

## Wing Tips: June 10, 1955

### CHITTER-CHATTER

Bermuda Bound - Emil (LUPA) and Audrey Kremzier (Res. Reports) are off to Bermuda for a week's vacation.

Dot Collins (8x6 Computing) and her husband are enjoying a two week vacation in Florida.

Joanne Schwedler and Anita Constantine (C&T) just returned from a month's trip out west.

And did you see the three brownies who just rolled in from 3 week's vacation in Florida? Irene Kives (Director's Office) Rosemary Weiss (General Services) and Rita Roach (Payroll) undoubtedly had a terrific time!

New members of Section B Computing are Marvin English, Margarete Kurz, Anna Easley, Helen Marie Murphy, Gail Gifreda, Manice Meeter and Carol Downey.

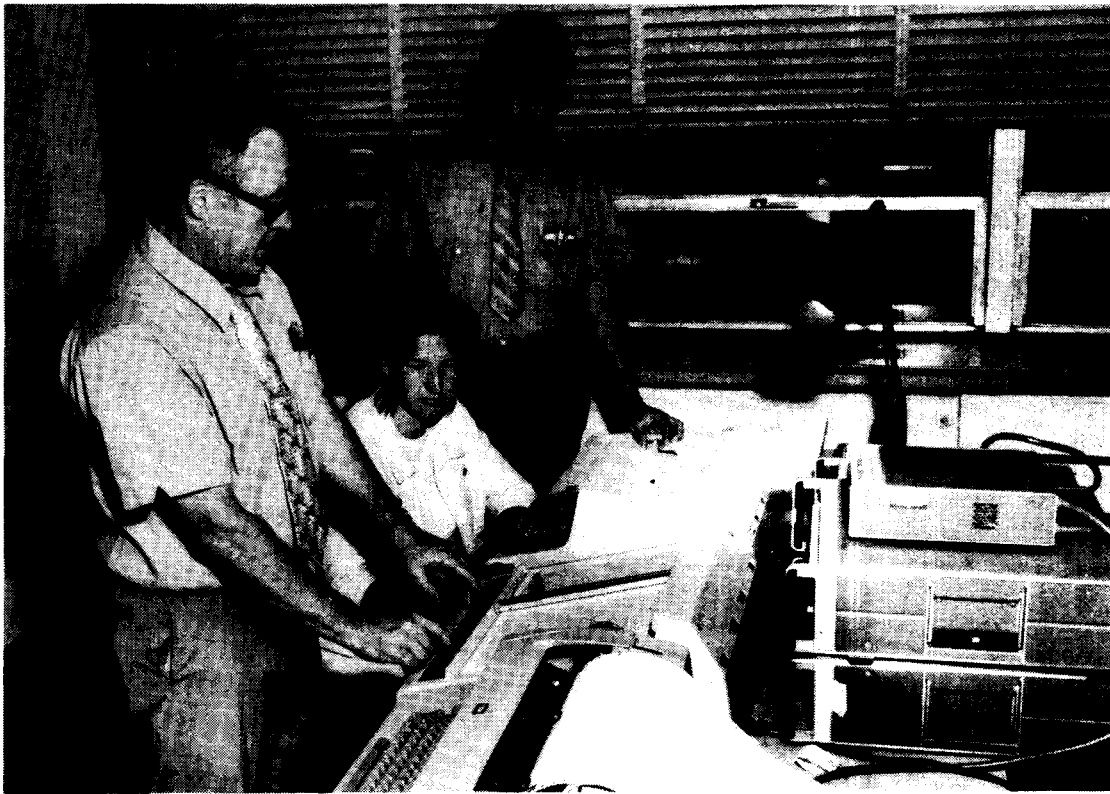
Their fifth child was born to William (Engine Research) and Marilyn (formerly F & C) Koffel, a girl, Rita Elaine, on May 27. (Her father's birthday!)

Retreat for Girls - Last call, girls, to make a retreat over the weekend of June 24, 25, 26, at St. Joseph's Diocesan Retreat House, 18485 Lake Shore Blvd. (on C.T.S. Bus line). For reservations call Gertrude McNeeley, PAX 4194 (or OL-1-4848).

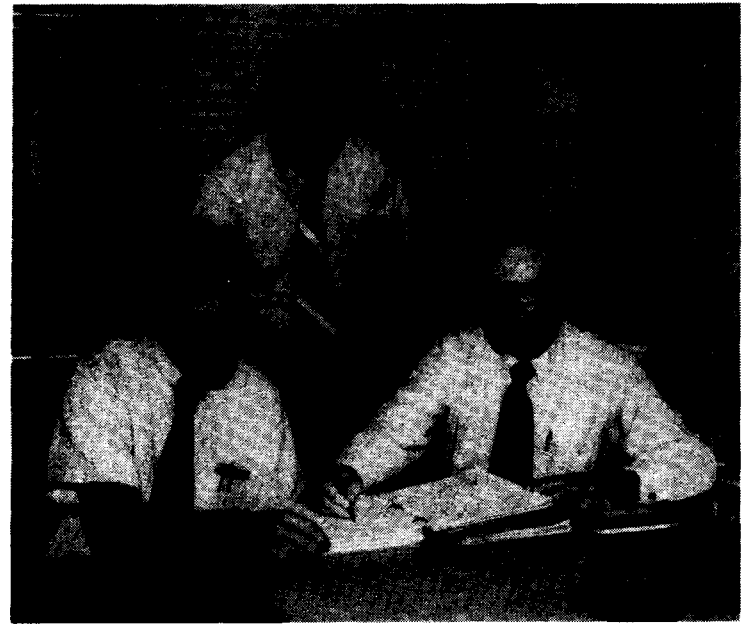
## CAREER COUNSELORS



*Assisting in the education of our youth, many of these Center employees and others have served as counselors at the Clara Morris Work Study Program since its inception in 1965. See story on page 6. Shown are, from left: Jesse Strickland, project coordinator, Luke Wilkins, Evelyn Englander, Clyde Albergottie, Mary Hazleton, Bill Akins, Annie Easley, William Hyde, and Vernon Mays. Don Huebler, who snapped this photo, discussed his job too.*



Dr. Aldren F. Presler (left), Patricia A. Smith and Harold E. Renkel operate Newlett-Packard digitizer, calculator, typewriter, and plotter complex.



F. Peter Michaelis (left) Vincent J. Scullin and Bert Henry review the schedule of programmers for research facilities.

## Bridging a research gap

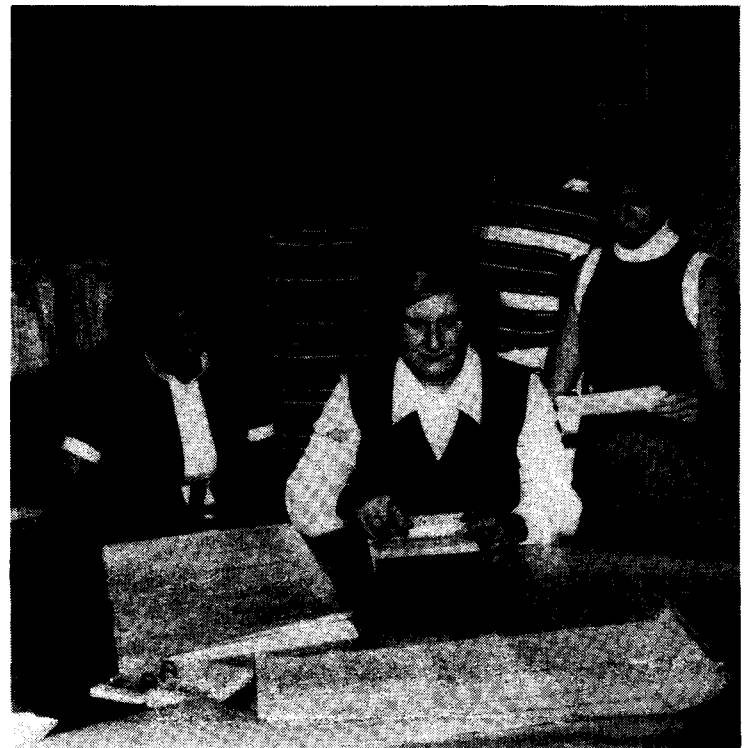
The 25 computer programmers of Bert Henry's Computing Section B, consisting of mathematicians and mathematics technicians, have a unique and

very important Center mission — that of bridging the gap between raw research data and the final results which have physical meaning to the researcher.

To bridge this gap, they provide a broad range of computing services, varying from short manual calculations to voluminous data processing with large digital computers. Their efforts require a good knowledge of the research area in which an engineer is working, an insight on how the raw data are accumulated and how their data relate to the physical problem being investigated.

Members of the Section are continually widening their knowledge in all technical areas where they are expected to perform computing services. "These include all the engineering sciences because as automation keeps expanding, there is increasing need for a more detailed understanding of the experimenter's methods and objectives," Henry said.

Mathematicians often get involved in the analysis and design of experiments with



From left to right: Mary J. Winter, Annie J. Easley, Geraldine E. Amling, Muriel B. Eian and Susan L. Button discuss modification of an IBM computer program.

the aid of computers through assisting research personnel in establishing design criteria for components and through predicting the operating range of the proposed system.

The range of their expertise even reaches into the area of helping to solve some personnel problems with the

aid of computers.

"For example, we take the wage grade data collected by the Personnel Division and process it to provide trend lines which are used for establishing pay scales for the Cleveland area wage grade personnel," Henry said.

