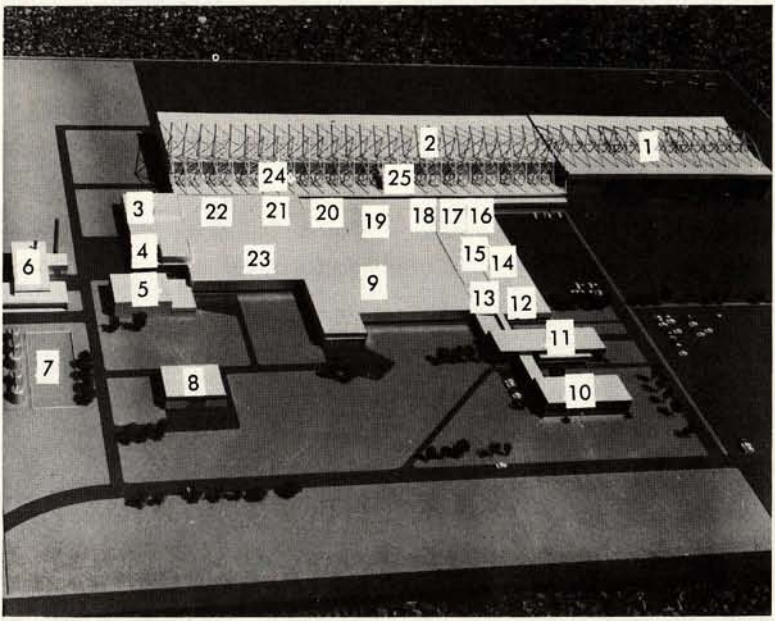
AIR CANADA

THE BASE

Montreal, Quebec



An architect's drawing of the base layout shows the location of the various work areas: 1. Line Maintenance Hangar. 2. Overhaul Hangar. 3. Machine Shop. 4. Building Services, Carpentry and Plant Maintenance. 5. Engine Test Building. 6. Power House. 7. Water Storage Reservoir. 8. Combustible Stores. 9. Stores. 10. Flight Operations Training Centre. 11. Base Headquarters, Cafeteria, Data Processing Centre. 12. Printing Bureau. 13. Telecommunications and Laboratory. 14. Instrument Shop. 15. Radio Shop. 16. Accessory Shop. 17. Upholstery Shop. 18. Wheel and Rubber Shop. 19. Paint Shop. 20. Non Destructive Tests (X-Ray). 21. Welding Shop. 22. Metal and Plumbing Shop. 23. Power Plant Shop (engines). 24. Engineering Department. 25. Aircraft Maintenance Headquarters and Maintenance Training.

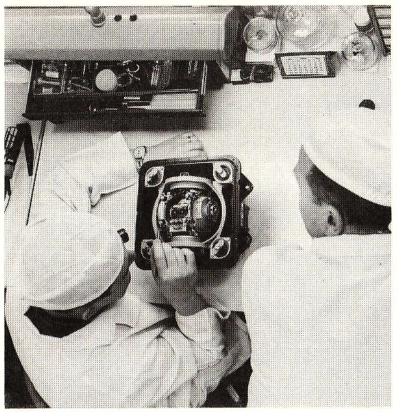
Air Canada's Maintenance Base at Montreal International Airport was especially created to accommodate turbine-powered aircraft. Today, more than 3,000 employees work at the base which was built at a cost of over $20,000,000.

Air Canada's Base at Montreal is one of the largest and most modern of its kind in the world. It is the fulfillment of years of planning by the men who now direct the wide range of professional and trade skills involved in maintaining and flying modern turbine aircraft.

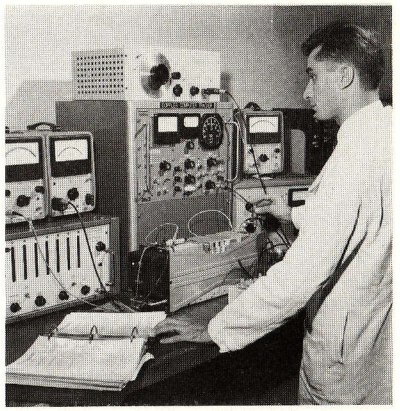
The Base has been designed and constructed to ensure that Air Canada's aircraft are maintained in top condition, that its flight crews receive the finest and most complete training possible and that all other ancillary services are equipped to efficiently provide the many services essential to the operation of a modern airline. Air Canada is proud of its Base and of the more than 3,000 employees who work here.

