PRESS WRITE-UPS

Lewis displays the down-to-earth benefits of NASA

By William D. McCann

A tour of NASA's Lewis Research Center here yesterday left visitors with a clear notion that the space agency is not all rockets, moon walks and spy-in-the-sky satellites.

NASA is also cleaner engines for cars and cleaner and quieter aircraft.

It is new, longer-lasting materials for industry and medicine. It is monitoring of strip mining from a craft 570 miles in space and it is even designing windmills.

More than 300 government and industry officials, legislators, and other guests toured Lewis facilities in a special program aimed at emphasizing down-to-earth benefits of NASA research.

Several hundred more guests are expected to take similar tours today and tomorrow.

During the past few years NASA has been resisting personnel and budget cuts, and debating critics who have charged that the space program has been too costly while giving little in return. This has been coupled with criticism of man's general misuse of technology, from weapons to environmental pollution.

To fight back, NASA has campaigned to show that its technology benefits man. Yesterday was the latest move in that campaign.

The tour itself was a study in precision engineering. Visitor name tags were in nine colors. Coded to nine buses. Each bus made nine stops at nine different places. At each stop there was a report and demonstration by NASA researchers. All visitors moved around the 350-acre plant with no crowding, no confusion.

Here is some of what visitors heard:

- Work is under way to modify aircraft engines and add acoustical material to dramatically reduce noise.
- An aircraft is being developed that can take off and land on a short runway.
- Basic research on how different materials wear out is helping produce longer-lasting parts for everything from aircraft to appliances. Such research also has long-lasting artificial hip joints now being tested in laboratory animals.
- Work also is under way on methods to produce electric power. Lewis is designing a large windmill capable of producing 150 kilowatts of power. Work is being done at the request of the Puerto Rican government.
- Space technology already has helped reduce telephone rates between here and Europe by 25%. Today there are four lines of active communication with Peking, where a year ago there were none.

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SEP-21-73

Lewis has its uses

178

The conference this week at NASA's Lewis Research Center on uses of technology developed first for the space program points up a characteristic that has always been one of Lewis' strong points as a research facility. Even when the space program was in full swing, much of the work done here had important applications in other fields, and Lewis scientists have always been alert to their significance.

The series of meetings for 1,500 national leaders invited to inspect Lewis' projects is a revival of a custom of the National Advisory Committee for Aeronautics, NASA's predecessor and the parent agency of Lewis in 1941.

Its purpose is to get information about the agency's research to a wide spectrum of people, whose interests in its application take in a still wider range.

Lewis and its research satellite, Plum Brook Station near Sandusky, have been hit hard by federal cutbacks in personnel. Plum Brook, site of a nuclear reactor and other massive testing facilities, is virtually closed down.

The developments on display at the technology conference and at public open houses this weekend and an upcoming international conference on solar energy are a strong argument for Lewis' significance as a center for research. The Cleveland center has a remarkable record as a conduit between outer space programs and earthly applications.

