A. V. ROE CANADA LIMITED

MALTON ONTARIO

1 NAVIGATIONAL–BOMBARDIER TRAINER

2 HIGH SPEED UTILITY TRANSPORT

3 PARATROOP CARRIER

MILITARY VERSIONS OF THE AVRO JETLINER

This brochure presents various military versions of the Avro Canada Jetliner. Through the use of aircraft of this type it is intended that the effectiveness of strategic military services will be further increased. Its outstanding qualities of performance and operational flexibility indicate an unmistakable military role for this aircraft.

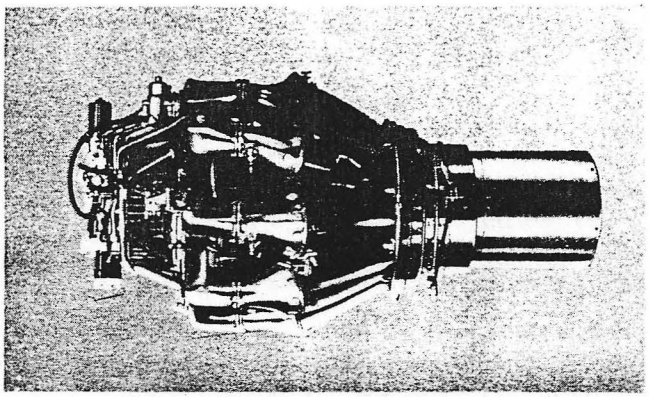
As military programs turn inevitably toward the more general use of gas turbine engines, the turbojet-powered Jetliner presents an opportunity for more complete standardization of the military services. Standardization of fuel supplies is also promoted by the adoption of this aircraft.

The Avro Jetliner is a tested and proven aircraft and has been designed to U.S. standards for compliance with CAA requirements. Outstanding airline pilots and engineers have voiced enthusiastic approval of its exceptional handling qualities, its performance and its advanced design.

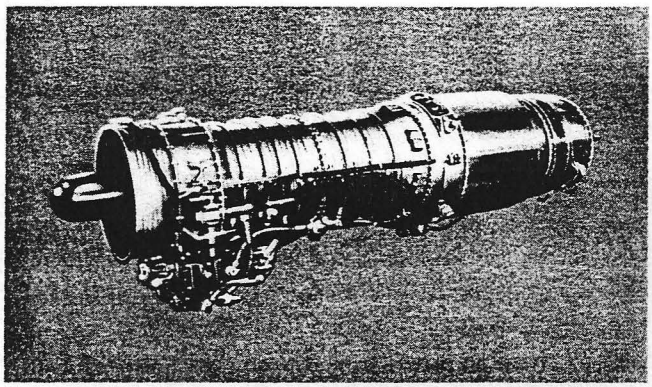
FEATURES OF THE MILITARY JETLINER

- SPEEDS UP TO 500 MILES PER HOUR
- ALTITUDES UP TO 40,000 FT.
- OPERATING RANGES UP TO 1400 MILES - 1700 MILES WITH TIP TANKS
- SEA LEVEL CABIN CONDITIONS AT 21,500 FT.
  8,000 FT. CABIN ALTITUDE AT 40,000 FT.
- QUIET, VIBRATIONLESS CABIN
- SIMPLICITY AND RELIABILITY
- DESIGNED AND PRODUCED TO U. S. STANDARDS
- FLIGHT TESTED AND PROVEN

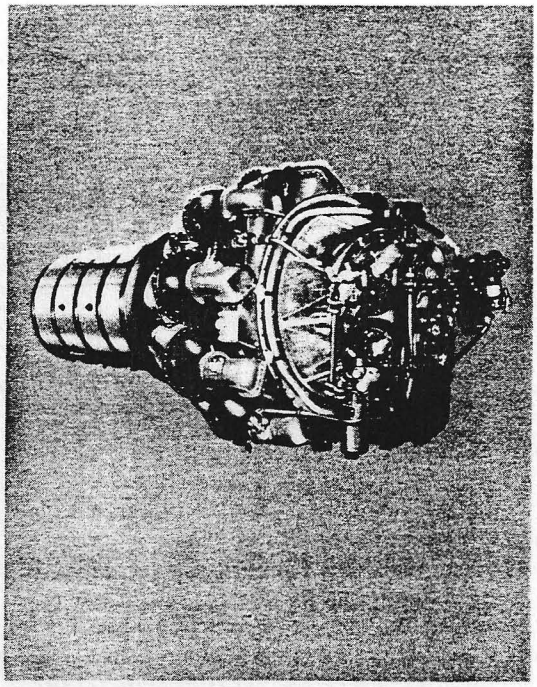
CHOICE



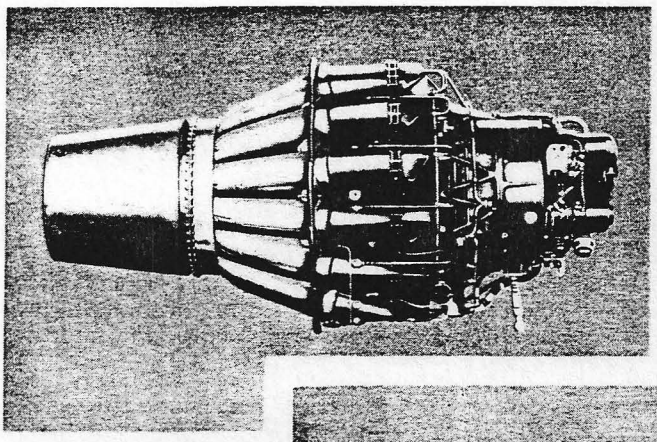
DERWENT V



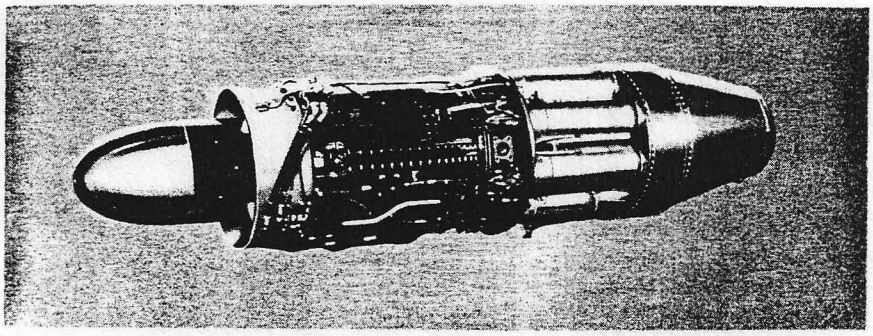
WESTINGHOUSE J-46



PRATT & WHITNEY J-42



ALLISON J-33



GENERAL ELECTRIC J-47

OF POWER PLANTS

ENGINES ➡	ROLLS ROYCE DERWENT 5	PRATT & WHITNEY J-42	PRATT & WHITNEY J-48	ALLISON J-33	WESTING-HOUSE [illegible]	GENERAL ELECTRIC [illegible]
[illegible] WEIGHT	70,000 LB	80,000 LB	[illegible]	[illegible]	[illegible]	[illegible]
MAX. LANDING WEIGHT	60,000 LB	70,000 LB	70,000 LB	70,000 LB	[illegible]	[illegible]
[illegible]	33,000 LB	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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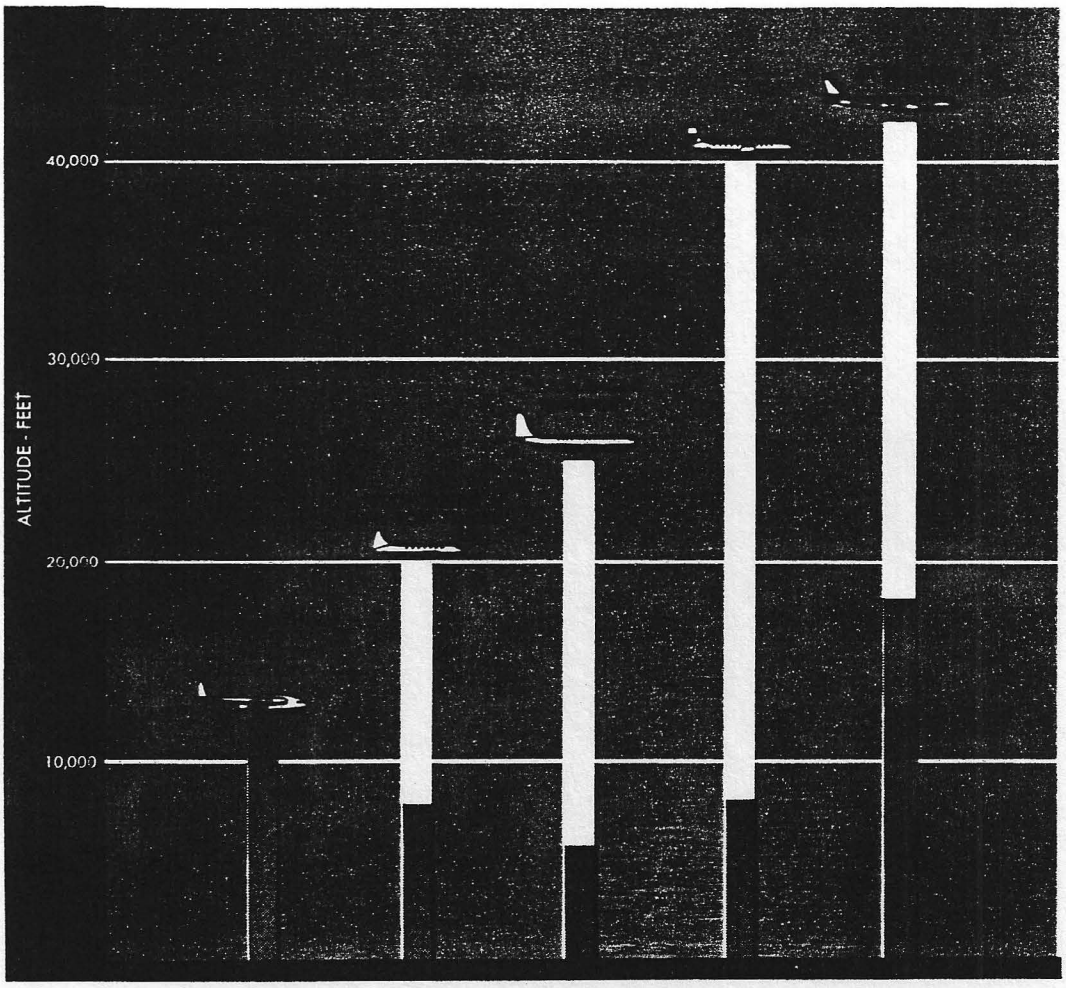
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
* [illegible] PAYLOAD	[illegible]	1240 MI	[illegible]	[illegible]	[illegible]	[illegible]
* [illegible] PAYLOAD	1550 MI	1200 MI	1220 MI	[illegible]	[illegible]	[illegible]

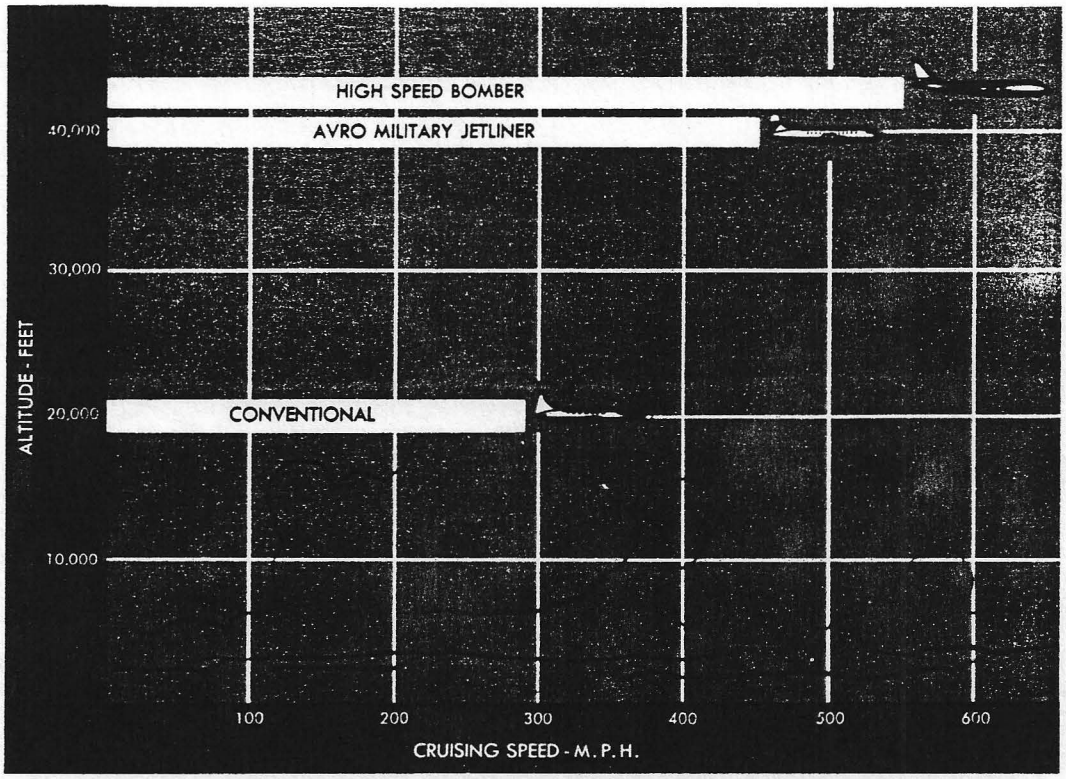
* RESERVE FUEL FOR 200 MILES PLUS 45 MIN.

