



Flight Awareness Collaboration Tool

Richard Mogford, Ph.D.
NASA Ames Research Center
richard.mogford@nasa.gov

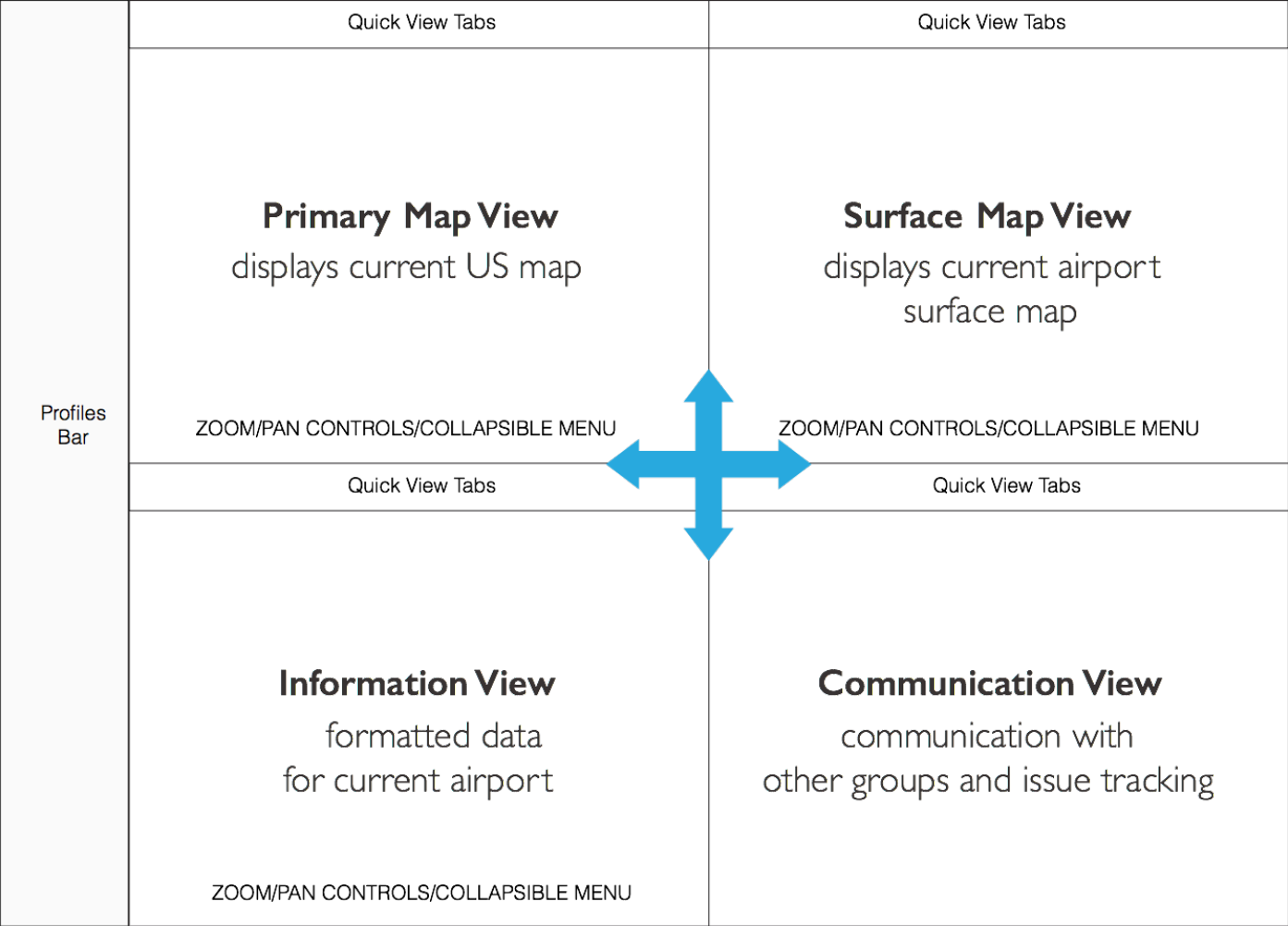


Flight Awareness Collaboration Tool



- 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

The screenshot displays the FACT User Interface with four main components highlighted by yellow arrows and labels:

- Map:** A primary map of the United States showing various airports and flight paths.
- Airport:** A detailed view of an airport terminal and runways, with flight paths overlaid.
- Data:** A table listing advisories for Wednesday, 06-26-2019.
- Messaging:** A panel showing shared messages and advisories.

