

2011

Quality New Mexico Zia Award Application



Sandia National Laboratories

Logistics

Operations



Sandia National Laboratories is a multi program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



TABLE OF CONTENTS

Table of Contents

SNL Logistics Organizational Chart.....	5
Glossary of Terms and Abbreviations.....	6

Preface: Organizational Profile

P.1 Organizational Description.....	12
P.2 Organizational Situation.....	16

Category 1: Leadership

1.1 Senior Leadership.....	17
1.2 Governance and Societal Responsibilities.....	20

Category 2: Strategic Planning

2.1 Strategy Development.....	22
2.2 Strategy Implementation.....	25

Category 3: Customer Focus

3.1 Voice of the Customer.....	28
3.2 Customer Engagement.....	30

Category 4: Measurement, Analysis, and Knowledge Management

4.1 Measurement, Analysis, and Improvement of Organizational Performance.....	32
4.2 Management of Information, Knowledge, and Information Technology.....	36

Category 5: Workforce Focus

5.1 Workforce Environment.....	37
5.2 Workforce Engagement.....	40

Category 6: Operations Focus

6.1 Work Systems.....	42
6.2 Work Processes.....	43

Category 7: Results

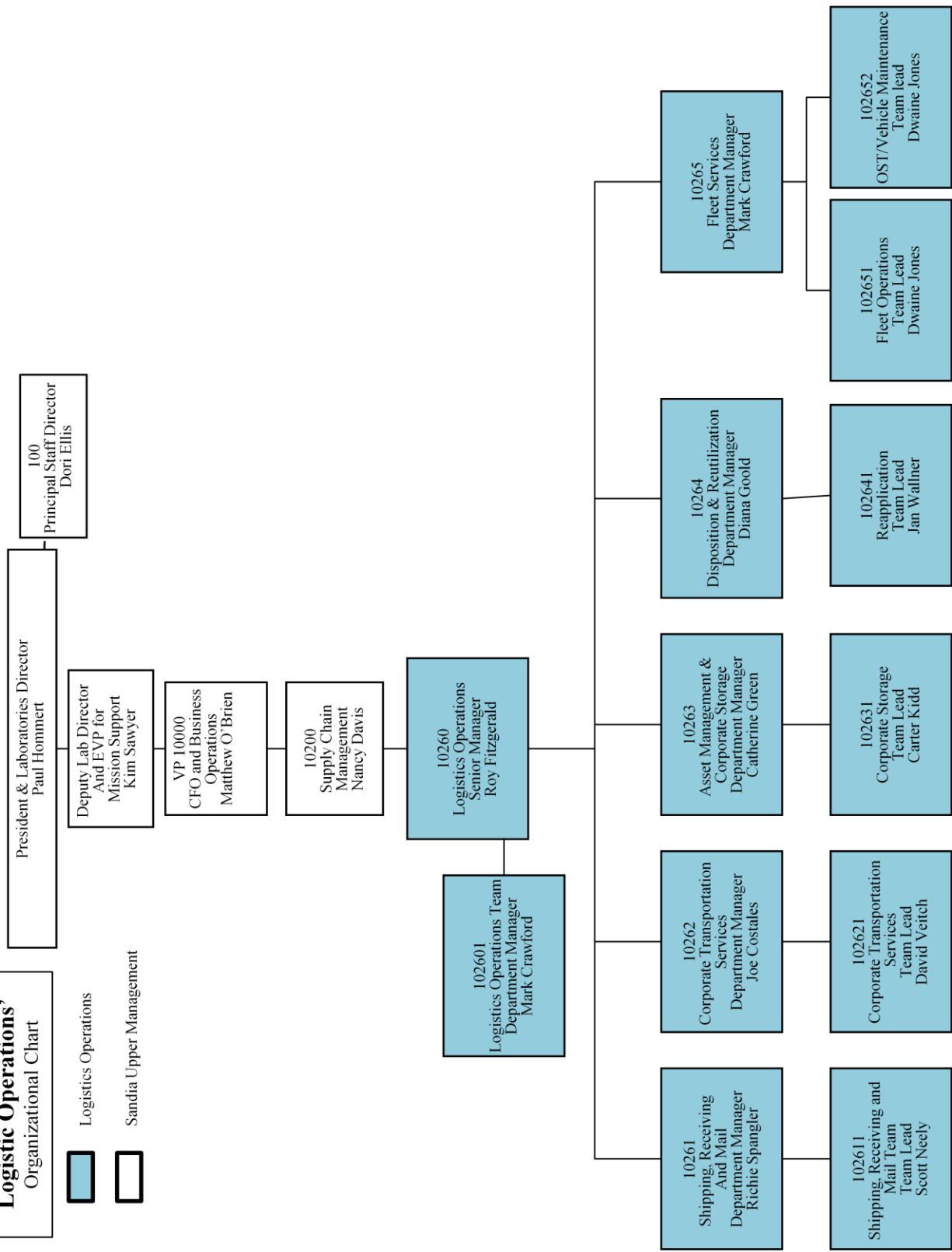
7.1 Product and Process Outcomes.....	46
7.2 Customer-Focused Outcomes.....	50
7.3 Workforce-Focused Outcomes.....	51
7.4 Leadership and Governance Outcomes.....	53
7.5 Financial and Market Outcomes.....	54

Approved Intent to Apply.....	58
-------------------------------	----

ORGANIZATIONAL CHART

Logistic Operations' Organizational Chart

Logistics Operations
 Sandia Upper Management



GLOSSARY OF TERMS AND ABBREVIATIONS

Glossary of Terms and Abbreviations

#	ARS Action Request System: Logistics ticketing system
957 Logistics Operation's headquarters/main warehouse	B
A	BBS Behavior Based Safety: a worker driven and management supported program focused on preventing workplace incidents/injuries.
ABW Air Base Wing	Black Belt Lean Six Sigma Black Belt certified personnel
AED Automated External Defibrillator	Business Process Reengineering The analysis and design of workflows and processes within an organization
AS-AL-OD-01 Security Operating Procedure	C
AS-AL-OP-02 Control of Records Procedure	CAS Cost Accounting Standards
AS-AL-OP-03 Assessments/Internal Audits Procedure	CATS Corrective Action Tracking System
AS-AL-OP-04 Control of Non-conforming Product Procedure	CDL Commercial Driver's License
AS-AL-OP-05 Preventive/Improvement Actions Procedure	CMPC Classified Matter Protection and Control
AS-AL-OP-06 Corrective Actions Procedure	COOP Continuity of Operation Plan: A plan to continue operations following an emergency
AS-AL-OP-07 Logistics Training Procedure	Controlled Document Specified documents following a consistent process for the creation, updating and approval of documents to ensure that the most current version/revision is being used
AS-AL-OP-08 Management Review Procedure	Corporate Sandia National Laboratories
AS-AL-OP-10 Data Collection & Analysis Procedure	CPS Corporate Policy Statement
AS-AL-QM-01 Logistics Quality Management System Procedure	
AS-AL-WI-01 Logistics' Improvement Tracking System Procedure	

CSat (survey)

Customer satisfaction: Usually refers to Logistics' customer satisfaction survey and/or its results

Current State Map

A flow chart depicting a process from start to finish of the process as it currently operates

Customers

Departments (organizations) within Sandia National laboratories

Cycle Time

The time it takes to complete one full repetition of work

D

DART

Days Away, Restricted, Transfer: Used as an indicator of injuries

Direct Customers

Customers that receive either tailored services, dedicated resources or both

DISC

Dominance, Influence, Steadiness, Conscientiousness

DOE

Department of Energy

DOT

Department of Transportation

E

Early engagement meetings

An avenue to discuss ideas and receive input about planned actions before the actions are fully deployed

EIMS

Enterprise Information Management Services: EIMS is a unified set of services and tools for managing Sandia information. EIMS consolidates Sandia's information assets through federated searching and consistent business processes.

Enterprise Model

Logistics' management system for how the business operates and work gets done

ERA

Employee Recognition Award

ES&H

Environment, Safety & Health

F

FAA

Federal Aviation Administration

FMEA

Failure Modes Effects and Analysis

FY

Fiscal year

G

GSA

General Services Administration

H

Home-on-home sessions

A two part process to provide Logistics a clear understanding of customer requirements and operational capabilities, and customers a clear understanding of Logistics' requirements and operational capabilities. 1) Customers visit Logistics' facilities 2) Logistics visits customer's facilities

HPI

Human Performance Improvement: a comprehensive strategy to reduce human error by understanding the error precursors that are embedded into the job to provoke error and decrease the likelihood of successfully completing a task and the flawed defenses that lead to events (James Reason, Human Error, 1990 p.187)

HQ

Headquarters

I

Ideal State

A flow chart depicting a process from start to finish of the process as it would ideally operate (no restrictions)

ILMS

Integrated Laboratory Management System: The framework by which Sandia manages all work done at the Labs

Indirect Funded Customers

Often referred as “line customers”, receive the standard suite of Logistics services

Input/Output Analysis

A chart depicting all incoming requirements and triggers to a process as well as all of the results (outputs) of the process

ISMS Star

Integrated Safety Management System tool to plan, conduct and review work safely

ISO

International Organization for Standardization: Logistics’ ISO 9001:2008 certification of their Quality Management System.

J

JIT

Just In Time

K

K-12

Kindergarten through 12th grade school computer donation program

KAFB

Kirtland Air Force Base

L

Lean Transformation

to undertake a comprehensive review of Logistics management and operations for the purpose of continually improving through the use of Lean Six Sigma tools and methodologies

LESA

Laboratory Enterprise Self Assessments system: Used to manage all self assessments

Lessons Learned

A Lessons Learned is the knowledge acquired from an innovation or an adverse experience that causes a worker or an organization to improve a process or activity to work safer, more efficiently, or with higher quality. In short, a change in behavior occurs.

Line Customers

See Indirect Customers

LITS

Logistics Issues Tracking System

LM

Lockheed Martin

Logistics

Logistics Operations organization at Sandia National Laboratories

Logistics Operations

Logistics Operations organization at Sandia National Laboratories

LSS

Lean Six Sigma

LQMS

Logistics Quality Management System: A means or tool to make certain that you can consistently provide services that meet your customer needs and expectations. To have the ability to continually improve on those services in the future.

M

MAR

Management Assurance Review

MC&A

Material Control and Accountability

MTC

Atomic Projects and Production Workers Metal Trades Council AFL-CIO

N

NG

Neutron Generator

NM

New Mexico

O

OJT

On the Job Training

OPEIU

Office & Professional Employees International Union local 251 AFL-CIO

Organizations

Departments within Sandia National Laboratories

OSHA

Occupational Safety & Health Administration

OST

Office of Secure Transportation

OST Support

Fleet Services department's OST support team that provides services to OST

P

P2

Pollution Prevention organization at Sandia National Laboratories

PAL

Procurement Action Liaison

PDCA

Plan, Do, Check, Act method

PMF

Performance Management Form

PPE

Personal Protective Equipment

Q

Quality Policy

Statement used to satisfy ISO 9001:2008 certification requirements and used as Logistics' mission statement.

R

RCA

Root Cause Analysis

REPEP

Represented Employees Performance Enhancement Process

S

SAC

Staff Advisory Council

Sandia

Sandia National Laboratories

Sandia Labs

Sandia National Laboratories

SC

Supply Chain organization at Sandia National Laboratories

SDN

Sandia Daily News

Service Center

A Sandia function which provides internal customers with specialized services and charges for those services

SharePoint

SNL internal websites used by the workforce to share non-classified information

SME

Subject Matter Expert

SNL

Sandia National Laboratories

SOW

Special Operations Wing

SSO

National Nuclear Security Administration's Sandia Site Office

T

U

UK

United Kingdom customers

UPS

UPS company: a global leader in logistics, offering a broad range of solutions including the transportation of packages and freight

USPS

United States Postal Service

V

Value Analysis

An analysis on each step in a process to determine if it is value added or non-value added in the eyes of the customer

VEM

Fleet Services department's Vehicle and Equipment Maintenance team (also called Fleet Operations)

VSA

Value Stream Analysis; a Lean Six Sigma tool for Value Stream Mapping which maps out the current state of the value stream, analyzes current conditions, identifies wasteful steps, develops ideal state of the value stream, develops future state map of the value stream, and develops action plans and tracking mechanisms.

VVM

Vision, Values, and Mission

W

X

X-Matrix

Logistics' Strategic Plan

Y

Z

Preface: Organizational Profile

P.1 Organizational Description

P.1a1 Since 1945, Sandia National Laboratories has been functioning to provide national security for the United States. Starting as a by-product of the Manhattan Project - America's World War II atomic bomb development program, Sandia's first efforts were to design, test and assemble nuclear weapons. In 1949, President Harry Truman offered AT&T Company "an opportunity to render an exceptional service in the national interest" by managing Sandia, which not only demonstrated his confidence in the labs expertise and potential, but also gave Sandia their mission.

Sandia National laboratories' Original Mission
Providing engineering design for all non-nuclear components of the nation's nuclear weapons
Sandia National laboratories' Current Mission
Committed to "science with the [original] mission in mind", Sandia creates innovative, science-based, systems-engineering solutions that <ul style="list-style-type: none"> •Sustain, modernize, and protect our nuclear arsenal, •Prevent the spread of weapons of mass destruction, •Provide new capabilities for national defense •Defend against terrorism, •Protect our national infrastructure, and •Ensure stable sources of energy and other critical resources.

Figure P-1

Lockheed Martin Corporation has since been awarded the DOE contract to manage Sandia Labs, and SNL continues to pursue its mission and has become one of the leading national laboratories in the world. Its highest goal is "to become the laboratory that the U.S. turns to first for innovative, science-based, systems-engineering solutions to the most challenging problems that threaten peace and freedom for our nation and the globe". In order to achieve this, our company has developed strategic objectives, mid-term goals, short-term milestones metrics, and three key strategies:

1. Supporting, through our leadership, the transformation of the nuclear weapons stockpile and complex into a modern, agile enterprise that maintains strategic deterrence far into the twenty-first century.
2. Maximizing our contributions in national security through development and application of leading-edge technology and innovative systems.
3. Achieving world-class excellence in operations and in innovative science and engineering that support and enable our mission.

Logistics Operations of Sandia National Laboratories, Albuquerque, New Mexico supports Sandia's mission with transportation and asset management. The logistical services provided enable Sandia National Laboratories to accomplish its mission. Logistics provides direct customer support to all of Sandia National Laboratories personnel including at Tonopah Test Range (TTR), Kauai Test Facility (KTF), and other remote sites. In helping SNL strive towards excellence, Logistics provides the following services (our key work processes): reapplication, receiving, package delivery, shipping and packaging, mail, asset management, corporate storage, classified destruct, VEM, OST Support, and Help Desk. Sandia Laboratories relies on Logistics to provide these services to both internal (SNL) and external customers (DOE/OST) promptly, effectively, and with the utmost quality. All of these are work processes essential in meeting Sandia's mission. Therefore, they are all highly important to our organizational success.

SNL Logistics' Mission
Support Sandia's mission with transportation and asset management while continually improving our process
SNL Logistics' Values
Safety, Security, Quality, productivity, Personal Development, and Cost
SNL Logistics' Vision
Become the model logistics organization within the DOE complex by leading in customer satisfaction, financial efficiency, efficient and effective processes, and employee growth and satisfaction
SNL Logistics' Strategic Goals
<ul style="list-style-type: none"> ➤ Customer- Improve Customer Satisfaction ➤ Financial- Efficient Use of Resources ➤ Internal- Efficient & Effective Processes ➤ Learning & Growth - Improve Employee Engagement and Satisfaction
SNL Logistics' Strategic Objectives
<ul style="list-style-type: none"> ➤ Create a learning culture ➤ Encourage professional growth & development ➤ Improved internal communication ➤ Continuous improvement ➤ Conduct process assessments ➤ Process definition initiatives ➤ Improve asset utilization ➤ Leverage IT & Technologies ➤ Improve the face of Logistics ➤ Customers understand logistics operation & services ➤ Understand customer needs & requirements

SNL Logistics' Strategic Plan (Figure P-2)

In the spirit of continual transformation, Logistics has gone through an entire lean transformation in the past year. During this time, many LSS and strategic planning events have been used to reorganize our internal operations from functional-based to process-based. This has been done to create an operation and culture that is focused on delivering the most efficient services with the highest quality to our customers. By doing this, our work processes, department names, ISO 9001:2008 certified Quality Management System, and performance measures. While we are continually improving and identifying this new structure, Figure P-3 contrasts our old and new operations.

Logistics' Operation Changes after Lean Transformation Figure P-3			
Old Department Names		New Department Names	
Receiving, Material Movement, & Mail		Shipping, Receiving, & Mail	
Shipping & Packaging		Corporate Transportation Services	
Fleet Services		Fleet Services	
Property Management & Reapplication		Asset Management & Corporate Storage	
Corporate Storage & On-site Hazardous Transportation		Disposition & Reutilization	
Old Work Processes/ Services	Old Key Performance Measures	New Work Processes/ Service	New Key Performance Measures
Overall	Customer Satisfaction	Classified Destruct	Percent of tickets completed in 7 days or less
Receiving		Customer Service	Percent of first call resolutions
Package Delivery		Hazardous Moves	Meet customer due date
Mail		Outbound Shipping	Meet customer due date
Shipping & Packaging	Percent Correct Delivery	Package Delivery	Packages delivered in 24 hours or less
Asset Management	Inventory	Package Delivery	Packages not arriving at correct destination
Corporate Storage	Percent Capacity (General Storage)	Package Delivery	Lost & damaged
Reapplication	Pick-up Cycle Time	Preventive Maintenance/ Repairs	Repair turnaround time
Classified Destruct	Pick-up Cycle Time	Preventive Maintenance/ Repairs	Percent of call-backs
Vehicle & Equipment Maintenance	Percent on-time Preventive Maintenance	Reapplication Pickups	Percent of tickets completed in 14 days or less
OST Support	Percent on-time Preventive Maintenance		
Help Desk	Number of Incoming Calls		

All of our services are directly delivered to our customers. The majority of the services provided are initiated by our internal customers through an intranet ticketing system. Customers are expected to submit tickets for specific services and Logistics promptly completes each one. All other services are either provided on scheduled increments or are provided upon customer's request.

P.1a2 Logistics has a culture that is driven towards continual improvement and professionalism. Logistics purpose and mission is to support Sandia's mission with

transportation and asset management while continually improving our process. In order to do this, Logistics is has a well-defined vision statement that has tangible goals to help us fulfill our mission and to become the organization that is envisioned. Our Vision is to "deliver excellence in Supply Chain Management. We help our customers execute and grow Sandia's Mission". This vision and our values – safety, security, quality, productivity, personal development, and cost- are what drives our strategic planning, goals and objectives. Logistics also embraces the corporate values of Excellence, Service of the Nation, Integrity, Teamwork and Each Other.

Our core competencies (Figure P-4) provide a direct relation to our mission. Each one of them links to either asset management or transportation (stated in our mission statement), and we depend on these to make Logistics a vital role in fulfilling Sandia's mission.



P.1a3 Throughout Logistics, the workforce is comprised of technical staff, laboratory staff, Union-represented, non-represented, administration, contractors, part-time, full-time and student intern employees. Over 64% (the sum of OPIEU and MTC) are represented as seen in Figure P-5.

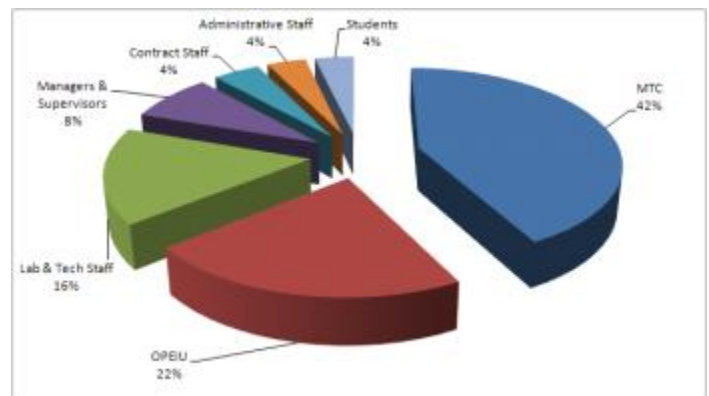


Figure P-5: Logistics Workforce Profile

Top 10 Benefits			
Figure P-6			
1. Career and Professional Development <ul style="list-style-type: none"> •Educational assistance •Internal training Resources •Leadership development programs •Diversity network and resources 	2. Community Involvement <ul style="list-style-type: none"> •Volunteer opportunities •Community outreach •LMC College & Matching Gifts Program 	3. Compensation <ul style="list-style-type: none"> •A competitive base salary •Non-base cash awards for significant achievements and performances 	4. Culture/Values <ul style="list-style-type: none"> •Work with extraordinary people doing extraordinary things. •Values: <ol style="list-style-type: none"> 1. Integrity 2. Excellence 3. Service to the nation 4. Respect our people 5. Teamwork
5. Diversity <ul style="list-style-type: none"> •Employee diversity initiatives •Diversity Councils •Awards and recognition •Diversity events 	6. Educational Benefits <ul style="list-style-type: none"> •Tuition Assistance •Masters Fellowship Program •University Part-time Program •Special Masters Program •Doctoral Study Program 	7. Health <ul style="list-style-type: none"> •Medical, Dental, and Vision •Same sex domestic partner benefits •Onsite health and Wellness Services •Life, accident and disability insurance •Health Care and Dependent Care spending accounts •Adoption Assistance 	8. Retirement <ul style="list-style-type: none"> •401(K): <ul style="list-style-type: none"> – Saving and Income Plan (for non-union employees) – Savings and Security Plan (for union represented employees) – Contribute up to 18% of pay, and Sandia will match 2/3 of the first 6% contributions.
9. Wellness Programs <ul style="list-style-type: none"> •On-site fitness center •Smoking cessation program •Nutrition services •Online health resources •Preventive healthcare screening programs 		10. Work/Life <ul style="list-style-type: none"> •Flexible work schedules (9/80, part-time and telecommuting) •Paid Time Off (for vacation, personal time or illness) •Leave for birth/adoption of a child •On-site credit unions •On-site cafeterias & dining rooms 	

As seen in Figure P-7, the majority of our workforce is either high school educated or has no degree listed in our HR database. There has been a recent rise in education levels due to higher hiring requirements and employees taking advantage of tuition assistance programs.

In the past couple of years, many of our workforce has neared retirement age. Logistics saw this in advance and has hired new employees to capture the knowledge of the retiring workforce. In Figure P-5, it shows that employees with 0-10 years of experience account for 59% of our workforce. This number has increase recently, as an anticipation of multiple retirements in the next couple of years.

