



AIRSPACE TECHNOLOGY
DEMONSTRATIONS

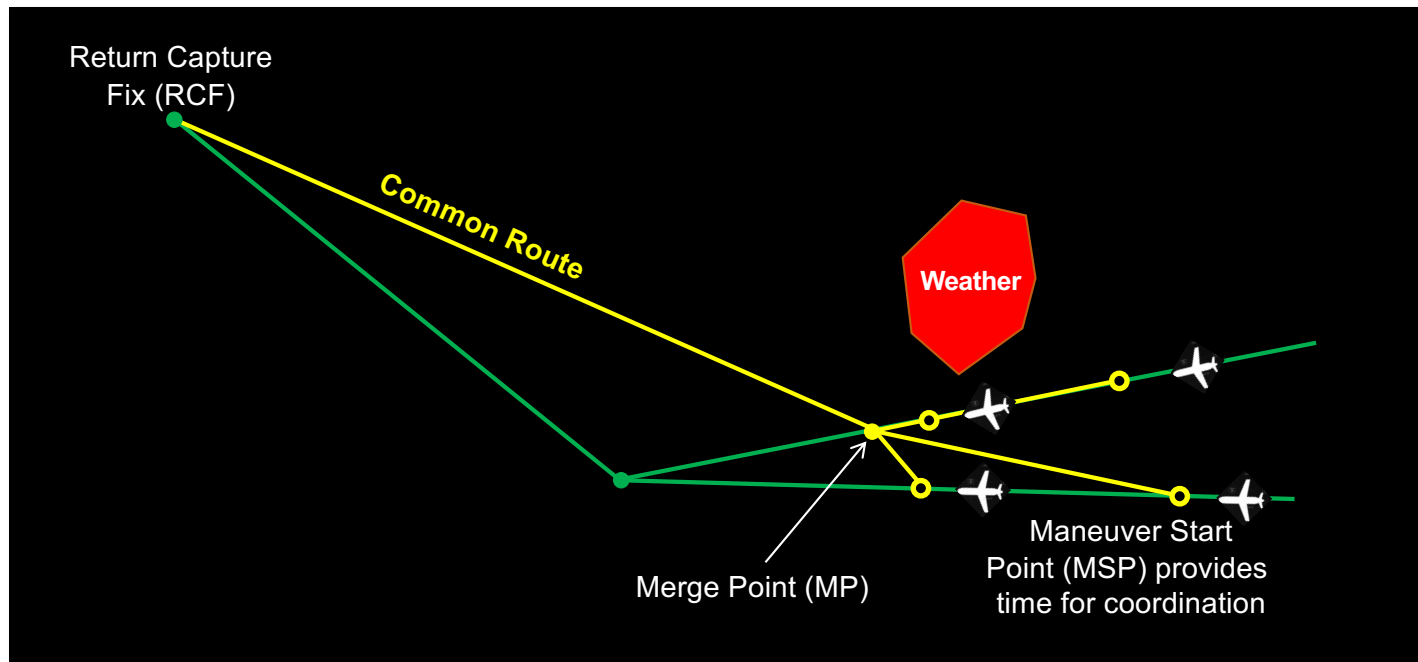
TECHNICAL INTERCHANGE MEETING

Multi-Flight Common Routes

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Multi-Flight Common Routes (MFCR) identifies opportunities for delay recovery by refreshing outdated routes





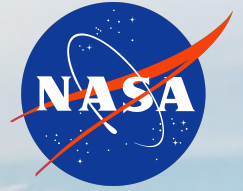
MFCR Usage



- MFCR is designed for use by Traffic Flow Managers, for possible implementation as a module of TFMS
 - NAS-wide coverage, looking for time-saving advisories in all Centers
 - Each advisory covers a group of flights currently in the same Center
 - May be used as an exit strategy from Playbook routes, but it also identifies opportunities to refresh outdated routes in other situations
- Possibly gain the benefits of large delay recovery, at the “cost” of evaluating and coordinating a small number of re-route advisories
- Establish new flows for groups of flights having a common route segment, for enhanced operational acceptability
- Present re-route advisory to Traffic Manager, with graphical functionality for review/modification prior to implementation



MFCR Advisory Features

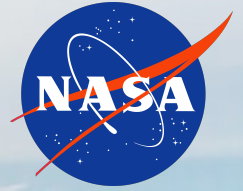


- MFCR merges multiple flights to a common route, creating a new flow for increased operational acceptability
- Each route segment is clear of weather
- Each flight has time savings of at least 3 minutes (user selected)
- Total flight time savings for group is at least 10 minutes (user selected)
- MFCR provides graphical functionality for review and modification prior to implementation of advisory





Technology Transfer



- NASA completed technology transfer to FAA in December 2017
- Key deliverables include:
 - Concept of Operations
 - Functional Requirements
 - Benefits and Cost Assessment
 - HITL Evaluation Summary
 - Software; Version Description Document; User Guide
 - Technical Publications