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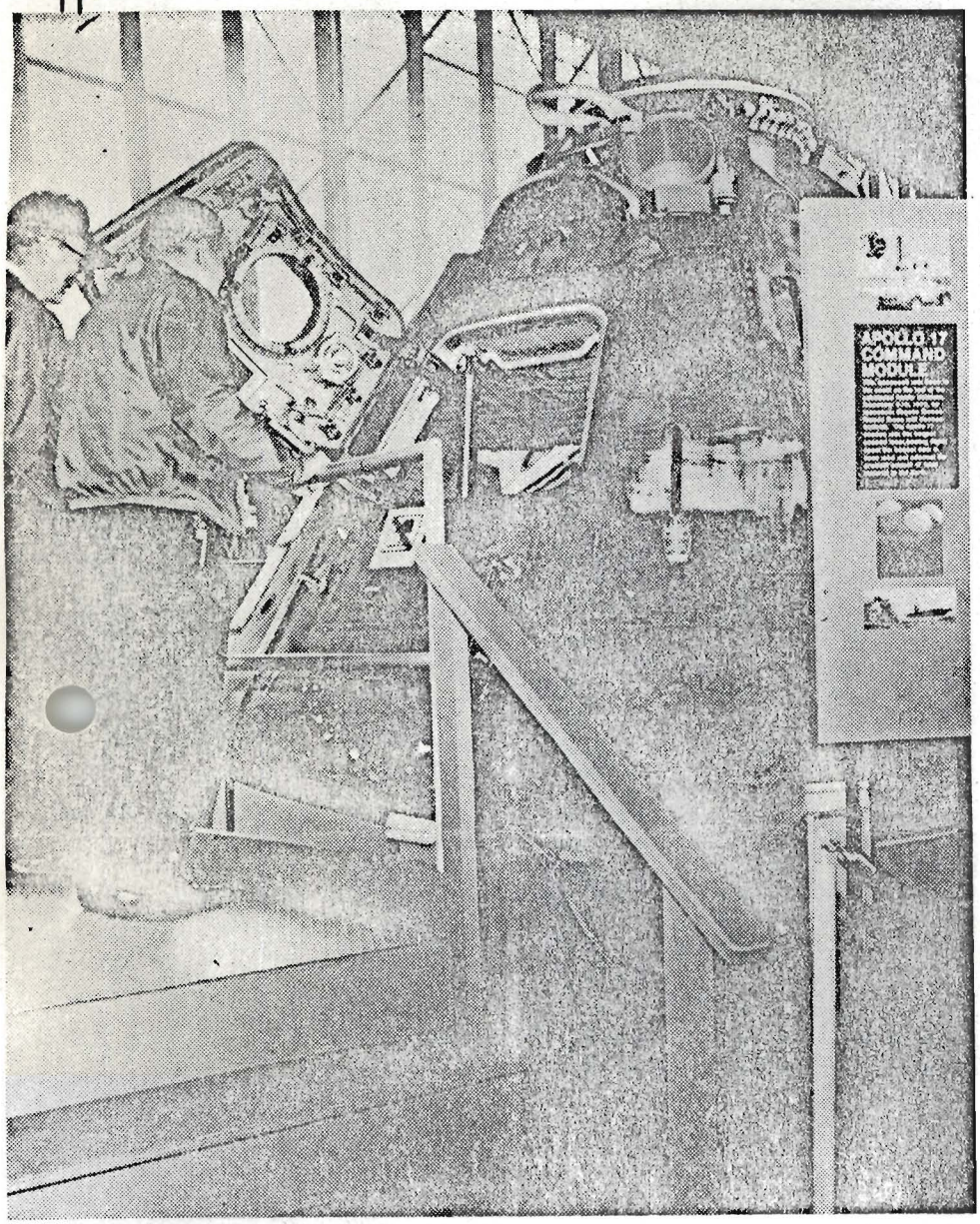
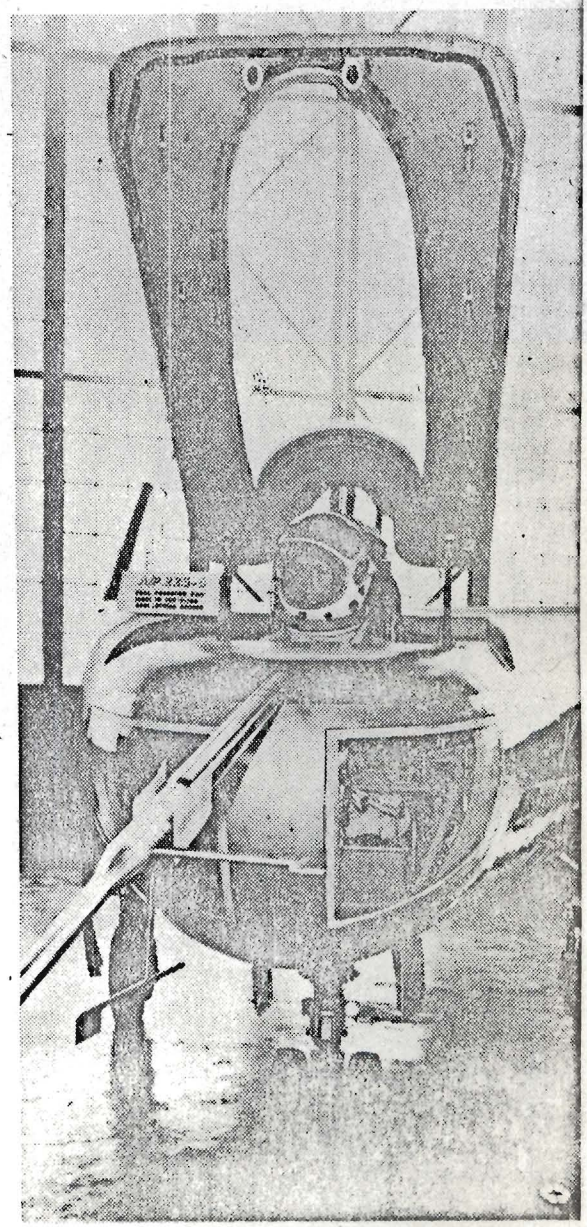
SEP-25-73

178

Solar energy is on the wa



DIRECT FROM SPLASHDOWN — The Apollo 17 Command Module, charred from its re-entry into the atmosphere is one of the exhibits on the NASA tour this summer. (Press photos by Van Dilllard)



FLIGHT WITHOUT WINGS — It is called a body and uses rocket power to get off the grou it can fly like a plane. It is on exhibit at NA the public tours this weekend.

