



**Schedule Confidence and Acceleration using Deltek Acumen Fuse, Risk, and 360**

*Nice Schedule – But, can you deliver it six months earlier?*



# Biography: David Rose

- Industry / Company Employment
  - Cobec Consulting Inc. (2013 – Present)
  - EcoSys Consulting (2010 – 2013)
  - Freescale Semiconductor (1998 – 2010)
- Education / Certification
  - BA, Aviation, Airplane Systems, OSU
  - Commercial Pilot
  - PMP
- Professional Experience
  - Domain Expert, Scheduling, Cobec, various FAA programs
- Something you don't know about me
  - Flew the Fuji Blimp at Oshkosh



# Biography: Philip Ashtianie

- Industry / Company Employment
  - Cobec Consulting Inc. (2019 – Present)
  - Interned at National Archives (2010-2012)
- Education / Certification
  - B.S., Business Management and Administration, 2015, UMUC
  - MBA in progress
- Professional Experience
  - Consulting, Scheduling, Cobec, various FAA programs
- Something you don't know about me
  - Won high school 3A state basketball title in 2007

# Introduction

- FAA Acquisition Management System (AMS)
- AMS Schedule-based Deliverables
  - The FAA Investment Planning and Analysis Team Submissions
  - Road-To Joint Resource Council (JRC) Decision Point Milestones
  - Schedule Quality Requirements
  - Risk Adjusted Schedules – 80<sup>th</sup> Percentile Dates (P80)
- Tools supporting AMS Schedule Based Deliverables
  - Oracle® Primavera P6<sup>SM</sup>
  - Microsoft Project
  - Deltek Acumen – Thanks for the intro NASA Schedule Community of Practice (SCoPe) !
  - Other tools supporting schedule based-deliverables
    - @risk, Steelray, Oracle Risk, ACEIT / JACS
- Schedule Acceleration using Deltek Acumen 360

# Presentation Outline


- FAA Acquisition Management System and Joint Resource Council and its Relation to NASA's Program Lifecycle Process
- Schedule Preparation as a Deliverable to the FAA's Investment Planning and Analysis team (IP&A)
  - Importing Projects and Mapping Fields
  - Establishing Project Quality / Schedule Quality Confidence / Schedule Quality Reporting
  - Preparing and Reporting the 80th Percentile Dates / Delivering a Risk Adjusted Schedule
- Schedule Acceleration using Acumen 360
  - Accelerating a Schedule Use Case
  - Preparing and Running a Scenario
  - Tailoring Scenarios
  - Comparing Scenarios
- Conclusion
- Questions/Comments

# FAA Acquisition Management System


FAA Acquisition System Toolset (FAST/AMS)

<https://fast.faa.gov>

## FAST




AMS Policy




F&E Funded Capital Assets



Mission Support Ops Funded Capital Investments



Engineering & Management Practices



AMS Building Blocks




AMS Procurement Policy & Guidance

### Applications

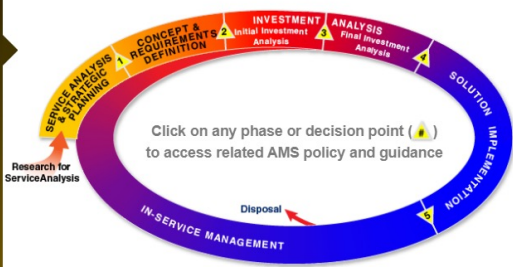
- Contract Opportunities (SAM.gov)
- Contract Clauses
- Real Property Contract Clauses
- PRISM (FAA only)

### Useful AMS Information

- Acquisition Planning & Control Documents
- Acquisition Categories (ACAT)
- AMS Tailoring
  - AMS Tailoring Request Process (MS Word)
  - AMS Tailoring Request Template (MS Word)
- AMS Training (FAA only)
- Acquisition Practices (FAA only)
- CARES Act Section 3610 and Interim AMS Guidance (PDF)
- CARES Act Section 3610 - Extension (PDF)
- National Bandwidth Upgrade Program (FAA only)
- NDAAs Section 889 - FAA Resources (FAA only)
- Frequently Asked Questions
- Policy vs Guidance
- Purchase Card Program
- Revising AMS



