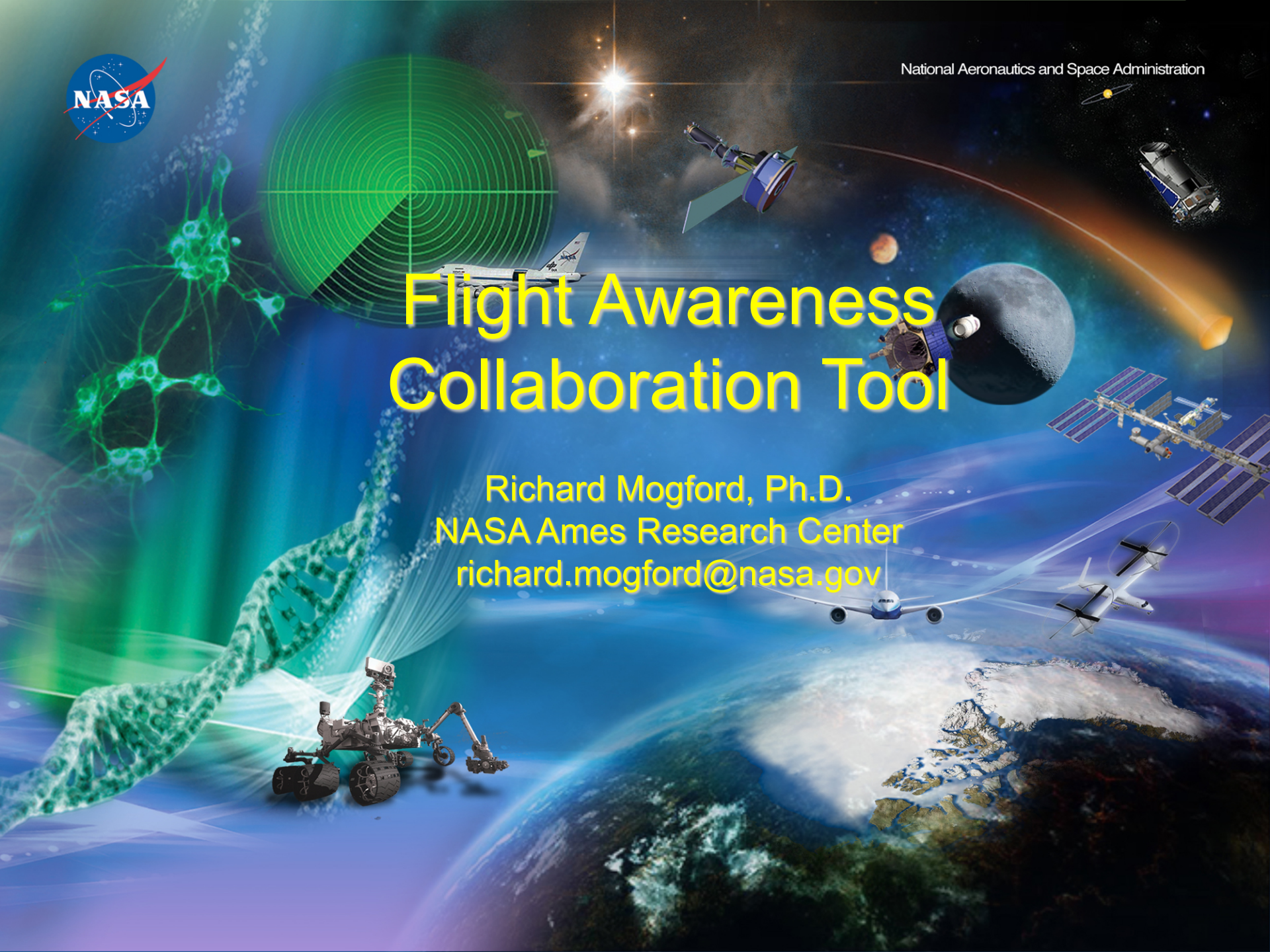




Flight Awareness Collaboration Tool

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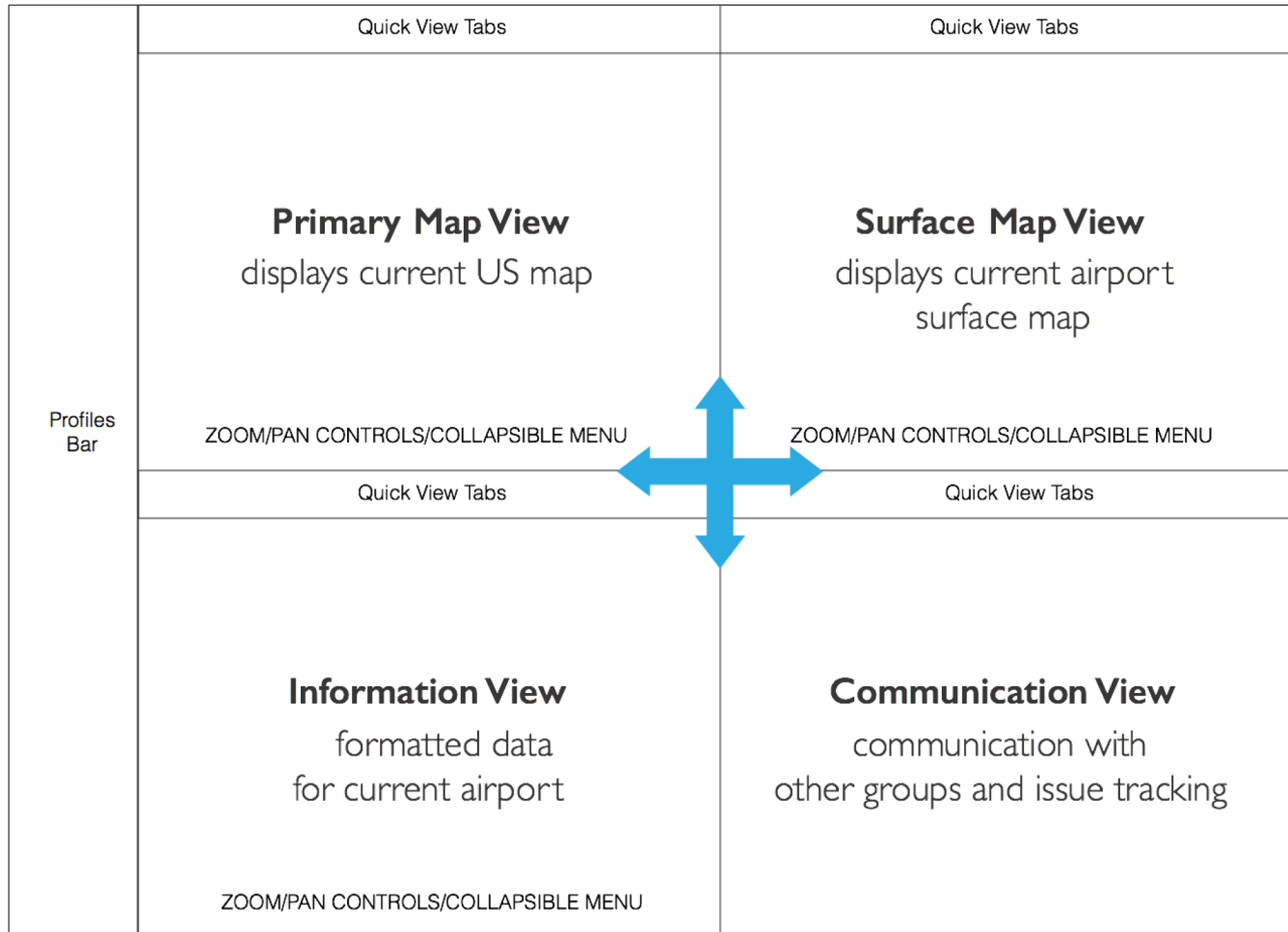


Flight Awareness Collaboration Tool



- 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 Design



FACT User Interface



The screenshot displays the FACT User Interface with three main sections:

- PRIMARY MAP:** A map of the United States with various airports labeled (e.g., SEA, PDX, SFO, LAS, PHX, DEN, MCO, ATL, BOS, LGA, JFK). A yellow arrow points from the BOS/LGA/JFK area to the Surface Map.
- SURFACE:** A detailed 3D-like view of an airport terminal and runways, colored in teal. A yellow arrow points from the Primary Map to this view.
- QUEUE:** A list of advisories for Wednesday, 06-10-2015. A yellow arrow points from the 'Send' button in the table to the Queue section.

