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SPACE OPERATIONS IN SOUTH AFRICA THE FIRST 50 YEARS AND A VIEW TO THE FUTURE

Abstract

The Satellite Applications Centre had its origin in 1958, when the National Telecommunications Research Laboratory (TRL) of the CSIR agreed to operate and maintain a Minitrack station on behalf of the American Naval Research Laboratory (NRL). South Africa was strategically situated relative to the launch facilities in Cape Canaveral, and would give early confirmation that a satellite launched from Cape Canaveral was indeed in orbit. In 1960 operations were transferred from Esselen Park to Hartebeesthoek, and the Joburg Satellite Tracking and Data Acquisition Network Station (JOBURG STADAN) was born. Due to political and other reasons NASA ceased operations in South Africa at the end of October 1975. The CSIR then used the remaining equipment and a core group of personnel to establish the Satellite Remote Sensing Centre (SRSC) in 1976 for reception of geo-information from satellites. The first images were received from a European meteorological satellite, METEOSAT in 1977. In 1983 the Satellite Remote Sensing Centre (SRSC) became part of the world wide tracking network of the French National Space Agency, CNES. During the CSIR changes in 1989, the SRSC was renamed to the Satellite Applications Centre (SAC). During the same period a major upgrade was completed to provide the SAC with capabilities to receive process and archive imagery from earth observation satellites. The quality of service rendered by SAC during the first 40 years of its existence translated into an unprecedented era of growth in the first ten years of the new millennium. SAC added more capability in X, C, Ku and Ka bands. Hartebeesthoek ground station is now hosting equipment for a number of satellite operators and manufacturers. It also hosts equipment for agencies and research organisations. At the same time it has joined a number of TTC networks providing support to all the major satellite manufacturers, operators and launch companies and space agencies. In 2011 CSIR released a commemorative book called "CSIR, SAC the First 50 years" detailing the history of the facility with anecdotes from staff during the years giving colour to the presentation of the history. On April 1, 2011 CSIR SAC migrated to the newly formed South African National Space Agency (SANSA) as one of the two primary facilities along with Hermanus Magnetic Observatory. Under SANSA the Satellite Applications Centre is known as SANSA Space Operations.