

COMBINING SEVEN IPTS AND TRANSITIONING TO CMMI

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Background

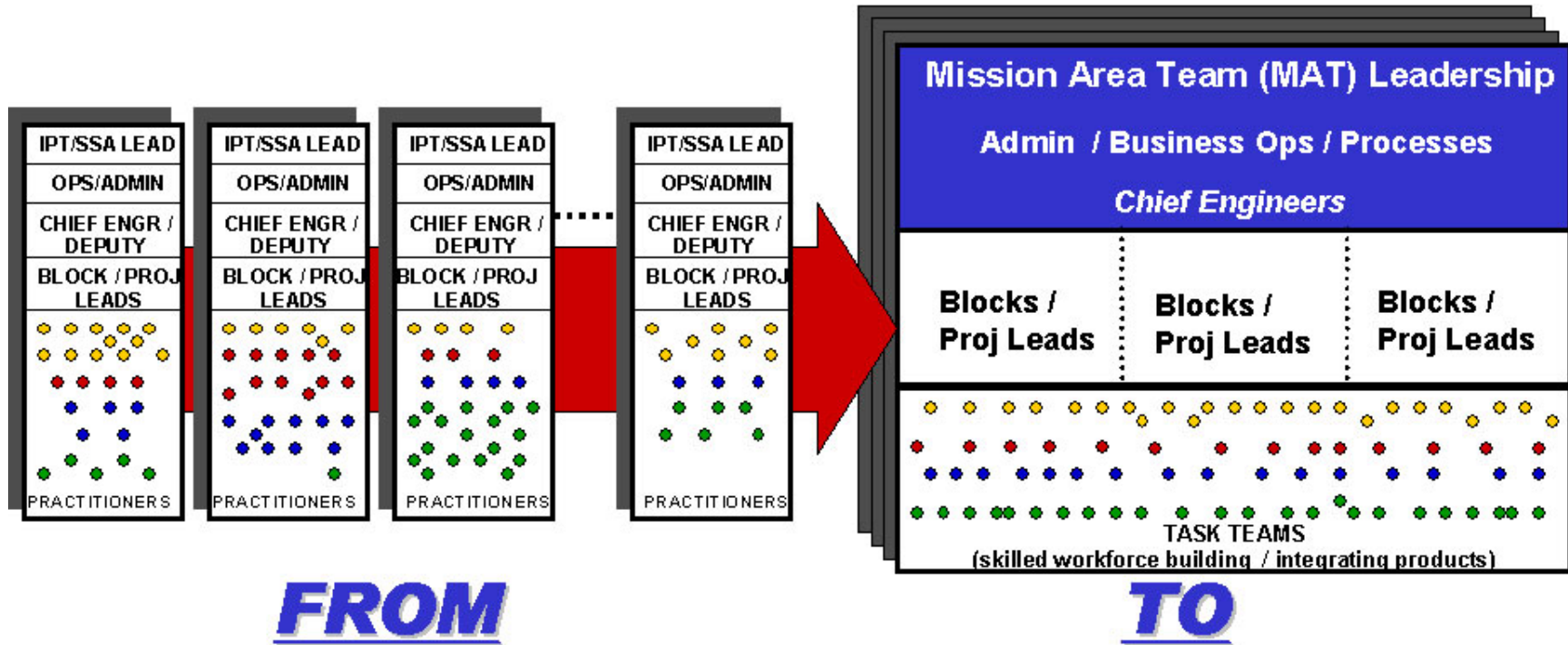
- From a Process Improvement (PI) viewpoint
 - Three (3) major sites
- Scope changed since abstract submitted
 - Added one more large Integrated Product Team (IPT)
- One of four Mission Area Teams (MATs) in NAVAIR
- Built on gains achieved by NAVAIR Software Process Improvement Community of Practice (SPI CoP)
 - All MAT PI Leads knew each other from SPI CoP