CRUISING ALTITUDE

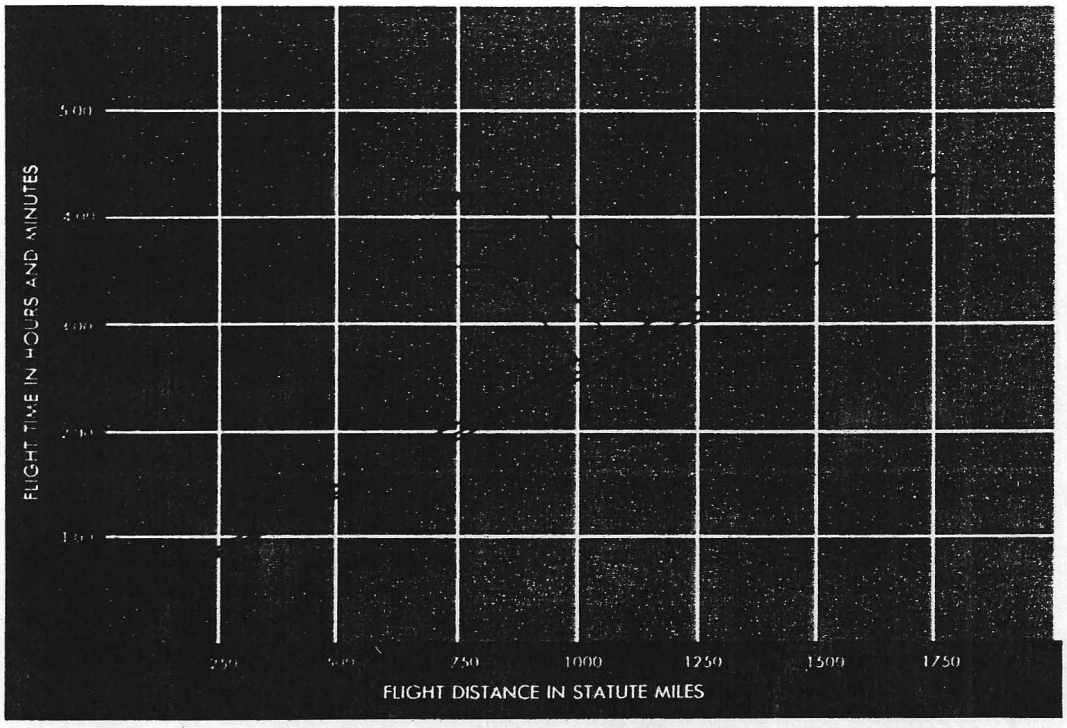


HEIGHT OF SHADED COLUMN INDICATES CABIN PRESSURE ALTITUDE IN RELATION TO THE AIRCRAFT CRUISING ALTITUDE

CRUISING SPEED

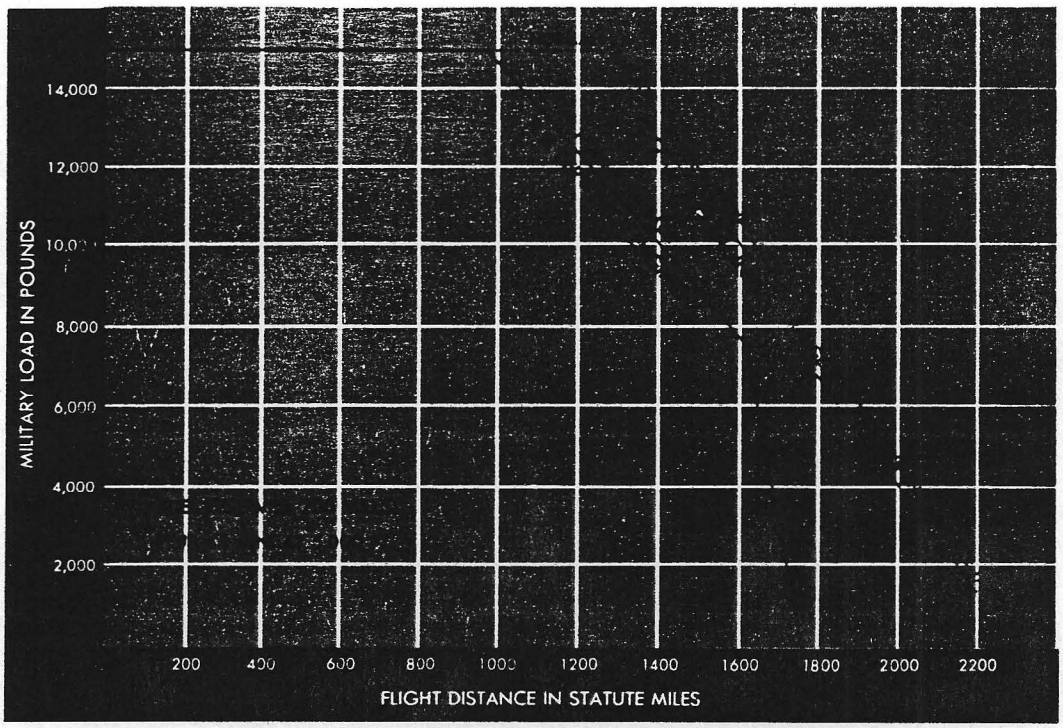


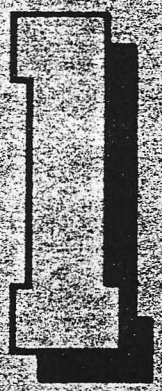
FLIGHT TIME VS FLIGHT DISTANCE



FLIGHT TIME IS FROM TAKE-OFF TO TOUCHDOWN

MILITARY LOAD VS FLIGHT DISTANCE





AVRO CANADA

NAVIGATIONAL - BOMBARDIER

Trainer

NAVIGATIONAL - BOMBARDIER TRAINER

More exacting requirements for high speed and high altitude air navigation and bombing demand an entirely new type of aircraft for service training. Avro Canada has designed a military version of its transport Jetliner, known as the Navigational-Bombardier Trainer. This aircraft is intended to satisfy the high performance requirements for modern training purposes.

The Avro Navigational-Bombardier Trainer's quiet, vibration-free, pressurized and air-conditioned cabin is ideally suited to classroom instruction. Its spacious fuselage permits the accommodation of up to 20 instructors and trainees, in addition to the crew.

The unique instruction afforded by the Avro Trainer enables students to become familiar with navigation and bombing techniques at altitudes up to 40,000 ft. and speeds up to 500 miles an hour. Moreover, this instruction is provided under actual jet flight conditions, making it possible for students to become accustomed to the reduced time for navigational calculations necessitated by modern high speed military aircraft.

(continued)

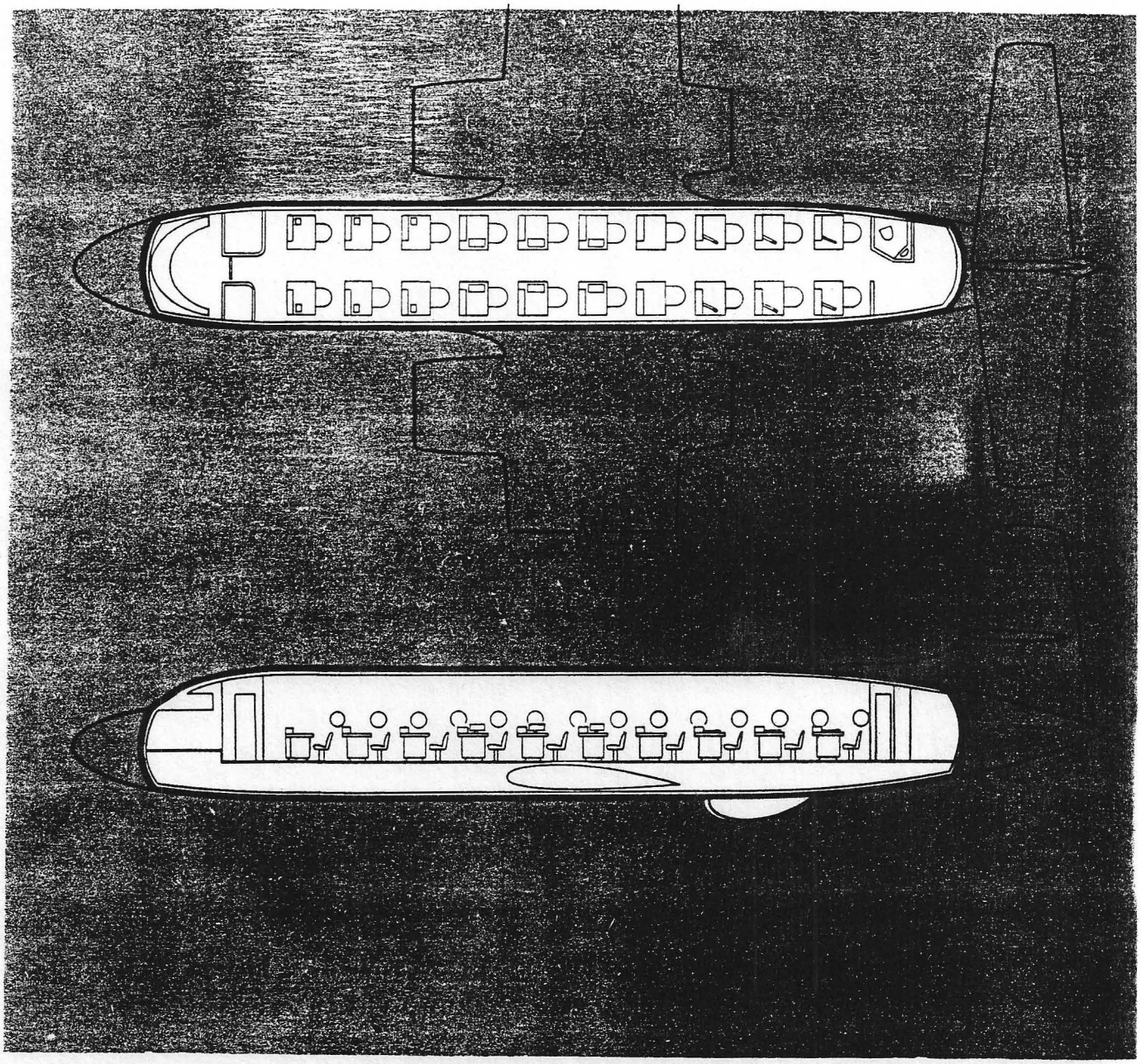
The spacious cabin of the Avro Navigational-Bombardier Trainer provides ample room for the simultaneous supervision of three separate groups of students.

The groups normally consist of radio, navigation and radar classes totalling up to 17 trainees and 3 instructors and each group is provided with equipment and instrumentation which is operationally independant of that of the aircraft.

Adequate provision is made for the installation of Driftmeters and Solar Navigator, AMU, API and other radio, navigational and radar equipment.

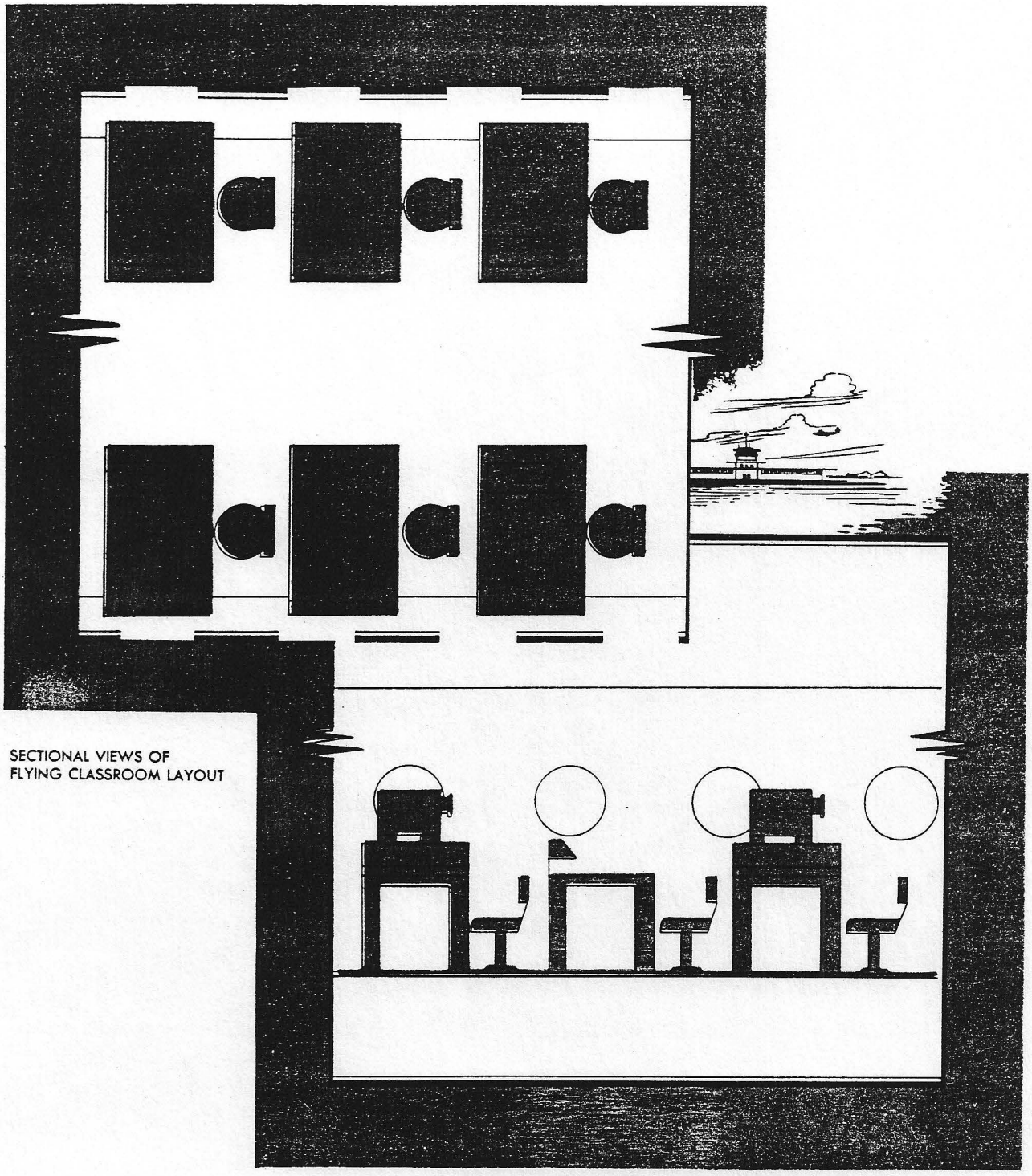
By using all types of equipment while actually airborne by jet power, students rapidly become accustomed to modern operational techniques. Invaluable experience is also gained in assessing and interpreting the rapidly changing meteorological conditions experienced in flight by modern jet-powered aircraft.

