Flight Awareness Collaboration Tool

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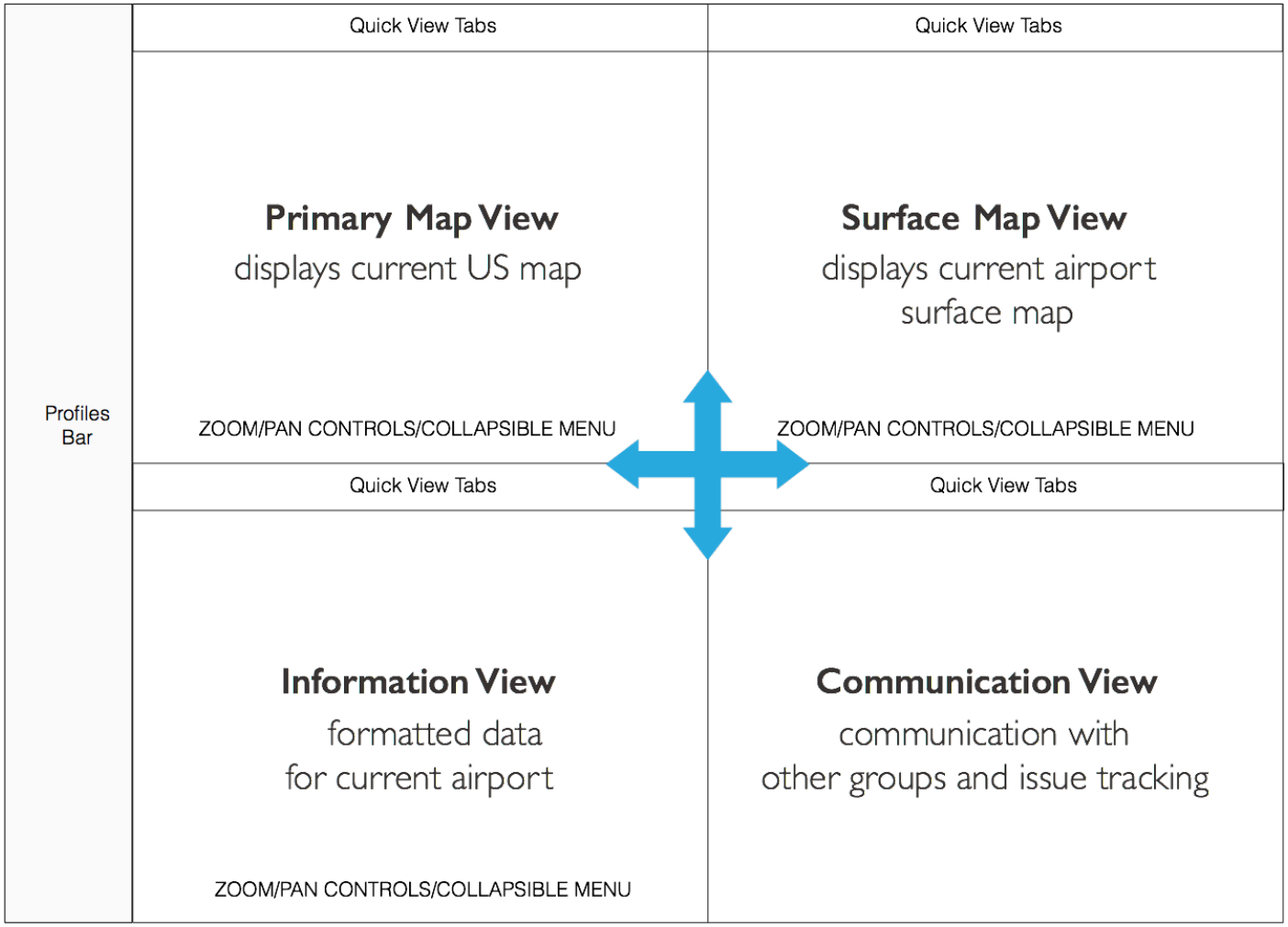
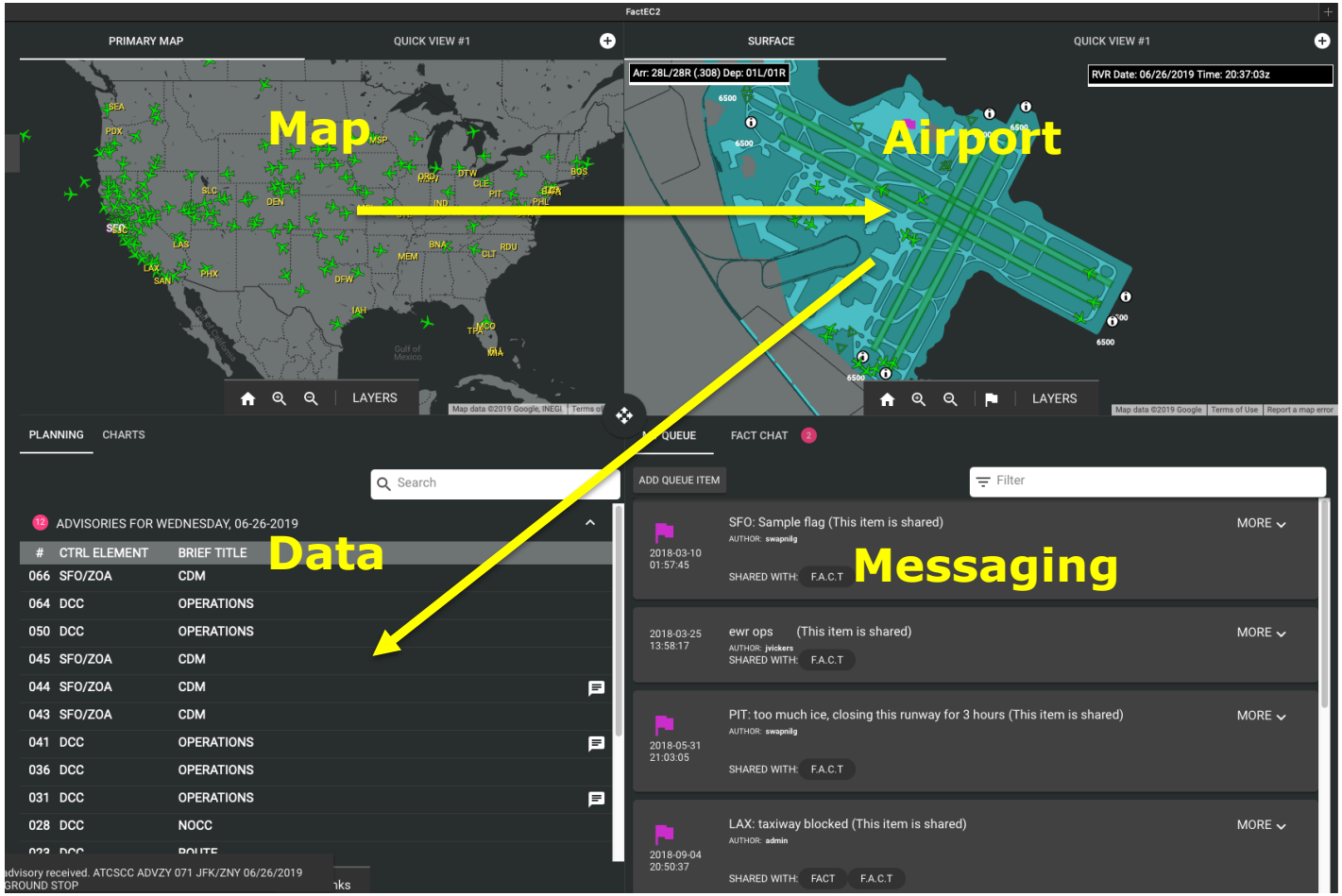
Flight Awareness Collaboration Tool

