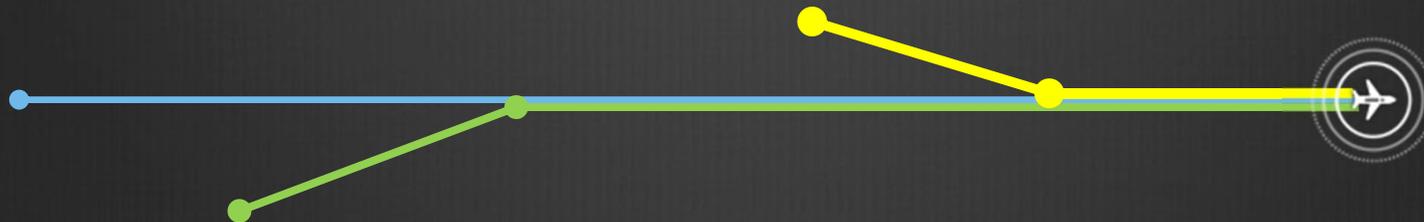
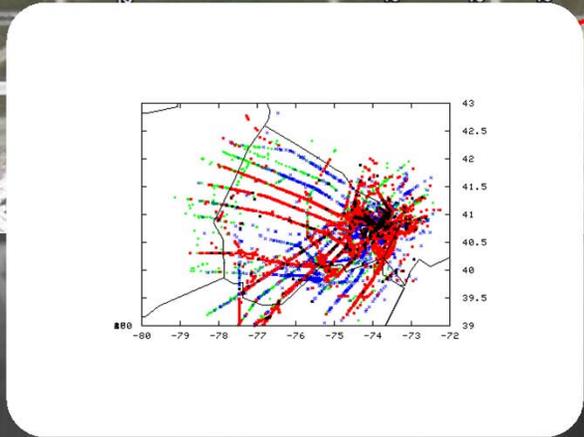
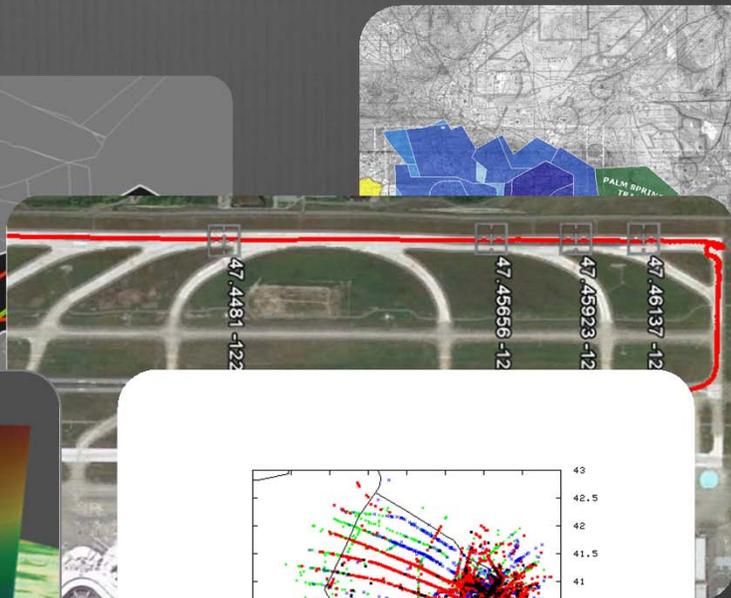
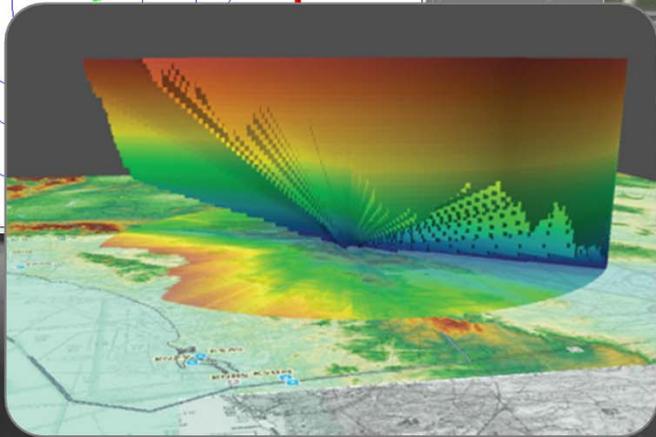
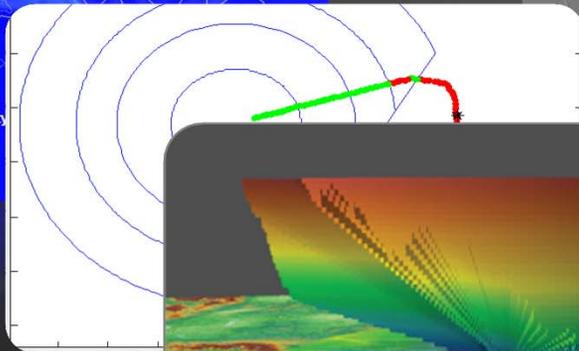
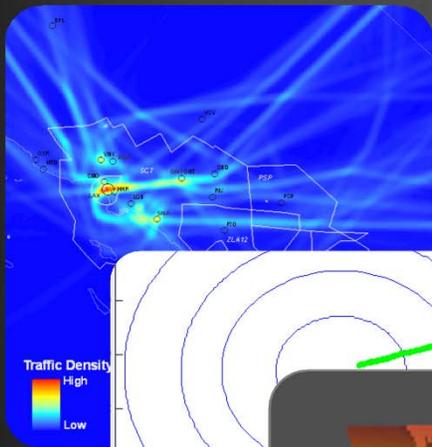