### F&E Funded Capital Assets



Click on any phase or decision point (▲) to access related AMS policy and guidance

click here if the interactive ring doesn't display correctly


#### AMS Lifecycle Phase

- Research for Service Analysis
- Service Analysis & Strategic Planning
- Concept & Requirements Definition
- Initial Investment Analysis
- Final Investment Analysis
- Solution Implementation
- In-Service Management

#### AMS Decision Points (▲)

- CRD Readiness Decision
- Investment Analysis Readiness Decision
- Initial Investment Decision
- Final Investment Decision
- In-Service Decision

### Operations Support Pathway



### Toolkit

Program Requirements Document <small>(MS Word)</small>	Business Case	Implementation Strategy & Planning Document <small>(MS Word)</small>
Program Management Plan <small>(MS Word)</small>	Acquisition Program Baseline – New Investment <small>(MS Word)</small>	Acquisition Program Baseline – Tech Refresh <small>(MS Word)</small>
Execution Plan – Variable Quantity <small>(MS Word)</small>	Execution Plan – Facility Program Level <small>(MS Word)</small>	Execution Plan – Facility Project Level <small>(MS Word)</small>
Execution Plan – Tech Refresh Portfolio <small>(MS Word)</small>		

■ FAST Links    ■ Non-FAST Links

**Table 1.2.6-1 Lifecycle Management Decision-Making**

Decision	Decision Body	Decision Chair
Concept and requirements definition readiness decision	FAA Enterprise Architecture Board	None
Investment analysis readiness decision	JRC	Acquisition Executive
Initial and final investment decisions <i>(including new programs and extension of current capability)</i>	JRC	Acquisition Executive
Status Update/Strategy Update Session/Direction Requested Decision	JRC	Acquisition Executive
Product demonstration 1	Note 2	Note 2
Production 1 and 2	Note 2	Note 2
In-service 2	Note 2	Note 2
Program baseline change	JRC	Acquisition Executive
F&E, RE&D, and OPS budget approvals	JRC	Acquisition Executive
FAA Enterprise Architecture changes	JRC	Acquisition Executive

# FAA Acquisition Management Policy

fast.faa.gov/docs/acquisitionManagementPolicy/AcquisitionManagementPolicy1.2.pdf#nameddest=policy1\_2\_5

AcquisitionManagementPolicy1.2.pdf 1 / 20 100%

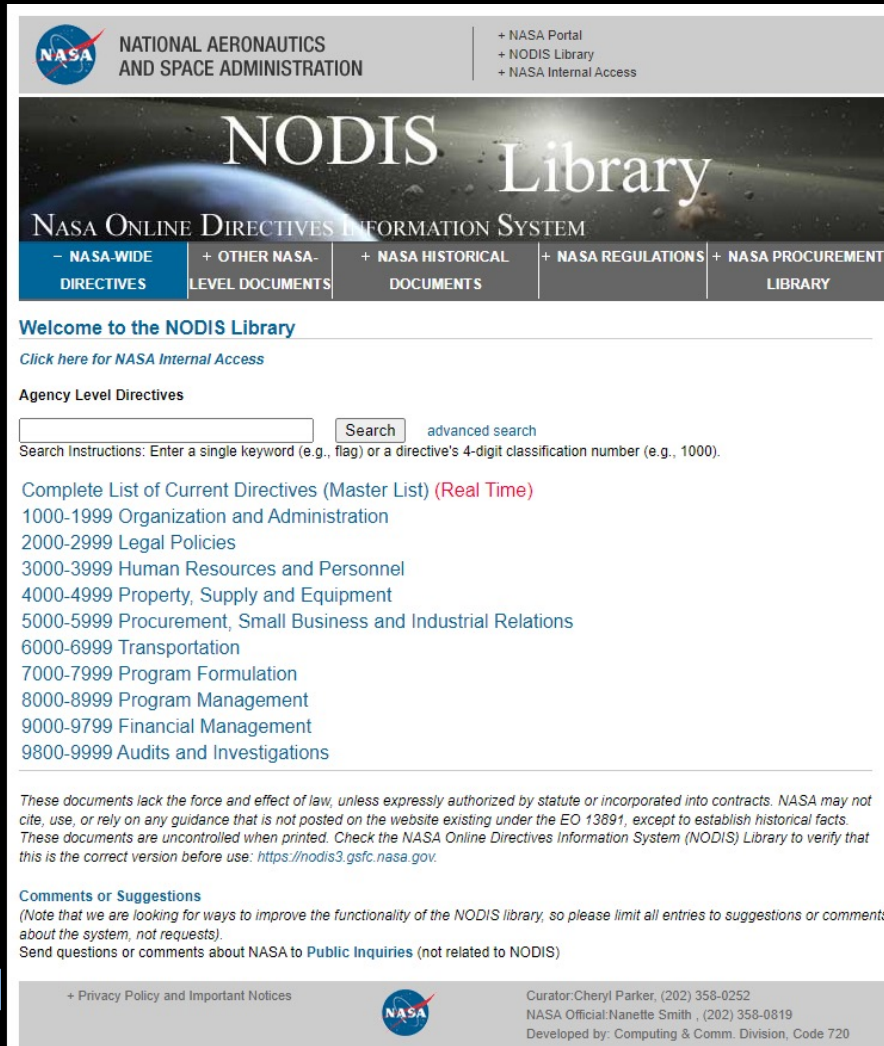
**Acquisition Management Policy - (1/2022)**