- Created the “Flight Awareness Collaboration Tool” (FACT)
- Concentrates information about winter weather events on one display
- Supports collaboration between airline operations center, air traffic control, airport authority, and de-icing operators
- Web-based application
- Includes:
  - Weather status and forecasts
  - FAA data from the System Wide Information Management system
  - Reporting of runway closures for snow/ice treatment
  - Airport runway configuration (capacity)
  - De-icing operations
  - FAA actions (e.g., ground stops, miles-in-trail, etc.)

FACT Information Architecture



FACT User Interface



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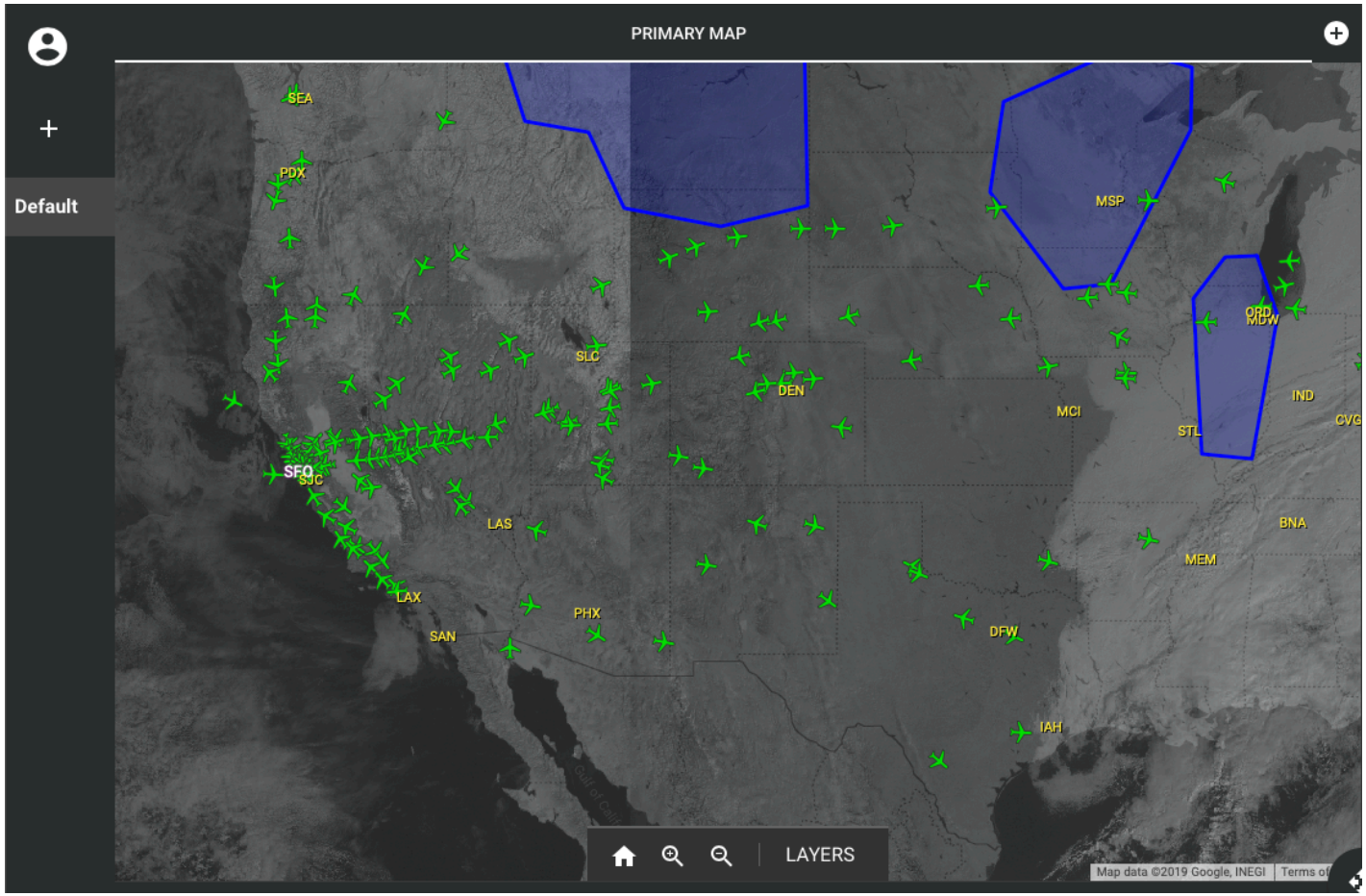
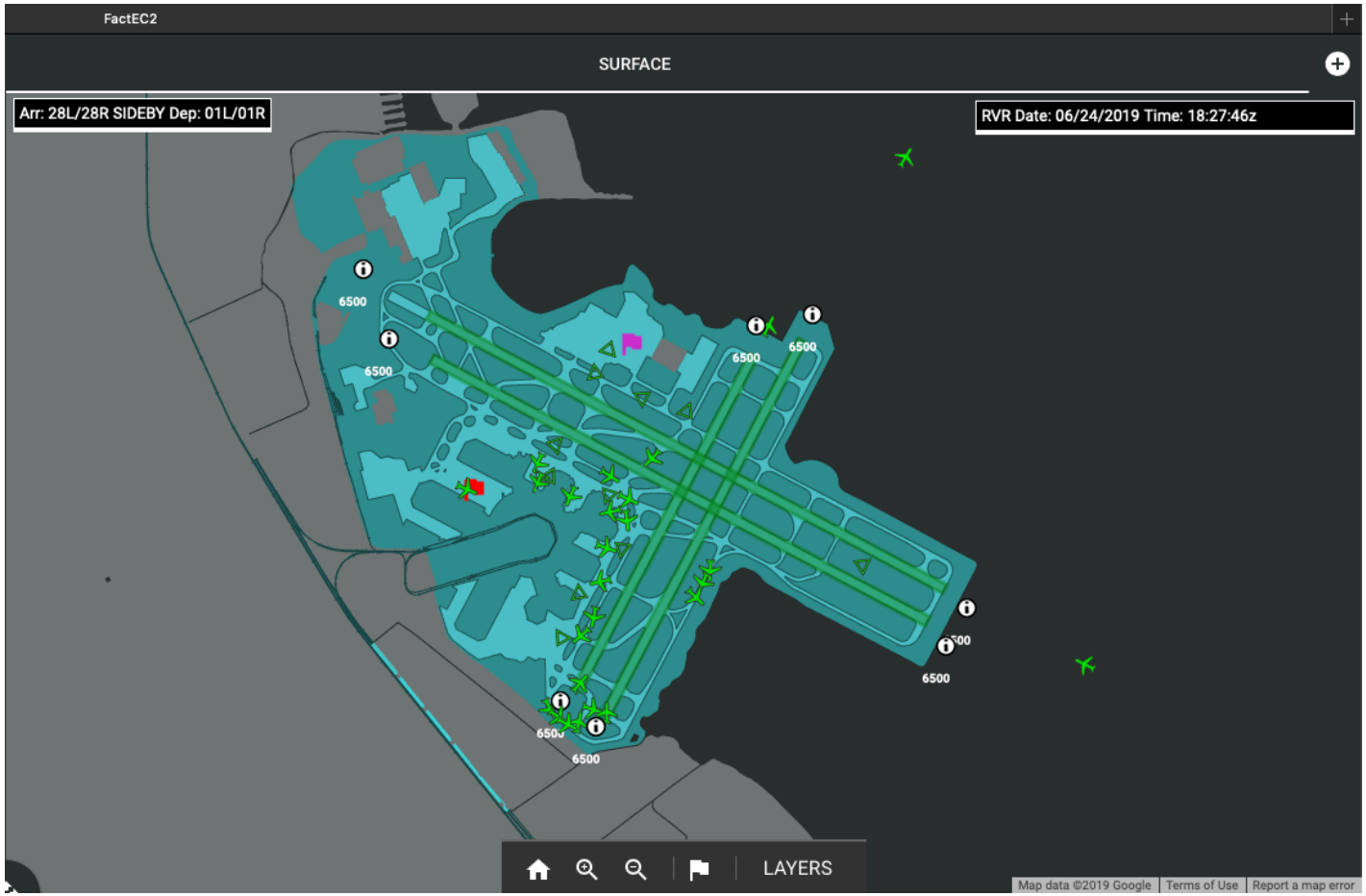
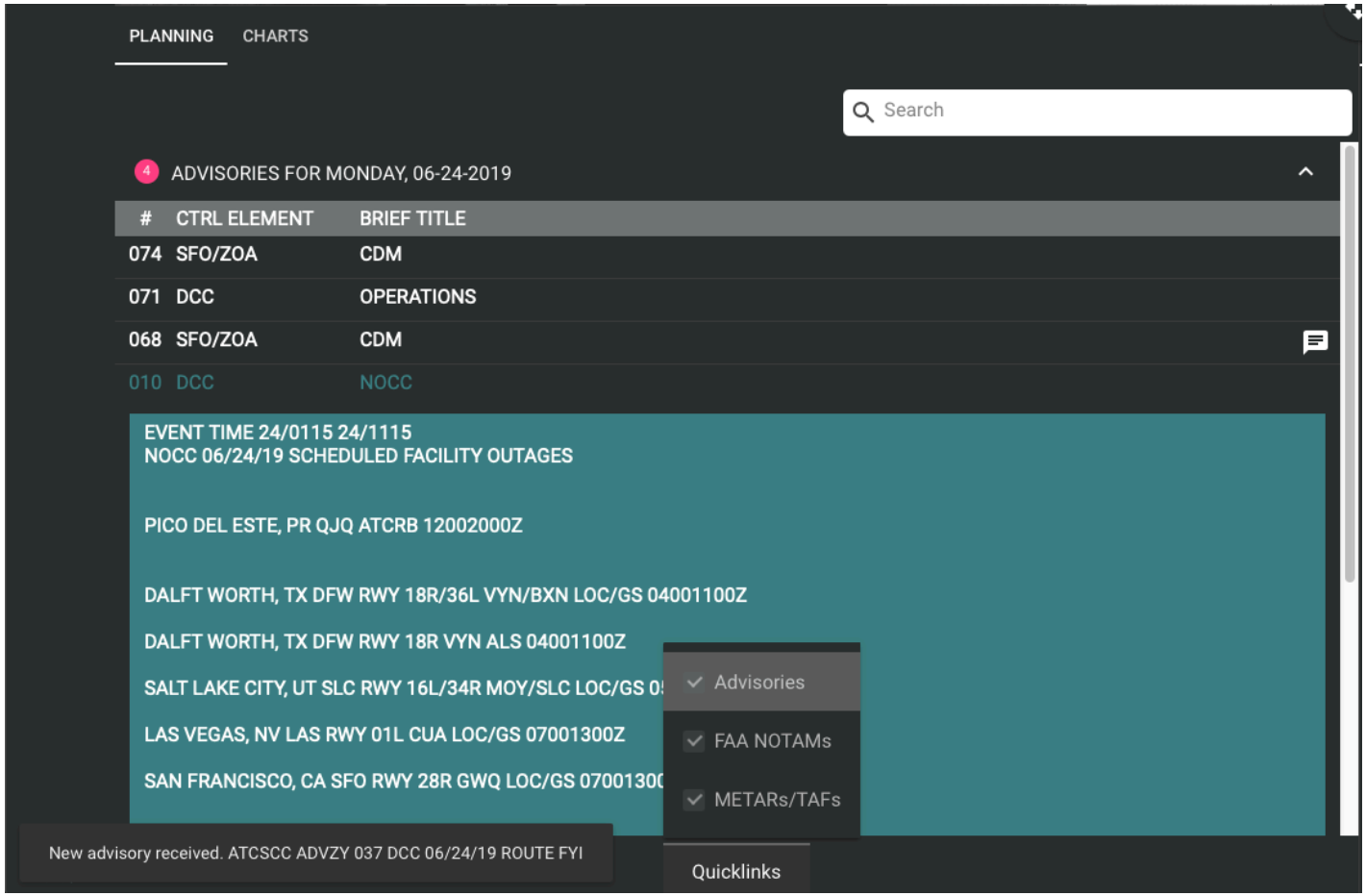
FACT Primary Map View



