

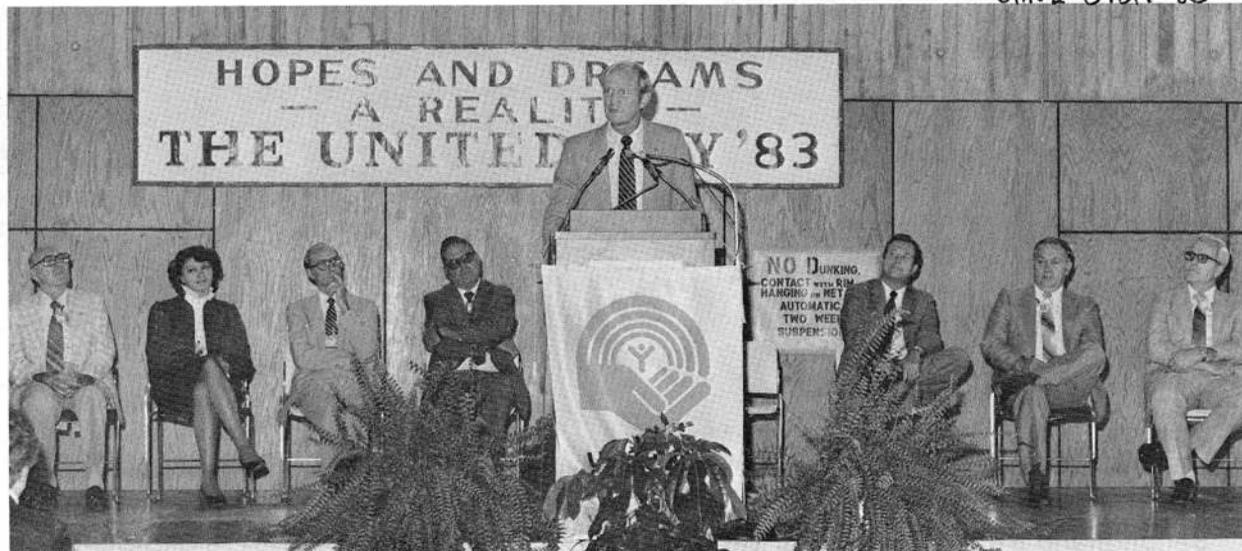
NUCLEAR DIVISION NEWS

A Newspaper for the Employees of the Nuclear Division, Union Carbide Corporation

Volume 14/Number 19 September 22, 1983

UNION
CARBIDE

ORNL 5121-83



UNITED WAY CAMPAIGN KICKOFF — Dr. Robert M. Overholt, 1983 Chairman of the physicians' campaign for the United Way of Greater Knoxville, Inc., delivers the keynote address at the Nuclear Division United Way campaign kickoff. In the background, seated from left, are: Oscar L. Williams, vice president of Y-12 Atomic Trades and Labor Council; Frances M. Walton, representing the Y-12 International Guards Union of America; William H. Dodson, general campaign chairman; Nuclear Division President Roger F. Hibbs; Nuclear Division Vice President Clyde C. Hopkins; Robert Keil, president of Atomic Trades and Labor Council; and Herbert E. Trammell, ORNL general chairman.

United Way campaign kickoff held

By sharing stories of how United Way agencies can "help you and me," keynote speaker Dr. Robert M. Overholt expressed his enthusiasm for the Nuclear Division's 1983 United Way drive at the campaign kickoff September 12.

Overholt, a Knoxville allergy and immunology specialist who is chairman of this year's physicians' campaign for the United Way of Greater Knoxville, Inc., spoke to more than 500 Nuclear Division campaign workers and United Way agency representatives gathered at the Oak Ridge Civic Center.

During the meeting, Nuclear Division President Roger F. Hibbs described the Union Carbide spirit in connection with United Way, which he feels has set a good example over the years for the incoming contractor to follow. "So many people have devoted so much of their time, energy and money to help their fellow man and improve this country," he said.

Overholt gave examples of how United Way agencies serve the community. He related

(Please turn to page 8)

Service Award recipients named

Thirty-seven Nuclear Division employees have been selected to receive Union Carbide Community Service Awards recognizing their continuing commitment to community service.

The recipients will be honored at special ceremonies this fall for their participation in "voluntary, uncompensated activities that benefit their communities." Each employee will receive a letter of commendation, an award certificate and a pin, in addition to a \$200 award to be contributed to the community organization(s) of the employee's choice.

The honorees were nominated by Nuclear Division employees and selected by committees at each facility composed of Carbide and community representatives. The number of available awards was determined by each facility's employee population.

The 37 recipients are:

ORGDP — Thomas W. Bookhart, Keith S.

Feltz, William D. Joyner, C. R. Lay Jr., Sharon L. Leitnaker, David N. Mosby, Karl E. Rapp III, Margaret S. Stewart, Ray N. Stewart and Margaret J. Stone.

ORNL — W. Scott Aaron, Cloyd O. Beasley, John E. Bigelow, Joe M. Dailey, Paul D. Ewing, Paul M. Griffin, Gary D. Inman, Richard P. Jernigan Jr., Robert L. Jolley and Lorena F. (Tykey) Truett.

Paducah — Richard C. Baker, Velva K. Blayney, Bobby J. Bond, David L. Forbis, Edwin W. Ford, Mary Ellen Pfost and Ed E. Walker.

Y-12 — E. Wayne Arrington, Michael J. Bradshaw, Al Chambles, Melvin J. Chandler, James W. Freels, Ronald J. Graham, Peter A. Leitnaker, J. D. Lovette, Sally J. Shultz and Glenn V. Wells.

Photographs and profiles of the 37 recipients will appear in upcoming issues of *Nuclear Division News*.

Three firms remain as contract contenders

Martin Marietta Aerospace, Rockwell International and Westinghouse Electric Corporation are the three organizations remaining as candidates to manage, operate and maintain DOE's four facilities in Oak Ridge and Paducah.

The three were approved by DOE officials in Washington last week on the recommendation of the local Source Evaluation Board.

Others who had submitted operating proposals but were removed from consideration were Action Systems, Inc.; EG&G, Inc.; Foster Wheeler Corporation; Gerald Lamale; and Signal Companies, Inc.

DOE expects to select a new contractor for ORGDP, the Y-12 Plant, ORNL and PGDP by December 9, 1983. There will be a 90-day phase-in period from January 1, 1984, through March 31, 1984, during which Union Carbide will continue to serve as contractor for the four facilities. This phase-in period will provide the new contractor organization with an opportunity to relocate any new personnel to Oak Ridge, prepare any revised procedures required to be in place upon assumption of contract responsibilities and complete other administrative matters. A definitive contract, which currently is being developed by DOE, will be negotiated with the new contractor for this 90-day period.

It is expected that the new contractor will assume full responsibility for all work April 1, 1984. For the period April 1 through September 30, the new contract will be on a cost-plus-fixed-fee basis. Subsequent to October 1, 1984, the contract will be on a cost-plus-award-fee basis.

ORNL 5046-83



A feature on sailing by ORNL's Ray Adams is found on page 7.

Share The Ride

ORGDP

CAR POOL MEMBERS WANTED from Farragut to Portals 3, 2 and 8, day shift. Don Muldrew, plant phone 6-0353; or Lonnie Holleman, 4-9048.

CAR POOL MEMBERS WANTED from Karns Community to Portals 3 or 5, day shift. Tom Lemons, plant phone 4-8159; or Loren Lund, 6-2311.