Enabling Aviation Analysis

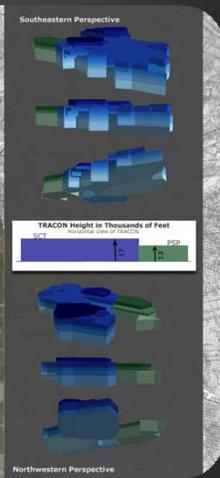
Christopher Knouss

MITRE Corporation





Aviation analysis is inherently spatial



ORACLE



PostgreSQL



mongoDB

data management

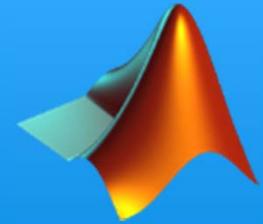
discovery and services



esri



python™



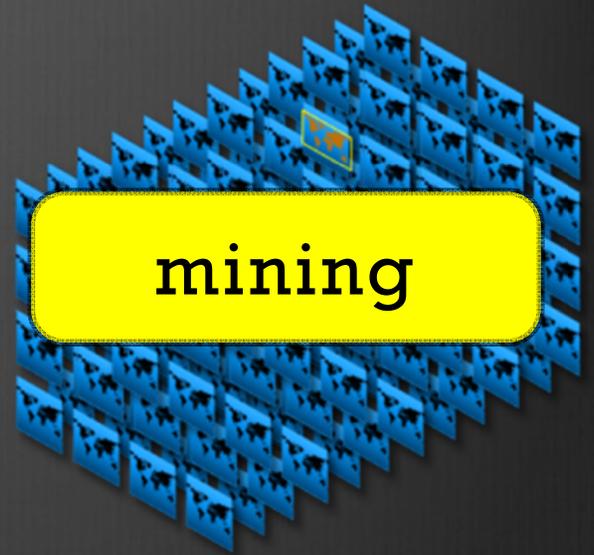
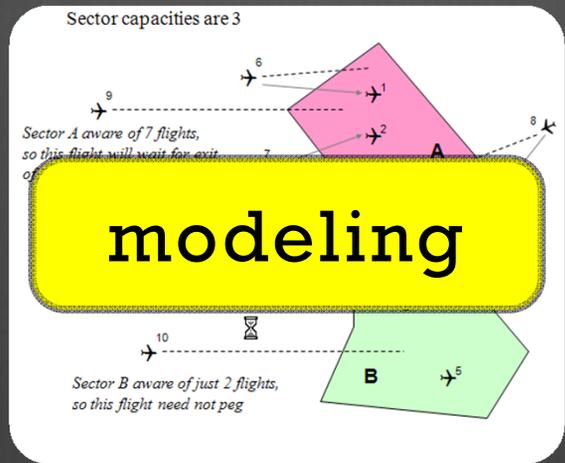
utilities

commercial

open source

proprietary

And relies on many different tools



And approaches





And authoritative sources...

