

IAF EARTH OBSERVATION SYMPOSIUM (B1)

21st Anniversary of the Disaster Charter: History, Status and Future of this Powerful and Productive International Cooperation (6)

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NOVEL APPROACH FOR EARTH OBSERVATION DATA GUIDELINES: A CASE STUDY OF THE UAE IN MAXIMIZING ECONOMIC AND ENVIRONMENTAL BENEFITS

Abstract

Recently, the UAE Earth Observation (EO) space sector is experiencing a significant growth because of institutional investments in EO satellite missions generating space-based data and educational initiatives that are shaping the next generation of Emirati skilled professionals in areas such as EO satellite operation, data processing and analysis techniques. UAE EO Institutional satellite missions tend to operate in the high-end of the EO space-based data market because the missions tend to generate very-high-resolution remote sensing data (including sub-meter) that have the potential to be sold on the global commercial market. Such EO space-based data and related products serve UAE National interests such as national security, management of disaster and crisis response, discovery and management of natural resources, urban and road planning, precision agriculture, and climate monitoring and environmental protection. In this work, we demonstrate the UAE as a case study for applying a novel approach in adopting EO data policy guideline, in the aim of achieving a synergic effect of utilizing remote sensing, science and technology to expand UAE's leadership in EO space programs, in expanding the utilization of EO space-based data and products to support vital sectors, and in developing a sustainable, competitive and innovative commercial EO space industry. The policy guidelines leverage international best practices and include forward looking considerations that were evaluated in terms of innovation, alignment with national and international policies and contribution towards value-added-services (VAS), which are growing as commercial activities at a fast pace globally. Results show an alignment matrix encompassing best practices in the domain, a statistical assessment showcasing demand increase with contracted entities, as well as the contribution of UAE EO missions in the field of climate change and other societal benefit areas in view of a sustainable planet.