

'Site' Building Active At Plum Brook

EDITOR'S NOTE: This is the eighth in a series of articles by staff writer Rita Tessmann on research programs being conducted in the Register area. It is also the fourth of a five-part series on the National Aeronautics and Space Administration's Plum Brook Station.

Scattered all over a certain 6,000 acres of partly wooded land in Perkins Township are

unusual-looking tall, skinny buildings and long, low buildings that occasionally shake, rumble or shoot out flames.

THEY ARE the Rocket Research Facilities of the National Aeronautics and Space Administration's Plum Brook Station.

Rocket firings at Plum Brook do not involve any actual launching. Hot firings

generally involve only the rocket engines which are firmly secured.

To hold these experimental rockets and large parts of rockets or engine components, many structures have been and still are being built. They are known to the men who work there by site designations.

A SITE, B Sites, C Site,

and so on are their names. There are 15 sites in all, either existing or under construction.

The Pump Test Area — A Site — houses two large "loops" through which liquified gases at very low temperatures are flowed at a high rate of speed.

Test pumps are inserted into these fluid transport "loops" to determine their performance under the (rigorous conditions of fast flows and a temperature about 300 to 400 degrees below zero Fahrenheit.

THERE ARE three B Sites. B-2 and B-3 are new construction projects. In the early construction stage, B-2 is an environmental test stand for firing complete upper - stage rocket vehicles under simulated space conditions.

Test equipment is being installed in the most-complete B-3 Site, a 200-foot high stand to be used for non-nuclear tests of various components of large nuclear rocket engines such as will be needed for interplanetary travel.

B-1 is the Nuclear Rocket Engine Dynamics stand. It is also known as the NERVA Stand. NERVA is short for "nuclear engine for rocket vehicle application."

In B-1, 15-second to three-minute tests are being conducted on the propellant system start-up characteristics of the NERVA.

C Site, Turbo Pump Test Area, is equipped to run two simultaneous experiments on pumps. Liquid hydrogen is used in these tests.

TO TEST turbines, D Site

has gas generators to provide hot working fluids and dynamometers capable of measuring power from turbines up to 15,000 horsepower.

E Site, Dynamics Research Test Center, features a 145-foot structure known as the "Shake Tower." It is used for ground tests of the Atlas-Centaur - Surveyor combination, slated to place a soft-landing instrument package on the moon.

Fluid flow research and studies of component parts are being carried on at F Site, the Hydraulic Flow Laboratory.

H SITE is the Central Control Building. It contains remote operating controls for all but two sites, B and J and data recording instruments for all sites.

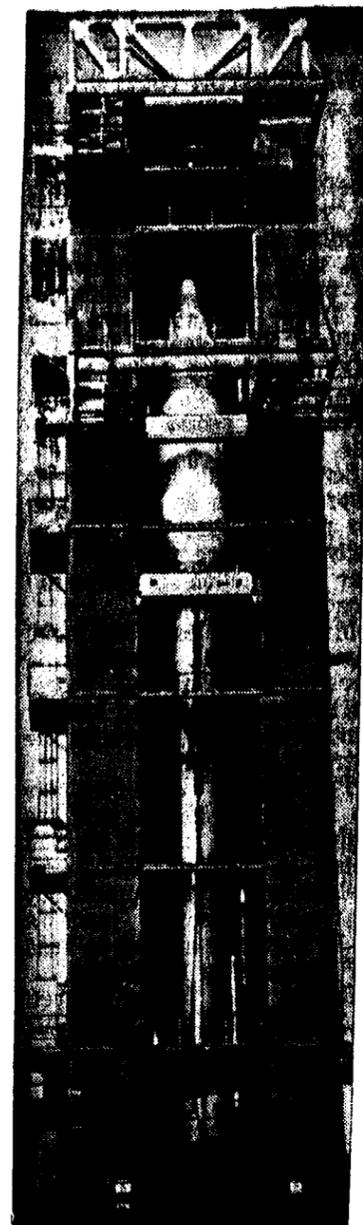
The Liquid Fluorine Pump Laboratory, I Site, is equipped to handle liquid fluorine flows at rates up to 50 pounds per second. Fluorine is the most active oxidizer known.

There are four J Sites in the Rocket Test Area. J-1 and 2 are both hot firing rocket stands. J-3 is an advanced tank test facility for study of space flight fuel storage.

J-4 has been abolished.

J-5 is a large steel globe left over from Plum Brook's Army days, that has been converted into a hydraulics laboratory for liquid fluorine compatibility tests.

Heading up Rocket Systems Research is Division Chief Glen Hennings. Hennings has been associated with the Lewis Research Center since 1944.



ATLAS-CENTAUR test vehicle is shown in a dynamic test stand at the National Aeronautics and Space Administration Plum Brook Station near Sandusky.



PREPARATIONS for a static rocket firing at NASA's Plum Brook Station are shown here. Technicians are following the flow of liquid nitrogen over the liquid oxygen propellant tanks for the rocket engine to be tested.

ENTHUSIASM SPREADS AT PIB

Music Everywhere

By RITA TESSMANN
Register Staff Writer

PUT-IN-BAY — Liquid notes of Hayden, Bach and Mozart float through the trees in a South Bass Island wooded area these days.

Spotted throughout the greenery on the island's northwest shore are cottages full of chamber music lovers, and the enthusiasm is catching.

ISLANDERS who have been treated to strains of string quartets many evenings for the six summers of the Put-in-Bay String Festival's existence are acquiring an avid taste for it.

The result is not only a growing music camp community but also an island full of aspiring, young violinists — children of the islanders.

"It means so much to this town," observed Dr. Theron McClure, an Ohio State Uni-

and the musicians are becoming a community.

Back in the woods at the end of what is now known as "String Lane" is a plot of ground with a symphony of hope pinned on it. It is the proposed site of the Island Festival House to be built before next summer.

Financed by the Island Festival Association's fund drive, the festival house will contain a music chamber, balcony, patio and kitchen.

STRING ARTISTS and students from Ohio and the Great Lakes area, plus a few other states, will gather there to attend classes and workshops and play in small ensembles and in the festival orchestra.

It will be the permanent central building at the summer music colony in Put-In-Bay.

The Island Festival Association and its activities are sponsored by the Ohio Federation of Music Clubs and the Ohio String Teachers

Clure. He and his wife host some of the students attending the festival.

PLAYING double bass or cello, Dr. McClure and other string players often get together for sessions on his patio, he said. String music can also be heard coming from rented cottages a short distance away along the lake shore.

In one of those cottages a physician and violin player, Dr. Denzil Hathway, testified to the pleasure of attending one of the festival camp sessions. "I like it very much," he said.

BORN NEAR CARDIFF, Wales, and educated in England, Dr. Hathway is now a resident pathologist in a Cleveland hospital. He is one of many non-professional musicians who attend the camp for the pleasure and relaxation of playing with other musicians.

Dr. Hathway also enjoys



MAMMOTH CONTROL PANEL at Plum Brook's H Site, Central Control Building, monitors operations in the "Shake Tower," the Dynamics Research Test Center (E Site), where an Atlas booster, Atlas-Centaur and Surveyor spacecraft have been ground tested by severe shaking to determine their structural strength. Standing by the panel is NASA's Plum Brook Rocket Division Chief Glen Hennings. (Register Photo—Rita Tessmann)