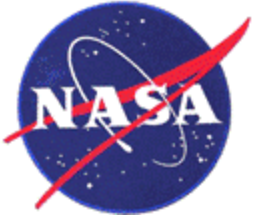# *NSSC Stat Sample Process*

February 9 – 11, 2011

Agenda

- **Introductions**
- **Charter**
- **Schedule**
- **Event Activities**
- **Current States**
- **Ideal States**
- **Future States**
- **What Changed**
- **Get-To-Excellence (GTE) Plan**

Charter Summary For: NSSC Stat Sample Process
LeanIT#:

Problem Statement: : It takes approximately five months from the close of an accounting month to fully complete the statistical sampling and audit of domestic travel payments for that month. This results in a delay in reporting findings to the NSSC Financial Accounting Branch (FAB).

Objectives / Deliverables:
1. Reduce number of days to complete monthly statistical sampling by 30% by August 15, 2011 with goal of applying improved process to April population.
2. Reduce number of NSSC audit technician errors discovered during internal quality review by 50% by August 15, 2011 with goal of applying improved process to April population.

Project Scope Information:
Process Start: Accounting month-end close
Process End: Notification to traveler of audit findings
Value from the Customer's perspective: Providing data to FAB sooner would ultimately help achieve more timely reporting of audit findings to the centers. This reporting is provided in an effort to bring awareness to the centers of the volume and nature of errors discovered so they can manage errors. The overall goal is to reduce the number of preparer errors.

Dates: February 9 – 11, 2011

Champion:
Cindy Epperson

Sponsor:
Jim Caldwell

Team Leader:
Leslie Anderson

OE Facilitator:
Debbie Dale
Donald St.Germain

Team Members:
Jeri Allison
Janel Benoit
Kay Doane
Beth Keith
Becky Vaughn
Lori Michel

Activity Schedule

Time	Monday 23-Aug	Tuesday 24-Aug		Wednesday 25-Aug
8:00	Kick-Off - Intros	Review - Observations	Capture Enablers	Construct Action Plan - Determine Ownership - Build Outbrief
8:30	Event Training: Kaizen Process	As Is Time Value Analysis		
9:00		As Is Customer Value Determination		
9:30	Review Steps 1-3	As Is Value Analysis		
10:00	SIPOC & Walk the Flow - High Level			
10:30	Attributes of the current state	Ideal State		
11:00	Map the As-Is Value Stream - Data Collection	Waste Elimination - Cost and Cycle Time Reductions		Deliver Outbrief
11:30				
12:00	Lunch	Lunch		
12:30	Map Value Stream in Detail	Map the to be Value Stream/Process	Capture Enablers	
1:00				
1:30		Trigger Sheets		
2:00				
2:30	Trigger Sheets	To Be Metrics		
3:00				
3:30	Attributes of the Future State	Brainstorm- Categorize Enablers		
4:00	Daily Team Lead Meeting - Sponsor	Daily Team Lead Meeting - Sponsor		
4:30				

Path to Excellence

Tools:
- Business Case Template
- Pareto Charts
- Kano Analysis
- Value Stream Map
- Brainstorming

Involvement
0 % — 100 %
- Champion
- Sponsor
- Blackbelt
- Greenbelt
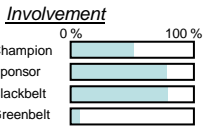
Tools:
- Roles & Charters
- IPO Diagrams
- Project Selection Form
- Project Plan / Checklist
  - Sponsor Meeting
  - Kick-off Meeting
  - Inform whole area
- Risk Management
- QFD

