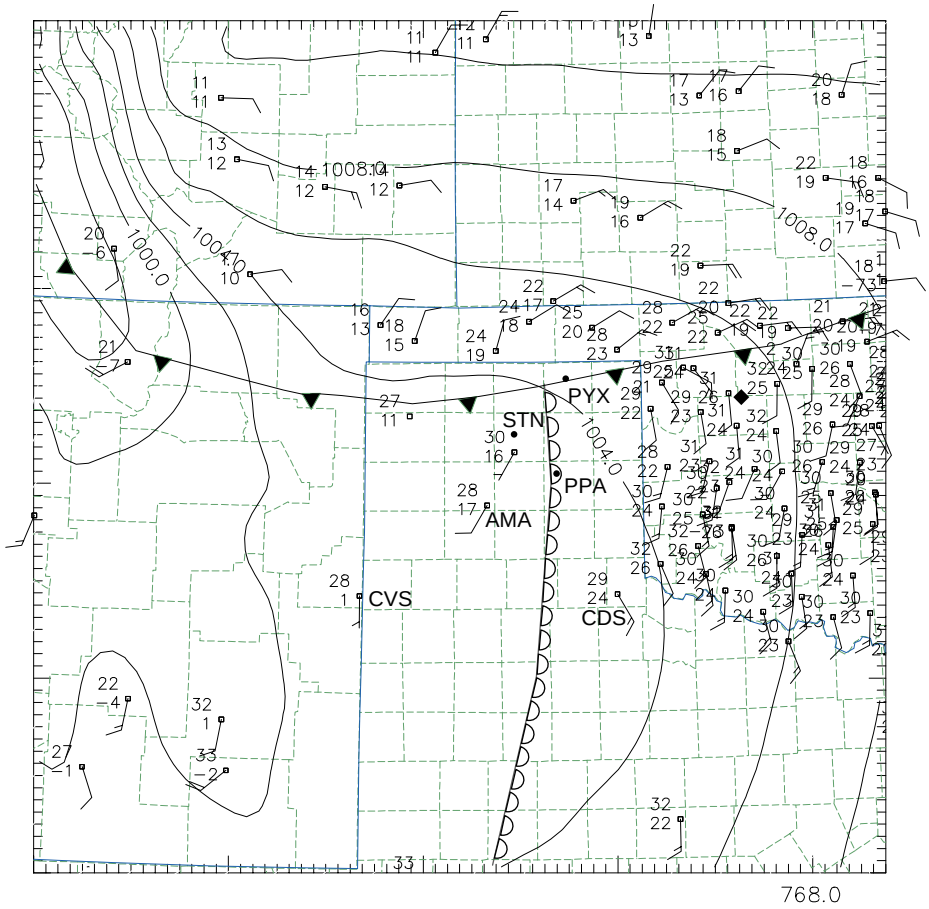

FIG. 1 Station model and sea-level pressure for 1800 UTC 8 June 1995. Station model and sea level pressure analysis (contour interval 2 hPa) from the RUC model. Station model includes temperature (upper, °C) and dew point (lower, °C), wind barbs are in ms^{-1} with a full barb representing 5 ms^{-1} and half barb 2.5 ms^{-1}.

