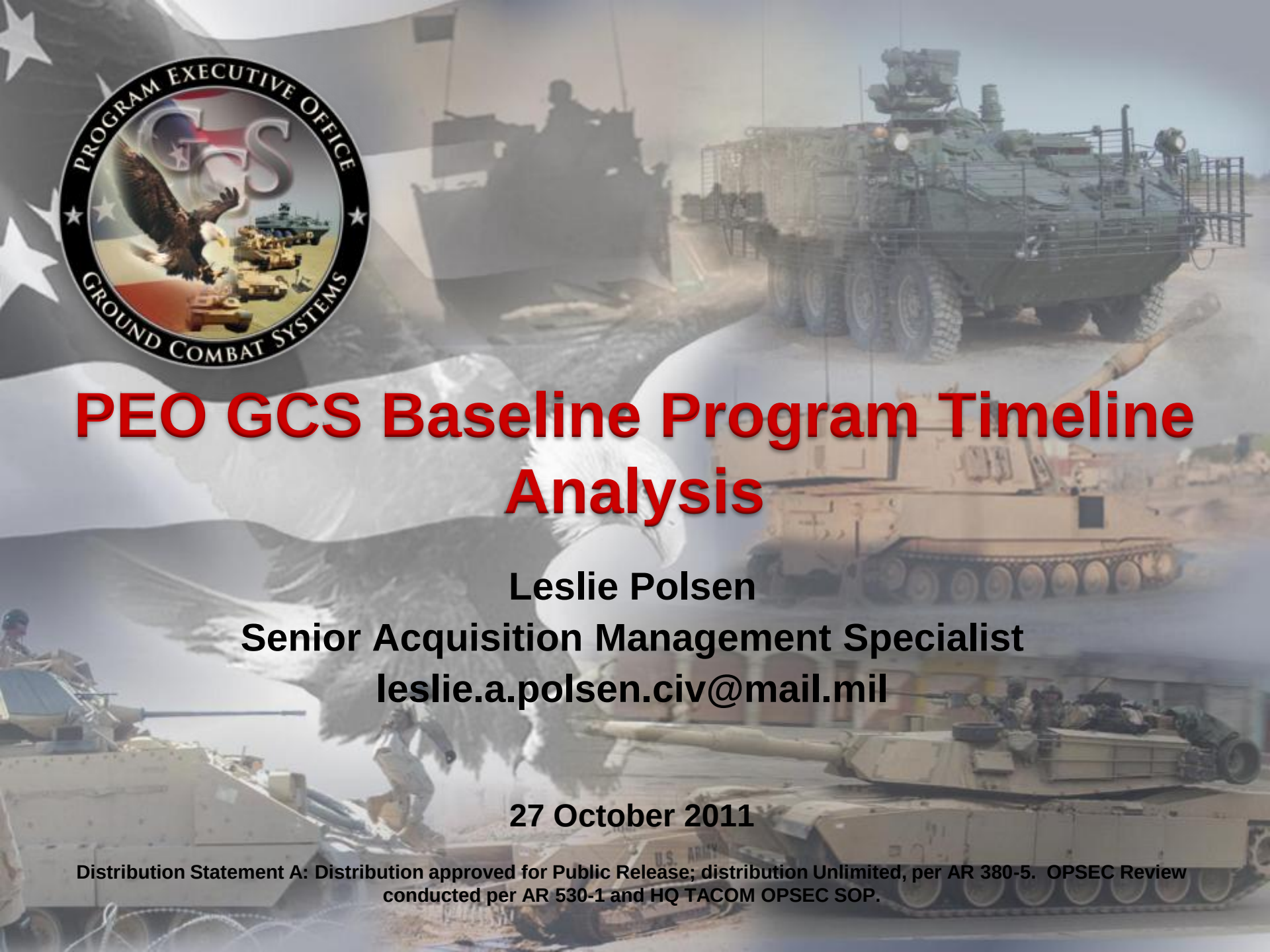

PEO GCS Baseline Program Timeline Analysis

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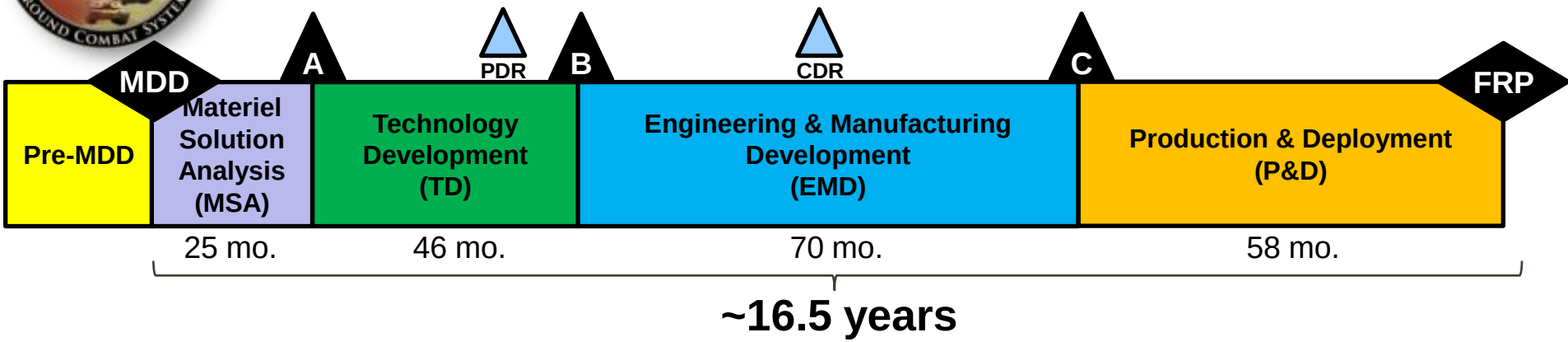
Bottom Line Up Front

- **Environment**: PMs are under constant pressure to find efficiencies and reduce timelines to get equipment to the Solider
- **Today's Perception**: PMs can achieve a significant reduction in acquisition timelines by optimizing design, build and test efforts
- **Today's Reality**: There is a point at which documentation coordination and Army/OSD oversight become the critical path of the acquisition process, no matter how much design, build and test are reduced
- **Bottom Line**: To effectively reduce timelines through the acquisition lifecycle, we need help from Army and OSD Leadership to streamline documentation and review processes

BASELINE PROGRAM

Baseline Program – MDD to FRP



- The Baseline Program is a notional acquisition program created to provide a basis for analysis
- Developed as an ACAT ID new start, single variant ground vehicle system with limited technology development
- Constructed with low to medium risk
  - Activities generally have limited concurrency
  - Document staffing timelines based on PEO GCS experience over the past few years
  - Test and development timelines based on input from subject matter experts
- Adheres to DoDI 5000.02, WSARA, AR 70-1, and New Effectiveness Policy requirements

Based on analysis and assumptions, a low to medium risk ground vehicle program will likely take at least 16.5 years to go from the Materiel Development Decision to Full Rate Production

