

Dr. Lisa Costa

Division Chief Scientist



Dr. Costa is the Chief Scientist for the Commands, Technology, and Intelligence Integration Division at MITRE. She is also Director of the Non-Traditional Information and Knowledge Exploitation (NIKE) Analysis Cell housed at USSOCOM. As such, she leads a team of analysts, scientists, and information technologists, collaborating across organizational boundaries of several communities, to develop technical assessments and analyses directed by a number of sponsors, monitored by OSD's Rapid Response Technology Office and USSTRATCOM, at the special request of the Combatant Commanders.

Previously, Dr. Costa led an operational intelligence analysis effort for the government, applying high-end integrated data mining tools across all source data sets to solve specific counter terrorism problems facing the intelligence community. This work has been used, in whole or part, as a model for intelligence centers across DOD, US government agencies, and federal law enforcement. Dr. Costa has provided expert advice to the Defense Science Board (DSB) Summer Studies on *Joint Forces and Special Operations in Support of the Global War on Terrorism*, *Intelligence in Support of Countering Terrorism*, and *The DOD's Role in Homeland Security*.

As the Chief Scientist for the MITRE division supporting the Unified Commands and DOD intelligence agencies and activities, Dr. Costa leads the MITRE effort to closely align MITRE research efforts with operational needs. Dr. Costa is also a researcher in the MITRE Technology Program. Her recent research is in the area of Cultural Semiotics and Indications & Warning for Countering Terrorism. Previous research roles at MITRE have been in red force Tagging, Tracking, and Locating (TTL) and 3d Immersive Visualization for tactical operations resulting in the development of multiform factor miniaturized panoramic digital video

collection systems for special operations.

Dr. Costa joined MITRE in 1992. From 1993-1994, she served as a special projects technical advisor - identifying, rapidly prototyping, and evaluation emerging technologies for SOF use - resulting in the design of a worldwide collection, processing, and dissemination system currently in use today. From 1992-1993, she was a primary designer of the USCENTCOM and USSOCOM UNIX-based client-server architecture and provided seminal research in workstation-based video collection, capture, compression, and dissemination for the intelligence community.

Prior to joining MITRE, Dr. Costa was a Senior Scientist with J.G. Van Dyke & Associates (1987-1992), responsible for designing and managing the development of a large intelligence data base system for targeting and battle damage assessment for US Central Command. Other facets of Dr. Costa's work include photogrammetric and cartographic algorithm development, as well as numerical analysis research for national reconnaissance programs while with Synectics Corporation (1986-1987) and DBA Systems (1984-1986).

Dr. Costa earned a Bachelor of Science (1986) degree in Computer Science and Mathematics, an MBA (1990), and a PhD (1993) in Computer Science. She has published numerous technical articles, co-edited technical proceedings, chaired technical sessions, and presented at international scientific conferences. Dr. Costa is an active member of the Association for Computing Machinery (ACM), Institute of Electrical and Electronics Engineers (IEEE), and the Armed Forces Communications and Electronics Association (AFCEA) where she has served as Program Chair and as a speaker for multiple regional TechNets on topics related to countering terrorism. 2/09