CAR POOL MEMBERS WANTED from east end of Oak Ridge to any portal, day shift. Doug Janney, plant phone 4-9448; home phone 483-1619.

CAR POOL MEMBERS WANTED from Cedar Bluff Shopping Center to Portal 2, day shift. Fredrick Markham, plant phone 6-2504, home phone 691-3067; or Roy Munsey, plant phone 4-7903, home phone 693-0130.

RIDE NEEDED from Rockwood area to Portal 2, day shift. Mike Garrett, plant phone 4-7903; home phone 354-2348.

CAR POOL MEMBER NEEDED from West Town Mall to Portals 1, 2 or 4, day shift. George, plant phone 6-0506; home phone 690-6856.

RIDE NEEDED from Bruner Shopping Center, Oak Ridge, to Portals 2 or 4, day shift. Marvin Kerley, plant phone 4-8850; home phone 483-5814.

RIDE NEEDED from Eaton's Crossroads, Lenoir City, to Portals 2, 3 or 4, day shift. Margaret Pickell, plant phone 4-9170; home phone 986-3639.

NEED TO JOIN OR FORM CAR POOL from Lenoir City, Eaton's Crossroads, Pleasant Hill Baptist Church, to Portal 1, 8-4:30. M. L. Rogers, plant phone 4-2691; home phone 986-5600.

ORNL

VAN POOL RIDERS NEEDED (room for two) from West Knoxville (Cedar Springs Shopping Center, Cedar Bluff, Middlebrook Pike, Vanosdale Road, Cloth World, Kingston Pike) to any portal except South, 8-4:30. Leon, plant phone 4-5723; home phone 693-3211.

BUS POOL MEMBERS NEEDED from the Burlington area, Asheville Highway, heading in the direction of I-640, stopping at Broadway and Tazewell Pike. The next stop is Papermill and Weisgarber, then to Cloth World on Kingston Pike. The next stop, via Kingston Pike, is Lovell Heights Shopping Center, then on via Pellissippi Parkway to all portals, 8-4:30. P. R. Long, plant phone 4-4154; or Twana Taylor, 4-7281.

RIDE NEEDED from Oak Ridge Highway between Karns and Solway to East Portal, 8:15-4:45. Peterson, plant phone 4-4483; home phone 690-3989.

VAN POOL RIDERS NEEDED from East Knoxville — down Middlebrook Pike, Cedar Bluff and back down Middlebrook Pike to Pellissippi Parkway to East and West Portals, 8-4:30. A. J. Boatwright, plant phone 4-6041; home phone 970-4231.

CAR POOL MEMBERS NEEDED from Louisiana Avenue area, Oak Ridge, to any portal, 8-4:30. Frank Foust, plant phone 4-6056; home phone 483-0350.

BUS POOL RIDERS NEEDED from Maryville via Highway 95, with stops in Lenoir City. Joel Horton, plant phone 4-3121; home phone (Maryville) 983-9160.

Y-12

CAR POOL MEMBERS NEEDED from Beaver Ridge United Methodist Church parking lot, Oak Ridge Highway, to North Portal, 8-4:30. Bob Cooper, plant phone 4-3430; home phone 691-8411.

VAN POOL RIDERS NEEDED from Lake City and Clinton, 8-4:30. Joe Foust, plant phone 4-5889; home phone 426-2947.

BUS POOL RIDERS NEEDED from Knoxville, I-40 at Alcoa Highway (Expo Inn), 8-4:30. Joel Horton, plant phone 4-3121; home phone (Maryville) 983-9160.

CAR POOL MEMBERS NEEDED from Cedar Bluff/Middlebrook Pike area to Bear Creek Portal, 8-4:30. Gerald Russell, plant phone 4-3658; home phone 691-3475.

NEED TO JOIN OR FORM CAR POOL from Maryville area, "E" shift. J. Long, plant phone 4-2660; home phone 977-4382.

CAR POOL MEMBER NEEDED from Blaine area to Y-12, any portal, day shift. Linda, plant phone 6-4940; home phone 933-4862.

CAR POOL MEMBERS NEEDED from Fox Lonas-Walker Springs Rd. area, Knoxville, to any portal, 8-4:30. Tom Pappas, plant phone 4-2500; home phone 690-2100.



SECONDHAND STORES AWARENESS MONTH — September has been designated Secondhand Stores Awareness Month at ORGDP. Checking the stock of materials are Lydia Patterson and Alvin H. Marten, Finance, Materials and Services Division. The current value of merchandise in the store is estimated at \$5 million.

Secondhand Stores Awareness Month designated at ORGDP during September

Cluttering the storage area of Jay Department is a stack of aluminum pipes left over from a project completed more than five years ago. Vee Department is trying to complete the construction of a major research facility and has exhausted its supply of aluminum pipes. The vendor says delivery will not be possible for at least six months.

Although these cases are exaggerated, similar situations do exist throughout the Nuclear Division from time to time. To help bring "Jay and Vee Departments" together and to make use of valuable resources that might be stored indefinitely or discarded, ORGDP established a Secondhand Stores program in November 1982.

Before the program was established, Plant Manager William F. Thomas directed ORGDP staff to make an inventory of all storage areas and identify items not being used or for which no use was planned in the immediate future. Staff members were then encouraged to turn these items in to Secondhand Stores to be made available to others who might have a need for them. No monetary credit was provided for items that were turned in.

According to Mary Lou Whitten, general supervisor of the stores section, Finance, Materials and Services Division, Secondhand Stores now has stock with an estimated value of \$5 million. Available items include pipe fittings, welding supplies, electrical supplies, insulation, furniture, doors and windows, copper tubing, safety mirrors, ladders, air filters, hoists, and miscellaneous tools, metals and hardware.

Some of the materials are new, while others may have been used but are still in excellent condition. Through August, 1,863 items, valued at almost \$230,000, had been issued.

Nuclear Division employees are encouraged to visit the store at ORGDP to see the wide selection of materials that are available at no charge. All the "buyer" has to do is complete a request for material from stores form (UCN-3140) and provide a copy to the stores attendant.

The store, located in Vault 31X at the Southwest corner of Building K-27, is open to any Nuclear Division employee who has an official need for its stock. Hours are from 8 a.m. to 4 p.m., Monday through Friday.

Tyrone Sivels named as AA coordinator

Tyrone T. Sivels has been named Affirmative Action coordinator at the Paducah Plant. Sivels, a native of Dewmaine, Ill., received a



Sivels

bachelor's degree in manufacturing engineering technology from Murray State University and an associate degree in machine tool technology from Southern Illinois University. He joined the Paducah Plant in 1962 as a machinist in the Maintenance Division.

Sivels worked as an inspector in the Engineering Division from 1975 until 1982, when he joined the Employee Relations staff.

He and his wife, Dorothy, have a son. They live on Estes Lane in Paducah.

Patent granted

Lloyd R. Chapman, Y-12, "Method for Fabricating Laminated Uranium Composites."

Charlene C. Riley dies in Paducah

Charlene C. Riley, a secretary in the Paducah Plant Employee Relations Division, died recently at Western Baptist Hospital in Paducah. She had worked for the Nuclear Division since 1953.



Mrs. Riley

Mrs. Riley was a member of the Broadway Baptist Church in Paducah.

Survivors include her husband, Raymond Riley of Paducah; son, Charles Ferguson of Paducah; stepdaughter, Alyce Mills of Mayfield; sister, Willie Jones of Paducah; and brothers, James, Ernest, Elvon and Farris Courtney; all of Paducah.

