

Academic Center for Aging Aircraft



The costs of maintaining an aging fleet of aircraft are eating into DoD operations, procurement, and other budget accounts. Reduced allocations for operations, force structure downsizing, base closures, privatization, changing environmental laws, and the demands of using weapon systems beyond their intended service life are putting extreme pressure on both DoD and Industry.

The Joint Council on Aging Aircraft (JCAA), an intergovernmental agency comprised of DoD, FAA, NASA, and Industry, was established to provide a disciplined process for transitioning core research competencies and technologies essential to the aging aircraft community and the DoD. The JCAA also provides guidance for its primary steering groups (dynamic components, wiring, avionics, corrosion and structural health monitoring) by defining the processes for inter-service collaboration in delivering appropriate technologies to maintenance organizations.

At the request of the JCAA, the Academic Center for Aging Aircraft (ACAA) was created by Dr. John Ayala of TCAT and an academic program management infrastructure was developed with the University of Dayton Research Institute (UDRI) and Georgia Tech Research Institute (GTRI) to manage JCAA projects. ACAA support to the JCAA manifests itself in the evaluation of DoD maintenance requirements, strategic planning and mapping of requirements against cost-effective technologies, assisting the DoD in transitioning those technologies to the depots and serving as a technology clearing-house in order to avoid duplication. In addition to facilitating the straightforward insertion of technology to meet immediate needs, the ACAA provides guidance to maintenance and repair facilities with the development of best business practices and process improvement to make the implementation of new technologies as seamless as possible. The ACAA is updating a strategic plan or "Roadmap" for the JCAA in support of its efforts in research planning.

The ACAA has demonstrated its ability to collaborate with a diverse set of partners and stakeholders to support DoD and to meet the challenges of developing effective solutions for sustainment of aging systems. With each project the ACAA has undertaken over the years, we are mindful that the challenges we face are related to a broader set of issues - all related to improving war-fighting capability at a time of great national need. Improvements in methods to sustain the current aircraft fleet are key components to readiness.

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.

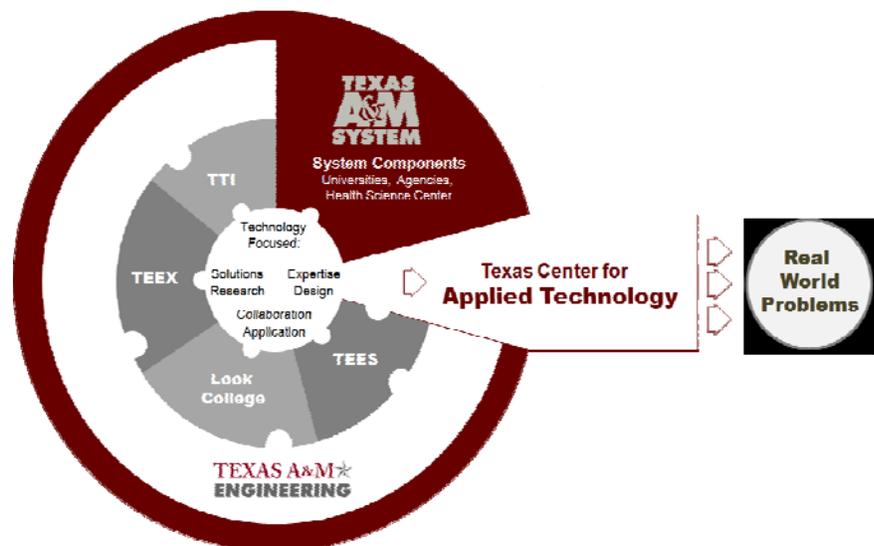
TCAT is part of the Texas A&M Engineering Experiment Station (TEES), a member of The Texas A&M University System. The A&M System is one of the largest and most comprehensive systems of higher education in the United States. Through a statewide network of eleven university campuses, seven state agencies, 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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