Involvement
0 % — 100 %
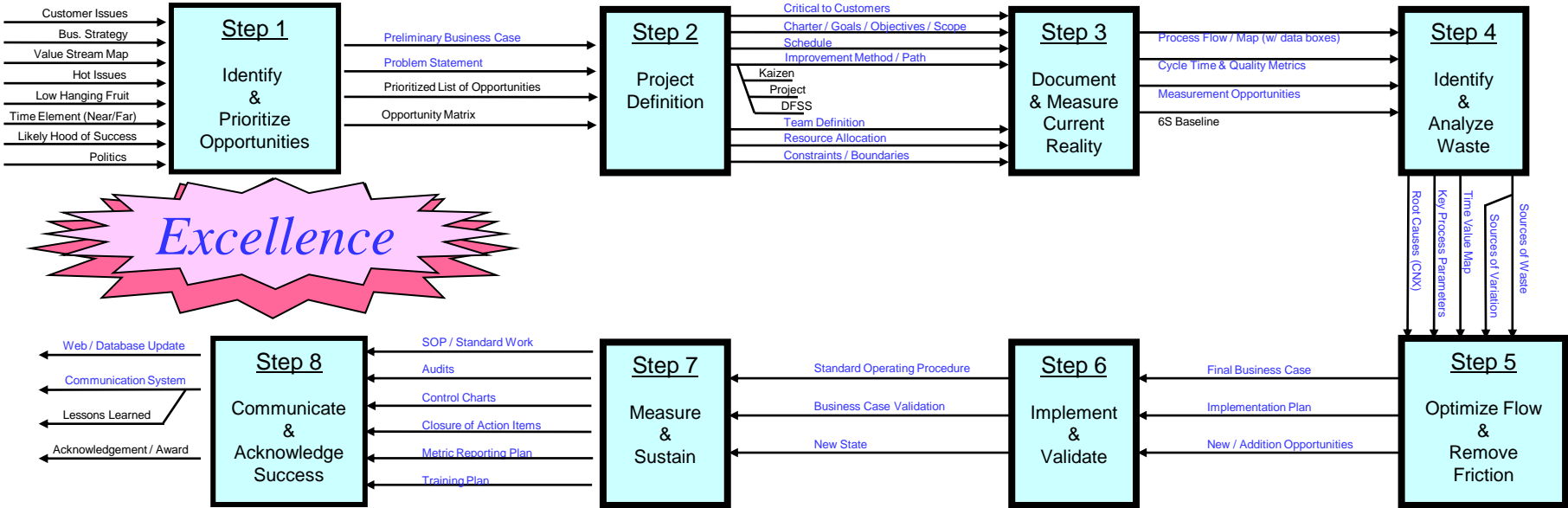- Champion
- Sponsor
- Blackbelt
- Greenbelt
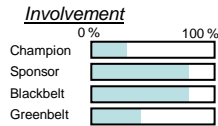
Tools:
- Process Mapping
- Time Value Mapping
- Physical Map / IPO
- Sigma Capability Measures
- Process Observation Form
- Survey
- Interview
- Time Observation Form
- 6S Evaluation

Involvement
0 % — 100 %
- Champion
- Sponsor
- Blackbelt
- Greenbelt
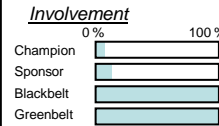
Tools:
- Sources Of Variation
- Simple Visual Tools (C&A, etc.)
- Time Value Map
- Simple & Multiple Regression
- Correlation Analysis
- Multi-Variable Analysis
- FMEA
- MSA
- DOE

Involvement
0 % — 100 %
- Champion
- Sponsor
- Blackbelt
- Greenbelt

Inputs to Step 1:
- Customer Issues
- Bus. Strategy
- Value Stream Map
- Hot Issues
- Low Hanging Fruit
- Time Element (Near/Far)
- Likely Hood of Success
- Politics

Step 1 — Identify & Prioritize Opportunities
- Preliminary Business Case
- Problem Statement
- Prioritized List of Opportunities
- Opportunity Matrix

Step 2 — Project Definition
- Critical to Customers
- Charter / Goals / Objectives / Scope
- Schedule
- Improvement Method / Path
  - Kaizen
  - Project
  - DFSS
- Team Definition
- Resource Allocation
- Constraints / Boundaries

Step 3 — Document & Measure Current Reality
- Process Flow / Map (w/ data boxes)
- Cycle Time & Quality Metrics
- Measurement Opportunities
- 6S Baseline

Step 4 — Identify & Analyze Waste

Excellence

Arrows from Step 4 to Step 5:
- Root Causes (CNX)
- Key Process Parameters
- Time Value Map
- Sources of Variation
- Sources of Waste

Step 8 — Communicate & Acknowledge Success
- Web / Database Update
- Communication System
- Lessons Learned
- Acknowledgement / Award

