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ERIS CHETUMAL: GROUND STATION EXPERIENCE IN THE GERMAN-MEXICAN  
INTERNATIONAL COOPERATION SCIENTIFIC AND TECHNICAL AGREEMENT

**Abstract**

In October 2005, German Aerospace Center (DLR) and Mexico's National Council of Science and Technology (CONACYT), signed a Memorandum of Understanding (MoU) to establish a Ground Station in Mexico to acquire data from scientific non commercial satellites in the areas of Mexico, Central America and the Caribbean Sea, in order to use the information in remote sensing projects and applications.

The station joined the existing stations and infrastructure of remote sensing facilities established in Mexico. Thus, increasing knowledge of the climate changes and geography of Mexico. This abstract portrays the agreements and results obtained over the MoU's validity (2007- 2013) and delineates the basis for the second phase of operations, now totally under Mexican management, offering to the reader a perspective of the near future and opportunities of business due to the station geographical position, experience and capabilities.

The quoted MoU was based on the Agreement for Scientific and Technologic Cooperation between Mexico and Germany, that established mutual interchange of information, experts, projects and scientific project developments. In the 2005 MoU, both parties agreed that Germany will deliver technical structure, storage facilities, basic processing and distribution equipments, altogether with an 8 meter width and 15 meter height satellite dish, capable to acquire L and X bands signals. The station is capable to acquire new signals just adding new equipment. After signing the MoU, CONACYT organized with other Mexican government instances to fulfill the MoU agreements.

Assisted with Mexican colleagues, DLR made technical research to select the area where the antenna will be established, selecting Chetumal city as the center of operations. Strategically settled in the middle of the main focus areas, the Ground Station Chetumal (a.k.a. ERIS) began operations in July 2007, acquiring signals of Landsat 5-TM, Terra-MODIS and ERS2 (LBR/SAR), years later, Aqua-MODIS and DLR's TerraSARX/TanDEM-X were acquired as well.

Between 2007 and 2013, ERIS acquired 9,608 signals and was capable to deploy 4,347 images directly from the station website, without cost to the Scientific community.

Approaching the end of the MoU, and with the creation of the Mexican Space Agency, DLR donated all its equipment in Mexico, for AEM usage. In early 2014, a new Mexican agreement is signed, and the antenna and ground station, are under the biggest maintenance works reached so far, to continue the project. In the second semester of 2016, Landsat 8 and other carriers are planned to be acquired in ERIS.