



# Aftermarket Performance

**Lee Miller**

Division Director, Aftermarket Business, Aerospace Group



*Powering Business Worldwide*

# Aftermarket Performance

... Improved Processes, New Organization and a New Culture

## Fuel and Motion Control Systems Division Service Centers 145 Repair Stations:



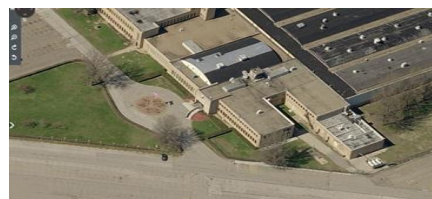
### Bed Hampton, UK

Hydraulic Pumps, Hydraulic Motors, Electric Motor Pumps, Power Transfer Units, Hydraulic Power packages, Hydraulic Motor driven AC/DC Generators and Generator Control Units.



### Jackson, MS

Air Frame Fuel Components



### Euclid, Ohio

Main engine fuel pumps, APU pumps, VBV gear motors, lube and scavenge pumps,



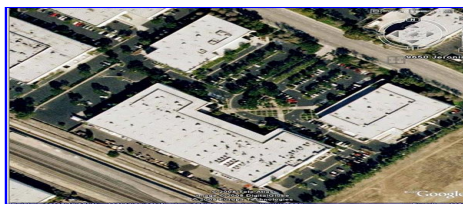
### Grand Rapids, MI

Electro-mechanical components and systems, used in flight controls, door actuation systems, landing gear systems and utility systems.



### Titchfield, UK

Fuel Management Systems parts including pumps, valves, and actuation components.



### Irvine, CA

Airframe fuel pumps and systems, boost pumps, transfer pumps, in-line pumps refueling subsystems fuel feed sub-systems, aerial refueling pumps, and fuel computers.



### Los Angeles, CA

Hydraulic Valves used in Landing Gear, Nose Steering, Flight Control, and Utility Applications, Brake Metering and Control Valves, Door Snubbers, Filter Modules and Thrust Reversers

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## Performance Improvements:

15 Day TAT

95% OTD Spares

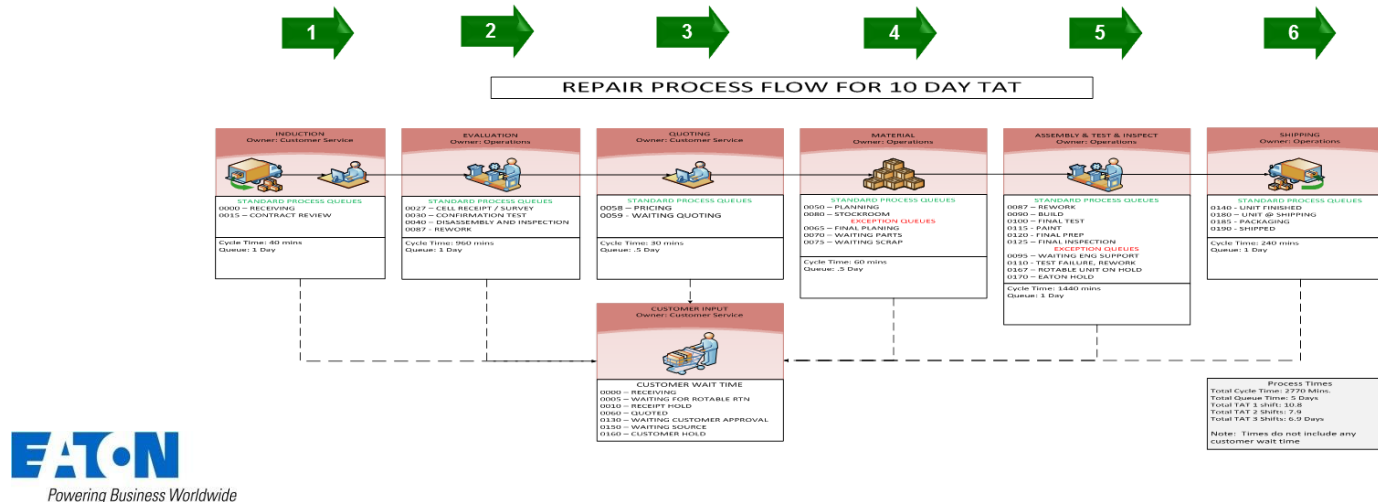
100% Quality

Standardized Organization, Tools and Processes

# Aftermarket Performance

## ...Improved Processes – Repair Flow

- Redefined and Aligned 56 Repair Queues Into 6 Repair Steps
- Performed Root Cause Analysis of Drivers of Performance by Queue
- Identifying actions to Meet Performance Targets – Areas of High Impact
- Leading Indicators and KPIs/Performance Metrics by Process

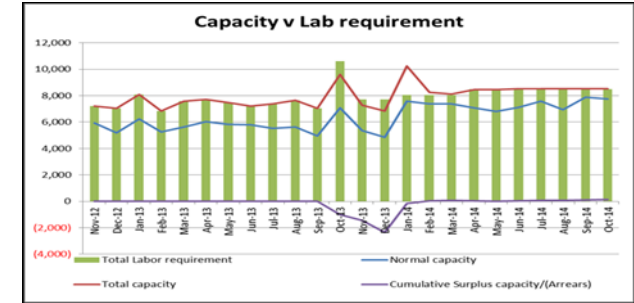


# Aftermarket Performance

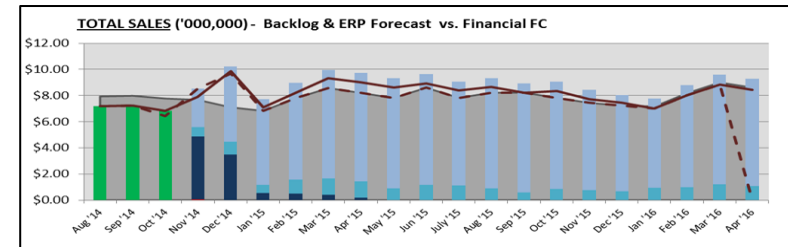
## ...Improved Processes – SIOP

A **business process** to develop comprehensive plans for sales, production, and inventory

- Consolidated Customer Demand Profile planning and provisioning and equipment,
- Balancing of Capacity, both manpower and with Customer Demand.
- Recognition of balance gaps and the identification and recommended closure actions
- Established a business plan that achieves balanced demand and supply while achieving customer expectations



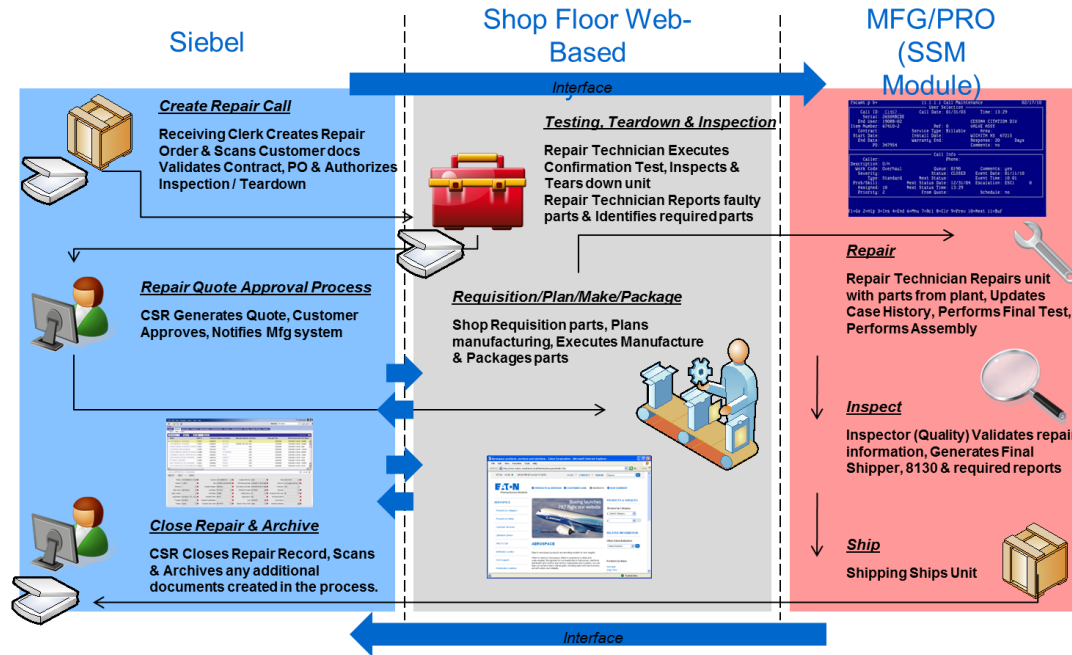
Capacity Plan which for surge requirements



