

## Airport Expansion May Affect Lewis

The \$1 billion proposed expansion of the neighboring Cleveland Hopkins Airport may require relocation of Lewis' Rocket Engine Test Facility (RETF), Bldg. 202, as well as portions of Aerospace Technology Park.

"Airport officials are projecting dramatic passenger growth over the next 20 years. And that would require expanding the runways to handle larger aircraft," explained Harvey Schwartz, chief of the Office of Interagency and Industry Programs and Lewis' representative on the Airport Noise/Land Use Advisory

Committee.

Schwartz, who has met with airport officials regarding the impact the proposed expansion may have on the Center, told the *Lewis News* the plan has two phases. The first phase, which would be completed within 10 years, would call for extending the current runway, 5 Left, and building a new 11,000-foot runway through the present site of the RETF. The second phase, to be completed in 20 years, would include a major expansion in the airport terminal and construction of a 12,000-foot runway on the far side of the airport through the site of the

International Exposition Center.

"Under Federal law, the airport must pay relocation costs," said Schwartz. "So airport officials will be responsible for financing the relocation as well as providing us with an alternate site." He added that because of the nature of the work performed at the RETF, strict requirements for relocation must be enforced. "The importance of RETF to Lewis and NASA would require that any moves be made in a way that would not adversely effect the work done there," said Schwartz.

Stephen J. Nagy, manger of

*Continued on page four*

great," said Platel. "Hearing about the possibilities space has to offer, as told by Dr. Bondurant, made the kids feel connected

with NASA Lewis. The kids were excited that NASA would take the time to talk with them."

Telereach has continued to

**WE'RE STILL IN A HAZE,  
From your phone call above.**

**With gratitude to Dr. Lynn Bondurant from  
students of St. Evangelist School,  
Schenectady, NY.**

what today's young people are interested in," said Bondurant, whose career began in the classroom. "I always relish my moments with students. They are invigorating, and after all, do represent our nation's future."

grow in popularity among the NEWEST participants since 1990, said Solarz. In May and June, for example, more than

represent our nation's future."

## New Runways Planned

*Continued from page three*

the airport planning and noise programs at Cleveland Hopkins Airport, was recently quoted in *The Cleveland Plain Dealer* as recognizing the importance the facility plays in the Center's goals. "We've made a lot of

just the beginning of a long process, the airport must next develop an Environmental Impact Statement that will be reviewed in public hearings, and must be approved by the Environmental Protection Agency. It is estimated that it will be at least 1 1/2 years before arriving at this stage. A financing plan must then be approved by the Federal Aviation Administration before officials begin to acquire land.

"Lewis has always tried to be a good neighbor and we will continue to work with airport officials in reaching an agreement on the relocation of this facility should that be necessary," said Schwartz. "But the staff should be assured that Lewis management will make certain that any relocation is carried out in a way that will not adversely impact our ability to meet our research commitments to the Agency."

**Expansion will  
not have adverse  
effects on Lewis'  
research.**

different efforts to find areas either adjacent to...or in the very close vicinity of NASA to be able to relocate it without them being hurt in any way," said Nagy. He said the cost of relocating the facility would be included in the \$500 million price tag for the first phase.

Schwartz explained that revealing the preliminary plan is

## Airport expansion

Cleveland Hopkins Airport has recently completed a periodic update of its master plan and concluded that an expansion is necessary to keep Hopkins competitive into the next century. The expansion plans include, once again, the necessity for acquisition of Lewis Research Center property.

My first reaction to this plan was admittedly skeptical—after all similar previous plans have never been implemented. However, I feel that the strong support both City Hall and the Cleveland business community are providing on this issue may dictate a different outcome this time around. Through my membership on the Greater Cleveland Growth Association's Air Service Development Committee, I have concluded that the business community is convinced that an expansion is necessary to the region's economic future and committed to making it happen.

What does this mean to us? Primarily, we need to evaluate the airport's land requirements and how it will affect our operations. A new 10,000-foot runway would essentially run right through the area known as the South 40, including the Rocket Engine Test Facility. The Executive Council has determined that it is in the Center's best interest to be as cooperative as possible with the City of Cleveland with regard to providing information and discussing possible solutions. Lewis Research Center has a major stake in seeing that this region thrives and is in fact an important participant in that economic future.

Notwithstanding my positive feelings about how the airport expansion will fare this time around, it still has a long way to go before becoming a certainty. All the affected communities, such as Brook Park, need to have their concerns addressed in an appropriate manner before any plan is implemented. In the meantime, we need to conduct our business so that any outcome of the process can be dealt with in a manner which benefits Lewis Research Center and the community at large.

I will try to keep everyone up-to-date on the latest developments as events unfold. ♦

# Cleveland seeking compromise over airport expansion

By STEPHEN KOFF  
PLAIN DEALER REPORTER

CLEVELAND — Frustrated by suburban opposition and legal blockades to expanding Cleveland Hopkins International Airport, Mayor Michael R. White this week went to the public to plead for compromise.