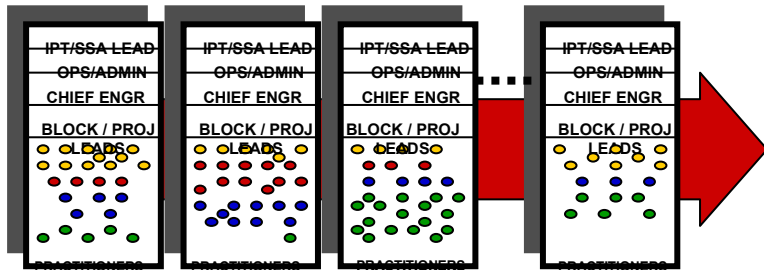
MAT Business Objective

- “The ever-increasing demand on software capabilities requires NAVAIR to exponentially increase its ability to consistently deliver high quality software at minimal cost”
February 2005 MAT/NSSC CONOPS

MAT Architecture



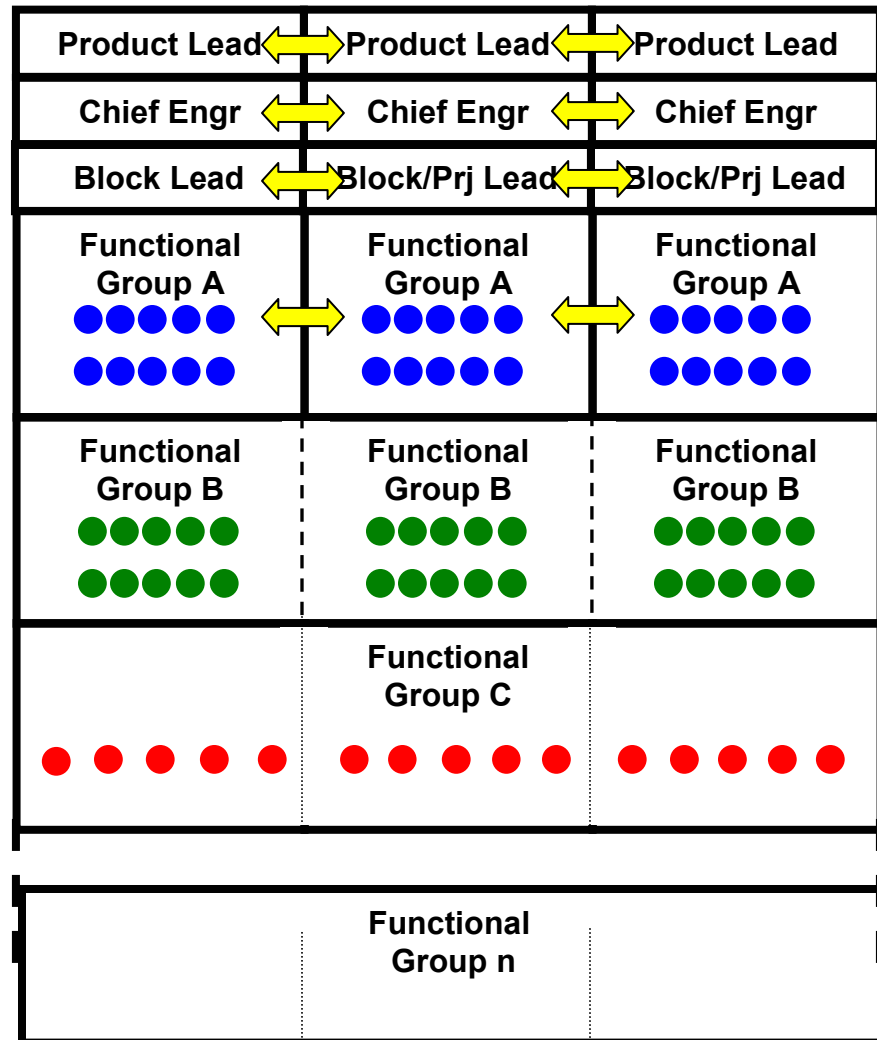
MAT Functional Groups



Certain functional groups will not flow between Product Teams, but we will develop communication bridges to flow information and best practices