1.2 Key Elements of Acquisition Management

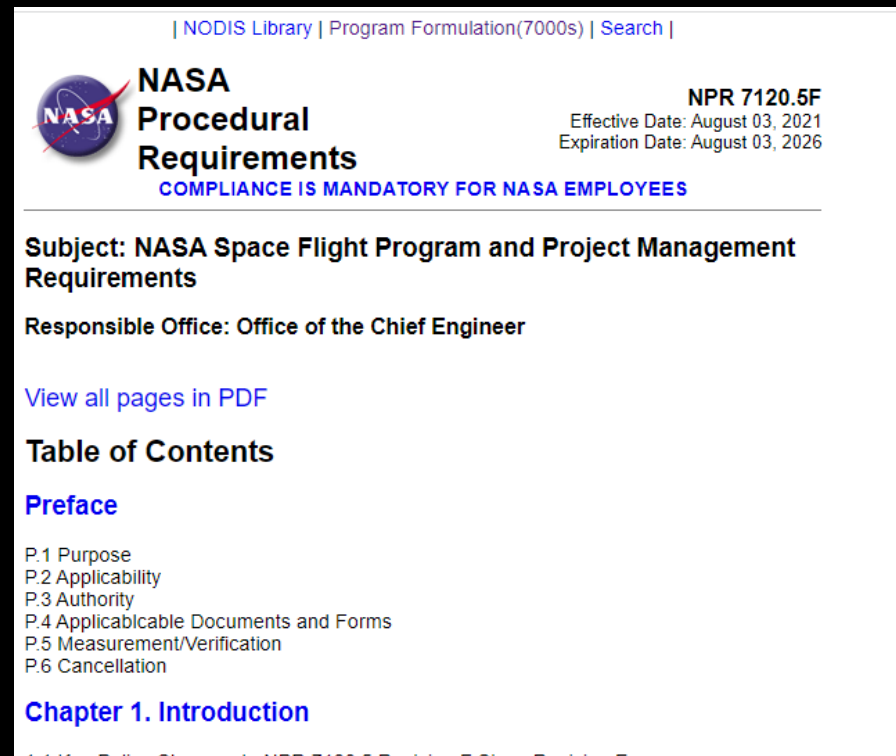
- 1.2.1 Strategic Planning, Management, and Budgeting Revised 1/2014
- 1.2.2 FAA Enterprise Architecture Revised 4/2017
- 1.2.3 Service Management Revised 7/2013
- 1.2.4 Portfolio Management Revised 4/2017
  - 1.2.4.1 Agency-Wide Portfolio Management Revised 4/2013
    - 1.2.4.1.1 Portfolio Management Governance Revised 4/2013
    - 1.2.4.1.2 Portfolio Management Criteria Revised 4/2013
  - 1.2.4.2 Operational Capability Portfolios Revised 4/2013
- 1.2.5 Acquisition Categories Revised 7/2021
- 1.2.6 Lifecycle Management Decision-Making Revised 1/2021
- 1.2.7 Acquisition Quarterly Program Reviews Revised 4/2019
- 1.2.8 TechStat Reviews Revised 4/2019
- 1.2.9 Cost Accounting Revised 4/2013
- 1.2.10 Workforce Development and Qualification Revised 4/2013
- 1.2.11 Continuous Improvement Revised 7/2010
- 1.2.12 On-line Policy and Guidance Revised 1/2012
- 1.2.13 AMS Change Management Revised 1/2012
- 1.2.14 Legal Coordination Revised 7/2006
- 1.2.15 AMS Lifecycle Management Documentation Revised 7/2021
- 1.2.16 OMB Budget Documentation Revised 1/2021
- 1.2.17 National Acquisition Evaluation Program Added 7/2007
- 1.2.18 Earned Value and Baseline Management Revised 4/2019

