

Impaired Programs – A New Review Process

May, 2012

Impaired Program Performance



- DoD development programs frequently become impaired and if the causes are not identified and addressed, the programs do not achieve demonstration goals or worse still, risk being cancelled
- Symptoms of impairment in hi-risk/hi-pay-off development programs are not easily recognized:
 - Remain mostly transparent to program management
 - Be ignored in the hope that they will self-improve
 - Be shelved since there is no way to uncover them without incurring unhappiness
- There is an opportunity to facilitate a tailored non-advocate review (NART) to a variety of DoD R&D agencies (e.g. ASD(R&E), DARPA, ONR, AATD, NAVAIR etc)

"Take care, sir," cried Sancho. "Those over there are not giants but windmills."



Challenged Programs

Courtesy Boeing



- JSF – Production (LRIP) allowed to lead development – incipient weight growth issue
- V-22 – Inherent aerodynamic issue: Vortex-ring
- A160 – Program not executable
- CRW – Flawed conceptual design – inherent flight control authority limitations
- Morphing Aircraft Structures – “Bust budget” – weak management control

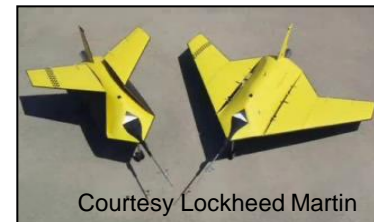
Large/ACAT



Intermediate



Small S&T



Where Are The Primary Failings Found?



- Management :
 - Contractor
 - Government
- Programmatic
 - Plan - none
 - Schedule – missed m/s
- Technical:
 - Weak concept
 - Approach
 - Integration issues
 - Risk
 - Test/demonstration
- Costs /Funding Issues
 - Executability
 - EVM



From the Movie: Photo by Jon Seagull

“..... we finally really did it. *You maniacs. You blew it up*” – Program Teams Cause Program Failures

Independent Review, Beyond Vested Interests, Is Usually The Best Way Of Determining Program Impairment And Prognosticating Future

A New Approach To Independent Review



- Independent non-advocate program review, able to look beyond symptoms and identify causes
- Structured
- Conducted under aegis of Gov. PM but able to unlock non-advocate value with fullest access – neutralize defensiveness
- Identifies causes of impaired program performance, prognostics and suggest remediation options
- Non-advocate review team expertise to see through the clutter and establish facts
- Provide clear diagnosis to Gov. PM



Structured Non-Advocate Review Process

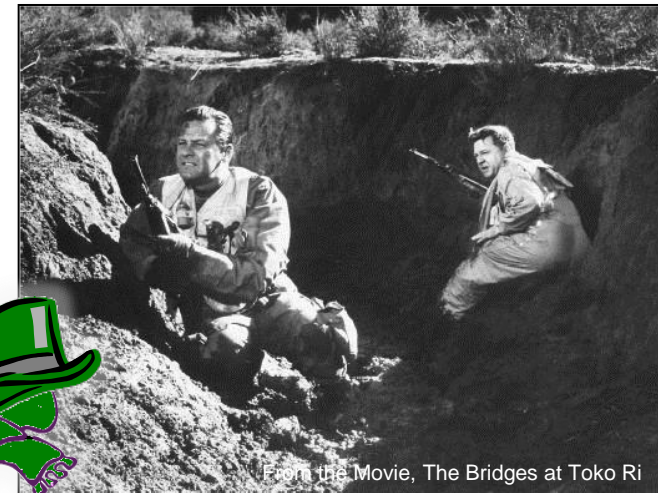


- Idea is to provide a structured Non-Advocate Review Team process service to Government program management to detect and identify program performance problems and provide advice to set up for recovery, improvement or in a worst case, termination
- Based on A160 Program non-advocate review
- To be characterized as:
 - Operates under the aegis of the PM
 - Fast response
 - Sensitive to the issue of management credibility
 - Providing critical understanding of programmatic and technologies
 - Providing review decision off-ramps
 - “Deep Dive” review is a Government-Contractor cooperative effort that assesses program performance in a *without prejudice* forum
 - Generates findings to support Executive Management decision
- Initiated by PM concerns – leads to a “Quick Dive” review by a small focus team – Deep Dive if warranted

When Conducted – What Are The Triggers?



