

Philosophy change: Quiet Dark Cockpit



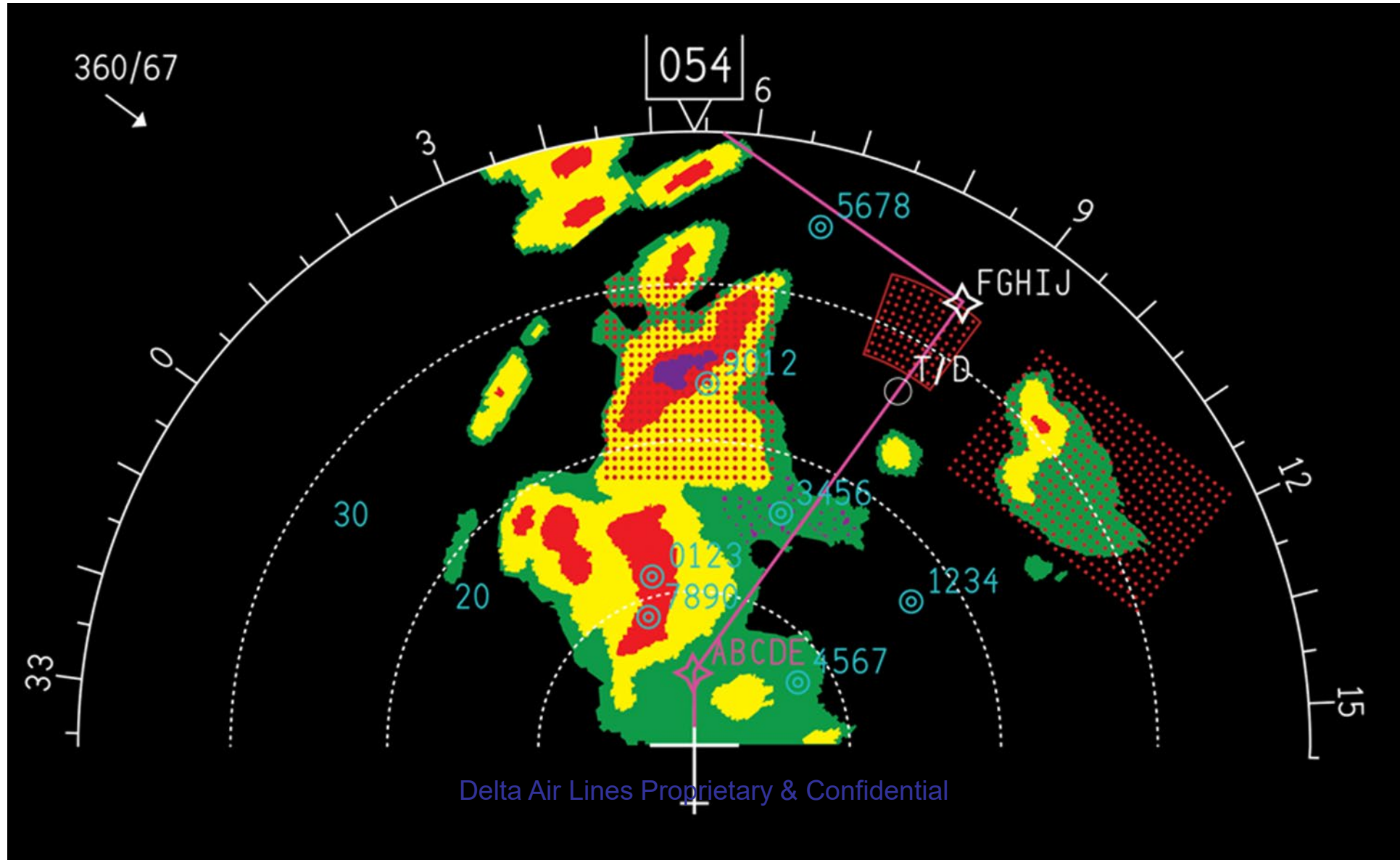
Supply the pilots with all available information