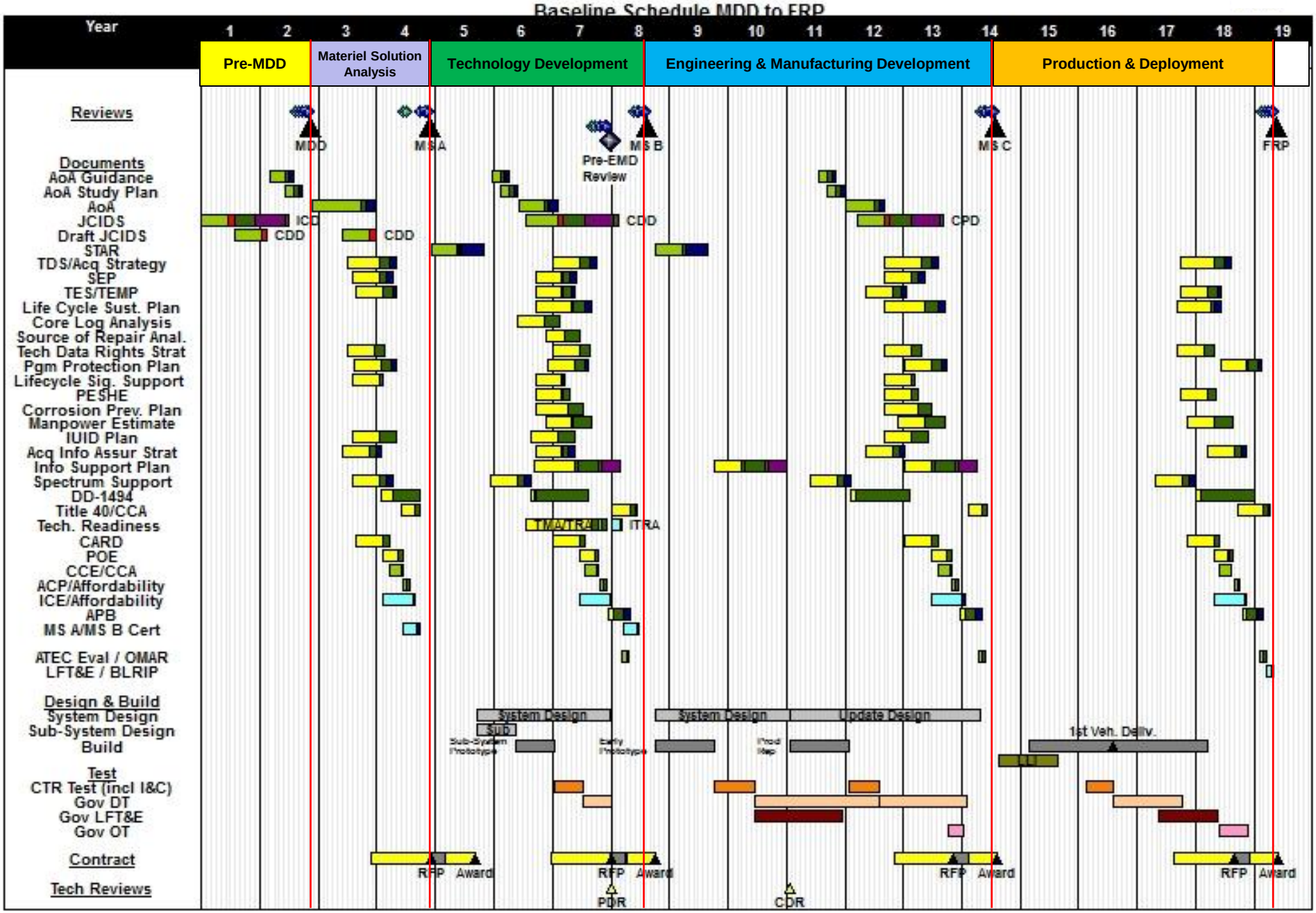
Baseline Program General Assumptions

Documentation Assumptions

- Writing Milestone Documentation and going through WIPT/Stakeholder reviews generally takes 6 months prior to submitting it for approval. "Living documents" should be written earlier and updated throughout the program lifecycle.
- Approval process generally takes:
  - PM: 5 business days, PEO Staff: 5 business days, PEO: 5 business days
  - OASA(ALT)/Army: 20 business days, AAE: 20 business days
  - OSD: 20 business days, DAE: 10 business days
- Approval processes known to take longer (e.g., JCIDS, AoA, cost documentation, etc.) use appropriate extended timelines.
- All documentation (including test evaluations) are due to OSD 45 business days prior to the DAB.

Contracting Assumptions

- There will be a down-select of Contractors between each phase (from 3 to 2 to 1), and long lead is purchased during the previous phase.
- Proposal preparation takes at least 6 months, requests for proposal (RFP) are on the street for 3 months, and negotiation/evaluation takes 6 months.
- There will not be any protests.


