RG TECHNILAB

Since 25 YEARS

Aerospace

Training Aids - Special Projects

OUR EXPERTISE AT YOUR SERVICE

IMPROVE YOUR TRAINING ENVIRONMENT

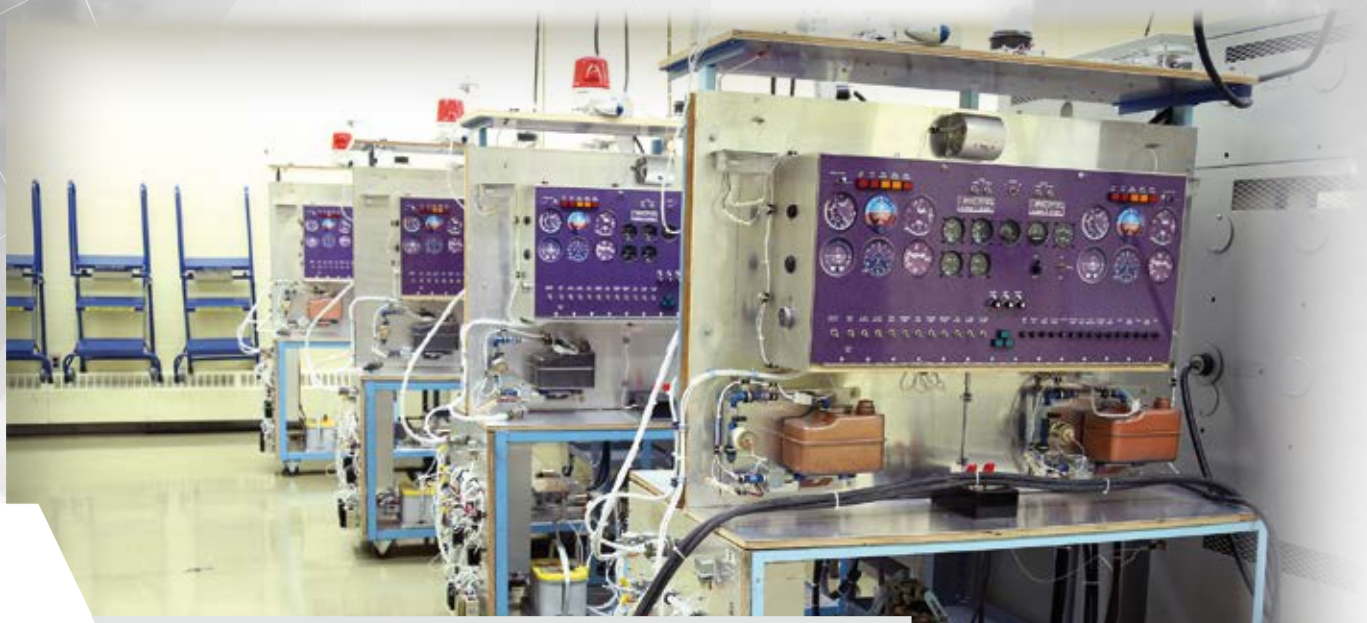


Photo taken in classrooms of École nationale d'aérotechnique.

The training of aeronautical or aerospace technicians on aircrafts is essential, but early in their training, it is safer and more efficient to provide an environment that makes various components more accessible, thus maximizing the training time available.

- Our educational aircraft electrical generation systems enables the instructor to perform **demonstrations and training** in an **ergonomic environment** and easy to access, thanks to the real aircraft components used to build these training aids.
- Students have an access free of obstruction to all the components of a **complete aircraft electrical system in action** so they can **perform all the required tests in a safe and efficient context**.

Founded in 1964, the École nationale d'aérotechnique of Cégep Édouard-Montpetit is the most important aerotechnical institue in North America. The training equipment of electrical generation single-engine, twin-engine or dual (single/twin) piston engines has been developed by teachers of the École nationale d'aérotechnique and experienced by students as part of classes in avionics. For over five years, future avionic and maintenance technicians trained at the École nationale d'aérotechnique have been using these panels during their college training. ***ena.cegepmontpetit.ca***