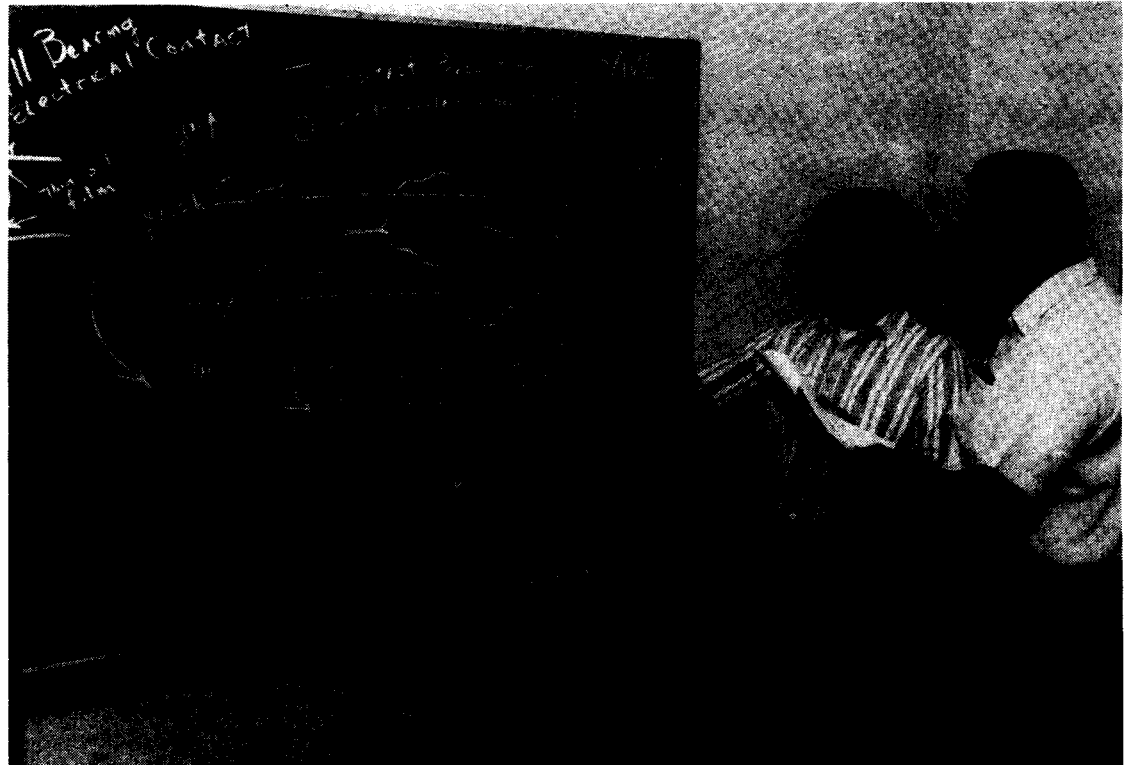


Dr. Edward C. Bittner (left), Frank B. Molls and Gerald J. Lenhart discuss stratified picture of Lake Erie.

### Photos by Martin Brown



Peggy M. Smith (left), Eileen C. Cox and David C. Hopkins monitor a data reduction program for a Plum Brook facility at terminal and plotter complex.



From left to right: Dr. Steven M. Sidik and Glenn R. Cowgill study analysis of ball bearing electrical contact.



## Lewis EEO Committee

*The Lewis Equal Employment Opportunity Committee holds one of its monthly meetings shortly after several new members were added to replace those who had served their terms. The committee rotates its members to give others at Lewis a chance to serve. Members (looking clockwise) are Ruth E. Arnholt, Starr Truscott, Orlando A. Gutierrez, Theresa A. Horvath, Harold Ferguson, chairman, Shelton Beasley, Jr., Annie J. Easley, Ellen Nachman, and Norman T. Grier. Missing are Dr. Albert C. Antoine, Ernest Roberts, Jr., Glenn R. Zellars, Jesse M. Mason, and Willie Napier. According to Ferguson the new members are Napier, Grier, and Ms. Nachman. Also missing from*

*picture but is an ex-officio member is Genevieve M. Esgar, Coordinator, Federal Women's Program. The purposes of the committee are to represent the interest of female and minority employees in areas concerning equal employment opportunity; assist the Office of Equal Employment Opportunity in establishing and maintaining contacts with community organizations concerned with equal employment opportunities for female and minorities; and make recommendations for actions to Center management on all items affecting the Center work environment relating to Equal Employment Opportunity. (Don Huebler photo)*



*These are the charter officers of the Lewis Business and Professional Women's Club shown being installed in March, 1968. The first officers were (left to right) Frances Poorman, treasurer; Aretha Dillard, corresponding secretary; June C. Szucs, recording secretary; Malvina (Cuchna) Hay, second vice president; Mary G. Brady, first vice president; and Theresa A. Horvath, president. Mrs. Szucs is currently serving as president of the club.*

## BPW Club here is 10 years old

The NASA Lewis Business and Professional Women's Club is celebrating its tenth anniversary with a special program today, April 28, in the dining area of the Main Cafeteria.

Joining them are members from other BPW clubs in the Greater Cleveland area: District Legislative Representative Lois Applegate and special guest Delores Chambers, Ohio BPW Federation President for 1978-79.

The evening includes a

social hour, dinner, program and tour of the Visitor Information Center. Reservations are required.

"The program will highlight some of our past accomplishments, give recognition to charter members and take a crystal ball look at the future," says Club President June C. Szucs.

Planning the evening's festivities are Judy Drabik, Annie Easley, Gizella Horvath, Theresa Horvath,

Katharine Reed, June Szucs, and Del Zatroch.

The NASA-Lewis Club is a member of the National Federation of Business and Professional Women's Clubs founded in 1919. It was the first national organization in the world created by and for business and professional women, and today has over 170,000 members in the United States. About 8,000 of those members are in the state of Ohio.

# Youth symposium draws 900 students

Where would Lewis place 900 engineers, scientists and other technical persons if they decided to work here?

If the comments and enthusiasm displayed by that many students at a recent three-day symposium here are any indication, Lewis will have a deep reservoir of talent to select from for many years to come.

The students, mostly minority and female high school age teenagers, were invited here to participate in a unique learning experience aimed at

encouraging them to select engineering and science as a career.

Coordinated by the Lewis Equal Employment Opportunity Office, the students heard comments from Deputy Director Dr. Bernard Lubarsky, astronaut Air Force Major Guion S. Bluford and other Lewis and NASA personnel.

During the symposium, students were involved in hands on types of workshops, a new twist for this type of program which has been held at other NASA Centers and cities throughout the

country.

Panel members explained a wide range of research being conducted at Lewis. The panelists were Dr. Julian M. Earls, Annie Easley, Dr. Phillip Hodge, Frederick Simon, Harrison Allen, Jr., Lonnie Reid and Orlando Gutierrez.

"I was really impressed with the quality of questions asked. They were really in-depth and impressed our panel members," said Harold Ferguson, Chief, EEO Office.



Symposium speakers (left to right) Peter Chen, Harrison Allen, Jr., Annie Easley, Phillip Hodge, Frederick Simon, Lonnie Reid and Orlando Gutierrez.



Deputy Director Dr. Bernard Lubarsky speaks to students.

By  
Miles  
N.  
Miles

Dear Miles,

*I have always (since taught to do so in Junior High School) run on the balls of my feet rather than with a heel-first-roll-the-foot motion. I would like to take up jogging and ball-of-the-foot running seems to me the best way to go, much more shock absorbing than heel running especially on hard surfaces.*

*Please comment on various foot motions and who should use which.*

**Ball-of-the-Footer**

Dear Ball-of-the-Footer,

Relations with the ground should be a natural act performed by consenting feet. Running on your toes is unnatural, except at fast speeds.

A German track expert, Toni Nett, has analyzed slow motion photography of many top runners. Footplant technique was found to be universal despite widely differing running styles. The point of initial contact varies only with speed; long-distance racers naturally land on the heel, middle-distance racers land on the mid-foot and only sprinters race on the ball of the feet. A health-oriented or pleasure-oriented jogging program must last long enough to do some good, not twenty five seconds! You would have to make a conscious effort to run any way other than heel first or flat footed. Toe running is only appropriate for dashes, maneuvering, and catching rental cars in airports.

You're absolutely right to be concerned about the shock effect of the foot hitting the ground. If you do land on the ball of your foot, however, the jolt will be felt abruptly by the tensed muscles of the nonconsenting lower leg and foot. With many repetitions, the trauma to the muscles, tendons, and small foot bones would readily lead to injuries. It's been known for years that toe runners are prone to shin splints. The transmitted shock could also irreversibly damage the spinal column.

Miles N. Miles

**RELAY WATCHERS GUIDE**

The important maneuver in the sport of relay watching is to be there when it happens. Lewis' 100-Year Relay happens in the West Area starting at 5:30 p.m., Wednesday, June 28. (For safety reasons, the Relay was postponed from June 15.) Most of the action (start, finish and many hand-offs) takes place in front of the Guerin House where the final results will also be posted.

No parking will be permitted near the Guerin House or along the relay route. Park by B-301 or B-302 and hoof it to the start line or the quarter mile handoff points. Course maps are available from the runners.

You needn't be 100 years old to know what's going on. Each team has only four runners to run five laps around the one-mile course. Every runner must run at least a mile and can run only once. Team strategy dictates where they hand off.

Teams all start in the same place, but at different times. The "zero-handicap" reference time is 5:40 p.m. and corresponds to a fictitious team barely 100-years old with no females. For real teams, the first runner takes off ahead of "zero" by the total amount of the team handicap. That's four seconds per year (over 100 years) and 90 seconds per female.

Teams are numbered in order of decreasing handicap. So, except for last minute substitutions, they launch off in numerical order. By "Zero" time, handicaps are used up and teams are scattered along the course. As faster teams make up ground, the numbers passing any spectator shift toward the final standings.

The finish is real. Yes, you may cheer right then and there! If someone beats another by a nose at the finish line, his team earns the place he finished. No computation is needed to determine the final standings.

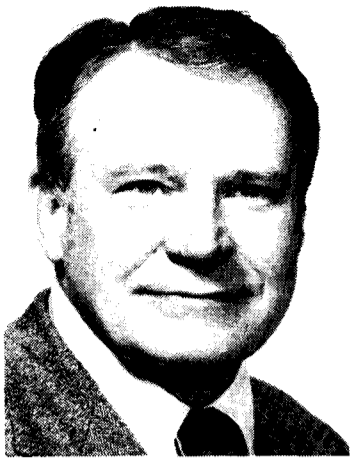
"Net time" is the significant team time. It's just the time elapsed since zero, and represents the run time minus handicap. Barring technological failure all net times will be posted at the finish area.

Who has the advantage? The old? The young? The men? The women? Answer: None of the above. The well trained have the edge, despite age or gender.

See you and hear you next Wednesday, rooting your runners to glory.

