

Varied Aircraft Work

# Genaire Continually Adjusting to Times

By GUY BOUCHER  
Standard Reporter

VIRGIL — Adjusting business needs to the times, and updating equipment and personnel to use it, has been the reason for Genaire Ltd.'s growth, according to its president.

H. B. Picken, president and chief engineer, is well qualified to speak on the company's successes. He was one of the original directors of this aeronautical company, which started almost 11 years ago in a hangar at Niagara District Airport and now employs a staff of 90 specialists.

"We concentrated on armament work at first," Mr. Picken said. "We are one of the few civilian firms employed to work on armament, and in the past have serviced more than 5,000 items. This type of work has been gradually changing.

### Airframe Parts

"A major portion of our work now is with the repair, overhaul and modification of airframe components and accessories. We also service quite a bit of ground handling equipment.

"We do not do any work to aircraft engines, instruments, propellers or radios. We do install radios, but that is all."

Mr. Picken is accepted by the department of transport as a representative of his firm and a qualified aeronautical engineer. This is an invaluable aid to business. On new design and stress analysis, his approval is accepted by the department, and this saves quite a bit of time. The company can repair or modify a plane and release it without waiting for confirmation from Toronto.

### Complex Equipment

The company has a wide variety of very complex equipment for example, installations in the new hydraulic lab, just being built. "One of the machines in this lab," Mr. Picken said, "has been designed and built right here in the plant. With it we can check out jet hydraulic equipment, landing gears, brakes, actuators and dampeners for military aircraft.

"Testing is one of our major functions, and takes up quite a bit of time. Everything we do is under strict government control. We have three resident RCAF inspectors and five department of transport-approved inspectors. Take our library, for instance. It is subject to audit by the Air Force, to make sure everything is up to date.

### More Paperwork

"We carry a large inventory, and I bet we do far more paperwork than any other plant around here. That is because

control surfaces from an Air Force Expediter.

Another major item of repair is skis. Not sport skis, but aircraft skis. These are made of heat-treated metal, and then polyethylene is bonded to the bottom. A set for a DC-3, possibly the biggest skis made, were ready to be shipped out west.

Men were also working on fuel tanks, in a second hydraulic lab used for pumps, and in a workshop used for small tooling.

### Helicopter Skids

"Another project coming up is a design of a new set of high skids for helicopters. We draw them up, prepare a stress analysis for them, and submit all this for DoT approval. If it is approved, we can start building them.

"Some of our big projects in the past have been the installation of geo-physical equipment for nearly all the prominent Canadian mining companies, installing cargo doors on aircraft, spray equipment on helicopters, electrical power units, and a complete international radio equipment installation.

"One of our subsidiary companies, which handles life jackets and rafts, outfitted HMCS Bonaventure."

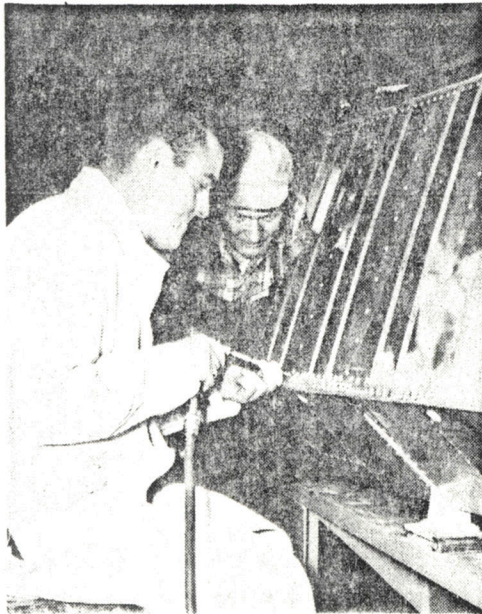
### Niagara, Malton

The company has two other plants. They are at Malton Airport and Niagara-on-the-Lake.

The Niagara site is for ground support equipment. This includes hydraulic and electric test gear, compressors for starting jets, hydraulic jacks and cradles, mobile stairways, and any other ground equipment.

At Malton, the company provides line service for the American Airlines fleets. This involves Boeing and Convair aircraft. It also provides all maintenance and passenger-handling services for a number of charter carriers not based in Toronto.

G. R. Wooll, now mayor of Niagara-on-the-Lake, is the firm's vice-president and managing director. In addition, Keith Mitchell is assistant chief engineer and chief of quality control. Tony King, a mechanical engineer, is project engineer with the company.



Control surfaces on an aircraft determine its path of flight. Irving Champoux, of 30 Chetwood St., left, and Felix Guzowski, of 16 Woodrow St. are shown riveting a metal skin to a control surface of an RCAF Expediter.



Fabric covering for aircraft, described by Genaire Ltd.'s president as "almost a lost art," is one of the many daily tasks performed at the company's airport plant. Here, Ted Kaminskis, of 475 St. Paul St. in St. Catharines, sews fabric to the rudder of an RCAF Expediter.

—Staff photos



Tools of the trade vary from workman to workman. For H. B. Picken, president and chief engineer of Genaire Ltd., everyday work tools are a slide rule and blueprint.

anything we use is kept track of from the time it is a piece of molten metal until it ends up on our shelves. We can trace a bolt back to the melting pot it was poured from.

"Since we have to do so much testing, we use non-destructive methods. An important part of this process is the magna-flux machine. With it, we take an article, say a landing gear, and magnetize it. A special liquid with fluorescent iron particles in it flows over it, and this shows up any cracks in the metal.

### Useful Oil

"Another one of our tools is Zyglo oil. This is used for non-magnetic materials. It is fluorescent under ultra-violet lamps. We paint it on, wash it off completely, and under the lamps, any cracks will glow from the oil."

I toured the plant with Mr. Picken, and was amazed at the diversity of their operation.

One group of men were working on Navy Sonobuoy markers, used for navigation. The company services the systems guns and compressors. Another group were busy with maintenance work on wing-tip fuel tanks from CF-104's, Canada's newest and hottest jet fighter-bomber.

The tanks, which according to Mr. Picken are "highly sophisticated," are filled under simulated aerial refueling conditions in a special cage. Their 142 gallon capacity is filled in about three minutes.

### Fabric Covering

"We are one of the few firms left that do fabric covering," Mr. Picken said. "This is fast becoming a lost art." Three men were busy stitching and doping