Other groups will be available for planning across groups, but will require varying amounts of training to obtain proficiency

Some groups will flow rather seamlessly across the Product Teams



↔ Communication Bridge



MAT Overarching Requirements

- ❑ Acquire, develop, maintain tactical systems software at reduced cost with acceptable risk
- ❑ Continuously improve quality, productivity, responsiveness, and predictability
- ❑ Ensure alignment to fleet requirements

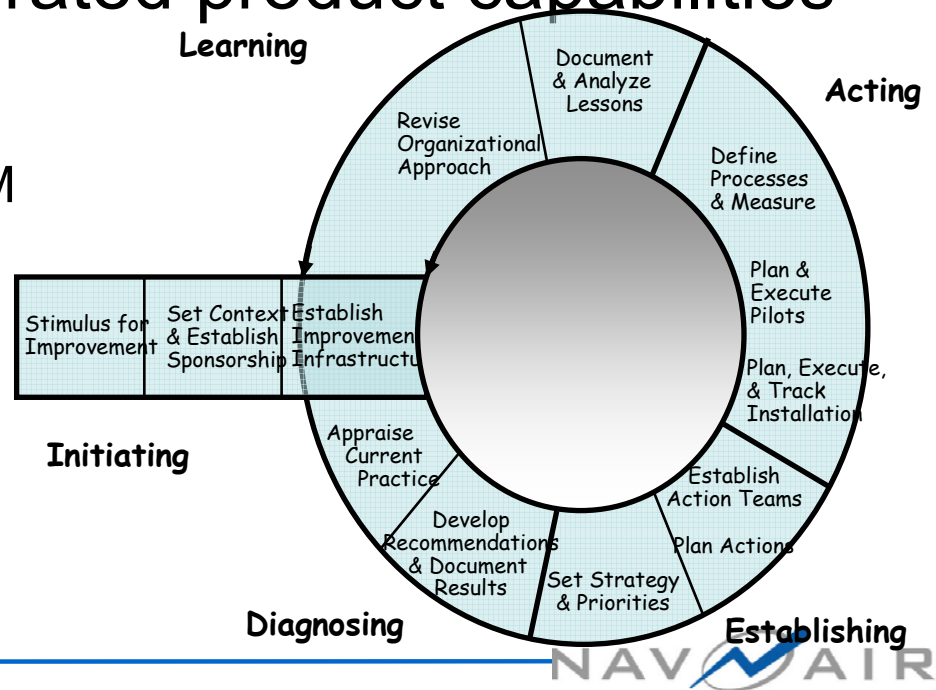
MAT SSEPG

- PI Lead(s) from each of the IPT SSEPGs
- Decision making by consensus so far
- Worked together in SPI CoP by consensus before standing up MAT
- Equal vote for each SSEPG member
- Just hired SSEPG Lead to interface with MAT Leadership team

Aligning PI with CMMI

- ❑ NAVAIR Initiative
- ❑ NAVAIR products integrate software and systems functions
- ❑ CMM ignored integrated product capabilities

- ❑ Using SEI IDEALSM model for initiating, planning, and implementing MAT PI



Aligning PI with CMMI₂

- Continuous representation and equivalent staging OR one huge SCAMPI
 - Determine process areas that apply to each IPT according to mission
 - Ensure MAT coverage across Maturity Level 3
 - Perform Class C gap analysis for each IPT
 - Fill holes
 - Conduct SCAMPI(s)

Chronology & Successes

□ MAT SSEPG allowed to self-organize

- Biggest success enabler
- Facilitation/change management enabled progress
- No major roadblocks
- Each IPT donated PI Lead time to standup MAT SSEPG
- Three co-located PI Leads (already meeting) expanded to include representatives from all seven (7) IPTs