Workforce Profile (Figure P-7)	
Education	% of Workforce
Masters	8%
Bachelors	14%
Associates	11%
Certificates	5%
High School	42%
No Degree Listed	21%
Years of Service	% of Workforce
30-40 years	12%
20-30 years	19%
10-20 years	9%
5-10 years	37%
1-5 years	18%
Less than 1 year	4%

Sandia National Laboratories provides their employees with some of the best benefits in the country. Our top ten benefits have been summarized in Figure P-6.

The staff take pride in their work and are committed to “service to the nation”. Management is constantly communicating with the employees through all-hands meeting, emails, LSS events, meetings, trainings and other ways to share the vision and direction for Logistics. Employees fully participate in these communication venues to ask questions, suggest ideas, and provide feedback. They are engaged in delivering excellence in Supply Chain management.

P.1a4 Currently, Logistics is comprised of five main facilities, Main warehouse 957, Reapplication 996, 6000 Igloo complex and Manzano Bunkers, and the Motor Pool Complex. Each one of these is crucial to both Logistics’ and Sandia’s mission.

Logistics’ relies heavily on equipment for our day-to-day operation. Some of these include vehicles, trucks, forklifts, trailers, generators, man lifts, industrial shredders and more. These are managed, leased, & maintained by Fleet Operations.

Logistics’ key technologies are provided in Figure P-8.

P.1a5 The regulatory environment includes job appropriate PPE, administrative and engineered controls, Corporate Policy System (policy, process, and procedures), Corporate Training, and Environmental (CDL, DOE, DOT, FAA, and OSHA) regulations. Logistics’ Quality Management System (LQMS) is ISO 9000:2008 registered and Sandia National Laboratories is registered to ISO

Logistics Key Technologies and Their Functions Figure P-8	
ARS	Tool for customers to submit service tickets to Logistics. Logistics uses this tool to manage tickets and create reports.
Webshipper	Tool used by Shipping, Receiving & Mail to manage customer shipping requests.
Oracle	All financial reports, procurement tools, Fixed Asset Inventory, Explosive Inventory System (EIS), Firearm Inventory, and Precious Metal Inventory.
EIMS	Corporate electronic document repository. Tool used for storing all LQMS controlled procedures
Vehicle GPS Systems	GPS systems are installed in vehicles to enhance route performance, communication with drivers, and strategic decision making.
Fleet Focus	Software used by Fleet Operations to manage entire fleet of all SNL sites, schedule and track progress of work orders, fuel management, and reports used to manage the fleet.

14001, which guides our processes for documenting and following procedures. In addition, there is significant oversight from SSO and we must adhere to CAS regulations for financial.

P.1b1 In logistics, there is one Level II Manager, one deputy manager, five managers, six supervisors, all report up through the Supply Chain Center to Chief Financial Officer. All events are reported at the lowest level and filtered up each level of management. For events of specific magnitude a root cause analysis is done, and the items are entered into Laboratory Enterprise Self Assessment System (LESA), or Corrective Action Tracking System (CATS) as appropriate, there is also a requirement to report lessons learned through the DOE.

P.1b2 Most services are provided to the entire Sandia population, however we do have customers with special needs as well OST, NG, UK, Property Coordinators, DOE, Pollution Prevention. DOE, Sandia Corporation, Lockheed Martin, and from an environmental impact perspective, the

State of NM are stakeholders. All Logistics operations in Sandia must go through Logistics.

Stakeholders require clear communication, timely response, the job done right the first time, flexibility, professionalism and support from Logistics' SMEs for provided services. If these do not meet customers' expectations, then Sandia's mission may be at risk.

The emphasis on each expectation varies between customer groups, but the expectations remain the same. Each stakeholder expects high professional service from Logistics. Figure P-9 clearly lists our work processes (services) and their requirements.

P.1b3 Our key suppliers are vendors, JIT vendors and GSA. Many of the supplies needed for operations are provided through JIT vendors. We rely on these relationships to ensure that all departments have the materials needed to complete their services in a timely matter. If we need specialty items the JIT vendors cannot supply, then we order them through another vendor. Having JIT vendors allows us to provide services quickly because of their dedication to fast delivery. GSA is another important supplier. They provide Sandia with vehicles for work-related needs. Their vehicles provide transportation for the majority of Logistics' services. Suppliers are very important with providing us with the supplies and material needed to fulfill our mission.

Process	Communication	Timeliness	Supportive	Quality	Reliability	Flexibility
Receiving		X		X	X	X
Package Delivery	X	X		X	X	X
Shipping and Packaging	X	X	X	X	X	X
Mail		X		X	X	X
Asset Management	X	X	X	X	X	X
Corporate Storage	X	X	X	X	X	X
Classified Destruct	X	X		X	X	X
Reapplication	X	X		X	X	X
VEM	X	X	X	X	X	X
OST Support	X	X	X	X	X	X
Help Desk	X	X	X	X	X	X

Figure P-9: Customer Requirements by Process

Logistics partners are long-term relationships playing a crucial role in fulfilling Logistics' mission. They include Procurement, ES&H, MC&A, P2, Industrial Hygiene, security, Facilities, and CMPC. These have a direct affect

on Logistics operations. If any of these partnerships did not exist, many of the services we provide would not be able to continue efficiently. They are partnerships that keep our programs running.

Logistics collaborators include FedEx, UPS, USPS, Bentley, and Safety-Kleen. These are supporting companies that have short-term service agreements ensuring that particular needs are being met in order to provide the best logistical service to our customers.

Relationships with suppliers, partners, and collaborators are managed through procurement contracts, meetings, established processes, requests forms, email and associations. In certain areas, we have in-house suppliers to ensure their accessibility to our employees and involvement with our processes. Suppliers, collaborators and partners play a critical role in continuously improving our services by their participation on lean six-sigma teams.

As being a key part of Sandia’s supply-chain, we know how important it is to have our suppliers, partners, and collaborators follow key requirements. Without them satisfying these requirements, it makes it very difficult for Logistics’ to fulfill Sandia’s supply-chain requirements. Below are a few key requirements of our key suppliers, partners, and collaborators:

- Suppliers
 - Provide supplies and materials professionally, quickly and correctly.
 - Have personnel readily available to assist with placing orders and answering questions
 - Adhere to federal, local, and corporate laws and regulations.
- Partners
 - Placing contracts with desired companies, purchasing needed items, machinery, and equipment, and constantly communication with Logistics during related procurement activities.
 - Thoroughly abiding by federal, local, and corporate laws and regulations.
 - Providing services and expertise professionally, timely, ethically and accurately to help Logistic satisfy its mission.
 - Establish a long-term relationship focused on providing services, as well as, helping Logistics towards continual improvement.
- Collaborators
 - Providing services and expertise professionally, timely, ethically and accurately to help Logistic satisfy its mission.
 - Low costs
 - Thoroughly abiding by federal, local, and corporate laws and regulations.

P.2 Organizational Situation

P.2a1 Logistics challenges are to stay sized within the needs of Sandia National Laboratories and within the budget provided. Our competitive position is our proximity and

integration within the Laboratories. Logistics’ has 100% of Sandia’s market share, and has no competitors.

P.2a2 The idea of outsourcing is prevalent, therefore it is important for Logistics to maintain cost and provide services that meet customer expectations (Figure P-9). As mentioned in P1a1, in order to become more efficient and process and customer focused, Logistics recently went through an entire reorganization of their functions. This was done to align key processes, eliminate waste, decrease cost, increase efficiency, and increase competitive advantage over potential competitors. Figure P-3 list some of our recent changes.

P.2a3 Logistics provides services for Sandia that aren’t typical in United States. To find another laboratory or company that engage in these types of services is difficult. We are able to collect some data through certain memberships and associations. We work closely with Sandia Livermore, whom is available to provide data and expertise when asked. We also attend workshops and trade shows to maintain intelligence of available technology and processes. Examples include: Material Management Workshop (MMW), National Property Managers Associations (NPMA). Logistics also has multiple internal and external audits each year (including ISO). This provides beneficial feedback to allow improvement.

Comparative Data Sources, Figure P-10	
Result	Comparative Source
Storage Utilization	National Self Storage
VEM On-time PM	Industry Average
OST On-time PM	Industry Average
Customer Satisfaction	SNL Livermore
Package Delivery	USPS
Workforce Capability	Organization X (from LMI)
Employee Satisfaction	Sandia, Lockheed Martin

Fleet Services annually participates in the 100 Best Fleets application process and seminar week. This provides data on how other Fleets are conducting business effectively and gives Fleet benchmarking data.

Last, while continually progressing towards performance excellence by participating in QNM’s quality program, we have been able to access data and ideas from QNM and Baldrige award winners. Also, we have had a QNM examiner provide feedback on our operations.

Logistics faces great limitations in collecting benchmarking data because of the nature of our business. We are currently working on improving this area, and realize that other

National Laboratories may have some of the same operation and/or performance measurements as us. Sandia's complex nature and mission is truly unique (even within the Nuclear Complex), and there are not many whose services directly relate to ours (see Figure P-4: Core Competencies)

P.2b1 Figure P-11 list Logistics key business, operational, sustainability and HR strategic advantages and disadvantages.

P.2c1 Logistics utilizes the corporate performance evaluation processes for employee evaluation (PMF for non-represented employees and REPEP for represented employees), there is a corporate strategic education initiative available to employees for organizational learning, employees are part of work improvement teams, Logistics has embraced the Lean Six Sigma methodologies, and is ISO 9001:2008 registered.

LSS and ISO have helped Logistics develop into a quality oriented and performance-excellence focused organization. Our commitment to these tools has focused the efforts of Logistics towards documenting processes, leaning out processes, and encouraging employee, supplier, collaborator and partner involvement in creating innovative solutions to increase efficiency. They are a major part of our quality journey as seen in Figure P-11.



Figure P-11: Logistics Quality Journey

Logistics' Quality Management System is ISO 9001:2008 registered and is a major aspect of our quality journey and culture. LQMS is a means or tool to make certain that you can consistently provide services that meet your customer needs and expectations and to have the ability to continually improve on those services in the future. It is an avenue for providing a quality system that provides the foundation and structure to continually improve how we do business, helps us meet customer requirements, allows for continuity of operations and consistency, and helps us become more efficient. LQMS is a tool used to capture many corporate and federal requirements, such as ISO, DOE Orders, ILMS, federal regulations, and CPSs, since these are built into

LQMS's requirement. LQMS is an avenue for Logistics and each department to post key procedures to accomplish their work. This system provides all employees with an one-stop avenue to find operating procedures, work instructions, datasheets, to control documents (a consistent process for the creation, updating and approval of documents to ensure that the most current version/revision is being used), to access Logistics Improvement Tracking System (LITS)-- which is a key factor in the workforce driving Logistics to continual improvement by submitting improvement ideas,

Strategic Advantages and Disadvantages (business, operational, sustainability and HR) Figure P-12

Strategic Advantages	Strategic Disadvantages
Knowledge, Skills, and abilities	1. Budget Constraints
Hiring requirements	2. No Competitors
Expertise in Precious Metals, Hazardous waste, Nuclear Material, and Explosives	3. Workforce Retirements
Competitors (none)	4. Excessive Regulation
	5. Current "Government" Culture
	6. Hiring limitations (regulations and length of time to hire new employees).

and to find the Quality Policy. A list of our key Logistics controlled procedures are in Figure P-13 (each department has additional procedures).

Key Procedures of Logistics ISO registered LQMS (Figure P-13)	
AS-AL-OD-01: Security Operating Procedure	AS-AL-OP-07: Logistics Training
AS-AL-OD-02: Logistics Records Matrix	AS-AL-OP-08: Management Review Process
AS-AL-OP-02: Control of Records	AS-AL-OP-10: Data collection & Analysis Process
AS-AL-OP-03: Assessment/Internal Audits	AS-AL-QM-01: Logistics Quality Management System
AS-AL-OP-04: Control of nonconforming products/services	AS-AL-WI-01: Logistics Improvement Tracking System
AS-AL-OP-05: Preventive/Improvement Actions	N/A: Work, Planning and Control Applicability Matrix
AS-AL-OP-06: Corrective Actions	NM-AL-OP-09: Work, Planning & Control Process

Category 1: Leadership

1.1 Senior Leadership

1.1a1 Logistics management and essential workforce participates in Supply Chain strategic planning sessions. During these sessions, the mission and vision of Supply Chain is set. Supply Chain adopts the values of Sandia. Once these sessions are finalized, senior management deploys the VVM (vision, values, mission) to managers and team supervisors who then deploy the VVM to all employees to ensure that they know and understand them and how they support them.

Supply Chain's VVM is highly correlated with the Logistics' strategy (Logistics creates their own mission statement –Quality Policy, but adopts the vision and values from Supply Chain (SC)). The management team and essential workforce use Supply Chain's balance scorecard, which is created during Supply Chain's strategic planning and states the VVM and key objectives to accomplish Supply Chain's vision, to develop Logistics X-matrix (Figure 2-3). Key objectives on SC's balanced scorecard are listed as Logistics' goals. In order to support SC's mission, the key objectives have been broken down further into strategic strategies and projects for the purpose of creating a strategy for Logistics (which directly reflects Supply Chain's strategy).

As part of the ISO certification, Logistics has developed a Quality Policy statement, which is used as our mission, and an internal and customer perspective (internal and customer perspective Figure 1-2). These three key statements help drive the decision making and strategy of the entire department. They are deployed to the entire workforce through magnets stated the Quality Policy (as seen in Figure 1-1) and full size posters stating all three statements, and can be found posted all throughout the buildings. The statements are reviewed once a year during the assigned management review meeting, which meets three times a year, to find areas of improvement. The management team approves all changes and then the updated version is posted on Logistics' website for controlled documents, LQMS (which is ISO 9001:2008 registered).



Figure 1-1: Logistics' Quality Policy/Mission Magnet

CUSTOMER PERSPECTIVE

Understand customer expectations and deliver quality logistics services to support our customers' missions.

INTERNAL PERSPECTIVE

Strive for operational excellence based on the values of Safety, Security, Quality, Productivity, Personnel Development, and Cost.

- *Operational Excellence is a philosophy of leadership and teamwork resulting in continuous improvement focusing on the needs of the customer, empowering employees, and optimizing existing activities in the process.*

Figure 1-2: Logistics' Quality Objectives

1.1a2 Annually, every employee is required to go through the following training that addresses legal and ethical topics: Ethics Awareness Training (ETH2011), Personal Conflict of Interest (PCI100), Security Refresher Briefing (SEC100), Cyber Security Awareness Training (COM100), Harassment-Free Workplace (LMC190), Labor Charging (LMC230), Information Protection (LMC330), Counterintelligence Training (CI100), and ES&H Awareness (ESH100). Managers ensure, through group training coordinators, that all employees are in compliance with required training. In the instance of ethics training, management conducts this training and talks through scenarios with their employees. They also have open door policies for employees to express concerns regarding legal or ethical topics. Managers also encourage the use of the corporate ethics hotline.

1.1a3 Sustainability is a key focus at Logistics. Through Lean Six Sigma, Logistics is able to define current operations, eliminate wasteful activities, align workforce capacity with business needs, improve performance, increase organizational learning, and create efficient operations. LSS has been huge in creating a sustainable organization. In the last year, we have been able to use the tools and methodology to conduct value stream analysis on each one of our departments. In the next year, Logistics has several other LSS events planned out, including multiple 6S events, to continue improving Logistics for years to come.

Logistics most common LSS event used to create a sustainable organization is a value stream analysis. During the VSA LSS event process, the LSS Black Belt and management team carefully plan all events out during the weekly management meeting. They decide which events will be conducted, who will be involved, on the preliminary objectives, on the expected outcomes/return on investment, how the event corresponds to current business objectives (strategic projects/goals), and when it will be conducted by completing an event charter. Then during the week-long

value stream analysis, the members complete an input/output analysis, a current state map of key processes, a value analysis of current processes, a list of “ideal state” preferences, a current state map to eliminate waste and add value, a list of metrics to help monitor efficiency of the key procedures, and an out-brief to management. Management participates in the event, so they can be involved in the decision making, brainstorming, team development, and key takeaways. Feedback is obtained during a round-table discussion in the closeout meeting, and is used to improve the LSS process. Spring of 2011 is when the final department VSA was completed. Figure 4-2: Future Suite of Performance Measures shows the list of metrics developed during the VSAs, which have either been deployed or will be very soon.

In addition to Lean Six Sigma, ISO 9001 is heavily embedded into our culture and is important in management creating a sustainable organization. Organizational learning, succession planning, workforce learning, and sustainability are benefits of our ISO program. Our documents to help perform our key work processes are documented through Logistics’ LQMS website. Logistics’ has several key procedures all departments must adhere to (Figure P-13), and each department has multiple controlled procedures, work instructions, and datasheets to guide their processes as well. These procedures guide all employees how to conduct their work, and allows knowledge and expertise to be transferred to future generations. All of the controlled documents are reviewed either in 1 or 2 year increments. During the reviews, a team is gathered to discuss the procedure, make improvements to the process, inform management of decisions, finalize the document with management, and repost it on LQMS. The process helps Logistics to continuously learn and create a better efficient organization.

Another key sustainability tool includes, monthly LQMS core team meetings involving one ISO/Quality Management System (QMS) subject matter expert (SME) representative from each of Logistics’ departments. Having this core team ensures that all departments are represented when making procedural changes. This team is responsible for improving our quality document control system, multiple annual external audits (which helps organizational learning), regular internal audits and self assessments, the LITS database (Logistics database to list and monitor improvement ideas), and annual ISO audits. Management supports is a key driving factor in making sure these meeting address issues that will make improve Logistics’ processes.

Other sustainability tools include supported and promoted heavily by management include, weekly Logistics’ Safety Committee meetings, management promotion of continual education, certification, and training, listening sessions, and postings on the ES&H Lesson Learned webpage (reviewed monthly).

1.1b1 To address a strategic decision, influential event, concern, adjustment in procedure, important news, or successes, a member of the management team promptly sends out an email to the entire workforce. Roughly twice a year, the senior manager holds an All-hands meeting to present current issues with the entire workforce. If these two methods aren’t adequate, managers will set up meetings, conference calls or call the appropriate employees. Logistics desires two-way frank communication, and encourages it through open-door policies, awarding individuals voicing key concerns (through monthly ERA awards, SAC awards, Logistics’ Safety Committee awards and spot awards), listening sessions and seeking out employee opinions through surveys.

We have also developed a new approach to communicating with our employees. This was a result from the strategic initiative to improve internal communication. A comprehensive communication plan was developed as well as a quarterly newsletter that is sent to all employees via email. This newsletter allows management to communicate upcoming activities, highlight past accomplishments, and recognize individual members of the workforce. Management can also use this venue to update the workforce on strategic initiatives and projects.

1.1b2 Mentioned in 1.1a1, Logistics management team is highly involved with Supply Chain’s strategic planning. Key objectives and action items taken from this planning are addressed in Logistics strategic planning and are the foundation for Logistics X-matrix (Figure 2-3) goals and strategic projects (strategic action items). The management team and essential workforce develop the projects during the strategic planning event. They make decisions on which strategic projects to develop based on information learned from LSS events, ISO certification requirements, metrics, brainstorming, and audits/assessments. The projects are assigned to a responsible manager or team lead and their progress is tracked and discussed quarterly. During these discussions, management and essential workforce discuss the current progress of the strategic project and ideas related to the projects that will improve their efficiencies.

Management helped create and was heavily involved in the deployment of the Logistics Improvement Tracking System (LITS) as a tool to allow all employees the chance to address preventative actions, improvement ideas, and nonconformance issues directly to management. This process is documented in the Logistics Improvement Tracking System (LITS) procedure (AS-AL-WI-01) controlled in ISO-registered LQMS.

1. First, a member of the workforce identifies a potential action and enters it into LITS.
2. Then, the LITS administrator (who monitors the LITS database weekly) prepares for the senior manager a monthly report to review current action progress and identify new action suggestions.
3. Management will then determine (through open discussion with his managers during the weekly Management Meetings) if the action suggestion will be beneficial to act upon. If so, he will assign an owner to the new action item.
4. The action owner gathers relevant data and information in order to develop a plan to complete the action item. In order to ensure the completion of the action item, the employee will document and submit to management the detailed plan for their approval, maintain relevant records, follow other relevant procedures (such as, Control of Nonconforming Product/Process/Service Procedure (AS-AL-OP-06) and Preventative/Improvement Actions procedure (AS-AL-OP-05)), inform management on their progress, and notifying management when completed.
5. Last, management verifies the action item's completion, reviews its effectiveness (process learning), and closes the item in LITS.

All employees can use this system to address process improvement ideas.

1.2 Governance and Societal Responsibilities

1.2a1 Sandia's Logistics Operations organization uses a number of formalized methods to ensure to ensure strong governance and accountabilities of leaders. In accordance with its' Quality Management System, Logistics Operations conducts Management Reviews in accordance with a pre-established schedule. Several LQMS processes have been developed and are used by Logistics management to ensure a systematic process is used for improving performance. The following processes have been used and tailored to support these activities; AS-AL-OP-08 Management Review Process, AS-AL-OP-10 Data Collection and Analysis Process, and AS-AL-OP-03 Assessments/Internal Audits.

Management review meetings are held to assess overall performance, review performance against goals, discuss performance shortfalls and review fiscal performance against established budgets. Results of these management reviews are reported upward in the organization as part of Sandia's SC Management Assurance Reporting (MAR) activities. MAR reviews are held in conjunction with external stakeholders and regulators to ensure transparency of operations and governance and the results of these reviews are summarized internally and reported to Sandia's Board of Directors as applicable.

In addition to management review activities, Sr. Management engages with a variety of internal and external audit organizations to solicit independent assessments of operations and opportunities for improvements. One such organization is Sandia's Internal Audit Department, an independent organization whose mission is to "perform risk-based, objective, professional audits and reviews that are aligned with strategic management objectives; we inform and advise Sandia management, Board of Directors, and other critical stakeholders of enterprise-wide risks". This engagement typically begins with a meeting at the beginning of each fiscal year where Logistics Sr. Management discusses areas of risk and concern with Internal Audit personnel for the purpose of identifying potential audit opportunities.

1.2a2 Senior leaders in Sandia's Logistics Operations organization are evaluated using Sandia's performance and compensation process. This process is codified as Sandia National Laboratories Corporate Policy HR100.3.8 Management and Evaluate Employee Performance. Associated with this policy is HR100.3.9 Determine Compensation and Non-base awards.

These two processes provide for a systematic and structured method for evaluating performance and providing compensation tied to performance and meeting pre-established performance objectives.

