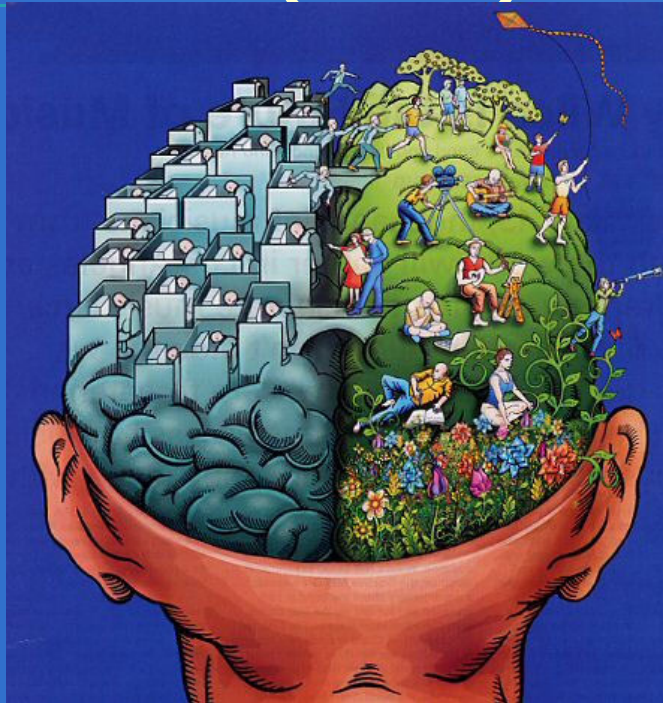


H-1 Weapons System Support Activity (WSSA)



From Both Sides: TSP from Within & Beyond

Presenter:

Susan Weaver
AH-1W Block Manager
susan.weaver@navy.mil





Background

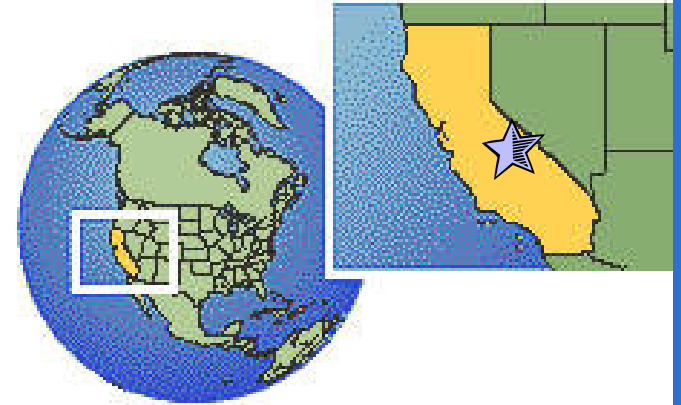
Two years ago my presentation was on how TSP was not meeting my personal expectations as a Project Lead just outside TSP

- Feedback indicated brief was well received as more than just another success story
- At the same time, many walked away believing I did not find TSP valuable
- So, the question becomes what did we do differently...if anything



Context

The H-1 WSSA at China Lake, California develops updates to the AH-1W



Cobra 3 System Configuration Set (SCS) has just been Fleet released

Cobra 4 SCS is in design phase

Team consists of co-located government/contractor, team using common process



Updates to Team

- 5 software engineers
 - 3 other platform expertise
 - 2 industry background
- 5 system testers
- Cobra 3 was my first project manager experience
- TSP background
 - 2 completed projects
 - TSP standard for in-house developments
 - 2 in-work projects
 - PSP training provided for all sw engineers
 - TSP coach same as previous
 - Project manager training obtained