By JIM DUDAS

Someday energy from a field of strange-looking mirrors somewhere in Northeastern Ohio may heat and light your home and operate your appliances.

Farmers will call a local satellite station to check the condition of crops and soil. Environmentalists will be able to closely monitor strip mining and its effect on the ecology.

At the Lewis Research Center of NASA in Cleveland all of these things that can help agriculturalists monitor vegetation, snow cover, water supply and land development.

There are scores of exhibits at the center and at each stop on the free tour a short lecture will be included. Times are 9 a.m., noon and 3 p.m. on both days. For tickets write the Lewis Research Center at 21000 Brookpark Rd., 44135 or stop in at the Public Service desk of The Press at E. 9th St. and Lakeside Ave.

NASA in Cleveland, which has been fighting for its fiscal life since cutbacks in the space program, wants to show those who pay its bills — the taxpayers — what it can do to improve the quality of life.

The public is invited to an open house this Saturday and Sunday. Among other things it will see are the results of research to combat the energy crisis.

Using solar thermal energy for electricity is not a new concept. But producing enough electricity to power cities has always been too expensive.

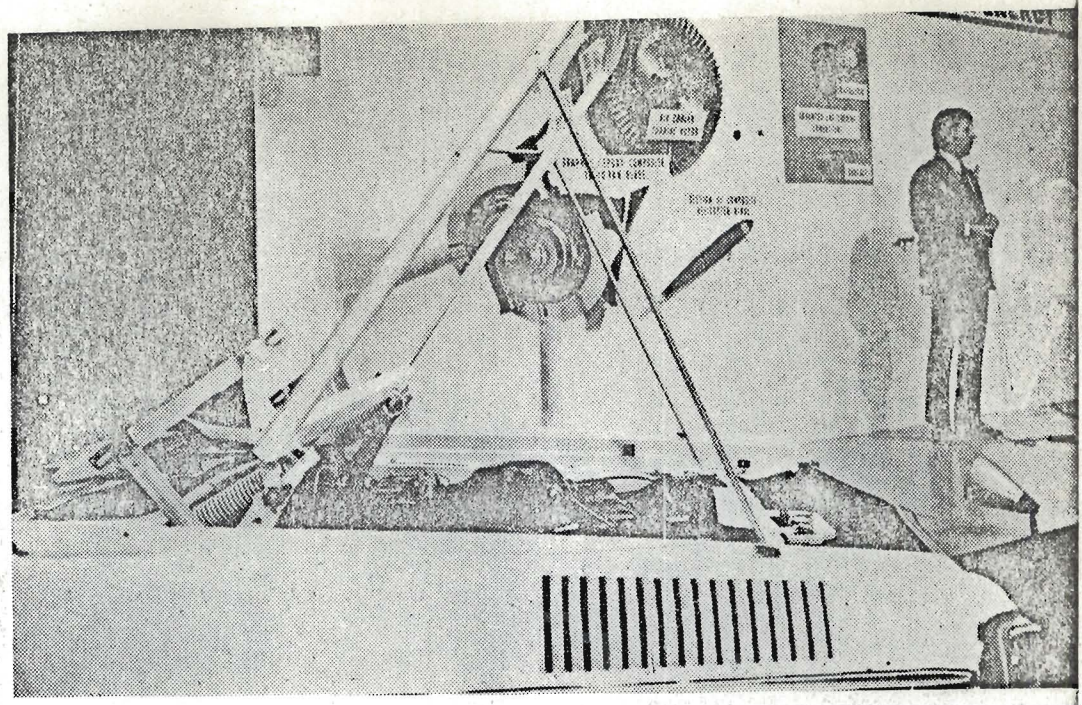
Scientists also are working on ways to make jet planes cleaner and more quiet. A number of their displays will be on exhibit.

It is estimated that friction caused by inadequate or improper lubrication costs Americans some $10 billion each year.

