Cockpit participation in CDM Initiatives

Friends and Partners in Aviation Weather
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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 currently limited to tactical avoidance along the current route of flight.
Would it be helpful to have Minimum Aviation System Performance Standards (MASPS) for a minimum set of information needed in the cockpit and minimum coordination required between the cockpit and AOC to allow for cockpit initiated strategic reroutes?

If aircraft are in compliance with this MASPS, could they be given special handling with regard to Traffic Flow Management (TFM) initiatives?

- Relief from having to follow playbook routing
- Preferential treatment in an Airspace Flow Program (AFP), either excluded or included at a higher rate than allowed for non-equipped aircraft
Playbook routing example

- Flight plan time = 3:45
- Actual flight time = 3:20
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- What is the minimum set of weather and TFM information needed to allow for exceptions from TFM initiatives?
- What coordination is required between the cockpit and AOC to allow for this TFM exception?
- What are the ground rules for making a strategic routing request?
  - Ground rules must allow for individual flight efficiency while maintaining or improving systemic efficiency
Cockpit CDM participation

- Broadband graphical weather to the cockpit is coming, whether we plan for it or not! Airlines are equipping with:
  - Broadband pipelines to aircraft to enable passenger Wi-Fi networks
  - Tablets in the cockpit
- This new weather information in the cockpit could be disruptive to the system if firm standards and ground rules are not established for how it is to be used
- Is the CDM community willing to work with RTCA SC-206 to specify the attributes of a minimum set of information needed to participate in “cockpit CDM”?