Calling a news conference Tuesday, he said he was willing to alter the path of a runway planned for the next century so it would not go through what is now the middle of Brook Park's International Exposition Center, forcing the I-X Center to close.

White had quietly offered the concession to Brook Park on Jan. 11, the day after Cleveland lost a related court case on airport expansion. In that case, a judge ruled that the city had wrongly interfered in Brook Park's effort to buy 14 vacant acres near the airport.

"I'd like to clear the air once and for all that the city of Cleveland has been open-minded and intent on negotiating a fair settlement with the city of Brook Park regarding the airport expansion," White said on Tuesday.

But Brook Park officials said White was merely posturing for the public, not seeking the legitimate good of both cities. Brook Park's plans go beyond preserving the I-X Center, which it considers vital to its economic well-being. Brook Park also wants to continue developing a nearby technology park and build a road that connects the I-X Center to that park.

Some of those plans conflict with White's desires. But Brook Park has the upper hand, at least for now.

Unless Cleveland prevails in appealing last month's court decision, it will have to deed the acreage to Brook Park at a cost lower than the city paid and find a new way to build a runway.

Steve Strnisha, White's executive assistant for economic development, said he expected Cleveland to win on appeal and to get the land needed for the new runway.

"But he's not going to," Brook Park Mayor Thomas Coyne countered in an interview. "I want to be the second Irish-Catholic president of the United States, but I'm facing reality."

Brook Park claims it will be harmed if it cannot connect the I-X Center to its technology park. Coyne said he believed White wanted to destroy the suburban I-X Center — if not now, eventually — so he can attract more expositions to the city-owned Cleveland Convention Center.

Brook Park has suggested that the two cities work together, not just to save the I-X Center but to also establish a large tax-sharing commercial district that would run from the Rocky River Reservation of the Metroparks to W. 130th St.

This week, as part of a suggested compromise, White endorsed an abbreviated version of Coyne's proposed tax-sharing district, proposing that the cities jointly develop business on Brookpark Rd. from the Conrail tracks near W. 150th St. to W. 130th St.

Cleveland could benefit if the district attracted new businesses that might drive out adult book stores and nude bars, said Dale Miller, a Cleveland City Council member who represents the area and endorses White's plans.

But Coyne said that White merely took Brook Park's tax-sharing idea and dramatically reduced its size and economic benefits.

White also said Cleveland would assist in buying out Brook Park homeowners close to the expanding airport as federal funds become available — so long as those funds are not needed for property acquisition in Cleveland.

These proposals are now before attorney John Climaco, who is presiding over on-again, off-again mediation between the two cities. He was not available for comment.

It is uncertain whether mediation will resume, and both Coyne and White have accused the other of harming the prospects for a mediated settlement.

# Current News of Note

FROM THE MEDIA RELATIONS OFFICE OF LEWIS RESEARCH CENTER



THE PLAIN DEALER / FRIDAY, MAY 5, 1995

**NASA Lewis Visitor Center 21000**  
Brookpark Rd., Cleveland, 433-2001. Mon.-  
Fri., 9 a.m.-4 p.m.; Sat., 10 a.m.-3 p.m.;  
Sun., 1-5 p.m. Closed holidays. Free.  
■ Informational Lecture: "History of Aero-  
nautics at Lewis," Sun., 2-3 p.m.  
■ Weekend Program: "The NASA Space  
Suit" and "Go for EVA."

THE PLAIN DEALER / THURSDAY, MAY 4, 1995

## Cleveland wins appeal in Hopkins land fight

By V. DAVID SARTIN  
PLAIN DEALER REPORTER

**BROOK PARK** — An appeals court has ruled that Cleveland should have been given a chance to try to block Brook Park from buying land near Cleveland Hopkins International Airport.

The 8th District Ohio Court of Appeals has ordered that a hearing be held on a request for a preliminary injunction sought by Cleveland to keep the suburb from buying the land.

Mayor Michael R. White called the order a victory for Cleveland. But Brook Park Mayor Thomas Coyne said the ruling had little meaning because a probate judge has ruled that the suburb has met legal requirements to appropriate the land for public use.

Cleveland wants the land, near the southwest end of the main runway at Hopkins, to make room for airport expansion. Brook Park seeks the land for a road connect-

ing its Aerospace Technology Park and the International Exposition Center.

Brook Park City Council adopted an ordinance to buy the land from a family trust through eminent domain on Jan. 4, 1994. Cleveland bought the land from the trust for \$410,000 on Jan. 19, 1994.

Common Pleas Judge Carl Character granted a temporary restraining order against Brook Park's eminent domain proceedings but lifted the order after the suburb argued that the legality of the purchase should be decided by Probate Court.

Judges Patricia Blackmon, Sara J. Harper and Diane Karpinski of the appeals court ruled last week that Cleveland should be allowed to complete hearings for a preliminary injunction against the suburb.

Ohio law requires that the challenge from Cleveland should be

heard in Common Pleas Court, the appeals court ruled.

