

# Quest Aircraft Company

Location: Sandpoint, Bonner County

Project Area: Lean Enterprise Transformation

## Situation

Quest Aircraft Company manufactures a new 10-seat single engine turboprop utility airplane known as the KODIAK. The aircraft is built around a commitment to modern Short Takeoff & Landing (STOL) design, rugged construction, turbine power and high useful load. Beginning operations in 2001 with a staff of 14, Quest now employs 230 at its new 27,000 square foot plant at the Sandpoint Municipal Airport. In order to meet increasing customer demand, Quest needed to revise its original goal of producing one aircraft every 10 days to one every 2.5 days.

## Solution

- Quest brought in an experienced aviation industry consultant to show key Quest managers how Lean Manufacturing would help the company meet its production goals.
- Quest selected TechHelp to deliver Lean training because of its local presence, ability to deliver a realistic Lean simulation and hands-on teaching approach.
- Key Quest personnel completed TechHelp's Lean Enterprise Certification Program that gave the team a thorough indoctrination to Lean and prepared them to lead the company's Lean Transformation.
- TechHelp's LECP course included kaizens (continuous improvement activities) on the plant floor that produced hands-on learning and immediate results.
- Quest quickly applied Lean principles to the plant floor in order to better utilize space, materials, information and manpower.
- An initial plant wide 5S (workplace organization) kaizen helped create more organization and safety in the plant.
- Quest developed visual controls and story boards to monitor production problems and progress and improve communications.
- Quest calculated and applied cycle time, takt time and line balancing to smooth production and track key metrics to support goal attainment.
- Quest implemented a Kanban system to better manage inventory.
- Lean Enterprise training led to the development of the Quest Production System and creation of a Lean culture throughout the entire organization.

## Results

Quest's ongoing investments in people, plant & equipment created an efficient and competitive company that was able to:

- Retain \$13 Million in sales.
- Retain 100 employees and add 50 new jobs.
- Realize \$60,000 in cost savings.
- Invest over \$1 Million in plant, equipment, workforce and information systems.
- Create efficiency by moving all parts to their point of use.
- Improve cycle times by over 60% and make progress toward a production goal of producing one aircraft every 2.5 days.
- Reduce production line deviations by several hundred percent.
- Improve employee morale by giving employees a better sense of control over work processes.

**“Involving our core leaders and incorporating real-world Lean projects with the classroom training was a great kick starter for us and converted many non believers.”**

Justin Wootan,  
Director of Operations  
Quest Aircraft Company



The Kodiak is built around a commitment to modern Short Takeoff & Landing design, rugged construction, turbine power and high useful load.

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