

Storm Water Best Management Practices

The Texas Center for Applied Technology (TCAT) provides Civil Engineering support to the U.S. Air Force (USAF) as part of the Texas Pollutant Discharge Elimination System (TPDES). The TPDES program is delegated under the National Pollutant Discharge Elimination System (NPDES) – a system authorized under the federal Clean Water Act. As part of this support, TCAT Civil and Environmental Engineers support the following three Air Force programs: 1) Municipal Separate Storm Sewer System or MS4 Program, 2) Multi-Sector General Permits or MSGP Program, and 3) Storm Water Permits for Construction. These three programs are designed to minimize the quantity and improve the quality of stormwater discharged into waters of the United States.

PROGRAM – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)



As part of the small MS4 program, TCAT Environmental Engineers assist the USAF with preparation and implementation of Storm Water Management Planning (SWMP). The SWMP is a site-wide document which covers municipal areas as well as the industrial activities and construction sites. TCAT engineering support is based primarily on the implementation of Best Management Practices (BMPs) for each of six Minimum Control Measures that are outlined as part of the Air Force SWMP: 1) Public Education and Outreach, 2) Public Involvement/Participation, 3) Illicit Discharge Detection and Elimination, 4) Construction Site Runoff Control, 5) Post-Construction Runoff Control, and Pollution Prevention/Good Housekeeping.



PROGRAM – MULTISECTOR GENERAL (MSG) PERMIT

TCAT Civil Engineers assist the USAF in the development and implementation of Storm Water Pollution Prevention Planning (SWP3). As such, our engineers identify the sources for each sector and specify best management practices (BMPs), conduct inspections, sampling/monitoring, and other requirements for these industrial sources. Our Civil Engineers also conduct Comprehensive Site Compliance Evaluations (CSCE) to evaluate the effectiveness of an USAF SWP3.



PROGRAM – STORM WATER PERMIT FOR CONSTRUCTION

TCAT Civil Engineers help the USAF ensure that construction operators are in compliance. Our engineers conduct site inspections and reviews of construction sites for proper postings and proper preparation of a SWP3. TCAT provides engineering evaluations of SWP3s to include site/project description, acreage, site map w/drainage areas, controls, soil stabilization, surface water, discharge locations, vehicle wash areas, receiving waters, erosion control/stabilization practices and sediment control practices.

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.

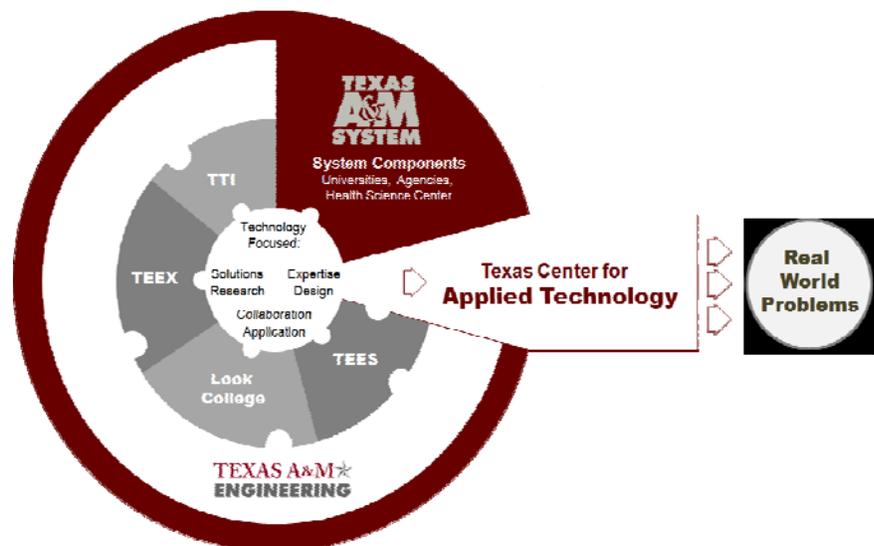
TCAT is part of the Texas A&M Engineering Experiment Station (TEES), a member of The Texas A&M University System. The A&M System is one of the largest and most comprehensive systems of higher education in the United States. Through a statewide network of eleven university campuses, seven state agencies,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