

## **Tinker Air Force Base Vegetative Communities Map and Classification System**

CMI MLD R-34

Dorr, Jessica L., Pamela Swint, and Verl R. Emrick

Conservation Management Institute-Military Lands Division, College of Natural Resources, Virginia Polytechnic Institute and State University

**Abstract** – The purpose of the vegetation map was to provide natural resource managers and researchers with current information regarding the composition of vegetation communities and their distribution within the boundaries of Tinker Air Force Base (Tinker AFB). This information will increase the ability of land managers to make knowledgeable decisions regarding natural resource management at Tinker AFB.

The overall goal of this project was to develop a detailed Federal Geographic Data Committee (FGDC) compliant vegetative communities map of Tinker AFB utilizing recent aerial photography, fieldwork, and verification. This goal was accomplished by (1) developing an installation-specific, plant community classification based upon field data; (2) crosswalking the installation specific classification system to the NatureServe's National Vegetation Classification System; (3) using aerial photography to delineate vegetation polygons through heads up digitizing in ArcGIS; (4) attributing vegetation polygons using the installation specific classification system; (5) assessing the accuracy of the vegetation map through additional fieldwork and object oriented classification methods; (6) integrating invasive species in the vegetative communities map, including the extraction of fescue areas using remote sensing techniques; (7) producing broad-scale habitat variables for the Texas horned lizard, identifying Oklahoma penstemon areas in the airfield, and relating the vegetation classes associated with these species of concern.