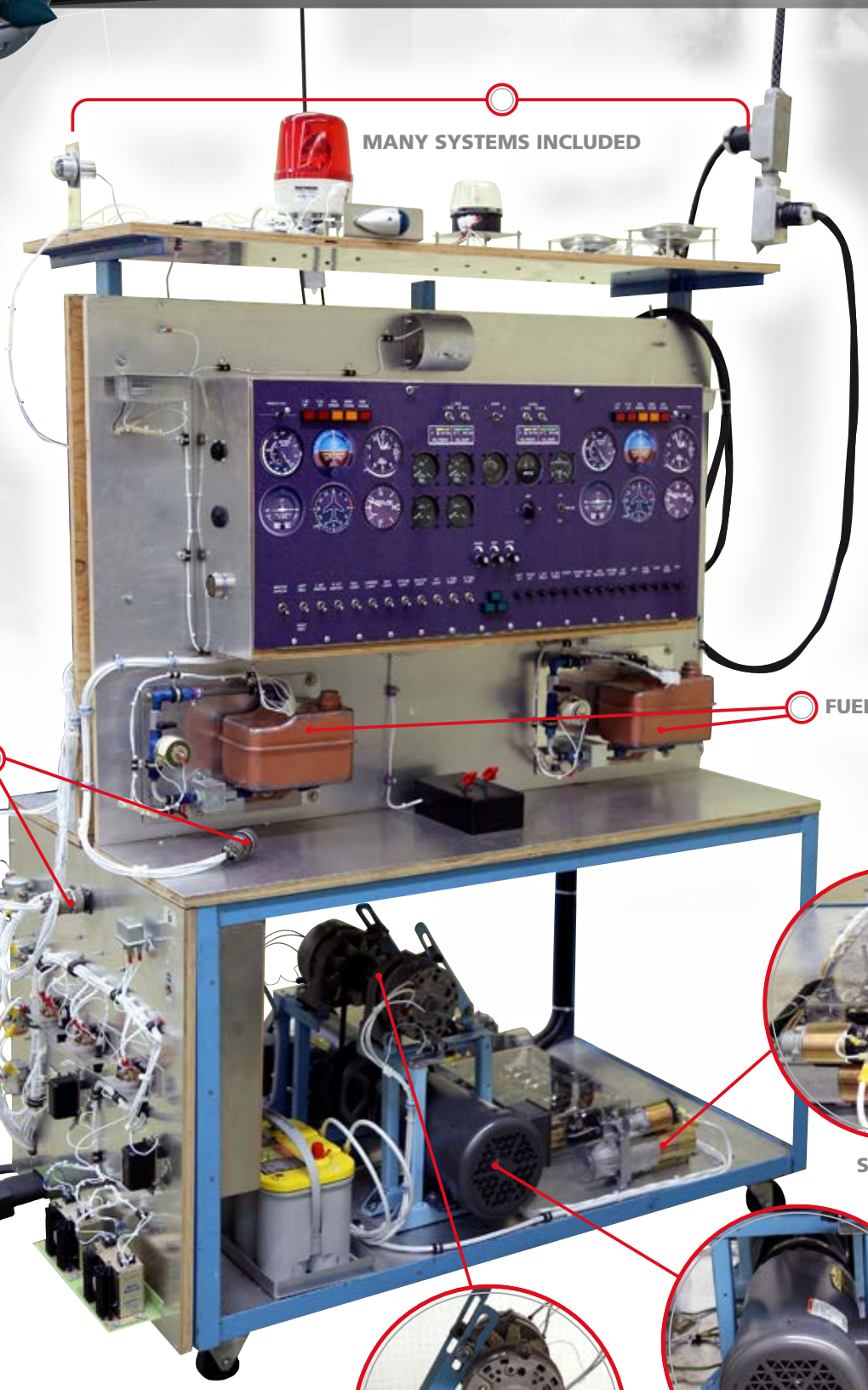
IMPROVE YOUR TRAINING ENVIRONMENT

Photo taken in classrooms of École nationale d'aérotechnique.

- **Many systems included:** Beacon lights, Nav lights, Landing lights, Taxi lights, Strobe lights, Map lights, Dome lights, Stall protection, Instrument lights.
- Our training panels help **achieve savings of space and costly equipments.** They enhance the **efficiency and quality of the training provided**.

Photo taken in classrooms of École nationale d'aérotechnique.