At the beginning of the year, Sr. Leadership within Logistics Operations' identify and document a number of performance objectives for the upcoming fiscal year for which they will be responsible for meeting. These performance objectives are negotiated with upper management and are tied to the strategic goals and objectives of the company and the organization. Once agreed upon, these performance objectives are used to assess and evaluate performance throughout the year. No

less than twice a year, Sr. Leadership within Logistics Operations meets with upper management to review and evaluate performance against agreed upon objectives.

At the conclusion of the fiscal year, the performance of Sr. Leadership is evaluated by upper management and Sr. Leadership are assigned a Value of Contribution (VOC) designating performance against meeting predetermined objectives.

An integral part of the performance review process is the identification and documentation of career development plans which form the basis for career development and advancement within the organization.

Sr. Leadership in Logistics Operations also uses a variety of additional tools to self-evaluate performance and collect information relative to performance. These tools include Covey's Trust Quotient 360-degree feedback, DISC (Dominance, Influence, Steadiness, and Conscientiousness) assessments of behavior, and other 360-degree feedback mechanisms. These tools allow Sr. Leadership to reflect on performance, alignment of values with stated quality objectives and opportunities for growth and development.

1.2b1 Sandia's Logistics organization is responsible for a variety of activities including the storage and transportation of hazardous materials that could pose adverse affects on local stakeholders and members of the community. Sandia's Logistics organization proactively plans and partners internally with a variety of organizations to assess these affects and develop plans and documents for addressing and mitigating potential impacts and concerns of interested parties. For example, Sandia's Logistics Organization participates in the development of Sandia's Site Wide Environmental Impact Statement (SWEIS) which identifies current and future potential impacts to the environment. This document has been made available for a public scoping meeting allowing interested parties to voice opinions, issues and concerns. As a tenant on Kirtland Air Force Base (KAFB), Sandia also partners and collaborates with the base commander to ensure facilities and operations are conducted and maintained in accordance with established standards and protocols. In addition to these activities, Sandia's Logistics organization is responsible for establishing and maintaining Sandia's Transportation Safety Document and for ensuring that hazardous material are transported in a safe and secure manner. This document is developed in partnership with our local regulators and stakeholders.

A number of processes have been developed and are currently being used by Sandia's Logistics organization to ensure compliance with regulatory and legal requirements. These include; AS-AL-OP-04 Control of Nonconforming Product and AS-AL-OP-04 Assessments/Internal Audits.

AS-AL-OP-04 has been used by a variety of Logistics organizations to schedule independent audits and assessments to ensure compliance with regulatory requirements. Sandia's Logistics organization also uses Sandia's corporate policy CG100.6.1 Manage Risks, to identify and mitigate risks associated with legal and regulatory requirements. In 2010 a two day structured event was held with all Logistics management to use Failure Modes Effects and Analysis (FMEA) tools to identify, evaluate and mitigate these risks.

Compliance goals are established and monitored in conjunction with regulators and stakeholders for a number of high profile activities. As an example, Sandia's Logistics organization is responsible for managing and maintaining inventory activities associated with personal accountable property, firearms and precious metals. Goals associated with these activities are negotiated with regulators on an annual basis and are monitored throughout the year. In FY2011 performance against these goals meets criteria for Outstanding, the highest rating possible.

Due to the nature of the items managed and stored as part of Sandia's Logistics Operations activities, various groups and departments have employed a number of electronic tools, databases, and work instructions to ensure safe and compliant operations. In these cases, there is no margin for error and thus goals are full and complete compliance with regulatory requirements.

1.2b2 Sandia's Logistics Organization has committed to conducting its operations in an ethical and transparent fashion. Annually Sandia's Logistics Organization sets a goal to ensure that 100% of its employees have completed annual ethics training. This goal is met on an annual basis with exceptions given to employees who are out on extended leave or have other extenuating circumstances.

Sandia National Laboratories' Code of Conduct and corporate policy CG100.4.1 Comply with the Standard for Ethics and Business Conduct and Sandia's Corporate Values provide the framework for ensuring ethical behavior. In addition to this framework, Logistics employees are encouraged to take advantage of Sandia's Independent

Audit and Ethics Center to raise and address ethical concerns and issues.

In 2010 at an event sponsored by the Albuquerque Ethics Alliance, Sandia's Sr. Logistics leadership became familiar with Steven M.R. Covey's "Speed of Trust" concepts and philosophies. Sr. Leadership was subsequently trained to teach this material and later established a goal to ensure that 100% of the Logistics workforce had been trained to "Working at the Speed of Trust". This one-day session offered participants the opportunity to learn about the four cores of credibility and thirteen behaviors associated with high trust organizations. To date, over 95% of all Logistics employees have been trained.

1.2c1 Sandia's Logistics Organization has a long-standing tradition of serving the community and improving the lives of the individuals and citizens in those communities.

Sandia's Logistics Organization complies and fully supports Sandia's Corporate Policy ESH100 to protect the environment through integration of environmental stewardship and sustainability. In particular, due to the nature of its operations, Sandia's Logistics organization has invested considerable efforts and resources to reduce its environmental impact and footprint. In furtherance of this policy, Sandia's Logistics Organization has partnered with a variety of internal organizations to contribute and achieve goals associated with Pollution Prevention and recycling activities.

As a result of these efforts, Sandia's Logistics Organization has been recognized with awards for Federal Electronics Challenge activities, P2 Star Award efforts, and a best in class for Electronics Reuse and Recycling.

With responsibility for managing Sandia's entire fleet of motorized vehicles, Sandia's Logistics organization has undertaken major initiatives to reduce fuel consumption and increase the use of alternative fuels. As a result of these efforts Sandia has the largest fleet of alternative fuel vehicles in the DOE complex and has designed and developed a prototype solar power cart for use within the campus. This design was recognized with a DOE award and as a result, eight local carts have been retrofitted contributing to Sandia's goal of reducing overall fuel use and contributing to an environmentally friendly site within our community.

1.2c2 Sandia's Logistics Organization has a long-standing tradition of giving back to the community. Operating

primarily in Albuquerque, NM Sandia's Logistics community outreach activities are naturally focused on the citizens and residents within Albuquerque and surrounding towns and municipalities. Logistics personnel regularly give their time to various local organizations including Habitat for Humanity.

Annually, a representative from Sandia's Logistics Organization takes an active role in championing outreach efforts on behalf of Sandia's Employee Caring Program (ECP). Participation in Sandia's ECP is actively encouraged and monitored by Sr. leadership.

In addition to actively giving through our ECP program, several additional community outreach activities are sponsored and supported by Logistics personnel. These include providing driver and delivery support for transportation of donated goods. These annual activities include: Thanksgiving turkey drive; book drive; food drive; and school supply drive.

In addition to the above efforts, Logistics' Reutilization and Disposition team supported "Manos", a science and engineering SNL program. The program targets certain Albuquerque high schools and teaches children the computer hardware components. The kids are allowed to disassemble computers and locate different things such as power supply, memory, etc.

The most recent community outreach efforts involved the kickoff of the K-12 Computer Donation Program. Under this program, the Reutilization Team assisted 19 schools with the processing and donation of more than 900 computers and laptops. Immediate feedback was that the whole process was well planned and organized. Some of the schools indicated that these computers were going to be used to establish new computer centers for schools located in poverty areas. Others indicated that they were going to be replacing computers over 8 years old. One particular school commented that for the cost of purchasing 3 new computers, they instead were able to get 43 computers from Sandia.

Category 2: Strategic Planning

2.1 Strategy Development

2.1a1 Logistics operations conducts strategic meetings once a week with the management team (senior manager, department managers, and, at times, the director) to discuss the current state of operations, brainstorm ideas for improvements and innovations, and to identify goals,

strategies to achieve goals, projects to achieve strategies, and metrics to measure success. Every third week of the month, team supervisors and other key employees—such as subject matter experts, customers and other stakeholders—are involved in the meeting to give updates, address strategic issues, answer and ask questions, and provide a broader perspective on key strategic issues. These meetings are essential to surfacing potential blind spots, and assigning the relevant personnel with the task of researching the blind spots and other issues further. Management review meetings (held every 4 months) are conducted to ensure strategy is being implemented correctly. Progress of our strategic goals is recorded monthly in a spreadsheet. Management uses this information during the management review meeting to evaluate improvement.

Recently, Logistics created their Strategic Planning Event. At the beginning of this event, an end-to-end LSS value stream analysis was conducted to better understand our operations, and to evaluate how current processes can be modified, merged, or eliminated. Using this information, Logistics conducted a lean transformation of operations to align processes, personnel, and resources. This has helped increase efficiency, cut costs, eliminate wasteful activities, and provide higher quality service to our customers. Then a balance scorecard (Figure 2-3) was created defining our strategic goals, strategies and tactics to accomplish the goals, the short-term strategic projects (0-12 months), and the owners of each project (progress of strategic projects are during the management review meeting). This event was followed up by multiple focus groups/listening sessions to gather feedback. Logistics plans to continue to follow this method in the future.

In all strategic activities, management seeks immediate feedback to improve processes. These include multiple listening sessions and focus groups throughout the year, question and answer sessions at the end of all all-hands and department meetings, open-door policy for employees to ask questions and voice their concerns, employee participation in LQMS procedure management, employee participation in LSS events, and an Lockheed Martin annual employee survey. All feedback is tracked and monitored and trending and issues are discussed in weekly management meetings. Management will use employee comments to continual improve processes though out the entire organization.

Key Management Meetings Figure 2-1			
Meeting Name	Participants	Content	Interval
Management Meeting	Senior manager, department managers, and at times the director	<ul style="list-style-type: none"> Departmental updates, new ideas for efficiency, budget updates, strategy development and implementation Key issues 	Weekly
Management and Team Supervisor Meeting	Senior manager, department managers, team supervisors, and essential workforce	<ul style="list-style-type: none"> Team supervisor updates Innovations/improvement ideas Action item progress LITS/LESA/CATS updates Audit summary Key Issues SME ideas for efficiency 	Once a Month
Quality Management Review	Senior Management, department managers, team supervisors, & key staff	<ul style="list-style-type: none"> Strategic Projects updates Metrics updates Major LITS entries LQMS document revisions See Figure 4-3: Quality Management Review Schedule 	Every 3 months
SC Quality Management Reviews	Director, Senior managers, department managers, & key staff (Logistics is heavily involved)	<ul style="list-style-type: none"> Integration of Procurement department and Logistics SC strategy creation and implementation Major Action Item updates Key Issues 	Quarterly
Logistics Strategic Planning	Senior manager, department managers, team supervisors, essential workforce, and LSS Black Belt	<ul style="list-style-type: none"> Develop/update Logistics X-Matrix Develop/update VVM Develop long-term goals based on SC's key objects Develop mid-term strategies Develop short-term projects Assign 2-3 project owners per project Develop metrics to monitor project progress 	~2 years
SC Strategic Planning	VP, Director, Senior managers, and department managers (Logistics is heavily involved)	<ul style="list-style-type: none"> Develop Balanced Scorecard Strategy Map for Supply Chain Develop objects to fulfill the customer, financial, internal, & learning & growth perspectives of SC. Assign Key Objectives Evaluate VVM 	~2 years

In all strategic activities, management seeks immediate feedback to improve processes. These include multiple listening sessions and focus groups throughout the year, question and answer sessions at the end of all all-hands and department meetings, open-door policy for employees to ask questions and voice their concerns, employee participation in LQMS procedure management, employee participation in LSS events, and an Lockheed Martin annual employee survey. All feedback is tracked and monitored and trending and issues are discussed in weekly management meetings. Management will use employee comments to continual improve processes though out the entire organization.

2.1a2 The management team uses key personnel to provide them with relevant data used during strategic planning (Figure 2.1).

These individuals also play a role in strategic planning events and the monthly strategic meetings held for management, team supervisors and key personnel. They are highly utilized when making decisions. Their presence allows key issues in their fields to be discussed and referenced. In addition, they provide management with data mined out of databases to help guide decision making. The electronic information they provide is readily available to the management team on the intranet.

2.1b1 Figure 2-3 is a portion of Logistics' X-matrix, which was developed during our strategic planning event. It list our strategic goals on the left (long-term), our strategies/tactics on the top (mid-term strategies to accomplish our long-term goals), and our strategic projects on the right (short-term projects to accomplish our mid-term strategies). It also displays the correlation of each section. What we did not include, but it is included on Logistics' X-Matrix, is the assignment of the strategic projects to their project owners, so that ownership is accountable and transparent to all employees.

2.1b2 As seen in Logistics' X-Matrix (Figure 2-3), there are four main categories of goals: Customer, Financial, Internal and Learning & Growth. These four goals are broken down into strategies and broken further into projects. In creating this matrix, SMEs in these fields (as well as managers and supervisors) were an integral part of the brainstorming and strategic planning activities used to develop these categories. These team members are also owners of various projects. This ensures that their expertise is incorporated into Logistics strategy and the follow through of completing the projects.

SMEs and the rest of the management team discuss innovations in products and business operations, strategic challenges and advantages, capitalization of core competencies, key stakeholder needs, operational environment and more during multiple brainstorming activities. These brainstorming events are a big part of creating the strategic projects and strategies. Listening groups with key stakeholders, and employee feedback (after the department managers deploy it to their departments) help collect feedback on these key areas as well. All feedback is analyzed and used to enhance the strategic projects to include areas of concern.

<u>Key Personnel</u>	<u>Key information Provided</u>	<u>Intervals Provided</u>
Department Manager	-SWOT Analysis	As Needed
IT Specialist	-Technology improvements and application	Monthly
LSS Black Belt	-Customer and employee satisfaction surveys -Customer preference identification -LSS tools and value stream events to establish sustainability and implement strategy -Performance metrics -Performance trending	Monthly/ Quarterly
Quality Coordinator	-ISO document control & review -Regulatory compliance	Monthly

Figure 2.2

This leads to the “Do” portion, which is the core of our business. All four core processes are encompassed in this section. This section delivers the services to customers.

Once the services are performed, Logistics would review how well they performed. The results from the services would be in the form of metrics and customer feedback. These would be reviewed as to the level of performance through management reviews, benchmarking, and assessments.

To improve on these activities, Logistics would perform continual improvement, preventive actions, and corrective actions. These improvements will lead to better performance, new innovations, and more satisfied customers. The cycle would start over the next fiscal year.

Finally there would be some enabling factors that would support the entire model. These factors would include knowledge management (to include succession planning), employee growth and development, and finally a comprehensive communication plan.

This is a great tool for organizational, operational, and individual learning, and will be used daily to improve our processes. It will be a key tool in fulfilling our strategy, and was developed based on feedback from employees saying that our LQMS/document control process needs to have more structure. Employees also voiced that it would be nice to see how each department fits within our strategy. This new structure helps accomplish that.

2.2a2 Once Logistics creates their strategic projects during the X-Matrix development process and/or weekly strategic management meetings, each strategic project is assigned to multiple project owners. They are in charge of communicating and deploying the plan to the affected persons. The X-Matrix, which shows all strategic projects and project owners, is available to all employees and is on display in the Logistics building. An assigned employee tracks each project’s progress quarterly. Then an email is provided to management to evaluate progress. All progress concerns are brought to the project owner’s attention and they provide feedback.

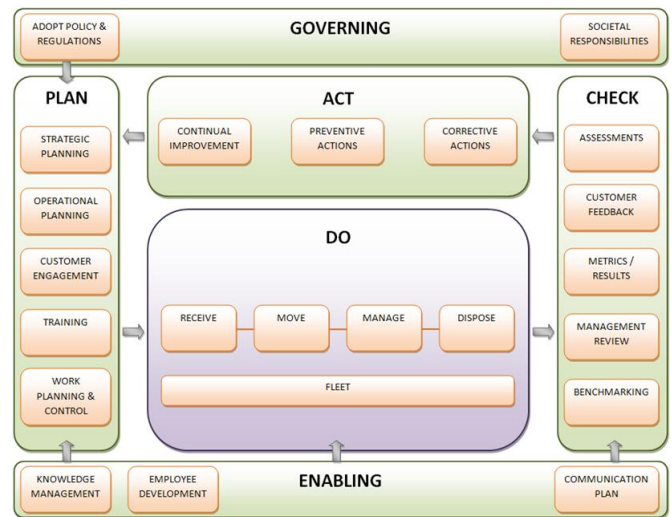


Figure 2-4: Proposed Operational Excellence Plan

Also, Action items are developed, implemented, and modified through LQMS. Logistics Improvement Tracking System (LITS) is a tool to allow all employees the chance to address preventative actions, improvement ideas, and nonconformance issues directly to management. This process is documented in the Logistics Improvement Tracking System (LITS) procedure (AS-AL-WI-01) controlled in ISO-registered LQMS.

1. First, a member of the workforce identifies a potential action and enters it into LITS.
2. Then, the LITS administrator (who monitors the LITS database weekly) prepares for the senior manager a monthly report to review current action progress and identify new action suggestions.
3. Management will then determine (through open discussion with his managers during the weekly Management Meetings) if the action suggestion will be beneficial to act upon. If so, he will assign an owner to the new action item.
4. The action owner gathers relevant data and information in order to develop a plan to complete the action item. In order to ensure the completion of the action item, the employee will document and submit to management the detailed plan for their approval, maintain relevant records, follow other relevant procedures (such as, Control of Nonconforming Product/Process/Service Procedure (AS-AL-OP-06) and Preventative/Improvement Actions procedure (AS-AL-OP-05)), inform management on their progress, and notifying management when completed.
5. Last, management verifies the action item’s completion, reviews its effectiveness (process learning), and closes the item in LITS.

All employees can use this system to address process improvement ideas.

2.2a3 Prior to the start of the fiscal year (FY), each department evaluates the anticipated budget needed to accomplish business operations and strategic projects. Funding requests are sent to DOE (Service centers are the exception. In order to recover their expenses, they must charge customers for provided services. Prior to the FY, they have to submit to Sandia foreseen charge rate changes and receive approval for their financial strategy). DOE then analyzes the request and mandates the allowed budget for the upcoming fiscal year. If logistics believes additional funding is required to accomplish key strategic projects, then a petition is submitted to DOE. If desired funding is not approved or only partially approved, Logistics' management team adjusts their FY budget to try to accommodate high-priority key projects.

All financial and other recourses are allocated to departments for the accomplishment of their business operations and approved strategic projects. Financial recourses are managed by the management team and monitored by a department outside of Logistics. This outside department provides Logistics with monthly financial reports and helps Logistics monitor for financial risks. The management team will adjust spending if deemed appropriate.

2.2a4 Upon completing the 2010 Supply Chain strategic planning session, Supply Chain management identified having a "highly qualified, agile & motivated workforce" and "healthy bench strength" as one of four strategic priorities. A "People Team" was developed and tasked with developing a two-year tactical workforce right-sizing plan. This group has worked with each department in Supply Chain (to include Logistics) to identify critical positions, develop a succession plan for critical positions, and develop a succession plan for manager positions. Critical positions were defined as those positions that are one person deep and it would take a lot to bring a person up to speed. This staffing plan is used as justification for hiring new individuals and backfilling departing employees.

2.2a5 Performance measures were identified to determine how effectively the strategic strategies and projects are being fulfilled. Measures are correlated to both the strategic goals and projects on the Logistics X-matrix (Figure 2-3). Measures cover all key strategic areas and stakeholders. Supply Chain's key objectives are developed during Supply Chain's strategic planning/balanced scorecard creation

event. Logistics adopts SC's key objectives as our strategic goals in order to better align our focus with SC's and Sandia's vision.

Logistics' key performance measures are listed in Table 2-1. Through monthly monitoring of these measures, management has the opportunity to see how well their strategic projects are being implemented. They use this data to try to improve processes in order to continuously improve. These measures are listed in a Metric Dashboard available to all management. Each strategic project has the appropriate measure listed. If the dashboard shows a green light, then the measure is within the satisfactory range and the strategic project is deemed to be deployed correctly. If the dashboard is yellow, then the metric is in the caution zone, and extra supervision is required. At this time, management will contact the strategic project owner to investigate and reemphasize the importance of the strategic project. If the dashboard is red, it is in the danger zone. At this time, management will discuss the reasons for the bad metric and solutions to improve it, during the nearest management or management & team supervisor meeting.

2.2a6 Logistics collects feedback and data from customers and employees on effectiveness of strategic projects, to gain insights on alternate options/solutions (as long as they support the long-term goal), and on the effectiveness of implementing new strategic projects. If it is perceived that a new strategic project is needed based on the feedback and data, management will discuss the idea thoroughly during the weekly management meeting. After the matter is discussed and SMEs have included their thoughts, the new strategic project will be assigned to a management member, supervisor or SME to deploy. Feedback and data are captured on the newly implemented strategic project.

Logistics follows the following process for developing, implementing, improving, and modifying strategic projects or action plans (Figure 2-5).

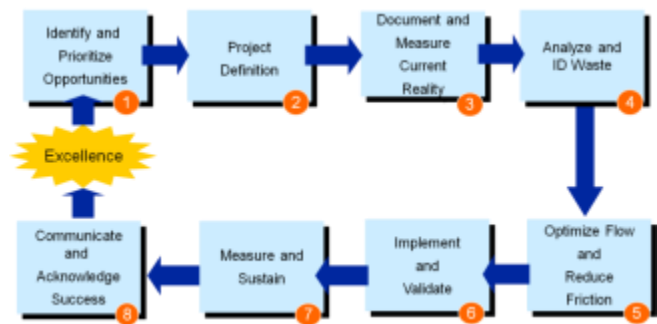


Figure 2-5: Lean Six Sigma Path to Excellence

2.2b Projections of long-term future performance are handled in Logistics through the identification of improvement opportunities during value stream analysis events. Specifically, through Logistics lean transformation, value stream analysis events were held for each of the four core processes in Logistics. Each of the VSAs resulted in a number of improvement activities that eliminated waste, reduced costs, increased capacity, and improved the customer services. These activities were prioritized based on their expected outcome, implementation costs, and ease of implementation. A sampling of the selected improvements is shown in Table 7-3.

For short-term projections, performance goals are selected and measured against for each of the performance measures. A summary of past performance and future projections (FY11 goal) can be seen in Table 2-1. For each measure, a goal, caution and poor level is identified. When a measure falls into the caution level, extra attention is paid to the process to ensure that it does not slip any further. If a measure falls into the poor category, immediate action is taken to stop and reverse the negative trend.