**Speakers' Bureau**

# THE VOICES BEHIND LEWIS



**Dr. John F. McCarthy, Jr.,  
Director  
Lewis Research Center**

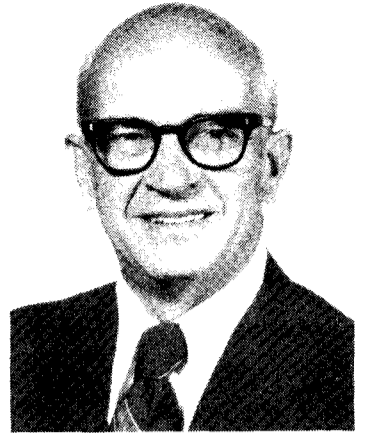
*"A strong speakers program is a Lewis asset. It permits us to tell in-person the story of Lewis and NASA accomplishments. Such efforts help to make the public aware of the achievements and benefits of the nation's aerospace program."*  
**Dr. John F. McCarthy, Jr.**



**Calvin W. Weiss,  
Chief,  
Educational Services**



**S. Peggy Kromer  
Speakers' Bureau  
Coordinator**



**Dr. Walter T. Olson,  
Director,  
Technology Utilization and  
Public Affairs**

*"By far one of the finest programs at Lewis. It allows Lewis personnel to go out into the community to tell the NASA story before live audiences. By going the extra mile, Lewis speakers are making a vital contribution to the Center and the agency."*  
**Dr. Walter T. Olson**



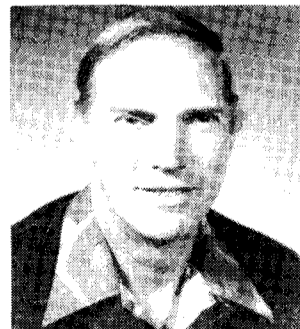
**Harrison Allen, Jr.**



**Charles W. Andrews**



**Earl T. Bloam**



**Harry E. Bloomer**



**James E. Burnett**

The members of the Lewis Speakers' Bureau give more than 200 in-person presentations to over 35,000 people each year, and reach many thousands more through radio and television.

"Speakers strive to give a favorable impression of the government at work using the taxpayer's dollars to the best possible advantage for the general public," says Peggy Kromer, Speakers' Coordinator in the Educational Services Office. Audiences include technical and scientific societies, civic, educational, social, religious and business groups. The goal is to educate people about NASA Lewis in the highly populated six-state Lewis area of responsibility of Ohio, Michigan, Indiana, Illinois, Wisconsin and Minnesota.

We have all read the Speakers' Corner which appears once a month in the *Lewis News*. Now let's have a "look" at the people who make up this special group of Lewis personnel.

Dr. Walter T. Olson, Director of the Office of Technology Utilization and Pub-

lic Affairs Directorate, is the man directly responsible for overall activities. In addition, he makes many speeches, bringing the expertise of his years in research directly to his audiences. Speakers are members of the Lewis professional staff who volunteer their time each year preparing and giving speeches. They represent a cross-section of divisions at the Center.

Peggy Kromer has been Coordinator of the Lewis Speakers' Bureau during the past eight years. She works with the speakers and the general public in making arrangements with groups requesting NASA programs. Peggy said, "I feel it is important for the Center to maintain close contact and a direct 'life-line' with community groups. This we do on as much of a personal basis as possible."

A few brief sketches of some of the speakers:

Marshall W. Dietrich, who has totaled the most appearances with over 150 speeches during his 15 years with the bureau. Marshall has made a number of radio and tele-

vision appearances including "The Morning Exchange" program here in Cleveland. He says, "I have found my work as a speaker very gratifying and many positive responses are received. I think it is a good thing to bring the laboratory to the people."

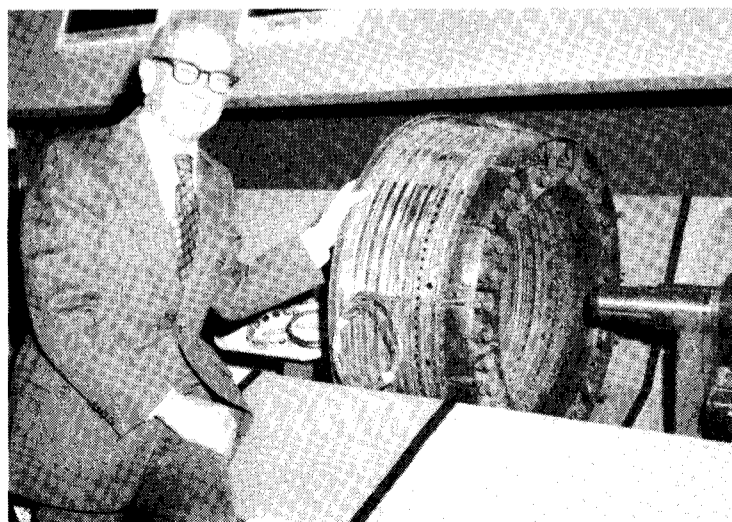
Dr. Wojciech Rostafinski makes yearly trips to Washington, D.C. to tape programs for broadcast on the "Voice of America." These are done in his native Polish or in the several other languages that Dr. Rostafinski fluently speaks. Preston L. Stamper, Earl T. Bloam and Louis R. Revnyak especially enjoy their speeches to groups comprising children and adults. Year after year they are asked to address Blue and Gold banquets for the Boy Scouts of America. They appear as the main event at such presentations, and conduct question and answer sessions following their speeches.

Oliver W. Reese and June C. Szucs speak to many library and senior citizen groups. June has received an overwhelming response for her informative speech on a meal system for elderly Americans called "Meals from Space," a NASA technology transfer program.

Ronald F. Kiessling, through his work with the Communications Technology Satellite, gives an educational commentary on this satellite program.

Del Zatroch enjoys speaking to women's groups. She states, "I have been with the Lewis Speakers' Bureau for ten years. One of the most rewarding experiences I have had was when I spoke to

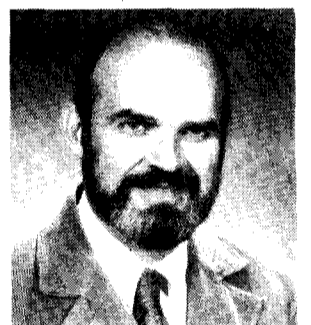
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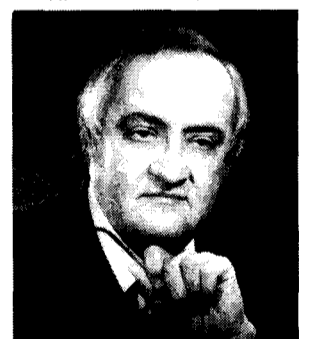
*Technical and scientific audiences are very responsive to talks on rocket engines given by Dr. Walter T. Olson, Director, Office of Technology Utilization and Public Affairs.*



**Clifford C. Crabs**



**James H. Diedrich**



**Marshall W. Dietrich**

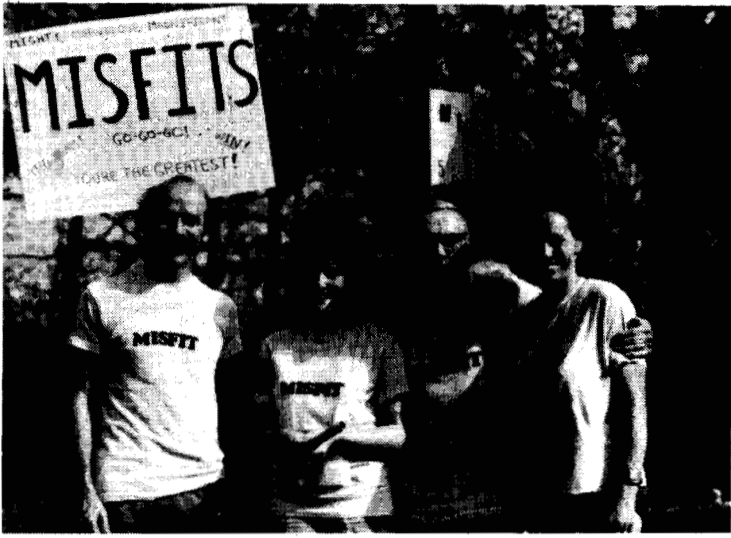


**Annie J. Easley**



**Peggy L. Evanich**

# 100-year relay highlights



Pageantry and pride are exuded by the Misfits (Dan Cica, Virginia Canright, Ollie Reese, and Mary Michaelis) from Computer Services.



In the classic 100-Year Relay start sequence, Dorothy Morris of the Lewis Library takes off 8th for the No. 8 Fleet Feet team, exactly 6 minutes 20 seconds before "zero." Lower handicapped teams (higher numbers) wait enviously as Dorothy begins to whiz out a 5:53 net mile.



Jogging enthusiast Thelma Hunt passes to retired boss Jim Modarelli as the Past 40's from Management Services Division take full advantage of the highest handicap (9¼ minutes) and their No. 1 starting position.



A youthful Annie Easley, left, completes a crisp 5:42 net mile before handing off to a young Monica Pribish on the all female Madd Milers.

Milt's Milers, from Wind Tunnel & Flight Division, were victorious by nearly a minute over the best of 26 other teams in Lewis' Third 100-Year Relay Race. An impressive second place finish by the CentiSSpeeds of Space Propulsion and Power Division completed the shakeup of the top four teams. The winning net time was 23 minutes 36 seconds for the exact five mile course. Milt (Beheim's) Milers combined an actual run of 29 minutes 56 seconds with a headstart (handicap) of 6:20.

Jack Reinmann's 5:45 mile, (a 4:39 equivalent for a 25-year old!) raised WT&F out of the runner-up category, while his former champion Division-mates from Fluid Systems dropped to a close third place.

Despite being the Most Improved Team, the Army Research and Technology Labs, slipped a notch to fourth place. Only teams with the same four runners are eligible for the Most Improved trophy.

Crowd fervor reached its height as Madd Milers' Donna Pribish stood off a strong finishing kick by the Truculent Turtles' Kerry McLallin. Donna ran two miles in 14:28, the last quarter mile with Kerry right at her heels, as he did 1¼ miles in 8:06. Each team can divide the five miles among its four runners as they see fit. Eleven teams chose two mile anchor people.