"We're not trying to hurt Brook Park," said White. Cleveland needs to expand the airport to improve the regional business climate, to provide international air service and to meet growing local demand, he said.

Probate Court ruled in January 1995 that Brook Park could use eminent domain to buy the land from Cleveland. An appeal on that ruling is pending.

PLAIN DEALER  
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APR-27-95

## Coyne offers alternate airport expansion plan

By V. DAVID SARTIN  
and ROBERT J. VICKERS  
PLAIN DEALER REPORTERS

**BROOK PARK** — Cleveland Hopkins International Airport could be expanded without encroaching on the facilities critical to the suburb's financial health, Mayor Thomas Coyne said yesterday.

Coyne released a consultant's report offering several other options for Cleveland's expansion proposal, which would require encroaching on the International Exposition Center, the Aerospace Technology Park and the NASA Lewis Research Center.

Coyne last week proposed to Cleveland Mayor Michael R. White that the two cities agree on the option that calls for building

a new runway for international flights near the existing northeast-southwest runway plus a new strip just south of the I-X Center.

The plan would not encroach on any of the revenue-producing facilities or on Interstate 480, but it would require relocating Brookpark Rd. between Ohio 237 and Grayton Rd.

The plan, drafted by the suburb's airport consultant Stephen Hockaday, would cost about \$717 million, compared to about \$900 million for the plan proposed by Cleveland, Coyne said.

But William Cunningham, Cleveland's director of port control, yesterday told Cleveland City Council's Aviation and Transportation Committee that

airport expansion and international tourism could be hampered unless land is acquired from NASA, Tech Park and Brook Park itself, he said.

Even if no land is acquired, the airport will still build a 6,000-foot runway by the end of 1997, which Cunningham said would help handle increased domestic traffic.

But if the city wants to offer international nonstop, commercial flights, an existing runway must be extended to 12,000 feet to accommodate larger planes, he said. That means coming to terms with Brook Park, NASA and Tech Park.

And John Habat, vice president of the Growth Association, told the committee that bringing in international traffic to Hopkins is

critical to the area's economy. "One daily flight to London could generate \$200 million in the area on an annual basis," Habat said.

The association already has amassed about \$200,000 from private sources to begin marketing Cleveland to tourists from Great Britain.

Councilman Dale Miller, who chairs the committee, said that airport expansion and international marketing were connected but that one did not necessarily hinge on the other.

"It's not only a matter of doing the marketing, but it's also a matter of working things out with Brook Park, NASA and Tech Park," Miller said. "We have a bunch of elements and you try to get them to all peak at the same time."

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# Plan for airport is revised

*Proposed layout may move Brookpark Rd.*

By TOM VANEK  
Staff Writer

BROOK PARK — Mayor Thomas J. Coyne has forwarded copies of the city's proposed alternate airport layout plan, which he says best meets the needs of both Cleveland and Brook Park.

Coyne said he had the city's airport planner, Dr. Stephen Hockaday, draw up the plans after the two mayors were not able to reach an agreement on the three proposed alternatives on the bargaining table.

"Actually, we should call this the Judge Corrigan Plan," Coyne said, "since it follows up on something he wrote in his ruling on the Bence parcel."

In Corrigan's decision awarding the Bence parcel to Brook Park, Corrigan suggested that the airport could be expanded on Cleveland property to the north by tunneling under or otherwise relocating Brookpark Road.

The original airport master plan would have required the immediate demolition of the Analex building in Brook Park's Aerospace Technology Park, as well as NASA's rocket-testing facility and the eventual demolition of the I-X Center, all of which were unacceptable to Brook Park officials.

Subsequent proposals by both Cleveland and Brook Park airport designers would have spared the I-X Center in the long term, 20-25 years, by moving a possible third runway to the southeast of the I-X Center, into the city of Berea.

Cleveland Mayor Michael White embraced Alternative 3, which is identical to the Master Plan, except that it spares the I-X Center in the long term. Coyne favored Alternative 5, which spares the I-X Center and protects both the Analex Building and the NASA facility, but would have required getting the Army Corps of Engineers permits to authorize filling and culverting Abrams Creek and adjacent wetlands.

Alternative N-5 simply shifts the runways to the north, relocating the section of Brookpark Road from Rocky River Drive to Grayton Road.

"Not only does it meet all of Cleveland's needs and our needs," Coyne said, "but it's the cheapest alternative of all, far cheaper than the Master Plan."

The estimated cost of implementing the Master Plan is \$928 million, compared to \$717 million for Alternative 5.

Coyne said the need for Alternative N-5 became apparent to him when Cleveland announced plans to build its own technology park on land it owns north of the airport.

"It became clear to me that Mayor White wants to compete with us, not cooperate," he said.

He said Alternative N-5 actually benefits Cleveland, as well, since relocating Brookpark Road gives them better access to the land they want to develop.

"It's a win-win solution," Coyne said. "It meets Cleveland's needs and protects Brook Park's interests."

