

# Warehouse/Receiving Area Study: McTurbine



When McTurbine constructed a new facility in Corpus Christi, Texas, they sought an organization that could provide industrial engineering support on aircraft platforms. McTurbine provides complete T53/T55 turbine engine repairs and overhaul including all components and accessories. The move was scheduled within six weeks and McTurbine needed assistance in planning for the parts warehouse move representing over 12,000 different part numbers. TCAT was asked to provide engineering assistance in planning for the relocation of inventory and establishing a layout for their new shipping and receiving area.



TCAT's systems engineering process was used to provide a base for conducting the assessment and recommendations; whereby, best industry practices were researched and employed. TCAT identified and recommended method improvements and lean implementation strategies to improve the manufacturing processes. Method improvements for specific warehouse operations were presented to McTurbine management for evaluation and implementation. TCAT combined these methods with lean manufacturing and six sigma philosophies resulting in cost reduction, improved productivity, and elimination of non-value added operations, and identification of other problem areas. Ultimately, TCAT provided layouts for storing McTurbine's commercial, military, and yard warehouse operations. We also provided an inventory scheme for A,B,C-classification of parts and a layout for shipping and receiving was developed to improve the work flow and to provide ergonomic workstations.



According to Tom Kwiathowski, Director of Materials Logistics at McTurbine, "it used to take one and a half to two days to kit up a job in the old facility and now it takes about two-hours in the new warehouse." He went on to remark that in their most recent FFA audit, the auditor viewed the warehouse operation as being outstanding.

## TEXAS CENTER FOR APPLIED TECHNOLOGY

There are many problems that require the careful and proper integration of applied technologies to find solutions. The Texas Center for Applied Technology (TCAT) was created to focus on these specific problems and to develop effective and efficient solutions. TCAT's core competency is the innovative application of existing technologies and advanced research to solve complex real-world problems.

TCAT's primary objective is to apply and test technologies to address targeted problems and engage basic research as required. TCAT has employees in a variety of locations with the ability to perform research that cuts across multiple technologies, disciplines, and cultures. The Center's employees are knowledgeable regarding customers' requirements and are ready to respond effectively to provide the best value for the customers' needs including expertise in technology insertion, technology assessments, and test and evaluation.

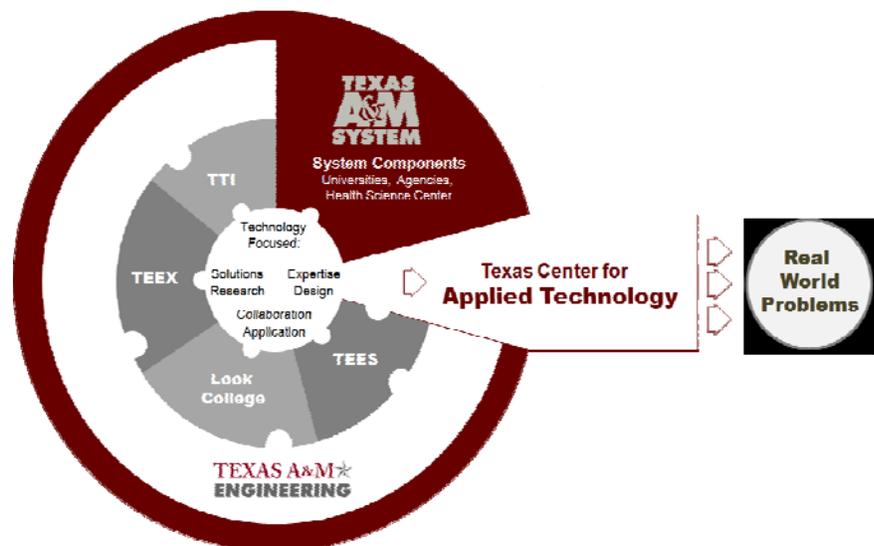
TCAT is part of the Texas A&M Engineering Experiment Station (TEES), a member of The Texas A&M University System. The A&M System is one of the largest and most comprehensive systems of higher education in the United States. Through a statewide network of eleven university campuses, seven state agencies, and a comprehensive health science center, the A&M System educates more than 120,000 students on its university campuses, conducts more than \$780 million in research, and reaches another 22 million people through service each year. TEES is an engineering research agency for the state of Texas and conducts over \$147 million in research annually. Because of the Center's position within the Texas A&M Engineering program, TCAT's expertise can easily be extended by rounding out its team with world class faculty researchers, as appropriate. TCAT is in an excellent position for collaboration not only with The Texas A&M University System components and their customers but with other universities, institutions, centers, and industry.

## TCAT'S CORE COMPETENCIES

Energy Sustainability ★ Environmental Sustainability  
Manufacturing & Systems Engineering ★ Information Technology ★ Modeling & Simulation  
Technology Insertion ★ Test & Evaluation

## TEXAS A&M ENGINEERING

Texas A&M Engineering consists of the Dwight Look College of Engineering, and three engineering agencies, including TEES: Texas A&M Transportation Institute (TTI) conducts research and professional education in all modes of transportation. The Texas A&M Engineering Extension Service (TEEX) works to develop a highly skilled and educated workforce and enhances public safety through training, continuing education, and technical assistance.



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