ATCSCC ADVISORIES FOR WEDNESDAY, 06-10-2015

#	Control Element	Date	Brief Title	Send
004	FCAA16	06/10/2015	CDM Airspace Flow Program CNX	06/10/15 00:18
003	ATL/ZTL	06/10/2015	CDM Ground Delay Program	06/10/15 00:14
002	LGA/ZNY	06/10/2015	CDM Ground Delay Program CNX	06/10/15 00:13
001	DCC	06/10/2015	Reroute Cancellation	06/10/15 00:05

ATCSCC ADVISORIES FOR WEDNESDAY, 06-10-2015

#	Control Element	Date	Brief Title
161	DCC	06/09/2015	Reroute Cancellation
160	DCC	06/09/2015	ATCSCC ADVZY 160 DCC 06/09/15 Routes RQD /FL ame: FLA_TO_NYMETROS

QUEUE:

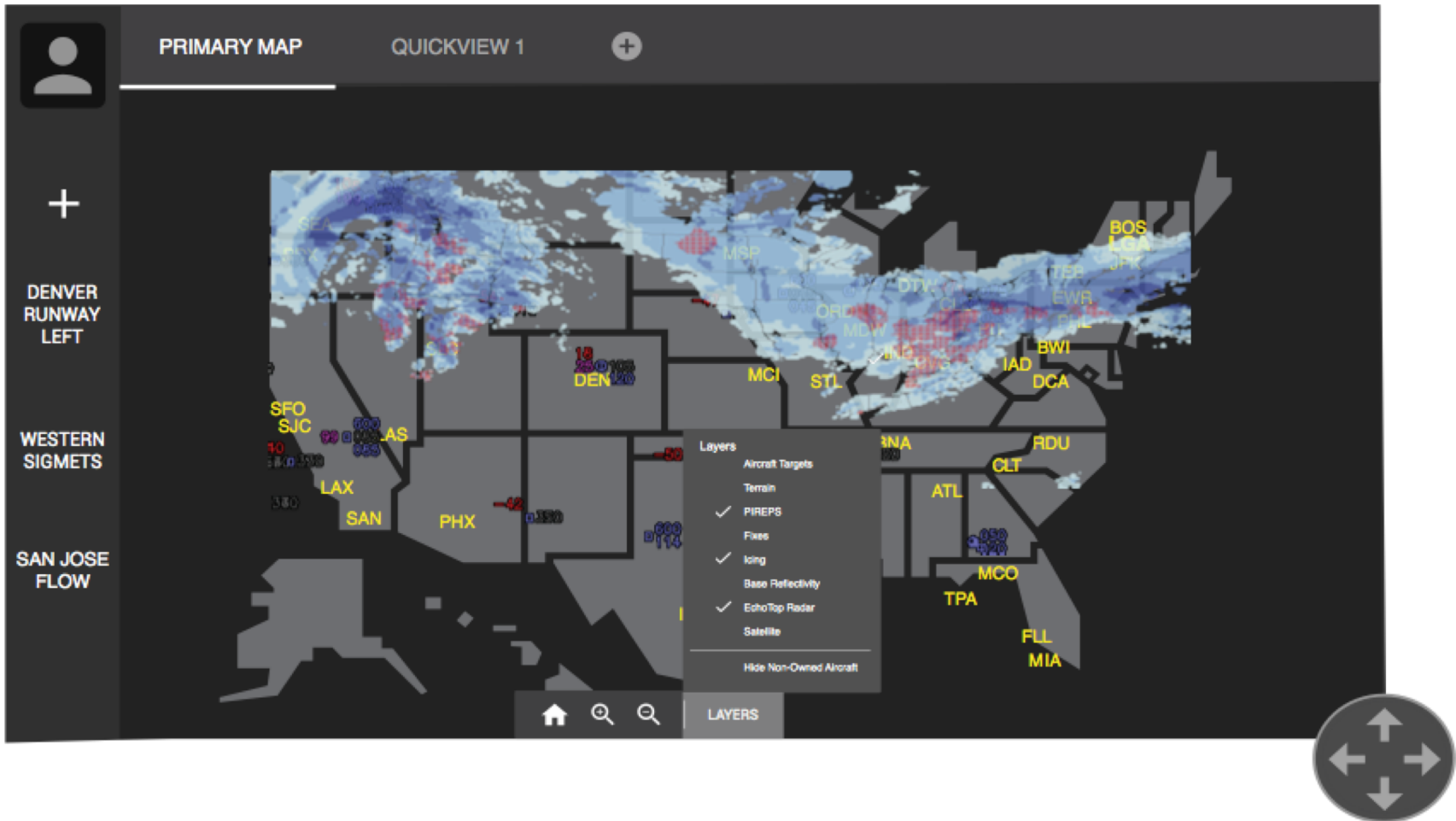
- LGA: Too many aircraft in de-icing area.** (15:30:02) AUTHOR: mmogford. Actions: RESOLVE, SHARE, DELETE.
- JFK: UAL 3740 stall in de-icing area. Expect a 20 min delay.** (11:18:16) AUTHOR: dpeknik. Actions: RESOLVE, SHARE, DELETE.

