

CASE HISTORY PROJECT SUMMARY

Charleston Air Force Base Buildings Charleston, SC



PROBLEM: Commanding General of the AFB directed that the central heating plant be shut down after the winter heating season was over. Unfortunately this resulted in the loss of hot water being used to provide reheat for dehumidification during the cooling season.

SOLUTION: Carolina Heat Pipe, Inc. was authorized to incorporate controllable Thermosyphon Run Around Heat Pipe (TRAHP™) systems into the air handlers serving the following buildings:

Collocated Clubs	Building 532 Hanger Cubicle
Aero Med Facility	VOQ Building 362
Several Barracks Buildings	Building 548 AGE Equipment Shop
Several Dorm Buildings	C-17 Life Support System Building
Squadron Ops Facility	AMU Buildings #3 & #4

RESULTS: These passive energy efficient systems reduced the central plant chiller energy load while providing free reheat for dehumidification during the cooling season.

PAYBACK PERIOD: 2.45 years

RETURN ON INVESTMENT (ROI): 41%