<https://fast.faa.gov/docs/acquisitionManagementPolicy/acquisitionManagementPolicy.pdf>

# NASA Online Directives and Procedural Requirements



The screenshot shows the NASA NODIS Library homepage. At the top left is the NASA logo and the text "NATIONAL AERONAUTICS AND SPACE ADMINISTRATION". To the right are links for "+ NASA Portal", "+ NODIS Library", and "+ NASA Internal Access". The main header features the "NODIS Library" logo over a space background, with "NASA ONLINE DIRECTIVES INFORMATION SYSTEM" below it. A navigation bar includes: "- NASA-WIDE DIRECTIVES", "+ OTHER NASA-LEVEL DOCUMENTS", "+ NASA HISTORICAL DOCUMENTS", "+ NASA REGULATIONS", and "+ NASA PROCUREMENT LIBRARY". Below this is a "Welcome to the NODIS Library" section with a link for "NASA Internal Access". A search area is provided for "Agency Level Directives" with a search box and "Search" button, plus a link to "advanced search". Search instructions are listed: "Enter a single keyword (e.g., flag) or a directive's 4-digit classification number (e.g., 1000)". A list of categories follows: "Complete List of Current Directives (Master List) (Real Time)", "1000-1999 Organization and Administration", "2000-2999 Legal Policies", "3000-3999 Human Resources and Personnel", "4000-4999 Property, Supply and Equipment", "5000-5999 Procurement, Small Business and Industrial Relations", "6000-6999 Transportation", "7000-7999 Program Formulation", "8000-8999 Program Management", "9000-9799 Financial Management", and "9800-9999 Audits and Investigations". A disclaimer states: "These documents lack the force and effect of law, unless expressly authorized by statute or incorporated into contracts. NASA may not cite, use, or rely on any guidance that is not posted on the website existing under the EO 13891, except to establish historical facts. These documents are uncontrolled when printed. Check the NASA Online Directives Information System (NODIS) Library to verify that this is the correct version before use: https://nodis3.gsfc.nasa.gov." A "Comments or Suggestions" section notes: "(Note that we are looking for ways to improve the functionality of the NODIS library, so please limit all entries to suggestions or comments about the system, not requests). Send questions or comments about NASA to Public Inquiries (not related to NODIS)". The footer includes a link for "+ Privacy Policy and Important Notices", the NASA logo, and contact information: "Curator: Cheryl Parker, (202) 358-0252", "NASA Official: Nanette Smith, (202) 358-0819", and "Developed by: Computing & Comm. Division, Code 720".



The screenshot shows the NASA Procedural Requirements page for NPR 7120.5F. At the top right are links for "| NODIS Library | Program Formulation(7000s) | Search |". The NASA logo is on the left, followed by the title "NASA Procedural Requirements" and the subtitle "COMPLIANCE IS MANDATORY FOR NASA EMPLOYEES". On the right, it specifies "NPR 7120.5F", "Effective Date: August 03, 2021", and "Expiration Date: August 03, 2026". The main content area includes: "Subject: NASA Space Flight Program and Project Management Requirements", "Responsible Office: Office of the Chief Engineer", "View all pages in PDF", "Table of Contents", "Preface", and "Chapter 1. Introduction". The "Preface" section lists: "P.1 Purpose", "P.2 Applicability", "P.3 Authority", "P.4 Applicable Documents and Forms", "P.5 Measurement/Verification", and "P.6 Cancellation". The "Chapter 1. Introduction" section lists: "1.1 Key Policy Changes to NPR 7120.5F, Revision F Since Revision E".



# FAA's Investment Planning and Analysis

## Office of Investment Planning & Analysis

### What We Do

The Office of Investment Planning & Analysis supports strategic investment decision-making at the FAA by ensuring major capital investments are supported by robust business cases.