Vs



All info available in a standardized format but only notify the pilots when there is a potential threat

Step 1: Digitize weather and separate threats

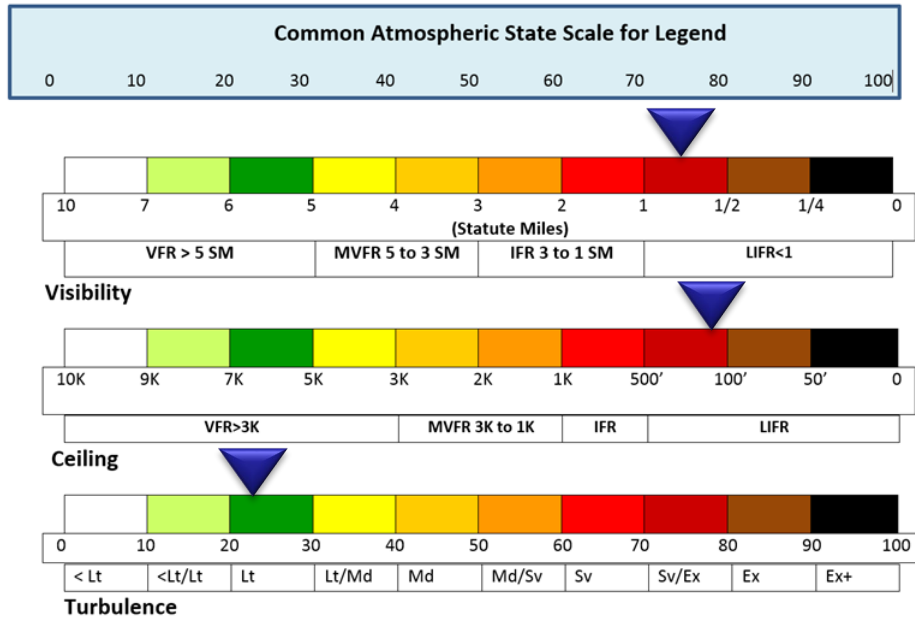


Step 2: Standardize Presentation of Threats (patented)

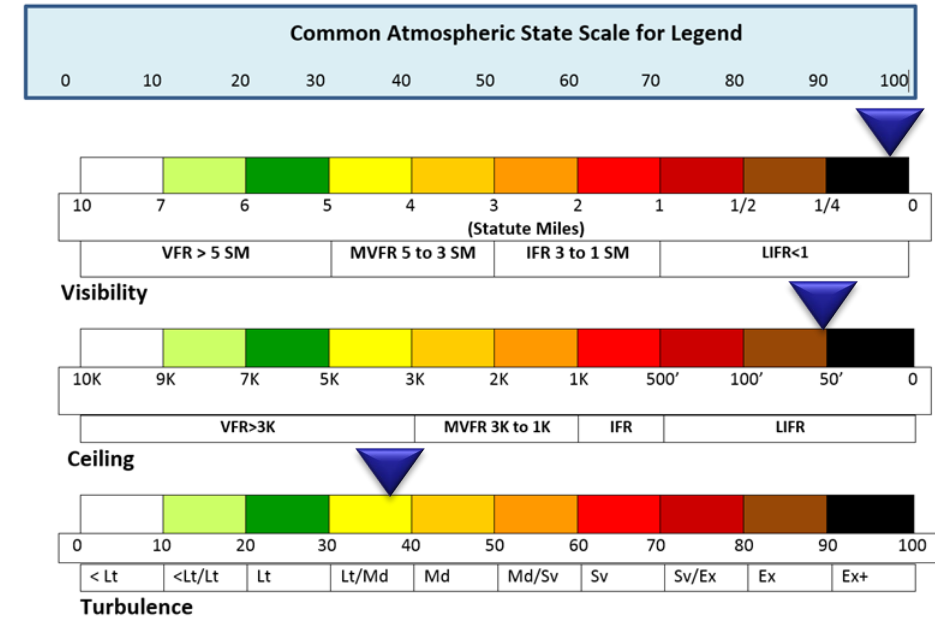
Key enabler: Capability-defined thresholds which drive operational decisions
(Part of Delta Patent)