NAVIGATIONAL-BOMBARDIER TRAINER



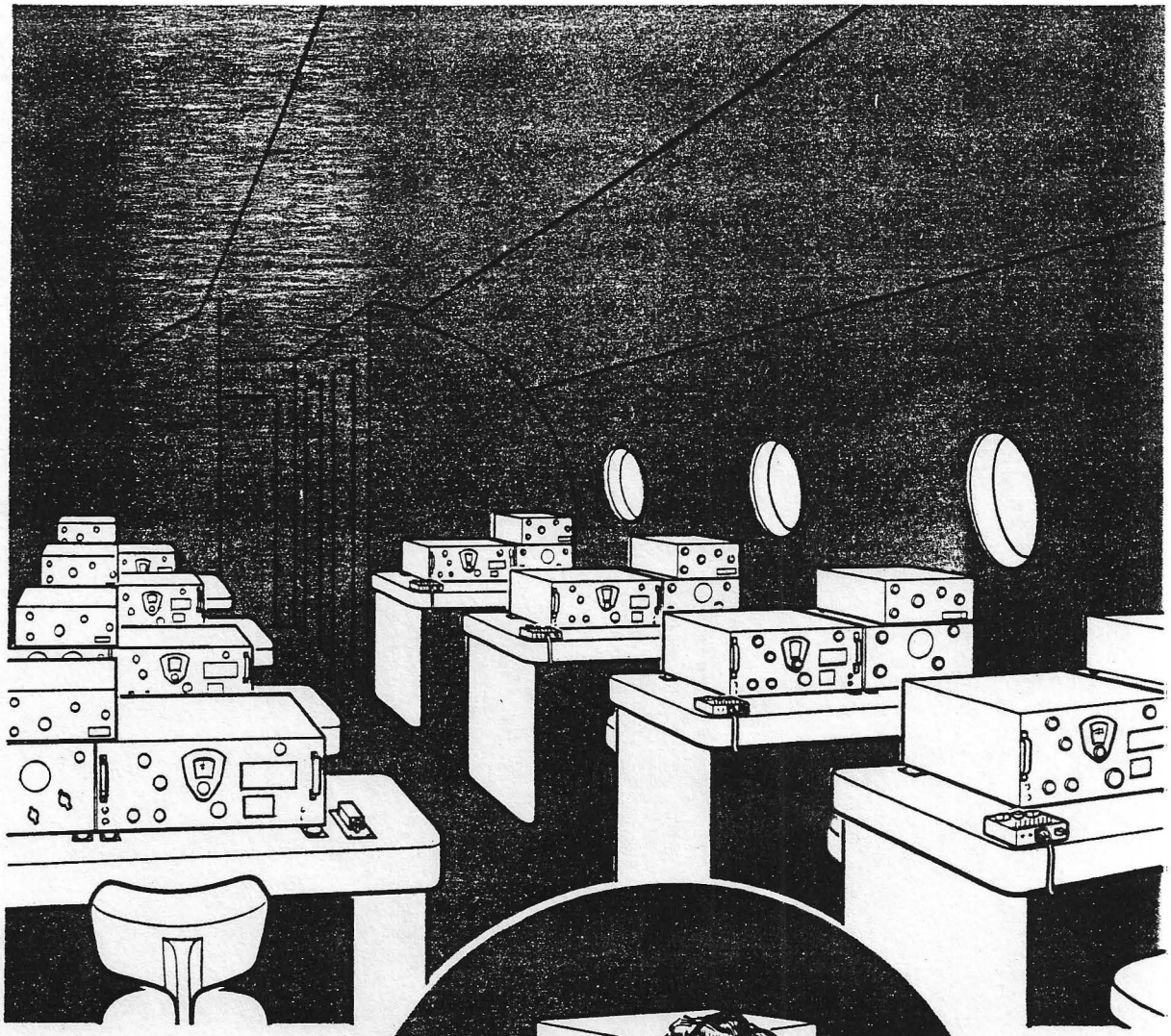
JETLINER FLYING CLASSROOM

- VIBRATION FREE AND QUIET
- HIGHLY PRESSURIZED
- ACCOMMODATES UP TO 20 STUDENTS AND INSTRUCTORS
- COMPLETE RADIO, RADAR AND NAVIGATION FACILITIES