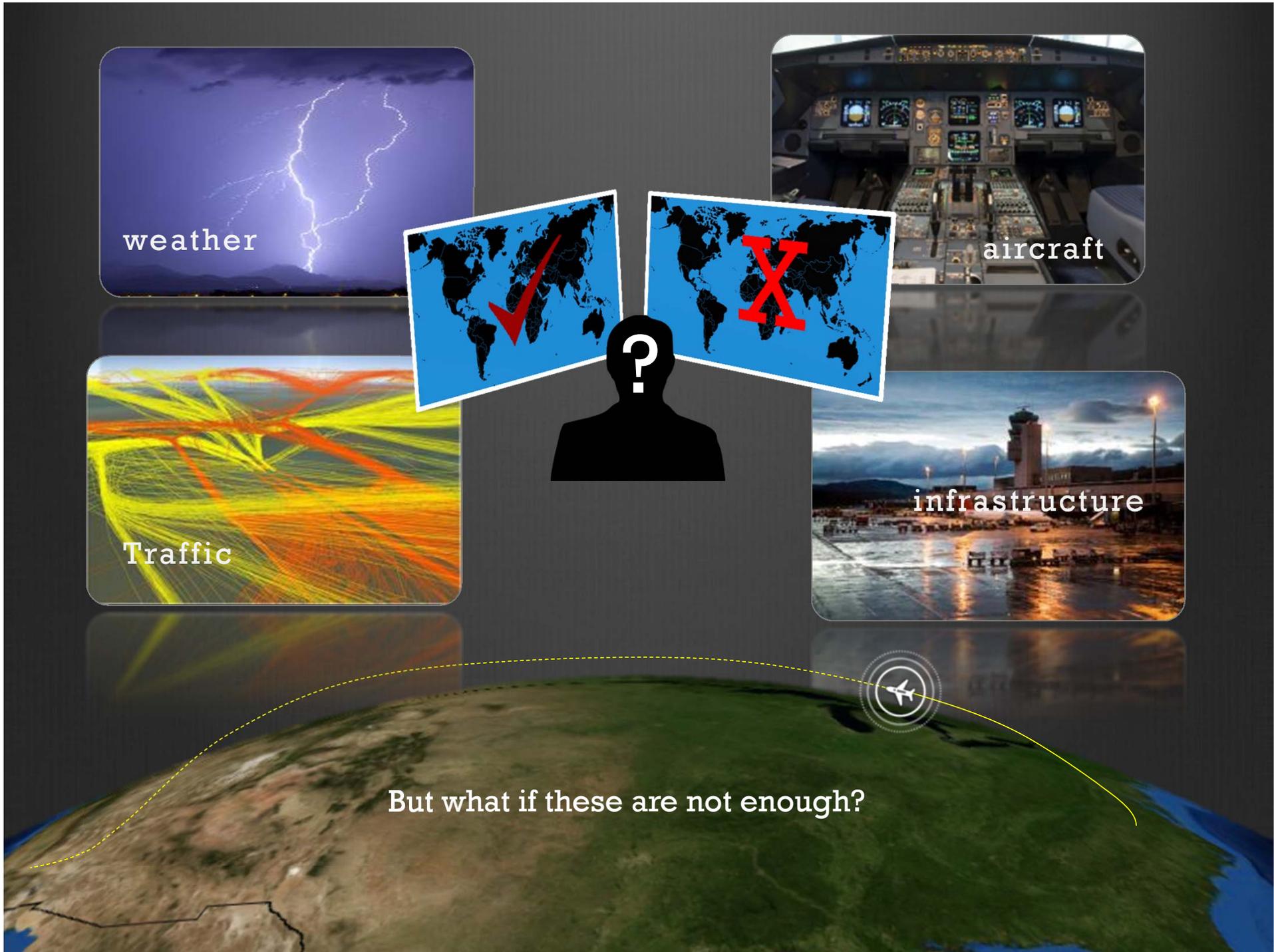
weather

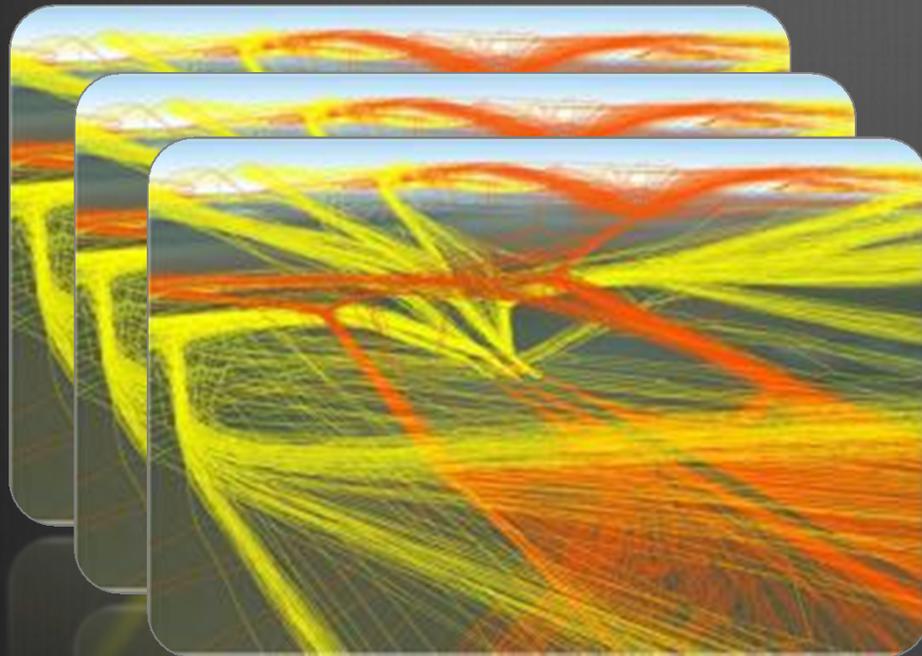
aircraft

Traffic

infrastructure

But what if these are not enough?

