



“Tricks of the Trade” - to Succeeding as a Project Manager

**(....or how to prevail in getting your job done in spite
of the odds, obstacles, adversity and bureaucracy)**

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20-22 Aug. 2001**





A Summary of My 32-Year Civil Service History - Or the “Problem” with NASA in Getting the Job Done

- **First 16 years of career was as FTE at the Air Force Flight Test Center**
 - **very mission focussed, clear national defense responsibility**
 - **highly structured, rigid military organization and chain of command**
 - **formal procedures and process but don't blindly follow “process”, “throw away the book” and do what it takes to meet objectives when the situation calls for it. Not overly risk adverse**
- **Last 16 years of career as chief engineer/project manager at Dryden**
 - **far less mission focus and sense of mission, esp. in aeronautics, resulting in staying-the-course problem/ lack sense of purpose**
 - **loosely structured with tendency toward too much micromanagement often aggravated/compounded with indecision**
 - **more dogmatic in preoccupation with facade of procedures and the “process” than in just getting the job done. Very risk adverse.**





Background to the Start of the “Event”

- Russians approached me in Dec. 1990 in “fluent German” to propose the first joint flight test of a rocket-boosted scramjet flight test, initial price - \$50K
- Proper notification of Hq results in a two-year delay before a Nov. 1992 visit to CIAM to discuss contract/objectives, new price - \$250K
- delay resulted in the French stealing the first flight from us “in cash”
- Hq’s desire for a “gold star” in managing the contract resulted in another two-year delay and almost loss of contract/opportunity, price went from \$1.8M to an unaffordable \$11.4M for two scramjets, w.t. ground test and flight test
- Intense three-day negotiation in mid-Nov. 1994 at CIAM in Moscow saved the contract, reduced the price back to \$1.8M, and increased number of scramjets to four, one for w.t. ground test, one for LaRC, one for flight test and a fourth spare

Lesson: Put a highly motivated, competent team together and DO IT YOURSELF!





Positive Keys to Successful Execution

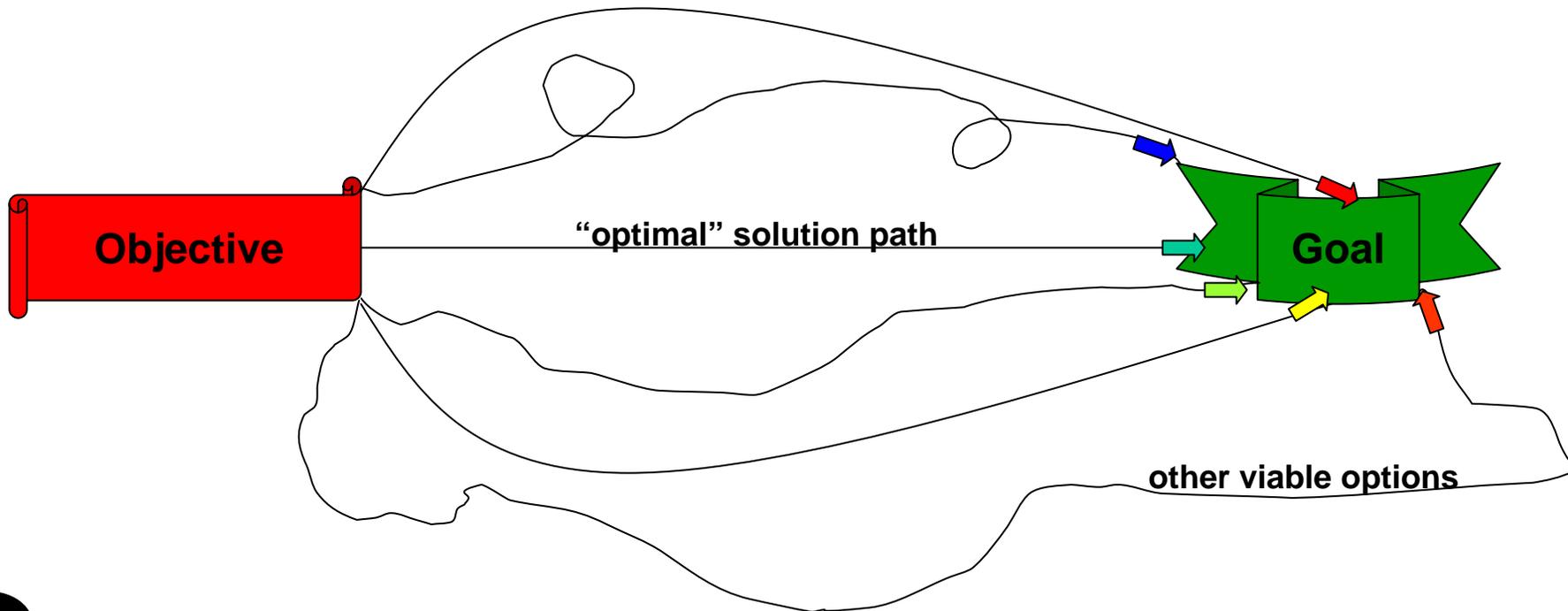
- Openness and complete honesty/frankness in your dealings with ALL people
- always follow the “Golden Rule” and respect all no matter their “office”
- Readiness to “go the extra mile” to accomplish project objectives rather than depending on or waiting for someone else to “go to bat” for you
- learn “Russian” if you need to in order to accomplish the mission
- Attention to technical as well as programmatic project details
- don’t just manage “budgets and schedules” but be sure to pay equal attention to solving technical issues and meeting objectives / mission success
- Team approach is best way to “put the best heads together” to solve problems, so build it, rely on it, pay attention to its nurturing and encouragement
- delegate where work load, expertise and unique responsibility require it, i.e., “divide the pie up!” rather than being tempted to do it all yourself
- As the team leader, set the example by being tenacious, determined in meeting goals and overcoming problems/obstacles. Be kind but be steadfast!