The most important thing, Coyne said is that a final plan be adopted once and for all.

"Brook Park and the surrounding communities are tired of new plans coming up every five years. People want to see a final plan that they can work around and if anything comes up in the future, they'd better look for another site for their airport."

Ken Silliman, White's assistant, could not confirm that he had received the plan yet, but said he would be most interested in seeing it.

workers who earned approximately \$181,188,572 in salaries, buyout costs and benefits in fiscal year 94.

On-site contractors accounted for approximately 1,920 work years for a total of \$180,437,000, which includes salaries, benefits, supplies and materials.

As a result of the grant and fellowship activity, more than 430 high school students and college and university faculty and students were involved in programs at Lewis during the past year.

A K-12 program established in 1993, a joint venture between Lewis and Cuyahoga Community College, has reached approximately 2,000 students.

The Science, Mathematics and Aerospace Academy was also established, primarily to increase the number of under-represented and under-served students interested in science, mathematics, engineering and technology

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# NASA claims impact on local economy

*U.S. space agency has created jobs, awarded contracts*

Approximately \$405.8 million was added to Ohio's economy by NASA's Lewis Research Center in fiscal year 1994 in the form of new contracts, grants to colleges and universities, utilities, salaries and benefits paid to its employees, the space agency claims.

Of those contracts, approximately \$124 million was awarded to Small Disadvantaged Businesses and women-owned companies, and over \$5 million to small businesses.

Since the early 1980s, Lewis has awarded over 1800 contracts and grants within the State of Ohio in excess of \$3 billion.

The Lewis Center employed just under 2,675 civil service

careers. This program is also supported by Case Western Reserve University, Cleveland State University and Kent State University.

The following Ohio schools were awarded over \$2 million in fiscal year '94: Case Western Reserve University, \$443,197; Central State University, \$319,231; Cleveland State University, \$640,926; Lorain County Joint Vocational School, \$82,120; Ohio Aerospace Institute, \$424,254; Ohio State University, \$333,771; University of Akron, \$231,167; University of Cincinnati, \$113,950; and University of Toledo, \$229,972.

The Lewis presence also had a major impact on Ohio utilities. In fiscal year '94, Lewis spent \$14 million for electricity, \$2.2 million for gas, \$2 million for telephone service and \$500,000 for water -- a total of \$18.7 million.

# Lewis enviro-study a factor in airport expansion project

By Kristin K. Wilson

**W**HILE Cleveland City Council cleared the Hopkins International Airport runway expansion project for takeoff earlier this year, ground breaking is still more than a year away. Construction is in a holding pattern awaiting completion of a number of activities, including an environmental impact study by the Federal Aviation Administration that is exploring how the project will affect everything from land use to air and noise pollution.

The proposed expansion plan will also impact NASA Lewis, specifically a portion of the "South 40" which the Center has been asked to transfer to the city to make room for the project designed to accommodate increased air traffic and attract more international flights.

The land the city has asked for, however, is subject to an environmental compliance agreement between NASA Lewis and the Ohio Environmental Protection Agency (EPA).

NASA Lewis' Environmental Management Office has been working with the Ohio EPA since 1996 to conduct an environmental investigation focused on historical research, environmental sampling and analysis, and human health risk evaluations. The \$4.5 million study is part of an agreement NASA Lewis signed with the Ohio EPA to assess environmental conditions across the Lab, including the South 40.

Project manager Don Easterling, on assignment to the office through the Science Applications International Corporation, is pleased with the results received thus far.

"Early data indicate no harmful levels or concentrations of chemicals that could adversely affect the health of employees," Easterling explained. "The environmental data will be used to quantify risk levels, and we will have a definitive answer by July 1999."

Based on that data, it will ultimately be up to the Ohio EPA to give final approval for any land transfer. If environmental remediation of the South 40 is deemed necessary, Easterling said that NASA Lewis will have to design and implement the cleanup in a way that meets Ohio EPA requirements. If the South 40 is transferred to the city, NASA Lewis will have to coordinate with the airport to dovetail the



