



Bombardier strikes. *Target:* Mexico

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QUERÉTARO, MEXICO — Patrick Rider has spent two decades enticing foreign investors to Mexico.

Initially he worked for General Electric Co. Now, as president of Mexico City-based Everest Group, which gives relocation and start-up assistance to foreign manufacturers, he is overseeing Canadian aircraft maker Bombardier Aerospace's expansion in the country.

The world's third-largest aircraft maker gradually is transferring global wire harness and fuselage assembly for its regional aircraft from three plants in Montreal, Toronto and Wichita, Kan., to Querétaro in central Mexico. The company is an arm of publicly traded Bombardier Inc. of Montreal.

According to the Mexican economy ministry, Bombardier may start manufacturing tails and stabilizers in the city this year. Bombardier's strategy and business development director until mid-2006, Luc Beaudoin, said in an interview in Querétaro that the company's ultimate plan is to assemble complete airplanes in Mexico within six years.

"We are devising all our plans around this," said Beaudoin, who now works at Everest, a partner of global real-estate giant Cushman & Wakefield Inc.

Production began May 2, and Bombardier is training assembly workers, in English and Spanish, in a program operated by the state-run Technical University of Querétaro, which uses a course acquired from a Canadian aerospace school.

Within 18 months, Bombardier expects to employ 1,250 fully trained assemblers in Querétaro in a facility being built beside a 281-acre aerospace supply park that will incorporate a new aviation college offering a full, eight-month training course.

But, Rider said, Bombardier is merely the tip of the iceberg, as far as Mexico's burgeoning aerospace industry is concerned. And plastics stands to play an integral role in the sector's growth, he said.

"What Bombardier has invested has opened the flood gates to foreign investment in Mexico. I have never seen so much investment in an industrial activity in such a short time," said Rider, who would not reveal the sum of the investment. "We are working with dozens of companies which are all in the planning stage. They

range from Tier 1 suppliers to other [original equipment manufacturers].”

At Mexico's Ministry of Economy, Eduardo Solís is head of promoting investments in the country. One reason for Bombardier's manufacturing move to Mexico, Solís said, is to challenge Brazilian rival Embraer (Empresa Brasileira de Aeronáutica SA of São José dos Campos) head-on in markets from the Rio Grande to South America's southern tip.

John Wojick, sales vice president for Latin America and the Caribbean at Boeing Commercial Airplanes, said that the region is one of the world's fastest-growing aircraft markets. The Renton, Wash.-based unit of Boeing Co. expects 1,700 airplanes to be delivered in Latin America in the next 20 years — “and about 25 percent of those will be aircraft smaller than 100-seaters,” Wojick said in a telephone interview.

According to Solís, activities in the Mexican aviation sector already cover manufacturing — including composites for insulation blankets, prepreg/hand-layup and compression molding — and engineering. Maintenance, repair and overhaul services are another branch altogether.

Mexico's aerospace sector employs more than 12,500 at 110-plus companies, Solís said. “Mexican [aerospace] exports represent more than \$400 million dollars annually, but there is potential for much more,” he added.

According to Rider, the most significant aviation industry growth in Mexico, which first produced small aircraft in the 1920s, is likely to be in the cities of Querétaro, Saltillo, Monterrey, Chihuahua and Mexicali.

Other, smaller fixed-wing aircraft manufacturers also are moving to Mexico, he said.

Among the most recent arrivals: Cessna Aircraft Co. of Wichita, Kan., and its holding company, Textron Inc., which on Sept. 12 dedicated a 62,000-square-foot facility in Chihuahua. Called Textron Aerospace Mexico, the operation assembles electrical wire bundles for Cessna jet aircraft. It employs 138 and has said it plans to take on another 200 workers before the end of 2007.

Others, according to Mexico's economy ministry, include:

- Honeywell Aerospace, which opened a plant to make engine components in Chihuahua and an electronics systems test center, employing 400, in Mexicali. Rider said the firm announced that it will manufacture turbine parts for aircraft auxiliary power units.

