

A different drummer. . .

Wilderness Road

By Kathleen M. Oakes



There is a primeval place not far from here in distance and yet far removed in time. Okefenokee, an Indian word meaning "land of trembling earth," is a place where you need paddle a canoe only a few miles to travel back in time millions of years. In this swamp the alligator, one of the closest living relatives of the dinosaurs, still flourishes as a relic from the great age of the reptiles 200 million years ago. The Okefenokee remains today much as it was when man first encountered it. The swamp is a haven for alligators and a variety of other wildlife and an irresistible place for a biologist to visit.

The only way to visit the roadless, watery wilderness of the Okefenokee is to paddle your own canoe. A few weeks ago my husband, Ed, and I and some of our friends decided to spend our vacation doing just that. We paddled 32 miles through the northern part of the Okefenokee. The trip took three days, most of which was spent in the canoes. The group camped at night on wooden platforms which were the only "dry land" available. When it rained the second night, things got a little crowded under the small roof that covered only half of the platform. Unfortunately, we shared our platforms with a great number of mosquitos. They were so thick the first morning that we paddled out into open water and cooked our breakfast in the canoe. The blood-thirsty little devils were only bothersome at dawn and dusk, however, and the rest of the days were bug-free.

After paddling 12 miles the first day I was sure my arms would fall off and after the second day I was beginning to hope they would. The sight of the first alligator made it all worthwhile, though. We were paddling through a dense cypress bay in a downpour, when one of the logs on the side casually swam across the path of the canoe. It was a large 'gator, but before we could get very close he slowly sank from sight beneath the water. This left me wondering nervously, in my little canoe, about what he would do next, but he never reappeared.

The next morning some of the group that remained in camp were serenaded by bellowing alligators. During the last day in the swamp we came into an area that had been used by quite a number of 'gators. In the shallows there were many areas of flattened vegetation with gator-sized trails leading away from them. Later that day we were lucky enough to find a 'gator asleep in the shallows. We got within 10 feet of him and managed a few pictures before he woke up. He finally got tired of all the commotion and swam away.

I was continually impressed by the never-ending variety of the Okefenokee. Most people think of a swamp as a dark, forbidding place of mud and stagnant water. But the Okefenokee is actually a large, peat-lined body of slow-running water drained by two rivers. There is a discernible current through much of the swamp. Although the water is the color of tea—the result of substances called tannins which are released from decaying vegetation—there is relatively little mud. The Okefenokee is hardly dark and forbidding. We paddled through large open marshes called "prairies" that were alive with blooming water lilies

and singing frogs and birds. Even among the cypress trees, wherever sunlight filtered down, there were flowers blooming. Canoeing through a dense stand of these majestic trees, some over 100 years old and hung with Spanish moss, was an unforgettable experience.

Wildlife in the swamp was everywhere. Graceful water birds like the great blue heron and the common egret fed in the marshes. White ibis looked down at us from their perches in the tops of cypress trees. There are 22 kinds of frogs and toads in the Okefenokee and at times it sounded like they were all singing at once. The ones with the biggest voices often turned out to have the smallest bodies, like the small cricket frogs, no bigger than the size of a quarter. We were visited in camp by raccoons and skinks, which are smooth-scaled lizards with bright orange heads and blue tails. Black bear and deer also live in the Okefenokee, spending most of their time on one of the 70 pine-covered islands in the swamp's interior. Luckily, most of the 680 square miles of Okefenokee are protected as a National Wildlife Refuge.

Perhaps the most memorable aspect of the Okefenokee was the absence of the evidence of man. Just a few miles into the swamp we were struck by the quiet. For three days we heard no motors, only the voices of birds and frogs. My husband and I have spent time in some of the great wilderness areas of the west, but the Okefenokee has to rank as one of the best wilderness experiences I have ever had. It is nice to know we have a place like this here in the Southeast. Next year we are planning a six day swamp safari.



Editor's Note—Kathleen M. Oakes is an ecologist in ORNL's Environmental Sciences Division.

With a B.A. in zoology from the University of Missouri and an M.S. degree in zoology from the University of Wyoming, Oakes has been with Union Carbide for two years. She was previously employed by the University of Nevada, Las Vegas, as assistant to the director of Environmental Studies.

Oakes is a member of the Ecological Society of America. She and her husband, Edward, live at 101 California Avenue, Oak Ridge.

It's your turn. . .

Kathy Oakes isn't the only Carbide employee who vacations to a different drummer. Whether traveling to Denver to "catch" the flu, going on an African safari, or taking time off to tend an organic garden—vacations can be as diverse as the individual. Take a look at a random survey among the four Nuclear Division plants:

Eleven Paducah employees and their families joined with approximately 400 other tour members for a chartered 747 jet flight to the island of Oahu in Hawaii for a week's vacation. Said **George Bailey**, Industrial Hygiene Department, "Our travel log included sunbathing and surfing on Waikiki Beach."

"Other experiences shared by the group were trips through the sugar cane and pineapple fields, sugar cane factories, the Museum of Hawaii History and a visit to the only royal palace in the United States."

Said one PGDP employee, "It was a wonderful vacation and learning experience, but we had to return home for 'R and R'—rest and relaxation."

Marion Randolph Gaseous Diffusion Development at ORGDP, spent a part of his vacation climbing Mt. Rainier in Washington.

Randolph, who took up mountain climbing about four years ago, went with his son Herb and two other men. The 14,000-foot peak was scaled in four days with a two day delay sandwiched in because of bad weather on the mountain. It took the men one day to descend.

For Randolph, a member of the American Alpine Club, it is a hobby. It is also time consuming. It took six months to plan for Mt. Rainier. Now he is thinking about two other possible mountain hikes—Mt. McKinley in Alaska and the mountains of Equador.

From Y-12 Scheduling there are interesting plans for vacation next spring, as **Les Shular** and his wife, Wilma, expect to ride down a 228-mile stretch of the Grand Canyon. This eight-day trip consists of camping along the river banks, exploring Indian ruins and observing other interesting spots along

anniversaries ...

Y-12 Plant 35 YEARS



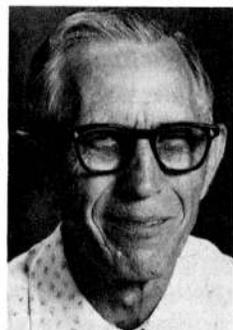
Ellingson



May



Moody



Stanfill

Robert D. Ellingson, Y-12 Advanced Systems-Preproduction, is a native of St. Anthony, Idaho. He graduated from the University of Idaho before coming here in 1943. The Ellingsons live at 185 Outer Drive, Oak Ridge.

George A. May, a captain in Y-12's Guard Department, is a native of Sweetwater. He worked with American Textile Woolen Mills, Aluminum Company of America, and served in the U.S. Marines before joining Tennessee Eastman in 1943. He lives at 102 Hickory Lane, Sweetwater.

Esther M. Moody was born in Lenoir City. She is in Y-12's Program Engineering-Production. Moody taught school before coming to Oak Ridge. She lives at 194 North Purdue Avenue, Oak Ridge.