Measure	FY11 Goal	FY10	FY09
Customer Satisfaction	> 93.0%	91.9%	86.0%
Material Movement C/T	< 3 days	3.7	3.9
Shipper Pickup C/T	< 1 day	2.0	1.8
Shipping Correct Delivery	> 97.5%	96.3%	N/A
Attractive Inventory	> 98.0%	99.4%	99.2%
Equipment Inventory	> 98.0%	99.1%	99.1%
General Storage Utilization	> 80.0%	83.5%	N/A
Reapplication Pickup C/T	< 15 days	21.6	29.6
Classified Destruct C/T	< 5 days	6.7	7.6
VEM On-time PM	> 80%	74.6%	N/A
OST On-time PM	> 80%	34.2%	N/A

Table 2-1: Measures, Goals & Past Performance

Category 3: Customer Focus

3.1 Voice of the Customer

3.1a1 Logistics Operations utilizes a number of customer listening techniques throughout the process life cycle to determine the requirements, satisfaction, and dissatisfaction levels of its current customer base. During the introduction of a new process or the redesign of an existing process, customer requirements are gathered using two primary methods; customer focus groups and value stream analysis events. Focus groups are first used to get an initial sense of the service that is expected and the requirements of that new service. These focus groups can involve a single customer if developing a dedicated service, or a group of customers if developing a service that will serve the general population of the Labs. Next, value stream analysis events are conducted to view a particular process from end-to-end, identify the non-value added steps, and streamline the

process, all from the customer’s perspective. To achieve this, customers are interviewed and often included in the event itself. The result of the interview is a “customer value statement”, which guides the VSA team in designing the new process based on what is important to the customer. Having the customer present during these events is a very powerful tool in keeping the other team members focused on what the customer values in the process. The techniques used in this introductory period are the same for both indirect and direct funded customers.

Once a process is defined and starts to be implemented (the growth period), the listening techniques shift to a web-based customer satisfaction survey and the Supply Chain Help Desk. Interactions with the help desk can occur via phone, email, and instant message, with the calls logged in a SharePoint database for later analysis. For direct funded customers, an additional listening technique is available in the direct communication with their dedicated resources, which can occur via phone, email, instant message, and/or face-to-face interactions. To ensure that actionable feedback is handled in a timely manner; the survey is monitored on a daily basis to respond to immediate customer needs. Additionally, the help desk staff is trained to assist customers and resolve issues effectively and efficiently. The same techniques remain in place through the process’ maturation and decline phases of the process life cycle. The process enters a decline phase when it becomes evident, through customer feedback, audit results, and/or performance metrics, that the current process can no longer meet customer/regulatory/performance requirements.

At this point it is clear that a new process must be designed, however it is important to determine which parts or the process worked well, what the major issues were, and what could be improved. To capture this information, the listening techniques once again shift back to customer focus groups and value stream analysis events. The information gathered at this stage provides direct input into the new process design (intro stage for the new process). Once the new process is designed, it is documented in LQMS and training is provided to all impacted employees to ensure standardization of the new process.

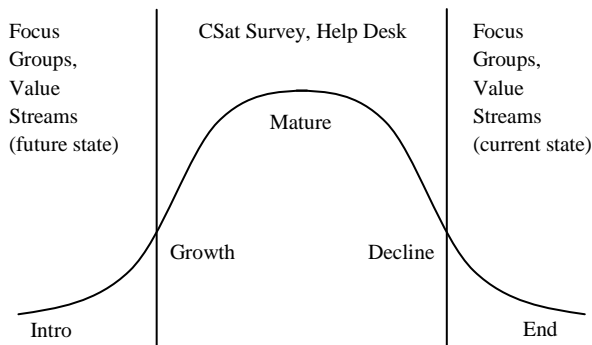


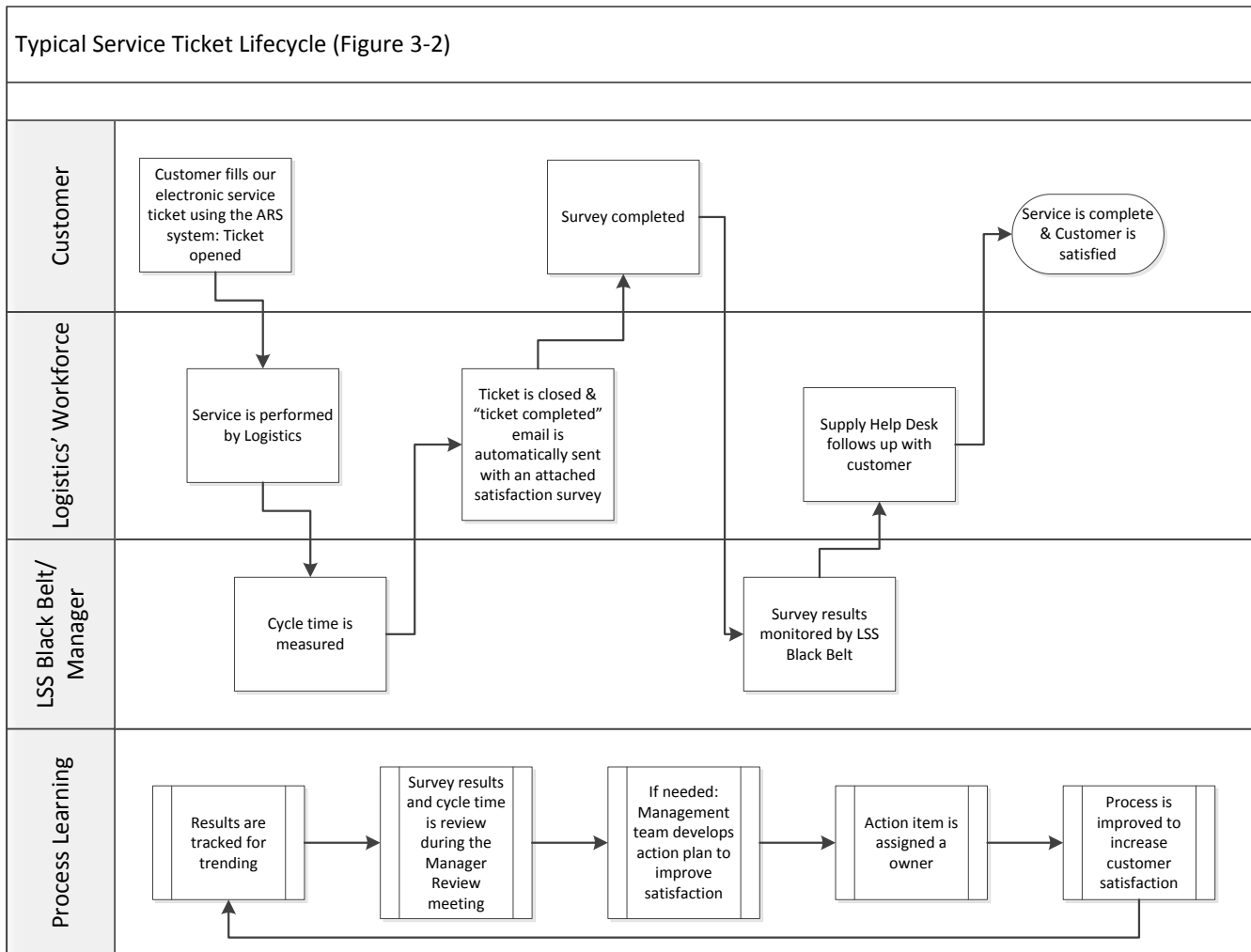
Figure 3-1: Listening Techniques through Process Life Cycle

3.1a2 With Logistics Operations holding 100% of Sandia’s market share and having no direct competitors, gaining potential customers happens one of two ways; when an indirect funded customer decides to provide direct funding for a service, or when Logistics Operations stands up a service not previously offered. In both of these instances, the process would be entering the Intro stage of the process lifecycle and would use the same listening techniques (focus groups and value stream analysis) and requirements gathering process as described in 3.1a1. The

information from the focus groups would help to understand the potential benefits, challenges, and level of customer interest in the service. This information is used in making the final determination to develop the new service, which would lead to a value stream analysis event in developing the detailed steps of the process to deliver the service.

Similarly with gaining potential customers, Logistics does not have former customers in the traditional sense. Logistics defines its former customers as customers of services which are no longer offered. When a service is to be discontinued, Lessons Learned session is conducted to provide customer feedback. Lessons Learned sessions identify what part of the services went well, which parts could have used improvement, and what would be changed in conduction future projects/services. These sessions involve all the relevant stakeholders who provide open and candid feedback.

3.1b1 The primary method of determining customer satisfaction is with the customer satisfaction survey. The survey is web-based and built in SharePoint. The survey is



offered two ways for customers (both indirect and direct) to provide their feedback. The first method is a static link on the Logistics webpage which allows customers to provide feedback at any time regarding Logistics' services. The second way that customers can provide feedback is upon receiving a service. Upon completion of a service, the service ticket is closed out in one of the Logistics ticketing systems, generating a "Service Completed" email to the customer. This email contains a link to the customer satisfaction survey where they can rate their most recent experience. The customer is asked to rate their overall satisfaction on a scale from 1-5 (5 being the highest). They are also asked to provide the service that they received, whether the service was performed in a timely manner, if the staff was professional and courteous, and any additional comments.

The survey is monitored on a daily basis to ensure that responses requiring immediate attention are addressed in a timely manner. Examples of responses requiring immediate action include "My package was misdelivered", "Not all of my items were picked up", and "My ticket was closed out but the service was not performed". These responses are forwarded to the Supply Chain Help Desk to follow up with the customer and ensure completion of the service. See Figure 3-2.

3.1b2 With Logistics owning a 100% market share, Logistics does not have any natural competitors. Benchmarking of customer satisfaction data is obtained in the same way as performance data, that being to compare current levels to historical internal satisfaction levels. While Logistics typically uses historical internal data, it has the capability to compare to its counterparts in Sandia Livermore (CA). The current customer satisfaction survey has been around for two years. Prior to that, satisfaction was captured during an annual survey sent broadly to Sandia customers regarding all logistics services. The results received from the annual surveys were too infrequent and vague making it difficult for appropriate response. It is for this reason that the current customer satisfaction survey was created.

3.1b3 Customer dissatisfaction is primarily captured through the calls that are received at the Supply Chain Help Desk. The help desk staff log their calls in an electronic database (SharePoint) where the data can be analyzed for trends and opportunities for improvement. In the call log, the staff is able to capture meaningful data regarding the nature of the call such as time, date, customer name, reason

for the call, whether the issue was resolved or referred, and any comments.

Keeping records of this data allows Logistics quality professionals to perform analysis on the data and identify trends. These trends can identify recurring defects in a process, an underperforming process, an underperforming vendor, or a customer with a recurring question. The identification of these issues can lead to a variety of actions on the part of Logistics to meet and exceed customer expectations the next time the customer uses our services. Examples of past actions run the full spectrum from a customer focused email to redesigning a process.

3.2 Customer Engagement

3.2a1 Customer requirements are obtained through a few different methods. For specific requirements in the daily operations, Logistics relies on the information provided by customers through work requests. These work requests allow the customer to enter pertinent information regarding: the type of request (e.g. outbound shipment, reapplication pickup, etc.); the material involved in the request; building & room for pickup/delivery; and any special instructions.

When designing a new process or modifying an existing one, customer requirements are obtained through focus groups and/or customer value statements for Lean Six Sigma improvement events. Gathering customer value statements prior to the event, or having customers directly involved during the event, allows the team to build a process with the customer's best interest in mind.

The identification to host a LSS structured improvement activity usually comes through customer feedback. However the actual innovation comes during the event. During a structured improvement activity, the group captures the existing process and all of the customer pain points. Each step in the existing process is then analyzed as either; value added, non-value added required, or non-value added (waste) steps in the eyes of the customer. Once the team sees how many steps are being performed that the customer does not care about, the team brainstorms new solutions and uses these ideas to create a new process. The typical steps of a structured improvement activity are seen in Figure 3-3.

Structured Improvement Activity Agenda	
1	Review charter & expected outcomes
2	Process inputs/outputs
3	Customer value statement
4	Review current state process

5	Identify value-added & non-value-added steps
6	Ideal state brainstorming
7	Develop future state process
8	Develop action plan
9	Out-brief with management

Figure 3-3: Structured Improvement Activity Agenda

3.2a2 Logistics Operations offers its customers a variety of methods to obtain both information and support. Acknowledging the fact that people absorb information in different ways, information is delivered to customers using methods such as written, visual, audio, and personal interactions. For obtaining customer support, indirect customers have two main options. For general questions they can contact the Supply Chain Help Desk. For more detailed questions, or questions about a specific service request, customers can contact the customer service line of the respective department. Direct customers, while both of the aforementioned options are available, usually refer to contacting their dedicated resource for both information and support.

Customer requirements for specific service requests are communicated by the customer when filling out a service request form. These requirements are deployed to the Logistics employees performing the services through their work assignments. In most cases, a ticket is printed from the service request system and distributed to the appropriate employee for completion of the service. This ticket includes the information provided by the customer regarding the request (e.g. delivery building and room, contact number, special instructions).

Upon completion of a service, customers receive an electronic notification stating the completion of the service and a link to provide feedback on their experience. These responses are reviewed daily for immediate response if necessary, and compiled quarterly for management review. The information is viewed for trending and to identify opportunities for improvement.

3.2a3 Logistics Operations serves two customer segments; those who provide indirect funding and those who provide direct funding. Indirect funded customers, often referred to as “line customers”, receive the standard suite of Logistics services. Direct funded customers receive either tailored services, dedicated resources or both. Examples of direct funding support include: dedicated packaging engineers for specialty components; dedicated driver to provide bus services; and working overtime to expedite a service.

Data Collection & Analysis Figure 3-4	
Roles & Responsibilities	Procedure
<p>Logistics Level II Senior Manager Defines objectives</p> <p>Reviews data/analysis</p> <p>Determines whether or not action is taken based on reviewed data/analysis</p> <p>Assigns action items</p>	<p>Defining Objectives</p> <p>Using a graded approach, the Logistics Level II Senior Manager will define the objectives to determine what information/data is needed to satisfy necessary requirements and effectively mitigate risk.</p>
<p>Logistics Department Manager</p> <p>Reviews data/analysis</p> <p>Assures actions are entered, tracked and completed according to the LITS process</p> <p>Assigns action items</p>	<p>Data Collection</p> <p>Based on the defined objectives, the Logistics Level II Senior Manager will assign the data collection/analysis project to the appropriate SME.</p>
<p>Project Administrator</p> <p>Analyzes data</p> <p>Presents analysis to Senior Manager and Logistics Managers</p> <p>Retains collected data and analysis records</p>	<p>Data Analysis</p> <p>Once the data is collected, the SME shall use the appropriate analysis tools based on the data type (financial, performance metrics, customer satisfaction, corrective action trending, etc.). This analysis may be used in areas such as, but not limited to; identifying current performance levels, comparing current with past performance levels, identifying performance trends, and identifying strong performing areas as well as potential areas of concern.</p>
<p>Subject Matter Expert (SME)</p> <p>Analyzes data</p> <p>Presents analysis to Senior Manager and Logistics Managers</p>	<p>Determination of Follow-up Actions</p> <p>The Logistics Level II Senior Manager will review the data analysis with the Logistics Management team. Again using a graded approach, the Logistics Senior Manager and Management team will assign follow-up actions to address areas of potential concern.</p>
<p>Logistics Quality Coordinator (LQC)</p> <p>Ensures actions are correctly entered, tracked and completed according to the LITS process</p>	<p>Action Tracking & Closeout</p> <p>The appropriate Logistics Department Manager shall enter all follow-up actions into LITS. The tracking and closeout of the identified follow-up actions shall also be done using LITS. Refer to AS-AL-WI-01 for guidance in using LITS.</p>

Making the determination to pursue direct funding from a customer can be initiated at any stage of the process lifecycle. Through early engagement meetings, customers can express their needs to satisfy an upcoming project. For ongoing support, customers can request dedicated or specialty services to further help meet their needs. Or when redesigning a process, the desired future state may be stated as a direct funding situation.

3.2a4 Customer data is collected, analyzed, acted on according to the *Data Collection & Analysis* procedure (AS-AL-OP-10). See Figure 3-5 for the process.

First, the objective of collecting the data is defined by management (in the case of customer feedback, the objective is to identify customer requirements, expectations, satisfaction levels and trends). The data is then collected, for customer feedback this is accomplished through the customer satisfaction survey and Supply Chain Help Desk call log. This data is monitored daily for those entries that require immediate action. Additionally, the data from the customer feedback mechanisms are analyzed quarterly to identify trending of customer dissatisfaction and to determine opportunities for improvement. Based on this analysis, management prioritizes the opportunities using a graded approach (significant of impact versus ease of implementation) then deploys the resources necessary to implement the improvement actions. Finally, the actions are tracked and closed out using LITS.

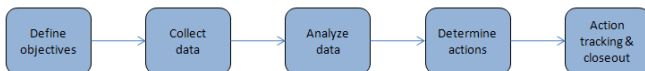


Figure 3-5: Data Collection & Analysis Process

3.2b1 Building customer relationships was noted in the last Logistics strategic planning event as something to be improved. Two strategies were identified to accomplish this; understand customer needs & requirements, and customers understand Logistics Operations & services. This has been accomplished through early engagement meetings and “home-on-home” sessions. Early engagement meetings are utilized to identify those line organizations with upcoming projects that will need Logistics services. Identifying these needs early on allows Logistics management to prioritize their workload and staffing accordingly. Home-on-home sessions are a two part process, first allowing the customer to visit the Logistics Operations and further learn about the suite of services offered. The second part allows Logistics management to visit the customer and further understand their operations and business needs. This two part process provides a clear

understanding on both ends of the customer requirements and operational capabilities. These engagements have led to expanded relationships with customers in the way of obtaining direct funding for specialty services not previously offered.

To ensure that customer expectations are met and customers are engaged in our processes, Logistics involves customers in the process improvement activities (as mentioned in 3.2a1). This allows customers to have their voices heard and to ensure that processes are built around their requirements. Another way that Logistics engages its customers to ensure that requirements are met is by following-up with customers who submit a survey response indicating that their requirements were not met. The Supply Chain Help Desk contacts these customers and works with the appropriate personnel to properly rectify the situation.

3.2b2 The majority of customer complaints come through the Supply Chain Help Desk, with the remainder going directly to the management of the particular department. The help desk staff is trained to resolve a customer issue on the first call and to do so in a timely manner. If the help desk is unable to sufficiently answer the customer question, the customer is referred to another employee who can effectively answer the customer inquiry.

Additionally, the help desk logs their calls into the electronic call log where the data is analyzed (using AS-AL-OP-10) by quality professionals for trends and common customer questions. Upon identification of a trend, action is taken to resolve the issue using a risk based approach. Actions can range from minor (communication) to major (complete redesign of a process). To help restore customer confidence, the customers are thoroughly communicated with to gather further information and communicate the final solution. Commonly, customers are included in improving the process by providing a customer value statement and participating in Lean Six Sigma structured improvement activities. Through this direct involvement in improving a process, the customer has a sense of ownership and satisfaction knowing that their voice was heard.

Category 4: Measurement, Analysis, and Knowledge Management

4.1 Measurement, Analysis, and Improvement of Organizational Performance

4.1a1 Data and measures are chosen by management to accomplish two objectives: provide a snapshot of how well their operations are performing (i.e. meeting customer

expectations); and to help manage their business (for planning and allocation of resources and funds). Logistics key performance measures and their measurement frequency can be seen in Figure 4-1.

Process	Measure	Frequency
Overall	Customer Satisfaction	Monthly
Material Movement	Cycle Time	Monthly
Shipper Pickup	Cycle Time	Monthly
Shipping & Packaging	Percent Correct Delivery	Monthly
Asset Management	Inventory	Annual
Corporate Storage	Percent Capacity (General Storage)	Monthly
Reapplication	Pick-up Cycle Time	Monthly
Classified Destruct	Pick-up Cycle Time	Monthly
Vehicle & Equipment Maintenance	Percent on-time Preventive Maintenance	Monthly
OST Support	Percent on-time Preventive Maintenance	Monthly

Figure 4-1: Current Suite of Performance Measures

For daily operations, departments use open work tickets as their primary means of managing day-to-day operations.

For each of the chosen performance measures, a corresponding target, caution, and poor value is chosen. When a performance measure falls into the caution range, extra attention is paid. For measures that fall into the poor range, immediate action is taken in order to reverse the trend and once again meet customer requirements. This process is currently being formalized and documented in the Logistics Quality Management System.

After collecting these measures for the past two years, and in an effort to continually improve, it was determined to adopt a new approach to selecting and tracking performance measures. The current set of performance measures were chosen based on work performed by a single department. Logistics is currently revamping their performance metrics to reflect a process-based organization. This shift towards process-based measures is based on the concept that customers experience the end-to-end process, not just a single function performed by a single department. Additionally, as the final step in the strategic planning process, strategic measures are being developed to track the effectiveness of strategic projects currently being undertaken and their impact on Logistics' strategic goals.

Process	Measure	Groups
Classified Destruct	Percent of tickets completed in 7 days or less	Disposition
Customer Service	Percent of first call resolutions	Supply Chain Help Desk
Hazardous Moves	Meet customer due date	Corporate Storage, Transportation
Outbound Shipping	Meet customer due date	Transportation, Shipping, Asset Management, Corporate Storage
Package Delivery	Packages delivered in 24 hours or less	Receiving, Asset Management, Transportation
Package Delivery	Packages not arriving at correct destination	Procurement, Receiving, Transportation
Package Delivery	Lost & damaged	Receiving, Transportation
Preventive Maintenance/Repairs	Repair turnaround time	Fleet
Preventive Maintenance/Repairs	Percent of call-backs	Fleet
Reapplication Pickups	Percent of tickets completed in 14 days or less	Transportation

Figure 4-2: Future Suite of Performance Measures

4.1a2 Due to the complex and unique nature of Logistics' work environment, data and performance measures are most commonly compared to Logistics Operations historical data and performance.

Logistics has realized that while comparing to historical data is a good way to show improvement in service performance, there are other organizations out there that pursue a similar mission, specifically the other national labs in the nuclear weapons complex. A benchmarking plan is currently being developed that will allow Logistics to compare their performance to others and identify opportunities for improvement. The plan outlines an approach that starts with benchmarking to other national laboratories (since the other labs perform similar work as Sandia Logistics) and expands to best in class.

Fleet Services, being the group whose services most closely resemble industry, is the exception to the rule regarding comparative data. Fleet Services, through external reviews of its operations, has received and used comparative data regarding their operations and performance for future improvements. They are often benchmarked against, since they are considered best in class in regards to alternative fuel usage.