Funeral services were held at Roth Funeral Chapel, with burial at Woodlawn Memorial Gardens.

Donald G. Crecelius dies at Paducah home

Donald G. Crecelius, a shift superintendent in the Operations Division of the Paducah Plant, died July 18 at his home at 3641 Gregory Street, Paducah. He had worked in the Nuclear Division for 39 years, moving from Oak Ridge to Paducah in 1951.



Mr. Crecelius
Pad. 4953

Mr. Crecelius was an elder at the Westminister Presbyterian Church in Paducah. He was also a member of the Board of Directors of the McCracken County Humane Society.

Survivors include his daughters, Cathy Crecelius of Paducah and Margaret Williams of Covington, La.; and sister, Louise Atkinson of Bloomington, Ill.

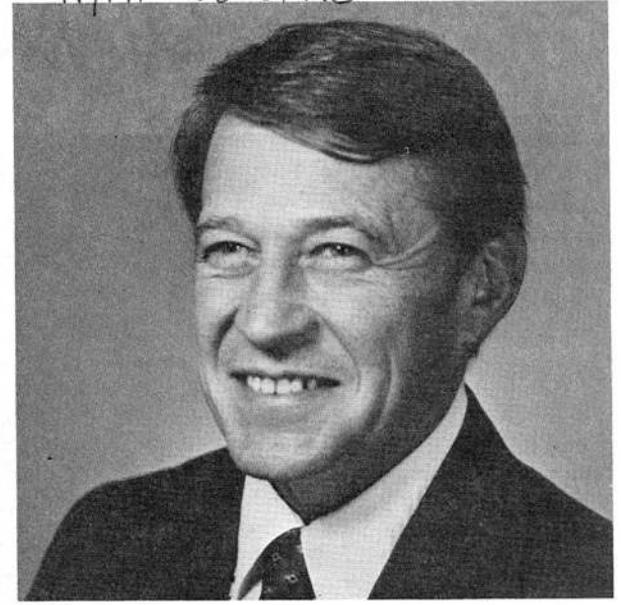
Graveside services were held at Mount-Kenton Cemetery in Lone Oak. Memorial services were conducted at Westminister Presbyterian Church.

PH 76-1364



Joseph C. Hall

K/PH 83-2993



James E. Heiskell

Hall, Heiskell named division heads

Managers of two newly established divisions at ORGDP have been announced by Plant Manager William F. Thomas. Effective October 1, Joseph C. Hall will manage the Production Maintenance Division and James E. Heiskell will head the Fabrication and Plant Services Division.

Hall is currently manager of the ORGDP Quality Improvement Program. In his new position, he will be responsible for development and Atomic Vapor Laser Isotope Separation process maintenance; maintenance engineering; and electrical, instrument and mechanical field maintenance.

A native of Fort Towson, Okla., Hall received a BS degree in mechanical engineering from Oklahoma State University. He served as a public works officer in the U.S. Navy and joined the Nuclear Division in 1960.

Hall's initial assignment was as a numerical control machine tool engineer at the Y-12 Plant. He later worked as a craft superintendent at ORNL. In 1969 he transferred to ORGDP, where he has worked as superintendent of the maintenance engineering, shops and plant services.

A past president of the Society of Manufacturing Engineers, Hall has served on the Society's Board of Governors and Executive Committee. He is also on the Productivity and Innovation Commission of the American

Association of Engineering Societies and is a fellow of the Institute of Production Engineers of Great Britain.

Hall and his wife, Jere, have two children. They live in Kingston.

As manager of the new Fabrication and Plant Services Division, Heiskell will be responsible for building, grounds, fabrication and equipment shops maintenance; garage, custodial and laundry services; and the ORGDP Recovery Program.

Heiskell was born in Rockwood and grew up in Sweetwater. He received a bachelor's degree in industrial technology from Tennessee Technological University.

Heiskell, who joined the Nuclear Division in 1969, has served in various positions in the ORGDP Maintenance Division, including department superintendent for Plant Services and Field Maintenance. He is currently head of the Shops and Field Maintenance Department.

He and his wife, Linda, have two children. They live in Edgewater Estates, Kingston.

Question Box

Who should escort uncleared visitors?

QUESTION: Since the entrance gate to the Y-12 Administration Building (9704-2) has been closed, all visitors now have to be escorted from the portal to the building and back. Why can't an escort be hired for this instead of having secretaries interrupt their work each time visitors arrive? If this is not possible, why can't managers serve as escorts rather than secretaries so there is no discrimination? Another solution might be to assign a guard for this purpose, even if an extra one must be hired.

ANSWER: Security regulations require that uncleared visitors to restricted areas within the Y-12 Plant be escorted. The decision as to who should serve as escort will depend upon the supervisor's decision as to whose time can best be utilized for this purpose. Managers and staff personnel, in addition to office personnel and guards, do escort visitors.

UNION CARBIDE

Nuclear Division News

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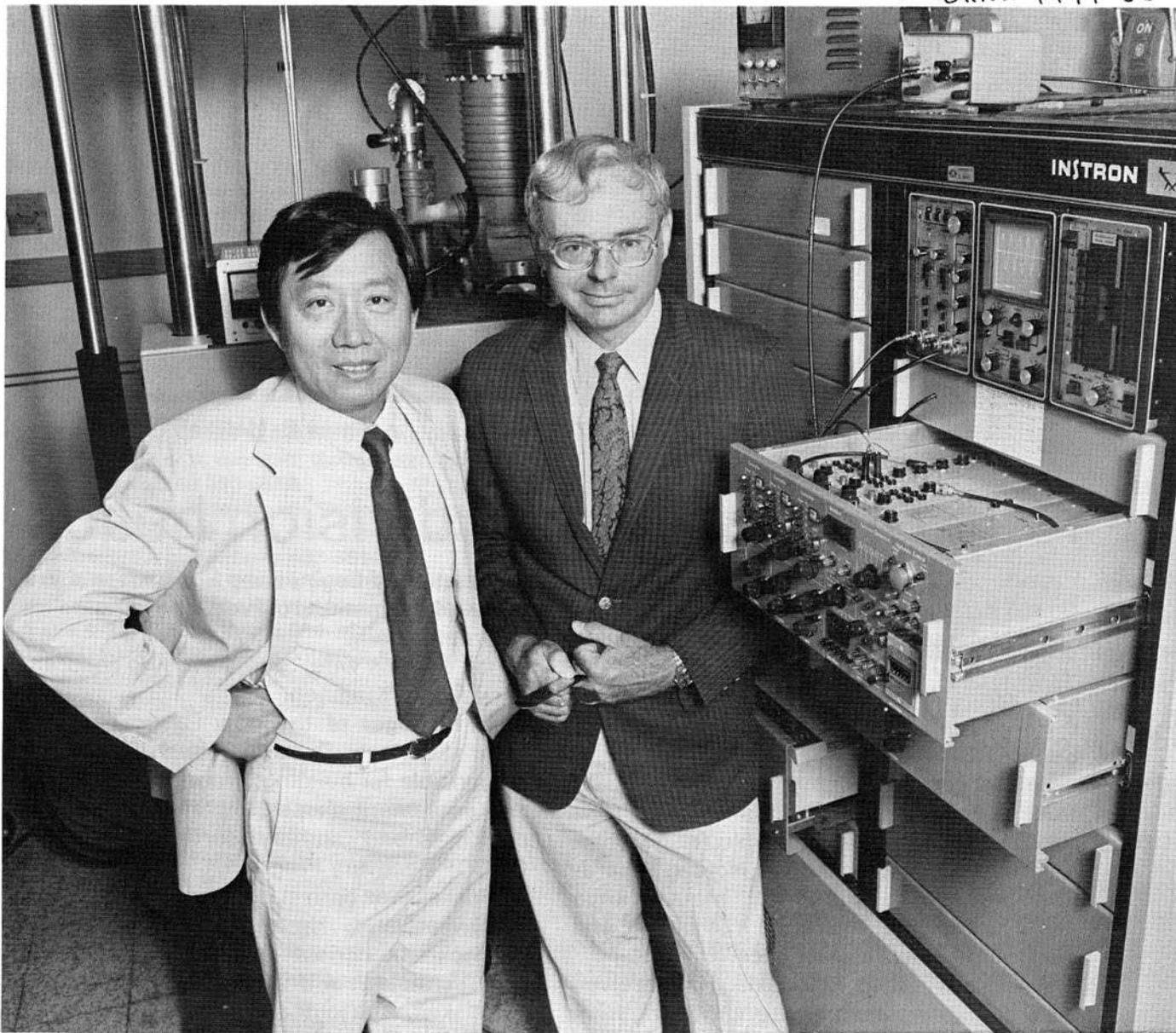
Published every other week for employees such as: Y-12 215794



