Best Practices in Complex Program Delivery

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PROGRAM MANAGEMENT MUST BE PROPERLY ENABLED

❖ People and skills – human enablers
❖ Processes, tools and practices – capability enablers
❖ Leadership and strategy/mission – alignment enablers
❖ Culture, performance and recognition/rewards – behavioral enablers
INTEGRATED TEAMS
INTEGRATION IS...

- Having a shared set of objectives defined by the success of the overall effort...
- Everyone knowing what those objectives are...
- Clarity and understanding around everyone's roles and how they contribute to achieving the objectives...
- Respecting the value of the others' role and contribution to achieving the objectives...
- Valuing and promoting “collaboration” over “competition”...

INTEGRATION IN PRACTICE:
F/A-18E/F SUPER HORNET PROGRAM

Source: US Navy
### Integration Practices

#### Integration Processes, Practices, and Tools
- WBS based on the product architecture
- Common central database with weekly reporting
- WBS linked to EVMS
- Flow-down budgets to the IPTs with decision-making authority and accountability

#### Organizational Environment
- Leadership at all levels modeled integrated behavior
- IPTs bridged functional groups
- Emphasized effective communication across functional boundaries
- Culture of shared responsibility for outcomes

#### People Competencies
- Leaders selected on experience and ability to foster relationships
- Decisions made by capable people where work is performed

#### Contextual Factors
- Urgent replacement needed
- Program budget was fixed
- Complexity reduced using derivative product strategy and existing relationships
- Mature technologies limited overall program scope

TAILORING CAPABILITIES

- Focus on risk management
- Focus on change management
- Elimination of organization silos
- Interdisciplinary project teams
- Integrating voice of the customer
- Use of iterative practices
- Project task simplification
- Shorter decision/production/review cycles
COMMON ENGINEERING PROGRAM CHALLENGES

1. Insufficient planning
2. Reactive execution
3. Lack of stability, clarity and completeness of requirements
4. Insufficient alignment & coordination of the extended enterprise
5. Value stream not optimized throughout the entire enterprise
6. Unclear roles, responsibilities and accountability
7. Insufficient team skills, unproductive behavior and culture
8. Improper metrics, metric systems and KPIs
9. Lack of proactive management of program uncertainties and risks
10. Poor program acquisition and contracting practices

Source: The Guide to Lean Enablers for Managing Engineering Programs, MIT.
ROYAL AUSTRALIA NAVY ANZAC FRIGATE
ARN ANZAC FRIGATE DESIRED BENEFITS

1. **Cost effective acquisition and sustainment.**
   - Through acquisition of a common electronic support system across several classes of ships.

2. **Accelerated system delivery.**
   - Through careful planning that did not sacrifice safety or quality.

3. **Enhanced workforce capabilities.**
   - Through facilitating leadership and team empowerment.

Desired Benefits

- Cost effective acquisition and sustainment.

Issue Impact on Benefits

- Upfront investment in risk workshops supported program performance and ensured on-time delivery of ES capability
  - Allowed team to quickly deploy planned risk response when targeted ship for early ES deployment was delayed six months due to other repair/service issues.
- Strong integration between Acquisition & Sustainment Program Offices ensured early issue trigger was shared and addressed.
  - Early action allowed for team alignment around response, ensured adequate time for stakeholder and sponsor engagement, and demonstrated alignment with the programme vision to get capability fielded quickly.
Desired Benefits

• Accelerate system delivery.

Issue Impact on Benefits

• Early planning strategy devised “fit for but not with” approach
  – To mitigate technology readiness, team agreed to install cables, foundation for equipment racks, etc. while ships were dry docked with actual technology deployment once ships were out to sea.
  – Provided more time for technology development and testing without impacting schedule.

• Strong integration among contractors reduced integration barriers during actual deployment.
  – Computer simulations allowed for testing of any interfacing component or system early in their development, resulting in a relatively smooth integration and test of actual systems.
**Desired Benefits**

- Enhanced workforce capabilities.

**Issue Impact on Benefits**

- Program leadership guided and enabled, rather than directed.
  - “Dan Keleher understands that his role is to set expectations and let us do our work. He encourages an outcome attitude. He listens to us and does not tell us what we should do. Throughout the entire project, Dan has worked with us instead of against us.”

- Team demonstrated creative problem-solving skills and worked as a collective, empowered group.

- Navy flexed its rules to allow teams greater agility.
  - Early risk workshops, new MEWSPO and other adaptations supported stronger program performance than sticking to the rules.
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