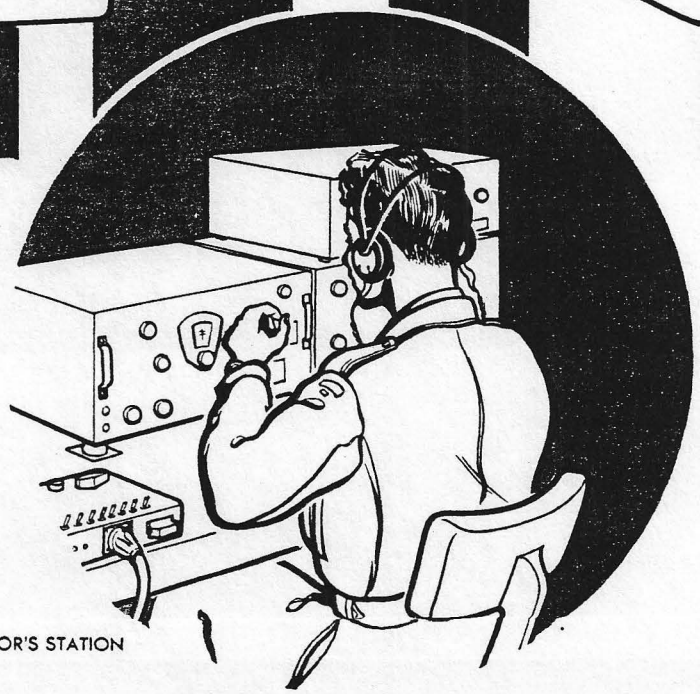


SECTIONAL VIEWS OF
FLYING CLASSROOM LAYOUT

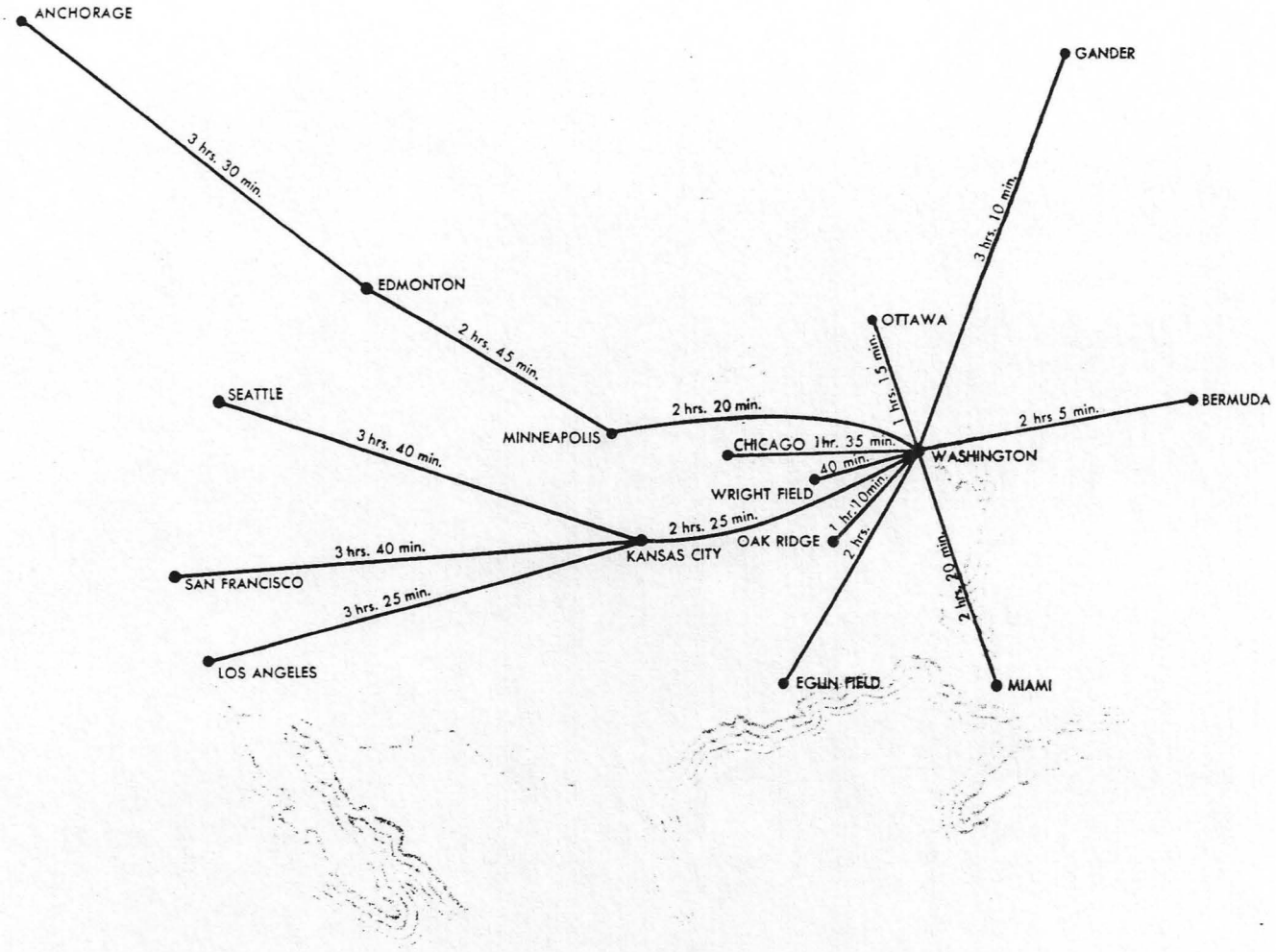
RADIO TRAINER



VIEW OF CLASSROOM
LOOKING FORWARD

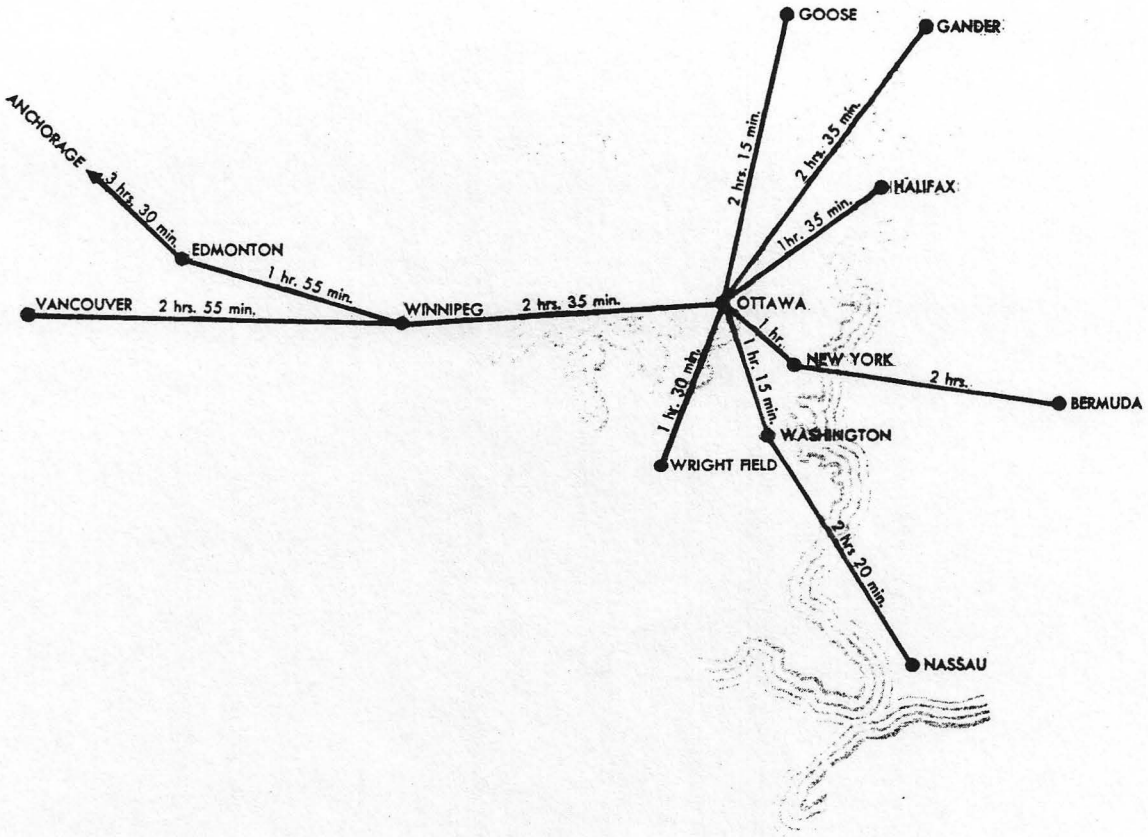


TYPICAL RADIO OPERATOR'S STATION

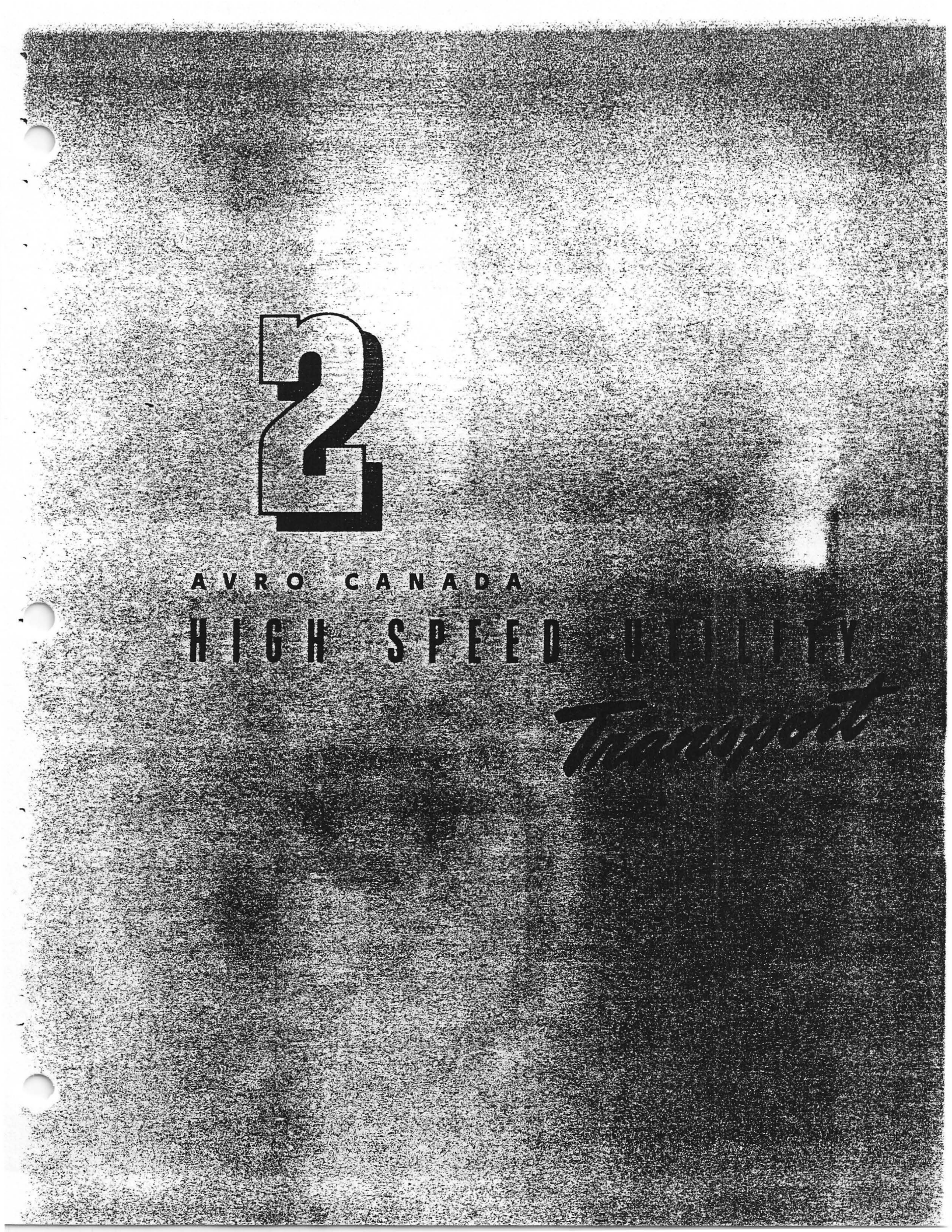


JETLINER FLIGHT TIMES

- HIGH PRIORITY CARGO TRANSPORT
- HOSPITAL EVACUATION
- 52 PASSENGER TROOP TRANSPORT
- 64 PASSENGER TROOP TRANSPORT
- HIGH ALTITUDE PHOTOGRAPHIC AIRCRAFT
- HIGH ALTITUDE MEDICAL RESEARCH AIRCRAFT
- HIGH ALTITUDE ENGINE DEVELOPMENT AIRCRAFT

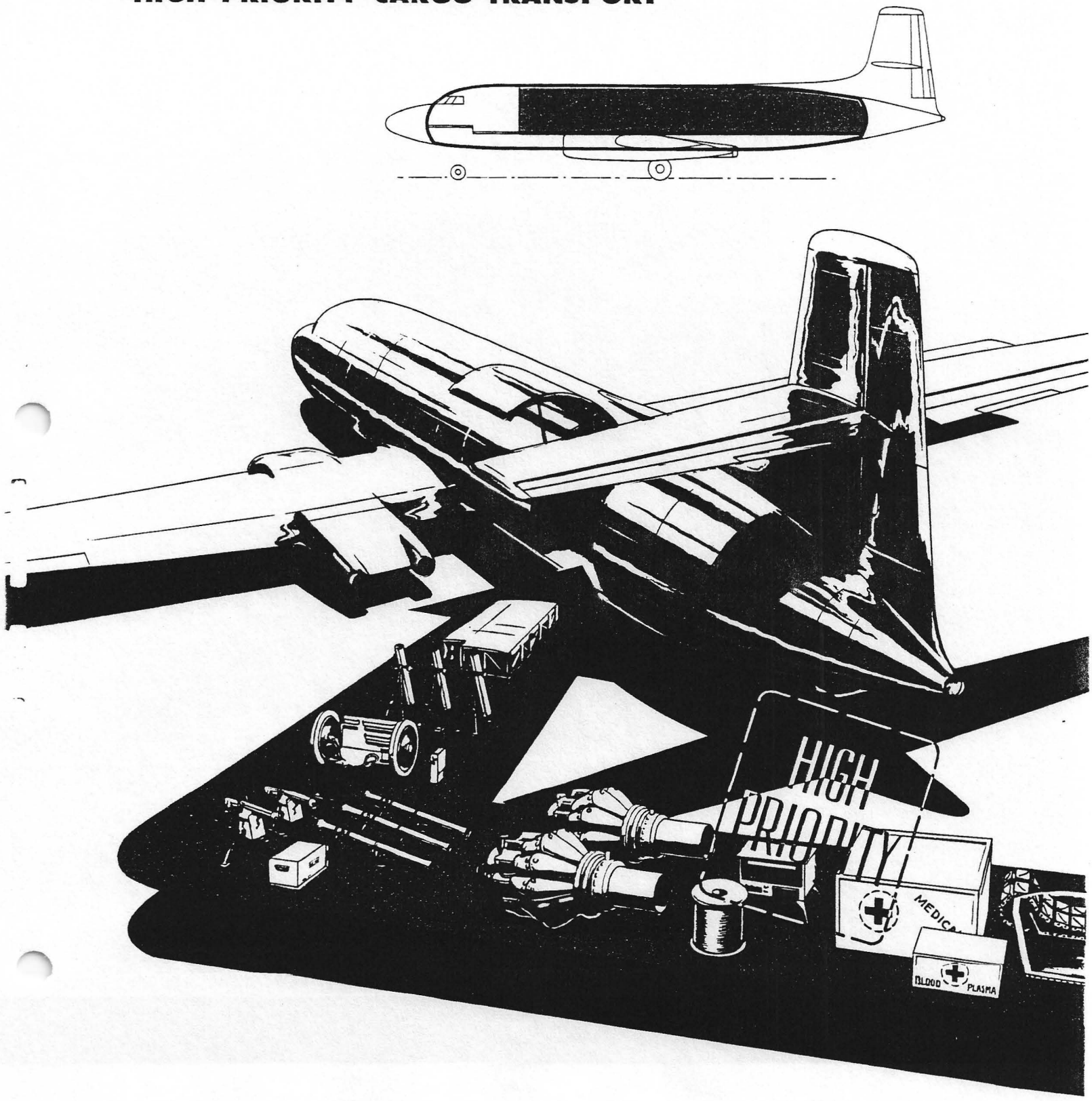


JETLINER FLIGHT TIMES


2
AVRO CANADA
HIGH SPEED UTILITY
Transport

- HIGH PRIORITY CARGO TRANSPORT
- HOSPITAL EVACUATION
- 52 PASSENGER TROOP TRANSPORT
- 64 PASSENGER TROOP TRANSPORT
- HIGH ALTITUDE PHOTOGRAPHIC AIRCRAFT
- HIGH ALTITUDE MEDICAL RESEARCH AIRCRAFT
- HIGH ALTITUDE ENGINE DEVELOPMENT AIRCRAFT

HIGH PRIORITY CARGO TRANSPORT



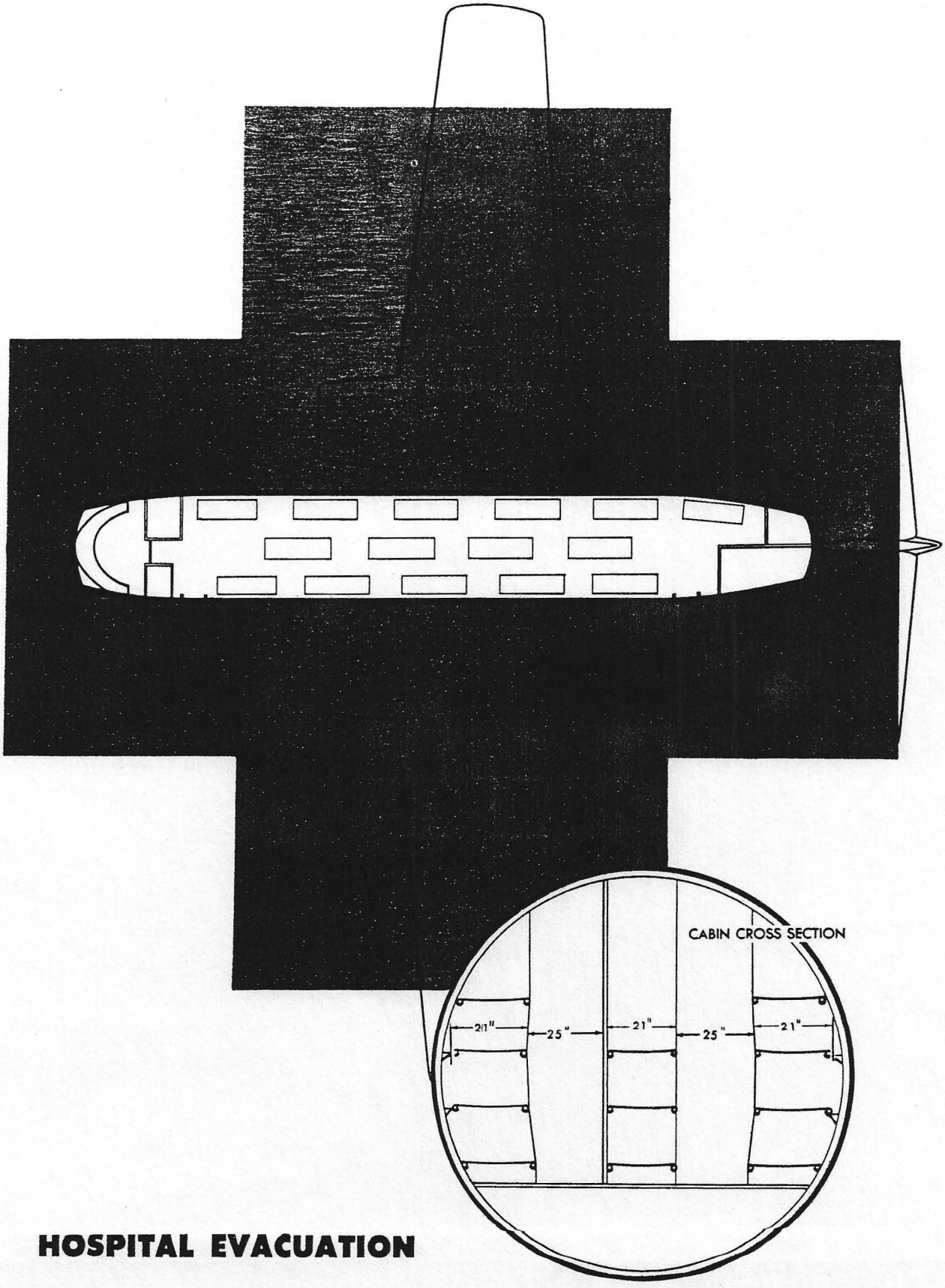
HOSPITAL EVACUATION

In the hospital evacuation version of the Avro Canada Jetliner, rapid evacuation of casualties can be carried out with the highest possible degree of comfort and efficiency.