4.1a3 The two primary sources of customer data that Logistics utilizes is their customer satisfaction survey and help desk call log. By evaluating and utilizing these two sources of data, Logistics is able to capture both customer

satisfaction and dissatisfaction responses. These responses are analyzed in accordance with the Data Analysis procedure and reported to management at quality management reviews. The management review process identifies the topics to be covered over the course of the fiscal year, develops a schedule for the reviews and the topics to be covered at each review, preparing for and hosting the reviews, and finally following up and closing outstanding action items. The high level topics that are covered over the course of the fiscal year are; Metrics, Customer Feedback, Operations, Finance, Personnel, and Strategy. Figure 4-3 shows the FY11 management review schedule. As seen in Figure 4-3, customer focus is reviewed at every management review. The management team takes these results, discusses them and determines the appropriate action. These actions can range from communication to Lean Six Sigma structured improvement activities.

Functional Area	Topics	Q1 03/22/11	Q2 06/29/11	Q3 & Q4 10/04/11
Operations	Operations			
	Quality Policy/QMS	X		
	Metrics related to quality objectives	X	X	X
	Audit/Assessment Results, Schedule, Lessons Learned	X		X
	ES&H Metrics - Adequacy of Work Controls	X		
	Trends Analysis (CA, PA)			X
	LSS-Continual Improvement Report		X	
	Department Reports			
	Asset Management & Corporate Storage		X	
	Disposition & Reutilization	X		
Customer Focus	Fleet Services			X
	Shipping, Receiving & Mail			X
Resources	Transportation Services		X	
	Customer feedback (Survey & SC Help Desk)		X	X
Funding	Effective customer early engagement	X		X
	People-movement data		X	X
Strategy	Process and Tools (IT)		X	
	Logistics Operations Financial Status Report (Indirect, Direct, Holding Case, Service Center)		X	X
	Discuss Group Objectives and Metrics	X		X
	Changes to business affecting the QMS?	X	X	X
	Opportunities for improvement and preventive actions?	X	X	X
	Follow-up on past and new action items	X	X	X

Figure 4-3: Quality Management Review Schedule

4.1a4 Logistics Operations utilizes two methods to ensure the rapid and effective response to unexpected changes. The first method is the monitoring of incoming work requests by the Logistics work planners. The role of the work planner is to review all incoming work requests to include special instructions, customer due dates, and urgent requests. The work planner takes this information, prioritizes the work, assigns and deploys the resources to perform the work. Upon recognition of a changing priority (via new urgent request) the work planner has the ability to dynamically redistribute resources as necessary. Often the work planner will contact their resources (if they are in the

field, this is done via two-way radio or pager) and pass along the new assignment to rapidly respond to urgent customer needs.

The second method is used by the help desk and quality professionals. This method is the monitoring of customer feedback for issues that need immediate attention. The help desk staff is often the front line in receiving urgent customer requests. The help desk works closely with the work planners to alert them of urgent customer requests.

4.1b For the day-to-day operations, performance and capabilities are tracked by the work planners and the help desk through open work tickets and customer feedback. Work planners use the open work tickets as an indication of the amount of work that was completed the previous day (i.e. did the amount of open work tickets increase or decrease) and as a gage to the work that will be assigned for the current day. Similarly, the help desk monitors the incoming customer calls for performance issues. If necessary, these issues are relayed to the work planners and/or management for quick response and resolution.

For medium term performance reviews, quality professionals and management review monthly metrics (most Logistics metrics are recorded and reported monthly) for trending in performance. These metrics are recorded in the corporate metric tracking system PerformanceSoft. The Logistics management team has access to review the metrics entered in this system at any time and can determine whether or not to take action if any action is needed.

The long term performance and capabilities of Logistics are reviewed during the quality management reviews. While ISO 9001:2008 requires one quality management review per year, Logistics traditionally holds three management reviews per year. The topics covered over the course of these three reviews are: Operations (quality objectives, metrics, department reports, assessment results); Customer Focus (customer feedback, survey & call log results); Resources (staffing and IT); Finance (status); Strategy (changes to the business and improvement); and Action Item follow-up.

In preparing for the reviews for the next fiscal year, the Management Review process (AS-AL-OP-08) is followed. First the topics are identified which leads to the creation of the review schedule. The schedule identifies which topics will be covered during each review and ensures that all high level topics are covered over the course of the fiscal year (Figure 4-3). When the next review draws near, each

Management Review & Data Analysis (AS-AL-OP-10)

Figure 4-4

Step	Action	Role
1	Establish schedule of management review for each fiscal year <ul style="list-style-type: none"> • Schedule to include topic and owner • Meetings and topics may be changed based on the needs of the business at anytime • Topics may be cancelled if covered at strategic planning or other level of management review or meetings (Center, Group, or Department) 	Senior Manager Quality Coordinator
2	Create meeting agenda and determine topic owners and attendees	Senior Manager Quality Coordinator
3	Schedule the meeting	OAA
4	Topic owner will be given adequate notification to provide adequate preparation time	OAA Quality Coordinator
5	Update status of prior management review action items and gather meeting presentations	Quality Administrator
6	Conduct management review meeting	Management
7	Document and publish results of the management review <ul style="list-style-type: none"> • Information presented • Decisions, new action items, and resources needed • Status of prior management review action items • Identify opportunities for improvement 	Quality Coordinator Quality Administrator
8	Maintain minutes of management review	Quality Administrator

presenter is notified in advance to prepare their presentations and submit them to the quality coordinator. The presenter is responsible for performing the accompanying analysis that corresponds with their presentation. The analysis performed follows the Data Analysis (AS-AL-OP-10) process of identifying the objective, reviewing the data for trending, and proposing potential solutions if a negative trend exists. The quality coordinator gathers the presentations and facilitates the management review. During the review, the Data Analysis process is completed by presenting the findings to management, and allowing management to make a determination if action is required. At the end of each review, action items are assigned based on the discussion of the covered topics. These action items are tracked through to completion by the quality coordinator. See Figure 4-4.

4.1c1 A key part of the quality management reviews is the focus on operations. The operations discussions range from department reports to results from assessments. During these report outs, lessons learned and best practices are shared with the group. Logistics management also meets on a weekly basis where lessons learned and best practices are also shared as they arise.

4.1c2 Future workload is commonly predicted using historical Logistics data. This data reviewed for patterns and is used in future planning and deployment of resources. Two key examples include the impact of fiscal year end purchases on the receiving and transportation departments, and the other is the impact of annual inventories on the reutilization and disposition department.

By knowing that the majority of Logistics customers will be spending year end money in August and September (causing a significant increase in incoming packages), both the receiving and transportation departments can effectively plan their resources to be available and focus on this increase in order to maintain the same level of service.

Similarly, every year that Sandia goes through its property inventory the number of items sent to reutilization increases significantly. As in the previous example, resource planning is utilized to successfully manage the surge in customer requests.

4.1c3 Upon reviewing performance metrics, management can determine to take action in one of three ways; improvements, preventive actions, or corrective actions.

Each of these courses of action has a corresponding documented procedure (Improvement/Preventive: AS-AL-OP-05, Corrective: AS-AL-OP-06).

If the situation arises where a number of improvements are identified, prioritization is handled using a PICK chart. The PICK chart (Figure 4-5) categorizes opportunities based on their ease of implementation and the potential payoff. Those with an easy implementation and a high payoff fall into the “Implement” category and are given highest priority. The remaining categories follow in order of priority with “Possible”, “Challenge”, and finally “Kill”.

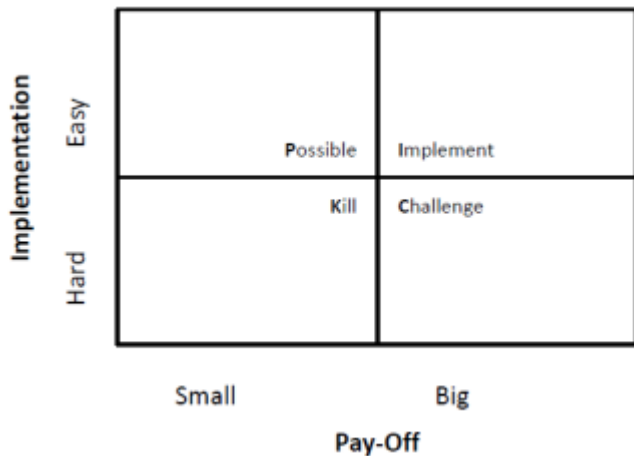


Figure 4-5: PICK Chart

4.2 Management of Information, Knowledge, and Information Technology

4.2a1 The accuracy, integrity and reliability of Logistics’ data, information and knowledge are handled through the Logistics Quality Management System (LQMS) which is ISO 9001:2008 compliant. This is accomplished in documented procedures that are written and peer reviewed by subject matter experts. These documents are revision controlled according to the Document Control procedure to ensure that the most current version is being utilized by all parties. The results of these processes, records, are also controlled to ensure the accuracy and integrity of the records in accordance with the Record Control procedure.

The timeliness, security and confidentiality of these documents and records are accomplished through the utilization of the corporate electronic document repository EIMS (Enterprise Information Management System). These documents, upon their review and approval by management, are uploaded to EIMS and a link to the document placed on the Logistics website. By providing electronic access to the documents, employees have the ability to access their work

controls at any time. For those documents that are restricted to a smaller group of employees, their security and access is restricted through meta-groups when the document is uploaded to EIMS. These meta-groups ensure that only those individuals with a need to access the documents have the appropriate access. For a few activities in Logistics (precious metals inventory, firearms inventory), only a few employees are trained to collect and report data. From a corporate standpoint, Sandia operates with the access of data and information using security clearances and a need-to-know. This ensures that not only is the individual cleared to access certain data and/or information, but that they also have a legitimate need to access the information.

4.2a2 Some of the most important information that is shared with the workforce is the documented procedures needed to perform the day-to-day activities. These procedures are controlled according to the Document Control procedure and are available electronically to the workforce via the Logistics website. Through this website, the workforce has access to the documents at any time they need them. Through the control of records, the Records Matrix documents all of the records, their custodians, the location of the records, and the retention schedule. This Records Matrix, which is available electronically on the Logistics website, allows the workforce to identify where a record is kept and who is responsible for that record should they need to access them.

One current project in Logistics is the installation and use of digital signage throughout the facilities. Logistics intends to communicate key information to its staff through this digital signage such as; open work orders, customer satisfaction scores, key metrics, safety messages, and lessons learned. Currently there is one monitor installed in the Shipping department that displays open work orders for the staff to quickly identify their status.

4.2a3 The transfer of workforce knowledge is managed through the Logistics Quality Management System. Documented procedures are controlled and maintained in accordance with SC-WI-01 to ensure that each employee is working to the same procedure. As specified in the Logistics Training procedure, training is specified for each employee based on their job function. The training ranges from computer based to on-the-job training while shadowing a fellow employee.

The sharing of information to customers is most commonly communicated through email, the Logistics website, and Sandia Daily News (SDN) emails to all Sandia employees.

Logistics employees participate in an information sharing team, PAL (Procurement And Logistics), to transfer knowledge to suppliers. Supplier management is handled through the Procurement department, so it is through these meetings that Logistics can provide feedback about the interactions with suppliers as well as pass information along to the suppliers.

Finally, best practices are shared through a number of management meetings. Quality management reviews, weekly management meetings, and monthly management walkthroughs are the most common venues where best practices and lessons learned are shared amongst the management team. The management team takes these and shares them directly with their employees in department meetings.

4.2b1 When new hardware and/or software is identified for implementation, requirements are first gathered from the customers, impacted departments, and/or end users to ensure that the product delivers what is intended. The Logistics IT coordinator facilitates this meeting with the customers and programmers. The programmers (these resources reside outside of Logistics) take this information to develop the product and will clarify any questions with the Logistics IT coordinator. Once a workable product is developed, it is demonstrated for and tested by the end users. Feedback is provided for any necessary changes to the programmers who make any final changes before quality testing. Through the quality testing the product is tested to ensure that it meets the customer needs and performs well in the IT environment. Finally the hardware and/or software is released for use to the end users.

4.2b(2) Logistics relies on corporate IT resources to ensure the availability of hardware and software in the event of an emergency. Software and data used and maintained by corporate is done so on servers that are managed by corporate server groups. These servers are backed up daily and are also “mirrored” to other servers at other physical locations in case of a catastrophic failure.

Category 5: Workforce Focus

5.1 Workforce Environment

5.1a1 Logistics measures their capacity needs with help of another department within Sandia. A member of the department tracks the number of filled job positions in Logistics and compares it to the job position allotment for the year. The capacity level report is given to Logistics Senior Manager to review, and he uses it to analyze the

situation. If the current filled positions are low, he will determine if the current levels are adequate in satisfying Logistics current business needs. If not, he will assign an interview team with the task of interviewing selected applicant, so that appropriate capacity levels are met. If hiring is needed in one of the departments within Logistics, the senior manager will bring up the issue with the department manager during the weekly management meeting. Then the department manager will analyze the situation and start the hiring process if deemed appropriate. During the interview, team will ask specific knowledge and behavior based questions to see if the applicant meets the job capability requirements. After the interview is complete, the interview team will individually score the applicants responses. The applicant with the highest score is deemed the most capable of the group. If the applicant meets the job requirements, the interview team will announce their decision to management, and they will submit an offer to individual. This process helps ensure incoming employees have the capabilities needed, and Logistics reaches the desired level of capacity.

Assessing workforce capability also done Logistics’ annual and mid-year employee evaluation process. Prior to the Fiscal Year (FY), all Sandia employees are required to complete a Performance Management Form (PMF) (the following process is followed by union-represented employees as well, but they complete a REPEP), which lists all employees performance goals, major projects, career development plan, desired training, and the job’s requirements for the upcoming FY. The employees’ direct manager reviews these submissions and then it is discussed one-on-one with the employee. During this meeting, management gets to clarify or reinforce expectation for the upcoming year, determine if the PMF’s material is in alignment with the department’s strategy, and suggest amendments to the PMF. Open communication is expected by both the manager and the employee during this initial discussion, and the PMF may be referenced by either throughout the year. PMFs are designed to be a daily guidance and tool for how time should be spent.

To reinforce progression of initiatives stated in the PMF, management conducts a mid-year PMF evaluation. Similar to the prior process, employees must submit a PMF to management, management reviews it, and the employee and manager has a one-on-one discussion about it. This time however, the employee describes progressions towards initiatives.

During these processes, management ensures that all work functions are accounted for by the workforce, the workforce is being properly developed to achieve organizational success, and staffing levels are appropriate.

Other capability measures include rigorous HR hiring process to hiring only the “world’s brightest professionals”, an OJT process for specified jobs, and a shadowing/mentorship relationship approach to transfer capabilities from experienced personnel to new employees.

Another way that Logistics determines its capacity is by analyzing the average amount of work performed per employee. This is typically done by taking the total volume of work divided by the number of employees. Tracking this capacity allows Logistics to gage if they are under or over-staffed based on historical data. An example of this is the mail room. In the past, our mail room had roughly 33 employees and handled around 10 million pieces of mail per year. Currently our staffing level is around 6, however due to email and other electronic media, the amount of mail that is processed is around 1-2 million. Logistics is also able to benchmark against other companies based on the work/employee. A sample of this benchmarking is found in Figure 7-13.

5.1a2 Logistics relies on corporate and department specifications when hiring new employees. Defined job specification and descriptions help guide management to select the best candidate based on capability needs. Action-based interviewing techniques are used to determine how the candidate acts in certain situations and how well they would fit into Logistics culture. Interview minutes, corporate and department specification (including equal employment opportunities, educational requirements, job requirements, and etc.) are reviewed by management to determine the new employee.

We retain our employees through career advancement (specifically for union representatives), and by offering of training and education opportunities for career and personal development. Recently, “Encourage Professional Development and Growth” was identified as a strategic project, and is being worked on by a project owner. Retaining employees is also encouraged through annual/monthly employee recognition and awards (spot awards, SAC, ERA, non-base compensation).

The first day of work for the new employee, they participate in a mandatory Employee Orientation. This training helps shape the employees views of Sandia and its culture. This is where the employee will learn about Sandia’s values, ethic

policies, and desire to hire the “world’s brightest professionals”. After this training, the employee will meet with his/her direct manager to be informed of the departments’ & Logistics culture, how their job fits within Logistics, the expectations, and how work is accomplished. This is also when management will walk through the entire operation with the new employee so he/she can see the work processes and culture for themselves. During the next few months, the employee will be required to spend the majority of their time learning the capability requirements, job requirement, corporate requirements, and culture through additional training.

In the spirit of continuous improvement and learning, Logistics has realized, through new hire feedback, that it may be beneficial to the organization and new employees to have a Logistics specific new employee orientation. This has been tasked to a SME and is expected to be deployed to throughout the entire organization soon.

5.1a3 Logistics’ uses their PMF/REPEP process, open door policy (for management), X-matrix/strategic project deployment process, strategic all-hands meetings, question and answer sessions, department strategic meetings, performance metric/survey based decision making, and routinely sent strategic emails as an unified approach to ensure the workforce is organized and managed to excel towards operation excellence. In these approaches, the workforce is provided with opportunities to provide feedback. They are depended upon to discuss ideas or solutions and are integral part in continually improving processes.

A major aspect of Logistics’ culture involves our Integrated Safety Management System (ISMS), which complements ISO 9001:2008 requirements. Both ISO and ILMS promote the Plan-Do-Check-Act theory. Logistics follows this methodology in order to accomplish our work, exceed performance requirements, receive feedback, and improve our processes. Every employee within logistics receives an ISMS Star to wear behind their security badge. This ISMS Start helps every member of the workforce to plan and conduct their work safely. It also provides them with the process to evaluate current conditions and make improvements to the process. Figure 5-1 is an example the ISMS Star which helps employees accomplish the work of the organization.



Figure 5-1: ISMS Star

Work planning is conducted to ensure the organizations core competencies are being met, customers are being focused on, performance expectations are exceeded, and strategic projects are considered. Each department has a controlled work planning and control procedure in LQMS that guides them through their processes (Logistics has an overarching Work, Planning & Control procedure NM-AL-OP-09 as well). Having these well thought out procedures on how work gets done, if followed correctly and constantly improved for better efficiency, guides the entire workforce in productively performing our entire organization’s work processes.

5.1a4 We prepare our workforce for changing capacity needs by cross-training personnel to perform a variety of functions, also through job-rotations. For changing capability needs we utilize on the job training, mentoring, shadowing, and written procedures (this covers continuity). We are reengineering our processes to minimize the effect of a changing work environment.

Logistics work planners also use historical capacity data in order to plan resources to meet future customer demands. An example of this is the end of year increase in incoming packages. Work planners use this data and knowledge to plan the resources and pull cross-trained personnel in order to meet the increased work demands.

5.1b1 Logistics emphasizes on health, safety and security in many ways. Our Environmental, Safety and Health team is incorporated of a departmental lead and multiple ES&H representatives throughout the organization. These individuals are responsible for helping ensure the workforce is safe, unsafe equipment, tools or processes are corrected, introducing products to decrease work hazards, sending a

monthly ES&H communication to address concerns and achievements, gathering safety metrics and participating of workforce teams focused on safety.

Employee-led safety teams and systems are in place to conduct safety-related analysis on work processes and brainstorm resolutions to safety concerns. In particular, our Safety Committee meets weekly to discuss safety observations, issues, and resolutions throughout all of Logistics. Their ideas are brought to management on every third week of the month. Management then will give them the approval to progress on certain actions to improve safety. Logistics also participates on a Traffic Safety Committee that meets every other month to address traffic concerns, parking lot issues, street conditions, corrections in signage, construction issues, and more to try to brainstorm how to keep the workforce safe while driving. Last, logistics employees participate in BBS. This program enables employees to observe each other conduct normal work functions to try to improve processes and conditions.

Logistics also has many controlled process documents, which have bi-annual reviews of content, to help employees do their work safely and effectively. The Training Matrix document helps us ensure that each employee is completely trained before they are assigned work and shows how often they need to be trained. In addition, our Logistics Training document (AS-AL-OP-07) tells how we conduct our training (Figure 5-2). Another key tools used for workforce safety is the Continuity of Operations procedure each department must complete in case of emergencies or hazards. Logistics’ employees also use their ISMS Star (Figure 5-1) to work safely.

Because of the material of our work, Logistics takes security very seriously. We rely on the documented Security Operating Procedure (AS-AL-OD-01) that guides us in access control, safeguard & security, and emergency procedures. This document is reviewed by a quality team every other year and is approved by management.

Training Process (Figure 5-2)	
Step	Action
1	Identify required training
2	Document required training
3	Monitor training compliance
4	Conduct training
5	Maintain records

5.1b2 See Figure P-6 for our workforce benefits. Sandia’s HR benefits department conducts a market research to assure that employees are provided with adequate benefits.

This report is then evaluated by Sandia's management to decide the appropriate level of benefits. Additional benefits are offered based on strategic planning and available finance, such as overtime allotment. Senior and department managers throughout the year give additional benefits to employees as deemed fit, and as regulations and union rules allow. If an urgent business need occurs and an employee needs to work additional hours, the manager may approve temporary telecommuting agreements, laptop justifications, overtime, and/or flextime. Management also uses the results from the LM Voice Survey to address employee needs and concerns in relation to benefits.

5.2 Workforce Engagement

5.2a1 In reviewing Lockheed Martin's voice of the employee survey (an in-depth annual employee survey), information from listening sessions (multiple listening sessions per year), responses from all-hands meetings, and conversations with employees, the LSS Black Belt and management determines the key areas of satisfaction/dissatisfaction. Through feedback of employees, Logistics has found that establishing a system for employee learning & growth with improve engagement and satisfaction. On the X-matrix (Figure 2-3) and through Logistics' strategic planning, "creating a learning culture" and "encouraging professional growth & development" turned into one of our strategic strategies, and

- Develop employee focus groups & employee surveys
- Develop a timely, coordinated and comprehensive communication plan
- Develop an opportunity vs. workforce/skill matrix
- Expand the use of learning teams

have been named as our some of our key strategic projects. All of these projects have been assigned to an SME, team supervisor, or manger and progress is being made and tracked quarterly. It is Logistics' goal and belief that these four key projects will continually improve workforce satisfaction and therefore influence workforce engagement.

Logistics monitors workforce engagement by tracking how many employees participate in volunteer activities, work teams/committees, group gatherings, absenteeism, and sick days taken.

Employees readily participate in the avenues to have their voice be heard. Management asks employees ways they can improve operations, and whether or not they are satisfied with their current situation.

