



Facility Factsheet

Component Research Air Facility (CRAF)



Description:

The CRAF is used to provide simulated flight conditions for R&D programs in the turbine engine, advanced propulsion and fuel technology areas. It supports seven research cells in Buildings 18C, 18E and 490 as well as the Compressor Research Facility. It has three reciprocating compressors providing a total of 7.5 lbm/sec of air at 315 psia. It has two Centac compressors providing a total of 30 lbm/sec of air at 750 psia. The air from the reciprocating and Centac compressors can be heated in a process air heater to provide up to 30 lbm/sec of air at temperatures from 250 deg F to 1150 deg F to selected research areas. In addition, the Air Facility has four turbo-exhausters, each with an exhaust capability of 36,000 cfm at a minimum pressure of 11-inches mercury (25,000 ft altitude). The exhausters can be utilized together to obtain flow rates and pressures from 36,000 cfm at 4 inches mercury (46,000 ft altitude) to over 75,000 cfm at 11 inches mercury. The facility utilizes more than 20,000 HP of equipment.



Purpose:

Provide simulated flight conditions for turbine engine, advanced propulsion and combustion technology programs. This facility also supports the Augmentor Research, Compressor Research and Turbine Aerothermal basic research facilities.

Products:

Creation of the simulated flight conditions necessary for R&D programs in the turbine engine, advanced propulsion and combustion technology areas.

Availability:

Available to support U.S. Government agency use, DoD contractors and dual use/defense conversion use in conjunction with operations in the facilities described in the "Purpose."