EDUCATIONAL AIRCRAFT ELECTRICAL GENERATION SYSTEM SINGLE-TWIN OR DUAL PISTON ENGINE

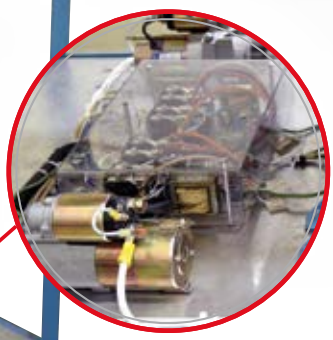


MANY SYSTEMS INCLUDED

HIGH CURRENT WIRING CONNECTION OPTION SINGLE/TWIN ENGINES

FUEL SYSTEMS

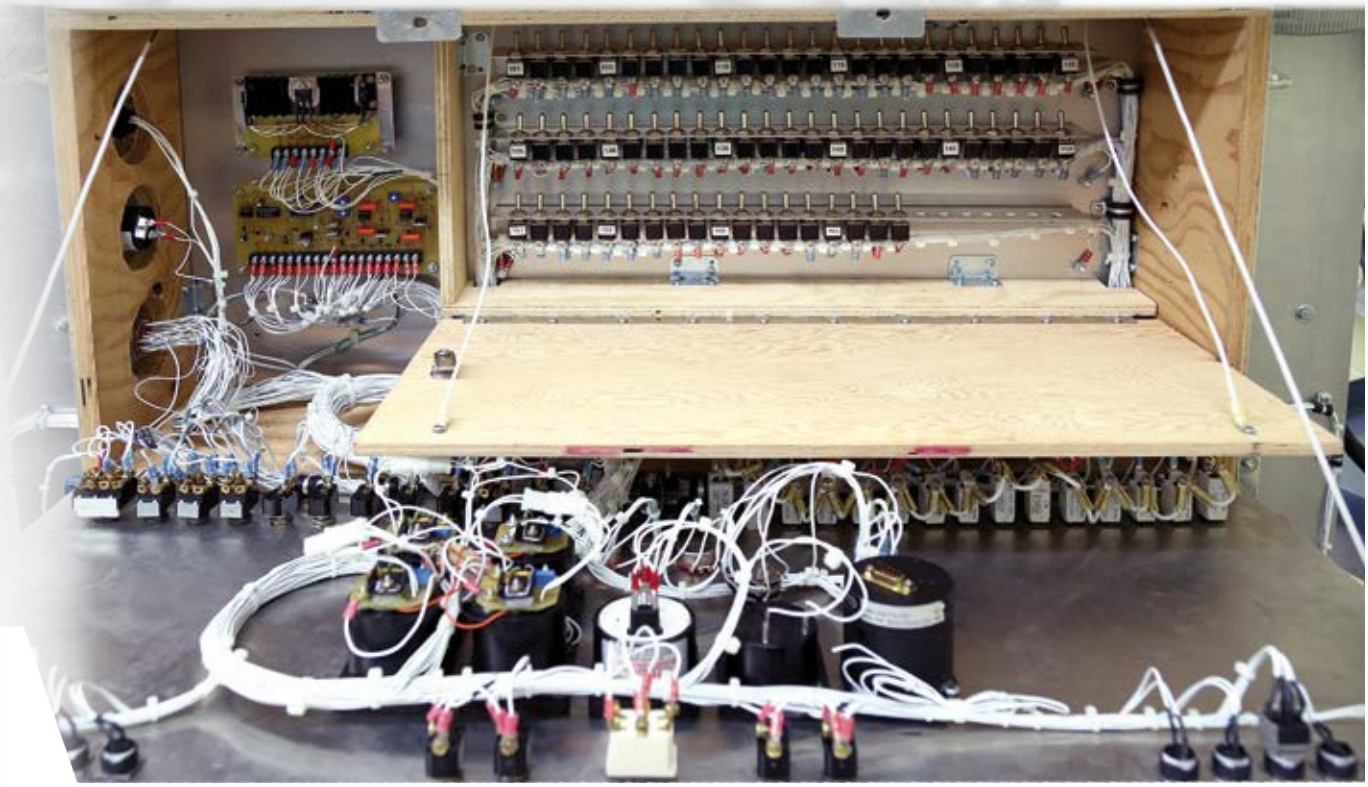
GROUND POWER RECEPTACLE



STARTER

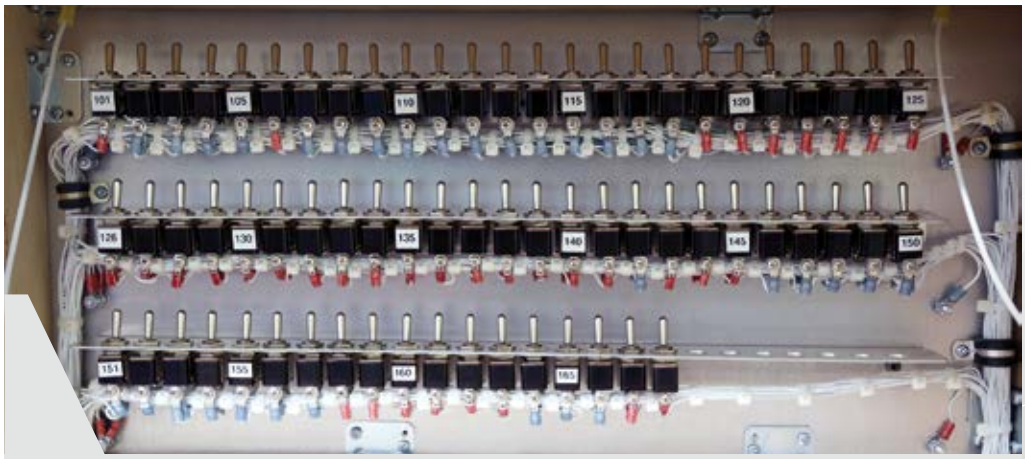
MOTOR

ALTERNATOR



- The **hidden module of «non-destructive» snags** enables the instructor to apply multiple fault **(well documented in the information package provided to the instructor)** in order to provide in depth **training on efficient trouble shooting techniques and methods.**