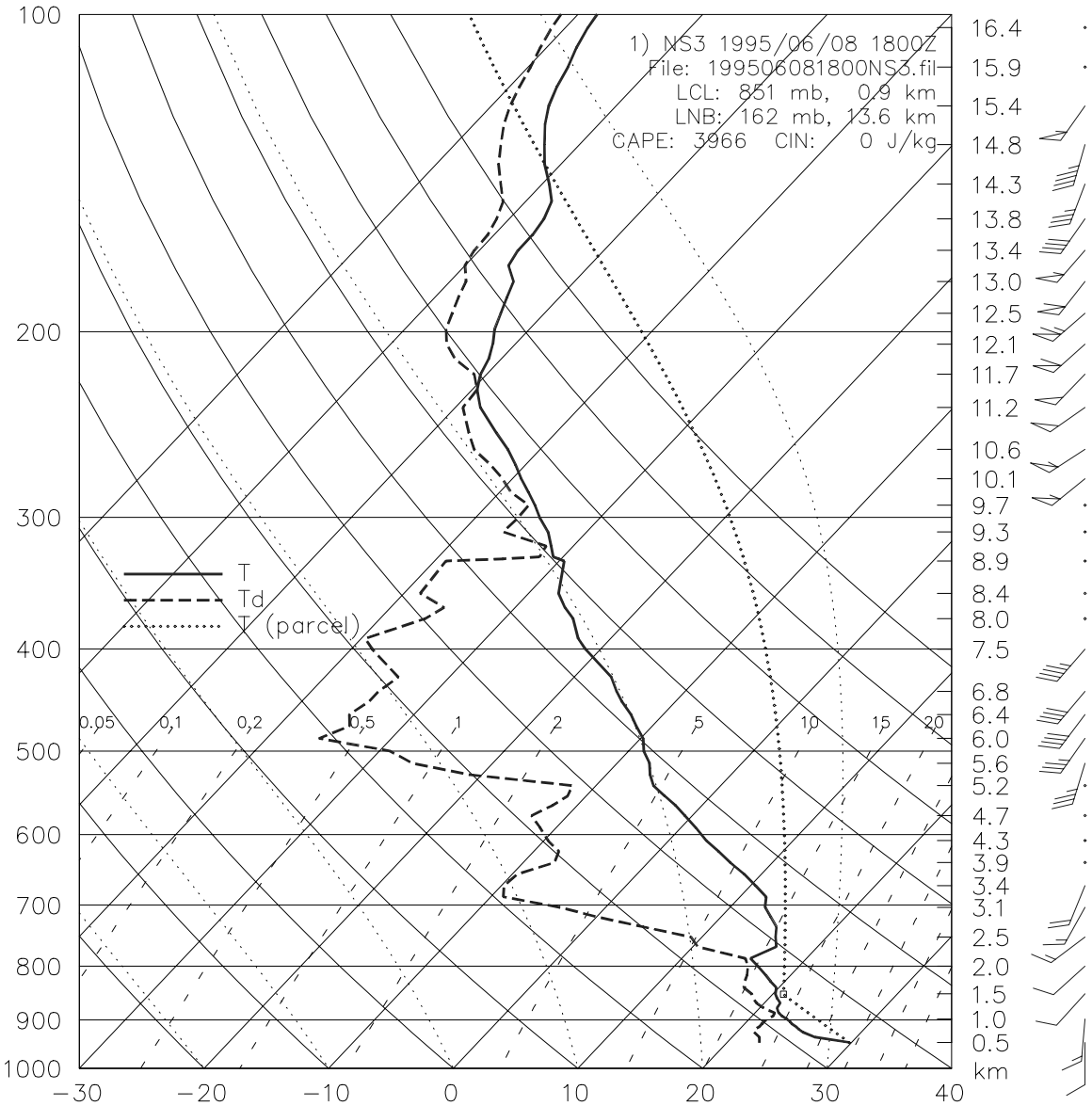

FIG. 2 Skew-T plot of sounding taken by National Severe Storms Laboratory (NSSL) mobile crew near Seiling, Oklahoma at 1800 UTC 8 June 1995. Temperature (°C) and dew point (°C) with parcel trajectory for unmixed surface parcel. Wind barbs are in ms^{-1} with a full barb representing 5 ms^{-1} and half barb 2.5 ms^{-1}.

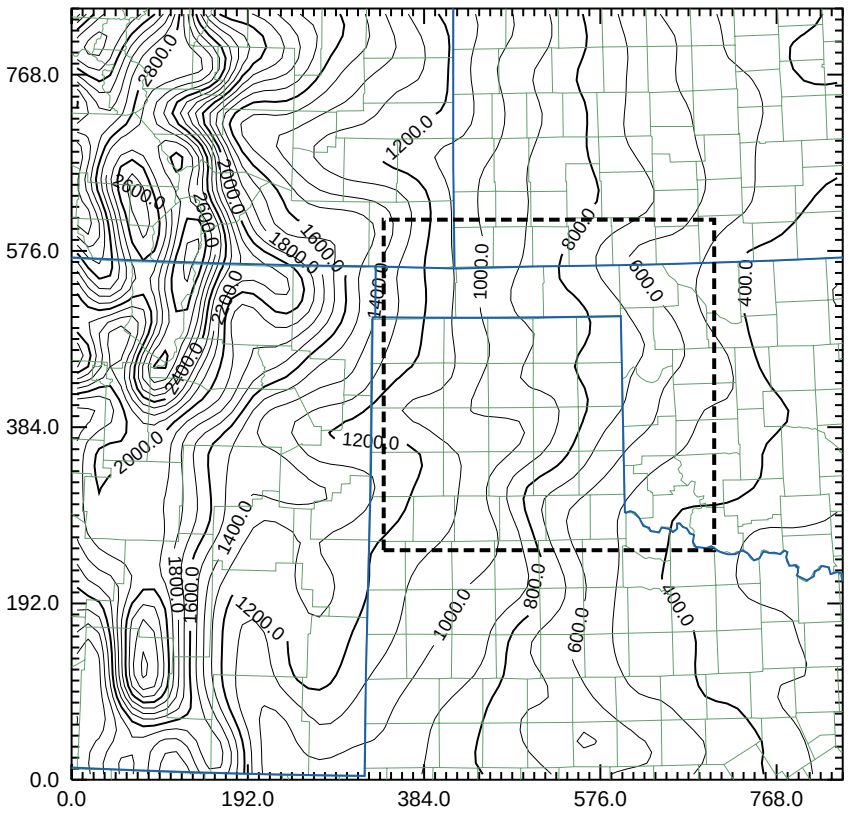

FIG. 3. Domains for the 8 June 1995 simulations. Entire region shown is the domain for the 12-km forecast. Dashed box is the 3-km nested domain. Model terrain in meters above sea level. Axes length scale in km.