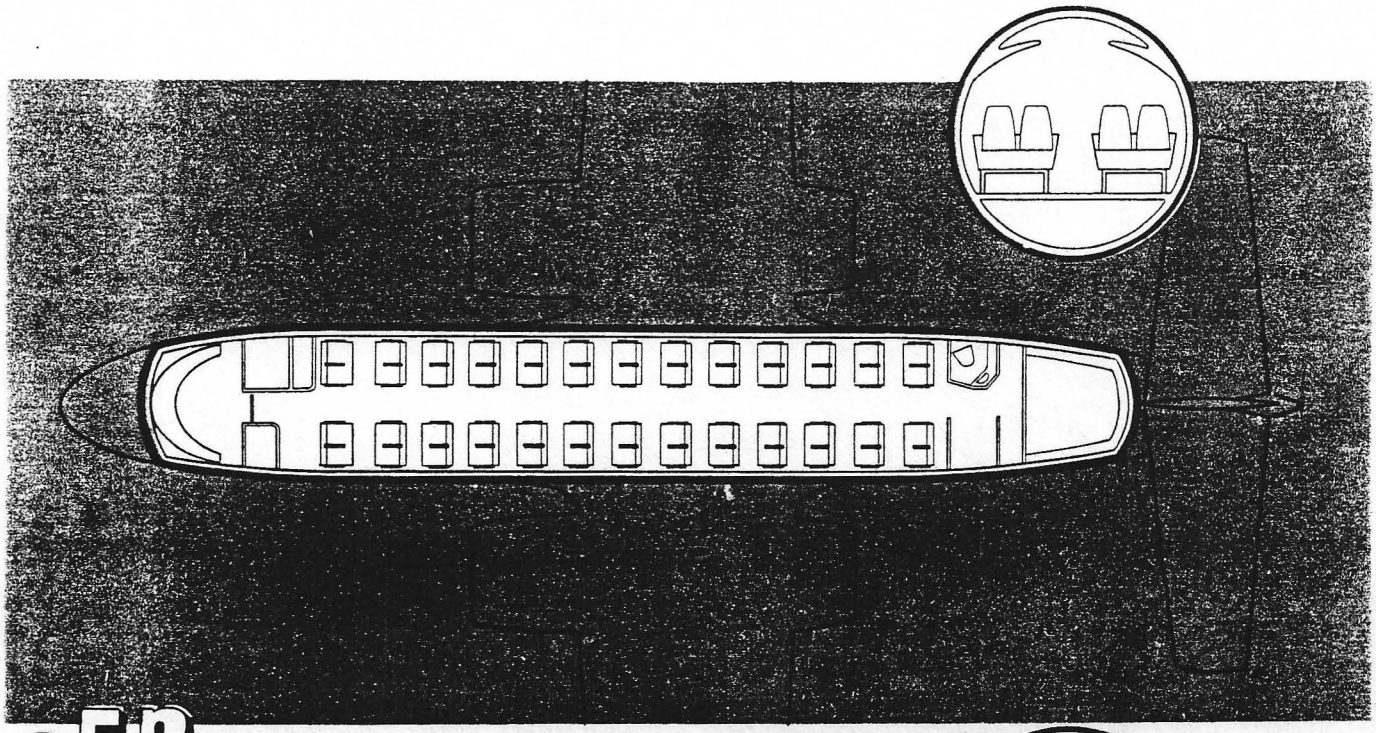
For cases requiring specialized medical attention the time saved by the Jetliner's high speed may well mean the difference between life and death. The warm cabin, pressurized to give sea level conditions at high altitudes together with the complete lack of engine vibration or propeller drumming inspires an atmosphere of confidence and relaxation.

Emergency oxygen supplies are available for crew members, evacuees and attendants, and adequate provision is made for the carriage of medical supplies and blankets.

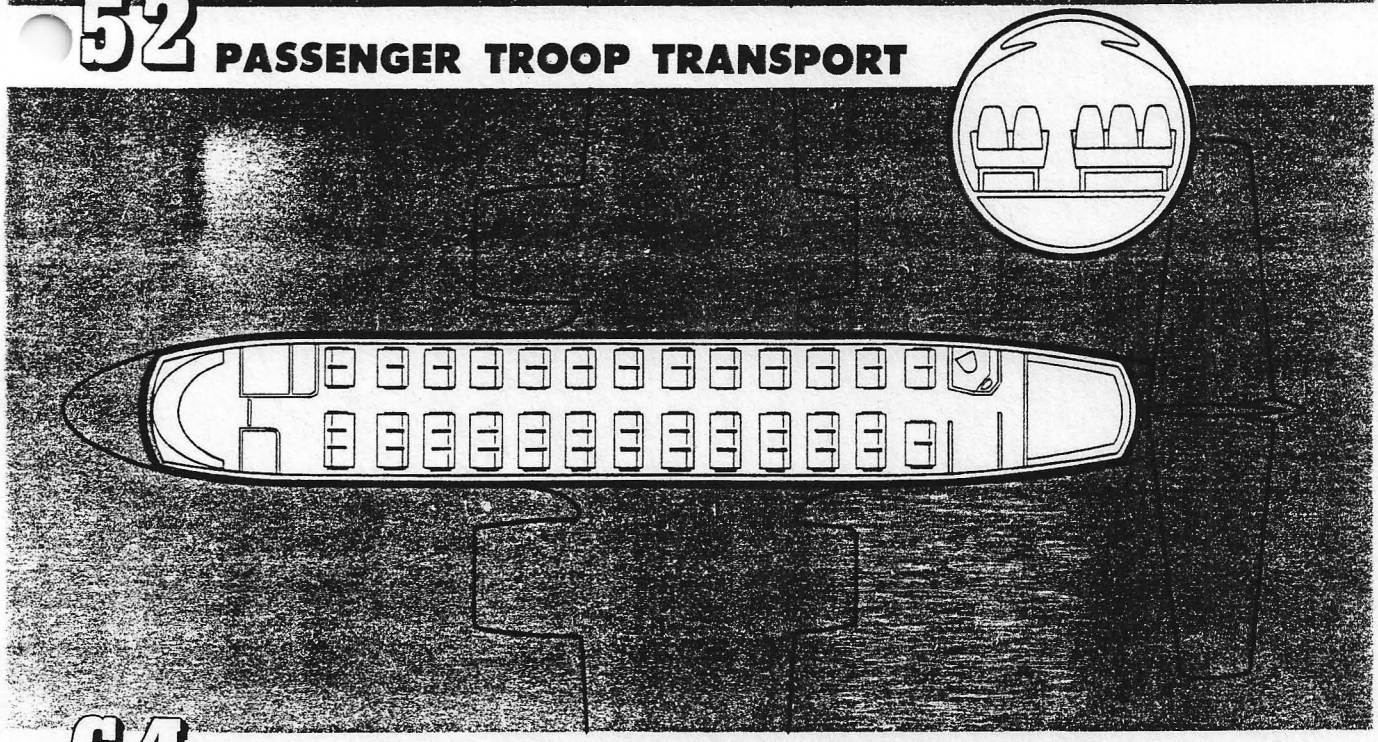
As many as 56 stretcher cases can be accommodated in the Jetliner's spacious cabin.