J. McLean,
General Manager, Maintenance

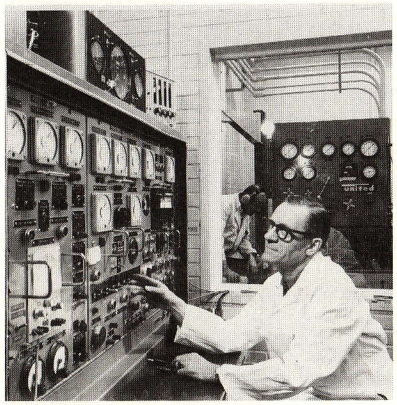
To ensure maintenance of the highest possible standards, technical personnel employed in the hangars and various shops are given extensive and continuing classroom and on-the-job training.



The "Clean Room" in the Instrument Shop is designed for the overhaul of delicate gyroscopic and optical instruments. A special anti-static smock and head and shoe covers must be worn at all times in this room.

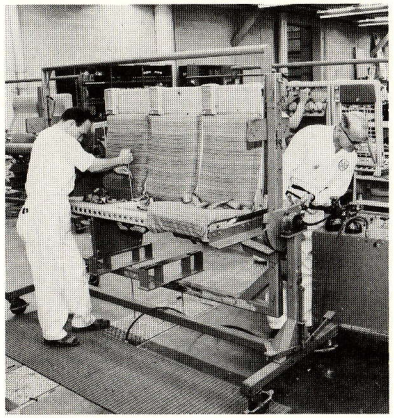


Airborne radio and other electronic equipment is overhauled in the Radio and Electronic Shop which is equipped with extremely accurate and very expensive apparatus.

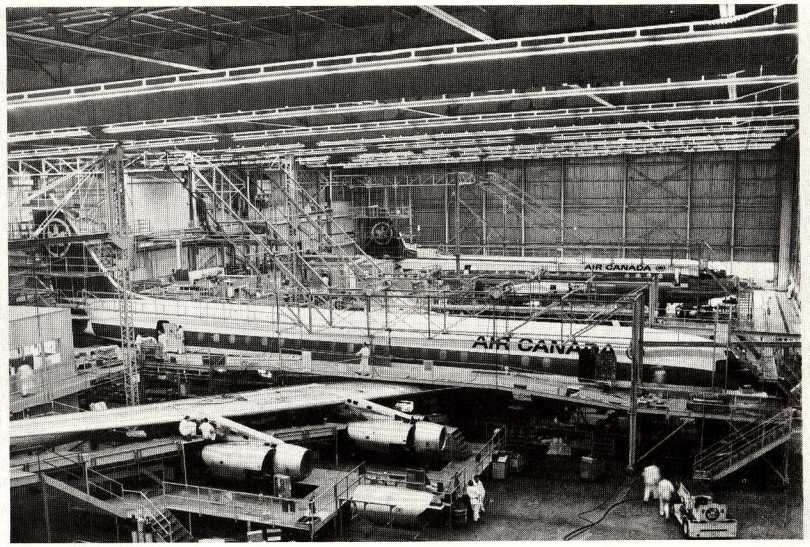


As in all other shops, production and quality are the principal objectives of the Maintenance Unit Shop. Mechanical and electrical equipment is repaired here.

The Wheel and Rubber Shop services aircraft wheels and brakes as well as emergency equipment. Retreading of tires is done by outside manufacturers.

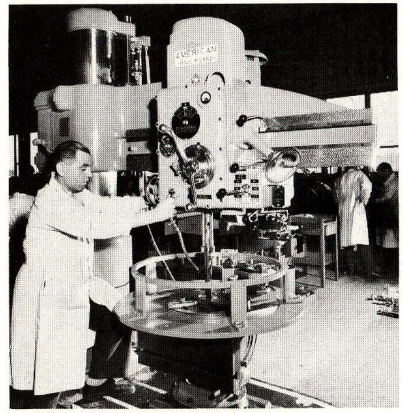


Aircraft chairs are overhauled periodically in the Finishing and Upholstery Shop, where carpets, curtains and drapes are also manufactured, repaired and cleaned.

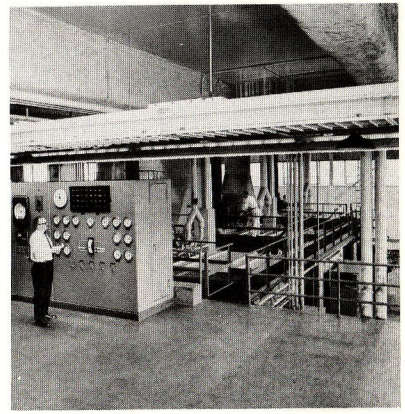


The most impressive structure in the building complex is the Overhaul Hangar. Its single cantilever roof, 837 feet by 175 feet, is supported by steel columns towering 110 feet into the air. Inside, dock assemblies surround DC-8 and Vanguard aircraft to permit easy access to engines and airframe during overhaul.