Joette A. Rule of the Y-12 Industrial Engineering Division.

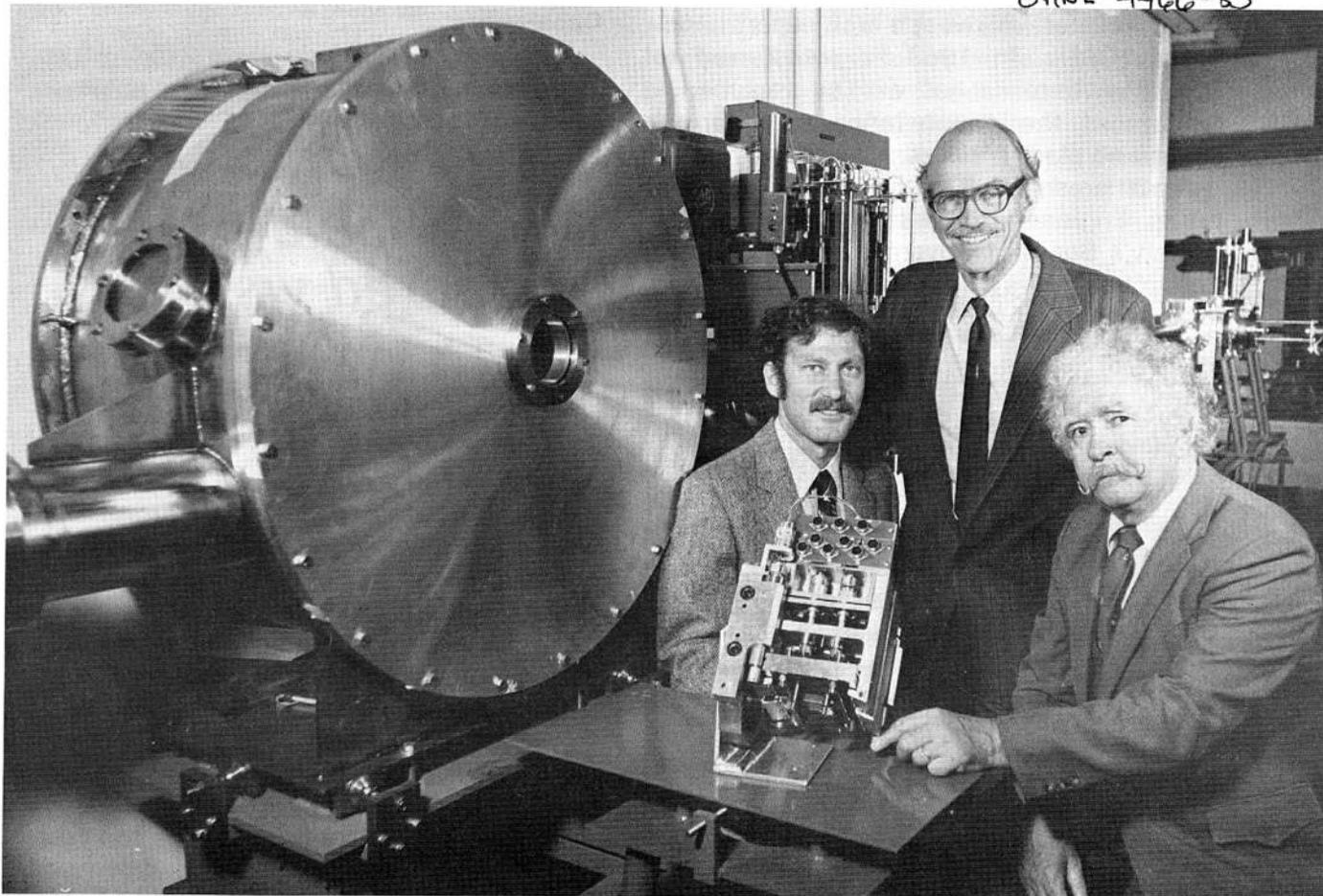
Six ORNL developments are among year

ORNL 4444-83



NICKEL-IRON ALUMINIDE ALLOY — The nickel-iron aluminide is a new intermetallic alloy with high temperature strength and corrosion resistance superior to the highest quality superalloys. Chain T. Liu and Carl C. Koch are shown with a sample of the new alloy and a high-temperature tensile testing apparatus.

ORNL 4466-83



X-RAY MONOCHROMATOR — The x-ray monochromator is a highly efficient device for focusing x-ray radiation from storage rings for materials science research. Gene E. Ice (from left to right), Cullie J. Sparks Jr. and Melvin G. Willey are shown with the monochromator, along with a 20-meter beam line that will be installed at the National Synchrotron Light Source at Brookhaven National Laboratory.

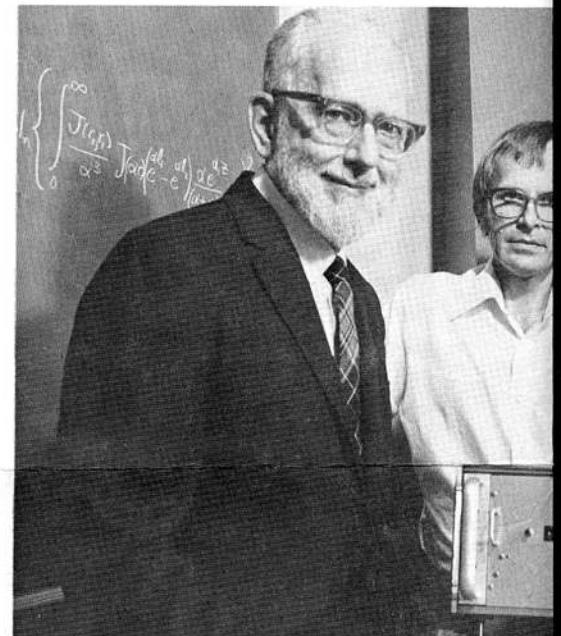
ORNL has been recognized for six of the advances."

The "I.R. 100" awards were announced by *Research & Development*. The winners are recognized for engineering achievements on the basis of their contribution to mankind."