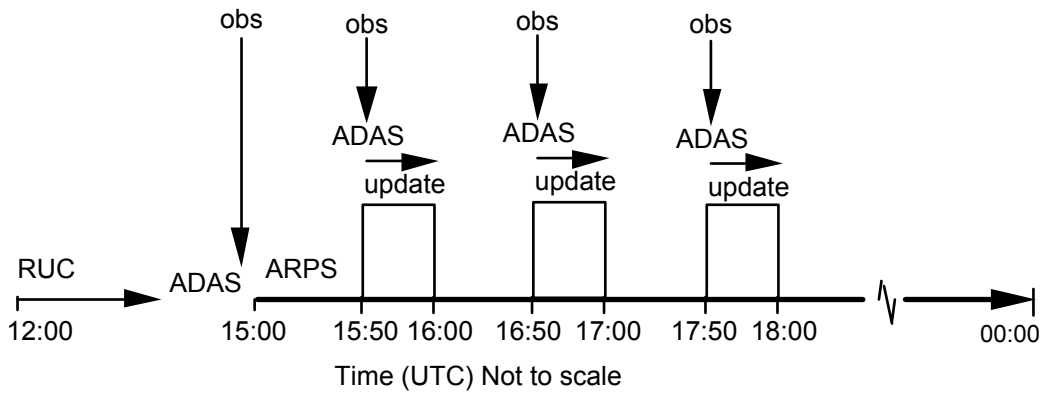

FIG. 4. Schematic of data assimilation process used for the 8 June 1995 demonstration.

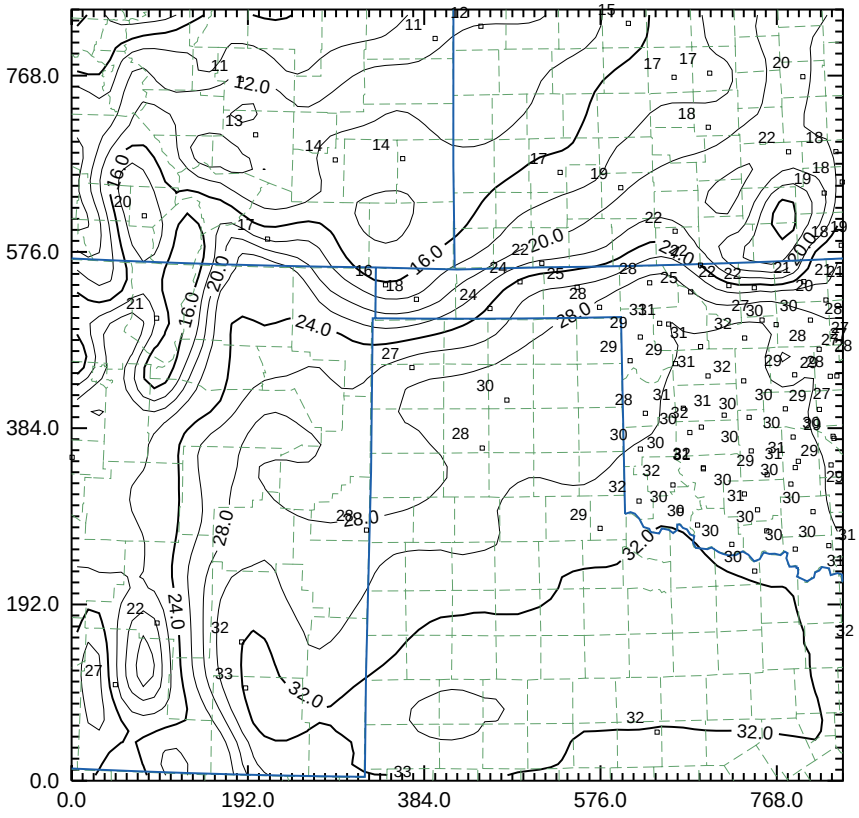

FIG. 5 12-km grid-scale assimilated state at 1800 UTC, 8 June 1995. a) Surface temperature (°C), b) Dew-point temperature (°C), c) Mean sea level pressure (hPa) and wind barbs (ms^{-1}). Full barb is 5 ms^{-1}.