- Following a troubleshooting session, **the system can be restored to it's «faultless» condition in seconds. Real snags can also be applied by the use of a bank of faulty components.**
- Our **twin engine electrical generation system** can switch from a **«separate regulation» control (Cessna type)** to a **«parallel regulation» control (Piper type)** by the simple use of a selector switch.

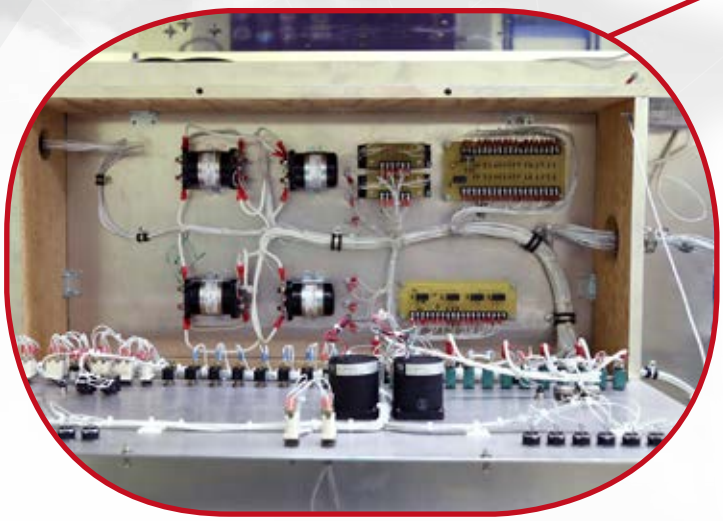
With our training module, students can learn, practice, troubleshoot on both type of electrical generation control systems used on twin engines aircrafts.