Equivalent times are the times a 25-year-old male would need to run to do equally well. Equivalent times consider the specific distance run as well as handicap. They differ from net times.



Race official Gerry Gebura posts team results in near real time. Many more teams and we'll need taller officials!



John Adamczyk, Jr., age 8, is still flying as he passes the family team baton to sister Peggy, age 10.



Marathoners Bob Stubbs, left, and Bernie Hamrock turn in back-to-back swift miles for the defending champion Wind Chasers from Fluid Systems Components Division.



Past 40's Dave Clinton nips the Bowditch Family anchorman by a scant second for 15th place.



Donna Pribish, 2 mile workhorse for the early starting Madd Milers, noses out 18th place from Kerry McLallin, anchoring 1¼ miles for late starting Truculent Turtles from Fluid Systems Division. This gutsy duo matched strides for the last quarter mile after Kerry had closed the gap.





*The NASA Lewis Business and Professional Women's Club officers for the 1979-80 term are, from left: Annie J. Easley, corresponding secretary; Judith Drabik, president; Monica M. Pribish, recording secretary; Peggy L. Evanich, first vice president; and Susan Krosel, second vice president. Missing from picture: Anna L. Miller, treasurer.*

(Jack Darginsky photo)

## *Women's club begins 12th year, cites awards, goals*

Judy Drabik of the Director's Office is starting her second successive term as president of the NASA Lewis Business and Professional Women's Club.

Other officers installed are Peggy L. Evanich, first vice president; Susan Krosel, second vice president; Anna L. Miller, treasurer; Monica M. Pribish, recording secretary; and Annie J. Easley, corresponding secretary.

The Lewis club is starting its 12th year and is one of ten that makes up District 5. It is unique in that all its 37 members are employed by Lewis or tenant organizations at the Center.

The BPW Federation, founded in 1919, is the largest and oldest group open to all working women in the nation. The objective of the National Federation has been to bring about equality for women through the legislative process and to extend opportunities to women through education and training. The National Federation has 165,000 members and the Ohio Federation currently has 8,000 members.

"The club received five awards at the state convention in Cincinnati, Ohio, held May 18-20, 1979," says Judy Drabik. One of the honors was the National Program Certificate presented by the National Federation of BPW to clubs for achievement in program planning for the year. The Ohio Federation of BPW presented the Criteria Club Award to the Lewis Club for fulfilling the program goals for the year. The other citations were for 15 percent membership increase, membership equalization, and 100 percent participation in the Christmas project of the Ohio BPW's Retirement Living, Inc.

The Lewis club held an Individual Development Program of two courses comprising 16 once-a-week sessions. "The IDP is a program of the National Federation aimed at helping members to develop skills not only in public speaking, but also in coordinating thinking processes and organization.

Young career women are highlighted by the Young Career Woman Program. Begun in 1964, the YCW program is one of BPW's most important projects for recognizing women achievers. Women between the ages of 21 and 30 are eligible

(Continued on page 2)

## Technician at Lewis Research Center likes the variety of computerized world

# Mathematician finds complex job exciting

By Jane M. Littleton

Complexity is a source of energy for Annie J. Easley.

Her job description reads: mathematician assigned to the utility and industrial power systems section of the system analysis and assessment office. Develops complete or portions of new power systems analysis computer codes or modifies existing codes.

Ms. Easley is a mathematician technician at NASA's Lewis Research Center in Brook Park.

She said the job is a lot easier

than it sounds. "It's varied and I like the variety," she said. "And I swear it's not mind blowing."

For some the job is a task, but for Ms. Easley, who has been solving math problems and setting up computer codes at NASA for 23 years, it remains exciting, challenging work.

In 1955, when Ms. Easley, who is black, applied for the job, she said she was not aware of any pressure to hire minorities. "I got hired on my ability," she said. "My high school and college grades were

good and I started working in about two weeks after filling out the application."

There is no overt racism or resentment by male co-workers, she said, adding, "but sometimes I wonder where I would be if I had been a man or a nonminority.

"I'm sure I never got to my present status because of favors or awards. I don't have a buddy to pull me along. I worked for what I got," she said.

Ms. Easley said she has no routine or average workday. Presently

she is developing computer codes that will be used to determine whether companies can produce their own power more efficiently and cheaply, rather than purchasing it from a utility company. This research of alternative energy sources includes studying the feasibility of the electric-operated car, she added.

She also is responsible for installing and testing computer codes NASA buys. For example, she said she is analyzing portions of a code being developed by the Oak Ridge National Laboratory in Oak Ridge, Tenn., for steam cycle energy experiments. When she has converted the code so it can be used on NASA computers, the engineers will use it for research and experiments.

A strong math background is essential to do the work, Ms. Easley pointed out. She holds a bachelor of arts degree in mathematics from Cleveland State University

As a child she preferred doing

math problems rather than reading. "Math came easy," she said.

Another incentive was her mother, a domestic worker in Birmingham, Ala. "She would say, 'You can do it. You can do anything,' and with that, I think I was halfway there. (It) was important to make me believe in myself," said Ms. Easley.

Through the years, Ms. Easley has tutored blacks and high school dropouts in math.

"Most of the kids I worked with have been able to grasp the mathematical concepts. They are willing and able to learn."

She travels, representing NASA at conventions and recruiting college students.

"I always tell the kids to try it," she said. "They have the ability.

"I'm not saying that everything is easy, but anything you don't know about seems complicated. You just have to want to do certain things and see it through."



The Plain Dealer/Richard J. Misch

Annie J. Easley

## Will Carter end \$13 billion oil muddle?

Continued from Page 19-A

respond to the new concerns about future Iranian oil production. He is expected to call again for voluntary steps to cut oil use, and perhaps mandatory conservation measures as well.

dollar-for-dollar into higher prices for all petroleum products, would mean only a 6-cent to 7-cent-a-gallon rise in gasoline and home heating oil prices.

Consumers, however, might not be hit that hard.

Many economists think that a

States, the world's largest oil consumer, finally tackling its energy problem could sufficiently stun the OPEC nations so that OPEC prices would not rise as fast this year as they otherwise seem destined to do.

Moreover, that same impact could give the still-troubled dollar a major boost. "If we were to swallow the whole thing at once," says an administration official, "the foreign exchange reaction might be phenomenal."

**Lewis on the road**

**Community Involvement: it came**

They came in vans full of NASA effects—print materials, exhibits, even a spacesuit—five aerospace teacher/specialists.

They came in NASA 5—the Lewis Gulfstream—in succession until some two dozen overall from the lab's research division had assembled.

They were the presenters for one of the Center's best Community Involvement Programs of all time, Sept. 26-Oct. 2, at Coon Rapids, a bustling, 172-square-mile suburb of Minneapolis-St. Paul, Minn.

The lure? The third largest school district of the state, boasting 34,000 students and 1800 teachers. The goal? Updating these science-hungry learners with the facts and figures of the nation's space and aeronautics programs, and the particulars as they apply to Lewis Research Center.

"It felt like we talked with all 34,000 of them by the time it was over," recalled Lynn Bondurant, Educational Services Office chief, who served as coordinator for the program and another that followed immediately in a

suburb across town, Burnsville.

"In reality, more than 30,000 made up the classes we addressed and tutored at Coon Rapids, together with the 1800 teachers.

On top of this, the display of some 30 separate NASA exhibits set up in the city's leading shopping mall to give the public a sampling of the length and breadth of NASA work, drew some 20,000 visitors a day."

One mall onlooker put it this way: "You'd have to go all the way to Washington to see all the things they have here."

The two Lewis aerospace education specialists, who serve the six-state territory assigned to the Center, were, for this special occasion, augmented by counterparts from Johnson and Headquarters to make up the core team. On hand were John Hartsfield and Ralph Winrich, the two Lewis reps, and Rodney Collins, Robert Neal and Norm Poff.

The five spoke to as many as five classes a day, with the students scattered among three senior highs, five junior highs, one middle school and



From left, Jerry Kennard, William Waters, Paul Antczak and Annie Easley look out as their plane descends for landing at Anoka, Minnesota airport.

25—repeat 25—elementary schools.

That's where the honor roll of volunteer Lewis researchers and specialists fleshing out the teaching staff came in. Their "curricula": aerospace spinoffs, energy,

careers, biomedicine, photography, aeronautics research, communications and extraterrestrial life.

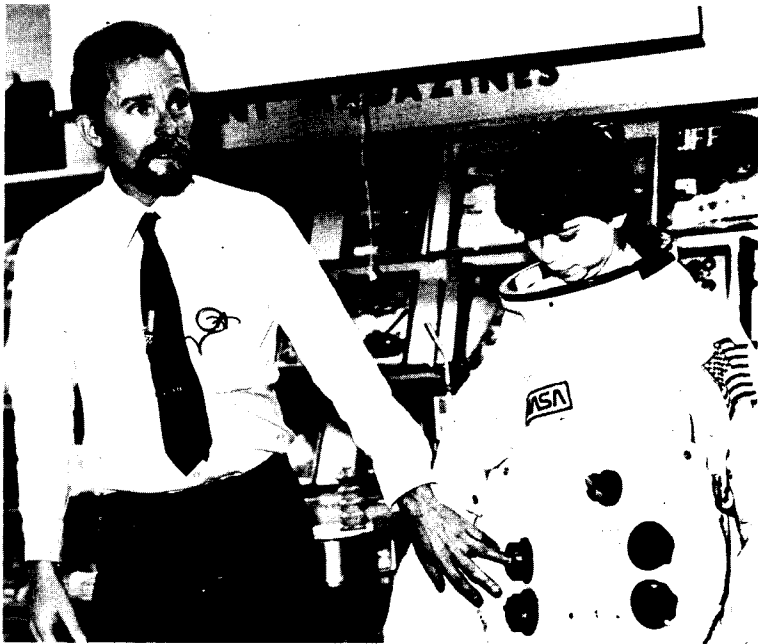
Lewis presenters for Coon Rapids: Cliff Brooks, Del Zatroch, Wojciech Rostafinski, William Waters,

Jarman Kennard, Robert Graham, Charles Moon (aptly chosen indeed), Loretta Shaw, Annie Easley and Ron Kiessling. Lecturers for Burnsville: Frank DeAngelo, Russell Keller, Susan

*Continued on page 5*

**Burnsville Highlights**

- 200,000 persons viewed the NASA displays.
- Junior high schools built a 1/10th scale model of the Shuttle especially for the occasion.
- Presentations made to 12,000 students and 700 teachers. Largest banquet turnout in history greeted lead speaker Dan Brandenstein.
- Covering Coon Rapids and Burnsville, Lewis speakers alone gave 97 presentations to 17,665 persons.



