

# Take Our Kids To Work Day: an inside look at Aerospace

by Gloria Welton

JOB SHADOWING

Now that my youngest son Kyle is in grade nine, he is taking part in school events that help students explore career options. As part of a national school event called **Take Our Kids To Work Day**, he had a chance to spend November 5<sup>th</sup> with either his mom or dad on the job.

In my line of work, I interview people in many work settings. We thought it would be interesting to do something that Kyle has never seen or done before. The high point of the day was taking a flight in a two-seater airplane, and the grounded part of the day was touring the largest Aerospace company on PEI.

"I like to watch TV shows about assembly, manufacturing, and production," says Kyle. "So when mom asked if I wanted to tour an Aerospace company in Slemmon Park, I said sure. The sweet part was the chance to go up in an airplane."

## Vector Atlantic

We were welcomed for a tour of **Vector Atlantic**, previously known as Atlantic Turbines International, by **Holly Chessman**, Human Resources Coordinator.

## About the company

The company has been in operation for over 15 years, and it has grown significantly since opening in 1992 with only 24 employees. There are now close to 400 employees at the Slemmon Park facility.

There is one facility on PEI, three satellite repair shops in United States, two shops in Africa, and a new facility will soon open in the UK.

Vector Atlantic is a Pratt & Whitney approved Overhaul and Maintenance facility. It is authorized to do repair and overhaul on three engine models. Recently, they were awarded the authority to work on a fourth engine model, which the new UK facility will look after. They are known for fast return time, and they work on an average of about 600 engines a year. "We are also known for our exceptional customer service," says Holly. "At any given time, we could have about 50 engines in the facility at the same time."

## Getting the engines ready to fly again

**Disassembly** is the first stage of the overhaul and repair process. "First, a **Technician** does a borescope inspection of the engine using fibre optic cables," says Holly. "This provides a visual inspection of the engine to see if there are any major issues. Then the engine is taken apart. **Engine Shop Technicians** and **Apprentices** use computerized manuals and record every component of the engine."

**Cleaning** the components is done in chemical dip tanks. "Employees in this department wear protective equipment and follow strict safety guidelines," says Holly. "Some components are sprayed with a liquid penetrate so they glow when put under a black light. This allows technicians to see if there are any weak spots or hairline cracks."



**Ron Arsenault, Test Cell operator at Vector Atlantic, took Kyle Welton, grade 9 student at Stonepark Intermediate School, for a flight in his airplane. Ron takes his plane to work on clear days. As part of Take Our Kids To Work Day, he offered Kyle a tour of western PEI.**

**Engine Shop Inspection** is the next step. There are about 40 **Inspectors** in this area who visually inspect the components and follow on-line manuals for specifications.

The **Repair Shop** restores worn or damaged parts. Some parts go through a plating or plasma spray process during repair. "A **Technician** can manually spray plasma onto the part," says Holly. "We also have a new robotic plasma booth which can do the same thing." In the machine shop, **Machinists** use lathes and grinders to repair parts. **Process Assistants** tape areas of the part to mask what does not need to be repainted. **Process Technicians** paint the parts, which are then put in ovens to bake the paint.

**Assembly** is done after the engine parts are repaired. "About 22 **Technicians** in three crews re-assemble each engine model," says **Stephen Laughlin**, Assembly Supervisor.

## Test Cell / Shipping

After re-assembly, Technicians test the engine to ensure it is working properly and meets the standards. Once the engine has passed the tests, it is shipped back to the customer.

## Job titles

**Engine Shop:**  
Apprentice Engine Shop Technician  
Engine Shop Technician  
Apprentice Inspector  
Inspector

**Repair Shop:**  
Apprentice Machinist  
Machinist  
Cleaning Technician Trainee  
Process Assistant  
Process Technician  
Welding Technician Apprentice  
Metal Finishing / Sub-Assembly Repair Technician  
Inspector  
Inspection Technician  
Tool & Die Maker  
Refinishing Technician

There is also other staff such as Engineers (Mechanical or Aerospace), Quality Control, Process Improvement, Production Control, Logistics, Customer Service, Material Control, IT, Human Resources, and Accounting.

## Training

In the Engine Shop, they tend to hire graduates from the Holland College **Aircraft Gas Turbine Engine Repair and Overhaul Technology** program. "Many students from the college complete their OJT at our facility," says Holly. "Depending on their performance, we hire them on full time. We also hire employees who have a lot of mechanical experience."

"In the last year, one of our experienced Engine Shop Technicians, **Jay Merrell**, took on the role of **Engine Services Training Facilitator**. Our new **Apprentice Engine Shop Technicians** will study with Jay in a classroom and then on a test engine for approximately 4 to 6 weeks. The technicians will then spend time in the Disassembly Department or in any engine shop department where needed. After completing Jay's training, new employees will shadow experienced technicians in order to learn more."

## Wages

Apprentices earn \$25,000 to \$35,000 per year. Experienced Technicians earn \$35,000 plus. "We have a very competitive benefits package that includes a company bonus plan, pension, share purchase plan, and dental and medical benefits," says Holly.

## New Hiring

In December, it was announced that up to 50 additional employees will be hired at the main facility at Slemmon Park. This growth is a result of the company obtaining new contracts for maintenance, repair and overhaul.

For more information about job opportunities at **Vector Atlantic**, visit [www.vectoraerospace.com](http://www.vectoraerospace.com) or [www.aerospacepei.com](http://www.aerospacepei.com)

For more information about the national school event, visit [www.takeourkidstowork.ca](http://www.takeourkidstowork.ca)