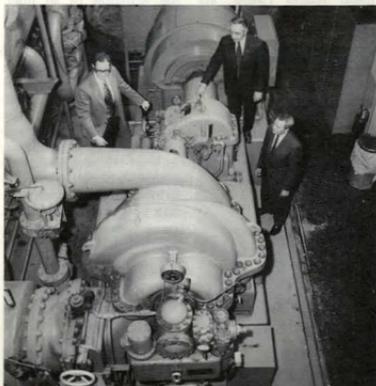


# Keeping watch over research systems



James F. Liebel (left), Ronald J. Simmerly and Walter E. Wilhelm inspect the Worthington refrigeration equipment in the PSL Equipment Building.



From left to right: Charles A. Robertson, James C. DeRaimo and Robert F. Hanlon discuss improvements to a high pressure liquid hydrogen vaporizer in the South 40 area.



Discussing recently installed automatic controls for PSL compressors are Donald A. Altmos (seated), Fred P. Herke and Stanley Mojack.



William E. Goodwin (foreground) and Duane A. Rhode compare data used for the dynamic balancing of the quiet fan.

The Plant Engineering Branch supplies mechanical, electrical, and electronic engineering services for the Center's process systems.

These include consulting services for trouble shooting and maintenance planning, rehabilitation project design, automatic controls design, and hazard analysis of systems.

Process systems under the branch's watchful eye include distribution systems for electrical power, compressed air, altitude exhaust, fuels, refrigerants, water and steam. They also include compressors and exhausters located in several major facilities and heat exchangers and refrigerators for conditioning the large quantities of air used to simulate flight conditions.

The branch, under the direction of Duane A. Rohde, is composed of an engineering design and drafting unit, a mechanical engineering unit, and an electrical and electronics unit.

Supporting Rohde are one section head, three unit heads and a staff of 15.



Arthur H. Prior (left) and John E. Zeman check pilot wire relay used to protect electrical power cables connecting Substations A and G, at Substation G.



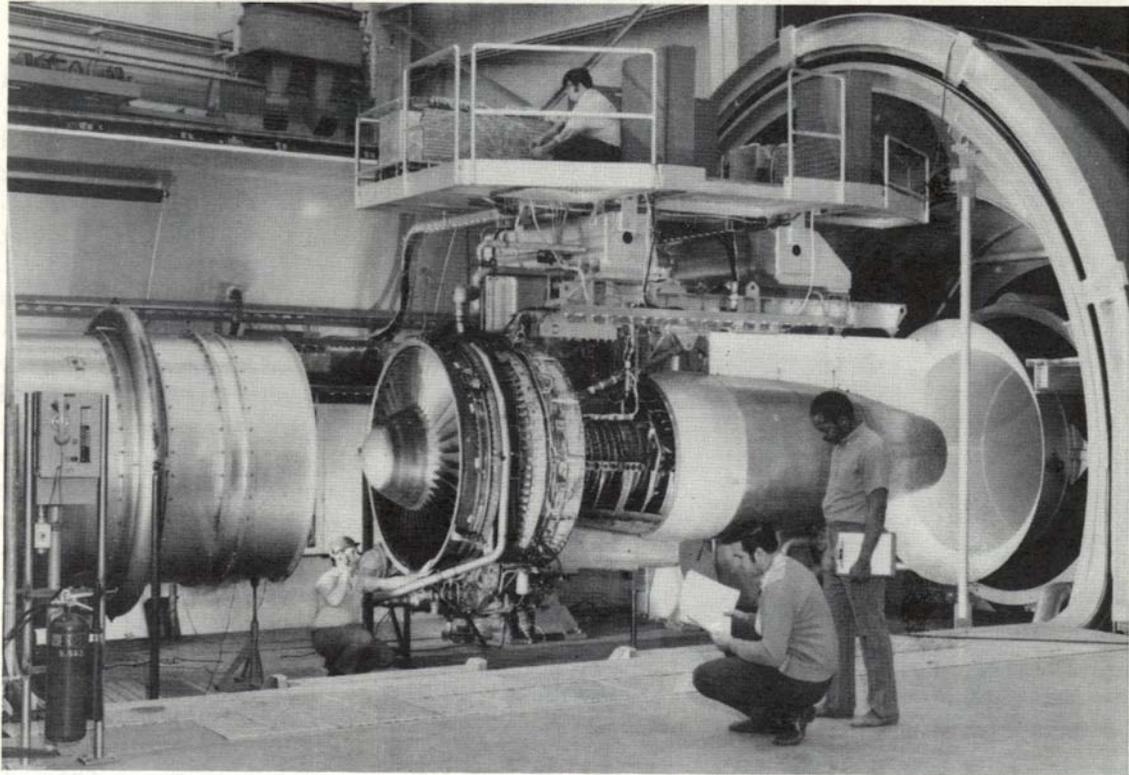
James E. Dockrill (left), Donald R. Canfield (kneeling) and Thomas S. Banus check out control panel for new DeLaval exhaustor controls.



Alan L. Saunders (left), Daniel F. Wills and Joseph H. Durana review the installation design of vibration monitoring equipment at PSL.

Photos by

John Marton



## *Noisy research to quieter skies*

Tests of the world's quietest jet engine resume this June in Lewis' new Propulsion Systems Laboratory. Runs to check out the facility with Quiet Engine A ended in late March. In a four month test program, the engine will operate in the chamber under altitude conditions between 25,000 and 50,000 feet and at air speeds up to Mach

.95. Performance and fan stall margin will be measured for the engine with both a bell mouth inlet and an acoustically treated, sound dampening inlet. Technicians shown preparing for tests are, clockwise from left: Anthony L. Dolence, Jr., Gary M. Walk, Rupert D. Caswell, and William J. Debarr.