Migrating a Successful Waterfall Program to Agile: GPS IIF Integrated Mission Operations Service Center Journey

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IIF Sustainment

AGENDA

- Background
- Overview of Issue
- SAFe Approach
- Model-Based Engineering
- Tools
- Challenges to Date
- Summary
BACKGROUND – Air Force Procurement Changes

- Build smaller satellites
- Get the acquisition strategy correct
- Enable teamwork
- Award contracts with realistic cost and schedule targets
- Maintain stability in programs
- Avoid over-classifying
- Deliver ground before launch
- Hold industry accountable for results
- Execute and deliver capabilities that work

Boeing’s approach to the IMOSC specifically addresses four of the nine tenets

SAFe 5 for Lean Enterprise

https://wwwscaledagileframework.com/
IMOSC Modified SAFe Approach

- **Single Team Serving multiple Products**
  - Designated Special Project Lead overseeing all products (Scrum Master/Product Owner)
  - All IMOSC Team Members included in the team, regardless of involvement on specific products
- **Utilize 12-week Program Increment (PI)**
  - Six two-week iterations
  - The last iteration (#6 of 6) is the Innovation and Planning Iteration
- **Modified PI Planning Event**
PI Planning Event

- Adjusted for single team and multiple CGG customers (Business Owners)
- Attendees
  - IMOSC Team
  - CGG representatives for all activities for the next 12 weeks
  - OPS representative
- Duration: 2-3 hours instead of 2 days
- All IMOSC activities have to be addressed
  - Tool Maintenance: updating/developing current tools
  - System Maintenance: audits, user account servicing, etc.
  - Operations: Support of OPS activities
  - Task Orders: Existing and expected during the PI
- Capacity determined using SAFe approaches
- Work in Process (WIP) limited by capacity
- If required, CGG representatives will provide final decision on which priorities to focus on each increment
Baseline 1.0

Baseline 2.0

Baseline 3.0

Branch A

Branch B

Branch C
- **No Magic Systems of Systems Architect**
  - Impact analysis of architectural changes
  - Interface/data exchange identification
  - HTML model exports for review by customer

- **GITLAB Migration**
  - Planning tracking currently using Microsoft Access
  - Starting to use GitLab
  - Utilize Kanban
  - Automated testing for software
Challenges to Date

- Contractual requirements create redundant activities
- Timing of new task orders
- Aligning both team and customer to unified Agile focus instead of current wildfire
- Merging sustainment activities and improvement efforts into the same planning, acting, and tracking mindset.
• **IMOSC**
  - Successfully serving the warfighter
  - Needs to transition from Waterfall to Agile development

• **Transition Accomplished through**
  - Modified SAFe Approach
  - Model Based Engineering
  - Addressing specific tenets of Mr. Frank Cavelli’s acquisition process
THANK YOU
• Slide 3:

• Slide 4:

• Slide 6:
  • https://www.scaledagileframework.com/#