News Release

For Immediate Release
October 8, 2010

For More Information:
Amber Anderson
Center for TSM
270-809-3987
amber.anderson@murraystate.edu

The Telecommunications Systems Management (TSM) program at Murray State University continues to be represented at an international level thanks to the dedicated and involved TSM faculty and staff. TSM Professor, Dr. Michael Bowman and Director of the Center for TSM, Dr. James Gantt collaborated on a research project entitled *Military Communications in Urban Operations*, sponsored by the North Atlantic Treaty Organization (NATO), with 10 people from 8 countries. The committee initially met in 2005 and was chartered to work from 2006-09 by NATO. The committee represented the Information Systems Technology panel portion of NATO's Research and Technology Organization (RTO); Gantt served on the IST panel for six years as the U.S. representative prior to his arrival at MSU. The committee met two times a year in different countries: Netherlands, Norway, Italy, Canada, Germany, and United States. Poland and the United Kingdom were two additional countries that were involved but did not hold meetings; a meeting was held in the Czech Republic but the country was not a part of the committee.

The task group was formed to "investigate and suggest alternative ways to improve tactical wireless radio frequency (RF) communications in a wide spectrum of operations." Communication systems and networks are central to military operations; which is why billions of dollars are spent to develop networks and communication systems for the military to work with. Bowman commented that despite great efforts and dollars spent the networks are much less useful in urban areas where the military may fight. NATO countries are involved in military operations in towns and cities occupied by a combination of civilians and hostile forces. The tall buildings and sub-terrain structures interfere with RF transmission causing issues for the military when working in urban areas.

"There is no quick fix for a very difficult technology problem. Changing a product or frequency isn't going to solve the issue. Investing and spending the dollars in new technology will help; then over time problems and issues will be solved or no longer exist." said Bowman.

The research the task force provided over the years allowed advanced technologies to be identified that the military could invest in to solve issues with military operations in urban areas; technologies such as WiMax, Mobile ad-hoc networks, Software Defined Radio, etc. According to Bowman, military forces are focused on having computers and technology in the field and new technology approaches could solve many communication problems.

Collaborating with individuals from other countries allowed ideas to be shared and progress to be made. Bowman shared a lesson learned over the years, "The United States does not always have to be the leader. Other NATO countries have other types of technology and ideas that can contribute or add to current ideas. Yes, the U.S. has more money for the military than other countries but that does not mean that they always have the best idea." To learn more and receive further details about the investigation, visit http://www.rta.nato.int, select the Information Systems Technology tab listed on the left and then IST publications to view the entire paper entitled "Technical Communications in Urban Operations."

Caption for picture: Part of the committee met at MSU in the TSM office for semiannual meeting. (From left to right) Dr. James Gantt; Dr. Torleiv Maseng, Director of Research, Norwegian Defense Research Establishment (Norway); Ruud Overduin, Project Manager, TNO Telecom (Netherlands); Dr. Michael Bowman.