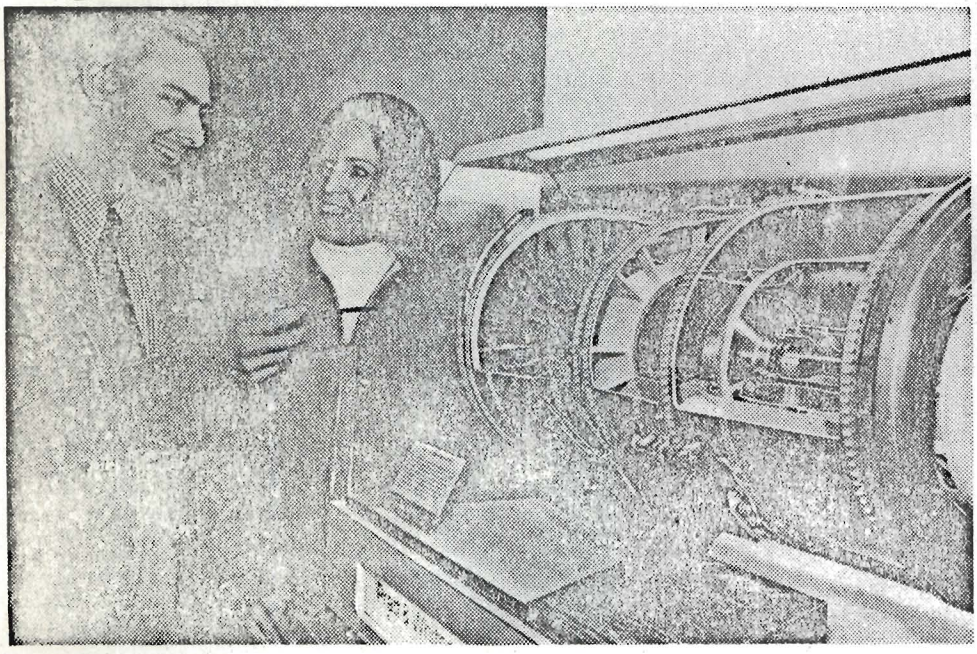
As a result of their research, scientists at Lewis believe they are slowly winning the battle against friction. Their efforts may some day help machinery of all sorts to last much longer.

By using mirrors to take sunlight and heat liquids to a point where they will drive generators may be one answer to the energy crisis.

The Earth Resources Technology Satellite (ERTS), in orbit since July 1972, is providing detailed photographs of the earth taken at different wave lengths,



AUTO ENGINE OF THE FUTURE — The gasoline turbine engine has been used successfully in experimental autos for a number of years but its poor gasoline mileage has hampered widespread use. An NASA scientist explains how he hopes researchers will soon make the turbine car a popular mode of transportation.



QUIETER, CLEANER SKIES — Bob Antl, a project researcher on quiet engines at NASA, explains to Carol Vidoli some of the inner workings of a jet aircraft.

MIRROR OF THE FUTURE — The mirror is a segment of a 20 foot in diameter mirror used to harness the sun's heat and produce energy.

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SEP-13-73

NASA Center Open For Day's Review

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"Technology in the Service of Man," a day long review of the activities and progress of the NASA, Lewis Research Center in Cleveland, will be held September 19, 20 and 21. Some 1500 invited leaders from business, industry, labor, the professions and government are expected to attend from all parts of the country.

In commenting on the program, Lewis Director Bruce T. Lundin says, "It is an exciting time--a broadening of the application of our technologies to many purposes. Since its origin over three decades ago, the Lewis Research Center has been dedicated to the principal of technical excellence in the service of others. For instance, a major thrust in our aeronautical research today is on making aircraft quieter, safer, cleaner, more economical and more convenient to the traveler. Our capabilities in the many complex disciplines of electric power generation and energy conversion for space have much in common with our energy problems here on Earth.

"Technology in the Service of Man" is intended to give national leaders a broad review of Lewis' current activities and present a few examples of the impact of aerospace accomplishments on all citizens. "In a sense," Lundin says, "it is a report on our stewardship of the resources of the Lewis Center."

The program will include talks and demonstrations on the work and progress being made in areas such as quieter jet engines, cleaner combustors, the effects of jet aircraft on the environment, transportation of the future, the benefits the man on the street is enjoying because of advances in rocket technology, the production of clean energy, services provided by satellites, advances in lubrication of mechanisms ranging

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The Lewis Research Center came into being in 1941 as the Aircraft Engine Research Laboratory of the National Advisory Committee for Aeronautics (NACA). Its task was to advance the technology of the nation's aircraft engines. From this effort, in partnership with our research laboratories and American industry came many benefits. The air arm of the military forces was strengthened, a new level of mobility was provided to Americans and their goods and American aircraft came to dominate the commercial air fleets of the free world.

