## Rocky Mountain INFORMS: February 23, 2023

The Rocky Mountain INFORMS Chapter is pleased to host COL Michael Teter (detailed bio below).

**Title** Space Operations: Applying Operations Research Techniques in the Space Domain

**Abstract** With the increasing commercialization of space, as well as the number of objects to be tracked, traditional methods of space traffic management are increasingly incorporating optimization techniques in quantifying uncertainty through applying statistics "at scale." Two examples of applied problems are (i) machine learning models to maintain the safety of flight through predictive modeling (conjunction analysis) of space debris; and, (ii) "setcovering" optimization for management of the global sensor network necessary to collect the space observations with unique constraints.

anewman@mines.edu is inviting you to a scheduled Zoom meeting.

Topic: COL Teter

Time: Feb 23, 2023 06:00 PM Mountain Time (US and Canada)

Join from PC, Mac, Linux, iOS or Android:

https://mines.zoom.us/j/96611665521?pwd=VkJ2TW5xVU9iSTRFbU82Q1VTMHJydz09

Password: 600487

Or iPhone one-tap: 17193594580,96611665521# or 16699006833,96611665521#

Or Telephone:

Dial: +1 719 359 4580 (US Toll) or +1 669 900 6833 (US Toll)

Meeting ID: 966 1166 5521

International numbers available: https://mines.zoom.us/u/agKGLVEP0

Or a H.323/SIP room system:

H.323: 162.255.37.11 (US West) or 162.255.36.11 (US East)

Meeting ID: 966 1166 5521

Password: 600487

SIP: 96611665521@zoomcrc.com

Password: 600487

## COLONEL MICHAEL D. TETER DEPUTY J6 FOR FUTURE OPERATIONS AND COMMAND CHIEF DATA OFFICER, U.S. SPACE COMMAND PETERSON SPACE FORCE BASE, COLORADO SPRINGS, CO

Colonel Michael D. Teter is the Deputy J6 for Future Operations and Command Chief Data Officer (CDO) for U.S. Space Command. He is the principal staff advisor for Data management, governance, policy, analytics, emerging technologies (e.g., machine learning, artificial intelligence, and quantum computing). Prior to the serving in this roll, he was the Chief, Joint Integration Division, J7 when the command was re-established in August of 2019. U.S. Space Command conducts operations in, from and to space to deter conflict, and, if necessary, defeat aggression, deliver space combat power for the Joint/ Combined Force and defend U.S. vital interests with allies and partners.



Prior to assuming his current duties, Colonel Teter was the Strategic Talent Manager and operations officer within the Senior Leader Division - Colonels Management Office. He was responsible for management of five career fields and preparing leadership for bi-weekly engagements with the Vice Chief of Staff of the Army and leveraged senior talent to meet the Army requirements.

As the Director of the United States Army's Training and Doctrine Command's Analysis Center (TRAC)-Monterey, he led an innovative team exploring the growing field of data analytics and applied machine learning techniques to provide insights through relevant research. Before assuming the role of Director, Colonel Teter served as an analyst for TRAC-MTRY with responsibilities of coordinating all center research and leading five different sponsored projects.

Previously he has served as Design Team Planner and Executive Officer, G5, US Army, Pacific (USARPAC), Fort Shafter, Hawaii, applying critical and creative thinking to understand, visualize, and describe ill-structured problems and develop operational approaches to address the implementation within the Pacific. As the Exercise Logistics Planner, G4, US Army, Pacific (USARPAC) he planned, coordinated and managed logistical and sustainment operations for Army and Joint Forces participating in Chairman, Joint Chiefs of Staff (CJCS) sponsored exercises, Theater Security Cooperation Program (TCSP) sponsored exercises and Department of Homeland Defense (HD) exercises within the Asia-Pacific area of responsibility.

Colonel Teter deployed twice in support of Operation Iraqi Freedom (OIF). He managed strategic-level transportation assets as the operations officer for the 840<sup>th</sup> Deployment and Distribution Support Battalion. He deployed a second time as the Battalion S3, 10th Transportation Battalion, providing theater-level Heavy Equipment Transport (HET), combat logistics patrol security and watercraft lift capabilities.

Prior to his second deployment, he commanded 73rd Transportation Company, 10th Transportation Battalion, 7th Transportation Group, Fort Eustis, Virginia, a floating craft company with a the responsibility of providing trans-oceanic Army tugboat, marine fueling and floating crane operations.

Other assignments include Port Operations Officer, 950th Transportation Company, 598th Transportation Terminal Group, Bremerhaven, Germany; Executive Officer, C Company and School for Continuing Education, Defense Language Institute & Foreign Language Center, Presidio of Monterey, California; Platoon Leader and Personnel Officer, 23rd Chemical Battalion, Camp Carroll, Republic of Korea.

Colonel Teter's academic degrees include a Doctorate of Philosophy (PhD) in Operations Research with Engineering and a Master of Science (MS) in Mineral and Energy Economics from the Colorado School of Mines, and a Bachelor of Arts (BA) in Communications and Public Relations from MidAmerica Nazarene University. He was commissioned through the University of Kansas ROTC program in 1998. His awards and decorations include the Bronze Star, Meritorious Service Medal, Army Commendation Medal, Joint Service Achievement Medal, and Army Achievement Medal. He has also earned the Parachutist Badge.

Colonel Teter and his wife, Allison, have one son—John Michael, and two daughters – Augusta and Leilani.