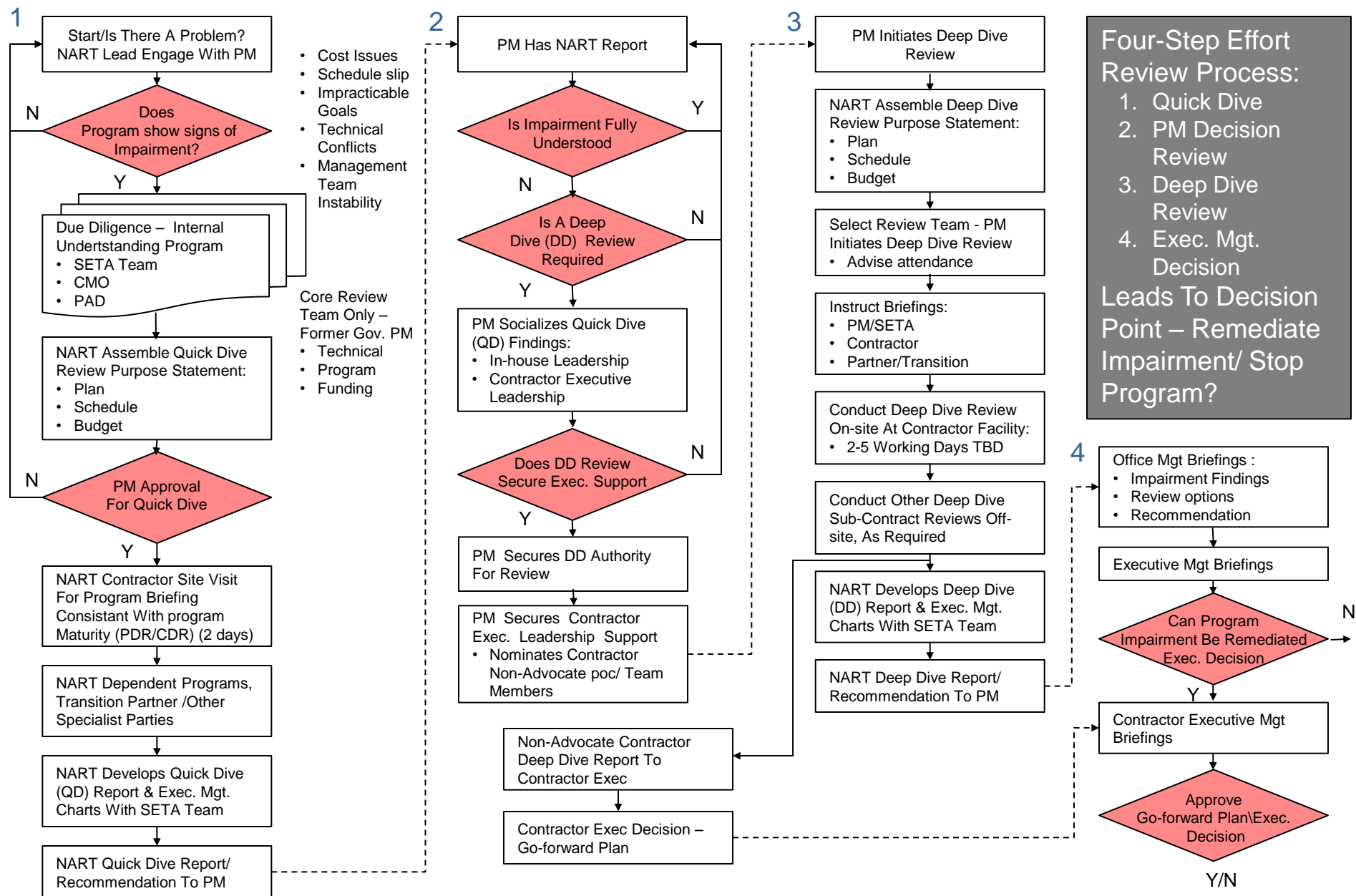
- When programs lose inertia
- When there are symptoms indicating such as:
 - Technical issues not being resolved
 - Schedule overruns
 - Plans inadequate/failing – program won't achieve goals
 - Insufficient budget – initially flawed, cost growth or change in scope
 - Development team technical or management weaknesses
 - Goals proven unrealistic, cannot otherwise be closed or scope/ requirements have been allowed to grow
- After a major failure – test or accident indicates something is wrong – under threat of outside inquiry
- When a formal program review has shown the need for a “deep-dive” – noting that formals often fail to uncover incipient failure