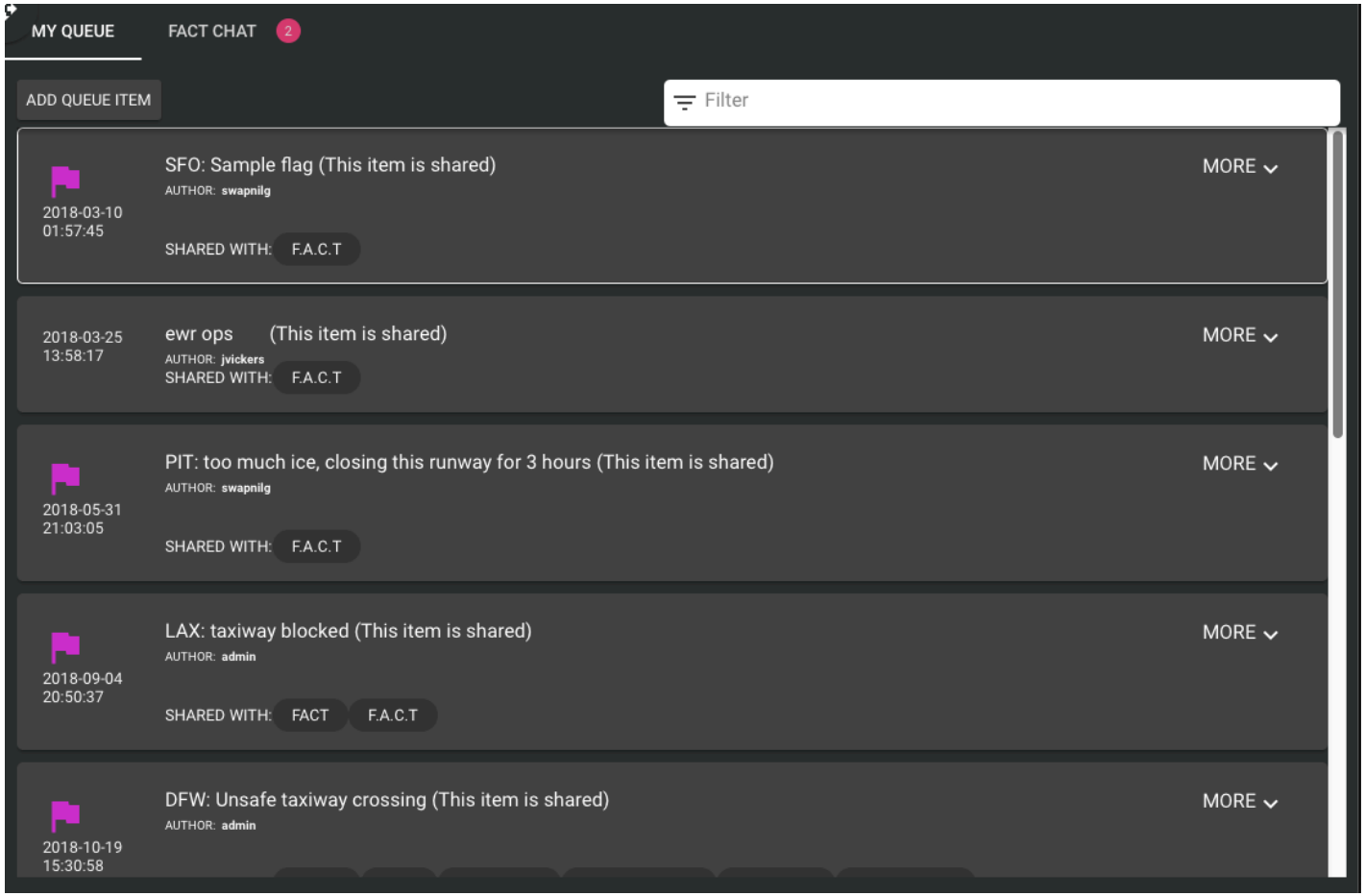
FACT Surface Map View