TSP: From Just Beyond

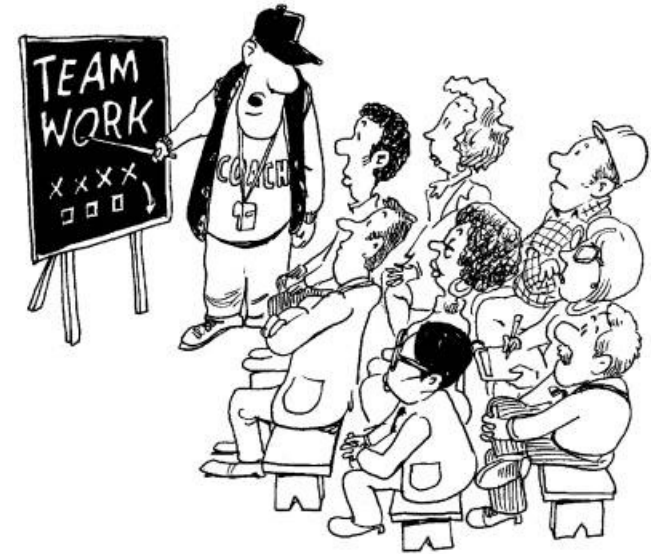
Cobra 3





My TSP Expectations for Cobra 3

- Easy visibility into product status
- Clear points of contact & responsibilities
- Clear information on resource & product issues
- Consistent, timely, & meaningful metrics
- SW input based on & supported by metrics
- Metrics aiding effective project decisions
- Data for use at milestone reviews
- Cohesive SW team



**Same expectations
for Cobra 4**

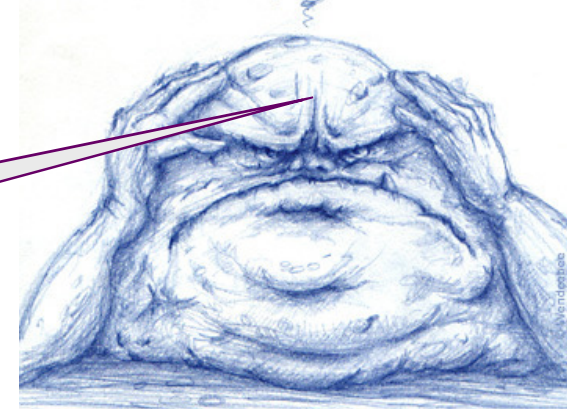
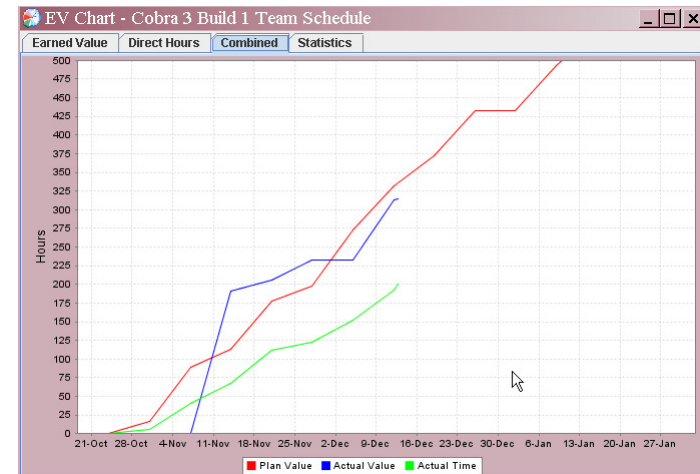


What I Observed in Cobra 3

TSP plan too high-level for effective project management

- Task/Product Allocation
- Detailed plan invisible
- Support of milestone review dates
- Resource Leveling

What products will not be ready if milestone is held on XXX?