Ralph L. Stanfill is a native of Elk Valley, Tenn. He came to Y-12 after teaching school in the Campbell County School System, and a brief stint with Stone and Webster. He attended East Tennessee State University and lives at Route 15, Meadow Run Lane, Knoxville. Stanfill is in Y-12's Beta Two Chemistry.

30 YEARS

Martin L. Skinner, Law Department; Rufus R. Deathridge, Process Maintenance; and Alexander K. Johnson Jr., Electrical and Electronics.

25 YEARS

Ray N. Evans, Lytle W. West, Fred R. Hardin, Clarence C. Crisp, Laurence E. Brown, Hobert R. Tinch, William L. Benzenhafer, Thomas N. Breazeale, William V. Blankenship, Harold B. Milhorn, Charles S. Ivy and Hugh Breazeale Jr.

20 YEARS

Eugene E. Worsham, Albert J. Parks, Frederick L. Back, Herman G. Crigger, Ralph D. Reynolds, Shelton M. Hastings, Robert A. Curtis, George S. Stubbs, Freeman O. Fox, Lewis H. Watson, Henry N. Artis and Harwell F. Smith Jr.

ORGDP 35 YEARS



Sims

Mary Palmer Sims, accounting clerk-invoice in the General Accounting Division at ORGDP, joined Union Carbide on July 1, 1943, at Townsite. She was the first clerical employee of the Signal Office, which became the Communications Department in 1947. UCC-ND assumed operation of the department in 1949.

Sims, a native of Bristol, Va., has been at ORGDP for 13 years. She lives at 505 Longview Road in Knoxville.

30 YEARS

John W. Hill Jr., Engineering; Arthur G. Rea, Finance, Materials & Services.

25 YEARS

Joseph B. Phillips

20 YEARS

William W. Lee Jr.

ORNL

30 YEARS

Melvin R. Bennett, Chemistry; David J. Crouse Jr., Chemical Technology; Robert M. Farnham, Plant and Equipment; John D. Blanton, Instrumentation and Controls; Victor L. Fowler, Chemical Technology; and James H. Pittman, Plant and Equipment.

25 YEARS

Helen H. Brown, Estel Westmoreland, James M. Shoopman, Jesse M. Kesterson, Bsrnard S. Borie Jr., Walter E. Clark and James T. White.

20 YEARS

John E. Jones Jr., Louise F. Dean, Floyd F. Carringer Jr. and Truman D. Anderson.

Corporate world. . .

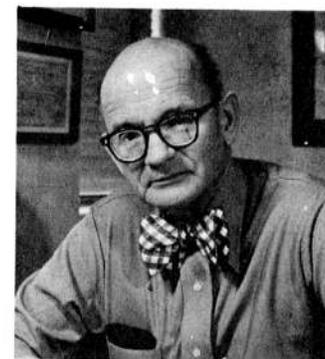
Union Carbide Corporation has announced plans to produce Glad plastic bags and food wrap at a plant at East Hartford, Conn.

The facility, which has been utilized in a limited way for warehousing since January 1977, when the corporation withdrew from the disposable diaper business, is expected to begin operation during the last quarter of 1978. Total employment should reach about 150 production and clerical personnel by the end of 1979.

In addition to manufacturing a variety of plastic wrap, bags and straws marketed under the Glad trademark, the Home and Automotive Products Division produces and sells Prestone brand anti-freeze/coolant, Simoniz waxes and polishes, and many other car care products for the automotive markets.

Caffeine: a safe stimulant?

by T. A. Lincoln, M.D.



(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

The story of the discovery of coffee is lost in antiquity. One legend credits an Arabian prior (a monk or priest) with concocting a brew to keep him awake during long nights of prayer. He had heard shepherds describe how goats who ate certain berries "gambled and frisked" all night long rather than sleep. He apparently boiled the berries and then drank the brew. Obviously it worked! Gradually, the original bitter drink was mellowed with milk and sweetened with honey. Its popularity grew until now roughly a half million pounds are consumed annually in the United States.

Versus tea, cola

The average six-ounce cup of brewed coffee made from two grams of ground coffee contains between 100 and 150 mg of caffeine—the essential stimulating drug. Instant coffee usually contains less, about 60 to 80 milligrams, but this would vary depending on how strong it was made. Tea and cola beverages also contain caffeine. Hot tea contains from 40 to 100 milligrams of caffeine, depending on the tea used and how long it is allowed to steep. A glass of iced tea is probably roughly equivalent to a cup of hot tea. Cola beverages contain about 17 to 55 milligrams per six ounces. Thus, a 12 ounce can of cola could contain about as much caffeine as a cup of coffee and a little more than a cup of tea.

The caffeine in any of these beverages is rapidly absorbed, and its effects can often be detected in just a few minutes if taken on an empty stomach. The effect may last from four to ten hours. It is a powerful stimulant to the central nervous system. Textbooks on pharmacology say that caffeine increases alertness, allows greater sustained intellectual effort and promotes a clearer flow of thought.

Kidney stimulant

Studies have shown that typists increase their speed and have fewer errors after one or two cups of coffee. However, tasks requiring delicate muscular coordination may be impaired. The unfortunate problem is that daily consumption leads to tolerance, so a single cup has a considerably diminished effect in chronic consumers.

As most coffee drinkers know only too well, caffeine also stimulates the kidneys! The effect seems to be more noticeable in men past 50, probably because their enlarged prostates

reduce their functional bladder capacities. Caffeine greatly increases the secretion of acid in the stomach, so it may be a contributing cause in many cases of peptic indigestion and even peptic ulcers.

Whether caffeine increases the risk of a fatal heart attack is a controversial subject. A study by the Boston Collaborative Drug Surveillance Program found that drinking six or more cups of coffee per day was associated with an estimated 120 percent increase in risk of a heart attack. The comparison population was 12,319 hospital patients. The effect was not seen with tea and no record of consumption of cola beverages had been made, but the difference in risk could not be explained by other risk factors such as smoking or diabetes.

Increases heart attacks?

In another study performed by the Harvard University School of Public Health, wives of 649 men who died within 24 hours after the onset of a heart attack were interviewed about their husbands' coffee habits. Wives of healthy men of approximately the same age who lived in the same close neighborhood were interviewed to act as the comparison population. Only about a 10 percent effect was seen and with so many potential sources of error, the authors concluded that the evidence of an effect was not convincing.

A much more interesting blood pressure study was recently performed at Vanderbilt University in Nashville. There, Dr. David Robertson and his associates used nine healthy non-coffee drinkers (six men and three women) ranging in age from 21 to 30. They had had no coffee, tea, chocolate, cola beverages or stimulant drugs for 21 days before the study. They had been brought into sodium balance before the study began because the sodium level can influence blood pressure and the formation of the adrenal gland and kidney hormones—renin, epinephrine, norepinephrine—which affect blood pressure. The study convincingly demonstrated that the caffeine in two to three cupsful of coffee led to appreciable increases in these hormones and in blood pressure levels. It also showed an initial slowing of the pulse, but after an hour, a mild acceleration in the rate.

Caffeine may increase the "irritability" of the heart and make

(Please see page 3)



THE BEGINNING—On-the-job safety is important to each of us. All too often, there is a tendency to "lower our guard" when we leave work. The Safety Department at ORGDP is aware of the problem and has begun putting signs around reminding employees as they leave the plant that the problem exists. This sign at Portal 2 will be repeated at other portals in the plant.

safety scoreboard. . .

