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A MULTI INSTITUTIONAL PROJECT FOR SPECIALIZED HUMAN CAPITAL FORMATION IN
THE SPACE FIELD IN MEXICO

Abstract

In mid 2010 the Law that Creates the Mexican Space Agency (AEM) was decreed for the purpose of running the Mexican Space Policy through the development and implementation of what was called the "Space Activities National Program", known as PNAE in Spanish. This program sets the objectives, strategies and action lines required to develop space science, technology and industry in Mexico. The plan is divided into 5 strategic areas, one of which is "Human Capital Formation in the Space Field"

To get an overview of the country's aerospace education state of affairs and be in position to formulate concrete proposals for its development, AEM decided to perform an initial assessment of supply and demand of human resources in the aerospace field. This assessment involved three sectors: government, industry and academia.

Based on this initial diagnosis, a national program was generated. This program, called "Multi Institutional Project for Specialized Human Capital Formation in the Space Field", covers the actions to develop space human resources in Mexico in the long term.

Diagnosis

1. Governmental Sector:

Although Mexico has geostationary communication satellites, Mexico does not yet own a fleet of Earth observation and location satellites, so their design, construction and launch by Mexican specialists represents a niche opportunity to analyze.

2. Private Sector:

Aerospace industry in Mexico started about ten years ago. Although still predominantly aeronautics, it is experiencing a growth rate of 20 percent annually. Presently, the Mexican aerospace industry has more than 260 companies, spread across 17 states in Mexico, and employs more than 31,000 highly skilled persons.

3. Academic Sector:

Space specialists training in Mexico is very new and it is still limited to three undergraduate institutions: the "Universidad Autónoma de Baja California (UABC)", the "Universidad Autónoma de Chihuahua (UACH)" and the "Universidad Nacional Autónoma de México (UNAM)". There are 4 institutions offering graduate courses in space science and technology: the "Centro de Enseñanza Técnica y Superior en Baja California (CETYS)", the "Universidad Autónoma de México (UNAM)" in Distrito Federal, the "Universidad Autónoma de Nuevo León (UANL)" and the "Universidad Autónoma de Querétaro (UNAQ)".

The paper shows the results of the initial diagnosis of space education in Mexico considering the interaction among three sectors: academic, government and industry. The strategies proposed for the

development of specialized human capital in the space field are analyzed and the progress achieved to date is also presented.