Frustration

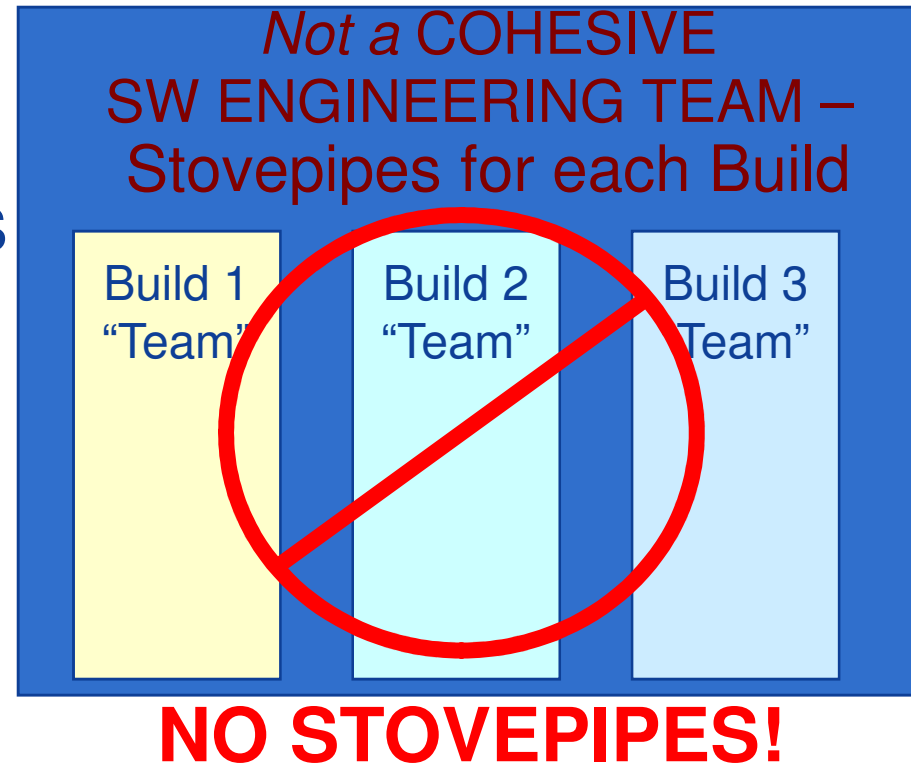
SW engineers
Project lead
Cobra 3 Team

**Cobra 4 Built Milestone
Dates into TSP Plan**



What I Observed in Cobra 3

- Separate Build teams
- Varying levels of Build ownership
- SW engineers did not trust metrics
- Believed I had more visibility into status
- We'll tell you when we're ready
- Re-plan thresholds not used





What I Observed in Cobra 3

- Build interdependencies overlooked
- TSP data not used to answer questions on schedule, product status, task allocation, etc.
- Nature is to work a complete change from start to finish
- Reliance on LOC estimates to derive effort estimates does *not* encourage team members to participate in any tasking not related to LOC
- TSP structure communication & coordination problematic
 - Use of a technical “Lead” for expertise & communicate to the project lead can lead to a “gate-keeper”
 - Tasking & random pieces of data supplied to the project lead without a clear understanding of the context



What I Observed in Cobra 3

- Did not benefit from **“Forming, Storming, Norming, Performing”**
- TSP does not address team dynamics
 - Assumes mature team
 - Individual preferences
 - Culture & experience
 - Personnel performance
- Standard process does not include project lead
- Metrics not driving sw engineer decisions
- Coding is “real-work”
- Anything outside TSP plan “not real work”
- TSP plan is seen as the start and end of their role