Exactly one month ago, the Paducah Plant passed a milestone in going more than 4,000,000 man-hours without a lost-time injury—for the first time in its 27-year history.

Plant Manager Clayton D. Zerby read the following message over the public address system at the plant:

"It is my pleasure to announce that today, the Paducah Gaseous Diffusion Plant has reached a milestone in its history. We have accumulated 4,000,000 man-hours since our last lost-time injury. This is the first time since the plant was founded in 1951 that this many man-hours have been accumulated without a lost-time injury.

"This achievement is yours. You should be proud of yourself and your co-workers.

"Do not hesitate to congratulate each other on this fine achievement."

Time worked without a lost-time accident through June 28:

Paducah	341 Days	4,351,000 Man-Hours
ORGDP	83 Days	2,745,000 Man-Hours
Y-12 Plant	77 Days	2,393,000 Man-Hours
ORNL	163 Days	3,840,646 Man-Hours

Dr. Lincoln. . .

(Continued from page 2)

individuals already at increased risk more vulnerable. Many patients who experience "skipped beats" in their heart find that reducing the intake of caffeine-containing beverages helps. Many sudden deaths due to heart attacks are caused by chaotic rhythm disturbances (ventricular fibrillation). A person who had underlying, but as yet undetected coronary heart disease, could increase his risk by excessive caffeine intake.

The evidence is still unclear, yet it does seem wise for patients with known heart disease and high blood pressure to keep the intake of caffeine to a low level. Men in their 50's, who are experiencing severe tension and fatigue because of work pressures, would do well not to grossly overindulge in strong coffee. It could conceivably be "the straw that broke the camel's back."

division death. . .

Burnice Foriest, Y-12 Materials Shop machinist, died at his 721 West Outer Drive, Oak Ridge, home June 24. A native of Hickman County, Tenn., he joined Union Carbide in 1948 at ORGDP, and came to Y-12 in 1961. Prior to his employment here, he was a cabinet maker and carpenter and worked with the Vultee Aircraft Corporation.

Survivors include his wife, Dora Mash Foriest; a son, Jerry; and a daughter, Bernadine Nelson. His mother, Mrs. J. M. Foriest; two grandchildren; brothers, James and Douglas; and a sister, Mrs. Albert Colman, also survive.

Funeral services were held at Weatherford's Chapel, with burial in the Oak Ridge Memorial Cemetery.



Mr. Foriest

Oliphant named director of Plant and Equipment

The appointment of George W. Oliphant as director of the Plant and Equipment Division at ORNL has been announced by Mansell E. Ramsey, assistant director for services. The appointment is effective July 3.

Oliphant succeeds the late Harry E. Seagren who had headed the division since 1966.

Oliphant is currently superintendent of the Electrical and Electronics Department, Maintenance Division, at Y-12.

The Plant and Equipment Division comprises about 970 persons, and currently has an operating budget of \$28 million. Included among the Division's responsibilities are: fabricating, installing and maintaining research equipment; maintaining and modifying buildings and utility systems; landscaping; providing transportation; coordinating telecommunications activities; and performing numerous other support services for the laboratory.

A native of Riceville, Tenn., Oliphant received his bachelor's degree in electrical engineering and his master's degree in industrial engineering and management from the University of Tennessee.

Prior to joining the Y-12 Plant staff in 1948, he taught electrical engineering at the University of Tennessee. Oliphant's career has included work as an electrical engineer, maintenance general foreman, plant shift supervisor and head of the research services department. He has held his present position since 1964.

Oliphant is coordinator of the four-plant Energy Conservation Committee, and has served as chairman of the Y-12 Plant OSHA Action/Priority Committee. He is a member of the Institute of Electrical and Electronics



George W. Oliphant

Engineers and the Energy Conservation Society.

Oliphant is president of the Council of Finance and Administration for the Holston area of the United Methodist Church, and a member of the Board of Directors of CONTACT of Oak Ridge. He is a past president of both the Reserve Officers Association of Oak Ridge and the Holston Home for Children in Greeneville, Tenn.

Oliphant and his wife, the former Chris Sparkman of Sparta, Tenn., live at 106 Wendover Circle, Oak Ridge. They have three sons: David, Greg and Steve.

Anderson, Collins promoted at Paducah

The Paducah Plant has announced two appointments in the plant's Maintenance Division. Herman E. Anderson has been named head of the Process Maintenance and Equipment Change Department and Jay M. Collins will direct the division's Fabrication Shop.

Anderson is a native of Oakland, Ky., and attended Western University Vocational School. He has 25 years company service in maintenance, previously holding positions of assistant general supervisor, general supervisor and maintenance safety coordinator. Anderson and his wife, Betty Jean, reside at Route 4, Paducah.

Collins received a B.S. in welding engineering from Ohio State University in 1969 and an M.S. degree in 1970. He is a native of Columbus, Ohio.

Collins joined the PGDP in 1971 as a maintenance engineer. He was then named general supervisor in the Maintenance Division Fabrication Shop. He is a member of the American Welding Society and Tau Beta Phi.

He and his wife, Pamela, reside on Martin Circle in Paducah with their children, Cary, Jane and Elizabeth.



Anderson



Collins

wanted. . .

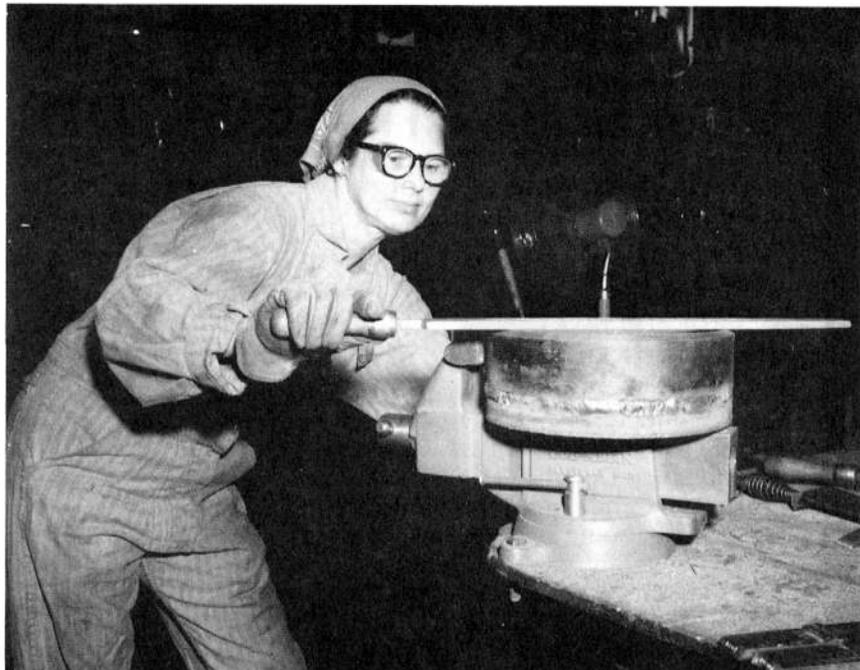
ORGDP

RIDE or WILL JOIN CAR POOL from East Village, Amherst Lane, Oak Ridge, to North Portal, straight day. Angie Puckett, plant phone 3-5453, home phone Oak Ridge 483-7116.

