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**Lyndon B. Johnson Space Center's  
Pre-Solicitation Process**

**Lean Six Sigma Kaizen Event  
Presented to:  
NCMA Space City Chapter**

**October 29, 2009**

# NASA Headquarters Lean Six Sigma Results

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- ◆ The April 2009 Lean Six Sigma team event identified numerous ways to improve NASA's source selection process. The Office of Procurement intends to implement the recommended changes by making policy changes over the coming months. The first set of policy changes streamlining the source selection process are as follows:
  1. Modify the NASA FAR Supplement (NFS) to eliminate the requirement to use draft request for proposals (DRFPs) on acquisitions valued over \$10 million, unless a waiver is obtained from the Procurement Officer. The purpose for this change is to allow the Contracting Officer to determine when the use of a DRFP is appropriate.
  2. Modify the NFS to encourage the use concurrent reviews rather than serial reviews across the Agency.

# NASA Headquarters Lean Six Sigma Results (Cont'd.)

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3. Modify NFS to clarify and provide the source selection authority the flexibility to seek the advice or opinions of key senior personnel in making source selection decisions.
4. Modify the NFS to require the identification of fully dedicated resources as early in the acquisition process as possible.
5. Modify the NFS to require the Assistant Administrator for Procurement's approval when the size of an evaluation team exceeds twenty.
6. Modify the NFS to provide requirements on the proper handling and retention of SEB Records.
7. Modify the NFS 1852.215-77 Pre-proposal/Pre-bid Conference to more accurately reflect the common processing of security related issues at the Centers and require potential offerors to submit questions about the acquisition requirements prior to the conference.

# Charter for Johnson Space Center's (JSC) Lean Six Sigma Team

## **Issue Description:**

The Pre-Solicitation Phase of the Source Selection Process historically has the greatest schedule impact on JSC SEB's. The Team will participate in a Value Stream Mapping & Analysis Event of the early phase of NASA's Source Selection Process to optimize the process across the Center.

**Scope:**     Process Begins: at Requirements Definition.  
                  Process Ends: at Release of Solicitation.

## **Preliminary Objectives:**

- Analyze the Pre-Solicitation phase of NASA's Source Selection Process to identify those areas that can be improved, streamlined, standardized in order to optimize the length of acquisition schedules and reduce the time by 20% with a stretch goal of a 40% reduction in time.
- Understand the roles and responsibilities of all the stakeholders in the source selection process.
- Create a consistent process for development of evaluation criteria and proposal evaluation activities that is efficient, effective, minimizes risks and ensures selection of the best contractor.
- Develop tools and best practices.

## **Commandments & Monuments:**

Solutions must comply with the FAR and NFS. Change to JSC Procurement Instructions must be approved by the OP.

**Event Date:** June 23 - 25, 2009

**Location:** Johnson Space Center, Building 265, Room 107

**Champion & Sponsors:** Debra Johnson & Laura Pepper/Greg Della Longa

**Team Lead:** Rod Etchberger

## **Team Members:**

Roberta Beckman/BD  
Craig Burrige/BD  
J. R. Carpentier/BH  
Renee Falls/BG  
Kelly Rubio/BJ  
Bob Tepfer/AL

## **Customer Orgs:**

Wanda Hobley/OH  
Elizabeth Smith/OM  
Joe Williams/DM

## **Coach & Facilitators:**

Patty Fundum (MSFC)  
Suzan Moody (BV)

# JSC's Pre-Solicitation Process

## **Project Mission:**

- The Team will examine Steps 1 - 16 aspects of the SEB Pre-Solicitation phase to streamline and standardize the evaluation process to make it more efficient, consistent and effective in meeting required acquisition schedule milestones.

## **Constraints:**

- All Team members will participate and be expected to devote 100% of their time for this effort.
- Workdays are from 8am-5pm.

## **Assumptions:**

- The focus of the Team will be on improving and optimizing the existing pre-solicitation phase of the source selection process.
- The Team will begin with the improved process from the HQ LSS ( a Work-in-Progress)
- The Team is empowered to make change.