**Cobra 4 Expanded
“real work”**



Observation Is a Means
of Data Collection



Cobra 3 TSP Outcomes

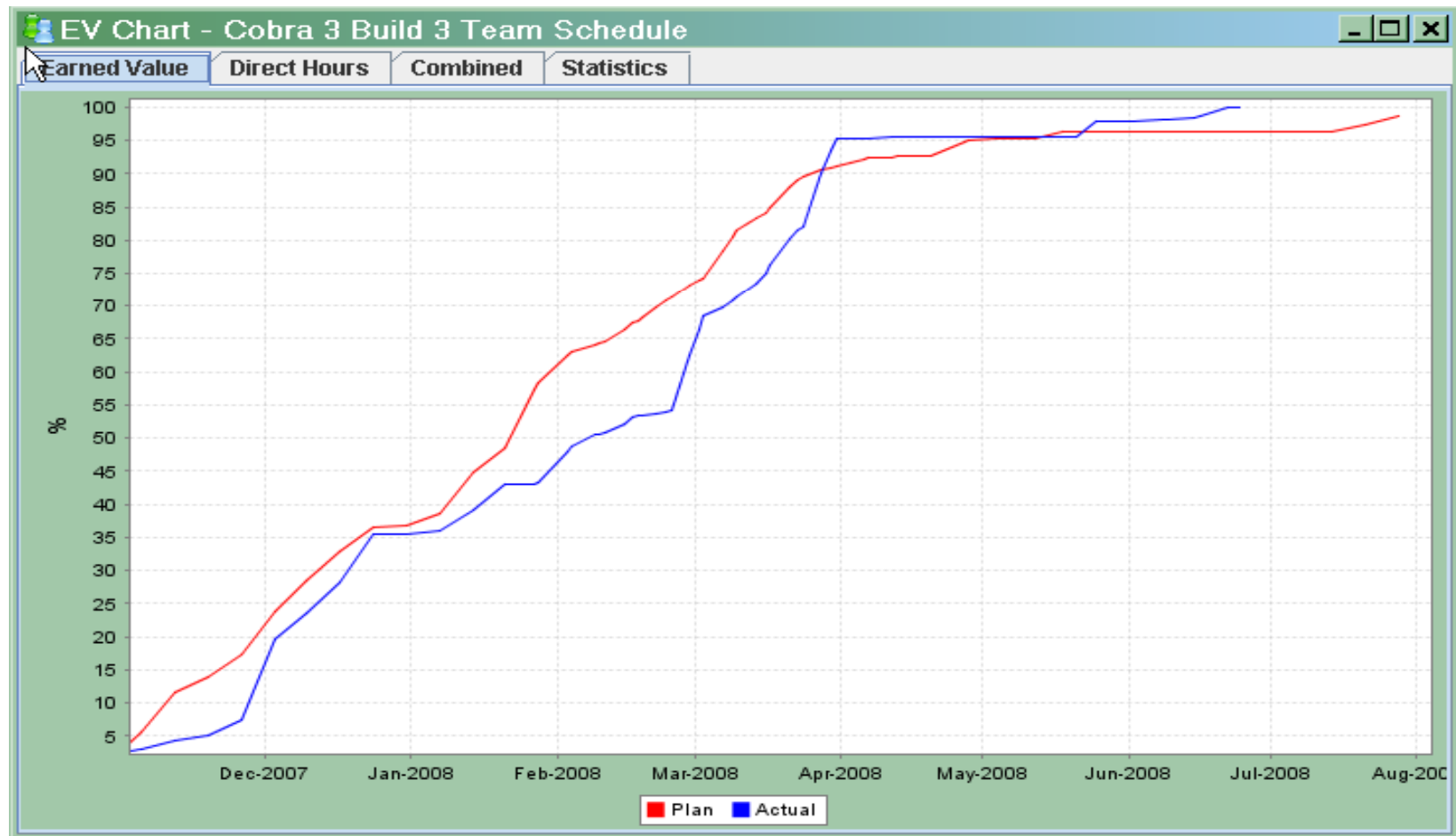
- Personnel changes altered communication patterns
- TSP data not consistently relied upon to communicate delivery dates or time required
- Absorbed tasking not added to TSP plan
- Post-mortem metrics used for Cobra 4
- Metrics still primary data communicated to Project Lead
- Called it “Good Enough”
- Team given choice on TSP use for Cobra 4





Cobra 3 Build 3 – Code Translation

Largest software effort ever undertaken by organization





Cobra 3 Product Results

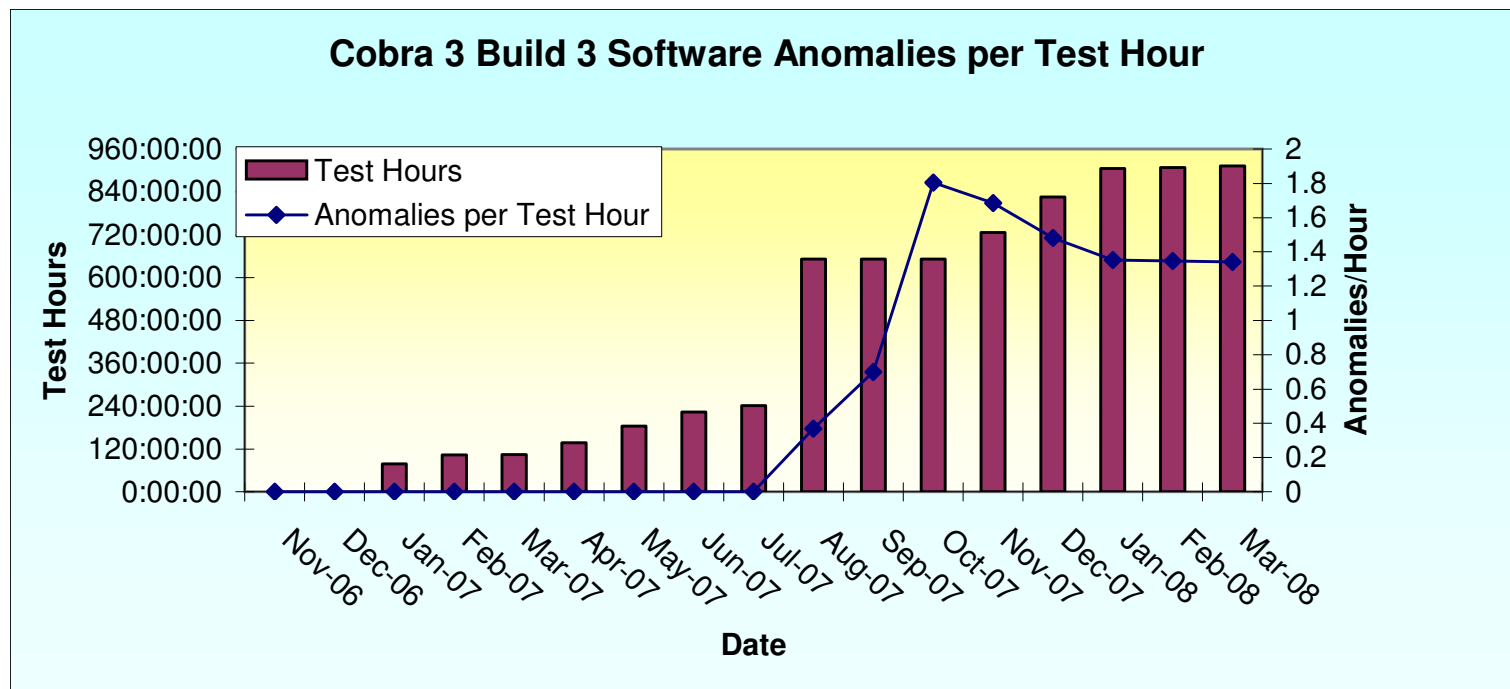
- Absorbed development of additional software processor
- Technical challenges successfully worked
- Additional software drops addressed anomalies discovered during testing
- Project schedule extended due to lack of aircrew & aircraft availability in testing product
- Root cause of schedule changes understood