Between Step 7 and Step 8:
- SOP / Standard Work
- Audits
- Control Charts
- Closure of Action Items
- Metric Reporting Plan
- Training Plan

Step 7 — Measure & Sustain

Between Step 6 and Step 7:
- Standard Operating Procedure
- Business Case Validation
- New State

Step 6 — Implement & Validate

Between Step 5 and Step 6:
- Final Business Case
- Implementation Plan
- New / Addition Opportunities

**Step 5** — Optimize Flow & Remove Friction

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Tools:
- Web Page
- Suggestion Program
- Lessons Learned
- Migration of Best Practice
- Newsletters
- Story Boards
- Awards
- Incentives
- Giveaways

Involvement
0 % — 100 %
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- Greenbelt
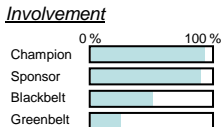
Tools:
- SOP / Policy / Standard Work
- Control Charts
- Communication Plan / Training
- Audits
- Report Out
- Rapid Data Collection
- Positive Reinforcement
- Change Management
- Newspaper

Involvement
0 % — 100 %
- Champion
- Sponsor
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- Greenbelt
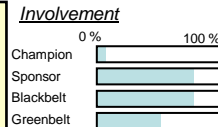
Tools:
- SOP Validation
- Finance Validation
- Hypothesis Test
- Design of Experiment (DOE) Conformation Runs
- Pilot

Involvement
0 % — 100 %
- Champion
- Sponsor
- Blackbelt
- Greenbelt
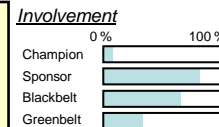
Tools:
- Mistake Proofing Techniques
- Out-of-Box Thinking
- Takt Time
- Flow & Pull Techniques
- To-Be Map
- Action Item Tracking
- Design of Experiments
- Step Down Chart
- Brainstorming / Try Storming
- FMEA (new process)

Involvement
0 % — 100 %
- Champion
- Sponsor
- Blackbelt
- Greenbelt
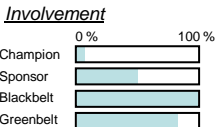
Lean Processes That Operate At Six Sigma Capability

Path to Excellence, continued

Event Steps

Step 1: Define The Boundaries
Step 2: Define The Value
Step 3: Define The Outcome
Step 4: Walk The Product/Service Flow

Baseline Team

Step 5: Observe And Gather Data
Step 6: Map The Value Stream
- Customer
- Product Flow
- Information Flow
- Other Data (Inventory, Takt, Etc.)

Current Conditions

Step 7: Analyze Current Conditions
Step 8: Develop Ideal State

Vision

Step 9: Develop Future State Map
Step 10: Develop Action Plans And Tracking

Plans

Event Activities Completed

- **Constructed Current State**
- **Current State/Analysis/Attributes**
  - **Trigger Sheets**
  - **Value?**
- **Constructed Ideal State**
  - **Garage**
- **Brainstormed Ideal State vs. Future – What prevents us from implementing the ideal states?**
- **Future State**
- **Identified Actions/Tasks/Enablers**
- **GTE Plan**

Tools: Flow Charting, Brainstorming, Gap analysis, Trigger sheets. Value Analysis

