

# Keeping things cool at Signature Flight Support

**ECM Technologies demonstrates  
improvement averaging 17% savings.**



## Overview

Built in 1981, this building has served its entire life as a passenger terminal for private aircraft. This building has a lot of glass, including a glass roof that spans over the main 18ft tall entry foyer area. The operation heat load on this building is extremely high due to the amount of passenger traffic and that it operates 24hrs a day, 365 days per year.

ECM Technologies site surveyed HVAC equipment on four Florida flight support buildings which prompted a recommendation that Signature implement a rigorous maintenance program. Signature would greatly benefit from less equipment downtime, making clients more comfortable, and ultimately will benefit from reduced operating costs.

ECM Technologies included four sites throughout Florida in the overall pilot program that included a thorough cross-section of equipment types. The Tampa data is included.

## Savings

Estimated annual energy reduction



**41,090 kWh**

CO2 equivalent savings



**29.1 metric tons**

Estimated annual carbon reduction



**3,277 gallons  
of gasoline**

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It's tough to focus on energy cost reduction measures when our equipment is struggling to reliably operate each day. ECM Technologies site surveys were invaluable in identifying numerous issues that were quickly resolved and on top of that we got energy savings from ThermaClear®.

Operations Supervisor

## Proving the efficacy of ThermaClear®

Unit Type

**80-Ton AquaSnap®  
Air-cooled chiller**


Conditioned Space

**51,200 ft<sup>2</sup>**

Installed by



### Critical cooling needs

Manage varying high internal thermal loads coupled with Florida's solar heat gain and high humidity.

Working with aged equipment throughout sites, requiring repairs before ThermaClear® installations.

### Performance Measurement & Verification

ThermaClear® performance was validated through comprehensive, real-time monitoring throughout ECM Technologies research and development process. Our monitoring system adhered to International Performance Measurement and Verification Protocol standards to capture key indoor and outdoor metrics like temperature, humidity, chilled water / air flow and energy consumption. Data was recorded every minute over an extended testing period, ranging between 3 and 9 months per test, to capture both pre- and post-treatment data.

### Signature Tampa FBO - kW/ton versus Outside Air Temperature