From the Movie, The Bridges at Toko Ri

...but before any need to die in a ditch

Impaired Program Remediation– Business Model



Program Impairment – Review Planning Schedule (Notional)



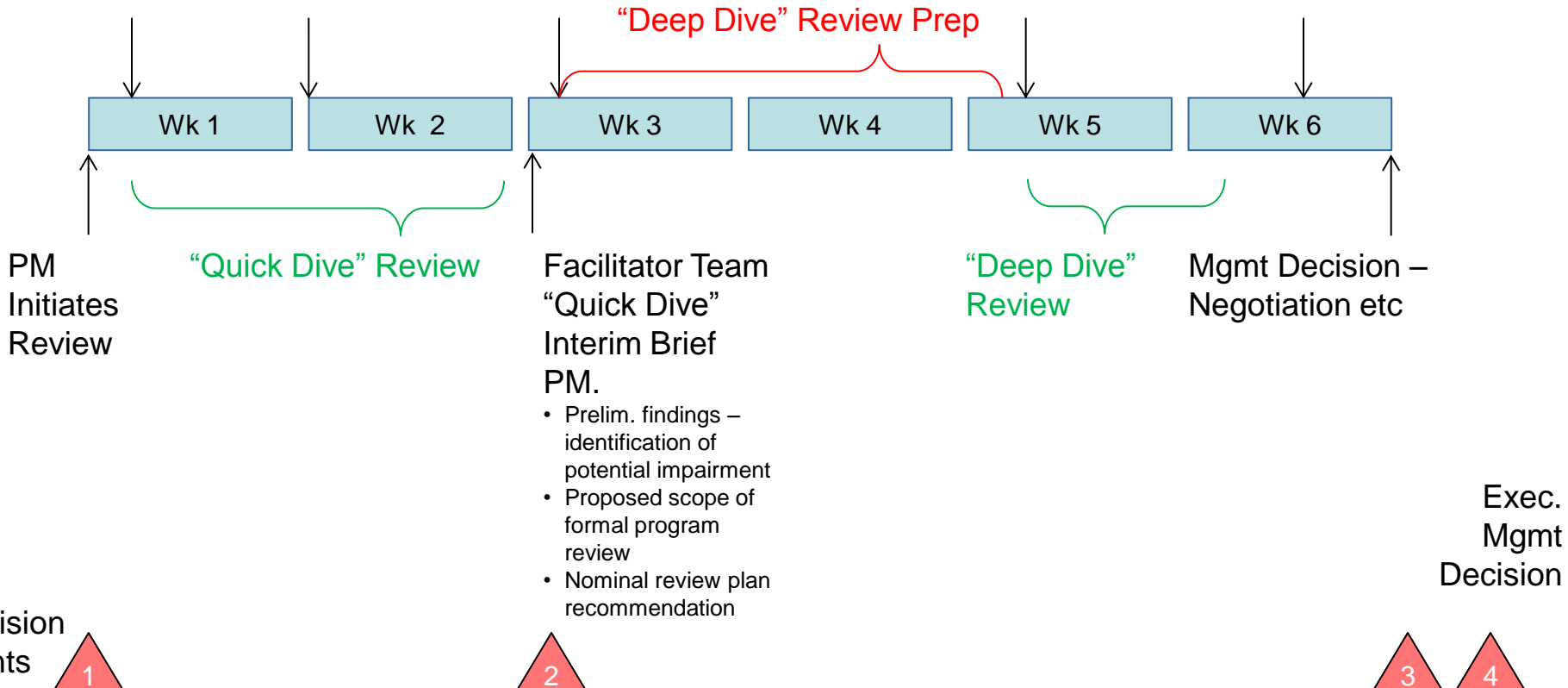
Facilitator Team /Gov.
 • Gov. PM
 SETA Team
 Specialist
 Transition
 Partners