Baseline Schedule MDD to FRP
Year
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Pre-MDD
Materiel Solution Analysis
Technology Development
Engineering & Manufacturing Development
Production & Deployment
Reviews
MDD
MSA
Pre-EMD Review
MS B
MS C
FRP
Documents
AoA Guidance
AoA Study Plan
AoA
JCIDS
Draft JCIDS
STAR
TDS/Acq Strategy
SEP
TES/TEMP
Life Cycle Sust. Plan
Core Log Analysis
Source of Repair Anal.
Tech Data Rights Strat
Pgm Protection Plan
Lifecycle Sig. Support
PESHE
Corrosion Prev. Plan
Manpower Estimate
IUID Plan
Acq Info Assur Strat
Info Support Plan
Spectrum Support
DD-1494
Title 40/CCA
Tech. Readiness
CARD
POE
CCE/CCA
ACP/Affordability
ICE/Affordability
APB
MS A/MS B Cert
ATEC Eval / OMAR
LFT&E / BLRIP
ICD
CDD
CDD
CDD
CPD
ITRA
Design & Build
System Design
Sub-System Design
Build
System Design
Update Design
Sub
1st Veh. Deliv.
Test
CTR Test (incl I&C)
Gov DT
Gov LFT&E
Gov OT
Contract
RFP
Award
RFP
Award
RFP
Award
RFP
Award
Tech Reviews
PDR
CDR

NULL PROGRAM

Null Program Concept

- Acquisition Programs of Record take a significant amount of time to complete
- The perception is that the acquisition community should be able to develop and field systems faster than is currently achieved
- The acquisition community hypothesis is that much time is spent conducting activities that do not add value to the end product, such as excessive review cycles or document staffing
- To test the hypothesis, the Baseline Program was analyzed to determine what would happen if—
  - There were no system to develop or test?
  - All the documents only took one day to write?

<u>Null Program attempts to answer the question</u>:
What impact does documentation and staffing have on the critical path?

Null Program Analysis

	Pre-MDD	MDD / MSA	A / TD	B / EMD	C / P&D	FRP
Part 1: Establish a Baseline Program (BP)		26 mo.	34 mo.	70 mo.	58 mo.	
		~16.5 years				
Part 2: Determine the BP duration if just Design, Build and Test activities are performed by setting the duration of all other activities to zero		0 mo.	28 mo.	65 mo.	46 mo.	
		~11.4 years				
Part 3: Generate a "Documents and Reviews Only" (DRO) schedule by setting the duration for Design, Build and Test activities in the BP to zero		25 mo.	36 mo.	38 mo.	23 mo.	
		~10.0 years				
Part 3a: Using DRO, further limit activities (DRO-L) by setting contracting activity durations to zero and reducing time to write documents to one day		14 mo.	24 mo.	24 mo.	17 mo.	
		~6.4 years				
Part 3b: Using DRO-L, further limit activities by setting the duration for staffing JCIDS, Analysis of Alternatives, and Spectrum Frequency documents (current critical path activities) to zero		7 mo.	21 mo.	19 mo.	11 mo.	
		~4.8 years				
Part 4: Determine major timeline drivers		Docs & Reviews	Docs & Reviews and Design, Build & Test	Design, Build & Test	Design, Build & Test	