717



777



Step 3: Information available but only notify crew when thresholds are exceeded

Notification occurs when threat index is exceeded

Crew makes an informed decision then resumes flying duties



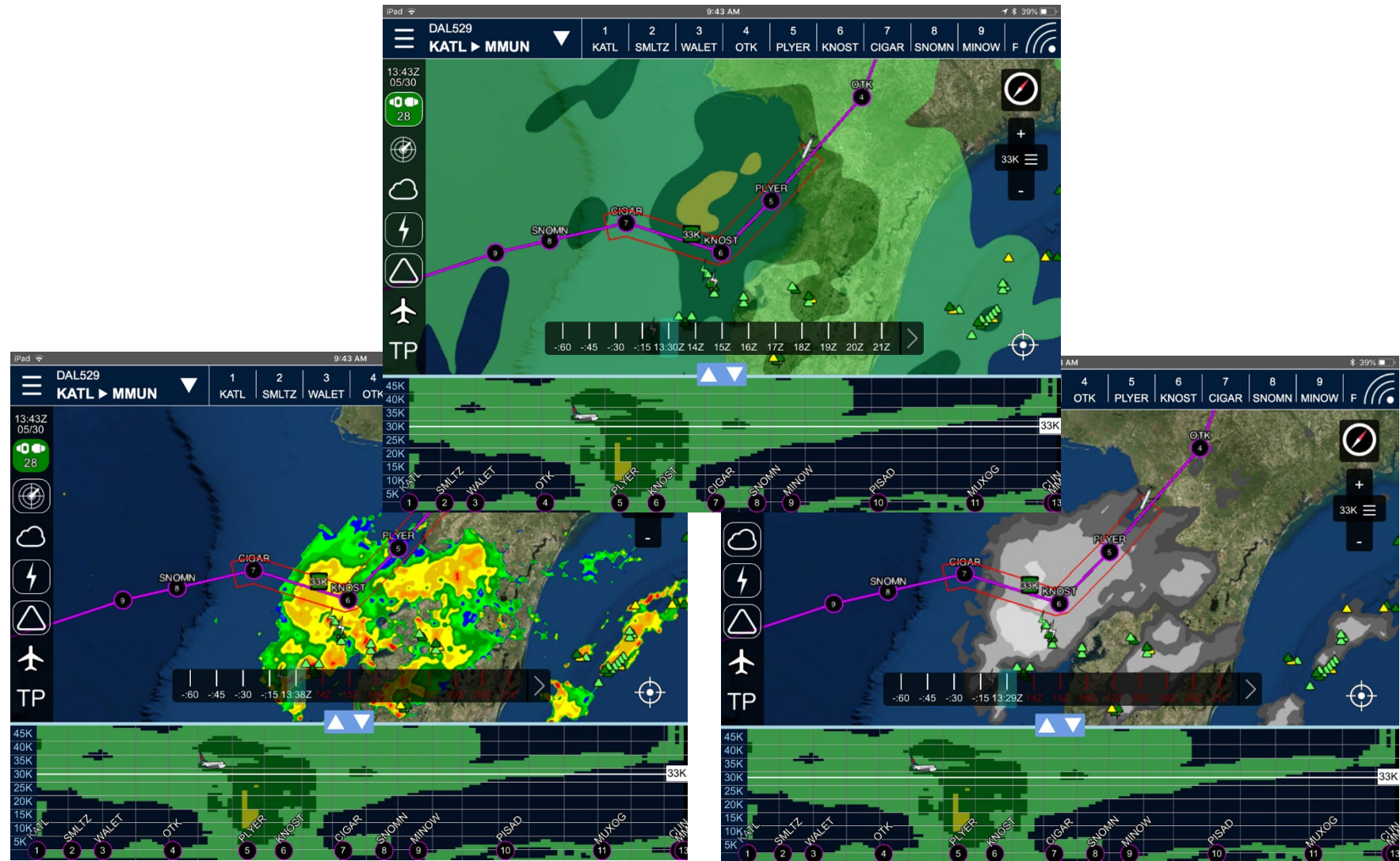
Delta's solution – Flight Weather Viewer