VAN POOL RIDERS from Farragut, Concord areas, to Bear Creek Portals, straight day. Ed Abercrombie, plant phone 3-5719, home phone 637-0720.

Y-12 PLANT

RIDE or JOIN CAR POOL from Farragut, to Portal 3, 8-4:30. Don Muldrew, plant phone 3-3421, home phone 966-8306.

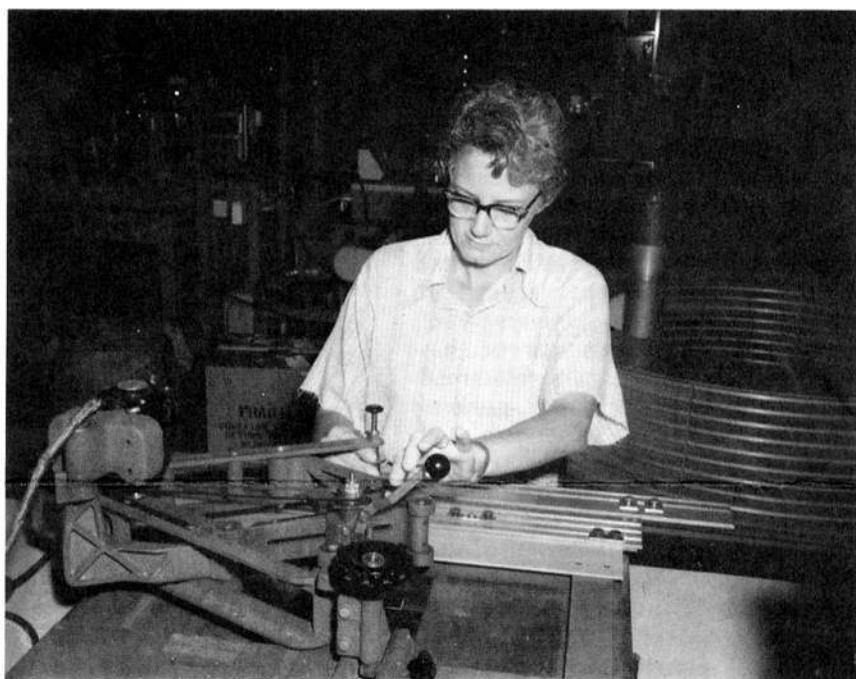


Martha Downey



Mary Jordan

Theresa Enoch



Jackie Humphreys



Nesta Duncan

Man's world of machinery

by Darlene McPherson

The drone of high powered machinery, the whine of electric tools and the touch of cotton coveralls are all familiar to nine women who are first class maintenance employees at PGDP. Several were "firsts" in their respective trades, but none proclaims liberation loyalties or has feelings of being a token female.

"I just want to be the best machinist I can be," commented Sherry Barrow, the Nuclear Division's first woman first class

machinist. "I enjoy my work, but I don't do it to prove a point," she stated.

Barrow joined PGDP in 1975 as a trainee following a six-month Training and Technology program at Y-12 to learn the art of machining. As a trainee, she studied basic math, trigonometry, blueprint reading and layout. She received practical experience on such machines as lathes, mills, grinders and micrometers.

Barrow recalls her first impression of the machine shop as "frightening" because of the size of the machinery. "I felt inadequate in proportion to these huge lathes," and she added, "I was a little anxious about how I'd be accepted."

'Felt inadequate beside those huge lathes...'

According to Joe Hicks, Barrow's foreman, she has been accepted very well by her fellow workers. "I was a little concerned in the beginning about her safety because of the new experience this type of work would present," he commented. But Hicks has long forgotten his initial anxieties. "She has an exceptionally good safety attitude," Hicks noted, "and we've had no problems whatsoever adjusting to the situation."

Learning a trade is an investment for the future, as well as a gratifying accomplishment, to most of the women. "The training and experience I've gained at PGDP will be very helpful in future welding

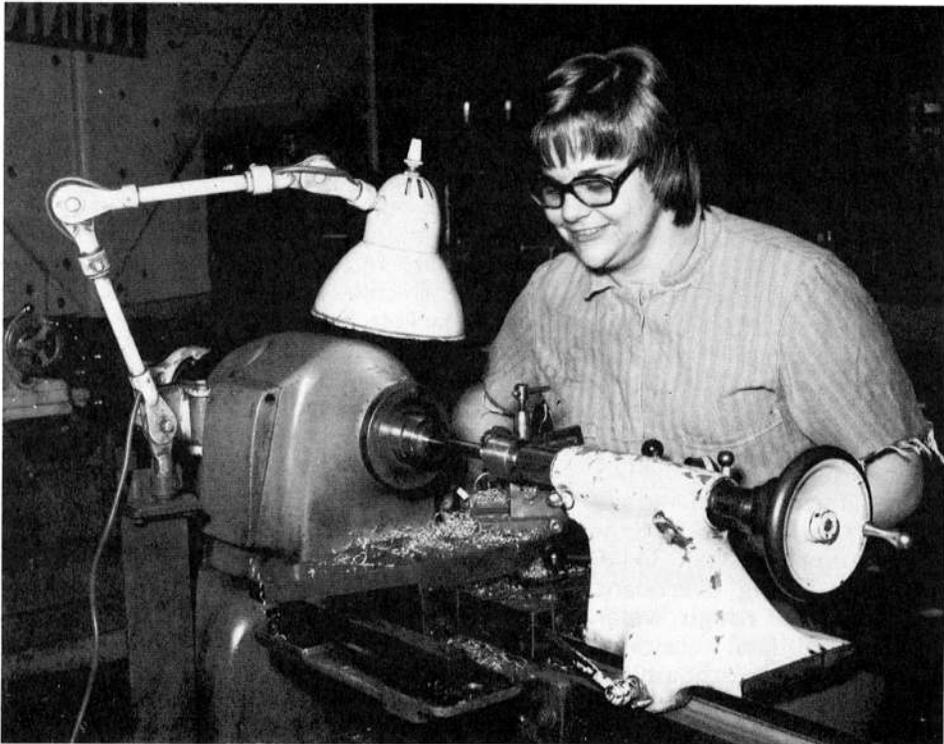
jobs," said Edith Davidson, the bread winner for a family of four. "Welding fabrication is a challenge and there were times when I thought I'd never make it."

Davidson credits her success to an encouraging welding instructor with superior knowledge of the craft. "I'm still a little tense, being the only female in the weld shop," she said. Davidson would like to see more women in these types of jobs, although she has very different ideas about women in coal mines or doing police work. "Men are naturally better suited for some jobs, just as women are for others," she added. "For example, in my work, I think women sometimes have a steadier hand and are a little more creative," she said.