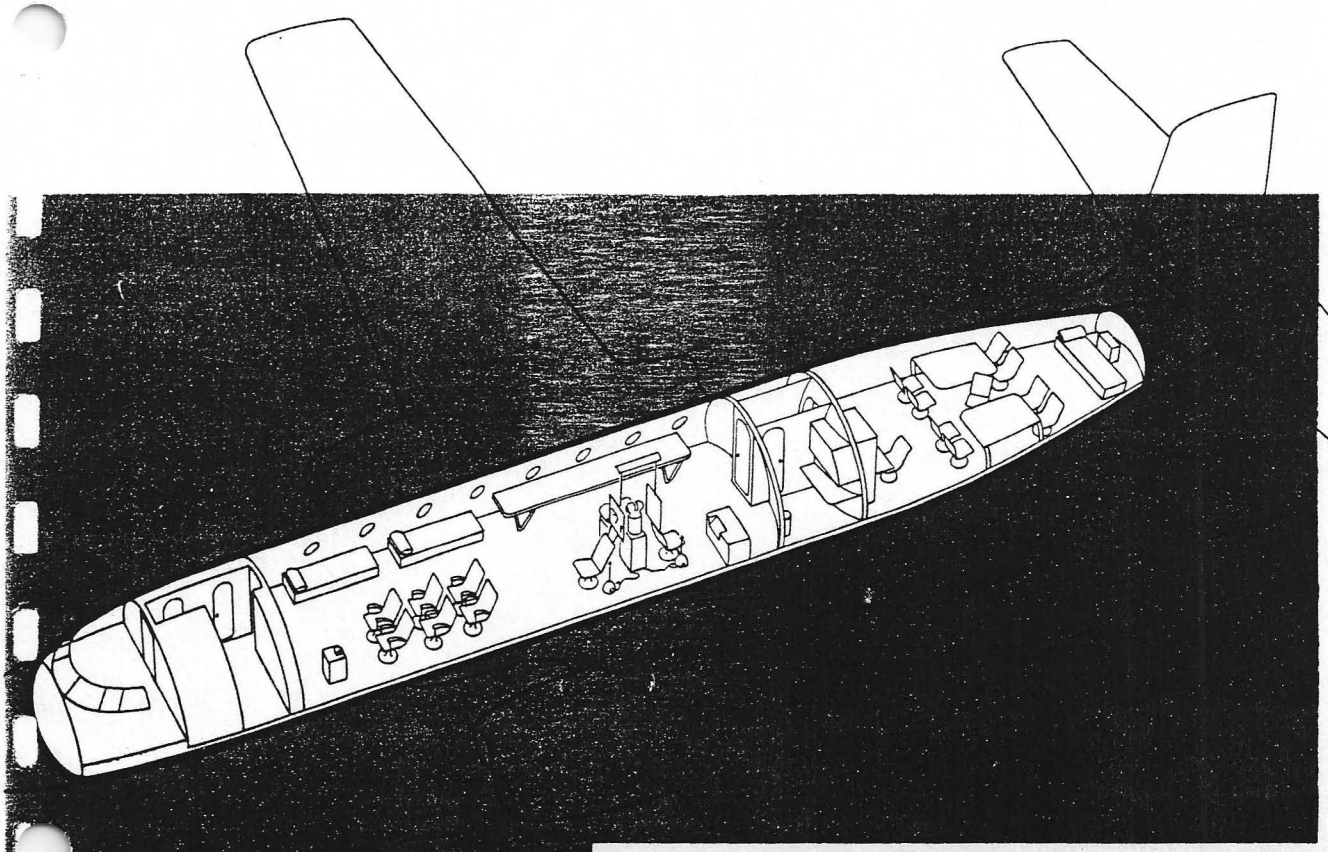
HOSPITAL EVACUATION

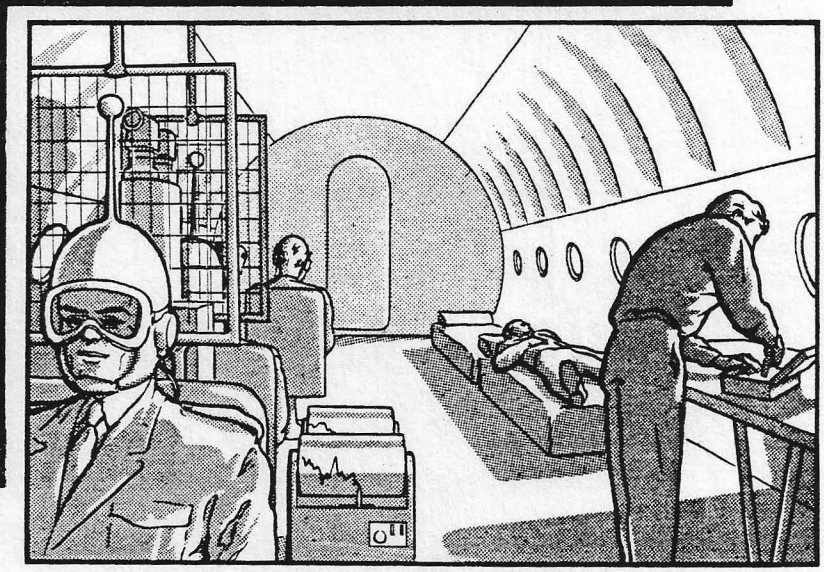


52 PASSENGER TROOP TRANSPORT



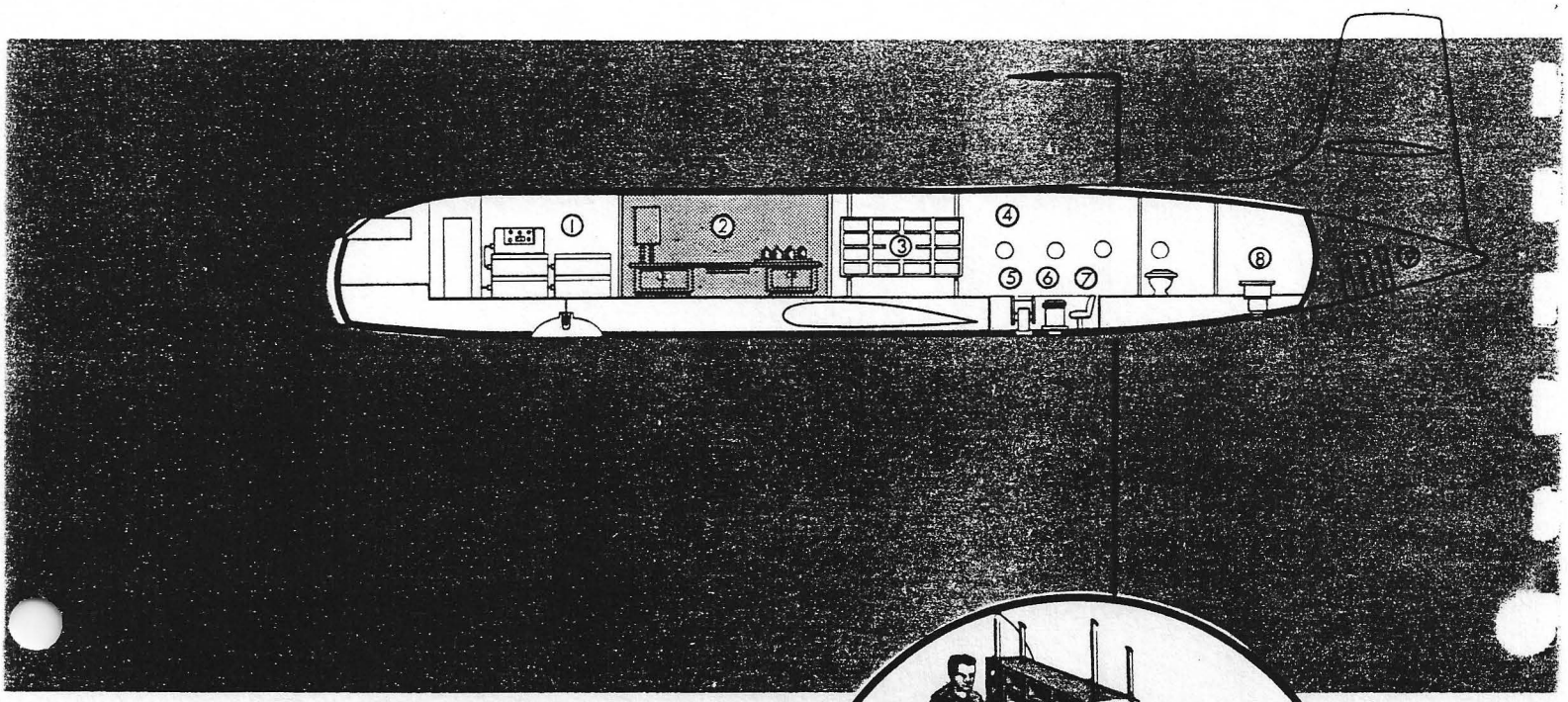
64 PASSENGER TROOP TRANSPORT



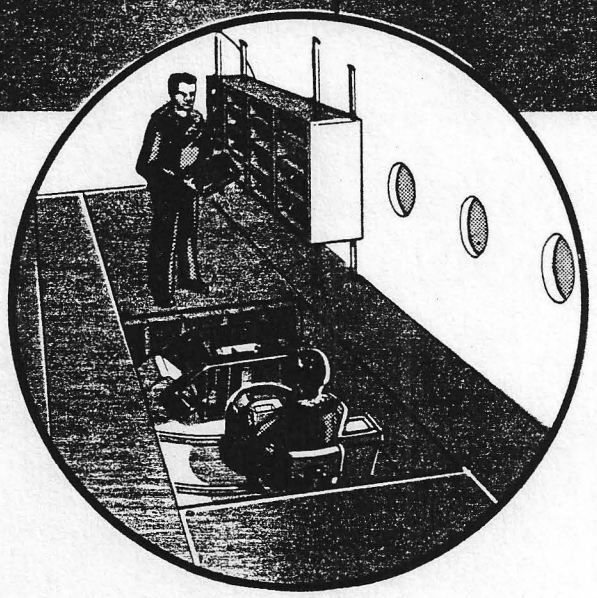


HIGH ALTITUDE MEDICAL RESEARCH LAB

THE COMBINATION OF HIGH ALTITUDE FLYING AND MANUAL OR AUTOMATIC CONTROL OF CABIN PRESSURE MAKES THIS VERSION OF THE JETLINER VALUABLE AS A FLYING LABORATORY FOR AERO MEDICAL RESEARCH



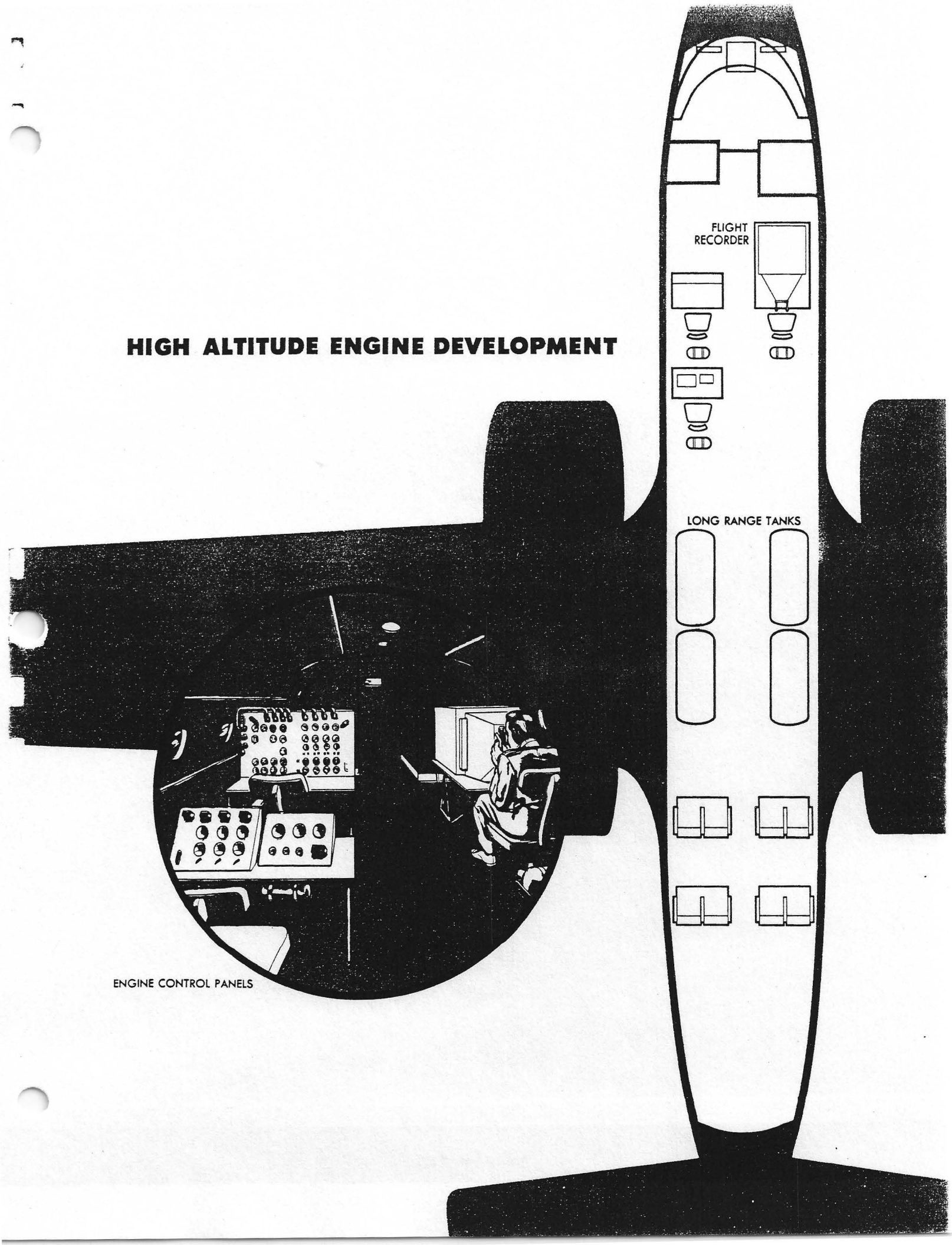
HIGH SPEED HIGH ALTITUDE PHOTOGRAPHIC



① FLASH UNIT ② DARK ROOM ③ FILM STOWAGE ④ CONSTANT TEMPERATURE AREA

⑤ TRIMET CAMERA ⑥ O. S. CAMERA ⑦ VIEW FINDER, ETC. ⑧ NIGHT CAMERA ⑨ FLARE CHUTES

HIGH ALTITUDE ENGINE DEVELOPMENT



3

AVRO CANADA

PARATROOP

PARATROOP CARRIER

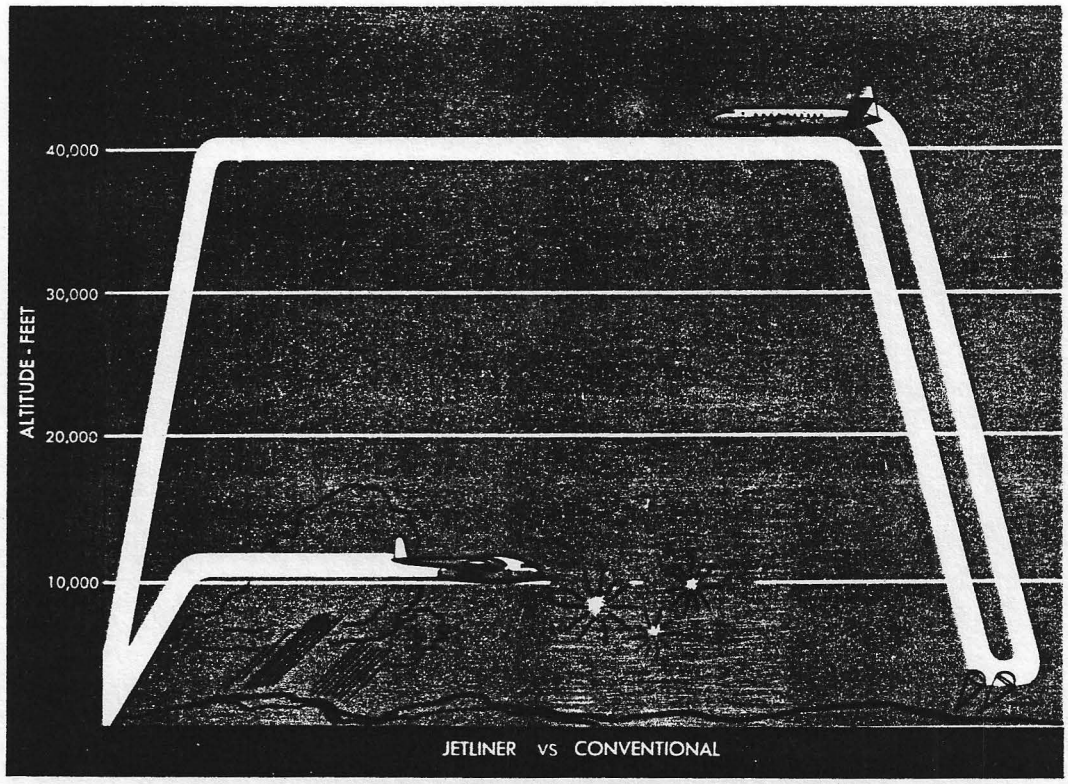
Several basic features of the Avro Jetliner can be exploited to great advantage when the aircraft is used in the role of a Paratroop and Air Supply carrier.

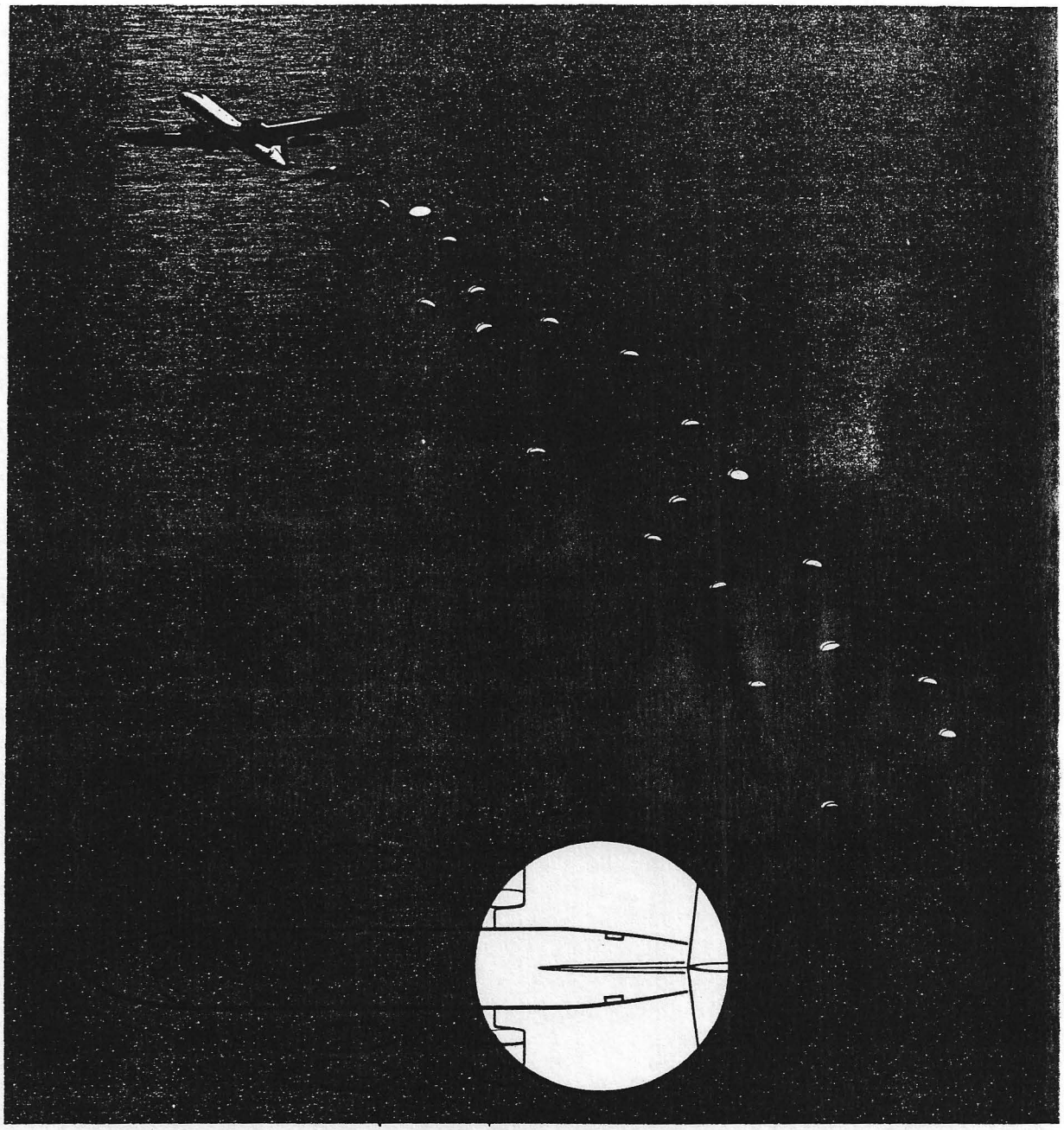
Its rapid climb and high cruising altitude enables this aircraft to proceed to the target area at heights where it is unmolested by enemy ground fire or bad weather conditions.