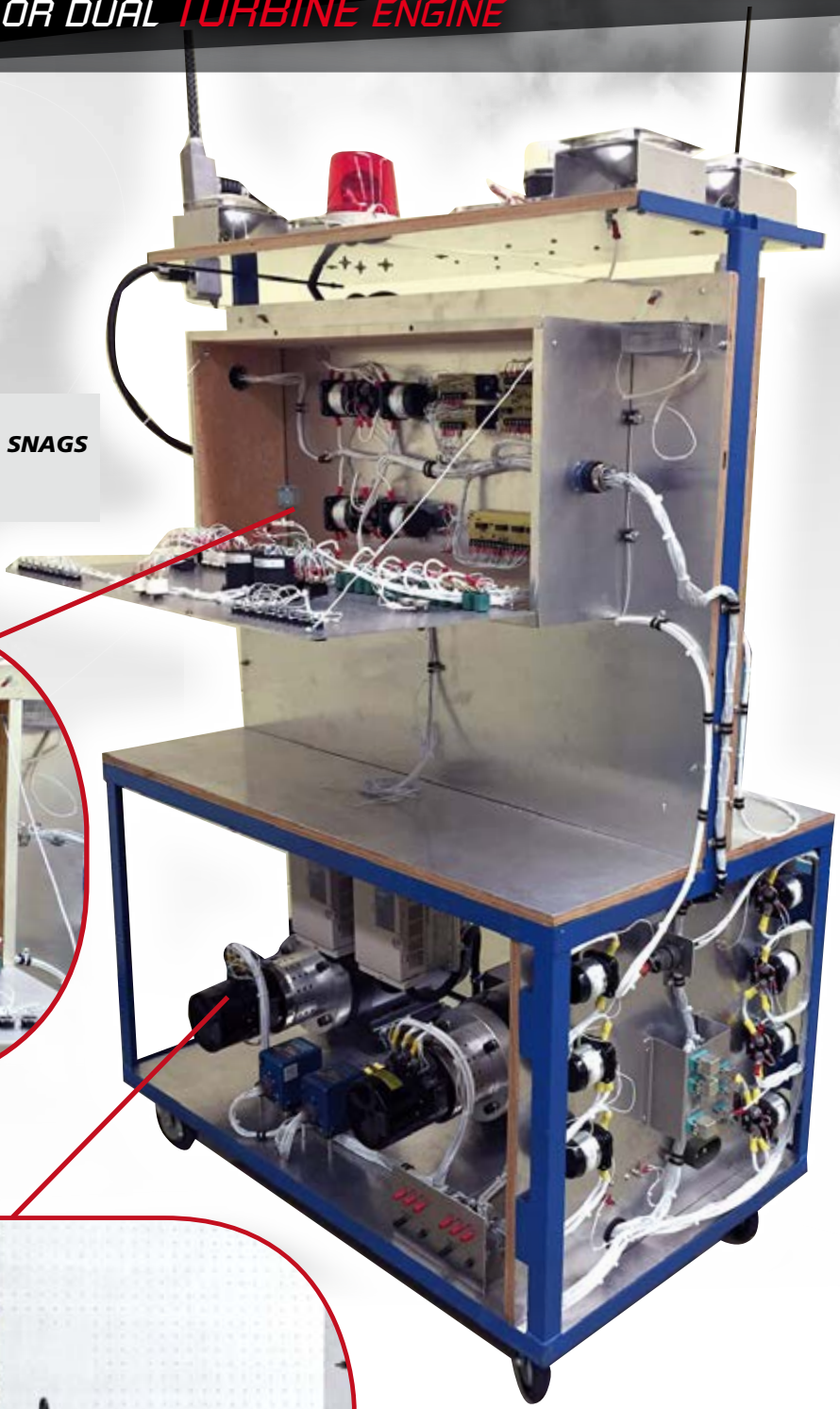


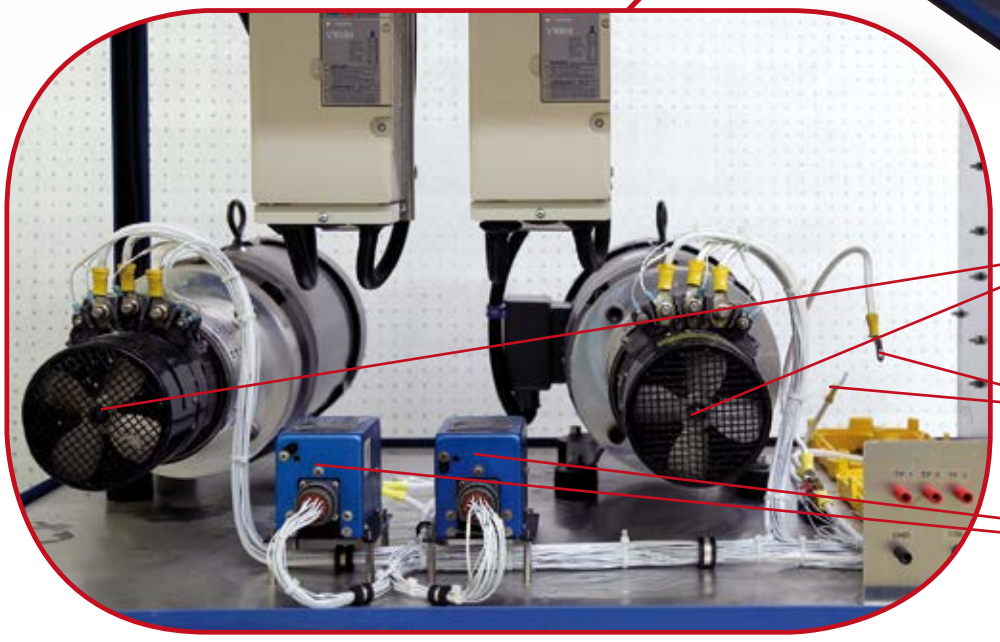
• HIDDEN MODULE OF 160 «NON-DESTRUCTIVE» SNAGS TO BE SELECTED BY THE INSTRUCTOR.

