

Press Release 17 August 2007



History

Our History begins with Godfrey Aerospace. Godfrey Aerospace has served many customers well over an illustrious corporate career spanning more than half a century. First incorporated as Godfrey Engineering Limited in 1947 by a retired RCAF officer, the company soon became a prominent member of Canada's defence industrial base, designing and building specialized products for military applications on the ground, in the air and at sea, and providing repair and maintenance services for a broad range of products. In 1996 Spar Aerospace Limited acquired the Aircraft Maintenance Support Equipment and Repair & Overhaul operations of Godfrey Aerospace Inc, and Spar was then purchased by L3 communications in 1999.

In 2000 the Ground Support Equipment (GSE) division of SPAR moved from Point Claire, PQ to CFB Trenton and then to our current location on 374 Sidney St, Trenton in 2003. The primary function was to repair and overhaul aircraft support equipment until 2005 when a new direction in business was taken.

Working with 6 full time employees, the decision was made to approach our customer to find ways to improve and modernize current equipment. Cost effective upgrades to existing equipment to make the equipment more effective when working with modern aircraft was the primary goal.

Today's Event

The hydraulic test stand for the CF-18 Hornet fighter had a long history of shortcomings. Hydraulic test stands provide hydraulic power during the repair and maintenance of aircraft. Basically this machine is used to operate the aircraft hydraulic systems on the ground so the engines do not have to be used. This includes all flight controls, landing gear, air-brakes etc. The primary issue is that existing hydraulic test stands were designed 30 or more years ago and were never designed to work with modern computer controlled aircraft. These "fly by wire" aircraft place extreme demands on the equipment. Over heating, pump cavitation, and ease of control are some of the basic shortcoming with the stand. Removal of air, water and debris from the aircraft's fluid, have become critical requirements. Although several companies have attempted to address some of these issues, the results have been well below the desired requirement.

In the fall of 2005 Ground Support Equipment (GSE) made a proposal to the Department of National Defense (DND) for a new concept to address these shortcomings. Working as a team with DND three hydraulic prototypes were built. One diesel operated unit and two electric powered units were modified. In November 2006 the proto types were tested on a CF-18 fighter in Bagotville, PQ. Of the 5 critical points that had to be achieved the prototypes not only met the minimum but also exceeded the requirements in every area. The end result was an upgraded unit that has no equal in the world and at a fraction of the cost of a new conventional hydraulic test stand.

The units on display, HSE 400 – 188 (the electric version) and the HSD 500 – 188 (the diesel unit) are the first of 60 units that will be produced at GSE over the next 3 years. This is also the first step of what may turn into a new manufacturing facility that will build hydraulic service centers available worldwide.