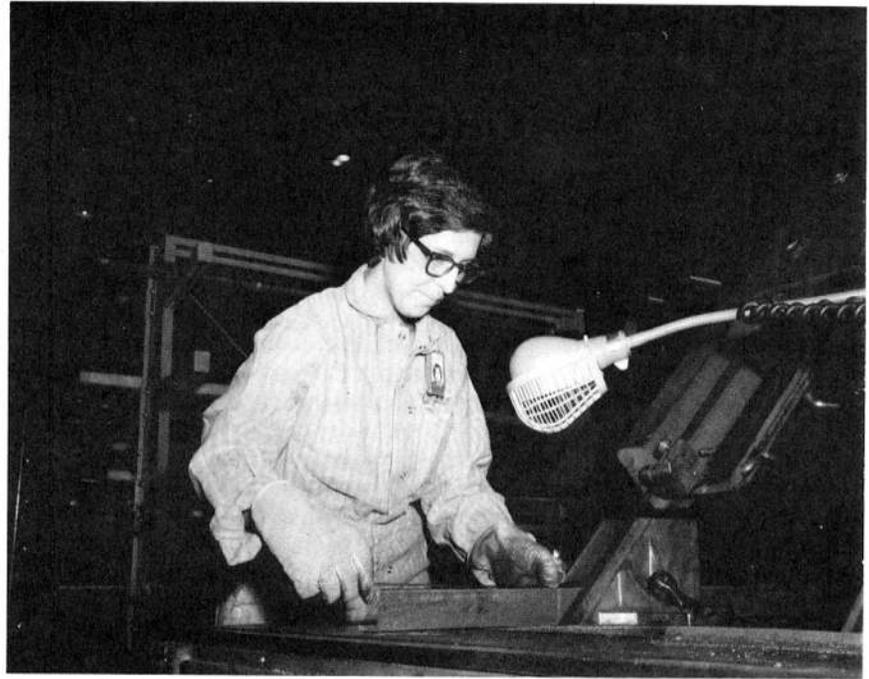
'Welding fabrication is a challenge...times I thought I wouldn't make it.'

However, the consensus among the women remains in favor of equal ability between the sexes with the exception of physical strength in some cases. According to Nesta Duncan, electrical maintenance mechanic, "If I can't do it with strength, I do it with leverage."

Duncan has run conduit, hooked up relays and rewired motors in numerous areas around the plant as a result of a three-month training program in electrical theory and components along with a study of wiring, power, transformers, etc.



Sherry Barrow



Charlotte Copeland

no longer his domain. . .

"I grew up around construction," Duncan said. "It's important to respect your surroundings in my job. Safety awareness is constantly a part of my work as well as my responsibility to my co-workers," she added.

Women who fear electricity or heights, Duncan suggested, would have difficulty performing various job-related functions in electrical work. "Confidence in yourself and your skill is very important to doing a good job," she said.

'If I can't do it with strength, I use leverage.'

Being the only girl in a family of boys was an excellent prerequisite for becoming an instrument mechanic, according to Theresa Enoch. "I always wanted to do something different," she said. Enoch's job at Paducah fulfilled that wish and has also helped her cope with household appliance problems for which she was previously unprepared.

Enoch holds no liberation allegiance. "I need a job," she contends, "I'm not a libber." Enoch was shocked at her easy acceptance as one of the crew. "We're really a close group. It's more like a working family," she said.

That attitude is also held by Mary Jordan, Enoch's counterpart in the Instrument Department. "It takes a different type of person to work in these types of jobs, and to maintain a good working relationship with the men in the crew," she said. Jordan has encountered no problems working alongside men while running tubing, soldering or performing many other daily instrument functions.

Jackie Humphreys, a third instrument mechanic, recommends a basic mechanical aptitude for women in maintenance jobs. Humphreys has provided instrument work in several

areas at the plant prior to her present operation of an engraving machine for fabricating signs and nameplates.

'Liberation may take away some of our inherent rights.'

"I probably have more patience for a tedious job like this," she explained. But Humphreys seconds the opinion that women are not suited for some traditionally male jobs, such as construction. "I think women's liberation may take away some of our inherent rights, while it battles for others," she remarked.

Charlotte Copeland, a maintenance mechanic in the sheet metal shop, agrees. "I think it's crazy, giving up rights to be women," she stated. On the other hand, Copeland is proud of her skill and her work. "I get a lot of surprised expressions and curious questions about what I do."

'I've always wanted to learn mechanics. My training helps me understand my car.'

Becoming a certified welder was an achievement Martha Downey had always sought. Downey enjoys her trade more than eight hours a day by planning a workshop at home to make yard furniture. "I've always wanted to learn mechanics. My training has helped me to better understand and do maintenance on my car," she said.

Mary Tyler had never seen a welding rod or stinger before October, 1975, when she joined PGDP. Now a first class welder, she "enjoys her work very much. Air arcing is particularly interesting to me and I think operating the crane is fascinating," she said.



Mary Tyler

wanted... 

ORNL

JOIN CAR POOL from Papermill Road area, Knoxville, to East Portal, 8:15-4:45. Dalton Atkins, plant phone 3-1830, home phone 584-3766.

VAN POOL RIDERS from West Knoxville, I-40, Papermill Road exit area, 8:15-4:45. Ray Pearson, plant phone 3-1805, home phone 588-9949.

RIDE OR JOIN CAR POOL from Broadacres Subdivision, Powell, to East Portal, 8-4:30 or 8:15-4:45. Plant phone 3-1261, home phone 947-0670.

CAR POOL OR RIDE from West Hills area, Knoxville, to East Portal, 8-4:30. Kyle Johnson, home phone 584-6319.

CAR POOL MEMBERS from areas of West Outer, Waddell, Pennsylvania or Hillside, Oak Ridge, to East Portal, 8:15-4:45. Tom Burnett, plant phone 3-6939, home phone 483-1975.

ORGDP

JOIN CAR POOL from South Knoxville area, to any portal, D Shift. Parker Ragain, plant phone 3-3231, home phone 573-8885.

VAN POOL RIDERS from Karns area, to K-25, 7:45-4:15 or 8-4. Tom Lemons, plant phone 3-9870, home phone 947-8959.



Edith Davidson

recreationotes . . .

ORNL golf. . .

The YMCA Family Center was the scene for ORNL's golf tournament for June with honors going to H. Tuck and Alvin Wright, both with a one-under par score. Handicap winners in the first division include D. Hines and J. Rowell, with 75 and 73 respectively.

Division two went to G. Hold and J. Johnson, each with 80. R. Tucker's 85, R. Durham and R. McCulley's 84 took prizes in handicap scoring.

F. Schmollinger scored a 79 to rack up low score in division three, with D. Easton carding an 83. In handicap scoring it was G. Parker, 87; and D. Lovro, 98.

Golf balls may be picked up at Stop J-108, Building 4500N., from Debbie Walker.

Y-12 golf. . .

A one-over-par gave S. Cameron and D. Rowan tying honors at Whittle Springs as Y-12 duffers hit the sun. F. Hammond's 79; and F. Tiller and C. Everett's 75 and 76 took handicap honors.

The second division went to H. Alvey, 76; and G. Hill, 79. Handicap lows were carded by B. Burris, 83; and B. Walker, 82.

The third flight went to R. Langley, 81; and J. Marquiss and C. Nelson with an 86 tie score. Handicap lows were earned by K. Campbell, 85; and D. Harrell, 100.