EDUCATIONAL AIRCRAFT ELECTRICAL GENERATION SYSTEM SINGLE-TWIN OR DUAL TURBINE ENGINE

- ***HIDDEN MODULE OF 100 «NON-DESTRUCTIVE» SNAGS TO BE SELECTED BY THE INSTRUCTOR.***



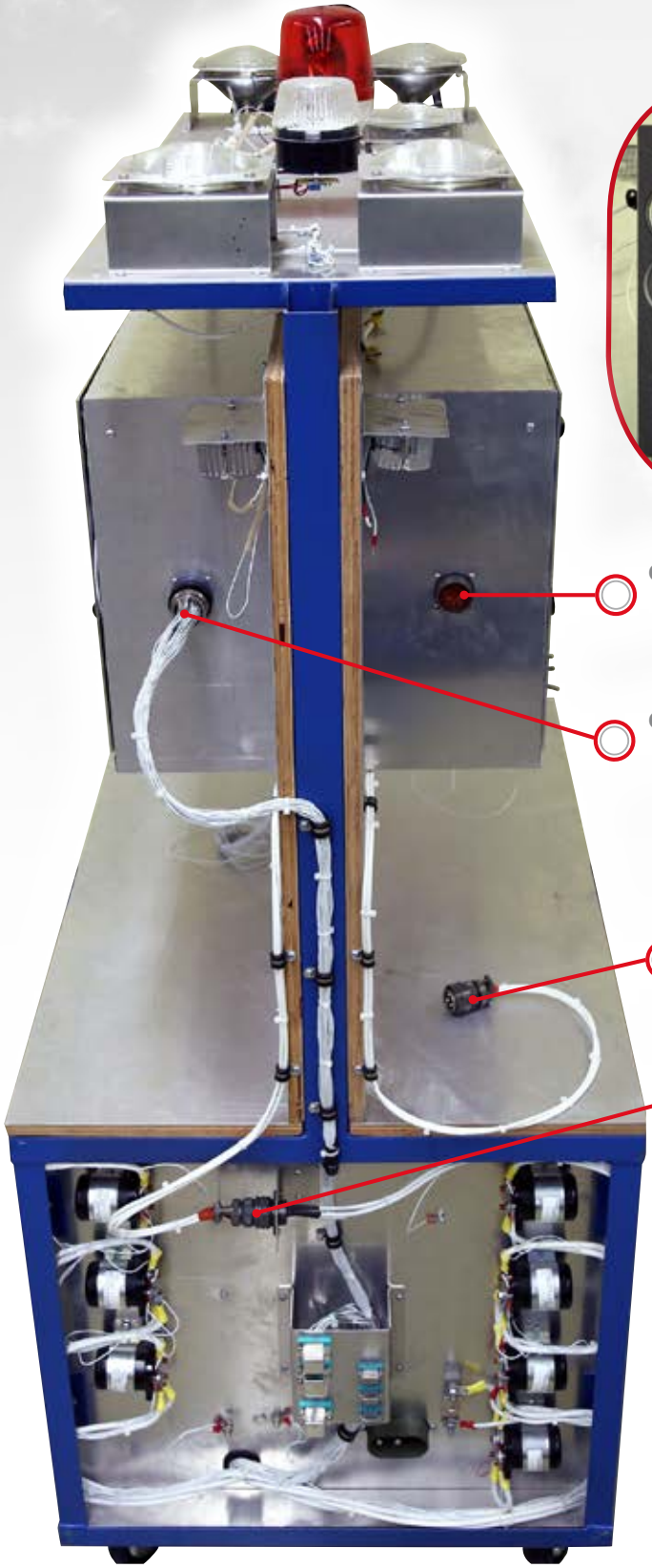




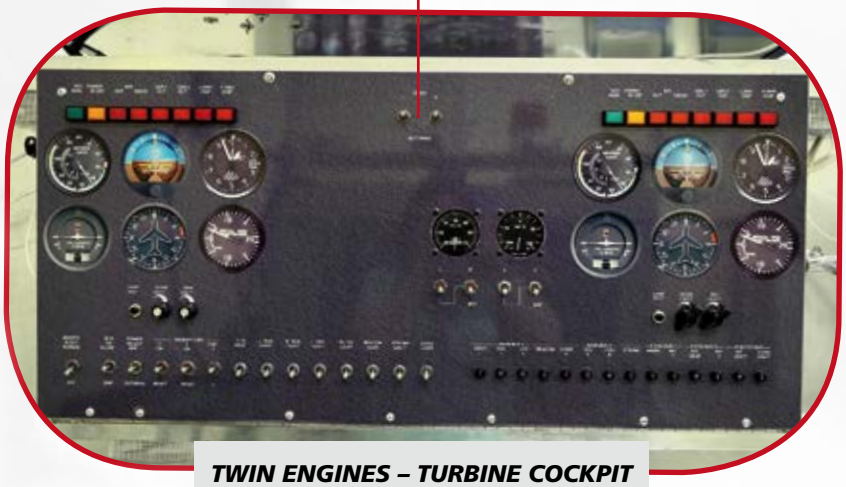
TURBINE SIMULATION ROTATING SPEED : 12 000 RPM

BATTERY CONNECTOR WIRE

GENERATOR CONTROL UNIT (GCU)