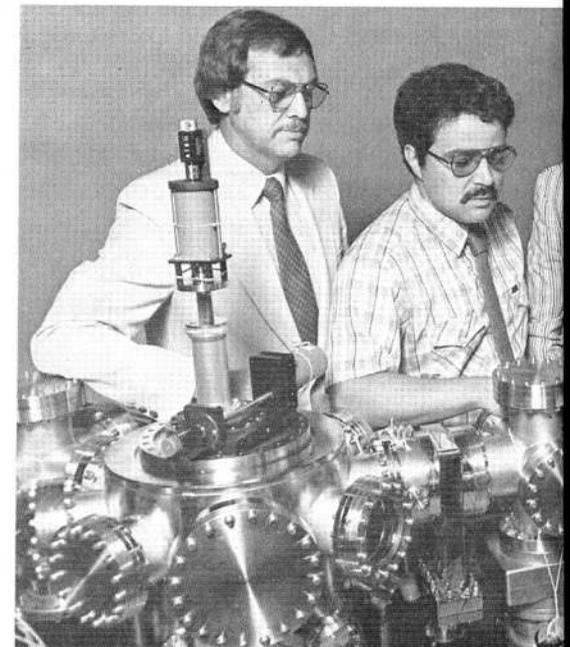
This is the second consecutive year that the Nuclear Division total since 1977 to 1983 was received in 1967.

The winning developments are:

- An "intermetallic" alloy of nickel-iron with corrosion resistance superior to the highest quality superalloys.
- A class of supersaturated semiconductor diodes and advanced integrated circuit devices.
- Processes for efficient recovery of silver from production wastes.
- An improved instrument for early detection of generator tubes.
- A more efficient device for focusing x-rays for science research.
- A sensitive laser-equipped spectrometer for the vacuum ultraviolet spectral region.



MULTIPLE-FREQUENCY EDDY-CURRENT — The eddy-current instrument is used to detect microscopic flaws in nuclear power plant steam generator tubes. L. D. Chitwood (left to right), L. D. Chitwood and Caius V. Willey are shown with the eddy-current instrument.



SUPERSATURATED SEMICONDUCTOR — The supersaturated semiconductor device is used for doping silicon and gallium arsenide. Bill R. Appleton (left to right), Woody White and Jagdish Narayan are shown with the device used for doping shown in the figure.

's 'most significant technology advances'

the year's 100 "most significant technology
 advanced recently by the magazine *Industrial*
 are selected from thousands of scientific and
 of "importance, uniqueness and usefulness

at ORNL has received six awards. They bring
 \$35 — and a grand total of 37 since the first

aluminide with high-temperature strength and
 quality stainless steels and superalloys.
 for alloys, for use in high-power transistors,
 devices.

er from liquid photographic and photorepro-

ction of flaws in nuclear power plant steam

ray radiation from storage rings for materials

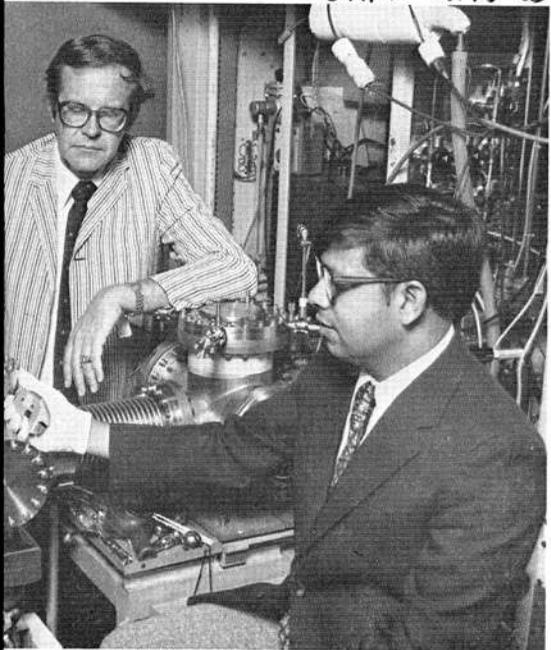
to study atomic and molecular properties in

ORNL 4487-83



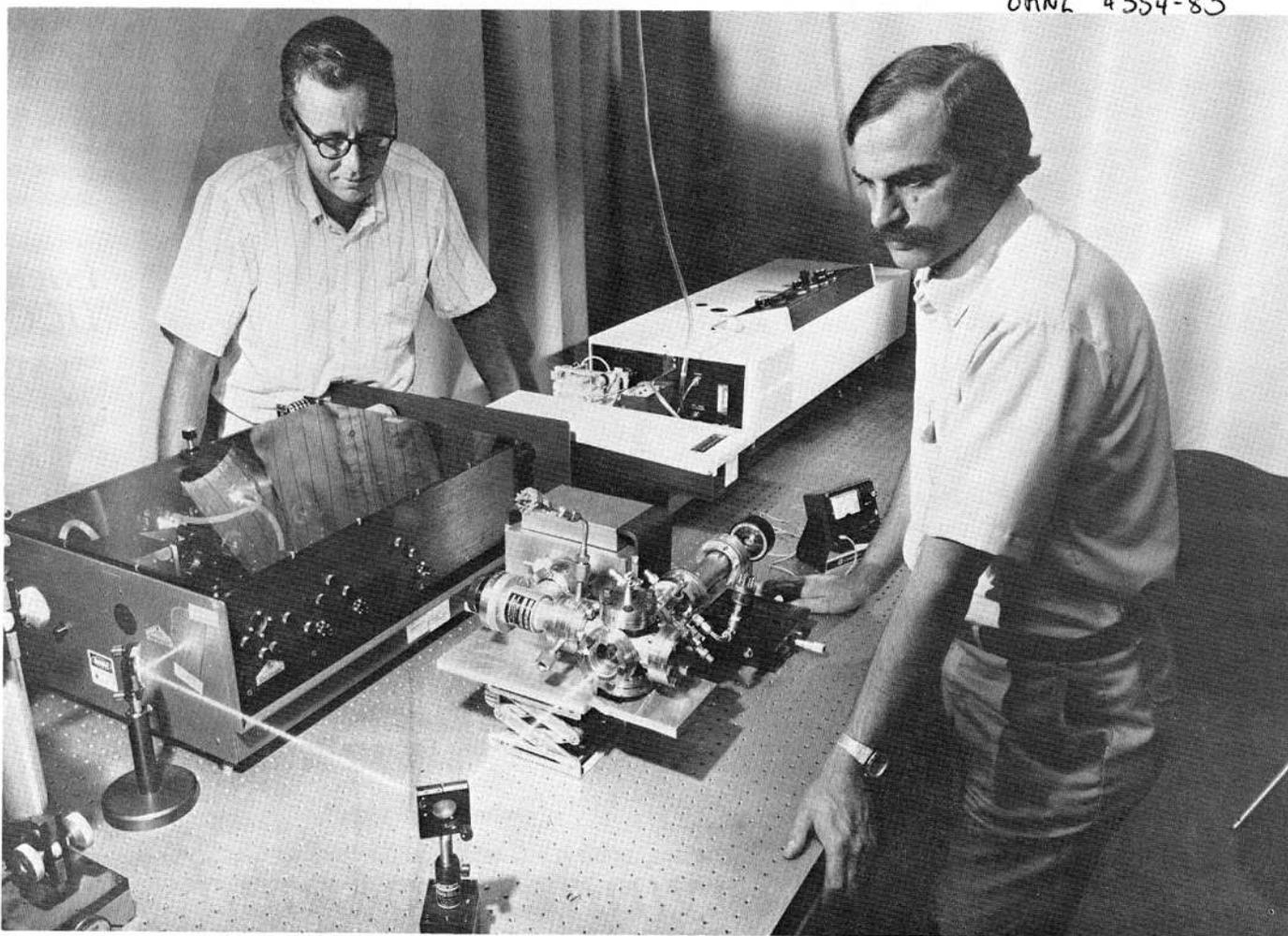
TESTING INSTRUMENT — Micro-generator tubes now can be detected more
 testing instrument. W. Edward Deeds (from
 Dodd are shown with the computer-based