5.2a2 Logistics has a self-directed workforce that is hired based on their motivation to excel, capability to complete work efficiently and effectively, think intuitively, and offer ideas to improve processes. Our hiring process allows for the foundation of an open communication, high-performing, and engaged workforce that drives a culture of constant thinking and idea producing, because of the high requirements (strategic advantage) Sandia has.

The management team has an open-door policy to allow all employees to communicate with them at all times. In addition, Logistics has a web-based software (LITS) that allows all employees to ability to openly address concerns, suggest improvements, and voice ideas. This software (managed by the LSS Black Belt) also communicates back to the workforce the progress on inputted items. Another key system in place to foster this type of culture is our ERA program, which awards employees for astounding service and ideas.

Logistics Improvement tracking System (LITS) is key to open communication because it allows for employees to address key areas of concern directly to management. This process is documented in procedure AS-AL-WI-01 controlled in ISO registered LQMS.

- 1 First, a member of the workforce identifies a potential action and enters it into LITS.
- 2 Then, the LITS administrator (who monitors the LITS database weekly) prepares for the senior manager a monthly report to review current action progress and identify new action suggestions.
- 3 Management will then determine (through open discussion with his managers during the weekly Management Meetings) if the action suggestion will be beneficial to act upon. If so, he will assign an owner to the new action item.
- 4 The action owner gathers relevant data and information in order to develop a plan to complete the action item. In order to ensure the completion of the action item, the employee will document and submit to management the detailed plan for their approval, maintain relevant records, follow other relevant procedures (such as, Control of Nonconforming Product/Process/Service Procedure (AS-AL-OP-06) and Preventative/Improvement Actions procedure (AS-AL-OP-05), inform management on their progress, and notifying management when completed.

5 Last, management verifies the action item's completion, reviews its effectiveness (process learning), and closes the item in LITS.

All employees can use this system to address key concerns with management.

Another way Logistics generates two way communication is through the Logistics Safety Committee. This committee of volunteer from every department meets every Thursday to discuss ideas to improve safety. The volunteers offer suggestions to the group, and they decide on certain actions to complete based on group consensus and manager approval. Logistics' Senior manager meets with the committee every third Thursday in the month to hear the feedback on employee safety, and supports the groups plans to enhance safety. All employees may participate on the committee, but if they cannot, anyone may submit ideas onto the committee's website (which may be accessed through logistics home page. As well as, customer help for each work process, key metrics, LQMS, LITS, and other relevant document). These entries are reviewed at each meeting, and key ones are brought to management's attention. Employees are rewarded for their safety ideas.

5.2a3 Fellow employees or management can nominate others for ERA, good idea awards, and SAC awards. Each one of these programs evaluates the nominations, and if applicant meets the specified criteria, they will present awards to these individuals. Management also passes out hand gift cards, movie tickets for two and more spot awards to deserving employees who are high-performing and complete action plans effectively.

5.2b1 To understand employee satisfaction, monthly employee satisfaction surveys are reviewed and tracked by the Logistics' LSS Black Belt. If results or trending is unsatisfactory, then the Black Belt will suggest to management potential improvements. The management will discuss these issues during their management meeting and come to a resolution. If deemed necessary, an action item will be assigned.

Employee engagement is gauged by monitoring the number of employees that participate in special events and that volunteer for work teams. Engaged employees commonly attend our Annual company picnic, annual AAA Baseball game, and all-hands meetings. Also, it is observed how many personnel attend LSS events, Safety Committee meeting, ERA, and LQMS core team meeting.

5.2b2 Workforce engagement is tied very closely to our business results, specifically through customer satisfaction and performance results. Having an engaged workforce promotes good performance and positive interactions with customers. Logistics uses feedback from the employee satisfaction survey, department meetings, and daily interactions with the workforce to gage their engagement. Tracking performance and customer feedback on services is another way to track employee engagement. When customer feedback is received regarding repeated poor performance with a particular individual, action is taken by management to remedy the situation.

5.2c1 Sandia uses a learning and development system called TEDS. This intranet-based program provides thousands of online and in-class classes to all employees. Logistics assigns, with help of their Training Matrix and Training Procedure (AS-AL-OP-07), the appropriate training and learning to employees based on their job functions. The progression of these required classes are monitored by the training coordinator and are automatically reassigned according to a pre-determined schedule. The entire workforce is also assigned both site-specific and corporate ethics training and a wide variety of other corporate-assigned classes to help communicate the culture. Any employee, with management approval, may take addition classes to broaden their capabilities.

During bi-annual PMF/REPREP reviews, management takes the opportunity to communicate Logistics' direction, vision, opportunities for improvement and strategy to the employees.

5.2c2 In order to pass TEDS training or leaning, a test covering content material must be passed. Depending on the importance of the material, the employee must past the test with an 80% or higher (certain tests must be passed with 100% correct). These test and mandatory surveys at the end of each training or learning help Logistics evaluate the effectiveness of their training. The test and survey results are reviewed by the training coordinator and improvements are made to enhance future learning.

5.2c3 Employees are encouraged to seek progression in their careers by applying for different positions every 3-5 years. This helps the workforce gain a broader knowledge and vision of the Logistics, which helps stimulate ideas for continual improvement. In addition, it allows for future management and leadership candidates to better understand the entire operations.

Logistics is currently developing (by a SME) the “Develop an opportunity vs. workforce/skill matrix” and a process to better allow employees to develop their careers, and for Logistics to help employees align their career goals and personalities with certain positions. As of today, all job responsibilities and the skills needed to accomplish the jobs will be placed on a matrix. Then, personality tests may be taken to help put employees in areas of work that they are the most suited for (that is if they want to). Based on this approach, Logistics plans on being able to become more efficient by aligning requirements with the best fit individuals. For example, people with leadership potential will be developed likewise, and be placed in position that lead to leadership.

Category 6: Operations Focus

6.1 Work Systems

6.1a1 Our work systems are designed and improved using Lean Six Sigma tools and methodology. We also use methodology of Business Process Reengineering to design our end to end enterprise model. We identified key work areas and applied the appropriate resources to accomplish the work effectively and efficiently. We looked at the work that we are doing and determined if we had the skill set to perform that function and whether or not that function should be an internal process or should be performed by others.

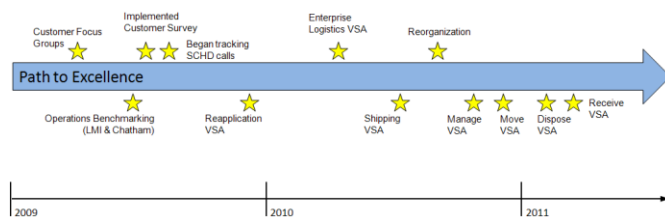


Figure 6-1: Lean Transformation Timeline

The lean transformation that Logistics is undertaking is a major and extremely significant activity. In 2009, Logistics started their lean journey in an effort to significantly increase the effectiveness and efficiency of the operations. The first step was a series of activities to get voice of the customer. These activities included focus groups, implementing a satisfaction survey, and tracking help desk calls. This allowed Logistics to fully understand their customer requirements and have a list of customer values (Table 7-5) to build the new operations around. Around this same time, two independent consultants were brought in to review and benchmark the operations.

Logistics started the transformation with a value stream analysis of the group needing the most attention at the time, Reapplication. The group moved on to an end-to-end look at the operations and how to structure the resources which resulted in our enterprise model (Figure 6-2). This led to a comprehensive reorganization of resources in October 2010. Following this was a series of value stream events for each of the core processes (Receive, Move, Manage, and Dispose). Each of these VSA events resulted in improvements that were prioritized (Figure 7-13). This list is currently being implemented.

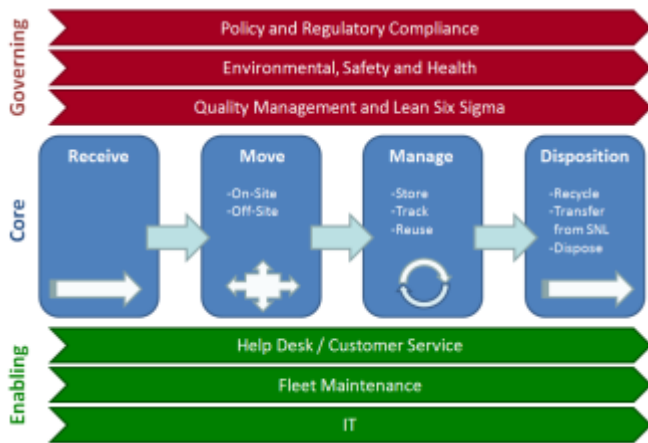
6.1a2 Our key work system requirements are determined through focus groups, call logs, surveys, and by including customers, collaborators and partners in value stream analysis events to design a new process. These tools are used to understand the requirements of the work system, as well as, to monitor if the work system is working appropriately. The results of the tools are used by the management team to make improvements to the system.

Key work system requirements:

1. Good Communication
 - a. Requirements to customer (what is expected of the customer)
 - b. Status to customer (especially if things will take longer than expected, advanced notice of service)
 - c. Within Logistics (within and between groups, all on the same page)
2. Timeliness
3. Supportive (provide advice as SME)
4. Done right the first time (meet specifications, quality of work)
5. Reliable (do what you say you’ll do, when you say you’ll do it)
6. Flexibility

6.1b1 Figure 6-2 is a layout of Logistics’ work system. We designed our work system based on the key customer requirements. The entire diagram is our work system, which is derived of three key sections governing, core, and enabling. Each key section is made up of multiple key foci of the work system (i.e. IT is a key focus of Enabling). There are multiple key work processes supporting each key focus. The governing section is the regulations and guidelines for how we do the core section, and the enabling section is composed of key functions that support the work of the core section. All the sections are key to Logistics’ success.

Since the creation of the enterprise model, we've done a deeper dive into each of the core processes to determine the processes of each core process. A full description of the transformation is described in 6.1a1. We saw a dip in customer satisfaction right after the lean transformation (see Figure 7-9), but have increased each of the last six months while implementing the new processes. Many other areas have been shown improvement as well.



Logistics Operations' Work System (Figure 6-2)

6.1b2 The management team, with personnel from an outside department, discusses and monitors the work system's budget monthly during the team supervisor meeting. All budget-related issues are discussed in-depth and solutions are assigned to the specified department manager to implement.

Preventing costs related to rework, defects, tests, audits, inspections and etc. are minimized by our procedure documentation for key work processes. As a part of our ISO 2001:9000 certification, it is required for Logistics to have key procedures completely documented. These procedures are followed when completing the work. Because of this, processes are properly followed and costs are avoided. Another key way to ensure cost avoidance is through our comprehensive training program. Each employee must be trained according to their functions in completing the work system.

6.1c Continuity of Operations is documented by each department and then crafted into a large scale document for Logistics. To construct the Continuity of Operations, there is a form designed to lead managers through different hazards or risks, rating the likelihood of these happening, and documenting emergency response approaches.

In addition, the entire workforce is trained annually on how to respond to emergencies. This includes who to call, whom to inform, evacuation routes, designed "safe-zone", and other emergency preparations. A Sandia department (ES&H & Emergency Management Center) also provides an organization-wide Continuity of Operations Plan, Emergency Plans, emergency procedures, training, drills and exercises, emergency response organizations, and emergency contacts.

6.2 Work Process

6.2a1 Our approach to designing and innovating work processes is the same as work systems (using LSS tools & methodology) however, the people that are involved is at a lower level. Work systems include senior management and managers, whereas work processes are driven by level 1 management and conducted by the employees of the affected work process (at times a senior manager will participate). New technology, product excellence, cycle time, productivity and more are incorporated into work processes through LSS events. It is during these events that Logistics evaluates these things to create a more efficient process. Figure 6-3 is the process we use to develop, manage, and improve our key processes with the aim of excellence. Product excellence and productivity are built into the processes and captured in ISO documentation controlled in our LQMS procedures.

When designing or modifying a process, steps 1-6 of Figure 6-3, are done with the *5 Principles of Lean Thinking* Figure 6-4 being referenced constantly. The purpose of our key work processes are in order to fulfill the needs and wants of our customers, so we begin by evaluating what value is from the customer's perspective. This is done by customers participating in the designing and modifying of key process, in focus groups, in filling out surveys, and in home-to-home sessions with Logistics. It is our aim to continually learn and improve so we may reach perfection (organizational excellence) in our processes, which perfection is a never ending goal.

Work planning is conducted to increase and ensure productivity. Each department has a controlled work planning and control procedure in LQMS that guides them through their processes (Logistics has NM-AL-OP-09 as well). Having these well thought out procedures on how work gets done, if followed correctly and constantly improved for better efficiency, are tools used to productively perform our entire organization's work processes.

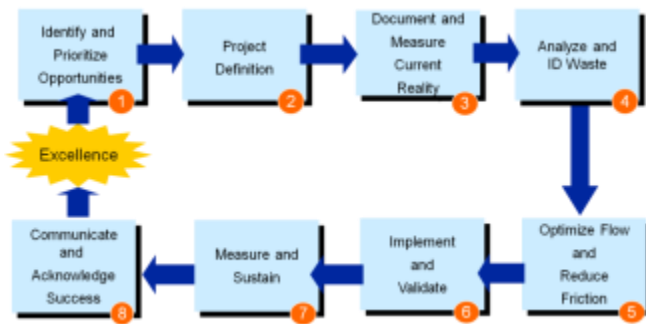


Figure 6-3: Lean Six Sigma Path to Excellence

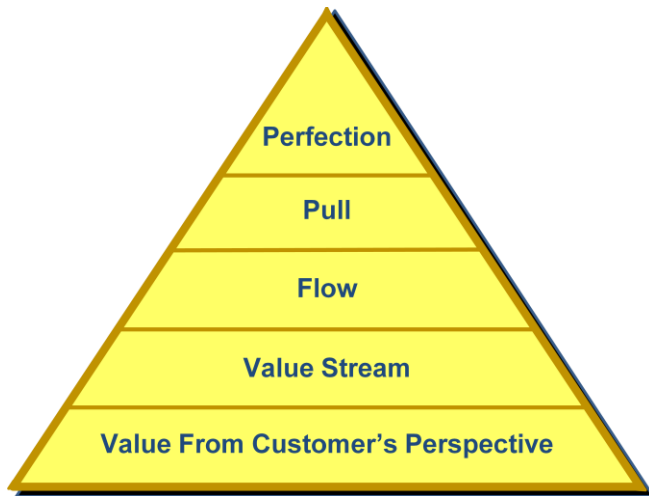


Figure 6-4: Lean Six Sigma Pyramid of Operating Excellence

6.2a2 Listening to customers an important in developing our key requirements. We develop the work process requirements based on customer feedback from customer surveys (sent automatically after each service the customer receives), focus groups (customers are ask to honestly evaluate all our key work process), During management meetings and strategic planning events, key process requirements are reviewed, developed and/or modified in order to increase customer satisfaction in our services. Customer surveys, listening groups, LSS event results, strategic vision and metrics are carefully considered when making decisions about requirements. Figure 6-5 lists Logistics' key work processes and requirements.

	Communication	Timeliness	Supportive	Quality	Reliability	Flexibility
Work Process						
Receiving		X		X	X	X
Package Delivery	X	X		X	X	X
Shipping and Packaging	X	X	X	X	X	X
Mail		X		X	X	X
Asset Management	X	X	X	X	X	X
Corporate Storage	X	X	X	X	X	X
Classified Destruct	X	X		X	X	X
Reapplication	X	X		X	X	X
VEM	X	X	X	X	X	X
OST Support	X	X	X	X	X	X
Help Desk	X	X	X	X	X	X

Figure 6-5: Customer Requirements by Work Process

6.2b1 Figure 6-2 is a layout of Logistics' work system. We designed our work system based on the key customer requirements. The entire diagram is our work system, which is derived of three key sections governing, core, and enabling. Each key section is made up of multiple key foci of the work system (i.e. IT is a key focus of Enabling). There are multiple key work processes supporting each key focus. The governing section is the regulations and guidelines for how we do the core section, and the enabling section is composed of key functions that support the work of the core section. All the sections are key to Logistics' success.

Figure 6-7 shows Logistics' future key measures and how they relate to our three core sections of the work system.

6.2b2 Logistics manages its supply chain through a close relationship with the procurement organization. This relationship is maintained through quarterly management review meetings, monthly SC manager meetings, strategic initiative teams, and PAL meetings. During these interactions, Logistics has the opportunity to provide direct input regarding SC issues.

Logistics is involved in selecting new vendors (JIT). The Supply Chain office enlists our feedback on the vendors past performance (if applicable) and addressing logistics needs and requirements in the contract. Customer feedback can influence or drive the feedback that is provided to procurement.

Supplier performance is evaluated through surveys sent from procurement to stakeholders and also at PAL meetings. Large/systematic issues with poorly performing vendors are brought up at PAL meetings. Procurement then addresses the situation directly with the vendor. For small issues, logistics can deal directly with the vendor. In the case of Fleet, the vendor is on site and issues can be communicated directly.

6.2b3 Logistics uses the following indicators for the identification of process improvements: customer feedback, employee suggestions (LITS), performance measures, results from audits/assessments, explicit events (injury, security incident, service that doesn't meet requirements/expectations). After identification of process improvements, the following are used to implement them: LSS, ISO, RCA, and LITS. All improvement actions are recorded, tracked, assigned to an individual, and followed through by a manager in the LITS, LESA, CATS, or LSS database.

Audit/Assessment Schedule (Figure 6-6)	
ISO (2 three year cycles) <ul style="list-style-type: none"> • ½ of Logistics' departments • ½ of Logistics' departments • All of Logistics' departments 	<ul style="list-style-type: none"> ➤ First year ➤ Second year ➤ Third Year
Management Review (based on AS-AL-OP-10)	➤ Every 4 months
State of NM Environmental Audit	➤ Once or twice per year
Corporate audits/assessments of any internal process	➤ Random, see Table 7-7

Logistics Improvement Tracking System (LITS) is a major aspect of process improvement because it allows all employees the chance to address preventative actions, improvement ideas, and nonconformance issues directly to management. This process is documented in the Logistics Improvement Tracking System (LITS) procedure (AS-AL-WI-01) controlled in ISO-registered LQMS.

- 6 First, a member of the workforce identifies a potential action and enters it into LITS.
- 7 Then, the LITS administrator (who monitors the LITS database weekly) prepares for the senior manager a monthly report to review current action progress and identify new action suggestions.
- 8 Management will then determine (through open discussion with his managers during the weekly Management Meetings) if the action suggestion will be

Future Key Measures (Figure 6-7)	
Governing	<u>ES&H</u> DART Recordable Injuries Security Incidents
Core	<u>Receive</u> Package Delivery Misdeliveries Lost & Damaged <u>Move</u> Package Delivery Misdeliveries Reapplication pickups Hazardous moves Outbound Shipping <u>Manage</u> Inventory <u>Dispose</u> Classified Destruct pickup
Enabling	<u>Fleet Services</u> Repair Turnaround Time Percent of Call-backs <u>Help Desk</u> First Call Resolutions

beneficial to act upon. If so, he will assign an owner to the new action item.

- 9 The action owner gathers relevant data and information in order to develop a plan to complete the action item. In order to ensure the completion of the action item, the employee will document and submit to management the detailed plan for their approval, maintain relevant records, follow other relevant procedures (such as, Control of Nonconforming Product/Process/Service Procedure (AS-AL-OP-06) and Preventative/Improvement Actions procedure (AS-AL-OP-05)), inform management on their progress, and notifying management when completed.
- 10 Last, management verifies the action item's completion, reviews its effectiveness (process learning), and closes the item in LITS.

All employees can use this system to address process improvement ideas.

Laboratory Self Assessment System (LESA) is used to manage all minor observation from self-assessments or internal audits (Logistics' Assessments/Internal Audits procedure AS-AL-OP-03 and Corporate Governance: CG100.6.3 Perform Assessments), and Corrective Action Tracking System (CATS) is used to manage all external or internal audit findings/major observations (Logistics' Corrective Action procedure AS-AL-OP-06 and Corporate Governance: CG100.6.6 Perform Corrective Actions).

Logistics uses audits and assessments as a function of process improvement. Figure 6-6 shows a few of our scheduled audits/assessments, Figure 4-3 is our management review schedule. We use these tools to continually learn how to make our processes better. CATS and LESA allow us to manage the findings and observations systematically to ensure their completion. Figure 6-8 shows both the LESA and CATS process (they are two separate systems, but the process is the same).

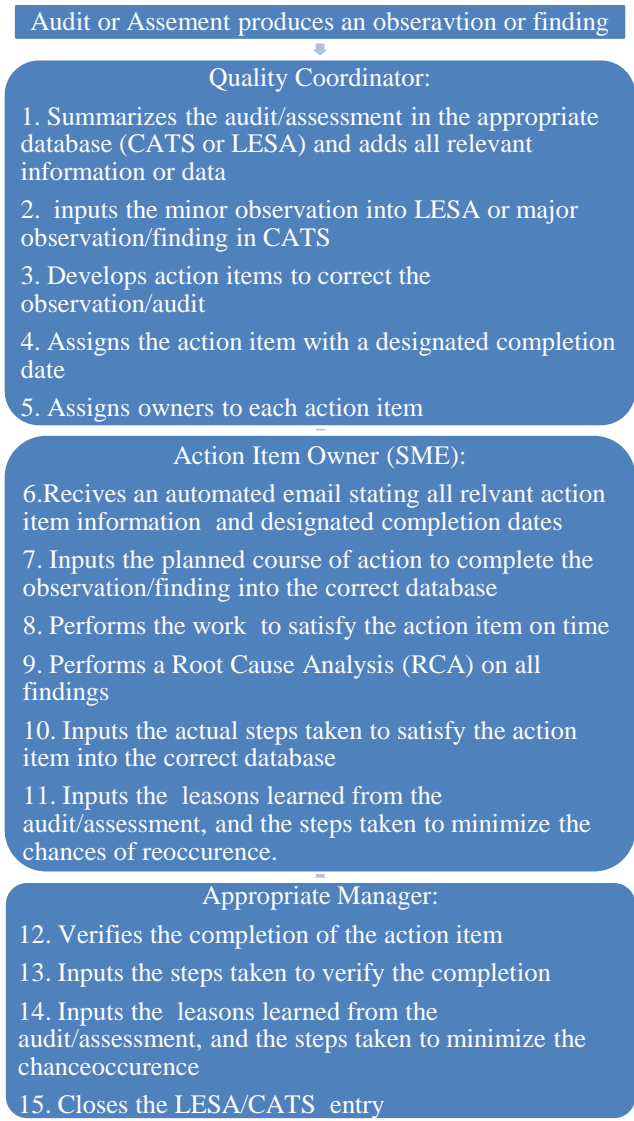


Figure 6-8: LESA and CATS Process Steps

7. Results

7.1 Product and Process Outcomes

7.1a Material movement cycle time and Shipper pickup cycle time are two transportation metrics that have remained fairly consistent over the course of the past year. With major changes to the transportation group and their related processes, these consistent measures are testament to the resiliency of the operations.

