

Data assimilation cycle:

i) data quality control.

ii) objective analysis.

iii) initialization.

- dynamical filtering to remove spurious oscillations introduced by the objective analysis.**

iv) short forecast.

- gives next first guess.**

3) Prognosis

- Numerical representation of governing equations.**
 - integrate forward in time to create a forecast.**
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Limit on predictability: the atmosphere is "chaotic."

- sensitivity to initial conditions.**
- we can only observe to certain accuracy.**
- theoretical limit ~ 7-10 days.**

Different approach: ensemble prediction; statistics.