At the target area, the Avro Paratroop Carrier can discharge its cargo of troops or supplies at conventional air-speed. There is absolutely no danger of paratroopers colliding with the horizontal stabilizer owing to its location high upon the fin. The inboard engines are throttled back, reducing the jet stream to a safe level, and the troops dropped at low flying speed.

After being relieved of its load the Avro Paratroop Carrier can climb away at such speed that the time of exposure to enemy action is reduced to a very minimum.

PARATROOP CARRIER





PARATROOP CARRIER AND SUPPLY AIRCRAFT

AVRO JETLINER

- LEADING PARTICULARS
- THREE VIEW
- MAINTENANCE FEATURES
- A WORD ABOUT AVRO

LEADING PARTICULARS

The basic Jetliner aircraft is a four engined, all metal, low wing monoplane of conventional stressed skin construction. The wing and tail surfaces are fully cantilever and a tricycle landing gear is fitted. The cabin is sealed for pressurization and air conditioning.

Fuel Capacity

Main Tanks	4400	U. S. Gallons
Fuselage Tanks	1250	U. S. Gallons
Tip Tanks (with future development)	700	U. S. Gallons

Placard Speeds

Flaps fully down	200	m. p. h.
Flaps 30° down	250	m. p. h.
Landing gear down	200	m. p. h.

Cabin Pressure Differential

Versions using standard doors	8. 3	p. s. i.
Versions using cargo doors	6. 5	p. s. i.

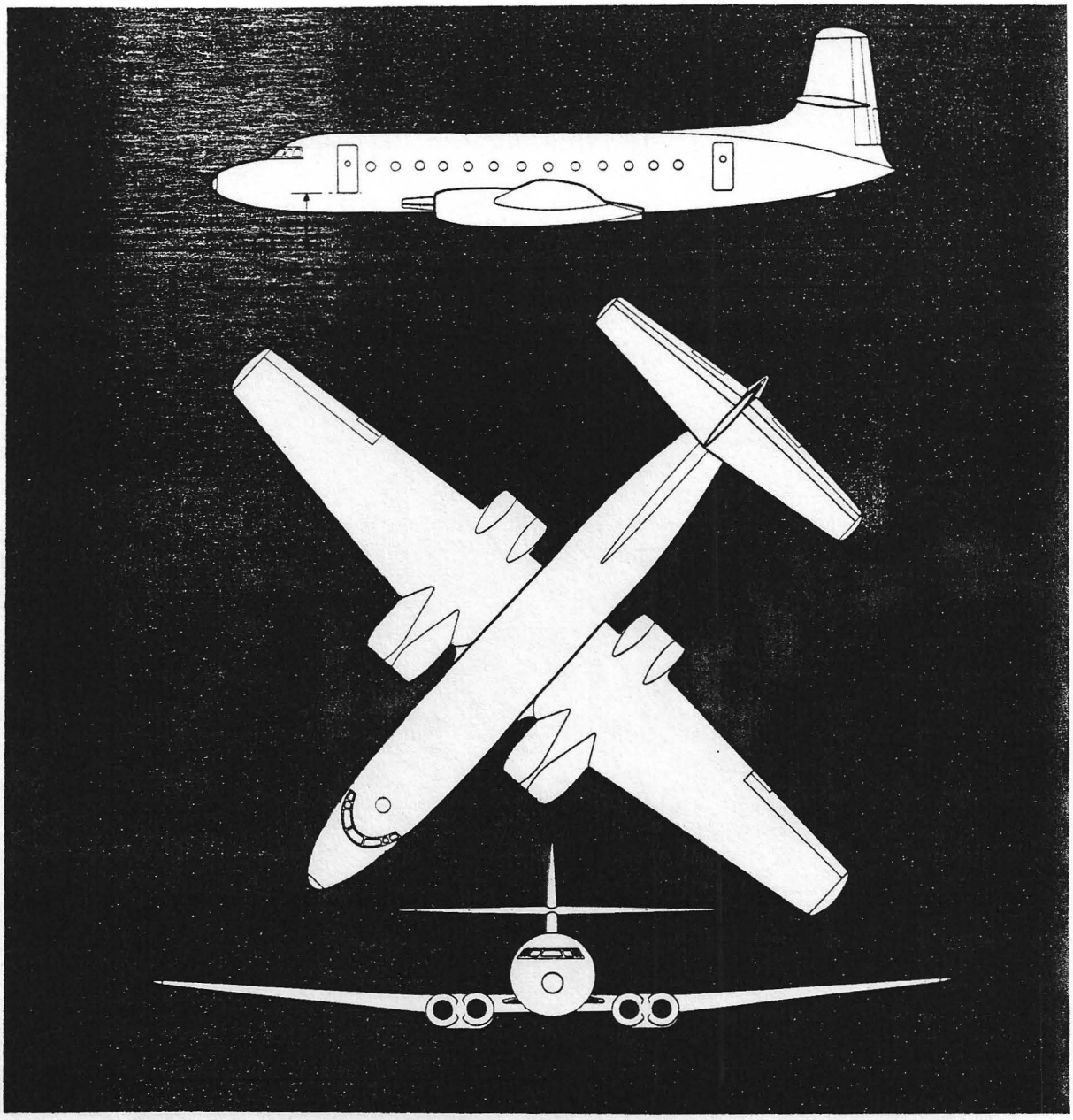
Dimensional Data

Fuselage

Length	84 ft. 5 in.
Height	14 ft. 4 in.
Diameter	10 ft.
Net volume height	7 ft. 10 in.
Cabin ceiling height	6 ft. 10 in.
Passenger door width	2 ft. 6 in.
Cargo door width	4 ft. 2 in.
Door sill height	7 ft. 4 in.

Wing Group

Wing area	1157 sq. ft.
Span (overall)	98 ft. 1 in.
Root chord	14. 25 ft.
Tip chord	7. 11 ft.
Standard mean chord (S. M. C.)	11. 78 ft.
Taper ratio	2. 1
Aspect ratio	8. 3
Incidence	25°
Dihedral	6°
Airfoil - root NACA	23016. 5
tip NACA	23012



GENERAL ARRANGEMENT

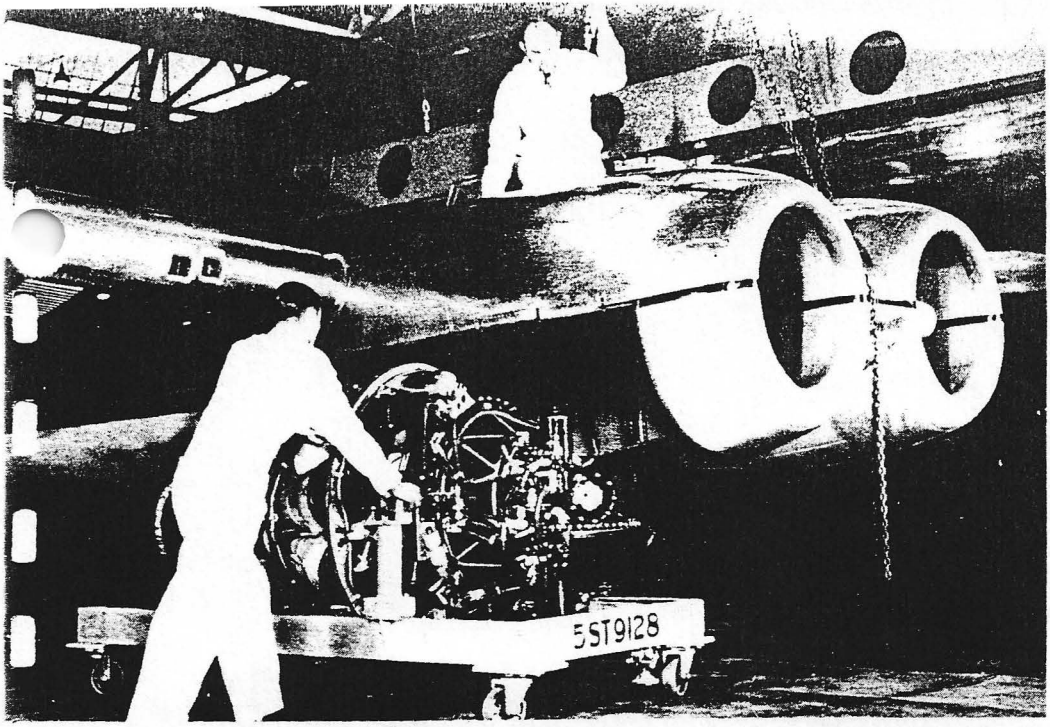
SIMPLIFIED MAINTENANCE

The Avro Jetliner has been designed as an aircraft which can be serviced and maintained with the highest degree of efficiency.

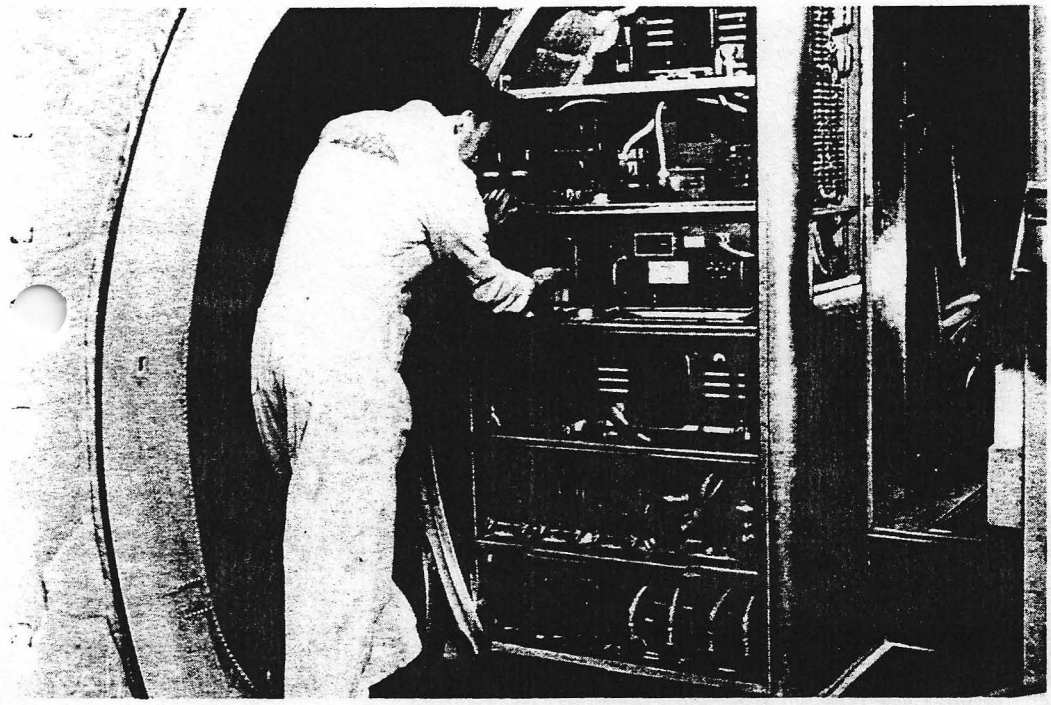
Its low-slung configuration, made possible by the use of turbojets, lends itself to ease of maintenance. Engines, landing gear, flaps, etc., can be serviced from the ground without the necessity of ladders or stands. The lower halves of the engine cowlings are hinged and quickly detachable to permit ready access to the engines and engine accessories.

Elimination of propellers, feathering and governing equipment, engine superchargers, mixture controls, cowl flaps and oil coolers, together with the absence of vibration, permits a marked reduction of maintenance problems normally associated with conventional aircraft.