Winners may pick up their loot at the Recreation Office, Building 9711-5.

Southwest Point. . .

Gene Lewis and Roland Stone are leading in the Southwest Point Golf League with 25 points. John Shelton and Dan Morgan are second with 15 points.

ORGDP golf. . .

The Southwest Point tournament for ORGDP golfers went to E. Struck, who hit an even par. . . and Alvin Boatwright with a 75. Handicap winners were J. Duff, 78, and L. Kahler, 81.

In division two it was B. Conner, 85; G. Bird and J. Barnes, each with 86. B. Stanton took handicap lows with 89; and C. Hawkins and M. Chapman scored 86 each.

Flight three belonged to M. Whited, 91; with W. Arms and H. Kitchens, 96 each. Handicap laurels went to E. Hannahs and H. Lawhorn, each with 104.

Winners may pick up their golf balls in Room C-136, K-1001, from Peggy Collier.

Dead Horse Lake. . .

The Dead Horse Lake Golf League is leading this week. The team of Huber/Mustaleski has 35 points and Marrow/Kovach/Peterson are close behind with 33 points. Third position is held by Perez/Vaughn/Charles with 30 points.

Thursday League. . .

Jerry Greer and Leonard Nance (Team #3) lead the league with 37 points. In second place is Fred Mundt and Ben Bailey (Team #9) with 33 points. Third place is held by Earl Smith and Ed Sise with 32 points.

Monday League. . .

John Waggoner and E. Hensley (Team #6) took the lead with 31 points over Harold Alvey and A. Wright (Team #3). Alvey-Wright team is tied with Johnson-Montgomery team for second and third.

Study of local water mishaps

By Ron McConathy

Editor's note—Ron McConathy, Environmental Sciences Division, teaches canoeing and water safety for Red Cross in Oak Ridge.

Seven percent of all boat-related drownings in 1971 consisted of fishermen, according to a statistical report published by the Metropolitan Life Insurance Company. In one-third of the boating drownings, the victims were between the ages of 25-44. . . again, half were fishermen.

A 1976 report published by the U.S. Coast Guard stated that capsizing and swamping were related to half the national boating deaths. Other factors included falling overboard, strong currents and rough water. About half the fatal accidents occurred in open motorboats less than 16 feet in length and equipped with an outboard motor.

Approximately 62 percent of the fatal accidents occurred while the boat was cruising or drifting, and over a third of those occurred with calm water conditions, light winds and good visibility. Of the boating deaths, almost half had not received formal boating training, and the rest were not wearing the personal flotation devices (PFD's) in the boat at the time of the accident.

According to 1976-77 TVA drowning statistics, 40 percent were boating related. TVA officials surmise that most of the boating victims could have been saved if they had been wearing PFD's.

Alcohol-related drownings

Studies have reported that approximately half of all drownings involve alcohol—which is believed to be a low estimate. Alcohol causes a loss in judgment, and boating under the influence is a factor causing boating accidents.

For the past few years, I have been using newspaper accounts of drowning accidents in East Tennessee to compile information on the factors applicable to our immediate area. Although the accounts often leave out details about factors contributing to the drownings, the data still allow for comparison with national statistics.

Based on my findings, boating accidents account for about 30 percent of the drownings in East Tennessee. The victims in 80 percent

of boating-related drownings were not wearing a PFD—more than the national average.

The wearing of PFD's is recommended for everyone in a boat, but many people feel they are unnecessary and uncomfortable.

PFD's, which include boat cushions and life jackets, lying in the bottom of the boat are assumed to be available during an emergency. . . but are they? About 89 percent of boating drownings resulted when people fell overboard or the boat capsized. The suddenness of falling overboard or capsizing can prevent retrieval of PFD's stuffed under a seat or deck. The only way to assure a PFD is available is to wear it. They should also be inspected periodically to insure proper support.

A situation that commonly occurs in this area involves people leaving a capsized boat to swim for help and then drowning before reaching shore. Every situation is different, but a good rule to follow is, "Never leave the safety of a floating capsized boat unless it is dangerous to stay with the boat."

Abandon ship?

Situations where it is wise to leave the boat would include:

- the boat is carried by the current over a waterfall or through treacherous rapids,
- the boat catches fire,
- the water temperature is very cold and prolonged immersion could result in hypothermia and death.

Such situations call for quick decisions based on sound judgment. Generally, staying with the boat is the best course of action. Anyone swimming for shore should use a PFD if one is available.

Other factors I correlated with boating-related drownings include the following: strong currents capsizing boats, recklessness in operating a boat, and boating on rivers in a flooded condition. These boating conditions should be avoided when possible.

Hi Power Rifle. . .

Jack Spurling of Y-12 won the 5th match of the High Power Rifle League with a 486 out of 500. Don Kiplinger of ORNL was second with a 463, and Hugo Bertini of Y-12 was third with a 457. Other scores were: R. Mayton (ORGDP)—453; R. Wiegand (ORGDP)—438; A. Abbatiello (ORGDP)—421; E. Hines (ORNL)—405; R. Hicks (ORNL)—400; J. Pitts (ORNL)—333; M. Baker (ORNL)—313; A. Shifflett (DOE)—240.

Skeet League. . .

Ronnie Crawford of ORNL shot a 47.701 to win first place during May's monthly shooting of the Carbide Skeet League. Helen Raaen, ORNL, shot a 46.994 to win second. John Basler, ORNL, won third with a 46.442.

Summer bowling. . .

The Smooth Stokers lead the Carbide Family Mixed League. Bill Johnson rolled the high scratch series of 547 for men, and Judy McBee rolled a 539 series for the women.

Tee-Off Time Application for July 29, 1978

(Check Appropriate Plant)

- ORGDP—Family Y.M.C.A. Center
- Y-12—Southwest Point
- ORNL—Dead Horse Lake



1. _____ Leader

2. _____ Phone _____

3. _____ Bldg. _____

4. _____ Tee-Time _____

Joint picnic set at Park July 15

The annual joint picnic of the Finance, Materials and Services Division and the Employee Relations Division at ORGDP has been scheduled at Carbide Park for Saturday, July 15.