More Positive Keys to Successful Execution

- Be very proactive in both programmatic and technical aspects of your project
 - always plan options, fallback plans, and work-arounds to achieve goals
 - never rely on any “single-path” solution, whether programmatic or technical, to execute objectives since there are often multiple solution paths to get to goal
 - then if it’s truly not attainable, be prepared and honest to speak up and say so





Sooo, in conclusion.....

- **I wish you all the best and many successful projects in a dynamic and ever-changing, often most frustrating Agency**
 - **In closing, to quote an entire Winston Churchill college commencement address of long ago....**
- “Never give up, never give up, never, never, never!!
Thank you.” - and then he sat down!**





Great Expectations
Expect a lot,
Demand a lot,
Give a lot,
And you will achieve a lot.



Key Elements of a Successful Project Manager



- **genuine commitment and real passion in your project and its goals/objectives**
 - **believe deeply in what your doing, exhibiting the highest levels of professionalism**
- **deep concentration, highly focused in attaining goals and objectives - like a top level “chess player”**
- **high sense of honesty and integrity in all your actions and activities, showing real leadership to make the tough decisions and following through with it, being “up front” with all**
- **ability/willingness to face challenges, evaluate and take calculated risks, being willing to fail**
- **tenacity/dogged determination and endurance to stay the course to completion**
 - **persistence and follow-through in the face of all odds with patience and endurance**
- **planning that includes options, workarounds and fall backs instead of sole reliance on a single “solution path” in your project approach, i.e., have several project execution “solution paths” at hand**
 - **willingness to compromise on the execution “path” but uncompromising on the goals and objectives**
- **ability to build and inspire your team, pay attention to team building including instilling equal “ownership” and commitment from all government and contractor members alike**
- **careful, methodical planning and execution, including being creative and innovative in planning and execution, i.e., ability and willingness to “think out of the box” on issues and approaches**
- **ability to communicate, articulate well and advocate/”sell” with conviction in what you’re doing**
- **educating oneself to the greatest extent possible with thorough, full knowledge of all technical aspects/ issues in order to better plan, select options and make tough decisions**
- **do what’s right for your project and team members, not something that’s “politically expedient”**