Photo by Don Easterling

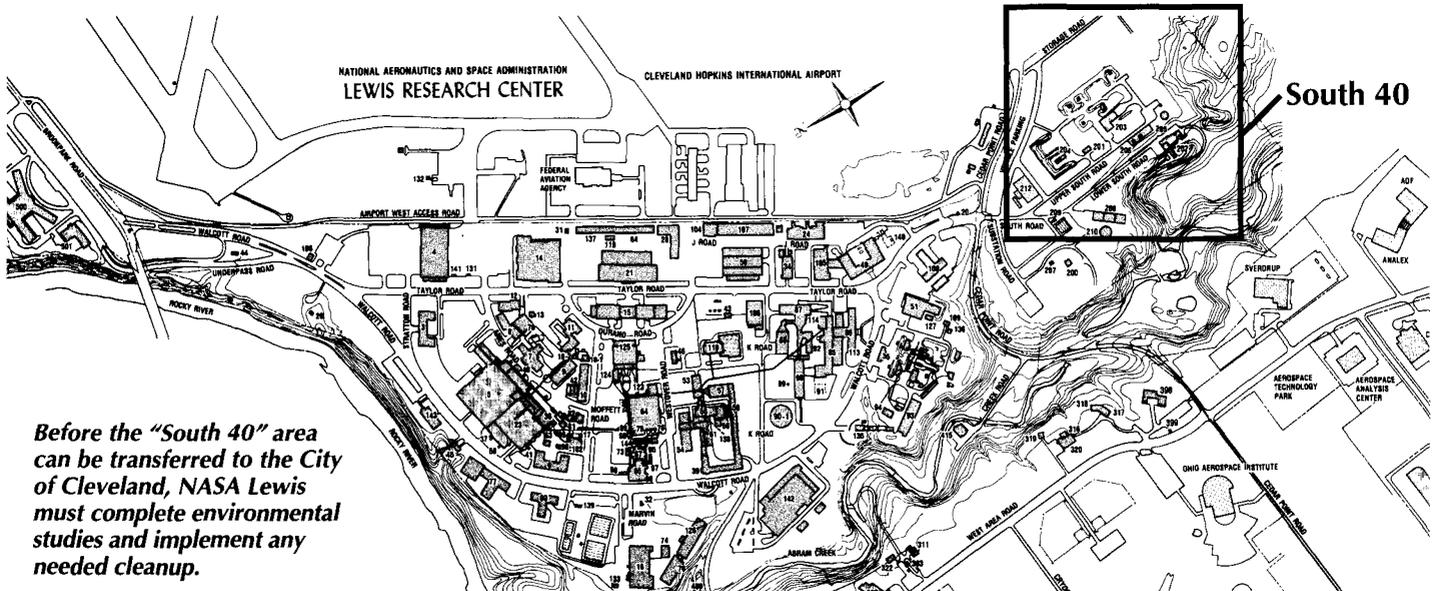
**Contractors from R&R International collect deep soil samples from NASA Lewis' South 40 for chemical analysis.**

approved remediation with planned runway construction designs. To NASA Lewis, transferring the land would also mean working with the airport to demolish and relocate research facilities and other buildings, and add a culvert to a portion of Abram Creek.

Other than large piles of dirt being stockpiled on adjacent airport property, NASA Lewis employees will not see any evidence of the project until runway construction actually begins in late summer of 1999. Final details regarding the massive undertaking are pending.

"We've signed an agreement with the Ohio EPA and have agreed to work with the airport to accommodate their planned expansion in a fashion that doesn't adversely affect our mission," explained NASA Lewis Chief Counsel Bill Sikora. "The bottom line is that we want to be a good neighbor and continue to fully meet all our environmental responsibilities."

**Editor's Note:** Look for further information about the airport expansion project in upcoming issues of the Lewis News.



**Before the "South 40" area can be transferred to the City of Cleveland, NASA Lewis must complete environmental studies and implement any needed cleanup.**

# Glenn makes way for airport expansion

BY DOREEN B. ZUDELL

**I**N an effort to safely accommodate increased air traffic, Cleveland Hopkins International Airport is undertaking a major project to expand its runways. Several phases of the project will impact Glenn's facilities and boundaries.

"While Glenn has remained neutral on the need for the airport expansion project, we have worked to maintain our cooperative 'good-neighbor' relationship with the City of Cleveland," explained Glenn's Chief Architect Joseph Morris, Systems Management and Maintenance Branch. "The City has agreed to keep Glenn whole throughout the project, ensuring that the Center will not lose any of the capabilities necessary to fulfill our mission."

The first phase of the project—building a new 7,000-foot runway scheduled for completion in June 2002—will be constructed on existing airport property. However, the second phase of the project—extending that runway by another 2,000 feet for completion by 2004—is planned for construction over Glenn's South 40 land.

