



THE GOLD STANDARD FOR AVIATION SINCE 1935

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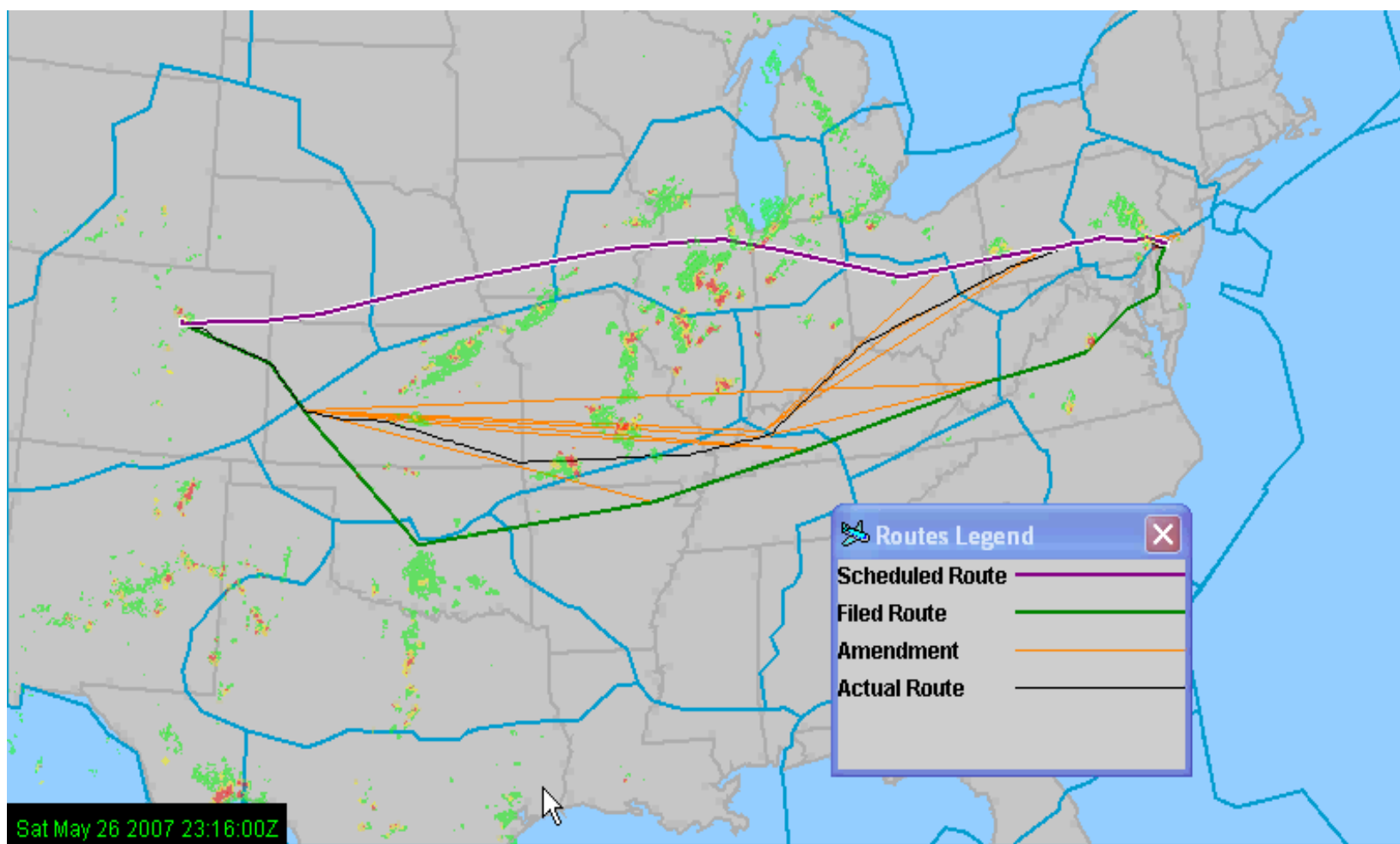
Cockpit CDM participation

- Are systemic and individual flight efficiencies possible by allowing cockpit participation in Collaborative Decision Making (CDM)?
- Currently CDM is “ground centric” with primary participation from Air Traffic Control (ATC) and Airline Operations Centers (AOCs)
- Cockpit participation in reroutes is mostly limited to tactical avoidance along the current route of flight
- With the advent of aircraft connectivity, information flow to the cockpit including real-time graphical weather updates are a “game changer”

Cockpit CDM participation

- Would it be helpful to have Minimum Aviation System Performance Standards (MASPS) specifying a minimum set of information needed for cockpit CDM participation?
- If aircraft are in compliance with this MASPS, will their flight paths be more predictable allowing them to receive priority handling in Traffic Flow Management (TFM) initiatives?
 - Relief from playbook routings?
 - Preferential treatment in an Airspace Flow Program (AFP), either excluded or included at a higher rate than non-equipped aircraft

Playbook routing example



DEN-PHL

▪ Normal flight time = 3:00

▪ Play book flight plan time = 3:45

▪ Actual flight time = 3:20

Cockpit CDM participation

- What is the minimum set of weather and TFM information needed to create a more predictable flight path?
- What coordination is required between the cockpit and AOC?
- What are the ground rules for receiving TFM priority?
 - Ground rules must clearly state criteria for cockpit participation in TFM
 - Higher probability of a predictable flight path around convective weather
 - Avoidance of congested sectors

Cockpit CDM participation

- Broadband graphical weather to the cockpit is here, whether we plan for it or not! Airlines are equipping with:
 - Broadband pipelines to aircraft for passenger Wi-Fi
 - Tablets in the cockpit
- New weather information in the cockpit could be disruptive to the system if ground rules are not established for how it is to be used
 - Training needed for differences between traditional airborne radar, NextRad, and short term convective forecasts
- The CDM Future Concepts Team is working with RTCA SC-206 on ground rules and specifying the attributes of a minimum information set required to participate in “cockpit CDM”