

# Aerospace Systems Develop in Mexico.

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## Abstract

Aerospace history begins in Mexico since the early twentieth century. Some events can be numbered in aeronautics, as was the first Naval battle in Topolobampo Port, Sinaloa in 1914, the creation of the Mexican Air Force in 1915, the design and manufacture of aircraft as the "Serie A" "Serie C" and "Serie H", engines like the "Latinoamerica" and propeller "Anahuac" since 1917 in the National Workshops. This technological advancement evolved into aerospace in 1957 when Dr. Gustavo del Castillo y Gama, Juan F. Cardenas and Candelario Perez, began designing rockets and launch pads at the San Luis Potosi Autonomous University, the objective was bombing clouds to generate rain in the Mexican Plateau. Also, they did continue with the development of solid fuel rocket engines for space applications and they built launch pads in the desert state of San Luis Potosi, called "Cabo Tuna". In 1961 at the Autonomous University of Nuevo León Becerra Engineers Miguel Diaz and Rodolfo Garza Villareal designed and developed a rocket that was launched from a launch pad also built in the Mina town, Nuevo León. After this they continued with the design and manufacture of nozzles for solid rocket motors. In 1959 and 1960 the Ministry of Communications and Transport assigned to P. Becerril Engineer to design, develop and launch the first space rocket SCT-1 and SCT-2 at an altitude of 300 and 400 km respectively in order to obtain atmospheric data from space. With these advances, in 1965 by presidential decree the Outer Space National Commission was created, which was aimed to promote research in satellite systems, meteorological sensors, space law, remote sensing and bioengineering. This development continued until 1977 when another presidential decree disappears. However, in the early 80's, in Mexico, Morelos II and the Solidarity telecommunication satellites were developed. In 1995 and 1996, the National Autonomous University of Mexico developing three satellites: UNAMSAT-1, and UNAMSAT-B and UNAMSAT-3. Of which UNAMSAT-B spent a year in orbit. During the first decade of XXI century Mexican scientists were collaborating on various research projects of space systems internationally. In 2010, by presidential decree, the Mexican Space Agency was created in order to conduct research, linking the various Aerospace activities in the country between public and private, national and international institutions. Currently in Mexico are being conducted researches in thermal insulation systems and cosmic radiation, communications, space propulsion, architecture design of small satellites, space medicine, geological monitoring, etc.