Comments:

- 13:30:45 **dpeknik:** There seems to be a stall in the de-icing area. Can we set a delay? "I'll do the calls if needed." attachment
- 13:42:34 **eleong:** I say go for it.
- 13:42:34 **mmogford:** Let me check and see what our next crew roster says.

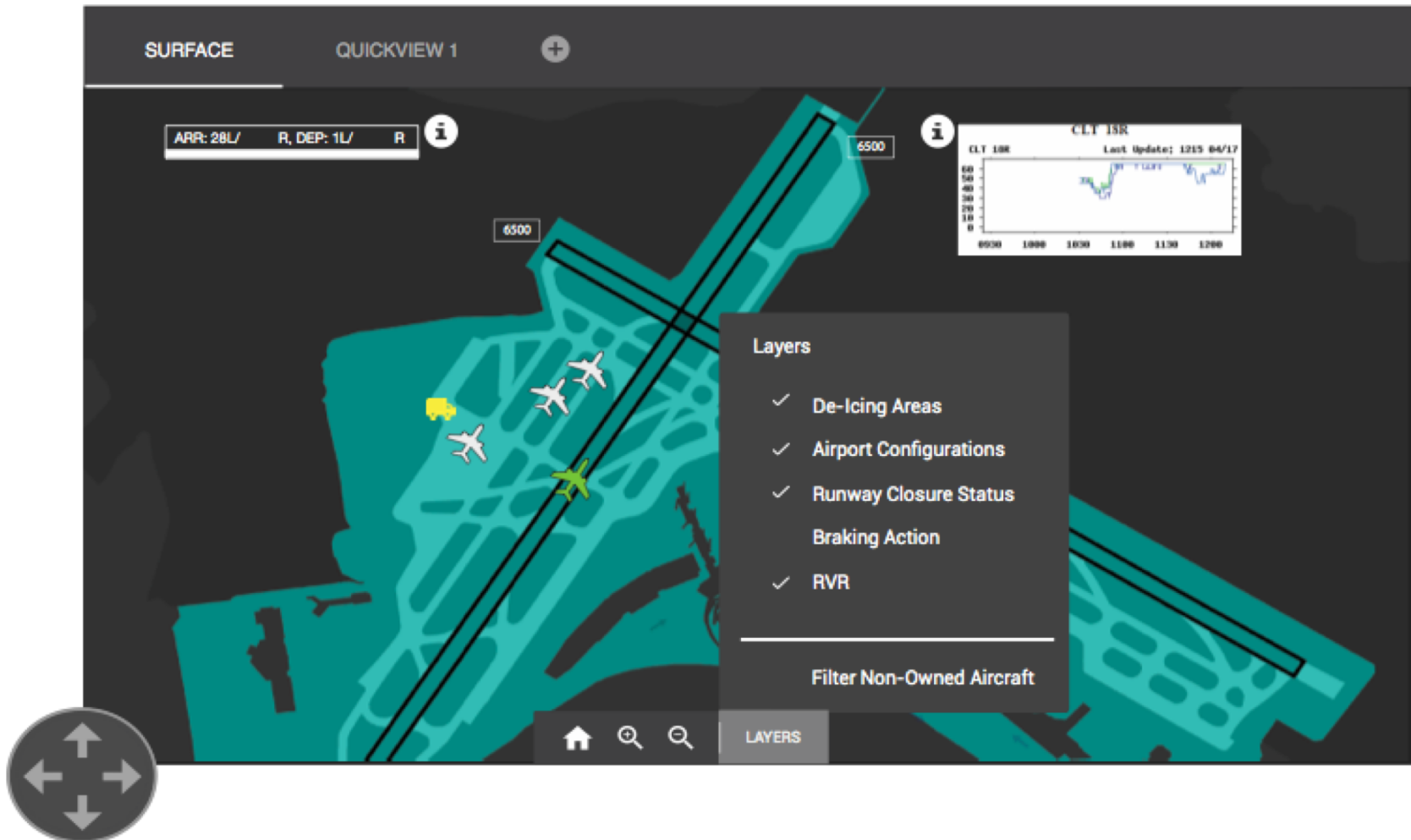


FACT Primary Map View





FACT Surface Map View



FACT Information View (Text)



PLANNING CHARTS QUICKVIEW 1 +

Search

ATCSCC ADVISORIES FOR WEDNESDAY, 06-10-2015

#	Control Element	↓ Date	Brief Title	Send Time
004	FCAA16	06/10/2015	CDM Airspace Flow Program CNX	06/10/15 00:18
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ATCSCC ADVISORIES FOR WEDNESDAY, 06-10-2015

#	Control Element	Date	Brief Title
161	DCC	06/10/2015	
160	DCC	06/10/2015	DCC 06/09/15 Route RQD /FL

Quicklinks

- FAA OIS
- ✓ Aviation Weather Center
- FAA NOTAMs
- WWACM

Quicklinks

Name: FLA_TO_NYMETROS
Constrained area: ZJX/ZMA

FACT Communication View



MY QUEUE FACT CHAT +

ADD QUEUE ITEM PRINT REPORT Search

LGA: Too many aircraft in de-icing area. ✎ MORE ▾
AUTHOR: **rmogford**
15:30:02 RESOLVE SHARE DELETE

JFK: UAL 3740 stall in de-icing area. Expect a 20 min delay. ✎ LESS ▲
AUTHOR: **dpeknik**
11:18:16 SHARED WITH: RESOLVE SHARE DELETE

Comments:

13:30:45 **dpeknik:** Not sure how to deal with this one, any suggestions?
Here's the procedure. **attachment** 📎 REPLY

