We explore the assimilation of Phased Array Weather Radar (PAWR) data at 1-km–100-m model resolution with a 30-s rapid-update cycle using the K computer. The sub-kilometer radar data assimilation using the LETKF can work! Higher resolution assimilation up to 100 m leads to a better fit to observation, although the benefit does not last beyond 10 minutes in our current experiments.

Observation number limit (Hamrud et al. 2015) is one of the keys to assimilate such dense observation data.