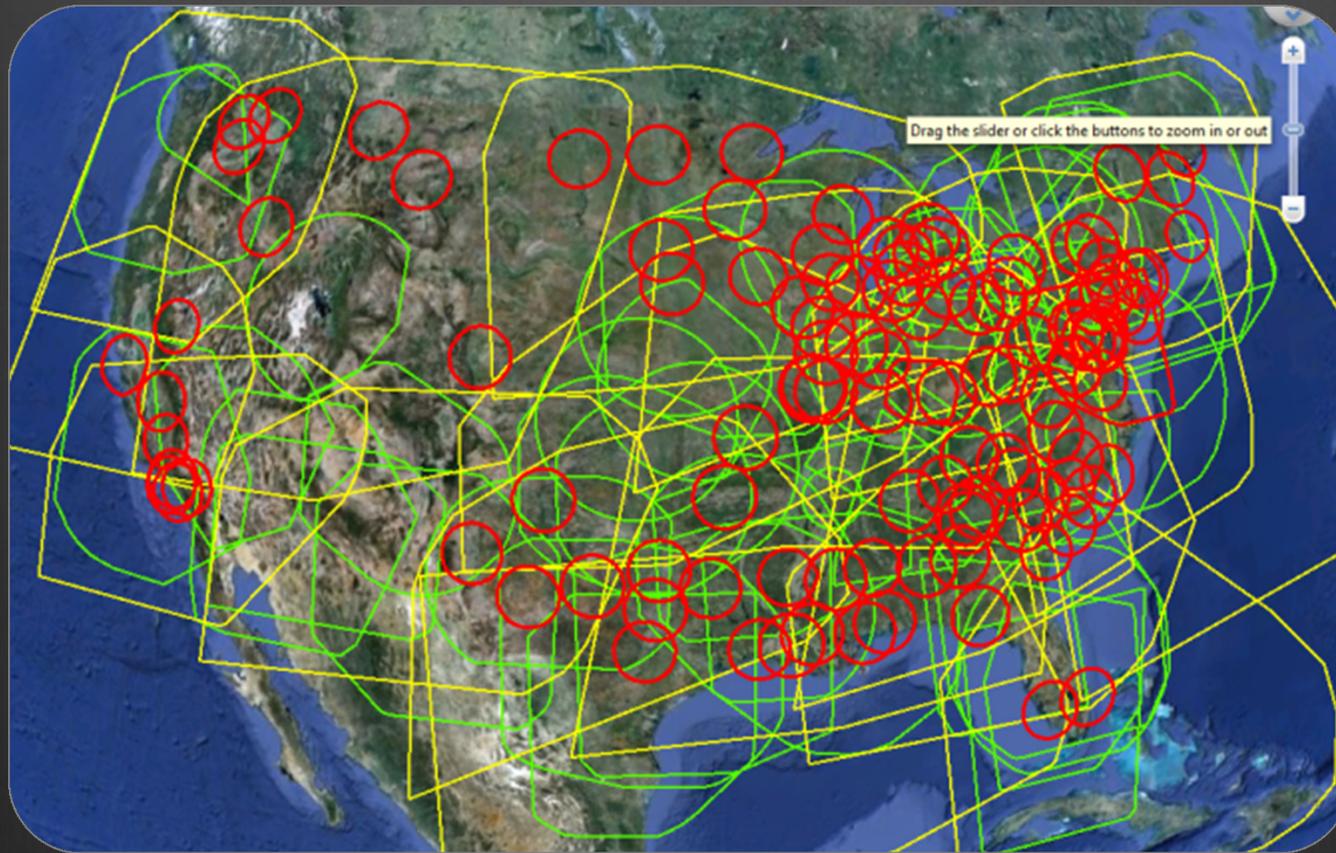




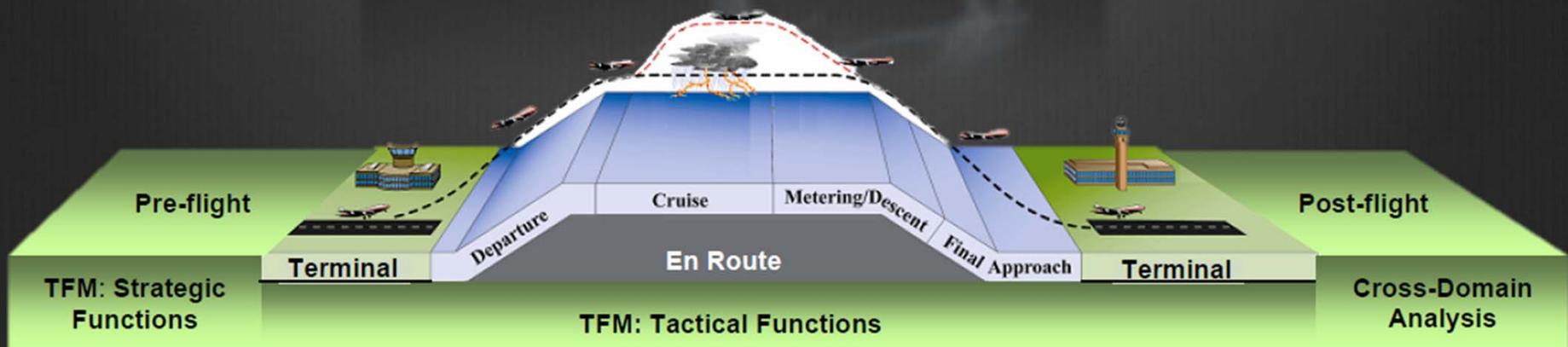