13:42:34 **eleong:** That's an old document I believe,

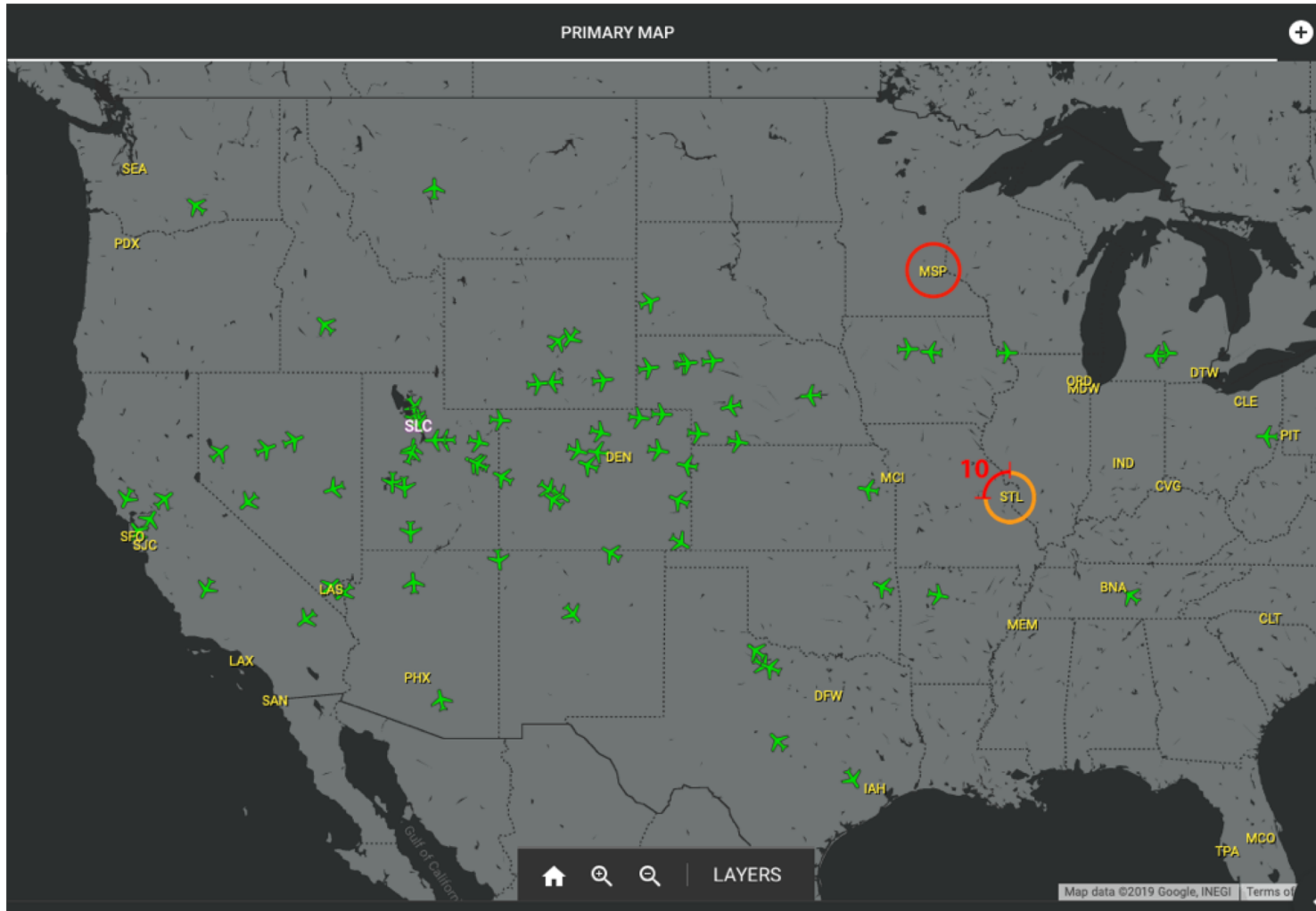
13:42:34 **rmogford:** I'll update and send a new document to the team. REPLY



FACT Automation

- As a winter storm develops, the dispatcher must monitor airport conditions in the path of the weather
- Needs to be aware of upcoming holds and evaluate the need for diversions
 - Fuel reserves must be adequate for the situation
- One measure of imminent airport problems is traffic movement at the target airport
 - Comparison of arrival and departure rates compared to normal airport configuration
 - Assessment of traffic movement on the surface
- FACT will monitor this activity and alert the dispatcher about degrading airport conditions
- Dispatcher can contact the aircraft concerned to make plans for holds or diverts
- Will use the features of FACT to learn more about the problems at the airport

Airport Alerting





Current Status

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