Material forecast covering 18 Months

# Aftermarket Performance

## ...Improved System – EDGE



Aftermarket Repair Process from Receipt-to-Shipment

# Aftermarket Performance

## ...Improved Processes – Quality

Deploy Eaton Best Practices in Repair Stations:

### Successive Inspection

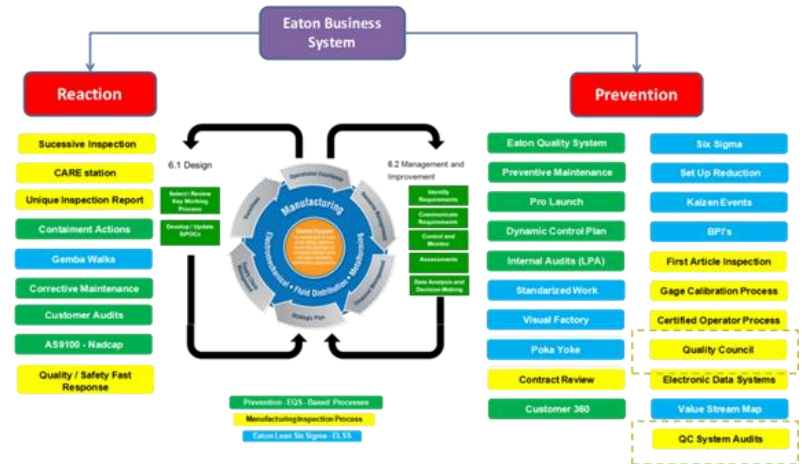
Standard documented process of inspection performed by the next operator before commencing their required work.

### Customer Interface Inspection Plan

Part number based review of the manufacturing process, the design, known failures and potential failures within the value chain for customer interface requirements. Controls are reviewed and revised to ensure prevention and detection of defects.

### Layered Process Audits

Standard documented inspection of processes by leadership (Front Line Leader to Plant Manager) at a set frequency (daily, weekly, monthly) to ensure compliance to the process.



# Aftermarket Performance

## ...New Organizational Structure

- Moved from OEM centric operations, to focused aftermarket organizations, with dedicated personnel, inventory, and equipment within the plants
- Creates organizational focus and accountability to support Aftermarket demand and customers
- Aftermarket team owns all aspects from order entry through delivery

### Improve Operational Performance

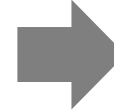
- Dedicated MRO leader at each plant
- Increased MRO staffing levels
- More inventory and in the right place
- Focus on velocity and flow
- Simplify planning and MRP system
- Integrate our distribution partners

### Increase Customer Support

- Airline focused customer service teams
- Increased product support staffing
- Increased commercial and contracts staff
- Dedicated Manufacturing Eng. team
- Division aftermarket sales support team

### Before (41 people)

- Shared OEM/ Aftermarket resources
- Collective inventory
- Balancing OEM and Aftermarket demand



