



## **Mexico in the vanguard of aerospace technical education**

- Having an aerospace educational system has become a determinant factor for foreign investment in Mexico.
- States like Zacatecas and Queretaro are considered to have the best specialized centers.

Querétaro, Qro. August 16th 2011. According to foreign investment specialists, one of the main detonators for the aerospace industry in Mexico has been the trained workforce which became a key element to create specialized centers for the development of technical personnel for this sector.

Mexico, considered as the country currently attracting the most investments in the manufacturing field even beyond some of the main leaders of the sector, currently has 190 companies from the aerospace industry nationwide, resulting in almost 30,000 jobs.

States like Zacatecas and Queretaro have first class education facilities that include programs supporting the technology transfer from other highly specialized nations in the aerospace industry.

According to the North American - Mexican firm, The Everest Group, which is dedicated to attract investments that promote the development of manufacturing industries in the national territory, the success of the arrival of aerospace companies to Mexico is mainly due to the way education has been included in the incentive package of the hosting States.



Such is the important precedent set in Queretaro in 2005 where the main aerospace cluster startup began with the arrival of Bombardier and where The Everest Group created the design of the first public aerospace school in Mexico, the National Aerospace University in Queretaro (UNAQ).

Subsequently, Zacatecas in 2009 received an important investment from the aerospace industry with the establishment of Triumph Group. Bombardier and Triumph Group are leaders in their sector and today they act as anchor tenants generating the development of these previously mentioned states. The common denominator in both cases is the creation of highly specialized education centers, resulting of the great effort and long and complex evaluation processes that were involved in the project.

It is important to highlight the success story in the education environment, when in 2009 the basis for the creation of the Aerospace Center in Zacatecas was settled in response to the necessity of offering education programs for the training of world class technicians in three highly complex and specialized technologies: Aerospace Machining, Aerospace Composites and Aerospace Fabrication. These programs are true educational treasures, which Canada took more than 20 years to develop and structure as they are currently being offered. This is how The Everest Group, through its associate experts in the aerospace vocational education in Canada and the US, undertook the task to adapt, transfer, and implement these same programs according to the Mexican educative needs.

As part of the development and adjustment of this aerospace educational system, we included the design of the profiles for students' admission and graduation, as well as the Mexican professors' profile, who were selected through a rigorous specialized



recruitment process to insure the successful transfer of the education model and their training for almost a year with teachers from the US and Canada.

Likewise, it included the identification and design of competencies to be acquired, the equipment, machinery, and materials required for the programs as well as creating the practical exercises and evaluations applied to the aerospace industry. However, it is important to mention that being an education system based on competencies, the graduated technicians of these programs have the capacity to adapt to any type of industry that requires the processes of machining and composite materials parts fabrication, such as the automotive industry, and not only nationally but internationally as well.

The task to develop the education programs also implied working with world renowned suppliers in training material, the translation from French and English to Spanish made by technical experts and the adaptation of all the books, exercises and tests that the programs required. Subsequently, the copyright acquisition and licenses registered at the SEP (National Secretary of Public Education) and INDAUTOR in order to implement the programs, all as an effort never seen before in Mexico.

The creation of the Zacatecas Aerospace Center – CAZ - also implied the refurbishment and the equipping of a 16,404 square feet industrial facility located less than a mile away from the Technological University of the State of Zacatecas (UTEZ) which administratively operates the Center. During an interview with Patrick Rider, President of the Everest Group, from his office in New York, he stated that the model to design, both the UNAQ and the CAZ, is the concept of a “factory-school” being used with great success in Canada and France, which recreates a manufacturing plant in the school campus, allowing the students to learn the



necessary competencies to develop themselves in a working environment. Just by visiting any of these centers you notice the highly specialized equipment and its high level of technology, just as you would find it in any specialized manufacturing company of aerospace components. For this reason, the graduates of these programs are ready to work and adapt perfectly to an industrial environment.

Today, UNAQ has trained almost 2,800 students in the different programs it offers and the Aerospace Center of Zacatecas, 50 specialized technicians in aerospace components and 78 technicians in aerospace machining. Though the economic crisis didn't allow the expected demand of technicians, the doors are been opened to the graduates in these programs which continue to receive in their classrooms interested students with great aspirations to incur in the aerospace industry. Companies like Bombardier which is launching its Learjet 85 project, the first aircraft in the world integrating new technologies of composite materials and which its fuselage is made in Mexico, offers an important development opportunity for the graduated technicians from these schools. Also wide opportunities exist for the graduates taking into account that not only states like Queretaro, Chihuahua, Nuevo Leon, Sonora, and Baja California, but also the considerable increase of the demand for these technicians worldwide.

In the case of Zacatecas, it is important to acknowledge that this center is a public school, which makes it an autonomous institution in comparison with other schools that are exclusive to a company or to a specific institution. This educative investment represents the aerospace industry access door to any person with the interest, abilities and skills to explore this interesting type of industry.

According to the world renowned educative programs developing expert, Pierre Belanger, and also ex director of important education institutions such a the CSDM



(Commission Scolaire de Montréal) and who became the supervisor of the implementation of some of the education projects in the Aerospace Sector in Mexico: “The effort made in Zacatecas is unique. They have programs of educative excellence and that is why this work will bear fruit in the long term. Generations of Mexicans will be the ones benefitted.”

Without a doubt we can say that thanks to the training being offered in our country, the aerospace industry which generates billions of dollars around the world, found in Mexico not only a strategic and privileged location, but also the necessary conditions regarding education which just a few years ago could only be found in leading countries.

Basically, these important investments in education result of the great effort of the State and Federal governments and are focused in the development of employment, contributing in putting the country in the vanguard of aerospace education. Thanks to these investments, the eyes of the world are now turned to Mexico, one more reason for the country to feel proud of.

### **About the Everest Group**

Since our founding in 1996, The Everest Group has become the largest and most comprehensive relocation, startup, offshoring and shelter services provider in Mexico. With a legacy in manufacturing, we have designed and delivered effective relocation procedures from inception to complete operational capacities for a wide range of companies. Our team's deep market expertise and objective approach allow our clients to unlock the full potential of an offshoring strategy and deliver long term shareholder value. To learn more about how The Everest Group can help your business evaluate the manufacturing opportunities in Mexico visit our web site [www.theeverestgroup.com](http://www.theeverestgroup.com).