Critical Paths

	Materiel Solution Analysis	Technology Development	Engineering & Manufacturing Development	Production & Deployment
Baseline Program	AoA ➔ TDS & SEP ➔ Reviews	Contracting ➔ Design & Build ➔ Test ➔ Test Evals ➔ MS B Cert ➔ Reviews	Contracting ➔ Design, Build & Test (2x) ➔ Test Evals ➔ Reviews	Design, Build & Test ➔ Test Evals ➔ Reviews
Documents & Reviews Only (No Design or Test)		AoA Guidance ➔ AoA Plan ➔ CDD ➔ APB ➔ MS B Cert ➔ Reviews	ISP (CDR) ➔ ISP (MS C) ➔ CCA/Title 40 ➔ Reviews	AS & MER ➔ CARD ➔ Cost Estimates ➔ APB ➔ CCA/Title 40 ➔ Reviews
Staffing & Reviews Only (1 Day to Write Documents, No Contract, Design or Test)	AoA ➔ Spectrum Supportability Risk Assessment ➔ DD-1494 ➔ Reviews		AoA Guidance ➔ AoA Plan ➔ CDD ➔ APB ➔ Reviews	Spectrum Supportability Risk Assessment ➔ DD-1494 ➔ Reviews
Staffing & Reviews Only (No JCIDS, AoA or DD-1494) (1 Day to Write Documents, No Contract, Design or Test)	TDS & Cost Estimates ➔ CCA/Title 40 ➔ Reviews	STAR ➔ AIAS ➔ ISP ➔ CCA/Title 40 ➔ MS B Cert ➔ Reviews	ISP (CDR) ➔ ISP (MS C) ➔ CCA/Title 40 ➔ Reviews	AS & MER ➔ CARD ➔ Cost Estimates ➔ APB ➔ CCA/Title 40 ➔ Reviews

Observations: Null Program

- PMs must first know what a “low risk” program looks like to understand schedule risk and mitigate it
- Each phase has different schedule drivers
- Reducing the design and test timeline still leaves a substantial amount of time associated with other programmatic activities
  - JCIDS documents and their staffing tend to be part of the critical path
  - Certifications, which require input from other documents, tend to be part of the critical path
  - Contracting timelines drive the start of design and build work during each phase
- Schedule risk can be mitigated by reducing and controlling the timelines associated with reviews and staffing

When constructing program timelines, PMs must consider schedule drivers in each acquisition phase

Conclusions

- Army and OSD coordination and oversight activities impact critical path
- PMs need help from the Army and OSD to help reduce timelines and manage expectations
- Army and OSD should establish and document repeatable, accelerated processes for Milestone documentation and staffing
  - Help programs to establish more robust schedules
  - Help to determine potential impacts to programs' schedules of implementing new policy and mitigate the effects
- Army and OSD should look across all "Big A" processes to reduce development and fielding timelines