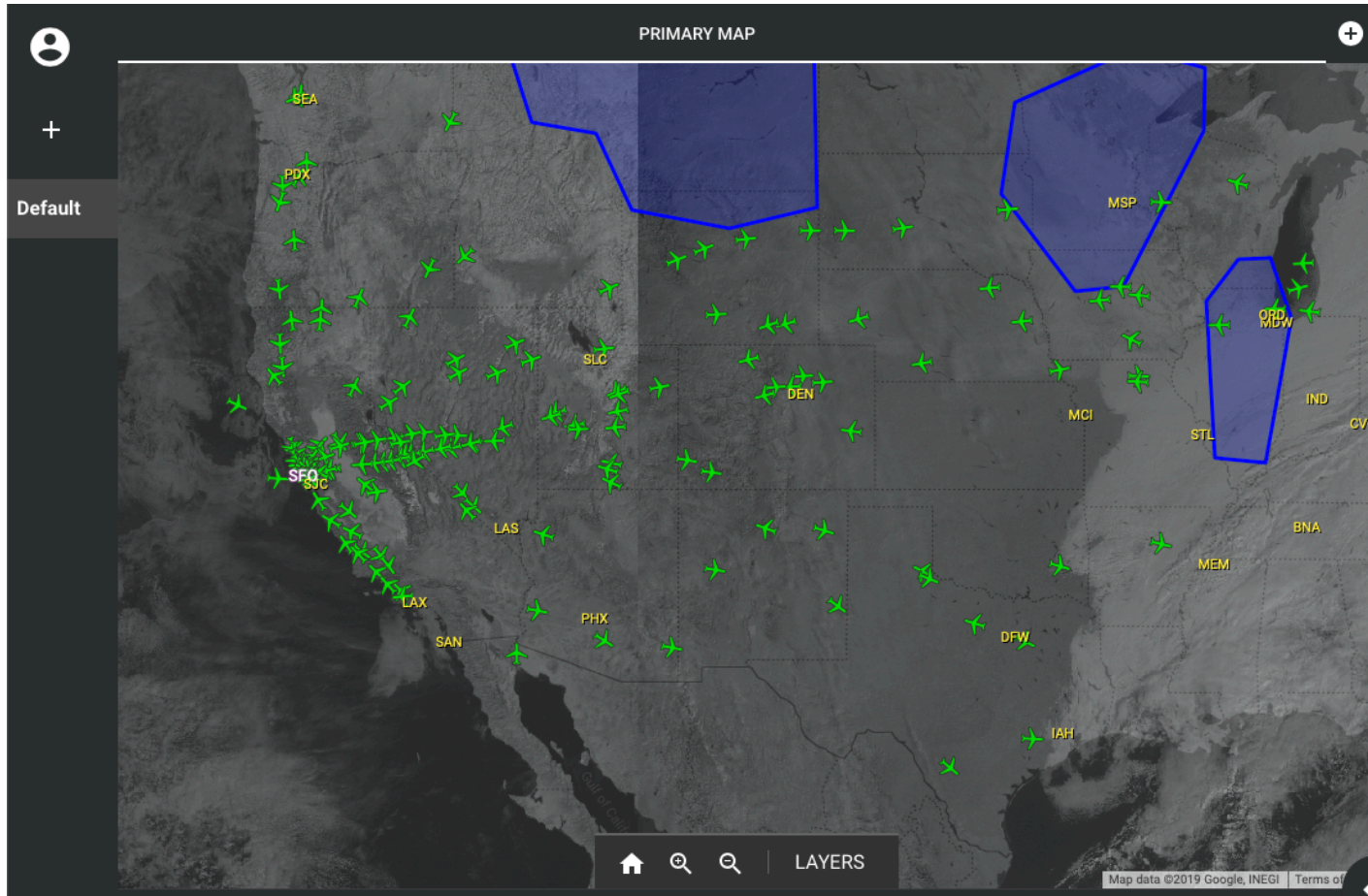
#	CTRL ELEMENT	BRIEF TITLE
066	SFO/ZOA	CDM
064	DCC	OPERATIONS
050	DCC	OPERATIONS
045	SFO/ZOA	CDM
044	SFO/ZOA	CDM
043	SFO/ZOA	CDM
041	DCC	OPERATIONS
036	DCC	OPERATIONS
031	DCC	OPERATIONS
028	DCC	NOCC
022	DCC	PAUTE