- Primarily works within the Concepts & Requirements Definition (CRD) and Investment Analysis (IA) phases of the Acquisition Management System lifecycle;
- Works with the program offices to validate the shortfall the investment plans to address, properly characterize the urgency of the investment, and review the early cost and schedule estimates used to support budget formulation; and
- Performs detailed reviews of the schedule, cost, and benefits estimates for each of the program alternatives, as well as reviewing the overall business case for the investment, including strategic alignment, acquisition and support strategy, risk, and economic return to the public and the Agency.

The Office of Investment Planning & Analysis also oversees the Agency's major contract procurement decisions, ensuring that each contract action is supported by a business case and that pre-award contract planning is adequate.

These analyses assist the agency in prioritizing competing investments and support a number of stakeholders, including the Joint Resources Council for investment decisions, Capital Budget for the establishment of the investment's Acquisition Program Baseline, the Capital Investment Team for the capital budget formulation process, and the acquisition team through procurement oversight and the Independent Government Cost Estimate.

# NASA's Investment Analysis

- The Strategic Investments Division, (SID), led by Craig McArthur, provides comprehensive, Agency-level strategic analyses and performance assessments to inform institutional and programmatic investment options and decision-making to accomplish NASA's Mission.
- SID develops strategic guidance, manages processes, and provides in-depth Agency investment and capability analyses for deliverables required during each phase of the annual Planning, Programming, Budgeting and Execution (PPBE) process.
- The division is also responsible for NASA's performance management system, assessing trends, cross-cutting issues, risks, and portfolio/program progress, and providing recommendations and input for planning and budgetary decisions.

# Investment Planning and Analysis Deliverables

- FAA's Investment Planning and Analysis
- Schedule Deliverables for IP&A
  - Each Investment Phase has multiple checkpoints with schedule deliverables:
    - “Road To” investment decisions
    - “Waterfall Schedules” i.e., Site Deployment vs. development life cycle (Spiral, Waterfall, Agile etc.)
    - Risk Adjusted Schedules (80<sup>th</sup> percentile)
    - Cost Schedule Cross-Walks
  - All schedules are quality checked for best practices – DCMA 14 Point
  - All schedules are also scrutinized based on historical projects and “gotchas” and feedback is provided in the form of a Comment Response Matrix (CRM)

## Initial Investment Analysis Plan for (Name of Initiative)

### 4.2.5 Schedule Analysis

In conjunction with analyzing cost and benefits, the investment analysis team must develop program schedules and associated subordinate schedules for FAA investment programs. A separate schedule should be developed for each business case alternative and include all major acquisition and programmatic milestones and supporting activities. It should be aligned with the cost and benefit estimates. The FAA has enterprise licenses for Microsoft Project and Primavera P6 which are the preferred scheduling tools. All schedules are assessed and analyzed using the best practices<sup>5</sup> outlined in the Guide to Conducting Business Case Schedule Evaluations.

#### Example:

*A separate schedule will be developed for each business case alternative that will include all major acquisition and programmatic milestones, supporting activities, and be aligned with cost and benefit estimates. The schedules will define, among other things, when work activities will occur, how long they will take, and how they are related to one another. They will be developed in accordance with the Guide to Conducting Business Case Schedule Evaluations.*

# Quick Deltek Acumen Demo – Preparing for IP&A

- Schedule Import / Field Mapping
- Schedule Quality Check / Check Results / Output Report
- Preparing and Running a “Risk Adjusted Schedule” scenario with a tailored output report



# Schedule Acceleration using Acumen 360

- Accelerating Schedules – a real world scenario – Discussion
- Processing a “schedule challenge” scenario in Acumen 360 Demo
- Tailoring a scenario using custom steps
- Comparing Scenarios
- Preparing a scenario output report to help drive acceleration with program stakeholders
- Examining real-world results of a schedule acceleration exercise
  - What can move
  - What can't move
  - Stakeholder schedule buy-in
  - Continued what-ifs

# Conclusions

- Automation can accelerate the preparation and delivery of schedule deliverables
- Access to tools increases the schedule confidence and quality of deliverables
- Access to the schedule acceleration tools helps drive team communications, problem solving, and stakeholder buy-in
- Easy scenario generation allows many “rocks to be turned over” to try many what if options and measure impact to the overall plan

# Questions?