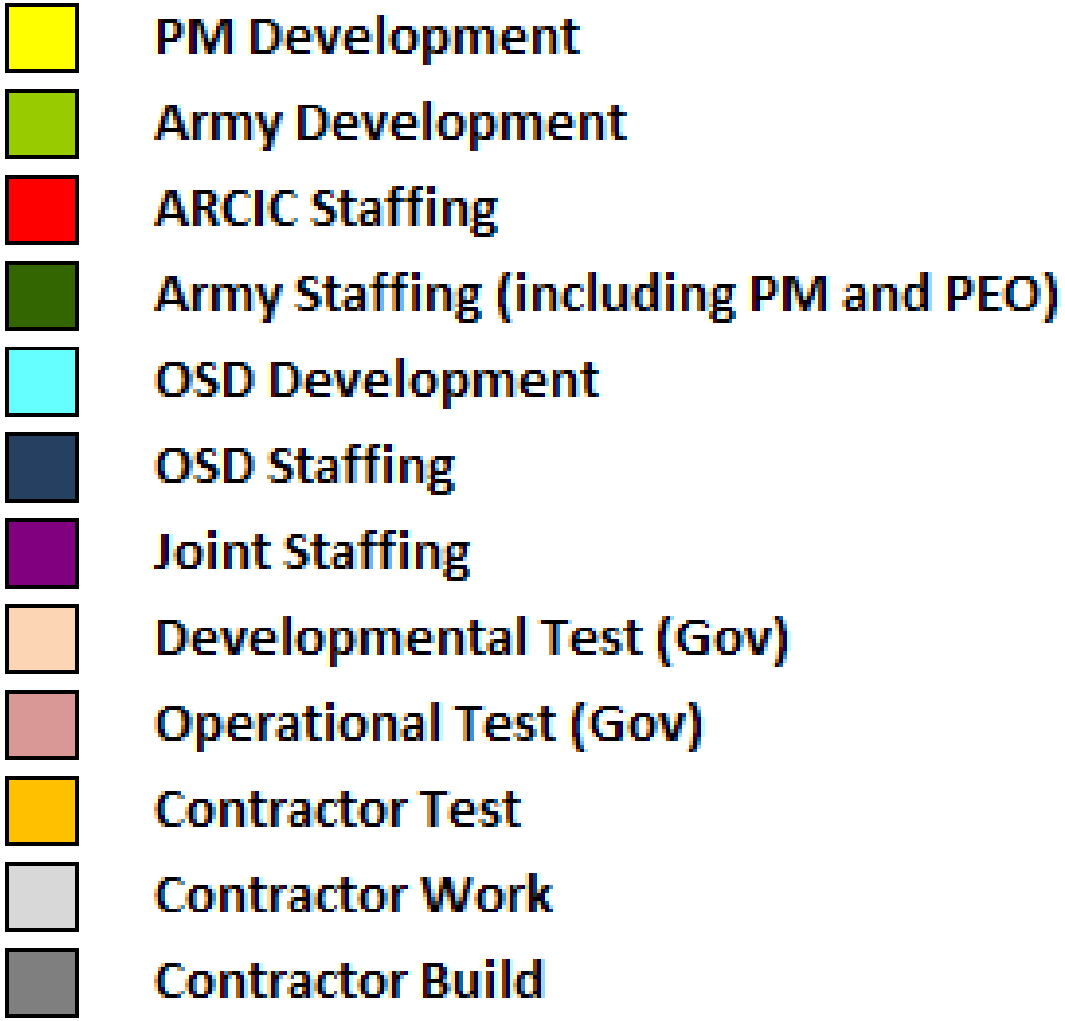
PMs, Army and OSD must work jointly to reduce major timeline drivers

BACK-UPS

Acronym List

- AAE – Army Acquisition Executive
- ACAT – Acquisition Category
- ACP – Army Cost Position
- AIAS – Acquisition Information Assurance Strategy
- AoA – Analysis of Alternatives
- APB – Acquisition Program Baseline
- ASA(ALT) – Assistant Secretary of the Army for Acquisition, Logistics and Technology
- ATEC – Army Test and Evaluation Command
- CARD – Cost Analysis Requirements Description
- CCA – Clinger-Cohen Act
- CCE/CCA – Component Cost Estimate / Component Cost Analysis
- CDD – Capability Development Document
- CDR – Critical Design Review
- CPD – Capability Production Document
- CTR - Contractor
- DAE – Defense Acquisition Executive
- DT – Developmental Test
- I&C – Integration and Checkout
- ICD – Initial Capability Document
- ICE – Independent Cost Estimate
- ISP – Information Support Plan
- ITRA – Independent Technology Readiness Assessment
- IUID – Item Unique Identification
- JCIDS – Joint Capability Integration Development System
- LSSP – Lifecycle Spectrum Support Plan
- MDD – Materiel Development Decision
- MS – Milestone
- OMAR – Operational Test Agency Milestone Assessment Report
- OT – Operational Test
- PDR – Preliminary Design Review
- PESHE – Programmatic Environment, Safety and Occupational Health Evaluation
- POE – Program Office Estimate
- RFP – Request for Proposal
- SEP – Systems Engineering Plan
- STAR – System Threat Assessment Report
- TDS – Technology Development Strategy
- TEMP – Test and Evaluation Master Plan
- TES – Test and Evaluation Strategy
- TMA – Technology Maturity Assessment
- TRA – Technology Readiness Assessment
- WIPT – Working Integrated Production Team
- WSARA – Weapon System Acquisition Reform Act

Baseline Program Key



OSD Process Effectiveness Policy

Source: https://dap.dau.mil/policy/Lists/Policy%20Documents/Attachments/3293/20110623-ImproveMilestoneProcess.pdf 6/23/2011