advisory received. ATCSCC ADVZY 071 JFK/ZNY 06/26/2019
GROUND STOP

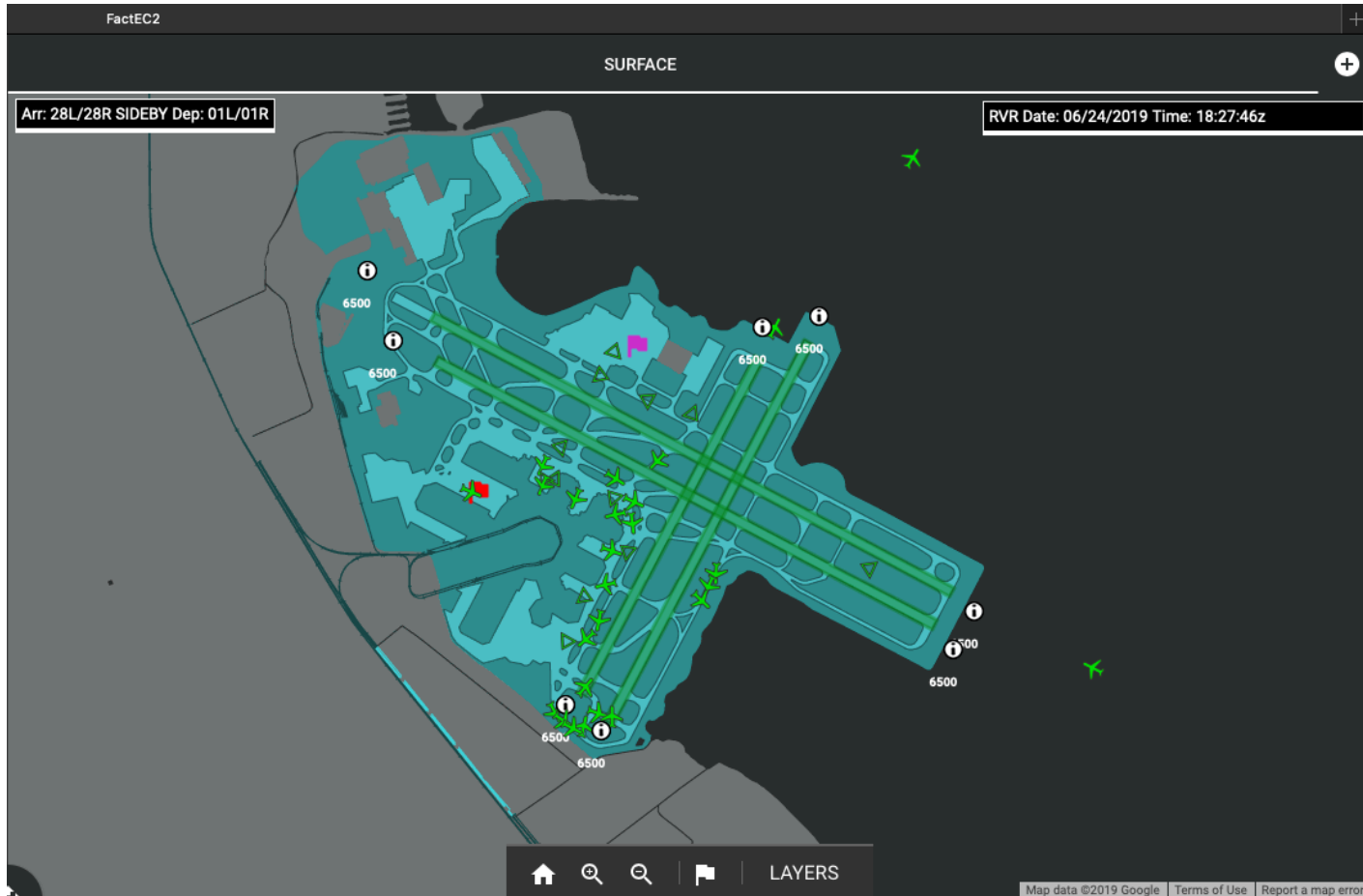
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FACT Primary Map View



FACT Surface Map View



FACT Information View (Webscraped)