Facilitator Team /Contractor
 • Facilitator Team + SETA for “Quick Dive” - Review Briefings –On-site at Performing Contractor

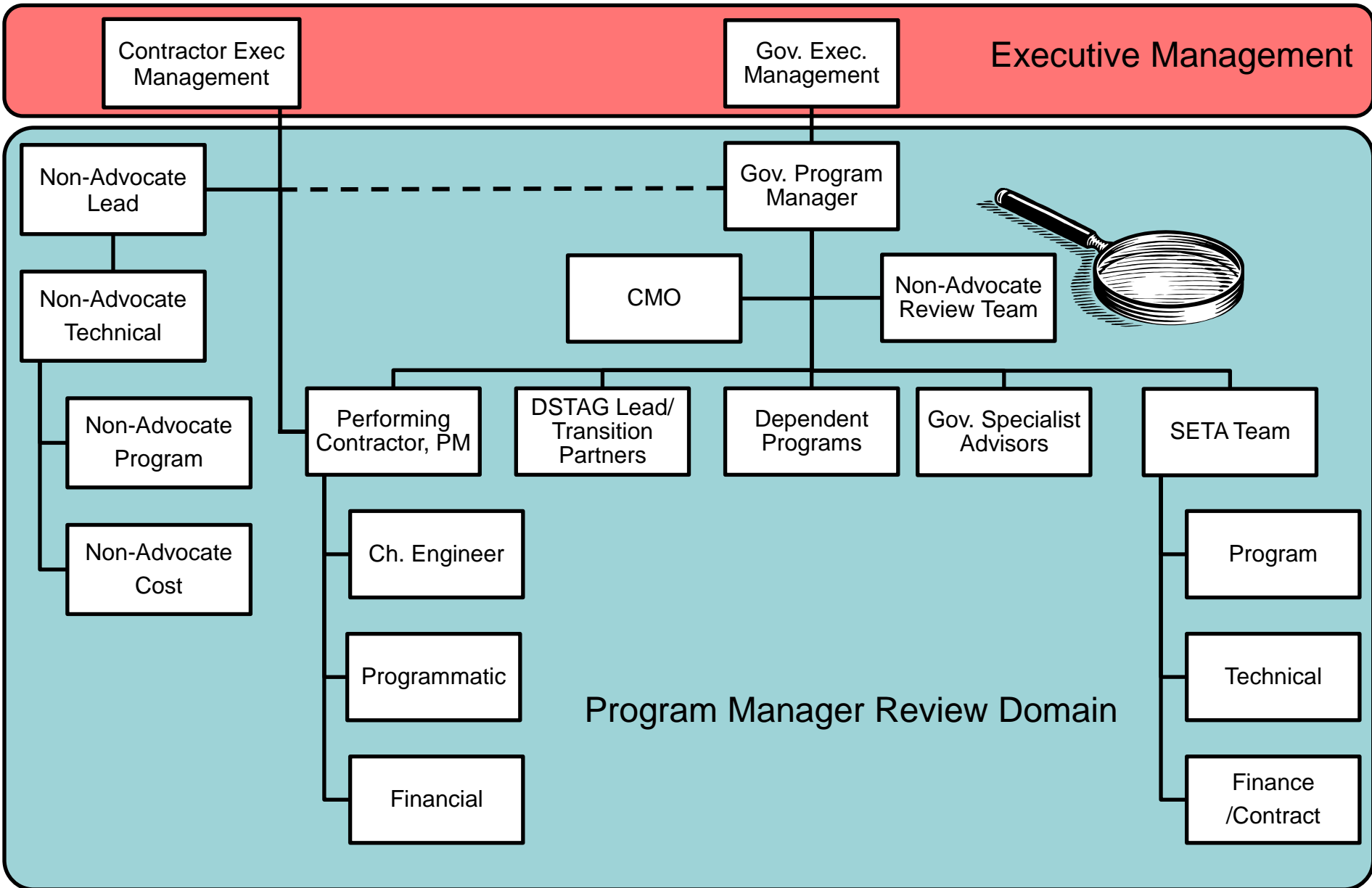
PM Decision/Initiates “Deep Dive” Prep.
 • Facilitator Team
 • Contractor
 • SETA
 • Dependencies
 • Others

