

Two conditions for successful prediction:

- 1) Accurate representation of current state.**
- 2) Intrinsic laws governing motion must be known.**

weather prediction = initial value problem.

Three components:

- 1) Observations.**
- 2) Diagnosis of observations.**
- 3) Prognosis.**

1) Observations

Major milestones:

telegraph: instantaneous transmission of data.

radiosonde: profiles of wind and temperature.

radar: precipitation and indirect observing.

satellites: great spatial coverage.