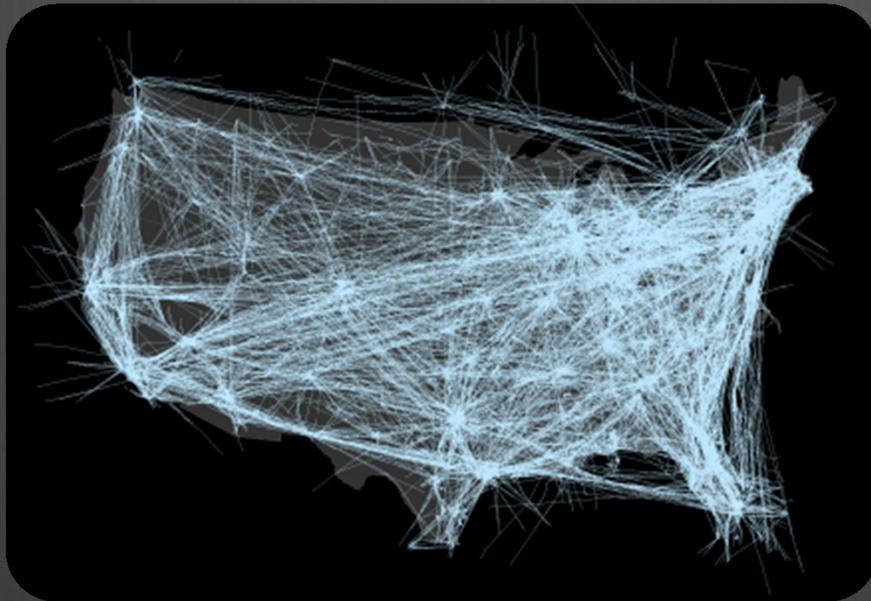
Problem!? What do I use?