Aerospace lecturer Ralph Winrich tells students how astronauts dress for space.



Former astronaut Ron Evans answers a reporter's question.



Former astronaut Ron Evans was featured speaker at a banquet celebrating Space Week in Coon Rapids.



Young and old alike were fascinated by the Moon rock.

Photos by Cliff Brooks

# with clout to Coon Rapids

*Continued from page 4*

Johnson, David Herb, James Diedrich, plus again Waters and Kiessling.

The Lewis Coon Rapids contingent was assigned to "host" families of the suburb who provided lodging and meals, and lots of opportunity for "small talk." The "host" family idea was a first for a NASA community involvement program anywhere. Commented a school official: "We tried to match them with persons of similar professional interest."

One Coon Rapids highlight was a visit from former astronaut Ron Evans, who spoke at a banquet in his honor sponsored by the community and presided at a press conference that covered the gamut from "How do your children react to news of your going to the Moon?" (Answer: "They said Dad's going to the Moon today") to "Explain the difference between U.S. and Russian spacecraft today." Students participated in the press conference, by the way.

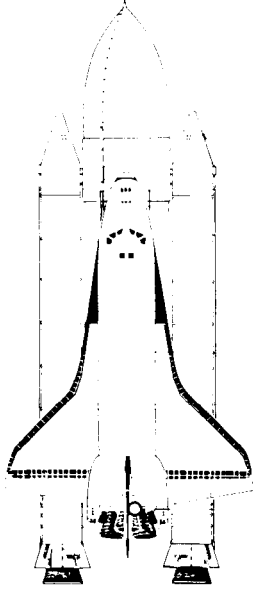
Evans flew on Apollo 17 in December of 1972 with illustrious astronaut names from the past, Harrison Schmitt and Eugene Cernan. Evans piloted the Command Module.

The beehive of activity at Anoka-Hennepin School District (official Coon Rapids

designation) hardly went unnoticed by Minneapolis-St. Paul media. Bondurant, who worked ten months putting the program together with Coon Rapids officials, spent sizeable portions of the first three days appearing on television and doing print media interviews.

Were the two week-long activities worth all the time and effort? "Well, we've already set the date and place for the next one in Cincinnati," said Bondurant. "But a better way to answer is to say the cooperation on the part of school officials was at all times unstinting and enthusiastic."

"And, don't forget," he smiled, "there are now at least 30,000 Minnesota youngsters in one town alone who'd give their eyeteeth to go into space."



Aerospace lecturer John Hartsfield explains aerodynamics of Shuttle.



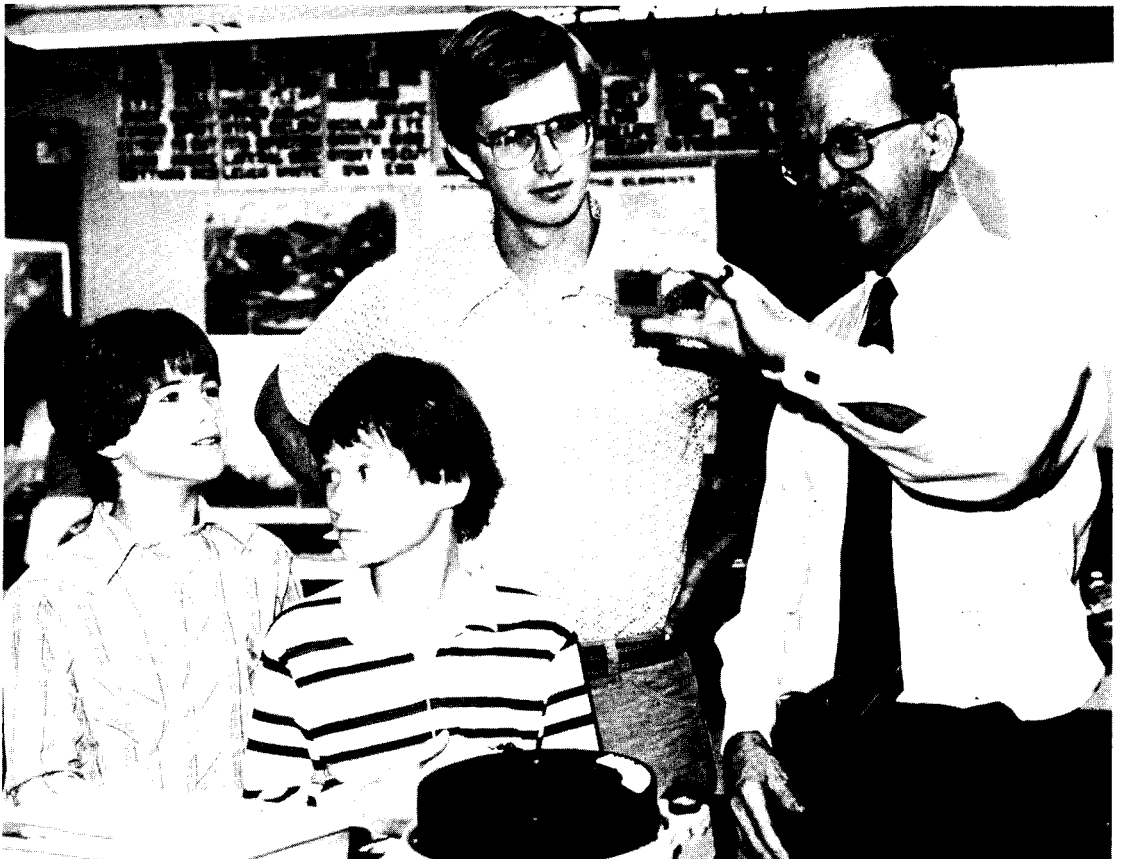
Part of the Lewis contingent are (from left) William Riecke, Leonard Cobb, Annie Easley, William Waters, Robert W. Graham, Loretta Shaw, Del Zatroch, Ronald Kiessling, Lynn Bondurant, Charles Moon, Jerry Kennard, Cliff Brooks and Paul Antczak.



Annie Easley (left) answers a student's question.



Loretta Shaw (third from left) explains types of career opportunities at NASA.



Lewis Bert Rostafinski lectures on life beyond Earth to Coon Rapids students.

## ***In Appreciation***

I'd like to thank my many friends and co-workers whose kindness and sympathy truly comforted me in the recent loss of my dear mother. Your caring thoughtfulness was deeply appreciated and will never be forgotten.

*-Bonita J. Tufts-Davis  
and family*

My deepest thanks and gratitude to my friends and co-workers for your kind expressions of sympathy and contributions made in memory of my father. They will always be remembered.

*-John W. Gibb*

Thanks to my many friends and co-workers for the great lunch and coffeecake sendoff for my retirement.

*-Gene Farkas*

My sincere thanks to those who helped make my retirement party a most memorable and enjoyable evening. The gifts and best wishes were much appreciated. I'll always have fond memories of my NASA colleagues who have made my 28 years at Lewis a pleasant and rewarding experience.

*-Irvin J. Loeffler*

I want to thank all of you who have expressed sympathy and good wishes following the loss of my sister. Your thoughtfulness is truly appreciated.

*-Bill Bruton*

I would like to thank everyone at Lewis for their thoughtfulness and kindnesses during my illness last fall and also at the time of my mother's death. It is the understanding and support of people like you that help us through these difficult times in our lives.

*-Sal Campo and family*

Words cannot express the appreciation for the great turnout at our retirement party, and the efforts of all those who helped make it such a fantastic occasion, in particular Valerie Lyons, Beth Armstrong and Sybil Morren. The warmth of the party was typical of our "100 years" of association with the world's greatest people at Lewis.

*-Carl Aukerman, Al Pavli  
and Dick Quentmeyer*

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## ***In Memory***

**Frederick Roehrdanz**, 81, died Feb. 21 after a brief illness. He retired from Plum Brook in 1972 after 26 years as an aerospace mechanical technician.

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## ***Retirement***



**Annie J. Easley**, Software Engineering Office, retired Dec. 29 with 34 years of NASA service.

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The Lewis News is published bi-weekly for Lewis Research Center employees, contractors and retirees by the Center's Public Affairs Office.

**Editor** ..... **Eileen Fritsch**

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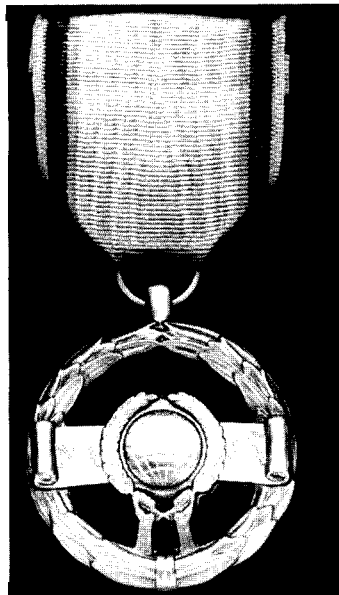
# 1990 Honor Awards Recipients

## **DISTINGUISHED SERVICE MEDAL:**

*John M. Klineberg*, director of LeRC, for technical direction and leadership of research and technology programs.

