

NextGen Weather

Arnold Lee

Integrated Systems Solutions, Inc.

NextGen Weather Working Group

Where We've Been

- Big Picture View
 - FAA has created its NextGen Implementation Plan, which focuses on the near to mid-term (2018) set of capabilities
 - JPDO has published more far-term (2025+) concepts and a roadmap (Integrated Work Plan)
 - Both JPDO and RTCA have begun to tackle some of the more difficult concepts such as Trajectory Based Operations (TBO), which will become a key driver of requirements for the NextGen weather activities

Analysis

- As the capabilities of TBO, Super Density Operations, etc., become better defined, we have a chance to evaluate the initial weather concepts proposed by the Weather Working Group over the past few years
 - So far, there is little evidence to suggest a major overhaul of the initial concept is required. Key capabilities still fit well under the broader NextGen concepts
 - 4-D Weather Data Cube
 - Single Authoritative Source (SAS)

Agency Roles/Relationships

- Initial agency roles/relationships have been set as ground rules for agency weather activities
 - Some boundary issues remain to be worked
 - Budget guidance is still being synchronized
 - NOAA has made great strides towards the development of a NextGen 4-D Weather Cube Program Office

Engaging the Operational Communities

- Several meetings with representatives from the operational communities, including the Collaborative Decision Making (CDM) group have taken place
- It's important the operators validate the concept(s) and the underlying requirements
- Additional engagement is needed during the next year

Where Are We Going From Here?

- NOAA will continue to expand its infrastructure to support an initial 4D cube capability over the next few years
- FAA will also expand their efforts to work weather integration tasks

Additional Steps

- NextGen weather will leverage capabilities from DoD research/investments
- Standards/Protocols will continue to be refined and worked across National and International groups