- Graphical representation of digital weather modeling
- Standardized presentation
- Producer- Thunderstorm
 - Resulting Threats
 - Rain – Not really a threat
 - Turbulence
 - Lightning
 - Hail
- Background notification

Use Case

- Preflight Planning
- Enroute
 - ATC notifies crew
 - Assess threat
 - Make a decision
 - Go back to duties
- Tactical
 - Onboard radar
 - View outside



Delta Air Lines Proprietary & Confidential

METAR display (future iteration)

Crew
notified/station
appears when
threshold is
exceeded



Next iteration – Additional threats, i.e. Ceiling and Visibility only appear if threat index is exceeded

Time	3:15 PM EDT
Winds	250° at 9 - 15 kts
Visibility	10 sm
Clouds (AGL)	Scattered 5,500' Scattered 7,000' Scattered 7,500'
Temperature	28°C (82°F)
Dewpoint	11°C (51°F)
Altimeter	30.16 in Hg
Humidity	35%
Density Altitude	2,348'

Info

METAR

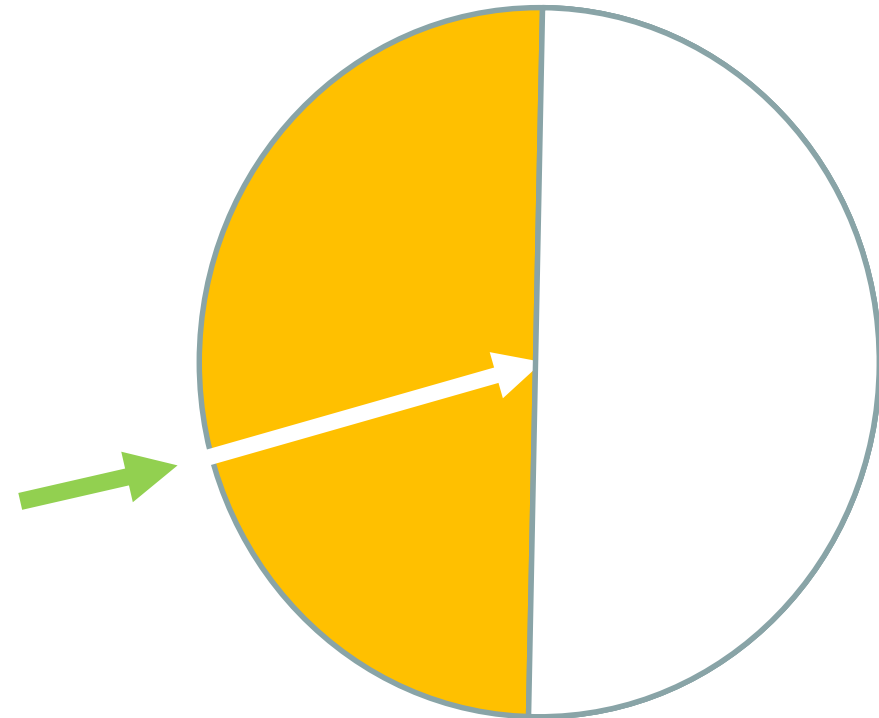
Forecast

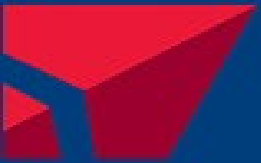
Winds

FBOs

- Ceiling

Visibility





Questions/Feedback

CA Bill Watts (Ret'd)

FWV Project Owner

Bill.Watts@Delta.com

Matt Eckstein

73N FO/Project Pilot

Matthew.D.Eckstein@Delta.com