There are often several sources for similar datasets.
Each have distinct characteristics, benefits, utility, and information

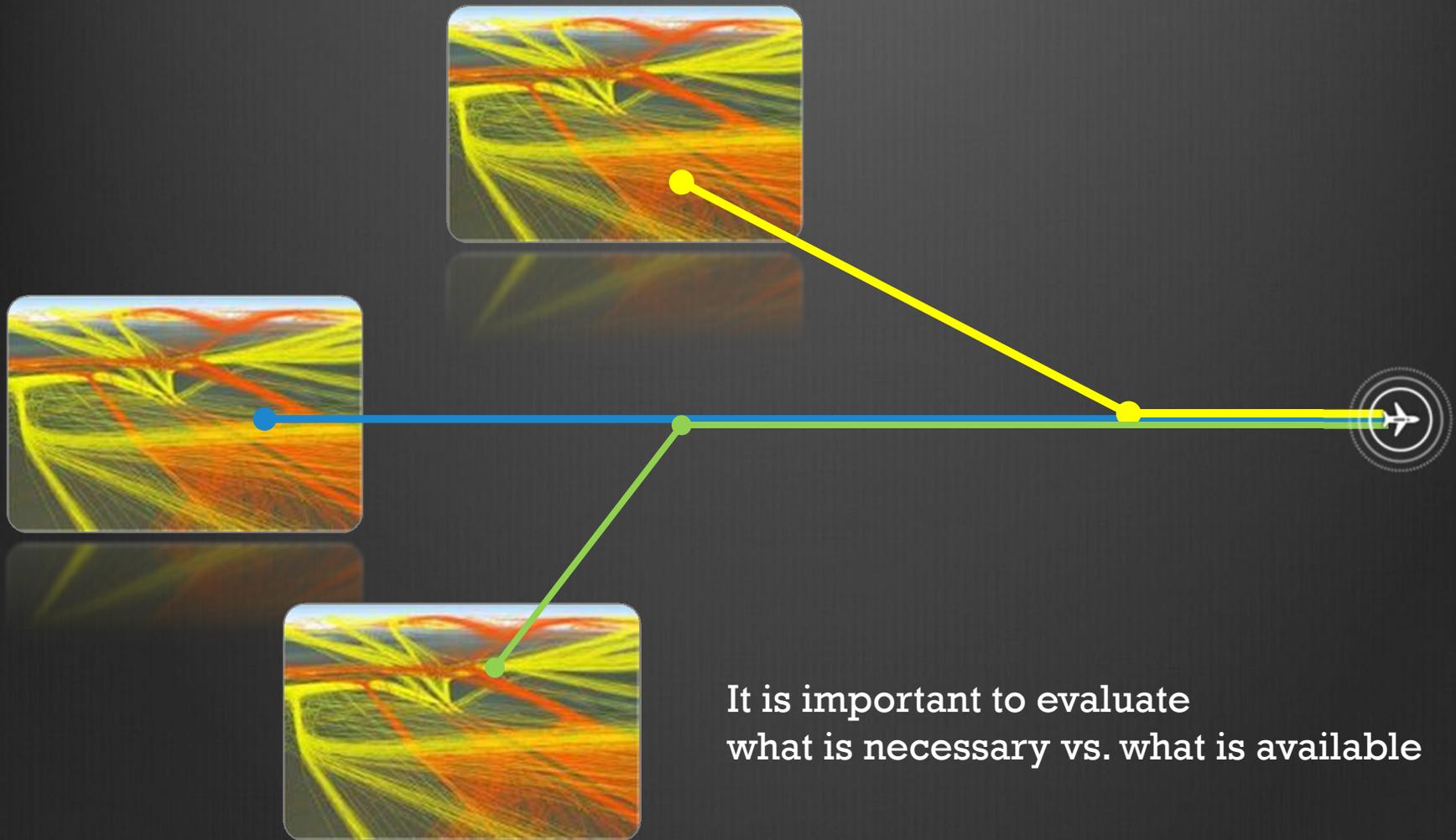
20 ARTCC 50 STARS 104 ARTS 35 ASDE-X



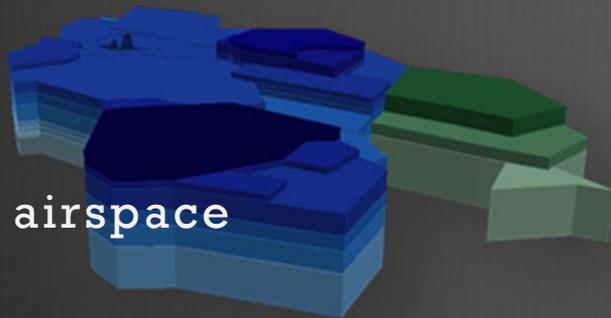
Authoritative sources abound but are often non-standardized,