## **Reporting:**

- Implementation status will be reported monthly to the JSC Procurement Officer

## **Team Guidelines:**

- The Team will meet 3 Full Days June 23 - 25, 2009, at JSC.
- All decisions will be made by consensus.

## **Preliminary Project Plan:**

### **Project Definition 5/11– 6/5**

- Define Scope, Solicit & Analyze Data
- Secure team members

### **Kick-Off 6/23 from 8-8:30am**

- Champion & Sponsor In-Brief

### **Current State 6/23**

- Introductions (Rod)
- As-Is process mapping (Suzan)
- Compile Current State metrics
- Value Assessment & ID Sources of waste (Patty)

### **Analyze and ID Waste 6/24**

- Brainstorm top problems (Patty)
- Map the Ideal State

### **Optimize flow & reduce friction 6/24**

- Brainstorming solutions
- Pick Charting/Fishbone
- Map & Analyze the Future State

### **Implement & Validate 6/25**

- ID & Sort Actions
- Develop the Implementation Plan
- Action Item Closeout

### **Out-brief 6/25 from 3-4pm**

- Obtain Mgmt Commitment

### **Measure & Sustain 6/26 – Follow-up**

# Completion Report – June 2009

## Charter – JSC's Pre-Solicitation Process

### Results:

- Utilize streamlined competitive acquisitions (Current default is SEB process, even for Source Evaluation Committees)
- Establish SEB Office to promote high quality, consistent processes & products
- Minimize reviews (fewer and less rework) due to better quality, consistent products
- Combine overlapping reviews
- Review need for Draft RFPs
- Combine Industry Day and Pre-proposal Conference



**Back Row:** Rod Etchberger (APAT), Suzan Moody (Shuttle Procurement), Joe Williams (MOD), Renee Falls (Station Procurement), Wanda Hobley (Station Technical) and Bob Tepfer (Legal Office)

**Front Row:** Roberta Beckman (Policy), J.R. Carpentier (Projects Procurement), Kelly Rubio (Institutional Procurement), Liz Smith (Station Technical) and Craig Burrige (APAT)

# Assumptions – Lean Six Sigma Event

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- ◆ Current process complexity does not result in added value
- ◆ Management Buy-In To Effect Change
  - ◆ Improve Schedule
  - ◆ More efficient application of expertise at appropriate times
  - ◆ No compromise to quality

# Customer/Value Statement

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- ◆ Customers
  - ◆ Technical Community
- ◆ Value Statement
  - ◆ Prompt and efficient acquisition support to meet requirements of assigned missions

# Functional Owners/Teams

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- ◆ Industry
- ◆ NASA Headquarters
- ◆ Office of Center Director
- ◆ Office of Chief Counsel
- ◆ Office of Procurement
- ◆ Procurement Offices
- ◆ Director of Technical Organization
- ◆ Small Business Office
- ◆ Financial Management
- ◆ Procurement Development Team
- ◆ Occupational Health
- ◆ Safety and Mission Assurance
- ◆ Operational Safety
- ◆ Facilities & Logistics
- ◆ Security (Badging)
- ◆ Industrial Property
- ◆ Information Technology
- ◆ Export Control

# Current State Map

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# Risks

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- ◆ Various Levels of Engagement across functional teams
- ◆ Insufficient Resources – teams not adequately staffed (number & expertise)
- ◆ Resistance from functional owners & stakeholders
- ◆ Appropriate detail for decision making
- ◆ Level of commitment & advocacy by Center & Agency leadership
- ◆ Maintaining Schedule to tie into the budget process
- ◆ Inadequate communication

# Future State

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# Paradigm Shift

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## Current Practice at Johnson Space Center

- ◆ Default to complexity, independent of value added
  - ◆ EXAMPLES:
    - ◆ SEB Process (Best Value)
    - ◆ Review & Rewrite all Statements of Work including follow-ons
      - ◆ Requires:
        - ◆ Substantial commitment of resources
        - ◆ Substantial commitment of time
    - ◆ No analysis of value to be received
      - ◆ Do we require the best product or service?
      - ◆ Is cost/technical trade-off meaningful?
      - ◆ Is a SEB required to obtain the best product or service?
        - ◆ Non complex procurements do not require evaluation of both management and technical factors.