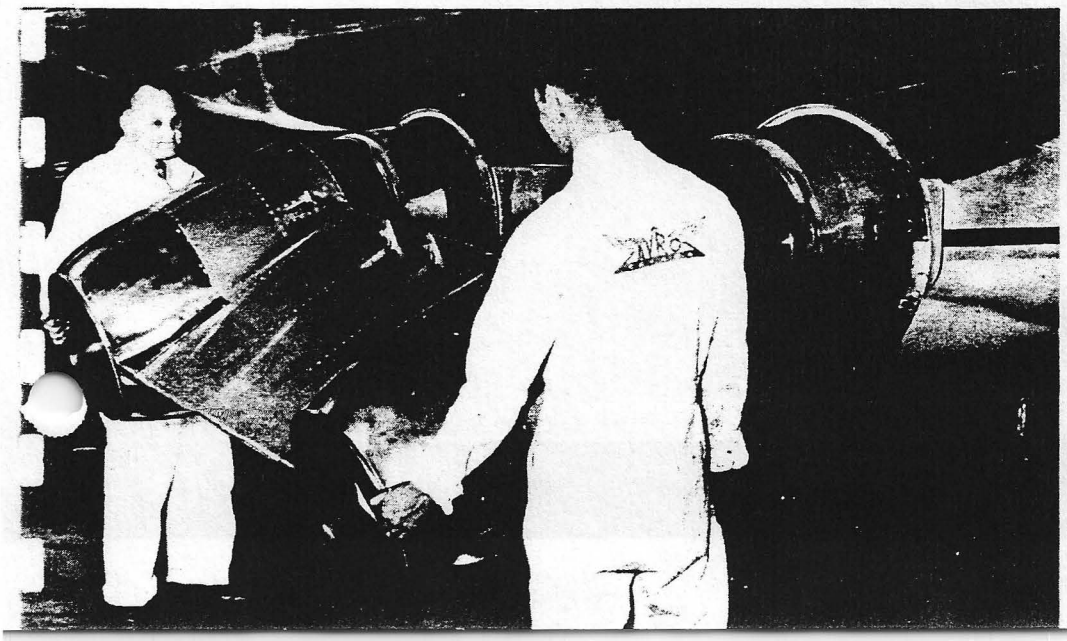
Radio and electronic units are housed in a separate compartment permitting easy access. Hydraulic and electrical control units are centralized in accessories compartments where they can be conveniently serviced.



LOW SLUNG CONFIGURATION
OF THE AIRCRAFT
SIMPLIFIES ENGINE MAINTENANCE



COMPACT RADIO COMPARTMENT
FACILITATES SERVICING



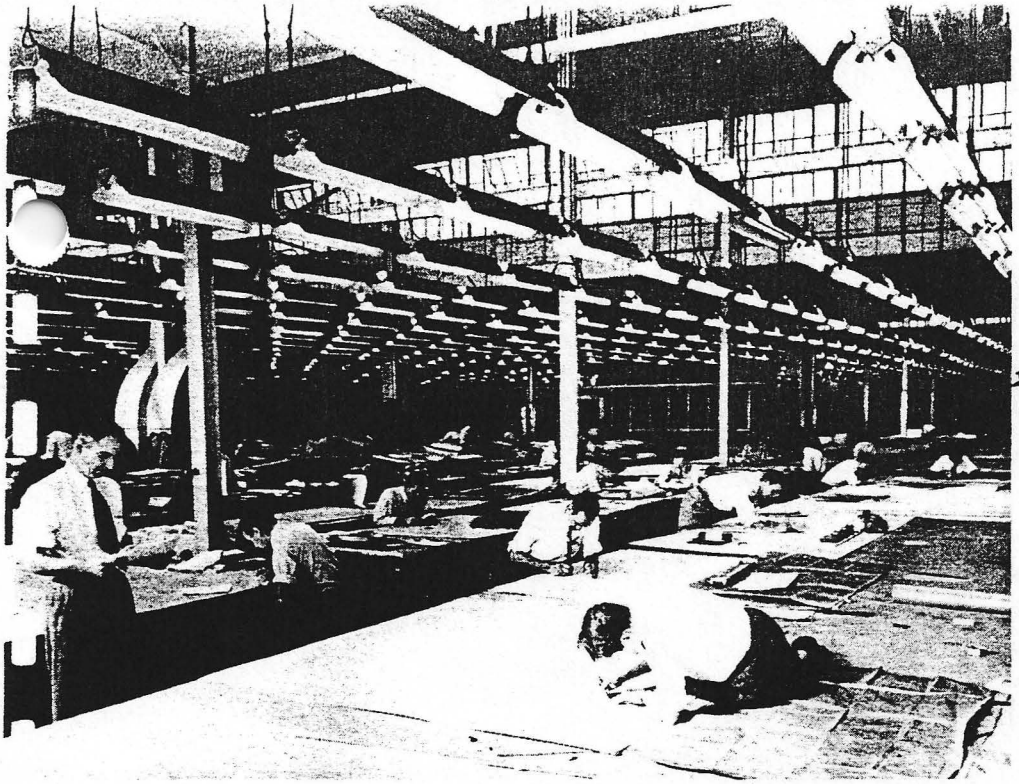
REMOVABLE NACELLE FAIRINGS
PERMIT READY ACCESS
TO JET PIPES

A WORD ABOUT AVRO CANADA

Avro Canada is planning and working to maintain its position as one of the world's leaders in jet aircraft and jet engine development.

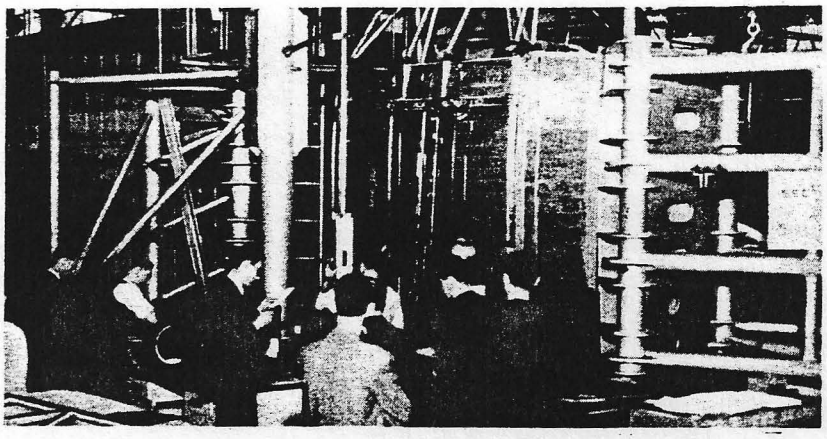
At its modern and rapidly expanding plant at Malton Airport near Toronto, design, research and production facilities are continually being improved and extended to keep pace with ambitious development and production programs for the future. With these facilities, an experienced staff are carrying on intricate tests and originating new projects.

Other Avro Canada products besides the Jetliner have made aviation history. The Orenda, one of the most powerful jet engines in the world, has been produced successfully. Another Avro Canada achievement is the CF-100 long range fighter. Other advanced projects are on the drawing boards.

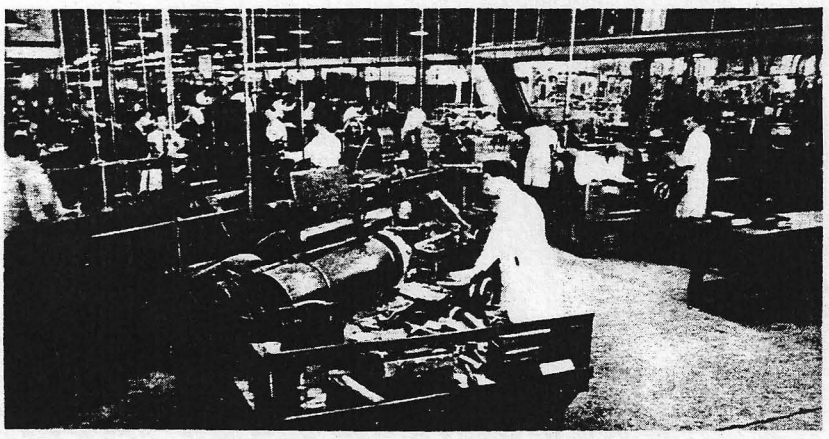


AVRO CANADA

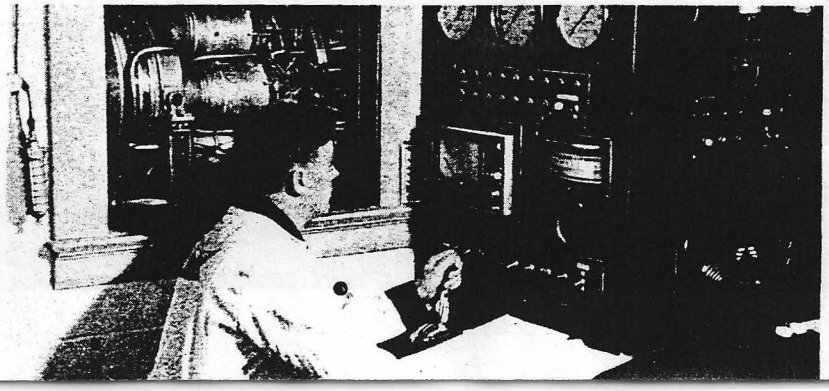
PORTION OF AIRCRAFT
ENGINEERING OFFICE



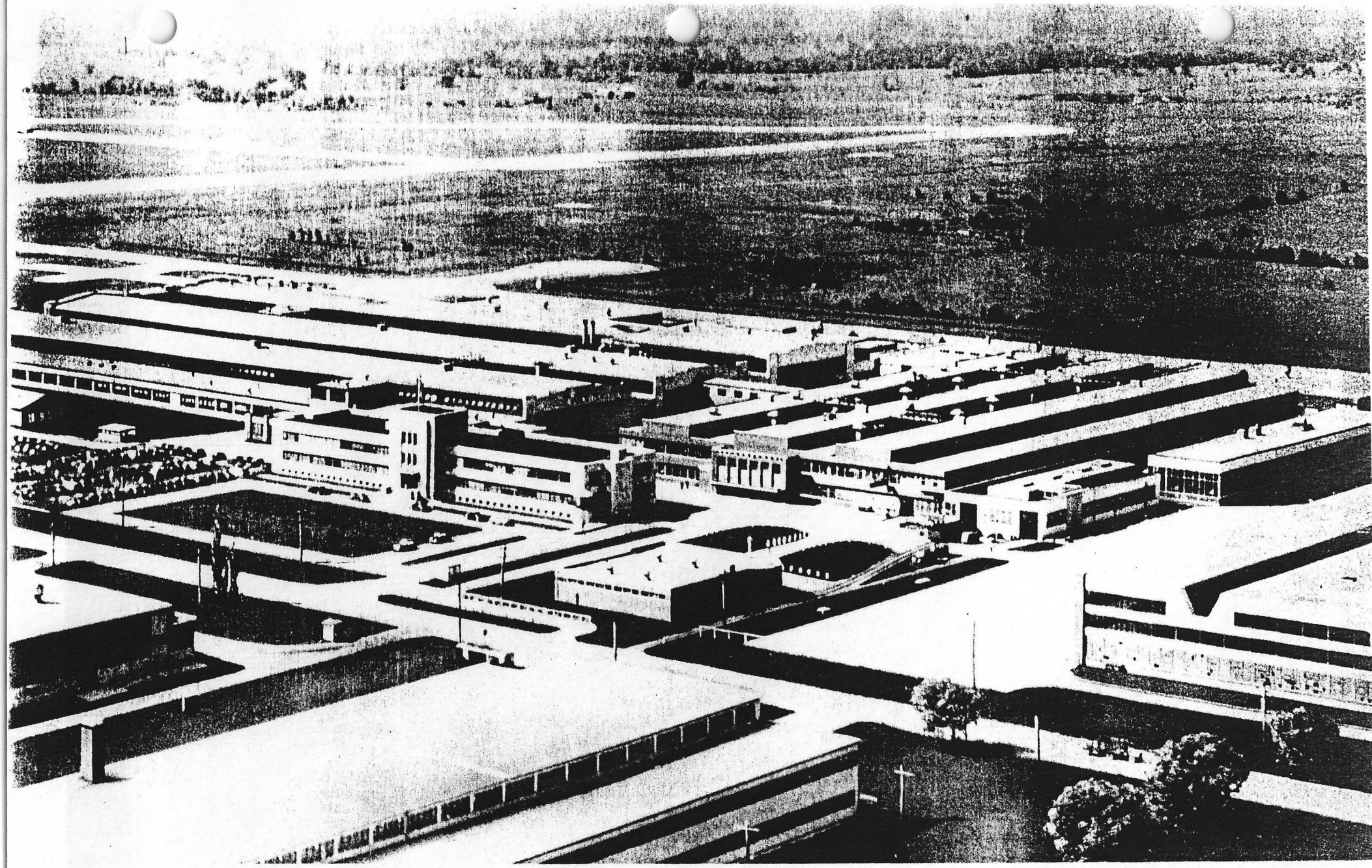
STRUCTURE TESTING
OF AIRCRAFT COMPONENTS



VIEW OF AIRCRAFT
MACHINE SHOP



INSIDE ONE OF THE
GAS TURBINE TEST HOUSES



AVRO CANADA

AVRO CANADA'S MODERN PLANT IS SITUATED
BESIDE TORONTO'S MUNICIPAL AIRPORT AT MALTON.
ALL ACTIVITIES FROM DESIGN TO FLIGHT TESTING
ARE CONCENTRATED IN ONE LARGE AREA