Current State
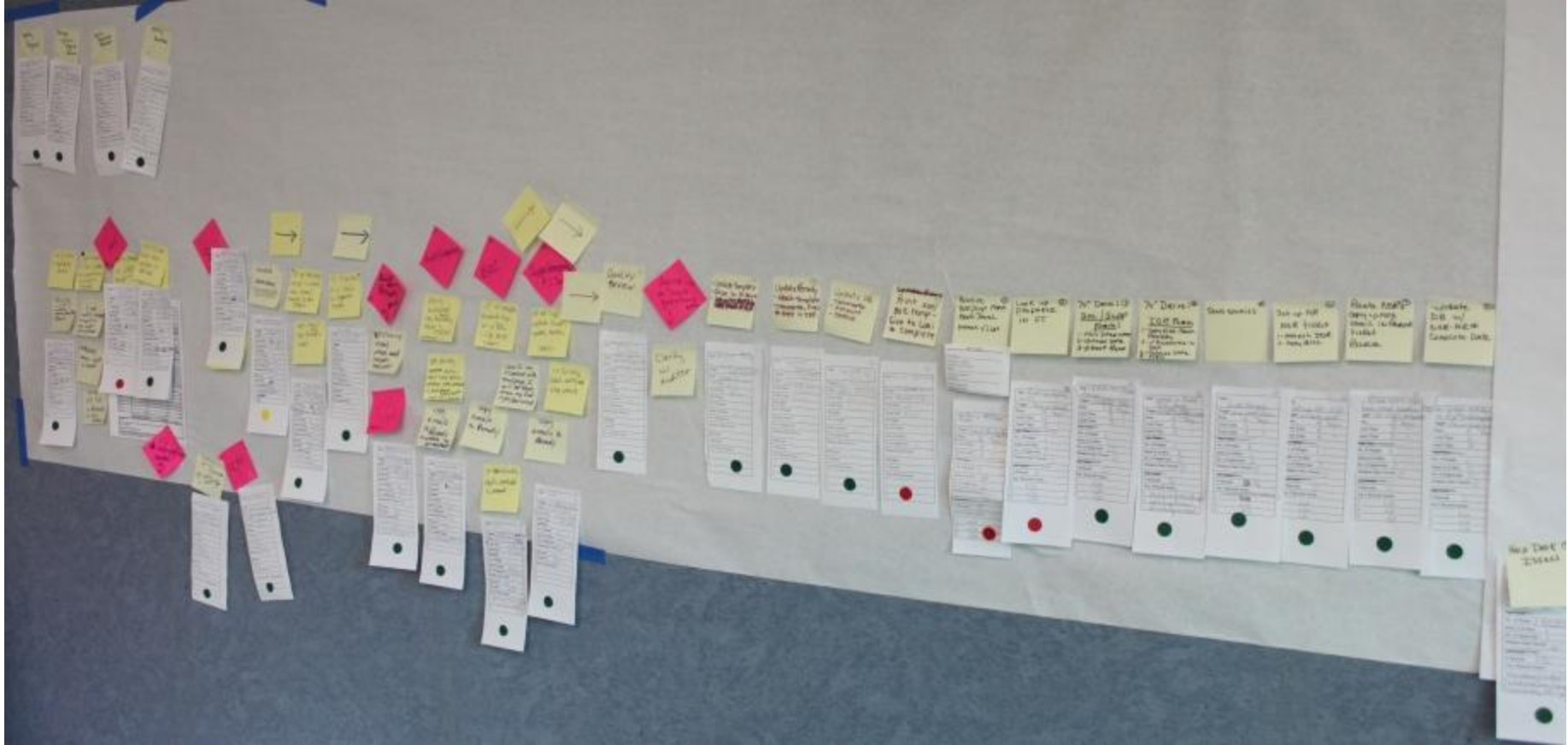
Current States - Analysis

Trigger Sheets

|	
Task:	
Trigger:	
Done:	
Cycle Time:	
Touch Time:	
Takt Time:	
No. of People:	
Items in In-Box:	
No. of Approvals:	
Distance Item Travels:	
ESH Issue:	
% Rework:	
Top 3 Rework Issues:	
1.	
2.	
3.	

Current States - Analysis

Value

Value-Added Activities

- Activities which change the form, fit or function of the product/service <u>AND</u>
- Activities which, when asked, the customer is willing to pay more if we did more of it <u>AND</u>
- Activities done right the first time