ORNL 4275-83



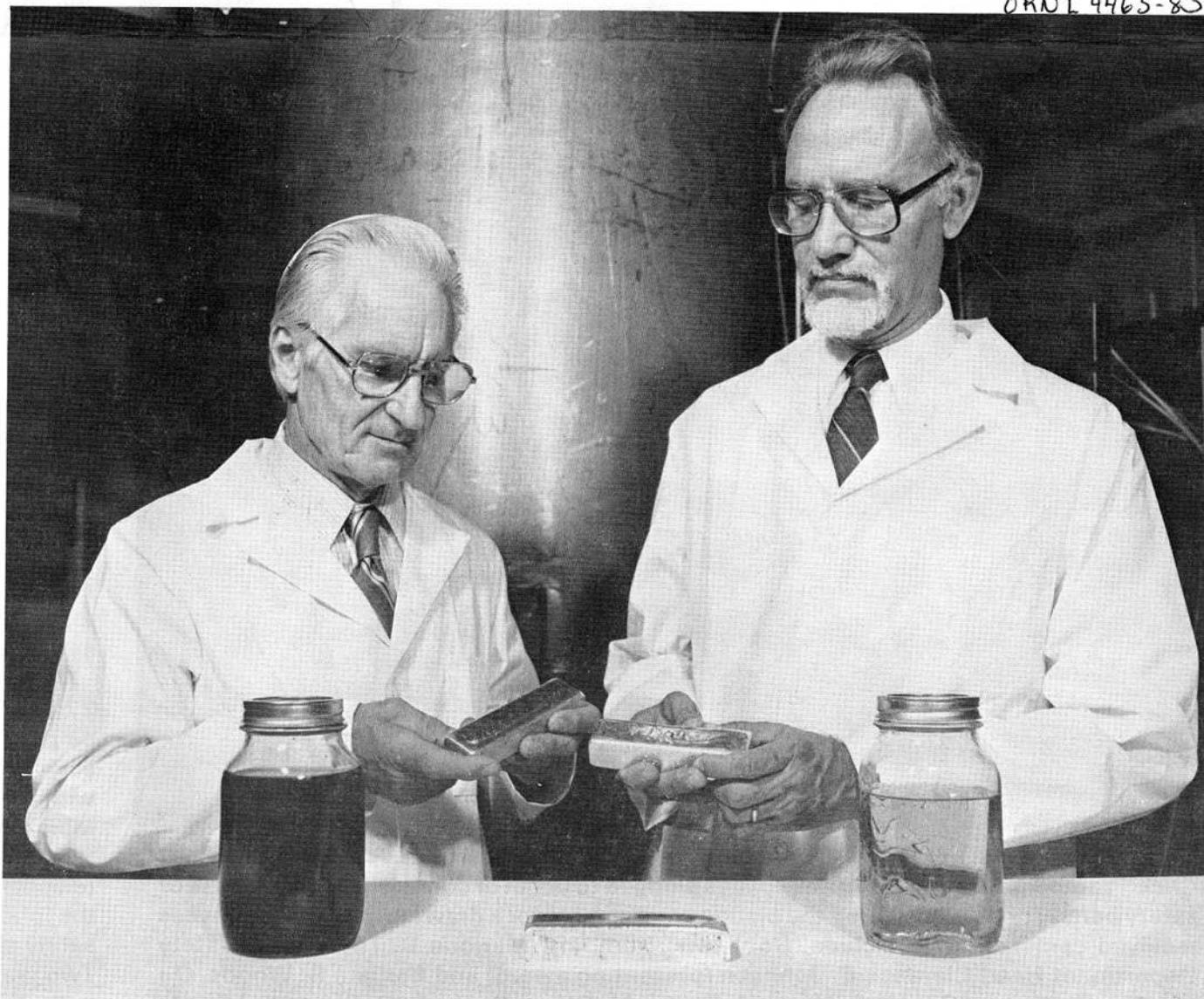
ALLOYS — For use as high-power transi-
 semiconductor alloys are saturated with
 times the concentrations found in conven-
 (from left to right), O. Wayne Holland, C.
 e an alloy sample, with the ion implanta-
 foreground.

ORNL 4354-83



VACUUM ULTRAVIOLET SPECTROMETER — The vacuum ultraviolet spectrometer converts laser light to
 the vacuum ultraviolet spectrum for the study of atomic and molecular properties. The device was devel-
 oped by Robert N. Compton (left) and John C. Miller of ORNL and by C. Dewey Cooper of the University of
 Georgia (not pictured).

ORNL 4465-83



SILVER RECOVERY PROCESSES — Al A. Palko (left) and Franz A. Posey inspect silver ingots made from
 silver recovered from liquid photographic waste in processes that are 99.99 percent efficient. The two jars,
 cloudy and clear, represent the difference between untreated and treated liquid waste. The recovered silver
 is almost 100 percent pure with just traces of iron, magnesium and other elements present.



ATOMIC LEAGUE VICTORS — "B. K. Buzzards" finished the season as Atomic League and tournament softball champions. Team members include, kneeling, from left, Stan Stines, Ray Milleman, Jim Heiskell, Tom Grizzard and Roy Nabors. Standing, from left, are Bob Cushman, Pat Mulholland, Jerry Jones, Eddie Baliff, Roger Kroodsma, Craig Little, Phil Lowery and Kelly Roy. Team members not pictured are Thomas Doyle, Sandy McLaughlin and Jerry West.

Three teams tied for lead in Y-12 Classic League

The Has Beens, Kingpins, Eightballs and Splinters are tied for the early lead in the Y-12 Classic Bowling League, with identical 4-0 records. Individual scoring was led by George Cantrell, who rolled an outstanding 311/680 handicap game and series. The Tigers posted a team high-game score of 1107, while the Atta-Boys rolled a team series of 3041.

Lucky Strikes still lead UCC Monday Mixed League

The Lucky Strikes held on to the lead for another week in the Union Carbide Monday Mixed Bowling League, trailed by the JW's and BC's. High scorers again included Bill Muenzer (593) and Sandy Travis (536), high scratch series; Nora Ward (675) and Gail Peek (609), high handicap series; Nora Ward (246) and Sandy Travis (215), high scratch game; and Scott Krebs (257), Cindy Cavender and Fannie Wheeler (both 243), high handicap game.

Volleyball registration

Registration is now under way for 1983-84 Nuclear Division Volleyball League play. Entry forms may be obtained by calling the Recreation Department at 4-1597, and the team entry deadline is October 17. The volleyball season begins November 1.

Safety contest winners named

4-12 215543



Y-12 SAFETY WINNERS — During the Y-12 Safety Department's recent "Make It Click" campaign, nearly 3000 employees pledged to begin or continue the regular use of safety belts. Those who signed the pledge were eligible for a drawing, and 20 employees received cameras. They include, front row, from left, Marjorie B. Thompson, Safety Department Head Clarence E. Johnson (presenting award) and Barbara S. Woods. On the second row are Connie S. Howard, Donna M. Stout, Roger G. Robeson and Eric L. Plunkett. On the third row are Tulley G. Widner, Charles E. Ball, Richard A. Copeland, Cleo Sideris and James F. Rogers. James C. Hendershot, Cecil G. Rayborn and Andrew Denny are on the back row. Winners not pictured include Harold V. Craft, Jeff L. Gossett, Garnett W. Johnson, Richard H. Scott, Charles E. Viars and Donald R. Wagner.