Software Defect Removal

Software maturity demonstrated *prior* to delivery for system test



Over one year – peak then drop in anomaly discovery -
Increased testing not likely to find high value issues



TSP: From Within

Cobra 4





Cobra 4 Wish List

- Software team concurrence
TSP use
- Cohesive, effective teaming
- Leverage knowledge gained in
Cobra 3
- Meet product/project commitments
- Meaningful and free-flowing
communication exchanges
- Planning that covers as many
expected activities as possible





Cobra 4 – The Launch

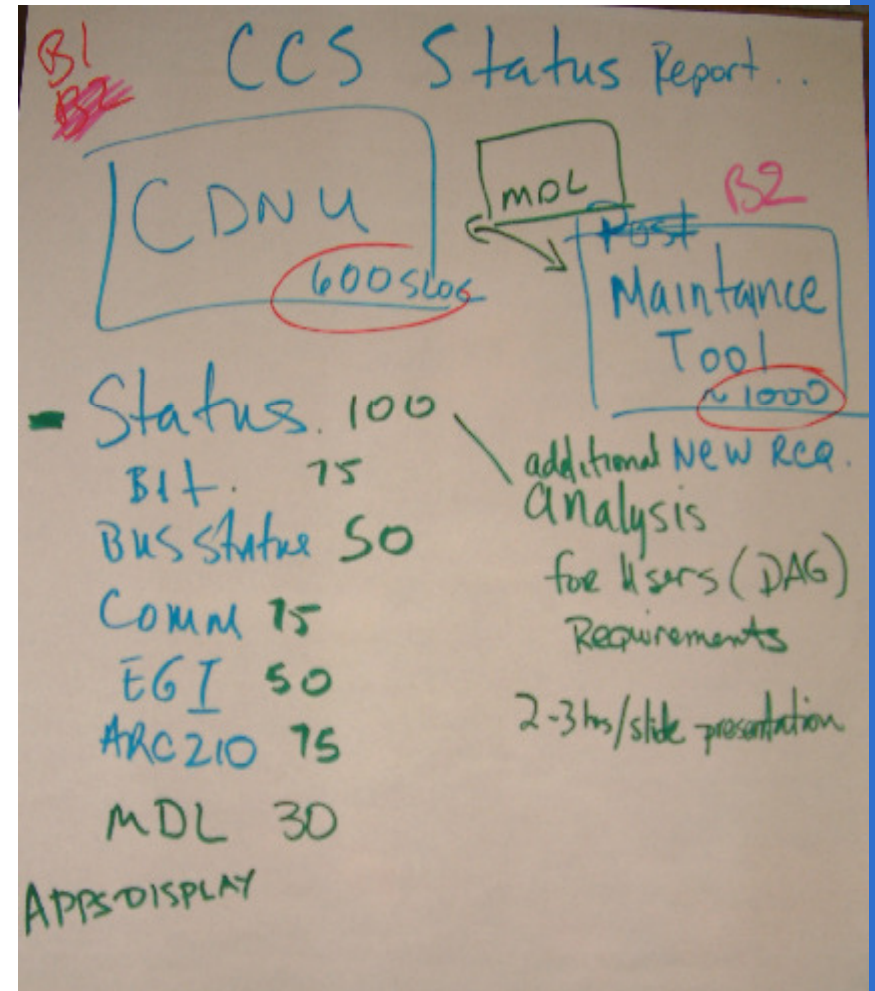
- Coordinated roles with TSP Coach
- Identified upper management as Chief Engineer & Organization Lead
- Made me part of TSP team
 - Team Lead and Planning Coordinator
- Planned for all known activities
- Reduced productivity rate
- Took into account expected personnel changes





