

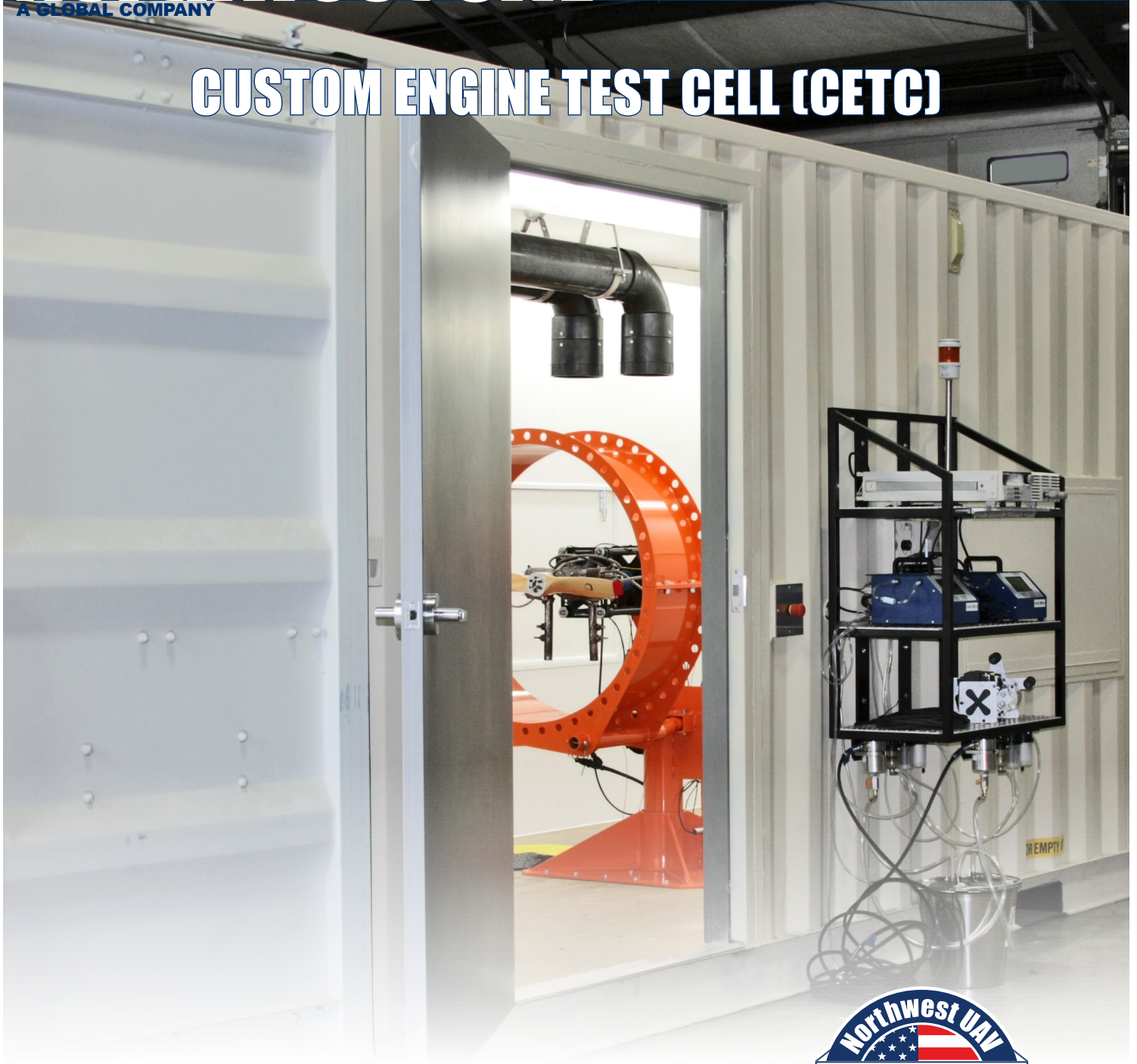


Northwest UAV

A GLOBAL COMPANY

PROPULSION & PAYLOAD
INTEGRATION SPECIALISTS

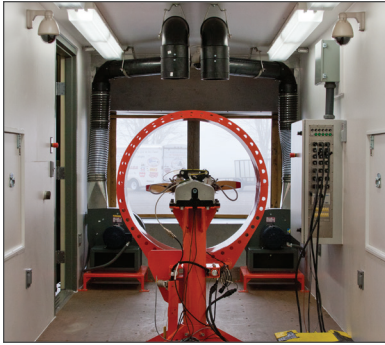
CUSTOM ENGINE TEST CELL (CETC)



Where Precision and Reliability Soar!

From single components to entire propulsion systems – Our main focus is in propulsion solutions, modular components and support solutions for any UAV or unmanned system.

The Custom Engine Test Cell (CETC) is completely self-contained and customizable to meet your specific requirements. The CETC is available in twenty or forty foot container lengths and includes everything needed to test a UAV engine.



Custom CETC Capabilities

The following is a list of several of the tests that can be performed with the CETC:

- Engine durability
- Engine endurance
- Engine performance
- FAR 33 endurance

CETC Custom Built for your Application

NWUAV's CETC can be custom built for your specific application and to your requirements.

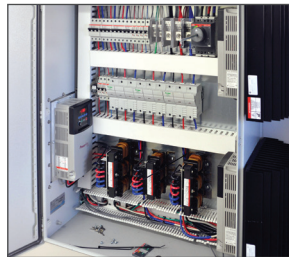
We offer delivery and setup worldwide and will train your personnel how to perform engine testing with the CETC. **The CETC is approved for export.**

Purchase or Lease the CETC

On-site turn-key engine test solutions, with **NWUAV operators available.**

HARDWARE

The CETC is completely contained and has wall sound dampening insulation. The CETC can be housed inside or outside of your facility with the appropriate ductwork. For larger airframes optional hatches can be provided which allow engine testing with the entire airframe.



ELECTRONICS & SOFTWARE

The CETC Data Acquisition (DAQ) system includes the NWUAV operator control panel with selectable sample rates.



SYSTEM COMPONENTS

Fuel System – The fuel system is low pressure gravity feed system compatible for use with gasoline and heavy-fuels.

Cooling System – The engine cooling system consists of two heavy duty blowers.

Exhaust – The purpose of the fan is to remove the exhaust from the CETC.

Exhaust Gas Analyzer System (optional) – The gas analyzer system is capable of measuring four gases; carbon monoxide (CO), carbon dioxide (CO₂), hydrocarbons (HC), and oxygen (O₂), and allows accurate tuning.

Camera System – The camera system consists of four pan tilt zoom (PTZ) cameras and a DVR.

Safety System – The CETC is equipped with emergency stops that disable fuel and ignition to the engine.

Remote Operation – Allows control of the CETC from virtually any location.

MEASUREMENT CAPABILITIES

- Torque
- Fuel Flow
- Ambient Pressure
- Ambient Temperature
- Relative Humidity
- Exhaust Gas Temperature
- Cylinder Head Temperature
- Engine Speed (RPM)
- Brake Specific Fuel Consumption (BSFC)
- Horsepower

Optional Measurement Capabilities

- Thrust
- In-Cylinder Pressure Mapping
- Exhaust Gas Carbon Monoxide

OTHER CAPABILITIES

Generator Electronic Loading

Optional Build

- Side Hatches*

* Hatches in the side of the CETC allow the customer to place their entire airframe into the CETC for testing.



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