STARTER CONTROL –
TURBINE LEFT AND RIGHT



TWIN ENGINES – TURBINE COCKPIT

COCKPIT CONTROLS
SINGLE ENGINE

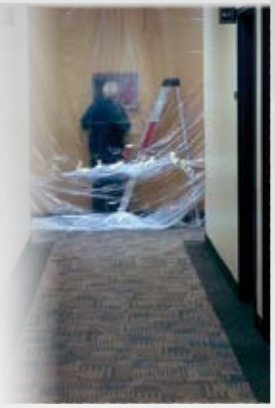
COCKPIT CONTROLS
TWIN ENGINES

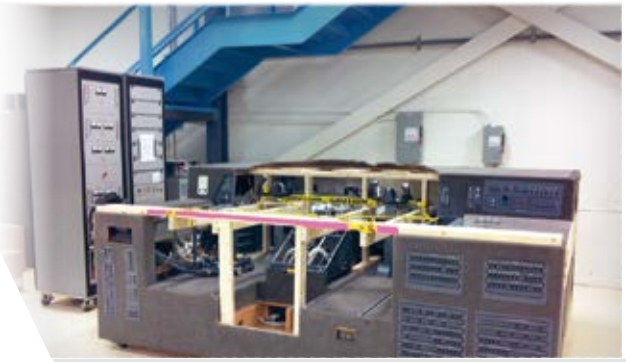
HIGH
CURRENT WIRING
SINGLE ENGINE
TURBINE

HIGH
CURRENT WIRING
TWIN ENGINES
TURBINE

CONTROL
RELAYS

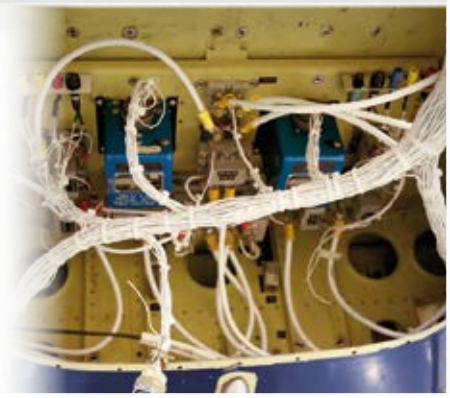
RELOCATION «KEY-IN-HAND» OF A FULLY FUNCTIONAL BOMBARDIER CHALLENGER CL 600 / 601 «COCKPIT SYSTEMS TRAINER» SIMULATOR





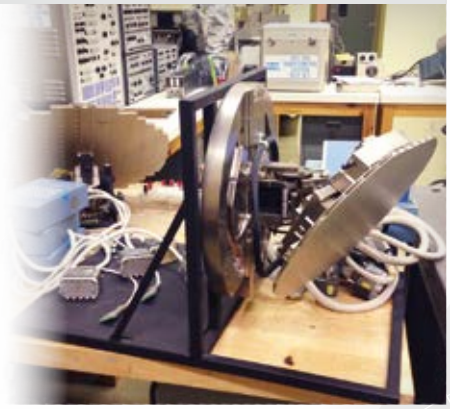
Photos taken during the relocation of a CAE simulator to École nationale d'aérotechnique in 2012.

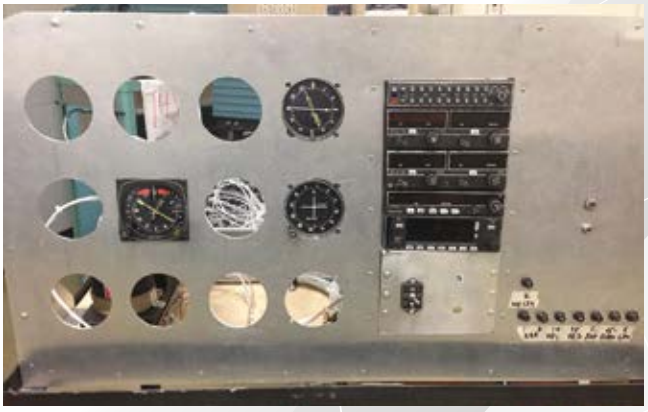
INSTALLATION ON A HELICOPTER STRUCTURE OF A FULLY FUNCTIONAL EDUCATIONAL TWIN TURBINE ENGINE ELECTRICAL GENERATION SYSTEM



