



LILIAN 'DOC' ALESSA

**President's Professor
University of Idaho**

and

Chief Scientist

**Joint Special Operations University
McDill Air Force Base, Florida**

Dr Lilian "Doc" Alessa is a President's Professor at the University of Idaho in Moscow Idaho and Chief Scientist, Joint Special Operations University, MacDill AFB, FL. She has served as a Defense Intelligence Senior Level (DISL) Advisor for Advanced Data and Analysis, through an Intergovernmental Personnel Act (IPA), with the Department of Defense (DoD). She served as Deputy Chief of Global Strategies with the Department of Homeland Security (DHS), Office of Strategy, Policy and Plans.

She has over 25 years of experience working with Academic, Federal, State, Local, Tribal and Territorial partners focused on providing data-intensive decision support tools to improve defense, security and resilience of systems, people, and communities. She has led several multi-million-dollar data integration/data fusion programs working closely with Federal agencies, Academia and the public and brings a rare approach of ensuring technologies are used as tools within the construct of social and cultural systems.

Dr. Alessa has pioneered unique advanced coupled technology-enhanced monitoring capabilities that incorporate humans as sensors in the land, air, and maritime domains. An internationally recognized Arctic expert, she has led the development of two joint Canada-United States Arctic resilience toolbox assessments: the Arctic Water Resources Vulnerability Index (AWRVI) and the Arctic Adaptation Exchange Portal (AAEP). Her team has developed strategic intelligence frameworks and tools that have been adopted by elements within DoD and DHS. She has led human dynamics components for a range of DoD Emerging Threats and Capabilities Programs and has published six data fusion products focused on critical resources for ensuring security at local and regional scales. She is one of the Co-Founders for the Community of Modeling in Social Ecological Systems.

Dr. Alessa holds courtesy appointments with the Center for Social Dynamics and Complexity at Arizona State University as well as the International Arctic Research Center at the University of Alaska Fairbanks. She has been an Advisor for the Director of the National Science Foundation and through the Advisory Council for Environmental Research and Education where the need for big data approaches in the context of building a more resilient America was formalized across the basic sciences.