Non Value-Added Required - Needed Activities
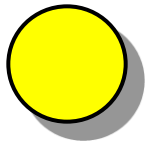
- Activities which may be necessary but the customer will not pay you to do
- Cannot be eliminated (due to non-robustness of process) based on current state of technology
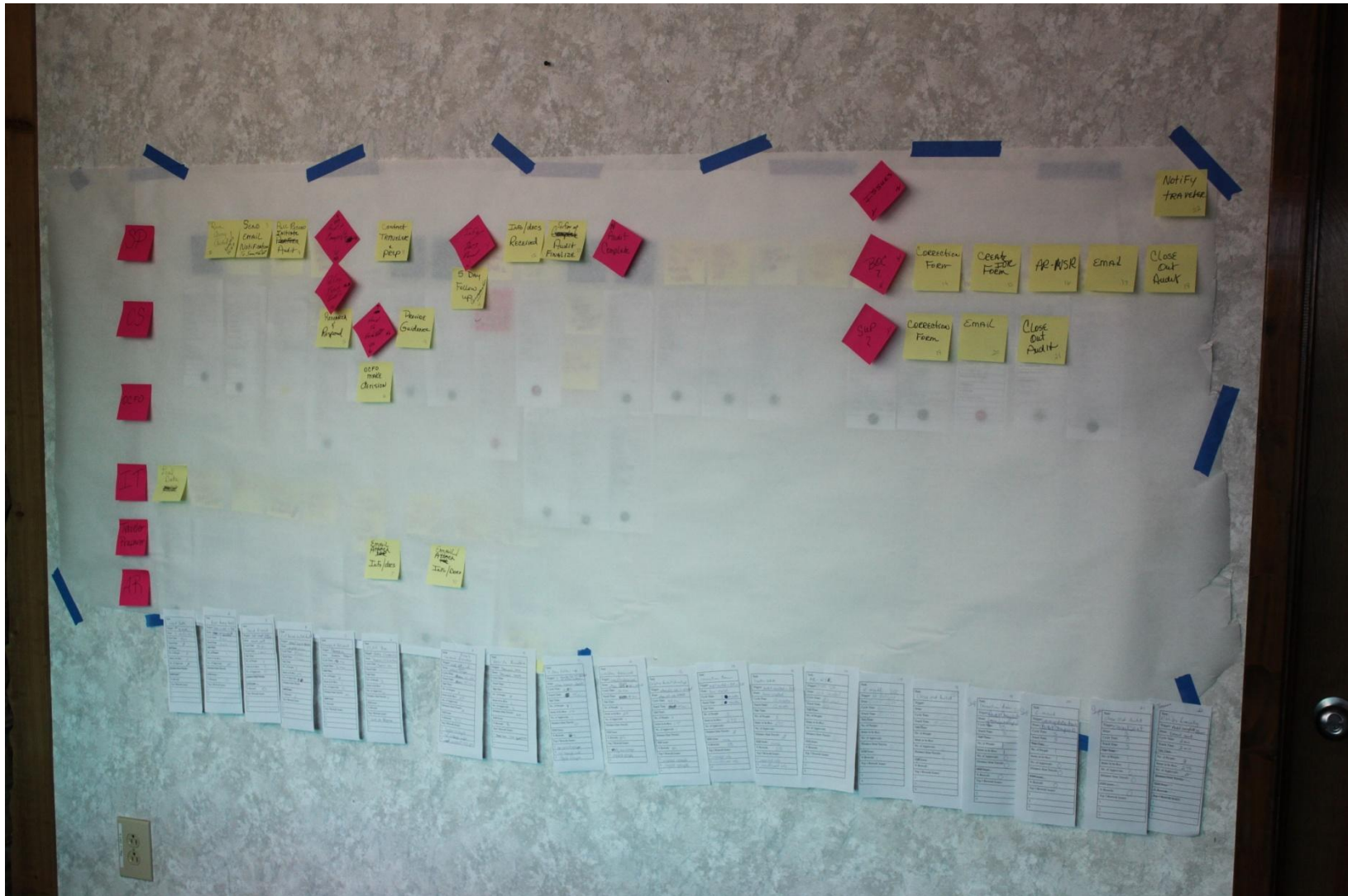- Required (regulatory, customer mandate, legal)

Non Value – Added Activities

- Activities that consume resources but create no value in the eyes of the customer
- The customer is not willing to pay
- Pure waste (8 forms)

Ideal States

Why Not The Ideal State?

Future State

RELEASED - Printed documents may be obsolete; validate prior to use.

What Changed?

- **Eliminated manual steps to pull and forward data to IT**

- **Eliminated need to 'Scrub' email addresses**

- **Eliminated need to 'Scrub' for ETDY**

- **Eliminated verification of payment in SAP**

- **Eliminated 'Scrub' for second request & BOC-no receipts by incorporating into the audit step**

- **Eliminated need to have CS request receipts/information from VIPs**

- **Eliminating Quality Review by using best practices of the audit team and updating / mistake proofing the audit worksheet**

What Changed?