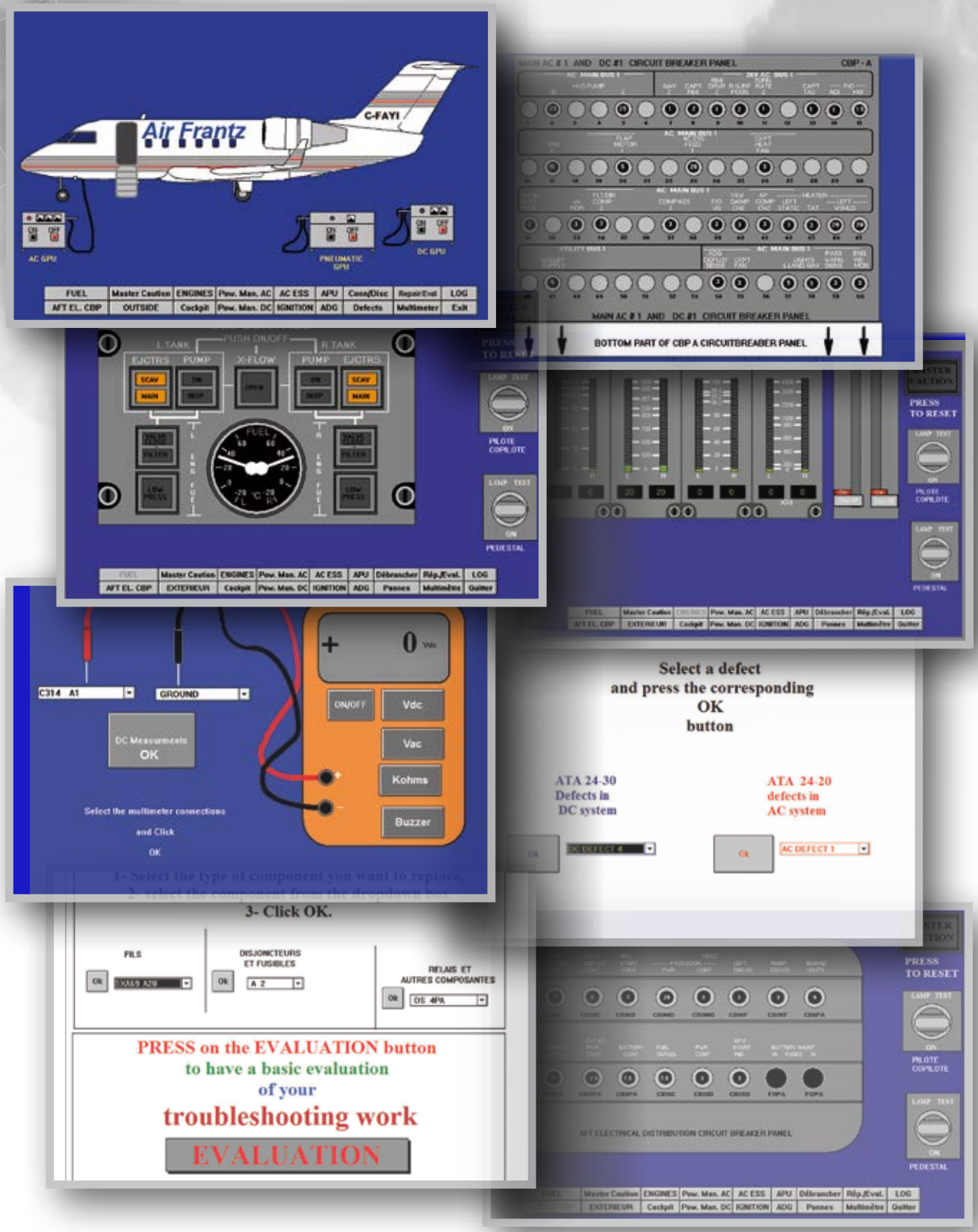
- This system allows to operate this turbine engine electrical generation system **inside a building** since the **original (jetfuel) turbines** have been **replaced by electrical motors (with rotating speed of 12 000 rpm).**
- A hidden module of « non-destructive » snags, accessed only by the instructor allows for troubleshooting activities that **improves the skills of the students and technicians.**
- The **training on these systems is now much safer** and efficient, since these activities are no longer required to be performed outdoors with turbine engines running.
- No fuel costs to run this training helicopter.

TRAINING AIDS BUILT TO YOUR SPECIFICATIONS





TRAINING SOFTWARE : AIRCRAFT ELECTRICAL SYSTEM



TRAINING SOFTWARE : AIRCRAFT VARIOUS SYSTEMS

RG Technilab
info@rgtechnilab.com
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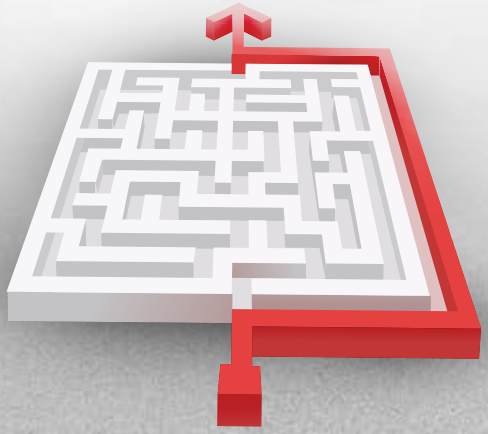
Training Aids - Special Projects



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