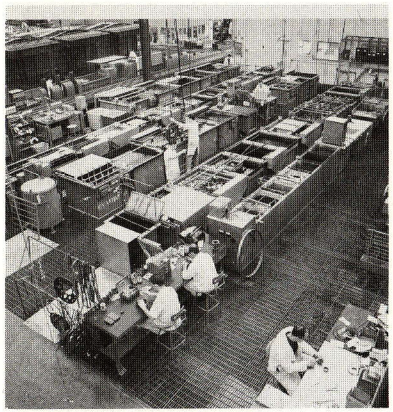
The Line Maintenance Hangar measures 487 feet by 235 feet with 50-foot high doors. It can accommodate either three DC-8 and five Vanguard aircraft or two DC-8s, four Vanguards and four Viscounts at one time. Maintenance checks are scheduled ahead of time and are performed around the clock.



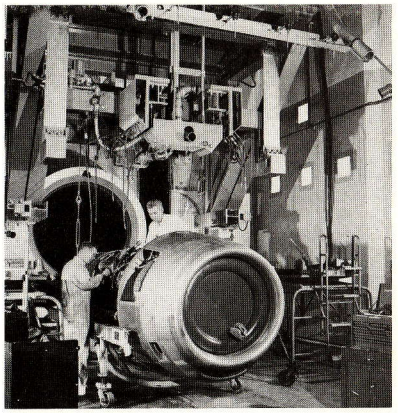
Aircraft and engine parts are repaired and modified in the Machine Shop, which is in operation seven days a week, to meet Air Canada specifications.



Ground Equipment and Facilities Maintenance includes the Power House, the maintenance of ground support equipment, janitorial services, ramp equipment, Millright and Carpenter Shop.

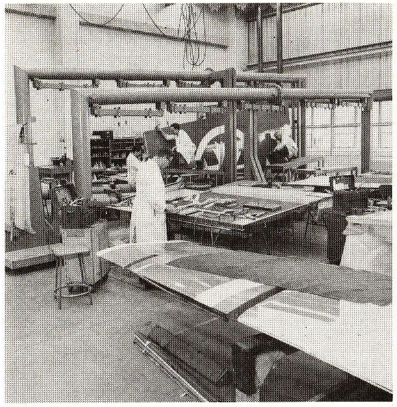


The Heat Treat and Process Shop performs copper, cadmium, chrome, nickel, silver and lead-plating of engine parts and components.



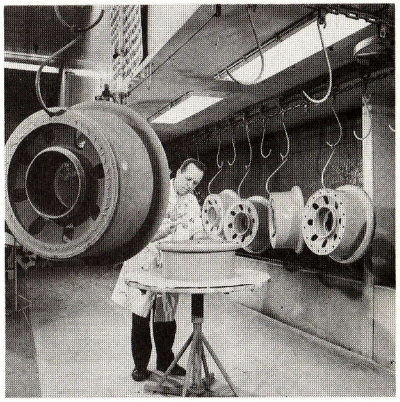
After build-up in the Power Plant Shop, engines repaired or overhauled are moved into the Test House for testing and adjustment before being returned to Stores as serviceable.

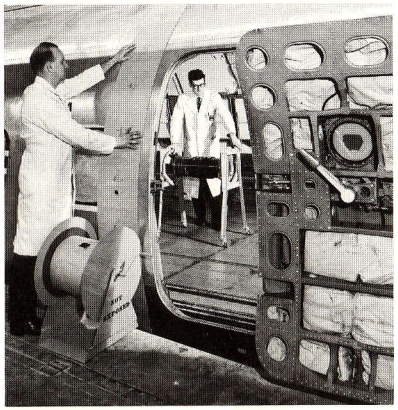
Rolls-Royce Conway jet, Pratt and Whitney JT3D-3 turbo fan and Rolls-Royce Tyne turbo-prop engines which power DC-8 and Vickers Vanguard aircraft are overhauled in the Power Plant Shop, which has been designed to permit the most efficient movement of turbine engines through all phases of stripping, cleaning, inspection, repairing, build-up and testing.



The Sheet Metal Shop carries out repairs on the aircraft itself or on aircraft components in the shop. It also provides aircraft plumbing and welding services.

Parts which require painting for protection against corrosion, for decoration or finishing by the application of organic coating, are routed to the Paint Shop.