UCRA picnic scheduled

The Union Carbide Retirees' Association will hold a fall reunion/picnic Thursday, October 6, at Clark Center Recreation Park. The theme of the event, which will last from 10 a.m. to 4 p.m., is "Arts and Crafts Day." A plate lunch, including barbecue sandwiches, drinks and ice cream bars, will be served. The cost is \$1 per person. A special feature of the picnic will be the presentation of trophies to the winners in the UCRA Golf League. Awards will be presented to John O'Conner, Ted Bartlett, O. B. Young, Roscoe Reid, Hazel Thurman and Doris Beams. Other activities will include musical entertainment and a hole-in-one golf contest. All Nuclear Division retirees and spouses, widows and widowers of retirees are invited.

Y-12 Maintenance Division conducts safety contest

The Y-12 Maintenance Division is conducting a contest to promote safety awareness among Division employees and their families. As part of the contest, which began August 22 and continues through September, employees are given a special safety slogan each week and are encouraged to share it with their families. Each Tuesday evening, a Maintenance Division employee is selected at random by the Y-12 Safety Department and telephoned at home. If the person answering the phone can correctly recite the week's safety slogan, he or she wins a special prize. Two winners are named each week. At the end of the six-week period, an employee will be selected at random, telephoned at home and asked to give all six slogans. The "grand prize" winner will receive a camera.

ORNL's Ray Adams describes joys of sailing

ORNL 5047-83

(Editor's note: This feature on sailing was submitted by Ray Adams of ORNL's Instrumentation and Controls Division. If you are interested in writing about a personal hobby or activity for submission to Nuclear Division News, please call one of the editors listed on the masthead.)

by Ray Adams

Some people may wonder why sailors feel they must sail, even though conditions in East Tennessee are far from optimum. For me, sailing feels like this: When the winds are calm, you glide along, quietly at first; then, as the breeze increases, your pulse quickens as the boat becomes "a winged dolphin." It can even surf over the waves in the best conditions. In very strong, blustery or shifting winds, it will take all your skill and that of the crew to keep boat and crew together and make good speed toward the mark. Sometimes you capsize; all sailors do!

Our inland lakes and waterways provide sailing opportunities, even though there may not be large expanses of water with good winds. There are quite a few sailing enthusiasts in the Knoxville-Oak Ridge area. The largest sailing club nearby is the Concord Yacht Club (with a membership of 150 families), which has its facilities on Ft. Loudoun Lake, near Concord Park. Another sailing club is on Cherokee Lake, and sailboats may be found at several commercial docks in the surrounding area. Many families have sailboats that they keep at home and launch on TVA lakes.

Learning to sail

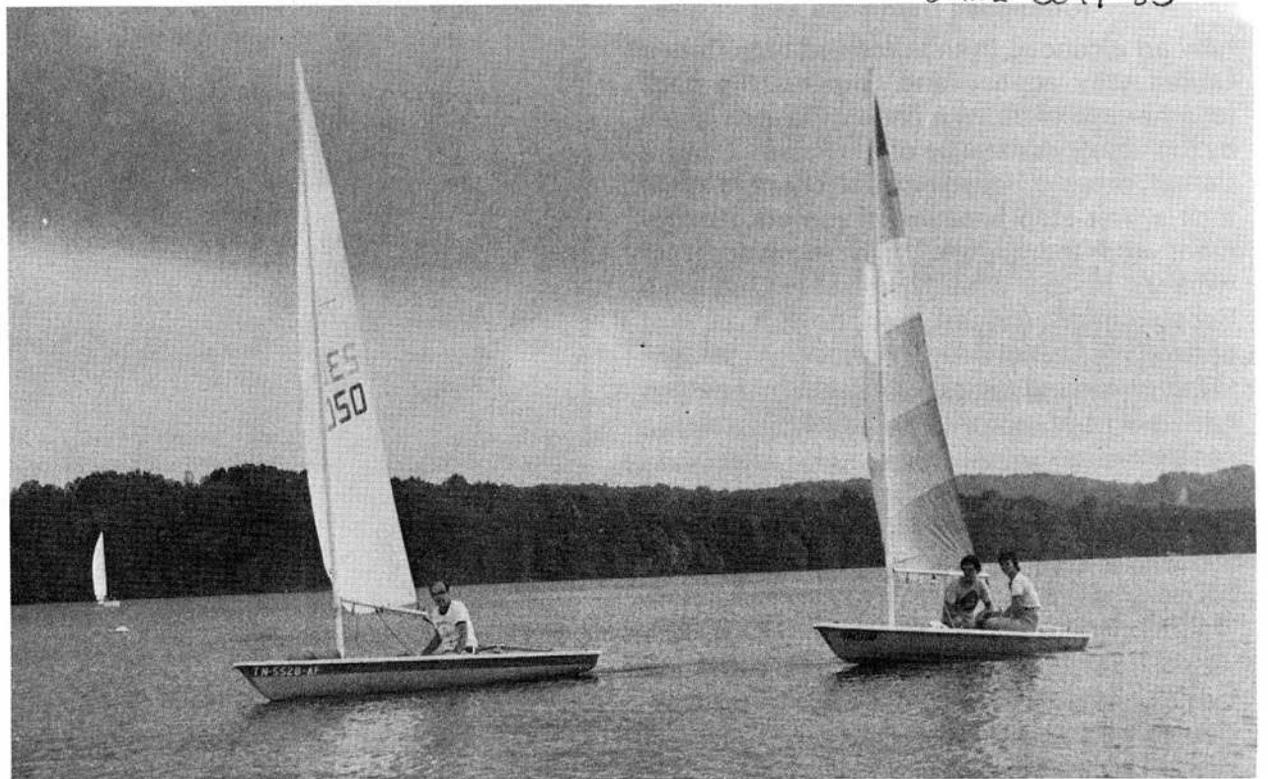
Learning to sail is easy. Anyone who is comfortable near the water can learn rather quickly. You can learn if you have some fear of the water, of course, but sailing usually involves getting wet — sometimes unexpectedly — and fear almost always takes the fun out of any experience.

No special knack or strength is required in sailing; children from about nine years of age take to it like ducks. A good instruction program always includes drills on what to do when your boat capsizes. Once beginners find that they can right the boat and continue sailing, the rest of the learning process is fairly easy.



Ray Adams

What actually makes a boat sail? The interaction of the wind on a sail is the same as that of an airplane wing moving through the air. The boat is pulled through the water by the same force that lifts an airplane wing. Sailboats use the hull and keel (or centerboard) to resist the boat's sideways movement through the water, while allowing it to move easily forward. Except when sailing downwind, the sail is oriented at a constant angle with the wind, and the boat changes directions relative to the wind and the compass to sail in the desired direction.



SINGLE-PERSON DINGHY — Ray Adams (left boat) enjoys sailing in his single-person dinghy.

Types of sailboats

A single-masted sailboat is called a sloop, and a small sloop with an open hull is called a dinghy. These are the most popular sailboats for inland-water sailing but also are sailed in coastal areas. The sleek, fast, "12-meter" class boats that compete in the America's Cup races are sloops. Another type of boat, a catamaran, is especially popular for launching off the beach. It has two small streamlined hulls covered by a kind of trampoline.