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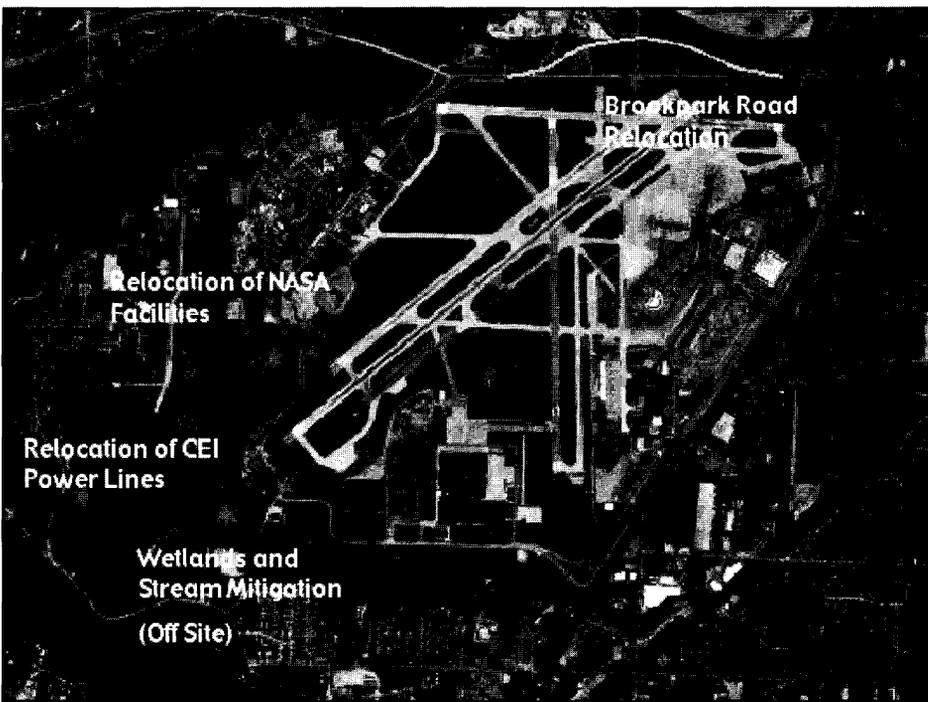
**The City has agreed to keep Glenn whole throughout the project, ensuring that the Center will not lose any of the capabilities necessary to fulfill our mission.**

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"Before the second phase of the runway can begin, the City will relocate our South 40 buildings and structures to new areas here and at Plum Brook Station," Morris said.

Facilities in South 40 that will be impacted by the runway include:

- Central Chemical Storage Facility, Building 212, used to store and process shipments of chemicals used in testing, will be moved 150 feet west of its present location.
- Rocket Engine Test Facility (RETF), Building 202, a National Historic



*This is an aerial view of the Cleveland Hopkins International Airport. The proposed expansion that impacts Glenn's West Area is identified in the star within the square. Other stars indicate upcoming projects.*

Landmark because of pioneering work at the facility in the development of liquid hydrogen as a propellant, will not be rebuilt. An extensive history of RETF will be prepared, along with historical artifacts, a model of the facility, and displays, to share RETF's history at local and national museums.

- The Altitude Combustion Stand (often called the B-Stand), a component of the RETF, will be relocated to the Lewis Field Research Combustion Laboratory Complex. It will be incorporated into Building 83, neighboring Building 35-10 and the new Small Scale Multi-Purpose Research Facility.
- Small Scale Multi-Purpose Research Facility (SMiRF), Building 204, the most active facility in the South 40, will be relocated to the Abram Creek valley along Creek Road.
- Cryogenic Components Laboratory (CCL), Building 203, is a complex of 7 test cells surrounding a control and shop building. CCL Test Cells 1 & 2 and the Fuel Densification Test Site will be relocated to Plum Brook Station. CCL Test Cell 7 will be

relocated at the Abram Creek site in conjunction with SMiRF.

Three facilities in the West Area will be rebuilt further away from the airport to create a buffer zone. They include the Lewis Little Folks Daycare Center, the Fitness Center, and the Picnic Grounds. These facilities will be relocated across the street near the OAI building and behind the ball diamonds.

"Construction of these three West Area facilities will create a recreational-educational zone that will form a nice transition from our Glenn facilities to Brook Park neighborhoods," Morris said.

Construction on the South 40 relocation projects is expected to begin this summer and to run through 2003.

"Hopefully the West Area facilities will be operational by the summer of 2002," Morris said. ♦

EDITOR'S NOTE: *Future AeroSpace Frontiers issues will provide details on some of these projects as well as others affected by the airport expansion. These projects will be funded out of the City of Cleveland's airport expansion budget.*



## *Director's Corner*

with DONALD CAMPBELL

### **"Glenn and airport share a kindred interest in aeronautics"**

**W**HILE Cleveland Hopkins International Airport construction is visibly underway, we at Glenn are progressing in our own efforts to support the City's decision to expand the airport. Over the past 7 years, I have worked with a team at Glenn to determine the steps we must take to be a good neighbor while ensuring that this Center maintains the facilities and capabilities necessary to meet our mission.

I realize there may be inconveniences associated with this major project, however, I am confident that Glenn's Facilities and Test Engineering Division is working to coordinate and minimize the impact to the Glenn community.

Glenn's cooperation with the City will ensure both the vitality of the local economy and the Center. Although important Glenn property interests will be affected, the planned facility relocation takes advantage of synergy and current technology to ensure that important research and institutional capabilities are maintained. For example, relocating the new test facilities will promote convenience and synergy among our researchers. In addition, an educational/recreational district will be created within the West Area by relocating the day care center, fitness center, and picnic grounds adjacent to current ball fields and the OAI. These new facilities will meet current safety codes and will be energy-efficient. All relocation work will be performed under the City of Cleveland's airport expansion budget with no cost to the Center.

A kindred interest in aeronautics make Glenn and the Cleveland Hopkins International Airport natural partners in the mission to improve the quality of air travel. Toward this goal, the new runways will better disperse air traffic offering a significantly higher degree of safety for airline personnel, passengers, and local residents.