Chronology & Successes₂

□ Meeting 1 -Forming MAT SSEPG

- Each PI Lead introduced self and described PI initiatives within their IPT
- Draft charter
- Consensus decision making process
- Agreed that if IPT PI Lead did not attend or send rep they would live with the decisions made

□ Meeting 2 - Initiating SSEPG

- Each PI Lead expressed ideas for what SSEPG should be
- Decided need SSEPG Lead and set meeting to write job description

Chronology & Successes₃

- ❑ Rotated representation to MAT Leadership meetings (May – Aug)
- ❑ Used virtual meetings
- ❑ Each IPT rewrote PI Plan for 4th quarter FY05 aligned with MAT objectives
- ❑ Leader appointed 9/30/2005

Chronology & Successes₄

- ❑ Strategic Plan – PI objectives aligned with MAT objectives
 - Meeting to produce first draft
 - Comments submitted
 - Online Peer review
 - WG proposed some final changes
 - Baselined 08/25/2005
- ❑ Some members attended special Change Management workshop



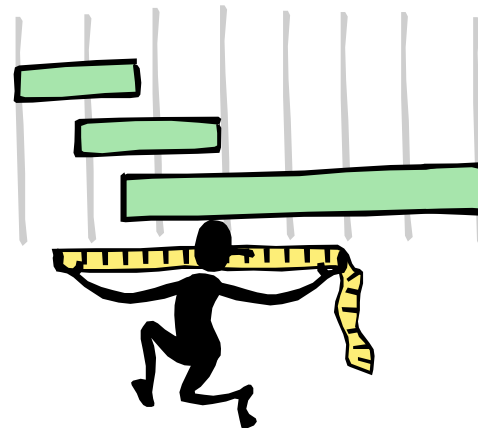
Chronology & Successes₅

□ Tactical planning

- Stakeholder matrix
- Brainstormed improvements to handle first
 - Each IPT prioritized
 - Added up scores of all the IPTs and used to get initial order
 - Proposed some changes in order which were voted and approved by consensus

Next Steps

- ❑ Finish initial planning
- ❑ Begin work on highest priorities
- ❑ Integrate PI with AIRSpeed?
 - Customer Value Added Definition
 - Collect Measures that quantify PI savings



Lessons Learned

- ❑ Getting all PI Leads involved early enabled us to function as a team earlier
- ❑ Resistance melted with communication
- ❑ Change Management Facilitation allowed us to concentrate on the PI



Questions?

Backup Slides

Acronyms

AIRSpeed	Lean Six Sigma and Theory of Constraints
IDEAL SM	Initiating, Diagnosing, Establishing, Acting, and Learning
IPT	Integrated Product Team
MAT	Mission Area Team
NAVAIR	Naval Air Systems Command
PI	Process Improvement
SPI CoP	Software Process Improvement Community of Practice
SSEPG	Systems and Software Engineering Process Group
TOC	Theory of Constraints

Other NAVAIR Initiatives

- ❑ AIRSpeed (Lean Six Sigma with Theory of Constraints)
- ❑ Organizational Change Management

AIRSpeed

- ❑ Customer (Fleet) value-added viewpoint
 - Eliminate waste and time waiting on another process (Lean)
 - Ensure all steps are necessary (Lean)
 - Streamline processes to eliminate bottlenecks and maximize throughput (TOC)
 - Eliminate rework by controlling process (6σ)
- ❑ Realize real savings and recapitalize for investment in future

Organizational Change Management

- Enabler for both CMMI and AIRSpeed
- Train leaders in change management
- Assess current state
 - Awareness
 - Resistance/Obstacles
 - Knowledge and training required
- Plan change and implement plan
- Effective communication
 - Sponsorship
 - Feedback
 - Allow employees to “make a difference”