	Current	Future	Improvement
Steps	56	20	62%
Cycle Time	31125	30494	8%
Touch Time	1283	316	75%
FPY	1.2%	15.5%	1274%

The majority of the Cycle Time and First Pass Yield:
 is within the 'requests for information
and/or receipts from the traveler/preparer'

Actions/Enablers

Get to Excellence Plan and Follow-up

Type	Event Description	Target Date	% Comp	Owner	LM21 Belt (BB/GB)
JDI	Redesign / update Audit Worksheet	4/15/2001	0%	Beth Keith	
JDI	Standardize VIP correspondence	4/1//2011	0%	Leslie Anderson	
JDI	Develop detailed requirements for SST	3/15/2011	0%	Cindy / Jim	
JDI	Eliminate Quality Review	4/30/2011	0%	Leslie Anderson	
JDI	Update SDG	5/15/2011	0%	Janel Benoit	
JDI	Update the Stat Sampling Plan	4/15/2011	0%	Kay Doane	
JDI	Training Implementation	4/30/2011	0%	Beth Keith	
JDI	Update NSR to have IT pull/convert/load data	2/18/2011	0%	Jim Caldwell	
JDI	Create an incident to have email verification fixed	2/18/2011	0%	Jim Caldwell	
JDI					
JDI					

Get To Excellence Activity: # 1 Redesign & Update Auditors' Worksheet

☑ JDI
☐ Kaizen
☐ Project
☐ VSM

Implementation: Easy / Hard
Pay-off: Small / Big

	Easy	
X	P	I
	K	C

Estimated Task Dates: 4/15/2011

Owner: Beth Keith

Potential Team Lead and Members:

Description/Problem Statement:
Currently auditors are using an audit checklist that needs to be enhanced to incorporate best practices

Level of Effort: *60 hours*

Objectives/Deliverables:
Have a single worksheet that includes as much mistake proofing and calculations as possible

Benefits: **Improve work quality**
Eliminate Quality Review

Get To Excellence Activity: # 2 Standardize VIP Correspondence

☑ JDI
☐ Kaizen
☐ Project
☐ VSM

Implementation: Easy / Hard
	Small Pay-off	Big Pay-off
Easy	X P	I
Hard	K	C

Estimated Task Dates: 4/1/2011

Owner: Leslie Anderson

Potential Team Lead and Members:
Kay Doane
Beth Keith

Description/Problem Statement:
Currently forwarding VIP receipt/information requests to CS

- Objectives/Deliverables:
- **Eliminate the need to have CS request receipts/information from VIPs**

Level of Effort*: 4 hours*

Benefits: Stream line the process and eliminate hand-offs

Get To Excellence Activity: # 3 Develop detailed requirements for SST

- ☑ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation: Easy / Hard

	Small	Big
	P	I
	K	C X

Pay-off

Estimated Task Dates: 3/15/2011

Owner: Cindy Epperson, Jim Caldwell

Potential Team Lead and Members:
Beth
Leslie
Janel

Description/Problem Statement:
Currently using numerous systems to complete this process that includes multiple manual steps

Objectives/Deliverables:
Have one system for the entire process

Level of Effort: *60 hours*

Benefits: Eliminates multiple data entry and manual steps

Get To Excellence Activity: # 4 Eliminate Quality Review

- ☑ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation: Easy / Hard

	P	I
	K	C

X

Pay-off: Small / Big

Estimated Task Dates: 4/30/2011

Owner: Leslie Anderson

Potential Team Lead and Members:
Beth
Kay
Janel
Auditors

Description/Problem Statement:
Currently performing 100% quality review for all audits with a finding

Objectives/Deliverables:
Improve processes to eliminate the need for quality review

Level of Effort: *40 hours*

Benefits:
Stream lines process and eliminates another hand-off and approval

Get To Excellence Activity: # 5 Update SDG

- ■ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation
Easy / Hard

| | P | I | X |
| | K | C | |

Small   Big
Pay-off

Estimated Task Dates: 5/15/2011

Owner: Janel Benoit

Potential Team Lead and Members:

Description/Problem Statement:
Update SDG to reflect changes

Objectives/Deliverables:

Level of Effort*: 10 hours*

Benefits:

Get To Excellence Activity: # 6 Update Stat Sampling Plan

- ☑ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation Easy / Hard

	P	I	X
	K	C	

Small / Big
Pay-off

Estimated Task Dates: 4/15/2011

Owner: Kay Doane

Potential Team Lead and Members:

Description/Problem Statement:
Update Stat Sampling Plan to reflect changes

Level of Effort*: 1 hours*

Objectives/Deliverables:
To eliminate second notification to Traveler
requesting receipts / information

Benefits:

Get To Excellence Activity: # 7 ImplementTraining

- ☑ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation

	Easy	
	P	I
Hard	K	C

X

Small   Big
Pay-off

Estimated Task Dates: 4/30/2011

Owner: Beth Keith

Potential Team Lead and Members:

Description/Problem Statement:
Train all involved on the new processes / changes

Objectives/Deliverables:
Train all involved on the new processes / changes

Level of Effort*: 16 hours*

Benefits:

Get To Excellence Activity: # 8 Update NSR to have IT pull/convert/load data

- ☑ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation — Easy / Hard

X	P	I
	K	C

Small   Big
Pay-off

Estimated Task Dates: 2/18/2011

Owner: Jim Caldwell

Potential Team Lead and Members:

Description/Problem Statement:
Currently travel is downloading and delivering data to IT for conversion.

Objectives/Deliverables:
Remove non-value added activity and improve the turn-around time

Level of Effort: *1 hours*

Benefits:
Process improvement

Get To Excellence Activity: # 9 Create an incident to have email verification fixed

- ■ JDI
- ☐ Kaizen
- ☐ Project
- ☐ VSM

Implementation: Easy / Hard
Pay-off: Small / Big

X
P I
K C

Estimated Task Dates: 2/18/2011

Owner: Jim Caldwell

Potential Team Lead and Members:
Beth
Leslie
Lori

Description/Problem Statement:
**Valid Email addresses are not being provided**

Objectives/Deliverables:
Eliminate manual process to detect and exclude bad email addresses, improper notifications and manually re-sending the email

Level of Effort: *1 hour*

Benefits:
Reduce manual steps

Future Considerations

- **Consolidate all current systems into one Statistical Sampling Tool (SST)**
- **Interface SST to FedTraveler.com to pull expense report data**
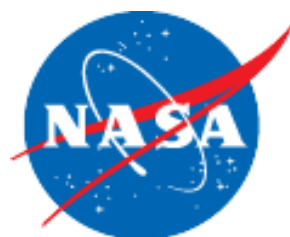
Back up

The way we used to do it...
- **Multiple manual steps**
- **Triplication of storage**
- **Excessive rework**
- **Time intensive**
- **Multiple processes by function**

The changes we made…
- **Paper-less process**
  - **Checklist**
  - **Utilize Remedy**
  - **Screen shots gone**
  - **Printing and manual transportation to notifies and approvals**
- **Reduction in approvals and notification**
- **Created process awareness across functions**
- **Reduced multiple processes to 1 repeatable process**
- **Captured required information and one place and made available for "pull"**
- **Identified metrics and tracking items**
- **Reduced search and queue time**
- **Reduced multiple storage procedures**
- **NSR for all reversals – enabling metrics**
- **Single point of entry/input for internal and external requests**

Team
Champion: Cindy Epperson
Sponsor: Jim Caldwell
Team Leader: Jim Caldwell
Team Members: Marsha Franklin, Gail Barnes, Demaris Cox
Theresa Morgerson, Jennifer Meyers Margaret Furey, Donald St. Germain, Stephanie Neal, Paul Hebert, Karen Hill, Sharif Kharuf
OE Facilitators: Mason Gordon-BB/coach, Debbie Dale – GB, Beth Keith - GB

RELEASED - Printed documents may be obsolete; validate prior to use.

	Current	Future
1- Steps	12	
Cycle Time	1263	
Touch Time	123	
FPY	84%	
2- Steps	14	
Cycle Time	2383	
Touch Time	142	
FPY	79%	Single Procedure
3- Steps	21	11
Cycle Time	8042	869
Touch Time	166	113
FPY	93%	55%
4- Steps	28	
Cycle Time	239	
Touch Time	92	
FPY	86%	