# Rocket Engine Test Facility's legacy lives on

BY DOREEN B. ZUDELL

When the Rocket Engine Test Facility (RETF), is demolished this month to make way for the Cleveland Hopkins Airport expansion, the structure will be gone but its legacy will live on for future generations to learn from and to marvel in its contributions.

Proclaimed a National Historic Landmark in 1984, the RETF, located in the 4 is recognized for its role in advancing lightweight, regenerative-cooled, hydrogen-fueled engines and for advancing propulsion technology used in NASA missions and programs.

Over the past year, Glenn's Facility Preservation Officer Joseph Morris has been working with the Center, Agency, city, state, and national teams to ensure that the history of the 47-year-old facility is preserved.

"Among the many accomplishments that resulted from work in the RETF was the development of the RL-10 engine for the Centaur rocket, the J-2 engine for the Saturn rocket, and the hydrogen-oxygen engines used on the space shuttle," said Morris. "If we were taking down the White House, we would go through the same extensive process as our Hardlines Design (Columbus) consultants have followed for the RETF."

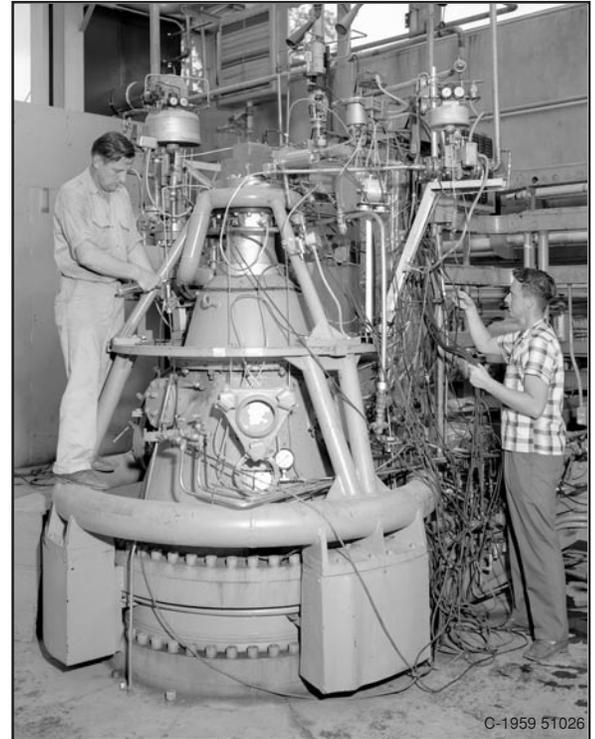
A significant aspect of the preservation process includes identifying hundreds of artifacts from the facility. While Glenn has retained first rights to the artifacts, many items are available to other NASA centers and museums, such as the Smithsonian Institution. Glenn's Logistics Technical Information Division worked closely with RETF personnel to tag, photograph, and catalogue the artifacts. Current and retired Glenn personnel who worked in the facility gathered at the Guerin House on June 26 to help identify hundreds of photographs taken at the facility through the years.

Cataloguing the RETF documents has also been an intensive process, according to Glenn History Officer Kevin Coleman.

"About 395 files have been catalogued by placing them in acid-free boxes and folders. Originally they filled almost eight file cabinets. History Enterprises, Inc., has prepared a detailed finding aid and database for use by scholars interested in the history of the facility. In addition, Virginia Dawson, author of *Engines and Innovation*, a historical look at the then Lewis Laboratory and American propulsion technology, is currently reviewing this material to write a book on the RETF," Coleman said.

Hardlines Design will create an RETF Web page in 2004 that will provide interactive information on the facility, including photographs and live video files of test runs performed in the 1960s. A Visitor Center display is also in the planning stages, including videos that will feature retirees reflecting on their experiences in the facility.

"The RETF was an amazing facility," Morris explained. "But it was the talented and dedicated people who worked there



*This 1959 photo in the RETF shows mechanics preparing for testing in Test Stand A. Work in this test stand led to the facility being named a National Historic Landmark.*

and the research they performed that made it historic. Now we'll be able to share their history with future generations. Their story teaches us that any of our day-to-day activities could one day become a significant part of history—for Glenn and the Nation." ♦

## Former employees look back

BY DOREEN B. ZUDELL

Nine individuals who have made significant contributions to the Agency through their work in the Rocket Engine Test Facility (RETF) gathered at the Guerin House on June 26 to do their part in preserving the past.

While the objective of the meeting was to identify hundreds of old photographs of the South 40 area—primarily the RETF, which will be demolished this month—the overall theme was pride and camaraderie.

The group included current employees and retirees who have either returned to Lab as support service contractors or consultants: Andrew Aron, ZIN; Douglas Bewley, William Torres, and Neal Wingendorf, QSS; Robert Braun, Terrell Jansen, and Robert Vanek, Engineering and Technical Services Directorate; and George Repas and Richard Quentimeyer, independent consultants.