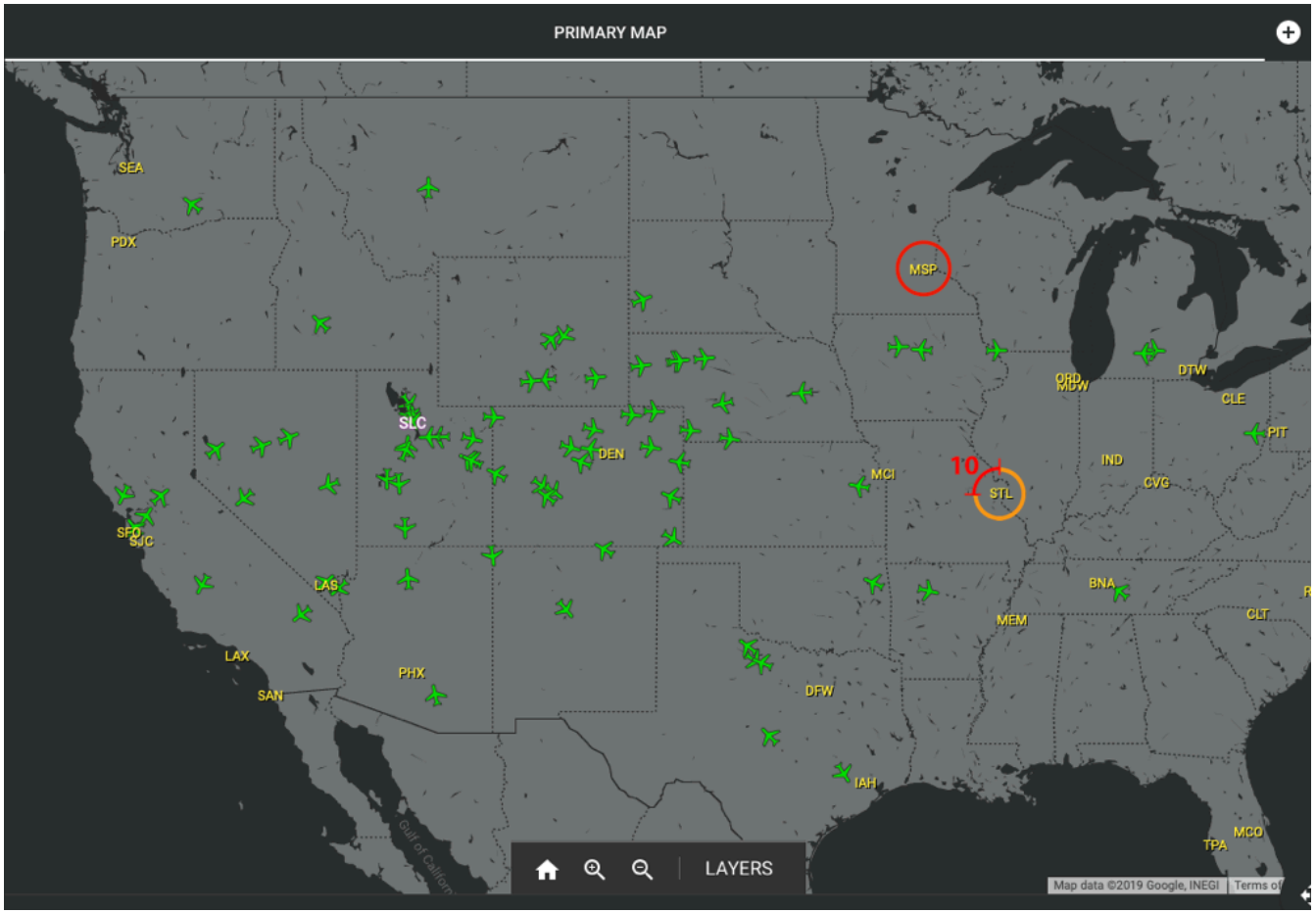
FACT Information View (Webscraped)