## **EXCEPTIONAL SERVICE MEDAL:**

*Kenny E. Aguilar*, deputy chief of Human Resources Management Division; *Armen S. Asadourian*, deputy chief of the Instrumentation and Data Systems Branch; *Gerald J.*



**EXCEPTIONAL SERVICE MEDAL**

*Barna*, deputy of Integration of the Center's Space Station Freedom Directorate and chief of the Systems Engineering and Integration Divisions; *Peter G. Batterton*, chief of the Supersonics and Powered Lift Branch; *Kenneth W. Baud*, aerospace engineer serving as a technical advisor to the chief of the Launch Vehicle Project Office; *Thomas H. Cochran*, deputy director of the Space Station Freedom Directorate; *James H. Diedrich*, chief of Aerodynamics, Icing, and Flight Branch; *Richard T. Gedney*, manager of the Advanced Communications Technology Satellite (ACTS) Project Office; *Howard D. Jackson*, heading Advanced Communications Technology Satellite (ACTS); *Richard B. Lancashire*, Mission Assessment and Applications Branch; *Carl F. Lorenzo*, Advanced Control Technol-

ogy Branch; *Carl E. Lowell*, deputy chief of the Materials Division; *William J. Middendorf*, chief of the Electronic and Control Systems Division; *Harold E. Neustadter*, chief of the Information Systems Service Branch in the Operations Division; *George A. Pinkas*, chief of the Structural Systems Branch; *James R. Ramler*, chief of the Space Electronics Division; *Joseph A. Saggio*, Comptroller of Lewis Research Center; *Jack A. Salzmann*, chief of the Microgravity Science and Technology Branch of the Space Experiments Division; *Francis J. Shaker*, deputy chief of the Structural Systems Dynamics Branch; *Robert J.*

Electrical Components and Systems Branch; *Theodore W. Porada*, Electronic and Control Systems; *Erwin V. Zaretsky*, Structures Division.

## **EXCEPTIONAL SCIENTIFIC ACHIEVEMENT MEDAL:**

*J. Anthony Powell*, Engine Sensor Technology Branch, for pioneering research and innovation in the development of silicon carbide.

## **OUTSTANDING LEADERSHIP MEDAL:**

*David C. Byers*, Space Propulsion Technology Division, Low Thrust Propulsion Branch, for leadership in low-thrust propulsion technology; *J. Stuart Fordyce*, director of Aerospace Technology, for management in the

**"It's the people who make things happen. It is you folks here today that are the kind of people that make NASA tick,"—NASA Deputy Administrator J.R. Thompson.**

*Shaw*, deputy chief for Applied Aerodynamics, Propulsion Systems Division.

## **EXCEPTIONAL ENGINEERING ACHIEVEMENT MEDAL:**

*Thomas J. Benson*, deputy chief of the Computational Methods Branch; *Lawrence J. Bober*, deputy chief of the Propeller and Acoustics Technology Branch; *Rodrick V. Chima*, acting head of the Turbomachinery Technology Branch; *Irving G. Hansen*, Power Technology Division,

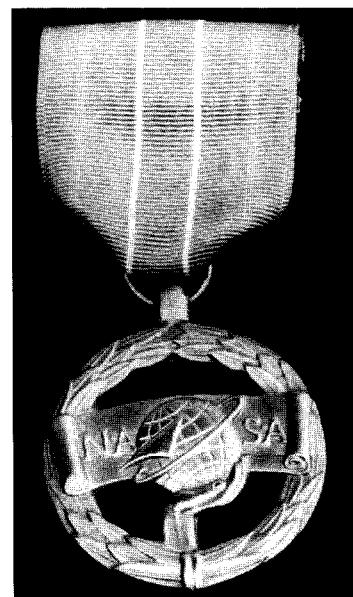


**EXCEPTIONAL SCIENTIFIC MEDAL**

Aerospace Technology Directorate; *Omer F. Spurlock*, Advanced Space Analysis Office, Systems Analysis Branch chief, for identifying, recruiting, and developing high-caliber, professional engineers; *Steven V. Szabo, Jr.*, director of the Engineering Directorate, for organizing and managing the Engineering Directorate.

**GROUP ACHIEVEMENT AWARD:** Presented in recognition of outstanding management, superior technical expertise, and exemplary NASA teamwork in the design, development, and operation of the Atlas/Centaur launch vehicle and the recent successful launch of the Navy FLTSATCOM-8 communications satellite on the last NASA managed Atlas/Centaur vehicle AC-68.

*John Gibb*, Atlas/Centaur project manager, led the team which included: *Kenneth Adams*, *John Andrasik*, *Everett Armentrout*, *Bradley Baker*, *Thomas Banus*, *Kathleen Batke*, *Kenneth Baud*, *Duane Beach*, *Wilhelm Benz*, *Timothy Best*, *Earl Bloam*, *Gary Bollenbacher*, *Donald Brasted Jr.*, *John Brett*, *Thomas Burke*, *Mario Castro-Cedeno*, *William Cobo*, *Russel Corso*, *James*



**EXCEPTIONAL ENGINEERING MEDAL**

*Couch*, *Kenneth DeLaat*, *Augustine Delaney*, *Annie Easley*, *Robert Edwards*, *David Evans*, *Ronald Everett*, *Walter Fenning*, *Richard Flage*, *Wilson Ford*, *Randall Furnas*, *Lawrence Gentile*, *Gary Golinski*, *Theresa Goodwin*, *Scott Graham*, *Vincent Grebe*, *Frank Greco*, *William Groesbeck*, *Klaus Gumto*, *Nancy Horton*, *Rudolph Inglesias*, *Rill Ingle*, *Robert Jabo*, *Thomas Jentner*, *Richard Kalo*, *Harold Kasper*, *Michael Kinkelaar*, *Martin Kisel Jr.*, *William Klein*, *John Klineberg*, *Paul Kuebler*, *Ralph Kuivinen*, *Raymond Lacovic*, *Vincent Lalli*, *Raymond Lacovic*, *Vincent Lalli*, *Raymond Lark*, *Kuan Lee*, *Michael Makinen*, *William Mason*, *James McAleese*, *Robert Metroka*, *William Middendorf*, *Robert Miller*, *Theodore Mockler*, *Carl Monnin*, *Edwin Muckley*, *Thomas Niezgodza*, *Donald Noga*, *Cecil O'Dear*, *Richard Oeftering*, *Richard Orzechowski*, *Donald Perdue*, *Clarence Pierce*, *David Plachta*, *Edwin Procasky*, *Debra Rak*, *John Reagan*, *David Repas*, *William Rice*, *Jean Rogers*, *Robert Robal*, *Dennis Rohn*, *Francis Rooker*, *Lawrence Ross*, *Harold Sample*, *Rafael Sanabria*, *Noel Sargent*, *Lois Scaglione*, *George Schaefer*, *Eugene Schiopota*, *William Schoren*, *Margaret Schuler*, *Thomas Seeholzer*, *Karen Sherman*, *Jack Shinn*, *Michael Skor*, *Robert*

*Smith Jr.*, *Gerald Snyder*, *Isadore Sonkin*, *Earl Sprague*, *Cynthia Stepka*, *Margie Studley*, *Steven Szabo Jr.*, *Andrew Szaniszló*, *Thomas Tokmenko*, *Dennis Vanco*, *Mary Kay Varholick*, *Vernon Weyers*, *Ulrich Wiedenmannott*, *Lynne Wiersma*, *Stephen Wiersma*, *Joseph Wikete*.

## **DISTINGUISHED PUBLICATION AWARD:**

*Khairul Zaman*, *Daniel J. McKinzie*, *Christopher L. Rumsey*, in recognition of their publication "A Natural Low-Frequency Oscillation of the Flow Over an Airfoil Near Stalling Conditions."

**FIFTY-YEAR SERVICE EMBLEM;** *C. Robert Morse*, Operations Engineer, Aero-propulsion Facilities and Experiments Division.

**FORTY-FIVE-YEAR SERVICE EMBLEM:** *Richard H. Cavicchi*, aerospace engineer, Internal Fluid Mechanics Division; *Roger W.*



**EXCEPTIONAL LEADERSHIP MEDAL**

*Luidens*, aerospace engineer, Aero-propulsion Analysis Office.

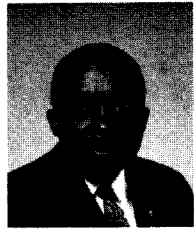
**FORTY-YEAR SERVICE EMBLEM:** *Robert W. Graham*, chief of Technology Assessment Office, Office of Interagency and Industry Programs; *Arthur E. Sprungle*, mechanical engineering Technician, Propulsion and Fluid Systems Division.

## Retirees Reflect On Early Days At Lewis

### "I've Played A Part In Lewis' Great History"

When Jesse Strickland returns to Lewis for visits he feels as if he never left the Center, even though he retired in 1983. "I'm fortunate that I had a position in which I was able to contribute to the Center," Strickland reflects back to 1950 when his career as an architect began as a draftsman in Lewis' Drafting Division under Larry Stitt.

Today, when Strickland walks around the Center he is greeted by more than "great friends." He is welcomed by familiar objects that are dear to him as well. "I probably had something to do with designing, both exterior and interior, most buildings at Lewis," he said. "When I come back and see the same carpets, wall coverings, colors, furniture, structures, and signage, I relive the times when I helped choose those items."



Strickland reflects back to the early 60's when he was tasked with the job of renovating Building E at Plum Brook. "It was almost like a haunted house—shutters hanging, vines overgrown, dust caked on the windows and desks. I was mesmerized by the eerie picture, but members of Larry Rollins' staff, myself included, helped bring it back to life," he said. "After months of work, it was very rewarding to finally see fresh offices filled with happy people."

As a member of Lewis' Speakers Bureau, Strickland is still very involved with the Center. Through his lectures on "Life Beyond Earth," Strickland encourages both young and old to examine the possibilities of life beyond our planet. "I don't use a podium or microphone if I can help it," he explained. "I like to interact with my audience and give them a chance to get involved and do some exploring on their own."

Strickland said he has been involved in lecturing for Lewis since 1953. He also served as the first Equal Employment Opportunity counselor and helped set up the SPECSINTACT System, a method of computerized construction specifications that has been adopted by all government agencies. He and his wife, Carol, reside in Mayfield Heights.

"As long as I come back and see the things I had something to do with in one way or another, I feel a part of my soul is still here," said Strickland. "I've played a part in Lewis' great history."

### "Learning From Incidents Helps You To Succeed"

In late 1962 Lewis acquired management of the Agena Project. The project was named for the upper-stage rocket which, combined with either a Thor or Atlas booster stage, was used to launch many of NASA's Earth orbital scientific satellites and all of the planetary spacecraft in the early 60's. These spacecraft provided the first close-up pictures of the Moon, Mars, and Venus.