- Boeing's McDonnell Douglas, which inaugurated a helicopter fuselage and harness plant in Monterrey and plans to produce its first fuselage in December.

- Paris-based Safran Groupe's Labinal subsidiary, which designs, develops, builds and integrates electrical wiring solutions and is establishing a business unit with 100 design engineers in Chihuahua.

- And Safran's Messier Services subsidiary, which is setting up a new facility in Querétaro to overhaul landing gears.

Also in Querétaro, Everest's Rider added, Industria de Turbo reactores SA de CV, or ITR, does maintenance, repair and overhaul work on Pratt & Whitney's JT8D engine. And GE has a design integration engineering center in the city.

Everest's résumé includes assistance to Toyota in establishing its first truck-assembly plant in Tijuana, to Philips in opening a television-assembly site in Durango, and to Ford and GM suppliers in setting up operations throughout Mexico.

“We handle everything from project conceptualization to operational startup, and once the business is in the air we leave,” Rider said. “We turn over the complete operation of the business to the client. This varies from 18 months to three years. I'm guessing we will be here another two years. We worked with Bombardier for two years before this started.”

Andres Friedman, a senior procurement executive at Bombardier Aerospace, said that finding plastic component suppliers for the firm's Querétaro operation is not on its must-do list for the moment.

But resin suppliers, senior Mexican government officials and consultants interviewed by *Plastics News* all said plastics will play an important role as the government's strategy of developing a major aircraft manufacturing industry gradu-

ally unfolds. That project first was announced in 2001.

“Querétaro is going to be big,” said Rogelio Romero, commercial director of Mexico City-based Entec Resins México SA de CV, part of Ravago of Brussels, Belgium.

“This [Bombardier] project may pull in a lot of very important plastics industry suppliers, such as parts suppliers, molders, etc.,” Romero said.

But Chicago-based industry consultant Doreen Huro Michelini, president of China-Mexico Solutions LLC, believes the Mexican government must offer greater incentives if it wants to get competent component suppliers to establish plants in the country.

“Bombardier has a great plan and a great relationship with the Mexican government and they've already started some manufacturing in Querétaro,” Michelini said.

But, she added: “They are bringing most of their materials from Montreal, which makes no sense. Even with the automotive industry, 80 percent of the materials come from the U.S. because of [the North American Free Trade Agreement].”

Michelini is also business development manager for Industrial Molds Group, which already has a stake in the Bombardier expansion. The Rockford, Ill.-based mold maker plans to expand its Pyramid de México operation in Monterrey, to provide plastic components and tooling to Bombardier, said IMG Vice President and General Manager Kelly Schwenk.

Schwenk said IMG, with U.S., China and European operations, aggressively has been working to become a global player.

“When the opportunity to expand to Mexico presented itself, we looked at it as a way to grow and expand our business instead of using it as a low-cost-labor country,” she said. “With the emergence of Bombardier in Mexico, we see this as a way to provide support not only using Pyramid de México, but the experience of the entire Industrial Molds Group.”

But both Rider and Solís, in Mexico's economy ministry, are looking at more than the Bombardier project.

“Mexico's experience and success in the development of the automotive and electronics sectors guarantee success in the development of its aerospace industry,” Solís said. “We have just designed a two-seater plane of composite material in San Luis Potosí. We are going to manufacture it, hopefully in 2007.” He claims the plane would be the first all-composite aircraft made in Mexico. “Our steps in [aircraft] composites are quite modest,” he said, “but we want to enter this area because we understand it to be the industry's future.”

Why the sudden interest in Mexico as a manufacturing base for aerospace?

“Cost is a factor on which Mexico can compete with the leaders in the U.S., Canada and Europe,” Solís said. “However, it is not only about cost. You can have the lowest costs and nobody will come to you. You have to have talent, location and strong partnerships, and we have that with NAFTA, which provides safeguards for intellectual property rights and protection for investors. All of this comes into play,” he said.