



# 2 0 0 3 MISSOURI TEAM QUALITY AWARD RECIPIENT

## JDAM 3P IMPLEMENTATION TEAM at Boeing Weapons Programs in St. Charles



### PROFILE

The Joint Direct Attack Munition (JDAM) is a weapons product that brings autonomous, all weather, near precision bombing capability to the United States Airforce and Navy. JDAM, a guidance system tail kit was designed and developed in the early 1990's and is produced at Boeing in St. Charles, Missouri. Post September 11th, the U.S. Air Force considered the opportunity to accelerate the production of the JDAM Tail Kits to increase inventories. Boeing was immediately asked to develop various scenarios to accommodate acceleration of the JDAM production lab.

### OPPORTUNITY FOR IMPROVEMENT

The Weapons Programs' JDAM facility was designed to support a maximum production capacity of 1,600 units per month. Meeting the customer's new demand of 3,000 units per month offered several options: 1) duplicate the current line and create a capacity of 3,200 units per month, 2) create a new line with a 3,000 unit capacity, or 3) at the customer's request, second source the manufacture of the JDAM tail kit. Based on performance and reliability, the SPO asked Boeing to continue as the sole source manufacturer and to develop a plan to increase capacity to 3,000 units per month at the Boeing facility as well as developing the capacity at all suppliers. The Boeing JDAM team concurred with this decision and realized the growth of JDAM would meet the company's objective of long-term program growth.



### TEAM ACTIONS

A JDAM leadership team was formed based on these defined requirements and goals. This team included many of the program and functional management personnel directly related to JDAM. The initial team definition was based on a recommendation to complete the design phase through the use of a Boeing Lean Implementation tool called Production Preparation Process (3P). 3P's are a vehicle to generate innovative out of the box thinking by pulling together personnel from various backgrounds and have them commit one week to a particular initiative. During the 3P event, the 3P team identified the tasks with the greatest impact to the successful implementation of the goals established by the leadership team. An implementation team was formed to execute the 3P's proposal. The implementation team consisted of all stakeholders impacted by the proposed changes. The team included manufacturing, facilities, quality, design engineering, production support, program management, site management and the customer. The team's first responsibility was to review the alternatives and reconcile the proposal with the goals, budget and implementation schedule.

### RESULTS

The project began with the 3P event the week of January 28<sup>th</sup> 2002. Several critical goals were achieved either on or ahead of schedule. The team successfully reviewed, down-selected and contracted with the material handling equipment supplier. The groundbreaking for the new facility occurred a full two months ahead of contract award. Equipment installation and the facility opening were complete just a short six months from the time of ground breaking, on January 13, 2003. The final critical goal of achieving the production rate of 3,000 per month occurred in June of 2003.

### FUTURE PLANS

Continuous improvement of system performance is critical in achieving and sustaining the JDAM production facility. The team is improving material handling, implementing a paperless facility and improving production cycles. The JDAM production line is constantly assessed by inside and outside Boeing organizations. It is a benchmark to all other production areas within the company.

### For more information, contact:

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