The project's original manager was Dr. Seymour Himmel who, after the exciting (and sometimes frustrating) task of leading the Agena Project, rose to the position of Associate Director of Lewis, a position he held at the time of his retirement in 1981. He recalls, with retrospective humor, a series of incidents involving animals interfering with Agena Project launches.

"I remember an incident involving Project Fire, whose Agena project engineer was Joe Ziemianski. This was an escape-velocity re-entry heating mission in support of Apollo and it required visibility of the re-entry body from an observation station on Ascension Island in the South Pacific. We counted down to T minus five minutes at least four times in as many days only to have to scrub because of the cloud cover at Ascension. Finally, the weather cleared up, all systems were go and we were set to launch when the message came over the net that Ascension was 'no-go'—they had lost power to the instruments that were to observe the re-entry. We were informed later that the goats which run free on the island had eaten into the power cables and caused the breakers to open."

Dr. Himmel also remembers other "animal incidents." "At Vandenberg Air Force Base we were set to launch when we got a no-go from the Western Electric radio guidance system test conductor and had to scrub. We found out later that some mice had set up housekeeping in one of the electronics racks and had gnawed through the insulation. At the cape, we lost all power to the launch complex during the latter stages of a launch countdown when a large crane (bird) flew into a sub-station and committed suicide by shorting out a transformer."

Because of these experiences, Dr. Himmel sympathizes with the frustrations of having to scrub a launch when the vehicle is all ready to go, but he stresses the importance of patience. "One thing to guard against is launch fever," he explained. "This can occur when you get down to the final minutes of a count, especially after previous scrubs, and manifests itself with an overwhelming urge to launch no matter what. Obviously, you can't allow this to happen—you must be thorough and professional and look to the data and other information rather than to your emotions."

A Lakewood resident, Dr. Himmel still keeps well informed on the space program including serving with the NASA Aerospace Safety Advisory Panel. "One has to expect things to go wrong in this business—even failure," he said. "It's what you learn from such incidents that helps you to succeed in the future."

### "NACA Had A Unique Esprit de Corps"

James Modarelli, in addition to heading the Management Services Division, was often assigned to special one-of-a-kind projects. Typical of these was a summer camp for pre-apprentice training classes for 102 minority high school graduates, NACA Triennial Inspections, VIP retirement parties and a variety of employee moral activities.

A particularly rewarding highlight for Modarelli was working with Irv Pinkel as co-chairman on the historic 1962 Space Fair at Public Auditorium. "The unique venture, more than any other single event, demonstrated the incredible capabilities and talents that existed within the entire Lewis staff," said Modarelli. "Their esprit de corps was especially evident during their all-out effort to create more than 30,000 sq. ft. of displays and demonstrations to portray the work of NASA. The show date, a mere four months away, was met with just hours to spare. But it was all worth it when an enthusiastic and appreciative public responded by exceeding all previous attendance records."

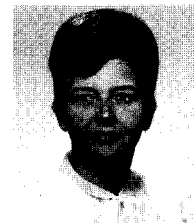


As a NACA/NASA employee from 1949 until his retirement in 1979, Modarelli said he now looks back with pride and a sense of accomplishment on those years of working with such an unusual and remarkable team of dedicated people.

### "I've Been Fortunate In Working At Lewis"

Some people don't know the meaning of the word "retire." Marguerite "Marge" Jereb is one example. After 30 years of distinguished service in Lewis' computing area, Jereb turned in her NASA badge. Five years later, with a consulting business of her own under way, Jereb came back to the Center.

As director of the Systems Engineering and Network Department for Sverdrup Technology, one of Lewis' major contractors, Jereb continues serving Lewis in the field she loves. "When Sverdrup was awarded the Lewis contract they asked me to help set up their computing department," she said. "I had originally intended to stay for a short time but I'm still here nearly nine years later."



Jereb looks back on her early days at Lewis. "I remember being extremely excited and feeling fortunate to be working in a highly technological company during the early development of the space program," she said. "I also enjoyed watching equipment that once filled a room transform into a desktop computer."

Some of her most memorable experiences centered around putting various facilities on-line with computers. "The first time we hooked up the Graphics Department was 1967. Positioning our research tunnels on-line was also an exciting challenge.

"The world has come a long way in the past 40 years in regards to utilizing computers, and I have—mainly through my opportunities at Lewis—been fortunate to have seen it all."

Outside of the office, Jereb and her husband, Fred, spend their time enjoying a 10-acre ranch in Chesterland. She also enjoys skiing and traveling.

### "Wonderful People Kept Me Here For 33 Years"

There are a lot of excuses for being late for work but Calvin "Cal" Weiss, who retired as Lewis' chief of Educational Programs in 1979, has the best one yet—"I carpooled with Center Director Dr. Edward Sharp," he reminisced to the *Lewis News*.

A resident of Berea, young Weiss began his carpool adventures in the late 1940's when he discovered that Edward Sharp, son of Dr. Sharp, a coworker in Lewis' Illustration Department, was also a Berea resident. "Eddie, Dr. Sharp, the late astronaut Charlie Basset, and a couple other Berea residents began taking turns driving in to work," said Weiss. "And I remember being late to work more than a few times when I drove."



"The Lab had a loud whistle mounted on the Fire Station which blew at 8:30 in the morning, signifying that it was time to begin the day," said Weiss. "And if you checked in after 8:30,

you had to sign in at your work station with a red pencil." Weiss looked back to one morning when Dr. Sharp exited his car just as the whistle blew. "I remember saying, 'If that blasted traffic light at Bagley and Riverside Drive would be green every morning we wouldn't be late.' Dr. Sharp then casually stuck his head back into the car window and said, 'Did you ever think of leaving five minutes earlier?'"

"Dr. Sharp was a very personable person," Weiss reflected. "He started the whole idea of a family oriented Center. He was genuinely concerned about people and I'm fortunate to have had the opportunity to get to know him."

Through the years, Weiss explored other career opportunities outside of the Illustration Department. While working in the Training Office, Personnel Division, in the mid 50's, Weiss was responsible for providing orientation and administering the oath to new employees. "I had the pleasure of doing this for Neil Armstrong, who began at Lewis and then went on to become the first man to walk on the moon," he said.

Weiss was later named chief of Educational Services, where he served the needs of thousands of children. One responsibility Weiss had was responding to letters from school-age children. "The letters were precious," he said, getting out an old notebook still filled with some of those original letters.

"Dear Sir:" one letter read: "Recently I was having a discussion with my friends. One claims that you cannot be an astronaut if you are pigeon toed and/or have bunions on your feet. Can you give us the correct answer?"

Weiss, who now resides in Parma Heights with his wife, Marilyn, who was also a NACA employee, has many memories of his experiences at Lewis. "My love for airplanes probably attracted me to the Center," said Weiss. "but the exciting opportunities and wonderful people kept me there for 33 years."

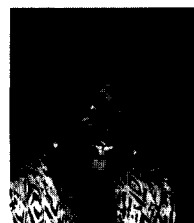
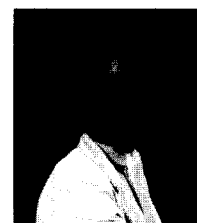
### "There Are Many Multi-Faceted People Here"

Anyone who has ever met the personable Annie Easley would find it hard to believe that she was called a "computer" when she started her career at Lewis, then NACA, in 1955. "Yes. People were called computers in those days," said Easley, who retired in 1989. "They churned out columns of numbers on their huge desk calculators. In later years the titles changed to Mathematical Aide and Mathematicians as machines were purchased."

But she was one computer you couldn't put in a room and forget about. While at Lewis, Easley was involved in a variety of projects that required her knowledge of computer codes and she worked in a number of directorates as well. Easley was also very active in the more personal side of the Center. She served as an Equal Employment Opportunity Counselor for a number of years as well.

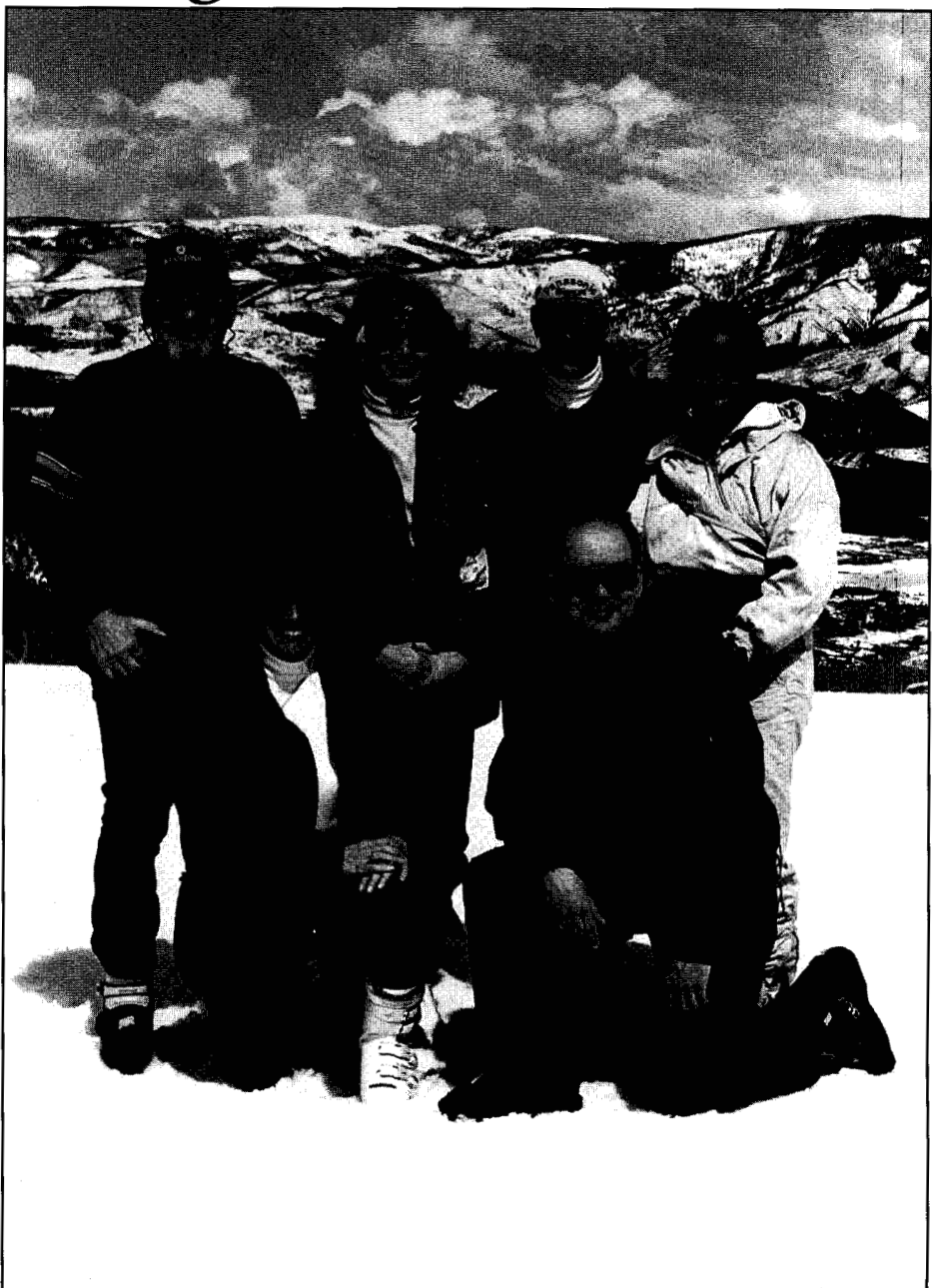
"As a counselor at Lewis I dealt with management/employee issues," she said. She attempted to get managers to address more common EEO complaints and find solutions at the lowest level. She worked with handicapped personnel and acquired special equipment to enable them to better perform the tasks. She also worked with a number of organizations outside of the Center to bring attention to the importance of human rights.