1-5 Review At Contractor Site
 • Review briefings
 • Impairment issues identified
 • Go-forward options identified

Facilitator Report → PM Internal Mgmt Rpt With Options.



Program Impairment – Management Tree



Program Impairment – Quick Dive Review



- Informal review process to establish by limited review team (nom. 2-4 + SETA):
 - Whether symptoms of program impaired function are substantive
 - What nominal causes may exist
 - Establish recommendations or otherwise for scope of a Deep Dive review
- Develop and provide a report and supporting evidence/material to the Gov. PM in support of his/her decision for next steps

	Day 0	Day 1	Day 2	Day 3	Day 4
Week 1	Meeting With PM: <ul style="list-style-type: none"> • Decision to conduct “Quick Dive” review • Contractor tasking – Week 2 Facilitator Team on-site • PM Program team on notice 	SETA Program Discussion: Session 1: <ul style="list-style-type: none"> • Requirements and Transition Plan • Contract Overview • Funding Session 2: <ul style="list-style-type: none"> • Program documentation 	Program Discussions: Session 1: <ul style="list-style-type: none"> • PM Session 2: <ul style="list-style-type: none"> • Technical SETA Briefings Session 3: <ul style="list-style-type: none"> • Financial SETA Briefings 	Program Discussions: Session 1: <ul style="list-style-type: none"> • CMO discussion • Contract • Financial Session 2: <ul style="list-style-type: none"> • Program specialists • Other interests • Dependent programs 	Program Discussions: Session 1: <ul style="list-style-type: none"> • Transition partners • DSTAG
	Day 5	Day 6	Day 7	Day 8	Day 9
Week 2	Contractor Site Program Briefings/Discussions: Session 1: <ul style="list-style-type: none"> • Contractor Management meeting • Requirements/goals Session 2: <ul style="list-style-type: none"> • PM Technical Overview/discussion 	Contractor Site one-on-one Program discussions: Session 1: <ul style="list-style-type: none"> • Technical Briefings • Technical team Session 2: <ul style="list-style-type: none"> • Documentation review Session 3: <ul style="list-style-type: none"> • PM program discussion 	Contractor Site one-on-one Program discussions: Session 1: <ul style="list-style-type: none"> • Technical Briefings Session 2: <ul style="list-style-type: none"> • Contract • Financial Session 3: <ul style="list-style-type: none"> • PM discussion 	Contractor Site Program Briefings: Session 1: <ul style="list-style-type: none"> • Programmatic issues • Funding Session 2: <ul style="list-style-type: none"> • Oh by the ways Session 3: <ul style="list-style-type: none"> • PM discussion 	Review Material and write report/chart sets : <ul style="list-style-type: none"> • Review findings • Protected: <ul style="list-style-type: none"> • Gov. • SETA • Contractor

Program Impairment – Deep Dive Review



- Definitive diagnostic review process to establish causes and potential remediation action for an impaired program
- Deep Dive review is conducted over 4-5 working days at the Contractor site and in Gov. program offices – assumes two-weeks prep. effort
- Day 5 separates Gov. and Contractor caucus sessions and in-house reports

