PI Leadership

"A Shared Experience in
Project Leadership"
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Point of Reference

- Organizations & Career Path
  - Engineering & MBA Degrees, AMP @ HBS
  - Air Force-8 years, NASA-22 years, Industry-15 years
  - Consultant-9 years
  - Flight Test Engineer & Project Manager
  - Langley Resident Engineer @ LTV On Scout
  - Langley Launch Conductor @ WTR on Scout
  - Deputy Project Manager on Viking
  - Project Manager on RSRA Helicopter & Large Space Structures Technology
  - Director, Planetary Programs @ NASA Headquarters
  - Deputy Director, Ames
  - VP NASA Programs, Lockheed
  - CEO @ COB, nVIEW Corporation
  - Consultant to NASA on Project Management, X-37, OSP & JWST
  - Advisor to W&M MBA Program & Hampton Roads Technology Advocacy

PI Leadership

- Organize to Win
- Assign Performance Accountability
- Effective Communications
- Controlling the Project
- Develop Alternate Plans
- The Golden Rule
- Ethics & Trust
- Creating Customer Value
- Lessons Learned

Organize to Win

- Get a clear understanding of Science Objectives
- Remember the past, assess the present and apply the principals of the new NASA governance
- Develop a strong bond with the Systems Engineer and Project Manager
- Remember, people make things happen select the best to implement the experiment and project
- Spend time giving each team member clear assignments
- Get an early understanding of all tasks
- Your first decisions on team assignments are not always right---do not hesitate to make changes
- Better to train outstanding people into new areas than to accept marginal people with some skills

Organize to Win (Cont'd)

- Make sure everyone carries a share of the load
- Watch for overlapping assignments
- Establish an early meeting where each team member describes their assigned responsibilities
  - fix duplications
  - repair holes
  - settle interfaces
  - build the team for high performance
  - focus on science objectives
- Change the assignments to fit the challenge
- Remember to establish effective communication channels

Assign Performance Accountability

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- Make sure all team members understand the mission objectives
- Become process oriented
  - follow guidance of 7120 and 7123
  - make sure process matches product or services
  - assign ownership
- Promote open communications
  - become a good listener
  - create a communication and reporting network
  - encourage the strong
  - support the marginal
  - replace the non-performer

Assign Performance Accountability (Cont'd)

- Set Baselines and Metrics—assess frequently
- Create parameters to measure performance to plan
- Make all activities visible to the team
- Make sure team buys into established plans
- Remember to plan the work and then work the plan
- Take corrective actions to make or change plans
- Talk to all participants
- Willingness to change plans that are not working

Assign Performance Accountability

- Every task and process must have an owner with full accountability
  - Science objectives. cost, schedule, performance and risk management
- Praise success openly
- Criticize privately
- Teach and guide publicly
- Allow peer pressure to stimulate achievement
- Celebrate your victories as a team

Effective Communications

- Good leaders are good communicators
- Operate on a "No Surprises" Philosophy
- Establish parameters to be measured and goals to be achieved
- Do not get lost in trivia
- Make it visible
- Talk about the What? And the Why?
- Make decisions to affect performance
- Apply sufficient pressure or heat to get performance
- Know when you have solved the problem and move on to the next major issue

Effective Communications (Cont'd)

- Have frequent meetings
- Become a good listener
- Operate on a "No Surprises" philosophy
- Reward people for bringing critical problems for resolution – stay action oriented
- Get feedback - communicate
- Reassign non-performing people
- Be prepared to finish the task with or without a non-performer
- Celebrate successful corrections to critical problems

Controlling the Project

- Establish adequate reserves in schedule, cost and technical performance
- Be willing to modify implementation plans that retain scientific objectives
- Develop alternate performance plans
- Make individual team members responsible for performance
- Have a problem oriented review system
  - pay attention to details
  - make sure all conclusions are supported by analysis or test
  - utilize outside help (make effective use of SRB)
- Test what you fly---fly what you test
- Real time communications are the key to controlling the

Developing Alternate Plans

- Prepare for change
- Look for alternative ways to accomplish the task
- Remember the goal is more important than the process
- Train team members to be goal oriented and to think about being part of a high performance team
- Be ready to implement alternatives
- A back-up plan is your best insurance for success

Golden Rule

- The leader that holds the gold --Rules
- If you want to lead instead of follow, make sure you control the resources that:
  - allows for change
  - can implement alternative plans
  - can restore margin
  - rewards your team

Ethics & Trust

- Set a positive standard of conduct for the team

- Treat all participants on the project fairly and with dignity

- Create an atmosphere of trust and loyalty

- Trust will result in confidence

- Confidence will lead to high performance

Creating Customer Value

- Convert your objectives to an understanding of value to the:
    - Nation
    - NASA
    - Scientific Community
    - The project team
- Determine the drivers in the project that create value
- Prioritize decisions to optimize project success and value satisfaction
- Make sure that every project review sustains a clear value chain to all stakeholders

Lessons Learned

- Never lose your capacity for enthusiasm
- Never lose your capacity for indignation
- Never judge or classify people too quickly: First assume that she or he is good
- Never be impressed with wealth or thrown by poverty
- If you can not be generous when it is hard to be, you will not when it is easy
- The greatest builder of confidence is the ability to do something, almost anything, well

Lessons Learned (cont'd)

- When the confidence comes, then strive for humility; you are not as good as all that

- And the way to become truly useful is to seek the best that other brains have to offer.Use them to supplement your own, and be prepared to give credit to them when they have helped

- The greatest tragedies in work and personal events stem from misunderstanding

- Answer----Communicate