Observations Cobra 4 Launch

- Gained insight into planned design
 - Some differences between what I thought & team thought
 - Able to discuss & resolve
- Impressed by engagement & technical nature of conversations





Cobra 4 TSP Launch

- Proposed implementation discussion highly valuable – presented to entire project team
- Answered questions as we went
 - Assumptions would likely have been made
 - Increased my understanding of the “why”

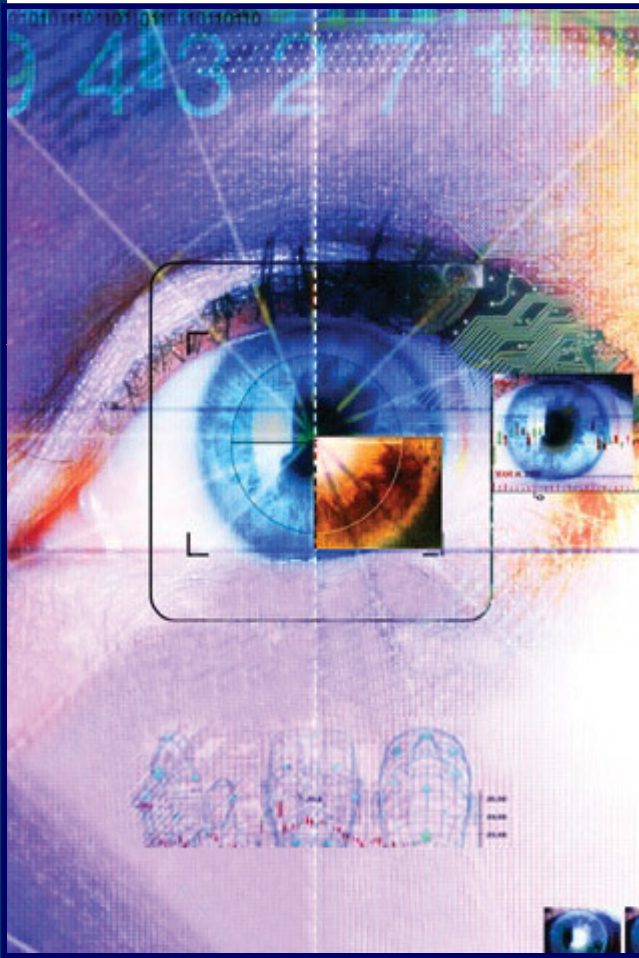




Noted Differences

I contributed

- Context between project team members
- External views (end user, H-1 WSSA management, funding sponsor)
- Meaningful requirements “churn” discussions held
- Insight into trade-offs between requirements
- Requirements likely to be added or dropped
- Ability to procure needed items





Cobra 4 - Additional Insights

- Team's honesty & directness in addressing potential issues is highly valued
- Cobra 4 project team has some misconceptions about what TSP is & isn't
- Established goal of improved communications with project team
- Significant value in answering team questions as we proceed
- I continue to be uncomfortable with individual performance data
 - Not the level I want to manage at
 - Do not want to unconsciously hold anyone to this data
 - Interested in project & team outcomes



Today's View

- TSP easily tailorable
 - Don't be afraid to try it
- Utilize coaching expertise
- Launches are tremendous opportunity for project team & lead
- Recommend assigning TSP tasks to Project Lead
- Weekly TSP meetings are beneficial for me
- Most bang for buck is when team values TSP



***Achieving Our
Potential***