Most of the boats sailed in this area are sloops and dinghys ranging in hull length from 10 to 30 feet. The larger, cruising-type sailboats with accommodations for cooking and overnight stays often are called auxiliary sailboats and range in length from 24 to 40 feet.

Single-person dinghys are available for as little as \$700. A used boat often is an excellent choice for a beginning sailor, and boat values do not depreciate rapidly. Larger boats, of course, cost more, and some are quite expensive. Membership in a cooperative sailing club probably is the least expensive way to obtain convenient parking space, launching access and sailing lessons.

Racing

If you have ever watched a sailboat race, you may have wondered why sailors find it exciting. You also may have wondered where the starting line was, why the boats seemed to be aimlessly wandering around the lake, and possibly even who was winning. How can anything that appears so quiet and serene cause so much adrenalin to flow? For the participants, however, there often is no keener thrill than sailing in a race.

Most racing is done with boats that are evenly matched in size, weight, sail area and hull shape. These are called boats of a class, or class boats. They are designed to sail at the same speed to minimize boat-factor and reveal the true skill of the sailor. Tactics also play a major role in racing. Planning ahead so that your boat will be in a favorable position at a crucial mark of the course is challenging and difficult, because your opponent may have observed your past tactics and planned accordingly.

Adhering to racing rules basically is up to each competitor. Each sailor has a sort of "citizen's arrest" power when a rules infraction is observed. This power is usually invoked when the

"wronged" sailor informs the "perpetrator" and the race committee of a protest. If the perpetrator admits breaking a rule, he or she can accept a penalty on the spot or submit to a later hearing by a protest committee. The "on-the-spot" penalty may consist of a 20 percent time penalty or may involve a "720" (making the boat do two full circles). An unfavorable protest-committee judgment usually consists of disqualification from that race. There is an obvious incentive for "on-the-spot" absolution, but protest hearings and disqualifications are not uncommon.

America's Cup

This summer, avid sailors have followed hotly contested sailing matches involving three American boats and seven boats from five foreign nations — the elimination races held to determine the American defender and foreign challenger of the America's Cup races. The competition began September 13 in the ocean off Newport, R.I. American boats have not lost the cup since winning it by defeating 14 English yachts in a race off the Isle of Wight in 1851.

The American winner of this year's elimination trials was the yacht *Liberty*, skippered by Dennis Conner, who successfully defended the cup in 1980. Winner of the foreign contenders' trials was the *Australia II*, skippered by John Bertrand. The Australian yacht has a unique keel design that seems to make the boat very fast when sailing upwind, and the Aussies' entry is considered one of the top contenders in recent years. [Editor's note: At press time, *Liberty* held a 2-1 lead over *Australia II* in the best-of-seven series.]

Local competition

Local sailboat races are held each Sunday at the Concord Yacht Club, and avid racers often travel to out-of-town regattas and to district and national competitions. For example, Nuclear Division employees Terry and Betty Wood (of the Operating Contractors Project Office and ORNL, respectively) were named 1982 national champions and 1983 runners-up in Windmill Class racing.

At this time of year the summer doldrums are ending, and good sailing weather usually continues until middle or late October. If you think you might enjoy sailing, check with a member of one of the local sailing clubs and arrange to give it a try. You'll know when you're hooked!

United Way campaign

(Continued from page 1)

how an alcoholic friend received help from a United Way agency and "put his life back together again"; how a child's life was saved by the timely assistance of the Poison Control Center; how a four-year-old crippled child took a first step because of the encouragement and therapeutic help received from workers at the East Tennessee Children's Rehabilitation Center; and how a patient praised the Daniel Arthur Rehabilitation Center for providing the services that had helped alleviate her mother's painful arthritic condition.

Hamilton not in payroll-deduction plan

General Campaign Chairman William H. Dodson challenged the Nuclear Division to reach a goal of one million dollars. "That's a nice round figure, easy to remember and one that we're close enough to reach," he said. Dodson also clarified the fact that six, not seven, additional counties will receive support for the first time this year through Union Carbide's payroll-deduction plan. Although Hamilton County previously was reported as being one of those new counties, too few employees reside there for it to be included. However, cash contributions can be designated for Hamilton County, if desired.

Campaign representatives seated on the speakers' platform, but not shown in the picture, were: Bryant B. Bowden, ORGDP general chairman; J. Douglas Stephens, vice president of ORGDP Oil, Chemical and Atomic Workers; I. C. Williams, ORGDP associate chairman, representing the ORGDP United Plant Guard Workers of America, International; Hugh C. Beeson, Y-12 general chairman; Carl S. Johnson, vice president of ORNL Atomic Trades and Labor Council; and Ray Hubbs, representing the ORNL International Guards Union of America.

Flu vaccine available at Division facilities

The flu vaccine is now available in the Health Centers at ORNL, ORGDP and PGDP. At Y-12, it is being provided on a work-site basis until October 4, when it will be available in the Health Center.

Pad. 8595



PADUCAH FIRE PREVENTION WEEK — The PGDP Fire Prevention Committee has begun planning for Fire Prevention Week, set for October 9-15. As part of the activities employees are invited to attend a movie on major fires in United States' history. Committee members include, from left Pat Moss, Carolyn Stone, JoAnn Kruger, Vernon Belt, Phil Spees, Stewart Tolar, Bill Cronin, Chairman Pat Wooldridge and Pat Getz.

Company Service Anniversaries

ORNL

35 YEARS

Robert S. Stone, Instrumentation and Controls.

30 YEARS

Richard H. Busey, Chemistry; William C. Kuykendall, Laboratory Protection; Norman D. McCollough Sr., Instrumentation and Controls; and David K. Trubey, Engineering Physics.

25 YEARS

James B. Ball, Jerry S. Olson, Betty C. Littleton, Gerald E. Pierce, Bobby G. Webb and Robert G. Keil.

20 YEARS

Jimmy T. Bell and Kenneth D. Sharp.

ORGDP

35 YEARS

Roger W. Anderson, Process Support; Oliver W. Russ Jr., Computer Sciences; and Walter S. Rule Jr., Purchasing.

30 YEARS

Edward V. Blankinship, Separation Systems; Paul E. Hudson, Maintenance; Brandt Kuperstock, Engineering;

John W. Smith, Engineering; Betty P. Brown, Computer Sciences; and Chloris O. Starlin, Engineering.

25 YEARS

Ronald C. Haese, Separation Systems.

20 YEARS

Ray F. Holdaway, Operating Contractors Project Office; Jerry D. Williams, Engineering; Charles L. Bailey, Engineering; Robert R. Broome, Maintenance; Lloyd L. Murray, Maintenance; David J. Roberts, Computer Sciences; and Jack W. Hodge.

Tuesday deadline announced for *News*

The new deadline for submission of material for *Nuclear Division News* is nine days before the publication date, or Tuesday, rather than Wednesday, for most issues.

The deadline for the next issue is Tuesday, September 27. The issue will be dated October 6.

Safety Scoreboard

SAFETY TIP: Do not store gasoline in your home, even if it is in a safety can. Store it away from living quarters in a well-ventilated area.

Time worked without a lost-time accident through September 15:

Y-12 Plant	156 Days	5,863,000 Employee-Hours
ORGDP	122 Days	2,584,223 Employee-Hours
ORNL	50 Days	1,098,878 Employee-Hours
Paducah	1,143 Days	9,021,202 Employee-Hours

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