*“Are We Getting What We’re Paying For?”*

# Paradigm Shift (Cont'd.)

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## Proposed Change at Johnson Space Center

- ◆ Require a Justification for Complexity
  - ◆ SEB Process (Best Value)
  - ◆ Statements of Work Rewrite
    - ◆ New requirements will require extensive reviews
    - ◆ Follow-on requirements will not require extensive reviews
      - ◆ Requirements refined over the period of the contract
      - ◆ Make only necessary changes

# Paradigm Shift (Cont'd.)

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## BENEFITS

- ◆ Better Schedule
- ◆ Less Resources
- ◆ Cheaper Price
- ◆ Clear process understood by Industry

# Paradigm Shift (Cont'd.)

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## RISKS

- ◆ Key contributors may not meet review deadlines and process will continue with substandard products
  - ◆ Learning curve associated/paradigm shift
- ◆ Correction of products later increases rework hours
- ◆ Industry buy-in to accept modified communication approach
- ◆ Critical decision points important to avoid significant amount of rework
- ◆ New process perceived as non Federal Acquisition Regulations (FAR) compliant
- ◆ Reduction of touch points increases responsibility of functional owners

# Roles & Responsibilities of SEB Office

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Source Evaluation Board (SEB) Office – The function of this office is to provide an experienced “Acquisition Corps” to provide all support to the SEB from the point of issuance of the Master Buy Plan to Source Selection. The SEB Office will work in concert with the review team to ensure all charts and presentations are consistent and accurately express the direction of the Director of Procurement.

- ◆ Customer
  - ◆ Technical/Requiring Organization (resource level remains the same)
- ◆ SEB Office
  - ◆ Division Manager
  - ◆ Team Lead
  - ◆ Three COs (Permanently Assigned)
  - ◆ Four Contract Specialists (Permanently Assigned)
  - ◆ As additional PDT/SEBs are required, Procurement Offices provide matrixed COs and CSs that are “returned” after award
  - ◆ Technical Writing Expert
  - ◆ Matrixed Consultants: Small Business Specialist, Price Analyst, Export Control Representative, Information Technology Representative, Safety Representative

# Roles & Responsibilities of SEB Office (Cont'd.)

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- ◆ Pricing
  - ◆ Price Analyst (assigned by Pricing Team Lead)
- ◆ Procurement Review Team
  - ◆ Chief Council for Procurement Matters
  - ◆ Policy Team Lead
  - ◆ Pricing Team Lead
- ◆ Limited Functional Support
  - ◆ NASA Headquarters
  - ◆ Center Director
  - ◆ Director of Procurement
  - ◆ Small Business Office
  - ◆ Safety (Safety and Health Office and Safety & Mission Assurance)
  - ◆ Industrial Property
  - ◆ Information Technology

# Results

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- ◆ Use streamlined competitive processes (Current default is SEB process, even for Source Evaluation Committees)
- ◆ Establish SEB Office to promote high quality, consistent processes and products
- ◆ Minimize reviews (fewer and less rework) due to better quality and consistent products
- ◆ Combine overlapping reviews
- ◆ Review need for Draft RFPs only for new requirements (vs. follow-on)
- ◆ Combine Industry Day and Pre-proposal Conference

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# BACKUP CHARTS

# Functional Implementation Guidance – Current State of Affairs to Lean Six Sigma Optimal State

<b>Results</b>	<b>Current State</b>	<b>Future State</b>	<b>Savings</b>
Should	394 Calendar Days		
Actual	655 Calendar Days	451 Calendar Days	204 Calendar Days (31%)
Magnitude of Effort	13,334 Hrs.	7,536 Hrs.	5,798 Hrs. (43%)
1. Draft RFP	* 655 Calendar Days	451 Calendar Days	
2. Without Draft RFP	* Total does not reflect Rework (Rework = 100%)	342 Calendar Days	109 Calendar Days
3. Best Value		328 Calendar Days	123 Calendar Days
4. Lowest Price Technically Acceptable		321 Calendar Days	130 Calendar Days