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IAF EARTH OBSERVATION SYMPOSIUM (B1)
Interactive Presentations - IAF EARTH OBSERVATION SYMPOSIUM (IP)

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PRIAS : 20 YEARS OF TRAJECTORY-BUILDING RESEARCH IN EARTH OBSERVATIONS FOR COSTA RICA AND THE WORLD

Abstract

Geospatial information has become increasingly relevant to understanding the global processes that affect planet Earth. In the specific case of Costa Rica, the use of geospatial data and the application of different tools has allowed the generation of key inputs for decision making. In this area, the PRIAS laboratory of the National High Technology Center of Costa Rica has been a pioneer in the country. PRIAS was created in 2003 as an Airborne Research and Remote Sensing Program focused on developing and collaborating on scientific missions and projects. During its 20 years of experience, the laboratory has focused on geospatial research through technological innovation, multi-sector articulations, and international cooperation. Therefore, the aim is to describe the contributions and challenges of the PRIAS Laboratory in geomatics and Earth observations fields and its prospects. A review and systematization of historical data was carried out from the beginning of PRIAS as a program, followed by its transformation into a laboratory and its progress up to 2023. PRIAS has covered six research areas in which it has implemented different strategies for obtaining and analyzing geospatial data. Within these, it has carried out more than 50 collaborative projects with various institutions belonging to the academic, governmental, non-governmental, public, and private sectors at national and international levels. Within these, it has carried out more than 50 collaborative projects with various institutions belonging to the academic, governmental, non-governmental, public, and private sectors at national and international levels. These projects have included urban planning, science and policy, natural sciences, socioeconomic data, geographic information systems, and decision-making. In this context, projects with multidisciplinary teams stood out for their innovation and contribution to Costa Rica and the international community. It has generated knowledge and development through human capital formation, satellite navigation, aerospace, national cartographic base update, and land use planning, and in recent years has expanded its lines of research in disaster risk management. The PRIAS laboratory has future perspectives focused on development and innovation in Earth observations and will also focus on geospatial management and geoinformatics development. In addition, it aspires to become an aerospace catalyst, establishing links with airborne missions in Costa Rica. These reflect PRIAS' continued commitment to technological advances and comprehensive collaboration in Earth Observations.