

# Thoughts, Tom Hamill (The Weather Company)

- Data-driven NWP and reanalysis require rich networks of easily accessible, freely available observations over a long period.
- We seek observations that are: (a) cheap per unit; (b) plentiful, especially in data voids; (c) complementary to existing microwave and IR radiances; (d) quality controlled with defined error statistics; (e) freely available (government-paid for); (f) readily available via open data on major cloud providers; and (g) for the whole earth system.
- Make data easy to use for investigators: provide quality control info, use community-standard formats, and offer robust documentation/sample code (e.g., for complex forward operators).
- Facilitate international data sharing of expensive observing systems.
- Consider and integrate unconventional data sources for enterprise-wide benefit (e.g., car sensors).
- Provide robust government support for developing new sensors to meet critical needs.