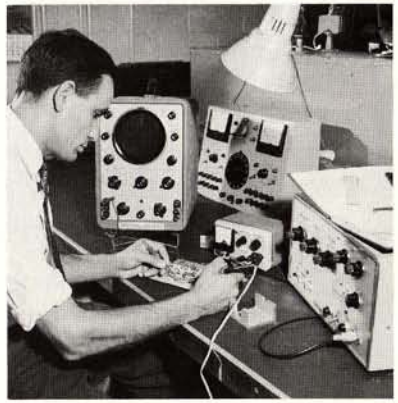




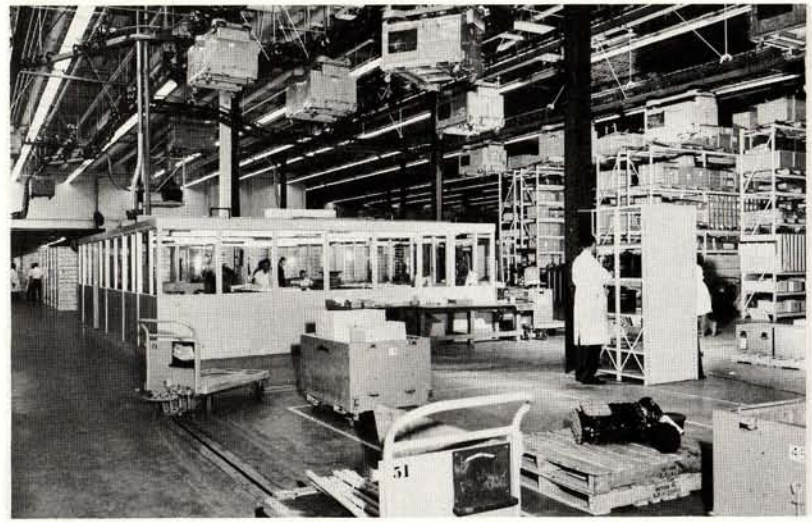
X-Ray is a very useful tool for the maintenance of aircraft and engine parts. Radiographs of the aircraft structure are taken directly in the hangars with portable X-Ray equipment, while units and components are X-Rayed in a lead-lined room.

Maintenance Engineering's responsibilities encompass a wide range of services which affect virtually all operating sections of the airline. Within this section, the Material and Processes Laboratory tests and evaluates metals, fluids, chemicals and techniques, supplementing tests normally performed by suppliers.

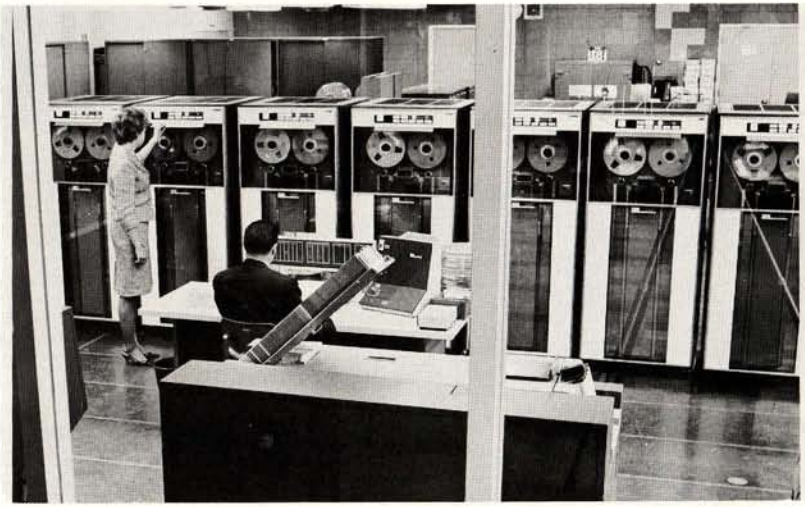
The Printing Bureau provides a speedy internal printing service within Air Canada for forms, publications, revisions...and other printed items.



The electronic equipment which forms a part of Air Canada's ground communications system is kept in operation by the Telecommunications Shop and Laboratory. This department also evaluates new electronic devices such as closed circuit television and the paging and public address systems and similar facilities at Air Canada terminals throughout the country.



Stores monitor the mechanized systems installed for a speedy delivery of parts to or from the shops. An in-floor dragline tows flat carts throughout the stores area, collecting parts to be delivered. From these carts, parts are dispatched via a pneumatic tube system or an overhead monorail system to their destination.



The Data Processing Centre keeps a record of inventory of some 130,000 units in the Stores. Every 24 hours, the stock is checked to determine the requirements and to process the necessary purchasing orders.

New stewardesses undergo an intensive five-week training course in the Flight Operations Training Centre receiving instruction on various subjects including aircraft equipment, meal service, first aid and deportment.

The Link trainers simulate radio navigational conditions. The pilot sits in an enclosed cockpit and practises flying by reference to his instruments only.

Following intensive classroom instruction, new pilots undergo a program of flight simulator training. Line pilots, those who fly regularly with the Company, return to take additional simulator training on their respective aircraft type every four months.

DOUGLAS DC-8

VICKERS VANGUARD

VICKERS VISCOUNT

DOUGLAS DC-9