Friends & Partners in Aviation Weather

Integration with Air Traffic Management Decision Tools

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Weather Integration

- **Working definition:** the inclusion of weather information into an automated decision process or decision aid such that weather impacts have already been taken into account when the decision is made or recommended.

- **Goal:** minimize the need for users to manually gauge weather impact on the operation and determine the optimum mitigation strategy.
  - Today, mostly manual after viewing weather products.
  - At NextGen IOC:
    - Some weather will flow machine-to-machine with real DST integration.
    - Most integration will still be manual with improved “glance value” weather.
    - Data and displays will be provided to the cockpit for pilot decisions.
  - By 2025, weather will be translated to impacts which are embedded in decision algorithms on the ground and in the cockpit.
Why Integrate?
FAA System Operations Plans

• The plan within TFM is to focus on the next 3 – 5 years by combining existing tools:
  – Replace existing weather and forecast on TSD with CIWS, which will include a 2-hour convective forecast (2010 – 2011 timeframe)
  – Bring Route Availability Planning Tool (RAPT) capability into the TFM structure – no longer a stand alone product, but part of a suite of tools
  – Examine integration of CIWS information into TMA and other tools

- The intention is to continue to use CIWS capabilities and its technology, building on its framework for the future - CoSPA
Conclusion

• Evolutionary Process
  – System Operations will continue to build upon CIWS
  – First step is to bring existing tools together
  – Second step is to begin the true integration process
  – Third is to continue the integration of future weather enhancements into decision support for the Next Gen era