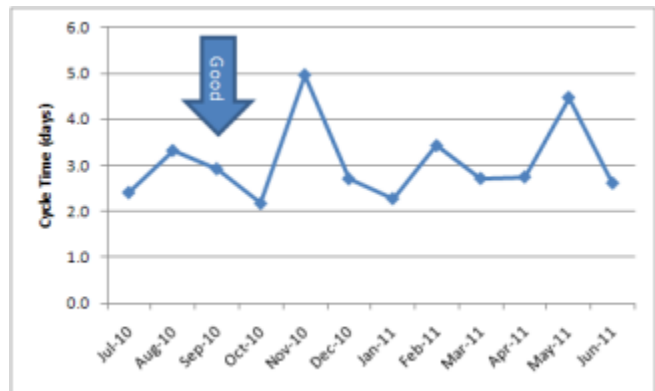


Figure 7-1: Material Movement Cycle Time

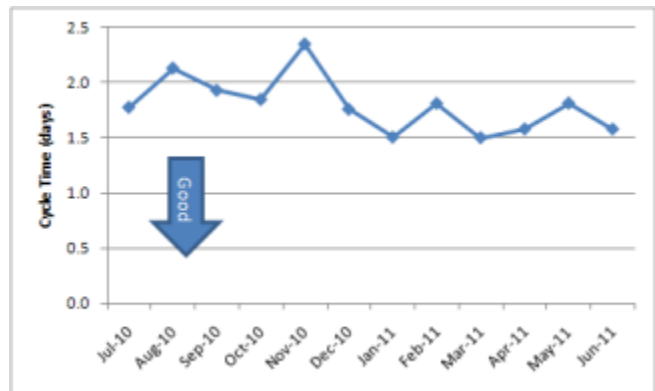


Figure 7-2: Shipper Pickup Cycle Time

Sandia divides its inventory of assets into two main categories; attractive and equipment. Logistics' Asset Management group is responsible for tracking these items throughout their lifecycle and accounting for them through annual inventories. SNL performs a wall-to-wall inventory every fourth year with the other years being through statistical samples. This fiscal year is a wall-to-wall inventory year. SNL has performed above target over the past three years (Table 7-1) and is on track to exceed this year's wall-to-wall goal.

	Attractive	Equipment	Target
FY08	99.4%	99.6%	98.0%
FY09	99.2%	99.1%	98.0%
FY10	99.4%	99.1%	98.0%

Table 7-1: Inventory Scores

In terms of storage utilization, having the right amount of storage is important from both a customer and business standpoint. Having too much storage (low utilization) costs the business extra money through unneeded facilities charges, but having not enough storage (high utilization) makes Logistics inflexible to customer storage needs. Logistics aims for maintaining 80-85% utilization in order to justify the current space and remain capable of responding to future customer storage needs. Figure 7-3 shows the ability to hit this goal with the exception of one overly high month. At the time the May metric was captured, storage had an influx of material to store, but that number returned to normal in June. When compared to the national self storage occupancy rates (as reported by Self Storage Almanac), Logistics general storage utilization is right around the national average.

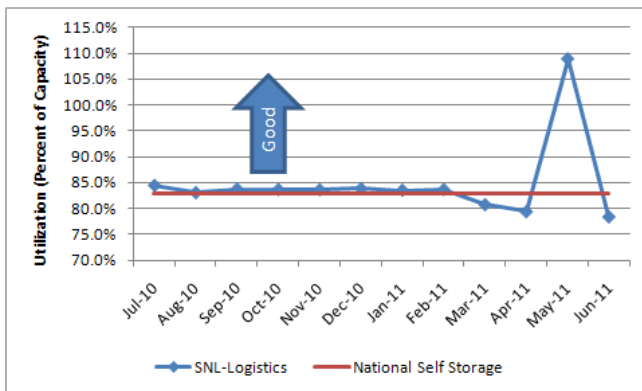


Figure 7-3: General Storage Utilization

Reapplication pickup cycle time has been the most volatile metric over the past few years. This measure is expected to get better with the pooling of the transportation drivers into a single group. Currently, the group is working through solutions to best utilize the resources (people and vehicles) in order to achieve a consistent cycle time while maintaining performance with other transportation processes.



Figure 7-4: Reapplication Pickup Cycle Time

Over the course of the past eight months, problems with the destruction equipment have resulted in a significant increase in the pickup cycle time. This is due to the fact that if you can't destroy, then you can't pickup. Once the equipment issue was resolved, a tremendous amount of effort has been put into reducing the backlog of pickup requests. This has resulted in a drastic decrease in the pickup cycle time, as seen in Figure 7-5.

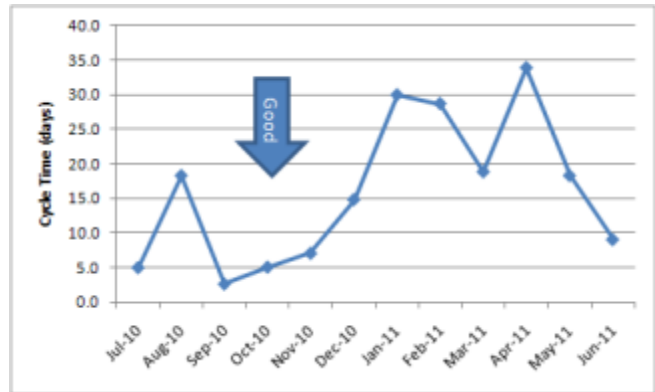


Figure 7-5: Classified Destruct Pickup Cycle Time

Percent correct delivery in the shipping department mostly weighs on on-time delivery. This metric has been fairly consistent with the exception of the past few months. Several extended personnel absences have contributed to a decrease in on-time delivery. In response to this, the Shipping department has cross-trained a number of personnel to help out in the interim.

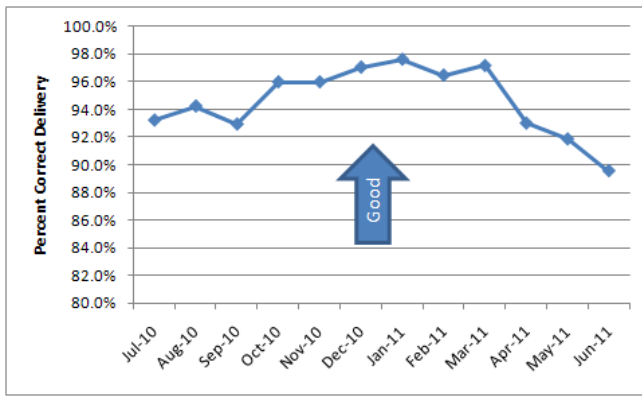


Figure 7-6: Shipping, Percent Correct Delivery

Completing maintenance on-time for vehicles, equipment, and OST non-operational vehicles is the most important activity that Fleet performs. These are new metrics and involve changing the mindset of the vehicle owners to bring their vehicles and equipment in for on-time maintenance. VEM maintenance appears to be improving over the past seven months, but OST maintenance has not caught on as well. It should be noted that the volume of OST non-operational maintenance requests averages around five per month. (Note: Data was not available for the months of August and November).

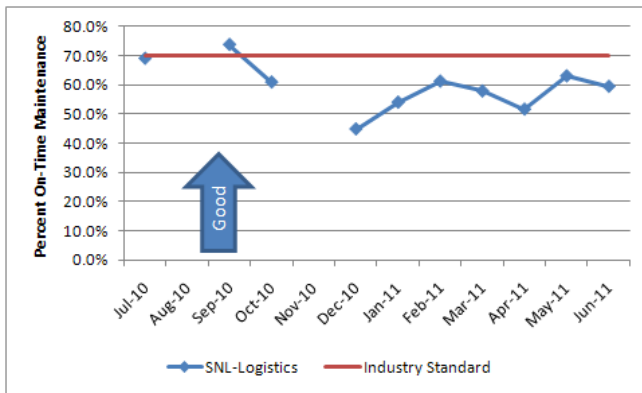


Figure 7-7: VEM On-time Maintenance

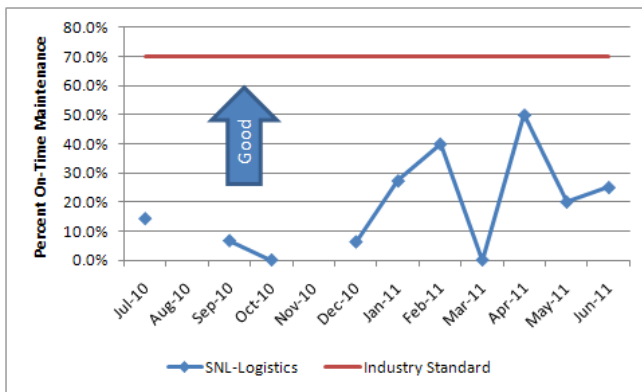


Figure 7-8: OST Non-Ops On-time Maintenance

One final metric, while not currently being monitored, is that of timely package delivery. This metric has been identified as one that will be tracked in the near future, so it is important that a snapshot be provided of current performance to provide a baseline for establishing targets. Table 7-2 shows FY11-Q2 performance for packages delivered within 24 hours (a timeframe that Sandia customers expect). Also included in Table 7-2 is a benchmark comparison to the United States Postal Service (USPS). The USPS considers “on-time” delivery to be three days. Sandia Logistics considers “on-time” delivery to be within 24 hours. As indicated, Logistics exceeds both the Albuquerque and national performance of the USPS in on-time delivery.

Organization	FY2011 – Q2 “On-time”
Sandia Logistics	90.7%
USPS – Albuquerque	90.4%
USPS – Nation	84.2%

Table 7-2: On-time Package Delivery

7.1b1 As a result of the value streams held for each of the core functions in Logistics, a number of process improvements were identified. Table 7-3 shows a summary of these opportunities and their potential impact to the operations. These activities range from minor process changes (eliminate unnecessary printing of receiving records) to major projects (develop IT tool to track GFP). Through these activities, Logistics expects to save money and labor as well as simplifying processes. By consolidating the transportation activities, Logistics was able to consolidate its vehicle fleet and return excess vehicles that will save the company roughly \$65,000 per year. Implementing process changes will allow excess capacity that can be reallocated to other needed services or for societal activities.

An example of this is through the Reutilization group. Previously, this group conducted unnecessary monthly inventories that were a duplication of effort with the corporate inventory, as well as a resource drain on the department. The group decided to discontinue the activity and as a result freed up hundreds of hours of labor per month. This excess labor capacity allowed the group to reinstate a very popular program, the K-12 Computer Donation Program. This program was previously suspended due to a lack of resources. Through the reinstatement, 900 computers and laptops were donated to needy schools throughout New Mexico. The group intends to hold two donations per year going forward.

Improvement	Expected Return	Status
Eliminate unnecessary printing of receiving records	12,500 pages/year saved	Not started
IT tool to track GFP	\$112,500/year in labor	In progress
Eliminate duplicate ticket closeout	148 hours/year in labor	Not started
Return excess vehicles	\$65,000/year	Complete
Reinstate K-12 donation program	900 computers donated to local schools in FY11	Complete
Turn over computer sanitization to corporate computing	2000 hours/year in labor	Starting October 1, 2012
Return to blind receipt of JIT material	187 hours/year in labor	Not started

Table 7-3: Identified Opportunities from VSAs

In addition to these improvement opportunities, Logistics has received recognition for their accomplishments thus far. The Fleet Services group in particular has recently received high honors that are a testament to their effectiveness, efficiency, and innovation.

Firstly, the Fleet Services team received national recognition as one of the “100 Best Fleets in North America,” meeting the program’s standards of excellence. They achieved their first recognition in 2008, again in 2010, and most recently in 2011. The 100 Best Fleets award program recognizes and rewards peak performing public sector fleet operations in North America. The program also identifies and encourages ever-increasing levels of performance improvement within the fleet industry. Each year, roughly 38,000 fleets are considered for the distinguished recognition.

The second honor recently achieved by Fleet Services was the 2010 GreenGov Presidential Award. The Fleet Services and Energy Management team received White House recognition as one of eight recipients of the 2010 GreenGov Presidential Award. The team earned the “Green Innovation Award” for developing and implementing photovoltaic-powered carts. The goal of the project was to reduce grid-tied energy use, increase renewable energy use, and implement solutions for reducing greenhouse gas emissions. The awards recognize extraordinary achievements in pursuit of President Obama’s Executive Order 13514 on Federal Leadership in Environmental, Energy, and Economic Performance. A few of Fleet Services’ key statistics for 2010 are:

- A total of 3000 vehicles and equipment are managed by Fleet Services
- 88% of all gasoline or diesel vehicles replaced in 2010 were replaced by alternative fuel using vehicles
- 92% customer satisfaction in 2010

- Increased alternative fuel usage by 8.5% by decreasing gasoline and diesel usage.
- Diesel and gasoline reduction of 36%
- Increased usage of environmentally friendly alternative products by 2%
- 63% of the technicians are Automotive Service Excellence (ASE) certified
- 88% of vehicles and equipment are being utilized properly (they meet predefined standards for monthly mileage usage)

Logistics has also received praise in their continual use and promotion of Lean Six Sigma tools and methodologies. In 2010, fifteen members of the Sandia Black Belt community attended a tour and received an overview of Lean Six Sigma efforts in Fleet, Receiving, Shipping, Reapplication, Corporate Storage and Logistics’ Path to Excellence transformation. The tour concluded with a roundtable discussion focused on what the Black Belts observed and opportunities for improvement. Overall, the Lean Six Sigma efforts were well received by the Black Belts in attendance. In addition to group recognition, individuals have also received high praise for their continued support of Lean Six Sigma. Logistics Senior Manager was the recipient of the 2010 Lean Six Sigma Champion of the Year (awarded by Sandia’s corporate LSS office) for his efforts, support, and leadership with Lean Six Sigma

7.1b2 The emergency preparedness of Logistics falls under the Sandia corporate emergency plan. Each of Logistics’ facilities has a building emergency plan and an evacuation team. Some of the recent results realized in Logistics in the installation of AED’s and first aid kits in the facilities. These were a result from an analysis that took into consideration the number of building residents and the response time of first responders. Members of the evacuation team, as well as many other participants, received training for the AED’s. All Logistics employees were informed of the locations of the installed first aid kits.

7.1c The final step to the strategic planning process was selecting measures that correlated to the strategic goals which would give an indication if the selected projects had the desired impact on the strategic goals. The most important of Logistics’ measurements is customer satisfaction. As seen in Figure 7-9 customer satisfaction dipped immediately following the reorganization of resources, however since then customer satisfaction has been on the rise every month and is approaching an all time high. With many more improvements on the horizon,

customer satisfaction is expected to continue its rapid growth.

Strategic Goal	Measurement
Improve Customer Satisfaction	Customer Satisfaction
Efficient use of Resources	Logistics Vehicle & Equipment Utilization
Efficient & Effective Processes	Number of LITS Ideas
Improve Employee Engagement & Satisfaction	Employee Satisfaction

Table 7-4: Strategic Measures

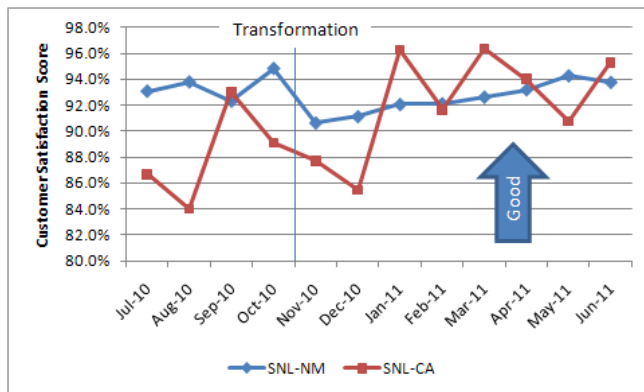


Figure 7-9: Overall Logistics Customer Satisfaction

The measure of Logistics Vehicle & Equipment Utilization is a new measure and therefore there are no results as of yet. Fleet Services manages and monitors the utilization of vehicles and equipment for the labs, so in an effort to set the example, Logistics is aiming for 100% utilization.

Instilling a culture of continuous improvement is key in realizing effective and efficient processes. Empowering employees to identify issues and develop solutions helps drive this culture. Logistics captures these ideas through an electronic system call LITS (Logistics Improvement Tracking System). Getting a consistent number of responses has been a challenge and is a major reason that “Develop an easier way to drive improvements” was selected as a strategic project. A new, easier system to input and track improvement ideas is currently in development. To promote a sense of ownership in the new system, the quality group sponsored a naming competition with the winner getting recognized at a Supply Chain all-hands event with dinner and movie for two.

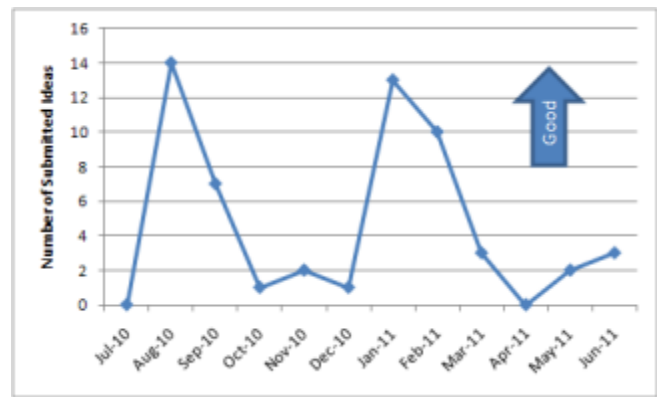


Figure 7-10: Number of Submitted LITS Ideas

Having engaged and satisfied employees is one of the best ways to improve quality and achieve customer satisfaction. Employee satisfaction scores can be found in Table 7-6.

7.2 Customer-Focused Outcomes

7.2a1 As previously mentioned in 7.1c, the most important metric that Logistics tracks is the overall customer satisfaction. This measure is tracked and reported monthly.

The measure relating to customer dissatisfaction is the incoming call volume for the Supply Chain Help Desk. From analyzing the data logged by the help desk staff, it is a safe assumption that the majority of the calls received by the help desk are those customers who are dissatisfied with our services. On average, 55-60% of the logistics related calls are “Where is my package”. By measuring the number of incoming calls Logistics can determine if the actions they are taking results in a reduced number of customer dissatisfaction calls. As Figure 7-11 shows, the number of incoming calls has decreased by 35% over the past five years.

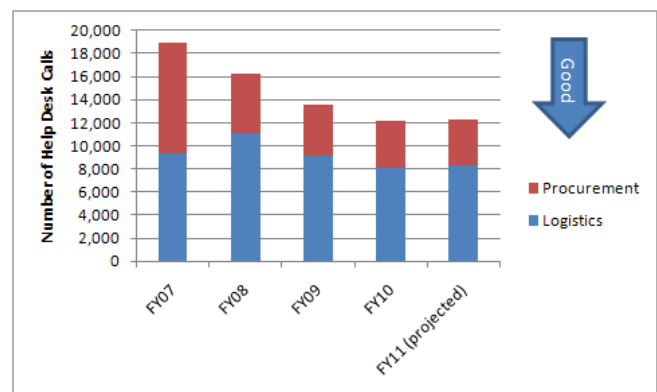


Figure 7-11: Number of Help Desk Calls

7.2a2 Over the past two years, Logistics has made numerous efforts to engage with, listen to, and build relationships with its customer base. The first major effort was a series of customer focus groups held in early 2009. Six total focus groups were held, one for each department in Logistics, with the sessions focusing on the following questions:

1. What services do you expect from Logistics?
2. What expectations do you have of these services?
3. What is the importance level of each of these expectations?
4. How well are we currently performing in regards to your expectations?

The result of these focus groups was a set of customer values that was used as the basis for the currently ongoing lean transformation. These customer values are summarized in Table 7-5.

Customer Values	
1	Communication
2	Timeliness
3	Supportive
4	Quality
5	Reliability
6	Flexibility

Table 7-5: Customer Values

Also in 2009, the customer satisfaction survey was launched in order to capture data relating to the services that customers recently received. Previously, efforts to capture customer satisfaction data were non-systematic.

The most recent examples of customer engagement sessions were a series of “home-on-home” sessions and a booth at the Sandia Earth Day fair. The home-on-home sessions are a strategy to engage with individual organizations in Sandia to have them learn about Logistics and the services that we provide, then a follow up for Logistics to learn more about that particular organization and the services that they require. This has led to the creation and placement of Logistics Coordinators that are housed in the particular organization and handle all logistics related activities for that organization. The booth at the Earth Day Fair was an opportunity for Logistics to interact with its customer and get some additional feedback on the services related to quality, speed and cost of operations. This feedback was analyzed resulting in a few actions to improve customer satisfaction. These survey results and corresponding actions were communicated back to the customers through an SDN notification.

7.3 Workforce-Focused Outcomes

7.3a1 Logistics staffing levels have decreased over that past few years (Figure 7-12) mainly due to attrition. While these levels have decreased, the level of performance has maintained consistent. Finding the appropriate staffing level is a challenge, but Logistics appears to have found an appropriate level of staff.

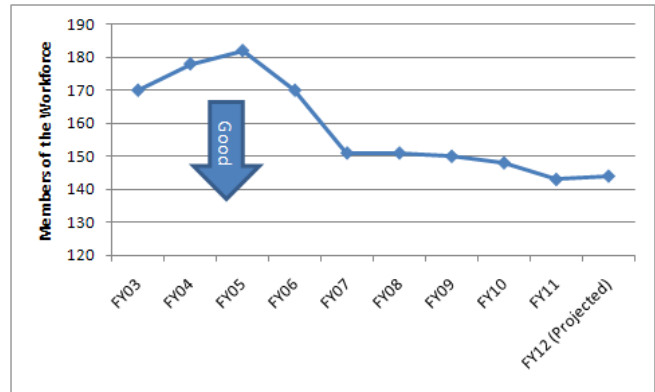


Figure 7-12: Logistics Staffing

As a result of an independent review of the operations in 2009, the consultant provided an operational benchmarking comparison to another federal logistics support group. Due to the confidentiality of the operations, the group was identified as “Organization X” in the comparison. As can be seen in Figure 7-13, the Logistics work capacity per employee was greater than Organization X in most categories. The category where Logistics was significantly behind was in the outbound shipping per employee. Logistics has used this information in conjunction with reviewing the operations to identify excess capacity. This led to the cross-training and level loading of operations between shipping and receiving. These operations had cycles of activity that were opposite of each other and allowed cross-trained individuals to lend a hand when they experience periods of low activity.