### After (64 people)

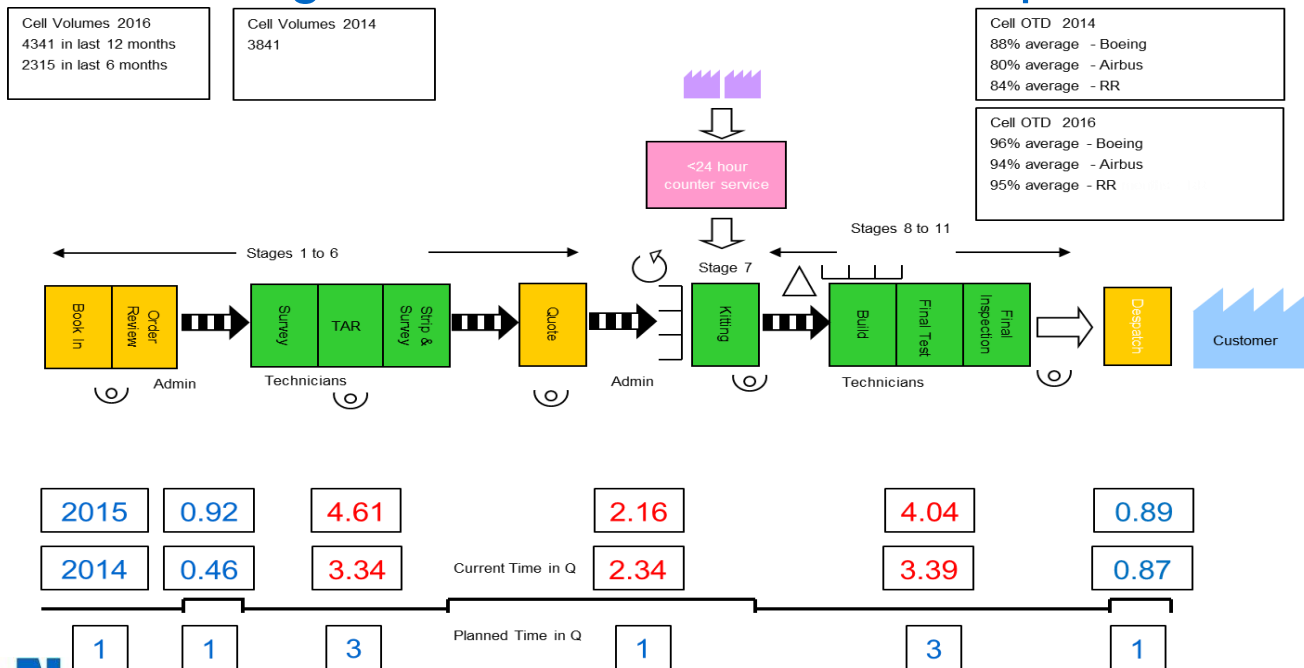
- Dedicated labor, testing and administrative resources
- Aftermarket forecasting, management and control



# Aftermarket Performance

...New Organizational Structure and Upgraded Facilities

## VSM 10 Day Cell –Repair Process Single Workstation Process Map



# Aftermarket Performance

## ...New Organizational Structure and Upgraded Facilities

- Improved OTD
- Improved TAT
- Increased throughput
- Increased Safety
- Higher Standards
- Improved Environment
- Higher Visual Control
- Workplace Organisation
- Reduced inventory
- Engagement
- Increased labour flexibility
- Productivity Improvements



# Aftermarket Performance

## ...Results

Spares delivery performance sustained above 95%

Repair TAT averaging 17 days will achieve 15 days in May 2016 (R&R)

Repair delivery performance achieved 95%

Quality - 1250 DPPM

# Eaton Aerospace

## ...Providing life Cycle Support and Solutions



### Product

- Superior Reliability
- Engineering Expertise



### Service

- Product Availability/On-Time
- Flexible Solutions



### Cost

- Reduced Life Cycle Costs
- Predictable Maintenance Costs

### Eaton's Value Offering

- Product Upgrades & Retrofits
- Reliability Management
- OEM Standard Work Scope

- Power-by-the-Hour Solutions
- Expanding Partnerships
- Industry Standard Spares / Repairs Delivery Performance

- Higher Dispatch Reliability
- Predictable Maintenance Costs
- Pool Stock Solutions



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