

Cost Effective Flight Testing

Do you need flight testing for

System Integration Test?
Technique Evaluation?
Equipment Analysis?

Then consider a Georgia Tech
Airborne Electronics Laboratory
to gain:

- PROOF OF PRINCIPLE
- PROOF OF DESIGN
- AIRBORNE MEASUREMENTS
- PRE-EVALUATION CHECK-OUT
IN AN AIRBORNE LABORATORY
ENVIRONMENT

For additional information,
please contact:

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Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia 30332
Phone (404) 424-9666



Georgia Tech's **AIRBORNE ELECTRONICS LABORATORIES**

EXPERIENCED • RELIABLE • ECONOMICAL

Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia 30332

AIRBORNE OPERATIONS



Operations can be staged from any convenient location within the continental United States.

Both airplanes are fully instrumented for all-weather flying. They are operated as PUBLIC AIRCRAFT in accordance with FAA General Operating Rules, FAR Part 91 and are suited for operation from both civil and military airports. As a state-owned aircraft on official business, unrestricted operation is permitted at most military installations.

Appropriate liability, property damage and hull coverage insurance policies are maintained. In addition, hazardous duty insurance is provided for all scientific crew members as well as the flight crew.

COST BASIS



The Georgia Institute of Technology is prepared to perform work pursuant to both Government and industrial contracts. The rates applicable to the airborne laboratories are based upon actual costs (no-fee or profit) as accepted by the Defense Contract Audit Agency.

The Airborne Electronics Laboratories are operated as research facilities of Georgia Tech. They are administered by the Systems Engineering Laboratory of the Engineering Experiment Station.

FLIGHT TEST CAPABILITIES AND EXPERIENCE

The Engineering Experiment Station (EES) at the Georgia Institute of Technology is a client-oriented applied research organization employing approximately 550 engineers, scientists and technicians, who work full time on applied research and development contracts.

EES is fully qualified to provide a professional flight test capability. The combination of an experienced research team and a Georgia Tech Airborne Electronics Laboratory offers a unique, cost-effective way of performing active system development and testing.

EES has been involved with flight test evaluations for over a decade. Through numerous programs, experience has been gained with flight test operations of electronics equipment at most Department of Defense ranges as well as at many other test locations.

The aircraft have proven extremely reliable. The first test program using a Tech Airborne Electronics Laboratory was conducted in 1979. During that program, 65 out of 66 missions were flown as scheduled.

Dedicated researchers are available with in-depth experience in all stages of flight tests including development of test plans, aircraft modification, equipment installation, and data collection, analysis, evaluation and reporting.

SPECIFICATIONS

Wing Span

Length

Height

Empty Weight

Gross Weight

Maximum Speed

Cruising Speed

Initial Climb

**Approximate Maximum Test Altitude
Range**



T-29B

92 ft.

75 ft.

27 ft.

29,912 lbs.

43,575 lbs.

250 knots

200 knots

1,230 ft./min.

16,000 ft. msl

1,300 nmi

C-131B

106 ft.

79 ft.

28 ft.

32,000 lbs.

53,200 lbs.

295 knots

220 knots

1,230 ft./min.