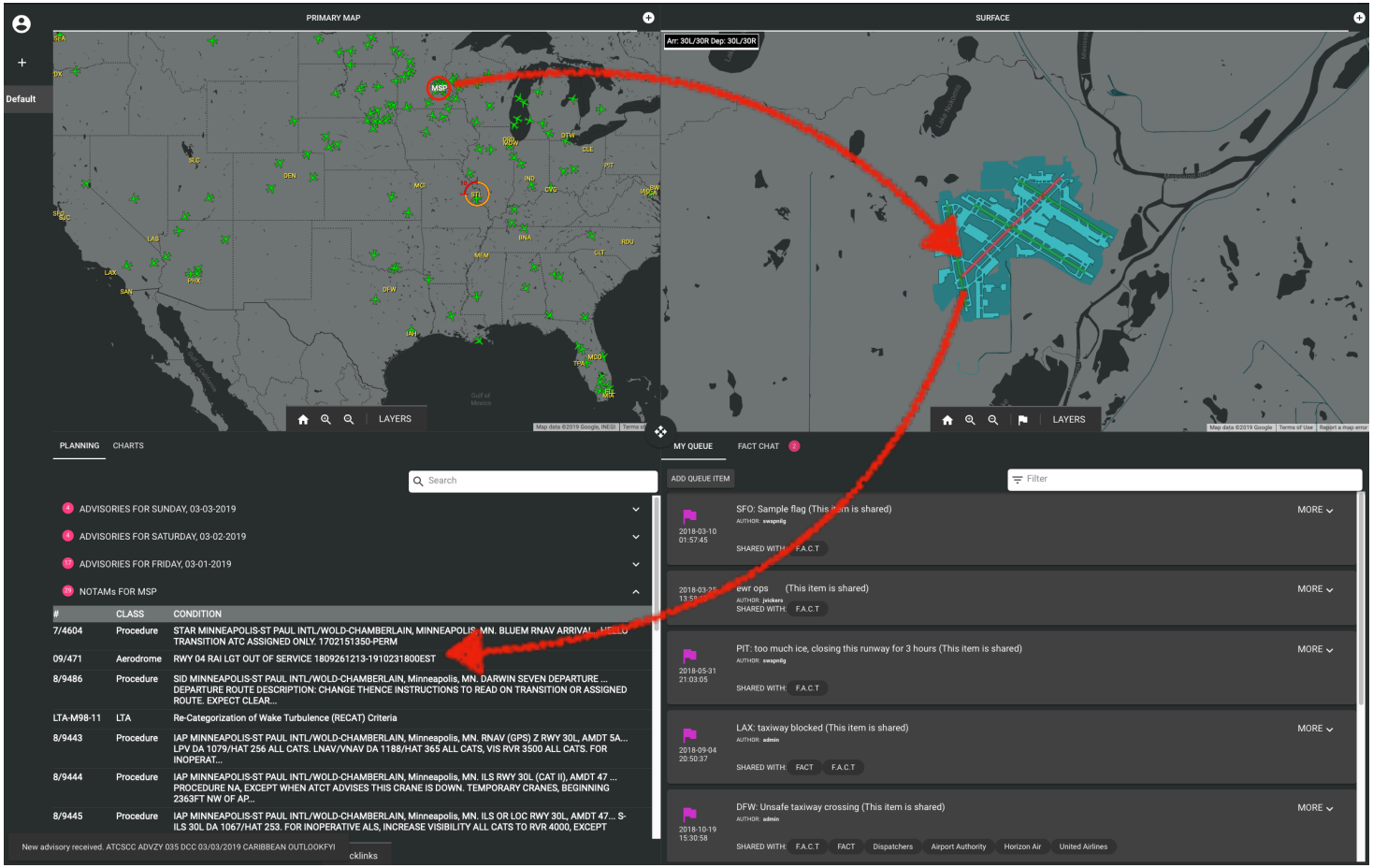
FACT Communication View



Airport Alerting



Airport Alerting



Current Status

- Patented on March 12, 2019
- Available for licensing from NASA
- Working on predictive algorithms

FACT Attributions

Component or Service	URL of Service	Where Used
Polymer Project [1]	https://www.polymer-project.org/	UI elements, internal code base
NASA Airborne Data Sciences [2]	https://airbornescience.nasa.gov	Aircraft targets
Aviation Weather [2]	https://www.aviationweather.gov/decisionsupport/winterdashboard	Winter Weather Dashboard
Mesonet [3]	https://okfirst.mesonet.org/train/nids/BREF.html	Base reflectivity: surface map
Aviation Weather [2]	https://www.aviationweather.gov/airep	PIREPs, METARs, TAFs
NOTAMs FAA [2]	https://notams.aim.faa.gov/notamSearch/nsapp.html#/	Runway NOTAMS
Google [4]	https://www.google.com/permissions/geoguidelines/	US and surface maps

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