and have different origins, sensitivities, and "owners"



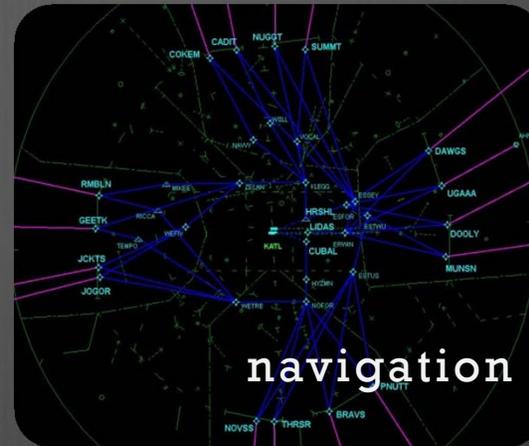
They also cover different operational needs and geographic and temporal scales



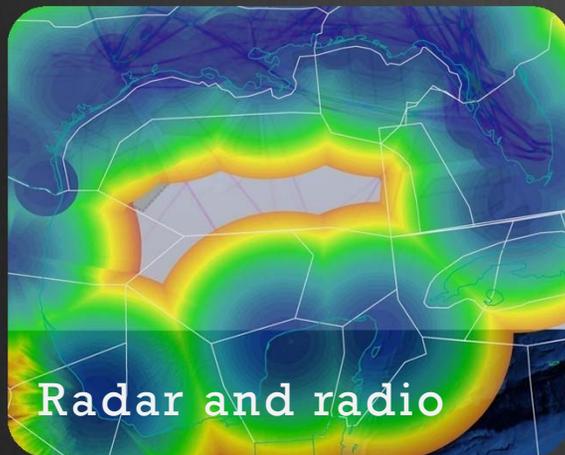
It is important to evaluate
what is necessary vs. what is available



