



CENTER FOR ADVANCED AVIATION SYSTEM DEVELOPMENT (CAASD)

Review of FAA Weather or Weather-Related Products from an RTO Perspective

Matt Fronzak - MITRE/CAASD

October 22, 2009

Friends and Partners of Aviation Weather Meeting



Introduction

- **Not a critique of past or current RTO performance of individual projects**
- **Any incorrect status description or misrepresentation of facts is my fault**
- **Looking for common pitfalls based on actual experiences**
- **All products directly or indirectly weather-related**
- **Each has experienced one or more RTO “issues”**



In-Situ Turbulence Reporting

- **First work done in 1991**
- **First contract to install associated equipment and algorithms signed with commercial airline in 1995**
- **Competing methodologies, legal issues**
- **Information being collected today from several airlines (three? four?)**
- **Currently resides on EADDS in a password restricted area**
- **RTO – still in progress (18 years)**



Traffic Management Advisor (TMA)

- TMA Build 1 rolled out to ZDV in 1990
- TMA Build 2 rolled out to ZFW in 1996
- TMA “operational nationwide” in 2007 (all continental U.S. ARTCCs)
- Current status
 - No national Standard Operating Procedures (SOP)
 - No related updates to FAA Orders
- And...TMA is turned off in the presence of weather constraints
- RTO – “complete” (17 years)



National C&V

- **Driven by Helicopter Emergency Medical Service (HEMS) operators**
- **Initial momentum created NCV product on EADDS in 2006**
- **Currently “stuck” in SMS review with relatively low priority**
- **Why?**
 - **Limited scope (HEMS-only interest)**
 - **No NextGen angle**
- **RTO – still in progress (3+ years)**



CIWS

- **First work done in 2001**
- **Prototype status through 2005**
- **CIWS funding elimination proposed FEB 2006**
- **User (ATM, AOC) community feedback results in FAA position change on CIWS funding MAR 2006**
- **Still in prototype at WJHTC**
- **Scheduled to become operational in FY2010**
- **RTO – nearing completion (9 years)**



RTO Land Mines

- **Limited or no early end user involvement**
- **Driven by product looking for a problem to solve instead of a problem looking for a solution**
- **Unclear/incomplete User Requirements**
- **Unclear/incomplete Concept of Operations/Use (ConOps/ConUse)**
- **Safety Management System implications**





CENTER FOR ADVANCED AVIATION SYSTEM DEVELOPMENT

MITRE