PLANNING CHARTS

Search

4 ADVISORIES FOR MONDAY, 06-24-2019

#	CTRL ELEMENT	BRIEF TITLE
074	SFO/ZOA	CDM
071	DCC	OPERATIONS
068	SFO/ZOA	CDM
010	DCC	NOCC

EVENT TIME 24/0115 24/1115
NOCC 06/24/19 SCHEDULED FACILITY OUTAGES

PICO DEL ESTE, PR QJQ ATCRB 12002000Z

DALFT WORTH, TX DFW RWY 18R/36L VYN/BXN LOC/GS 04001100Z

DALFT WORTH, TX DFW RWY 18R VYN ALS 04001100Z

SALT LAKE CITY, UT SLC RWY 16L/34R MOY/SLC LOC/GS 07001300Z

LAS VEGAS, NV LAS RWY 01L CUA LOC/GS 07001300Z

SAN FRANCISCO, CA SFO RWY 28R GWQ LOC/GS 07001300Z

- ✓ Advisories
- ✓ FAA NOTAMs
- ✓ METARs/TAFs

New advisory received. ATCSCC ADVZY 037 DCC 06/24/19 ROUTE FYI





Quicklinks

FACT Communication View

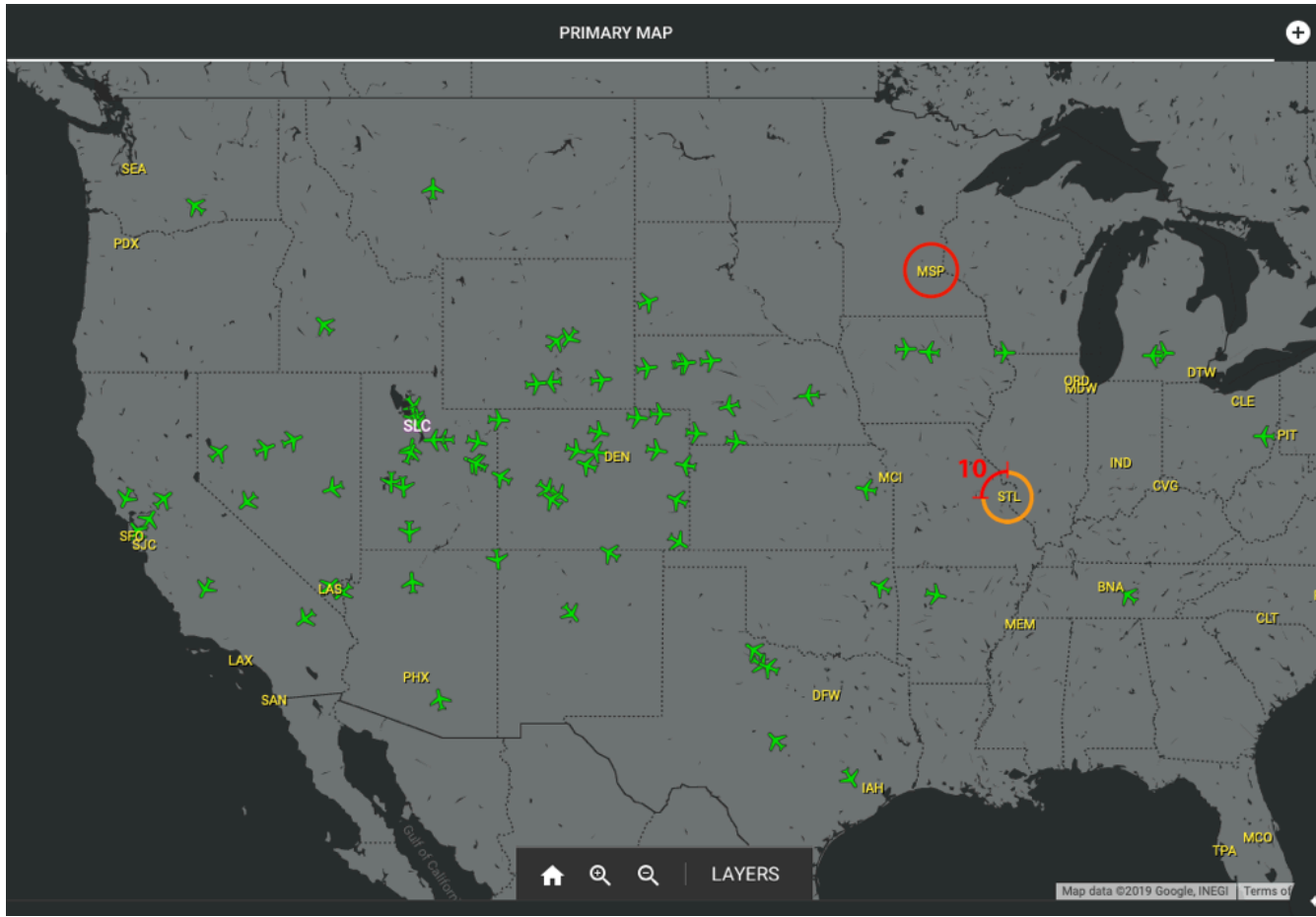


MY QUEUE FACT CHAT 2

ADD QUEUE ITEM Filter

-  **SFO: Sample flag (This item is shared)** MORE ▾
AUTHOR: *swapnilg*
2018-03-10 01:57:45
SHARED WITH: **F.A.C.T**
- ewr ops (This item is shared)** MORE ▾
AUTHOR: *jvickers*
2018-03-25 13:58:17
SHARED WITH: **F.A.C.T**
-  **PIT: too much ice, closing this runway for 3 hours (This item is shared)** MORE ▾
AUTHOR: *swapnilg*
2018-05-31 21:03:05
SHARED WITH: **F.A.C.T**
-  **LAX: taxiway blocked (This item is shared)** MORE ▾
AUTHOR: *admin*
2018-09-04 20:50:37
SHARED WITH: **FACT** **F.A.C.T**
-  **DFW: Unsafe taxiway crossing (This item is shared)** MORE ▾
AUTHOR: *admin*
2018-10-19 15:30:58

Airport Alerting



Airport Alerting



PRIMARY MAP

Default

PLANNING CHARTS

Search

- 4 ADVISORIES FOR SUNDAY, 03-03-2019
- 4 ADVISORIES FOR SATURDAY, 03-02-2019
- 1 ADVISORIES FOR FRIDAY, 03-01-2019
- 2 NOTAMS FOR MSP

#	CLASS	CONDITION
7/4604	Procedure	STAR MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN, MINNEAPOLIS, MN. BLUEM RNAV ARRIVAL... MFDLO TRANSITION ATC ASSIGNED ONLY. 1702151350-PERM
09/471	Aerodrome	RWY 04 RAI LGT OUT OF SERVICE 1809261213-1910231800EST