airspace



navigation



Radar and radio

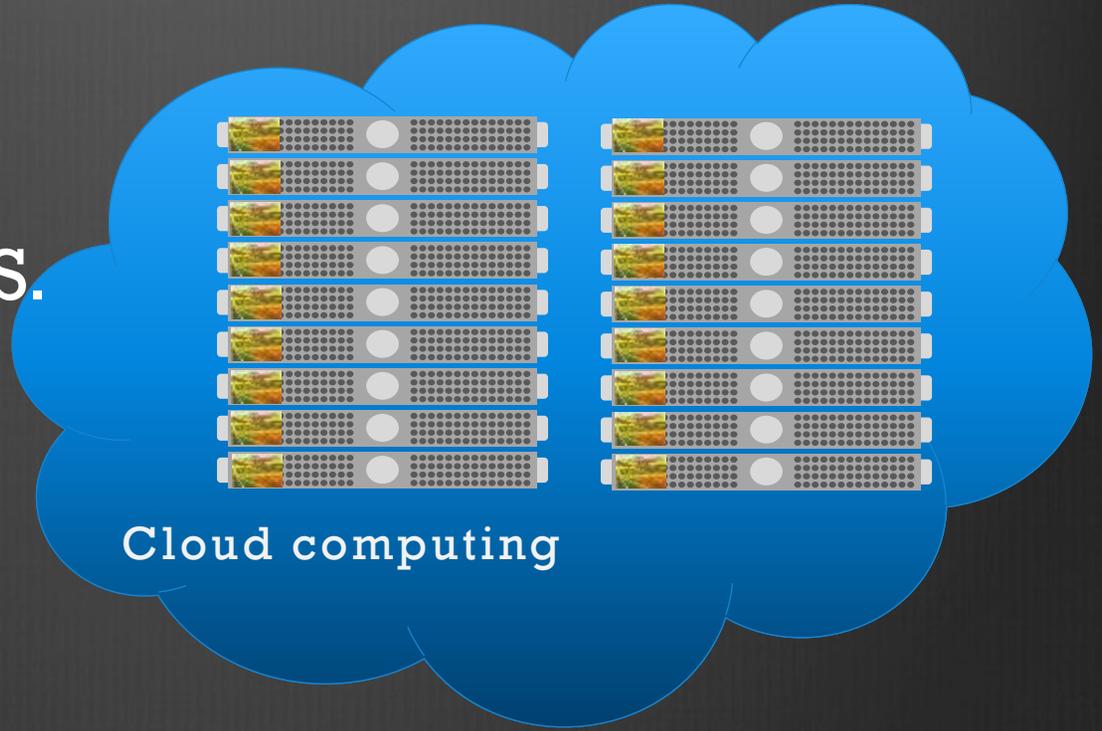


terrain

It is important to evaluate what is necessary vs. what is available



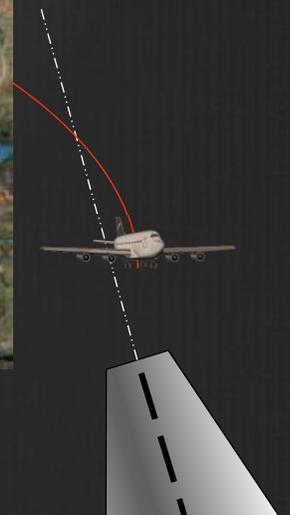
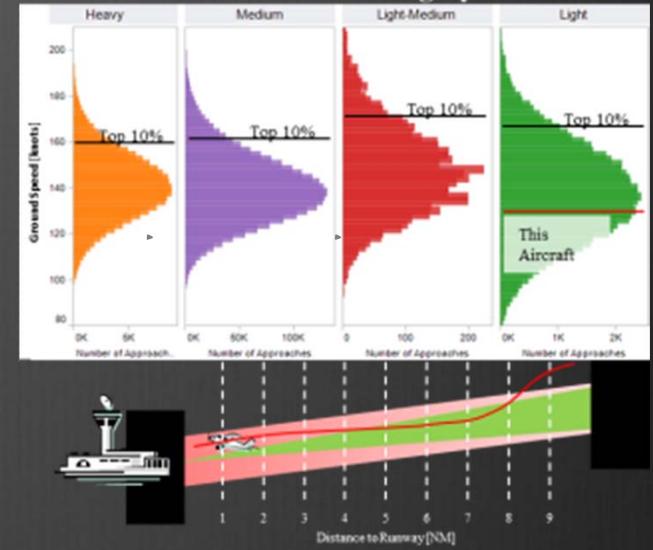
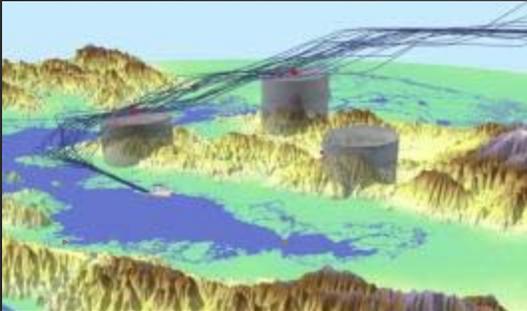
VS.



Cloud computing

And to break the traditional GIS model
when necessary...

To best support safety analysis and safety metrics!



Questions?