	Day 0	Day 1	Day 2	Day 3	Day 4
Week 1		Contractor Site Program Briefings: Session 1: <ul style="list-style-type: none"> • Review Teams Caucus • Requirements and Transition Plan • Contract Overview • Funding Session 2: <ul style="list-style-type: none"> • Programmatic Issues 	Contractor Site Program Briefings: Session 1: <ul style="list-style-type: none"> • Technical Briefings Session 2: <ul style="list-style-type: none"> • Technical Briefings Session 3: <ul style="list-style-type: none"> • Breakout meetings and discussions 	Contractor Site Program Briefings: Session 1: <ul style="list-style-type: none"> • Technical Briefings Session 2: <ul style="list-style-type: none"> • Contract • Financial Session 3: <ul style="list-style-type: none"> • Breakout meetings and discussions 	Contractor Site Program Briefings: Session 1: <ul style="list-style-type: none"> • Contract • Financial Session 2: <ul style="list-style-type: none"> • Programmatic Issues Session 3: <ul style="list-style-type: none"> • Breakout meetings and discussions
	Day 5	Day 6			
Week 2	Program Office Briefings - On Site (Washington): <ul style="list-style-type: none"> • Dependent programs • DSTAG outbrief & Discussions • Telecon with Contractor Non-advocates Discussions and finalize Issues arising and recommendations	Review Reports and Chart Sets with SETA team and submit to Program PM: <ul style="list-style-type: none"> • General review findings • Protected: <ul style="list-style-type: none"> • Gov. • Contractor 			

Non-Advocate Review Team



- Around 3-8 specialists?
- Tailored with relevant expertise to individual program reviews:
 - Graybeards
 - Contracts/Finance (EVM expertise)
- Stature for credibility
- Availability issue – will need a specialist bank to draw on; available quickly
- Specialists:
 - Programmatics - transition
 - Contract – finance - EVM
 - Systems
 - Avionics/radar/comms
 - RW, FW, , UAVs, engines
 - Robotics
 - need multi-disciplinaries

Non-advocate Graybeards – With An Attitude – Arrive To Find And Diagnose Program Problems!



Viking Warrior Giclee Print; English School
Printed in Golden Miscellany ~ 1925
Buy at AllPosters.com

Who Are Customers?

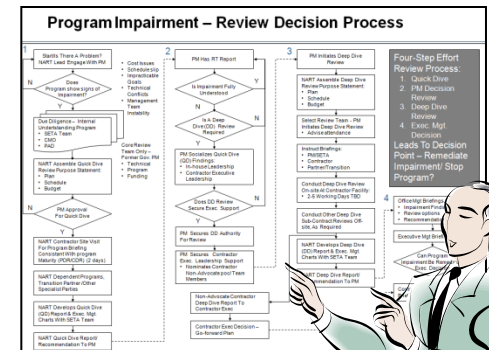


- Size at start-up is an issue e.g. to attempt F-35 problems could present an overmatch
- Mid-size programs better – under organizations such as:
 - ASD(R&E):
 - DARPA:
 - IARPA
 - ONR
 - FAA
 - AMRDEC/AATD
 - NAVAIR
 - NASA
- Others?

Marketing - Identify potential programs



- Size and complexity of programs are important factors in determining whether a team review is appropriate
- Bigger programs usually have more potential to get into trouble – multiple technologies, funding (EVM), time etc
 - Midsize programs
 - Large programs
- Need to build wherever there is existing credibility
- Smaller programs, Seedlings and SBIRs may require a different approach (not dealt with here)
- Places to try e.g. DARPA, IARPA, ARPA-E, ASD(R&E), NASA, AMRDEC
- Future – Program spotting: ASD(R&E)(UAV); ONR; NASA (Space); AFRL (ADVENT); SMDC (LEMV)etc



- Programs get into trouble – all programs get into trouble and either under-perform or fail
- Signs or symptoms of program impairment often remain hyperopic to program managements or are tolerated for too long
- A formal and structured non-advocate review process, available to and under the aegis of the Government program manager, can identify the causes and recommend remediation steps
- By including Contractor Executive nominated non-advocate team members, the review process efficacy and chances of successful program remediation greatly enhanced
- Ultimate program recovery usually involves contractual issues/ negotiation and this review process establishes a cooperative and conducive forum to reach agreement