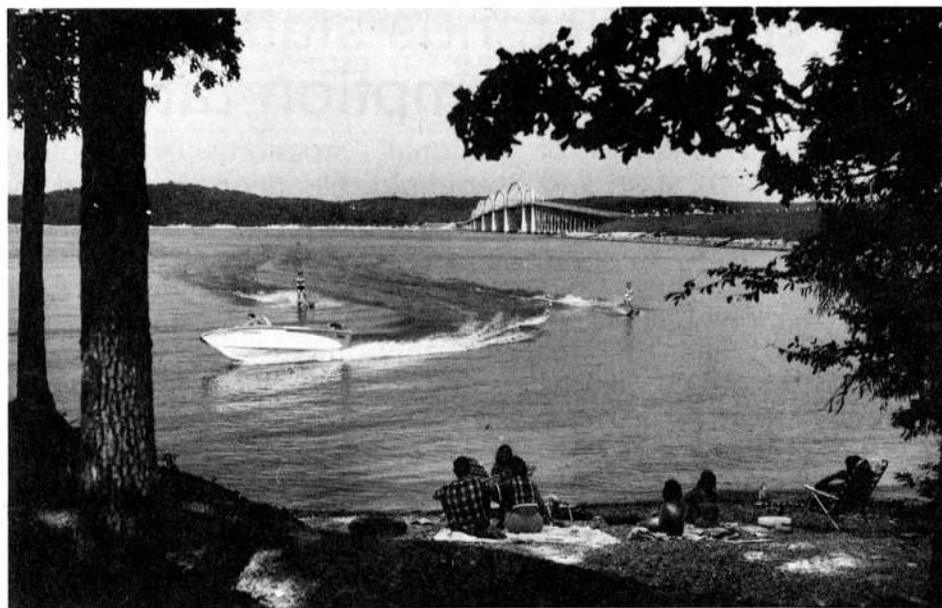
Phil Parrett, this year's chairman, said festivities get underway at 1 p.m. and are scheduled to end at 9 p.m. Dinner begins at 5 p.m. The cost for adults is \$2.50; children \$1.00. Highlighting the dinner will be Bar-B-Que, chicken, hot dogs, baked beans, cole slaw, potato chips and beverages.

Kiddie games have been scheduled. In addition to door prizes, the Saturday picnic features the annual softball contest between the two divisions.

COMPLETE AND RETURN TO THE Y-12 RECREATION OFFICE BUILDING 9711-5, MS-001

Entries must be received prior to drawing on July 26, 1978

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times. Please call the Recreation Department, 3-5833, after 3 p.m., Wednesday for your time.



SUMMER FUN—Tennessee Valley Authority lakes, both in Kentucky and Tennessee, give residents ideal recreation for summer months. A picnicking family here watches as skiers circle close to their sylvan spot. (Photo courtesy of TVA).

Local lakes provide recreation as well as special safety rules

Off-the-job summer recreation in western Kentucky almost always includes water sports and related activities of some kind. And many Paducah employees will take advantage of the nearby lakeland area this summer or spend vacation time on various other waterways.

Michael J. Mazzone, Paducah Plant Safety Department, recently coordinated a series of boating safety sessions at the plant, conducted by Officer Gary T. Bank, U.S. Coast Guard 2nd District. Over 600 people attended the mini-seminars which featured films on boating regulations and swimming safety as well as lectures on safety devices and state laws.

Education key factor

"Complacency is a primary factor in boating accidents," says Officer Bank. "A great majority of accidents occur to persons between the ages of 30 to 37 with over 100 hours of boating operation," he adds. In 1977, the Coast Guard's 2nd District, which includes western Kentucky and northwestern Tennessee, saw a 20 percent reduction in boating fatalities. Bank attributes much of this upturn to more widespread public education and regulation enforcement.

There are approximately 47 million recreational boaters in the U.S., according to the Coast Guard film, "The Score Off Shore." And each one of these water fans stands a chance of being boarded this year by one of the Coast Guard's law enforcement officers. In order to be prepared for this possible boat check, compliance with a few basic rules and regulations may save boaters time and money.

Registration rules

An undocumented vessel must be registered in the state where it is principally used. This Certificate of Number must be on board when the boat is in use. The number must be displayed on each side of the forward half of the vessel in plain vertical block characters not less than three inches high. A validation sticker must be displayed within six inches of the number.

Every recreational vehicle must be equipped with the proper number of

flotation devices in relation to the length of the boat and the number of people aboard. These devices must be approved by the Coast Guard, in good condition and readily accessible. Most boats with a length of 16 feet or more also require a proper type of fire extinguisher, flame arrester, ventilation ducts, sound producing device and a pollution prevention system.

Capacity formula

Most boats display a "Capacity Information Plate" intended to provide safety information to boatmen. In the absence of this tag, the following formula can be used to determine capacity. Multiply the overall boat length by the maximum width and divide by 15. This number of persons can be safely carried in good weather conditions.

Only an advanced course in boating safety can provide the necessary information to recreational boaters, but a few basic suggestions may save someone from an unfortunate accident on the water this summer or lost time at work.

- Eliminate all flammable materials while fueling and know your fuel tank capacity.
- Do not permit persons to ride on bows, seatbacks or gunwales.
- Keep an alert lookout at all times.
- Watch your wake. You are responsible.
- Know the various distress signals.
- When skiing, there should always be two people in the tow boat; one to watch the skier and the other to operate the boat.
- If you capsize, remember that the boat will float; stay with it.
- Know and obey the rules of the "road."

For further information on safe boating, contact the 2nd Coast Guard District, 110 9th Avenue S., Nashville, 37203.

Three promoted at ORGDP

Three promotions have been announced at ORGDP. John R. Loyd III has been appointed manager of the Nuclear Division's Industrial Participation Program; Everett H. Tomlinson has been named manager of the Centrifuge Plant Demonstration Facility; and Todd R. Butz has been named assistant project manager for the Uranium Resource Evaluation Project.

Loyd will have responsibility for directing and administering the transfer of uranium enrichment technology to DOE's Industrial Participation Program contractors. The Bridgeport, Ala., native joined the Nuclear Division four years ago with responsibility for planning and scheduling qualification testing of industry-supplied centrifuges.

Loyd received a B.S. degree in mechanical engineering from Vanderbilt University. Prior to joining the Nuclear Division, he held positions with Astro-Space Labs, Inc. and with Thiokol Chemical Corporation in Huntsville. He is a registered Professional Engineer in Alabama.

He and his wife, Sara, live in Country Club Estates, Oak Ridge. They have two children, Julie and Peggy.

Tomlinson joined the Separation Systems Division after spending 27 years in the Cascade Division at PGDP. He had been department superintendent at Paducah before his new appointment.

The Lebanon, Tenn., native attended David Lipscomb College.

He and his wife, Lois, live at 11505 N. Monticello Drive in Knoxville.



Butz

Loyd



Tomlinson

They have two children, Wayne and Cynthia.

Butz, a native of Toledo, Ohio, joined the Nuclear Division two years ago. He received a B.S. degree in geology and an M.S. degree in hydrogeology from Kent State. Butz received a Ph.D. in geology from the University of Missouri at Rolla.

He is married to the former Karen Wilkins. They live at 716 Mont-Vue Drive, Kingston.

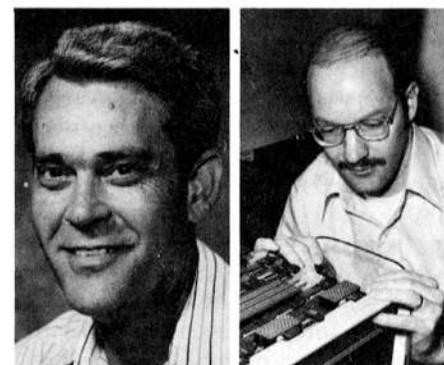
Breeding, Upton promoted at ORNL

Two promotions have been announced at ORNL: Swan Breeding to waste disposal foreman, Operations Division, and R. Glen Upton to supervisor, Metals and Ceramics.

Breeding, a Nuclear Division employee since 1955, was a chemical operator at ORGDP for three years, and at ORNL for 20 years before his promotion. A native Tennessean, he is a veteran of the U.S. Navy.