In October of 1958, just 15 years ago, Lewis became part of the NASA with a broadened responsibility in the fields of both propulsion and electric power generation for aeronautical and space application. Here its technologies have helped explore the planets, place man on the Moon, measure the stars and view the resources and environment of the Earth from the new vantage point of space.

Lewis occupies 350 acres adjacent to Cleveland Hopkins International Airport and 8000 acres at the Plum Brook Station near Sandusky, about 50 miles west of Cleveland. The physical plant comprises a number of unique major facilities such as altitude chambers, wind tunnels, huge vacuum tanks, and a 500 foot deep chamber for zero-gravity experiments. The total capital investment is about $270 million; the staff numbers about 3300 including 1100 scientists and engineers.

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SEP-13-73

'Technology In the Service Of Man' Reviews Activities Of NASA Center

CLEVELAND, Ohio — "Technology in the Service of Man," a day long review of the activities and progress at the NASA, Lewis Research Center here, will be held September 19, 20 and 21. Some 1500 invited leaders from business, industry, labor, the professions and government are expected to attend from all parts of the country.

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SEP-13-73

VIPs to tour space center

Technology in the service of man.

That's the theme of a program to be sponsored by Lewis Research Center of the National Aeronautics and Space Administration (NASA) daily from Wednesday through Friday, Sept. 21.

ACCORDING TO Bruce T. Lundin, director of Lewis Research Center, "The program is intended to give leaders from government, business, industry, labor and the professions, a broad review of our current activities and their purposes.

"It is, in a sense, a report on our stewardship of the resources of the Lewis Center," Lundin said.

Visitors will have an opportunity to tour the center, viewing its many unusual facilities such as wind tunnels, altitude test chambers, space simulation systems and the like.

TOPICS TO BE discussed with exhibits and demonstrations will include: quieter engines; cleaner skies; new modes of air transportation; rocket-related technologies; services from satellites and recent advances pertinent to energy and power, lubrication and wear, materials and communications.

Shuttle transportation between several nearby hotels and motels and the Lewis Center will be provided visitors requesting same.

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SEP-16-73

NASA benefits to be outlined at Lewis Center

178

The down-to-earth benefits of NASA technology will be outlined in a program at NASA's Lewis Research Center here this week.

The program, "Technology in the Service of Man," will review a wide range of projects under way at the center. There will be talks and demonstrations in such areas as quiet engines, transportation of the future, clean energy and services provided by satellites.

The all-day program will be held Wednesday and repeated Thursday and Friday. A total of 1,500 leaders in business, industry, education, government and labor from throughout the nation are expected to attend.

An open house to describe the Lewis activities to the public is scheduled Sept. 29-30.

THE PLAIN DEALER, WEDNESDAY, SEPTEMBER 19, 1973

Open house for public

Lewis Center to host visitors

NASA Administrator James C. Fletcher heads a list of 1,500 government officials, legislators, business, education and labor leaders expected to visit the NASA Lewis Research Center during a special three-day program beginning today.

The program, called Technology in the Service of Man, will feature exhibits and demonstrations on work being done at Lewis, and how this research will help people.

It is primarily a progress report on the stewardship of the resources at Lewis, said Walter T. Olson, director of technology utilization and public affairs.

Demonstrations and tours will last all day today and will be repeated tomorrow and Friday. Included on the nine tour stops will be reports on communications satellites, quieter and cleaner aircraft engines, new long-life materials and clean energy sources.

A similar program will be held for the general public Sept. 29 and 30 to commemorate the 15th anniversary of NASA.

The public will be able to see major facilities, including a supersonic wind tunnel.

On exhibit will be the Apollo 17 command module and a model of the Viking spacecraft to be launched to Mars in 1975.

Visitors on Sept. 29 and 30 will need a ticket, which can be obtained free from the public service desk at The Plain Dealer or by writing to NASA Open House, Cleveland, O. 44135. Tours will be conducted every 15 minutes between 9 a.m. and 3 p.m. both days.

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WEST SIDE SUN
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SEP-20-73

NASA progress review slated

"Technology in the Service of Man," a day-long review of activities and progress at NASA, will be held today and tomorrow at the Lewis Research Center.

Over 1,500 leaders from business, industry, labor and the professions will be attending the conference designed to give a broad view of Lewis' current activities and the impact of aerospace accomplishments on all citizens.

The program will include talks and demonstrations on the work and progress being made in areas such as quieter jet engines, cleaner combustors, the effects of jet aircraft on the environment and advances in lubrication of mechanisms ranging from very hot engines to human hip joints.

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PARMA SUN POST
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SEP-20-73

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