20,000 ft. msl

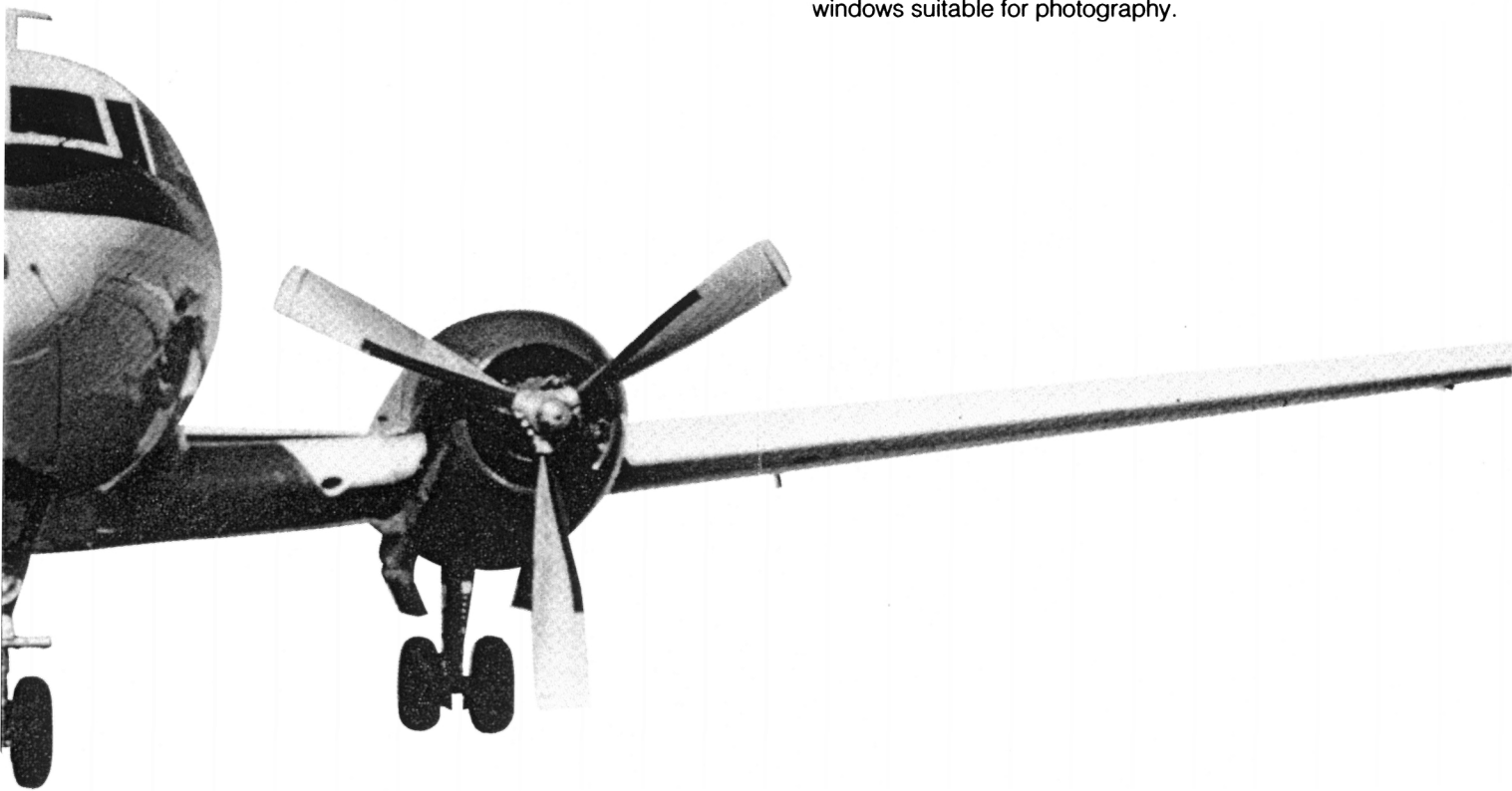
1,300 nmi

PHYSICAL CHARACTERISTICS

The airborne platforms are: a modified T-29B (Convair 240-27) and a recently acquired modified C-131B (Convair 340). These are twin engine, cargo type, pressurized aircraft.

These aircraft are sufficiently large to provide a laboratory environment for a wide variety of flight test purposes and yet small enough for economical operation. General purpose equipment racks provide ample space for installation of complex electronic systems, data recorders, and a variety of special purpose installations.

Each aircraft has a turbine-driven auxiliary power unit supplying both 28V DC (up to 500 A) and 400 Hz AC (up to 30 KVA). Each aircraft has a large radome located on the underside of the fuselage near the forward end of the cabin. Dimensions are approximately 6 x 7 x 3 feet. Another large radome is located on the nose structure of the T-29. At its base it is approximately 58 inches wide and 52 inches high, and its depth is 35 inches. The C-131 has hard points under both wings for the mounting of pods, fixtures for mounting a side-looking radar antenna underneath and on the side, and a large cargo door. On its underside are two optical glass windows suitable for photography.



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