

# Aircraft Supply Chain Assessment Case Study

**Tactical Engineering Solutions (TES)** provides practitioner-based consulting and training services that deliver measurable results for our clients. We work with our clients to understand their objectives, identify solutions that are capable of achieving them, and develop appropriate plans to achieve, validate, and sustain the intended benefits.

## SERVICES:

Operations  
Performance  
Lean  
Six Sigma  
Rapid Improvement  
Logistics  
Quality Management  
Program Management  
Change Management  
Collaboration and Time  
Data Management  
Training &  
Certification



**Opportunity:** An airframe manufacturer contracted TES to provide a team of experienced engineers to develop a process to audit their supply chain.

**Project Goal:** The project goal was to develop and implement a process for auditing the supply chain and work with their suppliers who were struggling to meet the production target. When a supplier had quality spills TES would identify the root cause of the quality problem and develop a permanent corrective action and a more robust process to ensure that only parts that were within the specification provided were shipped to the OEM.

The deliverables included the development of a supplier readiness assessment process, tools and forms that would evaluate, measure and record all aspects of a suppliers' ability to meet production requirements, including but not limited to: supplier's intent, capacity (manpower, material, machine and methodology), quality, technical/process capability, financial stability, industry factors, competitive forces, raw material, sub-tier supplier capability and company ownership.

TES proposed the completion of the supplier assessment as follows:

## Preliminary Supplier Quality Process Development

- Audit current processes
- Develop DFMEA's and PFMEA's
- Develop Quality Mapping Process
- Provide a Capacity Assessment
- Provide suggestions for methodization and optimization

TES provided Excel-based forms that were used to develop the supplier audits. TES also provided the framework for an online dashboard to monitor supplier performance.

## Benefits of Project:

The OEM was able to audit 42 key suppliers in less than 6 weeks by using an experienced team from TES. The supply base was spread out across the United States as well as Europe and South America. The speed at which the data was gathered and analyzed allowed the OEM to make strategic sourcing decisions. This enabled them to adjust the production schedule until key suppliers could provide the production needed to achieve the OEM's published line rate.

# Tactical Engineering Solutions Overview

## SOLUTIONS:

Continuous Monitoring  
Process Flow Mapping  
Workstation Layout  
(5S)  
Material Movement  
Problem Solving  
Workgroup Development  
End User Training  
Supplier Development  
Value Stream Mapping  
Standard Work  
Workload Optimization  
Simulation  
Six Sigma  
Facility Layout  
Visual Factory (Andon)  
Pull Systems  
Enterprise Performance

For more information on any of our products or services please visit us on the Web at:  
[www.tacteng.com](http://www.tacteng.com)

TES is a Manufacturing Engineering services firm focused on helping our clients develop **and implement** sustainable operational improvements that deliver measurable results. We work in a collaborative manner with you and your team through the difficulties of the implementation phase and we can ensure changes both deliver and sustain improvements for your customers and staff.

Our transformation work focuses on three elements:

- Developing new operating systems to improve productivity and flow using Lean Six Sigma techniques, with limited capital investments
- Creating the performance management system for leaders to monitor and improve performance
- Building realistic, practical capabilities and confidence that our clients will need to continuously improve

Our specialists in Lean Six Sigma can help clients deliver performance by:

- Developing transformation programs (e.g. labor and manufacturing efficiency improvements, process improvements)
- Supporting existing change initiative
- Conducting performance diagnostics
- On site facilitation for Value Stream Analysis and Kaizen events
- Creating performance management systems (e.g., tracking tools, accountability programs)
- Building organizational capabilities
- Executive leadership and coaching
- Zero cost productivity improvements

We bring best practices from leading manufacturers from around the world and a broad base of industries. We measure our success by the sustainability of our impact and the capability we transfer to clients.

## About Us

**Tactical Engineering Solutions** is a veteran-owned/woman-owned disadvantaged small business, serving the business needs of both private and public sectors. Headquartered in Michigan, our roots originate in the manufacturing industry and as we have grown, our portfolio of resources continues to expand upon this foundation into other industries, to include Transportation, Electronics, Aviation, Aerospace, Healthcare, Power, Department of Defense, and more.

It is this rich heritage that allows Tactical Engineering Solutions to support our clients with a first-hand understanding of the challenges that businesses face.

Tactical Engineering Solutions is registered with Dunn & Bradstreet and the Federal Government's Central

## VISION

Tactical Engineering Solutions executes programs that are on-time, on-budget and technically accurate to help our clients reduce overall cost and improve throughput.



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