"The group of us in the Rocket Lab believed in what we were doing," said Bewley, who worked at the Center from 1986 to 1996. "I remember back in 1990, the RETF team

Continued on next page

# RETF staff gather and reminisce over photographs

Continued from page 2

was asked to test the Spindle Injector Rocket Engine (a joint NASA, TRW, and McDonnell Douglas program) at Test Stand A. The TRW engineers were skeptical at first when they learned that we manned the facility with just five

Photo by S. Jenise Veris



engineers, not 20 or 30 that they had back at their California test sites. But we proved to them that we were a skillful and efficient team, and left them in awe."

Glenn History Officer Kevin Coleman, Logistics and Technical Information Division, who helped coordinate the activity, said that because sketchy documentation of the Lab's history, retirees are a vital link to the Center's past. In fact, the Center is enlisting the aid of some of those who attended

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*Seated (left to right) around the table are retirees Repas (back to camera), Jansen, Bewley, Vanek, Quentmeyer, Braun, Torres, and Wingenfeld who helped identify RETF photos for the archives. Standing, left to right, are Jon Erdmann and Greg Plassard from Cleveland Hopkins Airport.*

the gathering in other areas of the facility preservation process.

"Among the valuable contributions the engineers and technicians made at the meeting was distinguishing between the different RETF stands in photographs," Coleman said. "It is especially important to document artifacts in pictures of Test Stand A, which is considered the most historic, and led to the facility being named a National Historic Landmark."

While recalling the many experiences during his tenure in the RETF, Wingenfeld, who retired in 2001, said that the time spent reviewing the pictures with this group of retirees put it all into perspective for him.

He said, "While we're proud of our technological contributions, it's the people who we knew and cared about that we value the most." ♦

# Glenn officially dedicates cryogenics facility

Cleveland Mayor Jane Campbell helps christen relocated research facility.

BY DOREEN B. ZUDELL

NASA Glenn and the City of Cleveland celebrated the reopening of the Small Multipurpose Research Facility (SMiRF) in a dedication ceremony on October 18. The recently completed facility was relocated by the City of Cleveland to clear the path for the new runway at Cleveland Hopkins International Airport.

Center Director Dr. Julian Earls, Deputy Director Richard Christiansen, Cleveland Mayor Jane Campbell, and Director of the Department of Port Control John Mok participated in the ceremony. Donald Campbell, who served as Glenn's center director during most of the planning and construction phases of the project, also attended.

Earls, Christiansen, Mayor Campbell, and Mok christened the facility by shattering carnations—frozen to cryogenic temperatures in liquid nitrogen—against the side of the SMiRF.

"Moving complex scientific facilities such as this one [the SMiRF] is complicated . . . the key to success was interagency cooperation," said Mayor Campbell.

SMiRF is part of Glenn's Creek Road Complex, which contains two cryogenic propellant research facilities and a supporting shop building. SMiRF specializes as a low-cost, small-scale screening facility for cryogenic fluid management concept, component, and subsystem testing, and long-term cryogenic storage using liquid hydrogen. It provides the ability to simulate space pressures and temperatures as well as launch pressure environments. The second research facility, known as the Cryogenic Components Lab-7, is designed to conduct low-cost, small-scale testing of cryogenic components.

"The Creek Road Complex is integral to our support for NASA's Vision for Space Exploration," said Mike Meyer, chief,

Propellant Systems Branch. "We recently partnered on a successful NASA Marshall-led proposal to the Exploration Systems Mission Directorate at Head-quarters to develop key technologies for an in-space cryogenic propellant depot—effectively, a 'gas station in space' for vehicles heading to the Moon or Mars. Over the next 4 years we will be conducting a wide variety of tests at the Creek Road facilities to mature several technologies that are required to make an in-space cryogenic propellant depot possible."

After the ceremony at SMiRF, Earls, Christiansen, Mayor Campbell, and Mok briefly visited Lewis Little Folks (LLF), the Center's child development center. LLF students greeted the guests with a song and escorted them to the kindergarten classroom, where the children presented small gifts as a token of their appreciation for their new school. The school is one of three West Area buildings, along with the Fitness Center and Picnic Grounds, that were relocated by the City of Cleveland to make way for the airport expansion.

"The construction of these relocated facilities is an excellent example of the 'good-neighbor' relationship we have with the City of Cleveland," said Earls. "I am pleased that we worked together in this win-win solution."

The celebration culminated at the Picnic Grounds, where both Glenn and City of Cleveland relocation team workers were recognized for their hard work and



Photos by Marvin Smith

*Top: left to right, Earls, Campbell, Mok and Christiansen (hidden) cryogenically christen the SMiRF. Middle: Meyer shares facility highlights with Campbell and Mok. Bottom: Earls and Campbell enjoy talking with LLF kindergartners.*

dedication to the relocation project. Director Mok said that the work performed in the project will "benefit our community as we move forward into the 21<sup>st</sup> century." ♦