"Something that I will always remember is the willingness of people at the Center to give of themselves," she reflected. She cited the annual Children's Christmas Show as an example of the cross section of people of Lewis coming together. "It was always a beautiful sight to see someone who worked as a clerk, technician, scientist, or engineer design and build a set for the stage or the backdrop to make the cafeteria Christmas fairytale. Sometimes we tend to categorize people and don't take the time to see how multi-faceted they really are."



In addition to serving as a member of the Speakers Bureau, Easley was actively involved in tutoring in the Cleveland Public Schools. She has spent career days at schools in Ohio, Michigan, Illinois, Minnesota, and Wisconsin. Though now retired, this Olmsted Falls resident is still involved in public speaking. "I find that no matter how old or young a person is they still need role models. People like to hear about other people. We all need someone to identify with. It gives us strength and confidence to share what we have in a positive manner."

# *Skiing*



Lewis Ski Club members enjoyed Cleveland Ski Week 1993 in Aspen, CO. Pictured left to right are: (standing) Don Sulak, Sandy Maurer, Gene Addy, Annie Easley; (kneeling) Carol Travis, and Dale Stalnaker. The Lewis Ski Club is a social group that sponsors year-round activities. If you would like membership information, please contact Gene Addy at 3-7467.



## Annie Easley

# A Model Of Excellence

By S. Jenise Veris

**W**HILE some people retire to a slower pace with fewer commitments and long awaited travel, Annie Easley has shifted into high gear her love for life and all of its possibilities. She has become a successful realtor following 34 years of service as a mathematician for NASA Lewis and its predecessor the National Advisory Committee for Aeronautics (NACA) and maintains a schedule that leaves one wondering if she discovered her own fountain of youth.

Easley's explanation for her motivation is simply that she has always been a "doer."

"I like to be involved in doing things as opposed to just watching others do them or reading about them," she said. "I enjoy a wide variety of activities, particularly sports and tutoring math and English."

Easley is perhaps one of the most recognized faces in Cleveland and certainly the most recognized NASA Lewis employee due to a poster on display at the Cleveland Hopkins Airport several years. She is also one of the most requested NASA Lewis speakers, particularly during Black History Month. It is her commitment to hard work and her energy level, however, that is legendary among former coworkers and students who have benefited from her assistance.

The list of her involvement during her tenure at NASA Lewis is long and varied including serving as an Equal Opportunity counselor; working with the Federal Women's Program; volunteering for the



**NASA Lewis retiree Annie Easley is today a successful realtor with Coldwell Banker Hunter Realty.**

*This photo of Easley was on display at the Cleveland Hopkins Airport for several years.*



*NASA Archive Photo*

annual Lewis Christmas Show; and running in the annual 100-year Relay, just to name a few. She remains active in both Lewis' Business & Professional Women chapter of which she was a charter member and the Ski Club of which she is the founder and former president.

"Annie is my idol! In the 15 years I've known her, she has always been active. She enjoys life and encourages others to do the same," said Sally Harrington, Community and Media Relations Office. "She's a wonderful role model for everyone—no matter who they are or how old they are."

While growing up in Birmingham, AL, it was the presence of strong role models like her mother and several teachers that was a constant source of encouragement for Easley.

"They always made me believe I could succeed at anything I wanted to do," said Easley. "I didn't allow the discriminating attitudes of my era to steer me toward traditional careers based on gender or race."

Interesting and challenging assignments as a mathematics aide helped Easley to abandon studies in pharmacy begun earlier at Xavier University in Louisiana and suspended due to marriage and relocation to Cleveland. She earned a mathematics degree after 7 years of night classes at Cleveland State University.

Easley enjoyed the challenge of writing and testing codes real time for computers used to analyze data for various projects in the Energy Directorate. She was also involved in studies to determine the life of storage batteries such as those currently used in electrical vehicles and to identify alternative energy conversion systems to improve existing technology.

"Annie's enthusiasm for her work and willingness to share her knowledge has always made her a great mentor," said Sue Button, Computer Service Division. "We became close personal friends as office mates in 1963. I consider her the sister I never had."

In her new career as a realtor, Easley still meets and influences a variety of people. However, she enjoys most the flexibility to pursue a host of activities, especially tutoring and encouraging youth so that they can be prepared to do whatever they want to do. ♦

# Aerospace Frontiers

August 2011



## In Memory

Ronald J. Abel, 74, who retired in 1999 with 42 years of NASA service, died May 27. Abel was a computer engineer, who retired from the Scientific Applications



*Abel*

Development Branch, Computer Services Division, where he served his entire career. He was respected among his peers and recognized in several Group Achievement Awards for contributions to application programs, data analysis, mechanical computation and scientific engineering. Notable among his many contributions included serving on the Electric Propulsion Technology Readiness Team (1980) that brought the technology for a 30-cm ion thruster to a state of readiness for use in the Solar Electric Propulsion Project, and the Lewis Data Processing System Design and Implementation Team (1989).



*Easley*

Annie J. Easley, 79, who retired in 1989 with 34 years of NASA service, died on June 25. Easley was a mathematician/computer scientist who helped develop



## Center Establishes Hall of Fame; Inducts First Class



*Easley*



*Lundin*



*Modarelli*



*Pinkel*



*Sharp*



*Dr. Silverstein*



*Dr. Deissler*



*Dr. Ostrach*



*Dr. Siegel*

In recognition of those who built exemplary careers and contributed to NASA Glenn's success, six individuals and one group of researchers were inducted into the center's new Hall of Fame, Sept. 25.

The event was held at Lewis Field and featured remarks by Center Director Jim Free and NASA Chief Historian Dr. William Barry. WKYC meteorologist Greg Dee served as master of ceremonies.

"This inaugural induction opens the doors to what will be a monument of the highest honor to the pioneers, trailblazers and champions who have come before us," said Free.

## Hall of Fame

Continued from page 1

The first induction was held in celebration of the 100th anniversary of the National Advisory Committee for Aeronautics (NACA), which became NASA in 1958. The ceremony included video tributes to each inductee and a presentation of plaques to honorees or a representative.

Kelly Gilkey, Fluid Physics and Transport Processes Branch, proudly watched inductee Dr. Simon Ostrach receive his recognition.

“This is a wonderful way to honor individuals who have truly left their mark on NASA and in their respective fields of study,” said Gilkey. “Dr. Ostrach served as a mentor to me during my days as a student at Case Western Reserve University and he continues to be an inspiration. He and his fellow ‘Giants of Heat Transfer’ revolutionized our understanding of fluid flow and heat transfer in microgravity.”

Prior to the inductee ceremony, 35 NACA retirees and their guests gathered at the Mission Integration Center (MIC) to attend a NACA reunion. Center Director Free welcomed the attendees and kicked off the event, which included speakers who provided overviews of aeronautics research and the Center’s Master Plan, and a tour of the MIC. Barry presented a “NACA at 100” overview and Anne Mills, Glenn



Accepting on behalf of the inductees: standing, left to right: Don Pinkel (Pinkel); James Modarelli, III (Modarelli); David Silverstein (Dr. Silverstein); Robert Deissler (Dr. Deissler); Larry Ross (Lundin); sitting, left to right: Irene Geye (Sharp); Dr. Siegel (himself); Dr. Ostrach (himself); and June Baban-Szucs (Easley).

history officer, previewed the center’s upcoming 75th anniversary celebration activities.

Mills, on detail in the Office of Communications and External Relations (CP), was deputy project manager for Glenn’s planning and execution of this year’s NACA centennial and the center’s 75th anniversary celebrations. She coordinated this event with assistance from CP and Logistics and Technical Information Division staff members.

The next Glenn Hall of Fame induction is planned for 2016 during

Glenn’s 75th anniversary. Subsequent ceremonies will take place on milestone anniversaries.

By Doreen B. Zudell

### 2015 Inductees

**Annie J. Easley**, computer programmer and equal opportunity pioneer

**Bruce T. Lundin**, former center director and advocate for the NACA evolution as a space agency

**James J. Modarelli**, designer of the NASA insignia and outreach program

**I. Irving Pinkel**, leader in aerospace safety research

**Edward “Ray” Sharp**, first center director and champion of early center advocacy and growth

**Dr. Abraham “Abe” Silverstein**, former center director and architect of the early space program

“The Giants of Heat Transfer,” Dr. Robert Deissler, Dr. Simon Ostrach and Dr. Robert Siegel, world-renown researchers whose theories transformed the body of knowledge of heat transfer.

For more information, visit <http://go.nasa.gov/1GweHOg>.



Several NACA retirees gathered in the MIC prior to the ceremony for a NACA reunion.