Breeding and his wife, Hazel, reside on Deerfield Road, Knoxville, with their son, Eric.

Upton will receive his A.S. degree in Technology from Roane State Community College next quarter. He has worked for the Aerospace Division of Martin-Marietta, Orlando, Fla., and Sperry Univac in Bristol, Tenn.



Breeding

Upton

Upton joined Union Carbide in 1970 as an instrument technician at Y-12. Born in Columbus, Ohio, he is a veteran of the U.S. Army. He and his wife, Mary, live on Briar Road, Oak Ridge, with their three children, Mike, Rhonda and Michele.

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Vacations. . .It's your turn

(continued from page 1)

the way. They embark at Page, Ariz. for the expedition. "We will know in September if our applications are accepted for the May, 1979 trip. The government is very interested in protecting the ecology of the Canyon so they limit the number of rafts allowed to make the trip," Shular says. "We are very hopeful of getting in on this trip and look forward to an exciting time."

A tentative vacation for **Hayes Hunter**, Y-12's Product Engineering and Scheduling, sounds like fun for him and his teen-age son, Andy. They plan a bicycle trip to Memphis and back for late July or early August, if it can be worked around football practice. "You take secondary roads, since bikes are banned on I-40," Hunter stated, "but we hope to sightsee and go at a leisure pace." The proposed trip takes about 10 to 12 days. "Incidentally, I have had that raft ride down the Grand Canyon and highly recommend it," he added.

The mysterious orient is on the vacation agenda for **Tom Hamrick**, a development engineer in ORNL's Operations Division.

The Hamricks will celebrate their anniversary and a birthday while overseas this year. "According to our schedule, I should have my birthday in Hong Kong," Hamrick said. "Of course, my wife has the itinerary, so I'll just follow her around."

In February, **Reynold LeDoux**, PGDP Materials Management, and his wife, Ruth, enjoyed the excitement of an East Africa camera safari.

"In addition to the four-footed animals, Africa boasts many beautiful birds and brilliantly colored flowers," LeDoux said. "I took over one thousand slides and Ruth took quite a few prints."

"I heartily recommend an African safari to anyone who loves nature."

The Bridger Wilderness, located in west central Wyoming is one of the few areas in the United States, outside Alaska, that is still inhabited by the grizzly bear.

Ron K. Dierloff, Operations Engineering at Paducah, plans to backpack into the area with friends. "We'll stay eight to 12 days, depending on the weather and the fishing."

"One of our objectives is to climb Fremont Peak, a 13,600 foot mountain on the Continental Divide," Dierloff said.

Steve R. Blum, a computing analyst in ORNL's Computer Sciences Division, spent several months planning his Christmas ski trip to Colorado, only to spend most of his vacation bedridden with the flu.

"After a few days of Denver sightseeing, I rented a full set of equipment and got ready to hit the slopes," he said. "Later that day I started feeling weak, and by dinner time I was totally wiped out."

"I had a terrible cough, runny nose, headaches and I was really sick to my stomach." After returning to Oak Ridge, Blum took another week off—to recover from his "vacation."

"If you do serious gardening, you do it every day," says **Robert B. Splittgerber**, an electronics instrument technician in the Instrumentation and Controls Division, ORNL.

Splittgerber is a serious gardener. "We grow everything, including cabbage, broccoli, cauliflower, peas and corn."

"Gardening has a practical purpose," says Splittgerber, "it helps cut corners on the family budget." This vacation—like past vacations—will be spent productively on 3½ acres of land that help put food on the table.

Jerry Upchurch of ORGDP's Maintenance Division spent two days recently with his sister and four men in the forest along the South Fork of the Cumberland River in Scott County.

Upchurch said the group, which included his brother-in-law N. B. Bloomer Jr., a supervisor at Y-12, wanted to "wade in the streams and fish" before the area is declared a national wilderness area and restrictions are imposed on what areas can be visited.

The group drove to Oneida and from there, went by trail bike and four wheel drive.

Photographing old courthouses and new ones, too, has occupied a lot of **Chet Borge's** vacation for the past year. He has already covered all of Tennessee's 96 counties, complete with date of construction, etc. The Product Engineering and Scheduling employee at Y-12 has uncovered many facts on county seats in the state. "It's amazing how decorative some of the courthouses are," Borge allows.



Gas study defends states with high consumption rates

A detailed analysis of national variations in gasoline consumption, by state and household, has been published by researchers at ORNL.

The study shows wide variations in gasoline use patterns from one state to another. The average amount of gasoline used by vehicles in individual states varied as much as 20 percent above or below the overall U.S. annual consumption rate of 754 gallons per vehicle. The state average household consumption ranged from 60 percent above to 40 percent below the national average consumption rate of 1,389 gallons per household.

The data are contained in a report, "An Investigation of State Annual Gasoline Rates (ORNL-5391)," compiled for DOE's Transportation Energy Conservation Division.

The study goes beyond previous analyses of the demand for gasoline by including factors which vary from state to state, such as geography, climate and types of economic activity.

Oak Ridge researchers found, for the reference period 1966-1975, that

Bill Watson, Finance and Budget in the General Accounting Division at ORGDP, and his wife, Margaret, just returned after 22 days in Europe where they toured 11 countries. Beginning in England, they traveled from The Netherlands to Italy. The highlight of the trip was Rome and the ancient ruins of Pompeii.

He said a chartered tour was selected because "it was the only way to go." The value of the American dollar has declined quite a bit in these countries. Watson said the hotels were very expensive for non-tour travelers.

Bill McCluen, ORGDP Cascade Operations, and his wife, Lou, recently returned from an eight-day vacation to the state of Washington. McCluen said he had never been to Washington and thought it would be a nice trip. As it turns out, McCluen recommends the trip highly, saying the "people are friendly, the state is clean, and there is a total lack of billboards."

The McCluens flew to Seattle where they rented a car and drove more than 1,200 miles over the next eight days—traveling from Seattle in the northwest to Walla Walla in the southeast. They traveled down to Oregon and along the famed Columbia River for several miles.

state consumption rates ranged from 589 gallons per vehicle in Pennsylvania to 900 gallons per vehicle in Arkansas; and from 864 gallons per household in New York to 2,222 gallons per household in Wyoming.

The study revealed that differences in state consumption rates are primarily a result of the complex interaction of environmental, demographic, and economic factors. Of these, the travel environment of the state, especially distances between trip origins and destinations, is perhaps the key factor in explaining state-to-state variations in gasoline use.

Southern and sparsely populated states tend to have higher per vehicle and per household gasoline use patterns than more urbanized areas. David L. Greene, ORNL Energy Division, gave an example of how increased urbanization and density of settlement decreased the overall state consumption of gasoline. "While many people can walk a short distance to the grocery in New York, an automobile trip of several miles is usually required in less densely populated western states," he said.

Although consumption rates are affected by such factors as the number of persons of working age, the amount of tourism, and gasoline "exported" across state lines by vehicles registered in other states, results of the study do not support the contention that differences in state consumption can be attributed to extravagant or frivolous gasoline use by residents of high consumption states.

The study was compiled by Greene and T. Patrick O'Connor, both in the regional and urban studies section of the Laboratory's Energy Division.

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