Area and annual metric	Organization X metric value	Sandia Logistics metric value	Notes
Overall supported population	7,000	8,200	Organization X official population is classified; the value provided is an estimate.
Receiving			
Staff	9	9	The first Sandia value is all receipts, including JIT receipts, which require no processing. The second number is the non-JIT receipts only.
Volume	99,716	403,000 (102,900)	
Receipts per staff	11,080	44,778 (11,433)	
Material Movement			
Staff	16	21*	The sum of receipts and shipments only. Other movement requests, present for both Sandia and Organization X were not available. Also, Organization X's coverage area is significantly larger than Sandia's.
Volume moved	126,232	411,371	
Movements per staff	7,890	19,590	
Packing			
Staff	13	7.5	Sandia staff includes the packaging design staff. Organization X did not have a design staff but key packers with HazMat certification.
Volume	26,516	8,371	
Packages per staff	2,040	1,116	
Shipping			
Staff	6	5	
Volume	26,516	8,371	
Shipments per staff	4,419	1,674	
Storage			
Staff	9	8	Perhaps not the best metric, but we could not compare storage slots due to the different nature of commodities.
Supported population	7,000	8,200	
Population per staff	778	1,025	
Disposal			
Staff	3	9	Organization X did not hold material for GSA sale—it transferred material directly to GSA, so staffing levels may reflect this.
Supported population	7,000	8,200	
Population per staff	2,333	911	

* The total of 21 drivers for Sandia is derived from 14 Material Movement drivers, 4 Corporate Storage drivers, and 3 Reapplication drivers, to reflect equivalent material movement duties to Organization X.

Figure 7-13: Sandia Benchmarking to a Federal Logistics Support Group

7.3a2 At Sandia, nothing is more important than safety and security. Logistics tracks three measures related to safety and security. The first two, related to safety, are recordable injuries and DART cases. Since FY05, Logistics has made major strides in instilling a safety culture and driving down injuries. One of the major contributors to the decrease in injuries is the introduction of the Behavior Based Safety (BBS) program. The BBS program is employee led and includes observers in many groups. The observations drive a safety mindset which leads to fewer injuries.

An additional action that has occurred recently is the formation of the Logistics Safety Committee. The purpose of this group is to further embed safety into the day-to-day operations and to encourage reporting of potential safety issues. This committee has introduced an anonymous reporting tool for employees to report near misses and/or close calls. The team reviews the submissions and assigns appropriate action owners to resolve the problem. The Safety Committee was assembled in May and has already received 11 entries into their Near Miss/Close Call reporting tool.

There is little relevant comparative data with respect to recordable injuries and DART due to the nature of our operations. Comparing us to industry is difficult again

based on the complex environment that Logistics operates in. Even comparing to other labs is not relevant due to structuring differences between the sites (meaning Logistics at Sandia has different functions and activities than Logistics at Los Alamos National Lab for example).

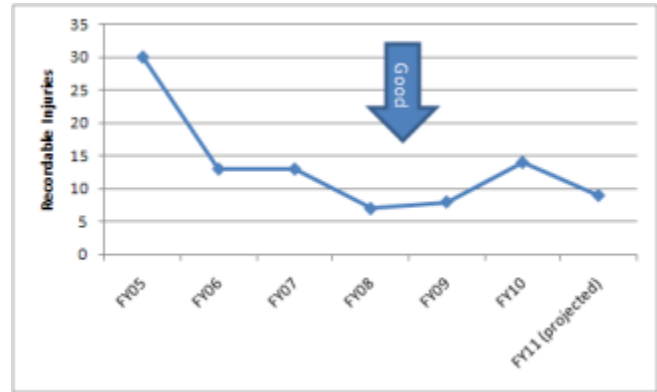


Figure 7-14: Recordable Injuries

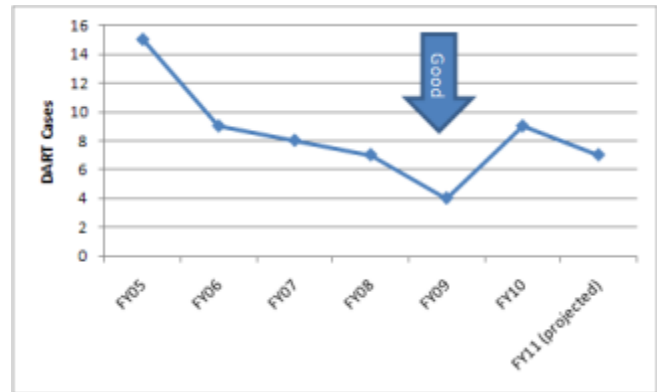


Figure 7-15: DART Cases

Tracking the number of security incidents is another measure of great interest to Logistics. Due to the nature of the operations, security risks are of great concern to management. As Figure 7-16 indicates, the number of annual security incidents has remained fairly consistent over the past number of years.

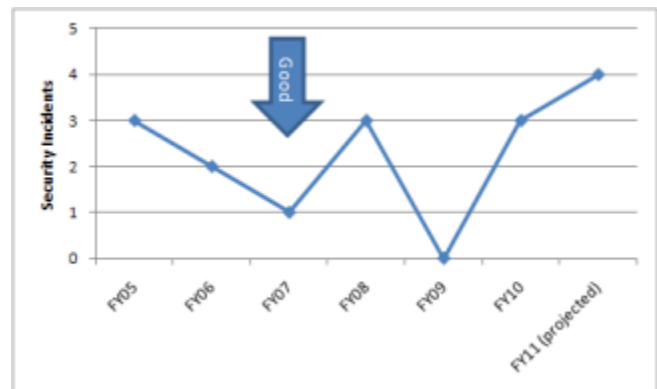


Figure 7-16: Security Incidents

7.3a3 Workforce engagement and satisfaction is tracked through an annual survey put on through Sandia’s operating company, Lockheed Martin. Lockheed Martin releases an “LM Voice Survey” annually that polls its employees about a number of topics from management commitment to personal development to overall job satisfaction. To rate the engagement and satisfaction of our employees, we reference the “Employee Experience Total Satisfaction” section, specifically the question “Considering everything, how would you rate your overall satisfaction with Lockheed Martin/Sandia at the present time?” The results can be seen in Table 7-6, where Supply Chain (of which Logistics is a part of) ranked higher than Sandia as a whole, as well as the overall Lockheed Martin score. While this is a positive, it should be noted that there was a reduction in satisfaction from FY10 to FY11. Logistics management will take the data and comments, prioritize them for action, and will create an action plan to address the issues which should lead to higher scores next year.

	FY10	FY11
Supply Chain	81%	75%
Sandia	N/A	69%
Lockheed Martin	N/A	72%

Table 7-6: Employee Satisfaction

7.3a4 Developing employees is critical to increase the capability and capacity of the workforce and to also develop future leaders. Beyond the required training, management has encouraged the development in three key areas: Lean Six Sigma, Speed of Trust, and Human Performance Improvement (HPI). In 2010, Logistics management sent all Logistics employees through HPI training. HPI teaches that people are fallible will make mistakes despite their best efforts. To improve human performance, one must reduce the occurrence of errors and enhance the integrity of defenses, barriers and controls. Using HPI in the design of processes has helped contribute to keeping injuries and security incidents at low levels.

In 2011, management sent all Logistics employees through Speed of Trust training. This training focuses on trusting relationships that improve the effectiveness and efficiency of operations by eliminating duplicate work and increasing collaboration.

Finally, building a lean culture is demonstrated by the support of individuals who seek to become Lean Six Sigma trained and certified. Over the past year and a half, Logistics has increased its number of LSS practitioners by 22%, and currently has 15.6% of the population with at least

green belt training. The Lockheed Martin goal for achieving a self-sustaining Lean culture is having 15% of the population Green Belt trained. The next step in the lean journey is achieving certification. Currently, 17 of the 22 LSS practitioners are certified.

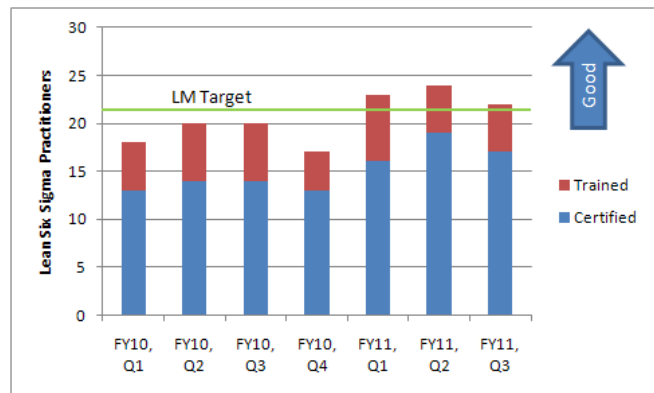


Figure 7-17: Number of Lean Six Sigma Practitioners

7.4 Leadership and Governance Outcomes

7.4a1 One strategic objective that was identified in the recent strategic planning session was to improve internal communication. Results from this effort included the development of a detailed communication plan and the creation and implementation of an internal newsletter called the Logistics Chatterbox. The newsletter features a message from the senior manager, a focus on member of logistics, and other relevant articles.

Another effective communication method by leadership is through the use of management walkthroughs. Management conducts monthly walkthroughs of work areas with a focus on safety. In these walkthroughs, management has the opportunity to interact with employees and get feedback regarding safety, potential improvements, and overall job satisfaction.

Other communication efforts in Logistics are through department meetings. It is in these department meetings that management shares best practices, lessons learned, and safety messages to their employees. This is also a time where frank two-way communication is encouraged and displayed. Finally, management uses department meetings in deploying Sandia’s mission, vision and values. This most recently occurred in the past few months when Sandia released its FY11-FY15 vision. Management took this information and shared it with their employees in an effort to make sure that everyone knew how they aligned to and supported the new vision.

7.4a2 With the large number of policies and requirements that Logistics operates under comes frequent audits and assessments. Table 7-7 summarizes these assessments and the corresponding results. The most positive note being that Logistics has not encountered a significant finding in the past three fiscal years.

	FY09	FY10	FY11
Number of Assessments	69	18	16
Significant Findings	0	0	0
Minor Findings	7	4	4
Observations	84	12	30
Noteworthy Practices	45	16	9

Table 7-7: Audit/Assessment Summary

7.4a3 Included in the results listed in Table 7-7 are those audits and assessments that show Logistics’ compliance to regulatory and legal requirements. The lack of significant findings is evidence of the compliance to these requirements. Similarly, the presence of noteworthy practices shows evidence of not only complying with, but surpassing regulatory and legal requirements.

7.4a4 Logistics relies on the process of security clearances in the monitoring of ethical behavior. Most Logistics employees must hold and maintain a security clearance as a condition of employment. Employees must go through screening every 5-10 years to maintain their clearance. Additionally, high success rates for random drug screening and property inventories (Table 7-1) show that our employees’ behavior is free from drug use and theft.

7.4a5 Throughout the years Logistics has built a strong and prideful relationship with the community. Whether it is a Logistics directed activity or supporting a corporate activity, the Logistics team is always looking for ways to give back to the community.

The most recent achievement was the successfully kickoff of the K-12 Computer Donation Program. The Reutilization Team assisted 19 schools with the processing and donation of more than 900 computers and laptops. Immediate feedback was that the whole process was well planned and organized. Some of the schools indicated that these computers were going to be used to establish new computer centers for schools located in poverty areas. Others indicated that they were going to be replacing computers over 8 years old. One particular school commented that for the cost of purchasing 3 new computers, they instead were able to get 43 computers from Sandia.

Just prior to this, the Reutilization and Disposition team supported “Manos”, a science and engineering SNL program. The program targets certain Albuquerque high schools and teaches children the computer hardware components. The kids are allowed to disassemble computers and locate different things such as power supply, memory, etc.

The Logistics team also supports Sandia led corporate activities, mostly through providing transportation of donated goods. These annual activities include: Thanksgiving turkey drive; book drive; food drive; and school supply drive. Finally, Logistics employees also donate their time through volunteering their time to various organizations including Habitat for Humanity.

Sandia as a corporation releases an annual economic impact to the state of New Mexico. More than 8,200 employees (regular & temporary) make up the Sandia New Mexico workforce that generates more than \$500 million in salaries. Other benefits, such as retirement and health care, add another \$150 million to the economy. Additionally, Sandia spends nearly \$500 million (66% of which went to small business) for purchasing equipment, materials, and other items. In 2010, Sandia paid more than \$67 million to the State of New Mexico in corporate taxes.

7.5 Financial and Market Outcomes

7.5a1 From a financial standpoint, the most important measure is how close Logistics comes to their allotted budget for the fiscal year. The goal every year is to spend as close to 100% of the budget as possible. This year, Logistics is trending to end very close to their allotted budget.

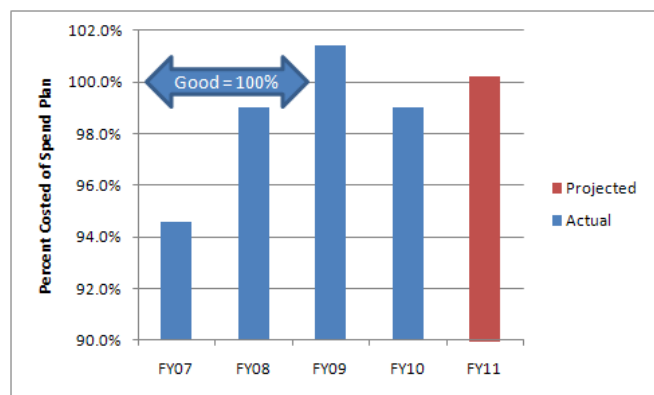


Figure 7-18: Percent Costed of Logistics Spend Plan

The other financial measures of interest to Logistics are related to cost avoidance through reutilization efforts and proceeds from recycling and surplus material programs.

Figure 7-19 shows the amount of money saved through the reutilization of existing assets versus procuring new. This number has been on the rise the past few years and is expected to top \$3 million this fiscal year. Another cost avoidance technique is by trading in an old item in the acquisition of a new one. This cost avoidance is summarized in Figure 7-20. The trade-ins cost avoidance has also been on the rise each of the past three years.



Figure 7-19: Cost Avoidance via Property Reutilization

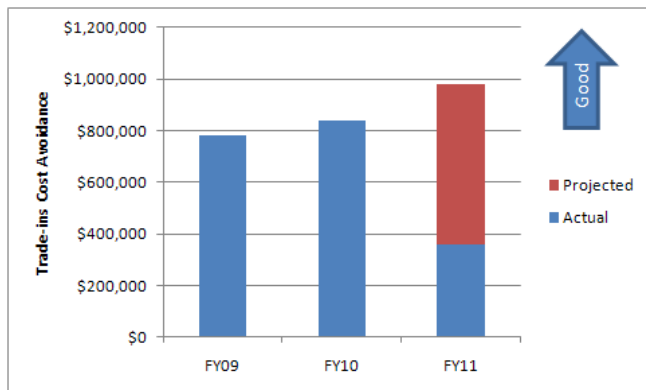


Figure 7-20: Cost Avoidance via Property Trade-Ins

The final two financial measures are related to proceeds from scrap metal recycling and auctions of surplus materials. Scrap metal is picked up throughout Sandia, consolidated in Reapplication and sent to a recycler who then gives the proceeds back to Sandia. For other surplus material, this is sent to a local auctioneer who auctions the material and gives Sandia a portion of the proceeds. Both of these programs are better off than they were in 2009, but both are projected to come in lower than the totals for 2010.

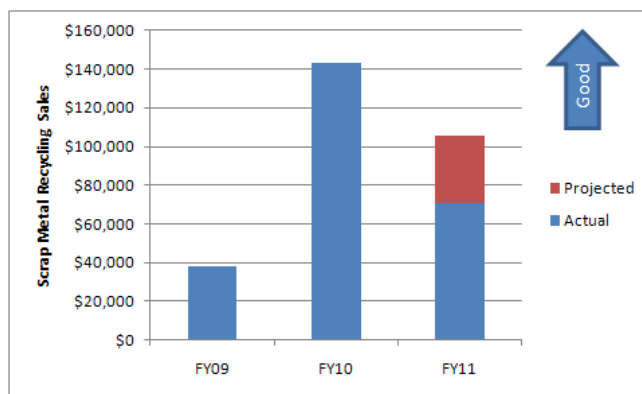


Figure 7-21: Scrap Metal Recycling Sales

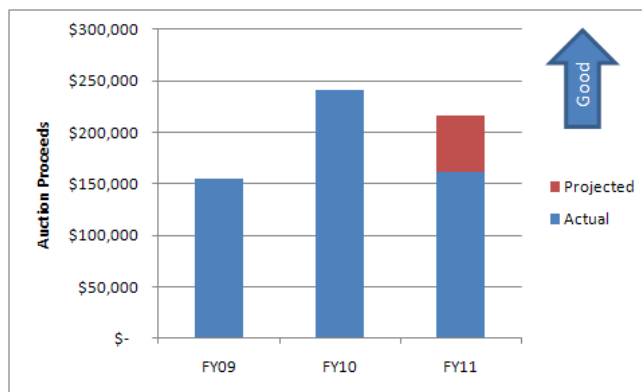


Figure 7-22: Auction Proceeds

7.5a2 With Logistics holding essentially 100% market share, the only results in marketplace performance are the new services offered and the benchmarking done with Logistics by other organizations.

The most recent new service offered by Logistics is the creation of a Logistics Coordinator position (previously mentioned in 7.2a2) that has been implemented in two groups at Sandia. These positions were a result of the home-on-home sessions that Logistics held with a few customers. In these sessions, customers indicated a need for dedicated resources to help meet their mission needs. Logistics proposed the idea of a Logistics Coordinator, the customer agreed, and the position was implemented.

The work done in Logistics is commonly benchmarked against in regards to performance in their market. In March 2011, the 377th Air Base Wing (ABW) Antiterrorism Officer, visited Sandia's Logistics Operations in order to benchmark our Receiving and Mail Operations. Currently the Air Force Receiving and Mail operations are widespread and they want to understand how our operations function and possibly replicate the way Sandia performs these tasks in a single location. Logistics has been recognized as a

leader in the area as having an excellent shipping, receiving and mail operations.

Another example, in March 2010, twenty-four members of the 58th Special Operations Wing's leadership, including four Colonels and eleven Lt Colonels, visited Sandia Fleet Services. The Special Operations Wing (SOW) is beginning Lean Six Sigma leadership training in advance of supporting upcoming maintenance activities. As part of their program they try to include a "go-and-see" tour, which provides the opportunity to see a model area and ask questions of those who were once where they are now. Sandia was recommended time and again as the top area to tour by DoE HQ personnel and DoD leadership in Washington DC. However it was the local Air Force leader's recommendations that really convinced Major Shannon Woodworth to come visit Sandia. The Special Operations Wing was not interested in science or cutting edge technology but rather wanted "to see real areas and speak with the real mechanics". Sandia's Fleet Services was able to provide a perfect example of how Lean Six Sigma can be applied to improve efficiency, effectiveness and the worker's environment.

APPROVED INTENT TO APPLY

New Mexico Quality Awards INTENT TO APPLY and ELIGIBILITY FORM

Review instructions starting on page 10. Type or clearly print all information. This **Intent to Apply form** and the **non-refundable fee** must be physically present in the Quality New Mexico office by **5:00pm April 22, 2011 (Cycle I) or June 3, 2011 (Cycle II)**. A copy of the approved form will be returned. Include a copy of the approved form with each copy of your application.

1. APPLICANT ORGANIZATION:

Logistics Operations
Organization Name
PO Box 5800 MS1120
Address
Albuquerque, NM 87185
City, State, Zip Code

2. OFFICIAL CONTACT:

Mr. Roy L. Fitzgerald
Title (Mr., Mrs., Ms., Dr., etc.) and Name
Mailing Address (if different from above)
City, State, Zip Code
844-8934 844-5013
Telephone Number Fax Number
E-mail Address:
rlfitzg@sandia.gov

3. APPLYING FOR:

- Piñon Recognition (refer to Piñon Criteria)
- Roadrunner Recognition (refer to Baldrige Criteria)
- Zia Award (refer to Baldrige Criteria)
- Feedback Only (subunit Zia eligibility)

4. APPLYING USING THE:

- Business/Government/Non-Profit Criteria
- Education Criteria
- Health Care Criteria

5. NATURE AND SIZE OF ORGANIZATION

Business	Education	Government	Health Care
<input checked="" type="radio"/> Profit	<input type="radio"/> K-12	<input type="radio"/> City/County	<input type="radio"/> Profit
<input type="radio"/> Non-Profit	<input type="radio"/> 12+	<input type="radio"/> State	<input type="radio"/> Non-Profit
	<input type="radio"/> Profit	<input checked="" type="radio"/> Federal	
	<input type="radio"/> Non-Profit	<input type="radio"/> Tribal	

Number of Full-Time (or Equivalent) Employees 129

6. PREVIOUS HISTORY WITH THE NMQA:

Year	Applied for	Received

7. PARENT ORGANIZATION / SUBUNITS:

Is your organization a subunit Yes No
 Is parent organization in New Mexico Yes No
See Page 7 for recognition eligibility requirements
 Location of parent organization: _____

8. CEO or HIGHEST RANKING OFFICIAL IN NEW MEXICO:

Ms. Nancy S. Davis
Title (Mr., Mrs., Ms., Dr., etc.) and Name
PO Box 5800 MS 1480
Address
Albuquerque, NM 87185
City, State, Zip Code
844-5486 844-4713
Telephone Number Fax Number
E-mail Address:
nsdavis@sandia.gov

"I understand that our application will be reviewed by members of the Board of Examiners. Should our organization be selected for a site visit, we agree to host the site visit, facilitate an open and unbiased examination, and pay the reasonable costs associated with a site visit. The NMQA may publicize the name of our organization in relation to awards process events, status, and results if we are selected as an award or recognition recipient."

N.S. Davis 4-18-11
Signature: Highest Ranking Official Date

9. MAIL or DELIVER THIS FORM AND THE APPLICABLE ELIGIBILITY DETERMINATION FEE (\$200) TO:

Mailing Address:
 Quality New Mexico
 P.O. Box 25005
 Albuquerque, NM 87125

Physical Address:
 Quality New Mexico
 8205 Spain, NE Suite 111
 Albuquerque, NM 87109

Or FAX WITH PURCHASE ORDER # to:
 (505) 944-2002

13. For use by Quality New Mexico only:

Applicant is eligible to apply at the level specified in Item 3: YES NO FEEDBACK ONLY
4/22
NMQA Authorizing Official Date