8/9486	Procedure	SID MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN, Minneapolis, MN. DARWIN SEVEN DEPARTURE... DEPARTURE ROUTE DESCRIPTION: CHANGE THENCE INSTRUCTIONS TO READ ON TRANSITION OR ASSIGNED ROUTE. EXPECT CLEAR...
LTA-M98-11	LTA	Re-Categorization of Wake Turbulence (RECAT) Criteria
8/9443	Procedure	IAP MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN, Minneapolis, MN. RNAV (GPS) Z RWY 30L, AMDT 5A... LPV DA 1079/HAT 256 ALL CATS. LNAV/VNAV DA 1188/HAT 365 ALL CATS, VIS RVR 5300 ALL CATS. FOR INOPERAT...
8/9444	Procedure	IAP MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN, Minneapolis, MN. ILS RWY 30L (CAT II), AMDT 47... PROCEDURE NA, EXCEPT WHEN ATCT ADVISES THIS CRANE IS DOWN. TEMPORARY CRANES, BEGINNING 2363FT NW OF AP...
8/9445	Procedure	IAP MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN, Minneapolis, MN. ILS OR LOC RWY 30L, AMDT 47... S-ILS 30L DA 1067/HAT 253. FOR INOPERATIVE ALS, INCREASE VISIBILITY ALL CATS TO RVR 4000, EXCEPT

New advisory received ATSCC ADVZY 035 DCC 03/03/2019 CARIBBEAN OUTLOOKFYI

cklinks

SURFACE

Arr: 30L/30R Dep: 30L/30R

MY QUEUE FACT CHAT

ADD QUEUE ITEM Filter

- SFO: Sample flag (This item is shared)

2018-03-10 01:37:45

AUTHOR: ewsping

SHARED WITH: FACT
- ewr ops (This item is shared)

2018-03-21 12:59

AUTHOR: jbeckey

SHARED WITH: FACT
- PIT: too much ice, closing this runway for 3 hours (This item is shared)

2018-05-31 21:03:05

AUTHOR: ewsping

SHARED WITH: FACT
- LAX: taxiway blocked (This item is shared)

2018-09-04 20:50:37

AUTHOR: adms

SHARED WITH: FACT
- DFW: Unsafe taxiway crossing (This item is shared)

2018-10-19 15:30:36

AUTHOR: adms

SHARED WITH: FACT

Dispatchers Airport Authority Horizon Air United Airlines

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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