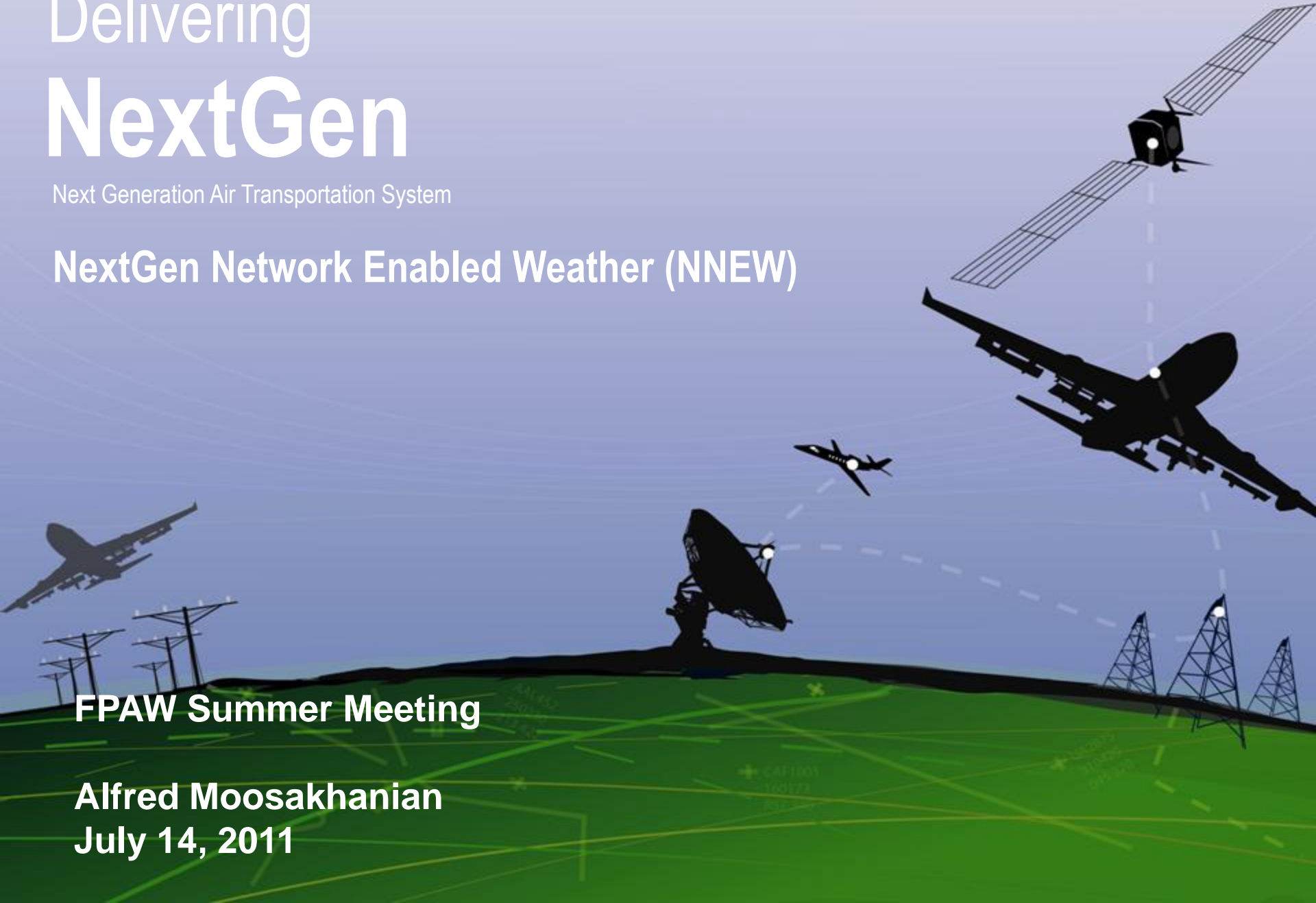


Delivering NextGen

Next Generation Air Transportation System

NextGen Network Enabled Weather (NNEW)



FPAW Summer Meeting

Alfred Moosakhanian
July 14, 2011

Background

- **Weather is responsible for 70% of delays over 15 minutes and contributes to 24% of accidents**
 - Up to 2/3 of weather delays are potentially avoidable, based on NAS Operations Subcommittee REDAC study
- **Traffic managers and users must mentally interpret weather conditions, future traffic, and airspace information and their potential impact on decisions**
- **Inconsistencies exist in the presentation of weather data among the various weather systems**

Background (Cont.)

- **A single source of weather information often feeds several different systems the same information through different communication feeds. This point-to-point approach requires high telecommunication costs.**
 - **The present network would not be able to accommodate the increase in bandwidth requirements without new construction.**
- **Weather information is presently provided in many different and specialized formats which limits its reuse by multiple systems.**
- **Automation tools will require more dynamically filtered weather information to support Trajectory Based Operations and airborne weather information.**

NNEW – Aviation Weather Dissemination System

- **NNEW is the FAA’s platform for disseminating aviation weather and weather translation information.**
 - Information provided from NWS’s NextGen 4-D Wx Data Cube & internal FAA sources (e.g., NWP, RASP)
- **NNEW provides common standards for weather data discovery and data query**
 - Software that provides capabilities for locating, retrieving, and filtering of weather information
 - Service adaptors to support legacy systems

NNEW – Aviation Weather Dissemination System (Cont.)

- **Key Benefits:**
 - Provide network-enabled weather information services
 - Provide the capability to automatically locate and retrieve data using global and open standards
 - Provide the capability to retrieve weather information in various ways, e.g., along flight-trajectory-specific airspace volumes

NNEW Program Overview

- **NNEW Key Elements:**
 - Open Standards Utilization/Development
 - Open Geospatial Consortium (OGC) standards
 - WCS - Web Coverage Service. Serves weather data on grids.
 - WFS - Web Feature Service. Serves weather data at points.
 - WMS - Web Map Service. Serves images.
 - Data Format Standards
 - GML, XML, and NetCDF-4
 - Working with EUROCONTROL to develop a common data model
 - Metadata Standards
 - Reg/Rep - Registry/Repository
 - Enables data discovery
 - Shows how to query weather data

Current Acquisition Activities

- Upcoming Key Milestones
 - Initial Investment Decision (IID) - March 2012
 - Final Investment Decision (FID) - December 2012
- Market Survey - May 2011 - Completed
- Request For Information (RFI) - July 2011
 - Obtain technical and scheduling Information
- Screening Information Request (SIR) - June 2012
 - Request For Offer (RFO)
- Contract Award – January 2013
- NNEW IOC – September 2015